OWYHEE IRRIGATION DISTRICT

SYSTEM IMPROVEMENT PLAN

Prepared by
Farmers Conservation Alliance

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Submitted to Owyhee Irrigation District

Version: Final

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EXECUTIVE SUMMARY

Farmers Conservation Alliance (FCA) commissioned this System Improvement Plan (SIP) with support from the Energy Trust of Oregon. The purpose of this SIP is to evaluate Owyhee Irrigation District's (OID or District) water delivery system and provide a plan for modernization to reduce water loss via seepage and evapotranspiration, mitigate operational spills, decrease operations and maintenance costs, and, where possible provide pressurized deliveries to patrons. System piping is the primary method proposed for achieving the District's goals.

The District's three major diversions serve two divisions: the Mitchell Butte Division and the Dead Ox Flat Division. Most of the District is served by water stored in Owyhee Reservoir via the North Tunnel and the North Canal. District canals and pipelines generally run west to east from the North Canal to irrigate over 67,000 acres of agricultural lands.

The total acreage modeled in this SIP was 67,125. Based on discussions with the District, this SIP models deliveries of 9.5 gpm per acre for lands supplied by primary water rights and 5.6 gpm per acre for lands supplied by supplemental water rights. A single infrastructure is proposed that may supply lands with both primary and supplemental water rights either rate, depending on the water source.

One goal of the District for modernizing is to provide useable pressure to its patrons while maximizing the potential to develop in-conduit hydropower. Useable pressure is defined as dynamic pressure that the patron can utilize to operate sprinkler or micro/drip irrigation application systems. Based on discussions with the District, the model was designed to provide a minimum dynamic pressure of 50 psi for on-farm pressurization where possible. The model was also designed to not exceed a static pressure of 100 psi at a given user, as a compromise between conserving excess pressure and the additional cost of pipeline materials and appurtenances with high (i.e. greater than 100 psi) pressure ratings. Pressure reducing valve (PRV) stations were placed in strategic locations to dissipate energy where static pressures exceeded 100 psi. FCA estimated that providing pressurized deliveries to patrons would conserve up to 14,251,700 kilowatt hours (kWh) of energy each year by reducing or eliminating the need for privately-operated pumps.

This SIP also considers 12 PRV stations as potential locations for hydroelectric power generation. The power capacity of each location was estimated using the operating efficiency of the power plant, the peak discharge of the conveyance, and the net head across the turbine as estimated by the hydraulic model. Power capacity is the maximum electrical output of an in-conduit hydropower station. FCA calculated annual generation capacity at four sites with power capacity greater than 100 kW using the historical diversion rates at the North Canal 0.5 gage between 2014 and 2018. FCA estimated up to 3,549,500 kWh could be generated annually using in-conduit hydroelectric power at a single site.

FCA evaluated potential fish and debris screens for installation at the District's Snake River pumping plants. Trash racks currently prevent debris from entering the pump intakes. FCA considered cylindrical, inclined plate and travelling belt screens. The estimated capital cost of a cylindrical screen is expected to range from $1,009,000 to $1,513,000 for the Ontario-Nyssa Pumping Plant and $1,467,000 to $2,200,000 for the Dead Ox Flat Pumping Plant. The relative cost of an inclined screen is generally less than a cylindrical screen, while a travelling belt screen is generally more expensive.

Table ES-1 summarizes the capital costs, on-farm energy conservation, in-conduit hydroelectric potential, and water conservation potential associated with modernization. Given the volatility of High Density Polyethylene (HDPE) pricing, FCA suggests that capital costs be reassessed when developing detailed designs.

Table ES-1. Summary of Owyhee Irrigation District Costs and Benefits.

IMPROVEMENT ITEMS		COST/BENEFITS
Capital Costs ($)	*Piping*	$1,739,110,200
	Screening	$2,476,000 to $3,713,000
Annual On-Farm Energy Conservation (kWh)		14,251,700
In-Conduit Hydroelectric Power Potential (kW)[1]		5 to 986
Annual In-Conduit Hydroelectric Energy Generation Potential (kWh)[2]		419,500 to 3,549,500
Water Conservation Potential (cfs)	*From seepage and evapotranspiration*	157.0
	From operational spills	62.7

Notes:

1. FCA evaluated 12 total sites for in-conduit hydropower capacity.
2. FCA analyzed four sites with capacity greater than 100 kW for energy generation potential using historical diversion data at the NC 0.5 gage between 2014 and 2018.

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ABBREVIATIONS AND ACRONYMS

ACRONYM	WORD OR PHRASE	ACRONYM	WORD OR PHRASE
ADV	Acoustic Dopper velocimeter	MS	Modernization Strategy
af	Acre-feet	NMFS	National Marine Fisheries Service
ac	Acres	NRCS	Natural Resource Conservation Service
ASTM	American Society for Testing and Materials	NAVD 88	North American Vertical Datum of 1988
AACE	Association for the Advancement of Cost Engineering	ODA	Oregon Department of Agriculture
CMGC	Construction Manager General Contractor	ODFW	Oregon Department of Fish and Wildlife
cfs	Cubic feet per second	DOGAMI	Oregon Department of Geology and Mineral Industries
DDT	Dichlorodiphenyltrichloroethane	OWRD	Oregon Water Resources Department
DR	Dimension Ratio	OID	Owyhee Irrigation District
FCA	Farmers Conservation Alliance	ORS	Oregon Revised Statute
FERC	Federal Energy Regulatory Commission	PVC	Polyvinyl chloride
ft	Feet	psi	Pounds per square inch
gpm	Gallons per minute	PPA	Power Purchase Agreement
GIS	Geographic Information System	PRV	Pressure reducing valve
HDPE	High density polyethylene	PURPA	Public Utility Regulatory Policy Act of 1978
hp	Horsepower	QFs	Qualifying Facilities
IOU	Investor-owned utility	SIP	System Improvement Plan
IPS	Iron Pipe Size	TSS	Total suspended solids
IMP	Irrigation Modernization Program	USBR	United States Bureau of Reclamation
kW	Kilowatt	USGS	United States Geological Survey
kWh	Kilowatt-hour		
LOPP	Lease of Power Privilege		
LiDAR	Light Detection and Ranging		
MW	Megawatt		
mi	Mile		

CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER

The undersigned Registered Professional Engineer certifies this report was prepared under their direct supervision and is a duly Licensed Professional Engineer under the laws of the state of Oregon.

Signature:

Name: Kevin Crew, PE

State: Oregon

Registration Number: 17425PE

Title, Company: President, Black Rock Consulting, Inc.

Date: Sept. 29, 2021

REGISTERED PROFESSIONAL ENGINEER # 17425 OREGON SEPT. 29, 1994 KEVIN L. CREW

RENEWS 12-31-21

SECTION 1:
Project Overview and Description

1.1 AUTHORIZATION

Farmers Conservation Alliance (FCA) developed this System Improvement Plan (SIP) for Owyhee Irrigation District (OID or District) with support from the Energy Trust of Oregon. The SIP has been authorized through a Consultant Services agreement between OID and FCA. Appendix A provides the Scope of Services provided by FCA and agreed upon by the District.

1.2 PURPOSE

The System Improvement Plan is a key component of FCA's Irrigation Modernization Program (IMP). FCA designed the IMP to assist irrigators and irrigation districts in creating modernization strategies for their irrigation water delivery systems that reduce barriers to implementation while increasing opportunities for funding and support. The end goal of the IMP is to provide all users with a more reliable source of irrigation water through modernization of a district's distribution system. Another key component of the IMP is to analyze the energy conserved as a result of and the potential for hydroelectric generation created by pressurizing this distribution system.

The purpose of this document is to provide a technical evaluation of the District's existing delivery system and how it could be modernized. This evaluation includes a mitigation plan for water losses via seepage or end spills, improvements to fish screening, and a high-level design of an almost entirely pressurized delivery system. FCA used GIS mapping, a water loss assessment, and historical water supply data to develop a modernized distribution system in accordance with the District's vision. Consistent with the modernization projects that OID has already implemented, piping the remaining canals and replacing outdated piping is the primary method proposed in this report.

FCA developed this technical report for the District to be used as a planning document that provides a basis for the phased construction of conveyance system improvements. The level of design provided in this report is neither intended for nor detailed enough to be adequate for project construction.

SECTION 2:
Existing System

2.1 IRRIGATION DISTRICT OVERVIEW

Owyhee Irrigation District is located west of the Snake River in Malheur County, Oregon and Owyhee County, Idaho. The District encompasses roughly 118,000 acres, within which approximately 67,260 acres of water rights are allocated. The District is bound by the City of Adrian, Idaho to the south, State Highway 201 to the north, U.S. Highway 26 to the west, and the Snake River to the east. Although the District diverts water for itself, the South Board of Control, and Old Owyhee Irrigation District, the focus of this SIP is only on OID's delivery system. OID's delivery system is separated by the Malheur Valley into two divisions: the Mitchell Butte Division and the Dead Ox Flat Division.

2.1.1 DIVERSIONS

The District's operates its main diversion at Owyhee Dam, which impounds the Owyhee River to form Owyhee Reservoir. Owyhee Reservoir supplies the North Canal with up to 331,000 acre-feet (af) of irrigation water storage (OID 2018). Below the diversion, a trash rack guards the gated entrance to the horseshoe-type Tunnel One, which is 16 feet 7 inches in diameter and 3.5 miles long. At the terminus of Tunnel One, the North Canal extends northward for 61.5 miles until it reaches the Snake River near Weiser, ID. The maximum capacity of the North Canal is 1,070 cubic feet per second (cfs). Along its length, the canal enters many siphons and tunnels, including the Malheur River Siphon. The Malheur River Siphon spans the Malheur Valley, connecting the Mitchell Butte Division to the Dead Ox Flat Division. This 80-inch steel pipe siphon is 4.3 miles long and has a design capacity of 192 cfs. The District recently contracted with a Boise-based engineering firm to perform an evaluation, structure analysis, and design of replacement support structures for the Malheur River Siphon. Repairs to the Malheur Siphon construction began fall, 2018, and concluded spring, 2019.

Three pumping plants supplement diversions from Owyhee Reservoir to supply irrigation water to several areas in the District. The Dead Ox Flat Pumping Plant is located on the Snake River about five miles north of Payette, Idaho. The plant supplies the Dead Ox Flat Division with up to 56,400 af of supplemental water per season using five pump units with a combined capacity of 200 cfs. Two of these pumps are each 800 horsepower (hp), two are each 500 hp, and one is 75 hp. The total volume of water supplied by the Dead Ox Flat plant remains relatively constant independent of annual water availability. The Ontario-Nyssa Pumping Plant is co-located with the Old Owyhee Pumping Plant on the Snake River near Nyssa, Oregon. The Ontario-Nyssa Plant pumps up to 130 cfs to the Ontario-Nyssa Canal using four pumps: two at 700 hp, one at 500 hp, and one at 350 hp. The plant supplies the Ontario-Nyssa Canal with between 6,300 af in high water supply years (e.g. 2017) and 32,900 af in low water supply years (e.g. 2014). The Kingman Pumping Plant contains a single 40 hp pump that supplies between 250 and 1,800 af per year from the Kingman Drain to the Kingman Pump Canal.

The Dead Ox Flat, Ontario-Nyssa and Kingman pumping plants supply water to the irrigated lands as further identified within this SIP. The Dunaway Pumping Plant supplies a maximum capacity of 216 cfs to the old Owyhee Ditch, using three pumps at 500 hp each. However, the pumps associated with the Dunaway Pumping Plant are not including in the SIP design.

2.1.2 SEDIMENT AND DEBRIS MANAGEMENT

Runoff events in the winter and early spring cause some sediment to enter the Owyhee River and the reservoir. Settling within the reservoir prevents most sediment from entering the diversion and canals. However, the lower Owyhee Basin can experience excessive levels of sediment due to the area's soil type and existing irrigation system (ODA 2017). Soils in the area consist of very fine particles that remain in suspension for long periods, once disturbed. Most crop fields are furrow irrigated, and irrigation water picks up and retains sediment as it travels down a furrow. Because water is often reused several times before discharging into the Owyhee or Snake River, sedimentation issues compound in low-lying areas of the District.

The 2017 Owyhee Agricultural Water Quality Management Plan outlines strategic initiatives for preventing and controlling pollution from agricultural activities and soil erosion (ODA 2017). Among the management practices provided are leveling or smoothing fields with slopes greater than 1.5 percent, planting riparian vegetation for streambank stability, constructing shallow ponds for settling sediment, and conversion from furrow irrigation to sprinkler and micro/drip systems. Conversion from furrow to sprinkler irrigation reduces water demand, producing less tail water and suspended sediments in runoff. The conversion of 739 acres from flood to sprinkler irrigation and the piping of 2.7 miles of laterals has contributed to the concentration of total suspended solids (TSS) in the Fletcher Gulch Focus Area slowly decreasing from 2008 to 2015 (ODA 2017). Similar projects have been implemented in the Newell Area, the Black Jack Butte/Succor Creek Area, and the Big Bend Area.

2.1.3 FISH SCREENING

The District maintains a trash rack on its diversion from the Owyhee River. While this trash rack prevents large debris from entering the District's conveyance system, no fish screening structure prevents smaller debris or resident fish from the upper Owyhee River and Lake Owyhee from entering the District's diversion. Trash racks also cover the intakes to the Ontario-Nyssa and Dead Ox Flat Pumping Plants, and these trash racks do not prevent fish and smaller debris from the Snake River from entering the pump intakes.

No fish passage for anadromous or resident fish, including extirpated runs of spring chinook and steelhead (Shock et. al., 2007), exists at Owyhee Dam. The construction of Brownlee Dam on the Snake River in the 1950s blocked anadromous fish access to tributaries of the Snake River upstream from the dam, including the Owyhee River.

2.1.4 DELIVERY SYSTEM

The North Canal extends northward for over 60 miles from the outlet of the North Tunnel to the Snake River, mostly through open canal. The diversion capacity of the North Canal is 1,190 cfs. Of several tunnels and siphons that the North Canal passes through, the most notable is the Malheur Siphon. The Malheur Siphon is a 4.3-mile-long, 80-inch steel pipe that was rehabilitated in the winter of 2018-2019. It crosses the Malheur Valley, carrying up to 325 cfs between the Mitchell Butte and Dead Ox Flat divisions.

2.1.4.1 Mitchell Butte Division

Laterals in the Mitchell Butte Division generally run west to east. Two of these laterals, the Kingman and Mitchell Butte laterals, serve the Fletcher Gulch Subdivision at the southern end of the District. The 40 hp Kingman Pumping Plant supplies water from the Kingman Drain to

the Kingman Pump Lateral. Water delivered throughout the Mitchell Butte Division is re-used as it flows downhill between farms and laterals until it is eventually recovered by the District in the Ontario-Nyssa (also known as the Shoestring) Canal.

The Ontario-Nyssa Canal runs south to north, roughly parallel to the North Canal. Most of the lands east of the Ontario-Nyssa Canal have both primary and supplemental water rights. In high water supply years, the Mitchell Butte Lateral conveys Owyhee River water to the Ontario-Nyssa Canal to satisfy primary water rights. In low water supply years, the Ontario-Nyssa Pumping Plant pumps water from the Snake River into the Ontario-Nyssa Canal to satisfy supplemental water rights. This plant has four pump units, a total capacity of 2,250 hp, and a maximum diversion rate of 130 cfs (OID 2018).

2.1.4.2 Dead Ox Flat Division

After crossing the Malheur Valley via the Malheur Siphon, the North Canal continues north for approximately 13.5 miles until it meets the High Lift Lateral. Limited capacity at siphons along the North Canal, such as the Jacobsen Gulch Siphon, limit the overall capacity of the canal.

The Dead Ox Flat Pumping Plant pumps water from the Snake River to serve supplemental water to the High Lift, Middle Lift, Lower Lift, and Crystal laterals. This plant has five pump units, a total capacity of 2,675 hp, and a maximum diversion rate of 200 cfs (OID 2018). Primary water rights in the lands served by these laterals may be supplied water by the North Canal.

As of 2018, roughly 16% of the District's laterals had been converted to pipelines (OID 2018). The District continues to install PVC pipelines to reduce seepage, operation and maintenance costs as funding becomes available. Table 2-1 summarizes the lengths of open canals, pipelines and siphons in the Mitchell Butte and Dead Ox Flat divisions as well as in the North and South Advancements. Figure 2-1 provides an overview of the District's existing delivery system. Figure 2-2 provides a schematic of water deliveries throughout the District.

Table 2-1. Summary of Pipeline and Canal Lengths in Owyhee Irrigation District.

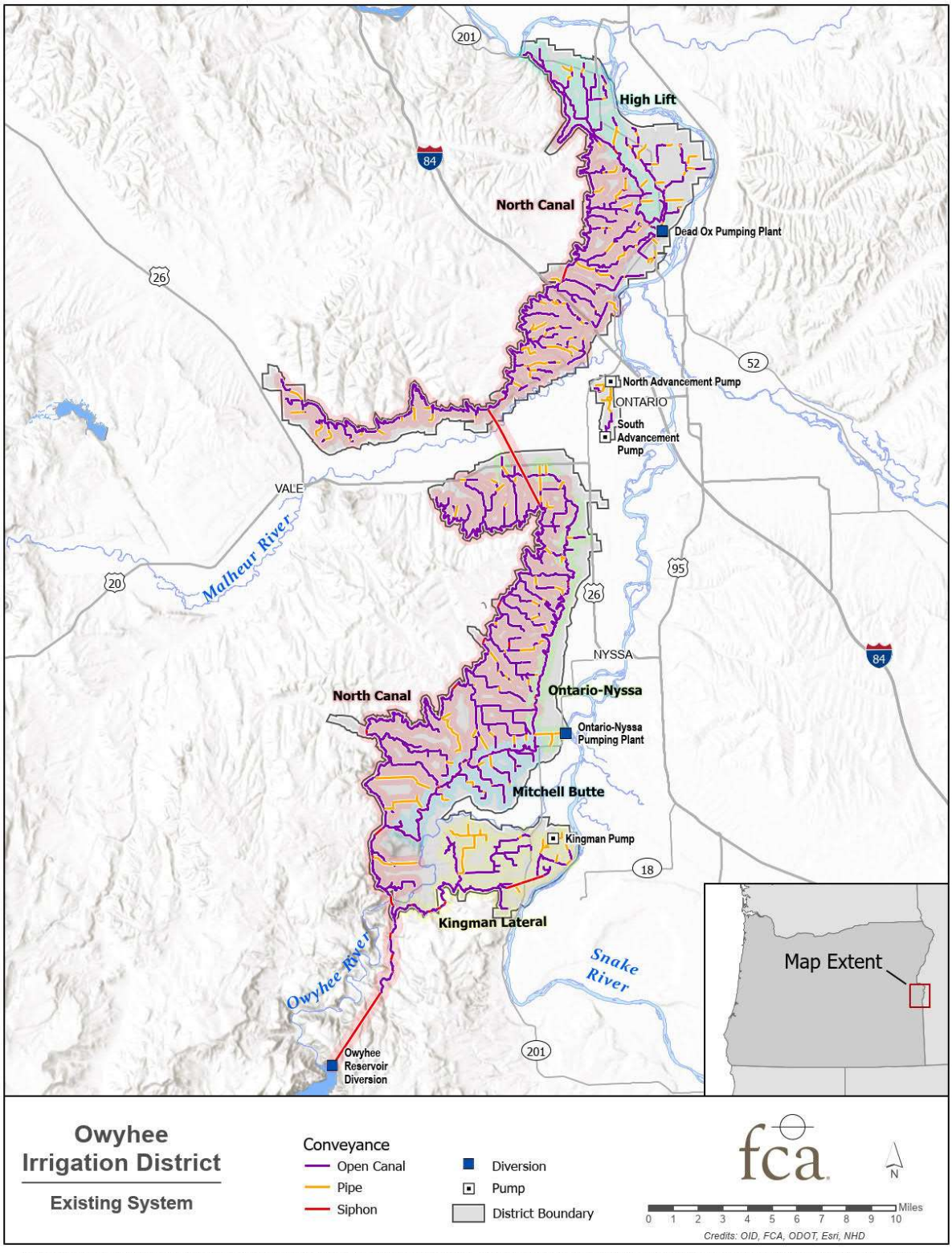
DIVISION	CONVEYANCE	CANAL LENGTH (MI)	PIPE LENGTH (MI)	SIPHON LENGTH (MI)	TOTAL LENGTH[1] (MI)
Mitchell Butte & Dead Ox Flat	North Canal	62.8	3.3	10.9	77.0
Mitchell Butte	Kingman Lateral	23.8	7.4	2.0	33.2
	Kingman Pump Lateral		0.7		0.7
	Mitchell Butte Lateral	20.4	2.0	0.1	22.5
	5.3 Lateral	2.3			2.3
	7.3 Lateral		1.9		1.9
	8.5 Lateral	2.3			2.3
	10.5 Lateral	0.2	2.2		2.4
	11.0 Lateral	0.1			0.1

DIVISION	CONVEYANCE	CANAL LENGTH (MI)	PIPE LENGTH (MI)	SIPHON LENGTH (MI)	TOTAL LENGTH[1] (MI)
	13.6 Lateral	3.1			3.1
	14.5 Lateral	6.1	0.3		6.4
	20.3 Lateral	0.6			0.6
	22.8 Lateral		2.4		2.4
	24.1 Lateral	0.3			0.3
	25.4 Lateral	13.1	1.9		15.0
	26.4 Lateral	2.8	0.2		3
	27.8 Lateral	0.9	0.9		1.8
	28.7 Lateral	6.1	1.5	0.2	7.8
	29.7 Lateral	0.3	0.1		0.4
	30.2 Lateral	1.5			1.5
	31.0 Lateral	2.8	0.6		3.4
	31.5 Lateral	1.8	0.3		2.1
	35.7 Lateral	0.2	0.3		0.5
	37.6 Lateral	2.7			2.7
	38.7 Lateral	1.7	1.7		3.4
	38.9 Lateral	20.1	2.1		22.2
	39.8 Lateral	0.2			0.2
	Ontario-Nyssa Canal	20.6	3.4	0.2	24.2
Dead Ox Flat	43.2 Lateral	19.2	4.7		23.9
	45.4 Lateral	0.6	0.3		0.9
	46.7 Lateral	2.1	1.8		3.9
	48.3 Lateral		0.9		0.9
	49.2 Lateral	6.9	2.5		9.4
	49.4 Lateral	0.3	1.0		1.3
	50.8 Lateral	1.5			1.5
	52.5 Lateral		0.3		0.3
	53.2 Lateral	1.8	1.0		2.8
	54.2 Lateral	4.4	0.7		5.1

DIVISION	CONVEYANCE	CANAL LENGTH (MI)	PIPE LENGTH (MI)	SIPHON LENGTH (MI)	TOTAL LENGTH[1] (MI)
	54.3 Lateral		0.5		0.5
	54.4 Lateral	1.9	0.1		2.0
	55.5 Lateral	0.4	0.6		1.0
	55.6 Lateral	7.9	2.3		10.2
	58.7 Lateral	0.8	0.3		1.1
	59.5 Lateral	1.3			1.3
	60.0 Lateral	4.0	1.6		5.6
	61.3 Lateral		0.5		0.5
	62.1 Lateral	1.2	0.7		1.9
	64.7 Lateral	0.4	0.2		0.6
	Jacobsen Gulch[2] Lateral	2.3	0.1		2.4
	Lower Lift Lateral	1.9	1.1		3.0
	Middle Lift Lateral	7.6	3.1		10.7
	High Lift Lateral	21.8	3.5	0.2	25.5
	Crystal Lateral	3.1	1.4		4.5
North and South Advancements	North Advancement	0.7	1.4		2.1
	South Advancement	1.3	2.1		3.4
	Total	295.8	66.4	13.6	375.8

Notes:

1. Total lengths presented do not include privately maintained or overflow lines in the District.
2. By the indication of the District, the Jacobsen Gulch lateral was not considered for piping.



**** This map was compiled by FCA as a visualization tool and is not intended for legal purposes. FCA is not liable for any damages caused by omissions or errors in the data displayed herein ****

Figure 2-1. Owyhee Irrigation District's Mapped Delivery System.

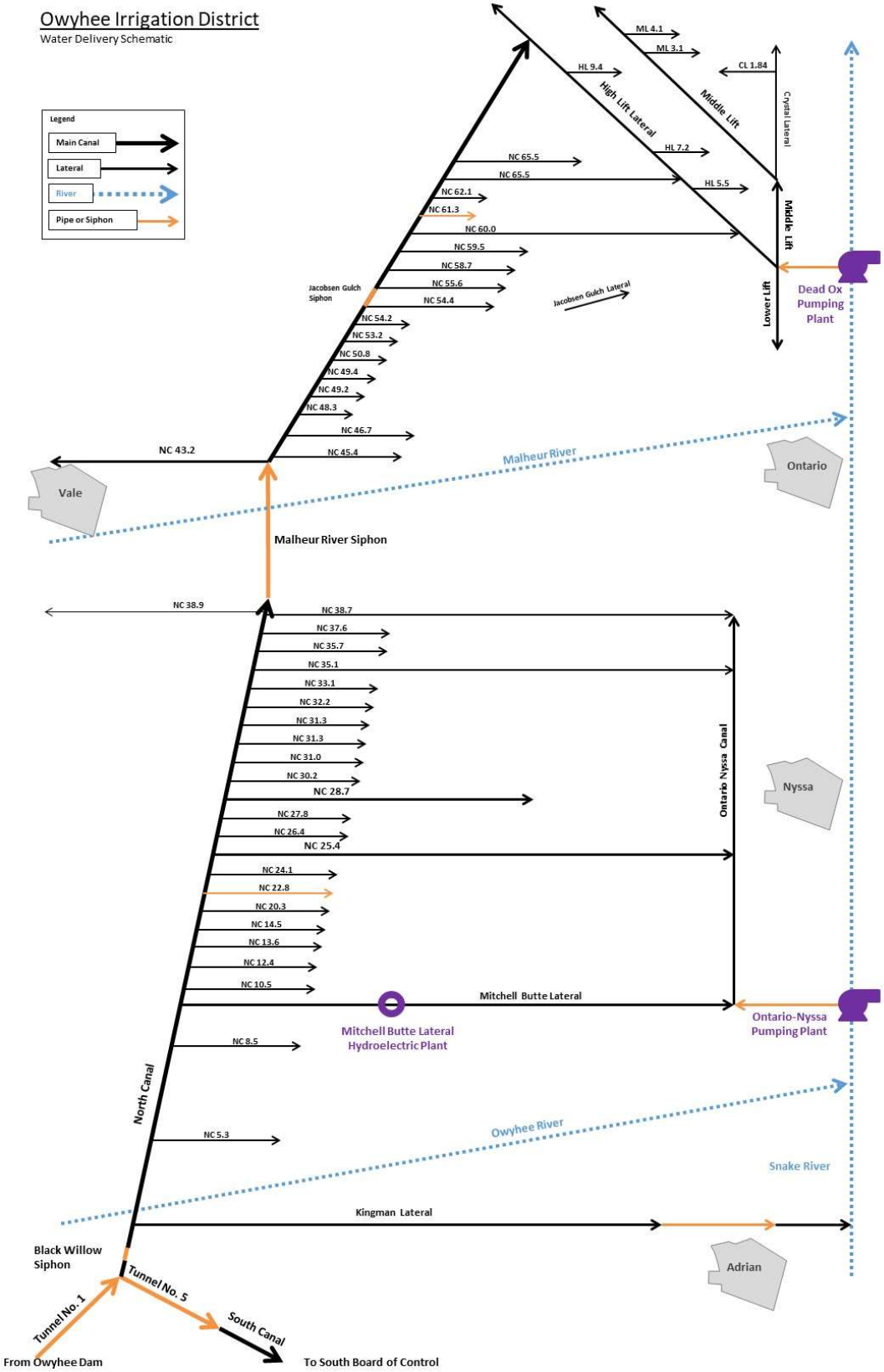


Figure 2-2. Schematic of Owyhee Irrigation District Delivery System.

2.1.5 EXISTING HYDROPOWER GENERATION

Other than at Owyhee Dam, the District operates one hydroelectric power plant, the Mitchell Butte Lateral Hydropower Plant, located at mile 1.7 on the Mitchell Butte Lateral. The plant currently operates with a capacity of 1.88 MW. According to the District, the plant has reached the end of its operational life. When repairs are required, replacement parts must be custom-manufactured due to the plant's age. The District would like to upgrade or replace the existing plant to balance hydropower generation and pressurized deliveries to downstream patrons.

2.2 WATER RESOURCES

Water resources information discussed in this section includes the hydrology and ecology of the lower Owyhee sub-basin, the water quality of Owyhee Reservoir and the lower Owyhee River, and the District's water rights and usage. This section also provides an evaluation of water losses in the delivery system.

2.2.1 WATERSHED HYDROLOGY AND ECOLOGY

The lower Owyhee sub-basin covers approximately 1,983 square miles in the southeastern corner of Oregon in Malheur County (Shock 2007). Twenty miles before its confluence with the Snake River, the Owyhee River is impounded by Owyhee Dam, forming a 52-mile-long reservoir. The reservoir, Lake Owyhee, captures runoff from the entire Owyhee Basin, a drainage area of about 11,160 square miles (Shock 2007). Above the dam, wintertime snow at high elevations and spring rain are the principle sources of precipitation. Peak runoff typically occurs in March or April.

Flow duration analyses use historical records to illustrate the percent of time that flow in a stream is equal to or exceeds a particular discharge. Within a period of record, flows that occur a small percent of the time are considered high; flows that occur more a large percent of the time are considered low. According to a USGS gage above Lake Owyhee near Rome, OR (USGS 13181000) with a historical record extending to 1949, the discharge of the Owyhee River with 95 percent exceedance is 84.3 cfs. The discharge with 5 percent exceedance above the lake is 3,790 cfs (Figure 2-3). During drought, the Owyhee River can remain the only flowing waterway in the sub-basin, with flow rates in the river as low as 1 cfs.

Below the Owyhee Dam, irrigation water management reduces peak flows in the Owyhee River. Until the reservoir is more than 80 percent full, OID releases only about 2,300 cfs from three jet valves on the dam's face (Shock 2007). At reservoir capacities greater than 80 percent, the dam spillway (known as the Glory Hole) may be utilized to additionally release up to 41,740 cfs. A flow duration analysis of a USGS gage below Owyhee Dam (USGS 13183000), with historical record extending from 1929 through 2018, showed 95th percentile exceedance at 2.4 cfs, and 5th percentile exceedance at 2,300 cfs.

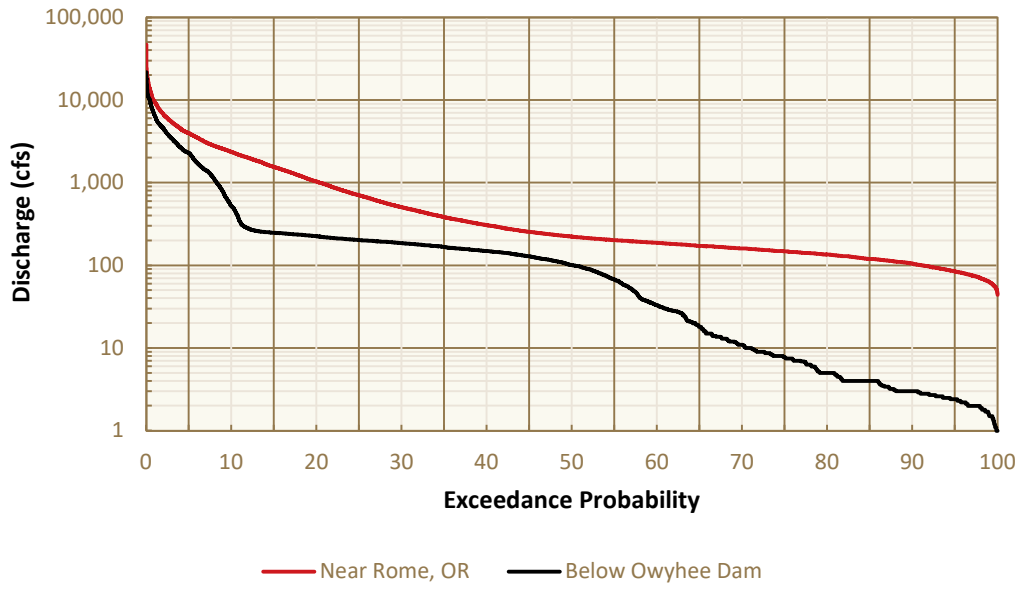


Figure 2-3. Owyhee River Flow Duration Curves Above and Below Owyhee Dam between 1929 and 2018 (USGS Gage 13183000).

Climate change is likely already impacting streamflow in the Owyhee River and its tributaries. A long-term snow, climate, and streamflow study in the Owyhee Mountains found increasing temperatures at all elevations between 1962 and 2006 (Nayak et. al. 2010). The proportion of precipitation falling as snow is decreasing and the snow season has shortened by almost a month. As a result, larger winter and early spring flows are more common, and late spring and summer flows are reduced.

An assortment of native and non-native fish is present in the lower Owyhee Watershed. Anadromous species like spring and fall chinook, steelhead, and lamprey were extirpated with the construction of Owyhee and Brownlee Dams (Shock 2007). Inland redband trout inhabit reaches of the mainstem Owyhee and Dry Creek, although their abundance above the reservoir is unknown. Although mountain whitefish have been observed in the Owyhee downstream of, within, and upstream of the reservoir, little is known about their current population. Other native, non-game fish include the shorthead sculpin, speckled and longnose dace, suckers, chiselmouth, and the northern pikeminnow. Warm-water game fish like bass, bluegill, crappie, and bullheads were released into Owyhee Reservoir as early as 1933.

2.2.2 DIVERSION WATER QUALITY

The Owyhee River below the dam is listed by the Oregon Department of Water Quality as a 303(d) Impaired Water Body for not meeting its standards for DDT and Dieldrin year-round and for not meetings its standards for chlorophyll a and fecal coliform in the summer months. Although most sediment in the Owyhee River is captured by Owyhee Reservoir prior to reaching the District's diversion, furrow irrigation and water reuse within the District propagate sedimentation issues in the low-lying areas of the District, as discussed in Section **Error! Reference source not found.**.

2.2.3 DISTRICT WATER RIGHTS

OID currently holds seven water right certificates appropriating up to a total of 53.5 cfs of direct flow for primary water rights and 94.4 cfs of direct flow for supplemental water rights from the Snake River for irrigation, as summarized in Table 2-2. The District also has three water rights certificates for hydropower generation, allocating up to a total of 1,975 cfs of live flow and stored water from the Owyhee River and Owyhee Reservoir. Reclamation holds four water rights certificates and one permit for irrigation in the District. These water rights and permit appropriate up to 1,023 cfs of live flow for primary water rights and 1,418 cfs of live flow for supplemental water rights, drawing from either the Snake River or Owyhee Reservoir. Together, OID's and Reclamation's water rights certificates and permits provide irrigation water for approximately 67,259.5 acres with primary water rights and 31,946.7 acres with supplemental water rights. However, the OWRD water rights database is continually updated as errors are corrected, so the total number of irrigated acres within the District may be considered approximate.

Several certificates limit the diversion of irrigated water to between 1/80 and 1/40 of 1 cfs for each acre irrigated, or between 5.6 and 11.2 gallons per minute (gpm) per acre. The difference between the diversion rate and delivery rate accounts for normal losses in the delivery system such as conveyance losses, infiltration, evaporation, and overflows. Water rights certificates permitted to OID are provided in Appendix B.

Table 2-2. Owyhee Irrigation District Water Rights.

CERTIFICATE OR PERMIT NUMBER	OWNER	PRIORITY DATE	SOURCE(S)	POINT OF DIVERSION	BENEFICIAL PURPOSE	TYPE OF RIGHT	IRRIGATED LANDS (AC)		MAX DIVERSION RATE (CFS) / MAX ACRE-FEET OF STORAGE (AF)		USER DUTY (AF/ACRE)	USER RATE (CFS/ACRE)
							PRIMARY	SUPPLEMENTAL	PRIMARY	SUPPLEMENTAL		
75668	OID	11/25/1912	Snake R	Dead Ox Flat	Irrigation	Primary	2,088.3	N/A	27.6 cfs	N/A	N/A	N/A
75671	OID	7/8/1913	Snake R	Dunaway	Irrigation	Supplemental	N/A	4,857.3	N/A	64.0 cfs	N/A	1/80
75672	OID	1/3/1921	Snake R	Dunaway	Irrigation	Supplemental	N/A	894.1	N/A	11.18 cfs	N/A	1/80
75688	Reclamation	10/1/1951	Snake R	Dead Ox Flat	Irrigation	Supplemental	N/A	9,315.2	N/A	176.0 cfs	6.7	1/40
75689	Reclamation	10/1/1951	Snake R	Dunaway	Irrigation	Supplemental	N/A	563.2	N/A	14.1 cfs	6.7	1/40
75690	Reclamation	10/1/1951	Snake R	Dunaway	Irrigation	Supplemental	N/A	9,985.2	N/A	204.9 cfs	6.7	1/40
75691	Reclamation	2/14/1916 8/19/1924	Owyhee Res	Glory Hole Tunnel 1	Irrigation (direct flow)	Primary, Supplemental	56,776.1	4,656.3	446.6 cfs 576.4 cfs	446.6 cfs 576.4 cfs	3.0 Not to exceed 6.7 with stored flow	1/60
75691	Reclamation	2/15/1916 8/20/1924	Owyhee Res	Owyhee Dam	Irrigation (stored flow)	Primary, Supplemental	N/A	N/A	59,546.1 af 357,276.5 af	59,546.1 af 357,276.5 af	Not to exceed 6.7 with direct flow	N/A
75708	OID	7/8/1913	Snake R	Dunaway	Irrigation	Supplemental	N/A	229.2	N/A	2.88 cfs	N/A	1/80
75709	OID	7/8/1913	Snake R	Dunaway	Irrigation	Supplemental	N/A	71.0	N/A	0.89 cfs	N/A	1/80
75710	OID	2/17/1912	Snake R	Dunaway	Irrigation	Supplemental	N/A	1,300.8	N/A	15.42 cfs	N/A	1/80
75712	OID	2/10/1912	Snake R	Dead Ox Flat	Irrigation	Primary	6,715.6	N/A	25.9 cfs	N/A	N/A	N/A
75819	OID	10/7/1981 10/15/1983 9/9/1987	Owyhee Res Owyhee Res Owyhee R	Mitchell Butte	Hydropower	Primary	N/A	N/A	95.0 cfs 95.0 cfs 15.0 cfs	N/A	N/A	N/A
75820	OID	10/13/1981	Owyhee R	Owyhee Dam	Hydropower	Primary	N/A	N/A	225.0 cfs	N/A	N/A	N/A
75821	OID	7/21/1986 9/9/1987	Owyhee Res Owyhee R	Tunnel 1	Hydropower	Primary	N/A	N/A	1,640.0 cfs (stored flow) 1,640.0 cfs (direct flow)	N/A	N/A	N/A
S-54398	Reclamation	3/25/1991	Owyhee Res	Owyhee Dam	Irrigation	Primary, Supplemental	1,679.5	74.4	7,015.6 af	7,015.6 af	4.0	N/A
						Total[1]	**67,259.5**	**31,946.7**				

Notes:
N/A: Not Applicable
1. The OWRD water rights database is continually updated as errors are corrected. The total irrigated acres in Owyhee ID may be considered approximate and are useful for summary purposes only.

FCA and District staff assigned place-of-use (POU) parcels that represent water rights within the District to delivery points using geographic information system (GIS) software. The POU parcels were developed under House Bill 3111 in 1989 and Senate Bill 129 in 1993, which established a process for irrigation districts in Oregon to clarify and map the location and use of water rights within their boundaries. Changes to either the POU parcels in the District's database or transfers, new applications, and forfeited water rights since the bills' enactments may contribute to the difference in FCA's assessment of water rights and those in OWRD's database. The number of irrigated acres and associated rate (in gallons per minute) are meant to inform current operations as well as the design of a piped and pressurized system. The approximate total irrigated lands associated with each District conveyance are shown in Table 2-3.

Table 2-3. OID Approximate Irrigated Lands.

DISTRICT CONVEYANCE	IRRIGATED LANDS (AC)
Crystal Lift Lateral	1,307.2
High Lift Lateral	5,099.6
Jacobsen Gulch Lateral	282.6
Kingman Lateral	7,211.1
Kingman Pump Lateral	228.0
Lower Lift Lateral	451.5
Middle Lift Lateral	2,444.6
Mitchell Butte Lateral	3,901.5
North Advancement	47.5
North Canal Laterals	40,574.0
Ontario-Nyssa Canal	5,391.5
South Advancement	185.8
Total	67,124.9

2.2.1 DISTRICT WATER USE

The District takes measurements daily between April and October at the North Canal 0.5 gage, located on the North Canal one half-mile downstream of Tunnel No. 1, as well as at the Dead Ox Flat and Ontario-Nyssa pumping plants. The District measures discharge from the pumping plants based on the daily records of each plants' turbines being turned "on" or "off". Between 2006 and 2017, the District diverted an average of was 312,679 af/year for OID's use (Figure 2-4). Between 2014 and 2018, total system inflows for the irrigation season peaked near 1,200 cfs on average (Figure 2-5).

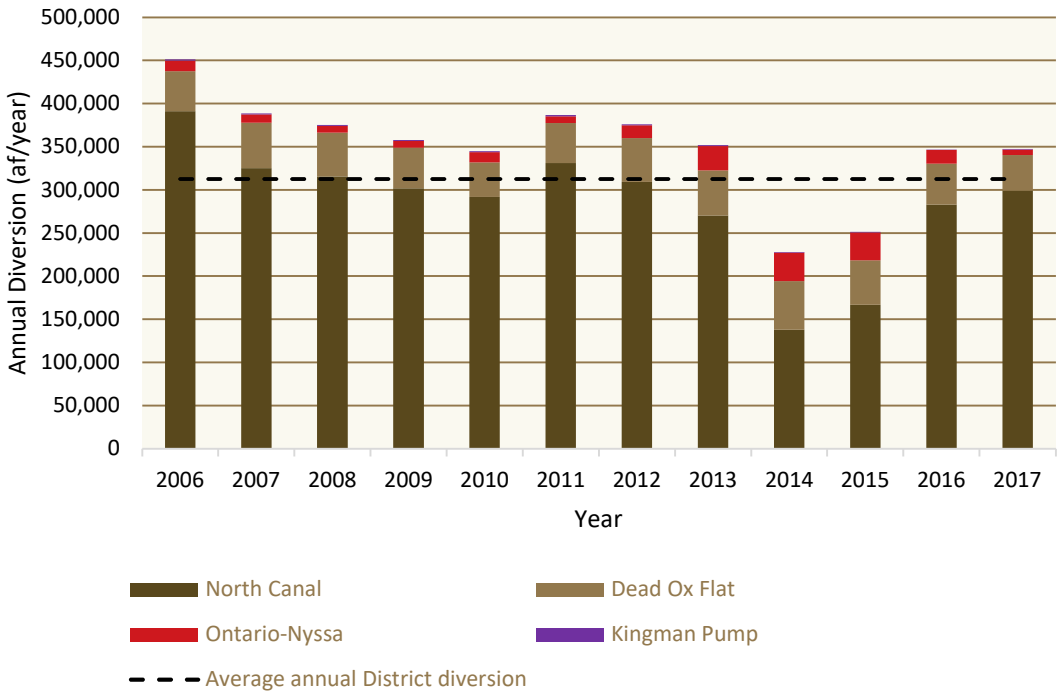


Figure 2-4. Annual Diversions for Owyhee Irrigation District between 2006 and 2017 (OID 2018).

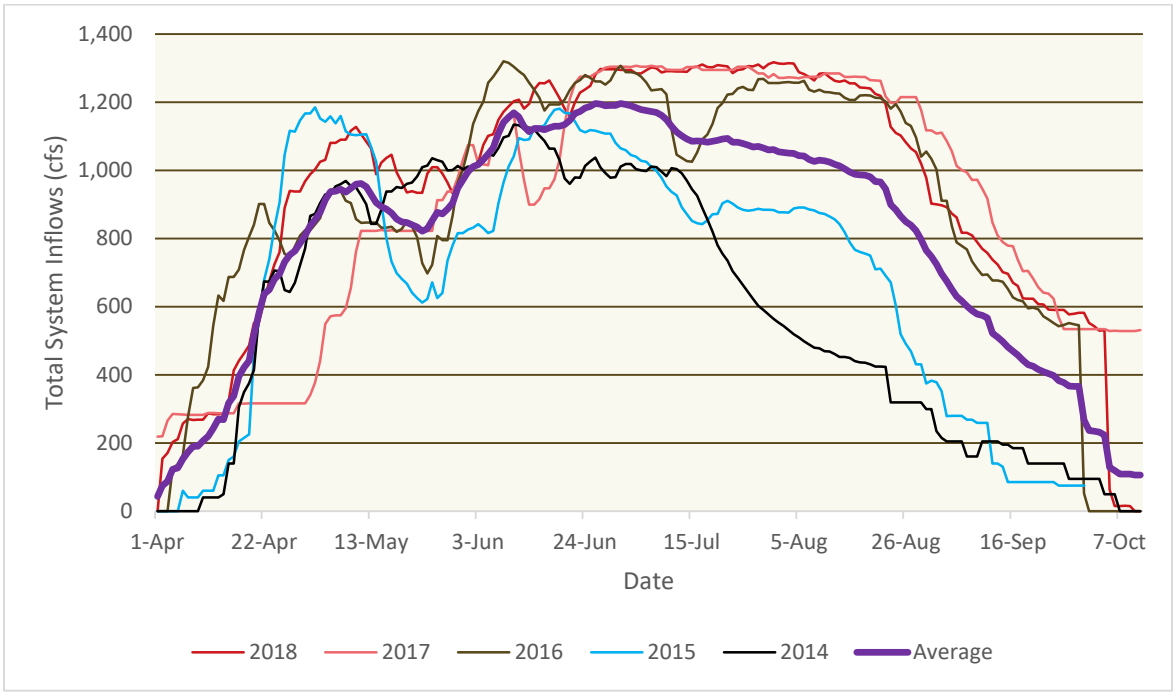


Figure 2-5. Daily and Average Diversions for Owyhee Irrigation District between 2014 and 2018 (OID 2018).

2.2.2 DISTRICT WATER LOSSES

According to OID's 2018 *Water Management and Conservation Plan* (WMCP), water loss is relatively high throughout the District's conveyance and delivery system. The WMCP estimates that isolated reaches of laterals lose up to 29 percent of delivery water while isolated reaches of canals lose up to 24 percent (OID 2018). FCA conducted a water loss assessment to quantify potential water losses within the District's unlined ditches due to subsurface infiltration, evaporation, plant and tree respiration, excess end spills volumes, or a combination of such factors. FCA's comprehensive water loss assessment is available in Appendix C.

2.2.2.1 Seepage Loss Methodology

FCA staff performed a seepage loss assessment between August 13 and 31, 2018 to assess water loss in OID due to subsurface infiltration, evaporation, and transpiration. If the canal was wadable, FCA used the mid-section method for estimating discharge with SonTek FlowTracker 2® acoustic Doppler velocimeters (ADVs) (Turnipseed and Sauer 2010; Rantz 1982). If the canal was not wadable, FCA used a Sontek RiverSurveyor S5® Acoustic Doppler Current Profiler. As a quality assurance measure, two measurements were made at each transect, either concurrently or sequentially, to verify that both measurements were within 5 percent of each other. Inflows to the ditches from natural surface water inputs and significant known losses (diversions) throughout each reach necessitated the division of both ditches into multiple sub-reaches. Water losses were estimated by taking the difference between upstream discharge measurements and downstream discharge measurements, accounting for contributions from natural inflows, and accounting for diversions. Measurements taken in the field were assigned an uncertainty error based on the quality of the measurement transect. Maximum and minimum possible losses in cubic feet per second (cfs) and acre-feet per day (af/day) were approximated by respectively adding and subtracting the uncertainty error from the measured loss.

2.2.2.2 Seepage Loss Results

A total of thirty-six sub-reaches with a corresponding seventy-two measurement locations were used to estimate seepage losses for Owyhee Irrigation District (Figure 2-6 through 2-8). The highest measured loss of 23.4 cfs was on the Kingman 5.4 Lateral, roughly 35% of total flow in the lateral. Other sources of substantial loss were on the North Canal (68.4 cfs of total measured loss), the Kingman Lateral from its headgate to the 5.4 Lateral (10.1 cfs or 7.9 percent loss), the 38.9 Lateral (8.92 cfs or 13 percent loss), and the 25.4 Lateral below mile 1.8 (5.2 cfs or 20.8 percent loss). Table 2-4 presents the estimated losses for each canal and its sub-reaches as flow (cfs) and daily water volumes (acre-feet per day [af/day]). Figure 2-6 through Figure 2-9 show the location of transect measurements and sub-reaches in the seepage analysis.

Table 2-4. Owyhee Irrigation District Estimated Loss Due to Seepage.

DIVISION	CONVEYANCE	START LOCATION ID	END LOCATION ID	MEASURED LOSS (CFS)	DAILY LOSS (AF/DAY)	LOSS (%)
Mitchell Butte	North Canal	NC 0.5	NC4.3	0.00	0.00	0.00
	North Canal	NC 4.4	NC 9.7	9.90	19.6	1.18
	North Canal	NC 9.8	NC 25.0	11.4	22.6	1.64
	North Canal	NC 25.0	NC 38.7	15.0	29.8	2.48

DIVISION	CONVEYANCE	START LOCATION ID	END LOCATION ID	MEASURED LOSS (CFS)	DAILY LOSS (AF/DAY)	LOSS (%)
	Kingman Lateral	KM 0.0	KM 5.4	10.1	20.0	7.94
	Kingman Lateral	KM 5.4.1	KM 9.3	3.39	6.72	6.61
	Kingman Lateral	KM 5.4.2	KM 5.4.end	23.4	46.4	34.9
	Kingman Lateral	KM 5.4.3	KM pt.14	1.46	2.90	15.8
	Mitchell Butte Lateral	MB 0.0	MB 9.4	1.79	3.55	2.27
	Mitchell Butte Lateral	MB 9.4	MB 10.7	1.10	2.18	3.93
	Mitchell Butte 7.5 Lateral	MB 7.5.start	MB 7.5.end	-0.08[1]	-0.16	-0.70
	Shoestring Canal	SS 0.0	SS.end	9.74	19.3	15.1
	13.6 Lateral	NC 13.4.start	NC 13.4.end	0.00	0.00	0.00
	14.5 Lateral	NC 14.5.start	14.5.end	1.73	3.43	8.01
	25.4 Lateral	25.4.start	25.4.e.end	0.98	1.94	1.56
	25.4-1.8 Lateral	25.4.s.start	25.4.s.end	0.98	1.94	4.54
	25.4 Lateral (below 25.4-1.8)	25.4.e.start	25.4.e.end	5.17	10.3	20.8
	26.4 Lateral	26.4.start	26.4.end	0.94	1.86	10.2
	28.7 Lateral	28.7.start	28.7.end	3.26	6.47	9.82
	31.0 Lateral	31.0.start	31.0.end	1.79	3.55	13.9
	32.2 Lateral	32.2.start	32.2.end	2.25	4.46	23.1
	33.1 Lateral	33.1.start	33.1.end	-0.28[1]	-0.56	-1.75
	35.1 Lateral	35.1.start	35.1.end	2.94	5.83	30.1
	38.9 Lateral	NC 38.9	NC 38.9.end	8.92	17.7	13.0
	38.9-4.8 Lateral	38.9.n.start	38.9.n.end	1.59	3.15	9.70

DIVISION	CONVEYANCE	START LOCATION ID	END LOCATION ID	MEASURED LOSS (CFS)	DAILY LOSS (AF/DAY)	LOSS (%)
Dead Ox Flat	North Canal	NC 43.2	NC 55.6	17.9	35.5	7.96
	North Canal	NC 55.6	NC.end	14.2	28.2	14.5
	43.2 Lateral	43.2.start	NC 43.2.end	-0.70[1]	-1.39	-1.59
	49.2 Lateral	49.2.start	49.2.end	-0.05[1]	-0.10	-0.40
	50.8 Lateral	50.8.start	50.8.end	0.58	1.15	10.9
	54.2 Lateral	54.2.start	54.2.end	3.61	7.16	24.7
	54.4 Lateral	54.3.start[2]	54.3.end[2]	-0.05[1]	-0.10	-0.81
	55.6 Lateral (above 55.6-0.5)	55.6.start	55.6.n.start	0.64	1.27	5.61
	55.6-0.5 Lateral	55.6.n.start	55.6.n.end	0.30	0.60	6.73
	55.6 Lateral (below 55.6-0.5)	55.6.s.start	55.6.s.end	1.20	2.38	19.0
	60.0 Lateral	60.4.start	60.4.end	0.72	1.43	3.67
			Total	157	311	N/A[3]

Notes:
Af/day: acre-feet per day; cfs: cubic-feet per second.

1. Negative values indicate gains within a given sub-reach.
2. Start and End Location ID's were mislabeled in the field and differ slightly from Canal Name and Sub-reach. Location ID's were not changed to preserve field data in its original form.
3. N/A: not applicable. FCA assumed diversion rates remained constant each day, while diversion rates likely varied during the assessment period. As a result, average percent loss is not calculated across reaches measured on different days.

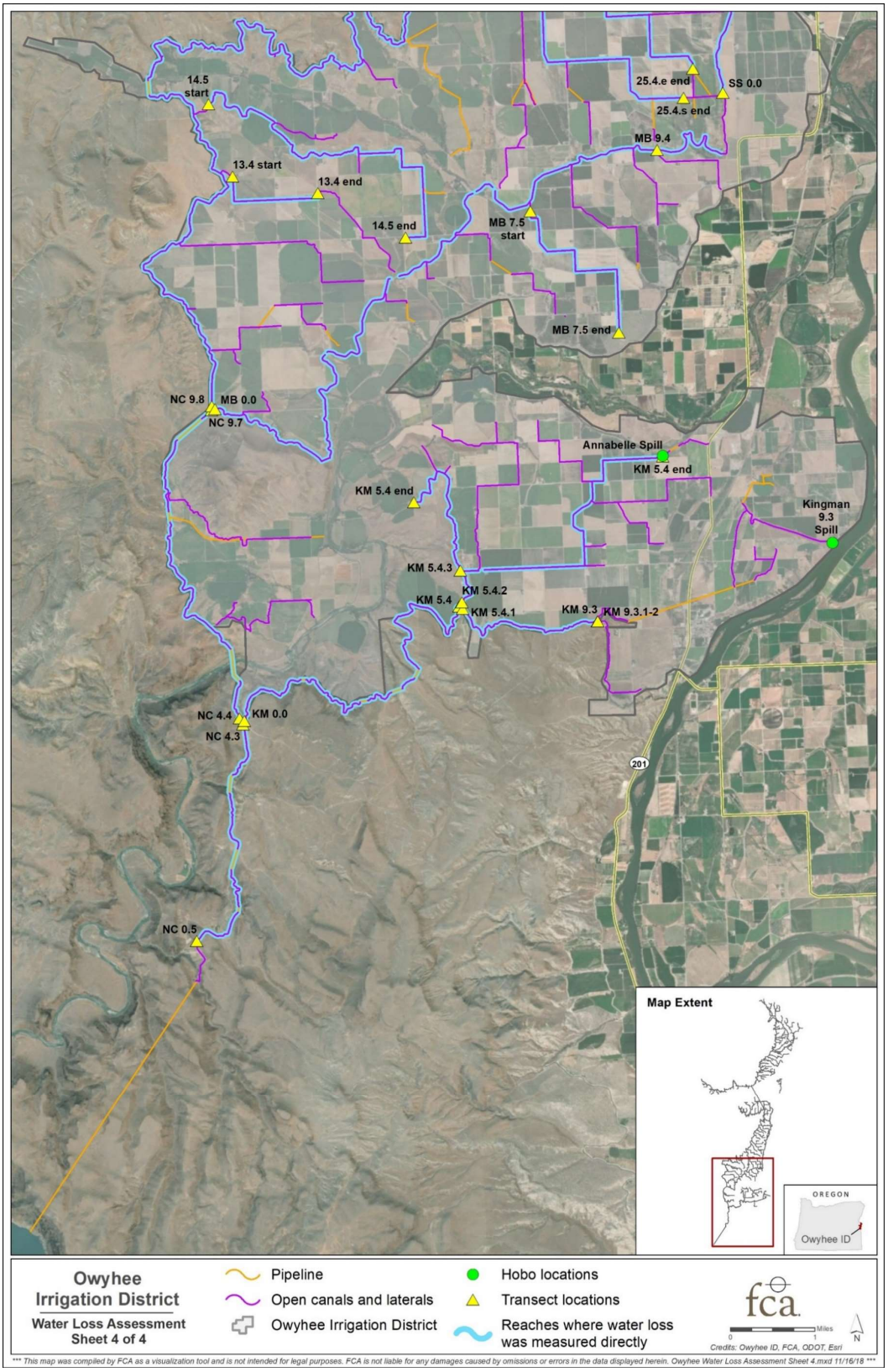


Figure 2-6. Seepage Loss and End/Operational Spill Measurement Locations, NC 0.5 to 14.5 Lateral

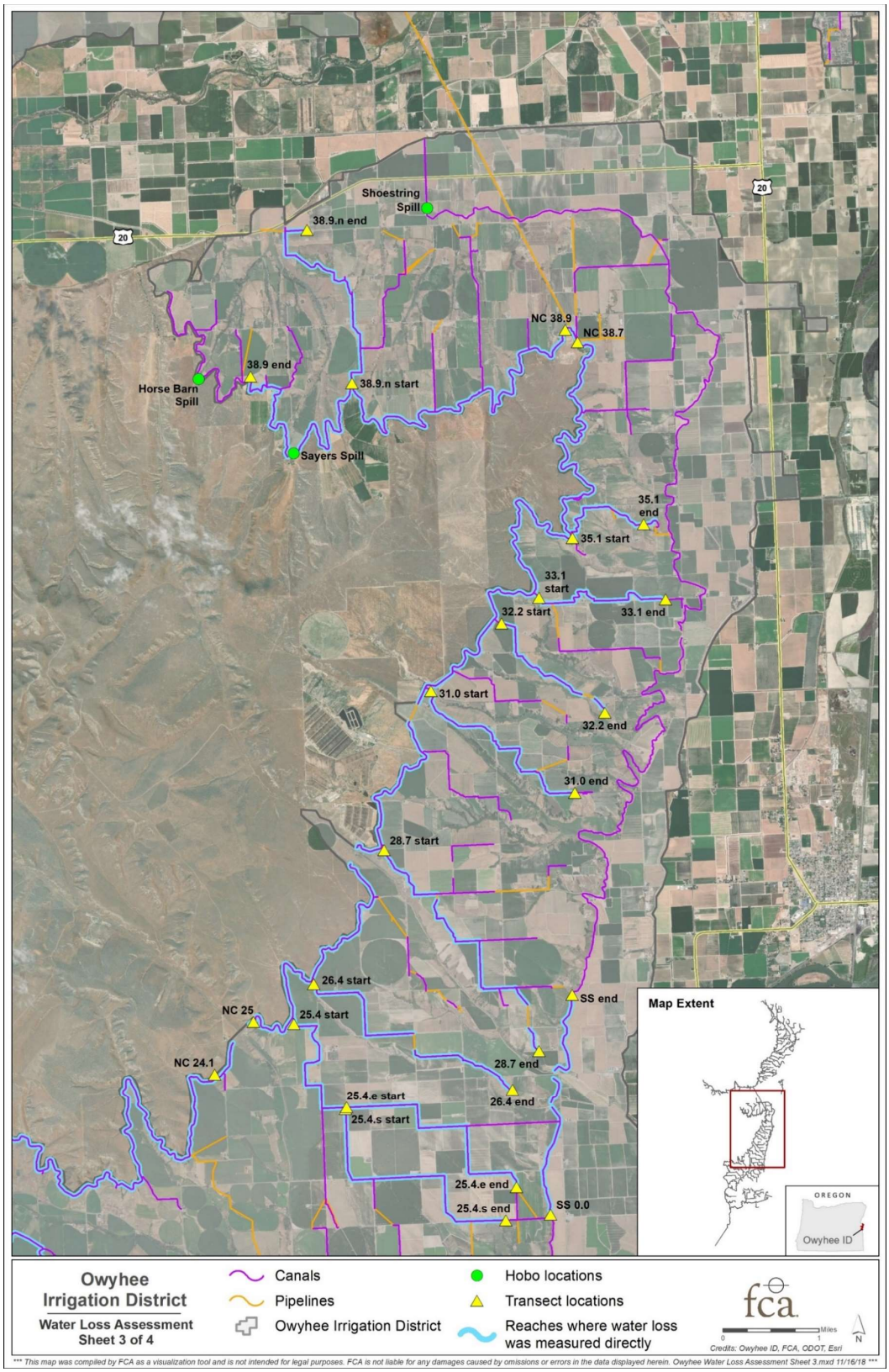


Figure 2-7. Seepage Loss and End/Operational Spill Measurement Locations, NC 24.1 to 38.9 Lateral

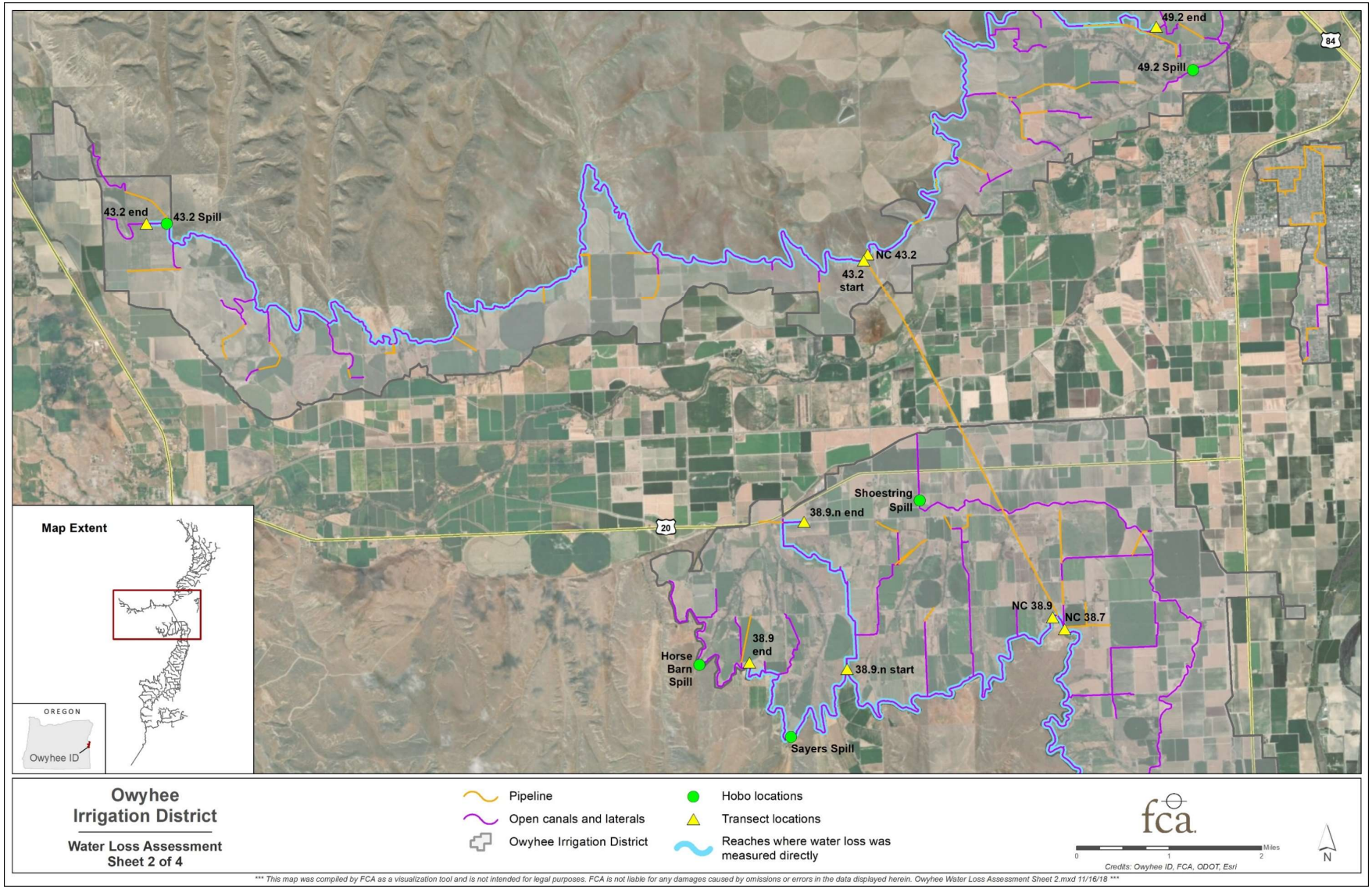


Figure 2-8. Seepage Loss and End/Operational Spill Measurement Locations, 38.9 Lateral to 49.2 Lateral

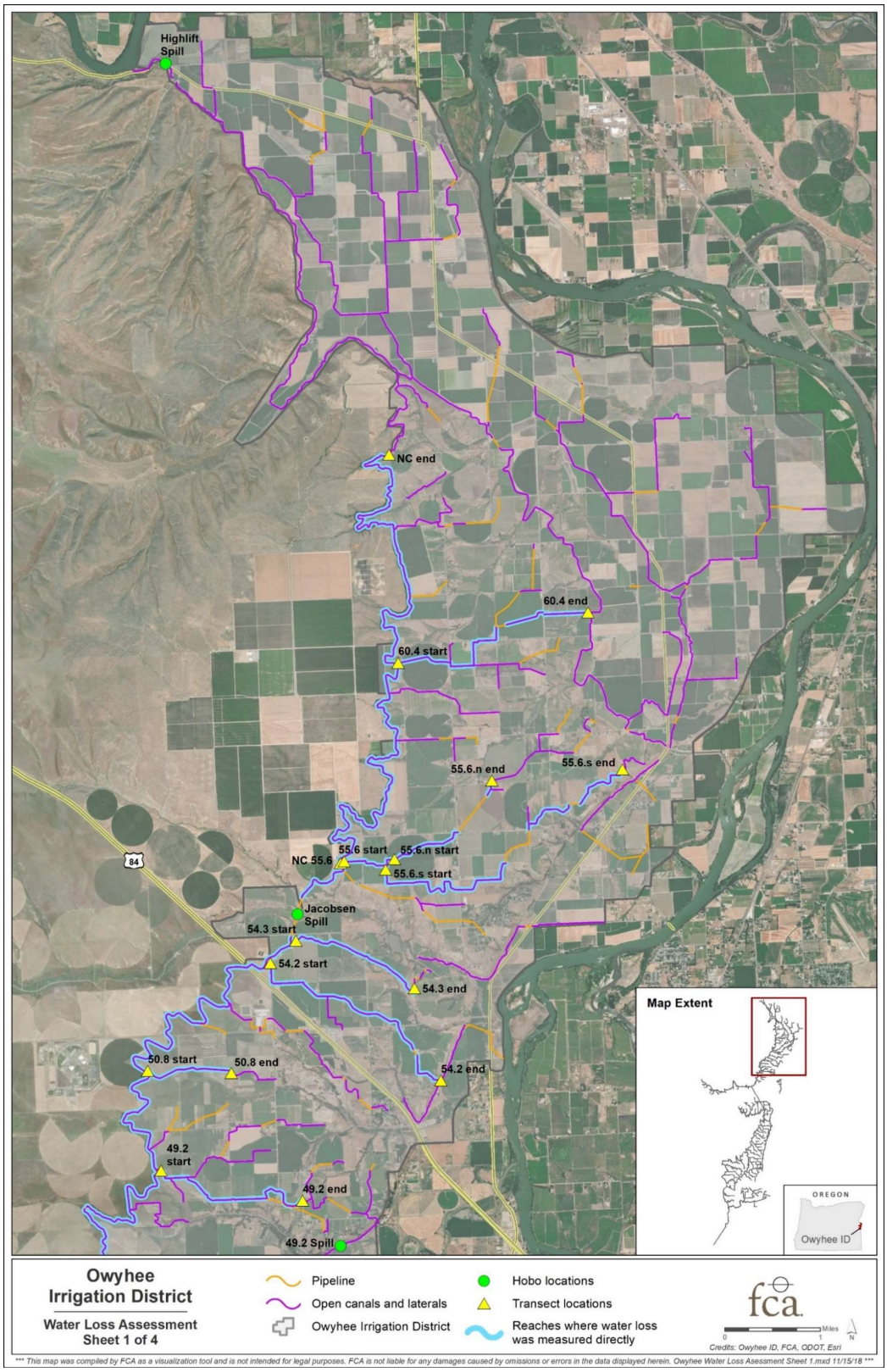


Figure 2-9. Seepage Loss and End/Operational Spill Measurement Locations, 49.2 Lateral to NC End.

2.2.2.3 End/Operational Spill Methodology

As part of the District's open channel delivery system, operational spills (or end spills) are located throughout the system to ensure the timely delivery of water to patrons. To measure and quantify the potential losses associated with these end spills, FCA installed nine HOBO U20L-01 Water Level Loggers on August 6 and 7, 2018. FCA recorded water depth (gage height) at 15-minute intervals until October 10 and 11, 2018, when FCA staff retrieved the loggers. Each end spill location had existing water measurement structures for calibration purposes.

2.2.2.4 End/Operational Spill Results

The largest average discharge during the study period (19.8 cfs) was measured at the Jacobsen Spill, which spilled a total of 2592 ac-ft between August 6 and October 11. Other end spills averaged as little as roughly 1.0 cfs, such as the Sayers and 49.2 end spills. Peak discharge at several of the measurement sites occurred at the end of the 2018 irrigation season, presumably as a result of the irrigators 'turning off' and the subsequent draining of the canal system. Calibration checks were performed at four of the nine end spill locations as a quality assurance measure. The difference between the measured and theoretical discharges at these four measuring devices was small (approximately 5 percent or less) and were largely within the uncertainty of the direct measurements. This small difference, along with the excellent condition of most of the measuring devices, supports the validity of the theoretical equations used to calculate the flow rates. Table 2-5 presents the summary of the computed results for each of the sites for the monitoring period. Figure 2-6 through Figure 2-9 show the location of end spill monitors.

Table 2-5. Owyhee Irrigation District Estimated Loss Due to End/Operational Spills between August 6 and October 11, 2018.

DIVISION	LOCATION	TYPE OF WEIR	SPILLED TO	AVERAGE DISCHARGE (CFS)	TOTAL VOLUME (AF)
Mitchell Butte	Annabelle Spill	5-foot Rectangular Contracted Weir	Owyhee River	6.81 cfs	864
	Horse Barn Spill	6-foot Rectangular Contracted Weir	Un-named creekbed south of Malheur River	1.15 cfs	150
	Kingman 9.3 Spill	3-foot Rectangular Contracted Weir	Snake River	2.68 cfs	340
	Sayers Spill	3-foot Cipolletti Weir	Un-named creekbed south of Malheur River	1.07 cfs	139
	Shoestring Spill	8-foot Cipolletti Weir	Nevada Canal	15.7 cfs	2,026
Dead Ox Flat	High Lift Spill	6-foot Cipolletti Weir	Snake River	10.9 cfs	1,397
	Jacobsen Spill	10-foot Cipolletti Weir	Jacobsen Gulch to Jacobsen Gulch Lateral and Snake River	19.8 cfs	2,592
	NC 43.2 Spill	3-foot Cipolletti Weir	Willow Creek	3.60 cfs	465

DIVISION	LOCATION	TYPE OF WEIR	SPILLED TO	AVERAGE DISCHARGE (CFS)	TOTAL VOLUME (AF)
	NC 49.2 Spill	3-foot Cipolletti Weir	Malheur River	1.01 cfs	130
				Total	8,103

2.2.2.5 Water Loss Discussion and Conclusions

Water loss from August 13 to August 31, 2018 indicate total overall seepage losses of 157 cfs, or around 311 acre-feet per day. These values were supported by on-the-ground observations during fieldwork of rounded cobbles and gravels set in coarse sand that are conducive to seepage as well as of vegetation growth indicative of abundant moisture.

Operational spill volumes between August 6 and October 11 ranged from 130 acre-feet at the NC 49.2 Spill to as much as 2,592 acre-feet at the Jacobsen Spill. Average discharges during the monitoring period at these locations ranged from 1.0 cfs to 19.8 cfs. While the data set does not represent an entire irrigation season, total spill volumes over the course of a season are much greater.

Based on the results of this assessment, system modernization efforts would likely result in water savings for the District.

SECTION 3:
System Improvement Methodology

3.1 FISH SCREENING METHODOLOGY

FCA evaluated the District's in-river diversions for potential improvements to prevent the entrainment of resident fish using National Marine Fisheries Service (NMFS)-approved fish screens. Improvement options were developed based on the needs of the District and the limitations of the diversion site, including the available footprint for construction, availability of water for bypass flow, elevation drop across the diversion, accessibility of the diversion, and availability of power at the diversion site. In detailed design, fish screening options would be further refined to ensure they met NMFS and Oregon Department of Fish and Wildlife (ODFW) criteria.

3.2 PIPE DESIGN METHODOLOGY

3.2.1 HYDRAULIC MODELING

Farmers Conservation Alliance used EPANET to design a pressurized delivery system for OID. EPANET is a computer program developed by the Environmental Protection Agency that simulates dynamic hydraulic behavior within pressurized-pipe networks. EPANET is a free and open-source software conventionally used by public and private organizations to model irrigation distribution networks. The ease of access and widespread use of the program enables future use for project design and implementation.

An EPANET network consists of pipes (links), nodes (pipe junctions), pumps, valves, and storage tanks or reservoirs. EPANET tracks the flow of water in each pipe and the pressure at each node. EPANET's hydraulic modeling capabilities include (Rossmann 2000):

- unlimited network size
- friction head loss, estimated using the Hazen-Williams, Darcy-Weisbach, or Chezy-Manning equations
- minor head losses for bends, fittings, and other appurtenances
- constant- or variable-speed pumps
- pumping energy and cost
- various types of valves including shutoff, check, pressure-regulating, and flow-control valves
- variable tank shape (i.e., diameter can vary with height)
- multiple demand categories at nodes, each with its own temporal demand pattern
- pressure-dependent flow issuing from emitters (sprinkler heads)
- system operations based on both simple tank level or timer controls and on complex rule-based controls

FCA applied the following assumptions when developing the hydraulic model for OID:

- The model was run with only one timestep; i.e., the system was not evaluated over an extended period of time.
- The Hazen-Williams equation was used to quantify friction head losses.
- Minor losses were not evaluated.

Appendix D provides an EPANET-generated report that contains computed results for all nodes and links used for the OID hydraulic model.

3.2.2 WATER DEMANDS

FCA designed the pressurized delivery system based on the delivery rate of 9.5 gpm per acre for primary lands and 5.6 gpm per acre for supplemental lands. Primary lands are supplied by the Owyhee River via the North Canal. Supplemental lands are supplied by the Snake River via the Dead Ox Flat and/or Ontario-Nyssa pumping plants. The delivery unit flow rate for each respective pipeline was multiplied by the number of irrigated acres to determine a water demand per delivery point. To quantify the irrigated acreage associated with each patron, FCA used input from District staff in combination with water accounting data and water rights GIS data to assign 67,124.9 irrigated acres to OID delivery points. However, a detailed review of the irrigated acreage associated with every pipeline should be conducted before project design and construction.

3.2.3 SPATIAL ORIENTATION AND ELEVATIONS

GIS data for the various system elements and patron turnouts were collected by District staff and FCA in February and March 2019. All components of the GIS mapping and modeling were developed in the projected coordinated system, Oregon State Plane South Zone (ESPG 6561). The District Manager identified known issues in the collected data and corrected known discrepancies. The verified GIS data were used to develop the hydraulic model.

Elevations of patron turnouts and other District infrastructure that were incorporated in the hydraulic model were identified by using Light Detecting and Ranging (LiDAR) data provided by the Oregon Department of Geology and Mineral Industries (DOGAMI). The datum used for vertical elevations was the North American Vertical Datum of 1988 (NAVD 88). FCA staff used DOGAMI's LiDAR data to identify the alignments of canals in the District. FCA also repositioned the locations of turnouts serviced by these canals to the canal centerline. Because the locations of existing pipelines could not be identified using LiDAR data, FCA used the alignments of existing pipelines described in the District's approved GIS data. Because LiDAR is a remote sensing technique for estimating elevation on a broad scale, FCA suggests the exact elevation of each pipeline be verified before performing higher levels of design.

3.2.4 VELOCITY CRITERIA

Piping was designed to meet the National Resources Conservation Service (NRCS) Conservation Practice Standard Code 430 for Irrigation Pipelines (NRCS Practice 430). The pipe was sized to ensure that the full-pipe velocity at the modeled flow rate would not exceed 5 fps per NRCS Practice 430.

3.2.5 PIPE MATERIAL

Pressure pipes are available in a variety of materials, several of which were qualitatively assessed for this report. Specifically, this SIP considered polyvinyl chloride (PVC), high-density polyethylene (HDPE), Weholite polyethylene, and steel. Although manufactured at larger diameters than widely available PVC or HDPE, steel pipes may carry a high material and installation cost and a shorter lifespan due to corrosion.

PVC is currently the most common pipe material used for irrigation due to its widespread availability and low price point. PVC is capable of handling a wide range of operating pressures over a wide range of diameters (up to 60 inches). Individual sections are connected by a

gasketed-bell end or glued joints, and bends are secured with concrete thrust blocks. The District currently uses PVC for piping projects.

HDPE fusion-welded pipe is durable, flexible, recyclable, corrosion-free, freeze-proof, and chemical-resistant with a conservative design life of between 50 and 100 years. HDPE is also available in a wide range of diameters (up to 63 inches) and pressure ratings from several US- and Canada-based manufacturers. For pipe diameters larger than 63 inches and static pressures below 30 psi, spirally wound profile-wall HDPE pipe is available in diameters up to 132 inches. Where pipe diameters larger than 63 inches and static pressure ratings between 30 and 145 psi are required (specifically, on the North Canal), this SIP considered pipe specifications from Krah. Krah is a Germany-based pipe manufacturer whose helical extrusion process enables the production of large-diameter solid-wall HDPE pipe up to 196 inches in diameter. However, at the time of publication, Krah pipe is not currently available in Oregon.

HDPE solid-wall pipe (PE4710 resin), conforming to the American Society for Testing and Materials (ASTM) D3350 standard, is evaluated in this SIP as the primary material for piping in the District. Although PVC pressure pipe may be initially more cost effective and equally as available as HDPE, HDPE is more flexible and ductile than PVC, is considered to have a substantially longer design life, and demonstrates high abrasion resistance. Furthermore, the flexibility of the HDPE material in most circumstances allows it to follow the curves in existing open canal alignments, avoiding the cost and difficulty of installing fittings and thrust restraints at bends. Hydraulic modeling was performed using the specifications of HDPE. Deviating from these specifications may require modification of the hydraulic model and further analysis.

3.2.6 PRESSURE RATING AND REDUCTION

Industry standards use dimension ratios (DR) to specify the pipe's pressure rating and ability to withstand pressure. The DR for HDPE pipe is the ratio of the pipe's outer diameter to its wall thickness. The dimensions of the HDPE-pressure pipe selected for OID conform to the Iron Pipe Size (IPS) type, where the outside diameter of the pipe is the controlling dimension.

HDPE IPS pipes were selected based on the expected static pressure for each pipe segment. FCA used a maximum static pressure of 100 psi as the upper limit to patron turnouts. To accomplish this, pressure reducing valves (PRVs) were placed throughout the model to ensure static pressures did not exceed 100 psi at any given turnout. The locations and pressure settings of PRVs were designed to provide a pressure of 50 psi or greater to all patrons. However, due to the topographic layout of the system, 50 psi was not always possible. In situations were 50 psi could not be met, the model was adjusted to provide the greatest pressure available, ensuring dynamic pressures at patron turnouts were no less than 0 psi.

Long runs (greater than 1,000 ft) of pipe without a modelled junction in the hydraulic model may be designed in this SIP with a higher DR rating than is necessary throughout their length. Before implementation, a more detailed pressure analysis should be performed to optimize pipe pressure rating in long sections of pipe.

3.3 COST ESTIMATING METHODOLOGY

3.3.1 FISH SCREENING COSTS

This assessment estimated costs for cylindrical screens for submerged intakes at the Ontario-Nyssa and Dead Ox Flat pumping plants. The cost per cfs of each screen was estimated from

similar projects recently installed in the Sacramento River Valley by the Family Water Alliance and its partners. Due to uncertainty related to permitting, retrofitting existing structures, and other unforeseen costs, 30 percent uncertainty was added to the total project cost to create a cost range. Because limited information is publicly available regarding the cost of other screen types (including traveling belt and inclined screens) at large diversions, the cost of these designs is only provided relative to the cost of a cylindrical screen, as described by the Bureau of Reclamation's *Fish Protection at Water Diversions* (USBR 2006). Cost estimates for screening are be considered reconnaissance-level and may be further investigated should screening be pursued by the District.

3.3.2 DELIVERY SYSTEM COSTS

3.3.2.1 Piping

HDPE is a petroleum and natural-gas-derived product that fluctuates widely in price due to global and regional markets. Pipe material estimates were provided to FCA by reputable vendors that routinely supply pipe materials to Eastern Oregon projects. An estimated value of $1.30 per pound was used in this SIP. However, given the volatile price of HDPE, pricing may be subject to change within one year or less from the date of publication.

FCA estimated installation costs of the associated piping to be 100 to 300 percent of the material cost of the pipe, depending on the pipe diameter. This cost assumption is included in the total cost of pipe installation (i.e., combining pipe material manufacturing, delivery, and welding costs with trenching, pipe installation, and trench-backfill costs).

3.3.2.2 Pressure Reducing Valve Stations

As indicated above, PRVs were included where necessary to ensure static pressures did not exceed a maximum of 100 psi per patron turnout. FCA obtained preliminary cost estimates for PRV stations from GC Systems, Inc. These cost estimates assume a PRV station would typically include the following components:

- a piping manifold with a two to three CLA-VAL brand PRVs in parallel to accommodate a range of flows,
- combination air release/vacuum valves upstream and downstream of the PRV/piping manifold,
- pressure relief valves upstream and downstream of the PRV/piping manifold,
- a gate and ball valve associated with the PRV/piping manifold, and
- a concrete vault with personnel hole access to house the PRV station.

Table 3-1 provides the estimated PRV station costs that were used based on the flow rate of the PRV required.

Table 3-1. Pressure Reducing Valve Station Capital Cost Estimates.

MAX FLOW (GPM)	DIAMETER (IN)	ESTIMATED CAPITAL COST
400	3	$30,000
800	4	$40,000

1,800	6	$45,000
3,500	8	$55,000
7,000	12	$75,000
11,000	12	$100,000
24,000	24	$180,000
50,000 or greater	36 or greater	$300,000

3.3.2.3 Turnouts

For the purposes of this SIP, patron turnouts were assumed to be pressurized delivery systems. A standard pressurized irrigation delivery turnout was assumed to include an appropriately sized tee from the mainline or lateral, a pressure-relief valve, a gear-actuated plug valve (or gate or possibly butterfly valve in smaller turnout situations), a magnetic meter, a combination air and vacuum relief valve, and spool-pipe segments. Based upon experience with similar installations at seven irrigation districts in Central Oregon, furnishing materials and installing a turnout was estimated to cost an average of $8,000 per unit.

3.3.2.4 General Contractor Construction Management

Contractor procurement may come in several forms in Oregon. Design-Bid-Build is a conventional process wherein the survey and design are developed first, and then a traditional competitive bid is held to obtain the lowest-cost responsive and responsible bidding contractor. In this process, the design-engineering firm typically will serve as the inspection/construction management firm during the course of construction. Given the magnitude of the project phases and for the purposes of this SIP, a Construction Manager General Contractor (CMGC) model was assumed. In this contractor procurement method, early design would precede the construction contractor procurement process, but the contractor would be expected to include construction management and design input in their scope and delivery of the constructed project. An estimated contractor fee structure of 14 percent was applied to the delivery system costs.

3.3.2.5 Engineering Construction Management

Engineering and Owner Representative/Inspection services typically range from 10 to 18 percent of construction value. FCA assumed a fee of 10 percent for survey, engineering design, and inspection/owner representative services would be appropriate.

3.3.2.6 Contingency

The Association for the Advancement of Cost Engineering (AACE) is a nationally recognized organization that has developed an accepted system of contingency ranges based upon project specificity Class level. There are five project Classes starting from Class 5, with only conceptual project definition, to Class 1, where a project has been completely developed and bid. This SIP was considered to fall within the Class 4 definition. The AACE Class 4 project specificity level (i.e., a project at 1 to 15 percent definition) carries an anticipated contingency range of 15 to 30 percent below the actual cost to 20 to 50 percent above the actual cost. FCA selected a contingency value of 30 percent above the estimated cost.

SECTION 4:
Proposed System Improvements and Costs

4.1 SYSTEM IMPROVEMENT APPROACH

The primary objectives of the SIP are to determine the potential for water conservation, hydroelectric power generation, pump energy conservation, and improvements to fish screening and passage. Currently, the District primarily conveys water in open canals with substantial water loss. Furthermore, nearly 60 percent of lands in the District are irrigated by flooding, which produces runoff that negatively impacts downstream water quality. Landowners that irrigate from open canals using sprinklers or micro/drip lines pressurize their deliveries using individual pumps, which are often less efficient that District-operated pump stations.

FCA identified that a mostly piped and pressurized delivery system would alleviate these issues while providing the potentials for pump energy conservation and in-conduit hydroelectric power generation. Ditches within the District boundary not owned or maintained by the District, as well as the Jacobsen Gulch Lateral, were excluded from consideration. Consistent with the Scope of Services summarized in Appendix A and direction provided by the District, FCA developed a comprehensive hydraulic model representing the delivery system and an evaluation of the water savings and energy benefits of piping and pressurization.

The hydraulic model includes all District-maintained conveyances that supply the Mitchell Butte and Dead Ox Flat divisions of Owyhee ID, as well as the North and South Advancements and excepting the Jacobsen Gulch Lateral. The Mitchell Butte Lateral directly serves irrigation water for primary water rights and provides Owyhee Reservoir water to the Ontario-Nyssa Canal. Many lands supplied by the Ontario-Nyssa Canal may also be served irrigation water for supplemental water rights via the Ontario-Nyssa Pumping Plant. The infrastructure proposed in the hydraulic model operates under both scenarios.

The Malheur Siphon was rehabilitated in the winter of 2018-2019 and is included in the hydraulic model. The North Canal continues north from the outlet of the Malheur Siphon to serve its laterals in the Dead Ox Flat Division until it meets the High Lift Lateral. The Dead Ox Pumping Plant provides supplemental water rights to lands served by the High Lift, Lower Lift, Middle Lift, and Crystal Laterals.

The North and South Advancements supply water to subdivisions within the city of Ontario with OID water rights. Two small pumps supply the North and South Advancement area. Table 4-1 summarizes the potential benefits and capital costs. Figure 4-1 presents an overview of the proposed system improvements.

Table 4-1. Summary of Benefits and Costs for Owyhee Irrigation District.

DIVISION OR SUB-DIVISION	IMPROVEMENT	INFRASTRUCTURE	ENERGY CONSERVATION (KWH)[4]	ENERGY CAPACITY (KW)	COST[1]
Mitchell Butte	Fish Screen	Ontario-Nyssa Pumping Plant	N/A	N/A	$1,639,000[2]
Mitchell Butte	Piping	Kingman Lateral	1,803,700	365.4[3]	$70,973,200
		Kingman Pump Lateral	115,700[5]	N/A	$544,600

DIVISION OR SUB-DIVISION	IMPROVEMENT	INFRASTRUCTURE	ENERGY CONSERVATION (KWH)[4]	ENERGY CAPACITY (KW)	COST[1]
		Mitchell Butte Lateral	1,259,200	986.0	$75,558,600
		North Canal	372,200	N/A	$1,151,151,700
		5.3 Lateral	102,800	7.4	$1,028,600
		7.3 Lateral	N/A	N/A	$468,700
		8.5 Lateral	72,700	6.9	$1,653,000
		10.5 Lateral	N/A	N/A	$1,924,400
		11.0 Lateral	12,000	N/A	$31,500
		12.4P Lateral	N/A	N/A	$2,051,400
		13.6 Lateral	173,500	N/A	$1,818,600
		14.5 Lateral	409,500	N/A	$6,295,600
		18.6 Lateral	N/A	N/A	$17,000
		19.9 Lateral	N/A	N/A	$20,800
		20.3 Lateral	59,400	N/A	$294,800
		22.8 Lateral	N/A	N/A	$1,506,200
		24.1 Lateral	48,200	N/A	$87,100
		25.4 Lateral	1,452,300	N/A	$14,320,800
		26.4 Lateral	252,900	N/A	$1,916,900
		27.8 Lateral	75,300	N/A	$578,600
		28.7 Lateral	430,700	N/A	$4,576,500
		29.7 Lateral	21,300	N/A	$98,000
		30.2 Lateral	112,900	N/A	$500,400
		31.0 Lateral	184,200	N/A	$1,887,000
		31.5 Lateral	62,700	N/A	$521,200
		32.2 Lateral	101,700	N/A	$934,100
		33.1 Lateral	166,800	N/A	$784,700
		33.1S Lateral	107,000	N/A	$904,800
		35.1 Lateral	106,400	N/A	$580,700

DIVISION OR SUB-DIVISION	IMPROVEMENT	INFRASTRUCTURE	ENERGY CONSERVATION (KWH)[4]	ENERGY CAPACITY (KW)	COST[1]
		35.7 Lateral	N/A	N/A	$91,400
		37.6 Lateral	233,400	N/A	$1,396,500
		38.7 Lateral	291,600	6.9	$1,337,800
		38.9 Lateral	961,500	15.3[3]	$22,403,400
		39.8 Lateral	16,300	N/A	$184,200
		Ontario-Nyssa Canal	1,029,400	N/A	$77,503,900
		Malheur Siphon	N/A	850.6	$112,212,100
Dead Ox Flat (above Jacobsen Gulch)	Piping	North Canal	64,600	N/A	$46,404,300
		43.2 Lateral	484,900	N/A	$38,509,400
		45.4 Lateral	23,500	7.4	$228,300
		46.7 Lateral	69,400	N/A	$1,327,000
		48.3 Lateral	N/A	N/A	$91,000
		49.2 Lateral	249,500	N/A	$4,395,300
		49.4 Lateral	16,000	N/A	$469,000
		50.8 Lateral	42,200	N/A	$484,100
		52.5 Lateral	N/A	N/A	$75,100
		53.2 Lateral	37,900	N/A	$731,600
		54.2 Lateral	179,400	N/A	$1,909,600
		54.3 Lateral	N/A	N/A	$133,900
		54.4 Lateral	131,000	N/A	$1,056,800
Dead Ox Flat (below Jacobsen Gulch)	Fish Screen	Dead Ox Flat Pumping Plant	N/A	N/A	$2,383,000[2]
Dead Ox Flat (below Jacobsen Gulch)	Piping	North Canal	412,700	N/A	$34,325,100
		55.5 Lateral	14,300	N/A	$573,600

DIVISION OR SUB-DIVISION	IMPROVEMENT	INFRASTRUCTURE	ENERGY CONSERVATION (KWH)[4]	ENERGY CAPACITY (KW)	COST[1]
		55.6 Lateral	377,300	N/A	$6,147,300
		58.7 Lateral	46,400	N/A	$240,400
		59.5 Lateral	34,100	N/A	$339,800
		60.0 Lateral	312,900	N/A	$3,058,000
		61.3 Lateral	N/A	N/A	$161,300
		62.1 Lateral	44,000	N/A	$601,100
		64.7 Lateral	N/A	N/A	$174,100
		Lower Lift	108,800	N/A	$1,052,000
		Middle Lift	510,800	N/A	$7,929,700
		High Lift	739,600	N/A	$26,771,000
		Crystal Lift	279,700	N/A	$2,467,500
Advancements	Piping	South Advancement	30,200	N/A	$941,100
		North Advancement	7,700	N/A	$353,700
		Total	14,251,700	2,246.5	$1,743,132,200

Notes:

1. Costs were rounded to the nearest $100.
2. Of the range of possible costs of a fish screen, the larger value is given.
3. Where more than one location for hydropower generation is identified per lateral, potential capacities are summed.
4. Conserved energy assumes only patrons on new pipelines benefit from pressurized deliveries, and 100 percent of patrons employ sprinkler or micro/drip irrigation applications. Section 4.4 also estimates energy conservation assuming patrons who currently flood irrigate remain doing so under a modernized delivery system.
5. By interconnecting the Kingman Pump Lateral with Kingman Lateral 7.6-9.6N, the Kingman Pump could be decommissioned, saving an estimated 115,700 kWh/season.

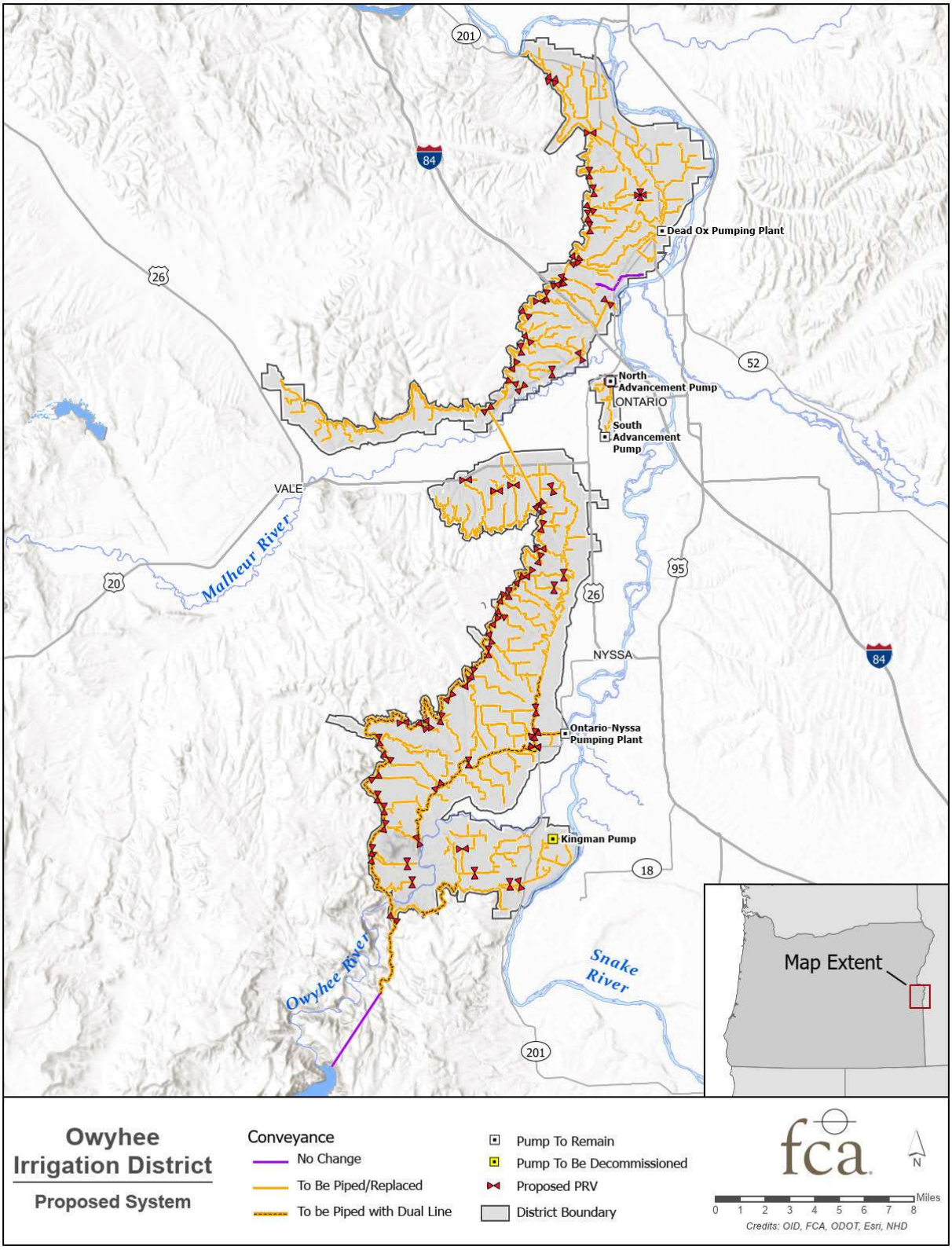


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Figure 4-1. Overview of Proposed Improvements for Owyhee Irrigation District.

4.2 FISH SCREENING IMPROVEMENTS

4.2.1 ONTARIO-NYSSA AND DEAD OX PUMPING PLANTS

Several options exist for screening the Dead Ox Flat and/or Ontario-Nyssa pumping plants. Cylindrical screens are the most commonly applied submerged screen concept for pumping sites (USBR 2006). Components of a cylindrical screen include a wedge-wire or perforated plate screen with interior baffling to promote uniform approach velocities through the screen, a water differential measuring system, and a cleaning system. Interior or exterior mechanical brushes or compressed air clean the screen. Screens are either fixed in place or mounted on a track for easy retrieval, storage, and maintenance. Cylindrical screens are commercially available, have a strong performance record, and are approved by resource agencies as fish screens. However, the large diversion rates at both pumping plants would likely require more than one screen, and moving parts of retrievable screens require maintenance. Furthermore, existing pump intakes would require retrofitting. The cost of similar projects completed as part of the Sacramento Valley Fish Screen program was $9,700 per cfs (FWA 2020). Given the 30 percent uncertainty associated with this estimate, installing one or more cylindrical screens at the Ontario-Nyssa Pumping Plant with a maximum diversion of 130 cfs would cost between $883,000 and $1,639,000. The cost of similarly screening 189 cfs at the Dead Ox Flat Pumping Plant would be $1,283,000 to $2,383,000.

Either pumping plant may also be retrofitted with an inclined screen. A fixed inclined screen would be entirely or partially submerged, dependent on the stage of the Snake River, with approach velocities sweeping across the screen face. Inclined screens are cleaned manually or mechanically using brushes, air pressure, or water pressure. Beyond components for cleaning, these screens have few or no moving parts, which reduces capital and maintenance costs relative to a retrievable cylindrical screen. However, available diversion flow rates may vary as a function of river stage and screen fouling, and a method for dewatering the screen may be necessary for maintenance. Furthermore, protection from sediment and debris may be necessary to prevent trees or boulders from damaging the screen during high flow events.

Finally, a traveling screen may provide a screening solution for the Dead Ox Flat and/or Ontario-Nyssa pumping plants. Installed vertically or on an incline, traveling screens rotate either intermittently or continuously to remove debris caught on the screen's surface. Debris is removed from the top of the screen using pressurized water. The District is familiar with the operation and maintenance of a traveling belt screen, as one currently screens a diversion from the North Canal. However, with many moving and specialized parts, traveling screens may not be economically viable for large diversions at either pumping plant.

4.2.2 OWYHEE DAM

Submerged cylindrical screens could prevent resident fish from entering OID's canal system at Owyhee Dam. Cylindrical screens are described in Section 4.2.1. The diversion rate at Owyhee Dam would require multiple screens and a large retrofit on the dam's upstream face. Due to the size of this project, the cost of screening the outlet of the reservoir was not investigated in this SIP.

4.3 DELIVERY SYSTEM IMPROVEMENTS

This section presents the proposed delivery system improvements and associated costs. The improvements in this section are organized into four general groups in the District:

- North Canal and the Malheur Siphon
- Mitchell Butte Division laterals
- Dead Ox Flat Division laterals
- North and South Advancements, which supply subdivisions within the city of Ontario via two small pumps.

4.3.1 NORTH CANAL AND THE MALHEUR SIPHON

Within the Mitchell Butte Division, the North Canal begins with a design capacity of over 1,000 cfs. As such, the North Canal requires a dual pipeline of large-diameter solid-wall HDPE from the outlet of the North Tunnel to the 33.1 Lateral, or roughly 33 miles. One pipeline has a 148-inch inner diameter, and the other tapers from 180-inch to 132-inch as conveyance flow rates decrease due to deliveries along its length to North Canal laterals. Downstream of the 33.1 Lateral, a 132-inch solid-wall HDPE pipe extends to the inlet of the Malheur Siphon. Figure 4-2 provides an overview of the proposed pipeline alignments of the North Canal in the Mitchell Butte Division.

At the direction of the District, PRVs reduce pressure to five psi at the headgate of each lateral the North Canal supplies. Piped laterals are designed to withstand the internal pressures gained by the elevation differential from the lateral headgate rather than the outlet of the North Tunnel or the Malheur Siphon. This design allows each lateral to be piped in a cost-effective manner regardless of whether the North Canal is piped or not.

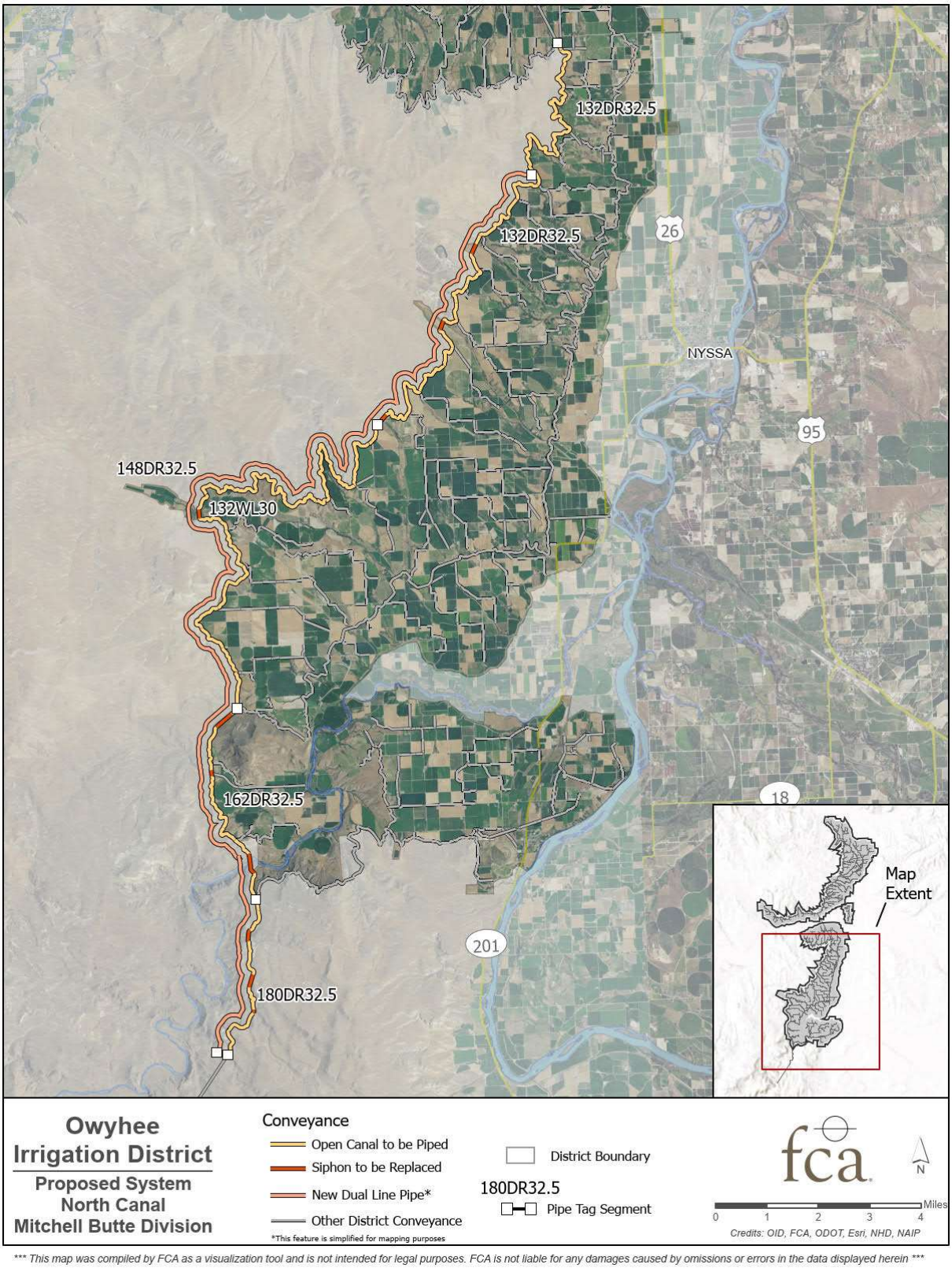

Figure 4-2. North Canal Delivery System Improvements – Mitchell Butte Division.

The Malheur Siphon conveys the North Canal across the Malheur Valley and was rehabilitated in 2019. The siphon is currently 80-inches in diameter. If the Malheur Siphon is replaced with 120-inch inner diameter, solid-wall HDPE pipe rated to 80 psi of static pressure, the upgraded siphon could provide enough pressure to power a turbine at its outlet. This turbine would serve the dual purpose of reducing pressure to five psi at the outlet and producing hydropower. An analysis of the hydroelectric potential at the Malheur Siphon is in Section 4.5.

After pressure is reduced to 5 psi at the outlet of the Malheur Siphon, the North Canal serves the Dead Ox Flat Division via a profile-wall 102-inch HDPE diameter pipe. Deliveries to laterals reduce flow rates and allow the North Canal pipeline to taper to 78-inch diameter profile-wall pipe by the time it crosses Jacobsen Gulch. According to the District, the capacity of the Jacobsen Gulch siphon currently limits staff's ability to meet patron demand in the Dead Ox Flat Division. Because flow rates would require large-diameter and costly pipe in the North Canal upstream of the Jacobsen Gulch Siphon, initial conversations with the District indicated that piping the North Canal downstream of the Jacobsen Gulch siphon may be the most cost-effective way to address the goals of the District.[1] The North Canal downstream of Jacobsen Gulch tapers from 72-inch profile-wall HDPE to 63-inch solid-wall HPDE near canal mile 57.4, where diminishing flows permit velocities below 5 fps with the smaller pipe size. At this point, the North Canal delivers low-pressure (5 psi) water via PRVs to laterals while tapering to 24-inch solid-wall HDPE until it meets the High Lift Lateral near canal mile 71. Figure 4-3 provides an overview of the proposed pipeline, which largely follows its existing alignment. Table 4-2 presents the capital costs associated with piping the North Canal.

[1] Because the Jacobsen Gulch Lateral captures surface water from operational spills, it was not included in the scope of the SIP.

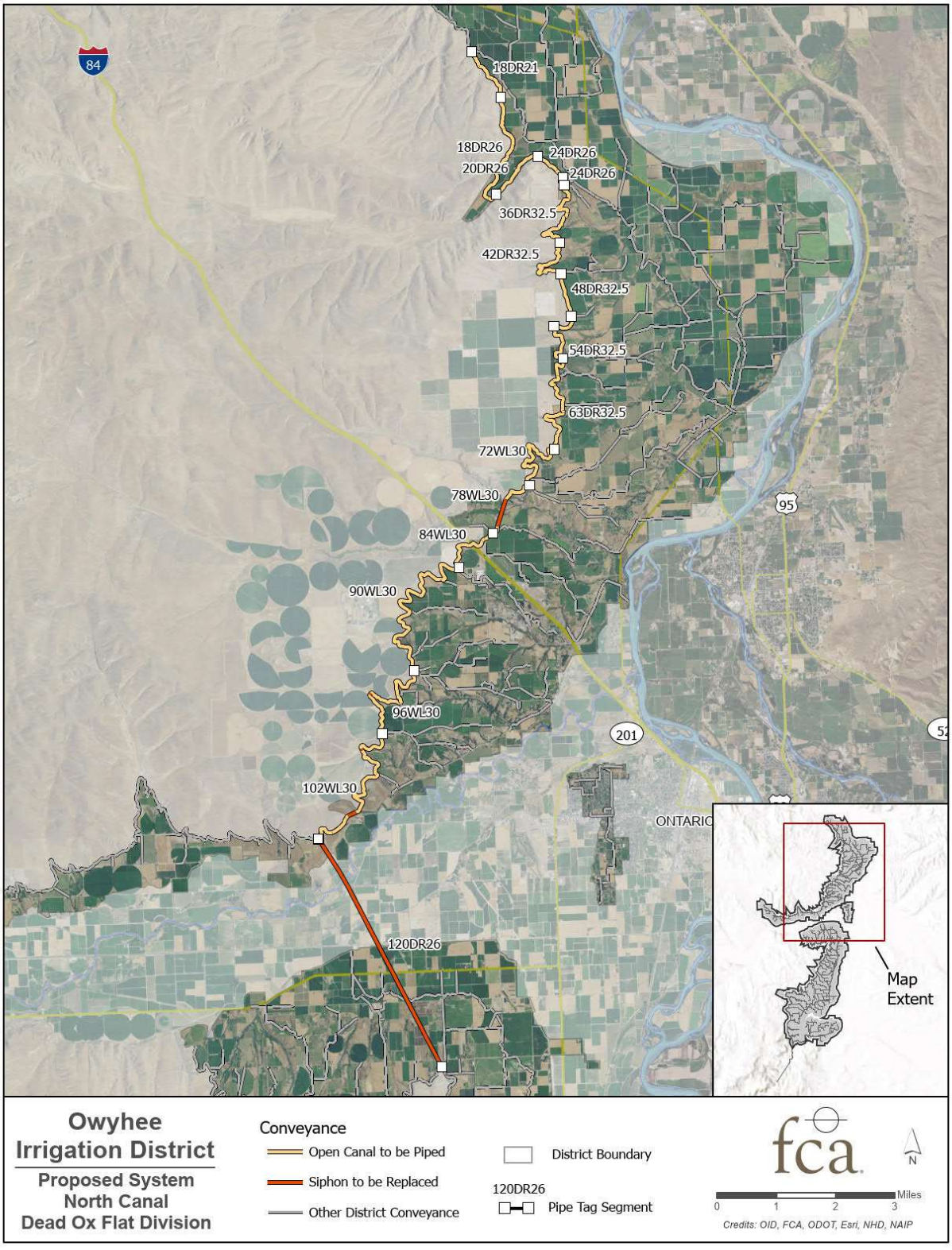

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Figure 4-3. North Canal Delivery System Improvements – Dead Ox Flat Division.

Table 4-2. Capital Costs for North Canal Delivery System Improvements.

CONVEYANCE	DIVISION OR SUB-DIVISION	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
North Canal	Mitchell Butte	$750,424,800	$45,025,500	$90,051,000	$265,650,400	$1,151,151,700
	Malheur Siphon	$73,150,000	$4,389,000	$8,778,000	$25,895,100	$112,212,100
	Dead Ox Flat above Jacobsen Gulch	$30,250,500	$1,815,000	$3,630,100	$10,708,700	$46,404,300
	Dead Ox Flat below Jacobsen Gulch	$22,376,200	$1,342,600	$2,685,100	$7,921,200	$34,325,100
	Total	$876,201,500	$52,572,100	$105,144,200	$310,175,400	$1,344,093,200

4.3.2 MITCHELL BUTTE DIVISION LATERALS

Proposed HDPE piping in the Mitchell Butte Division includes fully piping the Kingman Lateral, the Mitchell Butte Lateral, every lateral maintained by the District and served by the North Canal, and the Ontario-Nyssa Canal. The Ontario-Nyssa Canal may supply primary water rights with water at a delivery rate of 9.5 gpm/acre from the North Canal or supplemental water rights with water at a delivery rate of 5.6 gpm/acre from the Ontario-Nyssa Pumping Plant. The infrastructure design and associated hydraulic model accommodate either of these scenarios.

The Kingman Lateral begins as 84-inch, large-diameter, profile wall HDPE; diminishes to 78-inch large diameter, profile wall HDPE; and tapers to dual 63-inch solid wall HDPE where static pressures exceed 30 psi. At the split between the Kingman Lateral and Sub-lateral 5.4, a single 63-inch DR32.5 pipe serves each downstream branch. The Kingman Lateral includes 37.2 miles of proposed pipe as small as 4-inch nominal diameter and rated for static pressures up to 125 psi (DR 17). With the goal of utilizing pressurized deliveries to reduce pumping energy use, the Kingman Pump Lateral was tied to the Kingman Lateral in the hydraulic model, allowing the Kingman Pumping Plant to be decommissioned. The siphon on Kingman Sub-lateral 7.6-South (7.6S) is rated for static pressures up to 160 psi (DR 13.5) to maximize hydroelectric potential (see Section 4.5).

Although not currently available in Oregon, a single large diameter solid-wall HDPE pipe could instead be utilized to pipe the Kingman Lateral above Sub-lateral 5.4, potentially reducing head loss and/or cost by avoiding the need for a dual pipeline. Figure 4-4 shows proposed pipeline alignments in the Kingman Lateral, which largely follow existing alignments, as well as the location of necessary PRVs. Table 4-2 presents the capital costs associated with piping and pressurizing the Kingman Lateral.

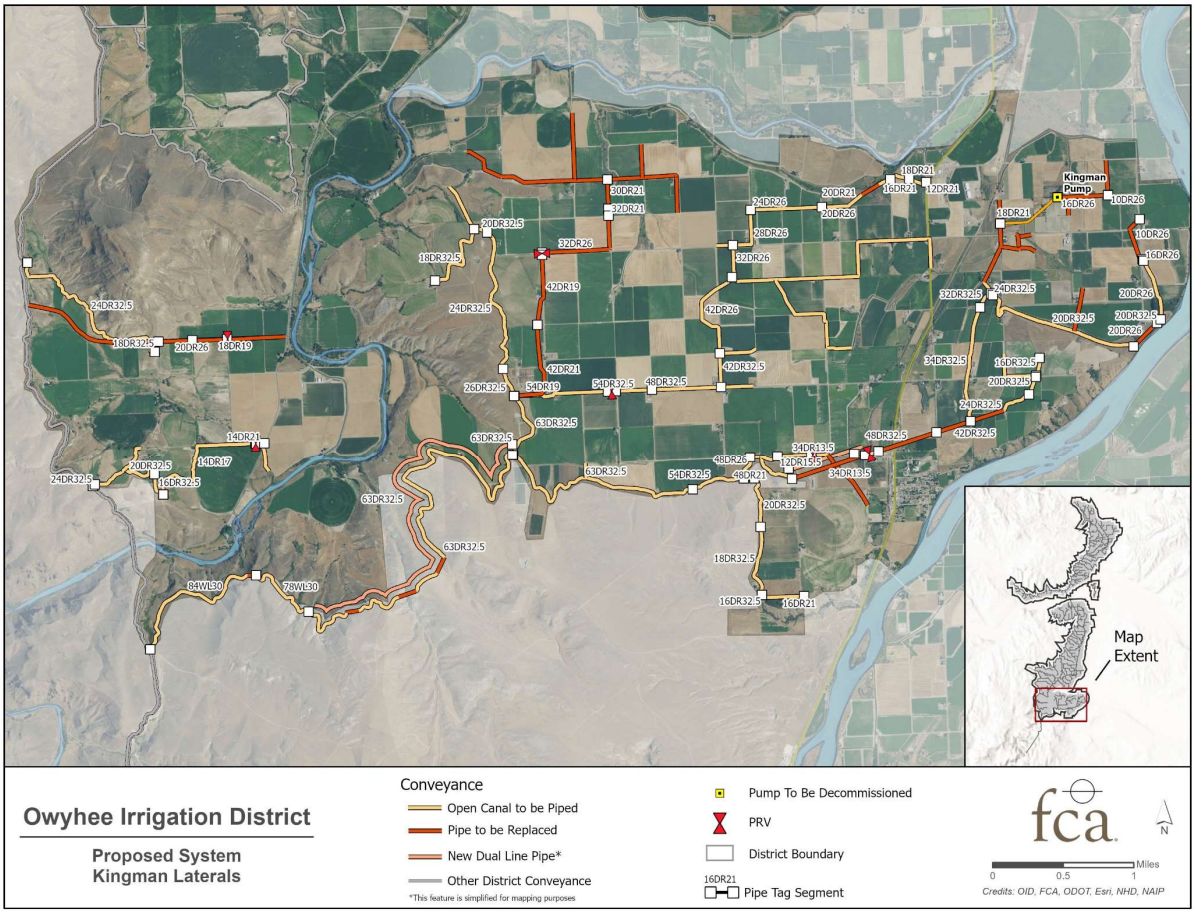

Figure 4-4. Delivery System Improvements – Kingman Lateral

Table 4-3. Capital Costs for Kingman Lateral Delivery System Improvements.

PIPELINE NAME	SUBLATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
Kingman	Kingman Lateral	$29,424,600	$1,765,500	$3,531,000	$10,416,300	$45,137,400
	5.4	$13,647,100	$818,800	$1,637,700	$4,831,100	$20,934,700
	6.2	$14,600	$900	$1,800	$5,200	$22,500
	7.4	$454,500	$27,300	$54,500	$160,900	$697,200
	7.6	$420,400	$25,200	$50,400	$148,800	$644,800
	7.6S	$300,000	$18,000	$36,000	$106,200	$460,200
	7.7	$277,300	$16,600	$33,300	$98,200	$425,400
	9.3	$1,691,000	$101,500	$202,900	$598,600	$2,594,000

PIPELINE NAME	SUBLATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
	10.0	$37,400	$2,200	$4,500	$13,200	$57,300
	Subtotal	$46,266,800	$2,776,000	$5,552,000	$16,378,400	$70,973,200
Kingman Pump	Kingman Pump Lateral	$336,700	$20,200	$40,400	$119,200	$516,500
	0.1	$18,300	$1,100	$2,200	$6,500	$28,100
	Subtotal	$355,000	$21,300	$42,600	$125,700	$544,600
	Total	$46,621,800	$2,797,300	$5,594,600	$16,504,100	$71,517,800

As well as serving 3,900 acres via 31.4 miles of mostly pressurized pipe, the Mitchell Butte Lateral is the largest interconnection between the North Canal and the Ontario-Nyssa Canal. A 1.6-mile section of large-diameter profile-wall HDPE convey the Mitchell Butte Lateral from its headgate to the District's existing hydroelectric power plant. Downstream of the plant, two 63-inch solid-wall pipelines serve the Mitchell Butte Lateral and its sub-laterals, as well as the Ontario-Nyssa Canal. When the Ontario-Nyssa Pumping Plant is discharging supplemental flows to the Ontario-Nyssa Canal, flow from Owyhee Reservoir reduces and one 63-inch pipeline of the Mitchell Butte dual pipeline closes. The District delivers water to lands with primary water rights via the remaining open pipeline. Like the Kingman dual pipeline, a single large-diameter solid-wall HDPE pipe could instead be used to pipe the Mitchell Butte Lateral below the hydroelectric facility, potentially reducing head loss and/or cost. Figure 4-5 shows proposed pipeline alignments in the Mitchell Butte Lateral, which largely follow existing alignments, as well as the location of necessary PRVs. Table 4-4 presents the capital costs associated with piping and pressurizing the Mitchell Butte Lateral.

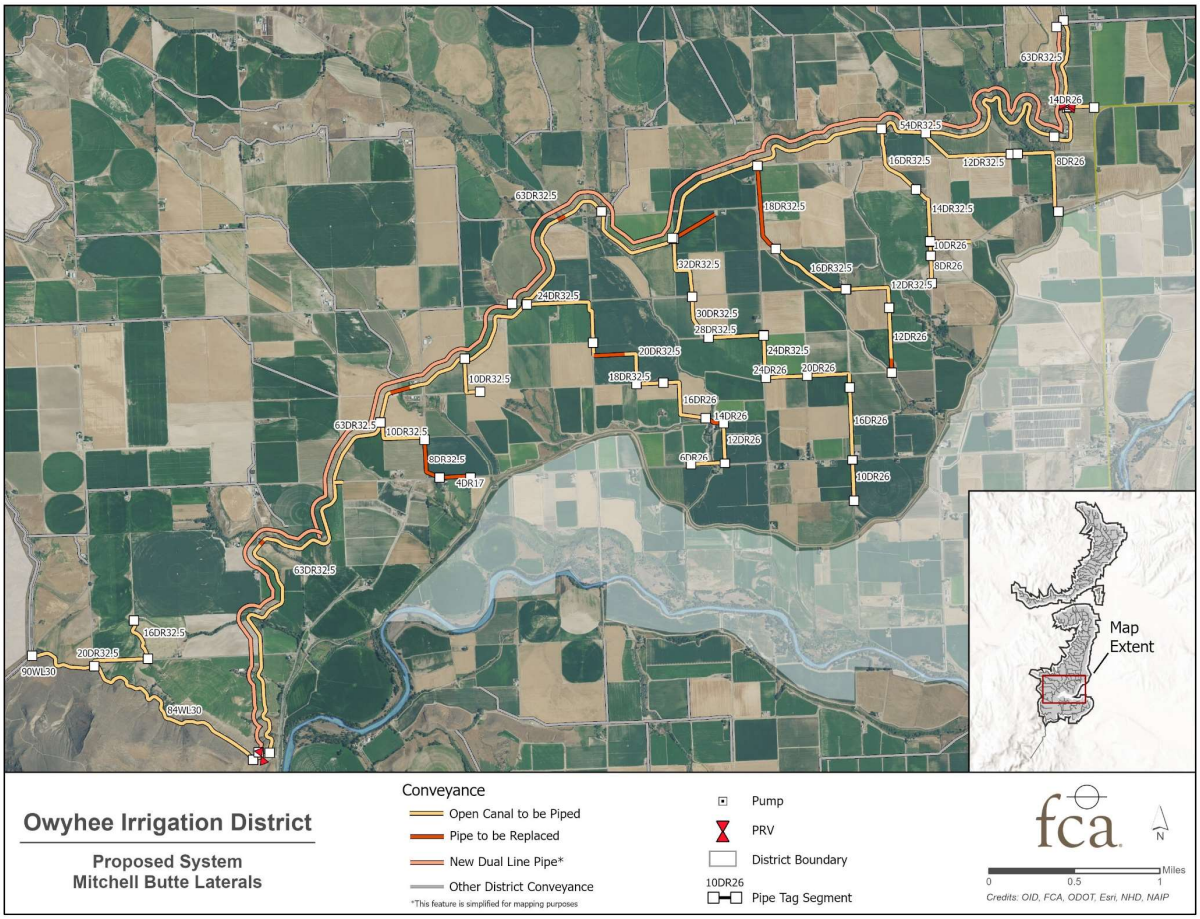

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Figure 4-5. Delivery System Improvements – Mitchell Butte Lateral

Table 4-4. Capital Costs for Mitchell Butte Lateral Delivery System Improvements.

PIPELINE NAME	SUBLATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
Mitchell Butte	Mitchell Butte Lateral	$44,173,100	$2,650,400	$5,300,800	$15,637,300	$67,761,600
	0.4	$207,200	$12,400	$24,900	$73,400	$317,900
	1.7	$300,000	$18,000	$36,000	$106,200	$460,200
	3.9	$1,600	$100	$200	$600	$2,500
	4.2	$20,700	$1,200	$2,500	$7,300	$31,700
	4.8	$90,400	$5,400	$10,800	$32,000	$138,600
	5.4	$43,400	$2,600	$5,200	$15,400	$66,600
	6.0	$801,600	$48,100	$96,200	$283,800	$1,229,700

PIPELINE NAME	SUBLATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
	7.5	$2,705,100	$162,300	$324,600	$957,600	$4,149,600
	8.5	$433,700	$26,000	$52,000	$153,500	$665,200
	9.1	$249,500	$15,000	$29,900	$88,300	$382,700
	9.4	$172,300	$10,300	$20,700	$61,000	$264,300
	11.0	$57,200	$3,400	$6,900	$20,300	$87,800
	Total	**$49,855,900**	**$2,955,400**	**$5,910,700**	**$17,436,600**	**$75,558,600**

Laterals north of the Mitchell Butte lateral that are served by the North Canal are designed to be solid-wall HDPE. Initial and final diameters vary depending on the number of irrigated acres served by the lateral. **Error! Reference source not found.** shows proposed pipeline alignments in the North Canal Laterals of the Mitchell Butte Division, which largely follow existing alignments, as well as the location of necessary PRVs. The largest laterals include laterals 25.4, 28.7, and 38.9 (Figure 4-7 and Figure 4-8).Table 4-5 presents the capital costs associated with piping and pressurizing the North Canal laterals.

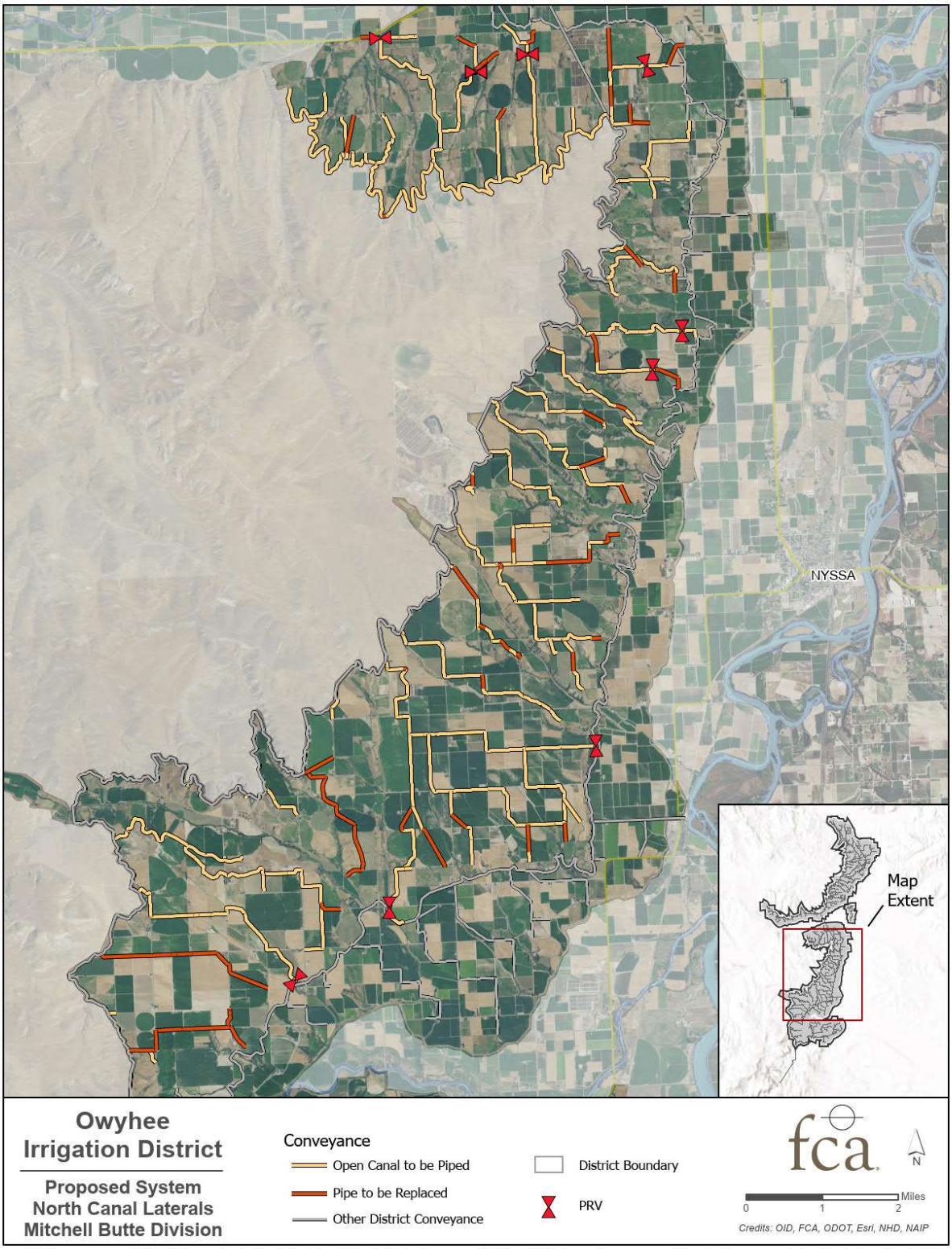

Figure 4-6. Delivery System Improvements – North Canal Laterals in the Mitchell Butte Division

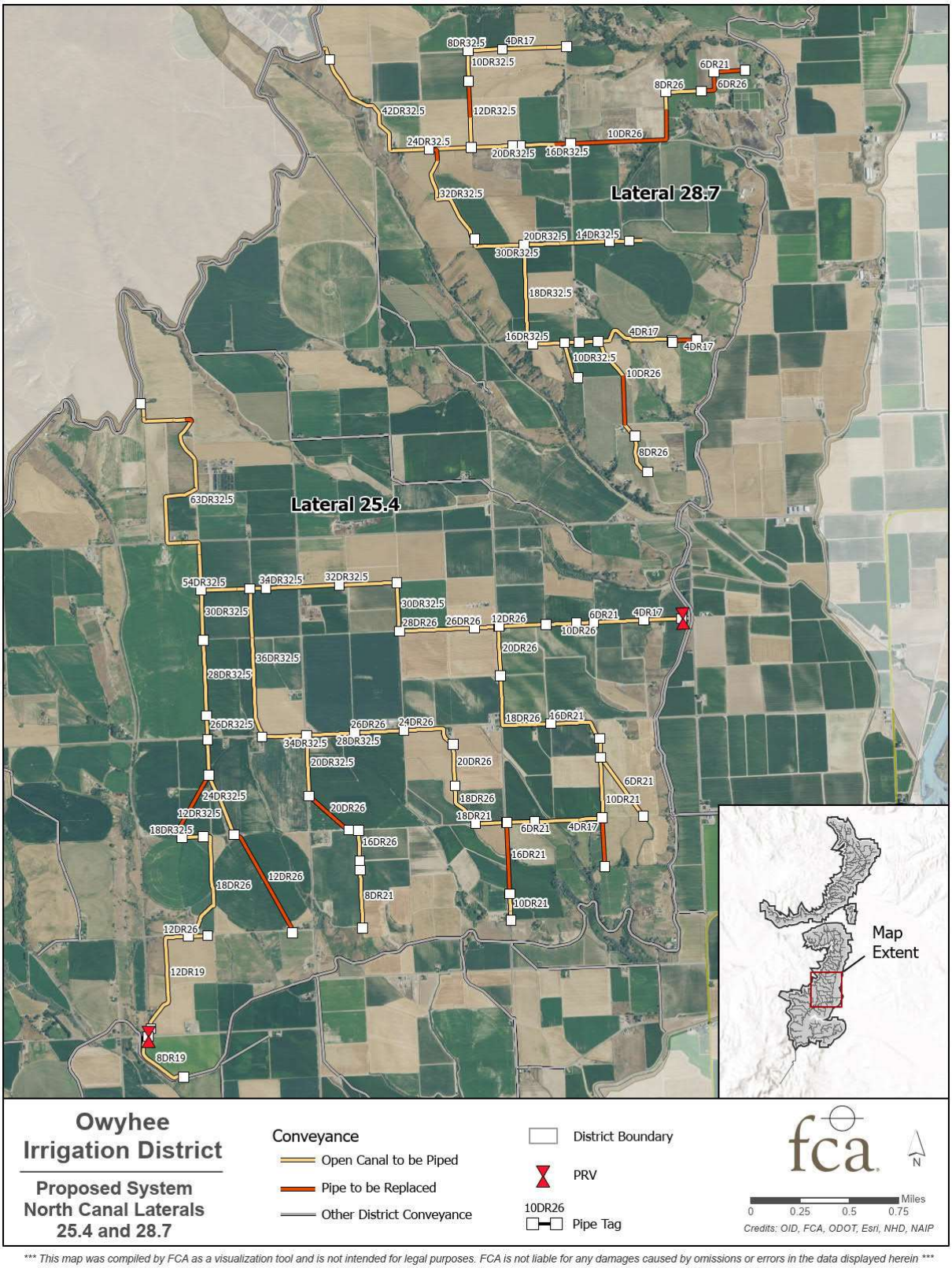

Figure 4-7. Delivery System Improvements – North Canal Laterals 25.4 and 28.7

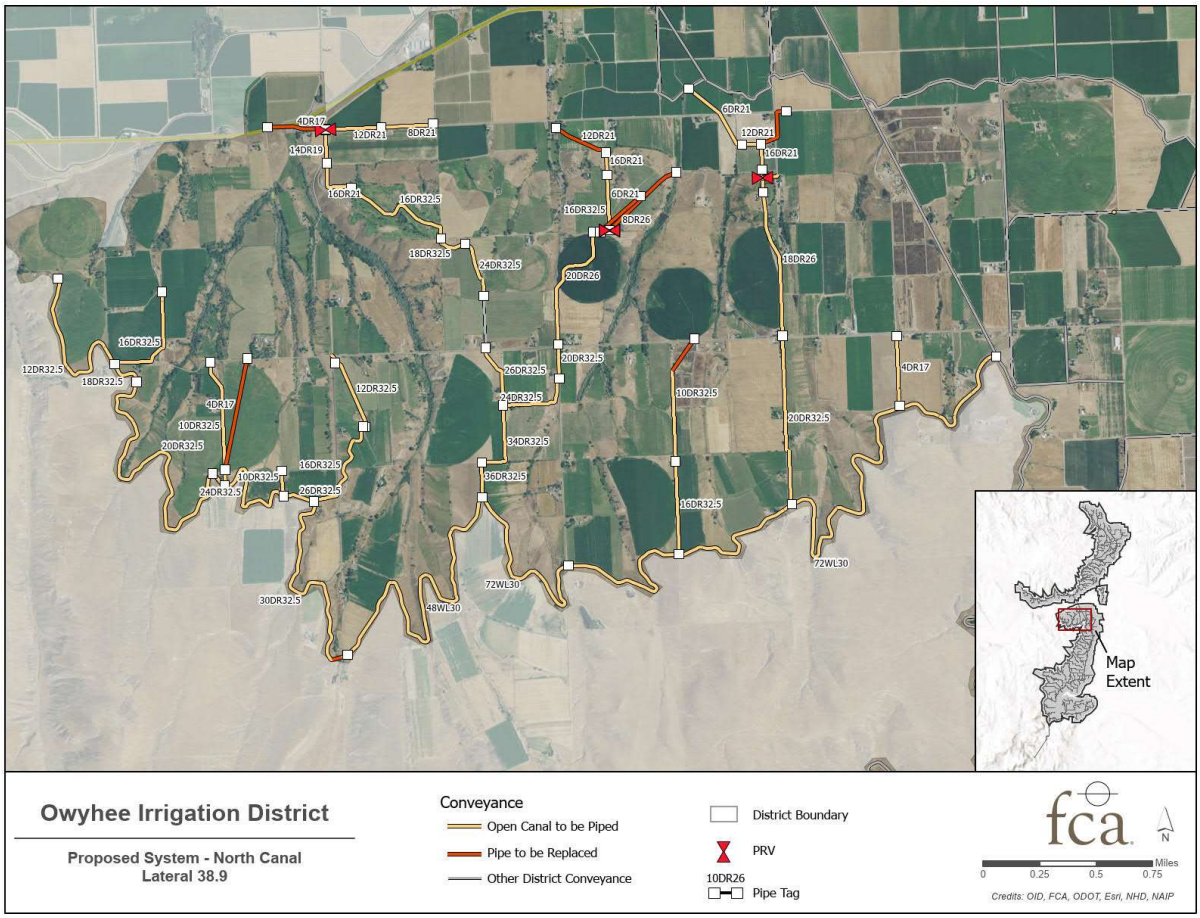

Figure 4-8. Delivery System Improvements – North Canal Lateral 38.9

Table 4-5. Capital Costs for Delivery System Improvements to North Canal Laterals in the Mitchell Butte Division.

PIPELINE NAME	LATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS
North Canal	5.3	$670,500	$40,200	$80,500	$237,400	$1,028,600
	7.3	$305,500	$18,300	$36,700	$108,200	$468,700
	8.5	$1,077,500	$64,700	$129,300	$381,500	$1,653,000
	10.5	$1,254,500	$75,300	$150,500	$444,100	$1,924,400
	11.0	$20,500	$1,200	$2,500	$7,300	$31,500
	12.4P	$1,337,300	$80,200	$160,500	$473,400	$2,051,400
	13.6	$1,185,500	$71,100	$142,300	$419,700	$1,818,600

PIPELINE NAME	LATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS
	14.5	$4,104,100	$246,200	$492,500	$1,452,800	$6,295,600
	18.6	$11,100	$700	$1,300	$3,900	$17,000
	19.9	$13,600	$800	$1,600	$4,800	$20,800
	20.3	$192,200	$11,500	$23,100	$68,000	$294,800
	22.8	$981,900	$58,900	$117,800	$347,600	$1,506,200
	24.1	$56,800	$3,400	$6,800	$20,100	$87,100
	25.4	$9,335,600	$560,100	$1,120,300	$3,304,800	$14,320,800
	26.4	$1,249,600	$75,000	$149,900	$442,400	$1,916,900
	27.8	$377,200	$22,600	$45,300	$133,500	$578,600
	28.7	$2,983,400	$179,000	$358,000	$1,056,100	$4,576,500
	29.7	$63,900	$3,800	$7,700	$22,600	$98,000
	30.2	$326,200	$19,600	$39,100	$115,500	$500,400
	31.0	$1,230,100	$73,800	$147,600	$435,500	$1,887,000
	31.5	$339,700	$20,400	$40,800	$120,300	$521,200
	32.2	$608,900	$36,500	$73,100	$215,600	$934,100
	33.1	$511,500	$30,700	$61,400	$181,100	$784,700
	33.1S	$589,800	$35,400	$70,800	$208,800	$904,800
	35.1	$378,600	$22,700	$45,400	$134,000	$580,700
	35.7	$59,600	$3,600	$7,100	$21,100	$91,400
	37.6	$910,400	$54,600	$109,200	$322,300	$1,396,500
	38.7	$872,100	$52,300	$104,700	$308,700	$1,337,800
	38.9	$14,604,600	$876,300	$1,752,500	$5,170,000	$22,403,400
	39.8	$120,100	$7,200	$14,400	$42,500	$184,200
	Total	$45,772,300	$2,746,100	$5,492,700	$16,203,600	$70,214,700

The District may supply the Ontario-Nyssa Canal with water for supplemental water rights via the Ontario-Nyssa Pumping Plant or for primary water rights via the Mitchell Butte Lateral. The dual 63-inch pipeline at the terminus of the Mitchell Butte Lateral becomes the Ontario-Nyssa Canal when it meets the supply pipeline of the Ontario-Nyssa Pumping Plant, also dual 63-inch solid-wall HDPE. When supplying irrigation water at 9.5 gpm/acre to primary water rights, one pipeline in the Ontario-Nyssa supply line is shut down while the other serves patrons in reverse near the Ontario-Nyssa plant. When supplying irrigation water at 5.6 gpm/acre to supplemental

water rights, both supply pipes pump irrigation water into the Ontario-Nyssa Canal dual-pipelines until canal mile 3.7, when water deliveries to patrons allow water velocities below 5 fps in a single 63-inch diameter solid-wall pipe. Due to the flat nature of the Ontario-Nyssa Canal, pipe diameters taper slowly to minimize friction losses and sustain usable pressure for deliveries.

Piping the Ontario-Nyssa Canal would limit the ability of the District to capture return flows for re-use. As pressurized deliveries resulting from completed piping projects may incrementally encourage patrons to switch to water-efficient sprinkler and drip applications, return flows in OID may decline. As such, the District may choose to leave the Ontario-Nyssa Canal as an open channel for capturing return flows until higher-priority piping projects are completed upstream. Figure 4-9 shows proposed pipeline alignments in the Ontario-Nyssa Pipeline, which largely follow existing alignments, as well as the location of necessary PRVs. Table 4-6 presents the capital costs associated with piping and pressurizing the Ontario-Nyssa Canal.

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Figure 4-9. Delivery System Improvements – Ontario-Nyssa Canal

Table 4-6. Capital Costs for Ontario-Nyssa Canal Delivery System Improvements.

PIPELINE NAME	LATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
Ontario-Nyssa	Ontario-Nyssa Canal	$43,071,500	$2,584,300	$5,168,600	$15,247,300	$66,071,700
	0.1	$59,600	$3,600	$7,200	$21,100	$91,500
	0.3	$343,300	$20,600	$41,200	$121,500	$526,600
	0.5	$600,000	$36,000	$72,000	$212,400	$920,400
	3.7	$6,164,100	$369,800	$739,700	$2,182,100	$9,455,700
	12.6	$15,200	$900	$1,800	$5,400	$23,300
	13.2	$79,600	$4,800	$9,500	$28,200	$122,100
	13.9	$174,500	$10,500	$20,900	$61,800	$267,700
	17.9	$108,800	$6,500	$13,100	$38,500	$166,900
	18.2	$92,900	$5,600	$11,200	$32,900	$142,600
	19.4	$63,000	$3,800	$7,600	$22,300	$96,700
	19.9	$111,600	$6,700	$13,400	$39,500	$171,200
	Total	$50,884,100	$3,053,000	$6,106,100	$18,013,000	$78,056,200

4.3.3 DEAD OX FLAT DIVISION

Proposed HDPE piping in the Dead Ox Flat Division includes fully piping laterals served by the North Canal and those served by the Dead Ox Flat Pumping Plant: the Lower Lift, Middle Lift, Crystal Lift, and High Lift laterals. For the purpose of this SIP, interconnections between North Canal and the High Lift Lateral exist at the 60.0 Lateral and at approximately mile 71 on the North Canal, but no flow is exchanged at either. Instead, at the direction of the District, the North Canal laterals are sized for 9.5 gpm/acre and served entirely by the North Canal while the Lift laterals are sized for 5.6 gpm/acre and served entirely by the Dead Ox Flat Pumping Plant.

Laterals in the Dead Ox Flat Division served by the North Canal are all solid-wall HDPE. Initial and final diameters vary depending on the number of irrigated acres served by the lateral. Figure 4-10 shows proposed pipeline alignments of North Canal Laterals in the Dead Ox Flat Division, which largely follow existing alignments, as well as the location of necessary PRVs. The largest laterals include laterals 43.2, 55.6, and 60.0 (Figure 4-11 and Figure 4-12). Table 4-7 presents the capital costs associated with piping and pressurizing the North Canal laterals in the Dead Ox Flat Division.

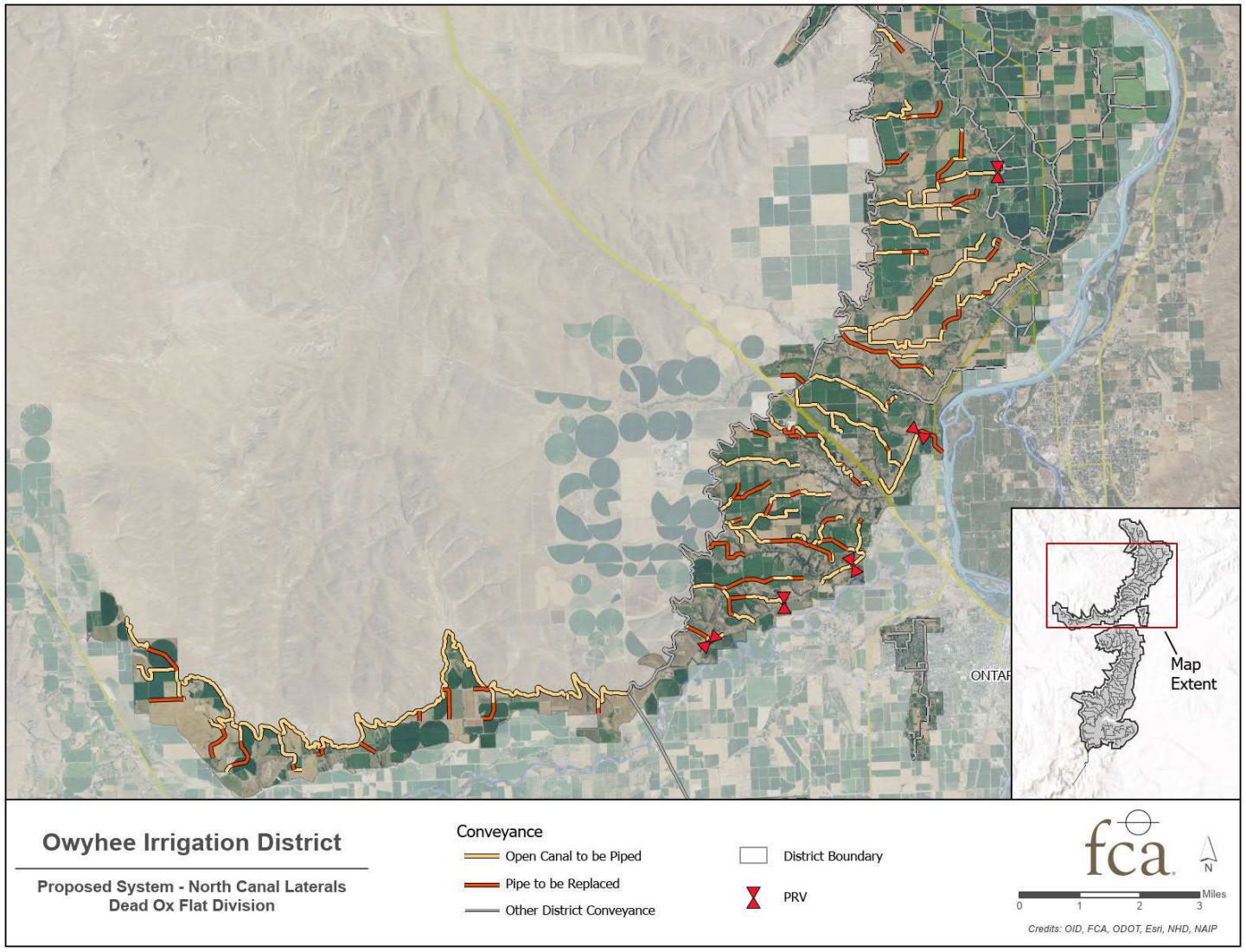

Figure 4-10. Delivery System Improvements – North Canal Laterals near the Outlet of the Malheur Siphon

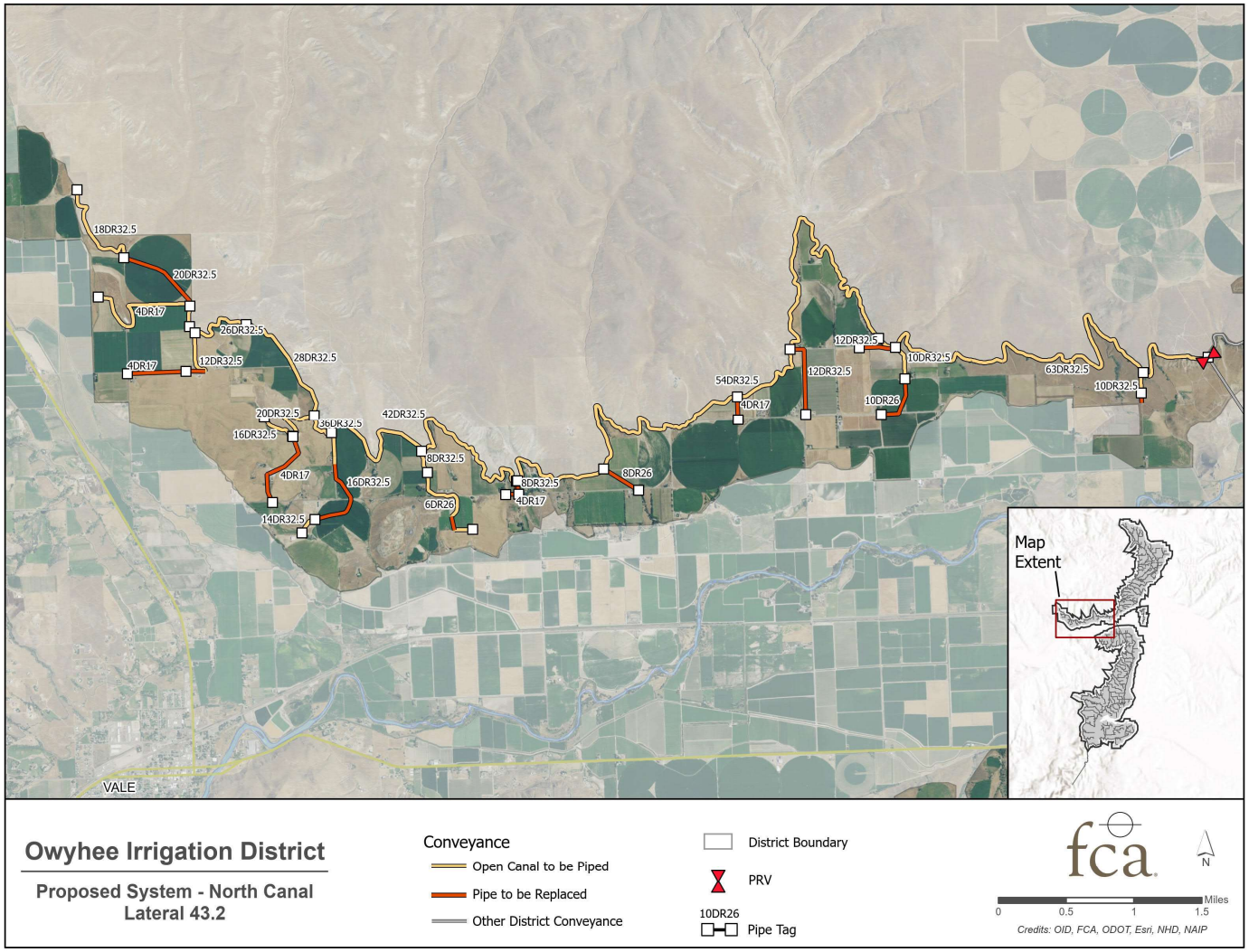

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Figure 4-11. Delivery System Improvements – North Canal Lateral 43.2.

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Figure 4-12. Delivery System Improvements – North Canal Laterals 55.6 and 60.0.

Table 4-7. Capital Costs for Delivery System Improvements to North Canal Laterals in the Dead Ox Flat Division.

PIPELINE NAME	LATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
North Canal	43.2	$25,103,900	$1,506,200	$3,012,500	$8,886,800	$38,509,400
	45.4	$148,800	$8,900	$17,900	$52,700	$228,300
	46.7	$865,100	$51,900	$103,800	$306,200	$1,327,000
	48.3	$59,300	$3,600	$7,100	$21,000	$91,000
	49.2	$2,865,300	$171,900	$343,800	$1,014,300	$4,395,300
	49.4	$305,800	$18,300	$36,700	$108,200	$469,000
	50.8	$315,600	$18,900	$37,900	$111,700	$484,100
	52.5	$49,000	$2,900	$5,900	$17,300	$75,100
	53.2	$477,000	$28,600	$57,200	$168,800	$731,600
	54.2	$1,244,800	$74,700	$149,400	$440,700	$1,909,600
	54.3	$87,300	$5,200	$10,500	$30,900	$133,900
	54.4	$688,900	$41,300	$82,700	$243,900	$1,056,800
	55.5	$373,900	$22,400	$44,900	$132,400	$573,600
	55.6	$4,007,400	$240,400	$480,900	$1,418,600	$6,147,300
	58.7	$156,700	$9,400	$18,800	$55,500	$240,400
	59.5	$221,500	$13,300	$26,600	$78,400	$339,800
	60.0	$1,993,500	$119,600	$239,200	$705,700	$3,058,000
	61.3	$105,200	$6,300	$12,600	$37,200	$161,300
	62.1	$391,900	$23,500	$47,000	$138,700	$601,100
	64.7	$113,500	$6,800	$13,600	$40,200	$174,100
	Total	$39,574,400	$2,374,100	$4,749,000	$14,009,200	$60,706,700

The District delivers supplemental water from the Dead Ox Flat Pumping Plant to the Lower, Middle, and High Lift laterals via a 72-inch profile-wall HDPE pipe (Figure 4-13). The High Lift Lateral conveys over 60 cfs through a 63-inch solid-wall HDPE pipe that tapers as deliveries are made to sub-laterals over nearly 12 miles. The Middle Lift Lateral conveys over 45 cfs through a 48-inch solid-wall HDPE pipe for 1.5 miles until it meets the Crystal Lift Lateral, then tapers in diameter while delivering to sub-laterals. The Crystal Lateral begins as 28-inch solid-wall HDPE and conveys a maximum of 16.3 cfs. The Lower Lift Lateral begins as 18-inch solid-wall HDPE

and conveys a maximum of 5.8 cfs. Table 4-8 presents the capital costs associated with piping and pressurizing the laterals supplied by the Dead Ox Flat Pumping Plant.

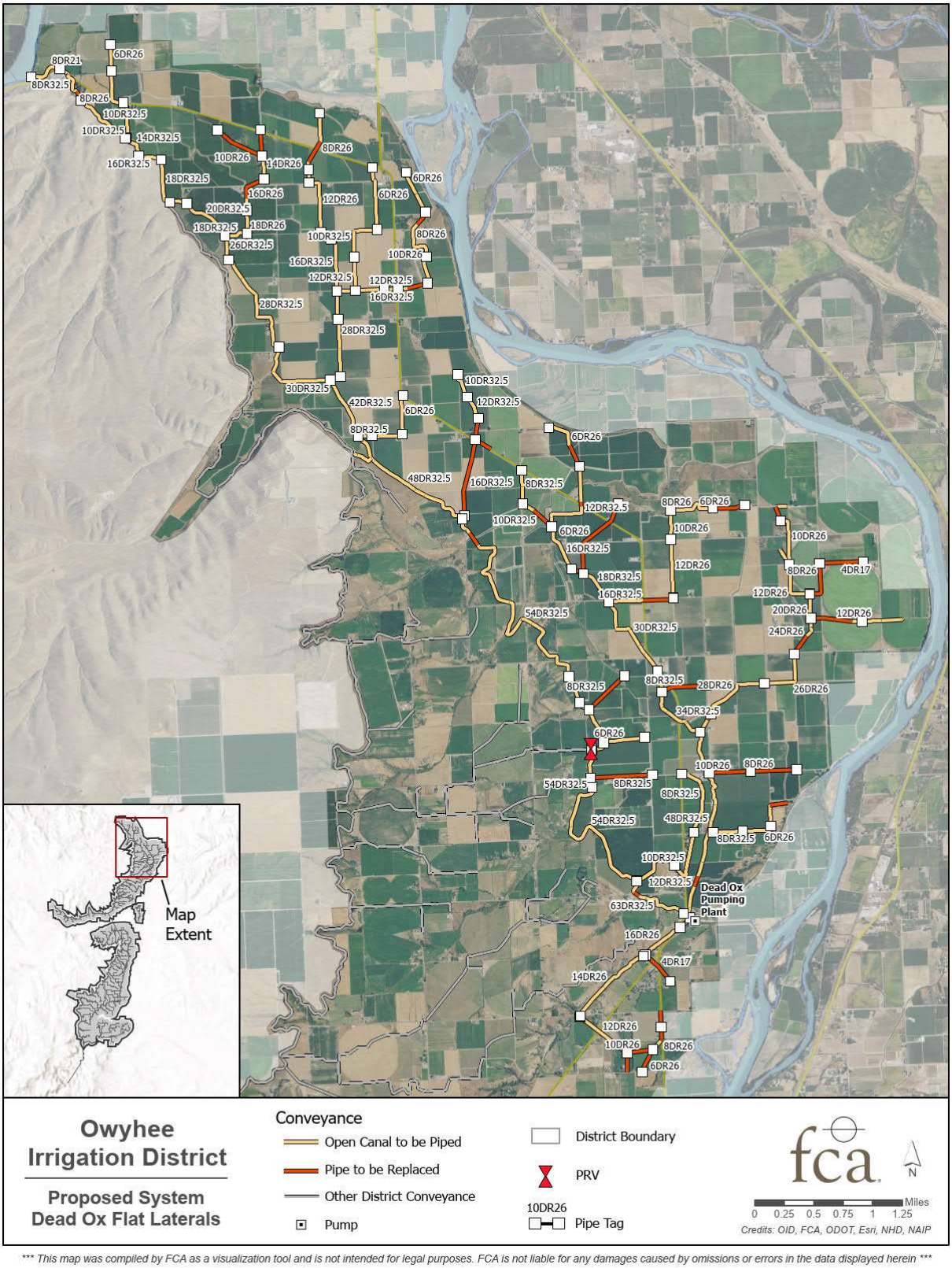

Figure 4-13. Delivery System Improvements – Dead Ox Flat Laterals.

Table 4-8. Capital Costs for Lower, Middle, High and Crystal Lift Delivery System Improvements.

LATERAL	SUBLATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
Lower Lift	Lower Lift Lateral	$626,700	$37,600	$75,200	$221,900	$961,400
	0.6	$9,800	$600	$1,200	$3,500	$15,100
	1.8	$15,600	$900	$1,900	$5,500	$23,900
	2.0	$33,700	$2,000	$4,000	$11,900	$51,600
	Subtotal	$685,800	$41,100	$82,300	$242,800	$1,052,000
Middle Lift	Middle Lift Lateral	$4,239,100	$254,300	$508,700	$1,500,600	$6,502,700
	0.7	$95,500	$5,700	$11,500	$33,800	$146,500
	1.3	$98,000	$5,900	$11,800	$34,700	$150,400
	2.0	$40,200	$2,400	$4,800	$14,200	$61,600
	3.1	$379,100	$22,700	$45,500	$134,200	$581,500
	3.4	$46,000	$2,800	$5,500	$16,300	$70,600
	4.0	$174,500	$10,500	$20,900	$61,800	$267,700
	4.1	$96,800	$5,800	$11,600	$34,300	$148,500
	Subtotal	$5,169,300	$310,200	$620,300	$1,829,900	$7,929,700
High Lift	High Lift Lateral	$14,171,600	$850,300	$1,700,600	$5,016,800	$21,739,300
	0.0	$8,500	$500	$1,000	$3,000	$13,000
	0.9	$263,000	$15,800	$31,600	$93,100	$403,500
	2.5	$49,100	$2,900	$5,900	$17,400	$75,300
	2.7P	$66,500	$4,000	$8,000	$23,600	$102,100
	2.9	$32,200	$1,900	$3,900	$11,400	$49,400
	3.7	$402,200	$24,100	$48,300	$142,400	$617,000
	5.5	$327,200	$19,600	$39,300	$115,800	$501,900
	6.4	$67,500	$4,000	$8,100	$23,900	$103,500
	6.7	$68,500	$4,100	$8,200	$24,200	$105,000
	7.2	$600,500	$36,000	$72,100	$212,600	$921,200

	7.2E	$307,000	$18,400	$36,800	$108,700	$470,900
	7.2M	$169,500	$10,200	$20,300	$60,000	$260,000
	7.2W	$332,200	$19,900	$39,900	$117,600	$509,600
	9.4	$367,900	$22,100	$44,100	$130,200	$564,300
	9.4P	$69,400	$4,200	$8,300	$24,600	$106,500
	10.0	$46,200	$2,800	$5,500	$16,400	$70,900
	10.8	$102,900	$6,200	$12,300	$36,400	$157,800
	Subtotal	$17,451,800	$1,047,100	$2,094,200	$6,177,900	$26,771,000
Crystal Lift	Crystal Lift Lateral	$1,262,200	$75,700	$151,500	$446,800	$1,936,200
	1.74	$127,800	$7,700	$15,300	$45,200	$196,000
	1.84	$218,500	$13,100	$26,200	$77,300	$335,100
	Subtotal	$1,608,600	$96,500	$193,000	$569,400	$2,467,500
	Total	$24,915,500	$1,494,900	$2,989,800	$8,820,000	$38,220,200

4.3.4 NORTH AND SOUTH ADVANCEMENTS

The North and South Advancements serve a subdivision of the City of Ontario via two pumps. The South Advancement pumping station (modeled at 32 hp) conveys 2.9 cfs through a 16-inch solid-wall HDPE pipeline that tapers to an 8-inch diameter before meeting the North Advancement. The North Advancement pumping station (modeled at 38 hp) conveys 2.2 cfs via a 10-inch solid-wall HDPE pipe that tapers as deliveries are made to patrons. PRVs at the intersection of the South Advancement and supply pipe from the North Advancement pumping station match the water pressure of each so that flows may intermingle. Figure 4-14 provides an overview of the proposed pipeline alignments of the North and South Advancements, which largely follow existing alignments, as well as the location of necessary PRVs.

Table 4-9 presents the capital costs associated with piping and pressurizing the laterals supplied by the North and South Advancements.

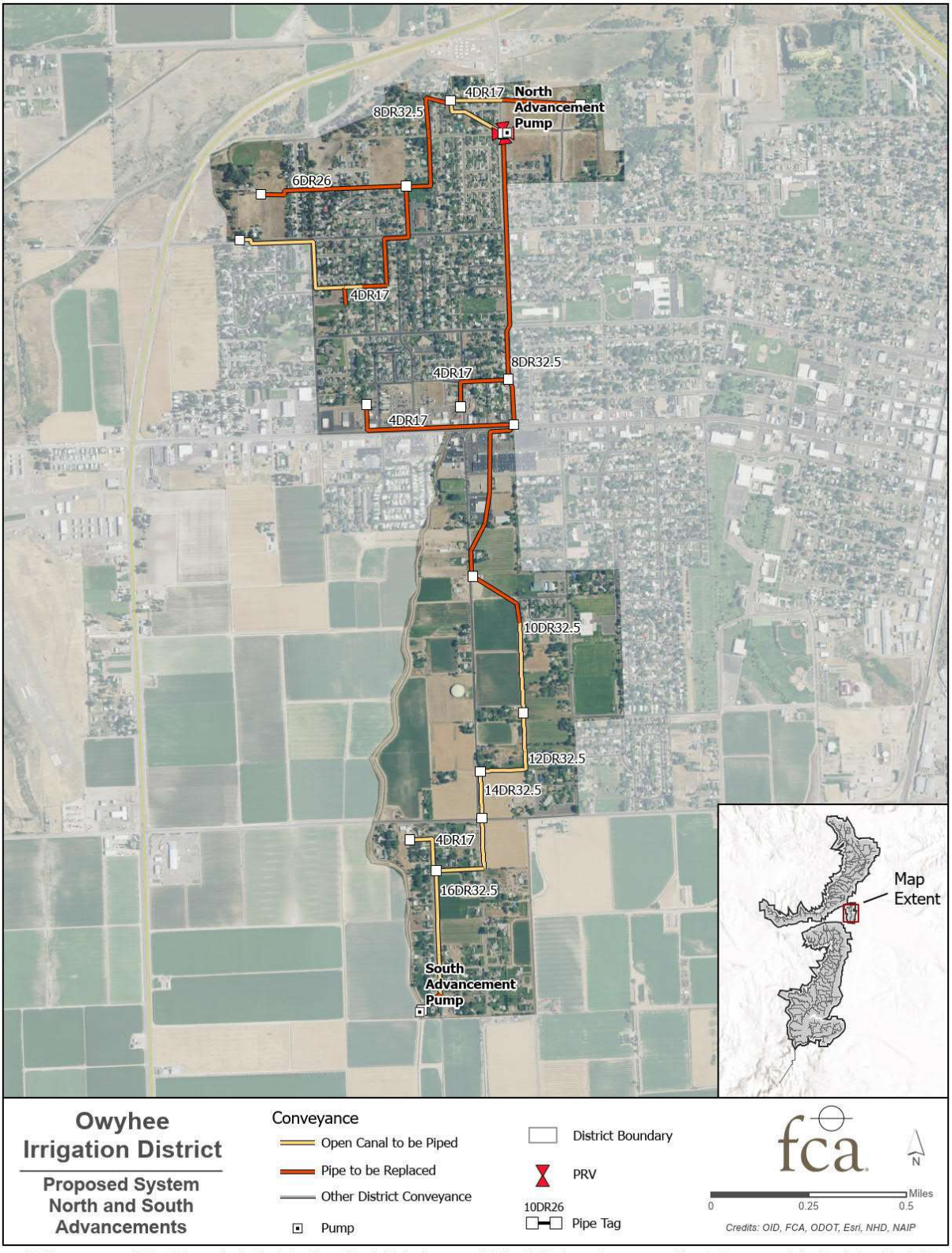

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Figure 4-14. Delivery System Improvements – North and South Advancements.

Table 4-9. Capital Costs for North and South Advancements Delivery System Improvements.

PIPELINE NAME	LATERAL OR SUB-LATERAL	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COSTS[2]
South Advancement	South Advancement	$564,700	$33,900	$67,800	$199,900	$866,300
	0.5	$12,700	$800	$1,500	$4,500	$19,500
	2.3	$22,100	$1,300	$2,700	$7,800	$33,900
	2.5	$14,000	$800	$1,700	$5,000	$21,500
	Subtotal	$613,500	$36,800	$73,600	$217,200	$941,100
North Advancement	North Advancement	$99,500	$6,000	$11,900	$35,200	$152,600
	0.0	$45,300	$2,700	$5,400	$16,000	$69,400
	0.2E	$50,600	$3,000	$6,100	$17,900	$77,600
	0.4	$33,700	$2,000	$4,000	$11,900	$51,600
	1.0	$1,400	$100	$200	$500	$2,200
	Subtotal	$230,600	$13,800	$27,700	$81,600	$353,700
	Total	$844,000	$50,600	$101,300	$298,800	$1,294,700

4.4 ENERGY IMPROVEMENTS

The improvements proposed by this SIP would utilize the potential energy of the water delivery system in the following two ways:

- Enhancing on-farm energy conservation by providing pressurized deliveries that can offset or eliminate pumping costs.
- Providing hydroelectric energy generation potential through the pressurized pipeline.

4.4.1 ON-FARM ENERGY CONSERVATION

The elevation differential between a water source and a delivery point produces pressure that can be repurposed by users to offset or eliminate their pumping needs. Pressurizing conveyances through piping promotes energy conservation by reducing existing pumping requirements for irrigators and irrigation districts. The resulting dynamic pressure for each user depends on their irrigation demands and their relative elevation in the piped system. Dynamic pressure is usable pressure after accounting for friction loss in pipes. The greatest friction loss occurs when the system is at capacity, delivering the maximum rate to each landowner. FCA completed this analysis assuming all users' maximum irrigation demands occurred simultaneously. Because this scenario is unlikely occur due to the variability of deliveries throughout the District, dynamic pressures will likely be greater than the pressures estimated in the model. Accordingly, these analyses present conservative estimates of energy conservation.

When developing the hydraulic model, FCA placed PRVs and applied PRV settings at the recommendation of the District to ensure that pressures would be comparable or greater for patrons on existing piped laterals. However, FCA acknowledges that the pressures that patrons experience in the existing system and the actual pressures that they would experience in the proposed system may deviate from the estimates in the hydraulic model; therefore, the placement and settings of PRVs should be re-evaluated when a detailed design is completed for each lateral.

4.4.1.1 Methodology

The following assumptions were used to estimate private patron (on-farm) energy requirements:

- In an average water year, 229,752 af (or 3.42 af/acre) are available for on-farm deliveries (Figure 4-15)
- Average efficiency of on-farm pumps is 60%
- The District supplies water 20 hours a day for the entirety of their irrigation season (averaging 194 days between 2014 and 2018)
- According to the District's WMCP (OID 2018), 40.9% of land is irrigated using sprinklers or drip lines
- A minimum pressure of 50 psi eliminates pumping requirements

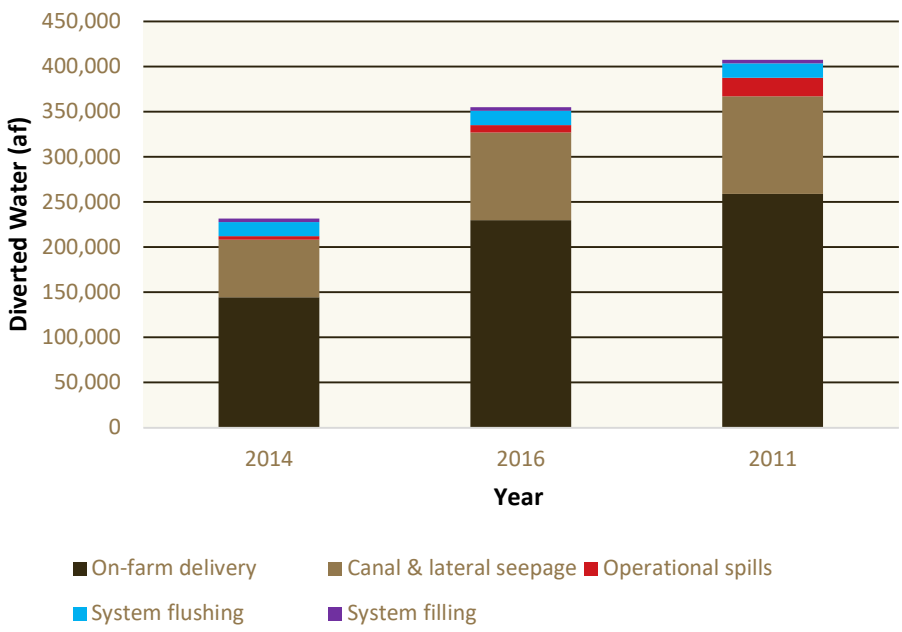

Figure 4-15. Use of Diverted Water in Owyhee Irrigation District in Low (2014), Average (2016), and High (2011) Water Supply Years (OID 2018).

On-farm energy consumption was estimated using average on-farm water use described above (Figure 4-15) and hydraulic model outputs of dynamic pressure and irrigated acreage at every delivery point. FCA assumed that a minimum dynamic pressure of 50 psi eliminates on-farm pumping requirements. Because dynamic pressure varies with distance along a pipeline and with turnout elevation, the pressure experienced at every turnout is different, as indicated by the hydraulic model. Where pressures exceeded 50 psi for individual patrons, 50 psi was used to quantify the reduction in energy consumption by individual patrons due to modernization. For patrons where partial pressurization (i.e., pressures less than 50 psi) was anticipated, the proportionate fraction of energy savings was applied. Deliveries on existing pipelines documented in the existing system were not included as conserved energy, under the conservative assumption that patrons on existing pipelines already receive pressurized deliveries.

4.4.1.2 Results

Although a large proportion of lands (59.1%) are currently flood irrigated, gravity-pressurizing deliveries for patrons who currently pressurize their own deliveries using individual pumps could save up to 5,781,600 kWh/year (Table 4-10). As laterals are piped and flood irrigators convert to pressurized deliveries, an even larger potential for energy conservation could be realized, up to 14,136,000 kWh/year. An additional 115,700 kWh could be saved by tying the Kingman Pump Lateral to the Kingman Lateral, decommissioning the Kingman Pumping Plant. The largest potential energy conservation in the Mitchell Butte Division exists at the Kingman, Mitchell Butte, and North Canal 25.4 and 38.9 laterals (Table 4-10). The laterals in the Dead Ox Flat Division with the largest energy conservation potential are the North Canal 43.2, Middle Lift and High Lift laterals. Detailed calculations of energy conservation by lateral and sub-lateral

appear in Appendix F

Energy Conservation Detailed Table.

Table 4-10. Summary of Estimated On-Farm Energy Savings.

DIVISION OR SUB-DIVISION	CONVEYANCE OR LATERAL	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
Mitchell Butte	Kingman Lateral[1]	737,700	1,803,700
	Mitchell Butte Lateral[2]	515,000	1,259,200
	North Canal	152,200	372,200
	5.3 Lateral	42,000	102,800
	8.5 Lateral	29,700	72,700
	11.0 Lateral	4,900	12,000
	13.6 Lateral	71,000	173,500
	14.5 Lateral	167,500	409,500
	20.3 Lateral	24,300	59,400
	24.1 Lateral	19,700	48,200
	25.4 Lateral	594,000	1,452,300
	26.4 Lateral	103,400	252,900
	27.8 Lateral	30,800	75,300
	28.7 Lateral	176,200	430,700
	29.7 Lateral	8,700	21,300
	30.2 Lateral	46,200	112,900
	31.0 Lateral	75,300	184,200
	31.5 Lateral	25,600	62,700
	32.2 Lateral	41,600	101,700
	33.1 Lateral	68,200	166,800
	33.1S Lateral	43,800	107,000
	35.1 Lateral	43,500	106,400

DIVISION OR SUB-DIVISION	CONVEYANCE OR LATERAL	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
	37.6 Lateral	95,500	233,400
	38.7 Lateral	119,300	291,600
	38.9 Lateral	393,300	961,500
	39.8 Lateral	6,700	16,300
	Ontario-Nyssa Canal[2]	421,000	1,029,400
Dead Ox Flat (above Jacobsen Gulch)	North Canal	26,400	64,600
	43.2 Lateral	198,300	484,900
	45.4 Lateral	9,600	23,500
	46.7 Lateral	28,400	69,400
	49.2 Lateral	102,000	249,500
	49.4 Lateral	6,500	16,000
	50.8 Lateral	17,300	42,200
	53.2 Lateral	15,500	37,900
	54.2 Lateral	73,400	179,400
	54.4 Lateral	53,600	131,000
Dead Ox Flat (below Jacobsen Gulch)	North Canal	168,800	412,700
	55.5 Lateral	5,800	14,300
	55.6 Lateral	154,300	377,300
	58.7 Lateral	19,000	46,400
	59.5 Lateral	13,900	34,100
	60.0 Lateral	128,000	312,900
	62.1 Lateral	18,000	44,000
	Lower Lift Lateral	44,500	108,800

DIVISION OR SUB-DIVISION	CONVEYANCE OR LATERAL	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
	Middle Lift Lateral	208,900	510,800
	High Lift Lateral	302,500	739,600
Advancements	Crystal Lift	114,400	279,700
	South Advancement	12,400	30,200
	North Advancement	3,100	7,700
	Total	**5,781,600**	**14,136,000**

Notes:

1. By interconnecting the Kingman Pump Lateral with Kingman Lateral 7.6-9.6N, the Kingman Pump could be decommissioned, saving an additional 115,700 kWh/season.
2. FCA used dynamic pressures under the high flow regime (providing primary water rights to lands on the Ontario-Nyssa Canal via the dual pipeline) to calculate energy conservation in the Mitchell Butte Lateral and Ontario-Nyssa Canal. When supplying supplemental rights to the Ontario-Nyssa Canal via the Dunaway Pumping Plant, the flow in the single open pipeline of the Mitchell Butte Lateral and the Ontario-Nyssa Canal will be reduced, increasing dynamic pressures and the potential for on-farm conservation.

4.5 HYDROELECTRIC ENERGY GENERATION

The objective of the hydroelectric energy generation assessment is to evaluate the potential for hydroelectric power associated with OID's modernized delivery system as proposed in this SIP. The intent is to provide a coarse estimate of the hydroelectric generation potential within the District based solely on the excess pressure in the proposed system design. The data provided are high-level estimates intended to provide a baseline on potential site selection during project implementation phases. With a multitude of options for funding assistance and power-purchase options, all sites in this report are deemed worthy of further economic analyses.

4.5.1.1 Methodology

FCA identified potential locations to generate hydroelectric power by locating areas in the proposed system design that require pressure reduction. Pressure reduction typically occurs by means of pressure reducing valve (PRV) stations to provide safe operating conditions for downstream patrons. A PRV station consists of a series of components that impede the flow of water in a pipeline to reduce the overall pressure through friction loss, also referred to as energy loss.

Energy loss through a PRV has the potential to be re-purposed, generating electricity by means of a hydroelectric power generation facility. Water impacting the turbine creates a force that causes the turbine to spin. When connected to a generator, the turbine produces electricity. In this way, a hydropower turbine creates energy loss that reduces pressure in the system equivalent to the pressure reduced by a PRV.

FCA considered all locations where PRV stations are required in the proposed design as potential hydroelectric power facilities. The power capacity at each location was estimated using a 75 percent total operating (or water-to-wire) efficiency, the net head across the turbine as estimated by the hydraulic model, and the turbine design flow (Equation 4-1). Net head is the available energy stored in water due to pressure differences between a turbine's inlet and outlet. Locations with capacity less than 5 kilowatts were excluded from the assessment.

$$P_i = \frac{\eta Q_{T,i} H_{net,i}}{11.82}$$

Equation 4-1

Where:

P_i = Power capacity generated from the turbine at location i in kW

η = Total operating efficiency of the hydroelectric power plant (a percent)

$Q_{T,i}$ = Turbine design flow at location i in cfs

$H_{net,i}$ = The net head across the turbine at location i in ft

Based on previous analyses of constructed in-conduit hydropower projects, the levelized cost of energy of hydropower and water demand due to evapotranspiration, FCA chose a turbine design flow equal to 60 percent of maximum modernized flow. Modernized flow is the estimated flow rate at a site based on projected flows in the hydraulic model corrected to match historical diversion rates and accounting for water saved by piping. The ratio of the maximum historical diversion between 2014 and 2018 and modeled flow at the North Canal 0.5 gage was used to

match modeled and projected flows. The amount of water saved due to piping was informed by FCA's water loss assessment and varied between zero and 25 percent of total flow, based on the nearest measured lateral to a proposed turbine. Accounting for water savings in this way provides a conservative estimate of hydropower generation, which may be higher depending on the District's allocation of conserved water.

Modernized flows were also used to create a flow exceedance curve. A flow exceedance curve illustrates the percent of time that flow is likely to equal or exceed a certain rate. FCA assumed that the flow exceedance curve at the North Canal 0.5 gage between 2014 and 2018 is representative of flows experienced in all North Canal laterals. A turbine designed at 60 percent of maximum modernized flows would operate at full capacity approximately 64 percent of the irrigation season (Figure 4-16). FCA assumed a turbine becomes non-operational at flows less than 30 percent of the design flow. Flows would exceed the minimum operational flows of a turbine in this assessment roughly 86% of the irrigation season.

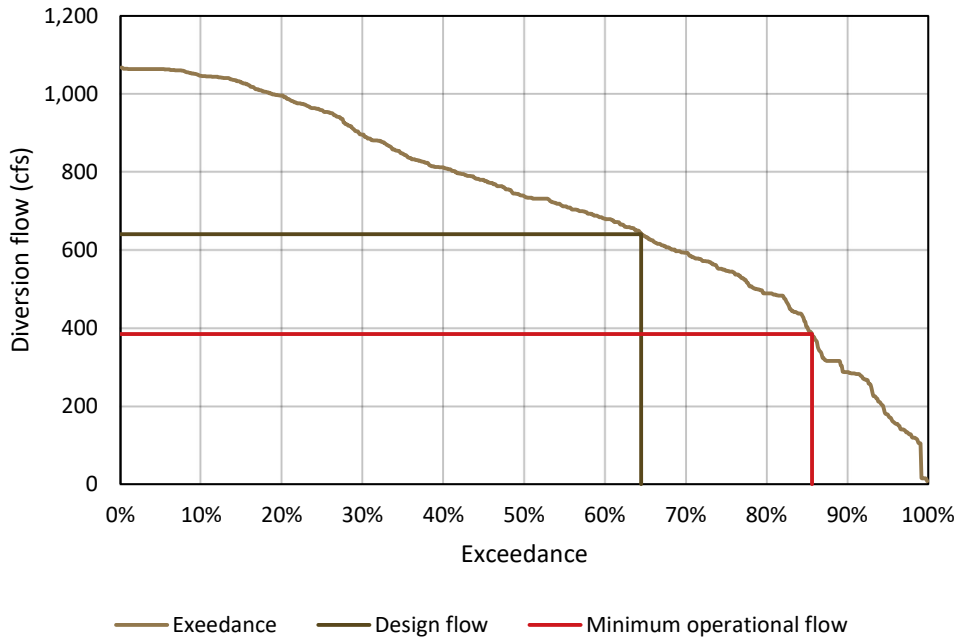

Figure 4-16. Exceedance Probability of Flow in the North Canal at 0.5 Gage, 2014-2018.

For sites with potential capacities of greater than 100 kW, FCA estimated seasonal energy generation using daily diversion records at the North Canal 0.5 gage between 2014 and 2018. Historical flow rates at the NC 0.5 gage were adjusted to proportionally match the maximum modernized flow at each site, assuming the flow duration curve on the North Canal reflects that of its laterals. These adjustments give daily estimates of modernized flows at each site. If average daily flows that were less than the 30 percent of the turbine design flow, they were considered non-operational and excluded from the annual energy generation calculation. FCA assumed that the turbine operated at full capacity with any daily flows greater than the minimum operational flow. Following Equation 4-2, the sum of daily power production over the course of the irrigation season gave an estimate of seasonal power generation at each site.

$$G_i = \sum_{1}^{n_i} \left(P_i * 20 \frac{hr}{day} \right)$$

Equation 4-2

Where:

G_i = Seasonal generation potential at location i in kilowatt-hours (kWh)

P_i = Daily power generated from the turbine at location i in kW

n_i = Number of days during irrigation season exceeding minimum operational flow at location i

4.5.1.2 Results

Twelve PRV sites in OID's hydraulic model exhibited a potential power capacity greater than 5 kW (Figure 4-17 and Figure 4-18). FCA identified eight sites with between 5 and 100 kW of estimated capacity as potential locations for on-farm or net-metering hydropower projects (Table 4-11). Sites on the Kingman 7.7 lateral and North Canal 5.3, 8.5, 38.7, 38.9-2.4, 38.9-4.8 and 45.4 laterals exhibit between 5.1 and 11.3 kW of potential capacity. The Kingman 5.4-0.8 lateral site exhibits 55.6 kW of capacity potential. Section 4.5.1.3 describes possible uses of electricity generated by sites with less than 100 kW capacity.

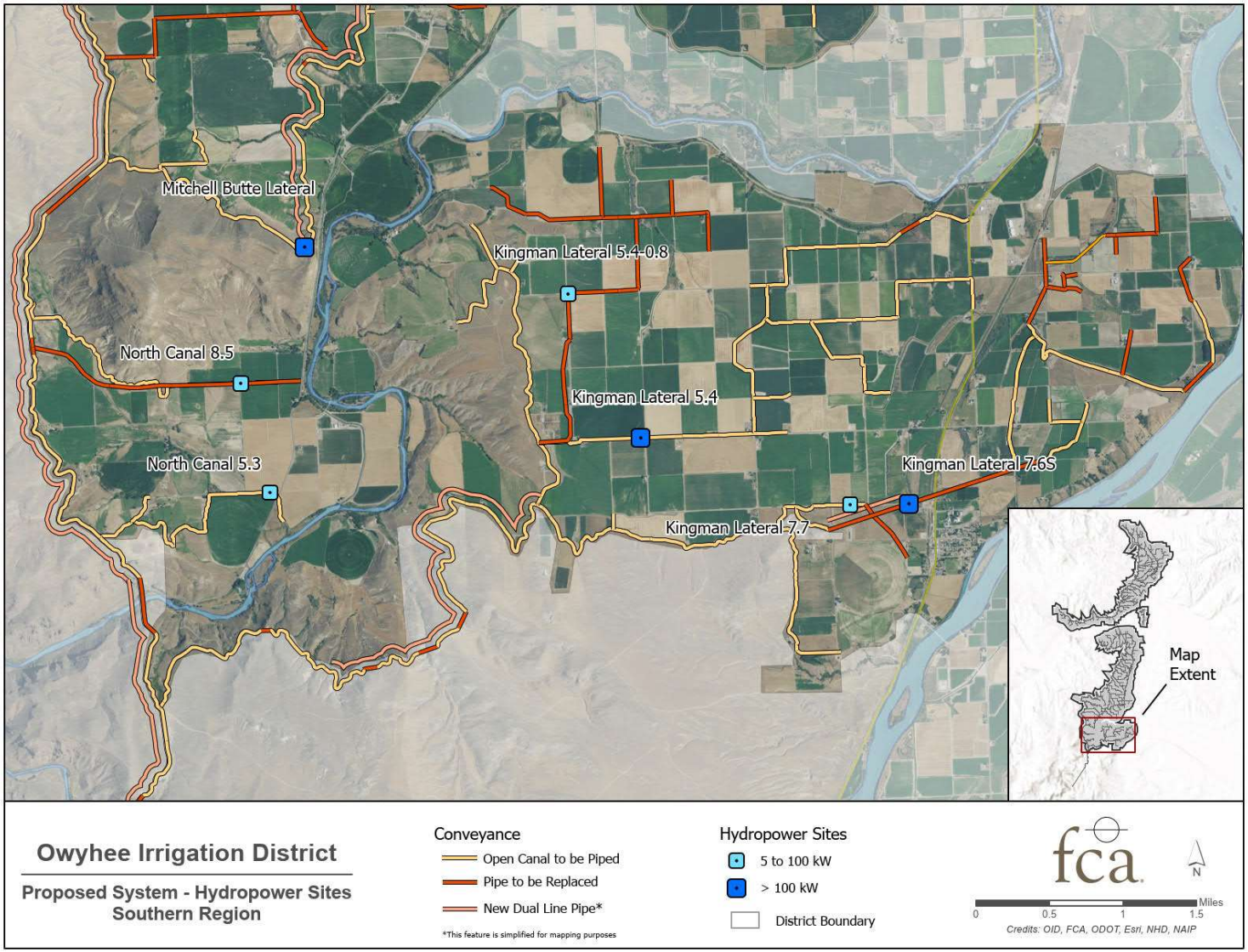

Figure 4-17. Owyhee Irrigation District's Potential Hydroelectric Power Generation Sites – Fletcher Gulch.

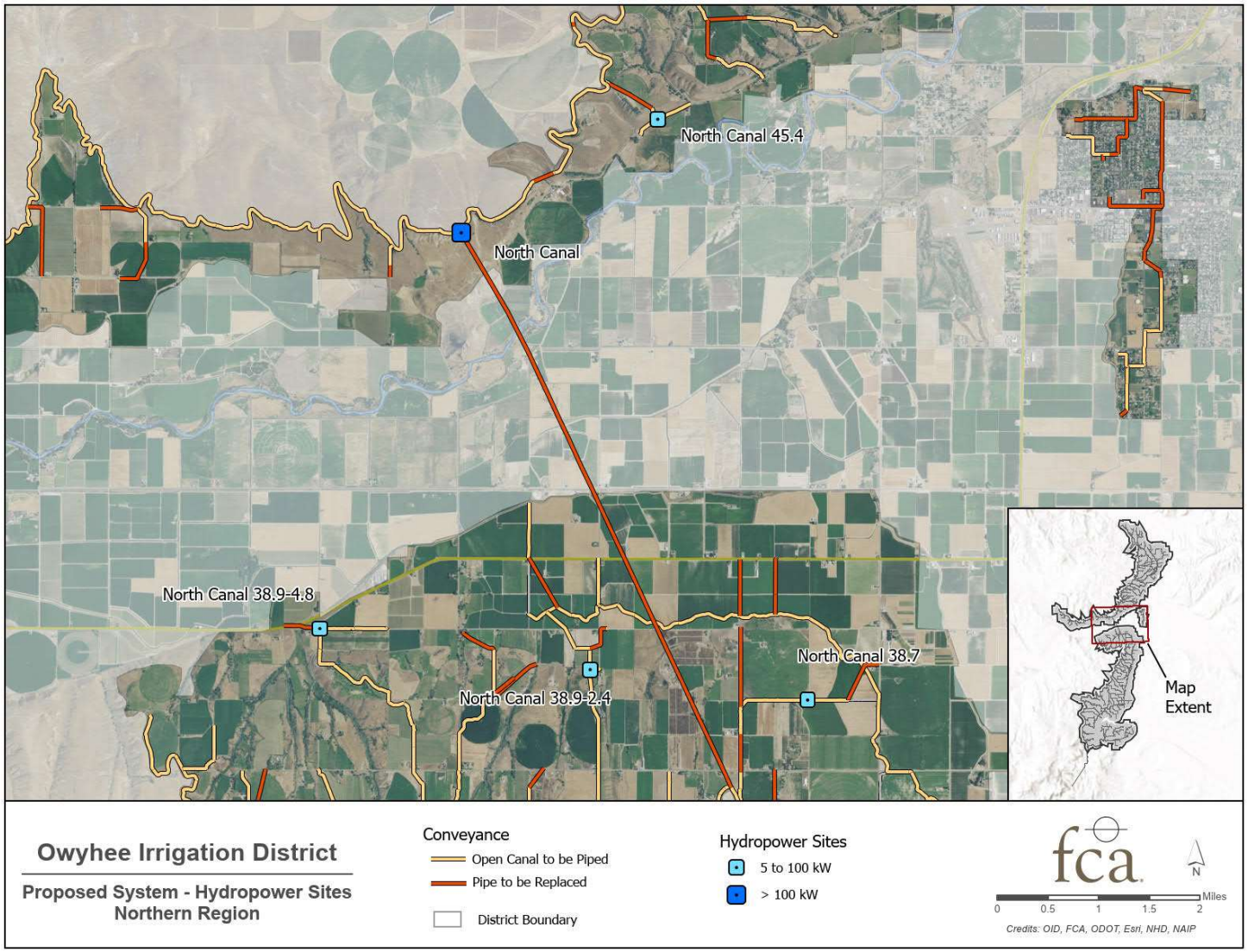

Figure 4-18. Owyhee Irrigation District's Potential Hydroelectric Power Generation Sites – Malheur River.

Table 4-11. Five to 100 kW Hydropower Sites in Owyhee ID.

CONVEYANCE	LATERAL OR SUB-LATERAL	DESIGN FLOW (CFS)	NET HEAD (FT)	CAPACITY (KW)
Kingman Lateral	5.4-0.8	12.1	73	55.6
	7.7	1.0	78	5.1
North Canal	5.3	1.7	77	8.3
	8.5	2.8	43	7.6
	38.7	3.2	39	7.9
	38.9-2.4	2.8	63	11.3
	38.9-4.8	2.0	49	6.3
	45.4	1.3	88	7.1

Four sites with potential power capacity greater than 100 kW were analyzed for the District to consider for power production (Table 4-12). The greatest generation potential is at the outlet of the Malheur Siphon (995 kW capacity and 3.5 MWh seasonal generation). The net head at the Malheur Siphon is bolstered by pressure due to gravity within the proposed North Canal pipeline. However, if the Malheur Siphon were replaced with large-diameter solid-wall HDPE as a stand-alone project to capture the siphon's hydropower potential without piping the North Canal, significant generation potential would still exist at this site (803 kW capacity and 2.8 MWh of seasonal generation).

The site with the second-greatest potential capacity (734 kW) is at the existing 1.8 MW Mitchell Butte Lateral Hydropower Plant. According to the District, the plant has reached the end of its life expectancy. If the District replaced the existing turbine, which cannot currently provide downstream residual pressure for pressurized deliveries to patrons, the new plant could provide approximately 2.5 MWh of seasonal generation potential while maintaining 50 psi in the outlet pipeline. The capacity and generation potential of the Mitchell Butte site were calculated using hydraulic model results from the higher, primary water rights flow regime. Under the lower, supplemental flow regime, wherein Mitchell Butte Lateral flows are reduced, and the Ontario-Nyssa Pumping Plant supplies supplemental water rights to the Ontario-Nyssa Canal, the Mitchell Butte site demonstrates a potential capacity of 366 kW and 1.3 MWh of seasonal generation potential. According to pump station records between 2014 and 2018, at least one of four pumps at the Ontario-Nyssa Pumping Plant is operational for 140 days during irrigation season, on average. The generation potential of a new turbine at this site will depend on the duration and amount of irrigation water supplied by the Ontario-Nyssa Pumping Plant, likely generating between 1.3 and 2.5 MWh per season. A detailed examination of historical and projected flows on the Mitchell Butte Lateral may be necessary in further assessments.

The remaining sites with capacity greater than 100 kW exist on the Kingman laterals. The large Kingman Lateral sites are within relatively close proximity to one another as well as the to the 55.6 kW site on the Kingman 5.4-0.8 Lateral. They supply only primary water rights to landowners on the Kingman Lateral, making the flow regime for hydropower generation potentially simpler than at the Mitchell Butte site. The 7.6S site, located at an existing siphon

near the town of Adrian, OR, has a potential capacity of 219 kW and seasonal generation of 774,200 kWh. The 5.4 lateral site has potential capacity of 151 kW and seasonal generation of 535,000 kWh.

Table 4-12. Hydropower Sites in Owyhee ID with Greater than 100 kW Capacity.

CONVEYANCE	LATERAL OR SUB-LATERAL	DESIGN FLOW (CFS)	NET HEAD (FT)	CAPACITY (KW)	SEASONAL GENERATION (KWH)
Kingman Lateral	5.4	21.9	109	151.1	535,000
	7.6S	19.4	178	218.7	774,200
Mitchell Butte	Mitchell Butte Lateral	71.4	162	733.8	2,597,500
North Canal	Malheur Siphon	162.7	96	994.7	3,521,200

4.5.1.3 Other Considerations for Hydropower Development

The feasibility of hydroelectric facilities in OID depends on the distance from the site to existing three-phase power, available flow rates, turbine selection, and other site-specific factors. In addition, further investigation of hydroelectric power sites should include permitting through federal, state and local agencies; fish screening and passage requirements; and power sales regarding the local investor-owned utility (IOU).

FCA understands that all proposed hydropower projects would be jurisdictional to Reclamation under the Lease of Power Privilege (LOPP) process. [This is notable because the Mitchell Butte Lateral's hydroelectric facility was authorized with a Federal Energy Regulatory Commission (FERC) license.] The LOPP is the permitting pathway to enable an irrigation district to develop hydropower using Reclamation-owned infrastructure. The LOPP process can take more than 18 months and cost approximately $50,000.

Because all projects would utilize water deliveries with existing water rights for irrigation, they would also require state permitting under the Oregon Water Resources Department's "Additional Use as Part of an Existing Certificated Water Right" application process, pursuant to Oregon Revised Statute (ORS) 543.765. This expedited process is often available for projects that use existing certificated water rights, such as irrigation-based conduit projects. The application process follows the completion of the LOPP permitting process and is typically completed in 60 to 90 days.

The state permitting process can trigger fish screening and passage requirements from ODFW. Addressing barriers to fish passage can be avoided through a payment into a mitigation fund called the Fish Passage Subaccount, which pools funds from statewide passage barriers to address priority barriers in Oregon. However, there is not a similar mitigation fund for screening. Before moving forward with any hydropower project, the District should consult with ODFW to address fish screening at the diversion that supplies irrigation water to the site.

Within the service territory of an IOU, hydroelectric projects under 10 megawatts (MW) typically have two options for selling their energy: net-metering or a power purchase agreement (PPA). Net-metering enables a utility customer to generate their own energy to reduce their electric bill. In Idaho Power's service territory, net-metering is allowed for generators up to 100 kW capacity. The generator typically is located where the utility customer's energy use occurs. For example, there are several 10-20 kW on-farm hydroelectric projects in Oregon that offset the energy consumption at the farms where the projects are located. The District may consider aggregating power generated at sites near one another (e.g. sites 38.7, 38.9-2.4, and 38.9-4.8) to supply a single, nearby large user, if one exists.

Projects in Oregon greater than 100 kW sell their energy to Idaho Power on a wholesale basis as "Qualifying Facilities" (QFs) under a PPA. A QF is federal designation for renewable energy power producers under the Public Utility Regulatory Policy Act of 1978 (PURPA). Utilities must purchase power from QFs under PURPA at predetermined "avoided-cost" rates. Avoided-cost rates are calculated by the utility and refer to the theoretical cost the utility would incur to generate the power if it was not purchased from the District. Idaho Power's avoided-cost rates in Oregon range from $0.02 - $0.06/kWh between 2020 and 2035. It is challenging to make a hydropower project financially viable with avoided-cost rates less than six to seven cents per kWh, on average, over the course of a 15-year PPA. However, as electricity prices increase or alternative purchase options (such as renewable energy credits or net-metering) become available, the economic feasibility of hydropower projects in OID improves.

SECTION 5:
Discussion and Future Actions

Based on the evaluations completed for this System Improvement Plan, Owyhee Irrigation District may benefit from modernization through the systematic piping of their existing conveyances. Modernization could allow the District to save water lost due to seepage, evapotranspiration and end/operational spills in open canals; reduce energy used on-farm by delivering pressurized water to patrons; generate renewable energy via in-conduit hydropower facilities; and provide fish screening and passage at one or more of the existing diversions.

5.1 REFERENCES

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APPENDIX A
Design Approach

Owyhee Irrigation District

SCOPE OF SERVICES

The purpose of this document is to summarize the approach FCA proposes to improve Owyhee Irrigation District's (OID) delivery system, pump stations, and hydroelectric power plants, which will be evaluated in the System Improvement Plan (SIP).

FISH SCREENING AND PASSAGE IMPROVEMENTS

FCA will identify opportunities to provide screening for fish at diversion points. Furthermore, FCA will identify current barriers to fish passage and assess possible alternatives for their remediation.

DELIVERY SYSTEM IMPROVEMENTS

FCA will evaluate piping laterals supplied by the North Canal, as well as the North Canal itself. Although the design of a comprehensively modernized system assumes construction occurs simultaneously across the District, it is understood that the availability of funding and human resources will necessitate the plan be constructed in phases. Laterals within the proposed system will be designed to provide fully or partially pressurized deliveries to patrons whether or not the North Canal is piped. The following portions of the delivery system would be excluded from piping:

- the Jacobsen Gulch Lateral,
- the delivery system supplying water to Old Owyhee Irrigation District,
- and any lateral currently piped that's appropriately rated for pressure.

PUMP STATION IMPROVEMENTS

FCA will not evaluate improvements for the Dead Ox or Dunaway pump stations or the three smaller lift stations, but will instead include them as existing components in the proposed piping improvements. A more detailed analysis is required to evaluate any necessary improvements for these pump stations that goes beyond the high level analyses that will completed in the SIP.

HYDROELECTRIC POWER PLANT IMPROVEMENTS

FCA will complete an evaluation of how existing power plants and additional hydroelectric power opportunities could be realized.

DESIGN ASSUMPTIONS

FCA will use the following assumptions when designing the proposed improvements identified above:

- FCA will use a unit flowrate of 9.5 gallons per minute/acre to design the proposed pressurized pipelines.
- FCA will design pipelines based on HDPE. However, given that the District has used PVC in the past and has a system in place for its installation, the District may ultimately decide what pipe material should be specified in the SIP.

APPENDIX B
Water Rights

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **IRRIGATION of 6,715.6 ACRES.**

This right was perfected under Permit 1243. The date of priority is **FEBRUARY 10, 1912.** This right is limited an amount actually needed for beneficial use and shall not exceed **25.9 CUBIC FEET PER SECOND** or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

(Dead Ox Pumps) LOT 6, SE¼ NE¼, SECTION 2, T. 17 S., R. 47 E., W.M.; 2630 FEET SOUTH & 2050 FEET EAST FROM N¼ CORNER SECTION 2. (River Mile 363.08)

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
15	46	25	NESW	3	2800	24.8
15	46	25	NWSW	4	2800	2.8
15	46	25	SWSW	4	2800	15.4
15	46	25	SESW		2800	24.0
15	46	25	NESE		3001	36.9
15	46	25	NWSE		2800	2.2
15	46	25	SWSE		2800	3.3
15	46	25	SESE		3200	22.4
15	46	36	NENE		3600	34.1
15	46	36	NWNE		3700	25.1
15	46	36	SWNE		3700	6.6
15	46	36	SENE		3600	0.5
15	46	36	SENE		4000	31.9
15	46	36	NENW		3700	2.3
15	46	36	NESE		6101	8.6
15	47	31	NWNE		5800	29.6
15	47	31	SWNE		5800	23.9
15	47	31	SWNE		6400	8.0
15	47	31	NENW		5900	37.7
15	47	31	NWNW	1	6000	34.6
15	47	31	SWNW	3	6000	2.3

Recorded in State Record of Water Right Certificates numbered 75712.

57572.SLH

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
15	47	31	SENW		5900	9.9
15	47	31	SENW		6200	25.4
15	47	31	NESW		6200	35.6
15	47	31	SWSW	4	6300	15.3
15	47	31	SESW		6200	38.4
15	47	31	NWSE		6400	29.6
15	47	31	NWSE		6401	0.2
15	47	31	NWSE		6501	1.6
15	47	31	SWSE		6200	10.7
15	47	32	SWNE		7500	10.0
15	47	32	NENW		7500	1.0
15	47	32	NWNW		7500	4.5
15	47	32	SWNW		7500	37.3
15	47	32	SENW		7500	30.1
15	47	32	NESW		7600	26.8
15	47	32	NESW		7800	9.5
15	47	32	NWSW		7600	12.7
15	47	32	NWSW		7700	23.3
15	47	32	SWSW		7700	36.7
15	47	32	SESW		7800	37.0
15	47	32	NWSE		7500	24.1
15	47	32	SWSE		7800	5.5
15	47	32	SESE		7900	6.2
15	47	33	NWSW	4	8500	7.2
15	47	33	SWSW	5	8500	2.4
15	47	33	SWSW	5	9304	5.7
16	47	4	NENW	2	300	0.2
16	47	4	NWNW	1	300	35.0
16	47	8	NESW		3901	3.8
16	47	8	NESE		3901	36.6
16	47	8	NWSE		3901	37.7
16	47	8	SWSE		4200	23.9
16	47	8	SESE		3901	37.6
16	47	9	NWNE	1	4400	10.4
16	47	10	SWSW		200	17.1
16	47	13	SWNW		1500	35.0
16	47	13	NESW		1500	33.5
16	47	13	NWSW		1500	38.0
16	47	13	SWSW		1700	4.8
16	47	13	SWSW		1701	10.4
16	47	13	SWSW		1800	3.0
16	47	13	SWSW		1900	19.6
16	47	13	SESW		1600	36.3
16	47	13	SWSE		1400	29.3
16	47	13	SESE		1400	39.7
16	47	14	NESW		2200	21.3
16	47	14	NWSW		2600	0.3

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
16	47	14	SWSW		2500	30.3
16	47	14	SESW		2400	38.0
16	47	14	NESE		2100	32.6
16	47	14	NWSE		2100	34.1
16	47	14	SWSE		2300	38.7
16	47	14	SESE		2100	33.8
16	47	15	NENE		2800	26.3
16	47	15	NWNE		2800	23.4
16	47	15	SWNE		2700	33.8
16	47	15	SWNE		3501	0.4
16	47	15	SENE		2600	0.6
16	47	15	SENE		2700	5.0
16	47	15	NENW		2900	32.0
16	47	15	NWNW		200	36.1
16	47	15	SWNW		3000	34.9
16	47	15	SENW		3000	36.2
16	47	15	NESW		3100	26.1
16	47	15	NESW		3401	0.7
16	47	15	NWSW		3300	32.4
16	47	15	NWSW		3400	1.1
16	47	15	SWSW		3300	11.4
16	47	15	SWSW		3400	0.6
16	47	15	SWSW		3401	15.8
16	47	15	SESW		3401	34.8
16	47	15	NESE		2600	24.2
16	47	15	NWSE		3501	35.0
16	47	15	SWSE		3501	35.9
16	47	15	SESE		2500	32.9
16	47	16	NENE		5300	32.7
16	47	16	NENE		5500	2.1
16	47	16	NWNE		5400	10.7
16	47	16	NWNE		5500	2.9
16	47	16	NWNE		5600	18.5
16	47	16	SWNE		5500	8.6
16	47	16	SWNE		5600	29.5
16	47	16	SENE		5300	2.9
16	47	16	SENE		5500	34.8
16	47	16	NENW		5700	33.4
16	47	16	NWNW		5700	35.2
16	47	16	SWNW		5700	33.5
16	47	16	SENW		5700	39.1
16	47	16	NESW		5700	20.9
16	47	16	NWSW		5700	1.0
16	47	16	NESE		6100	38.4
16	47	16	NWSE		6000	37.0
16	47	16	SWSE		6000	32.7
16	47	16	SESE		6100	35.0

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
16	47	21	NENE		700	32.5
16	47	21	NWNE		800	1.8
16	47	21	SWNE		800	1.4
16	47	21	SENE		700	30.3
16	47	22	NENE		100	33.8
16	47	22	NENE		400	0.2
16	47	22	NWNE		100	38.0
16	47	22	SWNE		200	34.2
16	47	22	SENE		200	18.7
16	47	22	SENE		300	17.5
16	47	22	NENW		400	33.4
16	47	22	NWNW		500	36.3
16	47	22	SWNW		500	29.7
16	47	22	SENW		400	31.8
16	47	22	NESW		700	30.8
16	47	22	SESW		700	34.8
16	47	22	NESE		800	33.3
16	47	22	NWSE		900	36.6
16	47	22	SWSE		1000	22.2
16	47	22	SWSE		1100	10.3
16	47	22	SESE		1100	34.1
16	47	23	NENE		1200	35.9
16	47	23	NWNE		1200	38.9
16	47	23	SWNE		1200	39.1
16	47	23	SENE		1200	34.4
16	47	23	NENW		1400	37.6
16	47	23	NWNW		1400	37.0
16	47	23	SWNW		1400	37.0
16	47	23	SENW		1400	37.0
16	47	23	NESW		1500	38.4
16	47	23	NWSW		1500	37.4
16	47	23	SWSW		1500	37.2
16	47	23	SESW		1500	10.0
16	47	23	SESW		1700	27.6
16	47	23	NESE		2000	36.7
16	47	23	NWSE		1900	36.0
16	47	23	SWSE		1800	36.6
16	47	23	SESE		2000	36.8
16	47	24	NENE		2200	19.2
16	47	24	NENE		2400	17.5
16	47	24	NWNE		2400	38.6
16	47	24	SWNE		2401	39.7
16	47	24	SENE		2300	36.7
16	47	24	NENW		2500	35.8
16	47	24	NWNW		2600	34.3
16	47	24	SWNW		2700	37.7
16	47	24	SENW		2500	37.0

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
16	47	24	NESW		2700	7.7
16	47	24	NESW		2800	27.8
16	47	24	NWSW		2700	37.2
16	47	24	SWSW		2700	36.5
16	47	24	SESW		2700	1.9
16	47	24	SESW		2800	34.7
16	47	24	SESW		2801	0.5
16	47	24	NESE		2401	38.8
16	47	24	NWSE		2401	39.7
16	47	24	SWSE		2401	37.0
16	47	24	SESE		2401	37.3
16	47	25	NWNE		3000	35.4
16	47	25	NENW		3200	35.9
16	47	25	NWNW		3300	36.2
16	47	25	SWNW		3300	38.2
16	47	25	SENW		3200	34.6
16	47	25	NESW		3100	19.5
16	47	25	NESW		3200	14.5
16	47	25	NWSW		3300	36.6
16	47	25	SWSW		3400	13.6
16	47	25	SWSW		3401	21.6
16	47	25	SESW		3100	37.1
16	47	26	NENE		3500	37.5
16	47	26	NWNE		1800	34.9
16	47	26	SWNE		1800	15.6
16	47	26	SENE		3600	37.1
16	47	26	SWNE		3600	15.0
16	47	26	NENW		4500	36.5
16	47	26	NWNW		4500	9.4
16	47	26	NWNW		4700	1.8
16	47	26	NWNW		4800	12.6
16	47	26	NWNW		4901	0.6
16	47	26	SWNW		4300	1.3
16	47	26	SWNW		4800	3.4
16	47	26	SWNW		4901	13.9
16	47	26	SWNW		5000	15.6
16	47	26	SENW		4200	1.5
16	47	26	SENW		4300	17.1
16	47	26	SENW		4400	18.3
16	47	26	NESW		3800	21.5
16	47	26	NESW		4000	4.7
16	47	26	NESW		4100	3.0
16	47	26	NWSW		4901	0.1
16	47	26	NWSW		5200	30.3
16	47	26	NWSW		5300	5.6
16	47	26	SWSW		5300	35.1
16	47	26	SESW		3800	3.7

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
16	47	26	SESW		4000	27.8
16	47	26	SESW		4001	2.0
16	47	26	NESE		3700	37.7
16	47	26	NWSE		3800	37.1
16	47	26	SWSE		3900	36.3
16	47	26	SESE		3700	37.7
16	47	27	NENE		5400	26.2
16	47	27	NENE		5500	8.9
16	47	27	NWNE		5500	36.5
16	47	27	SWNE		5600	38.2
16	47	27	SENE		5400	5.9
16	47	27	SENE		5600	30.3
16	47	27	NESE		6100	27.1
16	47	27	NESE		6200	9.9
16	47	27	NWSE		6100	17.7
16	47	27	NWSE		6200	4.2
16	47	27	SWSE		6200	37.4
16	47	27	SESE		6200	35.7
16	47	34	NENE		6300	28.0
16	47	34	NWNE		6400	8.0
16	47	34	NWNE		6500	26.0
16	47	34	SWNE		6500	34.8
16	47	34	SENE		6300	31.5
16	47	34	NENW		6600	8.5
16	47	34	SENW		6600	19.9
16	47	34	NESE		6300	33.8
16	47	34	NWSE		6300	19.4
16	47	34	SWSE		6300	5.8
16	47	34	SESE		6300	34.1
16	47	35	NENE		7490	38.0
16	47	35	NWNE		7490	33.5
16	47	35	SWNE		7490	36.2
16	47	35	SENE		7490	38.3
16	47	35	NENW		7400	32.5
16	47	35	NWNW		7700	18.8
16	47	35	NWNW		7800	19.3
16	47	35	SWNW		7900	38.8
16	47	35	SENW		7500	31.4
16	47	35	SENW		7501	1.0
16	47	35	SENW		7600	0.6
16	47	35	NESW		8500	0.7
16	47	35	NESW		8600	0.7
16	47	35	NESW		8601	0.8
16	47	35	NESW		8602	0.6
16	47	35	NESW		8603	0.9
16	47	35	NESW		8604	0.6
16	47	35	NESW		8605	0.8

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
16	47	35	NESW		8700	0.5
16	47	35	NESW		8702	0.8
16	47	35	NESW		8800	26.8
16	47	35	NWSW		8000	34.8
16	47	35	NWSW		8101	3.6
16	47	35	SWSW		8000	2.2
16	47	35	SWSW		8100	3.5
16	47	35	SWSW		8101	20.0
16	47	35	SWSW		8200	1.6
16	47	35	SESW		8400	30.2
16	47	35	NESE		8901	8.0
16	47	35	NESE		8903	9.0
16	47	35	NESE		9000	13.0
16	47	35	NWSE		8800	37.7
16	47	35	SWSE		8400	27.8
16	47	36	NENW	1	9400	10.2
16	47	36	NWNW		9300	33.3
16	47	36	SWNW		8900	1.9
16	47	36	SWNW		9300	0.5
16	47	36	SWNW		9600	1.8
16	47	36	SWNW		9700	9.8
16	47	36	NWSW		8900	1.8
16	48	19	NWSW		300	36.1
16	48	19	SWSW		400	39.3
16	48	19	SESW	4	400	15.9
17	47	2	NWNE	2	500	3.8
17	47	2	NENW	3	200	18.3
17	47	2	SWNW		1100	14.7
17	47	2	SENW		400	2.0
17	47	2	SENW		1100	26.3
17	47	2	NESW		2000	30.9
17	47	2	NWSW		1600	31.0
17	47	2	SWSW		2500	37.1
17	47	3	SESW		3908	6.0
17	47	3	NESE		700	7.3
17	47	3	NESE		1100	3.0
17	47	3	NESE		1200	1.4
17	47	3	NWSE		700	9.7
17	47	3	SWSE		700	4.0
17	47	3	SWSE		2100	8.6
17	47	3	SWSE		2200	3.0
17	47	3	SESE		1200	18.4
17	47	10	NENE		4800	37.0
17	47	10	NWNE		4900	9.8
17	47	10	NWNE		5000	7.9
17	47	10	SWNE		5502	24.9
17	47	10	SENE		5300	18.0

Recorded in State Record of water right Certificates numbered 75712.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
17	47	10	SENE		5400	18.0
17	47	10	NENW		3900	24.0
17	47	10	NWNW		5800	5.9
17	47	10	SWNW		5800	13.1
17	47	10	SENW		5600	11.8
17	47	10	SENW		5601	3.3
17	47	10	NESE		6600	17.0
17	47	10	NESE		6700	4.0
17	47	10	NESE		6704	3.0
17	47	10	NESE		6705	3.0
17	47	10	NWSE		6500	38.0
17	47	11	SWNW		7400	18.0

This Certificate describes the new location and type of use of the water right confirmed by Certificate 57572 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75712.

57572.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

THE OWYHEE, THE ONTARIO-NYSSA, THE ADVANCEMENT, THE PAYETTE-OREGON SLOPE, THE BENCH AND THE SLIDE IRRIGATION DISTRICTS, TOGETHER COMPRISE THE NORTH BOARD OF CONTROL OF THE OWYHEE PROJECT:

NORTH BOARD OF CONTROL
PO BOX 1565
NYSSA, OR 97913

confirms the right to use the waters of OWYHEE RESERVOIR AND THE OWHYEE RIVER, a tributary of SNAKE RIVER, for DEVELOPMENT OF 2,825 THEORETICAL HORSEPOWER at the MITCHELL BUTTE LATERAL HYDROELECTRIC PROJECT.

This right was perfected under Permit 50143. The date of priority is OCTOBER 7, 1981 AND OCTOBER 15, 1983 - FOR 95.0 CUBIC FEET PER SECOND (CFS) FROM STORED WATER, AND SEPTEMBER 9, 1987 - FOR 15.0 CFS DIRECT FLOW FROM OWYHEE RIVER. The amount of water to which this right is entitled to is limited to an amount actually beneficially used and shall not exceed 110.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 NE 1/4, NW 1/4 SE 1/4, SECTION 20, T 22 S, R 45 E, W.M.; 2000 FEET WEST FROM THE EAST 1/4 CORNER OF SECTION 20.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NE 1/4 SE 1/4
SECTION 1
TOWNSHIP 21 SOUTH, RANGE 45 EAST W.M.

NW 1/4 SW 1/4
SECTION 6
TOWNSHIP 21 SOUTH, RANGE 46 EAST, W.M.

The right granted herein is expressly made inferior in right and subsequent in time to any appropriation of water from this source which may hereafter be made for domestic, municipal, irrigation or any other beneficial consumptive use, or for storage for such purposes.

The Water User shall comply with the provisions of the Order of the Water Resources Commission dated November 18, 1987, Special Order Record, Volume 41, pages 595-602 and by reference herein made a part of this certificate.

SEE NEXT PAGE

POWER CLAIM NO. 880
62946.SCB/JWG

The Water User shall, during the operational lifetime of the project, perform or allow the Water Resources Department to perform any tests or studies required by the department to evaluate the effectiveness of measures for the protection of fish.

The water right may not be assigned to any non-municipal entity so as to result in a loss of ownership of the certificate by the municipal corporation or district.

The Water User must remain qualified as a municipal applicant under ORS 537.285 and 537.287. If the Water User proposes to generate hydroelectric power jointly with a non-municipal entity, any agreement between the Water User and the non-municipal entity or proposed changes to such agreement, must be reviewed by the Water Resources Director to determine whether or not the Water User remains qualified as a municipal applicant.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed SEPTEMBER 28, 1998.

Martha O. Pagel

Recorded in State Record of Water Right Certificates numbered 75819.

POWER CLAIM NO. 880
62946.SCB/JWG

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE PROJECT IRRIGATION DISTRICTS
PO BOX 1565
NYSSA, OR 97913

confirms the right to use the waters of OWYHEE RIVER, a tributary of SNAKE RIVER for DEVELOPMENT OF 7.926 THEORETICAL HORSEPOWER AT OWYHEE DAM.

This right was perfected under Permit 48428. The date of priority is OCTOBER 13, 1981. The amount of water to which this right is entitled to is limited to an amount actually beneficially used and shall not exceed 225.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 NE 1/4, NW 1/4 SE 1/4, SECTION 20, T 22 S, R 45 E, W.M.; 2000 FEET WEST FROM THE EAST 1/4 CORNER OF SECTION 20.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

SW 1/4 NE 1/4
NW 1/4 SE 1/4
SECTION 20
TOWNSHIP 22 SOUTH, RANGE 45 EAST, W.M.

The right granted herein is expressly made inferior in right and subsequent in time to any appropriation of water from this source which may hereafter be made for domestic, municipal, irrigation or any other beneficial consumptive use, or for storage for such purposes.

The Water User shall comply with the provisions of the Order of the Water Resources Commission dated October 14, 1983, and by reference herein made a part of this certificate.

The water right may not be assigned to any non-municipal entity so as to result in a loss of ownership of the certificate by the municipal corporation or district.

The Water User must remain qualified as a municipal applicant under ORS 537.285 and 537.287. If the Water User proposes to generate hydroelectric power jointly with a non-municipal entity, any agreement between the Water User and the non-municipal entity or proposed changes to such agreement, must be reviewed by the Water Resources Director to determine whether or not the Water User remains qualified as a municipal applicant.

SEE NEXT PAGE

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed SEPTEMBER 28, 1998.

Martha O. Pagel

Recorded in State Record of Water Right Certificates numbered 75820.

POWER CLAIM NO. 872
62965.SCB/JWG

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE PROJECT IRRIGATION DISTRICTS
PO BOX 1565
NYSSA, OR 97913

confirms the right to use the waters of OWYHEE RESERVOIR, CONSTRUCTED UNDER PERMIT R-599, AND OWYHEE RIVER, a tributary of SNAKE RIVER for DEVELOPMENT OF 13,419 THEORETICAL HORSEPOWER AT THE OWYHEE TUNNEL NO. 1.

This right was perfected under Permit 50639. The date of priority is JULY 21, 1986 - FOR STORED WATER AND SEPTEMBER 9, 1987 - FROM OWYHEE RIVER . The amount of water to which this right is entitled to is limited to an amount actually beneficially used and shall not exceed 1,640.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 NE 1/4, NW 1/4 SE 1/4, SECTION 20, T 22 S, R 45 E, W.M.; 2000 FEET WEST FROM THE EAST 1/4 CORNER OF SECTION 20.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SW 1/4
SECTION 21
TOWNSHIP 22 SOUTH, RANGE 45 EAST, W.M.

The right granted herein is expressly made inferior in right and subsequent in time to any appropriation of water from this source which may hereafter be made for domestic, municipal, irrigation or any other beneficial consumptive use, or for storage for such purposes.

The Water User shall comply with the provisions of the Order of the Water Resources Commission dated November 18, 1987, Special Order Record, Volume 41, pages 586-594 and by reference herein made a part of this certificate.

The Water User shall, during the operational lifetime of the project, perform or allow the Water Resources Department to perform any tests or studies required by the department to evaluate the effectiveness of measures for the protection of fish.

The water right may not be assigned to any non-municipal entity so as to result in a loss of ownership of the certificate by the municipal corporation or district.

The Water User must remain qualified as a municipal applicant under ORS 537.285 and 537.287. If the Water User proposes to generate hydroelectric power jointly with a non-municipal entity, any agreement between the Water User and the non-municipal entity or

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proposed changes to such agreement must be reviewed by the Water Resources Director to determine whether or not the Water User remains qualified as a municipal applicant.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed SEPTEMBER 28, 1998.

Martha O. Pagel

Recorded in State Record of Water Right Certificates numbered 75821.

POWER CLAIM NO. 883
62966.SCB/JWG

STATE OF OREGON

COUNTY OF MALHEUR

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

BUREAU OF RECLAMATION
1150 CURTIS ROAD, SUITE 100
BOISE, ID 83706-1234

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: S-71431

SOURCE OF WATER: OWYHEE RESERVOIR, CONSTRUCTED UNDER PERMIT R-599, ON THE OWYHEE RIVER

PURPOSE OR USE: IRRIGATION OF 1679.5 ACRES AND SUPPLEMENTAL IRRIGATION OF 74.4 ACRES

MAXIMUM RATE/VOLUME ALLOWED: 7015.6 ACRE-FEET PER YEAR

PERIOD OF USE: APRIL 1 TO OCTOBER 15

DATE OF PRIORITY: MARCH 25, 1991

POINT OF DIVERSION LOCATION: NW 1/4 SW 1/4, SECTION 21, T22S, R45E, W.M.; 264 FEET SOUTH AND 495 FEET EAST FROM WEST 1/4 CORNER, SECTION 21

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion 4.0 acre-feet for each acre irrigated during the irrigation season of each year.

THE PLACE OF USE IS LOCATED AS FOLLOWS:

	PRIMARY	SUPPLEMENTAL
NW 1/4 SW 1/4	3.9 ACRES	
SW 1/4 SW 1/4	2.0 ACRES	
SECTION 25		
TOWNSHIP 15 SOUTH, RANGE 46 EAST, W.M.		
NE 1/4 NE 1/4		14.8 ACRES
SECTION 31		
TOWNSHIP 15 SOUTH, RANGE 47 EAST, W.M.		
NE 1/4 SE 1/4	4.2 ACRES	
SE 1/4 SE 1/4	4.0 ACRES	
SECTION 13		
TOWNSHIP 16 SOUTH, RANGE 46 EAST, W.M.		

	PRIMARY	SUPPLEMENTAL
NW 1/4 SE 1/4	4.2 ACRES	
	SECTION 7	
NW 1/4 NW 1/4	18.3 ACRES	
SW 1/4 NW 1/4	36.3 ACRES	
NW 1/4 SW 1/4	11.1 ACRES	
	SECTION 14	
SE 1/4 NE 1/4	30.4 ACRES	
NE 1/4 SE 1/4	2.4 ACRES	
	SECTION 15	
NE 1/4 SE 1/4	15.5 ACRES	
SE 1/4 SE 1/4	11.7 ACRES	
	SECTION 17	
SW 1/4 NE 1/4	0.7 ACRE	
SW 1/4 NW 1/4	5.4 ACRES	
SE 1/4 NW 1/4	1.2 ACRES	
NE 1/4 SW 1/4	0.6 ACRE	
NW 1/4 SW 1/4	28.0 ACRES	
SW 1/4 SW 1/4	0.9 ACRE	
	SECTION 18	
NE 1/4 NE 1/4	0.1 ACRE	
NW 1/4 NE 1/4	6.0 ACRES	
SW 1/4 NE 1/4	24.1 ACRES	
SE 1/4 NE 1/4	14.9 ACRES	
NE 1/4 NW 1/4	9.5 ACRES	
NW 1/4 NW 1/4	0.5 ACRE	
SE 1/4 NW 1/4	5.7 ACRES	
NE 1/4 SW 1/4	2.5 ACRES	
NW 1/4 SW 1/4	6.7 ACRES	
	SECTION 20	
NE 1/4 NW 1/4	5.6 ACRES	
NW 1/4 NW 1/4	5.3 ACRES	
SW 1/4 NW 1/4	3.3 ACRES	
SE 1/4 NW 1/4	1.7 ACRES	
NE 1/4 SW 1/4	1.0 ACRE	
SW 1/4 SW 1/4	2.3 ACRES	
SE 1/4 SW 1/4	2.5 ACRES	
NE 1/4 SE 1/4	5.4 ACRES	
SW 1/4 SE 1/4	8.4 ACRES	
SE 1/4 SE 1/4	0.9 ACRE	
	SECTION 21	
SW 1/4 NW 1/4	3.5 ACRES	
NE 1/4 SW 1/4	2.7 ACRES	
SE 1/4 SW 1/4	0.6 ACRE	
SW 1/4 SE 1/4	2.8 ACRES	
	SECTION 22	
NW 1/4 NE 1/4	1.7 ACRES	
	SECTION 27	

	PRIMARY	SUPPLEMENTAL
NW 1/4 NE 1/4	1.6 ACRES	
SW 1/4 SW 1/4	1.6 ACRES	
	SECTION 28	
NE 1/4 NE 1/4	2.1 ACRES	
SE 1/4 NE 1/4	0.5 ACRE	
	SECTION 29	
NE 1/4 NW 1/4	27.8 ACRES	
NW 1/4 NW 1/4	38.0 ACRES	
SW 1/4 NW 1/4	39.3 ACRES	
SE 1/4 NW 1/4	21.9 ACRES	
NE 1/4 SW 1/4	9.5 ACRES	
SE 1/4 SE 1/4	11.5 ACRES	
	SECTION 32	
SE 1/4 NW 1/4	2.0 ACRES	
SW 1/4 SW 1/4	19.0 ACRES	
NE 1/4 SE 1/4	6.2 ACRES	
NW 1/4 SE 1/4	5.4 ACRES	
	SECTION 33	
SE 1/4 NE 1/4	5.1 ACRES	
NE 1/4 NW 1/4	9.3 ACRES	
NW 1/4 NW 1/4	0.6 ACRE	
SW 1/4 NW 1/4	2.1 ACRES	
SE 1/4 NW 1/4	2.7 ACRES	
SE 1/4 SW 1/4	6.8 ACRES	
NE 1/4 SE 1/4	4.6 ACRES	
	SECTION 34	
TOWNSHIP 16 SOUTH, RANGE 47 EAST, W.M.		
NE 1/4 SE 1/4	18.5 ACRES	
	SECTION 12	
NE 1/4 SW 1/4	9.5 ACRES	
NW 1/4 SW 1/4	0.5 ACRE	
SW 1/4 SW 1/4	14.0 ACRES	
SW 1/4 SE 1/4	12.6 ACRES	
	SECTION 13	
SE 1/4 SE 1/4	8.0 ACRES	
	SECTION 14	
SW 1/4 NE 1/4	3.7 ACRES	
NW 1/4 SE 1/4	2.3 ACRES	
	SECTION 23	
NW 1/4 NE 1/4	1.5 ACRES	
SW 1/4 NE 1/4	5.0 ACRES	
SW 1/4 NW 1/4	5.2 ACRES	
NE 1/4 SW 1/4	3.0 ACRES	
SE 1/4 SW 1/4	0.8 ACRE	
NE 1/4 SE 1/4	14.2 ACRES	
NW 1/4 SE 1/4	14.8 ACRES	
	SECTION 24	

	PRIMARY	SUPPLEMENTAL
SW 1/4 NE 1/4	1.3 ACRES	
NE 1/4 NW 1/4	1.9 ACRES	
NW 1/4 NW 1/4	1.0 ACRE	
NW 1/4 SW 1/4	0.8 ACRE	
SW 1/4 SW 1/4	1.3 ACRES	
	SECTION 25	
SE 1/4 SE 1/4	1.7 ACRES	
	SECTION 26	
NE 1/4 NE 1/4	5.0 ACRES	
NE 1/4 SW 1/4	3.5 ACRES	
SW 1/4 SE 1/4	3.2 ACRES	
	SECTION 35	
TOWNSHIP 17 SOUTH, RANGE 46 EAST, W.M.		
NW 1/4 NE 1/4	2.5 ACRES	
NE 1/4 NW 1/4	20.5 ACRES	
SW 1/4 SW 1/4	3.0 ACRES	
SE 1/4 SW 1/4	12.3 ACRES	
	SECTION 3	
NE 1/4 NW 1/4	2.6 ACRES	
	SECTION 4	
NE 1/4 NE 1/4	0.8 ACRE	
SE 1/4 NE 1/4	7.5 ACRES	
SW 1/4 SW 1/4	3.7 ACRES	
	SECTION 5	
NE 1/4 NE 1/4	15.9 ACRES	
NE 1/4 SW 1/4	3.4 ACRES	
NW 1/4 SW 1/4	18.1 ACRES	
NE 1/4 SE 1/4	0.8 ACRE	
NW 1/4 SE 1/4	3.1 ACRES	
SE 1/4 SE 1/4	1.3 ACRES	
	SECTION 7	
NE 1/4 SW 1/4	1.3 ACRES	
NW 1/4 SW 1/4	5.4 ACRES	
SW 1/4 SW 1/4	0.8 ACRE	
	SECTION 8	
SE 1/4 NE 1/4	1.7 ACRES	
	SECTION 9	
NW 1/4 NW 1/4	0.9 ACRE	
	SECTION 17	
NW 1/4 NW 1/4	10.1 ACRES	
SW 1/4 NW 1/4	1.5 ACRES	
	SECTION 18	
SE 1/4 NW 1/4	3.0 ACRES	
NE 1/4 SW 1/4	1.0 ACRE	
	SECTION 19	
SW 1/4 NW 1/4	10.6 ACRES	
NW 1/4 SW 1/4	0.6 ACRE	
	SECTION 20	

	PRIMARY	SUPPLEMENTAL
NW 1/4 NW 1/4	2.0 ACRES	
	SECTION 21	
NE 1/4 NE 1/4	17.5 ACRES	
SE 1/4 NE 1/4	2.5 ACRES	
SW 1/4 SW 1/4	5.0 ACRES	
	SECTION 30	
NW 1/4 NW 1/4	23.4 ACRES	
SW 1/4 NW 1/4		28.6 ACRES
	SECTION 32	
TOWNSHIP 17 SOUTH, RANGE 47 EAST, W.M.		
NE 1/4 NE 1/4	0.8 ACRE	
	SECTION 7	
NE 1/4 NE 1/4	2.4 ACRES	
SW 1/4 NE 1/4	0.7 ACRE	
NE 1/4 SE 1/4	4.8 ACRES	
	SECTION 8	
NE 1/4 SW 1/4	2.6 ACRES	
	SECTION 9	
SW 1/4 SE 1/4	20.8 ACRES	
	SECTION 10	
SW 1/4 SW 1/4	12.0 ACRES	
	SECTION 11	
NW 1/4 SW 1/4	12.4 ACRES	
	SECTION 12	
NW 1/4 NW 1/4	5.6 ACRES	
	SECTION 14	
SE 1/4 NW 1/4	5.0 ACRES	
	SECTION 15	
NE 1/4 NW 1/4	1.0 ACRE	
	SECTION 16	
TOWNSHIP 18 SOUTH, RANGE 45 EAST, W.M.		
SE 1/4 NW 1/4	4.4 ACRES	
	SECTION 2	
NE 1/4 SW 1/4	1.8 ACRES	
NW 1/4 SW 1/4	0.1 ACRE	
	SECTION 6	
NW 1/4 NE 1/4	36.7 ACRES	
	SECTION 10	
SW 1/4 SW 1/4	7.0 ACRES	
SE 1/4 SW 1/4	10.0 ACRES	
	SECTION 24	
NE 1/4 SW 1/4		10.9 ACRES
NW 1/4 SW 1/4		3.4 ACRES
	SECTION 26	
NW 1/4 NW 1/4	6.0 ACRES	
SE 1/4 NW 1/4	1.9 ACRES	
	SECTION 27	

	PRIMARY	SUPPLEMENTAL
NW 1/4 NE 1/4	0.7 ACRE	
NE 1/4 NW 1/4	5.1 ACRES	
NW 1/4 NW 1/4	1.5 ACRES	
	SECTION 28	
NE 1/4 NE 1/4	5.7 ACRES	
SW 1/4 NE 1/4	14.5 ACRES	
SE 1/4 NE 1/4	3.2 ACRES	
NW 1/4 SW 1/4	2.7 ACRES	
NE 1/4 SE 1/4	3.4 ACRES	
	SECTION 29	
SW 1/4 NE 1/4	8.7 ACRES	
SE 1/4 NE 1/4	8.5 ACRES	
NW 1/4 SE 1/4	1.3 ACRES	
	SECTION 30	
NE 1/4 NE 1/4	14.0 ACRES	
NW 1/4 NE 1/4	1.8 ACRES	
SE 1/4 NE 1/4	4.1 ACRES	
NW 1/4 SE 1/4	2.4 ACRES	
	SECTION 32	
NW 1/4 SW 1/4	12.9 ACRES	
	SECTION 33	
NW 1/4 NE 1/4	3.4 ACRES	
NW 1/4 NW 1/4	3.9 ACRES	
	SECTION 34	
NW 1/4 NW 1/4	8.3 ACRES	
SW 1/4 NW 1/4	22.3 ACRES	
SE 1/4 NW 1/4	11.5 ACRES	
NE 1/4 SW 1/4	4.6 ACRES	
	SECTION 35	
TOWNSHIP 18 SOUTH, RANGE 46 EAST, W.M.		
SE 1/4 SW 1/4	4.7 ACRES	
SW 1/4 SE 1/4	1.7 ACRES	
	SECTION 13	
NE 1/4 SW 1/4	3.0 ACRES	
SE 1/4 SW 1/4	5.1 ACRES	
NE 1/4 SE 1/4	1.5 ACRES	
NW 1/4 SE 1/4	1.8 ACRES	
SW 1/4 SE 1/4	9.2 ACRES	
SE 1/4 SE 1/4	6.4 ACRES	
	SECTION 14	
SE 1/4 SW 1/4	16.1 ACRES	
NW 1/4 SE 1/4	4.8 ACRES	
SW 1/4 SE 1/4	32.3 ACRES	
SE 1/4 SE 1/4	4.6 ACRES	
	SECTION 15	

	PRIMARY	SUPPLEMENTAL
NE 1/4 NW 1/4	4.0 ACRES	
NW 1/4 NW 1/4	6.5 ACRES	
SE 1/4 SE 1/4	6.1 ACRES	
	SECTION 23	
NE 1/4 NE 1/4	0.7 ACRE	
NW 1/4 NE 1/4	1.2 ACRE	
SW 1/4 NE 1/4	3.1 ACRES	
NE 1/4 SW 1/4	3.0 ACRES	
	SECTION 24	
SW 1/4 NW 1/4	5.4 ACRES	
SW 1/4 SW 1/4	1.3 ACRES	
	SECTION 25	
SE 1/4 NE 1/4	9.8 ACRES	
NW 1/4 SE 1/4	2.3 ACRES	
SW 1/4 SE 1/4	2.0 ACRES	
	SECTION 26	
SE 1/4 SE 1/4	3.5 ACRES	
	SECTION 27	
NE 1/4 SW 1/4	6.1 ACRES	
SW 1/4 SW 1/4	2.7 ACRES	
	SECTION 34	
SE 1/4 NE 1/4	8.9 ACRES	
NE 1/4 SE 1/4	6.0 ACRES	
	SECTION 35	
NE 1/4 NW 1/4	5.7 ACRES	
NE 1/4 SW 1/4	3.8 ACRES	
	SECTION 36	
TOWNSHIP 19 SOUTH, RANGE 46 EAST, W.M.		
SE 1/4 NE 1/4	0.3 ACRE	
NE 1/4 SE 1/4	12.4 ACRES	
NW 1/4 SE 1/4	0.6 ACRE	
	SECTION 9	
NW 1/4 SW 1/4	1.7 ACRES	
	SECTION 10	
NW 1/4 SE 1/4	2.3 ACRES	
SW 1/4 SE 1/4	6.8 ACRES	
	SECTION 11	
NE 1/4 SW 1/4	13.4 ACRES	
NW 1/4 SW 1/4	4.6 ACRES	
SW 1/4 SW 1/4	1.1 ACRES	
SE 1/4 SW 1/4	13.9 ACRES	
SW 1/4 SE 1/4	22.4 ACRES	
	SECTION 12	
NE 1/4 NE 1/4	1.0 ACRE	
SW 1/4 SW 1/4	1.1 ACRES	
NE 1/4 SE 1/4	2.5 ACRES	
SE 1/4 SE 1/4	17.1 ACRES	
	SECTION 13	

	PRIMARY	SUPPLEMENTAL
SW 1/4 NE 1/4	0.2 ACRE	
NE 1/4 SW 1/4	0.8 ACRE	
NW 1/4 SE 1/4	2.5 ACRES	
	SECTION 23	
NE 1/4 NW 1/4	1.4 ACRES	
NW 1/4 SW 1/4	0.2 ACRE	
SW 1/4 SW 1/4	1.8 ACRES	
	SECTION 36	
TOWNSHIP 20 SOUTH, RANGE 45 EAST, W.M.		
NW 1/4 NE 1/4	4.0 ACRES	
	SECTION 3	
SE 1/4 NE 1/4	1.6 ACRES	
NE 1/4 SE 1/4	6.0 ACRES	
	SECTION 5	
SW 1/4 NE 1/4	1.6 ACRES	
NW 1/4 SE 1/4	1.9 ACRES	
	SECTION 7	
NW 1/4 SW 1/4	7.9 ACRES	
SW 1/4 SW 1/4	11.7 ACRES	
	SECTION 9	
SE 1/4 SE 1/4	0.6 ACRE	
	SECTION 15	
NE 1/4 NW 1/4	6.1 ACRES	
NW 1/4 NW 1/4	4.2 ACRES	
NE 1/4 SW 1/4	2.6 ACRES	
SW 1/4 SE 1/4	5.9 ACRES	
	SECTION 18	
NE 1/4 NE 1/4	1.0 ACRE	
	SECTION 22	
NW 1/4 NE 1/4	5.4 ACRES	
	SECTION 24	
NW 1/4 SE 1/4	3.2 ACRES	
	SECTION 29	
SE 1/4 SW 1/4	26.0 ACRES	
	SECTION 32	
TOWNSHIP 20 SOUTH, RANGE 46 EAST, W.M.		
NW 1/4 SW 1/4	19.7 ACRES	
SW 1/4 SW 1/4	11.8 ACRES	
	SECTION 2	
NE 1/4 NW 1/4	7.6 ACRES	
NW 1/4 NW 1/4	9.3 ACRES	
SW 1/4 NW 1/4	13.4 ACRES	
NW 1/4 SW 1/4	5.0 ACRES	
	SECTION 11	
NE 1/4 NE 1/4	2.1 ACRES	
SE 1/4 NE 1/4	2.0 ACRES	
SW 1/4 SW 1/4	8.3 ACRES	
	SECTION 12	

	PRIMARY	SUPPLEMENTAL
NW 1/4 NE 1/4	3.5 ACRES	
NE 1/4 NW 1/4	11.5 ACRES	
SE 1/4 NW 1/4	2.7 ACRES	
	SECTION 14	
TOWNSHIP 21 SOUTH, RANGE 45 EAST, W.M.		
NE 1/4 SE 1/4	8.0 ACRES	
	SECTION 2	
SW 1/4 SW 1/4	5.3 ACRES	
SE 1/4 SW 1/4	1.2 ACRES	
	SECTION 6	
NW 1/4 NW 1/4	1.2 ACRES	
NW 1/4 SE 1/4		4.2 ACRES
SW 1/4 SE 2/4		12.3 ACRES
SE 1/4 SE 1/4	5.8 ACRES	
	SECTION 7	
SE 1/4 NE 1/4	2.2 ACRES	
NE 1/4 NW 1/4	0.6 ACRES	
	SECTION 11	
NE 1/4 SW 1/4	11.3 ACRES	
NW 1/4 SW 1/4	1.2 ACRES	
NE 1/4 SE 1/4	1.5 ACRES	
NW 1/4 SE 1/4	7.4 ACRES	
SW 1/4 SE 1/4	1.5 ACRES	
SE 1/4 SE 1/4	4.0 ACRES	
	SECTION 12	
NW 1/4 SE 1/4	8.4 ACRES	
	SECTION 14	
NW 1/4 NE 1/4		0.2 ACRE
SW 1/4 SW 1/4	6.7 ACRES	
SE 1/4 SW 1/4	3.7 ACRES	
	SECTION 18	
NE 1/4 SW 1/4	23.8 ACRES	
NW 1/4 SW 1/4	5.0 ACRES	
	SECTION 22	
TOWNSHIP 21 SOUTH, RANGE 46 EAST, W.M.		

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use

information, including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

This right is limited to any deficiency in the available supply of any prior right existing for the same land.

The permittee shall install, maintain, and operate fish screening and by-pass devices as required by the Oregon Department of Fish and Wildlife to prevent fish from entering the proposed diversion. The required screens and by-pass devices are to be in place, functional and approved by an ODFW representative prior to diversion of any water.

STANDARD CONDITIONS

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water allowed herein may be made only at times when sufficient water is available to satisfy all prior rights, including prior rights for maintaining instream flows.

Actual construction work shall begin within one year from permit issuance. Complete application of the water to the use shall be made on or before October 1, 2011. Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

Issued May 24, 2007

E. Timothy Wall for
Phillip C. Ward, Director

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-11549, Malheur County	))	CORRECTING SUPERSEDING FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER

Authority

ORS 540.570 to 540.580 establishes the process in which a district may submit a request to transfer a water right within district boundaries. OAR Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.

Applicant

OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST ST.
NYSSA, OR 97913

Findings of Fact

1. On March 18, 2013, Owyhee Irrigation District (OID) filed a district transfer application to permanently change the place of use under Certificates 75691, 75708 and 75689. The Department assigned the application number T-11549.

2. On May 16, 2013 final amendments and clarifications to the places of use involved in this transfer were received by the Department.

3. Notice of the application for transfer was published on April 2, 2012, pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

4. This order is issued to supersede the Final Order recorded at Special Order Volume 89, Pages 883-887. This correcting order is necessary to correct a scrivener's error in one of the quarter-quarters, one of the section numbers, and to correct the inadvertent omission of an additionally layered supplemental irrigation right on one place of use location. The transfer of both primary irrigation and supplemental irrigation was approved in the Final Order recorded at Special Order Volume 89, Pages 883-887 for the identical place of use also layered with the omitted supplemental right.

5. The corrections in Findings of Facts 7, 8, 10 and 11 appear in **bold.**

6. The portion of the first right to be transferred is as follows:

   Certificate: 75691 in the name of UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Use: IRRIGATION of 122.38 acres
Priority Dates: FEBRUARY 15, 1916 for stored water and AUGUST 19, 1924 for direct flow.
Duty/Limit: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet (af) per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.
Sources: OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion (POD):

POD Name	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
Owyhee Dam	22 S	45 E	WM	20	NW SE	200 feet south and 2010 feet west from the common corner to Sections 20 and 21
Glory Hole Spillway	22 S	45 E	WM	20	NWSE	200 feet south and 1680 feet west from the common corner to Sections 20 and 21
Tunnel 1	22 S	45 E	WM	21	NW SW	495 feet east and 264 feet south from the common corner to Sections 20 and 21

Authorized Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	User Name	Notice
21 S	46 E	WM	14	NE SW	1.00	700	Adrian School District #61	12-10201
18 S	46 E	WM	27	SW SW	0.90	600	Bishop	12-46401
18 S	46 E	WM	28	SW SE	2.70	800	Kemble	12-46100
18 S	46 E	WM	28	NW SE	4.60	800	Kemble	12-46100
20 S	46 E	WM	16	SW NW	7.10	1900	Brown	12-21402
20 S	46 E	WM	17	SE NW	2.30	1900	Brown	12-21402
20 S	46 E	WM	17	SW NE	1.20	1900	Brown	12-21402
20 S	46 E	WM	17	SE NE	2.34	1900	Brown	12-21402
20 S	46 E	WM	17	NW NE	0.30	1900	Brown	12-21402
20 S	46 E	WM	17	NE NE	0.20	1900	Brown	12-21402
20 S	46 E	WM	20	NE NE	2.76	100	Stephen	12-19400
19 S	46 E	WM	28	NW NW	0.60	5400	Mautz	12-29300
19 S	46 E	WM	28	NW NW	3.33	5400	Mautz	12-29300
19 S	46 E	WM	28	SE NW	12.90	5400	Mautz	12-29300
19 S	46 E	WM	28	NE SW	9.00	5400	Mautz	12-29300
17 S	47 E	WM	21	NW NW	0.90	203	Finnerty	12-67101
20 S	46 E	WM	20	NE NW	0.10	200	Tullett	12-25900
20 S	46 E	WM	20	NE NW	0.80	200	Tullett	12-25900
20 S	46 E	WM	20	NW NE	1.70	200	Tullett	12-25900
20 S	46 E	WM	20	SW NE	0.40	200	Tullett	12-25900
20 S	46 E	WM	15	NW SW	2.50	500	Whipple	12-35500
20 S	46 E	WM	15	NW SW	2.50	500	Whipple	12-35500
20 S	46 E	WM	15	SW SW	1.00	500	Whipple	12-35500
18 S	47 E	WM	5	SE SE	0.70	1600	Grimaldo	12-151600
18 S	47 E	WM	17	SE NE	0.95	4401	Harris	12-140501
18 S	45 E	WM	9	SW NW	1.40	1000	Jantz	12-56601

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	User Name	Notice
18 S	45 E	WM	9	NWSW?	5.20	1000	Jantz	12-56601
18 S	45 E	WM	9	SW SW	6.90	1000	Jantz	12-56601
18 S	45 E	WM	9	NE SW	5.00	500	Jantz	12-56601
18 S	45 E	WM	9	SW NE	1.60	300	Jantz	12-56601
18 S	45 E	WM	9	NW SE	1.90	300	Jantz	12-56601
18 S	45 E	WM	9	SW SE	0.70	300	Jantz	12-56601
18 S	45 E	WM	9	SW SE	2.20	300	Jantz	12-56601
18 S	45 E	WM	16	NE NW	13.70	700	Jantz	12-56601
18 S	45 E	WM	16	NW NE	5.80	300	Jantz	12-56601
18 S	45 E	WM	16	SW NE	1.50	300	Jantz	12-56601
18 S	45 E	WM	16	SW NW	10.10	700	Jantz	12-56601
18 S	45 E	WM	16	NE SW	0.60	700	Jantz	12-56601
17 S	47 E	WM	16	NW SW	2.30	1000	Stirm	12-66500
17 S	47 E	WM	16	NE SW	0.70	1000	Stirm	12-66500
				TOTAL:	**122.38**			

7. Transfer Application T-11549 proposes to change the places of use to:

Proposed Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
21 S	46 E	WM	14	NW SW	0.50	800	Two Rivers Development Inc.	12-10202
21 S	46 E	WM	14	NW SW	0.50	900	Two Rivers Development Inc.	12-10202
18 S	46 E	WM	27	SW SW	0.90	700	Bishop	12-46401
18 S	46 E	WM	28	SE SE	7.30	800	Kemble	12-46100
20 S	46 E	WM	17	NE **NW**	13.44	1900	Brown	12-21402
20 S	46 E	WM	20	NE NE	0.38	100	Stephen	12-19400
20 S	46 E	WM	20	SE NE	2.38	100	Stephen	12-19400
19 S	46 E	WM	28	NW NW	1.60	5400	Mautz	12-29300
19 S	46 E	WM	28	SW NW	24.23	5400	Mautz	12-29300
19 S	46 E	WM	28	SW NW	0.90	5400	Finnerty	12-67101
20 S	46 E	WM	20	SE NW	3.00	200	Tullett	12-25900
20 S	46 E	WM	15	NW SW	0.50	500	Whipple	12-35500
20 S	46 E	WM	15	SW SW	5.50	500	Whipple	12-35500
18 S	45 E	WM	9	NW SW	2.11	1000	Jantz	12-56601
18 S	45 E	WM	9	NE SW	4.00	500	Jantz	12-56601
18 S	45 E	WM	16	NE NW	13.40	700	Jantz	12-56601
18 S	45 E	WM	16	NW NE	4.00	300	Jantz	12-56601
18 S	45 E	WM	16	SE NW	16.06	700	Jantz	12-56601
18 S	45 E	WM	16	SW NE	13.80	700	Jantz	12-56601
18 S	45 E	WM	9	SW SE	1.40	300	Jantz	12-56601
20 S	46 E	WM	20	SW NE	6.48	400	Malheur County	------
				Total:	**122.38**			

8. The portion of the supplemental irrigation right to be transferred is as follows:

Certificate: 75708, in the name of Owyhee Irrigation District (perfected under Permit S-1786)
Use: SUPPLEMENTAL IRRIGATION of 1.65 acres
Priority Date: July 8, 1913

Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-EIGHTIETH of one cfs per acre, or its equivalent for each acre irrigated each year.
Source: Snake River, a tributary of the Columbia River

Authorized Points of Diversion:

POD Name	Twp	Rng	Mer	Sec	Lot	Q-Q	Additional Description
Dunaway Pumping Plant	20 S	47 E	WM	18	3	NE SW	River Mile 394.2

Authorized Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
18 S	47 E	WM	17	SE NE	0.95	4401	Harris	12-140501
18 S	47 E	WM	5	SE SE	0.70	1600	Grimaldo	12-151600
				TOTAL:	1.65			

9. Transfer Application T-11549 proposes to change the places of use to:

Proposed Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
20 S	46 E	WM	20	SW NE	1.65	400	Malheur County	12-140501

10. The portion of the supplemental irrigation right to be transferred is as follows:

Certificate: 75689, in the name of UNITED STATES OF AMERICA, BUREAU OF RECLAMATION (perfected under Permit S-24285)
Use: SUPPLEMENTAL IRRIGATION of **1.65** acre
Priority Date: October 1, 1951
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cfs per acre, or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year.
Source: Snake River, a tributary of the Columbia River
Authorized Points of Diversion:

POD Name	Twp	Rng	Mer	Sec	Lot	Q-Q	Additional Description
Dunaway Pumping Plant	20 S	47 E	WM	18	3	NE SW	River Mile 394.2

Authorized Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
18 S	**47 E**	**WM**	**17**	**SE NE**	**0.95**	**4401**	**Harris**	**12-140501**
18 S	47 E	WM	5	SE SE	0.70	1600	Grimaldo	12-151600
				TOTAL:	**1.65**			

11. Transfer Application T-11549 proposes to change the places of use to:

Proposed Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
20 S	46 E	WM	20	SW NE	**1.65**	400	Malheur County	----------

12. The district permanent transfer application satisfies the criteria of OAR 690-385-4000 contains the information required under OAR 690-385-2000 and includes maps meeting the requirements of OAR 690-385-2200.

13. The water rights are subject to transfer as defined in OAR 690-385-0100(17).

14. The proposed change in places of use will not result in enlargement of the rights.

15. The proposed change in places of use will not result in injury to other water rights.

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-11549 satisfy the requirements of ORS 540.574(3) and 540.580.

Now, therefore, it is ORDERED:

1. The final order recorded at Special Order Volume 89, Pages 883-887 is withdrawn and of no further force or effect and is superseded by this order.
2. The proposed changes in place of use to the water rights evidenced by Certificates 75691, 75708 and 75689 are approved.
3. The right to the use of the water is restricted to beneficial use at the place of use described and is subject to all other conditions and limitations contained in Certificates 75691, 75708 and 75689 and any related decree.
4. The former places of use shall no longer be irrigated as part of these water rights.
5. The water user shall maintain and operate the existing measurement device and shall make such improvements as may be required by the Department.
6. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before October 1, 2014. A Claim of Beneficial Use shall be submitted to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.
7. Certificates 75691, 75708 and 75689 are modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

Dated at Salem, Oregon this 28 day of September 2017.

Dwight French, Water Right Services Administrator for
THOMAS M. BYLER, DIRECTOR

Mailing Date: OCT 03 2017

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-11712, Malheur County	))	FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER

Authority

ORS 540.570 to 540.580 establishes the process in which a district may submit a request to transfer a water right within district boundaries. OAR Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.

Applicant

OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST ST.
NYSSA, OR 97913

Findings of Fact

1. On January 9, 2014, Owyhee Irrigation District (OID) filed a district transfer application to permanently change the place of use under Certificate 75691. The Department assigned the application number T-11712.

2. Notice of the application for transfer was published on January 14, 2013, pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

3. On March 10, 2014, the applicant provided additional review materials for the portion of the right to be transferred.

4. The portion of the first right to be transferred is as follows:

   Certificate: 75691 in the name of UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)
   Use: IRRIGATION of 20.67acres
   Priority Dates: FEBRUARY 15, 1916 for stored water and AUGUST 19, 1924 for direct flow.
   Duty/Limit: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet (af) per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Sources: OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion (POD):

POD Name	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
OWYHEE DAM	22S	45E	WM	20	NW SE	200 FEET SOUTH AND 2010 FEET WEST FROM THE COMMON CORNER OF SECTIONS 20 AND 21
GLORY HOLE SPILLWAY	22S	45E	WM	20	NW SE	200 FEET SOUTH AND 1680 FEET WEST FROM THE COMMON CORNER TO SECTIONS 20 AND 21
TUNNEL 1	22S	45E	WM	21	NW SW	495 FEET EAST AND 264 FEET SOUTH FROM THE COMMON CORNER TO SECTIONS 20 AND 21

Authorized Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	User Name	Notice
20S	45E	WM	25	SE SW	1.02	800	Barlow Farms	13-21700
20S	45E	WM	25	SW SE	1.03	900	Barlow Farms	13-21700
20S	45E	WM	25	SW SW	1.02	800	Barlow Farms	13-21700
19S	46E	WM	23	NE NW	4.10	500	Kesler	13-36200
20S	46E	WM	17	NE NW	2.60	1900	Brown	13-21403
20S	46E	WM	18	NW NW	2.60	300	Bennett	13-25600
20S	46E	WM	18	NE NW	4.00	300	Bennett	13-25600
20S	46E	WM	18	SE NW	1.10	300	Bennett	13-25600
20S	46E	WM	32	SW SE	3.10	1100	Bennett	13-3300
20S	46E	WM	32	SE SE	0.10	700	Bennett	13-3300
				Total:	**20.67**			

5. Transfer Application T-11712 proposes to change the places of use to:

Proposed Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Owner Name	Notice
20S	45E	WM	25	SW SW	0.64	800	Barlow Farms	13-21700
20S	45E	WM	25	SE SW	0.20	800	Barlow Farms	13-21700
20S	45E	WM	25	SE SE	2.23	900	Barlow Farms	13-21700
19S	46E	WM	14	SW NE	4.10	500	Kesler	13-37101
20S	46E	WM	17	SE NE	2.60	1900	Grant 4-D Farms	13-21402
20S	46E	WM	18	NW NW	2.20	300	Bennett	13-25600
20S	46E	WM	32	SE SE	4.90	700	Bennett	13-3300
20S	46E	WM	32	SW SE	3.80	1100	Bennett	13-3300
				Total:	**20.67**			

6. The district permanent transfer application satisfies the criteria of OAR 690-385-4000 contains the information required under OAR 690-385-2000 and includes maps meeting the requirements of OAR 690-385-2200.

7. The water rights are subject to transfer as defined in OAR 690-385-0100(17).

8. The proposed change in places of use will not result in enlargement of the rights.

9. The proposed change in places of use will not result in injury to other water rights.

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-11712 satisfy the requirements of ORS 540.574(3) and 540.580.

Now, therefore, it is ORDERED:

1. The proposed change in place of use to the water rights evidenced by Certificate 75691 is approved.
2. The right to the use of the water is restricted to beneficial use at the place of use described and is subject to all other conditions and limitations contained in Certificate 75691, and any related decree.
3. The former places of use shall no longer be irrigated as part of these water rights.
4. The water user shall maintain and operate the existing measurement device and shall make such improvements as may be required by the Department.
5. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before October 1, 2015. A Claim of Beneficial Use shall be submitted to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.
6. Certificate 75691 is modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

Dated at Salem, Oregon this 25 day of March 2014.

Dwight French, Water Right Services Administrator for
PHILLIP C. WARD, DIRECTOR

Mailing Date: APR 04 2014

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-11958, Malheur County	)	CORRECTING SUPERSEDING FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER AND PARTIAL CANCELLATION OF A WATER RIGHT

Authority

ORS 540.570 to 540.580 establishes the process in which a district may submit a request to transfer a water right within district boundaries. OAR Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.
ORS 540.621 directs the Commission to enter an order cancelling a water right whenever the owner of a perfected and developed water right certifies under oath to the Commission that the water right has been abandoned and the owner desires to cancel the right.

Applicant

OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST ST.
NYSSA, OR 97913

Findings of Fact

1. On January 2, 2015, Owyhee Irrigation District (OID) filed a district transfer application to permanently change the place of use under Certificate 75691. The Department assigned the application number T-11958.

2. Notice of the application for transfer was published on January 13, 2015, pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

3. On June 5, 2015, OID requested the cancellation of a layered (overlapping) portion of Certificate 75708.

4. This order is issued to supersede the Final Order recorded at Special Order Volume 96, Pages 254-257. This correcting order is necessary to correct a scrivener's errors in an acreage amount, range location and tax lot number, and to correct the cancelled place of use shown in Finding of Fact #10 of the original order. The corrected place of use is consistent with OID's request made on June 5, 2015. The corrections are in **bold.**

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

5. The portion of the right to be transferred is as follows:

Certificate: 75691 in the name of UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)
Use: Primary Irrigation of **58.19 a**cres
Priority Dates: February 15, 1916 for stored water and August 19, 1924 for direct flow
Duty/Limit: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet (AF) per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

Sources: OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion (POD):

POD Name	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
OWYHEE DAM	22 S	45 E	WM	20	NW SE	200 FEET SOUTH AND 2010 FEET WEST FROM THE COMMON CORNER OF SECTIONS 20 AND 21
GLORY HOLE SPILLWAY	22 S	45 E	WM	20	NW SE	200 FEET SOUTH AND 1680 FEET WEST FROM THE COMMON CORNER TO SECTIONS 20 AND 21
TUNNEL 1	22 S	45 E	WM	21	NW SW	495 FEET EAST AND 264 FEET SOUTH FROM THE COMMON CORNER TO SECTIONS 20 AND 21

Authorized Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice#
20 S	45 E	WM	13	SW NE	1.20	300	Bennett, Norman	14-25600
20 S	45 E	WM	35	SW NE	2.45	300	Hatfield, Kenneth	14-17300
20 S	45 E	WM	35	SE NE	2.43	300	Hatfield, Kenneth	14-17300
20 S	45 E	WM	35	SE NE	1.06	500	Hatfield, Kenneth	14-17300
20 S	45 E	WM	35	SW SE	3.00	2800	Hatfield, Kenneth	14-17300
20 S	45 E	WM	36	NW SW	2.30	500	Bennett, Norman	14-25600
20 S	46 E	WM	3	SE NE	0.30	500	Froerer family	14-27300
20 S	46 E	WM	4	NW SW	2.97	300	Brown, Garrett	14-27404
20 S	46 E	WM	18	SW NE	2.10	300	Bennett, Norman	14-25600
20 S	46 E	WM	18	NW NW	3.22	300	Bennett, Norman	14-25600
20 S	46 E	WM	18	SW NW	4.05	300	Bennett, Norman	14-25600
20 S	46 E	WM	18	NE SW	4.30	300	Bennett, Norman	14-25600
20 S	46 E	WM	18	NW SW	2.76	300	Bennett, Norman	14-25600
20 S	46 E	WM	18	NW SW	0.70	400	Tullett, Todd	14-25900
20 S	46 E	WM	18	SE SW	0.80	700	Tullett, Todd	14-25900
20 S	46 E	WM	18	SE SE	1.52	600	Bennett, Norman	14-25600
20 S	46 E	WM	20	NW NE	1.63	200	Tullett, Todd	14-25900
20 S	46 E	WM	20	NE NW	3.42	200	Tullett, Todd	14-25900
20 S	46 E	WM	20	SE NW	0.68	200	Tullett, Todd	14-25900
20 S	46 E	WM	30	SE NW	1.49	400	Garner Trust	14-22700
20 S	**45E**	WM	35	SW SE	1.60	2800	Hatfield, Kenneth	14-17300
21 S	46 E	WM	5	SW SW	2.74	**700**	Cruickshank, Chad	14-4101

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice#
21 S	46 E	WM	5	SE SW	6.00	700	Cruickshank, Chad	14-4101
21 S	46 E	WM	8	NW NW	1.77	700	Cruickshank, Chad	14-4101
17 S	47 E	WM	16	SE SW	0.30	1600	McClure, Robert	14-63705
17 S	47 E	WM	16	SW SW	3.00	500	Stirm, Joseph	14-66500
18 S	47 E	WM	5	SE NE	**0.40**	800	Yano, Sheryl	14-150400
				Total:	**58.19**			

6. Transfer Application T-11958 proposes to change the places of use to:

Proposed Places of Use:

Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice#
20S	45E	WM	13	SW NE	2.36	300	Bennett, Norman	14-25600
20S	45E	WM	13	NW SE	10.23	300	Bennett, Norman	14-25600
20S	45E	WM	13	SW SE	1.57	300	Bennett, Norman	14-25600
20S	45E	WM	35	SW NE	1.00	300	Hatfield, Kenneth	14-17300
20S	45E	WM	35	SE NE	3.06	300	Hatfield, Kenneth	14-17300
20S	45E	WM	35	NE SE	4.31	300	Hatfield, Kenneth	14-17300
20S	45E	WM	35	NW SE	2.17	300	Hatfield, Kenneth	14-17300
20S	45E	WM	36	SW SW	0.96	500	Bennett, Norman	14-25600
20S	45E	WM	36	SW SW	0.30	500	Bennett, Norman	14-25600
20S	45E	WM	36	SW SW	**0.40**	500	Bennett, Norman	14-25600
20S	46E	WM	3	SE NE	0.30	500	Froerer Family	14-27300
20S	46E	WM	4	SW NW	0.29	300	Brown, Garrett	14-27404
20S	46E	WM	4	NW SW	2.68	300	Brown, Garrett	14-27404
20S	46E	WM	18	SW NW	0.55	300	Bennett, Norman	14-25600
20S	46E	WM	18	NW SW	5.78	300	Bennett, Norman	14-25600
20S	46E	WM	20	NE NW	7.23	200	Tullett, Todd	14-25900
20S	46E	WM	30	NW SW	1.49	900	Garner Trust	14-22700
21S	46E	WM	5	SW SW	9.18	700	Cruickshank, Chad	14-4101
21S	46E	WM	5	SE SW	0.20	700	Cruickshank, Chad	14-4101
21S	46E	WM	8	NW NW	1.13	700	Cruickshank, Chad	14-4101
17S	47E	WM	16	NE SW	0.70	1000	Stirm, Joseph	14-66500
17S	47E	WM	16	NW SW	2.30	1000	Stirm, Joseph	14-66500
				Total:	**58.19**			

7. The district permanent transfer application satisfies the criteria of OAR 690-385-4000 contains the information required under OAR 690-385-2000 and includes maps meeting the requirements of OAR 690-385-2200.

8. The water rights are subject to transfer as defined in OAR 690-385-0100(17).

9. The proposed change in places of use will not result in enlargement of the rights.

10. The proposed change in places of use will not result in injury to other water rights.

Partial Cancellation of a Water Right

11. On June 5, 2015, OID requested the cancellation of a portion of Supplemental Irrigation under Certificate 75708. The portion to be cancelled is described as follows:

Certificate: 75708 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1786)

Use: Supplemental Irrigation of **0.40** Acres

Priority Date: July 8, 1913.

Rate/Limit: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-EIGHTIETH of one cubic foot per second per acre, or its equivalent for each acre irrigated each year.

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice#
18S	47E	WM	5	SE NE	0.40	800	Yano, Sheryl	14-150400

12. The portion of the water right as evidenced by Water Right Certificate 75708, which has been abandoned, is for supplemental irrigation on the lands described in Finding of Fact #11. The abandoned portion of the water right no longer authorizes water to be applied at the place of use described in Finding of Fact #11, but does not reduce the total quantity of water available.

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-11958 satisfy the requirements of ORS 540.574(3) and 540.580 and the abandoned portion of the right should be cancelled.

Now, therefore, it is ORDERED:

1. The Final Order recorded at Special Order Volume96, Pages 254-257, is withdrawn and of no further force or effect and is superseded by this order.
2. The water rights appurtenant to the land described in Finding of Fact #11 is cancelled.
3. The proposed change in place of use to the water rights evidenced by Certificate 75691 is approved.
4. The right to the use of the water is restricted to beneficial use at the place of use described and is subject to all other conditions and limitations contained in Certificate 75691, and any related decree.
5. Certificate 75708 shall be modified to reflect the cancellation of **0.40** acres, as described in Finding of Fact #11. However, the total quantity of water that can be diverted for supplemental irrigation shall remain unchanged.
6. The former places of use shall no longer be irrigated as part of these water rights.
7. The water user shall maintain and operate the existing measurement device and shall make such improvements as may be required by the Department.

8. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before October 1, 2016. A Claim of Beneficial Use shall be submitted to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

9. Certificates 75691 and 75708 are modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

Dated at Salem, Oregon this 21 day of September 2017.

Dwight French, Water Right Services Administrator for
THOMAS M. BYLER, DIRECTOR

Mailing Date: SEP 26 2017

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-12020, Malheur County	)	FINAL ORDER APPROVING A CHANGE IN POINT OF DIVERSION AND CHANGES IN PLACE OF USE AND PARTIAL CANCELLATION OF A WATER RIGHT

Authority

Oregon Revised Statutes (ORS) 540.505 to 540.580 establish the process in which a water right holder may submit a request to transfer the point of diversion, place of use, or character of use authorized under an existing water right. Oregon Administrative Rules (OAR) Chapter 690, Division 380 implement the statutes and provides the Department's procedures and criteria for evaluating transfer applications. ORS 540.621 establishes the process for the owner of land to which a water right is appurtenant to certify under oath that the water right, or a portion thereof, has been abandoned and to voluntarily request that it be cancelled.

Applicant

ROBERT K. AND SUSAN B. CARLSON
2300 ASPEN COVE DR
MERIDIAN, ID 83642
robertkcarlson@aol.com

Findings of Fact

1. On March 30, 2015, ROBERT K. AND SUSAN B. CARLSON filed an application to change the point of diversion and to change the place of use under Certificates 75699 and 44030. The Department assigned the application number T-12020.

2. Notice of the application for transfer was published on April 7, 2015, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.

3. On September 28, 2017, the applicant submitted an amended transfer application.

4. On December 28, 2017, the applicant submitted an amended transfer map.

5. On January 26, 2018, the Department sent a copy of the draft Preliminary Determination proposing to approve Transfer Application T-12020 to the applicants. The draft Preliminary Determination cover letter set forth a deadline of February 26, 2018, for the applicants to

This final order is subject to judicial review by the Court of Appeals under ORS 183.482. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.482(1). Pursuant to ORS 536.075 and OAR 137-003-0675, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

respond. The applicants requested the completion date by extended to October 1, 2023 and for the Department to proceed with issuance of a Preliminary Determination and provided the necessary information to demonstrate that the applicants are authorized to pursue the transfer.

6. On April 25, 2018, the Department issued a Preliminary Determination proposing to approve Transfer Application T-12020 and sent a copy to the applicants. Additionally, notice of the Preliminary Determination for the transfer application was published in the Department's weekly notice on May 1, 2018, and in the Argus Observer newspaper on April 29, 2018, and May 6, 2018, pursuant to ORS 540.520 and OAR 690-380-4020. No protests were filed in response to the notice.

7. The portion of the first right to be transferred is as follows:

Certificate: 75699 in the name of OWYHEE DITCH CO. (confirmed by Owyhee River Decree)
Use: IRRIGATION of 2.0 ACRES
Priority Date: OCTOBER 30, 1888
Limit/Duty: The amount of water to which this right is entitled for the purposes aforesaid shall not exceed 1.0 acre foot per acre during any calendar month prior to June 1st and .75 acre foot per acre during any calendar month after June 1st of each year, and a total not to exceed 3.0 acre feet per acre during the irrigation season.
Period of Use: APRIL 1 – OCTOBER 15
Source: OWYHEE RIVER, tributary to the SNAKE RIVER

Authorized Point of Diversion:

Ditch Name
THE OWYHEE DITCH

Authorized Place of Use:

IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
19 S	47 E	WM	31	SE NW	2.0

8. Transfer Application T-12020 proposes to move the authorized point of diversion approximately 6.3 miles upstream to:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
22 S	45 E	WM	9	SW NW	CARLSON POD - 1580 FEET NORTH AND 270 FEET EAST FROM THE WEST 1/4 CORNER OF SECTION 9

9. Transfer Application T-12020 also proposes to change the place of use of the right to:

IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
22 S	45 E	WM	9	NW NW	1.2
22 S	45 E	WM	9	SW NW	0.8
				Total	2.0

10. The portion of the second right to be transferred is as follows:

Certificate: 44030 in the name of U.S. BUREAU OF RECLAMATION (perfected under Permit S-33967)
Use: SUPPLEMENTAL IRRIGATION of 2.0 ACRES
Priority Date: NOVEMBER 7, 1968
Rate: 21000.0 ACRE-FEET
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of 4.5 acre-feet per acre for each acre irrigated during the irrigation season of each year, provided further that the right allowed herein shall be limited to any deficiency in the available supply of any prior right existing for the same land and shall not exceed the limitation allowed herein.
Source: OWYHEE RESERVOIR, tributary to the OWYHEE RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q
22 S	45 E	WM	20	NW SE

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
19 S	47 E	WM	31	SE NW	2.0

11. Transfer Application T-12020 proposes to change the place of use of the right to:

SUPPLEMENTAL IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
22 S	45 E	WM	9	NW NW	1.2
22 S	45 E	WM	9	SW NW	0.8
				Total	2.0

12. The Oregon Department of Fish and Wildlife (ODFW) has determined that a fish screen is necessary at the new point of diversion to prevent fish from entering the diversion and that the diversion is not currently equipped with an appropriate fish screen. This diversion may be eligible for screening cost-share funds.

Transfer Review Criteria [OAR 690-380-4010(2)]

13. Water has been used within the last five years according to the terms and conditions of the rights. There is no information in the record that would demonstrate that the rights are subject to forfeiture under ORS 540.610.

14. A diversion structure and ditch sufficient to use the full amount of water allowed under the existing rights were present within the five-year period prior to submittal of Transfer Application T-12020.

15. The proposed changes would not result in enlargement of the rights.

16. The proposed changes would not result in injury to other water rights.

Partial Cancellation of a Water Right

17. On January 12, 2018, an affidavit certifying that a portion of a water right has been abandoned and requesting cancellation of the right was received from Charles Hansen & the irrigation district. The right to be cancelled is as follows:

Certificate: 29394 in the name of OWYHEE DITCH CO. (perfected under Permit S-23806)
Use: SUPPLEMENTAL IRRIGATION of 2.0 ACRES
Priority Date: MARCH 14, 1955
Rate: 0.004 CUBIC FEET PER SECOND
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to ONE-SIXTIETH of one cubic foot per second, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 4.0 acre-feet per acre for each acre irrigated during the irrigation season of each year, and shall also be limited to the water available at the proposed point of diversion and shall not carry with it the right to compel the continuance of the waste water.
Source: WASTEWATER IN COW HOLLOW WASTEWAY, tributary to the OWYHEE RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q
20 S	46 E	WM	33	SW NE

Authorized Place of Use to be Cancelled:

SUPPLEMENTAL IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
19 S	47 E	WM	31	SE NW	2.0

18. On January 12, 2018, an affidavit certifying that a portion of a water right has been abandoned and requesting cancellation of the right was received from Charles Hansen & the irrigation district. The right to be cancelled is as follows:

Certificate: 75690 in the name of UNITED STATES OF AMERICA BUREAU OF RECLAMATION (perfected under Permit S-24285)
Use: SUPPLEMENTAL IRRIGATION of 2.0 ACRES
Priority Date: OCTOBER 1, 1951
Rate: 0.04 CUBIC FEET PER SECOND
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per second per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet per acre for each acre irrigated during the irrigation season of each year.
Source: SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	GLot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT

Authorized Place of Use to be Cancelled:

SUPPLEMENTAL IRRIGATION					
Twp	Rng	Mer	Sec	Q-Q	Acres
19 S	47 E	WM	31	SE NW	2.0

Determination and Proposed Action

The change in point of diversion and change in place of use proposed in Transfer Application T-12020 appears to be consistent with the requirements of ORS 540.505 to 540.580 and OAR 690-380-5000 and the abandoned right should be cancelled. If protests are not filed pursuant to OAR 690-380-4030, the transfer application will be approved and the abandoned rights will be cancelled.

Now, therefore, it is ORDERED:

1. The change in point of diversion and change in place of use proposed in Transfer Application T-12020 are approved. The portion of the rights that has been abandoned are cancelled.

2. The right to the use of the water is restricted to beneficial use at the place of use described, and is subject to all other conditions and limitations contained in Certificates 75699 and 44030 and any related decree.

3. Water right certificates 29394, 75690, 75699 and 44030 are modified. The Department will issue superseding certificates describing the rights when it determines that it is necessary for record keeping.

4. The quantity of water diverted at the new point of diversion, shall not exceed the quantity of water lawfully available at the original points of diversion.

5. Water use measurement conditions:
    a. **Before water use may begin** under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device, at each new point of diversion.
    b. The water user shall maintain the meters or measuring devices in good working order.
    c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.

6. Prior to diverting water, the water user shall install an approved fish screen at the new point of diversion and shall provide to the OWRD a written statement from Oregon Department of

Fish and Wildlife (ODFW) that the installed screen meets the state's criteria, or that ODFW has determined a screen is not necessary.

The water user shall operate and maintain the fish screen at the new point of diversion consistent with ODFW's operational and maintenance standards. If ODFW determines the screen is not functioning properly, and is unsuccessful in working with the water user to meet ODFW standards, ODFW may request that OWRD regulate the use of water until OWRD receives notification from ODFW that the fish screen is functioning properly.

7. The former place of use of the transferred rights shall no longer receive water under the rights.

8. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2023**. A Claim of Beneficial Use prepared by a Certified Water Right Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

9. After satisfactory proof of beneficial use is received, new certificates confirming the rights transferred will be issued.

Dated at Salem, Oregon this JUN 18 2018.

Dwight French, Water Right Services Administrator, for
Thomas M. Byler, Director
Oregon Water Resources Department

Mailing date: JUN 19 2018

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-12237, Malheur County	))	CORRECTING SUPERSEDING FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER

Authority
ORS 540.570 to 540.580 establishes the process in which a district may submit a request to transfer a water right within district boundaries. OAR Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.

Applicant
OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST ST.
NYSSA, OR 97913

Findings of Fact

1. On January 4, 2016, Owyhee Irrigation District (OID) filed a district transfer application to permanently change the place of use under Certificates 75691, 75712, **75688, 75689**, and 75708. The Department assigned the application number T-12237.

2. Notice of the application for transfer was published on January 12, 2016, pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

3. On February 2, 2016, the applicant provided additional information and clarified the authorized and proposed places of use both authorized and proposed.

4. On February 23, 2016, notice of the application for Transfer was published for Transfer Application T-12237 this publication included Certificate 75688. No comments were filed in response to this notice.

5. This order is issued to supersede the Final Order recorded at Special Order Volume 98, Pages 1077-1083. This correcting order is necessary to add certificate numbers that should have been included in certain portions of the order, and to correct the inadvertent omission of additionally layered supplemental irrigation rights. The transfer of both primary irrigation and supplemental irrigation was approved in the Final Order recorded at Special Order Volume 98, Pages 1077-1083 for identical places of use also layered with the omitted supplemental rights.

6. The corrections in Findings of Facts 1, 11, 12, 13 and 14 appear in **bold.**

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

7. The portion of the first right to be transferred is as follows:

Certificate: 75691 in the name of UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)

Use: Primary Irrigation of 91.78 acres and Supplemental Irrigation of 7.42 acres

Priority Dates: February 15, 1916 for stored water and August 19, 1924 for direct flow

Duty/Limit: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet (AF) per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

Sources: OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion (POD):

POD	Twp	Rng	Mer	Sec	Q-Q	Measured Distances
OWYHEE DAM	22 S	45 E	WM	20	NW SE	200 FEET SOUTH AND 2010 FEET WEST FROM THE COMMON CORNER OF SECTIONS 20 AND 21
GLORY HOLE SPILLWAY	22 S	45 E	WM	20	NW SE	200 FEET SOUTH AND 1680 FEET WEST FROM THE COMMON CORNER TO SECTIONS 20 AND 21
TUNNEL 1	22 S	45 E	WM	21	NW SW	495 FEET EAST AND 264 FEET SOUTH FROM THE COMMON CORNER TO SECTIONS 20 AND 21

Authorized Places of Use:

PRIMARY IRRIGATION							
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User
20 S	46 E	WM	8	SW SW	1.41	102	Hartley
21 S	46 E	WM	12	NW NW	0.73	300	Johnston
17 S	47 E	WM	19	SW NW	31.30	900	Seubert Excavators
17 S	47 E	WM	19	SE SW	10.00	1600	Seubert Excavators
17 S	47 E	WM	19	SW SE	19.90	1600	Seubert Excavators
17 S	47 E	WM	30	SE NE	5.00	100	White
20 S	46 E	WM	8	NW SW	1.37	102	Hartley
20 S	46 E	WM	5	SW SW	1.53	800	Grant 4 D Farms
20 S	46 E	WM	8	NW NW	0.63	300	Grant 4 D Farms
20 S	46 E	WM	8	SW NW	1.17	300	Grant 4 D Farms
20 S	46 E	WM	8	SE NW	2.32	300	Grant 4 D Farms
18 S	46 E	WM	27	SW SW	0.64	700	Bishop
18 S	47 E	WM	17	NE NE	1.00	3802	Amdor
18 S	47 E	WM	4	NW NW	1.70	1602	Poole
17 S	47 E	WM	17	SW NE	0.74	100	Dixon
18 S	46 E	WM	27	SW NE	3.73	801	Edison
18 S	46 E	WM	27	NE SW	2.82	801	Edison

PRIMARY IRRIGATION							
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User
18 S	46 E	WM	27	SW NE	2.37	802	Ingram
20 S	46 E	WM	11	NW NE	1.00	200	Kurtz
16 S	47 E	WM	20	NE NE	1.03	7600	Unruh
16 S	47 E	WM	20	NW NE	1.39	7600	Unruh
				Total:	91.78		

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	34	NE NE	3.78	100	Hammelman	15-125100A
16 S	47 E	WM	34	SE NE	0.49	100	Hammelman	15-125100A/B
16 S	47 E	WM	34	SW NE	2.92	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW SE	0.23	300	Hammelman	15-125100B
				Total:	7.42			

8. Transfer Application T-12237 proposes to change the places of use to:

Proposed Places of Use:

PRIMARY IRRIGATION							
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User
21 S	46 E	WM	12	NW NW	0.73	300	Johnston
20 S	46 E	WM	8	NW SW	0.74	102	Hartley
20 S	46 E	WM	8	SW SW	7.04	1102	Hartley
20 S	46 E	WM	5	SW SW	0.37	800	Grant 4D Farms
20 S	46 E	WM	5	SE SW	0.80	800	Grant 4D Farms
20 S	46 E	WM	8	NE NW	4.48	300	Grant 4D Farms
18 S	46 E	WM	27	SW SW	0.78	700	Bishop
21 S	46 E	WM	5	SE SW	12.05	700	Cruickshank
21 S	46 E	WM	5	SW SW	9.14	700	Cruickshank
21 S	46 E	WM	8	NW NW	5.79	700	Cruickshank
18 S	47 E	WM	4	SW NW	4.00	400	Poole
19 S	46 E	WM	15	NW SE	0.76	3700	Kesler
17 S	47 E	WM	17	NW NE	0.74	100	Dixon
17 S	47 E	WM	30	NW NE	0.58	901	White
18 S	46 E	WM	27	SW NE	4.25	801	Edison
18 S	46 E	WM	27	NE SW	2.63	801	Edison
18 S	46 E	WM	27	NW SE	3.41	801	Edison
20 S	46 E	WM	11	NE NE	4.63	200	Kurtz
16 S	47 E	WM	20	NE NE	3.51	7600	Unruh
16 S	47 E	WM	20	NW NE	4.85	7600	Unruh
16 S	47 E	WM	20	SE NE	1.35	7600	Unruh
16 S	47 E	WM	20	NE NW	0.32	7600	Unruh
16 S	47 E	WM	20	SW NE	0.09	7600	Unruh
20 S	46 E	WM	18	NE NW	4.97	300	Bennett
20 S	46 E	WM	18	NW NW	4.46	300	Bennett
20 S	46 E	WM	18	NW SE	9.31	600	Bennett
				Total:	91.78		

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	34	NE NE	4.52	100	Hammelman	15-125100A
16 S	47 E	WM	34	SE NE	1.10	100	Hammelman	15-125100A/B
16 S	47 E	WM	34	SW NE	0.62	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW NE	0.40	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW SE	0.78	300	Hammelman	15-125100B
				Total:	7.42			

9. The portion of the second right to be transferred is as follows:

Certificate: 75712 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1243)
Use: IRRIGATION of 7.42 ACRES
Priority Date: FEBRUARY 10, 1912
Limit/Duty: This right is limited an amount actually needed for beneficial use and shall not exceed 25.9 cubic feet per second or its equivalent in case of rotation, measured at the point of diversion from the source.
Source: SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Gov't Lot	Measured Distances
17 S	47 E	WM	2	SE NE	6	DEAD OX PUMPS 2630 FEET SOUTH AND 2050 FEET EAST FROM THE N1/4 CORNER OF SECTION 2

Authorized Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	34	NE NE	3.78	100	Hammelman	15-125100A
16 S	47 E	WM	34	SE NE	0.49	100	Hammelman	15-125100A/B
16 S	47 E	WM	34	SW NE	2.92	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW SE	0.23	300	Hammelman	15-125100B
				Total:	7.42			

10. Transfer Application T-12237 proposes to change the places of use to:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	34	NE NE	4.52	100	Hammelman	15-125100A
16 S	47 E	WM	34	SE NE	1.10	100	Hammelman	15-125100A/B
16 S	47 E	WM	34	SW NE	0.62	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW NE	0.40	300	Hammelman	15-125100A/B
16 S	47 E	WM	34	NW SE	0.78	300	Hammelman	15-125100B
				Total:	7.42			

11. The portion of the third right to be transferred is as follows:

Certificate: 75708 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1786)
Use: SUPPLEMENTAL IRRIGATION of **2.70** ACRES
Priority Date: JULY 8, 1913
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated each year.
Source: SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Gov't Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Gov't Lot	Water User
18 S	47 E	WM	4	NW NW	1.70	1602	4	Poole
18 S	**47 E**	**WM**	**17**	**NE NE**	**1.00**	**3802**		**Amador**
				Total	**2.70**			

12. Transfer Application T-12237 proposes to change the places of use to:

SUPPLEMENTAL IRRIGATION							
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User
18 S	47 E	WM	4	SW NW	**2.70**	400	Poole

13. The portion of the fourth right to be transferred is as follows:

Certificate: 75689 in the name of U.S. BUREAU OF RECLAMATION (perfected under Permit S-24285)
Use: SUPPLEMENTAL IRRIGATION of **2.70** ACRES
Priority Date: OCTOBER 1, 1951
Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year.
Source: SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Gov't Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	**Rng**	**Mer**	**Sec**	**Q-Q**	**Acres**	**Tax Lot**	**Gov't Lot**	**Water User**
18 S	**47 E**	**WM**	**4**	**NW NW**	**1.70**	**1602**	**4**	**Poole**
18 S	47 E	WM	17	NE NE	1.00	3802		Amador
				Total	**2.70**			

14. Transfer Application T-12237 proposes to change the places of use to:

SUPPLEMENTAL IRRIGATION							
Twp	**Rng**	**Mer**	**Sec**	**Q-Q**	**Acres**	**Tax Lot**	**Water User**
18 S	47 E	WM	4	SW NW	**2.70**	400	Poole

15. The portion of the fifth right to be transferred is as follows:

Certificate: 75688 in the name of U.S. BUREAU OF RECLAMATION (perfected under Permit S-24286)

Use: SUPPLEMENTAL IRRIGATION of 7.42 ACRES

Priority Date: OCTOBER 1, 1951

Limit/Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per second per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year.

Source: SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
17 S	47 E	WM	2	SE NE	DEAD OX PUMPING PLANT

Authorized Place of Use:

Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
16 S	47 E	WM	34	NE NE	100	3.78
16 S	47 E	WM	34	SW NE	300	2.92
16 S	47 E	WM	34	SE NE	100	0.49
16 S	47 E	WM	34	NW SE	300	0.23
					Total:	7.42

16. Transfer Application T-12237 proposes to change the place of use of the right to:

Twp	Rng	Mer	Sec	Q-Q	Tax Lot	Acres
16 S	47 E	WM	34	NE NE	100	4.52
16 S	47 E	WM	34	SE NE	100	1.10
16 S	47 E	WM	34	SW NE	300	0.62
16 S	47 E	WM	34	NW NE	300	0.40
16 S	47 E	WM	34	NW SE	300	0.78
					Total:	7.42

17. The district permanent transfer application satisfies the criteria of OAR 690-385-4000 contains the information required under OAR 690-385-2000 and includes maps meeting the requirements of OAR 690-385-2200.

18. The water rights are subject to transfer as defined in OAR 690-385-0100(17).

19. The proposed change in places of use will not result in enlargement of the rights.

20. The proposed change in places of use will not result in injury to other water rights.

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-12237 satisfy the requirements of ORS 540.574(3) and 540.580.

Now, therefore, it is ORDERED:

1. The Final Order recorded at Special Order Volume 98, Pages 1077-1083, is withdrawn and of no further force or effect and is superseded by this order.
2. The proposed change in place of use to the water rights evidenced by Certificates 75691, 75712, 75708, **75688** and 75689 are approved.
3. The right to the use of the water is restricted to beneficial use at the place of use described and is subject to all other conditions and limitations contained in Certificates 75691, 75712, 75708, **75688**, 75689, and any related decree.
4. The former places of use shall no longer be irrigated as part of these water rights.
5. The water user shall maintain and operate the existing measurement device and shall make such improvements as may be required by the Department.
6. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before October 1, 2017. A Claim of Beneficial Use shall be submitted to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.
7. Certificates 75691, 75712, 75708, **75688** and 75689 are modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

Dated at Salem, Oregon this 21 day of September 2017.

Dwight French, Water Right Services Administrator for
THOMAS M. BYLER, DIRECTOR

Mailing Date: SEP 26 2017

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-12553, Malheur County	)))	FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER FOR PLACE OF USE AND PARTIAL CANCELLATION OF WATER RIGHTS

Authority

Oregon Revised Statues (ORS) 540.570 to 540.580 establishes the process in which a district may submit a request to transfer a water right within district boundaries. Oregon Administrative Rules (OAR) Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.

Applicant

OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST STREET
NYSSA, OR 97913

Findings of Fact

1. On January 23, 2017, Owyhee Irrigation District (OID) filed a completed district transfer application to permanently change the places of use under Certificates 75691, 75712, and 75688. The Department assigned the application number T-12553.

2. In addition, OID requested the cancellation of the portion of Certificate 75689 for supplemental irrigation which is layered with primary irrigation on certain authorized places of use subject to this transfer.

3. Transfer Application was published on February 7, 2017 pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

4. The U.S. Bureau of Reclamation was notified of the transfer application on February 7, 2017; no comments were received within 60 days of the notification.

5. On April 18, 2017, the Department received an amendment to a tax lot number, and an additional map to identifying a proposed place of use.

6. On September 14, 2017, the Department received an amendment to the application along with a superseding map.

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Within 20 days after this final order is issued (i.e., mailing date), the district or any protestant may file with the commission exceptions to the final order. The commission shall issue an order granting or denying the exceptions within 30 days after receiving the exceptions. ORS 540.580(10).

7. The portion of the first right to be transferred is as follows:

Certificate: 75691 in the name of the UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)

Use: IRRIGATION of 179.66 acres

Priority Date: FEBRUARY 15, 1916 for stored water and AUGUST 19, 1924 for direct flow

Rate / Duty: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 af for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

Sources: The OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
22 S	45 E	WM	20	NW SE	OWYHEE DAM: 200 FEET SOUTH AND 2010 FEET WEST FROM THE COMMON CORNER OF SECTIONS 20 AND 21
22 S	45 E	WM	20	NW SE	GLORY HOLE SPILLWAY: 200 FEET SOUTH AND 1680 FEET WEST FROM THE COMMON CORNER TO SECTIONS 20 AND 21
22 S	45 E	WM	21	NW SW	TUNNEL 1: 495 FEET EAST AND 264 FEET SOUTH FROM THE COMMON CORNER TO SECTIONS 20 AND 21

Authorized Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	29	SW SE	0.11	13600	4 D J FARMS	16-73500
17 S	46 E	WM	13	SE NE	3.60	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	NE SE	22.40	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	NW SE	1.62	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	SW SE	7.80	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	SE SE	34.40	3300	FRY FOODS INC	16-67500
17 S	47 E	WM	4	NW NE	0.36	600	4 D J FARMS	16-73500
17 S	47 E	WM	4	SE NW	2.10	600	4 D J FARMS	16-73500
17 S	47 E	WM	5	NE SE	0.32	700	4 D J FARMS	16-73500
17 S	47 E	WM	5	NW SE	0.73	700	4 D J FARMS	16-73500
17 S	47 E	WM	17	NE SE	2.68	300	PHILLIPS	16-62300
17 S	47 E	WM	17	NW SE	2.17	300	PHILLIPS	16-62300
17 S	47 E	WM	19	SW NE	25.70	800	SEUBERT EXCAVATORS	16-60101
17 S	47 E	WM	19	NE SE	4.40	600	BENCH	16-60600
17 S	47 E	WM	20	NE NE	2.00	600	PHILLIPS	16-58500
17 S	47 E	WM	20	NW NE	1.66	2500	PHILLIPS	16-58800
17 S	47 E	WM	20	SW NE	3.80	600	PHILLIPS	16-58500

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	47 E	WM	20	NE NW	3.69	2500	PHILLIPS	16-58800
18 S	45 E	WM	13	NW NW	2.20	2000	ENSZ	16-56200
18 S	46 E	WM	28	NW NE	0.33	100	CORRIGALL	16-46300
18 S	46 E	WM	28	SW NE	0.58	400	CORRIGALL	16-46300
18 S	46 E	WM	28	SE NE	0.66	500	CORRIGALL	16-46300
18 S	47 E	WM	4	SW NW	4.00	400	POOLE	16-143800
18 S	47 E	WM	5	NE NE	0.25	3102	MCKINNEY	16-143502
18 S	47 E	WM	5	SE NE	8.20	200	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.10	300	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.20	100	DUNBRASKY	16-147200
18 S	47 E	WM	5	NE SE	0.80	700	WILLIAMS	16-140900
18 S	47 E	WM	8	SE NE	4.40	1300	KING	16-147100
18 S	47 E	WM	9	NW SW	2.40	4101	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.20	4104	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.40	4102	CARPENTER	16-149200
18 S	47 E	WM	9	NW SW	0.40	4106	HICKS	16-152000
18 S	47 E	WM	9	SW SW	2.20	3701	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.40	3702	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.50	4600	COFFELT	16-142200
18 S	47 E	WM	17	NW NE	0.40	1600	OFTEDAL	16-144000
19 S	46 E	WM	14	NE NE	0.76	100	POTTER	16-37100
19 S	46 E	WM	14	SE NE	3.20	100	POTTER	16-37100
20 S	45 E	WM	10	SE SE	1.30	900	SAURET	16-23900
20 S	45 E	WM	13	NE SW	3.80	700	MAY	16-21600
20 S	45 E	WM	13	NW SW	5.95	700	MAY	16-21600
20 S	45 E	WM	13	SE SW	4.29	700	MAY	16-21600
20 S	45 E	WM	15	NE NE	0.50	900	SAURET	16-23900
20 S	45 E	WM	24	NE NW	1.26	400	WILSON	16-20800
20 S	45 E	WM	24	NW NW	0.60	400	WILSON	16-20800
20 S	46 E	WM	8	NE NW	1.27	300	GREEN SPRUCE LLC	16-23000
20 S	46 E	WM	9	NE NW	0.15	200	DRYDALE	16-34100
20 S	46 E	WM	23	SE NW	0.42	700	ROSAS	16-13702
				TOTAL	**179.66**			

8. Transfer Application T-12553 proposes to change the place of use to:

Proposed Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	46 E	WM	13	SW NE	7.90	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	SE NW	35.40	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	NE SW	22.30	3300	FRY FOODS INC	16-67500
17 S	46 E	WM	13	NW SE	2.60	3300	FRY FOODS INC	16-67500
17 S	47 E	WM	5	NE SE	2.54	700	4 D J FARMS	16-73500
17 S	47 E	WM	5	NW SE	1.08	700	4 D J FARMS	16-73500
17 S	47 E	WM	17	NE SW	2.93	2500	PHILLIPS	16-61600
17 S	47 E	WM	17	SE SW	3.16	2500	PHILLIPS	16-61600
17 S	47 E	WM	19	NE SE	4.40	600	BENCH	16-60600
17 S	47 E	WM	20	NW NE	8.42	2500	PHILLIPS	16-61600
17 S	47 E	WM	20	NE NW	1.49	2500	PHILLIPS	16-61600

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
18 S	45 E	WM	9	SW NW	1.40	1000	BELNAP	16-57500
18 S	45 E	WM	9	NW SW	5.20	1000	BELNAP	16-57500
18 S	45 E	WM	9	SW SW	6.90	1000	BELNAP	16-57500
18 S	45 E	WM	12	NW SW	3.90	2000	ENSZ	16-56200
18 S	45 E	WM	16	SW NE	2.39	700	JANTZ	16-52800
18 S	45 E	WM	16	NE NW	4.97	700	JANTZ	16-52800
18 S	45 E	WM	16	SE NW	1.17	700	JANTZ	16-52800
18 S	46 E	WM	27	SW SW	0.53	700	BISHOP	16-46401
18 S	46 E	WM	28	NW NE	0.84	100	CORRIGALL	16-46300
18 S	46 E	WM	28	SW NE	0.91	400	CORRIGALL	16-46300
18 S	46 E	WM	28	SE NE	1.00	500	CORRIGALL	16-46300
19 S	46 E	WM	14	NE NE	4.26	100	POTTER	16-37100
20 S	45 E	WM	9	NE SE	2.40	300	SAURET	16-23900
20 S	45 E	WM	10	NW SW	5.00	700	SAURET	16-23900
20 S	45 E	WM	10	SW SW	0.60	800	SAURET	16-23900
20 S	45 E	WM	10	SE SW	3.70	700	SAURET	16-23900
20 S	45 E	WM	13	NE SW	3.20	700	MAY	16-21600
20 S	45 E	WM	13	NW SW	7.97	700	MAY	16-21600
20 S	45 E	WM	13	SW SW	1.86	800	WILSON	16-20800
20 S	45 E	WM	13	SE SW	2.87	700	MAY	16-21600
20 S	45 E	WM	24	SW SW	2.65	800	BERRETT	16-26500
20 S	45 E	WM	35	NE SE	7.50	2800	HATFIELD	16-17300
20 S	45 E	WM	35	SW SE	3.80	2800	HATFIELD	16-17300
20 S	45 E	WM	35	SE SE	2.40	2800	HATFIELD	16-17300
20 S	46 E	WM	5	SW SW	1.53	800	GREEN SPRUCE LLC	16-23000
20 S	46 E	WM	8	NW NW	0.63	300	GREEN SPRUCE LLC	16-23000
20 S	46 E	WM	8	SW NW	1.17	300	GREEN SPRUCE LLC	16-23000
20 S	46 E	WM	8	SE NW	2.32	300	GREEN SPRUCE LLC	16-23000
20 S	46 E	WM	9	NE NW	0.30	200	DRYDALE	16-34100
21 S	45 E	WM	14	SW NE	1.50	1700	MORTON	16-11500
21 S	46 E	WM	4	SW SE	2.57	1600	JONES	16-8900
				Total:	179.66			

9. The portion of the second right to be transferred is as follows:

Certificate: 75712 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1243)

Use: IRRIGATION of 6.02 acres

Priority Date: FEBRUARY 10, 1912

Limit / Duty: This right is limited an amount actually needed for beneficial use and shall not exceed 25.9 cubic feet per second or its equivalent in case of rotation, measured at the point of diversion from the source.

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
17 S	47 E	WM	2	SE NE	6	DEAD OX PUMPS: 2630 FEET SOUTH AND 2050 FEET EAST FROM THE N1/4 CORNER OF SECTION 2; River Mile 363.08

Authorized Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	26	SE NW	1.50	1000	FOREHAND	16-131300
17 S	47 E	WM	3	NW SE	2.30	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.00	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.22	2100	WELLER	16-122100
				Total:	6.02			

10. Transfer Application T-12553 proposes to change the place of use to:

Proposed Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	47 E	WM	2	NE SW	0.79	2000	SEBASTO	16-121700
17 S	47 E	WM	3	NE SE	1.20	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	2.10	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.93	2100	WELLER	16-122100
				Total:	6.02			

11. The portion of the third right to be transferred is as follows:

Certificate: 75688 in the name of the UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-24286)

Use: SUPPLEMENTAL IRRIGATION of 6.02 acres

Priority Date: OCTOBER 1, 1951

Limit / Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per second per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year.

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
17 S	47 E	WM	2	SE NE	DEAD OX PUMPING PLANT; River Mile 363.08

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
16 S	47 E	WM	26	SE NW	1.50	1000	FOREHAND	16-131300
17 S	47 E	WM	3	NW SE	2.30	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.00	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.22	2100	WELLER	16-122100
				Total:	6.02			

12. Transfer Application T-12553 proposes to change the place of use to:

Proposed Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	47 E	WM	2	NE SW	0.79	2000	SEBASTO	16-121700
17 S	47 E	WM	3	NE SE	1.20	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	2.10	700	PREECE	16-121800
17 S	47 E	WM	3	SW SE	1.93	2100	WELLER	16-122100
				Total:	**6.02**			

13. The Department finds that the district permanent transfer application was submitted according to ORS 540.580 and OAR 690-385-4000, contains the information required under OARs 690-385-4200 and OAR 690-385-2000, and includes maps meeting the requirements of OARs 690-385-4300 and 690-385-2200.

14. The Department finds that the proposed district permanent transfer meets the all the criteria set forth in ORS 540.580 and OAR 690-385-4000.

15. The water right is subject to transfer as defined in OAR 690-385-0100(17).

16. The proposed change in places of use will not result in enlargement of the right as defined in OAR 690-385-0100(4).

17. The proposed change in place of use will not result in injury to other water rights as defined in OAR 690-385-0100(6).

18. Any other applicable requirements for district permanent water right transfers are met as required in OAR 690-385-4500.

Partial Cancellation of One Water Right

19. The portion of the right to be partially canceled is as follows:

Certificate: 75708 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1786)

Use: SUPPLEMENTAL IRRIGATION of 31.55 acres

Priority Date: JULY 8, 1913

Rate: 0.40 CUBIC FOOT PER SECOND

Limit / Duty: The amount used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent)

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT; River Mile 394.2

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
18 S	47 E	WM	4	SW NW	2.70	400	POOLE	16-143800
18 S	47 E	WM	5	NE NE	0.25	3102	MCKINNEY	16-143502
18 S	47 E	WM	5	SE NE	8.20	200	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.10	300	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.20	100	DUNBRASKY	16-147200
18 S	47 E	WM	5	NE SE	0.80	700	WILLIAMS	16-140900
18 S	47 E	WM	8	SE NE	4.40	1300	KING	16-147100
18 S	47 E	WM	9	NW SW	2.40	4101	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.20	1404	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.40	4102	CARPENTER	16-149200
18 S	47 E	WM	9	NW SW	0.40	4106	HICKS	16-152000
18 S	47 E	WM	9	SW SW	2.20	3701	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.40	3702	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.50	4600	COFFELF	16-142200
18 S	47 E	WM	17	NW NE	0.40	1600	OFTEDAL	16-144000
				Total:	**31.55**			

20. The portion of the water right as evidenced by Water Right Certificate 75708 which has been abandoned is for supplemental irrigation on certain lands described in Finding of Fact 7. Water use is no longer authorized on the abandoned portion of the Certificate 75708 at the place of use described in Finding of Fact 19, above. The total quantity of water available under Certificate 75708 is reduced by 0.40 cubic foot per second.

Regarding Certificate 75689 for Supplemental Irrigation; Forfeiture for Non-use

21. As stated in OAR 690-385-0100(15) "[a] supplemental water right is an additional appropriation of water to make up a deficiency in supply from an existing water right. A supplemental water right is used in conjunction with a primary right." Certificate 75689 has been used in conjunction with primary irrigation under Certificate 75691 on certain lands described in Finding of Fact 7, above. Once transfer T-12553 is approved by this final order, in absence of a primary underlying water right, the lands listed below in Finding of Fact 22, below, will be subject to forfeiture and cancellation proceedings under ORS 540.610 if not used for five consecutive years.

22. The portion of the Certificate 75689 for supplemental irrigation used in conjunction with Certificate 75691 for primary irrigation involved in Transfer T-12553.

Certificate: 75689 in the name of the UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-24285)

Use: SUPPLEMENTAL IRRIGATION of 31.55 acres

Priority Date: OCTOBER 1, 1951

Rate: 0.79 CUBIC FOOT PER SECOND

Limit / Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year.

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT; River Mile 394.2

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
18 S	47 E	WM	4	SW NW	2.70	400	POOLE	16-143800
18 S	47 E	WM	5	NE NE	0.25	3102	MCKINNEY	16-143502
18 S	47 E	WM	5	SE NE	8.20	200	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.10	300	BISHOP	16-153700
18 S	47 E	WM	5	SE NE	4.20	100	DUNBRASKY	16-147200
18 S	47 E	WM	5	NE SE	0.80	700	WILLIAMS	16-140900
18 S	47 E	WM	8	SE NE	4.40	1300	KING	16-147100
18 S	47 E	WM	9	NW SW	2.40	4101	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.20	1404	BENJAMIN	16-140800
18 S	47 E	WM	9	NW SW	0.40	4102	CARPENTER	16-149200
18 S	47 E	WM	9	NW SW	0.40	4106	HICKS	16-152000
18 S	47 E	WM	9	SW SW	2.20	3701	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.40	3702	CALVARY CHAPEL	16-148100
18 S	47 E	WM	9	SW SW	0.50	4600	COFFELF	16-142200
18 S	47 E	WM	17	NW NE	0.40	1600	OFTEDAL	16-144000
				Total:	**31.55**			

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-12553 comply with and satisfy the requirements of ORS 540.580 and OAR 690-385-4500, and the abandoned portion of Certificate 75708 should be cancelled.

Now, therefore, it is ORDERED:

1. The portion of Certificates 75708 appurtenant to the lands described in Finding of Fact 19 is cancelled.
2. Certificate 75708 shall be modified to reflect the cancellation of 31.55 acres, as described in Findings of Fact 19 and 20.
3. The proposed changes in place of use to the water rights evidenced by Certificates 75691, 75712, and 75688 are approved.
4. The right to the use of the water is restricted to beneficial use at the place of use not modified by this order and is subject to all other conditions and limitations contained in Certificates 75691, 75712, and 75688.
5. The place of use from which the water right is removed by T-12553 shall no longer be irrigated under the transferred right.
6. The water user shall maintain and operate the existing measurement device(s) and shall make such improvements as may be required by the Department.

7. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2019**. A Claim of Beneficial Use shall be submitted by OID to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

8. Water right Certificates 75691, 75712, 75688, and 75708 are modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

Signed at Salem, Oregon this 28 day of September 2017.

Dwight French, Water Right Services Administrator for
THOMAS M. BYLER, DIRECTOR
Oregon Department of Water Resources

Mailing Date: OCT 0 3 2017

BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON

In the Matter of Transfer Application T-12849, Malheur County	)))	FINAL ORDER APPROVING A DISTRICT PERMANENT TRANSFER FOR PLACE OF USE AND PARTIAL CANCELLATION OF A WATER RIGHT

Authority

Oregon Revised Statutes (ORS) 540.570 to 540.580 establish the process in which a district may submit a request to transfer a water right within district boundaries. Oregon Administrative Rule (OAR) Chapter 690, Division 385 implements the statutes and provides the Department's procedures and criteria for evaluating district transfer applications.

Applicant

OWYHEE IRRIGATION DISTRICT
17 SOUTH FIRST STREET
NYSSA, OR 97913

Findings of Fact

1. On February 9, 2018, Owyhee Irrigation District (OID) filed a completed district transfer application to permanently change the places of use under Certificates 75691, 75671, 75708, and 75689. The Department assigned the application number T-12849.

2. In addition, OID requested the cancellation of the portion of Certificates 75708 and 75689 for supplemental irrigation which are layered with primary irrigation on certain authorized places of use subject to this transfer.

3. Notice of the District Permanent Transfer Application was published on February 20, 2018, pursuant to ORS 540.580 and OAR 690-385-4400. No comments were filed in response to the notice.

4. The U.S. Bureau of Reclamation was notified of the transfer application on February 20, 2018; no comments were received within 60 days of the notification.

5. On April 2, 2018, the applicant provided clarification to the transfer application.

6. The portion of the first right to be transferred is as follows:

   Certificate: 75691 in the name of the UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-8171)

   Use: IRRIGATION of 20.41 acres

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Within 20 days after this final order is issued (i.e., mailing date), the district or any protestant may file with the commission exceptions to the final order. The commission shall issue an order granting or denying the exceptions within 30 days after receiving the exceptions. ORS 540.580(10).

Priority Date: FEBRUARY 15, 1916 for stored water and AUGUST 19, 1924 for direct flow

Rate / Duty: The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to 1/60th of one cubic foot per second (cfs) per acre, or its equivalent for each acre irrigated and shall be further limited to 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

Sources: The OWYHEE RIVER and water stored in OWYHEE RESERVOIR (constructed under Permit R-599), tributaries of the SNAKE RIVER

Authorized Points of Diversion:

Twp	Rng	Mer	Sec	Q-Q	Measured Distances
22 S	45 E	WM	20	NW SE	OWYHEE DAM: 200 FEET SOUTH AND 2010 FEET WEST FROM THE COMMON CORNER OF SECTIONS 20 AND 21
22 S	45 E	WM	20	NW SE	GLORY HOLE SPILLWAY: 200 FEET SOUTH AND 1680 FEET WEST FROM THE COMMON CORNER TO SECTIONS 20 AND 21
22 S	45 E	WM	21	NW SW	TUNNEL 1: 495 FEET EAST AND 264 FEET SOUTH FROM THE COMMON CORNER TO SECTIONS 20 AND 21

Authorized Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	46 E	WM	26	SW SE	2.33	7000	JOYCE	17-60202
17 S	46 E	WM	26	SE SE	2.63	7100	JOYCE	17-60202
17 S	47 E	WM	3	NW NW	0.30	100	RANDALL TRUST	17-75101
17 S	47 E	WM	8	SE SW	0.60	1000	TSCHIDA	17-77200
17 S	47 E	WM	16	NW NW	4.10	700	WALKER	17-77701
18 S	47 E	WM	4	NW NW	1.40	1600	LEBOUTILLIER	17-152301
19 S	46 E	WM	24	SW NE	3.00	700	MITCHELL	17-83701
20 S	45 E	WM	13	NW NE	2.50	1300	BANCROFT	17-24200
20 S	46 E	WM	17	SW SE	0.30	201	CLEAVER	17-24501
20 S	46 E	WM	17	SE SE	1.9	201	CLEAVER	17-24501
20 S	46 E	WM	17	SE SE	0.9	200	CLEAVER	17-24501
21 S	46 E	WM	11	SE SW	0.45	1600	MARTIN	17-6500
				Total	**20.41**			

7. Transfer Application T-12849 proposes to change the place of use to:

Proposed Place of Use:

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
17 S	46 E	WM	26	SE SW	1.80	7000	JOYCE	17-60202
17 S	46 E	WM	26	SW SE	3.16	7000	JOYCE	17-60202
17 S	47 E	WM	3	NW NW	0.30	100	RANDALL TRUST	17-75101
17 S	47 E	WM	8	NE SW	0.60	1000	TSCHIDA	17-77200
20 S	45 E	WM	12	SW SE	2.50	1300	BANCROFT	17-24200

IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
20 S	45 E	WM	13	NE NE	4.00	1300	BANCROFT	17-24200
20 S	45 E	WM	13	NW NE	4.50	1300	BANCROFT	17-24200
20 S	46 E	WM	17	NE SE	1.20	201	CLEAVER	17-24501
20 S	46 E	WM	17	SW SE	1.90	201	CLEAVER	17-24501
21 S	46 E	WM	11	SE SW	0.45	1600	MARTIN	17-6500
				Total:	**20.41**			

8. The Department finds that the district permanent transfer application was submitted according to ORS 540.580 and OAR 690-385-4000, contains the information required under OARs 690-385-4200 and OAR 690-385-2000, and includes maps meeting the requirements of OARs 690-385-4300 and 690-385-2200.

9. The Department finds that the proposed district permanent transfer meets the all the criteria set forth in ORS 540.580 and OAR 690-385-4000.

10. The water right is subject to transfer as defined in OAR 690-385-0100(17).

11. The proposed change in places of use will not result in enlargement of the right as defined in OAR 690-385-0100(4).

12. The proposed change in place of use will not result in injury to other water rights as defined in OAR 690-385-0100(6).

13. Any other applicable requirements for district permanent water right transfers are met as required in OAR 690-385-4500.

Partial Cancellation of Two Water Rights

14. The portion of the first right to be partially canceled is as follows:

Certificate: 75708 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1786)

Use: SUPPLEMENTAL IRRIGATION of 1.4 acres

Priority Date: JULY 8, 1913

Limit / Duty: The amount used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent)

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT; River Mile 394.2

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
18 S	47 E	WM	4	NW NW	1.4	1600	LEBOUTILLIER	17-152301

15. The portion of the water right as evidenced by Water Right Certificate 75708 which has been abandoned is for supplemental irrigation on certain lands described in Finding of Fact #6. Water use is no longer authorized on the abandoned portion of the Certificate 75708 at the place of use described in Finding of Fact #14, above. The total quantity of water available under Certificate 75708 is reduced by 0.02 cubic foot per second.

16. The portion of the second right to be partially canceled is as follows:

Certificate: 75671 in the name of OWYHEE IRRIGATION DISTRICT (perfected under Permit S-1233)

Use: SUPPLEMENTAL IRRIGATION of 3.0 acres

Priority Date: JULY 8, 1913

Limit / Duty: The amount used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent)

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT; River Mile 394.2

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
19 S	46 E	WM	24	SW NE	3.0	700	MITCHELL	17-83701

17. The portion of the water right as evidenced by Water Right Certificate 75671 which has been abandoned is for supplemental irrigation on certain lands described in Finding of Fact #6. Water use is no longer authorized on the abandoned portion of the Certificate 75671 at the place of use described in Finding of Fact #16, above. The total quantity of water available under Certificate 75671 is reduced by 0.04 cubic foot per second.

Regarding Certificate 75689 for Supplemental Irrigation; Forfeiture for Non-use

18. As stated in OAR 690-385-0100(15) "[a] supplemental water right is an additional appropriation of water to make up a deficiency in supply from an existing water right. A supplemental water right is used in conjunction with a primary right." Certificate 75689 has been used in conjunction with primary irrigation under Certificate 75691 on certain lands described in Finding of Fact #6. Once transfer T-12849 is approved by this Final Order, in absence of a primary underlying water right, the lands listed below in Finding of Fact #19 will be subject to forfeiture and cancellation proceedings under ORS 540.610 if not used for five consecutive years.

19. The portion of the Certificate 75689 for supplemental irrigation used in conjunction with Certificate 75691 for primary irrigation involved in Transfer T-12553.

Certificate: 75689 in the name of the UNITED STATES OF AMERICA; BUREAU OF RECLAMATION (perfected under Permit S-24285)

Use: SUPPLEMENTAL IRRIGATION of 1.4 acres

Priority Date: OCTOBER 1, 1951

Rate: 0.04 CUBIC FOOT PER SECOND

Limit / Duty: The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-FORTIETH of one cubic foot per acre, or its equivalent for each acre irrigated, and shall be further limited to a diversion of not to exceed 6.7 acre-feet for each acre irrigated during the irrigation season of each year.

Source: The SNAKE RIVER, tributary to the COLUMBIA RIVER

Authorized Point of Diversion:

Twp	Rng	Mer	Sec	Q-Q	G-Lot	Measured Distances
20 S	47 E	WM	18	NE SW	3	DUNAWAY PUMPING PLANT; River Mile 394.2

Authorized Place of Use:

SUPPLEMENTAL IRRIGATION								
Twp	Rng	Mer	Sec	Q-Q	Acres	Tax Lot	Water User	Notice
18 S	47 E	WM	4	NW NW	1.40	1600	LEBOUTILLIER	17-152301

Conclusions of Law

The proposed changes in place of use as proposed in Transfer Application T-12849 comply with and satisfy the requirements of ORS 540.580 and OAR 690-385-4500, and the abandoned portions of Certificates 75671 and 75708 should be cancelled.

Now, therefore, it is ORDERED:

1. The portions of Certificates 75671 and 75708 appurtenant to the lands described in Finding of Fact #14 and 16, respectively, are cancelled.
2. Certificates 75671 and 75708 shall be modified to reflect the cancellation of 3.0 and 1.4 acres, respectively, as described in Finding of Facts #14, #15, #16 and #17.
3. The proposed change in place of use to the water rights evidenced by Certificate 75691 is approved.
4. The right to the use of the water is restricted to beneficial use at the place of use not modified in this order and is subject to all other conditions and limitations contained in Certificates 75691, 75671, 75708, and 75689.
5. The place of use from which the water right is removed by T-12849 shall no longer be irrigated under the transferred right.
6. The water user shall maintain and operate the existing measurement device and shall make such improvements as may be required by the Department.
7. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before **October 1, 2019**. A Claim of Beneficial Use shall be submitted by OID to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.

8. Water right Certificates 75691, 75671, 75708, and 75689 are modified. The Department will issue superseding certificates describing the rights when it determines it is necessary for record keeping.

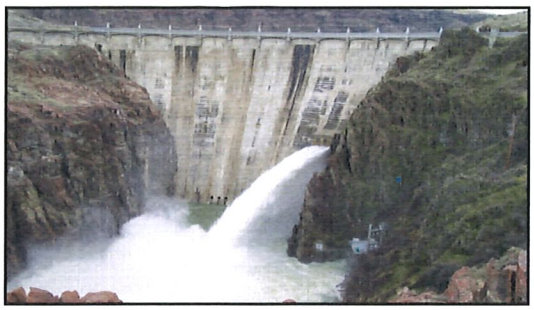
Signed at Salem, Oregon on SEP 19 2018

Dwight French, Water Right Services Administrator for
THOMAS M. BYLER, DIRECTOR
Oregon Department of Water Resources

Mailing Date: SEP 20 2018

Owyhee Irrigation District
17 South First Street
Nyssa, Oregon 97913

Phone: (541) 372-3540
Fax: (541) 372-2437



September 12, 2018

Oregon Water Resources Department
725 Summer Street N.E., Suite A
Salem, Oregon 97301-1266

RE: Permanent Water Transfer – Alan Peterson

Good Morning Ann,

Alan Peterson has requested a permanent water transfer and enclosed is the following:

- **Application for District Permanent Water Right Transfer**
- **Supplemental Form A**
- **On and Off maps**
- **Summary of water transfers**
- **Check in the amount of $1160.00**

If you would have any questions please contact this office.

Sincerely,

Kris

Kris Ward
Owyhee Irrigation District

RECEIVED
SEP 17 2018
OWRD

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Application for District Permanent Water Right

Transfer

Please type or print legibly in dark ink. If your application is incomplete or inaccurate, we will return it to you. If any requested information does not apply to your application, insert "N/A" to indicate "Not Applicable." As you complete this form, please refer to notes and guidance included on the application. A summary of review criteria and procedures that are generally applicable to the application is available at ***www.wrd.state.or.us/OWRD/PUBS/forms.shtml#app_criteria_review.***

Change in Place of Use Only

1A. APPLICANT INFORMATION

IRRIGATION DISTRICT			PHONE NO.	ADDITIONAL CONTACT NO.
Owyhee Irrigation District			541-372-3540	
ADDRESS				FAX NO.
17 South First St				
CITY	STATE	ZIP	E-MAIL	
Nyssa	Or	97913	Kris@fmtc.com	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

1B. AGENT INFORMATION

AGENT/BUSINESS NAME			PHONE NO.	ADDITIONAL CONTACT NO.
ADDRESS				FAX NO.
CITY	STATE	ZIP	E-MAIL	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

2. PROPOSED CHANGE(S) TO WATER RIGHT(S)

- List **all** water rights to be affected by this transfer. Indicate the certificate, permit, decree or other identifying number(s) in the table below: *(Attach additional pages as necessary.)*

	Certificate	Permit / Previous Transfer	Decree
1.	75691	-	
2.		G-17560	
3.		-	
4.		-	
5.		-	
6.		-	

T-13027

3. ATTACHMENTS

*Check each of the following **attachments** included with this application. The application will be returned if all required attachments are not included.*

Supplemental Form A –
Description of Proposed Change(s) to a Water Right

☐ A **separate** Supplemental Form A is enclosed for **each** water right to be affected by this transfer.

Map

☐ Permanent Transfer
A map meeting the requirements of OAR 690-385-3300 must be included but need not be prepared by a Certified Water Right Examiner (CWRE).

Fees:

☐ Amount enclosed: $ _____
See the Department's Fee Schedule at www.wrd.state.or.us or call (503) 986-0900.

Land Use Compatibility Statement

☐ The Land Use Information Form is not required if water is to be diverted, conveyed and/or used only on federal lands or if ALL of the following apply: a) a change in place of use only, b) a change that does not involve the placement or modification of structures, c) the use of water is for irrigation **only** and d) the use is located within an irrigation district or an exclusive farm use zone.

4. SIGNATURES

The district certifies the following:

(1) The water rights proposed for transfer are water rights subject to transfer and are not subject to forfeiture for nonuse under ORS 540.610;
(2) Each user affected by the proposed transfer has provided written authorization for the transfer and such authorization is on file with the district; and
(3) On behalf of the district, I affirm to the best of my knowledge the information contained in this application is true and accurate.

District Manager signature	name (print)	date
OR		
Kris Ward	Kris Ward	9/10/2018
Authorized District Representative signature	name (print)	date

Before submitting your application to the Department, be sure you have:

- Answered each question completely.
- Included all the required attachments.
- Included a check payable to the Oregon Water Resources Department for the appropriate amount.

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District Permanent Water Right Transfer Application

Supplemental Form A

DESCRIPTION OF PROPOSED CHANGE(S) TO A WATER RIGHT

List only one water right per page. A **separate Supplemental Form A must be completed for each** certificate, permit, decree, or other right involved in the proposed transfer.

Attach additional copies of Supplemental Form A as needed to describe other certificates, permits, decrees or other rights involved in this transfer.

1. CURRENT WATER RIGHT INFORMATION

Water Right Subject to Transfer (check and complete one of the following):

☒ Certificated Right	75691 Certificate Number	
☐ Adjudicated, Non-certificated Right	Name of Decree	Page Number
☐ Permit for which Proof has been Approved	- Permit Number	Date Claim of Beneficial Use Submitted
☐ Transferred Right for which Proof has been Filed	- Previous Transfer Number	Date Claim of Beneficial Use Submitted
☐ Permit for Supplemental Irrigation	- Permit Number	

- Name on Permit, Certificate, or Decree: United States of America - Bureau of Reclamation
- Priority Date(s): February 15, 1916 and Aug 19, 1924

  If there are **multiple Priority Dates** identified on the water right, any information provided in Supplemental Form A of this application must identify which priority date is associated with each of the authorized points of diversion or appropriation and places of use.

  Source(s) of Water to be Affected by Transfer: Owyhee River / Owyhee Reservoir

  Tributary to: Snake River
- Are there **other water rights,** Permits or Ground Water Registrations associated with this land?

  ☐ Yes ☒ No

  If "**Yes**", what are the Permit, Registration or Certificate Numbers? _____

  Any "layered" water use or a right that is supplemental to a primary right proposed for transfer **must be included in the transfer or be cancelled.**

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SEP 17 2018
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- Certificate Number or other identifying number: 75691

The following information must be provided only for those points of diversion or appropriation that are involved in the transfer.

If a point of diversion or appropriation is not numbered on the decree or water right certificate or permit, assign it a unique number in the following table (e.g. POD #1 or POA(well) #1). Use the number to refer to the point of diversion or appropriation serving the place of use described in Tables I and II. Note: Permanent district transfers do not allow for a change in point of diversion or appropriation to serve the proposed place of use.

Government lot and donation land claim numbers must be included in the table below **only** if the information is reflected on the existing water right.

Location of Existing Authorized Point(s) of Diversion (POD) or Appropriation (POA):
(i.e., the allowed point(s) of diversion or appropriation listed on the water right for the "FROM" or "OFF" lands)

AUTHORIZED POINT(S) of DIVERSION (POD) or APPROPRIATION (POA)							
POD# or POA#	TWP (N or S)	RNG (E or W)	SEC	Q-Q	DLC	GOV'T LOT	MEASURED DISTANCES
	22S	45E	20	NWSE			200 feet South and 2010 feet West from the Common Corner of Sections 20 and 21
							200 feet South and 1680 feet West from the Common Corner of Sections 20 and 21

- Certificate Number or other identifying number: 75691

TABLE II. – PROPOSED PLACE OF USE

POD# or POA#	PRIORITY DATE	USE	LEGAL DESCRIPTION							ACRES	USER NAME	DINN
			TWP (N or S)	RNG (E or W)	SEC	QQ	DLC	GOV'T LOT	TAX LOT			
	2/15/16 8/19/24	IR	20S	46E	23	SWNW			600	0.5	Alan Peterson	18-13700
		IS	20S	46E	23	SWNW			600	0.5	" "	"
									TOTAL:	0.5		

T-13027

- Certificate Number or other identifying number 75691

Provided the district filed notice of a change in place of use pursuant to OAR 690-385-4100, reference the District Internal Notice Number (DINN) used to describe the change(s) to be made permanent by this transfer.

Government lot (GOV"T LOT) and donation land claim numbers (DLC) must be included in the tables below **only** if the information is reflected on the existing water right.

TABLE I. – AUTHORIZED PLACE OF USE

POD# or POA#	PRIORITY DATE	USE	LEGAL DESCRIPTION							ACRES	USER NAME	DINN
			TWP (N or S)	RNG (E or W)	SEC	QQ	DLC	GOV'T LOT	TAX LOT			
	2/15/16 8/19/24	IR	20S	46E	23	NWSW			600	0.5	Alan Peterson	18-13700
		IS	20S	46E	23	NWSW			600	0.5	" "	"
									TOTAL:	0.5		

T-13027

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **IRRIGATION** of **2088.3 acres.**

This right was perfected under Permit 1380. The date of priority is **NOVEMBER 25, 1912.** The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed **27.6 CUBIC FEET PER SECOND** or its equivalent in case of rotation.

The point of diversion is located as follows:

(Dead Ox Pumping Plant) LOT 6, SE¼NE¼, SECTION 2, T. 17 S., R. 47 E., W.M.; 2630 FEET SOUTH AND 2050 FEET EAST from N¼ corner of SECTION 2. (River Mile 363.08)

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:
Description is based on Willamette Meridia; all Townships are South and all Ranges are East.

TOWNSHIP	RANGE	SECTION	¼ ,¼	GOV LOT	TAX LOT	ACRES
15	47	31	SWSE		6200	19.6
15	47	31	SWSE		6500	4.9
15	47	31	SESE		6200	2.7
15	47	31	SESE		6400	28.7
16	47	4	SWNW		400	34.9
16	47	4	SENW	3	400	32.4
16	47	4	NESW		500	37.0
16	47	4	NWSW		500	34.7
16	47	4	SWSW		700	35.2
16	47	4	SESW		700	38.9
16	47	4	NWSE	4	500	0.9
16	47	4	SWSE	5	700	5.8
16	47	5	NENE	1	800	57.4
16	47	5	NWNE	2	900	51.5
16	47	5	NWNE	2	1000	13.3
16	47	5	SWNE		1000	38.0
16	47	5	SENE		1100	38.5
16	47	5	NENW	3	1200	36.8
16	47	5	NENW	3	1300	24.5
16	47	5	NWNW	4	1200	3.9
16	47	5	NWNW	4	1300	7.6

Recorded in State Record of Water Right Certificates numbered 75668.

3205.SLH

TOWNSHIP	RANGE	SECTION	¼,¼	GOV LOT	TAX LOT	ACRES
16	47	5	NWNW	4	1400	48.6
16	47	5	SWNW		1400	38.2
16	47	5	SENW	3	1400	35.1
16	47	5	NESW		1600	38.5
16	47	5	NWSW		1500	38.5
16	47	5	SWSW		2100	37.4
16	47	5	SESW		2000	32.0
16	47	5	NESE		1100	17.3
16	47	5	NESE		1701	19.4
16	47	5	NWSE		1701	37.6
16	47	5	SWSE		1700	37.6
16	47	5	SESE		1100	8.8
16	47	5	SESE		1700	17.9
16	47	5	SESE		1800	8.4
16	47	6	NENE	1	2200	63.7
16	47	6	NWNE	2	2300	60.2
16	47	6	SWNE		2500	25.8
16	47	6	SENE		2500	37.3
16	47	6	NENW	3	2300	32.6
16	47	6	NWNW	4	2400	8.2
16	47	6	NESE		2600	38.3
16	47	6	NWSE		2600	8.2
16	47	6	SESE		2700	26.0
16	47	7	NENE		2800	5.0
16	47	7	SENE		2900	4.6
16	47	8	NENE		3500	35.4
16	47	8	NWNE		3500	37.9
16	47	8	SWNE		3600	39.0
16	47	8	SENE		3600	36.4
16	47	8	NENW		3700	34.3
16	47	8	NWNW		3700	37.0
16	47	8	SWNW		3701	37
16	47	8	SENW		3702	36.8
16	47	9	SWNE		4400	20.6
16	47	9	NENW		4400	38.1
16	47	9	NWNW		4400	27.2
16	47	9	SWNW		4400	38.0
16	47	9	SENW		4400	38.4
16	47	9	NESW		4600	39.1
16	47	9	NWSW		4600	37.2
16	47	9	SWSW		4700	37.5
16	47	9	SESW		4800	34.4
16	47	9	NESE		5200	11.7
16	47	9	NWSE		4900	22.9
16	47	9	NWSE		5000	14.1
16	47	9	SWSE		4900	13.3
16	47	9	SWSE		5000	22.9
16	47	9	SESE		5100	36.4

Recorded in State Record of Water Right Certificates numbered 75668.

3205.SLH

TOWNSHIP	RANGE	SECTION	¼,¼	GOV LOT	TAX LOT	ACRES
16	47	13	NENW	2	1100	44.0
16	47	27	NENW		5701	23.2
16	47	27	SENW		5701	6.8
17	47	2	NWNW	4	100	16.3

This certificate describes the new location and type of use of the water right confirmed by certificate 3205 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75668.

3205.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER** for the purpose of **SUPPLEMENTAL IRRIGATION of 5120.2 acres.**

This right was perfected under Permit 1233. The date of priority is **JUNE 7, 1912.** The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed **64.0 CUBIC FEET PER SECOND** or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

(Dunaway Pumping Plant) LOT 3 (NE¼ SW¼), SECTION 18, T. 20 S., R. 47 E., W.M. (River Mile 394.2)

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of **ONE-EIGHTIETH** of one cubic foot per second for each acre irrigated during the irrigation season of each year, or the equivalent in case of rotation.

A description of the place of use to which this right is appurtenant is as follows:

Location is based on Willamette Meridian, all Townships are South, all Ranges are East.

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
18	46	22	NENE		100	26.0
18	46	22	NWNE		100	24.9
18	46	22	SWNE		500	38.0
18	46	22	SENE		500	37.0
18	46	22	NENW		100	13.8
18	46	22	NWNW		100	1.0
18	46	22	SWNW		100	33.7
18	46	22	SENW		100	37.5
18	46	22	NESW		900	28.9
18	46	22	NESE		1300	37.7
18	46	22	NWSE		1100	38.1
18	46	22	SWSE		1200	19.9
18	46	22	SESE		1200	23.0

Recorded in State Record of Water Right Certificates numbered 75671.

4853.SLH

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
18	46	23	NENE		2500	31.4
18	46	23	NWNE		2400	28.1
18	46	23	SWNE		1400	36.1
18	46	23	SWNE		1401	0.7
18	46	23	SENE		2300	37.0
18	46	23	NENW		1400	26.5
18	46	23	NENW		1500	6.3
18	46	23	NWNW		1400	9.1
18	46	23	NWNW		1500	18.9
18	46	23	NWNW		1600	1.8
18	46	23	SWNW		1500	17.1
18	46	23	SWNW		1600	17.5
18	46	23	SENW		1400	11.0
18	46	23	SENW		1500	24.1
18	46	23	NESW		1800	38.0
18	46	23	NWSW		1600	33.7
18	46	23	NWSW		1800	2.2
18	46	23	SWSW		1600	15.0
18	46	23	SESW		1901	19.5
18	46	23	NESE		2100	32.0
18	46	23	NESE		2200	4.9
18	46	23	NWSE		1800	9.5
18	46	23	NWSE		2100	29.1
18	46	23	SWSE		1802	8.0
18	46	23	SWSE		1901	8.2
18	46	23	SWSE		2000	12.7
18	46	23	SESE		2000	23.8
18	46	24	NENE		4600	30.0
18	46	24	NWNE		2600	14.7
18	46	24	NWNE		4100	17.4
18	46	24	SWNE		3900	7.3
18	46	24	SWNE		4000	11.1
18	46	24	SWNE		4101	11.7
18	46	24	SWNE		4200	2.0
18	46	24	SWNE		4300	4.9
18	46	24	SENE		4400	18.3
18	46	24	SENE		4500	16.2
18	46	24	NENW		2600	33.6
18	46	24	NWNW		2500	13.6
18	46	24	NWNW		2600	14.8
18	46	24	SWNW		2700	19.3
18	46	24	SWNW		2800	18.8
18	46	24	SENW		2900	38.2
18	46	24	NESW		3001	38.0
18	46	24	NWSW		3100	36.8
18	46	24	SWSW		3200	23.2
18	46	24	SESW		3200	23.3
18	46	24	NESE		3800	36.6

Recorded in State Record of Water Right Certificates numbered 75671.

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
18	46	24	NWSE		3400	17.8
18	46	24	NWSE		3500	0.1
18	46	24	NWSE		3600	3.8
18	46	24	NWSE		3700	14.5
18	46	24	SWSE		3300	36.0
18	46	24	SESE		3300	35.6
18	46	25	NENE		3300	10.2
18	46	25	NWNE		3300	9.1
18	47	19	SWNW	2	1300	23.1
18	47	19	NWSW	3	1300	37.8
18	47	19	SWSW	4	1400	37.2
18	47	30	NWNE		1400	1.6
18	47	30	NENW		1400	37.4
18	47	30	NWNW	1	1400	36.3
18	47	30	SWNW	2	6900	38.3
18	47	30	SENW		6900	39.8
18	47	30	NESW		6900	39.6
18	47	30	NWSW	3	6900	37.8
18	47	30	SWSW	4	7100	36.1
18	47	30	SESW		7100	38.1
18	47	30	NWSE		6200	30.2
18	47	30	SWSE		6200	35.6
18	47	30	SESE		6200	0.5
18	47	31	NWNE		7800	31.5
18	47	31	SWNE		7700	39.7
18	47	31	NENW		7200	26.6
18	47	31	SENW		7700	4.5
18	47	31	NESW		7600	14.4
18	47	31	SWSW	4	7600	1.3
18	47	31	SESW		7600	30.7
18	47	31	NWSE		7600	39.0
18	47	31	SWSE		7600	38.6
19	46	1	SESE		800	7.1
19	46	1	SESE		900	1.9
19	46	12	NENE		2500	16.3
19	46	12	SENE		2500	10.8
19	46	12	NESE		2500	0.4
19	46	12	NESE		3100	5.0
19	46	13	NESE		4300	2.7
19	46	13	SWSE		4400	8.9
19	46	13	SESE		4300	30.4
19	46	24	NENE		1800	33.0
19	46	24	NWNE		1800	12.7
19	46	24	SWNE		2000	3.0
19	46	24	SENE		2100	25.7
19	46	24	SENE		2102	0.6
19	46	24	NESW		2300	3.6
19	46	24	SESW		2300	9.7

Recorded in State Record of Water Right Certificates numbered 75671.

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
19	46	24	NESE		2100	23.3
19	46	24	NWSE		2500	14.0
19	46	24	SWSE		2500	32.2
19	46	24	SESE		2500	22.4
19	46	25	NWNE		2800	35.0
19	46	25	SWNE		2800	37.1
19	46	25	NENW		2900	18.2
19	46	25	SWNW		3001	9.5
19	46	25	SENW		2900	32.2
19	46	25	NESW		3103	37.7
19	46	25	NWSW		3103	23.2
19	46	25	SWSW		3103	14.0
19	46	25	SESW		3103	38.2
19	46	25	NWSE		3103	29.2
19	46	25	SWSE		3103	26.5
19	46	26	SENE		3001	8.2
19	46	35	NESE		6100	12.7
19	46	35	SESE		6100	24.3
19	46	36	SWNE		6500	8.0
19	46	36	NENW		6600	12.6
19	46	36	NENW		6601	16.3
19	46	36	NWNW		6700	30.9
19	46	36	SWNW		6500	19.2
19	46	36	SWNW		6700	19.9
19	46	36	SENW		6500	37.8
19	46	36	NESW		6500	23.1
19	46	36	NESW		7000	4.0
19	46	36	NWSW		7000	38.2
19	46	36	SWSW		7000	38.2
19	46	36	SESW		7000	37.7
19	46	36	NWSE		6500	6.9
19	46	36	SWSE		7000	1.6
19	47	6	NENE	1	1100	1.8
19	47	6	NWNE	2	1100	36.2
19	47	6	SWNE		1100	38.0
19	47	6	SENE		1100	1.3
19	47	6	NENW	3	1100	39.6
19	47	6	NWNW	4	1200	24.6
19	47	6	SWNW	5	1200	37.4
19	47	6	SENW		1100	38.7
19	47	6	NESW		1301	40.2
19	47	6	NWSW	6	1301	36.1
19	47	6	SWSW	7	1800	38.4
19	47	6	SESW		1700	38.6
19	47	6	NESE		1301	0.9
19	47	6	NWSE		1301	40.0
19	47	6	SWSE		1600	38.0
19	47	6	SESE		1600	4.0

Recorded in State Record of Water Right Certificates numbered 75671.

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
19	47	7	NENE		2100	4.9
19	47	7	NWNE		2000	39.6
19	47	7	SWNE		2000	33.6
19	47	7	SENE		2000	0.3
19	47	7	NENW		2000	38.5
19	47	7	NWNW	1	1900	37.1
19	47	7	SWNW	2	1900	38.3
19	47	7	SENW		2000	38.1
19	47	7	NESW		2500	40.1
19	47	7	NWSW	3	2500	38.7
19	47	7	SWSW	4	2500	5.6
19	47	7	SWSW	4	2601	10.3
19	47	7	SWSW	4	2700	0.2
19	47	7	SESW		2500	3.4
19	47	7	SESW		2800	0.5
19	47	7	SESW		2900	33.8
19	47	7	NWSE		2500	36.3
19	47	7	SWSE		2500	34.4
19	47	18	NWNE		5601	6.0
19	47	18	NENW		5601	35.2
19	47	18	NWNW	1	5700	22.8
19	47	18	SWNW	2	5800	37.9
19	47	18	SENW		5601	8.4
19	47	18	SENW		5602	2.4
19	47	18	NWSW	3	5900	29.7
19	47	18	SWSW	4	6002	20.6
19	47	19	NWNW	1	100	18.8
20	46	1	SESW		100	17.0
20	46	11	NESE		3200	4.0
20	46	11	SESE		3300	22.6
20	46	12	NWNE		3500	22.7
20	46	12	SWNE		3300	24.8
20	46	12	NENW		3500	38.8
20	46	12	NENW		3700	0.1
20	46	12	NWNW		3500	15.7
20	46	12	NWNW		3700	17.9
20	46	12	NWNW		3800	0.4
20	46	12	SWNW		3700	3.9
20	46	12	SWNW		3800	0.4
20	46	12	SWNW		3801	29.7
20	46	12	SENW		3500	10.0
20	46	12	SENW		3700	2.7
20	46	12	SENW		3801	24.9
20	46	12	NESW		3300	39.7
20	46	12	NWSW		3300	36.9
20	46	12	SWSW		3300	34.5
20	46	12	SESW		3300	37.5
20	46	12	NESE		3300	8.0

Recorded in State Record of Water Right Certificates numbered 75671.

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
20	46	12	NWSE		3300	35.2
20	46	12	SWSE		3300	36.9
20	46	12	SESE		3300	23.1
20	46	13	NWSW		4100	0.7
20	46	14	NENE		4600	29.6
20	46	14	SENE		4600	23.8
20	46	14	NESE		4600	19.4
20	46	14	SESE		4600	21.3
20	46	24	NWNE		2300	26.1
20	46	24	NENW		2300	38.7
20	46	24	NWNW		2500	36.4
20	46	24	SWNW		2500	36.8
20	46	24	SWNW		2501	0.4
20	46	24	SENW		2300	37.0
20	46	24	NWSW		2500	1.3
20	47	18	NWNW	1	3900	3.1
20	47	18	SWNW	2	3900	9.6
20	47	18	NWSW	3	2400	1.0

DEFICIENCY IN RATE LAYER

TOWNSHIP	RANGE	SECTION	¼, ¼	Lot	Tax Lot	ACRES
18	47	30	SWNW	2	6900	38.3
18	47	30	SENW		6900	39.8
18	47	30	NESW		6900	39.6
18	47	30	NWSW	3	6900	37.8
18	47	30	SWSW	4	7100	36.1
18	47	30	SESW		7100	38.1
18	47	30	NWSE		6200	30.2

This Certificate describes the new location and type of use of the water right confirmed by Certificate 4853 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999, approving a petition by the Owyhee Irrigation District under ORS 541.329.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75671.

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of THE COLUMBIA RIVER for the purpose of **SUPPLEMENTAL IRRIGATION of 894.1 acres.**

This right was perfected under Permit 4904. The date of priority is **JANUARY 3, 1921.** The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed **11.18 CUBIC FEET PER SECOND** or its equivalent in case of rotation.

The point of diversion is located as follows:

(Dunaway Pumping Plant) LOT 3 NE1/4SW1/4, SECTION 18, T. 20 S., R. 47 E., W.M. (River Mile 394.2)

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to a diversion of **ONE-EIGHTIETH** of one cubic foot per second for each acre irrigated during the irrigation season of each year, or the equivalent in case of rotation.

A description of the place of use to which this right is appurtenant is as follows:
Location is based on Willamette Meridian, all Townships are South, all Ranges are East.

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	35	NENE		5800	4.4
19	46	35	SENE		6100	3.5
20	46	1	NENE	1	100	20.3
20	46	1	NWNE	2	101	26.1
20	46	1	SWNE		101	34.1
20	46	1	SENE		100	23.0
20	46	1	NENW	3	100	26.7
20	46	1	NWNW	4	100	4.6
20	46	1	SWNW		100	18.0
20	46	1	SENW		100	38.1
20	46	1	NESW		100	38.0
20	46	1	NWSW		100	24.4
20	46	1	SWSW		100	18.7
20	46	1	SWSW		300	2.7
20	46	1	SESW		100	21.2
20	46	1	NESE		100	4.0

Recorded in State Record of Water Right Certificates numbered 75672.

4871.SLH

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	1	NWSE		100	27.6
20	46	1	NWSE		101	3.6
20	46	1	SWSE		100	20.9
20	46	13	NENE		3900	24.7
20	46	13	NWNE		3900	38.8
20	46	13	SWNE		2900	39.9
20	46	13	SENE		2900	30.6
20	46	13	NENW		3900	38.6
20	46	13	NWNW		3900	37.3
20	46	13	SWNW		2900	37.9
20	46	13	SENW		2900	40.0
20	46	13	NESW		4000	12.8
20	46	13	NESW		4200	26.9
20	46	13	NWSW		4000	36.5
20	46	13	NWSW		4100	0.8
20	46	13	SWSW		4000	37.9
20	46	13	SESW		4000	26.4
20	46	13	SESW		4200	12.8
20	46	13	NESE		4200	8.2
20	46	13	NWSE		4200	39.7
20	46	13	SWSE		4200	36.6
20	46	13	SESE		4200	7.8

This certificate describes the new location and type of use of the water right confirmed by Certificate 4871 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75672.

4871.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

UNITED STATES OF AMERICA
BUREAU OF RECLAMATION
214 BROADWAY AVENUE
BOISE IDAHO 83702-7298

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **SUPPLEMENTAL IRRIGATION of 9987.2 acres.**

This right was perfected under Permit 24285. The date of priority is **OCTOBER 1, 1951** The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed **204.9 CUBIC FEET PER SECOND** or its equivalent in case of rotation.

The point of diversion is located as follows:
(Dunaway Pumping Plant) LOT 3 NE1/4 SW1/4, SECTION 18, T. 20 S., R. 47 E., W.M.
(River Mile 394.2)

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to **ONE-FORTIETH** of one cubic foot per second per acre, or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed **6.7 acre-feet** for each acre irrigated during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:
All Townships are South, all Ranges are East, location based on Willamette Meridian
USE IS WITHIN THE OWYHEE DITCH COMPANY

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
18	46	12		NENE	11.2
18	46	12		SWNE	4.0
18	46	12		SENE	35.2
18	46	12		NESE	34.1
18	46	14		NWSE	24.1
18	46	14		SWSE	33.0
18	47	4		SWNE	21.0
18	47	4	3	NENW	30.6
18	47	4	4	NWNW	14.2
18	47	4		SWNW	37.8
18	47	4		SENW	37.0
18	47	4		NESW	39.7
18	47	4		NWSW	39.2
18	47	5		SENW	10.0
18	47	5		NESW	40.0

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
18	47	5		NWSW	40.0
18	47	5		SWSW	38.8
18	47	5		SESW	38.8
18	47	6		NESE	40.0
18	47	6		SESE	38.8
18	47	7		SESE	30.0
18	47	8		SWNE	36.2
18	47	8		NENW	39.3
18	47	8		NWNW	38.5
18	47	8		SWNW	39.2
18	47	8		SENW	40.0
18	47	8		NESW	40.0
18	47	8		NWSW	39.2
18	47	8		SWSW	38.8
18	47	8		SESW	39.4
18	47	8		NWSE	29.1
18	47	8		SWSE	18.2
18	47	9		NENW	13.0
18	47	9		NWNW	12.0
18	47	9		NESW	20.7
18	47	9		NWSW	6.9
18	47	9		SWSW	16.0
18	47	9		SWSE	19.0
18	47	16		NWNE	19.0
18	47	16		SWNE	39.8
18	47	16		NENW	38.2
18	47	16		NWNW	32.6
18	47	16		SWNW	39.2
18	47	16		SENW	38.8
18	47	16		NESW	38.8
18	47	16		NWSW	38.5
18	47	16		SWSW	37.5
18	47	16		SESW	38.0
18	47	16		NWSE	39.2
18	47	16		SWSE	30.6
18	47	17		NWNE	26.0
18	47	17		SWNE	31.0
18	47	17		NENW	39.3
18	47	17		NWNW	38.6
18	47	17		SWNW	39.2
18	47	17		SENW	40.0
18	47	17		NESW	40.0
18	47	17		NWSW	39.2
18	47	17		SWSW	38.5
18	47	17		SESW	39.2
18	47	17		NWSE	28.5
18	47	17		SWSE	36.8

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
18	47	17		SESE	37.5
18	47	18		NENE	38.2
18	47	18		NWNE	39.2
18	47	18		SWNE	40.0
18	47	18		SENE	39.2
18	47	18		NENW	39.2
18	47	18	1	NWNW	22.8
18	47	18	2	SWNW	14.5
18	47	18		SENW	35.5
18	47	18		NESW	8.4
18	47	18	3	NWSW	33.2
18	47	18	4	SWSW	36.0
18	47	18		SESW	34.5
18	47	18		NESE	39.2
18	47	18		NWSE	40.0
18	47	18		SWSE	39.2
18	47	18		SESE	37.4
18	47	19		NENE	37.5
18	47	19		NWNE	11.0
18	47	19		SENE	39.5
18	47	19		NENW	12.3
18	47	19	1	NWNW	30.0
18	47	19	2	SWNW	8.0
18	47	19		NESW	15.0
18	47	19		SESW	9.0
18	47	19		NESE	39.5
18	47	19		NWSE	13.8
18	47	19		SESE	13.6
18	47	20		NENE	35.2
18	47	20		NWNE	35.2
18	47	20		SWNE	40.0
18	47	20		SENE	40.0
18	47	20		NENW	35.6
18	47	20		NWNW	34.2
18	47	20		SWNW	39.0
18	47	20		SENW	40.0
18	47	20		NESW	40.0
18	47	20		NWSW	39.2
18	47	20		SWSW	39.2
18	47	20		SESW	39.5
18	47	20		NESE	39.6
18	47	20		NWSE	39.6
18	47	20		SWSE	36.5
18	47	20		SESE	39.3
18	47	28		NWNW	29.5
18	47	28		SWNW	31.2
18	47	29		NENE	35.0

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
18	47	29		NWNE	38.6
18	47	29		SWNE	40.0
18	47	29		SENE	40.0
18	47	29		NENW	40.0
18	47	29		NWNW	38.7
18	47	29		SWNW	37.0
18	47	29		SENW	2.0
18	47	29		NESW	40.0
18	47	29		NWSW	39.2
18	47	29		SWSW	40.0
18	47	29		SESW	34.2
18	47	29		NESE	33.1
18	47	29		NWSE	39.0
18	47	29		SWSE	39.7
18	47	29		SESE	21.0
18	47	30		NENE	38.2
18	47	30		NWNE	24.7
18	47	30		SWNE	38.4
18	47	30		SENE	39.2
18	47	30		NESE	39.0
18	47	30		SESE	40.4
18	47	31		NENE	30.0
18	47	31		SENE	30.0
18	47	31		NESE	35.0
18	47	31		SESE	35.0
18	47	32		NENE	9.9
18	47	32		NWNE	38.8
18	47	32		SWNE	38.7
18	47	32		NENW	38.3
18	47	32		NWNW	38.7
18	47	32		SWNW	35.8
18	47	32		SENW	38.2
18	47	32		NESW	34.1
18	47	32		NWSW	39.2
18	47	32		SWSW	34.5
18	47	32		SESW	39.0
18	47	32		NWSE	35.5
18	47	32		SWSE	20.5
18	47	32		SESE	34.8
19	46	24		SENE	2.5
19	46	24		NESE	23.6
19	46	24		SESE	15.2
19	46	25		NENE	30.0
19	46	25		SENE	36.0
19	46	25		NESE	39.6
19	46	25		NWSE	7.0
19	46	25		SWSE	8.3

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
19	46	25		SESE	39.6
19	46	36		NENE	38.5
19	46	36		NWNE	34.3
19	46	36		SWNE	28.5
19	46	36		SENE	39.2
19	46	36		NESE	38.8
19	46	36		NWSE	27.2
19	46	36		SWSE	37.0
19	46	36		SESE	39.6
19	47	5	1	NENE	21.1
19	47	5	2	NWNE	15.2
19	47	5		SWNE	15.3
19	47	5	3	NENW	39.2
19	47	5	4	NWNW	39.2
19	47	5		SWNW	39.2
19	47	5		SENW	39.8
19	47	5		NESW	40.0
19	47	5		NWSW	40.0
19	47	5		SWSW	40.0
19	47	5		SESW	40.0
19	47	5		NWSE	20.0
19	47	5		SWSE	14.6
19	47	6	1	NENE	29.1
19	47	6		SENE	31.9
19	47	6		NESE	30.3
19	47	6		SESE	30.5
19	47	7		NENE	26.5
19	47	7		NWNE	2.8
19	47	7		SENE	35.0
19	47	7		NESE	38.6
19	47	7		NWSE	1.0
19	47	7		SWSE	10.0
19	47	7		SESE	37.7
19	47	8		NENW	25.8
19	47	8		NWNW	40.0
19	47	8		SWNW	39.0
19	47	8		SENW	27.0
19	47	8		NESW	35.4
19	47	8		NWSW	39.2
19	47	8		SWSW	38.7
19	47	8		SESW	39.2
19	47	17		NENW	10.0
19	47	17		NWNW	38.8
19	47	17		SWNW	35.0
19	47	17		NWSW	38.9
19	47	17		SWSW	38.9
19	47	18		NENE	38.2

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
19	47	18		NWNE	24.7
19	47	18		SWNE	40.0
19	47	18		SENE	40.0
19	47	18		NENW	2.1
19	47	18		SENW	25.4
19	47	18		NESW	39.8
19	47	18	3	NWSW	5.9
19	47	18	4	SWSW	12.0
19	47	18		SESW	40.0
19	47	18		NESE	36.2
19	47	18		NWSE	34.7
19	47	18		SWSE	39.4
19	47	18		SESE	39.2
19	47	19		NENE	38.2
19	47	19		NWNE	39.1
19	47	19		SWNE	40.0
19	47	19		SENE	39.1
19	47	19		NENW	40.0
19	47	19	1	NWNW	15.2
19	47	19	2	SWNW	38.6
19	47	19		SENW	40.0
19	47	19		NESW	40.0
19	47	19	3	NWSW	39.1
19	47	19	4	SWSW	38.2
19	47	19		NESE	39.1
19	47	19		NWSE	36.8
19	47	19		SWSE	40.0
19	47	19		SESE	20.0
19	47	20		NENW	9.4
19	47	20		NWNW	34.2
19	47	20		SWNW	37.2
19	47	20		SENW	4.0
19	47	20		NWSW	14.4
19	47	20		SWSW	40.0
19	47	20		SESW	20.0
19	47	29		NWNW	38.3
19	47	29		SWNW	20.0
19	47	29		NWSW	20.0
19	47	29		SWSW	38.0
19	47	30		NENE	32.5
19	47	30		NWNE	35.0
19	47	30		SWNE	35.0
19	47	30		SENE	39.1
19	47	30		NENW	39.1
19	47	30	1	NWNW	38.2
19	47	30	2	SWNW	39.1
19	47	30		SENW	37.8

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
19	47	30		NESW	40.0
19	47	30	3	NWSW	39.6
19	47	30	4	SWSW	39.4
19	47	30		SESW	39.0
19	47	30		NESE	39.1
19	47	30		NWSE	40.0
19	47	30		SWSE	37.5
19	47	30		SESE	39.1
19	47	31		NENE	25.0
19	47	31		NWNE	39.1
19	47	31		SWNE	39.1
19	47	31		SENE	39.8
19	47	31		NENW	39.2
19	47	31	1	NWNW	38.5
19	47	31	2	SWNW	39.5
19	47	31		SENW	39.1
19	47	31		NESW	39.1
19	47	31	3	NWSW	38.5
19	47	31	4	SWSW	38.8
19	47	31		SESW	39.2
19	47	31		NESE	35.6
19	47	31		NWSE	38.8
19	47	31		SWSE	38.4
19	47	31		SESE	4.0
19	47	32		NWNW	15.0
20	46	1	1	NENE	5.0
20	46	1		SENE	10.0
20	46	1		NESE	35.4
20	46	1		NWSE	2.6
20	46	1		SWSE	11.5
20	46	1		SESE	39.1
20	46	12		NENE	39.1
20	46	12		NWNE	14.5
20	46	12		SWNE	5.8
20	46	12		SENE	38.6
20	46	12		NESE	27.0
20	46	12		SESE	10.0
20	47	5	3	NWNW	20.0
20	47	6	1	NENE	28.9
20	47	6	2	NWNE	28.5
20	47	6		SWNE	38.4
20	47	6	5	SENE	20.0
20	47	6	3	NENW	24.0
20	47	6	4	NWNW	28.0
20	47	6		SWNW	40.0
20	47	6		SENW	39.1
20	47	6		NESW	39.1

Recorded in State Record of water right Certificates numbered 75690 .

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	ACRES
20	47	6		NWSW	40.0
20	47	6		SWSW	39.1
20	47	6		SESW	35.8
20	47	6	6	NWSE	24.5
20	47	6	7	SWSE	26.5
20	47	7		NWNE	17.5
20	47	7		SWNE	8.1
20	47	7		SENE	27.4
20	47	7		NENW	35.6
20	47	7		NWNW	38.5
20	47	7		SWNW	39.4
20	47	7		SENW	36.8
20	47	7	5	NESW	28.7
20	47	7		NWSW	38.2
20	47	7		SWSW	27.6
20	47	7	6	SESW	10.0
20	47	7	3	NESE	31.0
20	47	7	4	NWSE	25.5
20	47	7	2	SESE	1.0
20	47	18	1	NWNW	22.0

This Certificate describes that portion of the water right confirmed by Certificate 24704 State Record of Water Right Certificates, NOT modified by the provisions of the following orders of the State Engineer and the Water Resources Director:

entered on November 12, 1970 and recorded in Special Order Volume 20, page 210, canceling a portion of 3 water rights.

entered on September 27, 1979 and recorded in Special Order Volume 32, page 417, approving Transfer Application 4289;

entered on September 10, 1981 and recorded in Special Order Volume 35, page 190, approving Transfer Application M-129;

entered on January 13, 1984 and recorded in Special Order Volume 38, page 99, approving Transfer Application 5418;

entered on February 2, 1984 and recorded in Special Order Volume 38, page 131, approving Transfer Application 5424;

entered on February 15, 1984 and recorded in Special Order Volume 38, page 149, approving Transfer Application 5427;

entered on March 2, 1984 and recorded in Special Order Volume 38, page 169, approving Transfer Application 5425;

entered on September 12, 1984 and recorded in Special Order Volume 38, page 431, approving Transfer Application 5506;

Recorded in State Record of Water Right Certificates numbered 75690 .

entered on October 18, 1984 and recorded in Special Order Volume 38, page 466, approving Transfer Application 5522;

entered on November 2, 1984 and recorded in Special Order Volume 38, page 509, approving Transfer Application 5530;

entered on November 2, 1984 and recorded in Special Order Volume 38, page 511, approving Transfer Application 5529;

entered on July 7, 1986 and recorded in Special Order Volume 40, page 216, approving Transfer Application 5530;

entered on January 21, 1987 and recorded in Special Order Volume 41, page 16, approving Transfer Application 5872;

entered on March 19, 1987 and recorded in Special Order Volume 41, page 125, approving Transfer Application 5459;

entered on March 19, 1987 and recorded in Special Order Volume 41, page 128, approving Transfer Application 5460;

entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329. This Certificate together with Certificate 75689 supersedes Certificate 24704.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75690 .

24704rr.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

UNITED STATES OF AMERICA
BUREAU OF RECLAMATION
214 BROADWAY AVENUE
BOISE IDAHO 83702-7298

confirms the right to use the waters of the **OWYHEE RIVER** and water stored in **OWYHEE RESERVOIR** constructed under permint R-599, tributaries of the SNAKE RIVER; for **IRRIGATION** of **56,776.1** acres and **SUPPLEMENTAL IRRIGATION** of **4,656.3** acres.

The beneficial use of the water represented hereby is for the landowners within the **Owyhee Irrigation District** pursuant to relationships established by the Federal Reclamation Laws and repayment contract number Ilr-876 dated August 29, 1951, as amended and supplemented, between the United States and the full supply districts of the Owyhee Project.

This right was perfected under Permit 8171. The dates of priority for direct flow are **FEBRUARY 14, 1916** for **446.6 cfs** and **AUGUST 19, 1924** for **576.4 cfs**. The dates of priority for stored water from Owyhee Reservoir are **FEBRUARY 15, 1916** for **59,546.1** acre feet and **AUGUST 20, 1924** for **357,276.5** acre feet. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed **1023.0 cubic feet per second** of live flow, or its equivalent in case of rotation, measured at the points of diversion from the source.

The points of diversion are located as follows:

within the NW¼ SE¼, SECTION 20; (**Owyhee Dam**) 200 FEET SOUTH AND 2010 FEET WEST from common corner corner to Sections 20 and 21 and (**Glory Hole Spillway**) 200 FEET SOUTH AND 1680 FEET WEST from common corner corner to Sections 20 and 21 AND within the NW¼ SW¼, SECTION 21, (**Tunnel No. 1**) 495 FEET EAST and 264 FEET SOUTH from common corner corner to Sections 20 and 21, all in T. 22 S., R. 45 E., W.M.

The amount of water from direct flow of the Owyhee River used for irrigation shall be limited to **1/60th** of one cubic foot per second per acre, or its equivalent for each acre irrigated and shall be further limited to **3.0 acre feet** per acre for each acre irrigated during the irrigation season of each year. The amount of water from direct flow of the Owyhee River together with water stored in Owyhee Reservoir and with the amount secured under any other water right existing for the same lands, shall be limited to a diversion of not to exceed **6.7 acre feet** for each acre irrigated during the irrigation season of each year, and shall conform to any reasonable rotation system as may be ordered by the proper state officer.

SEE NEXT PAGE

Recorded in State Record of Water Right Certificates numbered 75691 .

A description of the place of use to which this right is appurtenant is as follows:

All Townships are South, all Ranges are East, location based on Willamette Meridian

PRIMARY IRRIGATION

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
15	46	25	NWSE		2800	11.4
15	46	25	SWSE		2800	28.4
15	46	25	SESE		3200	14.8
15	46	36	NWNE		3700	6.7
15	46	36	SWNE		3700	7.0
15	46	36	NENW		3700	0.9
15	47	30	SWSW	4	5400	17.5
15	47	30	SWSW	4	6000	1.3
15	47	30	SESW		5900	0.2
15	47	31	NENE		5603	14.4
15	47	31	SWNE		6400	3.1
15	47	31	SENE		5800	37.0
15	47	31	SENE		6400	1.0
15	47	31	SWNW	3	6101	32.6
15	47	31	NWSW	3	6100	2.3
15	47	31	NWSW	3	6101	32.6
15	47	31	NESE		5800	1.2
15	47	31	NESE		6400	28.6
15	47	31	NESE		6501	0.7
15	47	31	NWSE		6400	6.5
15	47	32	SWNE		7500	7.2
15	47	32	SENE		7500	5.3
15	47	32	NESE		7500	33.3
15	47	32	NWSE		7500	14.8
15	47	32	SWSE		7500	2.2
15	47	32	SWSE		7800	27.0
15	47	32	SWSE		7900	1.9
15	47	32	SESE		7500	13.1
15	47	32	SESE		7900	12.9
15	47	33	SWNW		8500	3.0
15	47	33	NWSW	4	8500	10.8
15	47	33	SWSW	5	300	2.6
15	47	33	SWSW	5	8500	2.2
15	47	33	SWSW	5	9304	3.0
16	47	4	NENW	2	300	7.7
16	47	4	NENW	2	400	0.3
16	47	4	NWNW	1	300	8.6
16	47	6	NWNE	2	2300	1.8
16	47	6	SWNE		2500	11.1
16	47	6	NENW	3	2300	29.7
16	47	6	NWNW	4	2400	12.8
16	47	6	SENW		2500	12.2

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	6	NWSE		2600	17.8
16	47	6	SWSE		2700	24.8
16	47	6	SESE		2700	8.7
16	47	7	NENE		2800	26.4
16	47	7	NWNE		2800	24.4
16	47	7	SWNE		2800	10.5
16	47	7	SENE		2900	27.2
16	47	7	NESE		2900	36.3
16	47	7	SWSE		3200	25.8
16	47	7	SESE		3400	16.0
16	47	8	NESW		2900	0.2
16	47	8	NESW		3800	30.6
16	47	8	NWSW		2900	24.8
16	47	8	NWSW		3800	5.4
16	47	8	SWSW		3400	1.0
16	47	8	SESW		3400	22.6
16	47	8	NWSE		3901	0.7
16	47	8	SWSE		4200	12.1
16	47	16	NESW		5901	13.5
16	47	16	NWSW		5901	24.4
16	47	16	SWSW		5901	28.2
16	47	16	SESW		5901	28.9
16	47	17	NENE		6200	36.1
16	47	17	NWNE		6300	12.0
16	47	17	NWNE		6303	5.0
16	47	17	SWNE		6400	13.5
16	47	17	SENE		6200	9.4
16	47	17	NESE		6700	6.7
16	47	17	NWSE		6600	17.9
16	47	17	SWSE		6804	21.5
16	47	18	NWNE		3200	22.4
16	47	18	NENW		3200	10.1
16	47	18	SENW		3200	21.3
16	47	20	NENE		100	31.3
16	47	20	NWNE		100	25.5
16	47	20	SWNE		500	0.9
16	47	20	SENE		100	3.5
16	47	20	NENW		100	6.3
16	47	20	NESW		500	12.8
16	47	20	SESW		600	1.4
16	47	20	NESE		200	35.1
16	47	20	NWSE		500	31.8
16	47	20	SWSE		600	38.8
16	47	20	SESE		600	23.1
16	47	21	NWNE		800	27.6
16	47	21	SWNE		800	30.2
16	47	21	SENE		800	2.6

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	21	SENE		1400	0.5
16	47	21	NENW		900	25.3
16	47	21	NWNW		900	25.6
16	47	21	SWNW		900	36.0
16	47	21	SENW		900	36.2
16	47	21	NESW		1000	34.1
16	47	21	NWSW		1000	34.9
16	47	21	NWSW		1001	3.0
16	47	21	SWSW		1100	21.2
16	47	21	SESW		1100	30.9
16	47	21	NESE		1400	28.1
16	47	21	NWSE		1300	38.4
16	47	21	SWSE		1300	13.3
16	47	21	SESE		1400	34.3
16	47	22	NWSW		600	35.5
16	47	22	SWSW		600	34.0
16	47	27	NENW		5700	14.8
16	47	27	NWNW		5700	32.9
16	47	27	SWNW		5700	38.4
16	47	27	SENW		5700	30.0
16	47	27	NESW		5800	34.7
16	47	27	NESW		6100	4.8
16	47	27	NWSW		5900	35.9
16	47	27	SWSW		5900	23.4
16	47	27	SWSW		6000	10.0
16	47	27	SESW		5800	7.9
16	47	27	SESW		6000	22.6
16	47	27	NWSE		6100	12.9
16	47	28	NENE		1500	35.7
16	47	28	NWNE		1500	23.6
16	47	28	NWNE		1600	1.0
16	47	28	NWNE		1700	5.4
16	47	28	SWNE		1500	35.9
16	47	28	SENE		1500	35.6
16	47	28	NENW		1800	39.2
16	47	28	NWNW		1800	36.6
16	47	28	SWNW		1900	37.9
16	47	28	SENW		1900	39.8
16	47	28	NESW		2100	39.7
16	47	28	NWSW		2100	39.7
16	47	28	SWSW		2100	33.6
16	47	28	SESW		2100	37.3
16	47	28	NESE		2200	36.4
16	47	28	NWSE		2200	37.4
16	47	28	SWSE		2300	24.8
16	47	28	SWSE		2301	12.7
16	47	28	SESE		2300	34.5

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	28	SESE		2301	2.8
16	47	29	NENE		600	26.9
16	47	29	NWNE		600	34.1
16	47	29	SWNE		600	23.9
16	47	29	SENE		600	28.2
16	47	29	SESW		2600	7.3
16	47	29	NESE		2400	36.6
16	47	29	NWSE		2400	24.3
16	47	29	SWSE		2600	37.0
16	47	29	SESE		2500	25.0
16	47	29	SESE		2600	5.7
16	47	32	NENE		3300	34.9
16	47	32	NWNE		3300	36.1
16	47	32	SWNE		3400	38.2
16	47	32	SENE		3400	37.8
16	47	32	NENW		3500	1.4
16	47	32	SENW		3500	5.3
16	47	32	NESW		3600	14.5
16	47	32	SESW		3601	5.3
16	47	32	SESW		3602	11.7
16	47	32	NESE		3700	31.1
16	47	32	NWSE		3700	39.1
16	47	32	SWSE		3800	38.9
16	47	32	SESE		3800	25.6
16	47	33	NENE		3900	38.5
16	47	33	NWNE		3900	39.0
16	47	33	SWNE		4100	39.3
16	47	33	SENE		4000	12.5
16	47	33	SENE		4100	23.8
16	47	33	NENW		4201	39.0
16	47	33	NWNW		4300	38.7
16	47	33	SWNW		4400	39.0
16	47	33	SENW		4200	36.6
16	47	33	NESW		4500	40.0
16	47	33	NWSW		4500	37.5
16	47	33	SWSW		4600	20.9
16	47	33	SESW		4600	35.9
16	47	33	NESE		4700	26.9
16	47	33	NWSE		4700	34.5
16	47	33	SWSE		4800	36.0
16	47	33	SESE		4900	35.0
16	47	34	NENW		6700	17.4
16	47	34	NWNW		6800	15.8
16	47	34	NWNW		6801	22.3
16	47	34	SWNW		6700	14.0
16	47	34	SWNW		6800	1.2
16	47	34	SWNW		6801	16.1

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	34	SENW		6700	7.5
16	47	34	SENW		6900	4.2
16	47	34	NESW		6900	33.9
16	47	34	NESW		6901	3.0
16	47	34	NWSW		7000	36.6
16	47	34	SWSW		7100	34.7
16	47	34	SWSW		7203	1.8
16	47	34	SESW		7100	5.4
16	47	34	SESW		7200	6.0
16	47	34	SESW		7201	6.2
16	47	34	SESW		7203	5.9
16	47	34	NWSE		7301	15.3
16	47	34	SWSE		7300	4.0
16	47	34	SWSE		7301	25.0
16	47	34	SESE		7301	7.3
17	45	31	SWNE		3300	3.9
17	45	31	NENW		3300	7.3
17	45	31	SENW		3300	36.5
17	45	31	NESW		3300	37.6
17	45	31	NWSW	3	3300	36.7
17	45	31	SWSW	4	3300	7.7
17	45	31	SWSW	4	3500	20.9
17	45	31	SESW		3500	36.4
17	45	31	NWSE		3300	17.5
17	45	31	SWSE		3300	25.9
17	46	12	SESW		2900	4.6
17	46	12	NESE		3000	5.4
17	46	12	SWSE		2900	21.2
17	46	12	SWSE		3000	0.1
17	46	12	SESE		3000	36.1
17	46	13	SWNE		3300	16.9
17	46	13	SENE		3200	18.0
17	46	13	SENE		3300	9.3
17	46	13	SESW		3500	33.6
17	46	13	SESW		3502	2.3
17	46	13	NESE		3300	37.4
17	46	13	NWSE		3300	30.7
17	46	13	SWSE		3300	7.8
17	46	13	SWSE		3400	15.7
17	46	13	SESE		3300	34.4
17	46	23	NENE		302	21.3
17	46	23	SWNE		400	11.0
17	46	23	SENE		400	32.4
17	46	23	NESE		400	8.6
17	46	23	NESE		800	28.1
17	46	23	NWSE		800	17.3
17	46	23	SWSE		900	28.1

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	46	23	SESE		1100	37.3
17	46	24	NENE		1200	33.9
17	46	24	NWNE		1200	37.4
17	46	24	SWNE		1400	30.7
17	46	24	SENE		1300	3.0
17	46	24	SENE		1301	32.3
17	46	24	NENW		3500	34.1
17	46	24	NWNW		300	33.1
17	46	24	NWNW		3500	1.5
17	46	24	SWNW		1600	27.9
17	46	24	SENW		1400	38.9
17	46	24	NESW		1700	36.2
17	46	24	NWSW		1600	38.9
17	46	24	SWSW		1100	34.2
17	46	24	SWSW		1800	2.0
17	46	24	SESW		1900	35.0
17	46	24	NESE		2000	23.2
17	46	24	NWSE		2100	19.0
17	46	24	SWSE		2200	0.9
17	46	24	SWSE		2202	0.7
17	46	24	SWSE		2203	4.0
17	46	24	SWSE		2204	17.0
17	46	24	SWSE		2205	0.4
17	46	24	SWSE		2206	7.9
17	46	24	SWSE		2207	0.3
17	46	24	SWSE		2208	0.2
17	46	24	SESE		2000	35.5
17	46	25	NENE		2300	25.5
17	46	25	NWNE		2300	37.0
17	46	25	NWNE		2400	1.1
17	46	25	SWNE		2500	20.8
17	46	25	SWNE		2501	14.7
17	46	25	SENE		2300	38.3
17	46	25	NENW		2400	35.0
17	46	25	NWNW		2600	36.6
17	46	25	SWNW		2701	4.5
17	46	25	SWNW		2800	28.5
17	46	25	SENW		2400	9.0
17	46	25	SENW		2800	27.4
17	46	25	NESW		2800	9.1
17	46	25	NESW		2900	30.1
17	46	25	NWSW		3000	29.9
17	46	25	SWSW		2900	13.2
17	46	25	SWSW		3201	3.6
17	46	25	SESW		2900	11.4
17	46	25	SESW		3201	2.0
17	46	25	SESW		3300	2.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	46	25	NESE		3400	35.0
17	46	25	NWSE		3500	37.7
17	46	25	SWSE		3500	10.8
17	46	25	SWSE		3600	0.5
17	46	26	NENE		2600	9.4
17	46	26	NENW		2600	23.2
17	46	26	NWNE		900	5.1
17	46	26	SWNE		2700	3.5
17	46	26	SENE		2700	29.4
17	46	26	SWSW		4202	3.9
17	46	26	SESW		4202	0.1
17	46	26	NESE		3000	12.8
17	46	26	SWSE		4500	35.0
17	46	26	SESE		4600	18.3
17	46	26	SESE		4602	3.2
17	46	34	NESE		4700	0.1
17	46	34	SESE		4700	4.8
17	46	35	NENE		4800	15.0
17	46	35	NWNE		4900	24.8
17	46	35	NWNE		4901	6.0
17	46	35	SWNE		4900	28.0
17	46	35	SENE		5000	35.8
17	46	35	NENW		4202	37.5
17	46	35	NWNW		4202	10.6
17	46	35	SWNW		5100	9.6
17	46	35	SWNW		5102	2.7
17	46	35	SENW		4201	28.4
17	46	35	SENW		4205	8.7
17	46	35	NESW		5200	17.8
17	46	35	NWSW		4700	0.4
17	46	35	NWSW		5102	10.3
17	46	35	SWSW		4700	30.2
17	46	35	SESW		5200	4.1
17	46	35	NESE		5300	8.1
17	46	35	NESE		5301	27.1
17	46	35	NWSE		5400	22.9
17	46	35	SWSE		5400	17.9
17	46	35	SESE		5500	31.0
17	46	36	NENE		3600	21.4
17	46	36	NWNE		3600	27.6
17	46	36	SWNE		5600	37.8
17	46	36	SENE		5600	33.7
17	46	36	NENW		3200	14.5
17	46	36	NENW		3300	24.3
17	46	36	NWNW		3200	36.9
17	46	36	SWNW		3200	30.0
17	46	36	SENW		3200	13.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	46	36	SENW		3300	22.0
17	46	36	NESW		3300	4.0
17	46	36	NESW		5700	11.9
17	46	36	NWSW		5700	30.8
17	46	36	SWSW		5700	23.3
17	46	36	SESW		5800	2.8
17	46	36	SESW		5801	5.7
17	46	36	NESE		6000	3.9
17	46	36	NWSE		6000	7.4
17	46	36	SWSE		6100	23.5
17	46	36	SESE		6100	21.4
17	47	2	NWNW	4	100	14.7
17	47	2	SWNW		100	4.7
17	47	3	NENE	1	600	30.6
17	47	3	NENE	1	601	3.0
17	47	3	NWNE	2	600	6.0
17	47	3	NWNE	2	602	19.9
17	47	3	SWNE		600	2.1
17	47	3	SWNE		602	33.0
17	47	3	SENE		700	12.2
17	47	3	NENW	3	300	4.7
17	47	3	NENW	3	400	11.4
17	47	3	NWNW	4	100	1.0
17	47	3	NWNW	4	200	21.0
17	47	3	NWNW	4	300	8.8
17	47	3	NWNW	4	901	5.0
17	47	3	SWNW		800	13.5
17	47	3	SWNW		901	23.5
17	47	3	SENW		800	32.1
17	47	3	NESW		1005	18.4
17	47	3	NESW		1006	9.0
17	47	3	NWSW		1005	37.2
17	47	3	SWSW		2700	5.5
17	47	3	SWSW		2800	2.1
17	47	3	SWSW		2900	0.7
17	47	3	SWSW		3000	16.1
17	47	3	NWSE		701	2.2
17	47	4	NENE	1	900	37.1
17	47	4	NWNE	2	200	31.7
17	47	4	SWNE		200	39.9
17	47	4	SENE		100	3.0
17	47	4	SENE		101	28.5
17	47	4	SENE		3000	5.3
17	47	4	NENW	3	300	33.8
17	47	4	NWNW	4	401	37.3
17	47	4	SWNW		400	36.6
17	47	4	SWNW		402	0.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	4	SENW		200	37.1
17	47	4	NESW		500	40.3
17	47	4	NWSW		500	38.6
17	47	4	SWSW		500	37.6
17	47	4	SESW		500	34.1
17	47	4	NESE		3000	39.3
17	47	4	NWSE		600	38.8
17	47	4	SWSE		600	35.4
17	47	4	SESE		3000	37.3
17	47	5	NENE	1	700	34.0
17	47	5	NWNE	2	700	35.1
17	47	5	SWNE		900	39.8
17	47	5	SENE		901	27.7
17	47	5	NENW	3	1000	10.1
17	47	5	NENW	3	1100	9.0
17	47	5	NWNW	4	1000	2.8
17	47	5	SENW		1000	30.7
17	47	5	NESW		1200	35.8
17	47	5	SWSW		1300	16.5
17	47	5	SESW		1300	36.4
17	47	5	NESE		1500	34.2
17	47	5	NWSE		1500	38.8
17	47	5	SWSE		1400	38.4
17	47	5	SESE		1600	37.0
17	47	7	SWNE		2001	8.3
17	47	7	SENE		2001	27.6
17	47	7	NESW		2200	2.4
17	47	7	NWSW	3	2200	5.1
17	47	7	SWSW	4	2200	33.2
17	47	7	SESW		2200	30.2
17	47	7	NESE		2400	3.9
17	47	7	NWSE		2200	9.0
17	47	7	SWSE		2200	38.0
17	47	7	SESE		2400	36.8
17	47	8	NENE		2500	36.0
17	47	8	NWNE		2700	34.3
17	47	8	SWNE		2700	40.1
17	47	8	SENE		2600	30.0
17	47	8	SENE		2601	2.8
17	47	8	SENE		2602	0.5
17	47	8	SENE		2603	5.0
17	47	8	NENW		2800	37.4
17	47	8	NWNW		2900	38.2
17	47	8	SWNW		2900	37.7
17	47	8	SENW		2800	36.7
17	47	8	NESW		3000	28.8
17	47	8	NWSW		2400	14.9

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	8	SWSW		2400	20.3
17	47	8	SESW		3000	19.2
17	47	8	NESE		3200	36.8
17	47	8	NWSE		3100	32.6
17	47	8	SWSE		3100	15.4
17	47	8	SESE		3200	39.5
17	47	9	NENE		3300	4.0
17	47	9	NENE		3400	23.1
17	47	9	NWNE		3500	35.1
17	47	9	SWNE		3400	15.9
17	47	9	SWNE		3500	12.7
17	47	9	SENE		3400	13.6
17	47	9	NENW		3600	36.8
17	47	9	NWNW		3700	35.9
17	47	9	SWNW		3800	36.0
17	47	9	SENW		3800	37.3
17	47	9	NESW		100	12.3
17	47	9	NWSW		200	35.7
17	47	9	SWSW		300	3.7
17	47	9	SWSW		301	1.0
17	47	9	SWSW		400	2.8
17	47	9	SWSW		401	1.0
17	47	9	SWSW		500	2.7
17	47	9	SWSW		600	2.0
17	47	9	SWSW		700	3.0
17	47	9	SWSW		800	3.0
17	47	9	SWSW		900	2.1
17	47	9	SWSW		1000	1.5
17	47	9	SWSW		1500	0.4
17	47	9	SWSW		1600	1.0
17	47	9	SWSW		1700	2.5
17	47	9	SWSW		1800	3.0
17	47	9	SWSW		1900	1.6
17	47	9	SWSW		2000	2.0
17	47	9	SESW		1100	1.6
17	47	9	SESW		1200	2.0
17	47	9	SESW		1300	2.0
17	47	9	SESW		1301	1.5
17	47	9	SESW		1302	2.0
17	47	9	SESW		1303	2.0
17	47	9	SESW		1304	1.5
17	47	9	SESW		1305	2.0
17	47	9	SESW		1306	2.0
17	47	9	SESW		1307	2.0
17	47	9	SESW		1308	0.5
17	47	9	SESW		1309	1.5
17	47	9	SESW		1400	1.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	9	SESW		1500	1.6
17	47	9	SESW		1501	4.0
17	47	9	SESW		1600	1.0
17	47	9	SESW		1700	0.5
17	47	9	NESE		100	18.4
17	47	9	NWSE		300	4.3
17	47	9	NWSE		500	2.0
17	47	9	NWSE		600	2.0
17	47	9	NWSE		700	1.0
17	47	9	NWSE		800	1.0
17	47	9	NWSE		900	1.0
17	47	9	NWSE		1100	1.0
17	47	9	NWSE		1200	2.0
17	47	9	NWSE		1300	2.0
17	47	9	NWSE		1400	1.6
17	47	9	SWSE		100	9.8
17	47	9	SWSE		1400	0.4
17	47	9	SESE		100	11.5
17	47	9	SESE		1800	13.7
17	47	9	SESE		1900	6.7
17	47	10	NWSW		4500	34.9
17	47	10	SWSW		6100	33.2
17	47	10	SESW		6100	35.5
17	47	16	NWNE		4505	9.4
17	47	16	NWNE		5000	14.2
17	47	16	SWNE	2	5104	30.6
17	47	16	NENW		5300	15.0
17	47	16	NENW		5301	3.3
17	47	16	NWNW		5400	8.0
17	47	16	NWNW		5405	5.1
17	47	16	NWNW		5406	6.0
17	47	16	NWNW		5407	5.0
17	47	16	SENW		5100	2.0
17	47	16	SENW		5103	1.0
17	47	16	SENW		5104	9.9
17	47	16	NESW	3	5800	7.7
17	47	16	NESW	3	5801	1.9
17	47	16	NESW	3	5802	5.1
17	47	16	NESW	3	5900	7.1
17	47	16	NESW	3	5901	2.0
17	47	16	NESW	3	6100	0.3
17	47	16	NWSW		6100	21.2
17	47	16	SWSW		6100	28.0
17	47	16	SESW	4	6000	1.1
17	47	16	SESW	4	6001	6.0
17	47	16	SESW	4	6002	0.3
17	47	16	SESW	4	6100	3.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	16	NWSE		5802	1.2
17	47	17	NENE		3200	23.5
17	47	17	NWNE		6400	15.5
17	47	17	SWNE		6302	4.2
17	47	17	SWNE		6303	4.0
17	47	17	SWNE		6400	8.5
17	47	17	SWNE		6500	7.8
17	47	17	SENE		6500	7.1
17	47	17	NENW		3000	0.2
17	47	17	NENW		6500	16.5
17	47	17	NWNW		6600	3.2
17	47	17	NWNW		6700	19.5
17	47	17	NWNW		6701	4.0
17	47	17	SWNW		6500	5.2
17	47	17	SWNW		7000	0.7
17	47	17	SWNW		7003	20.7
17	47	17	SENW		6500	29.3
17	47	17	SENW		7001	1.1
17	47	17	NESW		6500	7.8
17	47	17	NESW		7001	3.5
17	47	17	NESW		7100	10.8
17	47	17	NWSW		7200	38.3
17	47	17	SWSW		7300	19.9
17	47	17	SWSW		7400	10.9
17	47	17	SWSW		7401	2.0
17	47	17	SWSW		7402	3.0
17	47	17	SESW		7100	27.6
17	47	17	NESE		7500	30.1
17	47	17	NWSE		7500	37.1
17	47	17	SWSE		6100	21.3
17	47	17	SESE		6100	29.0
17	47	18	NENE		7600	14.0
17	47	18	NENE		7700	22.8
17	47	18	NWNE		7800	37.0
17	47	18	SWNE		7900	39.6
17	47	18	SENE		7900	36.2
17	47	18	NENW		8000	37.0
17	47	18	NWNW	1	8100	24.6
17	47	18	SWNW	2	8100	35.8
17	47	18	SENW		8000	39.3
17	47	18	NESW		8201	29.0
17	47	18	NWSW	3	8201	15.1
17	47	18	NWSW	3	8300	9.2
17	47	18	SWSW	4	8300	30.7
17	47	18	SESW		8201	17.2
17	47	18	SESW		8300	4.1
17	47	18	SESW		8600	2.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	18	NESE		7400	8.2
17	47	18	NESE		8500	29.6
17	47	18	NWSE		7400	13.8
17	47	18	NWSE		8500	24.1
17	47	18	SWSE		7400	36.6
17	47	18	SESE		7400	36.0
17	47	19	NENE		100	38.8
17	47	19	NWNE		100	15.2
17	47	19	NWNE		200	8.6
17	47	19	NWNE		201	0.2
17	47	19	SWNE		200	1.2
17	47	19	SWNE		300	25.7
17	47	19	SENE		100	16.7
17	47	19	NENW		200	6.9
17	47	19	NENW		202	5.1
17	47	19	NENW		400	20.6
17	47	19	NWNW	1	300	1.0
17	47	19	NWNW	1	400	1.0
17	47	19	NWNW	1	601	13.0
17	47	19	NWNW	1	602	3.7
17	47	19	NWNW	1	800	5.5
17	47	19	SWNW	2	601	31.3
17	47	19	SENW		200	0.9
17	47	19	SENW		400	16.6
17	47	19	NWSW	3	800	17.7
17	47	19	SWSW	4	800	37.0
17	47	19	SESW		800	17.3
17	47	19	SESW		900	10.0
17	47	19	NESE		1700	20.1
17	47	19	SWSE		900	19.9
17	47	19	SESE		1100	16.3
17	47	19	SESE		1101	1.2
17	47	19	SESE		1102	0.9
17	47	20	NENE		1200	7.7
17	47	20	NENE		1209	10.9
17	47	20	NWNE		1300	24.1
17	47	20	SWNE		1209	29.6
17	47	20	SENE		1200	25.0
17	47	20	SENE		1209	5.5
17	47	20	NENW		1300	30.4
17	47	20	NENW		1301	1.8
17	47	20	NWNW		1400	35.4
17	47	20	SWNW		1400	7.0
17	47	20	SENW		1500	31.5
17	47	20	NESW		2002	9.8
17	47	20	NESW		2003	9.7
17	47	20	NWSW		1700	9.3

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	20	SWSW		500	0.6
17	47	20	SWSW		600	0.6
17	47	20	SWSW		700	0.5
17	47	20	SWSW		900	0.6
17	47	20	SWSW		1000	0.7
17	47	20	SWSW		1100	0.8
17	47	20	SWSW		1200	0.8
17	47	20	SWSW		1300	0.7
17	47	20	SWSW		1400	0.2
17	47	20	SWSW		1500	0.3
17	47	20	SWSW		1600	0.8
17	47	20	SWSW		1700	0.8
17	47	20	SWSW		1800	0.5
17	47	20	SWSW		1900	0.4
17	47	20	SWSW		2000	0.3
17	47	20	SWSW		2100	0.6
17	47	20	SWSW		2400	0.6
17	47	20	SWSW		2500	0.7
17	47	20	SWSW		2600	0.9
17	47	20	SWSW		2700	0.9
17	47	20	SWSW		2800	0.8
17	47	20	SWSW		2900	0.7
17	47	20	SWSW		3000	0.2
17	47	20	SWSW		3100	0.7
17	47	20	SWSW		3200	0.6
17	47	20	SWSW		3300	0.6
17	47	20	SWSW		3400	2.0
17	47	20	SWSW		3401	1.3
17	47	20	NESE		2200	38.5
17	47	20	NWSE		2001	11.0
17	47	20	NWSE		2003	1.3
17	47	20	NWSE		2005	1.6
17	47	20	NWSE		2100	5.3
17	47	20	SESE		2200	2.2
17	47	21	NENW	1	100	7.0
17	47	21	NWNW		200	32.0
17	47	21	SWNW		1000	16.8
17	47	21	SENW	2	100	13.0
17	47	29	NENE		2205	9.9
17	47	29	NWNE		2205	18.9
17	47	29	NWNW		2000	0.3
17	47	29	NWNW		2300	0.7
17	47	29	NWNW		3700	6.2
17	47	29	NWNW		3711	4.9
17	47	29	SWNW		3700	7.8
17	47	29	SWNW		3703	3.5
17	47	29	SWNW		3704	1.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	29	SWNW		3707	2.8
17	47	29	SWNW		3708	6.0
17	47	29	SWNW		3709	2.0
17	47	29	SWNW		3710	3.0
17	47	29	SWNW		3713	7.0
17	47	29	SWNW		3714	5.1
17	47	29	SENW		3706	7.8
17	47	29	NWSW		4508	17.9
17	47	29	SWSW		4500	3.5
17	47	29	SWSW		4501	0.2
17	47	29	SWSW		4505	6.7
17	47	30	NENE		4600	7.3
17	47	30	NWNE		4600	2.8
17	47	30	NWNE		4700	10.9
17	47	30	SWNE		4600	9.5
17	47	30	SWNE		4700	30.4
17	47	30	SENE		4600	26.7
17	47	30	NENW		4700	2.0
17	47	30	NENW		4800	18.8
17	47	30	NWNW	1	4800	34.9
17	47	30	SWNW		4800	38.5
17	47	30	SENW		4700	18.6
17	47	30	SENW		4800	2.4
17	47	30	NESW		5302	28.0
17	47	30	NESW		5303	9.0
17	47	30	NWSW	3	5204	1.3
17	47	30	NWSW	3	5700	33.8
17	47	30	SWSW	4	5200	4.0
17	47	30	SWSW	4	5204	14.7
17	47	30	SWSW	4	5205	2.8
17	47	30	SWSW	4	5211	4.7
17	47	30	SWSW	4	5700	1.8
17	47	30	SESW		5300	9.0
17	47	30	SESW		5302	26.2
17	47	30	SESW		5303	1.8
17	47	30	NESE		4504	22.8
17	47	30	NESE		4508	6.1
17	47	30	NWSE		5400	30.0
17	47	30	SWSE		5400	34.2
17	47	30	SESE		4500	3.5
17	47	30	SESE		4501	0.8
17	47	30	SESE		4502	5.6
17	47	30	SESE		4504	4.4
17	47	30	SESE		4505	1.1
17	47	30	SESE		4509	20.3
17	47	31	NENE		100	3.0
17	47	31	NENE		200	1.5

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
17	47	31	NENE		300	1.1
17	47	31	NENE		400	0.3
17	47	31	NENE		500	0.7
17	47	31	NENE		600	1.0
17	47	31	NENE		700	1.7
17	47	31	NENE		1000	1.1
17	47	31	NENE		1200	0.5
17	47	31	NENE		1300	1.5
17	47	31	NENE		1400	0.4
17	47	31	NWNE		1100	5.3
17	47	31	NWNE		1101	10.0
17	47	31	NWNE		1102	4.6
17	47	31	NWNE		1103	7.2
17	47	31	NWNE		1104	1.5
17	47	31	SWNE		1700	27.1
17	47	31	SENE		1800	29.0
17	47	31	NENW		1200	3.5
17	47	31	NENW		1201	4.8
17	47	31	NENW		1202	2.5
17	47	31	NENW		1203	4.0
17	47	31	NENW		1204	3.0
17	47	31	NENW		1207	6.5
17	47	31	NENW		1208	4.0
17	47	31	NENW		1209	2.0
17	47	31	NWNW	1	1300	8.7
17	47	31	NWNW	1	1302	3.0
17	47	31	SWNW	2	1602	16.0
17	47	31	SENW		1203	1.0
17	47	31	SENW		1600	10.0
17	47	31	NESW		2300	34.1
17	47	31	NWSW	3	2302	10.0
17	47	31	NWSW	3	2600	6.8
17	47	31	SWSW		2600	7.9
18	45	1	NESE		102	3.7
18	45	1	SESE		102	6.0
18	45	4	NWSW		200	0.2
18	45	4	SWSW		200	19.8
18	45	5	NENW	3	600	3.9
18	45	5	NWNW	4	600	29.0
18	45	5	SWNW		600	40.0
18	45	5	SENW		600	33.5
18	45	5	NESW		500	30.6
18	45	5	NWSW		700	31.7
18	45	5	SWSW		700	38.1
18	45	5	SESW		500	37.2
18	45	5	NESE		300	10.6
18	45	5	NWSE		400	6.1

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	45	5	SWSE		400	26.6
18	45	5	SESE		300	34.9
18	45	6	NENE	1	701	10.2
18	45	6	SENE		701	27.1
18	45	6	NESE		701	32.0
18	45	6	SESE		701	38.5
18	45	7	NENE		1900	0.6
18	45	7	NENE		1901	0.3
18	45	7	NENE		1902	30.9
18	45	8	NENE		300	25.2
18	45	8	NWNE		3200	36.8
18	45	8	SWNE		3200	19.5
18	45	8	SWNE		3501	14.9
18	45	8	SENE		3300	35.8
18	45	8	NENW		3000	36.3
18	45	8	NWNW		3000	36.1
18	45	8	SWNW		3100	25.0
18	45	8	SENW		3100	30.9
18	45	8	NESW		3501	0.8
18	45	8	NESE		3300	25.6
18	45	8	NWSE		3501	30.0
18	45	8	SWSE		3501	3.9
18	45	8	SESE		3300	10.8
18	45	8	SESE		3400	20.0
18	45	9	SWNE		4400	2.8
18	45	9	NENW		3900	6.2
18	45	9	NWNW		200	27.8
18	45	9	SWNW		4200	5.4
18	45	9	SENW		3900	6.4
18	45	9	SENW		4100	7.8
18	45	9	NESW		4100	25.8
18	45	9	NESW		4101	1.7
18	45	9	NWSW		4200	31.5
18	45	9	SWSW		4200	30.2
18	45	9	SESW		4300	13.7
18	45	9	SESW		4301	18.5
18	45	9	NESE		4401	22.9
18	45	9	NWSE		4400	32.9
18	45	9	SWSE		4400	28.2
18	45	9	SWSE		4401	9.3
18	45	9	SESE		4401	36.1
18	45	10	SENW		700	0.3
18	45	10	NESW		700	26.5
18	45	10	NWSW		601	20.1
18	45	10	SWSW		601	35.5
18	45	10	SESW		700	32.6
18	45	10	SESE		800	14.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	45	11	SWSW		800	0.1
18	45	11	SESW		1100	16.3
18	45	11	NESE		1200	24.5
18	45	11	NWSE		1100	20.3
18	45	11	SWSE		1100	36.5
18	45	11	SESE		1200	34.4
18	45	12	NENE		1601	17.4
18	45	12	SWNE		1400	24.9
18	45	12	SENE		1601	36.0
18	45	12	SWNW		1400	1.5
18	45	12	SENW		1400	18.2
18	45	12	NESW		1901	38.2
18	45	12	NWSW		1901	9.3
18	45	12	SWSW		1901	38.1
18	45	12	SESW		1901	36.6
18	45	12	NESE		1700	38.0
18	45	12	NWSE		1700	39.2
18	45	12	SWSE		1700	29.7
18	45	12	SESE		1700	20.7
18	45	13	NENW		1901	4.4
18	45	13	NWNW		1901	28.9
18	45	14	NENE		2400	32.6
18	45	14	NWNE		2400	13.4
18	45	14	NWNE		2402	20.9
18	45	14	NENW		2402	36.7
18	45	14	NWNW		2401	3.4
18	45	14	SENW		2500	4.6
18	45	15	NENE		3000	24.9
18	45	15	NWNE		3100	29.4
18	45	15	SENE		3400	1.3
18	45	15	SWNE		3400	20.4
18	45	15	NENW		3200	24.9
18	45	15	NWNW		3500	1.1
18	45	15	SWNW		3500	14.9
18	45	15	SENW		3400	4.6
18	45	16	NWNE		4700	30.9
18	45	16	SWNE		4700	3.5
18	45	16	NENW		4800	18.0
18	45	16	NWNW		4900	34.6
18	45	16	SWNW		5000	18.4
18	45	16	SENW		5100	17.4
18	45	16	NESW		5100	14.2
18	45	17	NENE		5600	7.6
18	46	1	NENW	3	1000	18.0
18	46	1	NENW	3	1100	2.7
18	46	1	NENW	3	1105	7.0
18	46	1	NWNW	4	1102	4.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	1	NWNW	4	1104	8.7
18	46	2	NENE	1	1200	17.9
18	46	2	NWNE	2	1200	11.3
18	46	2	SWNE		1301	21.2
18	46	2	SWNE		1303	10.3
18	46	2	SENE		1301	26.5
18	46	2	NENW	3	1900	12.8
18	46	2	NWNW	4	1900	17.2
18	46	2	SENW		1800	7.0
18	46	2	SENW		1900	4.2
18	46	2	NESW		1600	36.2
18	46	2	NWSW		1700	11.0
18	46	3	SWSE		2200	8.2
18	46	3	SESE		2200	25.2
18	46	6	NWNW	4	1100	10.0
18	46	6	SWNW	5	1100	25.2
18	46	6	SENW		1100	1.4
18	46	6	NESW		1000	12.6
18	46	6	NWSW	6	1200	28.4
18	46	6	SWSW	7	1200	33.0
18	46	6	SESW		1000	31.9
18	46	6	SWSE		1000	1.0
18	46	7	NENE		2300	18.2
18	46	7	NWNE		2300	36.1
18	46	7	SWNE		2200	1.5
18	46	7	SWNE		2201	36.9
18	46	7	SENE		2201	39.4
18	46	7	NENW		1400	38.1
18	46	7	NWNW	1	1300	35.8
18	46	7	SWNW		1300	35.8
18	46	7	SENW		1500	37.1
18	46	7	NESW		1800	35.1
18	46	7	NWSW	3	1600	36.8
18	46	7	SWSW	4	1700	15.5
18	46	7	SESW		1700	16.8
18	46	7	NESE		2100	14.6
18	46	7	NWSE		1800	8.6
18	46	7	NWSE		2100	29.8
18	46	7	SWSE		1901	35.9
18	46	8	SWNE		3900	34.4
18	46	8	SENE		2900	15.5
18	46	8	NWNW		2500	10.3
18	46	8	SWNW		2600	21.4
18	46	8	SENW		2600	19.1
18	46	9	SWNE		3000	0.2
18	46	9	SWNW		3000	17.2
18	46	9	SENW		3000	2.9

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	9	SWSW		3200	7.5
18	46	9	SESW		3200	28.6
18	46	9	NWSE		3000	20.0
18	46	9	SWSE		3300	34.5
18	46	9	SESE		3401	10.6
18	46	10	NENE		2200	22.6
18	46	10	NWNE		2200	0.7
18	46	10	NENW		2400	8.6
18	46	10	SENW		2500	28.8
18	46	10	NESW		2500	5.4
18	46	20	SWSE		1600	11.4
18	46	20	SESE		1700	27.3
18	46	21	SWNE		2700	4.2
18	46	21	SENE		2700	14.7
18	46	21	SENE		2800	1.7
18	46	21	NESW		2500	3.3
18	46	21	SWSW		2400	0.2
18	46	21	SWSW		2401	18.8
18	46	21	SESW		2400	0.8
18	46	21	SESW		2401	34.2
18	46	21	SESW		2602	0.6
18	46	21	NESE		2700	1.0
18	46	21	NESE		2900	33.8
18	46	21	NWSE		2601	0.7
18	46	21	NWSE		2602	16.1
18	46	21	NWSE		2700	11.5
18	46	21	SWSE		2602	38.7
18	46	21	SESE		2900	38.2
18	46	22	NENE		100	26.0
18	46	22	NWNE		100	24.9
18	46	22	SWNE		500	38.0
18	46	22	SENE		500	37.0
18	46	22	NENW		100	13.8
18	46	22	NWNW		100	1.0
18	46	22	SWNW		100	33.7
18	46	22	SENW		100	37.5
18	46	22	NESW		800	9.6
18	46	22	NESW		900	28.9
18	46	22	NWSW		700	5.3
18	46	22	NWSW		800	28.3
18	46	22	SWSW		1000	32.1
18	46	22	SESW		1000	39.2
18	46	22	NESE		1300	37.7
18	46	22	NWSE		1100	38.1
18	46	22	SWSE		1200	36.4
18	46	22	SESE		1200	33.9
18	46	23	NENE		2500	31.4

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	23	NWNE		2400	28.1
18	46	23	SWNE		1400	36.1
18	46	23	SWNE		1401	0.7
18	46	23	SENE		2300	37.0
18	46	23	NENW		1400	26.5
18	46	23	NENW		1500	6.3
18	46	23	NWNW		1400	9.1
18	46	23	NWNW		1500	18.9
18	46	23	NWNW		1600	1.8
18	46	23	SWNW		1500	17.1
18	46	23	SWNW		1600	17.5
18	46	23	SENW		1400	11.0
18	46	23	SENW		1500	24.1
18	46	23	NESW		1800	38.0
18	46	23	NWSW		1600	33.7
18	46	23	NWSW		1800	2.2
18	46	23	SWSW		1600	37.0
18	46	23	SESW		1800	14.7
18	46	23	SESW		1901	19.5
18	46	23	NESE		2100	32.0
18	46	23	NESE		2200	4.9
18	46	23	NWSE		1800	9.5
18	46	23	NWSE		2100	29.1
18	46	23	SWSE		1802	8.0
18	46	23	SWSE		1901	17.1
18	46	23	SWSE		2000	12.7
18	46	23	SESE		1900	0.2
18	46	23	SESE		1901	12.4
18	46	23	SESE		2000	23.8
18	46	24	NENE		4600	30.0
18	46	24	NWNE		2600	14.7
18	46	24	NWNE		4100	17.4
18	46	24	SWNE		3900	7.3
18	46	24	SWNE		4000	11.1
18	46	24	SWNE		4101	11.7
18	46	24	SWNE		4200	2.0
18	46	24	SWNE		4300	4.9
18	46	24	SENE		4400	18.3
18	46	24	SENE		4500	16.2
18	46	24	NENW		2600	33.6
18	46	24	NWNW		2500	13.6
18	46	24	NWNW		2600	14.8
18	46	24	SWNW		2700	19.3
18	46	24	SWNW		2800	18.8
18	46	24	SENW		2900	38.2
18	46	24	NESW		3001	38.0
18	46	24	NWSW		3100	36.8

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	24	SWSW		3200	23.2
18	46	24	SWSW		3201	0.1
18	46	24	SESW		3200	23.3
18	46	24	NESE		3800	36.6
18	46	24	NWSE		3400	17.8
18	46	24	NWSE		3500	0.1
18	46	24	NWSE		3600	3.8
18	46	24	NWSE		3700	14.5
18	46	24	SWSE		3300	38.6
18	46	24	SESE		3300	35.6
18	46	25	NENE		3300	34.4
18	46	25	NENE		4700	3.1
18	46	25	NWNE		3300	37.0
18	46	25	NWNE		4700	0.8
18	46	25	SWNE		4700	38.6
18	46	25	SENE		4700	30.7
18	46	25	SENE		4701	6.2
18	46	25	NENW		5200	39.6
18	46	25	NWNW		5200	38.3
18	46	25	SWNW		5201	39.2
18	46	25	SENW		5201	39.2
18	46	25	NESW		4800	7.0
18	46	25	NESW		5000	31.1
18	46	25	NWSW		5102	38.6
18	46	25	SWSW		5100	1.7
18	46	25	SWSW		5101	6.0
18	46	25	SWSW		5102	26.4
18	46	25	SESW		5000	36.8
18	46	25	NESE		4800	37.0
18	46	25	NWSE		4800	38.5
18	46	25	SWSE		4902	38.8
18	46	25	SESE		4900	0.5
18	46	25	SESE		4901	1.0
18	46	25	SESE		4902	34.1
18	46	26	NENE		5300	9.6
18	46	26	NENE		5301	12.0
18	46	26	NWNE		5300	37.4
18	46	26	NWNE		6200	0.4
18	46	26	SWNE		5400	12.5
18	46	26	SWNE		5401	23.3
18	46	26	SENE		5500	35.0
18	46	26	NENW		5300	3.9
18	46	26	NENW		6200	32.6
18	46	26	NWNW		6300	38.6
18	46	26	SWNW		6300	31.9
18	46	26	SENW		6100	0.4
18	46	26	SENW		6200	32.1

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	26	NESW		6100	27.6
18	46	26	NWSW		5900	2.9
18	46	26	NWSW		6100	27.5
18	46	26	SWSW		5800	37.4
18	46	26	SESW		5800	35.8
18	46	26	NESE		5600	37.2
18	46	26	NWSE		5400	32.2
18	46	26	NWSE		5401	5.9
18	46	26	SWSE		5700	36.4
18	46	26	SESE		5701	35.0
18	46	27	NENE		6400	6.9
18	46	27	NENE		6403	1.6
18	46	27	NENE		6404	2.8
18	46	27	NENE		6405	12.5
18	46	27	NENE		6406	11.7
18	46	27	NWNE		6500	30.6
18	46	27	SWNE		6600	13.5
18	46	27	SENE		6400	1.1
18	46	27	SENE		6401	12.5
18	46	27	SENE		6404	1.2
18	46	27	SENE		6405	1.2
18	46	27	SENE		6408	2.5
18	46	27	SENE		6409	2.5
18	46	27	NENW		6900	22.7
18	46	27	NENW		6901	3.5
18	46	27	NWNW		7000	20.5
18	46	27	SWNW		7000	28.1
18	46	27	SENW		6900	26.8
18	46	27	NESW		6600	9.4
18	46	27	NESW		7100	15.5
18	46	27	NWSW		7100	34.6
18	46	27	SWSW		7100	31.4
18	46	27	SESW		6600	10.8
18	46	27	SESW		7100	1.5
18	46	27	NESE		6700	26.1
18	46	27	NESE		6701	2.2
18	46	27	NWSE		6600	31.0
18	46	27	SWSE		6600	29.5
18	46	27	SESE		6700	25.9
18	46	27	SESE		6800	6.0
18	46	28	NENE		3000	37.5
18	46	28	NENE		3100	1.4
18	46	28	NWNE		3000	34.5
18	46	28	SWNE		3100	4.6
18	46	28	SWNE		3200	33.7
18	46	28	SENE		3100	32.9
18	46	28	SENE		3101	4.6

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	28	NENW		3900	22.2
18	46	28	NWNW		3900	23.2
18	46	28	SWNW		3800	18.7
18	46	28	SENW		3800	30.0
18	46	28	NESW		3700	23.7
18	46	28	NWSW		3702	20.1
18	46	28	SWSW		3701	12.9
18	46	28	SWSW		3702	21.1
18	46	28	SESW		3700	6.8
18	46	28	SESW		3702	2.8
18	46	28	NESE		3300	37.3
18	46	28	NWSE		3300	4.6
18	46	28	NWSE		3500	30.6
18	46	28	SWSE		3500	34.1
18	46	28	SESE		3400	6.4
18	46	28	SESE		3500	24.9
18	46	29	NENE		4000	17.1
18	46	29	NWNE		4800	20.7
18	46	29	SWNE		4200	9.5
18	46	29	SENE		4200	17.8
18	46	29	NENW		4800	17.3
18	46	29	SWNW		4800	12.6
18	46	29	SENW		4800	26.0
18	46	29	NESW		4400	27.9
18	46	29	NWSW		4500	18.0
18	46	29	NWSW		4600	13.2
18	46	29	SWSW		4500	33.0
18	46	29	SESW		4400	20.6
18	46	29	NESE		4200	17.2
18	46	29	NWSE		4302	31.3
18	46	29	SWSE		4300	2.9
18	46	29	SWSE		4302	24.7
18	46	29	SESE		4302	18.3
18	46	30	SWNE		5200	9.1
18	46	30	SENE		5200	15.2
18	46	30	NESE		5200	28.9
18	46	30	NWSE		5200	4.8
18	46	30	SESE		5200	27.3
18	46	32	NENE		6500	21.4
18	46	32	NWNE		6400	35.1
18	46	32	SWNE		6400	39.2
18	46	32	SENE		6500	35.5
18	46	32	NENW		6000	20.0
18	46	32	NWNW		5900	20.0
18	46	32	SWNW		5900	13.7
18	46	32	SENW		6000	35.3
18	46	32	NESW		6100	12.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	32	NESE		6200	22.5
18	46	32	NWSE		6300	8.1
18	46	32	SESE		6200	19.5
18	46	33	NENE		7400	35.0
18	46	33	NWNE		7300	34.5
18	46	33	SWNE		7300	39.3
18	46	33	SENE		7400	28.7
18	46	33	NENW		6800	19.5
18	46	33	NWNW		6600	34.3
18	46	33	SWNW		7000	35.5
18	46	33	SENW		6800	16.2
18	46	33	NESW		7100	24.7
18	46	33	NWSW		7100	6.6
18	46	33	SWSW		7100	29.5
18	46	33	SESW		7100	21.4
18	46	33	NESE		7200	30.6
18	46	33	NESE		7201	2.0
18	46	33	NWSE		7200	33.2
18	46	33	SWSE		7201	1.1
18	46	33	SESE		7201	29.6
18	46	34	NENE		8000	38.5
18	46	34	NWNE		7901	25.6
18	46	34	SWNE		7900	38.8
18	46	34	SENE		8000	39.3
18	46	34	NENW		7300	34.7
18	46	34	NWNW		7200	22.1
18	46	34	SWNW		7201	35.6
18	46	34	SENW		7300	39.3
18	46	34	NESW		7501	36.1
18	46	34	NWSW		7500	17.7
18	46	34	NWSW		7501	15.2
18	46	34	SWSW		7500	31.6
18	46	34	SESW		7501	24.7
18	46	34	NESE		7800	9.1
18	46	34	NESE		7801	28.5
18	46	34	NWSE		7801	38.0
18	46	34	SWSE		7700	23.7
18	46	34	SESE		7700	8.5
18	46	35	NENE		8400	26.5
18	46	35	NWNE		8205	23.8
18	46	35	NWNE		8300	6.0
18	46	35	NWNE		8302	3.0
18	46	35	NWNE		8303	2.4
18	46	35	SWNE		8205	11.4
18	46	35	SWNE		8303	2.5
18	46	35	NENW		8205	39.5
18	46	35	NWNW		8100	7.4

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	46	35	NWNW		8201	3.9
18	46	35	NWNW		8205	16.8
18	46	35	SWNW		8100	7.2
18	46	35	SWNW		8205	4.3
18	46	35	SENW		8205	15.4
18	46	35	NESW		8100	1.3
18	46	35	NWSW		8100	24.2
18	46	35	SWSW		8100	0.7
18	46	35	SESW		8100	0.7
18	46	35	SESE		8800	0.5
18	46	36	NENE		9100	35.8
18	46	36	NWNE		9100	37.6
18	46	36	SWNE		9100	38.7
18	46	36	SENE		9100	37.9
18	46	36	NENW		8600	4.9
18	46	36	NENW		8603	5.0
18	46	36	NENW		8616	8.5
18	46	36	NENW		8618	13.1
18	46	36	NWNW		8500	32.3
18	46	36	NWNW		8501	3.8
18	46	36	SWNW		8607	0.5
18	46	36	SWNW		8700	5.1
18	46	36	SENW		8604	1.0
18	46	36	SENW		8605	5.0
18	46	36	SENW		8606	4.2
18	46	36	SENW		8607	0.5
18	46	36	SENW		8610	19.5
18	46	36	NESW		8800	18.5
18	46	36	NESW		8808	20.1
18	46	36	NWSW		8808	25.0
18	46	36	SWSW		8800	16.2
18	46	36	SWSW		8801	9.3
18	46	36	SWSW		8802	2.3
18	46	36	SWSW		8804	1.4
18	46	36	SESW		8800	3.7
18	46	36	SESW		8802	2.7
18	46	36	SESW		8803	5.1
18	46	36	SESW		8804	3.0
18	46	36	SESW		8805	4.6
18	46	36	SESW		8807	4.0
18	46	36	NESE		9000	38.2
18	46	36	NWSE		8800	39.8
18	46	36	SWSE		8900	37.3
18	46	36	SESE		9000	33.8
18	47	4	NWNW	4	1600	2.6
18	47	4	NWNW	4	1601	1.0
18	47	4	NWNW	4	1602	1.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	47	4	SENW		300	1.8
18	47	5	NENE	1	700	0.4
18	47	5	NENE	1	800	0.6
18	47	5	NENE	1	1002	0.5
18	47	5	NENE	1	1005	0.1
18	47	5	NENE	1	1100	1.0
18	47	5	NENE	1	1200	0.4
18	47	5	NENE	1	1300	0.5
18	47	5	NENE	1	2200	0.3
18	47	5	NENE	1	2502	0.1
18	47	5	NENE	1	3100	1.0
18	47	5	NENE	1	3200	0.4
18	47	5	NWNE	2	1201	0.4
18	47	5	NWNE	2	1292	2.0
18	47	5	NWNE	2	1300	0.6
18	47	5	SWNE		100	0.8
18	47	5	SWNE		200	1.5
18	47	5	SWNE		300	3.7
18	47	5	SWNE		900	0.5
18	47	5	SENE		100	4.2
18	47	5	SENE		200	8.2
18	47	5	SENE		300	4.1
18	47	5	SENE		700	0.4
18	47	5	SENE		800	0.4
18	47	5	SENE		1000	0.2
18	47	5	SENE		1100	0.1
18	47	5	SENW		3000	0.6
18	47	5	SENW		3001	0.4
18	47	5	SENW		3002	0.4
18	47	5	SENW		3003	0.5
18	47	5	SENW		3004	0.4
18	47	5	SENW		3006	0.2
18	47	5	SENW		3007	0.6
18	47	5	SENW		3008	0.5
18	47	5	SENW		3009	0.4
18	47	5	SENW		3010	0.4
18	47	5	SENW		3011	0.4
18	47	5	SENW		3012	0.4
18	47	5	SENW		3013	0.5
18	47	5	SENW		3014	0.5
18	47	5	SENW		3015	0.5
18	47	5	SENW		3100	6.0
18	47	5	SENW		3400	2.0
18	47	5	SENW		3500	3.7
18	47	5	NESE		700	0.8
18	47	5	NWSE		2000	0.5
18	47	5	NWSE		2100	0.8

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	47	5	NWSE		2102	0.5
18	47	5	NWSE		2400	2.3
18	47	5	NWSE		2500	1.0
18	47	5	NWSE		6300	0.3
18	47	5	NWSE		7800	0.3
18	47	5	NWSE		7900	0.4
18	47	5	SWSE		800	0.5
18	47	5	SWSE		1100	0.3
18	47	5	SWSE		1200	0.6
18	47	5	SWSE		1300	1.0
18	47	5	SESE		1400	0.4
18	47	5	SESE		1600	0.7
18	47	8	NENE		800	0.6
18	47	8	NENE		1500	2.7
18	47	8	SWNE		1100	1.4
18	47	8	SENE		900	9.0
18	47	8	SENE		1000	9.4
18	47	8	SENE		1100	4.6
18	47	8	SENE		1200	3.2
18	47	8	SENE		1300	4.4
18	47	8	NESE		1000	15.7
18	47	8	NESE		3800	1.9
18	47	8	NESE		3900	0.7
18	47	8	NESE		3902	4.7
18	47	8	NESE		4900	0.9
18	47	8	NESE		4901	1.1
18	47	8	NWSE		3600	5.5
18	47	8	NWSE		3700	1.2
18	47	8	NWSE		3800	1.4
18	47	8	SWSE		3600	15.2
18	47	8	SWSE		3601	0.3
18	47	8	SWSE		3602	0.6
18	47	8	SESE		4100	8.7
18	47	8	SESE		4200	7.5
18	47	8	SESE		4201	1.3
18	47	8	SESE		4300	6.4
18	47	8	SESE		4301	0.2
18	47	8	SESE		4400	0.2
18	47	8	SESE		4401	1.9
18	47	8	SESE		4500	1.1
18	47	8	SESE		4700	1.0
18	47	8	SESE		4800	4.7
18	47	9	SWNW		1100	1.0
18	47	9	SWNW		1400	0.4
18	47	9	NWSW		2700	8.5
18	47	9	NWSW		2800	4.3
18	47	9	NWSW		4101	2.4

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	47	9	NWSW		4102	0.4
18	47	9	NWSW		4104	0.2
18	47	9	NWSW		4106	0.1
18	47	9	NWSW		4107	0.3
18	47	9	NWSW		4400	2.0
18	47	9	NWSW		4500	2.1
18	47	9	NWSW		4600	4.1
18	47	9	SWSW		3701	2.2
18	47	9	SWSW		3702	0.4
18	47	9	SWSW		4600	0.5
18	47	9	SWSW		4900	0.4
18	47	9	SWSW		5000	4.4
18	47	9	SWSW		5100	4.4
18	47	17	NENE		3500	7.8
18	47	17	NENE		3600	0.2
18	47	17	NENE		3700	1.4
18	47	17	NENE		3800	8.3
18	47	17	NENE		3900	0.1
18	47	17	NENE		3901	1.5
18	47	17	NENE		4003	0.2
18	47	17	NWNE		400	0.4
18	47	17	NWNE		701	0.5
18	47	17	NWNE		900	0.7
18	47	17	NWNE		1000	0.6
18	47	17	NWNE		1200	0.4
18	47	17	NWNE		1300	0.5
18	47	17	NWNE		1400	0.8
18	47	17	NWNE		1500	0.3
18	47	17	NWNE		1600	0.4
18	47	17	NWNE		1800	0.1
18	47	17	NWNE		1900	0.4
18	47	17	SWNE		2500	0.5
18	47	17	SWNE		2600	0.6
18	47	17	SWNE		3200	0.7
18	47	17	SENE		3801	4.1
18	47	17	SENE		4300	0.1
18	47	17	SENE		4301	0.3
18	47	17	SENE		4302	0.6
18	47	17	SENE		4303	0.2
18	47	17	SENE		4400	3.9
18	47	17	SENE		4900	0.9
18	47	17	SENE		5100	0.7
18	47	17	SENE		5300	0.7
18	47	17	SENE		5500	0.7
18	47	19	SWNW	2	1300	23.1
18	47	19	NWSW	3	1300	37.8
18	47	19	SWSW	4	1400	37.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
18	47	30	NWNE		1400	1.6
18	47	30	NENW		1400	37.4
18	47	30	NWNW	1	1400	36.3
18	47	30	SWNW	2	6900	38.3
18	47	30	SENW		6900	39.8
18	47	30	NESW		6900	39.6
18	47	30	NWSW	3	6900	37.8
18	47	30	SWSW	4	7100	36.1
18	47	30	SESW		7100	38.1
18	47	30	NWSE		6200	30.2
18	47	30	SWSE		6200	35.6
18	47	30	SESE		6200	0.5
18	47	31	NWNE		7800	31.5
18	47	31	SWNE		7700	39.7
18	47	31	NENW		7200	31.6
18	47	31	NWNW	1	7200	32.8
18	47	31	NWNW	1	7300	3.0
18	47	31	SWNW	2	7400	37.4
18	47	31	SENW		7700	36.5
18	47	31	NESW		7500	10.5
18	47	31	NESW		7600	14.4
18	47	31	NWSW	3	7500	37.7
18	47	31	SWSW	4	7500	25.3
18	47	31	SWSW	4	7600	1.3
18	47	31	SESW		7500	1.0
18	47	31	SESW		7600	30.7
18	47	31	NWSE		7600	39.0
18	47	31	SWSE		7600	38.6
19	46	1	NENE	1	100	34.6
19	46	1	NWNE	2	200	35.2
19	46	1	SWNE		300	27.6
19	46	1	SENE		300	37.4
19	46	1	NENW	3	200	29.3
19	46	1	NWNW	4	400	8.0
19	46	1	SWNW		400	35.0
19	46	1	SENW		400	36.0
19	46	1	NESW		500	26.4
19	46	1	NWSW		500	30.0
19	46	1	SWSW		700	25.2
19	46	1	SESW		1000	37.5
19	46	1	NESE		800	32.8
19	46	1	NWSE		800	0.8
19	46	1	NWSE		1000	0.9
19	46	1	SWSE		1000	26.5
19	46	1	SESE		800	31.7
19	46	1	SESE		900	1.9
19	46	2	SENE		500	6.3

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	2	NESE		500	5.3
19	46	2	SESE		700	9.3
19	46	3	NENW	3	1600	1.1
19	46	3	NWNW		1601	1.2
19	46	4	NENE	1	7200	1.7
19	46	4	NWNW	4	302	22.0
19	46	4	SWNW	2	302	1.8
19	46	5	NENE	1	302	2.7
19	46	5	SENE		302	0.3
19	46	11	NENE		200	24.5
19	46	11	NWNE		2101	0.6
19	46	11	SWNE		2101	29.0
19	46	11	SENE		2100	9.0
19	46	11	SENE		2101	2.7
19	46	11	NENW		2101	11.2
19	46	11	SENW		2101	27.0
19	46	11	NESW		2300	12.0
19	46	11	SWSW		2200	14.2
19	46	11	SESW		2300	5.4
19	46	11	NESE		2400	34.2
19	46	11	NWSE		2300	40.0
19	46	11	SWSE		2300	37.0
19	46	11	SESE		2400	32.5
19	46	12	NENE		2500	29.5
19	46	12	NWNE		2600	19.5
19	46	12	NWNE		2601	11.2
19	46	12	SWNE		2600	7.1
19	46	12	SWNE		2601	9.8
19	46	12	SENE		2500	32.7
19	46	12	NENW		2701	25.0
19	46	12	NENW		2702	9.6
19	46	12	NWNW		2700	3.2
19	46	12	NWNW		2703	26.8
19	46	12	SWNW		2800	18.0
19	46	12	SWNW		2801	19.0
19	46	12	SENW		2801	23.0
19	46	12	NESW		2900	30.5
19	46	12	NWSW		2900	24.5
19	46	12	SWSW		3001	37.5
19	46	12	SESW		3000	2.2
19	46	12	SESW		3001	33.5
19	46	12	NESE		2500	0.4
19	46	12	NESE		3100	35.1
19	46	12	NWSE		2900	30.0
19	46	12	SWSE		3200	37.1
19	46	12	SESE		3200	37.8
19	46	13	NENE		3300	36.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	13	NWNE		3300	39.5
19	46	13	SWNE		3300	37.5
19	46	13	SENE		3300	29.3
19	46	13	NENW		3501	36.2
19	46	13	NWNW		3600	32.9
19	46	13	SWNW		3700	38.5
19	46	13	SENW		3300	32.1
19	46	13	SENW		3700	4.2
19	46	13	NESW		3800	36.2
19	46	13	NESW		4001	1.4
19	46	13	NWSW		3900	32.0
19	46	13	NWSW		5300	1.5
19	46	13	SWSW		4000	17.8
19	46	13	SWSW		4001	2.7
19	46	13	SWSW		4002	2.8
19	46	13	SWSW		4003	6.0
19	46	13	SESW		3800	19.4
19	46	13	SESW		4001	6.2
19	46	13	NESE		3300	33.3
19	46	13	NESE		4300	2.7
19	46	13	NWSE		3800	37.4
19	46	13	SWSE		4400	8.9
19	46	13	SWSE		4500	21.0
19	46	13	SESE		3300	2.1
19	46	13	SESE		4300	30.4
19	46	14	NENE		4700	28.1
19	46	14	NENE		4701	2.1
19	46	14	NWNE		4700	0.1
19	46	14	NWNE		4800	28.3
19	46	14	SWNE		4701	24.4
19	46	14	SENE		4700	3.2
19	46	14	SENE		4701	30.5
19	46	14	NENW		4900	37.4
19	46	14	NWNW		2200	28.8
19	46	14	SWNW		2200	38.1
19	46	14	SENW		4900	32.6
19	46	14	NESW		5000	28.3
19	46	14	NWSW		2202	33.7
19	46	14	SWSW		5100	35.5
19	46	14	SESW		5200	31.6
19	46	14	NESE		5300	18.0
19	46	14	NESE		5400	1.2
19	46	14	NWSE		5000	22.4
19	46	14	SWSE		5200	20.4
19	46	14	SESE		4000	23.1
19	46	15	SENE		2200	11.6
19	46	15	NESE		2202	32.6

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	15	NWSE		5600	6.6
19	46	15	SWSE		5600	1.1
19	46	15	SESE		5600	31.6
19	46	21	SESE		300	6.8
19	46	22	NENE		100	29.5
19	46	22	NWNE		100	29.6
19	46	22	SWNE		200	3.7
19	46	22	SWNE		300	27.4
19	46	22	SENE		200	29.1
19	46	22	SENE		300	0.8
19	46	22	NENW		401	19.2
19	46	22	NENW		402	7.3
19	46	22	NWNW		401	24.3
19	46	22	SWNW		401	10.5
19	46	22	SENW		401	39.0
19	46	22	NESW		501	36.4
19	46	22	NWSW		600	13.2
19	46	22	SWSW		600	36.2
19	46	22	SESW		500	5.0
19	46	22	SESW		501	30.9
19	46	22	NESE		200	5.1
19	46	22	NESE		300	19.9
19	46	22	NWSE		300	35.9
19	46	22	SWSE		700	32.5
19	46	22	SESE		700	36.9
19	46	23	NENE		801	35.3
19	46	23	NWNE		900	32.4
19	46	23	SWNE		1000	25.6
19	46	23	SENE		1100	27.0
19	46	23	NENW		1200	23.5
19	46	23	NWNW		1300	18.5
19	46	23	SWNW		200	38.1
19	46	23	SENW		1000	39.2
19	46	23	NESW		1000	38.4
19	46	23	NWSW		1000	2.1
19	46	23	NWSW		1401	29.4
19	46	23	SWSW		1400	20.7
19	46	23	SWSW		1401	2.0
19	46	23	SESW		1500	22.5
19	46	23	SESW		1501	3.0
19	46	23	NESE		1701	39.0
19	46	23	NWSE		1000	38.2
19	46	23	SWSE		1601	34.5
19	46	23	SESE		1700	12.2
19	46	23	SESE		1701	2.4
19	46	23	SESE		1702	7.7
19	46	24	NENE		1800	33.9

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	24	NWNE		1800	31.4
19	46	24	SWNE		1901	27.9
19	46	24	SWNE		2000	3.0
19	46	24	SENE		2100	25.7
19	46	24	SENE		2102	0.6
19	46	24	NENW		803	0.5
19	46	24	NENW		1800	33.1
19	46	24	NWNW		801	4.1
19	46	24	NWNW		803	13.0
19	46	24	SWNW		1100	20.0
19	46	24	SENW		1900	24.7
19	46	24	SENW		1901	3.8
19	46	24	NESW		1900	5.0
19	46	24	NESW		1901	6.6
19	46	24	NESW		2300	3.6
19	46	24	NESW		2301	9.4
19	46	24	NWSW		2301	33.4
19	46	24	SWSW		2301	0.6
19	46	24	SWSW		2400	29.3
19	46	24	SESW		2300	9.7
19	46	24	SESW		2301	8.3
19	46	24	NESE		2100	23.3
19	46	24	NWSE		1900	0.8
19	46	24	NWSE		1901	14.1
19	46	24	NWSE		2500	14.0
19	46	24	SWSE		2500	32.2
19	46	24	SESE		2500	22.4
19	46	25	NWNE		2800	35.0
19	46	25	SWNE		2800	37.1
19	46	25	NENW		2900	18.2
19	46	25	NWNW		1600	33.1
19	46	25	SWNW		3001	18.4
19	46	25	SENW		2900	32.2
19	46	25	NESW		3103	37.7
19	46	25	NWSW		3103	23.2
19	46	25	SWSW		3103	14.0
19	46	25	SESW		3103	38.2
19	46	25	NWSE		3103	29.2
19	46	25	SWSE		3103	26.5
19	46	26	NENE		1600	24.7
19	46	26	NWNE		1600	29.9
19	46	26	SWNE		3001	15.7
19	46	26	SWNE		3500	12.9
19	46	26	SENE		3001	21.7
19	46	26	NENW		3402	23.2
19	46	26	NWNW		3401	31.2
19	46	26	SWNW		3600	20.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	26	SENW		3600	22.9
19	46	26	NESW		3700	28.3
19	46	26	NWSW		3700	26.6
19	46	26	SWSW		3700	33.3
19	46	26	SESW		3700	35.7
19	46	26	NESE		3900	27.7
19	46	26	NESE		3902	2.6
19	46	26	NWSE		3900	28.7
19	46	26	SWSE		3900	13.4
19	46	26	SWSE		3901	6.0
19	46	26	SESE		4000	16.0
19	46	27	NENE		4100	19.4
19	46	27	NWNE		4100	19.8
19	46	27	NWNE		4200	7.9
19	46	27	SWNE		4200	2.8
19	46	27	SWNE		4300	30.6
19	46	27	SENE		4300	33.4
19	46	27	NENW		4100	1.0
19	46	27	NENW		4200	26.0
19	46	27	NWNW		4200	3.0
19	46	27	NWNW		4400	31.5
19	46	27	SWNW		4200	0.6
19	46	27	SWNW		4400	21.6
19	46	27	SWNW		4500	15.9
19	46	27	SENW		4200	7.4
19	46	27	SENW		4600	22.7
19	46	27	NESW		4600	37.8
19	46	27	NWSW		4500	37.8
19	46	27	SWSW		4500	26.8
19	46	27	SESW		4600	37.1
19	46	27	NESE		4700	34.7
19	46	27	NWSE		4700	38.4
19	46	27	SWSE		4800	37.5
19	46	27	SESE		4800	29.9
19	46	27	SESE		4801	0.6
19	46	28	NENE		701	32.6
19	46	28	SENE		701	35.9
19	46	28	NWNW		600	0.6
19	46	28	NWNW		701	8.3
19	46	28	SWNW		701	8.4
19	46	28	SENW		701	12.9
19	46	28	NESW		701	12.4
19	46	28	NESE		701	21.4
19	46	28	NWSE		701	20.0
19	46	28	SWSE		701	20.9
19	46	28	SESE		701	21.6
19	46	32	SESE		1000	23.8

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	33	NENE		1200	39.0
19	46	33	NWNE		1200	23.4
19	46	33	SWNE		1200	37.6
19	46	33	SENE		1200	38.2
19	46	33	SENW		1300	8.9
19	46	33	NESW		1300	38.4
19	46	33	NWSW		1300	18.0
19	46	33	SWSW		1400	33.9
19	46	33	SESW		1501	38.1
19	46	33	NESE		1500	38.6
19	46	33	NWSE		1200	39.1
19	46	33	SWSE		1500	20.9
19	46	33	SWSE		1501	15.3
19	46	33	SESE		1500	36.4
19	46	33	SESE		1501	0.8
19	46	34	NENE		4900	37.1
19	46	34	NWNE		5000	37.5
19	46	34	SWNE		5100	39.0
19	46	34	SENE		5100	34.3
19	46	34	NENW		5200	36.2
19	46	34	NWNW		5200	21.1
19	46	34	SWNW		5300	32.7
19	46	34	SENW		5200	36.2
19	46	34	NESW		5400	19.0
19	46	34	NESW		5500	1.7
19	46	34	NWSW		5500	36.0
19	46	34	SWSW		5500	35.1
19	46	34	SESW		5400	0.9
19	46	34	SESW		5500	31.0
19	46	34	NESE		5600	38.2
19	46	34	NWSE		5400	38.2
19	46	34	SWSE		5400	23.3
19	46	34	SWSE		5500	1.3
19	46	34	SESE		5600	35.6
19	46	35	NENE		5701	7.7
19	46	35	NENE		5800	4.4
19	46	35	NWNE		5701	31.6
19	46	35	SWNE		5701	39.8
19	46	35	SENE		5701	16.1
19	46	35	SENE		6100	3.5
19	46	35	NENW		5700	25.1
19	46	35	NWNW		3700	36.4
19	46	35	SWNW		3700	34.7
19	46	35	SENW		5701	39.0
19	46	35	NESW		5701	2.4
19	46	35	NESW		6000	36.9
19	46	35	NWSW		6000	36.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	46	35	SWSW		6000	35.1
19	46	35	SESW		6000	33.0
19	46	35	NESE		5701	5.7
19	46	35	NESE		6000	5.1
19	46	35	NESE		6100	12.7
19	46	35	NWSE		5701	13.8
19	46	35	NWSE		6000	24.3
19	46	35	SWSE		6000	30.5
19	46	35	SESE		6000	10.9
19	46	35	SESE		6100	24.3
19	46	36	SWNE		6500	8.0
19	46	36	NENW		6600	12.6
19	46	36	NENW		6601	16.3
19	46	36	NWNW		6700	30.9
19	46	36	SWNW		6500	19.2
19	46	36	SWNW		6700	19.9
19	46	36	SENW		6500	37.8
19	46	36	NESW		6500	23.1
19	46	36	NESW		7000	4.0
19	46	36	NWSW		7000	38.2
19	46	36	SWSW		7000	38.2
19	46	36	SESW		7000	37.7
19	46	36	NWSE		6500	6.9
19	46	36	SWSE		7000	1.6
19	47	6	NENE	1	1100	1.8
19	47	6	NWNE	2	1100	36.2
19	47	6	SWNE		1100	38.0
19	47	6	SENE		1100	1.3
19	47	6	NENW	3	1100	39.6
19	47	6	NWNW	4	1200	24.6
19	47	6	SWNW	5	1200	37.4
19	47	6	SENW		1100	38.7
19	47	6	NESW		1301	40.2
19	47	6	NWSW	6	1301	36.1
19	47	6	SWSW	7	1800	38.4
19	47	6	SESW		1700	38.6
19	47	6	NESE		1301	0.9
19	47	6	NWSE		1301	40.0
19	47	6	SWSE		1600	38.0
19	47	6	SESE		1600	4.0
19	47	7	NENE		2100	4.9
19	47	7	NWNE		2000	39.6
19	47	7	SWNE		2000	33.6
19	47	7	SENE		2000	0.3
19	47	7	NENW		2000	38.5
19	47	7	NWNW	1	1900	37.1
19	47	7	SWNW	2	1900	38.3

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
19	47	7	SENW		2000	38.1
19	47	7	NESW		2500	40.1
19	47	7	NWSW	3	2500	38.7
19	47	7	SWSW	4	2500	5.6
19	47	7	SWSW	4	2600	16.4
19	47	7	SWSW	4	2601	10.3
19	47	7	SWSW	4	2700	0.2
19	47	7	SESW		2500	3.4
19	47	7	SESW		2800	0.5
19	47	7	SESW		2900	33.8
19	47	7	NWSE		2500	36.3
19	47	7	SWSE		2500	34.4
19	47	18	NWNE		5601	6.0
19	47	18	NENW		5601	35.2
19	47	18	NWNW	1	5700	34.0
19	47	18	SWNW	2	5800	37.9
19	47	18	SENW		5601	8.4
19	47	18	SENW		5602	2.4
19	47	18	NWSW	3	5900	29.7
19	47	18	SWSW	4	6002	20.6
19	47	19	NWNW	1	100	18.8
20	45	10	NESW		200	27.4
20	45	10	NWSW		200	20.0
20	45	10	SWSW		200	0.2
20	45	10	SESW		400	14.6
20	45	10	NWSE		400	4.5
20	45	10	SWSE		400	22.5
20	45	10	SESE		400	4.8
20	45	11	NESW		500	10.5
20	45	11	NWSW		500	2.3
20	45	11	SWSW		500	9.5
20	45	11	SESW		500	28.7
20	45	11	NESE		600	0.4
20	45	11	NWSE		600	8.5
20	45	11	SWSE		600	27.2
20	45	11	SESE		600	24.2
20	45	12	SWSW		700	17.5
20	45	13	NENE		800	14.1
20	45	13	NWNE		800	25.4
20	45	13	SWNE		1000	30.5
20	45	13	SENE		900	25.3
20	45	13	NENW		800	13.4
20	45	13	NENW		1100	13.8
20	45	13	NWNW		1200	25.8
20	45	13	SWNW		1200	25.2
20	45	13	SENW		1100	33.5
20	45	13	SENW		1400	4.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	45	13	NESW		1100	1.1
20	45	13	NESW		1400	34.7
20	45	13	NWSW		1400	13.6
20	45	13	NWSW		1500	2.9
20	45	13	SWSW		1400	1.5
20	45	13	SWSW		1500	33.1
20	45	13	SESW		1400	25.0
20	45	13	SESW		1500	9.3
20	45	13	NESE		900	36.8
20	45	13	NWSE		1000	23.9
20	45	13	SWSE		1000	12.6
20	45	13	SWSE		1600	17.1
20	45	13	SESE		900	1.8
20	45	13	SESE		1700	2.0
20	45	14	NENE		1800	29.5
20	45	14	NWNE		1800	24.3
20	45	14	NWNE		1900	11.8
20	45	14	SWNE		1800	17.0
20	45	14	SWNE		1900	3.5
20	45	14	SWNE		2100	4.3
20	45	14	SENE		1800	2.3
20	45	14	SENE		2100	9.0
20	45	14	NENW		1900	22.8
20	45	14	NWNW		1900	14.9
20	45	14	SENW		1900	0.1
20	45	14	NESE		2100	36.8
20	45	14	NWSE		2100	13.3
20	45	14	SWSE		2200	0.6
20	45	14	SESE		2200	32.1
20	45	15	NENE		400	7.5
20	45	23	NENE		200	19.1
20	45	23	SENE		200	8.9
20	45	23	SESW		400	5.0
20	45	23	NESE		300	24.7
20	45	23	NWSE		300	33.7
20	45	23	SWSE		400	36.4
20	45	23	SESE		400	37.1
20	45	24	NENE		501	34.3
20	45	24	NWNE		600	34.6
20	45	24	SWNE		600	38.6
20	45	24	SENE		500	2.5
20	45	24	SENE		501	33.8
20	45	24	NENW		700	39.3
20	45	24	NWNW		700	37.6
20	45	24	SWNW		800	36.9
20	45	24	SENW		800	38.9
20	45	24	NESW		900	39.4

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	45	24	NWSW		900	36.1
20	45	24	SWSW		1000	33.0
20	45	24	SESW		1000	38.6
20	45	24	NESE		1100	30.6
20	45	24	NESE		1300	34.8
20	45	24	NWSE		1100	3.6
20	45	24	SWSE		1400	37.3
20	45	24	SESE		1100	3.2
20	45	24	SESE		1400	33.3
20	45	25	NENE		1500	36.6
20	45	25	NWNE		1600	36.7
20	45	25	SWNE		1600	39.0
20	45	25	SENE		1500	38.9
20	45	25	NENW		1700	37.8
20	45	25	NWNW		1700	34.4
20	45	25	SWNW		1700	38.4
20	45	25	SENW		1700	38.7
20	45	25	NESW		1800	36.1
20	45	25	NWSW		1800	34.7
20	45	25	SWSW		1900	35.8
20	45	25	SESW		1900	36.7
20	45	25	NESE		2000	38.0
20	45	25	NWSE		1800	37.0
20	45	25	SWSE		2100	36.6
20	45	25	SESE		2100	34.5
20	45	26	NENE		2200	32.9
20	45	26	NWNE		2200	36.3
20	45	26	SWNE		2300	38.7
20	45	26	SENE		2300	37.0
20	45	26	NENW		2500	36.5
20	45	26	NWNW		2500	23.1
20	45	26	SWNW		2600	27.9
20	45	26	SENW		2600	38.8
20	45	26	NESW		2701	25.7
20	45	26	NWSW		2701	2.5
20	45	26	SESW		2800	2.7
20	45	26	NESE		2700	37.2
20	45	26	NWSE		2700	38.5
20	45	26	SWSE		2800	34.9
20	45	26	SESE		2900	37.7
20	45	27	NENE		2500	0.4
20	45	35	NENE		2900	37.2
20	45	35	NWNE		3002	20.5
20	45	35	SWNE		3001	3.3
20	45	35	SENE		3001	28.5
20	45	35	NESE		3200	22.5
20	45	35	NWSE		3200	9.1

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	45	35	SWSE		3200	9.5
20	45	35	SESE		3200	31.0
20	45	36	NWNE		3400	34.7
20	45	36	SWNE		3300	39.1
20	45	36	SENE		3300	25.8
20	45	36	NENW		3500	37.4
20	45	36	NWNW		3501	36.2
20	45	36	SWNW		3600	37.9
20	45	36	SENW		3300	38.5
20	45	36	NESW		3700	39.5
20	45	36	NWSW		3600	36.5
20	45	36	SWSW		3600	33.3
20	45	36	SESW		3600	3.3
20	45	36	SESW		3801	28.3
20	45	36	NESE		3700	37.6
20	45	36	NWSE		3700	39.2
20	45	36	SWSE		3800	0.1
20	45	36	SWSE		3801	31.9
20	45	36	SESE		3801	29.4
20	46	1	NENE	1	100	20.3
20	46	1	NWNE	2	101	26.1
20	46	1	SWNE		101	34.1
20	46	1	SENE		100	23.0
20	46	1	NENW	3	100	26.7
20	46	1	NWNW	4	100	4.6
20	46	1	NWNW	4	200	15.8
20	46	1	SWNW		100	18.0
20	46	1	SWNW		200	11.9
20	46	1	SWNW		301	0.1
20	46	1	SENW		100	38.1
20	46	1	NESW		100	38.0
20	46	1	NWSW		100	24.4
20	46	1	NWSW		301	9.9
20	46	1	SWSW		100	18.7
20	46	1	SWSW		300	12.5
20	46	1	SESW		100	38.2
20	46	1	NESE		100	4.0
20	46	1	NWSE		100	27.6
20	46	1	NWSE		101	3.6
20	46	1	SWSE		100	20.9
20	46	2	NENE	1	200	23.0
20	46	2	NWNE	2	500	28.7
20	46	2	SWNE		600	39.1
20	46	2	SENE		200	23.9
20	46	2	NENW	3	500	20.0
20	46	2	NWNW	4	700	13.6
20	46	2	SWNW		800	25.5

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	2	SENW		500	13.9
20	46	2	SENW		800	8.2
20	46	2	NESW		1000	20.2
20	46	2	NWSW		900	34.5
20	46	2	SWSW		900	33.0
20	46	2	SESW		1000	37.6
20	46	2	NESE		600	0.2
20	46	2	NESE		1100	34.6
20	46	2	NWSE		600	29.6
20	46	2	NWSE		1000	0.5
20	46	2	NWSE		1100	0.4
20	46	2	SWSE		1000	22.5
20	46	2	SWSE		1200	3.7
20	46	2	SESE		1000	26.1
20	46	3	NENE	1	1301	23.4
20	46	3	NWNE	2	1300	12.2
20	46	3	NWNE	2	1301	8.2
20	46	3	SWNE		1400	33.4
20	46	3	SENE		1301	0.3
20	46	3	SENE		1400	24.8
20	46	3	NENW	3	1500	29.0
20	46	3	NWNW	4	1500	29.0
20	46	3	SWNW		1600	37.9
20	46	3	SENW		1600	38.7
20	46	3	NESW		1700	38.1
20	46	3	NWSW		1700	35.3
20	46	3	SWSW		1700	36.2
20	46	3	SESW		1700	33.2
20	46	3	NESE		1400	36.5
20	46	3	NWSE		1400	38.1
20	46	3	SWSE		2000	34.4
20	46	3	SESE		2000	28.0
20	46	4	NENE	1	100	28.9
20	46	4	NWNE	2	100	24.0
20	46	4	SWNE		100	34.7
20	46	4	SENE		100	33.6
20	46	4	NENW	3	200	29.9
20	46	4	NWNW	4	200	0.8
20	46	4	SWNW		300	13.3
20	46	4	SENW		200	17.9
20	46	4	SENW		402	18.4
20	46	4	NESW		402	38.7
20	46	4	NWSW		300	35.9
20	46	4	SWSW		500	28.1
20	46	4	SESW		400	1.7
20	46	4	SESW		401	0.5
20	46	4	SESW		402	33.5

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	4	NESE		600	35.4
20	46	4	NWSE		600	36.8
20	46	4	SWSE		700	37.7
20	46	4	SESE		700	37.1
20	46	5	SWNE		902	0.5
20	46	5	SENE		903	11.5
20	46	5	SWSW		1100	3.9
20	46	5	SESW		1100	11.3
20	46	5	NESE		902	9.5
20	46	5	NESE		903	12.5
20	46	5	NESE		1200	3.5
20	46	5	NWSE		1200	13.7
20	46	5	SWSE		1200	34.0
20	46	5	SESE		1200	35.1
20	46	7	NWNE		1500	6.3
20	46	7	SWNE		1500	13.5
20	46	7	NENW		1500	0.1
20	46	7	SENW		1500	0.1
20	46	7	NESE		1500	2.7
20	46	7	NWSE		1500	24.3
20	46	7	SWSE		1500	19.6
20	46	7	SESE		1500	16.9
20	46	8	NENE		1800	31.8
20	46	8	NWNE		1800	38.4
20	46	8	SWNE		1800	39.5
20	46	8	SENE		1900	35.8
20	46	8	NENW		2000	34.1
20	46	8	NWNW		2000	9.0
20	46	8	SWNW		2000	12.6
20	46	8	SENW		2000	40.1
20	46	8	NESW		2100	38.1
20	46	8	NWSW		2100	19.3
20	46	8	SWSW		2100	20.6
20	46	8	SESW		2200	35.2
20	46	8	NESE		2300	30.9
20	46	8	NWSE		2300	35.1
20	46	8	SWSE		2400	36.1
20	46	8	SESE		2300	39.7
20	46	9	NENE		2500	38.0
20	46	9	NWNE		2500	38.6
20	46	9	SWNE		2500	37.8
20	46	9	SENE		2500	37.4
20	46	9	NENW		2600	35.3
20	46	9	NWNW		1900	14.8
20	46	9	NWNW		2600	22.4
20	46	9	SWNW		1900	12.0
20	46	9	SWNW		2600	23.6

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	9	SENW		2600	38.2
20	46	9	NESW		2600	37.9
20	46	9	NWSW		1900	0.6
20	46	9	NWSW		2600	22.4
20	46	9	SWSW		2600	17.4
20	46	9	SESW		2600	37.8
20	46	9	NESE		2800	37.9
20	46	9	NWSE		2700	37.6
20	46	9	SWSE		2700	36.6
20	46	9	SESE		2800	37.1
20	46	10	NENE		2002	37.9
20	46	10	NWNE		2002	36.9
20	46	10	SWNE		2001	37.3
20	46	10	SENE		2001	35.4
20	46	10	NENW		2000	37.6
20	46	10	NWNW		2100	37.2
20	46	10	SWNW		2100	36.5
20	46	10	SENW		2001	37.6
20	46	10	NESW		2200	39.6
20	46	10	NWSW		2200	38.7
20	46	10	SWSW		2200	37.2
20	46	10	SESW		2200	35.7
20	46	10	NESE		2300	37.1
20	46	10	NWSE		2300	36.2
20	46	10	SWSE		2300	36.4
20	46	10	SESE		2300	35.9
20	46	11	NENE		2400	28.8
20	46	11	NWNE		2400	36.2
20	46	11	SWNE		2500	36.3
20	46	11	SENE		2500	34.3
20	46	11	SENE		2501	1.0
20	46	11	NENW		2600	26.2
20	46	11	NWNW		2700	37.5
20	46	11	SWNW		2700	36.9
20	46	11	SENW		2600	35.8
20	46	11	NESW		2800	37.5
20	46	11	NWSW		2800	37.4
20	46	11	SWSW		2900	38.4
20	46	11	SESW		2900	36.3
20	46	11	NESE		3000	30.9
20	46	11	NESE		3100	1.0
20	46	11	NESE		3200	4.0
20	46	11	NWSE		3001	38.1
20	46	11	SWSE		2900	15.4
20	46	11	SWSE		3001	17.1
20	46	11	SESE		3300	34.6
20	46	12	NWNE		3500	22.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	12	SWNE		3300	24.8
20	46	12	NENW		3500	38.8
20	46	12	NENW		3700	0.1
20	46	12	NWNW		3500	15.7
20	46	12	NWNW		3700	17.9
20	46	12	NWNW		3800	0.4
20	46	12	SWNW		3700	3.9
20	46	12	SWNW		3800	0.4
20	46	12	SWNW		3801	29.7
20	46	12	SENW		3500	10.0
20	46	12	SENW		3700	2.7
20	46	12	SENW		3801	24.9
20	46	12	NESW		3300	39.7
20	46	12	NWSW		3300	36.9
20	46	12	SWSW		3300	34.5
20	46	12	SESW		3300	37.5
20	46	12	NESE		3300	8.0
20	46	12	NWSE		3300	35.2
20	46	12	SWSE		3300	36.9
20	46	12	SESE		3300	23.1
20	46	13	NENE		3900	24.7
20	46	13	NWNE		3900	38.8
20	46	13	SWNE		2900	39.9
20	46	13	SENE		2900	30.6
20	46	13	NENW		3900	38.6
20	46	13	NWNW		3900	37.3
20	46	13	SWNW		2900	37.9
20	46	13	SENW		2900	40.0
20	46	13	NESW		4000	12.8
20	46	13	NESW		4200	26.9
20	46	13	NWSW		4000	36.5
20	46	13	NWSW		4100	1.5
20	46	13	SWSW		4000	37.9
20	46	13	SESW		4000	26.4
20	46	13	SESW		4200	12.8
20	46	13	NESE		4200	8.2
20	46	13	NWSE		4200	39.7
20	46	13	SWSE		4200	36.6
20	46	13	SESE		4200	7.8
20	46	14	NENE		4600	29.6
20	46	14	NENE		4700	1.5
20	46	14	NWNE		4700	33.3
20	46	14	SWNE		4700	39.3
20	46	14	SENE		4600	23.8
20	46	14	SENE		4700	7.4
20	46	14	NENW		4800	38.0
20	46	14	NWNW		4900	34.9

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	14	SWNW		4900	37.9
20	46	14	SENW		4800	39.6
20	46	14	NESW		5000	32.2
20	46	14	NWSW		5000	5.3
20	46	14	NWSW		5200	30.9
20	46	14	SWSW		5300	38.5
20	46	14	SESW		5400	24.9
20	46	14	NESE		4600	31.5
20	46	14	NWSE		4600	6.8
20	46	14	NWSE		5001	29.5
20	46	14	SWSE		5400	34.9
20	46	14	SESE		4600	21.3
20	46	14	SESE		5400	9.5
20	46	15	NENE		5500	35.3
20	46	15	NWNE		5600	34.4
20	46	15	SWNE		5600	34.8
20	46	15	SWNE		5700	2.6
20	46	15	SENE		5500	34.2
20	46	15	SENE		5600	2.8
20	46	15	NENW		5700	39.0
20	46	15	NWNW		5700	33.4
20	46	15	SWNW		5700	36.8
20	46	15	SENW		2700	39.8
20	46	15	NESW		5800	24.5
20	46	15	NESW		5900	15.7
20	46	15	NWSW		5800	33.7
20	46	15	SWSW		5800	26.6
20	46	15	SESW		5900	36.2
20	46	15	NESE		6000	27.1
20	46	15	NESE		6100	10.6
20	46	15	NWSE		6000	38.7
20	46	15	SWSE		6200	34.4
20	46	15	SESE		6000	26.6
20	46	15	SESE		6200	0.6
20	46	16	NENE		2900	39.4
20	46	16	NWNE		3000	2.8
20	46	16	NWNE		3001	32.6
20	46	16	SWNE		3001	37.7
20	46	16	SENE		2900	29.8
20	46	16	SENE		2901	7.9
20	46	16	NENW		3100	37.8
20	46	16	NWNW		3100	14.7
20	46	16	NWNW		3200	17.5
20	46	16	SWNW		3100	15.8
20	46	16	SWNW		3200	5.0
20	46	16	SWNW		3300	7.1
20	46	16	SENW		3100	38.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	16	NESW		3400	37.8
20	46	16	NWSW		3100	0.3
20	46	16	NWSW		3400	17.5
20	46	16	SWSW		3400	30.2
20	46	16	SESW		3400	29.4
20	46	16	NESE		3500	15.5
20	46	16	NESE		3600	20.2
20	46	16	NWSE		3600	35.1
20	46	16	SWSE		3600	4.8
20	46	16	SWSE		3700	29.2
20	46	16	SESE		3500	1.8
20	46	16	SESE		3600	31.9
20	46	17	NENE		3200	33.8
20	46	17	NENE		3300	0.6
20	46	17	NWNE		3200	29.3
20	46	17	NWNE		3300	6.2
20	46	17	SWNE		3300	40.1
20	46	17	SENE		3200	0.8
20	46	17	SENE		3300	33.8
20	46	17	NENW		3200	0.9
20	46	17	NENW		3300	7.7
20	46	17	NENW		3800	4.4
20	46	17	NWNW		3800	34.3
20	46	17	SWNW		3800	31.4
20	46	17	SENW		3300	5.5
20	46	17	SENW		3800	27.1
20	46	17	NESW		3800	37.5
20	46	17	NWSW		3800	30.9
20	46	17	NWSW		4600	0.1
20	46	17	SWSW		3800	4.8
20	46	17	SWSW		4600	0.1
20	46	17	SESW		3800	21.5
20	46	17	NESE		3900	37.4
20	46	17	NWSE		3300	1.5
20	46	17	NWSE		3900	30.7
20	46	17	SWSE		3900	30.2
20	46	17	SESE		3900	33.9
20	46	17	SESE		3901	2.0
20	46	18	NENE		4000	21.8
20	46	18	NENE		4100	9.6
20	46	18	NWNE		1700	11.2
20	46	18	NWNE		4000	2.2
20	46	18	SWNE		1700	8.0
20	46	18	SWNE		4200	2.1
20	46	18	SENE		4100	28.0
20	46	18	NENW		4200	4.0
20	46	18	NWNW	1	4200	23.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	18	SWNW	2	4200	0.8
20	46	18	SWNW	2	4300	21.3
20	46	18	SENW		4200	24.3
20	46	18	NESW		4400	34.3
20	46	18	NWSW	3	4300	31.2
20	46	18	NWSW	3	4400	0.7
20	46	18	SWSW	4	4400	4.4
20	46	18	SWSW	4	4500	1.0
20	46	18	SESW		4400	4.2
20	46	18	NESE		4100	12.7
20	46	18	NESE		4600	11.9
20	46	18	NWSE		4600	19.7
20	46	18	SWSE		4601	11.1
20	46	18	SESE		4600	25.6
20	46	19	NENE		800	37.1
20	46	19	NWNE		800	38.9
20	46	19	SWNE		300	38.7
20	46	19	SENE		300	37.4
20	46	19	NENW		200	38.8
20	46	19	NWNW	1	100	35.3
20	46	19	SWNW	2	100	37.0
20	46	19	SENW		300	38.2
20	46	19	NESW		300	30.1
20	46	19	NESW		301	6.0
20	46	19	NWSW	3	400	37.3
20	46	19	SWSW	4	400	35.8
20	46	19	SESW		500	33.2
20	46	19	NESE		300	38.8
20	46	19	NWSE		300	38.9
20	46	19	SWSE		600	36.6
20	46	19	SESE		700	36.2
20	46	20	NENE		2200	37.6
20	46	20	NWNE		1000	28.6
20	46	20	SWNE		1000	11.3
20	46	20	SENE		2200	25.6
20	46	20	NENW		1000	21.2
20	46	20	NWNW		900	37.3
20	46	20	SWNW		900	37.1
20	46	20	SENW		1000	33.9
20	46	20	NESW		1300	39.1
20	46	20	NWSW		1101	37.9
20	46	20	SWSW		1200	36.7
20	46	20	SESW		1300	34.7
20	46	20	NESE		1700	0.8
20	46	20	NESE		1900	30.4
20	46	20	NESE		1901	1.6
20	46	20	NWSE		1700	36.6

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	20	NWSE		1900	0.3
20	46	20	SWSE		1700	33.7
20	46	20	SWSE		1800	3.0
20	46	20	SESE		1700	2.0
20	46	20	SESE		1800	35.0
20	46	21	NENE		3300	36.3
20	46	21	NWNE		3300	37.2
20	46	21	SWNE		3200	35.9
20	46	21	SENE		3200	32.1
20	46	21	NENW		2500	38.2
20	46	21	NWNW		2300	32.3
20	46	21	SWNW		2300	20.8
20	46	21	SWNW		2302	7.1
20	46	21	SENW		2500	36.7
20	46	21	NESW		2700	31.4
20	46	21	NESW		3000	4.7
20	46	21	NWSW		2700	28.8
20	46	21	SWSW		2900	35.2
20	46	21	SESW		3000	35.7
20	46	21	NESE		3500	37.1
20	46	21	NWSE		3100	37.0
20	46	21	SWSE		3600	36.1
20	46	21	SESE		3600	38.7
20	46	22	NENE		100	31.5
20	46	22	NWNE		200	33.3
20	46	22	SWNE		300	15.2
20	46	22	SWNE		700	9.4
20	46	22	SWNE		902	7.1
20	46	22	SENE		300	25.5
20	46	22	SENE		902	8.7
20	46	22	NENW		400	27.6
20	46	22	NWNW		500	28.8
20	46	22	SWNW		600	35.4
20	46	22	SENW		700	30.6
20	46	22	NESW		700	36.3
20	46	22	NWSW		600	34.9
20	46	22	SWSW		800	33.4
20	46	22	SESW		800	31.0
20	46	22	NESE		902	38.5
20	46	22	NWSE		700	19.3
20	46	22	NWSE		902	15.3
20	46	22	SWSE		700	13.7
20	46	22	SWSE		800	15.1
20	46	22	SWSE		902	3.7
20	46	22	SESE		800	0.4
20	46	22	SESE		902	29.3
20	46	23	NENE		1100	21.0

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	23	NWNE		1000	2.0
20	46	23	NWNE		1100	9.7
20	46	23	SWNE		1200	36.7
20	46	23	SENE		1100	37.4
20	46	23	NENW		1300	33.1
20	46	23	NWNW		1300	36.1
20	46	23	SWNW		1600	36.8
20	46	23	SENW		1501	37.1
20	46	23	NESW		1600	36.6
20	46	23	NWSW		1600	37.9
20	46	23	SWSW		1401	37.0
20	46	23	SESW		1800	29.2
20	46	23	NESE		1100	2.9
20	46	23	NESE		1600	5.1
20	46	23	NWSE		1600	15.2
20	46	23	NWSE		1900	17.2
20	46	23	SWSE		1600	0.7
20	46	23	SWSE		1900	5.9
20	46	24	NWNE		2300	26.1
20	46	24	NENW		2300	38.7
20	46	24	NWNW		2500	36.4
20	46	24	SWNW		2500	36.8
20	46	24	SWNW		2501	0.4
20	46	24	SENW		2300	37.0
20	46	24	NWSW		2500	1.3
20	46	26	NENW		4000	13.8
20	46	26	NENW		4100	8.1
20	46	26	NENW		4200	8.8
20	46	26	NWNW		4100	16.1
20	46	26	NWNW		4200	21.9
20	46	26	SWNW		4300	32.7
20	46	26	SWNW		4301	0.2
20	46	26	SENW		4300	11.3
20	46	26	NWSW		4300	15.9
20	46	26	NWSW		4600	10.6
20	46	27	NENE		4700	27.9
20	46	27	NWNE		4800	35.5
20	46	27	SWNE		4800	37.2
20	46	27	SENE		4700	35.3
20	46	27	NENW		4900	36.0
20	46	27	NWNW		4900	35.6
20	46	27	SWNW		5000	38.0
20	46	27	SENW		4900	39.4
20	46	27	NESW		5200	39.0
20	46	27	NWSW		5100	38.4
20	46	27	SWSW		5100	36.3
20	46	27	SESW		5200	34.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	27	NESE		4700	19.7
20	46	27	NESE		4701	0.4
20	46	27	NESE		5400	0.8
20	46	27	NESE		5500	2.0
20	46	27	NWSE		5500	38.0
20	46	27	SWSE		5600	33.3
20	46	27	SWSE		5700	3.0
20	46	27	SESE		5600	33.9
20	46	28	NENE		3700	37.1
20	46	28	NWNE		3700	37.3
20	46	28	SWNE		3800	39.0
20	46	28	SENE		3800	37.2
20	46	28	NENW		3700	14.3
20	46	28	NENW		4500	21.0
20	46	28	NWNW		4401	38.3
20	46	28	SWNW		4400	37.6
20	46	28	SWNW		4402	0.1
20	46	28	SENW		4500	37.9
20	46	28	NESW		4300	36.5
20	46	28	NWSW		4200	36.3
20	46	28	SESW		4000	29.3
20	46	28	NESE		3800	38.7
20	46	28	NWSE		3800	33.1
20	46	28	SWSE		3900	8.3
20	46	28	SWSE		4000	21.8
20	46	28	SESE		3900	37.8
20	46	29	NENE		4700	34.7
20	46	29	NWNE		4700	32.3
20	46	29	NWNE		5200	4.1
20	46	29	SWNE		4700	38.6
20	46	29	SENE		4700	39.1
20	46	29	NENW		5200	32.2
20	46	29	NWNW		5300	32.1
20	46	29	SWNW		5300	34.5
20	46	29	SENW		5200	38.5
20	46	29	NESW		4901	37.5
20	46	29	NWSW		5100	26.9
20	46	29	SWSW		5000	36.9
20	46	29	SESW		4901	15.2
20	46	29	SESW		5000	19.2
20	46	29	NESE		4900	32.7
20	46	29	NWSE		4901	12.0
20	46	29	SWSE		4901	21.7
20	46	29	SESE		4900	3.4
20	46	29	SESE		4901	1.4
20	46	30	NENE		5400	30.4
20	46	30	NENE		5500	2.6

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	30	NWNE		5400	4.9
20	46	30	NWNE		5500	31.2
20	46	30	SWNE		5600	36.6
20	46	30	SENE		5700	31.2
20	46	30	NENW		6000	34.9
20	46	30	NWNW	1	6000	38.4
20	46	30	SWNW	2	6100	38.5
20	46	30	SENW		6100	38.9
20	46	30	NESW		6200	38.5
20	46	30	NWSW	3	6200	36.7
20	46	30	SWSW	4	6300	38.2
20	46	30	SESW		5900	36.9
20	46	30	NESE		5600	0.9
20	46	30	NESE		5800	30.1
20	46	30	NWSE		5600	35.6
20	46	30	NWSE		5601	1.8
20	46	30	SWSE		5600	2.0
20	46	30	SWSE		5900	33.1
20	46	30	SESE		5900	36.9
20	46	31	NENE		7400	27.2
20	46	31	NWNE		7400	36.6
20	46	31	SWNE		7400	38.6
20	46	31	SENE		7400	37.2
20	46	31	NENW		6400	35.3
20	46	31	NWNW	1	6400	36.6
20	46	31	SWNW	2	6600	27.1
20	46	31	SENW		6500	33.2
20	46	31	NESW		7000	33.3
20	46	31	NWSW	3	6600	34.9
20	46	31	SWSW	4	6700	29.5
20	46	31	SESW		6900	23.2
20	46	31	NESE		7300	20.8
20	46	31	NWSE		7300	34.7
20	46	31	SWSE		7100	13.4
20	46	31	SESE		7200	14.9
20	46	32	NENW		7600	9.8
20	46	32	NWNW		7500	33.9
20	46	32	SWNW		7400	0.4
20	46	32	SWNW		7500	18.1
20	46	32	SWSW		7200	9.5
20	46	32	NESE		8400	12.7
20	46	32	SWSE		8100	34.0
20	46	32	SESE		8400	32.1
20	46	33	NENE		9501	37.1
20	46	33	NWNE		9501	31.9
20	46	33	SWNE		9501	13.6
20	46	33	SENE		9501	18.9

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
20	46	33	NENW		9000	22.0
20	46	33	SWSW		9201	5.2
20	46	34	NENE		6000	22.8
20	46	34	NWNE		6000	37.6
20	46	34	SWNE		6100	19.9
20	46	34	SENE		6100	3.7
20	46	34	NENW		6001	35.1
20	46	34	NWNW		6001	17.2
20	46	34	NWNW		6400	18.1
20	46	34	SWNW		6500	31.9
20	46	34	SENW		6500	37.6
20	47	18	NWNW	1	3900	3.1
20	47	18	SWNW	2	3900	9.6
20	47	18	NWSW	3	2400	1.0
21	45	1	NENE	1	100	31.5
21	45	1	NWNE	2	100	38.9
21	45	1	SWNE		100	7.3
21	45	1	SENE		100	20.7
21	45	1	NENW	3	100	23.0
21	45	1	NWNW	4	100	7.9
21	45	1	SENW		100	0.1
21	45	2	NENE		3200	2.1
21	45	11	SWNE		1100	6.7
21	45	11	SWNE		1200	0.7
21	45	11	SENE		1100	2.8
21	45	11	NENW		900	7.9
21	45	11	SENW		900	26.9
21	45	11	NESW		900	38.9
21	45	11	NWSW		900	16.0
21	45	11	SWSW		900	7.8
21	45	11	SESW		900	36.9
21	45	11	NESE		1100	24.5
21	45	11	NWSE		1200	33.6
21	45	11	SWSE		1200	35.6
21	45	11	SESE		1200	34.1
21	45	12	NWNE		1300	5.8
21	45	12	SWNE		1600	33.3
21	45	12	SENE		1500	20.2
21	45	12	SWNW		1300	14.5
21	45	12	SENW		1300	30.6
21	45	12	NESW		1400	36.9
21	45	12	NWSW		1100	35.4
21	45	12	SWSW		1400	22.6
21	45	12	SESW		1400	39.1
21	45	12	NESE		1800	29.0
21	45	12	NWSE		1700	37.9
21	45	12	SWSE		1900	38.3

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	45	12	SESE		1900	35.6
21	45	13	NENE		1900	37.4
21	45	13	NWNE		1900	38.3
21	45	13	SWNE		1900	2.3
21	45	13	SWNE		2501	25.9
21	45	13	SENE		1900	30.2
21	45	13	NENW		1400	31.7
21	45	13	NWNW		2200	34.8
21	45	13	SWNW		2300	32.0
21	45	13	SENW		2300	39.7
21	45	13	NESW		2501	36.5
21	45	13	NWSW		2400	22.0
21	45	13	NWSW		2501	1.1
21	45	13	SWSW		2400	4.0
21	45	13	SESW		2400	14.0
21	45	13	NESE		2100	27.1
21	45	13	NESE		2500	0.2
21	45	13	NWSE		2500	10.8
21	45	13	NWSE		2501	5.8
21	45	13	NWSE		2502	0.7
21	45	13	SWSE		300	4.5
21	45	13	SESE		200	0.4
21	45	13	SESE		300	0.1
21	45	14	NENE		2700	37.5
21	45	14	NWNE		2700	35.4
21	45	14	SWNE		2800	31.6
21	45	14	SENE		2800	30.4
21	45	14	NENW		2700	1.9
21	45	14	SENW		2700	4.4
21	46	1	SWNE		200	21.3
21	46	1	SENE		200	17.2
21	46	1	NWNW	4	1300	13.9
21	46	1	SWNW		300	4.9
21	46	1	SWNW		1300	3.4
21	46	1	SENW		300	28.5
21	46	1	NESW		300	38.1
21	46	1	NESW		1000	1.5
21	46	1	NWSW		600	35.3
21	46	1	SWSW		702	29.5
21	46	1	SESW		900	34.5
21	46	1	NESE		1000	4.8
21	46	1	NESE		1100	32.5
21	46	1	NWSE		1000	37.1
21	46	1	SWSE		1000	39.1
21	46	1	SESE		1200	38.7
21	46	2	NENE	1	1300	11.5
21	46	2	SWNE		1300	10.3

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	2	SWNE		1301	1.5
21	46	2	SWNE		1302	7.0
21	46	2	SENE		1300	38.7
21	46	2	SWNW		1700	13.4
21	46	2	SENW		1601	8.0
21	46	2	NESW		1900	34.9
21	46	2	NWSW		1700	4.9
21	46	2	NWSW		1800	18.4
21	46	2	NWSW		1801	4.4
21	46	2	SWSW		2000	39.0
21	46	2	SESW		1900	37.0
21	46	2	NESE		2200	19.2
21	46	2	NESE		2600	0.8
21	46	2	NWSE		2100	1.0
21	46	2	NWSE		2200	26.0
21	46	2	SWSE		2200	36.8
21	46	2	SESE		2500	19.6
21	46	2	SESE		2600	11.5
21	46	3	SWNE		1700	34.5
21	46	3	SENE		1700	24.1
21	46	3	SWNW		2900	15.8
21	46	3	SENW		1700	1.4
21	46	3	SENW		2900	3.5
21	46	3	NESW		2900	38.6
21	46	3	NWSW		3000	39.2
21	46	3	SWSW		3000	36.4
21	46	3	SESW		3100	35.4
21	46	3	NESE		1700	15.0
21	46	3	NESE		1800	13.2
21	46	3	NESE		1801	0.9
21	46	3	NWSE		1700	6.5
21	46	3	NWSE		2900	20.6
21	46	3	SWSE		3100	37.1
21	46	3	SESE		3200	37.4
21	46	4	NENE	1	400	15.6
21	46	4	NWNE	2	200	34.6
21	46	4	SWNE		500	36.2
21	46	4	SENE		400	37.9
21	46	4	NENW	3	200	34.9
21	46	4	NWNW	2	100	3.5
21	46	4	NWNW	4	100	29.7
21	46	4	SWNW		700	31.2
21	46	4	SENW		600	35.0
21	46	4	NESW		1000	30.0
21	46	4	NWSW		800	19.5
21	46	4	NWSW		900	18.4
21	46	4	SWSW		1400	15.7

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	4	SWSW		1500	21.3
21	46	4	SESW		1300	31.9
21	46	4	NESE		1100	38.1
21	46	4	NWSE		500	37.3
21	46	4	SWSE		1200	33.6
21	46	4	SWSE		1201	0.9
21	46	4	SESE		1100	37.5
21	46	5	NENE	1	1800	37.9
21	46	5	NWNE	2	1700	32.8
21	46	5	SWNE		1700	35.7
21	46	5	SENE		1700	37.4
21	46	5	NENW	3	1600	34.0
21	46	5	NWNW	4	2400	30.1
21	46	5	SWNW		1900	16.9
21	46	5	SENW		1900	21.8
21	46	5	NESW		2000	14.1
21	46	5	NWSW		2800	28.7
21	46	5	SWSW		2300	24.0
21	46	5	SESW		2200	11.2
21	46	5	SESW		2300	6.0
21	46	5	NESE		2100	33.5
21	46	5	NESE		2101	0.5
21	46	5	NWSE		2000	22.4
21	46	5	SWSE		2201	37.9
21	46	5	SESE		2201	36.8
21	46	6	NENE	1	2400	19.5
21	46	6	SWNE		2800	1.1
21	46	6	SENE		2400	0.3
21	46	6	SENE		2401	13.2
21	46	6	SENE		2800	0.1
21	46	6	NWNW	4	2500	4.0
21	46	6	NWNW	4	2600	14.6
21	46	6	SWNW	5	2600	4.9
21	46	6	NESW		2800	21.6
21	46	6	NWSW	6	2800	8.0
21	46	6	SWSW	7	2800	6.6
21	46	6	SESW		2800	17.0
21	46	6	NESE		2800	16.1
21	46	6	NWSE		2800	19.2
21	46	6	SWSE		3000	24.8
21	46	6	SESE		3000	20.6
21	46	7	NENE		3000	34.7
21	46	7	NWNE		3000	30.4
21	46	7	SWNE		3000	1.4
21	46	7	SENE		3000	14.6
21	46	7	NENW		3100	0.7
21	46	7	NWNW		3100	1.2

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	7	SWNW	2	3100	12.6
21	46	7	SENW		3100	21.7
21	46	7	NESW		3100	13.2
21	46	7	NESW		3300	1.9
21	46	7	NWSW	3	3100	2.5
21	46	7	NWSW	3	3300	2.9
21	46	7	SWSW		3300	28.3
21	46	7	SESW		3300	33.0
21	46	7	NWSE		3300	5.1
21	46	7	SWSE		3300	11.8
21	46	8	NENE		3500	37.9
21	46	8	NWNE		3600	36.6
21	46	8	SWNE		3600	34.3
21	46	8	SENE		3500	36.4
21	46	8	NENW		3600	13.2
21	46	8	NWNW		2300	8.0
21	46	8	SENW		3600	9.7
21	46	8	NESW		3700	2.6
21	46	8	SWSW		3800	1.7
21	46	8	SESW		3700	0.8
21	46	8	NESE		3900	37.1
21	46	8	NWSE		3700	35.1
21	46	8	NWSE		3900	0.2
21	46	8	SWSE		3700	13.8
21	46	8	SESE		4001	33.0
21	46	9	NENE		4102	39.1
21	46	9	NWNE		4200	37.1
21	46	9	SWNE		4200	37.7
21	46	9	SENE		4102	36.4
21	46	9	NENW		4200	37.4
21	46	9	NWNW		3500	39.7
21	46	9	SWNW		3500	38.6
21	46	9	SENW		4200	37.4
21	46	9	NESW		4100	38.9
21	46	9	NWSW		3900	39.5
21	46	9	SWSW		4001	36.2
21	46	9	SESW		4100	39.3
21	46	9	NESE		4101	37.4
21	46	9	NWSE		4103	38.6
21	46	9	SWSE		4103	36.1
21	46	9	SESE		4101	34.1
21	46	10	NENE		3200	38.9
21	46	10	NWNE		3400	37.8
21	46	10	SWNE		3500	37.9
21	46	10	SENE		3300	37.0
21	46	10	NENW		3400	35.8
21	46	10	NWNW		3600	35.8

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	10	SWNW		3600	25.1
21	46	10	SWNW		3700	11.9
21	46	10	SENW		3500	39.5
21	46	10	NESW		3900	39.3
21	46	10	NWSW		3701	37.3
21	46	10	SWSW		3701	34.7
21	46	10	SESW		4000	39.9
21	46	10	NESE		3300	36.1
21	46	10	NWSE		3900	39.3
21	46	10	SWSE		4000	38.9
21	46	10	SESE		4100	36.9
21	46	11	NENE		4200	34.6
21	46	11	NWNE		4200	30.9
21	46	11	SWNE		4500	34.1
21	46	11	SENE		4400	30.8
21	46	11	NENW		4600	31.4
21	46	11	NWNW		4700	33.6
21	46	11	SWNW		4500	35.2
21	46	11	SENW		4500	34.9
21	46	11	NESW		4900	27.2
21	46	11	NWSW		4500	39.8
21	46	11	SWSW		4800	31.4
21	46	11	SWSW		4802	1.8
21	46	11	SESW		5000	20.5
21	46	11	NESE		5200	35.5
21	46	11	NWSE		5200	16.5
21	46	11	NWSE		5201	21.0
21	46	11	SWSE		5300	36.9
21	46	11	SESE		5300	33.1
21	46	12	NENE		5401	40.0
21	46	12	NWNE		5401	18.1
21	46	12	NWNE		5500	19.7
21	46	12	SWNE		5600	27.1
21	46	12	SWNE		5700	9.0
21	46	12	SENE		5400	5.0
21	46	12	SENE		5401	31.4
21	46	12	NENW		5500	31.5
21	46	12	NWNW		5800	35.0
21	46	12	NWNW		5900	3.0
21	46	12	SWNW		6000	35.2
21	46	12	SENW		6000	38.4
21	46	12	NESW		6100	21.7
21	46	12	NWSW		6100	7.1
21	46	12	NWSW		6200	25.0
21	46	12	SWSW		6300	39.0
21	46	12	SESW		6300	38.4
21	46	12	NESE		6500	36.4

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TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	12	NWSE		6500	27.5
21	46	12	SWSE		6300	20.7
21	46	12	SWSE		6500	0.1
21	46	12	SESE	1	6300	2.1
21	46	12	SESE	1	6500	1.3
21	46	13	NWNE	1	6700	0.9
21	46	13	NENW		6700	26.8
21	46	13	NWNW		7200	35.2
21	46	13	SWNW	3	6700	22.3
21	46	13	SENW	2	6700	1.0
21	46	14	NENE		7200	36.8
21	46	14	NWNE		7200	2.4
21	46	14	NWNE		7500	33.1
21	46	14	SWNE		7500	39.7
21	46	14	SENE		7300	37.3
21	46	14	NENW		8000	25.2
21	46	14	NENW		8100	4.0
21	46	14	NWNW		4803	27.4
21	46	14	NWNW		8400	0.9
21	46	14	SWNW		4801	1.5
21	46	14	SWNW		4803	23.2
21	46	14	SWNW		8400	4.7
21	46	14	SENW		8000	39.0
21	46	14	NESW		400	13.4
21	46	14	NESW		500	2.3
21	46	14	NWSW		400	3.2
21	46	14	NWSW		9200	12.4
21	46	14	SWSW		8500	10.3
21	46	14	SWSW		8601	7.0
21	46	14	SWSW		8700	1.0
21	46	14	NESE	1	7300	3.2
21	46	14	NWSE	2	7500	13.9
21	46	15	NENE		8800	24.8
21	46	15	NENE		8802	5.8
21	46	15	NWNE		8900	34.3
21	46	15	SWNE		8900	38.7
21	46	15	SENE		8800	21.7
21	46	15	SENE		8802	14.9
21	46	15	NENW		9000	37.9
21	46	15	NWNW		9000	37.5
21	46	15	SWNW		9000	37.3
21	46	15	SENW		9100	39.7
21	46	15	NESW		9203	12.9
21	46	15	NWSW		9203	12.9
21	46	15	SWSW		9400	0.3
21	46	15	SESW		9400	32.5
21	46	15	NESE		9203	38.8

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	15	NWSE		2903	0.9
21	46	15	NWSE		9203	30.0
21	46	15	SWSE		9500	38.8
21	46	15	SESE		9500	38.6
21	46	16	NENE		4500	38.0
21	46	16	NWNE		4500	38.4
21	46	16	SWNE		4500	39.7
21	46	16	SENE		4500	35.1
21	46	16	NENW		4600	37.4
21	46	16	NWNW		4600	38.2
21	46	16	SWNW		4600	30.0
21	46	16	SWNW		4700	7.6
21	46	16	SWNW		4701	0.6
21	46	16	SENW		4600	38.4
21	46	16	NESW		4800	26.2
21	46	16	NWSW		4601	1.7
21	46	16	NWSW		4800	16.9
21	46	16	NESE		4800	25.2
21	46	16	NWSE		4800	34.0
21	46	17	NENE		4000	37.6
21	46	17	NWNE		4000	16.6
21	46	17	SWNE		3800	0.5
21	46	17	SWNE		4000	28.6
21	46	17	SENE		4000	37.8
21	46	17	NENW		3800	36.8
21	46	17	NWNW		3800	33.9
21	46	17	SWNW		3800	25.3
21	46	17	SENW		3800	33.2
21	46	17	NWSW		3800	0.3
21	46	17	NESE		3800	8.8
21	46	17	NESE		4000	0.6
21	46	17	NESE		5100	20.5
21	46	17	NWSE		5100	12.5
21	46	18	NENE		3800	37.8
21	46	18	NWNE		3300	11.0
21	46	18	SWNE		3300	2.0
21	46	18	SWNE		3800	0.5
21	46	18	SENE		3800	22.4
21	46	18	NENW		3300	36.1
21	46	18	NWNW	1	3300	34.8
21	46	18	SWNW	2	3300	13.2
21	46	18	SWNW	2	5400	6.8
21	46	18	SENW		3300	16.1
21	46	18	SENW		5400	0.7
21	46	18	NESW		5400	20.6
21	46	18	NWSW	3	5400	35.8
21	46	18	SWSW	4	5400	13.3

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
21	46	18	SESW		5400	7.4
21	46	19	NWNE		300	5.4
21	46	19	SWNE		200	2.5
21	46	19	NENW		300	10.3
21	46	19	NWNW		300	10.9
21	46	19	SENW		200	2.7
21	46	22	NENE		100	31.1
21	46	22	NENE		200	1.1
21	46	22	NWNE		100	36.8
21	46	22	SWNE		500	28.8
21	46	22	SENE	4	200	14.3
21	46	22	NENW		300	38.9
21	46	22	NWNW		300	1.6
21	46	22	SWNW		400	5.4
21	46	22	SWNW		402	0.9
21	46	22	SENW		400	37.1
21	46	22	NESW		403	7.5
21	46	22	NWSW		404	18.0
21	46	23	NENW	1	1200	13.7
21	46	23	NWNW		1200	20.0
21	46	23	NWNW		1600	9.6
21	46	23	SWNW	2	1200	5.3
21	46	23	SWNW	2	1400	1.0
21	47	6	NESW	4	400	3.5
21	47	6	NWSW	4	400	9.4
21	47	6	SWSW	5	400	32.7
21	47	6	SESW	5	400	18.9
21	47	7	NENW		500	14.3
21	47	7	NWNW	1	500	36.4
21	47	7	SWNW		500	34.8
21	47	7	SENW	2	500	10.6
21	47	7	NESW	3	500	0.2
21	47	7	NWSW	3	500	19.6

SUPPLEMENTAL IRRIGATION

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
15	46	25	NESW	3	2800	24.8
15	46	25	NWSW	4	2800	2.8
15	46	25	SWSW	4	2800	15.4
15	46	25	SESW		2800	24.0
15	46	25	NESE		3001	36.9
15	46	25	NWSE		2800	2.2
15	46	25	SWSE		2800	3.3
15	46	36	NENE		3600	34.1
15	46	36	NWNE		3700	25.1
15	46	36	SWNE		3700	6.6

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
15	46	36	SENE		3600	0.5
15	46	36	SENE		4000	31.9
15	46	36	NENW		3700	2.3
15	46	36	NESE		6101	8.6
15	47	31	NWNE		5800	29.6
15	47	31	SWNE		5800	23.9
15	47	31	SWNE		6400	8.0
15	47	31	NENW		5900	37.7
15	47	31	NWNW	1	6000	34.6
15	47	31	SWNW	3	6000	2.3
15	47	31	SENW		5900	9.9
15	47	31	SENW		6200	25.4
15	47	31	NESW		6200	35.6
15	47	31	SWSW	4	6300	15.3
15	47	31	SESW		6200	38.4
15	47	31	NWSE		6400	29.6
15	47	31	NWSE		6401	0.2
15	47	31	NWSE		6501	1.6
15	47	31	SWSE		6200	30.3
15	47	31	SWSE		6500	4.9
15	47	31	SESE		6200	2.7
15	47	31	SESE		6400	28.7
15	47	32	SWNE		7500	10.0
15	47	32	NENW		7500	1.0
15	47	32	NWNW		7500	4.5
15	47	32	SWNW		7500	37.3
15	47	32	SENW		7500	30.1
15	47	32	NESW		7600	26.8
15	47	32	NESW		7800	9.5
15	47	32	NWSW		7600	12.7
15	47	32	NWSW		7700	23.3
15	47	32	SWSW		7700	36.7
15	47	32	SESW		7800	37.0
15	47	32	NWSE		7500	24.1
15	47	32	SWSE		7800	5.5
15	47	32	SESE		7900	6.2
15	47	33	NWSW	4	8500	7.2
15	47	33	SWSW	5	8500	2.4
15	47	33	SWSW	5	9304	5.7
16	47	4	NWNW	1	300	35.0
16	47	4	SWNW		400	34.9
16	47	4	SENW	3	400	32.4
16	47	4	NESW		500	37.0
16	47	4	NWSW		500	34.7
16	47	4	SWSW		700	35.2
16	47	4	SESW		700	38.9
16	47	4	NWSE	4	500	0.9

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	4	SWSE	5	700	5.8
16	47	5	NENE	1	800	57.4
16	47	5	NWNE	2	900	51.5
16	47	5	NWNE	2	1000	13.3
16	47	5	SWNE		1000	38.0
16	47	5	SENE		1100	38.5
16	47	5	NENW	3	1200	36.8
16	47	5	NENW	3	1300	24.5
16	47	5	NWNW	4	1200	3.9
16	47	5	NWNW	4	1300	7.6
16	47	5	NWNW	4	1400	48.6
16	47	5	SWNW		1400	38.2
16	47	5	SENW	3	1400	35.1
16	47	5	NESW		1600	38.5
16	47	5	NWSW		1500	38.5
16	47	5	SWSW		2100	37.4
16	47	5	SESW		2000	32.0
16	47	5	NESE		1100	17.3
16	47	5	NESE		1701	19.4
16	47	5	NWSE		1701	37.6
16	47	5	SWSE		1700	37.6
16	47	5	SESE		1100	8.8
16	47	5	SESE		1700	17.9
16	47	5	SESE		1800	8.4
16	47	6	NENE	1	2200	63.7
16	47	6	NWNE	2	2300	60.2
16	47	6	SWNE		2500	25.8
16	47	6	SENE		2500	37.3
16	47	6	NENW	3	2300	32.6
16	47	6	NWNW	4	2400	8.2
16	47	6	NESE		2600	38.3
16	47	6	NWSE		2600	8.2
16	47	6	SESE		2700	26.0
16	47	7	NENE		2800	5.0
16	47	7	SENE		2900	4.6
16	47	8	NENE		3500	35.4
16	47	8	NWNE		3500	37.9
16	47	8	SWNE		3600	39.0
16	47	8	SENE		3600	36.4
16	47	8	NENW		3700	34.3
16	47	8	NWNW		3700	37.0
16	47	8	SWNW		3701	37.0
16	47	8	SENW		3702	36.8
16	47	8	NESW		3901	3.8
16	47	8	NESE		3901	36.6
16	47	8	NWSE		3901	37.7
16	47	8	SWSE		4200	23.9

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	8	SESE		3901	37.6
16	47	9	NWNE	1	4400	10.4
16	47	9	SWNE		4400	20.6
16	47	9	NENW		4400	38.1
16	47	9	NWNW		4400	27.2
16	47	9	SWNW		4400	38.0
16	47	9	SENW		4400	38.4
16	47	9	NESW		4600	39.1
16	47	9	NWSW		4600	37.2
16	47	9	SWSW		4700	37.5
16	47	9	SESW		4800	34.4
16	47	9	NESE		5200	11.7
16	47	9	NWSE		4900	22.9
16	47	9	NWSE		5000	14.1
16	47	9	SWSE		4900	13.3
16	47	9	SWSE		5000	22.9
16	47	9	SESE		5100	36.4
16	47	10	SWSW		200	17.1
16	47	16	NENE		5300	32.7
16	47	16	NENE		5500	2.1
16	47	16	NWNE		5400	10.7
16	47	16	NWNE		5500	2.9
16	47	16	NWNE		5600	18.5
16	47	16	SWNE		5500	8.6
16	47	16	SWNE		5600	29.5
16	47	16	SENE		5300	2.9
16	47	16	SENE		5500	34.8
16	47	16	NENW		5700	33.4
16	47	16	NWNW		5700	35.2
16	47	16	SWNW		5700	33.5
16	47	16	SENW		5700	39.1
16	47	16	NESW		5700	20.9
16	47	16	NWSW		5700	1.0
16	47	16	NESE		6100	38.4
16	47	16	NWSE		6000	37.0
16	47	16	SWSE		6000	32.7
16	47	16	SESE		6100	35.0
16	47	17	NENE		6200	0.5
16	47	21	NENE		700	32.5
16	47	21	NWNE		800	1.8
16	47	21	SWNE		800	1.4
16	47	21	SENE		700	30.3
16	47	22	NENW		400	1.2
16	47	22	NWNW		500	36.3
16	47	22	SWNW		500	29.7
16	47	22	SENW		400	12.0
16	47	22	NESW		700	22.3

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	22	SESW		700	34.7
16	47	22	SWSE		1000	22.2
16	47	22	SWSE		1100	10.3
16	47	22	SESE		1100	27.2
16	47	26	NWNW		4800	12.6
16	47	26	SWNW		4800	3.4
16	47	26	SWNW		5000	15.6
16	47	26	NESW		4000	4.7
16	47	26	NWSW		5200	30.3
16	47	26	NWSW		5300	5.6
16	47	26	SWSW		5300	35.1
16	47	26	SESW		4000	27.8
16	47	26	SESW		4001	0.7
16	47	27	NENE		5400	26.2
16	47	27	NENE		5500	8.9
16	47	27	NWNE		5500	36.5
16	47	27	SWNE		5600	38.2
16	47	27	SENE		5400	5.9
16	47	27	SENE		5600	30.3
16	47	27	NENW		5701	23.2
16	47	27	SENW		5701	6.8
16	47	27	NESE		6100	27.1
16	47	27	NESE		6200	9.9
16	47	27	NWSE		6100	17.7
16	47	27	NWSE		6200	4.2
16	47	27	SWSE		6200	37.4
16	47	27	SESE		6200	35.7
16	47	34	NENE		6300	28.0
16	47	34	NWNE		6400	8.0
16	47	34	NWNE		6500	26.0
16	47	34	SWNE		6500	34.8
16	47	34	SENE		6300	31.5
16	47	34	NENW		6600	8.5
16	47	34	SENW		6600	19.9
16	47	34	NESE		6300	33.8
16	47	34	NWSE		6300	19.4
16	47	34	SWSE		6300	2.9
16	47	34	SESE		6300	24.1
16	47	35	NENW		7400	32.5
16	47	35	NWNW		7700	18.8
16	47	35	NWNW		7800	19.3
16	47	35	SWNW		7900	38.8
16	47	35	SENW		7500	31.4
16	47	35	SENW		7501	1.0
16	47	35	SENW		7600	0.6
16	47	35	NESW		8500	0.7
16	47	35	NESW		8600	0.7

Recorded in State Record of water right Certificates numbered 75691 .

TOWNSHIP	RANGE	SECTION	¼, ¼	GOV LOT	TAX LOT	ACRES
16	47	35	NESW		8601	0.8
16	47	35	NESW		8602	0.6
16	47	35	NESW		8603	0.9
16	47	35	NESW		8605	0.8
16	47	35	NESW		8700	0.5
16	47	35	NESW		8800	17.4
16	47	35	NWSW		8000	34.8
16	47	35	NWSW		8101	3.6
16	47	35	SWSW		8000	2.2
16	47	35	SWSW		8100	3.5
16	47	35	SWSW		8101	20.0
16	47	35	SWSW		8200	1.6
16	47	35	SESW		8400	16.1
17	47	2	NWNW	4	100	16.3

This Certificate describes the new location and type of use of the water right confirmed by Certificate 24707 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329. This Certificate together with Certificates 75692 and 75884 supercedes Certificate 24707.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75691 .

24707.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **SUPPLEMENTAL IRRIGATION of 262.5 ACRES.**

This right was perfected under Permit 1786. The date of priority is **JULY 8, 1913.** This right is limited to **3.28 CUBIC FOOT PER SECOND** or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:
(Dunaway Pumping Plant) LOT 3 NE1/4SW1/4, SECTION 18, T. 20 S., R. 47 E., W.M.
(River Mile 394.2)

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to **ONE-EIGHTIETH** of one cubic foot per second per acre, or its equivalent for each acre irrigated each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:
All Townships are South, all Ranges are East, location in reference to Willamette Meridian

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	TAX LOT	ACRES
18	47	4	4	NWNW	1600	2.6
18	47	4	4	NWNW	1601	1.0
18	47	4	4	NWNW	1602	1.7
18	47	4		SENW	300	1.8
18	47	5	1	NENE	700	0.4
18	47	5	1	NENE	800	0.6
18	47	5	1	NENE	1002	0.5
18	47	5	1	NENE	1005	0.1
18	47	5	1	NENE	1100	1.0
18	47	5	1	NENE	1200	0.4
18	47	5	1	NENE	1300	0.5
18	47	5	1	NENE	2200	0.3
18	47	5	1	NENE	2502	0.1
18	47	5	1	NENE	3100	1.0
18	47	5	1	NENE	3200	0.4
18	47	5	2	NWNE	1201	0.4
18	47	5	2	NWNE	1292	2.0
18	47	5	2	NWNE	1300	0.6

Recorded in State Record of Water Right Certificates numbered 75708.

51346.SLH

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	TAX LOT	ACRES
18	47	5		SWNE	100	0.8
18	47	5		SWNE	200	1.5
18	47	5		SWNE	300	3.7
18	47	5		SWNE	900	0.5
18	47	5		SENE	100	4.2
18	47	5		SENE	200	8.2
18	47	5		SENE	300	4.1
18	47	5		SENE	700	0.4
18	47	5		SENE	800	0.4
18	47	5		SENE	1000	0.2
18	47	5		SENE	1100	0.1
18	47	5		SENW	3000	0.6
18	47	5		SENW	3001	0.4
18	47	5		SENW	3002	0.4
18	47	5		SENW	3003	0.5
18	47	5		SENW	3004	0.4
18	47	5		SENW	3006	0.2
18	47	5		SENW	3007	0.6
18	47	5		SENW	3008	0.5
18	47	5		SENW	3009	0.4
18	47	5		SENW	3010	0.4
18	47	5		SENW	3011	0.4
18	47	5		SENW	3012	0.4
18	47	5		SENW	3013	0.5
18	47	5		SENW	3014	0.5
18	47	5		SENW	3015	0.5
18	47	5		SENW	3100	6.0
18	47	5		SENW	3400	2.0
18	47	5		SENW	3500	3.7
18	47	5		NESE	700	0.8
18	47	5		NWSE	2000	0.5
18	47	5		NWSE	2100	0.8
18	47	5		NWSE	2102	0.5
18	47	5		NWSE	2400	2.3
18	47	5		NWSE	2500	1.0
18	47	5		NWSE	6300	0.3
18	47	5		NWSE	7800	0.3
18	47	5		NWSE	7900	0.4
18	47	5		SWSE	800	0.5
18	47	5		SWSE	1100	0.3
18	47	5		SWSE	1200	0.6
18	47	5		SWSE	1300	1.0
18	47	5		SESE	1400	0.4
18	47	5		SESE	1600	0.7
18	47	8		NENE	800	0.6
18	47	8		NENE	1500	2.7
18	47	8		SWNE	1100	1.4

Recorded in State Record of water right Certificates numbered 75708.

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	TAX LOT	ACRES
18	47	8		SENE	900	9.0
18	47	8		SENE	1000	9.4
18	47	8		SENE	1100	4.6
18	47	8		SENE	1200	3.2
18	47	8		SENE	1300	4.4
18	47	8		NESE	1000	15.7
18	47	8		NESE	3800	1.9
18	47	8		NESE	3900	0.7
18	47	8		NESE	3902	4.7
18	47	8		NESE	4900	0.9
18	47	8		NESE	4901	1.1
18	47	8		NWSE	3600	5.5
18	47	8		NWSE	3700	1.2
18	47	8		NWSE	3800	1.4
18	47	8		SWSE	3600	15.2
18	47	8		SWSE	3601	0.3
18	47	8		SWSE	3602	0.6
18	47	8		SESE	4100	8.7
18	47	8		SESE	4200	7.5
18	47	8		SESE	4201	1.3
18	47	8		SESE	4300	6.4
18	47	8		SESE	4301	0.2
18	47	8		SESE	4400	0.2
18	47	8		SESE	4401	1.9
18	47	8		SESE	4500	1.1
18	47	8		SESE	4700	1.0
18	47	8		SESE	4800	4.7
18	47	9		SWNW	1100	1.0
18	47	9		SWNW	1400	0.4
18	47	9		NWSW	2700	8.5
18	47	9		NWSW	2800	4.3
18	47	9		NWSW	4101	2.4
18	47	9		NWSW	4102	0.4
18	47	9		NWSW	4104	0.2
18	47	9		NWSW	4106	0.1
18	47	9		NWSW	4107	0.3
18	47	9		NWSW	4400	2.0
18	47	9		NWSW	4500	2.1
18	47	9		NWSW	4600	4.1
18	47	9		SWSW	3701	2.2
18	47	9		SWSW	3702	0.4
18	47	9		SWSW	4600	0.5
18	47	9		SWSW	4900	0.4
18	47	9		SWSW	5000	4.4
18	47	9		SWSW	5100	4.4
18	47	17		NENE	3500	7.8
18	47	17		NENE	3600	0.2

Recorded in State Record of water right Certificates numbered 75708.

TOWNSHIP	RANGE	SECTION	GOV LOT	¼, ¼	TAX LOT	ACRES
18	47	17		NENE	3700	1.4
18	47	17		NENE	3800	8.3
18	47	17		NENE	3900	0.1
18	47	17		NENE	3901	1.5
18	47	17		NENE	4003	0.2
18	47	17		NWNE	400	0.4
18	47	17		NWNE	701	0.5
18	47	17		NWNE	900	0.7
18	47	17		NWNE	1000	0.6
18	47	17		NWNE	1200	0.4
18	47	17		NWNE	1300	0.5
18	47	17		NWNE	1400	0.8
18	47	17		NWNE	1500	0.3
18	47	17		NWNE	1600	0.4
18	47	17		NWNE	1800	0.1
18	47	17		NWNE	1900	0.4
18	47	17		SWNE	2500	0.5
18	47	17		SWNE	2600	0.6
18	47	17		SWNE	3200	0.7
18	47	17		SENE	3801	4.1
18	47	17		SENE	4300	0.1
18	47	17		SENE	4301	0.3
18	47	17		SENE	4302	0.6
18	47	17		SENE	4303	0.2
18	47	17		SENE	4400	3.9
18	47	17		SENE	4900	0.9
18	47	17		SENE	5100	0.7
18	47	17		SENE	5300	0.7
18	47	17		SENE	5500	0.7

This Certificate describes the new location and type of use of the water right confirmed by Certificate 51346 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329. This Certificate together with Certificate 75709 supersedes Certificate 51346.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75708.

51346.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **SUPPLEMENTAL IRRIGATION of 71.0 ACRES.**

This right was perfected under Permit 1786. The date of priority is **JULY 8, 1913.** This right is limited to **0.89 CUBIC FOOT PER SECOND** or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:
(Dunaway Pumping Plant) LOT 3 NE1/4SW1/4, SECTION 18, T. 20 S., R. 47 E., W.M.
(River Mile 394.2)

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, is limited to ONE-EIGHTIETH of one cubic foot per second per acre, or its equivalent for each acre irrigated each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NE¼ SW¼	10.0	ACRES	NW¼ NE¼	20.0	ACRES
SE¼ SW¼	20.0	ACRES	NE¼ NW¼	1.0	ACRES
SW¼ SE¼	20.0	ACRES	SECTION 16		
SECTION 9					

TOWNSHIP 18 SOUTH, RANGE 47 EAST, W.M.

This Certificate describes the water right confirmed by Certificate 51346 State Record of Water Right Certificates, NOT modified by the provisions of the following orders of the State Engineer and the Water Resources Director:

entered on January 13, 1984 and recorded in Special Order Volume 38, page 99, approving Transfer Application 5418;

entered on February 2, 1984 and recorded in Special Order Volume 38, page 131, approving Transfer Application 5424;

entered on February 15, 1984 and recorded in Special Order Volume 38, page 149, approving Transfer Application 5427;

Recorded in State Record of Water Right Certificates numbered 75709.

51346RR.SLH

entered on March 2, 1984 and recorded in Special Order Volume 38, page 169, approving Transfer Application 5425;

entered on September 12, 1984 and recorded in Special Order Volume 38, page 431, approving Transfer Application 5506;

entered on October 18, 1984 and recorded in Special Order Volume 38, page 466, approving Transfer Application 5522;

entered on November 2, 1984 and recorded in Special Order Volume 38, page 509, approving Transfer Application 5530;

entered on November 2, 1984 and recorded in Special Order Volume 38, page 511, approving Transfer Application 5529;

entered on July 7, 1986 and recorded in Special Order Volume 40, page 216, approving Transfer Application 5530;

entered on January 21, 1987 and recorded in Special Order Volume 41, page 16, approving Transfer Application 5872;

entered on March 19, 1987 and recorded in Special Order Volume 41, page 125, approving Transfer Application 5459;

entered on March 19, 1987 and recorded in Special Order Volume 41, page 128, approving Transfer Application 5460;

entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329. This Certificate together with Certificate 75708 supersedes Certificate 51346.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75709.

51346RR.SLH

STATE OF OREGON

COUNTY OF MALHEUR

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

OWYHEE IRRIGATION DISTRICT
17 SOUTH 1ST STREET
NYSSA, OREGON 97913

confirms the right to use the waters of **SNAKE RIVER**, tributary of COLUMBIA RIVER for the purpose of **SUPPLEMENTAL IRRIGATION** of **1300.8 acres.**

This right was perfected under Permit 1150. The date of priority is **FEBRUARY 17, 1912.** This right is limited to an amount actually needed for beneficial use and shall not exceed **15.42 CUBIC FEET PER SECOND** or its equivalent in case of rotation.

The point of diversion is located as follows:
(Dunaway Pumping Plant) LOT 3 (NE¼ SW¼), SECTION 18, T. 20 S., R. 47 E., W.M.;
(River Mile 394.2)

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to **ONE-EIGHTIETH** of one cubic foot per second per acre, or its equivalent for each acre irrigated.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:
All Townships are South, all Ranges are East, location in reference to Willamette Meridian

TOWNSHIP	RANGE	SECTION	LOT	¼, ¼	TAX LOT	ACRES
18	46	22		NENE	100	26.0
18	46	22		NWNE	100	24.9
18	46	22		SWNE	500	38.0
18	46	22		SENE	500	37.0
18	46	22		NENW	100	13.8
18	46	22		NWNW	100	1.0
18	46	22		SWNW	100	33.7
18	46	22		SENW	100	37.5
18	46	22		NESW	900	28.9
18	46	22		NESE	1300	37.7
18	46	22		NWSE	1100	38.1
18	46	22		SWSE	1200	19.9
18	46	22		SESE	1200	23.0
18	46	23		NENE	2500	31.4
18	46	23		NWNE	2400	28.1
18	46	23		SWNE	1400	36.1
18	46	23		SWNE	1401	0.7
18	46	23		SENE	2300	37.0

Recorded in State Record of Water Right Certificates numbered 75710.

57532.SLH

TOWNSHIP	RANGE	SECTION	LOT	¼, ¼	TAX LOT	ACRES
18	46	23		NENW	1400	26.5
18	46	23		NENW	1500	6.3
18	46	23		NWNW	1400	9.1
18	46	23		NWNW	1500	18.9
18	46	23		NWNW	1600	1.8
18	46	23		SWNW	1500	17.1
18	46	23		SWNW	1600	17.5
18	46	23		SENW	1400	11.0
18	46	23		SENW	1500	24.1
18	46	23		NESW	1800	38.0
18	46	23		NWSW	1600	33.7
18	46	23		NWSW	1800	2.2
18	46	23		SWSW	1600	15.0
18	46	23		SESW	1800	9.3
18	46	23		SESW	1901	19.5
18	46	23		NESE	2100	32.0
18	46	23		NESE	2200	4.9
18	46	23		NWSE	1800	9.5
18	46	23		NWSE	2100	29.1
18	46	23		SWSE	1802	8.0
18	46	23		SWSE	1901	8.2
18	46	23		SWSE	2000	12.7
18	46	23		SESE	2000	23.8
18	46	24		NENE	4600	30.0
18	46	24		NWNE	2600	14.7
18	46	24		NWNE	4100	17.4
18	46	24		SWNE	3900	7.3
18	46	24		SWNE	4000	11.1
18	46	24		SWNE	4101	11.7
18	46	24		SWNE	4200	2.0
18	46	24		SWNE	4300	4.9
18	46	24		SENE	4400	18.3
18	46	24		SENE	4500	16.2
18	46	24		NENW	2600	33.6
18	46	24		NWNW	2500	13.6
18	46	24		NWNW	2600	14.8
18	46	24		SWNW	2700	19.3
18	46	24		SWNW	2800	18.8
18	46	24		SENW	2900	38.2
18	46	24		NESW	3001	38.0
18	46	24		NWSW	3100	36.8
18	46	24		SWSW	3200	23.2
18	46	24		SESW	3200	23.3
18	46	24		NESE	3800	36.6

Recorded in State Record of Water Right Certificates numbered 75710.

This Certificate describes the new location and type of use of the water right confirmed by Certificate 57532 State Record of Water Right Certificates, modified by the provisions of an order of the Water Resources Director entered on JAN 25 1999 approving a petition by the Owyhee Irrigation District under ORS 541.329. This Certificate together with Certificate 75711 and Transfer 7021 supercedes Certificate 57532.

The right to the use of the water for the above purposes is restricted to beneficial use on the lands or place of use herein described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream water rights.

Witness the signature of the Water Resources Director, affixed 1/25/99

Martha O. Pagel, Director

Recorded in State Record of Water Right Certificates numbered 75710.

57532.SLH

APPENDIX C
Water Loss Assessment

OWYHEE IRRIGATION DISTRICT

WATER LOSS ASSESSMENT

Prepared by
Farmers Conservation Alliance

March 2020

Submitted to Owyhee Irrigation District

Version: Final

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1 Introduction

Farmers Conservation Alliance (FCA) completed a water loss assessment for the Owyhee Irrigation District (OID or the District) between August 13 and August 31, 2018. The purpose of this assessment was to quantify water losses within the District's ditches, due to subsurface infiltration, evaporation, plant and tree transpiration, excess end spills, or a combination of such factors. In addition to the direct discharge measurements, FCA installed nine submersible pressure transducers to measure operational end spills from the system. Fifteen-minute stage (i.e., gage height) data were collected between August 6 and October 11. These data were used to compute fifteen-minute-unit-value discharge data, which were then converted to mean daily flows in cubic feet per second (cfs) and total spill volumes in acre-feet (ac-ft). FCA selected an assessment timeframe to coincide with the middle of the irrigation season, in order to perform the assessment when canal flow rates were at a maximum. Matt Melchiorsen, FCA Hydrologist, and Preston Brown, FCA Project Manager, selected discharge measurement locations prior to the data collection, with help from J.L. Eldred, OID Watermaster. They selected these locations to minimize variability resulting from stream inflows and to include known losing reaches. **Error! Reference source not found.** toFigure 1-4 identify the reaches, transects, and end-spill locations selected for measurement in this assessment.

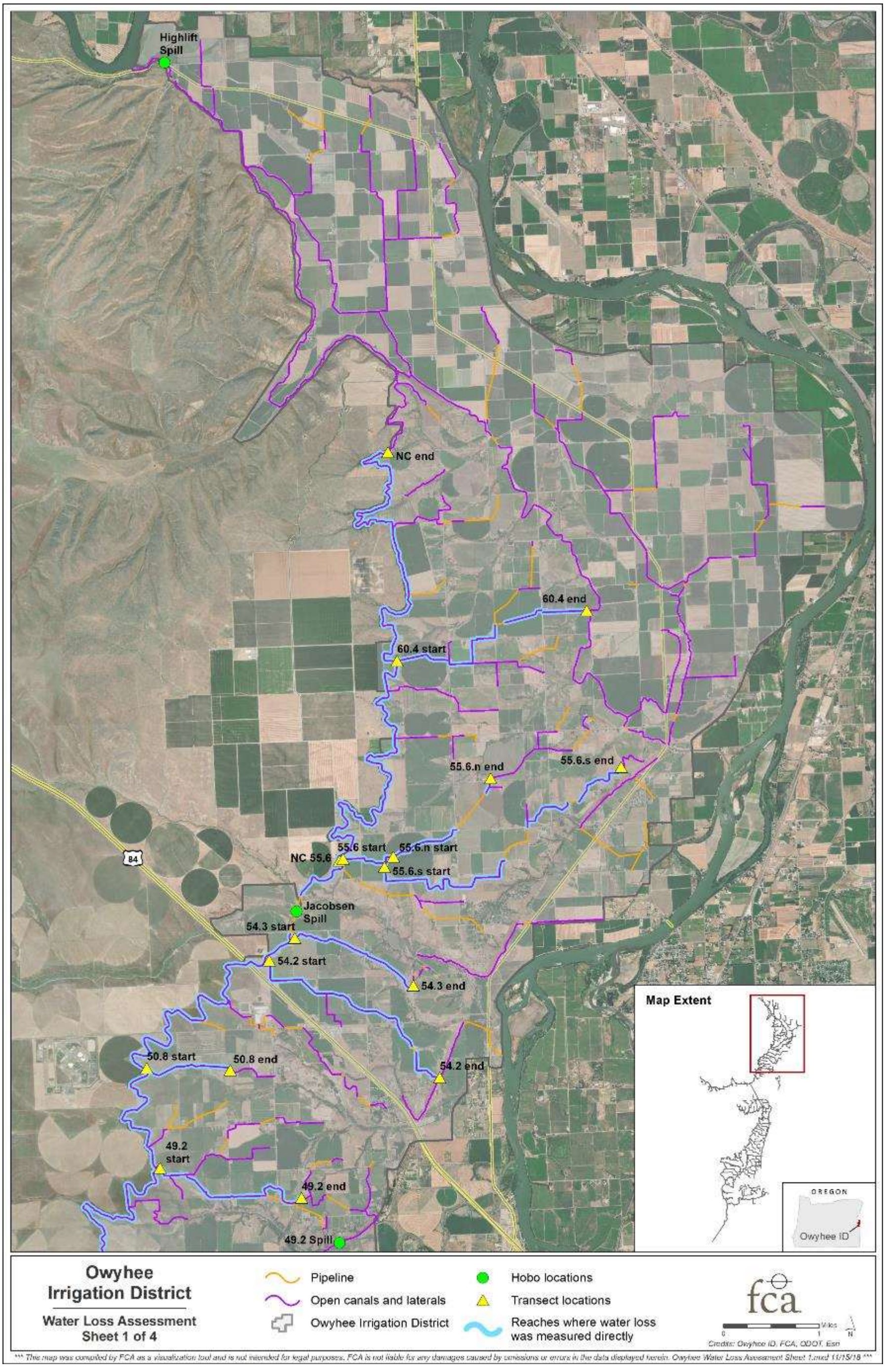

Figure 1-1. Seepage and End-Spill Measurement Locations for the Northern Owyhee Irrigation District.

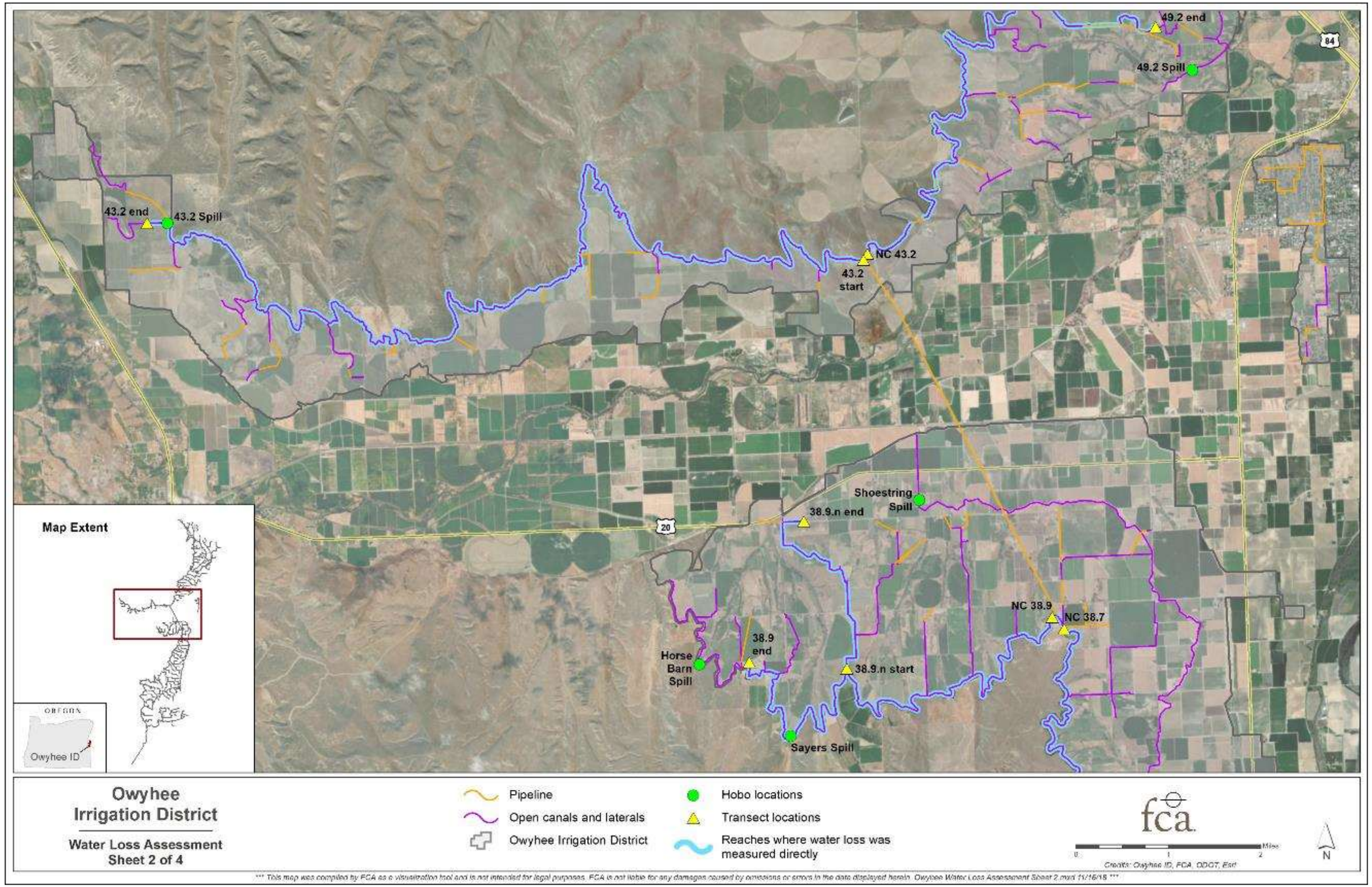

Figure 1-2. Seepage and End-Spill Measurement Locations for the Eastern Owyhee Irrigation District.

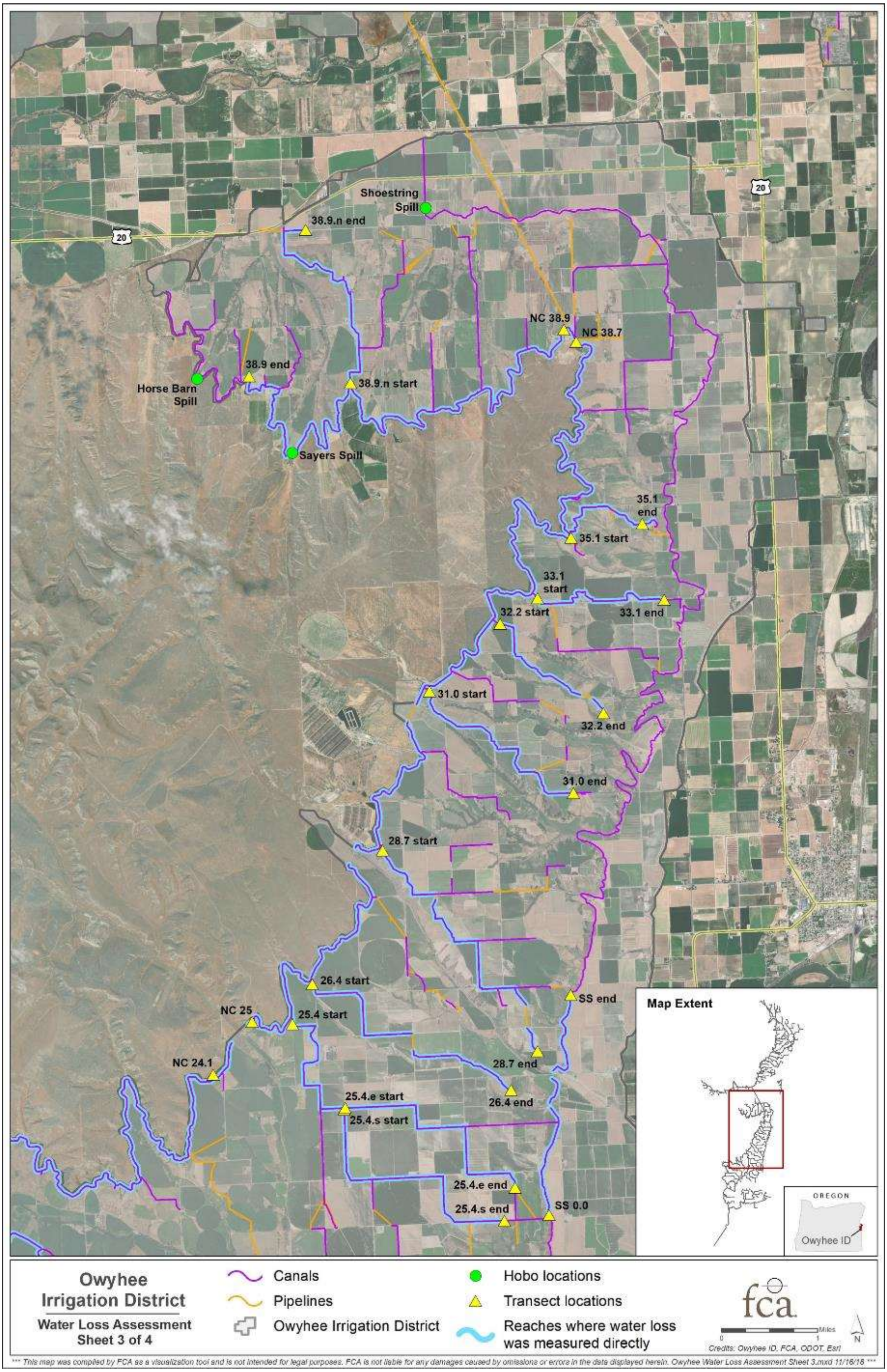

Figure 1-3. Seepage and End-Spill Measurement Locations for the Central Owyhee Irrigation District.

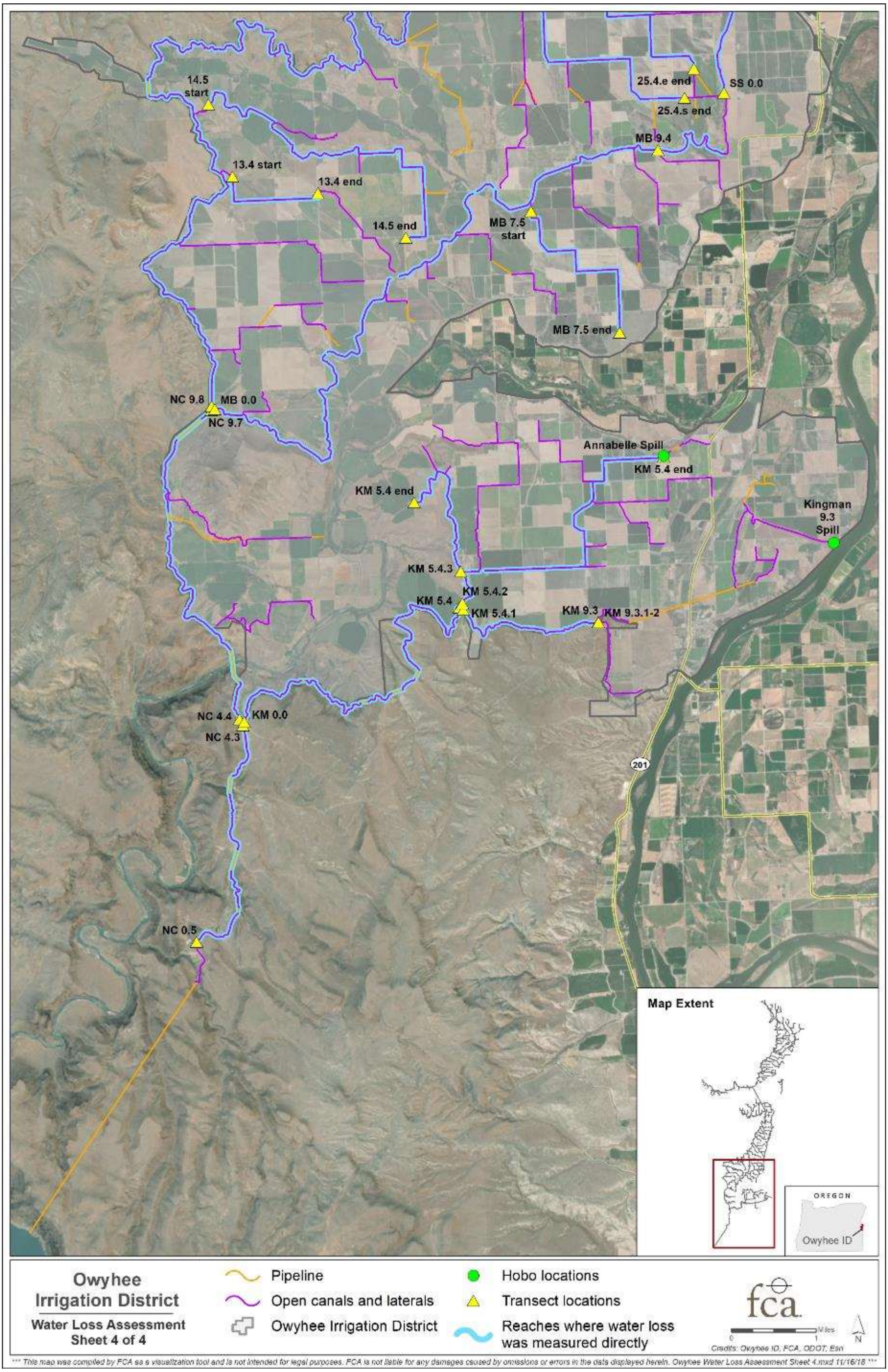

Figure 1-4. Seepage and End-Spill Measurement Locations for the Southern Owyhee Irrigation District.

2 Methodology

This section summarizes the methodologies used to conduct field measurements and the analyses used to evaluate the measurements.

2.1 FIELD MEASUREMENTS

This section summarizes the field measurements that were conducted to assess seepage and end spills. Matt Melchiorsen, FCA Hydrologist, led and oversaw these measurements; he has nearly fourteen years of experience as a hydrographer with the U.S. Geological Survey (USGS). Sam Swanson and Dan Kaler, FCA Engineers, assisted Matt in performing these measurements.

2.1.1 SEEPAGE

To measure losses associated with seepage, a total of 36 sub-reaches on the North Canal, Kingman Lateral, Mitchell Butte Lateral, Shoestring Lateral, 38.9 Lateral, 43.2 Lateral, 13.6 Lateral, 14.5 Lateral, 31.0 Lateral, Mitchell Butte 7.5 Lateral, 32.2 Lateral, 33.1 Lateral, 26.4 Lateral, 35.1 Lateral, 28.7 Lateral, 25.4 Lateral, 25.4-1.8 Lateral, 49.2 Lateral, 50.8 Lateral, 54.2 Lateral, 54.4 Lateral, 55.6 Lateral, 55.6-0.5 Lateral, 60.0 Lateral, and the 38.9-4.8 Lateral were included in the assessment and were measured. The remainder of the District's laterals were excluded from the study due to time constraints, significantly piped sections of laterals, and those that were relatively short in length. Each sub-reach consisted of a measurement location at its upstream and downstream end. Measurement locations were transects that allowed for measurements of discharge across a canal's cross-section.

If FCA was able to wade the canals, discharge measurements were performed in adherence to established USGS quality assurance protocols, using SonTek FlowTracker 2® Acoustic Doppler Velocimeters (ADVs) (Turnipseed and Sauer 2010). At each transect, the midsection method was used to estimate discharge. The midsection method was employed using standard methodologies. Under these methodologies, for any given discharge measurement, FCA aimed for a maximum of 5 percent of the total measured discharge in each measurement cell (Buchannan 1969).

If FCA was unable to wade the canals, discharge measurements were performed using a SonTek RiverSurveyor S5® Acoustic Doppler Current Profiler (ADCP). Similar to an ADV, an ADCP is a doppler-type current meter that measures velocities over a range of depths, but the meter is fastened to a small flotation device that self deploys and can collect significantly more velocity measurements simultaneously in a vertical profile to enhance the calculation of the discharge measurement for each transect. The ADCP discharge was calculated using the same methodologies as described for the ADV.

As an additional quality assurance measure, two measurements were made at each transect, either concurrently or sequentially, to verify that both measurements were within 5 percent of each other. In several instances, measuring conditions were not conducive to attaining this level of precision. In these instances, the accuracy ratings of the measurements were downgraded. Prior to most measurements, stage references were observed. The stage (i.e., relative water surface elevation) was recorded before and after each measurement to ensure steady-state conditions. Photos and field notes associated with each of the transects can be found in Appendix A.

For situations where patrons were diverting water during the loss assessment, and these diversions were open-channel outflows, FCA used the Flow Tracker, as described previously, or

used a small portable v-notch weir plate, if conditions were conducive to this form of measurement. Most of the diversions had pre-existing calibrated measuring devices such as a submerged orifice or Cipolletti weir. When available, discharge was computed using the theoretical ratings for these measuring devices. If inflows were observed within a given sub-reach, FCA either measured these inputs as described for discharge measurements or measured them volumetrically.

2.1.2 END/OPERATIONAL SPILLS

As part of the District's open-channel delivery system, operational spills, also referred to as end spills, are located throughout the system to ensure there is always enough water for patrons to irrigate. OID has numerous end spills located throughout the District. To measure and quantify the losses (or potential water savings) associated with these end spills, FCA installed nine HOBO U20L-01 Water Level Loggers between August 6 and 7, 2018 at the Highlift End Spill, Horse Barn End Spill, 43.2 Lateral End Spill, Sayers End Spill, Shoestring End Spill, 49.2 Lateral End Spill, Annabelle End Spill, Jacobsen End Spill, and Kingman 9.3 Lateral End Spill. FCA set these loggers to record water depths (i.e., gage height) in 15-minute intervals, and the loggers recorded this data until FCA retrieved them between October 10 and 11, 2018.

Table 2-1. Owyhee Irrigation District End-Spill Monitoring Locations.

District End-Spill Name	Monitoring Location Description	Monitoring Rationale
Highlift Spill	At the 6-foot Cipolletti weir, off the Olds Ferry-Ontario Highway	Below this location, excess flows return to the Snake River, which represent potential water savings in a fully modernized system
NC 43.2 Spill	At the 3-foot Cipolletti weir, approximately 0.5 miles above the official end of the canal, adjacent to Barlow Road	Below this location, excess flows presumably return to the Malheur River, which represent potential water savings in a fully modernized system
NC 49.2 Spill	At the 3-foot Cipolletti weir, just off Foothill Drive	Below this location, excess flows presumably return to the Malheur River, which represent potential water savings in a fully modernized system
Annabelle Spill	At a 5-foot rectangular contracted weir, just east of Willow Avenue	Below this location, excess flows return to the Owyhee River, which represent potential water savings in a fully modernized system
Horse Barn Spill	At a 5-foot rectangular contracted weir, just south of Morgan Road	Below this location, excess flows run north into the Malheur River Valley, and can be picked up by Vale Irrigation District ditches or returned to the Malheur River
Jacobsen Spill	At a 10-foot Cipolletti weir, below the slide adjacent to the Jacobsen Gulch siphon intake	Below this location, excess flows run down Jacobsen Gulch toward the Snake River. There are several patrons who irrigate from these spills. Further investigation in associated water rights would be needed to compute the potential water savings.

District End-Spill Name	Monitoring Location Description	Monitoring Rationale
Kingman 9.3 Spill	At a 3-foot rectangular contracted weir, near the end of Beaumont Road	Below this location, excess flows drain directly into the Snake River, which represent potential water savings in a fully modernized system
Sayers Spill	At the 3-foot Cipolletti weir, off the NC 38.9 Lateral	Below this location, excess flows run north into the Malheur River Valley, and can be picked up by Vale Irrigation District ditches or returned to the Malheur River
Shoestring Spill	At the 8-foot Cipolletti weir, 0.3 miles south of Hwy 20.	Below this location, excess flows run north into the Malheur River Valley, and can be picked up by Vale Irrigation District ditches or returned to the Malheur River

Each of these end-spill locations had pre-existing calibrated water measurement structures, more specifically trapezoidal (or Cipolletti) weirs, and suppressed rectangular weirs.

2.2 ANALYSES

2.2.1 SEEPAGE

To estimate the loss or gain associated with each sub-reach and the corresponding discharge measurements, the following Equation 1 was used.

$$Q_{\Delta r,i} = Q_{upstream,i} + \sum_{j=1}^{n} Q_{inflow,j} - \sum_{k=1}^{m} Q_{diversion,k} - Q_{downstream,i}$$

Where:

$Q_{\Delta r,i}$ = Change in canal discharge (i.e., gain or loss) at sub-reach i

$Q_{upstream,i}$ = Average discharge at the upstream transect for sub-reach i

$Q_{downstream,i}$ = Average discharge at the downstream transect for sub-reach i

$Q_{inflow,j}$ = Inflow discharge at location j

$Q_{diversion,k}$ = Diversion discharge at location k

n = Total number of $Q_{inflow,j}$ between $Q_{upstream,i}$ and $Q_{downstream,i}$

m = Total number of $Q_{diversion,k}$ between $Q_{upstream,i}$ and $Q_{downstream,i}$

Equation 1

FCA estimated the uncertainty associated with these measurements using the USGS Discharge Measurement Quality Code (Turnipseed and Sauer 2010). Due to inherent uncertainties associated with using the midsection method for discharge measurements, accuracy ratings (in percent) were assigned to each measurement based on transect quality, velocity distributions, and overall site characteristics. The accuracy ratings are defined as follows:

- A discharge measurement with an "excellent" accuracy rating is within 2 percent of the actual flow.

- A discharge measurement with a "good" accuracy rating is within 5 percent of the actual flow.
- A discharge measurement with a "fair" accuracy rating is within 8 percent of the actual flow.
- A discharge measurement with a "poor" accuracy rating is 8 percent or greater than the actual flow.

Each measured discharge was multiplied by the assigned accuracy rating to present the measurement error in flow units (cfs). The associated propagated uncertainty with the average discharge, for either the upstream or downstream transect for a given sub-reach, was calculated using Equation 2.

$$\delta Q_{upstream}\ or\ \delta Q_{downstream} = \frac{\sqrt{(\delta Q_1)^2 + (\delta Q_2)^2}}{2}$$

Where:

$\delta Q_{upstream}\ or\ \delta Q_{downstream}$ = Propagated uncertainty for $Q_{upstream,i}$ or $Q_{dowstream,i}$

δQ_1 = Assigned accuracy rating of the first measured discharge for $Q_{upstream,i}$ or $Q_{dowstream,i}$

δQ_2 = Assigned accuracy rating of the second measured discharge for $Q_{upstream,i}$ or $Q_{dowstream,i}$

Equation 2

Using the estimated uncertainty for each upstream or downstream transect of a given sub-reach, $\delta Q_{upstream}$ or $\delta Q_{downstream}$, the overall uncertainty associated with a sub-reach's loss was estimated using Equation 3.

$$\delta Q_{\Delta R,i} = \sqrt{(\delta Q_{upstream})^2 + (\delta Q_{downstream})^2}$$

$\delta Q_{\Delta R,i}$ = Propagated uncertainty for $Q_{\Delta R,i}$ at sub-reach i

$\delta Q_{upstream,i}$ = Propagated uncertainty for $Q_{upstream,i}$ at sub-reach i

$\delta Q_{downstream,i}$ = Propagated uncertainty for $Q_{downstream,i}$ at sub-reach i

Equation 3

2.2.2 END/OPERATIONAL SPILLS

The flows for the six end spills with Cipolletti weirs, and the three with suppressed rectangular weirs, were computed using the corresponding theoretical equations. Equation 4, derived from the U.S. Bureau of Reclamation, is shown below and was used to calculate the flow for the Cipolletti weir end spills, while Equation 5 was used to calculate flows for the three suppressed rectangular weirs.

$$Q_{weir,c} = 3.367LH^{\frac{3}{2}}$$

$Q_{weir,c}$ = Discharge over a Cipolletti weir

H = Height of water surface elevation above the weir

L = Length of weir

Equation 4

$$Q_{weir,sr} = 3.33LH^{\frac{3}{2}}$$

$Q_{weir,sr}$ = Discharge over a standard suppressed sharp-crested rectangular weir

H = Height of water surface elevation above the weir

L = Length of weir

Equation 5

3 Results

3.1 SYSTEM-WIDE LOSS SUMMARY

As discussed in Section 2, a total of 36 sub-reaches with a corresponding 72 measurement locations were used to estimate the losses for Owyhee Irrigation District. Table 3-1 presents the estimated losses for each canal and its sub-reaches as flow (cfs) and daily water volumes (acre-feet per day[af/day]).

Table 3-1. Owyhee Irrigation District Water Loss Summary.

Canal Name	Sub-Reach	Start Location ID	End Location ID	Measured Flow Loss (cfs)	Daily Volume Loss (af/day)
North Canal	NC-1	NC 0.5	NC 4.3	0.00	0.00
North Canal	NC-2	NC 4.4	NC 9.7	9.90	19.6
North Canal	NC-3	NC 9.8	NC 25.0	11.4	22.6
North Canal	NC-4	NC 25.0	NC 38.7	15.0	29.8
North Canal	NC-5	NC 43.2	NC 55.6	17.9	35.5
North Canal	NC-6	NC 55.6	NC.end	14.2	28.2
Kingman	KM-1	KM 0.0	KM 5.4	10.1	20.0
Kingman	KM-2	KM 5.4.1	KM 9.3	3.39	6.72
Kingman	KM-3	KM 5.4.2	KM 5.4.end	23.4	46.4
Kingman	KM-4	KM 5.4.3	KM pt.14	1.46	2.90
Mitchell Butte	MB-1	MB 0.0	MB 9.4	1.79	3.55
Mitchell Butte	MB-2	MB 9.4	MB 10.7	1.10	2.18
Mitchell Butte 7.5 Lateral	MB-3	MB 7.5.start	MB 7.5.end	-0.08[1]	-0.16
Shoestring	SS-1	SS 0.0	SS.end	9.74	19.3
NC 38.9 Lateral	NC-38.9	NC 38.9	NC 38.9.end	8.92	17.7
NC 43.2 Lateral	NC-43.2	43.2.start	NC 43.2.end	-0.70[1]	-1.39
NC 13.6 Lateral	NC-13.6	NC 13.4.start	NC 13.4.end	0.00	0.00
NC 14.5 Lateral	NC-14.5	NC 14.5.start	14.5.end	1.73	3.43
NC 31.0 Lateral	NC-31.0	31.0.start	31.0.end	1.79	3.55
NC 32.2 Lateral	NC-32.2	32.2.start	32.2.end	2.25	4.46
NC 33.1 Lateral	NC-33.1	33.1.start	33.1.end	-0.28[1]	-0.56
NC 26.4 Lateral	NC-26.4	26.4.start	26.4.end	0.94	1.86

Canal Name	Sub-Reach	Start Location ID	End Location ID	Measured Flow Loss (cfs)	Daily Volume Loss (af/day)
NC 35.1 Lateral	NC-35.1	35.1.start	35.1.end	2.94	5.83
NC 28.7 Lateral	NC-28.7	28.7.start	28.7.end	3.26	6.47
NC 25.4 Lateral	NC-25.4	25.4.start	25.4.e.end	0.98	1.94
NC 25.4-1.8 Lateral	NC-25.4-1.8	25.4.s.start	25.4.s.end	0.98	1.94
NC 25.4 Lateral (below 25.4-1.8)	NC-25.4-lower	25.4.e.start	25.4.e.end	5.17	10.3
NC 49.2 Lateral	NC-49.2	49.2.start	49.2.end	-0.05[1]	-0.10
NC 50.8 Lateral	NC-50.8	50.8.start	50.8.end	0.58	1.15
NC 54.2 Lateral	NC-54.2	54.2.start	54.2.end	3.61	7.16
NC 54.4 Lateral	NC-54.4	54.3.start[2]	54.3.end[2]	-0.05[1]	-0.10
NC 55.6 Lateral (above 55.6-0.5)	NC-55.6-upper	55.6.start	55.6.n.start	0.64	1.27
NC 55.6-0.5 Lateral	NC-55.6-0.5	55.6.n.start	55.6.n.end	0.30	0.60
NC 55.6 Lateral (below 55.6-0.5)	NC-55.6-lower	55.6.s.start	55.6.s.end	1.20	2.38
NC 60.0 Lateral	NC-60.0	60.4.start[2]	60.4.end[2]	0.72	1.43
NC 38.9-4.8 Lateral	NC-38.9-4.8	38.9.n.start	38.9.n.end	1.59	3.15
			Totals:	**156**	**309**

Notes: af/day: acre-feet per day; cfs: cubic feet per second
1. Negative values indicate gains within a given sub-reach
2. Start and End Location IDs were mislabeled in the field and differ slightly from Canal Name and Sub-Reach. Location IDs were not changed to preserve field data in its original form.

As mentioned previously, a total of nine operational end spills were measured. Table 3-2 below presents the volumes of water (ac-ft) measured at each end spill from August 6-7 to October 10-11, 2018.

Table 3-2. Owyhee Irrigation District End-Spill Summary.

District End-Spill Name	Average Discharge (cfs)	Total Volume (ac-ft)
Highlift Spill	10.9	1,397
NC 43.2 Spill	3.60	465
NC 49.2 Spill	1.01	130
Annabelle Spill	6.81	864

District End-Spill Name	Average Discharge (cfs)	Total Volume (ac-ft)
Horse Barn Spill	1.15	150
Jacobsen Spill	19.8	2,592
Kingman 9.3 Spill	2.68	340
Sayers Spill	1.07	139
Shoestring Spill	15.7	2,026
	Total:	**8,103**

Notes: Total volumes were calculated using data collected at each site between August 6-7 and October 10-11, 2018.

3.2 SEEPAGE

This section presents the seepage losses associated with each ditch that was measured as part of FCA's water loss assessment. Appendix C presents the discharge measurements and uncertainty associated with each transect that was measured.

3.2.1 NORTH CANAL LOSSES

The measured data collected on the North Canal indicated total losses of 68.4 cfs, or approximately 136 af/day, as summarized in Table 3-3 and shown in Figure 1-1 **Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**throughFigure 1-4. The largest source of loss was in sub-reach NC-5, between NC 43.2 and NC 55.6. Much of the channel along this sub-reach is located along the edge of a high plateau, which may have led to increased subsurface seepage. The greatest percentage of loss was in sub-reach NC-6, between NC 55.6 and NC.end. This reach, below the Jacobsen Gulch Siphon outfall, appeared to be more alluvial in nature with many rounded cobbles and gravels and less silt/clay than in the upper reaches. Sub-reaches that displayed lower loss amounts along this ditch tended to flow through more flat ground with channel compositions that were higher in silt and clay materials, including several concrete-lined sections.

Table 3-3. Owyhee Irrigation District's North Canal Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-1	NC 0.5 to NC 4.3	NC 0.5	NC 4.3	0.00	30.2	0.00
NC-2	NC 4.4 to NC 9.7	NC 4.4	NC 9.7	9.90	35.8	1.18
NC-3	NC 9.8 to NC 25.0	NC 9.8	NC 25.0	11.4	23.3	1.64
NC-4	NC 25.0 to NC 38.7	NC 25.0	NC 38.7	15.0	19.5	2.48
NC-5	NC 43.2 to NC 55.6	NC 43.2	NC 55.6	17.9	5.21	7.96
NC-6	NC 55.6 to NC.end	NC 55.6	NC.end	14.2	2.69	14.5
			Total:	**68.4**		

Notes: cfs: cubic feet per second

3.2.2 KINGMAN LATERAL LOSSES

The measured data collected on the Kingman Lateral indicated total losses of 38.4 cfs, or approximately 76.2 af/day, as summarized in Table 3-4 and shown in Figure 1-4. The largest source of loss was in sub-reach KM-3. The channel along this sub-reach comprised mostly alluvial material, and field observations noted it was likely located on an abandoned Snake River and/or Owyhee River terrace. Sub-reaches that displayed lower loss amounts along this ditch tended to comprise more silts and clays (including several concrete-lined sections), and were perched much higher on the hillsides, above the old alluvial plain below.

Table 3-4. Owyhee Irrigation District's Kingman Lateral Measured Losses

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
KM-1	KM 0.0 to just above the 5.4 Lateral	KM 0.0	KM 5.4	10.1	4.26	7.94
KM-2	Just below 5.5 Lateral to split near "A Hill"	KM 5.4.1	KM 9.3	3.39	3.77	6.61
KM-3	From weir on 5.4 Lateral to Annabelle Spill	KM 5.4.2	KM 5.4.end	23.4	2.44	34.9
KM-4	Just below Mendiola Slide to end of 5.4-0.5 Lateral	KM 5.4.3	KM.pt.14	1.46	0.79	15.8
			Total:	**38.4**		

Notes: cfs: cubic feet per second

3.2.3 MITCHELL BUTTE LATERAL LOSSES

The measured data collected on the Mitchell Butte Lateral indicated total losses of 2.81 cfs, or approximately 5.73 af/day, as summarized in Table 3-5 and shown in Figure 1-4. The largest source of loss was in sub-reach MB-1, from the headgate off the North Canal to just below MB 9.4. The channel along this sub-reach comprised primarily silts and clays with sparse cobbles noted in several locations. The lower sub-reaches that displayed lower loss amounts along this ditch were much shorter in length, but field notes indicate that the channel was of similar composition. The negative values associated with sub-reach MB-3 were the result of a slight computed gain, although well below the acceptable level of uncertainty.

Table 3-5. Owyhee Irrigation District's Mitchell Butte Lateral Measured Losses

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
MB-1	Headgate to just below 9.4 Lateral	MB 0.0	MB 9.4	1.79	4.25	2.27

MB-2	Below 9.4 Lateral to 10.7 and 14-foot weir	MB 9.4	MB 10.7	1.10	2.08	3.93
MB-3	Headgate to Lateral's end	MB 7.5.start	MB 7.5.end	-0.08[1]	0.41	-0.70
			Total:	**2.81**		

Notes: cfs: cubic feet per second
1. Negative values indicate gains within a given sub-reach; however, the gain is less than the associated uncertainty.

3.2.4 SHOESTRING LATERAL LOSSES

The measured data collected on the Shoestring Lateral indicated total losses of 9.74 cfs, or approximately 19.3 af/day, as summarized in Table 3-6 and shown in Figure 1-3. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily silts and clays; however, the ditch is notched into the side of a terrace with significant elevation loss on the downhill side. This could potentially lead to increased subsurface seepage rates.

Table 3-6. Owyhee Irrigation District's Shoestring Lateral Measured Losses

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
SS-1	From the Dunaway Pump input to 2.8 miles downstream	SS 0.0	SS.end	9.74	2.70	15.1
			Total:	**9.74**		

Notes: cfs: cubic feet per second

3.2.5 NC 38.9 LATERAL LOSSES

The measured data collected on the 38.9 Lateral indicated total losses of 8.92 cfs, or approximately 17.7 af/day, as summarized in Table 3-7 and shown in Figure 1-2**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily silts and clays; however, the ditch is notched into the side of a hill, with consistent elevation loss on the downhill side. This could potentially lead to increased subsurface seepage rates along this sub-reach.

Table 3-7. Owyhee Irrigation District's NC 38.9 Lateral Measured Losses

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-38.9	From the 12-foot weir to 2.8 miles upstream from the lateral's end	NC 38.9	NC.39	8.92	1.83	13.0
			Total:	**8.92**		

Notes: cfs: cubic feet per second

3.2.6 NC 43.2 LATERAL LOSSES

The measured data collected on the NC 43.2 Lateral indicated a slight gain of 0.70 cfs, or approximately 1.39 af/day, as summarized in Table 3-8 and shown in Figure 1-2. There was only one sub-reach measured along this lateral, which encompassed nearly the entire length from the headgate to just above the end. The channel along this sub-reach comprised primarily silts and clays with a higher percent of coarse gravels in the lower reach. The ditch is notched into the base of a large terrace for most of its length, with significant elevation gain along the uphill side of the ditch. This could potentially have contributed flow to the ditch through subsurface inflows; however, the computed gain is well within the associated uncertainty.

Table 3-8. Owyhee Irrigation District's NC 43.2 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-43.2	Headgate to near the lateral end	43.2.start	43.2.end	-0.70[1]	2.23	-1.59
			Total:	**-0.70[1]**		

Notes: cfs: cubic feet per second
1. Negative values indicate gains within a given sub-reach; however, the gain is less than the associated uncertainty.

3.2.7 NC 13.6 LATERAL LOSSES

The measured data collected on the NC 13.6 Lateral indicated zero losses, as summarized in Table 3-9 and shown in Figure 1-4. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily small gravels with a higher percent of larger cobbles in the lower reach. The ditch flows east off a large terrace from the headgate off the North Canal, until reaching the valley floor and meandering through relatively flat agricultural land. There were no field notes indicating evidence of either subsurface losses or sources of inflow along the study reach.

Table 3-9. Owyhee Irrigation District's NC 13.6 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-13.6	Headgate to 1.4 miles downstream	NC 13.4.start[1]	NC 13.4.end	0.00	0.24	0.00
			Total:	**0.00**		

Notes: cfs: cubic feet per second
1. Start and End Location IDs were mislabeled in the field and differ slightly from Canal Name and Sub-reach. Location IDs were not changed to preserve field data in its original form.

3.2.8 NC 14.5 LATERAL LOSSES

The measured data collected on the NC 14.5 Lateral indicated losses of 1.73 cfs, or approximately 3.43 af/day, as summarized in Table 3-10 and shown in Figure 1-4. There was only one sub-

reach measured along this lateral, which encompassed nearly the entire length of the lateral. The channel along this sub-reach comprised primarily coarse gravels and sand with a higher percent of coarse gravels in the lower reach near the valley floor. The ditch flows east for most of its length, with significant elevation loss from the headgate off the North Canal. The elevation loss, along with the pervious channel substrate, could likely explain the computed losses along this lateral.

Table 3-10. Owyhee Irrigation District's NC 14.5 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-14.5	From the District's 6-foot weir to lateral end	NC 14.5.start	NC 14.5.end	1.73	0.77	8.01
			Total:	**1.73**		

Notes: cfs: cubic feet per second

3.2.9 NC 31.0 LATERAL LOSSES

The measured data collected on the NC 31.0 Lateral indicated losses of 1.79 cfs, or approximately 3.55 af/day, as summarized in Table 3-11 and shown in Figure 1-3. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily small rounded gravels set in coarse sand, with a higher percent of coarse gravels and silt in the lower reach. For the entire sub-reach included in the study, the ditch flows quickly off a steep terrace from the headgate off the North Canal. This, along with the permeable channel substrate, could potentially explain the computed losses along this lateral.

Table 3-11. Owyhee Irrigation District's NC 31.0 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-31.0	Headgate to 1000 feet upstream from the lateral's end	31.0.start	31.0.end	1.79	0.48	13.9
			Total:	**1.79**		

Notes: cfs: cubic feet per second

3.2.10 NC 32.2 LATERAL LOSSES

The measured data collected on the NC 32.2 Lateral indicated total losses of 2.25 cfs, or approximately 4.46 af/day, as summarized in Table 3-12 and shown in Figure 1-3. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily small rounded gravels set in coarse sand, with a higher percent of coarse gravels and silt in the lower reach. For the entire sub-reach included in the study, the ditch flows quickly off a steep terrace from the headgate off the North Canal. This, along with the permeable channel substrate, could potentially explain the computed losses along this lateral.

Table 3-12. Owyhee Irrigation District's NC 32.2 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-32.2	From the headgate off the North Canal to the lateral end	32.2.start	32.2.end	2.25	0.58	23.1
			Total:	**2.25**		

Notes: cfs: cubic feet per second

3.2.11 NC 33.1 LATERAL LOSSES

The measured data collected on the NC 33.1 Lateral indicated a slight gain of 0.28 cfs, or approximately 0.56 af/day, as summarized in Table 3-13 and shown in Figure 1-3. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily gravels set in a firm layer of silts and clays. The ditch flowed down a series of terraces from the headgate off the North Canal and was rather steep through the entire study reach. This could potentially lead to subsurface inflow to the ditch from the adjacent elevated agricultural fields that are being irrigated; however, the computed gain is well within the associated uncertainty.

Table 3-13. Owyhee Irrigation District's NC 33.1 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-33.1	From the headgate off the North Canal to 900 feet up from the lateral's end	33.1.start	33.1.end	-0.28	0.59	-1.75
			Total:	**-0.28**[1]		

Notes: cfs: cubic feet per second
1. Negative values indicate gains within a given sub-reach; however, the associated uncertainty exceeds the computed gain.

3.2.12 NC 26.4 LATERAL LOSSES

The measured data collected on the NC 26.4 Lateral indicated 0.94 cfs of loss, or approximately 1.86 af/day, as summarized in Table 3-14 and shown in Figure 1-3. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily small rounded gravels set in coarse sand with a higher percent of coarse cobbles and gravels in the lower reach. The ditch flows quickly off a steep terrace from the headgate off the North Canal, then meanders through agricultural land along the lower half of the sub-reach that was included in the study. Field notes did not indicate visual evidence of ditch loss through seepage; however, it was noted that there was very little fine silt/clay material towards the end of this lateral, and the ditch substrate was almost all coarse cobbles and gravels.

Table 3-14. Owyhee Irrigation District's NC 26.4 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-26.4	From the headgate off the North Canal to the lateral's end	26.4.start	26.4.end	0.94	0.33	10.2
			Total:	**0.94**		

Notes: cfs: cubic feet per second

3.2.13 NC 35.1 LATERAL LOSSES

The measured data collected on the NC 35.1 Lateral indicated 2.94 cfs of loss, or approximately 5.83 af/day, as summarized in Table 3-15 and shown in Figure 1-3. There was only one sub-reach measured along this lateral, extending from the headgate off the North Canal to approximately 0.25 miles upstream from the official ditch end. The channel along this sub-reach comprised primarily rounded gravels set in coarse sand with a higher percent of silt/clay in the lower reach where the gradient flattens out. The ditch flows steeply down a series of terraces, from the headgate off the North Canal, throughout the entire length included in the study.

Table 3-15. Owyhee Irrigation District's NC 35.1 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-35.1	From the headgate off the North Canal to 1200 feet up from the lateral's end	35.1.start	35.1.end	2.94	0.41	30.1
			Total:	**2.94**		

Notes: cfs: cubic feet per second

3.2.14 NC 28.7 LATERAL LOSSES

The measured data collected on the NC 28.7 Lateral indicated 3.26 cfs of loss, or approximately 6.47 af/day, as summarized in Table 3-16 and shown in Figure 1-3. There was only one sub-reach measured along this lateral, which covered nearly the entire length. The channel along this sub-reach comprised primarily well-sorted gravels in sand, with a higher percent of fine material in the lower reach. The ditch flowed steeply down terraces, while alternately meandering through agricultural fields between drops. There was also one brief piped section towards the lower portion of the ditch, which acted as a siphon through a rather large swale.

Table 3-16. Owyhee Irrigation District's NC 28.7 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-28.7	From the headgate off the North Canal to the lateral's end	28.7.start	28.7.end	3.26	1.18	9.82
			Total:	**3.26**		

Notes: cfs: cubic feet per second

3.2.15 NC 25.4 LATERAL LOSSES

The measured data collected on the NC 25.4 Lateral indicated 7.13 cfs of loss, or approximately 14.1 af/day, as summarized in Table 3-17 and shown in Figure 1-3. Most of the loss found in the 25.4 Lateral was below where the 25.4-1.8 Lateral splits off. The channel along the upper sub-reach comprised primarily silts and clays, while the lower reaches contained much higher concentrations of gravels and sand. The ditch flows quickly down a moderate terrace below the headgate off the North Canal, then, along the lower two-thirds of the lateral, it tended to meander through agricultural fields. There were no field notes indicating evidence of ditch losses, as the ditch tended to be well-incised within its banks for most of its length.

Table 3-17. Owyhee Irrigation District's NC 25.4 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%))
NC 25.4	From the headgate off the North Canal to the split with the 25.4-1.8 Lateral	25.4.start	25.4.e.start	0.98	2.39	1.56
NC 25.4-1.8	From the 25.4-1.8 Lateral headgate to near the ditch's end	25.4.s.start	25.4.s.end	0.98	1.23	4.54
NC 25.4	From the split with the 25.4-1.8 Lateral to near the ditch's end	25.4.e.start	25.4.e.end	5.17	0.88	20.8
			Total:	**7.13**		

Notes: cfs: cubic feet per second

3.2.16 NC 49.2 LATERAL LOSSES

The measured data collected on the NC 49.2 Lateral indicated a slight gain of 0.05 cfs, or approximately 0.10 af/day, as summarized in Table 3-18 and shown in Figure 1-1. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily angular cobbles, with a heavy silt layer throughout. The ditch is perched high on a terrace and runs relatively flat throughout the sub-reach included in the study. There were no noted inflows to the ditch, although adjacent fields being irrigated could potentially have

contributed subsurface return flows to the ditch. Note that the minor gain computed along this reach is well below the associated uncertainty.

Table 3-18. Owyhee Irrigation District's NC 49.2 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-49.2	From the headgate off the North Canal to approximately 2.0 miles downstream	49.2.start	49.2.end	-0.05	0.73	-0.40
			Total:	**-0.05**[1]		

Notes: cfs: cubic feet per second

1. Negative values indicate gains within a given sub-reach; however, the associated uncertainty exceeds the small computed gain.

3.2.17 NC 50.8 LATERAL LOSSES

The measured data collected on the NC 50.8 Lateral indicated 0.58 cfs of loss, or approximately 1.15 af/day, as summarized in Table 3-19 and shown in Figure 1-1. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily well-sorted gravels and small cobbles, with a higher percent of silt/clay towards the end of the reach. The ditch is perched high on a terrace and runs flat for the length that was included in the study. Following the final withdrawal for irrigation deliveries, the flow was reduced to just a trickle. This required measuring the lower transect using a portable v-notch weir plate.

Table 3-19. Owyhee Irrigation District's NC 50.8 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-50.8	From the headgate off the North Canal to approximately 1.0 mile downstream	50.8.start	50.8.end	0.58	0.19	10.9
			Total:	**0.58**		

Notes: cfs: cubic feet per second

3.2.18 NC 54.2 LATERAL LOSSES

The measured data collected on the NC 54.2 Lateral indicated 3.61 cfs of loss, or approximately 7.16 af/day, as summarized in Table 3-20 and shown in Figure 1-1. There was only one sub-reach measured along this lateral, which covered nearly the entire length. The channel along this sub-reach comprised primarily coarse sand, with a higher percentage of coarse gravels in the lower reach. The ditch flows atop a large flat terrace for most of its length, with significant elevation loss down a steep slide toward the end of the sub-reach. There were no notes indicating empirical evidence of ditch loss during field work; however, given the pervious substrate subsurface seepage is highly likely.

Table 3-20. Owyhee Irrigation District's NC 54.2 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-54.2	From the headgate off the North Canal to 50 feet downstream from large concrete slide	54.2.start	54.2.end	3.61	0.52	24.7
			Total:	**3.61**		

Notes: cfs: cubic feet per second

3.2.19 NC 54.4 LATERAL LOSSES

The measured data collected on the NC 54.4 Lateral indicated a slight gain in flow of, 0.05 cfs, or approximately 0.10 af/day, as summarized in Table 3-21 and shown in Figure 1-1. There was only one sub-reach measured along this lateral. The channel along this sub-reach comprised primarily poorly sorted angular cobble, with a higher percentage of fine material in the lower reach. The ditch flowed atop a large terrace for most of its length, with significant elevation loss down a steep hillside along the tail end of the sub-reach. While accessing the lower transect, it was noted that supple grasses were growing along both sides of the ditch. This could potentially be evidence of subsurface inflows off the high portion of the ditch infiltrating back into the channel as the ditch flows down the steep grade; however, the computed gain is well within the associated uncertainty.

Table 3-21. Owyhee Irrigation District's NC 54.4 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-54.4	From the headgate off the North Canal to approximately 0.3 miles up from the ditch's end	54.3.start[2]	54.3.end	-0.05	0.36	-0.81
			Total:	**-0.05**[1]		

Notes: cfs: cubic feet per second

1. Negative values indicate gains within a given sub-reach; however, the associated uncertainty exceeds the computed gain.
2. Start and End Location IDs were mislabeled in the field and differ slightly from Canal Name and Sub-Reach. Location IDs were not changed to preserve field data in its original form.

3.2.20 NC 55.6 LATERAL LOSSES

The measured data collected on the NC 55.6 Lateral indicated losses of 2.14 cfs, or approximately 4.24 af/day, as summarized in Table 3-22 and shown in Figure 1-1. The channel along these sub-reaches comprised mainly well-sorted angular cobbles in the upper reaches, while lower down the substrate was smaller material, primarily small gravel and sand. The ditch flows down several small terraces from the headgate off the North Canal, and eventually meanders through flat agricultural land in the lower reaches.

Table 3-22. Owyhee Irrigation District's NC 55.6 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-55.6 (upper)	From the headgate off the North Canal to just above 55.6-0.5 split	55.6.start	55.6.n.start	0.64	0.43	5.61
NC-55.6-0.5	Headgate to just above the entrance to the piped section	55.6.n.start	55.6.n.end	0.30	0.17	6.73
NC-55.6 (lower)	55.6-0.5 split to 0.3 miles up from the lateral's end	55.6.s.start	55.6.s.end	1.20	0.23	19.0
			Total:	**2.14**		

Notes: cfs: cubic feet per second

3.2.21 NC 60.0 LATERAL LOSSES

The measured data collected on the NC 60.0 Lateral indicated losses of 0.72 cfs, or approximately 1.43 af/day, as summarized in Table 3-23 and shown in Figure 1-1. There was only one sub-reach measured along this lateral, which covered nearly the entire ditch length. The channel along the upper sub-reach comprised primarily well-sorted round cobbles and gravels, while the lower reach consisted of more silt and clay amongst the larger particles. The ditch flowed down a series of small terraces to flat agricultural land, before again diving down a steep slope at the tail end of the reach. Excess flows past the end of the ditch contribute flows to the Highlift Ditch. There were no empirical observations of ditch losses; however, given the porous material comprising much of the sub-reach, seepage losses are likely.

Table 3-23. Owyhee Irrigation District's NC 60.0 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%)
NC-60.0	Headgate to approximately 120 feet up from the ditch's end	60.4.start[1]	60.4.end	0.72	0.70	3.67
			Total:	**0.72**		

Notes: cfs: cubic feet per second

1. Start and End Location IDs were mislabeled in the field and differ slightly from Canal Name and Sub-Reach. Location IDs were not changed to preserve field data in its original form.

3.2.22 NC 38.9-4.8 LATERAL LOSSES

The measured data collected on the NC 38.9-4.8 Lateral indicated losses of 1.59 cfs, or approximately 3.15 af/day, as summarized in Table 3-24 and shown in Figure 1-2. There was only one sub-reach measured along this lateral, which covered most of the ditch. The channel along the upper sub-reach comprised primarily well-sorted cobbles and gravels, while the lower reach contained much more silt and clay. The ditch flows almost continuously downhill from the 38.9 Lateral north toward the Malheur River Valley. Field notes indicated vegetation indicative of abundant moisture in several locations adjacent to the ditch along the sub-reach, which is likely the result of subsurface seepage.

Table 3-24. Owyhee Irrigation District's NC 38.9-4.8 Lateral Measured Losses.

Sub-Reach	Description	Upstream Transect ID	Downstream Transect ID	Measured Flow Loss (cfs)	Sub-Reach Uncertainty (cfs)	Sub-Reach Loss (%))
NC-38.9-4.8	Headgate to the lateral's end near Hwy 20	38.9.n.start	38.9.n.end	1.59	0.59	9.70
			Total:	**1.59**		

Notes: cfs: cubic feet per second

3.3 END/OPERATIONAL SPILLS

This section presents the excess end-spill losses associated with the nine locations that were monitored as part of FCA's water loss assessment. The largest average discharge was measured at the Jacobsen Spill at 19.8 cfs, or 2592 ac-ft, over the entire monitoring period. Other end spills averaged as little as around 1.0 cfs, such as the Sayers and 49.2 Lateral end spills. Peak discharge at several of the sites occurred at the end of the 2018 irrigation season. It is presumed that this is the result of the irrigators 'turning off,' and the subsequent draining of the canal system. Calibration checks were performed at four of the nine end-spill locations, as quality assurance measures. The difference between the directly measured and theoretical discharges at these four measuring devices was small (approximately 5 percent or less), and they were largely within the uncertainty of the measurements. This, along with the excellent condition of most of the measuring devices, supports the validity of the theoretical equations used to calculate the flow rates. Figure 3-1 presents the summary of the computed results for each of the sites for the monitoring period. Appendix D presents the specifics of each site, along with results of calibration checks at select monitoring locations.

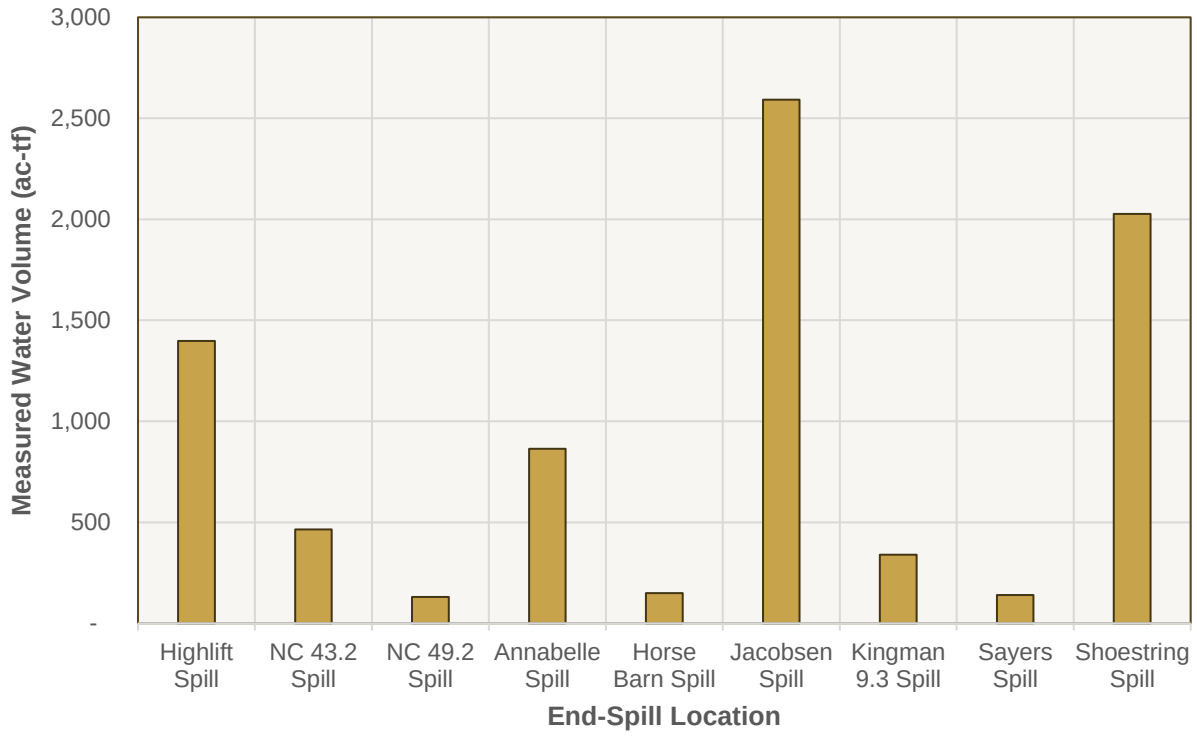

Figure 3-1. Owyhee Irrigation District's Measured End-Spill Volumes from August 5 to October 10.

4 Discussion and Conclusions

Water loss measurements conducted by FCA in the Owyhee Irrigation District from August 13 to August 31, 2018 indicated total overall seepage losses of 156 cfs, or around 309 acre-feet per day, in the 36 sub-reaches included in the study. These values are supported by on-the-ground observations during fieldwork. Many of the ditches comprised alluvial materials, which are presumably abandoned river terraces. These rounded cobbles and gravels, often set in coarse sand, are conducive to seepage and likely lead to many of the ditch losses encountered throughout the District. Most of the ditches were well-incised within their banks and below grade of the surrounding land. This limited the empirical observations of wetted soils adjacent to the ditches; however, field notes indicated many locations where the growing vegetation was indicative of abundant moisture, such as established willows and grasses.

Operational end-spills volumes were monitored at nine locations between August 6 and October 11. Total spill volumes during that time frame ranged from 130 acre-feet at the NC 49.2 Spill to as much as 2592 acre-feet at the Jacobsen Spill. Average discharges during the monitoring period at these locations ranged from 1.01 cfs to 19.8 cfs. While the data set does not represent an entire irrigation season, it is highly likely that throughout an entire season, total spill volumes are much greater. However, given the fact that there were no linear trends in the flows at any of the sites, estimating seasonal totals based on the three months of existing data would prove to be highly inaccurate.

Based on the results of this assessment, considering both transmission losses (seepage) and excess end-spill volumes, system modernization efforts would likely result in water savings for the District.

APPENDIX D
EPANET Hydraulic Model

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*********************************************************************
*                            E P A N E T                            *
*                     Hydraulic and Water Quality                   *
*                     Analysis for Pipe Networks                    *
*                          Version 2.0                              *
*********************************************************************

Input File: OwyheeID_Interconnects_202001008.INP
```

Link - Node Table:

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL_0060	J_KL_0058	J_KL_0060	599.35	58.89
C_KL_0080	J_KL_0070	J_KL_0080	726.53	58.89
C_KL_0070	J_KL_0060	J_KL_0070	1320.15	58.89
C_KL_0140	J_KL_0135	J_KL_0140	1371.37	58.89
C_KL_0135	J_KL_0130	J_KL_0135	1381.91	58.89
C_KL_0130	J_KL_0120	J_KL_0130	2381.6	58.89
C_KL_0115	J_KL_0110	J_KL_0115	196.53	58.89
C_KL_0107	J_KL_0105	J_KL_0107	44.85	58.89
C_KL_0105	J_KL_0100	J_KL_0105	197.56	58.89
C_KL_0100	J_KL_0090	J_KL_0100	3286.12	58.89
C_KL_0090	J_KL_0080	J_KL_0090	1522.92	58.89
C_KL_0120	J_KL_0115	J_KL_0120	409.65	58.89
C_KL_0225	J_KL_0220	J_KL_0225	436.94	43.15
C_KL_0230	J_KL_0225	J_KL_0230	1604.83	43.15
C_KL_0220	J_KL_0200	J_KL_0220	21.37	44.09
C_KL_0195	J_KL_0190	J_KL_0195	8.56	50.48
C_KL_0200	J_KL_0195	J_KL_0200	886.32	44.09
C_KL_0190	J_KL_0186	J_KL_0190	36	50.48
C_KL_0186	J_KL_0183	J_KL_0186	23.74	50.48
C_KL_0183	J_KL_0180	J_KL_0183	148.96	50.48
C_KL_0180	J_KL_0170	J_KL_0180	503.73	50.48
C_KL_0170	J_KL_0160	J_KL_0170	1341.46	50.48
C_KL_0160	J_KL_0150	J_KL_0160	583.32	58.89
C_KL_0150	J_KL_0140	J_KL_0150	2344.18	58.89
C_KL5.4-0.5_0005	J_KL5.4_0022	J_KL5.4-0.5_0005	42.02	24.3
C_KL5.4-0.5_0040	J_KL5.4-0.5_0020	J_KL5.4-0.5_0040	3429.97	22.44
C_KL5.4-0.5_0020	J_KL5.4-0.5_0005	J_KL5.4-0.5_0020	1069.16	24.3
C_KL5.4-0.5_0100	J_KL5.4-0.5_0090	J_KL5.4-0.5_0100	2.63	16.83
C_KL5.4-0.5_0090	J_KL5.4-0.5_0080	J_KL5.4-0.5_0090	2.62	16.83
C_KL5.4-0.5_0080	J_KL5.4-0.5_0075	J_KL5.4-0.5_0080	34.25	16.83
C_KL5.4-0.5_0063	J_KL5.4-0.5_0060	J_KL5.4-0.5_0063	5.16	22.44
C_KL5.4-0.5_0070	J_KL5.4-0.5_0065	J_KL5.4-0.5_0070	687.16	16.83
C_KL5.4-0.5_0065	J_KL5.4-0.5_0063	J_KL5.4-0.5_0065	516.72	18.7

C_KL5.4-0.5_0060J_KL5.4-0.5_0050J_KL5.4-0.5_0060 789.3 22.44
C_KL5.4-0.5_0050J_KL5.4-0.5_0040J_KL5.4-0.5_0050 1566.74 22.44
C_KL5.4-0.5_0075J_KL5.4-0.5_0070J_KL5.4-0.5_0075 2604.33 16.83
C_KL5.4-0.5-1.3_0020J_KL5.4-0.5_0063J_KL5.4-0.5-1.3_0020 4.05 8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4-0.5-1.3_0040	J_KL5.4-0.5-1.3_0030	J_KL5.4-0.5-1.3_0040	13.03	6.08
C_KL5.4-0.5-1.3_0030	J_KL5.4-0.5-1.3_0020	J_KL5.4-0.5-1.3_0030	573.56	8.06
C_KL5.4-0.5-1.4_0020	J_KL5.4-0.5_0065	J_KL5.4-0.5-1.4_0020	347.27	8.06
C_KL5.4-0.5-1.4_0030	J_KL5.4-0.5-1.4_0020	J_KL5.4-0.5-1.4_0030	1507.86	7.75
C_KL5.4_0010	J_KL_0107	J_KL5.4_0010	9.47	58.89
C_KL5.4_0022	J_KL5.4_0015	J_KL5.4_0022	2518.91	58.89
C_KL5.4_0030	J_KL5.4_0022	J_KL5.4_0025	3645.98	47.98
C_KL5.4_0015	J_KL5.4_0010	J_KL5.4_0015	309.74	58.89
C_KL5.4_0075	J_KL5.4_0070	J_KL5.4_0075	385.02	39.26
C_KL5.4_0080	J_KL5.4_0075	J_KL5.4_0080	1746.57	38.58
C_KL5.4_0065	J_KL5.4_0060	J_KL5.4_0065	1304.96	44.87
C_KL5.4_0070	J_KL5.4_0065	J_KL5.4_0070	880	39.26
C_KL5.4_0060	J_KL5.4_0050	J_KL5.4_0060	1265.44	44.87
C_KL5.4_0050	J_KL5.4_0040	J_KL5.4_0050	19.19	44.87
C_KL5.4_0040	J_KL5.4_0030	J_KL5.4_0040	1354.1	50.48
C_KL5.4_0130	J_KL5.4_0120	J_KL5.4_0130	1332.83	22.04
C_KL5.4_0120	J_KL5.4_0110	J_KL5.4_0120	1996.39	25.72
C_KL5.4_0105	J_KL5.4_0100	J_KL5.4-3.1_0010	1145.72	29.39
C_KL5.4_0095	J_KL5.4_0090	J_KL5.4_0095	2081	38.58
C_KL5.4_0090	J_KL5.4_0080	J_KL5.4_0090	0.69	38.58
C_KL5.4_0109	J_KL5.4-3.1_0020	J_KL5.4_0109	60.37	29.39
C_KL5.4_0110	J_KL5.4_0109	J_KL5.4_0110	0.34	25.72
C_KL5.4_0107	J_KL5.4-3.1_0010	J_KL5.4-3.1_0020	0.17	29.39
C_KL5.4_0100	J_KL5.4_0095	J_KL5.4_0100	16.09	29.39
C_KL5.4_0183	J_KL5.4_0180	J_KL5.4_0183	482.68	17.98
C_KL5.4_0180	J_KL5.4_0170	J_KL5.4_0180	79.61	17.98
C_KL5.4_0170	J_KL5.4_0160	J_KL5.4_0170	16.72	17.98
C_KL5.4_0160	J_KL5.4_0150	J_KL5.4_0160	1060.89	17.98
C_KL5.4_0150	J_KL5.4_0140	J_KL5.4_0150	3.38	18.37
C_KL5.4_0140	J_KL5.4_0130	J_KL5.4_0140	1342.11	22.04
C_KL5.4-2.0_0010	J_KL5.4_0065	J_KL5.4-2.0_0010	10.35	6.08
C_KL5.4-2.0_0030	J_KL5.4-2.0_0020	J_KL5.4-2.0_0030	1122.15	6.08
C_KL5.4-2.0_0020	J_KL5.4-2.0_0010	J_KL5.4-2.0_0020	64.18	6.08
C_KL5.4-2.3_0010	J_KL5.4_0075	J_KL5.4-2.3_0010	5.86	10.05
C_KL5.4-2.3_0020	J_KL5.4-2.3_0010	J_KL5.4-2.3_0020	1379.55	10.05
C_KL7.4_0010	J_KL_0195	J_KL7.4_0010	14.51	22.44
C_KL7.4_0100	J_KL7.4_0090	J_KL7.4_0100	91.68	14.38
C_KL7.4_0090	J_KL7.4_0080	J_KL7.4_0090	1509.89	14.38

C_KL7.4_0080	J_KL7.4_0070	J_KL7.4_0080	3.76	14.96
C_KL7.4_0070	J_KL7.4_0060	J_KL7.4_0070	3.13	16.83
C_KL7.4_0060	J_KL7.4_0050	J_KL7.4_0060	240.71	16.83
C_KL7.4_0050	J_KL7.4_0030	J_KL7.4_0050	2473.98	16.83
C_KL7.4_0020	J_KL7.4_0010	J_KL7.4_0020	390.16	22.44
C_KL7.4_0030	J_KL7.4_0020	J_KL7.4_0030	1979.95	18.7
C_KL5.4_0190	J_KL5.4_0187	J_KL5.4_0190	478.83	17.98
C_KL5.4_0200	J_KL5.4_0190	J_KL5.4_0200	768.94	16.18
C_KL5.4_0220	J_KL5.4_0210	J_KL5.4_0220	662.82	14.38

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4_0210	J_KL5.4_0200	J_KL5.4_0210	7.66	14.38
C_KL5.4-3.0_0030	J_KL5.4-3.0_0010	J_KL5.4-3.0_0040	852.28	23.88
C_KL5.4-3.0_0120	J_KL5.4-3.0_0110	J_KL5.4-3.0_0120	1365.37	5.96
C_KL5.4-3.0_0110	J_KL5.4-3.0_0100	J_KL5.4-3.0_0110	470.3	9.66
C_KL5.4-3.0_0100	J_KL5.4-3.0_0095	J_KL5.4-3.0_0100	442.37	11.46
C_KL5.4-3.0_0095	J_KL5.4-3.0_0090	J_KL5.4-3.0_0095	1715.74	11.46
C_KL5.4-3.0_0090	J_KL5.4-3.0_0080	J_KL5.4-3.0_0090	12.42	11.46
C_KL5.4-3.0_0080	J_KL5.4-3.0_0070	J_KL5.4-3.0_0080	287.33	16.18
C_KL5.4-3.0_0070	J_KL5.4-3.0_0060	J_KL5.4-3.0_0070	984.19	16.18
C_KL5.4-3.0_0060	J_KL5.4-3.0_0050	J_KL5.4-3.0_0060	70.6	16.53
C_KL5.4-3.0_0040	J_KL5.4-3.0_0040	J_KL5.4-3.0_0030	0.27	22.04
C_KL5.4-3.0_0045	J_KL5.4-3.0_0030	J_KL5.4-3.0_0045	843.2	22.04
C_KL5.4-3.0_0050	J_KL5.4-3.0_0045	J_KL5.4-3.0_0050	1764.22	16.53
C_KL5.4-3.0_0130	J_KL5.4-3.0_0120	J_KL5.4-3.0_0130	1091.93	5.89
C_KL5.4-3.0-0.3_0010	J_KL5.4-3.0_0045	J_KL5.4-3.0-0.3_0010	6.16	11.71
C_KL5.4-3.0-0.3_0030	J_KL5.4-3.0-0.3_0020	J_KL5.4-3.0-0.3_0030	1007.89	9.66
C_KL5.4-3.0-0.3_0040	J_KL5.4-3.0-0.3_0030	J_KL5.4-3.0-0.3_0040	916.74	9.66
C_KL5.4-3.0-0.3_0020	J_KL5.4-3.0-0.3_0010	J_KL5.4-3.0-0.3_0020	2929.06	11.71
C_KL9.3_0020	J_KL9.3_0010	J_KL9.3_0020	1692.62	31.78
C_KL9.3_0040	J_KL9.3_0030	J_KL9.3_0040	1267.13	31.78
C_KL9.3_0030	J_KL9.3_0020	J_KL9.3_0030	21.11	31.78
C_KL9.3_0095	J_KL9.3_0090	J_KL9.3_0095	512.37	18.7
C_KL9.3_0110	J_KL9.3_0095	J_KL9.3_0110	141.24	18.7
C_KL9.3_0090	J_KL9.3_0080	J_KL9.3_0090	3575.93	18.7
C_KL9.3_0070	J_KL9.3_0060	J_KL9.3_0070	691.44	29.91
C_KL9.3_0080	J_KL9.3_0070	J_KL9.3_0080	84.93	22.44
C_KL9.3_0060	J_KL9.3_0050	J_KL9.3_0060	1390.57	31.78
C_KL9.3_0050	J_KL9.3_0040	J_KL9.3_0050	9.75	31.78
C_KL9.3_0115	J_KL9.3_0110	J_KL9.3_0115	2188.71	18.7
C_KL7.6-9.3N_0025	J_KL7.6-9.3N_0020	J_KL7.6-9.3N_0025	0.46	22.44
C_KL7.6-9.3N_0020	J_KL7.6-9.3N_0010	J_KL7.6-9.3N_0020	6.58	22.44
C_KL7.6-9.3N_0010	J_KL9.3_0070	J_KL7.6-9.3N_0010	515.2	22.44
C_KL10.0_0020	J_KL_0270	J_KL10.0_0020	1175.19	8.06

C_KL10.0_0030	J_KL10.0_0020	J_KL10.0_0030	838.52	6.08
C_KL_0254	J_KL_0252	J_KL9.8_0000	2.26	22.44
C_KL_0280	J_KL9.8_0100	J_KL_0280	6.05	10.05
C_KL_0278	J_KL9.8_0090	J_KL9.8_0100	5.33	10.05
C_KL_0276	J_KL9.8_0080	J_KL9.8_0090	6.06	11.92
C_KL_0270	J_KL9.8_0050	J_KL_0270	50.46	16.83
C_KL_0267	J_KL9.8_0040	J_KL9.8_0050	6.71	18.7
C_KL_0260	J_KL9.8_0030	J_KL9.8_0010	2.4	18.7
C_KL_0265	J_KL9.8_0020	J_KL9.8_0040	700.33	18.7
C_KL_0262	J_KL9.8_0010	J_KL9.8_0020	3.81	18.7
C_KL_0256	J_KL9.8_0000	J_KL9.8_0030	1186.61	22.44
C_KL_0274	J_KL_0270	J_KL9.8_0080	695.28	14.96
C_KL_0300	J_KL_0290	J_KL_0300	9.57	10.05
C_KL_0290	J_KL_0280	J_KL_0290	2.9	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC5.3_0010	J_NC_0050	J_NC5.3_0010	23.78	22.44
C_NC5.3_0035	J_NC5.3_0030	J_NC5.3_0035	1221.15	18.7
C_NC5.3_0040	J_NC5.3_0035	J_NC5.3_0040	1366.45	18.7
C_NC5.3_0030	J_NC5.3_0020	J_NC5.3_0030	45.69	18.7
C_NC5.3_0020	J_NC5.3_0010	J_NC5.3_0020	72.97	22.44
C_NC5.3_0053	J_NC5.3_0050	J_NC5.3_0053	5356.06	12.25
C_NC5.3_0060	J_NC5.3_0055	J_NC5.3_0060	296.52	12.59
C_NC5.3_0050	J_NC5.3_0040	J_NC5.3_0050	949.01	14.96
C_NC5.3-0.3_0010	J_NC5.3_0035	J_NC5.3-0.3_0010	4.33	3.94
C_NC5.3-0.3_0020	J_NC5.3-0.3_0010	J_NC5.3-0.3_0020	1283.75	3.94
C_NC5.3-1.4_0010	J_NC5.3_0055	J_NC5.3-1.4_0010	1271.19	3.94
C_NC8.5_0090	J_NC8.5_0080	J_NC8.5_0090	449.68	16.83
C_NC8.5_0070	J_NC8.5_0060	J_NC8.5_0070	311.36	22.44
C_NC8.5_0060	J_NC8.5_0050	J_NC8.5_0060	1935.82	22.44
C_NC8.5_0050	J_NC8.5_0040	J_NC8.5_0050	18.87	22.44
C_NC8.5_0040	J_NC8.5_0030	J_NC8.5_0040	3007.9	22.44
C_NC8.5_0030	J_NC8.5_0020	J_NC8.5_0030	550.57	22.44
C_NC8.5_0020	J_NC8.5_0010	J_NC8.5_0020	69.55	22.44
C_NC8.5_0150	J_NC8.5_0140	J_NC8.5_0150	408.48	5.96
C_NC8.5_0135	J_NC8.5_0130	J_NC8.5_0140	892.59	5.8
C_NC8.5_0130	J_NC8.5_0120	J_NC8.5_0130	24.23	7.66
C_NC8.5_0120	J_NC8.5_0110	J_NC8.5_0115	1301.05	15.99
C_NC8.5_0110	J_NC8.5_0100	J_NC8.5_0110	1267.79	18.37
C_NC8.5_0100	J_NC8.5_0090	J_NC8.5_0100	0.56	16.83
C_NC8.5_0080	J_NC8.5_0070	J_NC8.5_0080	1591.2	22.44
C_MB_0070	J_MB1.6_0020	J_MB1.6_0010	77.16	84
C_MB_0080	J_MB1.7_0010	J_MB2.5_0020	3343.64	58.89
C_MB_0030	J_MB_0025	J_MB_0030	2008.93	90

C_MB_0040	J_MB_0030	J_MB0.8_0010	2040.34	84
C_MB_0025	J_MB_0020	J_MB_0025	195.14	90
C_MB_0020	J_MB_0010	J_MB_0020	0.4	90
C_MB_0060	J_MB1.0_0010	J_MB1.6_0020	3357.62	84
C_MB_0050	J_MB0.8_0010	J_MB1.0_0010	1118.53	84
C_MB_0120	J_MB3.0_0010	J_MB_0120	1910.9	58.89
C_MB_0115	J_MB2.9_0010	J_MB3.0_0010	282.65	58.89
C_MB_0100	J_MB2.5_0030	J_MB2.5_0010	4.77	58.89
C_MB_0090	J_MB2.5_0020	J_MB2.5_0030	6.88	58.89
C_MB_0110	J_MB2.5_0010	J_MB2.9_0010	2605.85	58.89
C_MB_0140	J_MB_0130	J_MB3.9_0020	2269.41	58.89
C_MB_0170	J_MB3.9_0030	J_MB_0170	2004.96	58.89
C_MB_0190	J_MB_0180	J_MB_0190	1002.18	58.89
C_MB_0180	J_MB_0170	J_MB_0180	2613.53	58.89
C_MB_0150	J_MB3.9_0020	J_MB3.9_0010	4.07	58.89
C_MB0.4_0010	J_MB_0030	J_MB0.4_0010	15.05	18.7
C_MB0.4_0050	J_MB0.4_0040	J_MB0.4_0050	1402.24	14.96
C_MB0.4_0040	J_MB0.4_0030	J_MB0.4_0040	2.24	16.83
C_MB0.4_0030	J_MB0.4_0020	J_MB0.4_0030	1660.26	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_MB0.4_0020	J_MB0.4_0010	J_MB0.4_0020	153.5	18.7
C_MB4.8_0010	J_MB_0180	J_MB4.8_0010	17.11	10.05
C_MB4.8_0035	J_MB4.8_0030	J_MB4.8_0035	50.52	8.06
C_MB4.8_0030	J_MB4.8_0020	J_MB4.8_0030	78.91	10.05
C_MB4.8_0020	J_MB4.8_0010	J_MB4.8_0020	1770.17	10.05
C_MB_0210	J_MB_0200	J_MB_0210	2000.65	58.89
C_MB_0220	J_MB_0210	J_MB_0220	2855.54	58.89
C_MB_0230	J_MB_0220	J_MB6.2_0010	1367.85	58.89
C_MB_0270	J_MB6.5_0005	J_MB_0270	22.88	58.89
C_MB_0260	J_MB6.4_0010	J_MB6.5_0005	883.23	58.89
C_MB_0250	J_MB6.3_0010	J_MB6.4_0010	629.69	58.89
C_MB_0240	J_MB6.2_0010	J_MB6.3_0010	451.21	58.89
C_MB_0290	J_MB_0280	J_MB6.8_0010	777.44	58.89
C_MB_0300	J_MB6.8_0015	J_MB_0300	487.24	58.89
C_MB_0295	J_MB6.8_0010	J_MB6.8_0015	10.98	58.89
C_MB7.5_0010	J_MB_0310	J_MB_0320	3132.71	58.89
C_MB_0330	J_MB_0320	J_MB_0330	3858.93	50.48
C_MB_0340	J_MB_0330	J_MB_0340	4387.17	50.48
C_MB_0350	J_MB_0340	J_MB_0350	1590.79	50.48
C_MB_0360	J_MB_0350	J_MB9.5_0010	148.77	50.48
C_MB_0370	J_MB9.5_0010	J_MB10.7_0010	6362.16	50.48
C_MB_0420	J_MB11.5_0010	J_ON_0090	738.61	58.89
C_MB_0390	J_MB10.8_0020	J_MB10.8_0010	4.46	50.48

C_MB_0394	J_MB10.8_0010	J_MB_0394	1526.7	50.48
C_MB_0410	J_MB_0406	J_MB11.5_0010	1984.59	58.89
C_MB_0380	J_MB10.7_0010	J_MB10.8_0020	227.33	50.48
C_MB5.4_0010	J_MB_0210	J_MB5.4_0010	17.69	10.05
C_MB5.4_0040	J_MB5.4_0030	J_MB5.4_0040	429.94	10.05
C_MB5.4_0030	J_MB5.4_0020	J_MB5.4_0030	569.78	10.05
C_MB5.4_0020	J_MB5.4_0010	J_MB5.4_0020	457.64	10.05
C_MB6.0_0010	J_MB_0220	J_MB6.0_0010	16.07	26.17
C_MB6.0_0053	J_MB6.0_0050	J_MB6.0_0053	4.5	18.7
C_MB6.0_0050	J_MB6.0_0040	J_MB6.0_0050	395.57	18.7
C_MB6.0_0040	J_MB6.0_0030	J_MB6.0_0040	827.2	22.44
C_MB6.0_0030	J_MB6.0_0020	J_MB6.0_0030	2411.84	22.44
C_MB6.0_0020	J_MB6.0_0010	J_MB6.0_0020	96.22	26.17
C_MB6.0_0075	J_MB6.0_0070	J_MB6.0_0075	830.2	16.83
C_MB6.0_0090	J_MB6.0_0080	J_MB6.0_0090	57.34	12.86
C_MB6.0_0080	J_MB6.0_0075	J_MB6.0_0080	2267.23	14.7
C_MB7.5_0113	J_MB7.5_0110	J_MB7.5_0113	60.84	22.44
C_MB7.5_0110	J_MB7.5_0100	J_MB7.5_0110	944.04	22.44
C_MB7.5_0100	J_MB7.5_0090	J_MB7.5_0100	12.2	24.3
C_MB7.5_0090	J_MB7.5_0080	J_MB7.5_0090	1702.02	26.17
C_MB7.5_0080	J_MB7.5_0070	J_MB7.5_0080	1433.6	28.04
C_MB7.5_0070	J_MB7.5_0060	J_MB7.5_0070	0.73	28.04
C_MB7.5_0060	J_MB7.5_0050	J_MB7.5_0060	5.24	29.91
C_MB7.5_0050	J_MB7.5_0043	J_MB7.5_0050	1666.43	29.91

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_MB7.5_0043	J_MB7.5_0040	J_MB7.5_0043	75.44	29.91
C_MB7.5_0035	J_MB7.5_0030	J_MB7.5_0035	0.58	31.78
C_MB7.5_0040	J_MB7.5_0035	J_MB7.5_0040	468.12	29.91
C_MB7.5_0030	J_MB7.5_0020	J_MB7.5_0030	41.42	28.04
C_MB7.5_0020	J_MB7.5_0010	J_MB7.5_0020	0.6	28.04
C_MB7.5_0120	J_MB7.5_0117	J_MB7.5_0120	1279.25	22.04
C_MB7.5_0130	J_MB7.5_0120	J_MB7.5_0130	1298.68	18.37
C_MB7.5_0220	J_MB7.5_0210	J_MB7.5_0220	3.06	9.87
C_MB7.5_0210	J_MB7.5_0190	J_MB7.5_0210	1268.85	9.87
C_MB7.5_0180	J_MB7.5_0180	J_MB7.5_0170	0.69	11.71
C_MB7.5_0190	J_MB7.5_0170	J_MB7.5_0190	5.89	11.71
C_MB7.5_0170	J_MB7.5_0160	J_MB7.5_0180	458.87	14.7
C_MB7.5_0160	J_MB7.5_0150	J_MB7.5_0160	1788.12	14.7
C_MB7.5_0150	J_MB7.5_0140	J_MB7.5_0150	410.37	18.37
C_MB7.5_0140	J_MB7.5_0130	J_MB7.5_0140	6.71	18.37
C_MB8.5_0090	J_MB8.5_0080	J_MB8.5_0090	1562.24	11.71
C_MB8.5_0040	J_MB8.5_0045	J_MB8.5_0050	3.78	16.83
C_MB8.5_0050	J_MB8.5_0050	J_MB8.5_0040	1.45	14.96

C_MB8.5_0080	J_MB8.5_0070	J_MB8.5_0080	1919.61	11.92
C_MB8.5_0070	J_MB8.5_0060	J_MB8.5_0070	14.09	13.09
C_MB8.5_0060	J_MB8.5_0040	J_MB8.5_0060	2626.64	14.96
C_MB9.1_0010	J_MB_0340	J_MB9.1_0010	16.01	14.96
C_MB9.1_0080	J_MB9.1_0070	J_MB9.1_0080	838.61	7.92
C_MB9.1_0067	J_MB9.1_0065	J_MB9.1_0067	19.36	11.92
C_MB9.1_0070	J_MB9.1_0067	J_MB9.1_0070	433.62	10.05
C_MB9.1_0065	J_MB9.1_0040	J_MB9.1_0065	1793.04	13.09
C_MB9.1_0040	J_MB9.1_0030	J_MB9.1_0040	1385.67	14.96
C_MB9.1_0030	J_MB9.1_0020	J_MB9.1_0030	853.1	14.96
C_MB9.1_0020	J_MB9.1_0010	J_MB9.1_0020	87.59	14.96
C_MB9.1-0.9_0040	J_MB9.1-0.9_0030	J_MB9.1-0.9_0040	961	7.92
C_MB9.1-0.9_0010	J_MB9.1_0067	J_MB9.1_0066	6.43	8.06
C_MB9.1-0.9_0020	J_MB9.1_0066	J_MB9.1-0.9_0020	44.65	8.06
C_MB9.4_0070	J_MB9.4_0065	J_MB9.4_0070	2945.67	7.92
C_MB9.4_0060	J_MB9.4_0040	J_MB9.4_0060	6.03	10.05
C_MB9.4_0040	J_MB9.4_0020	J_MB9.4_0050	1934.4	11.92
C_MB9.4_0050	J_MB9.4_0050	J_MB9.4_0040	0.18	10.05
C_MB9.4_0020	J_MB9.4_0019	J_MB9.4_0020	9.56	11.92
C_MB9.4_0065	J_MB9.4_0060	J_MB9.4_0065	208.09	8.06
C_MB9.4_0017	J_MB9.4_0010	J_MB9.4_0017	96.31	11.92
C_MB9.4_0010	J_MB_0350	J_MB9.4_0015	15.28	16.83
C_MB9.4_0015	J_MB9.4_0015	J_MB9.4_0010	0.31	11.92
C_NC10.5-0.3_0010	J_NC10.5_0032	J_NC10.5-0.3_0010	1023.48	3.94
C_NC11.0_0060	J_NC11.0_0050	J_NC11.0_0060	4.11	6.08
C_NC11.0_0050	J_NC11.0_0040	J_NC11.0_0050	3.9	6.08
C_NC11.0_0040	J_NC11.0_0030	J_NC11.0_0040	410.38	6.08
C_NC11.0_0030	J_NC11.0_0020	J_NC11.0_0030	2.46	6.08
C_NC11.0_0020	J_NC11.0_0010	J_NC11.0_0020	72.49	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC13.6_0030	J_NC13.6_0010	J_NC13.6_0030	585.66	26.17
C_NC13.6_0174	J_NC13.6_0172	J_NC13.6_0174	1566.41	11.16
C_NC13.6_0172	J_NC13.6_0170	J_NC13.6_0172	266.23	11.16
C_NC13.6_0170	J_NC13.6_0160	J_NC13.6_0170	13.91	11.16
C_NC13.6_0160	J_NC13.6_0150	J_NC13.6_0160	9.41	14.01
C_NC13.6_0150	J_NC13.6_0140	J_NC13.6_0150	1107.27	14.38
C_NC13.6_0140	J_NC13.6_0130	J_NC13.6_0140	818.55	14.7
C_NC13.6_0130	J_NC13.6_0120	J_NC13.6_0130	377.2	16.53
C_NC13.6_0120	J_NC13.6_0110	J_NC13.6_0120	353.77	18.37
C_NC13.6_0110	J_NC13.6_0100	J_NC13.6_0110	1174.15	22.04
C_NC13.6_0100	J_NC13.6_0090	J_NC13.6_0100	189.52	18.7
C_NC13.6_0090	J_NC13.6_0080	J_NC13.6_0090	1234.08	18.7
C_NC13.6_0080	J_NC13.6_0070	J_NC13.6_0080	1365.91	22.44

C_NC13.6_0070	J_NC13.6_0040	J_NC13.6_0070	180.47	22.44
C_NC13.6_0040	J_NC13.6_0035	J_NC13.6_0040	401.83	22.44
C_NC13.6_0035	J_NC13.6_0030	J_NC13.6_0035	28.23	24.3
C_NC13.6_0183	J_NC13.6_0175	J_NC13.6_0183	6437.82	11.16
C_NC13.6_0175	J_NC13.6_0174	J_NC13.6_0175	17.85	11.16
C_NC14.5_0250	J_NC14.5_0245	J_NC14.5_0250	75.29	7.75
C_NC14.5_0245	J_NC14.5_0240	J_NC14.5_0245	1200.8	7.75
C_NC14.5_0240	J_NC14.5_0230	J_NC14.5_0240	18.2	9.66
C_NC14.5_0230	J_NC14.5_0217	J_NC14.5_0230	3189.22	14.38
C_NC14.5_0217	J_NC14.5_0205	J_NC14.5_0217	68.53	14.7
C_NC14.5_0205	J_NC14.5_0200	J_NC14.5_0205	2	18.37
C_NC14.5_0200	J_NC14.5_0190	J_NC14.5_0200	899.17	22.04
C_NC14.5_0190	J_NC14.5_0180	J_NC14.5_0190	1542.74	22.04
C_NC14.5_0025	J_NC14.5_0023	J_NC14.5_0025	306.05	39.26
C_NC14.5_0020	J_NC14.5_0010	J_NC14.5_0020	105.12	39.26
C_NC14.5_0023	J_NC14.5_0020	J_NC14.5_0023	955.94	39.26
C_NC14.5_0100	J_NC14.5_0090	J_NC14.5_0100	740.47	31.78
C_NC14.5_0090	J_NC14.5_0080	J_NC14.5_0090	1628	31.78
C_NC14.5_0080	J_NC14.5_0070	J_NC14.5_0080	1046.4	31.78
C_NC14.5_0070	J_NC14.5_0065	J_NC14.5_0070	1181.68	33.65
C_NC14.5_0065	J_NC14.5_0060	J_NC14.5_0065	1714.09	39.26
C_NC14.5_0060	J_NC14.5_0050	J_NC14.5_0060	55.41	39.26
C_NC14.5_0050	J_NC14.5_0040	J_NC14.5_0050	850.08	39.26
C_NC14.5_0040	J_NC14.5_0030	J_NC14.5_0040	849.7	39.26
C_NC14.5_0030	J_NC14.5_0025	J_NC14.5_0030	2939.17	39.26
C_NC14.5_0180	J_NC14.5_0170	J_NC14.5_0180	4.96	22.44
C_NC14.5_0170	J_NC14.5-3.5_0010	J_NC14.5_0170	1082.95	22.44
C_NC14.5_0160	J_NC14.5_0155	J_NC14.5_0160	1697.07	24.3
C_NC14.5_0155	J_NC14.5_0150	J_NC14.5_0155	390.36	24.3
C_NC14.5_0150	J_NC14.5_0120	J_NC14.5_0150	1.66	24.3
C_NC14.5_0130	J_NC14.5_0130	J_NC14.5_0140	4.98	29.91
C_NC14.5_0120	J_NC14.5_0110	J_NC14.5_0130	912.91	29.91
C_NC14.5_0140	J_NC14.5_0140	J_NC14.5_0120	2.45	28.04
C_NC14.5_0110	J_NC14.5_0100	J_NC14.5_0110	1801.21	29.91

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC14.5_0163	J_NC14.5_0160	J_NC14.5-3.5_0020	1098.17	24.3
C_NC14.5_0167	J_NC14.5-3.5_0020	J_NC14.5-3.5_0010	19.33	24.3
C_NC14.5-3.0_0010	J_NC14.5_0155	J_NC14.5-3.0_0010	65.25	3.94
C_NC14.5-3.0_0020	J_NC14.5-3.0_0010	J_NC14.5-3.0_0020	1097.16	3.94
C_NC14.5-1.5_0010	J_NC14.5_0065	J_NC14.5-1.5_0010	8.33	11.92
C_NC14.5-1.5_0070	J_NC14.5-1.5_0060	J_NC14.5-1.5_0070	233.87	3.94
C_NC14.5-1.5_0045	J_NC14.5-1.5_0040	J_NC14.5-1.5_0045	47.9	3.94
C_NC14.5-1.5_0060	J_NC14.5-1.5_0045	J_NC14.5-1.5_0060	9.52	3.94

C_NC14.5-1.5_0040	J_NC14.5-1.5_0030	J_NC14.5-1.5_0040	1424.79	3.94
C_NC14.5-1.5_0030	J_NC14.5-1.5_0020	J_NC14.5-1.5_0030	1375.81	10.05
C_NC14.5-1.5_0020	J_NC14.5-1.5_0010	J_NC14.5-1.5_0020	1.07	11.92
C_NC14.5-1.5-0.5_0010	J_NC14.5-1.5_0045	J_NC14.5-1.5_0050	8.95	3.94
C_NC14.5-1.5-0.5_0020	J_NC14.5-1.5_0050	J_NC14.5-1.5-0.5_0020	1382.92	3.94
C_NC19.9_0020	J_NC19.9_0010	J_NC19.9_0020	178.9	13.09
C_NC20.3_0050	J_NC20.3_0040	J_NC20.3_0050	1687.84	16.83
C_NC20.3_0040	J_NC20.3_0030	J_NC20.3_0040	586.52	16.83
C_NC20.3_0030	J_NC20.3_0020	J_NC20.3_0030	884.19	16.83
C_NC20.3_0020	J_NC20.3_0010	J_NC20.3_0020	56.62	18.7
C_NC24.1_0050	J_NC24.1_0040	J_NC24.1_0050	767.55	10.05
C_NC24.1_0040	J_NC24.1_0030	J_NC24.1_0040	26.17	10.05
C_NC24.1_0025	J_NC24.1_0020	J_NC24.1_0025	8.91	13.09
C_NC24.1_0030	J_NC24.1_0025	J_NC24.1_0030	6.19	11.92
C_NC24.1_0020	J_NC24.1_0010	J_NC24.1_0020	60.72	22.44
C_NC25.4_0066	J_NC25.4-1.2_0010	J_NC25.4-1.2_0015	429.79	58.89
C_NC25.4_0100	J_NC25.4_0090	J_NC25.4_0100	1537.77	29.91
C_NC25.4_0090	J_NC25.4_0088	J_NC25.4_0090	1958.09	31.78
C_NC25.4_0088	J_NC25.4_0087	J_NC25.4_0088	9.63	31.78
C_NC25.4_0087	J_NC25.4_0085	J_NC25.4_0087	375.07	33.65
C_NC25.4_0082	J_NC25.4_0080	J_NC25.4_0082	355.55	50.48
C_NC25.4_0085	J_NC25.4_0082	J_NC25.4_0085	52.35	33.65
C_NC25.4_0075	J_NC25.4_0070	J_NC25.4_0075	958.62	58.89
C_NC25.4_0080	J_NC25.4_0075	J_NC25.4_0080	952.14	50.48
C_NC25.4_0070	J_NC25.4_0065	J_NC25.4_0070	322.85	58.89
C_NC25.4_0068	J_NC25.4-1.2_0015	J_NC25.4_0065	471.83	58.89
C_NC25.4_0160	J_NC25.4_0155	J_NC25.4_0160	118.43	9.66
C_NC25.4_0170	J_NC25.4_0160	J_NC25.4_0170	1650.69	9.66
C_NC25.4_0155	J_NC25.4_0150	J_NC25.4_0155	365.51	9.66
C_NC25.4_0150	J_NC25.4_0140	J_NC25.4_0150	16.04	9.66
C_NC25.4_0140	J_NC25.4_0135	J_NC25.4_0140	1571.92	14.38
C_NC25.4_0135	J_NC25.4_0130	J_NC25.4_0135	2622.94	16.53
C_NC25.4_0123	J_NC25.4_0120	J_NC25.4-3.2_0010	2008.7	25.72
C_NC25.4_0120	J_NC25.4_0110	J_NC25.4_0120	1300.09	28.04
C_NC25.4_0110	J_NC25.4_0100	J_NC25.4_0110	25.21	29.91
C_NC25.4_0127	J_NC25.4-3.2_0010	J_NC25.4_0127	644.75	23.88
C_NC25.4_0130	J_NC25.4_0127	J_NC25.4_0130	1321.13	18.37
C_NC25.4_0052	J_NC25.4_0050	J_NC25.4-0.3_0005	747.63	58.89
C_NC25.4_0050	J_NC25.4_0040	J_NC25.4_0050	11.99	58.89

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC25.4_0040	J_NC25.4_0035	J_NC25.4_0040	109.98	58.89
C_NC25.4_0035	J_NC25.4_0033	J_NC25.4_0035	20.42	58.89
C_NC25.4_0033	J_NC25.4_0030	J_NC25.4_0033	277.57	58.89

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  C_NC25.4_0030  J_NC25.4_0020  J_NC25.4_0030        2.03     58.89
  C_NC25.4_0020  J_NC25.4_0010  J_NC25.4_0020      100.71     58.89
  C_NC25.4_0062  J_NC25.4_0060  J_NC25.4-0.7_0010    793.91     58.89
  C_NC25.4_0064  J_NC25.4-0.7_0011J_NC25.4-1.2_0010   2039.82     58.89
  C_NC25.4_0063  J_NC25.4-0.7_0010J_NC25.4-0.7_0011     16.52     58.89
  C_NC25.4_0056  J_NC25.4-0.3_0007J_NC25.4_0056      274.06     58.89
  C_NC25.4_0060  J_NC25.4_0057  J_NC25.4_0060     1430.89     58.89
  C_NC25.4_0057  J_NC25.4_0056  J_NC25.4_0057        9.85     58.89
  C_NC25.4_0054  J_NC25.4-0.3_0005J_NC25.4-0.3_0007     56.42     58.89
  C_NC25.4-1.6_0010J_NC25.4_0075  J_NC25.4-1.6_0010      8.11     28.04
  C_NC25.4-1.6_0055J_NC25.4-1.6_0050J_NC25.4-1.6_0055      9.93     22.44
  C_NC25.4-1.6_0057J_NC25.4-1.6_0055J_NC25.4-1.6_0057     22.86     11.92
  C_NC25.4-1.6_0050J_NC25.4-1.6_0040J_NC25.4-1.6_0050     940.5     22.44
  C_NC25.4-1.6_0040J_NC25.4-1.6_0030J_NC25.4-1.6_0040    648.18      24.3
  C_NC25.4-1.6_0030J_NC25.4-1.6_0020J_NC25.4-1.6_0030   2016.24     26.17
  C_NC25.4-1.6_0020J_NC25.4-1.6_0010J_NC25.4-1.6_0020   1329.92     28.04
  C_NC25.4-3.3_0010J_NC25.4_0127  J_NC25.4-3.3_0010     17.76      14.7
  C_NC25.4-3.3_0045J_NC25.4-3.3_0040J_NC25.4-3.3_0045   1346.48      5.96
  C_NC25.4-3.3_0035J_NC25.4-3.3_0030J_NC25.4-3.3-0.4_0010     805.1      9.87
  C_NC25.4-3.3_0030J_NC25.4-3.3_0020J_NC25.4-3.3_0030   1251.11     11.71
  C_NC25.4-3.3_0020J_NC25.4-3.3_0010J_NC25.4-3.3_0020     14.11     11.71
  C_NC25.4-3.3_0040J_NC25.4-3.3-0.4_0010J_NC25.4-3.3_0040    464.49      9.66
  C_NC25.4-3.3_0060J_NC25.4-3.3_0050J_NC25.4-3.3_0060    116.16      3.94
  C_NC25.4-3.3_0048J_NC25.4-3.3_0045J_NC25.4-3.3_0048   1014.86      3.94
  C_NC25.4-1.6-0.9_0030J_NC25.4-1.6-0.9_0020J_NC25.4_1.6_0070    549.15     16.83
  C_NC25.4-1.6-0.9_0040J_NC25.4_1.6_0070J_NC25.4-1.6_0080      1.46     16.53
  C_NC25.4-1.6-0.9_0050J_NC25.4-1.6_0080J_NC25.4-1.6-2.7_0020   3187.11     16.53
  C_NC25.4-1.6-0.9-0.1_0010J_NC25.4-1.6-2.7_0020J_NC25.4-1.6-2.7_0010      4.93
11.71
  C_NC25.4-1.6-0.9-0.1_0020J_NC25.4-1.6-2.7_0010J_NC25.4-1.6-2.3_0009    511.36
11.71
  C_NC25.4-1.6-0.9-0.1_0030J_NC25.4-1.6-2.3_0009J_NC25.4-1.6-2.3_0010     21.87
7.92
  C_NC25.4-1.6-0.9_0060J_NC25.4-1.6-2.7_0020J_NC25.4-1.6-0.9_0060   3235.33
11.33
  C_NC25.4-1.8_0010J_NC25.4_0082  J_NC25.4-1.8_0010      8.49     33.65
  C_NC25.4-1.8_0125J_NC25.4-1.8_0120J_NC25.4-1.8_0125     836.2     16.18
  C_NC25.4-1.8_0120J_NC25.4-1.8_0110J_NC25.4-1.8_0120      5.42     18.37
  C_NC25.4-1.8_0110J_NC25.4-1.8_0100J_NC25.4-1.8_0110     82.62     16.53
  C_NC25.4-1.8_0100J_NC25.4-1.8_0090J_NC25.4-1.8_0100   1142.75     16.53
  C_NC25.4-1.8_0070J_NC25.4-1.8_0060J_NC25.4-1.8_0070   1322.02     23.88
  C_NC25.4-1.8_0060J_NC25.4-1.8_0050J_NC25.4-1.8_0060   1274.11     26.17
  C_NC25.4-1.8_0045J_NC25.4-1.8_0040J_NC25.4-1.8_0045   1194.91     31.78
  C_NC25.4-1.8_0050J_NC25.4-1.8_0045J_NC25.4-1.8_0050     18.02     26.17
  C_NC25.4-1.8_0030J_NC25.4-1.8_0030J_NC25.4-1.8_0020      1.05     33.65
  C_NC25.4-1.8_0040J_NC25.4-1.8_0020J_NC25.4-1.8_0040   2673.92     33.65
  C_NC25.4-1.8_0015J_NC25.4-1.8_0013J_NC25.4-1.8-0.3_0010   1208.33     33.65
  C_NC25.4-1.8_0013J_NC25.4-1.8_0010J_NC25.4-1.8_0013        92     33.65
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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC25.4-1.8_0020J_NC25.4-1.8-0.3_0010J_NC25.4-1.8_0030			31.27	33.65
C_NC25.4-1.8_0085J_NC25.4-1.8_0080J_NC25.4-1.8_0085			12.86	22.04
C_NC25.4-1.8_0080J_NC25.4-1.8_0070J_NC25.4-1.8_0080			1593.99	22.04
C_NC25.4-1.8_0090J_NC25.4-1.8_0085J_NC25.4-1.8_0090			1121.68	18.37
C_NC25.4-1.8-2.8_0020J_NC25.4-1.8_0160J_NC25.4-1.8_0150			0.75	5.96
C_NC25.4-1.8-2.8_0010J_NC25.4-1.8_0127J_NC25.4-1.8_0160			54.78	5.96
C_NC25.4-1.8_0130J_NC25.4-1.8_0127J_NC25.4-1.8_0130			25.02	14.38
C_NC25.4-1.8_0150J_NC25.4-1.8_0145J_NC25.4-1.8-2.7_0010			456.07	9.66
C_NC25.4-1.8_0145J_NC25.4-1.8_0140J_NC25.4-1.8_0145			5.74	9.66
C_NC25.4-1.8_0140J_NC25.4-1.8_0130J_NC25.4-1.8_0140			3.91	12.59
C_NC25.4-1.8_0165J_NC25.4-1.8-2.7_0010J_NC25.4-1.8_0165			240.4	9.66
C_NC25.4-1.8-2.2_0030J_NC25.4-1.8-2.2_0025J_NC25.4-1.8-2.2_0015			1132.13	3.94
C_NC25.4-1.8-2.2_0040J_NC25.4-1.8-2.2_0015J_NC25.4_0170			641.19	3.94
C_NC25.4-1.8-2.2_0010J_NC25.4-1.8_0125J_NC25.4-1.8-2.2_0010			13.32	9.66
C_NC25.4-1.8-2.2_0025J_NC25.4-1.8-2.2_0020J_NC25.4-1.8-2.2_0025			49.04	3.94
C_NC25.4-1.8-2.2_0020J_NC25.4-1.8-2.2_0010J_NC25.4-1.8-2.2_0020			743.55	5.96
C_NC25.4-1.8-1.0_0010J_NC25.4-1.8_0045J_NC25.4-1.8-1.0_0010			7.13	18.7
C_NC25.4-1.8-1.0_0010J_NC25.4-1.8-1.0_0010J_NC25.4-1.8-1.0-0.3_0010			1412.99	18.7
C_NC25.4-1.8-1.0_0030J_NC25.4-1.8-1.0_0020J_NC25.4-1.8-1.0-0.3_0020			20.52	18.37
C_NC25.4-1.8-1.0_0090J_NC25.4-1.8-1.0-0.3_0060J_NC25.4-1.8-1.0_0090			4.21	7.75
C_NC25.4-1.8-1.0_0080J_NC25.4-1.8-1.0-0.3_0050J_NC25.4-1.8-1.0-0.3_0060			1543.43	7.75
C_NC25.4-1.8-1.0_0070J_NC25.4-1.8-1.0-0.3_0040J_NC25.4-1.8-1.0-0.3_0050			243.04	11.71
C_NC25.4-1.8-1.0_0060J_NC25.4-1.8-1.0-0.3_0030J_NC25.4-1.8-1.0-0.3_0040			835.88	14.7
C_NC25.4-1.8-1.0_0050J_NC25.4-1.8-1.0-0.3_0025J_NC25.4-1.8-1.0-0.3_0030			274.75	16.53
C_NC25.4-1.8-1.0_0040J_NC25.4-1.8-1.0-0.3_0020J_NC25.4-1.8-1.0-0.3_0025			13.03	18.37
C_NC25.4-1.8-1.0_0015J_NC25.4-1.8-1.0-0.3_0010J_NC25.4-1.8-1.0_0015			210.55	18.7
C_NC26.4_0073	J_NC26.4_0070	J_NC26.4_0073	1443.17	22.44
C_NC26.4_0070	J_NC26.4_0060	J_NC26.4_0070	1138.91	22.44
C_NC26.4_0060	J_NC26.4_0050	J_NC26.4_0060	0.88	22.44
C_NC26.4_0050	J_NC26.4_0040	J_NC26.4_0050	1942.58	24.3
C_NC26.4_0040	J_NC26.4_0030	J_NC26.4_0040	2832.5	24.3
C_NC26.4_0030	J_NC26.4_0028	J_NC26.4_0030	616.93	26.17

C_NC26.4_0028	J_NC26.4_0025	J_NC26.4_0028	250.89	26.17
C_NC26.4_0025	J_NC26.4_0020	J_NC26.4_0025	7.48	28.04
C_NC26.4_0020	J_NC26.4_0010	J_NC26.4_0020	60.4	28.04
C_NC26.4_0080	J_NC26.4_0077	J_NC26.4_0080	8.7	22.44
C_NC26.4_0140	J_NC26.4_0140	J_NC26.4_0130	10.37	9.87
C_NC26.4_0150	J_NC26.4_0130	J_NC26.4_0150	0.36	9.87
C_NC26.4_0130	J_NC26.4_0128	J_NC26.4_0140	14.28	9.87
C_NC26.4_0090	J_NC26.4_0080	J_NC26.4_0090	547.04	18.7
C_NC26.4_0128	J_NC26.4_0127	J_NC26.4_0128	1033.23	9.87
C_NC26.4_0127	J_NC26.4_0125	J_NC26.4_0127	60.39	11.71
C_NC26.4_0125	J_NC26.4_0120	J_NC26.4_0125	726.65	11.71
C_NC26.4_0110	J_NC26.4_0110	J_NC26.4_0100	0.38	11.71
C_NC26.4_0120	J_NC26.4_0100	J_NC26.4_0120	1451.21	11.71
C_NC26.4_0100	J_NC26.4_0095	J_NC26.4_0110	1889.43	16.53
C_NC26.4_0095	J_NC26.4_0090	J_NC26.4_0095	629.29	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC27.8_0016	J_NC27.8_0016	J_NC27.8_0015	2.3	22.44
C_NC27.8_0018	J_NC27.8_0015	J_NC27.8_0018	120.07	22.44
C_NC27.8_0015	J_NC27.8_0010	J_NC27.8_0016	93.51	22.44
C_NC27.8_0040	J_NC27.8_0035	J_NC27.8_0040	49.52	14.96
C_NC27.8_0055	J_NC27.8_0050	J_NC27.8_0055	1477.28	10.05
C_NC27.8_0050	J_NC27.8_0040	J_NC27.8_0050	373.7	13.09
C_NC27.8_0070	J_NC27.8_0069	J_NC27.8_0070	1142.81	10.05
C_NC27.8_0090	J_NC27.8_0080	J_NC27.8_0090	524.44	8.06
C_NC27.8_0080	J_NC27.8_0070	J_NC27.8_0080	3.27	10.05
C_NC27.8_0097	J_NC27.8_0093	J_NC27.8_0097	624.87	8.06
C_ON_0190	J_ON_0180	J_ON2.2_0010	974.62	58.89
C_ON_0200	J_ON2.2_0010	J_ON_0200	702.32	58.89
C_ON_0540	J_ON7.4_0005	J_ON7.4_0010	692	58.89
C_ON_0530	J_ON6.7_0010	J_ON7.4_0005	3049.61	58.89
C_ON_0520	J_ON6.7_0005	J_ON6.7_0010	333.48	58.89
C_ON_0510	J_ON6.4_0010	J_ON6.7_0005	1104.56	58.89
C_ON_0500	J_ON6.3_0010	J_ON6.4_0010	815.47	58.89
C_ON_0570	J_ON8.1_0010	J_ON8.4_0010	1534.72	58.89
C_ON_0550	J_ON7.4_0010	J_ON7.9_0010	2422.68	58.89
C_ON_0630	J_ON9.8_0020	J_ON10.0_0010	1176.82	58.89
C_ON_0620	J_ON9.7_0010	J_ON9.8_0020	627.2	58.89
C_ON_0610	J_ON9.5_0010	J_ON9.7_0010	1022.73	58.89
C_ON_0600	J_ON8.8_0010	J_ON9.5_0010	3401.71	58.89
C_ON_0590	J_ON8.6_0010	J_ON8.8_0010	937.01	58.89
C_ON_0580	J_ON8.4_0010	J_ON8.6_0010	1418.52	58.89
C_ON_0560	J_ON7.9_0010	J_ON8.1_0010	1290.25	58.89
C_ON_0650	J_ON10.6_0010	J_ON10.8_0010	981.7	58.89

C_ON_0640	J_ON10.0_0010	J_ON10.6_0010	2899.77	58.89
C_ON_0680	J_ON11.0_0010	J_ON_0690	18.47	58.89
C_ON_0670	J_ON10.8_0020	J_ON11.0_0010	653.73	58.89
C_ON_0660	J_ON10.8_0010	J_ON10.8_0020	379.37	58.89
C_ON_0220	J_ON_0210	J_ON2.4_0010	24.52	58.89
C_ON_0350	J_ON3.8_0010	J_ON4.0_0010	1349.06	58.89
C_ON_0340	J_ON3.7_0010	J_ON3.8_0010	405.74	58.89
C_ON_0330	J_ON3.6_0010	J_ON3.7_0010	408.29	58.89
C_ON_0320	J_ON3.3_0010	J_ON3.6_0010	1591.75	58.89
C_ON_0310	J_ON2.9_0010	J_ON3.3_0010	2022.97	58.89
C_ON_0300	J_ON2.6_0050	J_ON2.9_0010	838.56	58.89
C_ON_0290	J_ON2.6_0040	J_ON2.6_0050	2.15	58.89
C_ON_0280	J_ON2.6_0030	J_ON2.6_0040	17.07	58.89
C_ON_0270	J_ON2.6_0020	J_ON2.6_0030	9.63	58.89
C_ON_0260	J_ON2.6_0010	J_ON2.6_0020	3.02	58.89
C_ON_0250	J_ON2.5_0010	J_ON2.6_0010	500.52	58.89
C_ON_0240	J_ON2.4_0020	J_ON2.5_0010	350.01	58.89
C_ON_0230	J_ON2.4_0010	J_ON2.4_0020	0.15	58.89
C_ON_0450	J_ON5.3_0010	J_ON5.5_0010	940.74	58.89
C_ON_0440	J_ON5.0_0010	J_ON5.3_0010	1378.39	58.89

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ON_0430	J_ON4.7_0010	J_ON5.0_0010	1710.12	58.89
C_ON_0420	J_ON4.5_0020	J_ON4.7_0010	1209.15	58.89
C_ON_0410	J_ON4.5_0010	J_ON4.5_0020	3.43	58.89
C_ON_0400	J_ON4.4_0010	J_ON4.5_0010	1002.71	58.89
C_ON_0390	J_ON4.4_0005	J_ON4.4_0010	13.06	58.89
C_ON_0380	J_ON4.3_0010	J_ON4.4_0005	163.61	58.89
C_ON_0370	J_ON4.0_0020	J_ON4.3_0010	1296.03	58.89
C_ON_0360	J_ON4.0_0010	J_ON4.0_0020	47.03	58.89
C_ON_0490	J_ON5.6_0020	J_ON6.3_0010	3476.93	58.89
C_ON_0480	J_ON5.6_0010	J_ON5.6_0020	325.86	58.89
C_ON_0470	J_ON5.6_0005	J_ON5.6_0010	11.29	58.89
C_ON_0460	J_ON5.5_0010	J_ON5.6_0005	307.55	58.89
C_NC28.7_0050	J_NC28.7_0040	J_NC28.7_0050	615.38	39.26
C_NC28.7_0040	J_NC28.7_0035	J_NC28.7_0040	1350.73	39.26
C_NC28.7_0053	J_NC28.7_0050	J_NC28.7_0053	432.25	39.26
C_NC28.7_0055	J_NC28.7_0053	J_NC28.7_0055	11.28	29.91
C_NC28.7_0035	J_NC28.7_0033	J_NC28.7_0035	1846.81	39.26
C_NC28.7_0033	J_NC28.7_0030	J_NC28.7_0033	129.22	44.87
C_NC28.7_0030	J_NC28.7_0020	J_NC28.7_0030	190.63	44.87
C_NC28.7_0020	J_NC28.7_0010	J_NC28.7_0020	58.19	44.87
C_NC28.7-1.0_0015	J_NC28.7_0053	J_NC28.7-1.0_0015	1135.31	22.44
C_NC28.7-1.0_0020	J_NC28.7-1.0_0015	J_NC28.7-1.0_0020	9.47	18.7

C_NC28.7-1.0_0065	J_NC28.7-1.0_0060	J_NC28.7-1.0_0065	208.96	14.96
C_NC28.7-1.0_0060	J_NC28.7-1.0_0050	J_NC28.7-1.0_0060	704.26	14.96
C_NC28.7-1.0_0050	J_NC28.7-1.0_0040	J_NC28.7-1.0_0050	215.59	16.83
C_NC28.7-1.0_0040	J_NC28.7-1.0_0030	J_NC28.7-1.0_0040	1096.32	18.7
C_NC28.7-1.0_0030	J_NC28.7-1.0_0020	J_NC28.7-1.0_0030	2.29	18.7
C_NC28.7_0060	J_NC28.7_0057	J_NC28.7_0060	1097.07	29.91
C_NC28.7_0122	J_NC28.7_0120	J_NC28.7_0122	507.42	9.87
C_NC28.7_0120	J_NC28.7_0110	J_NC28.7_0120	143.37	11.92
C_NC28.7_0100	J_NC28.7_0100	J_NC28.7_0090	1.34	14.96
C_NC28.7_0105	J_NC28.7_0090	J_NC28.7_0105	5.49	14.96
C_NC28.7_0110	J_NC28.7_0105	J_NC28.7_0110	242.82	11.92
C_NC28.7_0090	J_NC28.7_0085	J_NC28.7_0100	854.94	14.96
C_NC28.7_0124	J_NC28.7_0122	J_NC28.7_0024	1152.25	9.87
C_NC28.7_0085	J_NC28.7_0083	J_NC28.7_0085	2760.5	16.83
C_NC28.7_0082	J_NC28.7_0080	J_NC28.7_0082	1305.71	28.04
C_NC28.7_0080	J_NC28.7_0070	J_NC28.7_0080	212.1	28.04
C_NC28.7_0070	J_NC28.7_0060	J_NC28.7_0070	1642.56	29.91
C_NC28.7_0083	J_NC28.7_0082	J_NC28.7_0083	2.46	18.7
C_NC28.7-2.0_0020	J_NC28.7-2.0_0010	J_NC28.7-2.0_0020	3.42	22.44
C_NC28.7-2.0_0045	J_NC28.7-2.0_0040	J_NC28.7-2.0-0.4_0010	949.84	18.7
C_NC28.7-2.0_0040	J_NC28.7-2.0_0030	J_NC28.7-2.0_0040	385.18	18.7
C_NC28.7-2.0_0030	J_NC28.7-2.0_0020	J_NC28.7-2.0_0030	955.71	18.7
C_NC28.7-2.0_0050	J_NC28.7-2.0-0.4_0010	J_NC28.7-2.0_0050	525.09	13.09
C_NC28.7-2.0_0060	J_NC28.7-2.0_0050	J_NC28.7-2.0_0060	340.55	12.86
C_NC28.7-2.8_0010	J_NC28.7_0122	J_NC28.7-2.8_0010	0.03	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC28.7-2.8_0015	J_NC28.7-2.8_0010	J_NC28.7-2.8_0015	2337.83	3.94
C_NC28.7-2.8_0020	J_NC28.7-2.8_0015	J_NC28.7-2.8_0020	1.63	3.94
C_NC28.7-2.8_0030	J_NC28.7-2.8_0020	J_NC28.7-2.8_0030	48.11	3.94
C_NC28.7_0130	J_NC28.7_0027	J_NC28.7_0140	402.77	9.87
C_NC28.7_0160	J_NC28.7_0160	J_NC28.7_0150	20.91	6.08
C_NC28.7_0155	J_NC28.7_0155	J_NC28.7_0160	9.88	7.92
C_NC28.7_0140	J_NC28.7_0140	J_NC28.7_0130	6.19	9.87
C_NC28.7_0150	J_NC28.7_0130	J_NC28.7_0155	1097	7.92
C_NC28.7-2.6_0010	J_NC28.7_0105	J_NC28.7-2.6_0010	1073.49	10.05
C_NC28.7-2.6_0020	J_NC28.7-2.6_0010	J_NC28.7-2.6_0020	128.65	8.06
C_NC27.8-0.9_0010	J_NC27.8_0055	J_NC27.8_0060	4.03	3.94
C_NC27.8-0.9_0030	J_NC27.8_0065	J_NC27.8-0.9_0030	332.67	3.94
C_NC28.7-1.0_0080	J_NC28.7-1.0_0075	J_NC28.7-1.0_0080	0.48	9.87
C_NC28.7-1.0_0100	J_NC28.7-1.0_0090	J_NC28.7-1.0_0100	465.63	9.87
C_NC28.7-1.0_0090	J_NC28.7-1.0_0080	J_NC28.7-1.0_0090	17.21	9.87
C_NC28.7-1.0_0130	J_NC28.7-1.0_0140	J_NC28.7-1.0_0120	1.15	6.08
C_NC28.7-1.0_0145	J_NC28.7-1.0_0130	J_NC28.7-1.0_0145	0.26	6.08

C_NC28.7-1.0_0140	J_NC28.7-1.0_0120	J_NC28.7-1.0_0130	7.11	6.08
C_NC28.7-1.0_0120	J_NC28.7-1.0_0110	J_NC28.7-1.0_0140	5.03	7.92
C_NC28.7-1.0_0110	J_NC28.7-1.0_0100	J_NC28.7-1.0_0110	939.54	7.92
C_NC28.7-1.0-0.1_0010	J_NC28.7-1.0_0015	J_NC28.7-1.0-0.1_0010	18.08	11.92
C_NC28.7-1.0-0.1_0013	J_NC28.7-1.0-0.1_0010	J_NC28.7-1.0-0.1_0013	786.7	11.92
C_NC28.7-1.0-0.1_0020	J_NC28.7-1.0-0.1_0017	J_NC28.7-1.0-0.1_0020	16.89	10.05
C_NC28.7-1.0-0.1_0045	J_NC28.7-1.0-0.1_0040	J_NC28.7-1.0-0.1_0045	543.48	3.94
C_NC28.7-1.0-0.1_0040	J_NC28.7-1.0-0.1_0030	J_NC28.7-1.0-0.1_0040	919.25	8.06
C_NC28.7-1.0-0.1_0030	J_NC28.7-1.0-0.1_0020	J_NC28.7-1.0-0.1_0030	813.22	10.05
C_NC28.7-1.0-0.1_0050	J_NC28.7-1.0-0.1_0047	J_NC28.7-1.0-0.1_0050	547.88	3.94
C_NC29.7_0013	J_NC29.7_0010	J_NC29.7_0013	173.97	10.05
C_NC29.7_0020	J_NC29.7_0017	J_NC29.7_0020	1229.51	10.05
C_KL7.7_0010	J_KL_0225	J_KL7.7_0010	3.87	11.46
C_KL7.7_0030	J_KL7.7_0025	J_KL7.7_0030	481.14	9.66
C_KL7.7_0035	J_KL7.7_0030	J_KL7.7_0035	0.08	9.66
C_KL7.7_0023	J_KL7.7_0020	J_KL7.7_0023	1265.98	11.01
C_KL7.7_0020	J_KL7.7_0010	J_KL7.7_0020	668.44	11.46
C_KL9.3_0160	J_KL9.3_0155	J_KL9.3_0160	1578.9	18.37
C_KL9.3_0190	J_KL9.3_0180	J_KL9.3_0190	16.37	14.7
C_KL9.3_0180	J_KL9.3_0170	J_KL9.3_0180	46.82	14.7
C_KL9.3_0170	J_KL9.3_0160	J_KL9.3_0170	779.47	18.37
C_MB6.0_0110	J_MB6.0_0100	J_MB6.0_0110	1270.89	11.71
C_MB6.0_0130	J_MB6.0_0120	J_MB6.0_0130	1035.04	6.08
C_MB6.0_0120	J_MB6.0_0110	J_MB6.0_0120	10.4	6.08
C_MB11.0_0010	J_MB_0400	J_MB11.0_0010	8.02	14.96
C_MB11.0_0060	J_MB11.0_0050	J_MB11.0_0060	4.58	9.87
C_MB11.0_0050	J_MB11.0_0040	J_MB11.0_0050	0.15	9.87
C_MB11.0_0030	J_MB11.0_0030	J_MB11.0_0020	0.47	13.09
C_MB11.0_0040	J_MB11.0_0020	J_MB11.0_0040	787.13	12.86
C_MB11.0_0020	J_MB11.0_0010	J_MB11.0_0030	50.95	14.96

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9_0147	J_NC38.9-6.7_0010	J_NC38.9_0147	162.29	28.04
C_NC38.9_0143	J_NC38.9_0140	J_NC38.9-6.7_0010	2050.27	48
C_NC38.9_0140	J_NC38.9_0130	J_NC38.9_0140	22.2	48
C_NC38.9_0130	J_NC38.9_0120	J_NC38.9_0130	3494.71	48
C_NC38.9_0115	J_NC38.9_0110	J_NC38.9-5.3_0010	1558.06	48
C_NC38.9_0105	J_NC38.9_0100	J_NC38.9_0105	2854.21	72

C_NC38.9_0110	J_NC38.9_0105	J_NC38.9_0110	1263.19	48
C_NC38.9_0100	J_NC38.9_0090	J_NC38.9_0100	2018.68	72
C_NC38.9_0087	J_NC38.9_0085	J_NC38.9-3.8_0010	1488.47	72
C_NC38.9_0120	J_NC38.9-5.3_0010	J_NC38.9_0120	1130.83	48
C_NC38.9_0090	J_NC38.9-3.8_0020	J_NC38.9_0090	68.08	72
C_NC38.9-3.8_0089	J_NC38.9-3.8_0010	J_NC38.9-3.8_0020	8.19	72
C_NC38.9_0082	J_NC38.9_0080	J_NC38.9_0082	598.05	72
C_NC38.9_0085	J_NC38.9_0082	J_NC38.9_0085	2628.03	72
C_NC38.9_0080	J_NC38.9_0070	J_NC38.9_0080	2681.64	72
C_NC38.9_0063	J_NC38.9_0060	J_NC38.9_0063	317.97	72
C_NC38.9_0067	J_NC38.9_0063	J_NC38.9-2.4_0020	94.4	72
C_NC38.9_0060	J_NC38.9_0050	J_NC38.9_0060	3019.06	72
C_NC38.9_0070	J_NC38.9-2.4_0020	J_NC38.9_0070	135.76	72
C_NC38.9_0050	J_NC38.9-1.2_0010	J_NC38.9_0050	2019.62	72
C_NC38.9_0043	J_NC38.9_0040	J_NC38.9_0043	1011.38	72
C_NC38.9_0046	J_NC38.9_0043	J_NC38.9-1.2_0010	2358.19	72
C_NC38.9_0040	J_NC38.9_0035	J_NC38.9_0040	13.16	72
C_NC38.9_0035	J_NC38.9_0030	J_NC38.9_0035	660.94	72
C_NC38.9_0030	J_NC38.9_0025	J_NC38.9_0030	672.03	72
C_NC38.9_0025	J_NC38.9_0020	J_NC38.9_0025	643.35	72
C_NC38.9_0020	J_NC38.9_0017	J_NC38.9_0020	214.76	72
C_NC38.9_0017	J_NC38.9_0015	J_NC38.9_0017	97.71	72
C_NC38.9_0015	J_NC38.9_0010	J_NC38.9_0015	217.38	72
C_NC38.9_0150	J_NC38.9_0148	J_NC38.9_0150	1982.97	28.04
C_NC38.9_0240	J_NC38.9_0230	J_NC38.9_0240	1402.48	18.7
C_NC38.9_0230	J_NC38.9_0220	J_NC38.9_0230	0.85	18.7
C_NC38.9_0255	J_NC38.9_0250	J_NC38.9_0255	809	16.83
C_NC38.9_0260	J_NC38.9_0255	J_NC38.9_0260	455.34	11.92
C_NC38.9_0250	J_NC38.9_0240	J_NC38.9_0250	1514.27	18.7
C_NC38.9_0213	J_NC38.9_0210	J_NC38.9-9.3_0020	3789.16	18.7
C_NC38.9_0200	J_NC38.9_0200	J_NC38.9_0190	6.6	18.7
C_NC38.9_0210	J_NC38.9_0190	J_NC38.9_0210	19.04	18.7
C_NC38.9_0192	J_NC38.9_0185	J_NC38.9_0187	504.2	22.44
C_NC38.9_0190	J_NC38.9_0187	J_NC38.9_0200	405.71	22.44
C_NC38.9_0185	J_NC38.9_0180	J_NC38.9_0185	138.77	22.44
C_NC38.9_0180	J_NC38.9_0177	J_NC38.9_0180	91.08	22.44
C_NC38.9_0172	J_NC38.9_0170	J_NC38.9_0173	69.55	28.04
C_NC38.9_0177	J_NC38.9_0175	J_NC38.9_0177	2169.84	22.44
C_NC38.9_0175	J_NC38.9_0173	J_NC38.9_0175	734.84	24.3
C_NC38.9_0160	J_NC38.9_0150	J_NC38.9_0160	3.36	28.04
C_NC38.9_0170	J_NC38.9_0160	J_NC38.9_0170	3212.41	28.04

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9_0217	J_NC38.9-9.3_0020	J_NC38.9-9.3_0010	4.93	18.7

C_NC38.9_0220	J_NC38.9-9.3_0010J_NC38.9_0220	1449.24	18.7	
C_NC38.9_0290	J_NC38.9_0280	J_NC38.9_0290	2139.26	11.92
C_NC38.9_0280	J_NC38.9_0270	J_NC38.9_0280	1490.11	11.92
C_NC38.9_0270	J_NC38.9_0260	J_NC38.9_0270	143.78	11.92
C_NC30.2_0090	J_NC30.2_0080	J_NC30.2_0090	1713.73	8.06
C_NC30.2_0080	J_NC30.2_0070	J_NC30.2_0080	266.83	10.05
C_NC30.2_0070	J_NC30.2_0060	J_NC30.2_0070	808.7	10.05
C_NC30.2_0060	J_NC30.2_0050	J_NC30.2_0060	805.26	11.92
C_NC30.2_0050	J_NC30.2-0.7_0010J_NC30.2_0050	1006.77	11.92	
C_NC30.2_0047	J_NC30.2-0.5_0010J_NC30.2-0.7_0010	778.13	11.92	
C_NC30.2_0043	J_NC30.2_0040	J_NC30.2-0.4_0010	458.54	14.96
C_NC30.2_0035	J_NC30.2_0030	J_NC30.2-0.2_0010	907.9	16.83
C_NC30.2_0030	J_NC30.2_0020	J_NC30.2_0030	0.93	22.44
C_NC30.2_0020	J_NC30.2_0010	J_NC30.2_0020	57.42	22.44
C_NC30.2_0045	J_NC30.2-0.4_0010J_NC30.2-0.5_0010	664.8	14.96	
C_NC30.2_0040	J_NC30.2-0.2_0010J_NC30.2_0040	566	14.96	
C_NC31.0_0130	J_NC31.0_0120	J_NC31.0_0130	693.47	18.7
C_NC31.0_0185	J_NC31.0_0180	J_NC31.0_0185	19.53	7.92
C_NC31.0_0180	J_NC31.0_0170	J_NC31.0_0180	4.2	7.92
C_NC31.0_0170	J_NC31.0_0158	J_NC31.0_0170	283.05	9.87
C_NC31.0_0158	J_NC31.0_0156	J_NC31.0_0158	434.83	12.86
C_NC31.0_0156	J_NC31.0_0150	J_NC31.0_0156	1875.65	12.86
C_NC31.0_0150	J_NC31.0_0140	J_NC31.0_0150	16.91	13.09
C_NC31.0_0135	J_NC31.0_0130	J_NC31.0_0135	124.69	18.7
C_NC31.0_0140	J_NC31.0_0135	J_NC31.0_0140	1097.13	14.96
C_NC31.0_0120	J_NC31.0_0110	J_NC31.0_0120	1420.67	18.7
C_NC31.0_0110	J_NC31.0_0100	J_NC31.0_0110	126.21	18.7
C_NC31.0_0100	J_NC31.0_0090	J_NC31.0_0100	3.74	22.44
C_NC31.0_0090	J_NC31.0_0080	J_NC31.0_0090	993.37	22.44
C_NC31.0_0080	J_NC31.0_0070	J_NC31.0_0080	514.86	22.44
C_NC31.0_0070	J_NC31.0_0060	J_NC31.0_0070	2374.77	24.3
C_NC31.0_0060	J_NC31.0_0050	J_NC31.0_0060	980.02	24.3
C_NC31.0_0050	J_NC31.0_0040	J_NC31.0_0050	1062.75	26.17
C_NC31.0_0040	J_NC31.0_0030	J_NC31.0_0040	629.63	26.17
C_NC31.0_0030	J_NC31.0_0025	J_NC31.0_0030	248.56	26.17
C_NC31.0_0025	J_NC31.0_0020	J_NC31.0_0025	212.37	26.17
C_NC31.0_0020	J_NC31.0_0010	J_NC31.0_0020	179.32	26.17
C_NC31.0-2.5_0020J_NC31.0_0160	J_NC31.0_0165	6.61	6.08	
C_NC31.0-2.5_0030J_NC31.0_0165	J_NC31.0-2.5_0030	514.69	6.08	
C_NC31.0-1.9_0050J_NC31.0-1.9_0050J_NC31.0-1.9_0040	2.43	6.08		
C_NC31.0-1.9_0040J_NC31.0-1.9_0020J_NC31.0-1.9_0040	741.24	6.08		
C_NC31.0-1.9_0035J_NC31.0-1.9_0035J_NC31.0-1.9_0020	1.48	10.05		
C_NC31.5_0060	J_NC31.5_0055	J_NC31.5_0060	1218.02	11.92
C_NC31.5_0055	J_NC31.5_0050	J_NC31.5_0055	60.71	11.92
C_NC31.5_0050	J_NC31.5_0040	J_NC31.5_0050	1289.89	11.92
C_NC31.5_0040	J_NC31.5_0030	J_NC31.5_0040	929.23	13.09

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC31.5_0030	J_NC31.5_0025	J_NC31.5_0030	1619.59	14.96
C_NC31.5_0025	J_NC31.5_0020	J_NC31.5_0025	2.42	14.96
C_NC31.5_0020	J_NC31.5_0010	J_NC31.5_0020	969.69	18.7
C_NC31.5_0065	J_NC31.5_0060	J_NC31.5_0065	2.98	10.05
C_NC31.5_0080	J_NC31.5_0075	J_NC31.5_0080	15.44	8.06
C_NC31.5_0100	J_NC31.5_0090	J_NC31.5_0100	250.71	6.08
C_NC31.5_0090	J_NC31.5_0080	J_NC31.5_0090	168.68	6.08
C_NC32.2_0083	J_NC32.2_0080	J_NC32.2_0083	1143.37	13.09
C_NC32.2_0080	J_NC32.2_0070	J_NC32.2_0080	1251.55	14.96
C_NC32.2_0070	J_NC32.2_0060	J_NC32.2_0070	22.21	14.96
C_NC32.2_0060	J_NC32.2_0050	J_NC32.2_0060	2296.12	14.96
C_NC32.2_0050	J_NC32.2_0040	J_NC32.2_0050	22.6	14.96
C_NC32.2_0040	J_NC32.2_0030	J_NC32.2_0040	1317.31	14.96
C_NC32.2_0030	J_NC32.2_0025	J_NC32.2_0030	800.09	18.7
C_NC32.2_0025	J_NC32.2_0020	J_NC32.2_0025	209.38	18.7
C_NC32.2_0015	J_NC32.2_0010	J_NC32.2_0015	131.08	22.44
C_NC32.2_0020	J_NC32.2_0015	J_NC32.2_0020	116.74	22.44
C_NC32.2_0090	J_NC32.2_0087	J_NC32.2_0090	13.22	12.86
C_NC32.2_0150	J_NC32.2_0140	J_NC32.2_0150	932.34	7.75
C_NC32.2_0140	J_NC32.2_0110	J_NC32.2_0140	2673.22	9.66
C_NC32.2_0107	J_NC32.2_0105	J_NC32.2_0107	72.63	11.71
C_NC32.2_0110	J_NC32.2_0107	J_NC32.2_0110	6.01	9.87
C_NC32.2_0105	J_NC32.2_0100	J_NC32.2_0105	988.4	11.71
C_NC32.2_0100	J_NC32.2_0090	J_NC32.2_0100	3.58	11.71
C_NC32.2_0160	J_NC32.2_0150	J_NC32.2_0160	84.39	7.75
C_NC32.2-1.7_0010	J_NC32.2_0107	J_NC32.2-1.7_0010	675.46	9.66
C_NC32.2-1.7_0030	J_NC32.2-1.7_0020	J_NC32.2-1.7_0030	5.09	7.75
C_NC32.2-1.7_0020	J_NC32.2-1.7_0010	J_NC32.2-1.7_0020	19.16	7.75
C_NC33.1_0090	J_NC33.1_0088	J_NC33.1_0095	1665.83	9.66
C_NC33.1_0088	J_NC33.1_0087	J_NC33.1_0088	16.33	9.87
C_NC33.1_0087	J_NC33.1_0085	J_NC33.1_0087	896.2	9.87
C_NC33.1_0085	J_NC33.1_0080	J_NC33.1_0085	6.78	10.05
C_NC33.1_0080	J_NC33.1_0070	J_NC33.1_0080	748.43	13.09
C_NC33.1_0070	J_NC33.1_0065	J_NC33.1_0070	2038.08	13.09
C_NC33.1_0065	J_NC33.1_0060	J_NC33.1_0065	3.43	18.7
C_NC33.1_0055	J_NC33.1_0050	J_NC33.1_0055	461.81	28.04
C_NC33.1_0060	J_NC33.1_0055	J_NC33.1_0060	599.47	18.7
C_NC33.1_0050	J_NC33.1_0040	J_NC33.1_0050	5.69	28.04
C_NC33.1_0040	J_NC33.1_0035	J_NC33.1_0040	391.29	29.91
C_NC33.1_0035	J_NC33.1_0030	J_NC33.1_0035	292.26	29.91
C_NC33.1_0030	J_NC33.1_0020	J_NC33.1_0030	12.46	29.91
C_NC33.1_0020	J_NC33.1_0010	J_NC33.1_0020	112.28	29.91
C_NC33.1_0115	J_NC33.1_0110	J_NC33.1_0115	59.15	3.94
C_NC33.1_0110	J_NC33.1_0105	J_NC33.1_0110	883.47	5.96
C_NC33.1_0103	J_NC33.1_0100	J_NC33.1_0103	1301.89	5.89
C_NC33.1_0095	J_NC33.1_0095	J_NC33.1_0090	1.38	11.46

C_NC33.1_0100	J_NC33.1_0090	J_NC33.1_0100	606.94	9.66

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC33.1-1.8_0010	J_NC33.1_0110	J_NC33.1-1.8_0010	492.54	5.96
C_NC33.1S_0075	J_NC33.1S_0072	J_NC33.1S_0075	913.35	18.7
C_NC33.1S_0150	J_NC33.1S_0140	J_NC33.1S-1.6_0005	815.03	12.59
C_NC33.1S_0130	J_NC33.1S_0120	J_NC33.1_0130	1206.63	14.38
C_NC33.1S_0120	J_NC33.1S_0111	J_NC33.1S_0120	74.7	14.38
C_NC33.1S_0111	J_NC33.1S_0110	J_NC33.1S_0111	7.23	14.96
C_NC33.1S_0110	J_NC33.1S_0100	J_NC33.1S_0110	7.02	14.96
C_NC33.1S_0100	J_NC33.1S_0090	J_NC33.1S_0100	37.17	16.83
C_NC33.1S_0090	J_NC33.1S_0080	J_NC33.1S_0090	1195.72	16.83
C_NC33.1S_0080	J_NC33.1S_0075	J_NC33.1S_0080	182.8	18.7
C_NC33.1S_0140	J_NC33.1_0130	J_NC33.1S_0140	9.66	14.38
C_ON_0710	J_ON_0700	J_ON11.1_0010	82.98	58.89
C_ON_0810	J_ON12.5_0020	J_ON12.5_0015	258.46	49.6
C_ON_0820	J_ON12.5_0015	J_ON12.6_0010	367.2	49.6
C_ON_0800	J_ON12.5_0010	J_ON12.5_0020	6.55	49.6
C_ON_0790	J_ON12.2_0010	J_ON12.5_0010	1431.09	49.6
C_ON_0780	J_ON11.8_0040	J_ON12.2_0010	1443.61	49.6
C_ON_0770	J_ON11.8_0030	J_ON11.8_0040	470.26	49.6
C_ON_0760	J_ON11.8_0020	J_ON11.8_0030	110.23	57.86
C_ON_0750	J_ON11.8_0010	J_ON11.8_0020	42.6	57.86
C_ON_0740	J_ON11.6_0010	J_ON11.8_0010	1037.78	57.86
C_ON_0730	J_ON11.2_0010	J_ON11.6_0010	1924.99	57.86
C_ON_0720	J_ON11.1_0010	J_ON11.2_0010	726.72	58.89
C_ON_0915	J_ON14.0_0010	J_ON14.3_0005	1684.15	44.09
C_ON_0900	J_ON13.7_0010	J_ON_0900	940.77	44.09
C_ON_0910	J_ON_0900	J_ON14.0_0010	478.85	44.09
C_ON_0890	J_ON13.6_0010	J_ON13.7_0010	543.98	44.09
C_ON_0880	J_ON13.4_0010	J_ON13.6_0010	841.97	49.6
C_ON_0870	J_ON13.3_0010	J_ON13.4_0010	769.29	49.6
C_ON_0850	J_ON12.9_0010	J_ON_0860	1242.4	49.6
C_ON_0860	J_ON_0860	J_ON13.3_0010	404.36	49.6
C_ON_0840	J_ON_0830	J_ON12.9_0010	753.18	49.6
C_ON_0990	J_ON15.5_0010	J_ON15.6_0010	933.23	44.09
C_ON_0980	J_ON15.3_0010	J_ON15.5_0010	1204.11	44.09
C_ON_0970	J_ON15.0_0010	J_ON15.3_0010	1430.02	44.09
C_ON_0960	J_ON14.7_0020	J_ON15.0_0010	1671.6	44.09
C_ON_0940	J_ON14.6_0010	J_ON14.7_0010	223.22	44.09
C_ON_0930	J_ON14.3_0010	J_ON14.6_0010	1928	44.09
C_ON_0920	J_ON14.3_0005	J_ON14.3_0010	51.16	44.09
C_ON_1080	J_ON17.2_0010	J_ON17.6_0010	1814.33	33.06
C_ON_1060	J_ON16.8_0005	J_ON16.8_0010	150.71	38.58

C_ON_1050	J_ON16.4_0020	J_ON16.8_0005	1654.59	38.58
C_ON_1040	J_ON16.4_0010	J_ON16.4_0020	201.43	38.58
C_ON_1030	J_ON16.2_0030	J_ON16.4_0010	2103.06	38.58
C_ON_1020	J_ON16.0_0020	J_ON16.2_0030	119.23	38.58
C_ON_1010	J_ON16.0_0010	J_ON16.0_0020	14.53	38.58
C_ON_1000	J_ON15.6_0010	J_ON16.0_0010	1632.45	38.58

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ON_1270	J_ON_1260	J_ON_1270	2063.67	11.46
C_ON_1227	J_ON_1225	J_ON_1230	474.4	6.08
C_ON_1220	J_ON19.7_0010	J_ON19.8_0010	579.46	12.86
C_ON_1210	J_ON19.4_0025	J_ON19.7_0010	1435.69	14.7
C_ON_1190	J_ON19.3_0010	J_ON_1190	718.78	18.37
C_ON_1200	J_ON_1190	J_ON19.4_0025	86	14.7
C_ON_1180	J_ON19.2_0010	J_ON19.3_0010	747.58	18.37
C_ON_1240	J_ON_1230	J_ON20.1_0010	841.89	6.08
C_ON_1170	J_ON18.8_0020	J_ON19.2_0010	1903	18.37
C_ON_1160	J_ON18.8_0010	J_ON18.8_0020	2.35	22.04
C_ON_1150	J_ON18.6_0010	J_ON18.8_0010	672.44	23.88
C_ON_1130	J_ON18.1_0010	J_ON_1130	553.95	27.55
C_ON_1140	J_ON_1130	J_ON18.6_0010	1807.92	23.88
C_ON_1110	J_ON17.7_0010	J_ON_1110	1326.35	29.39
C_ON_1120	J_ON_1110	J_ON18.1_0010	841.04	27.55
C_ON_1100	J_ON17.6_0020	J_ON17.7_0010	683.39	29.39
C_ON_1090	J_ON17.6_0010	J_ON17.6_0020	66.81	33.06
C_NC35.1_0055	J_NC35.1_0050	J_NC35.1_0055	194.46	11.92
C_NC35.1_0050	J_NC35.1_0040	J_NC35.1_0050	1685	13.09
C_NC35.1_0040	J_NC35.1_0030	J_NC35.1_0040	2061.43	14.96
C_NC35.1_0025	J_NC35.1_0020	J_NC35.1_0025	1.98	18.7
C_NC35.1_0030	J_NC35.1_0025	J_NC35.1_0030	2.33	14.96
C_NC35.1_0020	J_NC35.1_0015	J_NC35.1_0020	97.62	18.7
C_NC35.1_0015	J_NC35.1_0010	J_NC35.1_0015	61.23	18.7
C_NC35.1_0060	J_NC35.1_0055	J_NC35.1_0060	1828.43	10.05
C_NC35.1_0095	J_NC35.1_0090	J_NC35.1_0095	518.89	7.92
C_NC35.1_0090	J_NC35.1_0080	J_NC35.1_0090	7.85	7.92
C_NC35.1_0080	J_NC35.1_0073	J_NC35.1_0080	694.99	9.87
C_NC35.1_0073	J_NC35.1_0070	J_NC35.1_0073	24.61	10.05
C_NC35.1_0070	J_NC35.1_0060	J_NC35.1_0070	455.25	10.05
C_NC35.1-0.1_0010	J_NC35.1_0025	J_NC35.1-0.1_0010	6.1	11.92
C_NC35.1-0.1_0040	J_NC35.1-0.1_0030	J_NC35.1-0.1_0040	114.56	10.05
C_NC35.1-0.1_0030	J_NC35.1-0.1_0020	J_NC35.1-0.1_0030	11.19	10.05
C_NC35.1-0.1_0020	J_NC35.1-0.1_0010	J_NC35.1-0.1_0020	1129.8	11.92
C_NC35.7_0025	J_NC35.7_0020	J_NC35.7_0025	1143.74	8.06
C_ON13.9_0020	J_ON13.9_0015	J_ON13.9_0020	2667.68	11.46

C_NC37.6_0080	J_NC37.6_0070	J_NC37.6_0080	14.37	22.04
C_NC37.6_0070	J_NC37.6_0060	J_NC37.6_0070	10.02	22.04
C_NC37.6_0058	J_NC37.6_0055	J_NC37.6-0.2_0010	811.58	22.44
C_NC37.6_0055	J_NC37.6_0050	J_NC37.6_0055	14.19	22.44
C_NC37.6_0050	J_NC37.6_0040	J_NC37.6_0050	63.2	22.44
C_NC37.6_0040	J_NC37.6_0030	J_NC37.6_0040	41.59	22.44
C_NC37.6_0030	J_NC37.6_0020	J_NC37.6_0030	56.69	22.44
C_NC37.6_0020	J_NC37.6_0010	J_NC37.6_0020	74.94	22.44
C_NC37.6_0090	J_NC37.6_0080	J_NC37.6_0090	4505.88	16.18
C_NC37.6_0060	J_NC37.6-0.2_0010	J_NC37.6_0060	1330.13	22.04
C_NC37.6_0135	J_NC37.6_0130	J_NC37.6_0135	1386.05	9.55

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC37.6_0130	J_NC37.6_0120	J_NC37.6_0130	3.6	11.46
C_NC37.6_0120	J_NC37.6_0110	J_NC37.6_0120	21.57	11.46
C_NC37.6_0110	J_NC37.6_0100	J_NC37.6_0110	1340.63	14.38
C_NC37.6_0100	J_NC37.6_0090	J_NC37.6_0100	0.99	14.38
C_NC37.6-0.5_0040	J_NC37.6-0.5_0020	J_NC37.6-0.5_0040	27.72	7.75
C_NC37.6-0.5_0010	J_NC37.6-0.5_0005	J_NC37.6-0.5_0010	2.54	11.71
C_NC37.6-0.5_0005	J_NC37.6_0080	J_NC37.6-0.5_0005	141.4	11.71
C_NC37.6-0.5_0020	J_NC37.6-0.5_0010	J_NC37.6-0.5_0030	1407.3	11.46
C_NC37.6-0.5_0030	J_NC37.6-0.5_0030	J_NC37.6-0.5_0020	2.96	7.75
C_NC37.6-0.5-0.1_0010	J_NC37.6-0.5_0005	J_NC37.6-0.5-0.1_0010	967.82	7.75
C_NC37.6-0.5-0.1_0020	J_NC37.6-0.5-0.1_0010	J_NC37.6-0.5-0.1_0020	320.75	7.75
C_NC38.7_0040	J_NC38.7_0070	J_NC38.7_0030	2.19	28.04
C_NC38.7_0072	J_NC38.7_0060	J_NC38.7_0072	14.75	22.44
C_NC38.7_0070	J_NC38.7_0050	J_NC38.7_0060	8.54	22.44
C_NC38.7_0060	J_NC38.7_0040	J_NC38.7_0050	3.12	24.3
C_NC38.7_0050	J_NC38.7_0030	J_NC38.7_0040	3.27	28.04
C_NC38.7_0030	J_NC38.7_0020	J_NC38.7_0070	2.34	31.78
C_NC38.7_0020	J_NC38.7_0010	J_NC38.7_0020	55.9	31.78
C_NC38.7_0073	J_NC38.7_0072	J_NC38.7-0.15_0010	654.58	18.7
C_NC38.7_0077	J_NC38.7-0.2_0030	J_NC38.7_0077	49.62	18.7
C_NC38.7_0076	J_NC38.7-0.2_0020	J_NC38.7-0.2_0030	2.07	18.7
C_NC38.7_0075	J_NC38.7-0.2_0010	J_NC38.7-0.2_0020	5.85	18.7
C_NC38.7_0074	J_NC38.7-0.15_0010	J_NC38.7-0.2_0010	559.12	18.7
C_NC38.7_0095	J_NC38.7_0093	J_NC38.7_0095	1045.55	18.37
C_NC38.7_0097	J_NC38.7_0095	J_NC38.7-1.1_0010	2251.99	17.98
C_NC38.7_0110	J_NC38.7_0100	J_NC38.7_0110	1329.96	12.59
C_NC38.7_0100	J_NC38.7-1.1_0010	J_NC38.7_0099	393.34	16.18
C_NC38.7_0120	J_NC38.7_0110	J_NC38.7_0120	198.75	5.96
C_NC38.9-0.7_0010	J_NC38.9_0043	J_NC38.9-0.7_0010	9.27	24.3
C_NC38.9-0.7_0050	J_NC38.9-0.7_0040	J_NC38.9-0.7_0050	1254.48	3.94

C_NC38.9-0.7_0040J_NC38.9-0.7_0030J_NC38.9-0.7_0040	393.43	3.94		
C_NC38.9-0.7_0020J_NC38.9-0.7_0010J_NC38.9-0.7_0020	2.42	24.3		
C_NC38.9-0.7_0030J_NC38.9-0.7_0020J_NC38.9-0.7_0030	39.35	16.83		
C_NC38.9-2.4_0010J_NC38.9_0063	J_NC38.9-2.4_0010	8.34	22.44	
C_NC38.9-2.4_0040J_NC38.9-2.4_0030J_NC38.9-2.4_0040	2779.8	18.7		
C_NC38.9-2.4_0015J_NC38.9-2.4_0010J_NC38.9-2.4_0015	2.36	22.44		
C_NC38.9-2.4_0030J_NC38.9-2.4_0015J_NC38.9-2.4_0030	1283.46	18.7		
C_NC38.9-2.4_0135J_NC38.9-2.4_0135J_NC38.9-2.4_0130	0.16	9.66		
C_NC38.9-2.4_0136J_NC38.9-2.4_0130J_NC38.9-2.4_0136	117.16	5.96		
C_NC38.9-2.4_0127J_NC38.9-2.4_0120J_NC38.9-2.4_0127	609.55	14.38		
C_NC38.9-2.4_0130J_NC38.9-2.4_0127J_NC38.9-2.4_0135	455.58	9.66		
C_NC38.9-2.4_0120J_NC38.9-2.4_0110J_NC38.9-2.4_0120	15.53	14.7		
C_NC38.9-2.4_0110J_NC38.9-2.4_0105J_NC38.9-2.4_0110	160.18	16.53		
C_NC38.9-2.4_0078J_NC38.9-2.4_0070J_NC38.9-2.4_0078	332.6	16.18		
C_NC38.9-2.4_0070J_NC38.9-2.4_0060J_NC38.9-2.4_0070	738.07	16.53		
C_NC38.9-2.4_0060J_NC38.9-2.4_0050J_NC38.9-2.4_0060	10.47	16.53		
C_NC38.9-2.4_0048J_NC38.9-2.4_0045J_NC38.9-2.4_0048	2553.43	16.53		

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-2.4_0050J_NC38.9-2.4_0048J_NC38.9-2.4_0050	150.08	16.53		
C_NC38.9-2.4_0045J_NC38.9-2.4_0040J_NC38.9-2.4_0045	8.64	16.83		
C_NC38.9-2.4-1.5_0010J_NC38.9-2.4_0105J_NC38.9-2.4-1.5_0010	392.28	3.94		
C_NC38.9-3.0_0010J_NC38.9_0082	J_NC38.9-3.0_0020	14.03	18.7	
C_NC38.9-3.0_0060J_NC38.9-3.0_0050J_NC38.9-3.0-0.5_0010	136.3	14.96		
C_NC38.9-3.0_0050J_NC38.9-3.0_0040J_NC38.9-3.0_0050	1045.68	14.96		
C_NC38.9-3.0_0040J_NC38.9-3.0_0030J_NC38.9-3.0_0040	307.44	14.96		
C_NC38.9-3.0_0020J_NC38.9-3.0_0020J_NC38.9-3.0_0010	0.35	16.83		
C_NC38.9-3.0_0030J_NC38.9-3.0_0010J_NC38.9-3.0_0030	701.91	14.96		
C_NC38.9-3.0_0080J_NC38.9-3.0-0.5_0020J_NC38.9-3.0_0080	2135.08	10.05		
C_NC38.9-3.0_0070J_NC38.9-3.0-0.5_0010J_NC38.9-3.0-0.5_0020	3.92	13.09		
C_NC38.9-4.8-0.5_0020J_NC38.9-4.8_0045J_NC38.9-4.8-0.5_0020	3.31	22.44		
C_NC38.9-4.8-0.5_0030J_NC38.9-4.8-0.5_0020J_NC38.9-4.8-0.5_0030	0.42	22.44		
C_NC38.9-4.8-0.5_0040J_NC38.9-4.8-0.5_0030J_NC38.9-4.8-0.5_0040	1837.75	22.44		
C_NC38.9-4.8-0.5_0108J_NC38.9-4.8-0.5_0095J_NC38.9-4.8-0.5_0108	526.99	14.38		
C_NC38.9-4.8-0.5_0092J_NC38.9-4.8-0.5_0090J_NC38.9-4.8-0.5_0092	217.14	14.7		
C_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0070J_NC38.9-4.8-0.5_0075	164.19	16.53		
C_NC38.9-4.8-0.5_0090J_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0090	6.28	14.7		
C_NC38.9-4.8-0.5_0070J_NC38.9-4.8-0.5_0060J_NC38.9-4.8-0.5_0070	3185.94			

18.37
C_NC38.9-4.8-0.5_0060J_NC38.9-4.8-0.5_0050J_NC38.9-4.8-0.5_0060 15.03
18.7
C_NC38.9-4.8-0.5_0050J_NC38.9-4.8-0.5_0045J_NC38.9-4.8-0.5_0050 78.05
18.7
C_NC38.9-4.8-0.5_0045J_NC38.9-4.8-0.5_0040J_NC38.9-4.8-0.5_0045 701.13
18.7
C_NC38.9-4.8-0.5_0095J_NC38.9-4.8-0.5_0093J_NC38.9-4.8-0.5_0095 1301.36
14.96
C_NC38.9-4.8_0010J_NC38.9_0105 J_NC38.9-4.8_0010 220.43 33.65
C_NC38.9-4.8_0045J_NC38.9-4.8_0040J_NC38.9-4.8_0045 1315.8 31.78
C_NC38.9-4.8_0040J_NC38.9-4.8_0030J_NC38.9-4.8_0040 567.91 31.78
C_NC38.9-4.8_0030J_NC38.9-4.8_0020J_NC38.9-4.8_0030 4.99 33.65
C_NC38.9-4.8_0020J_NC38.9-4.8_0010J_NC38.9-4.8_0020 599.53 33.65
C_NC38.9-4.8_0050J_NC38.9-4.8_0045J_NC38.9-4.8_0050 1489.04 24.3
C_NC38.9-4.8_0157J_NC38.9-4.8_0150J_NC38.9-4.8_0157 1232.34 11.46
C_NC38.9-4.8_0143J_NC38.9-4.8_0140J_NC38.9-4.8_0143 776.35 12.44
C_NC38.9-4.8_0140J_NC38.9-4.8_0130J_NC38.9-4.8_0140 1139.78 14.38
C_NC38.9-4.8_0150J_NC38.9-4.8_0145J_NC38.9-4.8_0150 1.66 11.71
C_NC39.8-4.8_0090J_NC39.8-4.8-0.9_0020J_NC38.9-4.8_0090 391.08 22.44
C_NC39.8-4.8_0085J_NC39.8-4.8-0.9_0010J_NC39.8-4.8-0.9_0020 22.48 22.44
C_NC38.9-4.8_0130J_NC38.9-4.8_0120J_NC38.9-4.8_0130 2841.27 14.96
C_NC38.9-4.8_0120J_NC38.9-4.8_0110J_NC38.9-4.8_0120 143.11 16.83
C_NC38.9-4.8_0096J_NC38.9-4.8_0094J_NC38.9-4.8_0096 39.18 22.44
C_NC38.9-4.8_0094J_NC38.9-4.8_0093J_NC38.9-4.8_0094 944.76 22.44
C_NC38.9-4.8_0093J_NC38.9-4.8_0090J_NC38.9-4.8_0093 398.27 22.44
C_NC39.8-4.8_0080J_NC38.9-4.8_0070J_NC39.8-4.8-0.9_0010 798.55 22.44
C_NC38.9-4.8_0070J_NC38.9-4.8_0060J_NC38.9-4.8_0070 2.8 22.44
C_NC38.9-4.8_0060J_NC38.9-4.8_0050J_NC38.9-4.8_0060 9.13 24.3
C_NC38.9-4.8_0110J_NC38.9-4.8_0096J_NC38.9-4.8_0110 590.26 16.83
C_NC38.9-4.8_0160J_NC38.9-4.8_0157J_NC38.9-4.8_0160 86.68 11.46
C_NC38.9-4.8-2.5_0015J_NC38.9-4.8-2.5_0010J_NC38.9-4.8-2.5_0015 11.27
7.92
C_NC38.9-4.8-2.5_0020J_NC38.9-4.8-2.5_0015J_NC38.9-4.8-2.5_0030 132.45
7.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8-2.5_0030J_NC38.9-4.8-2.5_0030J_NC38.9-4.8-2.5_0020			9.6	6.08
C_NC38.9-4.8-2.5_0040J_NC38.9-4.8-2.5_0020J_NC38.9-4.8-2.5_0040			20.62	6.08
C_NC38.9-7.8_0010J_NC38.9_0173	J_NC38.9-7.8_0010		11.51	14.96
C_NC38.9-7.8_0060J_NC38.9-7.8_0050J_NC38.9-7.8_0060			58.13	11.92
C_NC38.9-7.8_0050J_NC38.9-7.8_0045J_NC38.9-7.8_0050			477.05	14.96

C_NC38.9-7.8_0045J_NC38.9-7.8_0040J_NC38.9-7.8_0045 2054.29 14.96
C_NC38.9-7.8_0040J_NC38.9-7.8_0030J_NC38.9-7.8_0040 12.63 14.96
C_NC38.9-7.8_0030J_NC38.9-7.8_0020J_NC38.9-7.8_0030 10.45 14.96
C_NC38.9-7.8_0020J_NC38.9-7.8_0010J_NC38.9-7.8_0020 38.61 14.96
C_NC38.9-7.8-0.5_0010J_NC38.9-7.8_0070J_NC38.9-7.8-0.5_0010 4.15 11.92
C_NC38.9-7.8-0.5_0020J_NC38.9-7.8-0.5_0010J_NC38.9-7.8-0.5_0020 1702.7
11.92
C_NC38.9-7.8-0.5_0040J_NC38.9-7.8-0.5_0030J_NC38.9-7.8-0.5_0040 228.84
10.05
C_NC38.9-7.8-0.5_0030J_NC38.9-7.8-0.5_0020J_NC38.9-7.8-0.5_0030 6.04
10.05
C_NC38.9-7.9_0010J_NC38.9_0175 J_NC38.9-7.9_0010 10.37 10.05
C_NC38.9-7.9_0020J_NC38.9-7.9_0010J_NC38.9-7.9_0020 0.55 10.05
C_NC38.9-7.9_0030J_NC38.9-7.9_0020J_NC38.9-7.9_0030 589.91 10.05
C_NC38.9-8.5_0010J_NC38.9_0187 J_NC38.9-8.5_0010 11.72 10.05
C_NC38.9-8.5_0030J_NC38.9-8.5_0020J_NC38.9-8.5_0030 1962.71 10.05
C_NC38.9-8.5_0015J_NC38.9-8.5_0010J_NC38.9-8.5_0013 359.05 10.05
C_NC38.9-8.5_0020J_NC38.9-8.5_0013J_NC38.9-8.5_0020 660.61 10.05
C_NC38.9-10.3_0010J_NC38.9_0255 J_NC38.9-10.3_0030 2.63 14.96
C_NC38.9-10.3_0020J_NC38.9-10.3_0030J_NC38.9-10.3_0020 0.35 13.09
C_NC38.9-10.3_0030J_NC38.9-10.3_0020J_NC38.9-10.3_0010 2.08 13.09
C_NC38.9-10.3_0040J_NC38.9-10.3_0010J_NC38.9-10.3_0040 1342.96 14.96
C_NC38.9-10.3_0060J_NC38.9-10.3_0050J_NC38.9-10.3_0060 228.03 14.96
C_NC38.9-10.3_0050J_NC38.9-10.3_0040J_NC38.9-10.3_0050 1082.13 14.96
C_NC43.2_0010 J_NC_0800 J_NC43.2_0010 17.87 58.89
C_NC43.2_0260 J_NC43.2_0250 J_NC43.2_0260 2558.28 39.26
C_NC43.2_0270 J_NC43.2_0260 J_NC43.2_0270 73.83 33.65
C_NC43.2_0195 J_NC43.2_0190 J_NC43.2_0195 2910.59 50.48
C_NC43.2_0230 J_NC43.2_0225 J_NC43.2_0230 4516.83 39.26
C_NC43.2_0225 J_NC43.2_0195 J_NC43.2_0225 60.26 50.48
C_NC43.2_0190 J_NC43.2_0180 J_NC43.2_0190 405.87 50.48
C_NC43.2_0180 J_NC43.2_0175 J_NC43.2_0180 427.99 50.48
C_NC43.2_0175 J_NC43.2_0170 J_NC43.2_0175 3.65 50.48
C_NC43.2_0350 J_NC43.2_0340 J_NC43.2_0350 1760.71 3.94
C_NC43.2_0340 J_NC43.2_0330 J_NC43.2_0340 2187.08 3.94
C_NC43.2_0325 J_NC43.2_0320 J_NC43.2_0325 814.37 18.7
C_NC43.2_0330 J_NC43.2_0325 J_NC43.2_0330 1407.06 3.94
C_NC43.2_0315 J_NC43.2_0310 J_NC43.2_0315 557.13 24.3
C_NC43.2_0320 J_NC43.2_0315 J_NC43.2_0320 323.39 22.44
C_NC43.2_0310 J_NC43.2_0300 J_NC43.2_0310 1421.75 24.3
C_NC43.2_0300 J_NC43.2_0290 J_NC43.2_0300 825.03 24.3
C_NC43.2_0290 J_NC43.2_0280 J_NC43.2_0290 2561.75 26.17
C_NC43.2_0275 J_NC43.2_0270 J_NC43.2_0275 1209.27 33.65
C_NC43.2_0280 J_NC43.2_0275 J_NC43.2_0280 2334.61 26.17
C_NC43.2_0240 J_NC43.2_0230 J_NC43.2_0240 3148.39 39.26

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2_0250	J_NC43.2_0240	J_NC43.2_0250	3291.05	39.26
C_NC43.2_0160	J_NC43.2_0150	J_NC43.2_0160	6734.5	50.48
C_NC43.2_0170	J_NC43.2_0160	J_NC43.2_0170	1137.41	50.48
C_NC43.2_0150	J_NC43.2_0140	J_NC43.2_0150	543.51	44.87
C_NC43.2_0135	J_NC43.2_0130	J_NC43.2_0135	1405.7	50.48
C_NC43.2_0140	J_NC43.2_0135	J_NC43.2_0140	3036.58	50.48
C_NC43.2_0120	J_NC43.2_0120	J_NC43.2_0110	14.68	50.48
C_NC43.2_0130	J_NC43.2_0110	J_NC43.2_0130	1418.78	50.48
C_NC43.2-6.6_0108	J_NC43.2-6.6_0010	J_NC43.2_0108	43.63	50.48
C_NC43.2_0110	J_NC43.2_0108	J_NC43.2_0120	680.67	50.48
C_NC43.2-6.6_0105	J_NC43.2-6.1_0010	J_NC43.2-6.6_0010	2572.63	50.48
C_NC43.2_0100	J_NC43.2_0070	J_NC43.2_0100	5755.36	50.48
C_NC43.2_0070	J_NC43.2_0060	J_NC43.2_0070	700.09	58.89
C_NC43.2_0055	J_NC43.2_0050	J_NC43.2_0055	1862.28	58.89
C_NC43.2_0060	J_NC43.2_0055	J_NC43.2_0060	73.5	58.89
C_NC43.2_0050	J_NC43.2_0047	J_NC43.2_0050	1361.37	58.89
C_NC43.2_0047	J_NC43.2_0044	J_NC43.2_0047	1023.21	58.89
C_NC43.2_0044	J_NC43.2_0040	J_NC43.2_0044	1234.91	58.89
C_NC43.2_0037	J_NC43.2_0035	J_NC43.2_0037	1054.37	58.89
C_NC43.2_0040	J_NC43.2_0037	J_NC43.2_0040	3769.66	58.89
C_NC43.2_0032	J_NC43.2_0030	J_NC43.2_0032	75.35	58.89
C_NC43.2_0035	J_NC43.2_0032	J_NC43.2_0035	5798.83	58.89
C_NC43.2_0030	J_NC43.2_0020	J_NC43.2_0030	2651.3	58.89
C_NC43.2_0020	J_NC43.2_0013	J_NC43.2_0020	1262.77	58.89
C_NC43.2_0013	J_NC43.2_0010	J_NC43.2_0013	57.61	58.89
C_NC43.2_0103	J_NC43.2_0100	J_NC43.2-6.1_0010	5437.63	50.48
C_NC43.2-2.1_0010	J_NC43.2_0037	J_NC43.2-2.1_0010	13.53	3.94
C_NC43.2-2.1_0020	J_NC43.2-2.1_0010	J_NC43.2-2.1_0020	429.29	3.94
C_NC43.2-0.8_0010	J_NC43.2_0032	J_NC43.2-0.8_0010	14.32	10.05
C_NC43.2-0.8_0020	J_NC43.2-0.8_0010	J_NC43.2-0.8_0020	779.15	10.05
C_NC45.4_0025	J_NC45.4_0020	J_NC45.4_0025	105.26	11.92
C_NC45.4_0015	J_NC45.4_0010	J_NC45.4_0015	59.1	13.09
C_NC45.4-0.5_0010	J_NC45.4_0040	J_NC45.4-0.5_0010	937.95	3.94
C_NC45.4_0040	J_NC45.4_0030	J_NC45.4_0035	484.84	11.33
C_NC45.4_0050	J_NC45.4_0040	J_NC45.4_0050	1348.55	3.94
C_NC46.7_0025	J_NC46.7_0025	J_NC46.7_0020	0.86	33.65
C_NC46.7_0027	J_NC46.7_0020	J_NC46.7_0027	1766.56	26.17
C_NC46.7_0020	J_NC46.7_0010	J_NC46.7_0025	106.9	33.65
C_NC46.7-1.0_0005	J_NC46.7_0060	J_NC46.7-1.0_0005	338	16.83
C_NC46.7-0.5_0020	J_NC46.7-0.5_0015	J_NC46.7-0.5_0020	5.91	14.96
C_NC46.7-0.5_0035	J_NC46.7-0.5_0030	J_NC46.7-0.5_0035	9.29	14.96
C_NC46.7-0.5_0030	J_NC46.7-0.5_0020	J_NC46.7-0.5_0030	950.99	14.96
C_NC46.7-0.5_0050	J_NC46.7-0.5_0045	J_NC46.7-0.5_0050	1183.74	10.05
C_NC46.7-0.5_0068	J_NC46.7-0.5_0060	J_NC46.7-0.5_0068	1578.31	7.66
C_NC46.7-0.5_0060	J_NC46.7-0.5_0050	J_NC46.7-0.5_0060	926.19	10.05
C_NC46.7-1.0_0040	J_NC46.7-1.0_0035	J_NC46.7-1.0_0045	17.06	13.09
C_NC46.7-1.0_0065	J_NC46.7-1.0_0060	J_NC46.7-1.0_0065	1028.24	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC46.7-1.0_0060J_NC46.7-1.0_0050J_NC46.7-1.0_0060			660.38	8.06
C_NC46.7-1.0_0045J_NC46.7-1.0_0045J_NC46.7-1.0_0040			10.53	11.92
C_NC46.7-1.0_0050J_NC46.7-1.0_0040J_NC46.7-1.0_0050			0.53	10.05
C_NC46.7-0.5-0.2_0050J_NC46.7-0.5-0.2_0040J_NC46.7-0.5-0.2_0050			2299.53	3.94
C_NC49.2_0090	J_NC49.2_0080	J_NC49.2_0090	2497.49	22.44
C_NC49.2_0080	J_NC49.2_0070	J_NC49.2_0080	626.44	24.3
C_NC49.2_0070	J_NC49.2_0065	J_NC49.2_0070	266.5	24.3
C_NC49.2_0060	J_NC49.2_0055	J_NC49.2_0060	9.38	26.17
C_NC49.2_0055	J_NC49.2_0050	J_NC49.2_0055	816	28.04
C_NC49.2_0050	J_NC49.2_0040	J_NC49.2_0050	469.91	28.04
C_NC49.2_0127	J_NC49.2_0125	J_NC49.2_0127	499.4	22.44
C_NC49.2_0110	J_NC49.2_0120	J_NC49.2_0110	21.76	22.44
C_NC49.2_0120	J_NC49.2_0110	J_NC49.2_0100	25.73	22.44
C_NC49.2_0125	J_NC49.2_0100	J_NC49.2_0125	11.03	22.44
C_NC49.2_0100	J_NC49.2_0095	J_NC49.2_0120	1998.06	22.44
C_NC49.2_0095	J_NC49.2_0090	J_NC49.2_0095	1.91	22.44
C_NC49.2_0040	J_NC49.2_0039	J_NC49.2_0040	1521.24	28.04
C_NC49.2_0020	J_NC49.2_0020	J_NC49.2_0010	4.14	44.87
C_NC49.2_0027	J_NC49.2_0010	J_NC49.2_0027	280.53	44.87
C_NC49.2_0035	J_NC49.2_0027	J_NC49.2_0035	51.01	44.87
C_NC49.2-2.3_0010J_NC49.2_0127		J_NC49.2-2.3_0010	1.64	8.06
C_NC49.2-2.3_0020J_NC49.2-2.3_0010J_NC49.2-2.3_0020			1583.36	8.06
C_NC49.2-2.3_0025J_NC49.2-2.3_0020J_NC49.2-2.3_0025			26.04	8.06
C_NC49.2-2.3_0040J_NC49.2-2.3_0035J_NC49.2-2.3_0040			671.35	8.06
C_NC49.2_0150	J_NC49.2_0143	J_NC49.2_0150	328.64	18.7
C_NC49.2_0220	J_NC49.2_0210	J_NC49.2_0220	559.19	7.75
C_NC49.2_0210	J_NC49.2_0200	J_NC49.2_0210	13.37	7.75
C_NC49.2_0200	J_NC49.2_0190	J_NC49.2_0200	1656.76	7.75
C_NC49.2_0188	J_NC49.2_0180	J_NC49.2_0190	1187.2	9.66
C_NC49.2_0155	J_NC49.2_0150	J_NC49.2_0155	504.4	18.7
C_NC49.2_0160	J_NC49.2_0155	J_NC49.2_0160	285.83	11.92
C_NC49.2_0175	J_NC49.2_0170	J_NC49.2_0175	1340.99	11.33
C_NC49.2_0170	J_NC49.2_0165	J_NC49.2_0170	313.08	11.33
C_NC49.2_0165	J_NC49.2_0163	J_NC49.2_0165	248.17	11.92
C_NC49.2_0163	J_NC49.2_0160	J_NC49.2_0163	91.49	11.92
C_NC49.2-2.9_0010J_NC49.2_0155		J_NC49.2-2.9_0010	2.28	13.09
C_NC49.2-2.9_0055J_NC49.2-2.9_0050J_NC49.2-2.9_0055			1242.68	11.92
C_NC49.2-2.9_0050J_NC49.2-2.9_0040J_NC49.2-2.9_0050			111.07	11.92
C_NC49.2-2.9_0040J_NC49.2-2.9_0030J_NC49.2-2.9_0040			1172.17	11.92
C_NC49.2-2.9_0030J_NC49.2-2.9_0020J_NC49.2-2.9_0030			1.12	13.09
C_NC49.2-2.9_0020J_NC49.2-2.9_0010J_NC49.2-2.9_0020			2.27	13.09

C_NC49.2-0.9_0050J_NC49.2-0.9_0045J_NC49.2-0.9_0050			6.82	6.08
C_NC49.2-0.9_0080J_NC49.2-0.9_0070J_NC49.2-0.9_0080			4.61	3.94
C_NC49.2-0.9_0070J_NC49.2-0.9_0060J_NC49.2-0.9_0070			822.03	3.94
C_NC49.2-0.9_0060J_NC49.2-0.9_0055J_NC49.2-0.9_0060			2.69	3.94
C_NC49.2-0.9_0055J_NC49.2-0.9_0050J_NC49.2-0.9_0055			6.01	8.06
C_NC49.2-0.2_0010J_NC49.2_0037	J_NC49.2-0.2_0010		11.31	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2-0.2_0040J_NC49.2-0.2_0030J_NC49.2-0.2_0040			1545.66	6.08
C_NC49.2-0.2_0030J_NC49.2-0.2_0020J_NC49.2-0.2_0030			27.69	6.08
C_NC49.2-0.2_0020J_NC49.2-0.2_0010J_NC49.2-0.2_0020			47.5	10.05
C_NC49.2-0.4_0005J_NC49.2_0039	J_NC49.2-0.4_0005		2456.94	18.7
C_NC49.2-0.4_0010J_NC49.2-0.4_0005J_NC49.2-0.4_0040			585.18	14.96
C_NC49.2-0.4_0020J_NC49.2-0.4_0040J_NC49.2-0.4_0010			5.82	14.96
C_NC49.2-0.4_0040J_NC49.2-0.4_0030J_NC49.2-0.4_0020			1.81	10.05
C_NC49.2-0.4_0070J_NC49.2-0.4_0020J_NC49.2-0.4_0070			2481.1	10.05
C_NC49.2-0.4_0030J_NC49.2-0.4_0010J_NC49.2-0.4_0030			1.77	14.96
C_NC49.2-0.4_0080J_NC49.2-0.4_0070J_NC49.2-0.4_0080			453.01	10.05
C_NC49.2-0.4-0.6_0020J_NC49.2-0.4-0.6_0015J_NC49.2-0.4-0.6_0023			1028.45	13.09
C_NC49.2-0.4-0.6_0045J_NC49.2-0.4-0.6_0040J_NC49.2-0.4-0.6_0045			430.4	11.92
C_NC49.2-0.4-0.6_0040J_NC49.2-0.4-0.6_0030J_NC49.2-0.4-0.6_0040			305.91	11.92
C_NC49.2-0.4-0.6_0030J_NC49.2-0.4-0.6_0026J_NC49.2-0.4-0.6_0030			353.7	11.92
C_NC49.2-0.4-0.6_0026J_NC49.2-0.4-0.6_0025J_NC49.2-0.4-0.6_0026			199.54	11.92
C_NC49.2-0.4-0.6_0023J_NC49.2-0.4-0.6_0023J_NC49.2-0.4-0.6_0020			1.12	13.09
C_NC49.2-0.4-0.6_0025J_NC49.2-0.4-0.6_0020J_NC49.2-0.4-0.6_0025			8.09	11.92
C_NC49.2-0.4-0.6_0060J_NC49.2-0.4-0.6_0055J_NC49.2-0.4-0.6_0060			7.77	10.05
C_NC49.2-0.4-0.6_0125J_NC49.2-0.4-0.6_0115J_NC49.2-0.4-0.6_0125			47.21	3.94
C_NC49.2-0.4-0.6_0115J_NC49.2-0.4-0.6_0090J_NC49.2-0.4-0.6_0115			1328.68	3.94
C_NC49.2-0.4-0.6_0080J_NC49.2-0.4-0.6_0080J_NC49.2-0.4-0.6_0070			4.78	6.08
C_NC49.2-0.4-0.6_0090J_NC49.2-0.4-0.6_0070J_NC49.2-0.4-0.6_0090			54.42	6.08
C_NC49.2-0.4-0.6_0070J_NC49.2-0.4-0.6_0060J_NC49.2-0.4-0.6_0080			1500.68	6.08

C_NC49.4_0010	J_NC_1000	J_NC49.4_0010	11.73	24.3
C_NC49.4_0030	J_NC49.4_0020	J_NC49.4_0030	498.62	24.3
C_NC49.4_0020	J_NC49.4_0010	J_NC49.4_0020	139.77	24.3
C_NC49.4_0034	J_NC49.4_0030	J_NC49.4_0034	904.8	22.44
C_NC50.8_0010	J_NC_1020	J_NC50.8_0010	21.09	22.44
C_NC50.8_0110	J_NC50.8_0100	J_NC50.8_0110	923.36	3.94
C_NC50.8_0080	J_NC50.8_0070	J_NC50.8_0080	809.56	10.05
C_NC50.8_0070	J_NC50.8_0065	J_NC50.8_0070	6.71	11.92
C_NC50.8_0040	J_NC50.8_0035	J_NC50.8_0041	1458.26	14.96
C_NC50.8_0035	J_NC50.8_0030	J_NC50.8_0035	7.43	16.83
C_NC50.8_0130	J_NC50.8_0120	J_NC50.8_0130	5.97	3.94
C_NC50.8_0120	J_NC50.8_0110	J_NC50.8_0120	21.33	3.94
C_NC50.8_0030	J_NC50.8_0025	J_NC50.8_0030	546.47	16.83
C_NC50.8_0025	J_NC50.8_0020	J_NC50.8_0025	5.28	18.7
C_NC50.8_0020	J_NC50.8_0010	J_NC50.8_0020	71.31	18.7
C_NC50.8_0100	J_NC50.8_0091	J_NC50.8_0100	688.2	8.06
C_NC50.8_0091	J_NC50.8_0090	J_NC50.8_0091	13.42	8.06
C_NC50.8_0090	J_NC50.8_0080	J_NC50.8_0090	4.69	10.05
C_NC50.8_0065	J_NC50.8_0063	J_NC50.8_0065	302.74	11.92
C_NC50.8_0063	J_NC50.8_0060	J_NC50.8_0063	1680.01	11.92
C_NC50.8_0060	J_NC50.8_0050	J_NC50.8_0060	2.07	11.92
C_NC50.8_0041	J_NC50.8_0041	J_NC50.8_0040	0.85	13.09
C_NC50.8_0050	J_NC50.8_0040	J_NC50.8_0050	1326.93	11.92
C_NC53.2_0033	J_NC53.2_0030	J_NC53.2_0033	97.74	14.96

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC53.2_0030	J_NC53.2_0025	J_NC53.2_0030	1145.78	14.96
C_NC53.2_0025	J_NC53.2_0020	J_NC53.2_0025	477.05	24.3
C_NC53.2_0040	J_NC53.2_0037	J_NC53.2_0040	269.76	13.09
C_NC53.2_0045	J_NC53.2_0040	J_NC53.2_0045	905.55	11.92
C_NC53.2_0090	J_NC53.2_0080	J_NC53.2_0090	3360.83	11.92
C_NC53.2_0093	J_NC53.2_0090	J_NC53.2_0093	508.04	10.05
C_NC53.2_0100	J_NC53.2_0097	J_NC53.2_0100	534.7	10.05
C_NC53.2_0115	J_NC53.2_0110	J_NC53.2_0115	481.34	8.06
C_NC53.2_0110	J_NC53.2_0100	J_NC53.2_0110	733.19	8.06
C_NC53.2_0150	J_NC53.2_0145	J_NC53.2_0150	946.16	3.94
C_NC53.2-0.4_0005	J_NC53.2_0035	J_NC53.2-0.4_0005	234.63	3.94
C_SA_0020	J_SA_0015	J_SA0.1_0010	38.02	14.96
C_SA_0050	J_SA0.3_0010	J_SA0.3_0020	14.18	14.96
C_SA_0040	J_SA0.2_0010	J_SA0.3_0010	429.85	14.96
C_SA_0030	J_SA0.1_0010	J_SA0.2_0010	500.96	14.96
C_SA_0110	J_SA_0100	J_SA0.7_0020	9.17	14.96
C_SA_0140	J_SA0.9_0010	J_SA0.9_0020	152.84	13.09
C_SA_0130	J_SA0.8_0010	J_SA0.9_0010	375.73	14.96

C_SA_0120	J_SA0.7_0020	J_SA0.8_0010	298.85	14.96
C_SA_0170	J_SA1.0_0020	J_SA1.1_0010	572.87	11.92
C_SA_0160	J_SA1.0_0010	J_SA1.0_0020	25.96	11.92
C_SA_0150	J_SA0.9_0020	J_SA1.0_0010	476.48	13.09
C_SA_0230	J_SA1.3_0030	J_SA_0230	1138.69	10.05
C_SA_0220	J_SA1.3_0020	J_SA1.3_0030	81.29	10.05
C_SA_0210	J_SA1.3_0010	J_SA1.3_0020	24.94	11.92
C_SA_0200	J_SA1.2_0020	J_SA1.3_0010	483.71	11.92
C_SA_0190	J_SA1.2_0010	J_SA1.2_0020	21.88	11.92
C_SA_0180	J_SA1.1_0010	J_SA1.2_0010	244.96	11.92
C_NC54.2_0140	J_NC54.2_0130	J_NC54.2_0140	1716.96	18.7
C_NC54.2_0130	J_NC54.2_0120	J_NC54.2_0130	2.61	22.44
C_NC54.2_0110	J_NC54.2_0110	J_NC54.2_0100	1.43	22.44
C_NC54.2_0120	J_NC54.2_0100	J_NC54.2_0120	1.72	22.44
C_NC54.2_0095	J_NC54.2_0090	J_NC54.2_0095	395.53	22.44
C_NC54.2_0100	J_NC54.2_0095	J_NC54.2_0110	924.68	22.44
C_NC54.2_0090	J_NC54.2_0080	J_NC54.2_0090	28.63	24.3
C_NC54.2_0080	J_NC54.2_0070	J_NC54.2_0080	0.66	24.3
C_NC54.2_0070	J_NC54.2_0060	J_NC54.2_0070	1205.07	24.3
C_NC54.2_0060	J_NC54.2_0050	J_NC54.2_0060	16.06	24.3
C_NC54.2_0050	J_NC54.2_0040	J_NC54.2_0050	1487.36	24.3
C_NC54.2_0040	J_NC54.2_0030	J_NC54.2_0040	179.26	26.17
C_NC54.2_0195	J_NC54.2_0190	J_NC54.2_0195	1474.35	13.09
C_NC54.2_0190	J_NC54.2_0180	J_NC54.2_0190	1.64	14.96
C_NC54.2_0180	J_NC54.2_0170	J_NC54.2_0180	620.83	16.83
C_NC54.2_0170	J_NC54.2_0168	J_NC54.2_0170	142.48	16.83
C_NC54.2_0168	J_NC54.2_0165	J_NC54.2_0168	520.62	16.83
C_NC54.2_0165	J_NC54.2_0160	J_NC54.2_0165	747.13	16.83
C_NC54.2_0160	J_NC54.2_0150	J_NC54.2_0160	9.74	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC54.2_0150	J_NC54.2_0140	J_NC54.2_0150	0.14	18.7
C_NC54.2_0030	J_NC54.2_0025	J_NC54.2_0030	1169.54	28.04
C_NC54.2_0025	J_NC54.2_0020	J_NC54.2_0025	186.49	33.65
C_NC54.2_0020	J_NC54.2_0010	J_NC54.2_0020	119.77	33.65
C_NC54.2_0210	J_NC54.2_0200	J_NC54.2_0210	974.55	13.09
C_NC54.4_0250	J_NC54.4_0245	J_NC54.4_0250	14.88	5.96
C_NC54.4_0245	J_NC54.2_0240	J_NC54.4_0245	470.61	5.96
C_NC54.2_0258	J_NC54.4_0250	J_NC54.2_0258	3241.51	5.89
C_NC54.2_0290	J_NC54.2_0280	J_NC54.2_0290	13.72	6.08
C_NC54.2_0300	J_NC54.2_0290	J_NC54.2_0300	130.77	3.94
C_NC54.2_0280	J_NC54.2_0270	J_NC54.2_0280	4.4	6.08
C_NC54.2_0270	J_NC54.2_0260	J_NC54.2_0270	4.62	6.08
C_NC54.2_0240	J_NC54.2_0230	J_NC54.2_0240	886.46	11.92

C_NC54.2_0230	J_NC54.2_0220	J_NC54.2_0230	43.68	11.92
C_NC54.2_0220	J_NC54.2_0210	J_NC54.2_0220	12.49	11.92
C_NC54.2-2.8_0020J	NC54.2-2.8_0020J	NC54.2-2.8_0010	4227.63	3.94
C_NC54.2-0.7_0010J	NC54.2_0095	J_NC54.2-0.7_0010	2462.53	3.94
C_NC54.4_0100	J_NC54.4_0100	J_NC54.4_0095	238.64	6.08
C_NC54.4_0110	J_NC54.4_0095	J_NC54.4_0110	518.89	6.08
C_NC54.4_0095	J_NC54.4_0090	J_NC54.4_0100	9.51	10.05
C_NC54.4_0090	J_NC54.4_0085	J_NC54.4_0090	1940.29	13.09
C_NC54.4_0060	J_NC54.4_0050	J_NC54.4_0065	99.2	14.96
C_NC54.4_0050	J_NC54.4_0030	J_NC54.4_0050	1432.69	18.7
C_NC54.4_0024	J_NC54.4_0023	J_NC54.4-0.3_0010	1339.18	28.04
C_NC54.4_0023	J_NC54.4_0020	J_NC54.4_0023	26.65	29.91
C_NC54.4_0020	J_NC54.4_0010	J_NC54.4_0020	263.42	29.91
C_NC54.4_0030	J_NC54.4-0.5_0030J	NC54.4_0030	601.91	18.7
C_NC54.4-0.5_0027J	NC54.4-0.5_0025J	NC54.4-0.5_0020	68.32	18.7
C_NC54.4-0.5_0028J	NC54.4-0.5_0020J	NC54.4-0.5_0030	6.76	18.7
C_NC54.4_0026	J_NC54.4-0.5_0010J	NC54.4-0.5_0025	177.3	18.7
C_NC54.4_0025	J_NC54.4-0.3_0010J	NC54.4-0.5_0010	560.2	22.44
C_NC54.4_0085	J_NC54.4_0080	J_NC54.4_0085	1458.31	14.96
C_NC54.4_0080	J_NC54.4_0070	J_NC54.4_0080	84.48	14.96
C_NC54.4_0065	J_NC54.4_0065	J_NC54.4_0060	1.71	14.96
C_NC54.4_0070	J_NC54.4_0060	J_NC54.4_0070	4.07	14.96
C_NC54.4_0130	J_NC54.4_0128	J_NC54.4_0140	232.22	5.96
C_NC54.4_0140	J_NC54.4_0140	J_NC54.4_0130	0.92	5.96
C_NC54.4_0150	J_NC54.4_0130	J_NC54.4_0150	16.75	5.96
C_NC54.4_0126	J_NC54.4_0123	J_NC54.4_0126	494.77	5.96
C_NC_1140	J_NC_1130	J_NC_1140	3002.93	78
C_NC_1150	J_NC_1140	J_NC55.55_0010	433.45	72
C_NC_1160	J_NC55.55_0010	J_NC_1160	54.71	72
C_NC_1170	J_NC_1160	J_NC_1170	5046.57	72
C_NC_1380	J_NC_1370	J_NC61.1_0010	1201.6	50.48
C_NC_1390	J_NC61.1_0010	J_NC_1390	1093.47	50.48
C_NC_1400	J_NC_1390	J_NC_1400	3941.35	44.87
C_NC_1410	J_NC_1400	J_NC62.5_0010	2287.36	39.26

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_1420	J_NC62.5_0010	J_NC63.3_0010	5308.19	39.26
C_NC_1470	J_NC64.0_0010	J_NC64.0_0020	486.57	33.65
C_NC_1460	J_NC63.8_0010	J_NC64.0_0010	1289.1	33.65
C_NC_1450	J_NC63.3_0030	J_NC63.8_0010	3726.45	33.65
C_NC_1440	J_NC63.3_0020	J_NC63.3_0030	5.36	33.65
C_NC_1430	J_NC63.3_0010	J_NC63.3_0020	19.36	39.26
C_NC_1640	J_NC68.2_0010	J_NC68.5_0010	1085.41	22.04
C_NC_1630	J_NC68.1_0010	J_NC68.2_0010	753.14	22.04

C_NC_1620	J_NC67.5_0010	J_NC68.1_0010	1288.59	22.04
C_NC_1600	J_NC67.4_0010	J_NC66.7_0010	2849.87	22.04
C_NC_1590	J_NC67.2_0010	J_NC67.4_0010	999.25	22.04
C_NC_1580	J_NC66.9_0010	J_NC67.2_0010	1837.77	22.04
C_NC_1570	J_NC66.5_0010	J_NC66.9_0010	1406.95	22.04
C_NC_1550	J_NC66.2_0020	J_NC66.2_0010	5.18	22.04
C_NC_1560	J_NC66.2_0010	J_NC66.5_0010	2244.95	22.04
C_NC_1540	J_NC65.9_0010	J_NC66.2_0020	1305.91	22.04
C_NC_1530	J_NC65.7_0010	J_NC65.9_0010	837.47	22.04
C_NC_1520	J_NC65.5_0010	J_NC65.7_0010	885.66	22.04
C_NC_1500	J_NC64.5_0020	J_NC_1500	1590.29	33.65
C_NC_1510	J_NC_1500	J_NC65.5_0005	668.43	22.04
C_NC_1490	J_NC64.5_0010	J_NC64.5_0020	19.99	33.65
C_NC_1480	J_NC64.0_0020	J_NC64.5_0010	2811.02	33.65
C_NC_1680	J_NC69.5_0010	J_NC69.8_0010	2057.04	21.58
C_NC_1670	J_NC69.2_0010	J_NC69.5_0010	1422.56	22.04
C_NC_1660	J_NC68.8_0010	J_NC69.2_0010	1619.98	22.04
C_NC_1650	J_NC68.5_0010	J_NC68.8_0010	1828.51	22.04
C_NC_1710	J_NC70.2_0010	J_NC70.5_0010	1575.15	21.58
C_NC_1700	J_NC70.1_0010	J_NC70.2_0010	548.16	21.58
C_NC_1690	J_NC69.8_0010	J_NC70.1_0010	1200.59	21.58
C_NC_1190	J_NC_1180	J_NC57.4_0010	2874.62	72
C_NC_1230	J_NC57.7_0010	J_NC58.0_0020	4396.42	58.89
C_NC_1220	J_NC57.4_0030	J_NC57.7_0010	1429.72	58.89
C_NC_1210	J_NC57.4_0020	J_NC57.4_0030	13.69	58.89
C_NC_1200	J_NC57.4_0010	J_NC57.4_0020	16.34	58.89
C_NC_1240	J_NC58.0_0020	J_NC58.0_0010	33.39	58.89
C_NC_1250	J_NC58.0_0010	J_NC_1250	235.6	58.89
C_NC_1270	J_NC_1260	J_NC_1270	268.3	58.89
C_NC_1280	J_NC_1270	J_NC58.8_0010	102.46	58.89
C_NC_1310	J_NC58.8_0030	J_NC_1310	195.08	58.89
C_NC_1300	J_NC58.8_0020	J_NC58.8_0030	1473.77	58.89
C_NC_1290	J_NC58.8_0010	J_NC58.8_0020	660.08	58.89
C_NC_1330	J_NC_1320	J_NC_1330	813.71	58.89
C_NC_1350	J_NC_1340	J_NC60.5_0010	2505.04	50.48
C_NC_1340	J_NC_1330	J_NC_1340	2424.21	58.89
C_NC_1360	J_NC60.5_0010	J_NC_1360	2016.39	50.48
C_NC55.5_0020	J_NC55.5_0015	J_NC55.6-0.1_0020	64.56	18.7
C_NC55.5_0023	J_NC55.6-0.1_0020	J_NC55.5_0023	329.01	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.5_0026	J_NC55.5_0023	J_NC55.5_0026	421.09	13.09
C_NC55.5-0.1-0.7_0010	J_NC55.5_0023	J_NC55.6-0.1-0.7_0010	14.78	14.96
C_NC55.6-0.1-0.7_0055	J_NC55.6-0.1-0.7_0045	J_NC55.6-0.1-0.7_0055	193.17	

3.94
C_NC55.6-0.1-0.7_0045J_NC55.6-0.1-0.7_0040J_NC55.6-0.1-0.7_0045 18.8
3.94
C_NC55.6-0.1-0.7_0040J_NC55.6-0.1-0.7_0030J_NC55.6-0.1-0.7_0040 72.55
8.06
C_NC55.6-0.1-0.7_0030J_NC55.6-0.1-0.7_0020J_NC55.6-0.1-0.7_0030 1284.76
14.96
C_NC55.6-0.1-0.7_0020J_NC55.6-0.1-0.7_0010J_NC55.6-0.1-0.7_0020 885.14
14.96
C_NC55.6_0010 J_NC55.6_0005 J_NC55.6_0010 252.08 44.87
C_NC55.6_0020 J_NC55.6_0010 J_NC55.6_0020 1014.17 39.26
C_NC55.6_0070 J_NC55.6_0060 J_NC55.6_0070 2288.85 24.3
C_NC55.6_0060 J_NC55.6_0050 J_NC55.6_0060 16.81 24.3
C_NC55.6_0040 J_NC55.6_0040 J_NC55.6_0030 0.08 26.17
C_NC55.6_0035 J_NC55.6_0035 J_NC55.6_0040 10.14 28.04
C_NC55.6_0050 J_NC55.6_0030 J_NC55.6_0050 4436.46 26.17
C_NC55.6_0030 J_NC55.6_0025 J_NC55.6_0035 797.46 29.91
C_NC55.6_0075 J_NC55.6_0070 J_NC55.6-2.4_0010 1339.42 24.3
C_NC55.6_0078 J_NC55.6-2.4_0010J_NC55.6-2.6_0010 1055.85 22.44
C_NC55.6_0022 J_NC55.6_0020 J_NC55.6_0022 1437.28 39.26
C_NC55.6_0025 J_NC55.6_0022 J_NC55.6_0025 220.74 29.91
C_NC55.6-3.3_0010J_NC55.6_0155 J_NC55.6-3.3_0010 3.6 3.94
C_NC55.6-3.3_0020J_NC55.6-3.3_0010J_NC55.6-3.3_0020 909.61 3.94
C_NC55.6_0140 J_NC55.6_0135 J_NC55.6_0140 17.08 22.44
C_NC55.6_0188 J_NC55.6_0187 J_NC55.6_0188 10.15 11.92
C_NC55.6_0187 J_NC55.6_0185 J_NC55.6_0187 58.93 14.96
C_NC55.6_0180 J_NC55.6_0180 J_NC55.6_0170 2.28 14.96
C_NC55.6_0185 J_NC55.6_0170 J_NC55.6_0185 1152.65 14.96
C_NC55.6_0170 J_NC55.6_0160 J_NC55.6_0180 363.29 14.96
C_NC55.6_0155 J_NC55.6_0150 J_NC55.6_0155 339.03 14.96
C_NC55.6_0160 J_NC55.6_0155 J_NC55.6_0160 1385.04 14.96
C_NC55.6_0150 J_NC55.6_0140 J_NC55.6_0150 0.02 16.83
C_NC55.6_0190 J_NC55.6_0189 J_NC55.6_0190 1239.8 11.92
C_NC55.6_0230 J_NC55.6_0225 J_NC55.6_0230 2050.33 6.08
C_NC55.6_0225 J_NC55.6_0220 J_NC55.6_0225 67.54 6.08
C_NC55.6_0220 J_NC55.6_0210 J_NC55.6_0220 1074.91 10.05
C_NC55.6_0210 J_NC55.6_0200 J_NC55.6_0210 874.45 11.92
C_NC55.6_0200 J_NC55.6_0190 J_NC55.6_0200 453.86 11.92
C_NC55.6-0.5_0010J_NC55.6_0022 J_NC55.6-0.5_0010 13.09 24.3
C_NC55.6-0.5_0015J_NC55.6-0.5_0010J_NC55.6-0.5_0015 783.47 24.3
C_NC55.6-0.5_0093J_NC55.6-0.5_0090J_NC55.6-0.5_0093 4.38 22.44
C_NC55.6-0.5_0090J_NC55.6-0.5_0080J_NC55.6-0.5_0090 1.5 22.44
C_NC55.6-0.5_0080J_NC55.6-0.5_0070J_NC55.6-0.5_0080 191.56 22.44
C_NC55.6-0.5_0070J_NC55.6-0.5_0060J_NC55.6-0.5_0070 301.02 22.44
C_NC55.6-0.5_0060J_NC55.6-0.5_0050J_NC55.6-0.5_0060 1146.58 22.44
C_NC55.6-0.5_0040J_NC55.6-0.5_0040J_NC55.6-0.5_0030 7 24.3
C_NC55.6-0.5_0050J_NC55.6-0.5_0030J_NC55.6-0.5_0050 0.37 22.44
C_NC55.6-0.5_0030J_NC55.6-0.5_0020J_NC55.6-0.5_0040 1537.78 24.3
C_NC55.6-0.5_0020J_NC55.6-0.5_0015J_NC55.6-0.5_0020 879.93 24.3

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.6-0.5_0097J_NC55.6-0.5_0095J_NC55.6-0.5_0097			385.34	22.44
C_NC55.6-0.5_0100J_NC55.6-0.5_0097J_NC55.6-0.5_0100			305.77	22.44
C_NC55.6-0.5_0145J_NC55.6-0.5_0140J_NC55.6-0.5_0145			1053.8	18.7
C_NC55.6-0.5_0150J_NC55.6-0.5_0145J_NC55.6-0.5_0150			550.95	14.96
C_NC55.6-0.5_0140J_NC55.6-0.5_0130J_NC55.6-0.5_0140			2.75	18.7
C_NC55.6-0.5_0130J_NC55.6-0.5_0110J_NC55.6-0.5_0130			1562.46	18.7
C_NC55.6-0.5_0110J_NC55.6-0.5_0105J_NC55.6-0.5_0110			667.79	18.7
C_NC55.6-0.5_0105J_NC55.6-0.5_0100J_NC55.6-0.5_0105			193.02	18.7
C_NC55.6-0.5_0175J_NC55.6-0.5_0170J_NC55.6-0.5_0175			1.17	11.92
C_NC55.6-0.5_0160J_NC55.6-0.5_0160J_NC55.6-0.5_0155			6.55	13.09
C_NC55.6-0.5_0170J_NC55.6-0.5_0155J_NC55.6-0.5_0170			1292.06	13.09
C_NC55.6-0.5_0155J_NC55.6-0.5_0150J_NC55.6-0.5_0160			3.11	13.09
C_NC55.6-0.5_0183J_NC55.6-0.5_0183J_NC55.6-0.5_0180			5.83	10.05
C_NC55.6-0.5_0230J_NC55.6-0.5_0230J_NC55.6-0.5_0220			7.81	6.08
C_NC55.6-0.5_0240J_NC55.6-0.5_0220J_NC55.6-0.5_0240			804.57	6.08
C_NC55.6-0.5_0210J_NC55.6-0.5_0210J_NC55.6-0.5_0200			6.74	8.06
C_NC55.6-0.5_0220J_NC55.6-0.5_0200J_NC55.6-0.5_0230			5.88	8.06
C_NC55.6-0.5_0200J_NC55.6-0.5_0185J_NC55.6-0.5_0210			194.77	10.05
C_NC55.6-0.5_0185J_NC55.6-0.5_0180J_NC55.6-0.5_0185			0.58	10.05
C_NC55.6-0.5-1.8_0010J_NC55.6-0.5_0097J_NC55.6-0.5-1.8_0010			3.54	3.94
C_NC55.6-0.5-1.8_0020J_NC55.6-0.5-1.8_0010J_NC55.6-0.5-1.8_0020			686.24	3.94
C_NC55.6-0.5-2.6_0010J_NC55.6-0.5_0145J_NC55.6-0.5-2.6_0010			6.67	11.92
C_NC55.6-0.5-2.6_0045J_NC55.6-0.5-2.6_0040J_NC55.6-0.5-2.6_0045			18.51	10.05
C_NC55.6-0.5-2.6_0040J_NC55.6-0.5-2.6_0030J_NC55.6-0.5-2.6_0040			1027.9	10.05
C_NC55.6-0.5-2.6_0030J_NC55.6-0.5-2.6_0020J_NC55.6-0.5-2.6_0030			99.36	10.05
C_NC55.6-0.5-2.6_0020J_NC55.6-0.5-2.6_0010J_NC55.6-0.5-2.6_0020			903.06	11.92
C_NC58.7_0020	J_NC58.7_0010	J_NC58.7_0020	511.47	13.09
C_NC58.7_0023	J_NC58.7_0020	J_NC58.7_0023	1818.47	11.92
C_NC58.7-0.7_0010J_NC58.7_0026		J_NC58.7-0.7_0010	3.02	10.05
C_NC58.7-0.7_0040J_NC58.7-0.7_0030J_NC58.7-0.7_0040			1010.49	3.94
C_NC58.7-0.7_0030J_NC58.7-0.7_0020J_NC58.7-0.7_0030			9.98	3.94
C_NC58.7-0.7_0020J_NC58.7-0.7_0010J_NC58.7-0.7_0020			212.52	8.06
C_NC58.7_0030	J_NC58.7_0026	J_NC58.7_0030	625.79	6.08
C_NC59.5_0020	J_NC59.5_0010	J_NC59.5_0020	3753.53	13.09
C_NC59.5_0050	J_NC59.5_0045	J_NC59.5_0050	2095.72	10.05
C_NC60.0_0005	J_NC60.0_0003	J_NC60.0_0005	101.87	33.65
C_NC60.0_0050	J_NC60.0_0040	J_NC60.0_0050	338.18	29.91
C_NC60.0_0025	J_NC60.0_0020	J_NC60.0_0025	2825.67	33.65

C_NC60.0_0020	J_NC60.0_0010	J_NC60.0_0020	96.09	33.65
C_NC60.0_0010	J_NC60.0_0005	J_NC60.0_0010	98.5	33.65
C_NC60.0_0040	J_NC60.0-0.6_0030	J_NC60.0_0040	1131.89	29.91
C_NC60.0_0060	J_NC60.0_0050	J_NC60.0_0060	2606.81	24.3
C_NC60.0_0080	J_NC60.0_0060	J_NC60.0_0080	688.43	24.3
C_NC60.0-0.9-0.2_0010	J_NC60.0-0.9_0025	J_NC60.0-0.9_0030	3.57	10.05
C_NC60.0-0.9-0.2_0030	J_NC60.0-0.9_0040	J_NC60.0-0.9-0.2_0030	1289.54	8.06
C_NC60.0-0.9-0.2_0020	J_NC60.0-0.9_0030	J_NC60.0-0.9_0040	3.76	8.06
C_NC60.0-0.9_0010	J_NC60.0_0050	J_NC60.0-0.9_0010	0.25	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0-0.9_0025	J_NC60.0-0.9_0020	J_NC60.0-0.9_0025	1295.28	16.83
C_NC60.0-0.9-0.4_0010	J_NC60.0-0.9_0057	J_NC60.0-0.9-0.4_0010	17.08	8.06
C_NC60.0-0.9-0.4_0020	J_NC60.0-0.9-0.4_0010	J_NC60.0-0.9-0.4_0020	1797.09	8.06
C_NC60.0-0.9_0030	J_NC60.0-0.9_0025	J_NC60.0-0.9_0050	44.15	13.09
C_NC60.0-0.9_0057	J_NC60.0-0.9_0050	J_NC60.0-0.9_0057	1109.93	11.92
C_NC60.0-0.6_0010	J_NC60.0_0025	J_NC60.0-0.6_0020	1.57	14.96
C_NC60.0-0.6_0020	J_NC60.0-0.6_0020	J_NC60.0-0.6_0010	9.24	11.92
C_NC60.0-0.6_0030	J_NC60.0-0.6_0010	J_NC60.0-0.6_0040	1147.41	11.92
C_NC60.0-1.6_0020	J_NC60.0-1.6_0015	J_NC60.0-1.6_0020	5.7	16.83
C_NC60.0-1.6_0025	J_NC60.0-1.6_0020	J_NC60.0-1.6_0025	689.54	13.09
C_NC60.0-1.6-0.7_0020	J_NC60.0-1.6-0.7_0010	J_NC60.0-1.6-0.7_0050	488.83	10.05
C_NC60.0-1.6_0040	J_NC60.0-1.6_0030	J_NC60.0-1.6-0.7_0020	220.08	10.05
C_NC60.0_0090	J_NC60.0_0083	J_NC60.0_0090	2169.06	16.83
C_NC60.0_0140	J_NC60.0_0130	J_NC60.0_0140	1147.84	16.53
C_NC60.0_0130	J_NC60.0_0120	J_NC60.0_0130	10.11	16.83
C_NC60.0_0120	J_NC60.0_0110	J_NC60.0_0120	1404.02	16.83
C_NC60.0_0110	J_NC60.0_0100	J_NC60.0_0110	10.33	16.83
C_NC60.0_0100	J_NC60.0_0090	J_NC60.0_0100	62.36	16.83
C_NC60.0_0150	J_NC60.0_0145	J_NC60.0_0147	123.33	16.53
C_NC60.0_0145	J_NC60.0_0140	J_NC60.0_0145	19.16	16.53
C_LL_0140	J_LL_0130	J_LL_0140	30.07	11.71
C_LL_0130	J_LL_0120	J_LL_0130	168.08	12.86
C_LL_0120	J_LL_0110	J_LL_0120	699.17	12.86
C_LL_0110	J_LL_0100	J_LL_0110	836.24	12.86
C_LL_0100	J_LL_0090	J_LL_0100	789.9	12.86
C_LL_0090	J_LL_0080	J_LL_0090	1531.89	12.86
C_LL_0080	J_LL_0075	J_LL_0080	103.26	14.7
C_LL_0075	J_LL_0070	J_LL_0075	53.3	14.7
C_LL_0050	J_LL_0040	J_LL_0050	1754.93	14.7
C_LL_0040	J_LL_0030	J_LL_0040	210.03	14.7
C_LL_0020	J_LL_0010	J_LL_0020	211.31	16.53

C_LL_0010	J_LL_0005	J_LL_0010	51.12	16.53
C_LL_0004	J_ML_0000	J_LL_0005	339.15	16.53
C_HL_0040	J_HL0.5_0015	J_HL_0040	322.22	58.89
C_HL_0030	J_HL0.5_0010	J_HL0.5_0015	450.67	58.89
C_HL_0020	J_HL0.2_0010	J_HL0.5_0010	1216.07	58.89
C_HL_0010	J_HL0.1_0010	J_HL0.2_0010	410.15	58.89
C_HL_0270	J_HL_0265	J_HL_0270	95.84	50.48
C_HL_0080	J_HL1.8_0010	J_HL1.9_0010	730.09	50.48
C_HL_0070	J_HL_0060	J_HL1.8_0010	4305.85	50.48
C_HL_0060	J_HL_0050	J_HL_0060	578.89	58.89
C_HL_0160	J_HL_0150	J_HL3.4_0010	562.88	50.48
C_HL_0150	J_HL3.1_0010	J_HL_0150	865.18	50.48
C_HL_0140	J_HL_0130	J_HL3.1_0010	792.97	50.48
C_HL_0120	J_HL_0110	J_HL_0115	1259.65	50.48
C_HL_0130	J_HL_0120	J_HL_0130	728.38	50.48
C_HL_0110	J_HL2.4_0015	J_HL_0110	420.29	50.48

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL_0090	J_HL1.9_0010	J_HL2.4_0010	2342.85	50.48
C_HL_260	J_HL5.3_0015	J_HL_0265	760.45	50.48
C_HL_0240	J_HL4.7_0010	J_HL5.3_0010	3313.51	50.48
C_HL_0230	J_HL4.6_0010	J_HL4.7_0010	2617.44	50.48
C_HL_0210	J_HL4.6_0005	J_HL4.6_0010	478.32	50.48
C_HL_0200	J_HL4.0_0010	J_HL4.6_0005	2340.18	50.48
C_HL_0190	J_HL3.9_0010	J_HL4.0_0010	212.35	50.48
C_HL_0180	J_HL3.7_0010	J_HL3.9_0010	1098.17	50.48
C_HL_0290	J_HL_0280	J_HL5.5_0015	241.15	50.48
C_HL_0380	J_HL6.9_0010	J_HL_0380	1478.43	39.26
C_HL_0390	J_HL_0380	J_HL7.7_0010	2149.9	28.04
C_HL_0370	J_HL6.7_0020	J_HL6.9_0010	1413.51	39.26
C_HL_0360	J_HL6.4_0020	J_HL6.7_0020	1214.36	44.87
C_HL_0350	J_HL6.4_0010	J_HL6.4_0020	187.77	44.87
C_HL_0340	J_HL5.8_0010	J_HL6.4_0010	2263.68	44.87
C_HL_0330	J_HL5.7_0010	J_HL5.8_0010	488.2	44.87
C_HL_0320	J_HL_0305	J_HL5.7_0010	2043.55	44.87
C_HL_0300	J_HL5.5_0015	J_HL_0300	549.66	50.48
C_HL_0310	J_HL_0300	J_HL_0305	184.31	44.87
C_HL_0480	J_HL9.0_0010	J_HL9.0_0020	1056.69	26.17
C_HL_0470	J_HL8.8_0010	J_HL9.0_0010	959.33	26.17
C_HL_0460	J_HL8.6_0010	J_HL8.8_0010	1047.08	26.17
C_HL_0450	J_HL8.4_0010	J_HL8.6_0010	806.59	26.17
C_HL_0440	J_HL8.1_0020	J_HL8.4_0010	1265.33	26.17
C_HL_0430	J_HL8.1_0010	J_HL8.1_0020	71.88	26.17
C_HL_0420	J_HL7.7_0030	J_HL8.1_0010	1180.75	28.04

C_HL_0410	J_HL7.7_0020	J_HL7.7_0030	611.57	28.04
C_HL_0400	J_HL7.7_0010	J_HL7.7_0020	13.72	28.04
C_HL_0570	J_HL_0567	J_HL_0570	1027.37	13.09
C_HL_0580	J_HL_0570	J_HL11.4_0010	1547.4	10.05
C_HL_0560	J_HL_0565	J_HL_0567	82.46	13.09
C_HL_0550	J_HL10.6_0010	J_HL_0565	1068.38	14.96
C_HL_0540	J_HL10.1_0010	J_HL10.6_0010	1996.42	16.83
C_HL10.0_0010	J_HL9.9_0020	J_HL10.0_0010	734.08	16.83
C_HL_0530	J_HL_0520	J_HL10.1_0010	69.13	16.83
C_HL_0510	J_HL9.9_0010	J_HL9.9_0020	30.46	16.83
C_HL_0500	J_HL_0490	J_HL9.9_0010	2362.85	18.7
C_HL_0490	J_HL9.0_0020	J_HL_0490	1101.69	24.3
C_HL_0600	J_HL11.5_0010	J_HL_0600	301.49	8.06
C_HL_0590	J_HL11.4_0010	J_HL11.5_0010	1197.15	10.05
C_NC62.1_0010	J_NC62.1_0005	J_NC62.1_0010	216.65	22.44
C_NC62.1_0042	J_NC62.1_0040	J_NC62.1_0042	4.89	10.05
C_NC62.1_0040	J_NC62.1_0030	J_NC62.1_0040	2.41	11.92
C_NC62.1_0025	J_NC62.1_0020	J_NC62.1_0025	2524.71	18.7
C_NC62.1_0030	J_NC62.1_0025	J_NC62.1_0030	569.35	13.09
C_NC62.1_0020	J_NC62.1_0010	J_NC62.1_0020	17.44	18.7
C_NC62.1_0048	J_NC62.1_0046	J_NC62.1_0048	460.09	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC62.1-0.5_0010	J_NC62.1_0025	J_NC62.1-0.5_0010	6.46	14.96
C_NC62.1-0.5_0050	J_NC62.1-0.5_0040	J_NC62.1-0.5_0050	23.23	6.08
C_NC62.1-0.5_0040	J_NC62.1-0.5_0030	J_NC62.1-0.5_0040	127.7	6.08
C_NC62.1-0.5_0030	J_NC62.1-0.5_0020	J_NC62.1-0.5_0030	1190.56	10.05
C_NC62.1-0.5_0020	J_NC62.1-0.5_0015	J_NC62.1-0.5_0020	102.43	13.09
C_NC62.1-0.5_0015	J_NC62.1-0.5_0010	J_NC62.1-0.5_0015	731.71	14.96
C_NC64.7_0005	J_NC_1500	J_NC64.7_0005	2168.21	13.09
C_HL0.9_0005	J_HL_0060	J_HL0.6_0010	11.58	18.7
C_HL0.9_0100	J_HL0.9_0090	J_HL0.9_0100	589.73	8.06
C_HL0.9_0090	J_HL0.9_0086	J_HL0.9_0090	1672.5	8.06
C_HL0.9_0086	J_HL0.9_0085	J_HL0.9_0086	13.31	8.06
C_HL0.9_0080	J_HL0.9_0080	J_HL0.9_0070	0.57	13.09
C_HL0.9_0085	J_HL0.9_0070	J_HL0.9_0085	10.58	10.05
C_HL0.9_0070	J_HL0.9_0060	J_HL0.9_0080	1706.28	10.05
C_HL0.9_0060	J_HL0.9_0045	J_HL0.9_0060	957.03	10.05
C_HL0.9_0045	J_HL0.9_0040	J_HL0.9_0045	0.66	14.96
C_HL0.9_0040	J_HL0.9_0030	J_HL0.9_0040	1290.25	11.92
C_HL0.9_0010	J_HL0.6_0010	J_HL0.6_0008	4.18	11.92
C_HL0.9_0030	J_HL0.6_0008	J_HL0.9_0030	1310.2	11.92
C_HL0.9_0130	J_HL0.9_0120	J_HL0.9_0130	89.14	6.08
C_HL0.9_0120	J_HL0.9_0100	J_HL0.9_0120	1053.92	8.06

C_ML_0020	J_ML_0010	J_ML0.06_0010	90.34	44.87
C_ML_0050	J_ML0.08_0010	J_ML_0050	961.57	44.87
C_ML_0040	J_ML0.07_0010	J_ML0.08_0010	152.88	44.87
C_ML_0030	J_ML0.06_0010	J_ML0.07_0010	132.63	44.87
C_ML_0070	J_ML_0060	J_ML0.2_0010	662.24	44.87
C_ML_0090	J_ML0.2_0020	J_ML_0090	1364.54	44.87
C_ML_0100	J_ML_0090	J_ML0.4_0010	555.58	44.87
C_ML_0080	J_ML0.2_0010	J_ML0.2_0020	15.31	44.87
C_ML_0120	J_ML0.5_0010	J_ML0.7_0010	769.53	44.87
C_ML_0110	J_ML0.4_0010	J_ML0.5_0010	720.25	44.87
C_ML_0190	J_ML1.3_0030	J_ML_0190	14.57	44.87
C_ML_0200	J_ML_0190	J_ML1.3_0035	70.1	31.78
C_ML_0210	J_ML1.3_0035	J_ML_0210	412.15	31.78
C_ML_0180	J_ML1.3_0025	J_ML1.3_0030	40.61	44.87
C_ML_0170	J_ML1.3_0020	J_ML1.3_0025	3.93	44.87
C_ML_0160	J_ML1.3_0010	J_ML1.3_0020	9.58	44.87
C_ML_0150	J_ML1.1_0010	J_ML1.3_0010	506.39	44.87
C_ML_0130	J_ML0.7_0010	J_ML_0130	916.62	44.87
C_ML_0140	J_ML_0130	J_ML1.1_0010	1381.1	44.87
C_CL_0005	J_ML_0190	J_CL_0005	8.19	26.17
C_CL_0007	J_CL_0005	J_CL_0007	619.17	26.17
C_CL_0010	J_CL_0008	J_CL0.0_0010	26.14	26.17
C_CL_0060	J_CL0.66_0010	J_CL_0060	16.21	23.88
C_CL_0050	J_CL0.35_0020	J_CL0.66_0010	1215.61	25.72
C_CL_0030	J_CL0.35_0010	J_CL0.35_0020	14.03	25.72
C_CL_0020	J_CL0.0_0010	J_CL0.35_0010	1893.81	25.72

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_CL_0080	J_CL_0070	J_CL1.03_0010	3.87	23.88
C_CL_0090	J_CL1.03_0010	J_CL_0090	1260.53	23.88
C_CL1.84_0035	J_CL1.84_0030	J_CL1.84_0035	2158.91	11.71
C_CL1.84_0040	J_CL1.84_0035	J_CL1.84_0050	753.28	6.19
C_CL1.84_0070	J_CL1.84_0060	J_CL1.84_0070	32.69	3.94
C_CL1.84_0050	J_CL1.84_0050	J_CL1.84_0040	3.04	6.08
C_CL1.84_0060	J_CL1.84_0040	J_CL1.84_0060	19.05	3.94
C_CL_0130	J_CL_0120	J_CL1.51_0010	268.61	22.04
C_CL_0180	J_CL1.56_0020	J_CL_0180	25.05	22.04
C_CL_0190	J_CL_0180	J_CL_0190	1094.29	18.37
C_CL1.84_0020	J_CL_0190	J_CL1.84_0020	10.16	14.7
C_CL_0160	J_CL1.56_0016	J_CL1.56_0015	4.24	22.04
C_CL_0170	J_CL1.56_0015	J_CL1.56_0020	191.77	22.04
C_CL_0150	J_CL1.56_0010	J_CL1.56_0016	189.08	22.04
C_CL_0140	J_CL1.51_0010	J_CL1.56_0010	200.93	22.04
C_ML0.7_0020	J_ML0.2_0015	J_ML0.7_0020	201.72	10.05

C_ML0.7_0053	J_ML0.7_0050	J_ML0.7_0055	945.66	6.08
C_ML0.7_0050	J_ML0.7_0045	J_ML0.7_0050	1438.77	6.08
C_ML0.7_0040	J_ML0.7_0030	J_ML0.7_0040	14.74	8.06
C_ML0.7_0030	J_ML0.7_0020	J_ML0.7_0030	1314.84	8.06
C_CL1.74_0040	J_CL1.74_0020	J_CL1.74_0040	446.03	11.71
C_CL1.74_0055	J_CL1.74_0050	J_CL1.74_0055	4.11	6.08
C_CL1.74_0050	J_CL1.74_0040	J_CL1.74_0050	869.97	7.92
C_CL1.84-0.55_0010	J_CL1.84_0035	J_CL1.84-0.55_0010	1807.64	9.87
C_CL1.84-0.55_0025	J_CL1.84-0.55_0020	J_CL1.84-0.55_0025	4.51	11.71
C_CL1.84-0.55_0020	J_CL1.84-0.55_0010	J_CL1.84-0.55_0020	465.49	9.87
C_ML_0240	J_ML_0230	J_ML1.5_0020	17.82	31.78
C_ML_0340	J_ML2.2_0015	J_ML2.4_0010	977.83	28.04
C_ML_0320	J_ML2.1_0015	J_ML2.2_0010	352.64	29.91
C_ML_0300	J_ML2.0_0020	J_ML2.1_0010	610.28	29.91
C_ML_0280	J_ML1.8_0010	J_ML_0280	714.77	31.78
C_ML_0290	J_ML_0280	J_ML2.0_0020	17.03	29.91
C_ML_0270	J_ML1.7_0010	J_ML1.8_0010	294.4	31.78
C_ML_0250	J_ML1.5_0020	J_ML1.5_0015	134.54	31.78
C_ML_0260	J_ML1.5_0015	J_ML1.7_0010	813.74	31.78
C_ML_0400	J_ML3.3_0010	J_ML_0400	564.29	14.96
C_ML4.1_0002	J_ML_0410	J_ML4.1_0002	218.46	10.05
C_ML_0410	J_ML_0400	J_ML_0410	2177.21	14.96
C_ML_0390	J_ML3.1_0020	J_ML3.3_0010	1746.13	16.83
C_ML_0380	J_ML2.8_0020	J_ML3.1_0020	1317.16	28.04
C_ML_0370	J_ML2.8_0010	J_ML2.8_0020	37.85	28.04
C_ML_0360	J_ML2.7_0010	J_ML2.8_0010	581.85	28.04
C_ML_0350	J_ML2.5_0010	J_ML2.7_0010	829.51	28.04
C_ML_0345	J_ML2.4_0010	J_ML2.5_0010	439.5	28.04
C_ML3.1_0020	J_ML3.1_0030	J_ML3.1_0045	2.72	22.44
C_ML3.1_0030	J_ML3.1_0045	J_ML3.1_0040	0.11	22.44
C_ML3.1_0040	J_ML3.1_0040	J_ML3.1_0010	1.48	22.44

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ML3.1_0047	J_ML3.1_0010	J_ML3.1_0047	1537.66	14.96
C_ML3.1_0080	J_ML3.1_0076	J_ML3.1_0080	2629.36	11.71
C_ML3.1_0098	J_ML3.1_0090	J_ML3.1_0100	1333.92	9.87
C_ML3.1_0090	J_ML3.1_0080	J_ML3.1_0090	11.7	9.87
C_ML3.1_0120	J_ML3.1_0110	J_ML3.1_0120	646.71	7.92
C_ML3.1_0110	J_ML3.1_0100	J_ML3.1_0110	1527.6	7.92
C_ML3.1_0125	J_ML3.1_0120	J_ML3.1_0125	3.3	7.92
C_ML4.0_0010	J_ML_0410	J_ML4.0_0010	1148.93	11.92
C_ML4.0_0015	J_ML4.0_0010	J_ML4.0_0015	1073.14	11.92
C_ML4.0_0070	J_ML4.0_0050	J_ML4.0_0070	71.71	6.08
C_ML4.0_0080	J_ML4.0_0070	J_ML4.0_0080	1401.47	6.08

C_ML4.1_0010	J_ML4.1_0004	J_ML4.1_0010	23.37	10.05
C_ML4.1_0070	J_ML4.1_0060	J_ML4.1_0070	6.97	6.08
C_ML4.1_0060	J_ML4.1_0050	J_ML4.1_0060	749.12	8.06
C_ML4.1_0050	J_ML4.1_0040	J_ML4.1_0050	761.6	8.06
C_ML4.1_0040	J_ML4.1_0030	J_ML4.1_0040	159.8	10.05
C_ML4.1_0030	J_ML4.1_0010	J_ML4.1_0030	383.97	10.05
C_HL5.5_0005	J_HL_0300	J_HL5.5_0017	11.98	16.83
C_HL5.5_0030	J_HL5.5_0030	J_HL5.5_0020	0.61	16.83
C_HL5.5_0033	J_HL5.5_0020	J_HL5.5_0033	159.82	14.96
C_HL5.5_0020	J_HL5.5_0010	J_HL5.5_0030	5.95	16.83
C_HL5.5_0010	J_HL5.5_0017	J_HL5.5_0010	218.29	16.83
C_HL5.5_0070	J_HL5.5_0065	J_HL5.5_0070	36.79	11.92
C_Hl5.5_0080	J_HL5.5_0070	J_Hl5.5_0080	1102.92	11.92
C_HL5.5_0100	J_HL5.5_0100	J_HL5.5_0090	1.45	8.06
C_HL5.5_0110	J_HL5.5_0090	J_HL5.5_0110	7.77	8.06
C_Hl5.5_0090	J_Hl5.5_0080	J_HL5.5_0100	1147.37	10.05
C_HL_0620	J_HL_0610	J_HL11.5_0020	170.63	8.06
C_HL_0650	J_HL11.7_0010	J_HL_0650	1570.22	7.75
C_HL_0640	J_HL11.6_0010	J_HL11.7_0010	495.12	8.06
C_HL_0630	J_HL11.5_0020	J_HL11.6_0010	852.18	8.06
C_HL6.4_0010	J_HL6.4_0020	J_HL6.4_0025	755	18.7
C_NC43.2-14.7_0050	J_NC43.2-14.7_0045	J_NC43.2-14.7_0050	11.22	18.7
C_NC43.2-14.7_0090	J_NC43.2-14.7_0080	J_NC43.2-14.7_0090	3.85	6.08
C_NC43.2-14.7_0080	J_NC43.2-14.7_0070	J_NC43.2-14.7_0080	0.35	6.08
C_NC43.2-14.7_0070	J_NC43.2-14.7_0060	J_NC43.2-14.7_0070	3.62	13.09
C_NC43.2-14.7_0060	J_NC43.2-14.7_0050	J_NC43.2-14.7_0060	4326.02	16.83
C_NC43.2-3.8_0010	J_NC43.2_0055	J_NC43.2-3.8_0010	15.26	18.7
C_NC43.2-3.8_0043	J_NC43.2-3.8_0040	J_NC43.2-3.8_0043	1368.43	10.05
C_NC43.2-3.8_0040	J_NC43.2-3.8_0030	J_NC43.2-3.8_0040	5.25	10.05
C_NC43.2-3.8_0025	J_NC43.2-3.8_0020	J_NC43.2-3.8_0025	3.01	14.96
C_NC43.2-3.8_0030	J_NC43.2-3.8_0025	J_NC43.2-3.8_0030	6.13	10.05
C_NC43.2-3.8_0020	J_NC43.2-3.8_0010	J_NC43.2-3.8_0020	30.67	14.96
C_NC43.2-12.7_0010	J_NC43.2_0260	J_NC43.2-12.7_0010	12	14.96
C_NC43.2-12.7_0024	J_NC43.2-12.7_0020	J_NC43.2-12.7_0024	316.71	14.96
C_NC43.2-12.7_0020	J_NC43.2-12.7_0010	J_NC43.2-12.7_0020	945.09	14.96
C_NC43.2-12.7_0040	J_NC43.2-12.7_0030	J_NC43.2-12.7_0050	759.26	13.09

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2-12.7_0050	J_NC43.2-12.7_0050	J_NC43.2-12.7_0040	60.32	6.08
C_NC43.2-12.7_0060	J_NC43.2-12.7_0040	J_NC43.2-12.7_0060	8.98	6.08
C_NC43.2-11.6_0010	J_NC43.2_0240	J_NC43.2-11.6_0010	7.73	11.92
C_NC43.2-11.6_0045	J_NC43.2-11.6_0040	J_NC43.2-11.6_0045	32.74	6.08
C_NC43.2-11.6_0040	J_NC43.2-11.6_0030	J_NC43.2-11.6_0040	2691.46	6.08
C_NC43.2-11.6_0030	J_NC43.2-11.6_0020	J_NC43.2-11.6_0030	912.83	8.06

C_NC43.2-11.6_0020	J_NC43.2-11.6_0015	J_NC43.2-11.6_0020	60.33	10.05
C_NC43.2-11.6_0015	J_NC43.2-11.6_0010	J_NC43.2-11.6_0015	0.23	11.92
C_NC43.2-11.6_0060	J_NC43.2-11.6_0050	J_NC43.2-11.6_0060	717.85	6.08
C_HL7.2_0010	J_HL_0380	J_HL7.2_0030	5.04	28.04
C_HL7.2_0110	J_HL7.2_0100	J_HL7.2_0110	232	18.7
C_HL7.2E_0010	J_HL7.2_0110	J_HL7.2E_0010	431.86	14.96
C_HL7.2_0100	J_HL7.2_0090	J_HL7.2_0100	603.51	18.7
C_HL7.2_0088	J_HL7.2_0080	J_HL7.2_0090	1268.34	26.17
C_HL7.2_0080	J_HL7.2_0070	J_HL7.2_0080	1301.43	26.17
C_HL7.2_0070	J_HL7.2_0060	J_HL7.2_0070	1265.78	26.17
C_HL7.2_0060	J_HL7.2_0050	J_HL7.2_0060	35.27	28.04
C_HL7.2_0050	J_HL7.2_0040	J_HL7.2_0050	16.77	28.04
C_HL7.2_0020	J_HL7.2_0030	J_HL7.2_0010	6.04	28.04
C_HL7.2_0040	J_HL7.2_0020	J_HL7.2_0040	531.69	28.04
C_HL7.2_0030	J_HL7.2_0010	J_HL7.2_0020	0.69	28.04
C_HL7.2W_0010	J_HL7.2_0090	J_HL7.2W_0010	1376.75	14.96
C_HL7.2W_0083	J_HL7.2W_0080	J_HL7.2W_0083	342.6	7.92
C_HL7.2W_0080	J_HL7.2W_0070	J_HL7.2W_0080	582.62	9.87
C_HL7.2W_0070	J_HL7.2W_0060	J_HL7.2W_0070	2687.81	11.71
C_HL7.2W_0060	J_HL7.2W_0050	J_HL7.2W_0060	3.84	11.92
C_HL7.2W_0050	J_HL7.2W_0040	J_HL7.2W_0050	12.73	13.09
C_HL7.2W_0040	J_HL7.2W_0030	J_HL7.2W_0040	274.05	13.09
C_HL7.2W_0030	J_HL7.2W_0020	J_HL7.2W_0030	382.58	13.09
C_HL7.2W_0020	J_HL7.2W_0010	J_HL7.2W_0020	1028.87	14.96
C_HL7.2E_0073	J_HL7.2E_0070	J_HL7.2E_0073	423.19	11.92
C_HL7.2E_0070	J_HL7.2E_0060	J_HL7.2E_0070	14.95	11.92
C_HL7.2E_0060	J_HL7.2E_0050	J_HL7.2E_0060	3.7	11.92
C_HL7.2E_0050	J_HL7.2E_0040	J_HL7.2E_0050	616.99	13.09
C_HL7.2E_0040	J_HL7.2E_0030	J_HL7.2E_0040	11.68	14.96
C_HL7.2E_0030	J_HL7.2E_0010	J_HL7.2E_0030	841.3	14.96
C_HL7.2E_0080	J_HL7.2E_0077	J_HL7.2E_0090	4.36	11.92
C_HL7.2E_0110	J_HL7.2E_0100	J_HL7.2E_0110	1277.37	9.87
C_HL7.2E_0090	J_HL7.2E_0090	J_HL7.2E_0080	4.89	11.92
C_HL7.2E_0100	J_HL7.2E_0080	J_HL7.2E_0100	7.79	11.92
C_HL7.2E_0123	J_HL7.2E_0120	J_HL7.2E_0123	1079.05	7.92
C_HL7.2E_0120	J_HL7.2E_0110	J_HL7.2E_0120	968.81	7.92
C_HL7.2E_0130	J_HL7.2E_0127	J_HL7.2E_0130	168.73	7.92
C_HL7.2E_0160	J_HL7.2E_0160	J_HL7.2E_0150	34.36	6.08
C_HL7.2E_0170	J_HL7.2E_0150	J_HL7.2E_0170	19.75	6.08
C_HL7.2E_0140	J_HL7.2E_0130	J_HL2.7E_0140	949.72	6.08
C_HL7.2E_0150	J_HL2.7E_0140	J_HL7.2E_0160	1008.76	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL7.2W_0090	J_HL7.2W_0087	J_HL7.2W_0090	23.7	7.92

C_HL7.2W_0100	J_HL7.2W_0090	J_HL7.2W_0100	1248.44	7.92
C_HL7.2M_0010	J_HL7.2_0110	J_HL7.2M_0010	1491.68	11.71
C_HL7.2M_0100	J_HL7.2M_0090	J_HL7.2M_0100	612.42	6.08
C_HL7.2M_0090	J_HL7.2M_0080	J_HL7.2M_0090	17.22	6.08
C_HL7.2M_0080	J_HL7.2M_0070	J_HL7.2M_0080	8.98	6.08
C_HL7.2M_0060	J_HL7.2M_0060	J_HL7.2M_0050	0.62	11.92
C_HL7.2M_0070	J_HL7.2M_0050	J_HL7.2M_0070	2201.63	6.08
C_HL7.2M_0050	J_HL7.2M_0040	J_HL7.2M_0060	1053.13	9.87
C_HL7.2M_0040	J_HL7.2M_0030	J_HL7.2M_0040	1180.99	9.87
C_HL7.2M_0030	J_HL7.2M_0020	J_HL7.2M_0030	6.2	11.92
C_HL7.2M_0020	J_HL7.2M_0010	J_HL7.2M_0020	0.25	14.96
C_HL9.4_0010	J_HL_0490	J_HL9.4_0020	0.01	22.44
C_HL9.4_0050	J_HL9.4_0050	J_HL9.4_0040	1.19	16.53
C_HL9.4_0052	J_HL9.4_0040	J_HL9.4_0052	536.2	14.7
C_HL9.4_0040	J_HL9.4_0030	J_HL9.4_0050	1032.06	16.53
C_HL9.4_0020	J_HL9.4_0020	J_HL9.4_0010	15.32	16.83
C_HL9.4_0030	J_HL9.4_0010	J_HL9.4_0030	1032.69	16.83
C_HL9.4_0057	J_HL9.4_0056	J_HL9.4_0057	1.98	14.7
C_HL9.4_0065	J_HL9.4_0060	J_HL9.4_0065	173.54	12.86
C_HL9.4_0060	J_HL9.4_0057	J_HL9.4_0060	829.88	12.86
C_HL10.8_0005	J_HL_0570	J_HL11.1_0010	19.29	10.05
C_HL10.8_0018	J_HL10.8_0010	J_HL10.8_0020	1712.35	10.05
C_HL10.8_0010	J_HL11.1_0010	J_HL10.8_0010	46.81	10.05
C_HL10.8_0040	J_HL10.8_0030	J_HL10.8_0040	1183.38	6.08
C_HL10.8_0030	J_HL10.8_0020	J_HL10.8_0030	1854.02	7.92
C_NC43.2-14.4_0010	J_NC43.2_0315	J_NC43.2-14.4_0010	8.44	11.92
C_NC43.2-14.4_0020	J_NC43.2-14.4_0010	J_NC43.2-14.4_0020	1749.49	11.92
C_NC43.2-12.9_0010	J_NC43.2_0275	J_NC43.2-12.9_0010	6.68	18.7
C_NC43.2-12.9_0030	J_NC43.2-12.9_0020	J_NC43.2-12.9_0030	2315.31	18.7
C_NC43.2-12.9_0035	J_NC43.2-12.9_0030	J_NC43.2-12.9_0035	1110.16	14.96
C_NC43.2-12.9_0020	J_NC43.2-12.9_0010	J_NC43.2-12.9_0020	32.84	18.7
C_NC25.4-1.6-0.9_0100	J_NC25.4-1.6-2.7_0040	J_NC25.4-1.6-2.7_0050	1866.67	7.66
C_NC25.4-1.6-0.9_0090	J_NC25.4-1.6-2.7_0030	J_NC25.4-1.6-2.7_0040	99.29	7.66
C_KL6.2_0030	J_KL6.2_0010	J_KL6.2_0030	542.24	8.06
C_MB4.2_0010	J_MB_0170	J_MB4.2_0010	15.47	10.05
C_MB4.2_0040	J_MB4.2_0030	J_MB4.2_0040	6.18	6.08
C_MB4.2_0030	J_MB4.2_0020	J_MB4.2_0030	14.78	6.08
C_MB4.2_0020	J_MB4.2_0010	J_MB4.2_0020	229.39	10.05
C_ON13.2_0010	J_ON_0860	J_ON13.2_0010	4.49	11.71
C_ON13.2_0050	J_ON13.2_0040	J_ON13.2_0050	0.22	8.06
C_ON13.2_0030	J_ON13.2_0020	J_ON13.2_0030	1586.32	9.87
C_ON13.2_0020	J_ON13.2_0010	J_ON13.2_0020	126.65	9.87
C_ON19.4_0010	J_ON_1190	J_ON19.4_0010	3.3	11.71
C_ON19.4_0040	J_ON19.4_0030	J_ON19.4_0040	1353.69	7.92
C_ON19.4_0030	J_ON19.4_0020	J_ON19.4_0030	424.98	9.87
C_ON19.4_0020	J_ON19.4_0010	J_ON19.4_0020	46.23	9.87

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8_0170J_NC38.9-4.8_0160J_NC38.9-4.8_0170			1207.7	7.75
C_NC38.9-4.8_0180J_NC38.9-4.8_0170J_NC38.9-4.8_0180			32.49	7.75
C_HL2.9_0020	J_HL_0130	J_HL2.9_0020	5	6.08
C_HL2.9_0050	J_HL2.9_0040	J_HL2.9_0050	16.56	6.08
C_HL2.9_0030	J_HL2.9_0025	J_HL2.9_0030	1820.14	6.08
C_HL2.9_0025	J_HL2.9_0020	J_HL2.9_0025	9.77	6.08
C_CL1.84-0.55_0050J_CL1.84-0.55_0040J_CL1.84-0.55_0050			5.09	9.87
C_CL1.84-0.55_0060J_CL1.84-0.55_0050J_CL1.84-0.55_0030			498.51	7.75
C_CL1.84-0.55_0070J_CL1.84-0.55_0030J_CL1.84-0.55_0070			6.18	9.66
C_HL6.7_0010	J_HL6.7_0020	J_HL6.7_0010	13.99	10.05
C_HL6.7_0016	J_HL6.7_0015	J_HL6.7_0016	1789.82	6.08
C_HL6.7_0015	J_HL6.7_0011	J_HL6.7_0015	1461.4	8.06
C_HL6.7_0011	J_HL6.7_0010	J_HL6.7_0011	598.01	10.05
C_ON_0100	J_ON_0090	J_ON0.6_0010	117.68	58.89
C_ON_0120	J_ON0.7_0010	J_ON1.2_0010	2005.69	58.89
C_ON_0110	J_ON0.6_0010	J_ON0.7_0010	465.73	58.89
C_ON_0170	J_ON1.9_0010	J_ON_0170	595.56	58.89
C_ON_0160	J_ON1.7_0010	J_ON1.9_0010	764.17	58.89
C_ON_0150	J_ON1.3_0010	J_ON1.7_0010	2220.89	58.89
C_ON_0140	J_ON1.2_0015	J_ON1.3_0010	250.48	58.89
C_ON_0130	J_ON1.2_0010	J_ON1.2_0015	4.42	58.89
C_MB8.5_0030	J_MB8.5_0020	J_MB8.5_0030	3.88	18.7
C_MB8.5_0020	J_MB8.3_0010	J_MB8.5_0020	113.93	22.44
C_MB8.5_0010	J_MB_0330	J_MB8.3_0010	15.06	22.44
C_NC46.7_0040	J_NC46.7_0035	J_NC46.7_0040	13.57	24.3
C_NC46.7_0060	J_NC46.7_0050	J_NC46.7_0060	147.8	22.44
C_NC46.7_0050	J_NC46.7_0040	J_NC46.7_0050	11.9	24.3
C_NC46.7_0030	J_NC46.7_0027	J_NC46.7_0030	1.46	26.17
C_NC46.7_0035	J_NC46.7_0030	J_NC46.7_0035	660.87	24.3
C_NC46.7-0.5_0010J_NC46.7_0060		J_NC46.7-0.5_0010	10.26	14.96
C_NC46.7-0.5_0015J_NC46.7-0.5_0010J_NC46.7-0.5_0015			169.09	14.96
C_NC46.7-0.5_0040J_NC46.7-0.5_0035J_NC46.7-0.5_0040			1315.81	11.92
C_NC46.7-0.5_0045J_NC46.7-0.5_0040J_NC46.7-0.5_0045			151.41	10.05
C_NC46.7-1.0_0010J_NC46.7-1.0_0005J_NC46.7-1.0_0010			1682.22	16.83
C_NC46.7-1.0_0035J_NC46.7-1.0_0030J_NC46.7-1.0_0035			2657.63	13.09
C_NC46.7-1.0_0030J_NC46.7-1.0_0020J_NC46.7-1.0_0030			17.13	16.83
C_NC46.7-1.0_0020J_NC46.7-1.0_0010J_NC46.7-1.0_0020			13.17	16.83
C_NC45.4_0030	J_NC45.4_0025	J_NC45.4_0030	1846.73	11.92
C_NC46.7-1.0_0070J_NC46.7-1.0_0065J_NC46.7-1.0_0070			972.73	6.08
C_NC46.7-0.5-0.2_0010J_NC46.7-0.5_0035J_NC46.7-0.5-0.2_0010			16.85	10.05
C_NC46.7-0.5-0.2_0040J_NC46.7-0.5-0.2_0030J_NC46.7-0.5-0.2_0040			1291.95	3.94
C_NC46.7-0.5-0.2_0030J_NC46.7-0.5-0.2_0020J_NC46.7-0.5-0.2_0030			2.23	3.94

C_NC46.7-0.5-0.2_0020J_NC46.7-0.5-0.2_0010J_NC46.7-0.5-0.2_0020 378.27
10.05
C_NC60.0-1.6_0010J_NC60.0_0080 J_NC60.0-1.6_0010 11.19 16.83
C_NC60.0-1.6_0015J_NC60.0-1.6_0010J_NC60.0-1.6_0015 2523.15 16.83
C_NC60.0_0083 J_NC60.0_0080 J_NC60.0_0083 606.41 16.83
C_NC60.0-0.9_0065J_NC60.0-0.9_0057J_NC60.0_0065 1648.79 10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0-0.9_0075J_NC60.0_0075	J_NC60.0_0075	J_NC60.0_0070	0.4	8.06
C_NC60.0-0.9_0080J_NC60.0_0070	J_NC60.0_0070	J_NC60.0-0.9_0080	698.62	8.06
C_NC60.0-0.9_0070J_NC60.0_0065	J_NC60.0_0065	J_NC60.0_0075	588.28	8.06
C_NC62.1_0044	J_NC62.1_0042	J_NC62.1_0044	499.18	10.05
C_NC62.1_0050	J_NC62.1_0048	J_NC62.1_0060	1558.66	10.05
C_NC62.1_0060	J_NC62.1_0060	J_NC62.1_0050	1.38	6.08
C_NC62.1_0070	J_NC62.1_0050	J_NC62.1_0070	1411.8	6.08
C_NC64.7_0010	J_NC64.7_0005	J_NC64.7_0010	7.45	13.09
C_NC64.7_0030	J_NC64.7_0020	J_NC64.7_0030	1097.13	11.92
C_NC64.7_0020	J_NC64.7_0010	J_NC64.7_0020	10.43	11.92
C_HL9.4_0075	J_HL9.4_0065	J_HL9.4_0075	58.03	12.86
C_HL9.4P_0010	J_HL9.4_0075	J_HL9.4P_0010	2313.99	9.87
C_HL9.4P_0030	J_HL9.4P_0020	J_HL9.4P_0030	2.12	11.71
C_HL9.4P_0020	J_HL9.4P_0010	J_HL9.4P_0020	1.91	11.71
C_HL9.4_0080	J_HL9.4_0075	J_HL9.4_0080	14.5	9.87
C_HL9.4_0100	J_HL9.4_0080	J_HL9.4_0100	1145.98	9.87
C_HL9.4_0125	J_HL9.4_0115	J_HL9.4_0125	40.88	7.92
C_HL9.4_0115	J_HL9.4_0110	J_HL9.4_0115	4.88	7.92
C_HL9.4_0110	J_HL9.4_0100	J_HL9.4_0110	17.2	9.87
C_HL9.4_0055	J_HL9.4_0052	J_HL9.4_0055	1286.38	14.7
C_HL5.5_0037	J_HL5.5_0033	J_HL5.5_0037	3297.43	14.96
C_HL5.5_0040	J_HL5.5_0037	J_HL5.5_0040	408.43	13.09
C_HL5.5_0065	J_HL5.5_0060	J_HL5.5_0065	510.16	11.92
C_HL5.5_0060	J_HL5.5_0050	J_HL5.5_0060	1.9	13.09
C_HL5.5_0050	J_HL5.5_0040	J_HL5.5_0050	6.77	13.09
C_ML4.1_0004	J_ML4.1_0002	J_ML4.1_0004	863.56	10.05
C_HL7.2E_0077	J_HL7.2E_0073	J_HL7.2E_0077	890.7	11.92
C_HL7.2E_0127	J_HL7.2E_0123	J_HL7.2E_0127	519.07	7.92
C_CL_0008	J_CL_0007	J_CL_0008	287	26.17
C_CL_0100	J_CL_0090	J_CL1.27_0010	3.9	23.88
C_CL_0120	J_CL1.27_0030	J_CL_0120	913.14	22.04
C_CL_0110	J_CL1.27_0020	J_CL1.27_0030	1.01	22.04
C_CL_0105	J_CL1.27_0010	J_CL1.27_0020	67.71	22.04
C_CL1.74_0010	J_CL_0180	J_CL1.74_0010	0.99	11.71
C_CL1.74_0020	J_CL1.74_0010	J_CL1.74_0020	1859.29	11.71
C_ML3.1_0050	J_ML3.1_0047	J_ML3.1_0050	1409.31	14.96

C_ML3.1_0076	J_ML3.1_0070	J_ML3.1_0076	6.27	11.71
C_ML3.1_0070	J_ML3.1_0050	J_ML3.1_0070	4.85	14.7
C_NC58.7_0026	J_NC58.7_0023	J_NC58.7_0026	849.57	11.92
C_NC55.6-0.5_0178	J_NC55.6-0.5_0175	J_NC55.6-0.5_0190	1437.23	11.92
C_NC55.6-0.5_0180	J_NC55.6-0.5_0190	J_NC55.6-0.5_0183	6.17	10.05
C_HL_0050	J_HL_0040	J_HL_0050	280.99	58.89
C_ML_0060	J_ML_0050	J_ML_0060	487.61	44.87
C_HL7.2W_0087	J_HL7.2W_0083	J_HL7.2W_0087	1062.4	7.92
C_NC55.6_0189	J_NC55.6_0188	J_NC55.6_0189	635.54	11.92
C_NC55.6_0080	J_NC55.6-2.6_0010	J_NC55.6_0080	3.03	22.44
C_NC55.6_0100	J_NC55.6_0090	J_NC55.6_0100	452.03	22.44

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.6_0090	J_NC55.6_0080	J_NC55.6_0090	7.4	22.44
C_NC55.6_0135	J_NC55.6_0130	J_NC55.6_0135	50	22.44
C_NC55.6_0120	J_NC55.6_0120	J_NC55.6_0110	1.26	22.44
C_NC55.6_0130	J_NC55.6_0110	J_NC55.6_0130	662.81	22.44
C_NC55.6_0110	J_NC55.6_0100	J_NC55.6_0120	1520.45	22.44
C_NC55.6-0.1_0010	J_NC55.5_0007	J_NC55.6-0.1_0010	1930.71	18.7
C_NC55.5_0007	J_NC55.5_0006	J_NC55.5_0007	1248.53	22.44
C_NC55.5_0006	J_NC55.5_0005	J_NC55.5_0006	5.94	24.3
C_NC55.5_0012	J_NC55.6-0.1_0010	J_NC55.5_0012	27.21	18.7
C_NC55.5_0015	J_NC55.5_0012	J_NC55.5_0015	1261.06	18.7
C_NC55.5_0030	J_NC55.5_0026	J_NC55.6-0.1_0030	807.11	13.09
C_NC55.6-0.1_0060	J_NC55.6-0.1_0060	J_NC55.6-0.1_0050	7.77	11.92
C_NC55.6-0.1_0065	J_NC55.6-0.1_0050	J_NC55.6-0.1_0065	2235.92	10.05
C_NC55.6-0.1_0050	J_NC55.6-0.1_0040	J_NC55.6-0.1_0060	7.13	11.92
C_NC55.6-0.1_0040	J_NC55.6-0.1_0030	J_NC55.6-0.1_0040	4.4	11.92
C_NC55.5_0155	J_NC55.6-0.1_0150	J_NC55.6-0.1_0155	444.33	3.94
C_NC55.5_0070	J_NC55.6-0.1_0065	J_NC55.6-0.1_0070	1059.06	10.05
C_LL_0160	J_LL_0155	J_LL_0160	2655.69	11.71
C_LL_0185	J_LL_0180	J_LL_0185	6.73	11.71
C_LL1.8_0010	J_LL_0185	J_LL1.8_0010	12.69	6.08
C_LL_0200	J_LL_0185	J_LL_0200	1142.57	9.87
C_LL_0255	J_LL_0250	J_LL_0255	67.71	7.92
C_LL_0205	J_LL_0200	J_LL_0205	12.77	9.87
C_LL_0210	J_LL_0205	J_LL_0210	530.65	7.92
C_LL_0260	J_LL_0255	J_LL_0260	561.74	7.92
C_LL_0270	J_LL_0260	J_LL_0270	746.59	6.08
C_LL2.0_0010	J_LL_0205	J_LL_0220	1046.02	6.08
C_LL2.0_0020	J_LL_0220	J_LL_0230	67.02	4.13
C_NC55.6-0.5_0095	J_NC55.6-0.5_0093	J_NC55.6-0.5_0095	2622.78	22.44
C_LL0.6_0010	J_LL_0075	J_LL0.6_0010	1616.94	3.94
C_NC54.4_0123	J_NC54.4_0120	J_NC54.4_0123	333.22	6.08

C_NC54.4_0128	J_NC54.4_0126	J_NC54.4_0128	110.37	5.96
C_NC54.2_0200	J_NC54.2_0195	J_NC54.2_0200	449.25	13.09
C_NC53.2_0097	J_NC53.2_0093	J_NC53.2_0097	226.47	10.05
C_NC53.2_0120	J_NC53.2_0115	J_NC53.2_0130	25.01	8.06
C_NC53.2_0125	J_NC53.2_0130	J_NC53.2_0120	0.28	8.06
C_NC53.2_0140	J_NC53.2_0125	J_NC53.2_0140	913.38	3.94
C_NC53.2_0130	J_NC53.2_0120	J_NC53.2_0125	18.15	3.94
C_NC53.2_0145	J_NC53.2_0140	J_NC53.2_0145	117.17	3.94
C_NC49.2-2.3_0030	J_NC49.2-2.3_0025	J_NC49.2-2.3_0030	10.63	8.06
C_NC49.2-2.3_0035	J_NC49.2-2.3_0030	J_NC49.2-2.3_0035	1371.57	8.06
C_NC49.2-2.9_0060	J_NC49.2-2.9_0055	J_NC49.2-2.9_0060	4.8	11.92
C_NC49.2-2.9_0100	J_NC49.2-2.9_0090	J_NC49.2-2.9_0100	396.67	8.06
C_NC49.2-2.9_0090	J_NC49.2-2.9_0080	J_NC49.2-2.9_0090	1.81	10.05
C_NC49.2-2.9_0080	J_NC49.2-2.9_0070	J_NC49.2-2.9_0080	5.75	10.05
C_NC49.2-2.9_0070	J_NC49.2-2.9_0060	J_NC49.2-2.9_0070	34.27	10.05
C_NC49.2_0140	J_NC49.2_0132	J_NC49.2_0140	1584.37	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2_0143	J_NC49.2_0140	J_NC49.2_0143	12.41	18.7
C_NC49.2-0.4-0.6_0010	J_NC49.2-0.4_0005	J_NC49.2-0.4-0.6_0010	1077.85	13.09
C_NC49.2-0.4-0.6_0015	J_NC49.2-0.4-0.6_0010	J_NC49.2-0.4-0.6_0015	7.22	13.09
C_NC49.2-0.4-0.6_0050	J_NC49.2-0.4-0.6_0045	J_NC49.2-0.4-0.6_0050	956.2	10.05
C_NC49.2-0.4-0.6_0055	J_NC49.2-0.4-0.6_0050	J_NC49.2-0.4-0.6_0055	3.15	10.05
C_NC49.2-0.9_0010	J_NC49.2_0065	J_NC49.2-0.9_0010	3643.28	11.92
C_NC49.2-0.9_0045	J_NC49.2-0.9_0040	J_NC49.2-0.9_0045	0.47	6.08
C_NC49.2-0.9_0040	J_NC49.2-0.9_0030	J_NC49.2-0.9_0040	790.72	8.06
C_NC49.2-0.9_0030	J_NC49.2-0.9_0020	J_NC49.2-0.9_0030	1052.04	8.06
C_NC49.2-0.9_0020	J_NC49.2-0.9_0015	J_NC49.2-0.9_0020	668.32	10.05
C_NC49.2-0.9_0015	J_NC49.2-0.9_0010	J_NC49.2-0.9_0015	26.16	11.92
C_NC43.2-14.7_0045	J_NC43.2-14.7_0030	J_NC43.2-14.7_0045	3268.45	18.7
C_NC43.2-14.7_0020	J_NC43.2-14.7_0020	J_NC43.2-14.7_0040	6.62	18.7
C_NC43.2-14.7_0040	J_NC43.2-14.7_0010	J_NC43.2-14.7_0030	3.73	18.7
C_NC43.2-14.7_0010	J_NC43.2_0325	J_NC43.2-14.7_0020	87.14	18.7
C_NC43.2-14.7_0030	J_NC43.2-14.7_0040	J_NC43.2-14.7_0010	1.86	18.7
C_NC43.2-14.4_0030	J_NC43.2-14.4_0020	J_NC43.2-14.4_0030	744.24	11.92
C_NC43.2-14.4_0040	J_NC43.2-14.4_0030	J_NC43.2-14.4_0040	2291	3.94
C_NC43.2-12.7_0028	J_NC43.2-12.7_0024	J_NC43.2-12.7_0028	3367.87	14.96
C_NC43.2-12.7_0030	J_NC43.2-12.7_0028	J_NC43.2-12.7_0030	5.11	13.09
C_NC43.2-11.6_0050	J_NC43.2-11.6_0045	J_NC43.2-11.6_0050	523.93	6.08
C_NC43.2-10.4_0010	J_NC43.2_0225	J_NC43.2-10.4_0010	931.68	3.94
C_NC43.2-10.3_0010	J_NC43.2_0195	J_NC43.2_0210	9.07	10.05

C_NC43.2-10.3_0040J_NC43.2_0220	J_NC43.2-10.3_0040	516.63	8.06	
C_NC43.2-10.3_0020J_NC43.2_0210	J_NC43.2_0200	2.71	10.05	
C_NC43.2-10.3_0030J_NC43.2_0200	J_NC43.2_0220	2.89	8.06	
C_NC43.2-9.4_0030J_NC43.2-9.4_0020J_NC43.2-9.4_0030		1597.52	7.92	
C_NC43.2-9.4_0020J_NC43.2-9.4_0010J_NC43.2-9.4_0020		9.56	8.06	
C_NC43.2-9.4_0010J_NC43.2_0160	J_NC43.2-9.4_0010	6.4	10.05	
C_NC43.2-7.3_0010J_NC43.2_0135	J_NC43.2-7.3_0020	3.4	8.06	
C_NC43.2-7.3_0020J_NC43.2-7.3_0020J_NC43.2-7.3_0010		3.56	3.94	
C_NC43.2-7.3_0030J_NC43.2-7.3_0010J_NC43.2-7.3_0030		895.4	3.94	
C_NC43.2-6.6_0020J_NC43.2_0108	J_NC43.2-6.6_0020	3087.6	11.92	
C_NC43.2-6.6_0050J_NC43.2-6.6_0040J_NC43.2-6.6_0050		13.36	6.08	
C_NC43.2-6.6_0040J_NC43.2-6.6_0020J_NC43.2-6.6_0040		26.58	6.08	
C_NC43.2-3.8-0.0_0010J_NC43.2-3.8_0025J_NC43.2-3.8-0.0_0010		1427.5	11.92	
C_NC43.2-3.8_0055J_NC43.2-3.8_0043J_NC43.2-3.8_0055		2082.66	9.87	
C_NC43.2-3.8_0060J_NC43.2-3.8_0055J_NC43.2-3.8_0060		24.91	9.87	
C_NC43.2-0.8_0030J_NC43.2-0.8_0020J_NC43.2-0.8_0030		69.67	10.05	
C_NC43.2-0.8_0040J_NC43.2-0.8_0030J_NC43.2-0.8_0040		386.54	9.87	
C_NC43.2-12.9-0.5_0010J_NC43.2-12.9_0030J_NC43.2-12.9-0.5_0015		4.42	13.09	
C_NC43.2-12.9-0.5_0070J_NC43.2-12.9-0.5_0060J_NC43.2-12.9-0.5_0070		1220.57	3.94	
C_NC43.2-12.9-0.5_0060J_NC43.2-12.9-0.5_0050J_NC43.2-12.9-0.5_0060		9.43	3.94	
C_NC43.2-12.9-0.5_0050J_NC43.2-12.9-0.5_0040J_NC43.2-12.9-0.5_0050		1480.52	3.94	
C_NC43.2-12.9-0.5_0040J_NC43.2-12.9-0.5_0030J_NC43.2-12.9-0.5_0040		140.56	3.94	
C_NC43.2-12.9-0.5_0030J_NC43.2-12.9-0.5_0020J_NC43.2-12.9-0.5_0030		483.97	3.94	
C_NC43.2-12.9-0.5_0015J_NC43.2-12.9-0.5_0015J_NC43.2-12.9-0.5_0010		10.1	11.92	

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2-12.9-0.5_0020J_NC43.2-12.9-0.5_0010J_NC43.2-12.9-0.5_0020			21.61	3.94
C_NC22.8_0170	J_NC22.8_0190	J_NC22.8_0170	1.43	11.71
C_NC22.8_0190	J_NC22.8_0180	J_NC22.8_0160	2.55	9.87
C_NC22.8_0180	J_NC22.8_0170	J_NC22.8_0180	11.46	9.87
C_NC22.8_0200	J_NC22.8_0160	J_NC22.8_0200	1240.88	9.66
C_NC22.8_0160	J_NC22.8_0150	J_NC22.8_0190	156.56	14.7
C_NC22.8_0150	J_NC22.8_0145	J_NC22.8_0150	219.91	14.96
C_NC22.8_0145	J_NC22.8_0140	J_NC22.8_0145	239.5	14.96
C_NC22.8_0140	J_NC22.8_0130	J_NC22.8_0140	1286.09	14.96
C_NC22.8_0130	J_NC22.8_0120	J_NC22.8_0130	308.37	16.83
C_NC22.8_0120	J_NC22.8_0110	J_NC22.8_0120	472.5	18.7

C_NC22.8_0110	J_NC22.8_0100	J_NC22.8_0110	576.93	18.7
C_NC22.8_0100	J_NC22.8_0090	J_NC22.8_0100	632.18	22.44
C_NC22.8_0090	J_NC22.8_0085	J_NC22.8_0090	1299.05	22.44
C_NC22.8_0085	J_NC22.8_0083	J_NC22.8_0085	96.76	22.44
C_NC22.8_0083	J_NC22.8_0080	J_NC22.8_0083	55.51	22.44
C_NC22.8_0030	J_NC22.8_0020	J_NC22.8_0030	409.2	24.3
C_NC22.8_0015	J_NC22.8_0010	J_NC22.8_0015	38.84	29.91
C_NC22.8_0017	J_NC22.8_0015	J_NC22.8-0.1_0010	9.06	24.3
C_NC22.8_0020	J_NC22.8-0.1_0010	J_NC22.8_0020	489.64	24.3
C_NC22.8_0080	J_NC22.8_0070	J_NC22.8_0080	1073.76	22.44
C_NC22.8_0070	J_NC22.8_0060	J_NC22.8_0070	2.24	22.44
C_NC22.8_0060	J_NC22.8_0050	J_NC22.8_0060	323.16	22.44
C_NC22.8_0050	J_NC22.8_0040	J_NC22.8_0050	1066.83	24.3
C_NC22.8_0040	J_NC22.8_0035	J_NC22.8_0040	15.01	24.3
C_NC22.8_0035	J_NC22.8_0030	J_NC22.8_0035	637.89	24.3
C_NC10.5-0.9_0010	J_NC10.5_0085	J_NC10.5_0090	136.59	14.38
C_NC10.5-0.9_0020	J_NC10.5_0090	J_NC10.5-0.9_0100	51.08	7.75
C_NC10.5-0.9_0030	J_NC10.5-0.9_0100	J_NC10.5-0.9_0110	1752.75	7.75
C_MB4.8_0040	J_MB4.8_0035	J_MB4.8_0040	1419.72	8.06
C_MB4.8_0045	J_MB4.8_0040	J_MB4.8_0045	5.24	3.94
C_MB6.0_0060	J_MB6.0_0057	J_MB6.0_0060	1281.21	18.7
C_NC7.3_0030	J_NC7.3_0020	J_NC7.3_0040	2253.23	11.92
C_NC7.3_0020	J_NC7.3_0010	J_NC7.3_0020	3167.97	14.96
C_NC7.3_0040	J_NC7.3_0040	J_NC7.3_0030	3.71	8.06
C_NC7.3_0050	J_NC7.3_0030	J_NC7.3_0050	4628.74	7.66
C_NC22.8-0.1_0010	J_NC22.8_0015	J_NC22.8-0.1_0011	15.61	16.83
C_NC22.8-0.1_0022	J_NC22.8-0.1_0012	J_NC22.8-0.1_0022	2182.17	11.92
C_NC22.8-0.1_0012	J_NC22.8-0.1_0011	J_NC22.8-0.1_0012	5.21	11.92
C_SA_0240	J_SA_0230	J_SA1.5_0010	4.53	10.05
C_SA_0280	J_SA1.7_0006	J_SA_0280	15.91	8.06
C_SA_0270	J_SA1.7_0005	J_SA1.7_0006	22.78	10.05
C_SA_0260	J_SA1.5_0020	J_SA1.7_0005	683.98	10.05
C_SA_0250	J_SA1.5_0010	J_SA1.5_0020	253.87	10.05
C_NC49.4_0037	J_NC49.4_0034	J_NC49.4_0037	42.65	22.44
C_NC49.4_0040	J_NC49.4_0037	J_NC49.4_0040	745.56	11.92
C_NC49.4_0100	J_NC49.4_0090	J_NC49.4_0100	11.45	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.4_0090	J_NC49.4_0080	J_NC49.4_0090	837.92	8.06
C_NC49.4_0080	J_NC49.4_0070	J_NC49.4_0080	0.24	8.06
C_NC49.4_0070	J_NC49.4_0060	J_NC49.4_0070	665.29	8.06
C_NC49.4_0060	J_NC49.4_0050	J_NC49.4_0060	3.83	11.92
C_NC49.4_0050	J_NC49.4_0040	J_NC49.4_0050	1508.31	11.92
C_NC49.4-0.4_0010	J_NC49.4_0037	J_NC49.4-0.4_0010	11.05	14.96

C_NC49.4-0.4_0040	J_NC49.4-0.4_0030	J_NC49.4-0.4_0040	2.04	8.06
C_NC49.4-0.4_0030	J_NC49.4-0.4_0020	J_NC49.4-0.4_0030	1468.84	8.06
C_NC49.4-0.4_0020	J_NC49.4-0.4_0010	J_NC49.4-0.4_0020	9.57	11.92
C_NC52.5_0070	J_NC52.5_0060	J_NC52.5_0070	6.18	3.94
C_NC52.5_0060	J_NC52.5_0059	J_NC52.5_0060	83.51	3.94
C_NC52.5_0059	J_NC52.5_0050	J_NC52.5_0059	520.18	6.08
C_NC52.5_0050	J_NC52.5_0040	J_NC52.5_0050	876.62	6.08
C_NC52.5_0030	J_NC52.5_0030	J_NC52.5_0020	2.63	18.7
C_NC52.5_0040	J_NC52.5_0020	J_NC52.5_0040	3.21	18.7
C_NC52.5_0020	J_NC52.5_0010	J_NC52.5_0030	59.73	18.7
C_NC53.2_0035	J_NC53.2_0033	J_NC53.2_0035	860.92	14.96
C_NC53.2_0037	J_NC53.2_0035	J_NC53.2_0037	891.7	13.09
C_NC53.2-0.4_0010	J_NC53.2-0.4_0005	J_NC53.2-0.4_0010	2.74	3.94
C_NC53.2-0.4_0050	J_NC53.2-0.4_0040	J_NC53.2-0.4_0050	1.07	3.94
C_NC53.2-0.4_0025	J_NC53.2-0.4_0025	J_NC53.2-0.4_0020	3.1	3.94
C_NC53.2-0.4_0040	J_NC53.2-0.4_0020	J_NC53.2-0.4_0040	358.06	3.94
C_NC53.2-0.4_0020	J_NC53.2-0.4_0010	J_NC53.2-0.4_0025	797.51	3.94
C_NC53.2_0050	J_NC53.2_0045	J_NC53.2_0050	110.94	11.92
C_NC53.2_0080	J_NC53.2_0070	J_NC53.2_0080	133.39	11.92
C_NC53.2_0060	J_NC53.2_0060	J_NC53.2_0055	2.43	11.92
C_NC53.2_0070	J_NC53.2_0055	J_NC53.2_0070	843.8	11.92
C_NC53.2_0055	J_NC53.2_0050	J_NC53.2_0060	0.29	11.92
C_NC54.2-3.4_0010	J_NC54.2_0290	J_NC54.2-3.4_0010	3268.52	5.96
C_NA0.4_0030	J_NA0.4_0020	J_NA0.4_0030	2020.44	6.08
C_NA0.4_0020	J_NA0.4_0010	J_NA0.4_0020	5.47	6.08
C_NA_0060	J_NA0.3_0020	J_NA_0060	980.2	8.06
C_NA_0050	J_NA_0040	J_NA0.3_0020	14.91	8.06
C_NA_0070	J_NA_0060	J_NA0.8_0010	1659.45	3.94
C_NA_0100	J_NA_0090	J_NA_0100	2067.9	3.94
C_NA_0080	J_NA0.8_0010	J_NA0.9_0010	332.66	3.94
C_NA_0030	J_NA_0020	J_NA0.3_0010	779.43	8.06
C_NA_0040	J_NA0.3_0010	J_NA_0040	111.69	8.06
C_NA_0020	J_NA0.0_0010	J_NA_0020	920.42	8.06
C_SA_0090	J_SA0.5_0010	J_SA0.7_0010	644.09	14.96
C_SA_0080	J_SA0.3_0030	J_SA0.5_0010	670.43	14.96
C_KL5.4_0187	J_KL5.4_0183	J_KL5.4_0187	761.08	17.98
C_NC58.7_0040	J_NC58.7_0030	J_NC58.7_0040	120.19	6.08
C_NC58.7_0050	J_NC58.7_0040	J_NC58.7_0050	873.48	6.08
C_SA_0345	J_SA_0340	J_SA_0345	3321.68	8.06
C_SA_0290	J_SA_0280	J_SA1.7_0007	27.56	8.06
C_SA_0330	J_SA1.9_0010	J_SA_0330	1605.51	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_SA_0340	J_SA_0330	J_SA_0340	627.42	8.06

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  C_SA_0320      J_SA1.8_0010   J_SA1.9_0010       415.17      8.06
  C_SA_0310      J_SA1.7_0010   J_SA1.8_0010       309.68      8.06
  C_SA_0300      J_SA1.7_0007   J_SA1.7_0010         0.26      6.19
  C_SA2.3_0010   J_SA_0330      J_SA2.3_0010         5.99      3.94
  C_SA2.3_0020   J_SA2.3_0010   J_SA2.3_0020      2323.91      3.94
  C_NA1.0_0010   J_NA_0090      J_NA1.0_0010       238.35      3.94
  C_SA_0010      J_SA0.0_0000   J_SA0.0_0010        13.91     14.96
  C_SA_0015      J_SA0.0_0010   J_SA_0015          316.18     14.96
  C_NA0.2E_0025  J_NA0.2_0020   J_NA0.2E_0010       693.8      3.94
  C_NA0.2E_0030  J_NA0.2E_0010  J_NA0.2E_0020     1054.82      3.94
  C_NC55.6-0.5-2.6_0050J_NC55.6-0.5-2.6_0045J_NC55.6-0.5-2.6_0050   1507.48
10.05
  C_NC55.6-0.5_0250J_NC55.6-0.5_0240J_NC55.6-0.5_0250    460.38      6.08
  C_NC61.3_0030  J_NC61.3_0020  J_NC61.3_0030     1092.17     11.92
  C_NC61.3_0020  J_NC61.3_0010  J_NC61.3_0020        3.04     13.09
  C_NC61.3_0010  J_NC61.3_0005  J_NC61.3_0010     1280.44     14.96
  C_NC60.0-1.6_0030J_NC60.0-1.6_0025J_NC60.0-1.6_0030   2365.94     10.05
  C_NC35.1-0.7_0015J_NC35.1-0.7_0010J_NC35.1-0.7_0015    709.55      3.94
  C_NC35.1-0.7_0050J_NC35.1-0.7_0040J_NC35.1-0.7_0050      2.54      3.94
  C_NC35.1-0.7_0030J_NC35.1-0.7_0020J_NC35.1-0.7_0040      4.07      3.94
  C_NC33.1S_0010 J_NC33.1_0055  J_NC33.1S_0010       4.02     22.44
  C_NC33.1S_0072 J_NC33.1S_0070 J_NC33.1S_0072      30.13      18.7
  C_NC33.1S_0070 J_NC33.1S_0060 J_NC33.1S_0070      36.28      18.7
  C_NC33.1S_0060 J_NC33.1S_0010 J_NC33.1S_0060    1976.87      18.7
  C_NC32.2_0087  J_NC32.2_0083  J_NC32.2_0087      735.25     12.86
  C_NC31.5_0070  J_NC31.5_0065  J_NC31.5_0070        6.16     10.05
  C_NC31.5_0075  J_NC31.5_0070  J_NC31.5_0075     1634.25     10.05
  C_NC31.0-1.9_0010J_NC31.0_0135  J_NC31.0-1.9_0010       2.4     11.92
  C_NC31.0-1.9_0020J_NC31.0-1.9_0010J_NC31.0-1.9_0030   1896.84     11.92
  C_NC31.0-1.9_0030J_NC31.0-1.9_0030J_NC31.0-1.9_0035      2.84     10.05
  C_NC38.7-0.1-0.2_0010J_NC38.7-0.1_0017J_NC38.7-0.1-0.2_0010   1338.63      9.66
  C_NC38.7_0078  J_NC38.7_0077  J_NC38.7-0.2_0040      1.27      18.7
  C_NC38.7_0093  J_NC38.7_0090  J_NC38.7_0093       18.14      18.7
  C_NC38.7_0090  J_NC38.7_0080  J_NC38.7_0090        9.59      18.7
  C_NC38.7_0080  J_NC38.7-0.2_0040J_NC38.7_0080     1398.01      18.7
  C_NC38.7-0.8_0010J_NC38.7_0095  J_NC38.7-0.8_0010         7      3.94
  C_NC38.7-0.8_0020J_NC38.7-0.8_0010J_NC38.7-0.8_0020   2981.58      3.94
  C_NC38.7-1.2_0010J_NC38.7_0120  J_NC38.7-1.2_0010      6.03      5.96
  C_NC38.7-1.2_0035J_NC38.7-1.2_0025J_NC38.7-1.2_0035      0.68      5.96
  C_NC38.7-1.2_0025J_NC38.7-1.2_0020J_NC38.7-1.2_0025      7.46      5.96
  C_NC38.9-2.4-1.6_0010J_NC38.9-2.4_0127J_NC38.9-2.4-1.6_0010      8.46     11.46
  C_NC38.9-2.4-1.6_0020J_NC38.9-2.4-1.6_0010J_NC38.9-2.4-1.6_0020   1228.39
11.46
  C_NC38.9-2.4-1.6_0030J_NC38.9-2.4-1.6_0020J_NC38.9-2.4-1.6_0030      1.96
11.46
  C_NC38.9-2.4_0137J_NC38.9-2.4_0136J_NC38.9-2.4_0137   1765.11      5.96
  C_NC38.9-4.8-0.5-1.3_0025J_NC38.9-4.8-0.5_0093J_NC38.9-4.8-0.5-1.3_0025   2076.35
    5.96
  C_NC38.9-4.8-0.5_0110J_NC38.9-4.8-0.5_0108J_NC38.9-4.8-0.5_0100      2.45
12.59
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C_NC38.9-4.8-0.5_0120J_NC38.9-4.8-0.5_0110J_NC38.9-4.8-0.5_0120 1335.01
11.46

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8-0.5_0140	J_NC38.9-4.8-0.5_0130	J_NC38.9-4.8-0.5_0140	1.69	9.66
C_NC38.9-4.8-0.5_0130	J_NC38.9-4.8-0.5_0125	J_NC38.9-4.8-0.5_0130	16.18	9.66
C_NC38.9-4.8-0.5_0125	J_NC38.9-4.8-0.5_0120	J_NC38.9-4.8-0.5_0125	44.57	9.66
C_NC38.9-4.8-2.5-0.0_0010	J_NC38.9-4.8-2.5_0015	J_NC38.9-4.8-2.5-0.0_0010	1361.87	3.94
C_NC38.9-8.5-0.2_0010	J_NC38.9-8.5_0013	J_NC38.9-8.5-0.2_0010	2647.62	3.94
C_NC38.9-8.5-0.2_0020	J_NC38.9-8.5-0.2_0010	J_NC38.9-8.5-0.2_0020	1.91	3.94
C_NC38.9-3.0_0090	J_NC38.9-3.0_0080	J_NC38.9-3.0-0.5_0040	912	10.05
C_NC38.9-3.0_0100	J_NC38.9-3.0-0.5_0040	J_NC38.9-3.0-0.5_0030	2.01	8.06
C_NC25.4-1.6-0.9_0010	J_NC25.4-1.6_0055	J_NC25.4_1.6_0060	1899.79	22.44
C_NC25.4-1.6-0.9_0020	J_NC25.4_1.6_0060	J_NC25.4-1.6-0.9_0020	16.56	16.83
C_NC25.4-1.8-1.0_0020	J_NC25.4-1.8-1.0_0015	J_NC25.4-1.8-1.0_0020	1371.25	18.37
C_NC25.4-1.8_0127	J_NC25.4-1.8_0125	J_NC25.4-1.8_0127	1887.04	14.38
C_NC25.4-4.8_0010	J_NC25.4_0160	J_NC25.4-4.8_0010	1949.83	5.96
C_NC27.8_0093	J_NC27.8_0090	J_NC27.8_0093	897.38	8.06
C_NC27.8_0069	J_NC27.8_0068	J_NC27.8_0069	467.77	10.05
C_NC27.8_0020	J_NC27.8_0018	J_NC27.8_0020	1292.27	18.7
C_NC27.8_0035	J_NC27.8_0030	J_NC27.8_0035	5.78	14.96
C_NC27.8_0030	J_NC27.8_0020	J_NC27.8_0030	1404.45	18.7
C_NC28.7_0057	J_NC28.7_0055	J_NC28.7_0057	508.6	29.91
C_NC28.7_0127	J_NC28.7_0024	J_NC28.7_0027	1323.62	9.87
C_NC28.7-1.0_0070	J_NC28.7-1.0_0065	J_NC28.7-1.0_0070	421.72	14.96
C_NC28.7-1.0_0075	J_NC28.7-1.0_0070	J_NC28.7-1.0_0075	3370.5	9.87
C_NC26.4_0077	J_NC26.4_0073	J_NC26.4_0077	945.39	22.44
C_NC25.4_0175	J_NC25.4_0170	J_NC25.4-4.5_0010	5.08	9.66
C_NC25.4_0190	J_NC25.4-4.5_0011	J_NC25.4_0190	1286.67	9.66
C_NC25.4_0180	J_NC25.4-4.5_0010	J_NC25.4-4.5_0011	13.51	9.66
C_NC35.1_0100	J_NC35.1_0095	J_NC35.1_0100	468.9	7.75
C_NC25.4-1.6_0060	J_NC25.4-1.6_0057	J_NC25.4-1.6-1.1_0010	1711.44	11.92
C_NC14.5-4.2_0010	J_NC14.5_0217	J_NC14.5-4.2_0010	1639.86	3.94
C_NC27.8_0100	J_NC27.8_0097	J_NC27.8_0100	338.24	8.06
C_NC27.8_0110	J_NC27.8_0100	J_NC27.8_0110	141.25	8.06
C_MB8.5_0100	J_MB8.5_0090	J_MB8.5_0100	435.14	11.71
C_NC25.4-0.3_0010	J_NC25.4_0056	J_NC25.4-0.3_0010	144.53	3.94
C_NC25.4-0.3_0020	J_NC25.4-0.3_0010	J_NC25.4-0.3_0020	33.67	3.94

C_NC25.4-0.4_0010J_NC25.4_0057 J_NC25.4-0.4_0010 217.79 3.94
C_NC28.7-2.8-0.4_0010J_NC28.7-2.8_0015J_NC28.7-2.8-0.4_0010 658.52 3.94
C_NC33.1S_0180 J_NC33.1S-1.6_0020J_NC33.1S_0180 797.55 7.75
C_ML4.0_0020 J_ML4.0_0015 J_ML4.0_0020 198.7 11.92
C_ML4.0_0050 J_ML4.0_0040 J_ML4.0_0050 1017.12 6.08
C_ML4.0_0040 J_ML4.0_0035 J_ML4.0_0040 17.46 6.08
C_ML4.0_0030 J_ML4.0_0020 J_ML4.0_0030 1585.23 11.92
C_KL7.6-9.3N_0030J_KL7.6-9.3N_0025J_KL7.6-9.3N_0030 1478.68 22.04
C_KL7.6-9.3N_0057J_KL7.6-9.3N_0055J_KL7.6-9.3N_0057 0.08 7.92
C_KL7.6-9.3N_0060J_KL7.6-9.3N_0058J_KL7.6-9.3N_0060 501.77 3.94
C_KL7.6-9.3N_0058J_KL7.6-9.3N_0057J_KL7.6-9.3N_0058 469.19 3.94
C_KL7.6-9.3N_0055J_KL7.6-9.3N_0050J_KL7.6-9.3N_0055 4.89 7.92
C_KL7.6-9.3N_0050J_KL7.6-9.3N_0040J_KL7.6-9.3N_0050 453.39 7.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL7.6-9.3N_0040J_KL7.6-9.3N_0030J_KL7.6-9.3N_0040			237.19	7.92
C_KL7.6-9.3-0.2_0010J_KL7.6-9.3N_0058J_KL7.6-9.3-0.2_0010			147.16	3.94
C_KL7.6-9.3-0.1_0010J_KL7.6-9.3N_0057J_KL7.6-9.3-0.1_0010			642.15	7.92
C_NC38.9-4.8-0.5-1.2_0010J_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0080			7.15	7.92
C_NC38.9-4.8-0.5-1.2_0020J_NC38.9-4.8-0.5_0080J_NC38.9-4.8-0.5-1.3_0020			813.49	7.92
C_NC38.9-4.8-0.5-1.2_0030J_NC38.9-4.8-0.5-1.3_0020J_NC38.9-4.8-0.5-1.2_0030			449.33	7.92
C_HL_0280	J_HL_0270	J_HL_0280	664.25	50.48
C_KL_0056	J_KL_0055	J_KL_0056	655.07	58.89
C_KL_0053	J_KL_0052	J_KL_0053	704.96	58.89
C_KL_0027	J_KL_0023	J_KL_0027	496.32	58.89
C_KL_0018	J_KL_0017	J_KL_0018	324.35	84
C_KL_0235	J_KL_0230	J_KL7.6S_0005	2887.24	28.66
C_KL_0240	J_KL7.6S_0020	J_KL9.3-0.1_0070	1811.26	44.87
C_KL_0237	J_KL7.6S_0010	J_KL7.6S_0020	185.49	44.09
C_KL_0252	J_KL9.3_0010	J_KL_0252	1313.77	22.44
C_KL_0242	J_KL9.3-0.1_0070	J_KL7.6S_0030	471.63	44.87
C_KL_0244	J_KL7.6S_0030	J_KL7.6_0040	1.54	44.87
C_KL_0250	J_KL7.6_0060	J_KL9.3_0010	18.49	39.26
C_KL_0247	J_KL7.6_0050	J_KL7.6_0060	1318.1	39.26
C_KL_0245	J_KL7.6_0040	J_KL7.6_0050	0.55	39.26
C_KL_0017	J_KL_0015	J_KL_0017	5695.17	84
C_KL_0015	J_KL_0010	J_KL_0015	213.67	84
C_KL_0020	J_KL_0018	J_KL_0020	3009.48	78
C_KL_0023	J_KL_0020	J_KL_0023	2468.58	58.89
C_KL_0030	J_KL_0027	J_KL_0030	1023.81	58.89
C_KL_0052	J_KL_0050	J_KL_0052	243.7	58.89

C_KL_0050	J_KL_0030	J_KL_0050	771.85	58.89
C_KL_0055	J_KL_0053	J_KL_0055	1086.44	58.89
C_NC10.5_0035	J_NC10.5_0033	J_NC10.5_0035	387.12	28.04
C_NC10.5_0075	J_NC10.5_0070	J_NC10.5_0075	141.55	21.58
C_NC10.5_0070	J_NC10.5_0050	J_NC10.5_0070	1795.76	22.04
C_NC10.5_0050	J_NC10.5_0040	J_NC10.5_0050	1347.19	26.17
C_NC10.5_0040	J_NC10.5_0035	J_NC10.5_0040	32.83	26.17
C_NC10.5_0105	J_NC10.5_0085	J_NC10.5_0105	44.87	14.38
C_NC10.5_0107	J_NC10.5_0105	J_NC10.5_0107	833.87	14.38
C_NC10.5_0108	J_NC10.5_0107	J_NC10.5_0106	471.84	14.38
C_NC10.5_0120	J_NC10.5_0120	J_NC10.5_0110	0.48	7.75
C_NC10.5_0110	J_NC10.5_0106	J_NC10.5_0120	76.82	14.38
C_NC10.5_0080	J_NC10.5_0075	J_NC10.5_0080	665.19	21.58
C_NC10.5_0085	J_NC10.5_0080	J_NC10.5_0085	2416	21.58
C_NC10.5_0032	J_NC10.5_0030	J_NC10.5_0032	878.05	28.04
C_NC10.5_0033	J_NC10.5_0032	J_NC10.5_0033	67.98	28.04
C_NC10.5_0030	J_NC10.5_0020	J_NC10.5_0030	472.4	28.04
C_NC10.5_0020	J_NC10.5_0010	J_NC10.5_0020	57.03	29.91
C_MB4.8_0050	J_MB4.8_0045	J_MB4.8_0050	1009.32	3.94
C_KL7.7_0045	J_KL7.7_0035	J_KL7.7_0045	1636.06	9.66
C_KL7.7_0080	J_KL7.7_0070	J_KL7.7_0080	0.33	7.75

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL7.7_0050	J_KL7.7_0045	J_KL7.7_0050	827.37	7.75
C_KL9.3-0.8_0010	J_KL9.3_0095	J_KL9.3_0100	3.95	8.06
C_KL9.3-0.8_0030	J_KL9.3_0140	J_KL9.3_0130	0.86	3.94
C_KL9.3-0.8_0020	J_KL9.3_0100	J_KL9.3_0140	1648.96	7.92
C_KL9.3_0120	J_KL9.3_0115	J_KL9.3_0120	9.98	18.7
C_KL9.3_0155	J_KL9.3_0150	J_KL9.3_0155	192.21	18.7
C_KL9.3_0150	J_KL9.3_0120	J_KL9.3_0150	1244.32	18.37
C_KL9.3_0200	J_KL9.3_0190	J_KL9.3_0200	12.26	9.87
C_KL9.3_0210	J_KL9.3_0200	J_KL9.3_0210	1814.33	9.87
C_KL7.6-9.6_0070	J_KL7.6-9.3N_0030	J_KL7.6-9.6_0070	862.58	22.04
C_KL7.6-9.6_0075	J_KL7.6-9.6_0070	J_KL7.6-9.6_0075	892.17	11.71
C_KL7.6-9.6_0080	J_KL7.6-9.6_0075	J_KL7.6-9.6_0080	0.09	9.87
C_KP0.1_0010	J_KP_0010	J_KP0.1_0010	695.09	7.92
C_KP_0020	J_KP_0010	J_KP_0020	1498.85	14.7
C_KP_0040	J_KP_0035	J_KP_0040	1303.42	7.92
C_KP_0035	J_KP_0030	J_KP_0035	8.74	9.87
C_KP_0030	J_KP_0020	J_KP_0030	3.83	9.87
C_KP_0005	J_KP_0001	J_KP_0050	51.41	14.7
C_KP_0010	J_KP_0050	J_KP_0010	339.99	14.7
C_KL5.4-0.8_0010	J_KL5.4_0022	J_KL5.4-0.8_0010	14.91	39.26
C_KL5.4-0.8_0030	J_KL5.4-0.8_0025	J_KL5.4-0.8_0030	1036.76	37.76

C_KL5.4-0.8_0025J_KL5.4-0.8_0020J_KL5.4-0.8_0025	280.96	37.76		
C_KL5.4-0.8_0020J_KL5.4-0.8_0015J_KL5.4-0.8_0020	1251.17	37.76		
C_KL5.4-0.8_0015J_KL5.4-0.8_0010J_KL5.4-0.8_0015	1121.26	37.76		
C_KL5.4-0.8_0065J_KL5.4-0.8_0060J_KL5.4-0.8_0065	490.37	29.39		
C_KL5.4-0.8_0060J_KL5.4-0.8_0050J_KL5.4-0.8_0060	88.55	31.23		
C_KL5.4-0.8_0050J_KL5.4-0.8_0040J_KL5.4-0.8_0050	1190.06	33.06		
C_KL5.4-0.8_0040J_KL5.4-0.8_0035J_KL5.4-0.8_0037	1585.06	37.31		
C_KL5.4-0.8_0035J_KL5.4-0.8_0030J_KL5.4-0.8_0035	1090.87	37.31		
C_KL5.4-0.8_0070J_KL5.4-0.8_0065J_KL5.4-0.8_0070	441.96	29.39		
C_KL5.4-0.8_0095J_KL5.4-0.8_0090J_KL5.4-0.8_0095	280.3	29.39		
C_KL5.4-0.8_0090J_KL5.4-0.8_0080J_KL5.4-0.8_0090	50.4	29.39		
C_KL5.4-0.8_0080J_KL5.4-0.8_0070J_KL5.4-0.8_0080	286.58	29.39		
C_KL5.4-0.8_0100J_KL5.4-0.8_0095J_KL5.4-0.8_0100	933.07	29.39		
C_KL5.4-0.8_0113J_KL5.4-0.8_0110J_KL5.4-0.8_0113	1098.55	26.97		
C_KL5.4-0.8_0117J_KL5.4-0.8_0113J_KL5.4-0.8_0117	135.92	21.58		
C_KL5.4-0.8_0110J_KL5.4-0.8_0100J_KL5.4-0.8_0110	260.78	28.73		
C_KL5.4-0.8_0120J_KL5.4-0.8_0117J_KL5.4-0.8_0120	65.41	21.58		
C_KL5.4-0.8_0135J_KL5.4-0.8_0130J_KL5.4-0.8_0135	561.17	21.58		
C_KL5.4-0.8_0130J_KL5.4-0.8_0120J_KL5.4-0.8_0130	462.41	21.58		
C_KL5.4-0.8-2.4_0010J_KL5.4-0.8-2.4_0005J_KL5.4-0.8-2.4_0010	2015.33	17.98		
C_KL5.4-0.8-2.4_0015J_KL5.4-0.8-2.4_0010J_KL5.4-0.8-2.4_0015	71.11	12.59		
C_KL5.4-0.8-2.4_0020J_KL5.4-0.8-2.4_0015J_KL5.4-0.8-2.4_0020	1749.38	12.59		
C_KL5.4-0.8-2.4_0030J_KL5.4-0.8-2.4_0020J_KL5.4-0.8-2.4_0030	19.77	11.46		
C_KL5.4-0.8-2.2_0005J_KL5.4-0.8_0113J_KL5.4-0.8-2.2_0005	115.9	16.18		
C_KL5.4-0.8-2.2_0010J_KL5.4-0.8-2.2_0005J_KL5.4-0.8-2.2_0010	1160.88	16.18		
C_KL5.4-0.8-2.2_0025J_KL5.4-0.8-2.2_0020J_KL5.4-0.8-2.2_0025	59.42	12.59		

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2_0010J_KL5.4-0.8-2.2_0015			29.54	16.18
C_KL5.4-0.8-2.2_0020J_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2_0020			64.89	12.86
C_KL5.4-0.8-2.2_0030J_KL5.4-0.8-2.2_0025J_KL5.4-0.8-2.2_0030			1132.91	12.86
C_KL5.4-0.8-2.2_0045J_KL5.4-0.8-2.2_0040J_KL5.4-0.8-2.2_0045			158.1	9.87
C_KL5.4-0.8-2.2_0040J_KL5.4-0.8-2.2_0030J_KL5.4-0.8-2.2_0040			38.44	12.86
C_KL5.4-0.8-2.2_0050J_KL5.4-0.8-2.2_0045J_KL5.4-0.8-2.2_0050			1190.25	9.87
C_KL5.4-0.8-2.2_0060J_KL5.4-0.8-2.2_0050J_KL5.4-0.8-2.2_0060			31.36	6.08
C_KL5.4-0.8-2.2-0.2_0010J_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2-0.2_0010			1251.67	9.66
C_KL5.4-0.8_0140J_KL5.4-0.8_0135J_KL5.4-0.8_0140			1245.62	12.59
C_KL5.4-0.8_0160J_KL5.4-0.8_0150J_KL5.4-0.8_0160			53.78	12.59
C_KL5.4-0.8_0150J_KL5.4-0.8_0140J_KL5.4-0.8_0150			1244.05	12.59
C_NC12.4P_0015	J_NC12.4P_0010	J_NC12.4P_0015	1188.93	26.17
C_NC12.4P_0010	J_NC12.4P_0005	J_NC12.4P_0010	2390.65	26.17
C_NC12.4P_0020	J_NC12.4P_0015	J_NC12.4P_0020	1247.19	26.17
C_NC12.4P_0035	J_NC12.4P_0030	J_NC12.4P_0035	395.38	22.04

C_NC12.4P_0030 J_NC12.4P_0020 J_NC12.4P_0030 28.88 22.44
C_NC12.4P_0040 J_NC12.4P_0035 J_NC12.4P_0040 848.11 22.04
C_NC12.4P_0055 J_NC12.4P_0050 J_NC12.4P_0055 220.39 22.04
C_NC12.4P_0050 J_NC12.4P_0040 J_NC12.4P_0050 35.75 22.04
C_NC12.4P_0060 J_NC12.4P_0055 J_NC12.4P_0060 1108.4 21.58
C_NC12.4P_0085 J_NC12.4P_0080 J_NC12.4P_0085 111.96 14.38
C_NC12.4P_0080 J_NC12.4P_0070 J_NC12.4P_0080 1193.35 17.98
C_NC12.4P_0070 J_NC12.4P_0060 J_NC12.4P_0070 515.37 17.98
C_NC12.4P_0090 J_NC12.4P_0085 J_NC12.4P_0090 518.53 14.38
C_NC12.4P_0110 J_NC12.4P_0140 J_NC12.4P_0100 1.5 14.21
C_NC12.4P_0150 J_NC12.4P_0130 J_NC12.4P_0150 0.65 9.55
C_NC12.4P_0140 J_NC12.4P_0120 J_NC12.4P_0130 0.41 9.55
C_NC12.4P_0130 J_NC12.4P_0110 J_NC12.4P_0120 1.12 9.55
C_NC12.4P_0120 J_NC12.4P_0100 J_NC12.4P_0110 0.75 9.55
C_NC12.4P_0100 J_NC12.4P_0090 J_NC12.4P_0140 2870.5 14.21
C_MB6.0_0057 J_MB6.0_0053 J_MB6.0_0057 959.1 18.7
C_MB6.0_0100 J_MB6.0_0090 J_MB6.0_0100 543.1 12.86
C_MB7.5-0.1_0010J_MB7.5_0035 J_MB7.5-0.1_0010 1475.68 8.06
C_MB8.5_0045 J_MB8.5_0030 J_MB8.5_0045 2727.45 16.83
C_NC35.7_0030 J_NC35.7_0025 J_NC35.7_0050 1833.94 8.06
C_NC35.7_0040 J_NC35.7_0050 J_NC35.7_0030 2.76 6.08
C_NC35.7_0060 J_NC35.7_0040 J_NC35.7_0060 0.95 6.08
C_NC28.7-1.0-0.1_0017J_NC28.7-1.0-0.1_0013J_NC28.7-1.0-0.1_0017 968.9
11.92
C_NC28.7-1.0_0150J_NC28.7-1.0_0145J_NC28.7-1.0_0150 830.78 6.08
C_NC28.7-1.0_0160J_NC28.7-1.0_0150J_NC28.7-1.0_0160 834.07 5.96
C_NC29.7_0017 J_NC29.7_0013 J_NC29.7_0017 739.83 10.05
C_NC31.0_0190 J_NC31.0_0185 J_NC31.0_0190 1439.07 7.75
C_NC33.1S_0170 J_NC33.1S-1.6_0015J_NC33.1S-1.6_0018 1334 7.75
C_NC35.1_0110 J_NC35.1_0100 J_NC35.1_0110 972.53 7.75
C_NC48.3_0060 J_NC48.3_0055 J_NC48.3_0060 643.11 6.08
C_NC49.2-0.3_0010J_NC49.2-0.3_0007J_NC49.2-0.3_0010 707.58 13.09
C_NC49.2-0.3_0020J_NC49.2-0.3_0010J_NC49.2-0.3_0020 0.19 11.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2_0130	J_NC49.2_0127	J_NC49.2_0130	847.75	18.7
C_NC49.2_0132	J_NC49.2_0130	J_NC49.2_0132	6.49	18.7
C_NC54.3_0040	J_NC54.3_0030	J_NC54.3_0040	1085.49	13.09
C_NC54.3_0030	J_NC54.3_0020	J_NC54.3_0030	97.27	16.83
C_NC54.3_0020	J_NC54.3_0010	J_NC54.3_0020	33.79	16.83
C_ON_0010	J_ON0.0_0000	J_ON0.1_0004	504.17	57.86
C_ON_0090	J_ON0.5_0020	J_ON_0090	870.68	58.89
C_ON0.5_0080	J_ON0.3_0010	J_ON0.5_0020	1123.12	57.86
C_ON0.3_0070	J_ON0.2_0010	J_ON0.3_0010	636.24	57.86

C_ON_0040	J_ON0.1_0020	J_ON0.1_0010	3.42	57.86
C_ON_0050	J_ON0.1_0010	J_ON_0050	406.8	57.86
C_ON_0060	J_ON_0050	J_ON0.2_0010	1121.41	57.86
C_ON_0030	J_ON0.1_0005	J_ON0.1_0020	1892.39	57.86
C_ON_0020	J_ON0.1_0004	J_ON0.1_0005	12.54	57.86
C_ON0.1_0030	J_ON_0050	J_ON0.1_0030	1402.43	9.87
C_ON0.1_0040	J_ON0.1_0030	J_ON0.1_0040	1300.08	6.08
C_ON_0180	J_ON_0170	J_ON_0180	253.35	58.89
C_ON_0210	J_ON_0200	J_ON_0210	417.53	58.89
C_ON_0700	J_ON_0690	J_ON_0700	427.98	58.89
C_ON13.9_0010	J_ON_0900	J_ON13.9_0010	10.53	11.71
C_ON13.9_0015	J_ON13.9_0010	J_ON13.9_0015	1370.1	11.71
C_ON17.9_0020	J_ON_1110	J_ON17.9_0020	8.85	12.86
C_ON17.9_0050	J_ON17.9_0050	J_ON17.9_0040	7.84	9.87
C_ON17.9_0060	J_ON17.9_0040	J_ON17.9_0060	17.63	9.87
C_ON17.9_0040	J_ON17.9_0030	J_ON17.9_0050	1345.74	11.71
C_ON17.9_0030	J_ON17.9_0020	J_ON17.9_0030	750.76	11.71
C_ON18.2_0005	J_ON_1130	J_ON18.2_0015	18.29	11.71
C_ON18.2_0010	J_ON18.2_0015	J_ON18.2_0010	2056.82	11.71
C_ON18.2_0020	J_ON18.2_0010	J_ON18.2_0020	54.15	11.71
C_ON19.9_0020	J_ON_1225	J_ON19.9_0020	2153.92	12.59
C_ON19.9_0030	J_ON19.9_0020	J_ON_1260	10.72	11.46
C_LL1.8_0020	J_LL1.8_0010	J_LL_0190	852.83	6.08
C_ML0.7_0060	J_ML0.7_0055	J_ML0.7_0060	803.28	6.08
C_CL1.74_0060	J_CL1.74_0055	J_CL1.74_0060	941.41	6.08
C_CL_0200	J_CL_0190	J_CL2.09_0020	1854.29	7.92
C_CL_0210	J_CL2.09_0020	J_CL2.55_0010	1980.21	3.94
C_CL1.84-0.55_0040	J_CL1.84-0.55_0025	J_CL1.84-0.55_0040	667.32	9.87
C_ML2.0_0010	J_ML_0280	J_ML2.0_0010	8.44	8.06
C_ML2.0_0025	J_ML2.0_0015	J_ML2.0_0025	2019.49	8.06
C_ML2.0_0015	J_ML2.0_0010	J_ML2.0_0015	0.49	8.06
C_ML3.1_0130	J_ML3.1_0125	J_ML3.1_0130	2.05	7.92
C_ML3.1_0150	J_ML3.1_0140	J_ML3.1_0150	0.21	6.08
C_ML3.1_0160	J_ML3.1_0150	J_ML3.1_0160	4.45	6.08
C_ML3.1_0140	J_ML3.1_0130	J_ML3.1_0140	1439.45	6.08
C_ML3.4_0010	J_ML_0400	J_ML3.4_0010	4355.45	6.08
C_HL2.5_0010	J_HL_0110	J_HL2.5_0010	5.4	8.06
C_HL2.5_0025	J_HL2.5_0015	J_HL2.5_0025	2762.91	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL2.5_0015	J_HL2.5_0010	J_HL2.5_0015	4.44	8.06
C_HL2.7P_0010	J_HL_0150	J_HL3.3_0020	9.03	10.05
C_HL2.7P_0040	J_HL2.7P_0040	J_HL2.7P_0030	1.2	8.06
C_HL2.7P_0050	J_HL2.7P_0030	J_HL2.7P_0020	3.74	8.06

C_HL2.7P_0060 J_HL2.7P_0020 J_HL2.7P_0010 0.42 8.06
C_HL2.7P_0020 J_HL3.3_0020 J_HL2.7_0010 3.69 10.05
C_HL2.7P_0030 J_HL2.7_0010 J_HL2.7P_0040 2194 8.06
C_HL5.5-0.7_0010J_HL5.5_0037 J_HL5.5_0035 818.49 6.08
C_NC25.4-1.6_0090J_NC25.4-1.6_0100J_NC25.4-1.6_0090 1.7 10.05
C_NC25.4-1.6_0100J_NC25.4-1.6_0090J_NC25.4-1.6_0120 3100.03 11.71
C_NC49.2-0.3_0005J_NC49.2_0027 J_NC49.2_0030 12.28 13.09
C_NC49.2-0.3_0007J_NC49.2_0030 J_NC49.2-0.3_0007 536.53 13.09
C_NC38.7-0.1_0017J_NC38.7-0.1_0015J_NC38.7-0.1_0017 1200.83 10.05
C_NC38.7-0.1_0020J_NC38.7-0.1_0017J_NC38.7-0.1_0020 1333 3.94
C_ML_0010 J_ML_0000 J_ML_0010 110.14 44.87
C_KL5.4-0.8-2.4_0005J_KL5.4-0.8_0135J_KL5.4-0.8-2.4_0005 712.51 17.98
C_MB9.1-0.9_0030J_MB9.1-0.9_0020J_MB9.1-0.9_0030 249.87 8.06
C_MB_0130 J_MB_0120 J_MB_0130 169.19 58.89
C_MB_0200 J_MB_0190 J_MB_0200 613.94 58.89
C_MB_0280 J_MB_0270 J_MB_0280 254.92 58.89
C_MB_0310 J_MB_0300 J_MB_0310 139.78 58.89
C_NC25.4-1.6-0.9_0070J_NC25.4-1.6-0.9_0060J_NC25.4-1.6-0.9_0070 222.01
9.55
C_SA2.5_0020 J_SA2.5_0010 J_SA2.5_0020 984.93 3.94
C_SA2.5_0010 J_SA2.5_0010 J_SA_0340 8.55 3.94
C_NC33.1S_0160 J_NC33.1S-1.6_0010J_NC33.1S-1.6_0015 411.31 9.66
C_NC38.9_0148 J_NC38.9_0147 J_NC38.9_0148 217.34 28.04
C_NC43.2-12.9_0040J_NC43.2-12.9_0035J_NC43.2-12.9_0040 268.28 14.96
C_NC43.2-12.9_0050J_NC43.2-12.9_0040J_NC43.2-12.9_0050 53.29 14.96
C_NC48.3_0040 J_NC48.3_0010 J_NC48.3_0040 1955.89 6.08
C_NC48.3_0055 J_NC48.3_0050 J_NC48.3_0055 574.88 6.08
C_NC48.3_0050 J_NC48.3_0040 J_NC48.3_0050 21.69 6.08
C_NC48.3_0070 J_NC48.3_0060 J_NC48.3_0070 1761.65 6.08
C_NC54.3_0050 J_NC54.3_0040 J_NC54.3_0050 1199.22 8.06
C_NC_1180 J_NC_1170 J_NC_1180 1949.2 72
C_NC_1260 J_NC_1250 J_NC_1260 196.93 58.89
C_NC_1320 J_NC_1310 J_NC_1320 683.88 58.89
C_NC59.5_0030 J_NC59.5_0020 J_NC59.5_0030 56.43 13.09
C_NC59.5_0045 J_NC59.5_0040 J_NC59.5_0045 1.36 10.05
C_NC59.5_0040 J_NC59.5_0030 J_NC59.5_0040 1203.31 10.05
C_HL6.4_0020 J_HL6.4_0025 J_HL6.4_0030 170.6 18.7
C_HL_0610 J_HL_0600 J_HL_0610 157.54 8.06
C_NC_1370 J_NC_1360 J_NC_1370 376.96 50.48
C_NC62.1_0046 J_NC62.1_0044 J_NC62.1_0046 119.08 10.05
C_ML1.3_0010 J_ML_0130 J_ML1.3_0009 7.97 10.05
C_ML1.3_0050 J_ML1.3_0045 J_ML1.3_0050 1198.08 7.92
C_ML1.3_0045 J_ML1.3_0040 J_ML1.3_0045 854.91 7.92
C_ML1.3_0020 J_ML1.3_0009 J_ML1.3_0008 34.91 10.05

Link	Start	End	Length	Diameter

ID	Node	Node	ft	in
C_ML1.3_0040	J_ML1.3_0008	J_ML1.3_0040	1858.33	9.87
C_ML_0230	J_ML1.5_0010	J_ML_0230	88.88	31.78
C_ML_0220	J_ML_0210	J_ML1.5_0010	318.98	31.78
C_CL_0070	J_CL_0060	J_CL_0070	1358.8	23.88
C_SA0.5_0020	J_SA0.5_0010	J_SA0.5_0020	777.83	3.94
C_NC18.6_0030	J_NC18.6_0020	J_NC18.6_0030	47.16	10.05
C_NC18.6_0020	J_NC18.6_0010	J_NC18.6_0020	121.75	10.05
C_KL5.4-3.2_0010	J_KL5.4_0109	J_KL5.4-3.2_0010	6.07	12.86
C_KL5.4-3.2_0040	J_KL5.4-3.2_0030	J_KL5.4-3.2_0040	14.09	12.86
C_KL5.4-3.2_0030	J_KL5.4-3.2_0010	J_KL5.4-3.2_0030	594.07	12.86
C_MB9.4_0019	J_MB9.4_0017	J_MB9.4_0019	919.96	11.92
C_KL_0058	J_KL_0056	J_KL_0058	4038.98	58.89
C_NC27.8_0068	J_NC27.8_0055	J_NC27.8_0068	15.89	10.05
C_NC24.1-0.1_0010	J_NC24.1_0025	J_NC24.1-0.1_0010	653.11	3.94
C_NC14.5-0.2_0020	J_NC14.5-0.2_0010	J_NC14.5-0.2_0020	30.32	8.06
C_NC32.2-0.1_0020	J_NC32.2-0.1_0010	J_NC21.2-0.1_0030	103.68	10.05
C_ML_0310	J_ML2.1_0010	J_ML2.1_0015	0.05	39.26
C_ML_0330	J_ML2.2_0010	J_ML2.2_0015	0.16	39.26
C_ML3.1_0010	J_ML3.1_0020	J_ML3.1_0030	1.74	22.44
C_ML4.0_0035	J_ML4.0_0030	J_ML4.0_0035	4.4	11.92
C_CL1.84_0030	J_CL1.84_0020	J_CL1.84_0030	0.06	18.37
C_NC32.2-0.1_0010	J_NC32.2_0015	J_NC32.2-0.1_0010	7.04	10.05
C_NC35.7_0020	J_NC35.7_0010	J_NC35.7_0020	0.55	8.06
C_NC38.9-4.8-0.5_0115	J_NC38.9-4.8-0.5_0100	J_NC38.9-4.8-0.5_0110	0.21	12.59
C_NC38.9-4.8-2.5_0010	J_NC38.9-4.8_0145	J_NC38.9-4.8-2.5_0010	0.87	7.92
C_NC38.9-7.8_0070	J_NC38.9-7.8_0060	J_NC38.9-7.8_0070	0.27	11.92
C_NC38.9-7.8-0.5_0050	J_NC38.9-7.8-0.5_0040	J_NC38.9-7.8-0.5_0050	0.31	8.06
C_NC38.7-0.1_0015	J_NC38.7_0072	J_NC38.7-0.1_0015	0.45	8.06
C_NC45.4_0020	J_NC45.4_0015	J_NC45.4_0020	3.38	11.92
C_NC49.2-0.3_0030	J_NC49.2-0.3_0020	J_NC49.2-0.3_0030	0.09	8.06
C_NC49.2_0037	J_NC49.2_0035	J_NC49.2_0037	789.5	44.87
C_NC49.2_0039	J_NC49.2_0037	J_NC49.2_0039	917.29	33.65
C_NC54.2-2.8_0010	J_NC54.2_0250	J_NC54.2-2.8_0010	9.65	3.94
C_NC54.4_0120	J_NC54.4_0110	J_NC54.4_0120	1.33	6.08
C_NC55.5_0120	J_NC55.6-0.1_0110	J_NC55.6-0.1_0120	1.85	3.94
C_NC55.5_0080	J_NC55.6-0.1_0070	J_NC55.6-0.1_0080	1.7	10.05
C_NC55.5_0090	J_NC55.6-0.1_0080	J_NC55.6-0.1_0090	1.77	8.06
C_NC55.5_0100	J_NC55.6-0.1_0090	J_NC55.6-0.1_0100	1.59	10.05
C_NC55.5_0110	J_NC55.6-0.1_0100	J_NC55.6-0.1_0110	1.85	8.06
C_NC55.5_0130	J_NC55.6-0.1_0120	J_NC55.6-0.1_0130	1.1	3.94
C_NC55.5_0140	J_NC55.6-0.1_0130	J_NC55.6-0.1_0140	1.95	3.94
C_NC55.5_0150	J_NC55.6-0.1_0140	J_NC55.6-0.1_0150	1.68	3.94
C_NC55.6-0.5-2.6_0060	J_NC55.6-0.5-2.6_0050	J_NC55.6-0.5-2.6_0060	4.77	6.08
C_NC55.6-0.5-2.6_0070	J_NC55.6-0.5-2.6_0060	J_NC55.6-0.5-2.6_0070	3.17	6.08

C_NC58.7-0.7_0050J_NC58.7-0.7_0040J_NC58.7-0.7_0050 4.7 3.94
C_NC59.5_0060 J_NC59.5_0050 J_NC59.5_0060 0.31 8.06
C_NC59.5_0070 J_NC59.5_0060 J_NC59.5_0070 0.29 8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0_0030	J_NC60.0_0025	J_NC60.0-0.6_0030	85.46	29.91
C_NC60.0-0.9_0020	J_NC60.0-0.9_0010	J_NC60.0-0.9_0020	0.77	16.83
C_NC60.0-1.6_0050	J_NC60.0-1.6-0.7_0020	J_NC60.0-1.6-0.7_0030	0.7	8.06
C_NC_1610	J_NC66.7_0010	J_NC67.5_0010	0.45	16.53
C_HL0.9_0140	J_HL0.9_0130	J_HL0.9_0140	5.67	6.08
C_HL_0100	J_HL2.4_0010	J_HL2.4_0015	0.74	58.89
C_HL2.9_0040	J_HL2.9_0030	J_HL2.9_0040	0.48	6.08
C_HL_0250	J_HL5.3_0010	J_HL5.3_0015	0.65	50.48
C_KL5.4-3.0_0010	J_KL5.4_0095	J_KL5.4-3.0_0010	8.33	23.88
C_KL5.4_0250	J_KL5.4_0240	J_KL5.4_0250	0.51	11.46
C_KL5.4_0230	J_KL5.4_0220	J_KL5.4_0230	0.44	14.38
C_KL5.4_0240	J_KL5.4_0230	J_KL5.4_0240	0.44	14.38
C_KL5.4_0260	J_KL5.4_0250	J_KL5.4_0260	0.47	5.96
C_KL6.2_0010	J_KL_0135	J_KL6.2_0010	9.81	8.06
C_KL7.7_0060	J_KL7.7_0050	J_KL7.7_0060	0.27	7.75
C_KL7.7_0070	J_KL7.7_0060	J_KL7.7_0070	0.29	7.75
C_MB_0160	J_MB3.9_0010	J_MB3.9_0030	2.41	58.89
C_MB6.0_0070	J_MB6.0_0060	J_MB6.0_0070	0.07	16.83
C_MB7.5_0117	J_MB7.5_0113	J_MB7.5_0117	297.93	22.44
C_ON13.2_0040	J_ON13.2_0030	J_ON13.2_0040	0.13	8.06
C_ON_0950	J_ON14.7_0010	J_ON14.7_0020	0.19	44.09
C_ON_1250	J_ON20.1_0010	J_ON20.1_0020	0.44	6.08
C_ON_1225	J_ON19.8_0010	J_ON_1225	9.57	12.86
C_NC38.9-2.4_0105	J_NC38.9-2.4_0100	J_NC38.9-2.4_0105	9.12	16.53
C_NC38.9-2.4_0100	J_NC38.9-2.4_0090	J_NC38.9-2.4_0100	2.71	16.53
C_NC38.9-2.4_0090	J_NC38.9-2.4_0080	J_NC38.9-2.4_0090	2.58	14.7
C_NC38.9-2.4-1.6_0040	J_NC38.9-2.4-1.6_0030	J_NC38.9-2.4-1.6_0040	0.59	9.66
C_SA_0060	J_SA0.3_0020	J_SA_0060	4.38	14.96
C_SA_0070	J_SA_0060	J_SA0.3_0030	8.61	14.96
C_SA_0100	J_SA0.7_0010	J_SA_0100	4.07	14.96
C_SA_0350	J_SA_0350	J_NA0.0_0010	3.73	8.06
C_NA0.2E_0005	J_NA_0020	J_NA0.2_0005	2.43	3.94
C_NA0.2E_0006	J_NA0.2_0005	J_NA0.2_0006	0.6	3.94
C_NA0.2E_0010	J_NA0.2_0006	J_NA0.2_0010	1.43	3.94
C_NA0.2E_0020	J_NA0.2_0010	J_NA0.2_0020	1.49	3.94
C_NA0.4_0010	J_NA_0060	J_NA0.4_0010	2.39	6.08
C_NA_0090	J_NA0.9_0010	J_NA_0090	237.85	3.94
C_NC5.3_0070	J_NC5.3_0060	J_NC5.3_0070	0.06	5.8

C_NC5.3_0080 J_NC5.3_0070 J_NC5.3_0080 0.06 5.8
C_NC14.5-0.2_0010J_NC14.5_0023 J_NC14.5-0.2_0010 16.82 8.06
C_NC14.5-0.2_0030J_NC14.5-0.2_0020J_NC14.5-0.2_0030 21.84 8.06
C_NC25.4-1.6_0070J_NC25.4-1.6-1.1_0010J_NC25.4-1.6_0100 0.65 10.05
C_NC25.4-4.8_0020J_NC25.4-4.8_0010J_NC25.4-4.8_0020 0.11 5.96
C_NC27.8-0.9_0020J_NC27.8_0060 J_NC27.8_0065 0.89 3.94
C_NC28.7-1.0-0.1_0047J_NC28.7-1.0-0.1_0045J_NC28.7-1.0-0.1_0047 639.45
3.94
C_NC28.7-2.0_0010J_NC28.7_0082 J_NC28.7-2.0_0010 0.17 22.44
C_NC29.7_0030 J_NC29.7_0020 J_NC29.7_0030 0.16 10.05

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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC30.2_0100	J_NC30.2_0090	J_NC30.2_0100	1.04	8.06
C_NC31.0-2.5_0010J_NC31.0_0158	J_NC31.0_0160		0.63	7.92
C_NC35.1-0.7_0010J_NC35.1_0055	J_NC35.1-0.7_0010		2.86	3.94
C_NC35.1-0.7_0020J_NC35.1-0.7_0015J_NC35.1-0.7_0020			0.26	3.94
C_NC35.7_0050	J_NC35.7_0030	J_NC35.7_0040	0.73	6.08
C_LL_0030	J_LL_0020	J_LL_0030	6.67	14.7
C_LL_0070	J_LL_0060	J_LL_0070	10.12	14.7
C_LL_0060	J_LL_0050	J_LL_0060	3.76	14.7
C_LL_0150	J_LL_0140	J_LL_0150	0.32	14.7
C_LL_0155	J_LL_0150	J_LL_0155	0.38	14.7
C_LL_0170	J_LL_0160	J_LL_0170	1.7	11.71
C_LL_0180	J_LL_0170	J_LL_0180	2.23	11.71
C_LL2.0_0030	J_LL_0230	J_LL_0240	3.7	3.94
C_LL_0250	J_LL_0210	J_LL_0250	5.77	7.92
C_ML0.7_0015	J_ML_0090	J_ML0.2_0015	2.35	10.05
C_ML0.7_0045	J_ML0.7_0040	J_ML0.7_0045	0.71	8.06
C_NC49.2_0065	J_NC49.2_0060	J_NC49.2_0065	19.53	26.17
C_CL1.74_0070	J_CL1.74_0060	J_CL1.74_0070	5.67	3.94
C_NC24.1-0.1_0020J_NC24.1-0.1_0010J_NC24.1-0.1_0020			3.87	3.94
C_NC60.0-1.6-0.7_0010J_NC60.0-1.6_0025J_NC60.0-1.6-0.7_0010			4.35	10.05
C_HL_0000	J_HL0.0_0020	J_ML_0000	269.33	72
C_HL_0005	J_ML_0000	J_HL0.1_0010	331.14	58.89
C_KP_0001	J_KL7.6-9.6_0070J_KP_0001		2487.68	16.18
C_HL_0520	J_NC70.5_0020	J_HL_0520	9.38	16.83
C_NC60.0_0148	J_NC60.0_0148	J_HL_0120	12.69	16.83
C_HL_0116	J_HL_0116	J_HL_0120	9.03	50.48
C_MB_0405	J_MB_0400	J_MB_0405	24.64	58.89
C_MB_0400	J_MB_0395	J_MB_0400	9.96	58.89
C_NA0.0_0008	J_NA0.0_0007	J_NA0.0_0008	10.39	10.05
C_NA0.0_0010	J_NA0.0_0009	J_NA0.0_0010	8.12	10.05
C_HL0.0_0005	R_DEAD_OX	J_HL0.0_0010	27.23	72
C_KL_0110	J_KL_0020	J_KL_0107.5	19184.86	58.89

C_MB_DUAL_015	J_MB_0218	J_MB_0394	26258.42	58.89
C_KL_0114	J_KL_0107	J_KL_0110	28.32	58.89
C_KL_0113	J_KL_0107.5	J_KL_0107	4	58.89
C_MB7.5_0015	J_MB_0320	J_MB7.5_0010	12.5	28.04
C_HL3.7_0010	J_HL3.4_0010	J_HL3.7_0010	1286.99	50.48
C_ON3.7_0010	J_ON_0096	J_ON3.7_0010	14478.86	58.89
C_HL9.4_0056	J_HL9.4_0055	J_HL9.4_0056	87.63	14.7
C_KL_0234	J_KL_0230	J_KL7.6S_0005	2873.85	28.66
C_NC_0017	J_NC_0015	J_NC_0017	1218.15	180
C_NC_0013	J_NC_0011	J_NC_0013	1381.2	180
C_NC_0009	J_NC_0007	J_NC_0009	354.24	180
C_NC_0023	J_NC_0020	J_NC_0023	58.9	180
C_NC_0020	J_NC_0019	J_NC_0020	1178.57	180
C_NC_0019	J_NC_0017	J_NC_0019	2487.78	180
C_NC_0015	J_NC_0013	J_NC_0015	3821.3	180

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_0011	J_NC_0009	J_NC_0011	2891.53	180
C_NC_0007	J_NC_0005	J_NC_0007	3878.13	180
C_NC_0005	R_OWYHEE_RES	J_NC_0005	3030.3	180
C_NC_0100	J_NC6.9_0010	J_NC_0100	1487.99	162
C_NC_0060	J_NC_0050	J_NC5.8_0010	2583.94	162
C_NC_0050	J_NC_0040	J_NC_0050	2134.6	162
C_NC_0090	J_NC5.8_0030	J_NC6.9_0010	5298.71	162
C_NC_0140	J_NC_0130	J_NC_0140	3586.23	162
C_NC_0130	J_NC_0120	J_NC_0130	1326.56	162
C_NC_0290	J_NC15.3_0010	J_NC_0290	81.32	132
C_NC_0190	J_NC9.8_0010	J_NC9.9_0010	772.57	132
C_NC_0180	J_NC_0170	J_NC9.8_0010	185.29	132
C_NC_0170	J_NC9.7_0010	J_NC_0170	55.07	162
C_NC_0160	J_NC_0150	J_NC9.7_0010	818.07	162
C_NC_0220	J_NC_0210	J_NC11.7_0010	3360.4	132
C_NC_0210	J_NC_0200	J_NC_0210	3110.45	132
C_NC_0200	J_NC9.9_0010	J_NC_0200	2936.17	132
C_NC_0240	J_NC_0230	J_NC12.9_0010	2551.08	132
C_NC_0230	J_NC11.7_0010	J_NC_0230	3880.45	132
C_NC_0280	J_NC15.0_0010	J_NC15.3_0010	2640.92	132
C_NC_0270	J_NC_0260	J_NC15.0_0010	1170.61	132
C_NC_0250	J_NC12.9_0010	J_NC_0250	4028.93	132
C_NC_0260	J_NC_0250	J_NC_0260	4877.57	132
C_NC_0320	J_NC15.8_0010	J_NC16.8_0010	5090.37	132
C_NC_0310	J_NC_0300	J_NC15.8_0010	1864.13	132
C_NC_0330	J_NC16.8_0010	J_NC17.3_0010	2906.99	132
C_NC_0380	J_NC_0370	J_NC21.1_0010	3878.49	132

C_NC_0370	J_NC20.1_0010	J_NC_0370	526.59	132
C_NC_0360	J_NC_0350	J_NC20.1_0010	1437.48	132
C_NC_0350	J_NC_0340	J_NC_0350	7271.68	132
C_NC_0340	J_NC17.3_0010	J_NC_0340	6333.81	132
C_NC_0420	J_NC_0410	J_NC_0430	1844.03	132
C_NC_0410	J_NC24.0_0010	J_NC_0410	488.5	132
C_NC_0400	J_NC_0390	J_NC24.0_0010	6201.06	132
C_NC_0390	J_NC21.1_0010	J_NC_0390	9241.3	132
C_NC_0540	J_NC28.4_0010	J_NC_0540	117.68	132
C_NC_0460	J_NC24.9_0010	J_NC25.1_0010	1637.02	132
C_NC_0450	J_NC_0440	J_NC24.9_0010	252.2	132
C_NC_0490	J_NC_0480	J_NC27.3_0009	4303.75	132
C_NC_0480	J_NC_0470	J_NC_0480	5225.08	132
C_NC_0470	J_NC25.1_0010	J_NC_0470	2066.25	132
C_NC_0530	J_NC_0520	J_NC28.4_0010	2248.71	132
C_NC_0520	J_NC27.3_0020	J_NC_0520	2697.46	132
C_NC_0610	J_NC30.4_0010	J_NC_0610	225.58	132
C_NC_0570	J_NC_0560	J_NC29.1_0010	1814.52	132
C_NC_0560	J_NC_0550	J_NC_0560	1751.74	132
C_NC_0600	J_NC_0590	J_NC30.4_0010	1734.32	132

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_0590	J_NC_0580	J_NC_0590	2606.6	132
C_NC_0580	J_NC29.1_0010	J_NC_0580	3230.85	132
C_NC_0770	J_NC38.6_0010	J_NC_0770	79.62	132
C_NC_0780	J_NC_0770	J_NC_0780	811.49	132
C_NC_0680	J_NC_0670	J_NC33.5_0010	2335.35	132
C_NC_0660	J_NC31.8_0010	J_NC_0660	2123.96	132
C_NC_0670	J_NC_0660	J_NC_0670	4385.09	132
C_NC_0650	J_NC_0640	J_NC31.8_0010	2576.16	132
C_NC_0640	J_NC_0630	J_NC_0640	1918.58	132
C_NC_0630	J_NC_0620	J_NC_0630	994.39	132
C_NC_0710	J_NC_0700	J_NC36.3_0010	3196.26	132
C_NC_0690	J_NC33.5_0010	J_NC_0690	8445.13	132
C_NC_0700	J_NC_0690	J_NC_0700	3092.12	132
C_NC_0760	J_NC38.3_0010	J_NC38.6_0010	2131.55	132
C_NC_0750	J_NC38.2_0010	J_NC38.3_0010	523.64	132
C_NC_0740	J_NC_0730	J_NC38.2_0010	2839.8	132
C_NC_0730	J_NC36.3_0020	J_NC_0730	7019.11	132
C_NC_0620	J_NC_0610	J_NC_0620	1048.97	132
C_NC_0300	J_NC_0290	J_NC_0300	871.62	132
C_NC_0150	J_NC_0140	J_NC_0150	2009.53	162
C_NC_0120	J_NC_0110	J_NC_0120	347.7	162
C_NC_0110	J_NC_0100	J_NC_0110	251.03	162

C_NC_0040	J_NC_0030	J_NC_0040	2153.54	162
C_NC_0030	J_NC_0025	J_NC_0030	2537.42	162
C_NC_0025	J_NC_0023	J_NC_0025	417.14	162
C_NC_0440	J_NC_0430	J_NC_0440	1346.35	132
C_NC_0550	J_NC_0540	J_NC_0550	947.54	132
C_NC_0510	J_NC27.3_0010	J_NC27.3_0020	25.97	132
C_NC_0500	J_NC27.3_0009	J_NC27.3_0010	30.04	132
C_NC_0810	J_NC_0800	J_NC43.3_0010	367.27	102
C_NC_0830	J_NC43.6_0010	J_NC44.1_0010	1816.83	102
C_NC_0820	J_NC43.3_0010	J_NC43.6_0010	1807.25	102
C_NC_0840	J_NC44.1_0010	J_NC_0840	295.79	102
C_NC_0860	J_NC_0850	J_NC44.2_0010	66.34	102
C_NC_0870	J_NC44.2_0010	J_NC_0870	6107.16	102
C_NC_0880	J_NC_0870	J_NC45.7_0010	1478.6	102
C_NC_0890	J_NC45.7_0010	J_NC_0890	1843.48	102
C_NC_0910	J_NC_0900	J_NC46.5_0010	2607.39	102
C_NC_0920	J_NC46.5_0010	J_NC_0920	1005.92	102
C_NC_0930	J_NC_0920	J_NC47.2_0010	2472.56	96
C_NC_0940	J_NC47.2_0010	J_NC_0940	1964.34	96
C_NC_0960	J_NC_0950	J_NC48.1_0020	3069.36	96
C_NC_0980	J_NC48.1_0010	J_NC_0980	797.36	96
C_NC_1010	J_NC_1000	J_NC50.3_0010	4559.15	90
C_NC_0990	J_NC_0980	J_NC_0990	4538.6	96
C_NC_1020	J_NC50.3_0010	J_NC_1020	3042.09	90
C_NC_1030	J_NC_1020	J_NC51.6_0010	4400	90

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_1040	J_NC51.6_0010	J_NC_1040	4621.42	90
C_NC_1050	J_NC_1040	J_NC_1050	3593.29	90
C_NC_1060	J_NC_1050	J_NC53.7_0010	2585.49	84
C_NC_1070	J_NC53.7_0010	J_NC54.1_0010	2252.58	84
C_NC_1080	J_NC54.1_0010	J_NC_1080	284.62	84
C_NC_1110	J_NC_1100	J_NC54.5_0010	306.57	78
C_NC_1100	J_NC_1090	J_NC_1100	564.41	78
C_NC_1090	J_NC_1080	J_NC_1090	907.33	84
C_NC_0850	J_NC_0840	J_NC_0850	777.75	102
C_NC_0900	J_NC_0890	J_NC_0900	154.49	102
C_NC_0950	J_NC_0940	J_NC_0950	154.02	96
C_NC_1130	J_NC_1120	J_NC_1130	2515.79	78
C_NC_1000	J_NC_0990	J_NC_1000	1229.44	90
C_ON_0830	J_ON12.6_0010	J_ON_0830	854.95	49.6
C_ON12.6_0010	J_NC35.1_0100	J_NC35.1-1.4_0010	835.85	7.75
C_ON_1070	J_ON16.8_0010	J_ON17.2_0010	1649.24	38.58
C_NC38.7-1.2_0020	J_NC38.7-1.2_0010	J_NC38.7-1.2_0020	1986.16	5.96

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C_NC_0790      J_NC_0780      J_NC_0790        23109.04       120
C_NC_0080      J_NC5.8_0020   J_NC5.8_0030          0.5       162
C_NC_0070      J_NC5.8_0010   J_NC5.8_0020         0.37       162
C_NC_0720      J_NC36.3_0010  J_NC36.3_0020        3.79       132
C_NC_0970      J_NC48.1_0020  J_NC48.1_0010        9.07        96
C_NC_1120      J_NC54.5_0010  J_NC_1120            8.61        78
C_ON_0093      J_ON0.0_0000   J_ON_0093          6356.74     58.89
C_ON_0096      J_ON_0095      J_ON_0096            71.88     58.89
C_MB_DUAL_030  J_ON_0094      J_ON_0096            70.85     58.89
C_NC_0670_DUAL_IJ_NC_0041      J_NC_0460         97494.28       148
C_NC_0041      R_OWYHEE_RES   J_NC_0041        25304.73       148
C_MB_DUAL_020  J_MB_0394      J_ON_0092         2688.84     58.89
C_MB_DUAL_014  J_MB_0218      J_MB_0220            4.02     58.89
C_MB_DUAL_013  J_MB3.9_0025   J_MB_0218        11095.37     58.89
C_MB_DUAL_010  J_MB1.7_0010   J_MB3.9_0025     10594.64     58.89
C_MB3.9_0025   J_MB3.9_0025   J_MB3.9_0020         3.71     58.89
C_NC33.1S_0175 J_NC33.1S-1.6_0018J_NC33.1S-1.6_0020    102.67      7.75
C_NC_0670_DUAL_IIJ_NC_0460      J_NC_0670         45318.4       148
P_SOUTH_ADVANCEMENTR_SOUTH_ADVANCEMENTJ_SA0.0_0000         #N/A      #N/A Pump
P_NORTH_ADVANCEMENTR_NORTH_ADVANCEMENTJ_NA0.0_0007         #N/A      #N/A Pump
P_DEAD_OX      J_HL0.0_0010   J_HL0.0_0020          #N/A      #N/A Pump
P_DUNAWAY      R_DUNAWAY      J_ON0.0_0000          #N/A      #N/A Pump
V_MB_0395      J_MB_0394      J_MB_0395             #N/A        72 Valve
V_HL_0520      J_HL10.0_0010  J_HL_0520             #N/A        18 Valve
V_NC70.5_0020  J_NC70.5_0010  J_NC70.5_0020         #N/A        18 Valve
V_HL_0116      J_HL_0115      J_HL_0116             #N/A        54 Valve
V_NC60.0_0148  J_NC60.0_0147  J_NC60.0_0148         #N/A        18 Valve
V_MB_0406      J_MB_0405      J_MB_0406             #N/A        60 Valve
V_NA0.0_0009   J_NA0.0_0008   J_NA0.0_0009          #N/A        10 Valve
V_SA_0350      J_SA_0345      J_SA_0350             #N/A         8 Valve
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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in	
V_MB1.7_0010	J_MB1.6_0010	J_MB1.7_0010	#N/A	100	Valve
V_KL7.6S_0010	J_KL7.6S_0005	J_KL7.6S_0010	#N/A	48	Valve
V_KL7.7_0025	J_KL7.7_0023	J_KL7.7_0025	#N/A	12	Valve
V_NC13.6_0185	J_NC13.6_0183	J_NC13.6_0185	#N/A	9.66	Valve
V_NC25.4-3.3_0050	J_NC25.4-3.3_0048	J_NC25.4-3.3_0050	#N/A	4	Valve
V_NC33.1_0105	J_NC33.1_0103	J_NC33.1_0105	#N/A	6	Valve
V_NC38.9-2.4_0080	J_NC38.9-2.4_0078	J_NC38.9-2.4_0080	#N/A	20	Valve
V_NC38.9-4.8-0.5_0093	J_NC38.9-4.8-0.5_0092	J_NC38.9-4.8-0.5_0093	#N/A	16	Valve
V_NC38.9-4.8_0145	J_NC38.9-4.8_0143	J_NC38.9-4.8_0145	#N/A	14	Valve
V_NC46.7-0.5_0070	J_NC46.7-0.5_0068	J_NC46.7-0.5_0070	#N/A	6.33	Valve
V_NC38.7_0100	J_NC38.7_0099	J_NC38.7_0100	#N/A	18	Valve

V_NC54.2_0260	J_NC54.2_0258	J_NC54.2_0260	#N/A	6	Valve
V_NC5.3_0055	J_NC5.3_0053	J_NC5.3_0055	#N/A	14	Valve
V_MB_DUAL_030	J_ON_0092	J_ON_0094	#N/A	60	Valve
V_ON_0095	J_ON_0093	J_ON_0095	#N/A	60	Valve
V_NC_0800	J_NC_0790	J_NC_0800	#N/A	114	Valve
V_NC65.5_0010	J_NC65.5_0005	J_NC65.5_0010	#N/A	24	Valve
V_NC_0023	J_NC_0023	J_KL_0010	#N/A	84	Valve
V_NC_0110	J_NC_0110	J_NC7.3_0010	#N/A	16	Valve
V_NC_0130	J_NC_0130	J_NC8.5_0010	#N/A	24	Valve
V_NC_0170	J_NC_0170	J_MB_0010	#N/A	90	Valve
V_NC_0200	J_NC_0200	J_NC10.5_0010	#N/A	32	Valve
V_NC_0210	J_NC_0210	J_NC11.0_0010	#N/A	8	Valve
V_NC_0230	J_NC_0230	J_NC12.4P_0005	#N/A	42	Valve
V_NC_0250	J_NC_0250	J_NC13.6_0010	#N/A	28	Valve
V_NC_0260	J_NC_0260	J_NC14.5_0010	#N/A	42	Valve
V_NC_0340	J_NC_0340	J_NC18.6_0010	#N/A	10	Valve
V_NC_0350	J_NC_0350	J_NC19.9_0010	#N/A	14	Valve
V_NC_0370	J_NC_0370	J_NC20.3_0010	#N/A	20	Valve
V_NC_0390	J_NC_0390	J_NC22.8_0010	#N/A	32	Valve
V_NC_0410	J_NC_0410	J_NC24.1_0010	#N/A	24	Valve
V_NC_0470	J_NC_0470	J_NC25.4_0010	#N/A	60	Valve
V_NC_0480	J_NC_0480	J_NC26.4_0010	#N/A	30	Valve
V_NC_0520	J_NC_0520	J_NC27.8_0010	#N/A	24	Valve
V_NC_0560	J_NC_0560	J_NC28.7_0010	#N/A	48	Valve
V_NC_0580	J_NC_0580	J_NC29.7_0010	#N/A	14	Valve
V_NC_0590	J_NC_0590	J_NC30.2_0010	#N/A	24	Valve
V_NC_0630	J_NC_0630	J_NC31.0_0010	#N/A	28	Valve
V_NC_0640	J_NC_0640	J_NC31.5_0010	#N/A	20	Valve
V_NC_0660	J_NC_0660	J_NC32.2_0010	#N/A	24	Valve
V_NC_0670	J_NC_0670	J_NC33.1_0010	#N/A	32	Valve
V_NC_0690	J_NC_0690	J_NC35.1_0010	#N/A	20	Valve
V_NC_0700	J_NC_0700	J_NC35.7_0010	#N/A	12	Valve
V_NC_0730	J_NC_0730	J_NC37.6_0010	#N/A	24	Valve
V_NC_0770	J_NC_0770	J_NC38.7_0010	#N/A	34	Valve
V_NC_0780	J_NC_0780	J_NC38.9_0010	#N/A	72	Valve
V_NC_0870	J_NC_0870	J_NC45.4_0010	#N/A	14	Valve

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in	
V_NC_0920	J_NC_0920	J_NC46.7_0010	#N/A	36	Valve
V_NC_0980	J_NC_0980	J_NC48.3_0010	#N/A	6	Valve
V_NC_0990	J_NC_0990	J_NC49.2_0020	#N/A	48	Valve
V_NC_1020	J_NC_1020	J_NC50.8_0010	#N/A	24	Valve
V_NC_1040	J_NC_1040	J_NC52.5_0010	#N/A	20	Valve
V_NC_1050	J_NC_1050	J_NC53.2_0020	#N/A	26	Valve

V_NC_1080 J_NC_1080 J_NC54.2_0010 #N/A 36 Valve
V_NC_1090 J_NC_1090 J_NC54.3_0010 #N/A 18 Valve
V_NC_1100 J_NC_1100 J_NC54.4_0010 #N/A 32 Valve
V_NC_1140 J_NC_1140 J_NC55.5_0005 #N/A 26 Valve
V_NC_1160 J_NC_1160 J_NC55.6_0005 #N/A 48 Valve
V_NC_1270 J_NC_1270 J_NC58.7_0010 #N/A 14 Valve
V_NC_1330 J_NC_1330 J_NC59.5_0010 #N/A 20 Valve
V_NC_1340 J_NC_1340 J_NC60.0_0003 #N/A 36 Valve
V_NC_1390 J_NC_1390 J_NC61.3_0005 #N/A 26 Valve
V_NC_1400 J_NC_1400 J_NC62.1_0005 #N/A 24 Valve
V_NC8.5_0120 J_NC8.5_0115 J_NC8.5_0120 #N/A 18 Valve
V_KL5.4-0.8_0040J_KL5.4-0.8_0037J_KL5.4-0.8_0040 #N/A 42 Valve
V_KL5.4_0030 J_KL5.4_0025 J_KL5.4_0030 #N/A 54 Valve
V_NC25.4-1.6-2.7_0030J_NC25.4-1.6-0.9_0070J_NC25.4-1.6-2.7_0030 #N/A
10 Valve
V_NC33.1S-1.6_0010J_NC33.1S-1.6_0005J_NC33.1S-1.6_0010 #N/A 14 Valve
V_NC45.4_0040 J_NC45.4_0035 J_NC45.4_0040 #N/A 12 Valve
V_NC49.2_0180 J_NC49.2_0175 J_NC49.2_0180 #N/A 12 Valve

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /Mgal	Avg. Kw	Peak Kw	Cost /day
P_SOUTH_ADVANCEMENT	100.00	75.00	259.76	20.38	20.38	0.00
P_NORTH_ADVANCEMENT	100.00	75.00	399.41	23.66	23.66	0.00
P_DEAD_OX	100.00	75.00	589.12	1861.76	1861.76	0.00
P_DUNAWAY	0.00	0.00	0.00	0.00	0.00	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_CL_0005	0.00	2264.86	30.35	0.00
J_CL0.0_0010	290.97	2262.90	37.80	0.00
J_CL0.35_0010	205.91	2258.86	40.96	0.00
J_CL0.35_0020	212.63	2258.83	40.89	0.00
J_CL0.66_0010	621.10	2256.52	41.90	0.00
J_CL1.03_0010	475.62	2253.38	42.16	0.00
J_CL1.27_0010	207.03	2250.92	41.40	0.00
J_CL1.27_0020	257.95	2250.74	41.17	0.00
J_CL1.27_0030	2.80	2250.73	41.17	0.00
J_CL1.51_0010	116.39	2247.84	40.22	0.00

J_CL1.56_0010	24.62	2247.37	39.96	0.00
J_CL1.56_0015	140.45	2246.92	39.77	0.00
J_CL1.56_0016	68.27	2246.93	39.78	0.00
J_CL1.56_0020	624.46	2246.51	39.81	0.00
J_CL1.74_0010	0.00	2246.47	40.17	0.00
J_CL1.74_0040	632.85	2236.51	36.27	0.00
J_CL1.74_0050	318.94	2229.18	34.33	0.00
J_CL1.74_0060	190.25	2220.55	32.31	0.00
J_CL1.74_0070	156.67	2220.45	32.14	0.00
J_CL1.84-0.55_0010	201.44	2224.17	32.52	0.00
J_CL1.84-0.55_0020	27.98	2222.31	31.40	0.00
J_CL1.84-0.55_0030	0.00	2215.96	37.80	0.00
J_CL1.84-0.55_0040	167.86	2219.80	31.26	0.00
J_CL1.84-0.55_0050	0.00	2219.79	31.66	0.00
J_CL1.84_0020	649.64	2244.29	39.76	0.00
J_CL1.84_0030	414.07	2244.29	39.76	0.00
J_CL1.84_0040	190.25	2230.66	35.09	0.00
J_CL1.84_0050	0.00	2230.68	35.31	0.00
J_CL1.84_0060	0.00	2230.53	33.90	0.00
J_CL1.84_0070	97.92	2230.29	35.17	0.00
J_CL2.09_0020	313.35	2237.69	36.70	0.00
J_CL2.55_0010	106.31	2220.96	32.94	0.00
J_HL0.2_0010	91.21	2273.07	22.86	0.00
J_HL0.5_0010	27.98	2272.44	22.91	0.00
J_HL0.5_0015	28.50	2272.21	22.82	0.00
J_HL0.6_0008	0.00	2271.56	20.65	0.00
J_HL0.6_0010	1102.87	2271.59	22.52	0.00
J_HL0.9_0030	217.11	2264.84	22.41	0.00
J_HL0.9_0040	117.51	2259.88	21.11	0.00
J_HL0.9_0045	207.03	2259.88	21.11	0.00
J_HL0.9_0060	97.36	2254.98	19.69	0.00
J_HL0.9_0070	16.79	2247.82	17.83	0.00
J_HL0.9_0080	0.00	2247.82	17.94	0.00
J_HL0.9_0085	156.67	2247.78	17.51	0.00
J_HL0.9_0086	50.36	2247.67	17.91	0.00
J_HL0.9_0090	129.82	2235.96	13.16	0.00
J_HL0.9_0100	52.04	2233.26	11.81	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL0.9_0120	178.50	2229.33	10.76	0.00
J_HL0.9_0130	57.63	2228.81	10.57	0.00
J_HL0.9_0140	213.19	2228.79	10.79	0.00
J_HL1.8_0010	0.00	2267.68	22.26	0.00
J_HL1.9_0010	162.27	2267.01	22.11	0.00

J_HL10.1_0010	91.77	2213.90	12.50	0.00
J_HL10.6_0010	384.97	2208.63	10.69	0.00
J_HL_0565	364.83	2204.92	9.24	0.00
J_HL_0567	48.12	2204.53	9.41	0.00
J_HL11.1_0010	0.00	2199.79	5.53	0.00
J_HL11.4_0010	76.10	2192.76	6.10	0.00
J_HL11.5_0010	177.94	2188.08	4.27	0.00
J_HL11.5_0020	17.91	2183.32	5.65	0.00
J_HL11.6_0010	0.00	2177.43	7.68	0.00
J_HL11.7_0010	0.00	2174.01	7.80	0.00
J_HL2.4_0010	44.76	2264.90	21.49	0.00
J_HL2.4_0015	145.48	2264.90	21.49	0.00
J_HL2.5_0010	170.10	2264.48	21.34	0.00
J_HL2.5_0015	0.00	2264.46	21.51	0.00
J_HL2.7_0010	0.00	2261.44	20.66	0.00
J_HL2.9_0020	0.00	2262.77	20.96	0.00
J_HL2.9_0025	250.68	2262.64	19.34	0.00
J_HL2.9_0030	0.00	2258.58	19.79	0.00
J_HL2.9_0040	0.00	2258.58	19.79	0.00
J_HL3.1_0010	289.85	2262.18	20.74	0.00
J_HL3.3_0020	251.80	2261.45	20.67	0.00
J_HL3.4_0010	227.18	2261.05	21.07	0.00
J_HL3.7_0010	129.82	2260.10	20.75	0.00
J_HL3.9_0010	99.60	2259.29	20.95	0.00
J_HL4.0_0010	99.04	2259.13	20.86	0.00
J_HL4.6_0005	150.52	2257.44	20.43	0.00
J_HL4.6_0010	388.89	2257.09	20.78	0.00
J_HL4.7_0010	354.20	2255.28	20.44	0.00
J_HL5.3_0010	408.47	2253.04	20.73	0.00
J_HL5.3_0015	61.55	2253.04	20.73	0.00
J_HL_0265	22.38	2252.55	20.47	0.00
J_HL5.5_0015	96.24	2251.84	21.26	0.00
J_HL5.5_0017	0.00	2251.45	20.71	0.00
J_HL_0305	122.54	2251.32	21.49	0.00
J_HL5.7_0010	405.67	2249.55	21.40	0.00
J_HL5.8_0010	384.41	2249.15	21.53	0.00
J_HL6.4_0010	257.39	2247.34	21.18	0.00
J_HL6.4_0020	0.00	2247.19	21.07	0.00
J_HL6.7_0010	0.00	2246.20	19.23	0.00
J_HL6.7_0020	133.73	2246.25	21.04	0.00
J_HL6.9_0010	232.21	2244.36	19.97	0.00
J_HL7.2_0010	0.00	2242.41	18.56	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_HL7.2_0020	134.29	2242.41	18.56	0.00
J_HL7.2_0030	176.26	2242.42	19.89	0.00
J_HL7.7_0010	147.16	2238.56	19.23	0.00
J_HL7.7_0020	89.53	2238.54	17.52	0.00
J_HL7.7_0030	27.98	2237.50	19.51	0.00
J_HL8.1_0010	264.67	2235.50	18.89	0.00
J_HL8.1_0020	27.98	2235.34	19.20	0.00
J_HL8.4_0010	209.27	2232.55	17.70	0.00
J_HL8.6_0010	145.48	2230.86	17.19	0.00
J_HL8.8_0010	215.43	2228.75	16.66	0.00
J_HL9.0_0010	260.19	2226.93	15.78	0.00
J_HL9.0_0020	352.52	2225.05	15.81	0.00
J_HL9.4_0010	0.00	2222.47	13.05	0.00
J_HL9.4_0020	0.00	2222.52	14.60	0.00
J_HL9.9_0010	519.26	2216.26	13.13	0.00
J_HL9.9_0020	221.58	2216.16	13.16	0.00
J_HL10.8_0010	178.50	2199.58	8.31	0.00
J_HL10.8_0020	193.60	2194.51	19.86	0.00
J_HL10.8_0030	307.75	2184.81	25.20	0.00
J_HL10.8_0040	207.03	2180.66	26.28	0.00
J_HL2.7E_0140	195.70	2185.32	8.25	0.00
J_HL2.7P_0010	36.37	2250.23	24.21	0.00
J_HL2.7P_0020	146.60	2250.23	24.21	0.00
J_HL2.7P_0030	209.27	2250.24	24.37	0.00
J_HL2.7P_0040	139.89	2250.24	24.37	0.00
J_HL5.5_0010	207.03	2250.76	22.00	0.00
J_HL5.5_0020	268.58	2250.74	22.07	0.00
J_HL5.5_0030	268.58	2250.74	22.06	0.00
J_HL5.5_0035	201.44	2236.93	25.44	0.00
J_HL5.5_0040	125.34	2237.58	24.75	0.00
J_HL5.5_0050	192.49	2237.55	24.80	0.00
J_HL5.5_0060	203.68	2237.54	24.81	0.00
J_HL5.5_0070	202.56	2235.11	23.33	0.00
J_Hl5.5_0080	207.03	2231.45	22.43	0.00
J_HL5.5_0090	218.78	2225.34	21.92	0.00
J_HL5.5_0100	753.71	2225.34	21.74	0.00
J_HL6.7_0011	415.19	2243.80	21.54	0.00
J_HL6.7_0015	209.83	2239.03	24.79	0.00
J_HL6.7_0016	208.15	2232.69	24.14	0.00
J_HL7.2_0040	212.63	2241.45	19.86	0.00
J_HL7.2_0050	421.90	2241.43	19.83	0.00
J_HL7.2_0060	179.06	2241.37	19.75	0.00
J_HL7.2_0070	696.35	2238.76	21.42	0.00
J_HL7.2_0080	210.39	2236.54	21.43	0.00
J_HL7.2_0090	215.43	2234.50	20.93	0.00
J_HL7.2_0100	128.70	2232.63	20.38	0.00
J_HL7.2E_0010	290.41	2230.36	19.01	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL7.2E_0030	44.76	2227.96	19.94	0.00
J_HL7.2E_0040	146.04	2227.93	19.94	0.00
J_HL7.2E_0050	447.08	2225.12	20.05	0.00
J_HL7.2E_0060	62.67	2225.10	20.14	0.00
J_HL7.2E_0070	149.40	2225.05	19.88	0.00
J_HL7.2E_0080	207.03	2221.00	18.54	0.00
J_HL7.2E_0090	44.76	2221.01	18.69	0.00
J_HL7.2E_0100	0.00	2220.98	18.51	0.00
J_HL7.2E_0110	229.98	2214.83	18.69	0.00
J_HL7.2E_0120	85.61	2207.06	16.53	0.00
J_HL7.2E_0130	171.22	2196.16	12.38	0.00
J_HL7.2E_0150	0.00	2182.06	8.31	0.00
J_HL7.2E_0160	50.36	2182.13	7.51	0.00
J_HL7.2M_0010	128.70	2225.33	21.23	0.00
J_HL7.2M_0020	215.43	2225.33	21.23	0.00
J_HL7.2M_0030	83.93	2225.31	21.25	0.00
J_HL7.2M_0040	189.13	2219.47	19.58	0.00
J_HL7.2M_0050	307.75	2216.13	18.69	0.00
J_HL7.2M_0060	16.79	2216.13	18.69	0.00
J_HL7.2M_0070	117.51	2192.67	12.36	0.00
J_HL7.2M_0080	0.00	2192.62	12.42	0.00
J_HL7.2M_0090	0.00	2192.53	12.56	0.00
J_HL7.2W_0010	398.96	2228.97	21.83	0.00
J_HL7.2W_0020	184.65	2226.02	21.00	0.00
J_HL7.2W_0030	82.81	2224.27	20.23	0.00
J_HL7.2W_0040	62.67	2223.12	20.16	0.00
J_HL7.2W_0050	354.20	2223.07	20.32	0.00
J_HL7.2W_0060	179.62	2223.06	20.11	0.00
J_HL7.2W_0070	291.53	2214.28	20.57	0.00
J_HL7.2W_0080	150.52	2211.79	19.34	0.00
J_HL7.2W_0090	0.00	2199.47	15.70	0.00
J_HL9.4_0030	184.65	2219.12	17.17	0.00
J_HL9.4_0040	360.35	2215.88	19.16	0.00
J_HL9.4_0055	12.31	2209.20	17.04	0.00
J_HL9.4_0050	181.85	2215.88	19.16	0.00
J_HL9.4_0057	205.35	2208.87	18.66	0.00
J_HL9.4_0060	130.38	2204.08	16.42	0.00
J_HL9.4_0080	160.03	2202.80	15.40	0.00
J_HL9.4_0100	310.55	2196.98	16.84	0.00
J_HL9.4_0110	294.32	2196.94	16.84	0.00
J_HL9.4_0115	0.00	2196.93	16.90	0.00
J_HL9.4P_0010	268.02	2194.60	16.26	0.00
J_HL9.4P_0020	0.00	2194.60	16.29	0.00
J_HL9.4P_0030	481.21	2194.60	16.26	0.00
J_KL_0010	0.00	2574.76	4.38	0.00

J_KL_0020	1097.25	2569.31	6.68	0.00
J_KL_0030	327.75	2566.32	6.77	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL_0050	0.00	2565.76	9.70	0.00
J_KL_0060	9.50	2560.31	15.84	0.00
J_KL_0070	627.00	2559.35	15.03	0.00
J_KL_0080	475.00	2558.85	16.24	0.00
J_KL_0090	114.00	2557.81	15.28	0.00
J_KL_0100	750.50	2555.59	15.36	0.00
J_KL_0110	874.00	2555.41	15.43	0.00
J_KL_0120	275.50	2555.08	15.78	0.00
J_KL_0130	313.50	2553.81	16.15	0.00
J_KL_0140	1073.50	2552.39	17.35	0.00
J_KL_0150	969.00	2551.28	16.96	0.00
J_KL_0160	1434.50	2551.02	17.23	0.00
J_KL_0170	1447.80	2549.88	17.20	0.00
J_KL_0180	0.00	2549.49	17.17	0.00
J_KL_0190	748.60	2549.33	17.04	0.00
J_KL_0200	0.00	2548.50	43.94	0.00
J_KL_0220	693.50	2548.48	43.67	0.00
J_KL_0280	0.00	2357.55	15.12	0.00
J_KL_0290	0.00	2357.55	15.22	0.00
J_KL10.0_0020	314.45	2352.58	20.75	0.00
J_KL10.0_0030	270.75	2347.74	28.53	0.00
J_KL5.4-0.5-1.3_0020	0.00	2541.15	21.40	0.00
J_KL5.4-0.5-1.3_0030	351.50	2539.79	25.86	0.00
J_KL5.4-0.5_0070	361.00	2537.83	21.40	0.00
J_KL5.4-0.5-1.4_0020	0.00	2538.36	29.49	0.00
J_KL5.4-0.5_0020	496.85	2551.30	24.31	0.00
J_KL5.4-0.5_0040	893.00	2544.36	23.00	0.00
J_KL5.4-0.5_0050	106.40	2542.20	21.76	0.00
J_KL5.4-0.5_0060	152.00	2541.17	22.07	0.00
J_KL5.4-0.5_0080	2413.00	2531.70	19.41	0.00
J_KL5.4-0.5_0090	0.00	2531.70	19.12	0.00
J_KL5.4-0.8-2.2-0.2_0010	660.25	2464.60	79.35	0.00
J_KL5.4-0.8-2.2_0010	332.50	2468.62	77.26	0.00
J_KL5.4-0.8-2.2_0020	104.50	2468.26	74.86	0.00
J_KL5.4-0.8-2.2_0030	343.90	2463.66	72.72	0.00
J_KL5.4-0.8-2.2_0040	508.25	2463.57	72.58	0.00
J_KL5.4-0.8-2.2_0050	354.35	2459.24	69.91	0.00
J_KL5.4-0.8-2.2_0060	351.50	2458.95	69.70	0.00
J_KL5.4-0.8-2.4_0010	1373.70	2464.44	86.53	0.00
J_KL5.4-0.8-2.4_0020	323.00	2458.10	84.40	0.00

J_KL5.4-0.8-2.4_0030	1075.40	2458.03	85.28	0.00
J_KL5.4-0.8_0010	0.00	2553.13	22.48	0.00
J_KL5.4-0.8_0015	657.40	2552.05	70.49	0.00
J_KL5.4-0.8_0020	0.00	2550.96	74.53	0.00
J_KL5.4-0.8_0025	352.45	2550.72	73.56	0.00
J_KL5.4-0.8_0030	375.25	2549.86	74.94	0.00
J_KL5.4-0.8_0035	705.85	2548.97	78.08	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4-0.8_0040	899.65	2480.32	50.00	0.00
J_KL5.4-0.8_0050	743.85	2479.00	62.57	0.00
J_KL5.4-0.8_0060	351.50	2478.89	63.67	0.00
J_KL5.4-0.8_0070	0.00	2477.42	72.15	0.00
J_KL5.4-0.8_0080	355.30	2476.97	73.64	0.00
J_KL5.4-0.8_0090	303.05	2476.90	73.14	0.00
J_KL5.4-0.8_0100	180.50	2475.26	76.46	0.00
J_KL5.4-0.8_0110	360.05	2474.89	79.31	0.00
J_KL5.4-0.8_0120	296.40	2472.45	83.00	0.00
J_KL5.4-0.8_0130	0.00	2471.51	84.54	0.00
J_KL5.4-0.8_0140	0.00	2465.24	89.72	0.00
J_KL5.4-0.8_0150	364.80	2460.10	90.18	0.00
J_KL5.4-0.8_0160	1168.50	2459.97	90.34	0.00
J_KL5.4-2.0_0010	0.00	2444.09	43.84	0.00
J_KL5.4-2.0_0020	0.00	2443.56	45.31	0.00
J_KL5.4-2.3_0010	0.00	2442.71	51.74	0.00
J_KL5.4-3.0-0.3_0010	0.00	2436.06	64.68	0.00
J_KL5.4-3.0-0.3_0030	0.00	2425.37	70.03	0.00
J_KL5.4-3.0-0.3_0020	342.95	2428.42	64.93	0.00
J_KL5.4-3.0_0010	0.00	2438.65	55.58	0.00
J_KL5.4-3.0_0030	731.50	2437.21	57.58	0.00
J_KL5.4-3.0_0040	712.50	2437.21	57.58	0.00
J_KL5.4-3.0_0050	0.00	2430.73	65.49	0.00
J_KL5.4-3.0_0060	351.50	2430.51	65.57	0.00
J_KL5.4-3.0_0070	0.00	2427.97	68.15	0.00
J_KL5.4-3.0_0080	1413.60	2427.22	68.87	0.00
J_KL5.4-3.0_0090	0.00	2427.20	68.88	0.00
J_KL5.4-3.0_0095	0.00	2423.10	67.29	0.00
J_KL5.4-3.0_0100	323.00	2422.04	68.43	0.00
J_KL5.4-3.0_0110	304.00	2420.92	68.60	0.00
J_KL5.4-3.0_0120	0.00	2412.63	75.46	0.00
J_KL5.4-3.0_0130	264.10	2405.61	76.79	0.00
J_KL5.4-3.1_0010	371.45	2436.94	56.52	0.00
J_KL5.4-3.1_0020	0.00	2436.94	56.52	0.00
J_KL5.4-3.2_0010	0.00	2436.84	56.20	0.00

J_KL5.4-3.2_0030	1453.50	2434.84	54.49	0.00
J_KL5.4_0010	0.00	2555.42	15.07	0.00
J_KL5.4_0030	736.25	2446.51	40.00	0.00
J_KL5.4_0040	1065.90	2445.88	43.97	0.00
J_KL5.4_0050	712.50	2445.86	44.00	0.00
J_KL5.4_0060	679.25	2445.00	45.21	0.00
J_KL5.4_0070	467.40	2443.15	50.70	0.00
J_KL5.4_0080	247.00	2440.83	56.56	0.00
J_KL5.4_0090	98.80	2440.82	56.56	0.00
J_KL5.4_0100	579.50	2438.63	57.08	0.00
J_KL5.4_0110	0.00	2436.86	56.57	0.00
J_KL5.4_0120	1444.00	2433.32	58.42	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4_0130	950.00	2430.22	63.99	0.00
J_KL5.4_0140	722.00	2428.12	64.44	0.00
J_KL5.4_0150	125.40	2428.11	64.31	0.00
J_KL5.4_0160	69.35	2425.24	66.73	0.00
J_KL5.4_0170	370.50	2425.20	66.35	0.00
J_KL5.4_0180	0.00	2425.03	65.98	0.00
J_KL5.4_0190	109.25	2421.52	66.31	0.00
J_KL5.4_0200	684.00	2419.10	65.06	0.00
J_KL5.4_0210	76.00	2419.07	65.36	0.00
J_KL5.4_0220	19.00	2417.13	65.23	0.00
J_KL5.4_0230	76.00	2417.13	65.21	0.00
J_KL5.4_0240	741.00	2417.13	65.21	0.00
J_KL5.4_0250	779.00	2417.13	65.21	0.00
J_KL5.4_0260	190.00	2417.13	65.20	0.00
J_KL6.2_0010	0.00	2553.06	15.49	0.00
J_KL6.2_0030	380.00	2551.58	41.87	0.00
J_KL7.4_0010	0.00	2549.30	15.10	0.00
J_KL7.4_0020	912.00	2548.61	17.12	0.00
J_KL7.4_0030	693.50	2543.11	15.00	0.00
J_KL7.4_0050	408.50	2535.46	12.80	0.00
J_KL7.4_0060	79.80	2534.90	12.65	0.00
J_KL7.4_0070	444.60	2534.90	12.59	0.00
J_KL7.4_0080	0.00	2534.89	12.73	0.00
J_KL7.4_0090	0.00	2530.12	55.45	0.00
J_KL7.6-9.3N_0010	313.50	2357.24	44.21	0.00
J_KL7.6-9.3N_0020	0.00	2357.23	44.24	0.00
J_KL7.6-9.3N_0030	349.60	2354.54	55.52	0.00
J_KL7.6-9.3N_0040	28.50	2353.79	54.88	0.00
J_KL7.6-9.3N_0050	0.00	2352.55	53.82	0.00
J_KL7.6-9.3N_0055	0.00	2352.53	53.37	0.00

J_KL7.6-9.3N_0060	31.35	2351.68	60.20	0.00
J_KL7.6-9.6_0075	701.10	2349.13	53.98	0.00
J_KL7.6-9.6_0070	0.00	2353.44	63.08	0.00
J_KL7.6-9.6_0080	679.25	2349.13	53.98	0.00
J_KL7.6_0040	609.90	2367.22	45.64	0.00
J_KL7.6_0050	57.00	2367.22	45.64	0.00
J_KL7.6_0060	826.50	2365.49	41.25	0.00
J_KL7.6S_0010	677.35	2369.10	65.00	0.00
J_KL7.6S_0020	19.00	2368.94	61.81	0.00
J_KL7.6S_0030	179.55	2367.22	45.63	0.00
J_KL7.7_0010	0.00	2548.04	60.75	0.00
J_KL7.7_0020	237.50	2545.55	60.19	0.00
J_KL7.7_0030	209.00	2467.26	83.84	0.00
J_KL7.7_0045	114.00	2461.99	87.31	0.00
J_KL7.7_0050	97.85	2456.48	85.96	0.00
J_KL7.7_0025	19.00	2469.82	75.00	0.00
J_KL7.7_0060	66.50	2456.48	85.96	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL7.7_0070	9.50	2456.48	85.96	0.00
J_KL7.7_0080	380.00	2456.48	85.96	0.00
J_KL9.3-0.1_0070	0.00	2367.57	48.40	0.00
J_KL9.3_0010	0.00	2365.47	42.91	0.00
J_KL9.3_0020	237.50	2362.87	43.08	0.00
J_KL9.3_0030	350.55	2362.84	42.92	0.00
J_KL9.3_0040	199.50	2361.10	43.03	0.00
J_KL9.3_0050	223.25	2361.09	42.84	0.00
J_KL9.3_0060	212.80	2359.34	43.41	0.00
J_KL9.3_0080	703.00	2358.06	44.06	0.00
J_KL9.3_0090	273.60	2346.97	41.93	0.00
J_KL9.3_0100	0.00	2345.58	41.46	0.00
J_KL9.3_0110	0.00	2345.28	41.46	0.00
J_KL9.3_0120	0.00	2340.40	39.95	0.00
J_KL9.3_0130	85.50	2341.51	55.88	0.00
J_KL9.3_0140	257.45	2341.52	55.88	0.00
J_KL9.3_0150	188.10	2337.39	51.12	0.00
J_KL9.3_0155	0.00	2337.01	45.16	0.00
J_KL9.3_0160	112.10	2333.61	46.17	0.00
J_KL9.3_0170	800.85	2332.05	45.95	0.00
J_KL9.3_0180	298.30	2331.90	45.64	0.00
J_KL9.3_0190	1038.35	2331.87	45.22	0.00
J_KL9.3_0200	47.50	2331.83	45.62	0.00
J_KL9.3_0210	617.50	2327.28	46.34	0.00
J_KL9.8_0000	389.50	2363.10	16.34	0.00

J_KL9.8_0010	153.90	2361.55	16.69	0.00
J_KL9.8_0020	180.50	2361.54	16.91	0.00
J_KL9.8_0030	211.85	2361.56	16.59	0.00
J_KL9.8_0040	304.95	2359.89	16.06	0.00
J_KL9.8_0050	256.50	2359.87	15.97	0.00
J_KL9.8_0080	931.95	2357.59	14.93	0.00
J_KL9.8_0090	356.25	2357.57	14.98	0.00
J_KL9.8_0100	774.25	2357.55	15.04	0.00
J_KP_0010	0.00	2346.26	58.97	0.00
J_KP_0020	1149.50	2342.21	50.77	0.00
J_KP_0030	0.00	2342.20	50.58	0.00
J_KP_0035	313.50	2342.18	50.69	0.00
J_KP_0040	370.50	2338.47	50.28	0.00
J_KP_0050	0.00	2347.52	62.86	0.00
J_LL_0005	0.00	2272.48	46.10	0.00
J_LL_0010	41.41	2272.33	45.92	0.00
J_LL_0020	173.46	2271.74	45.69	0.00
J_LL_0030	116.95	2271.71	45.59	0.00
J_LL_0040	139.65	2270.88	45.55	0.00
J_LL_0050	173.46	2264.71	44.36	0.00
J_LL_0060	95.68	2264.70	44.62	0.00
J_LL_0070	5.60	2264.67	44.38	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_LL_0080	16.79	2264.25	44.45	0.00
J_LL_0090	128.70	2256.41	41.61	0.00
J_LL_0100	50.36	2252.88	40.86	0.00
J_LL_0110	33.57	2249.34	39.55	0.00
J_LL_0120	134.29	2246.50	38.63	0.00
J_LL_0130	0.00	2245.92	38.23	0.00
J_LL_0140	72.74	2245.76	38.20	0.00
J_LL_0150	16.79	2245.76	38.20	0.00
J_LL_0155	67.15	2245.75	38.19	0.00
J_LL_0160	128.70	2233.98	39.38	0.00
J_LL_0170	44.76	2233.97	39.22	0.00
J_LL_0180	55.95	2233.96	39.37	0.00
J_LL_0190	212.63	2230.75	38.69	0.00
J_LL_0200	89.53	2228.48	37.36	0.00
J_LL_0210	11.19	2225.46	34.18	0.00
J_LL_0220	100.72	2223.15	34.20	0.00
J_LL_0230	95.12	2222.29	33.48	0.00
J_LL_0240	55.95	2222.28	33.66	0.00
J_LL_0250	100.72	2225.43	34.19	0.00
J_LL_0260	207.03	2223.15	36.26	0.00

J_LL_0270	214.87	2220.35	33.61	0.00
J_MB_0010	0.00	2569.08	3.80	0.00
J_MB_0020	0.00	2569.08	3.80	0.00
J_MB0.4_0010	0.00	2568.32	9.74	0.00
J_MB0.4_0020	347.70	2567.94	15.50	0.00
J_MB0.4_0030	268.85	2564.63	54.90	0.00
J_MB0.4_0040	582.35	2564.63	54.90	0.00
J_MB0.4_0050	2077.65	2560.24	55.29	0.00
J_MB0.8_0010	293.55	2567.50	11.72	0.00
J_MB1.0_0010	1121.00	2567.04	11.46	0.00
J_MB1.6_0010	0.00	2565.66	12.44	0.00
J_MB1.6_0020	0.00	2565.69	11.84	0.00
J_MB10.7_0010	50.35	2385.67	44.41	0.00
J_MB10.8_0010	0.00	2385.64	44.70	0.00
J_MB10.8_0020	0.00	2385.64	44.90	0.00
J_MB11.0_0010	0.00	2385.42	44.53	0.00
J_MB11.0_0020	0.00	2385.37	45.55	0.00
J_MB11.0_0030	180.50	2385.37	45.55	0.00
J_MB11.0_0040	419.66	2384.06	59.87	0.00
J_MB11.0_0050	570.74	2384.06	59.87	0.00
J_MB11.5_0010	191.93	2385.03	45.81	0.00
J_MB2.5_0010	0.00	2403.79	39.72	0.00
J_MB2.5_0020	38.00	2403.79	40.09	0.00
J_MB2.5_0030	146.30	2403.79	40.12	0.00
J_MB2.9_0010	136.80	2402.27	40.42	0.00
J_MB3.0_0010	0.00	2402.11	40.17	0.00
J_MB3.9_0010	0.00	2399.59	40.88	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB3.9_0020	1187.50	2399.59	40.97	0.00
J_MB3.9_0030	850.25	2399.59	40.73	0.00
J_MB4.2_0010	0.00	2398.41	37.17	0.00
J_MB4.2_0020	462.65	2397.75	39.40	0.00
J_MB4.2_0030	0.00	2397.68	39.78	0.00
J_MB4.8_0010	0.00	2396.94	37.67	0.00
J_MB4.8_0020	131.10	2386.79	43.86	0.00
J_MB4.8_0030	532.95	2386.45	44.06	0.00
J_MB4.8_0040	251.75	2383.03	47.71	0.00
J_MB4.8_0050	95.95	2375.94	49.67	0.00
J_MB5.4_0010	0.00	2395.05	38.11	0.00
J_MB5.4_0020	124.45	2392.54	42.93	0.00
J_MB5.4_0030	0.00	2390.10	45.11	0.00
J_MB6.0_0010	0.00	2393.76	38.24	0.00
J_MB6.0_0020	1003.20	2393.62	40.99	0.00

J_MB6.0_0030	1282.50	2388.09	40.98	0.00
J_MB6.0_0040	371.45	2386.98	42.11	0.00
J_MB6.0_0050	342.95	2385.91	42.76	0.00
J_MB6.0_0060	342.00	2380.92	46.73	0.00
J_MB6.0_0070	351.50	2380.92	46.73	0.00
J_MB6.0_0075	314.45	2378.99	48.56	0.00
J_MB6.0_0080	484.50	2371.11	50.43	0.00
J_MB6.0_0090	0.00	2370.88	50.51	0.00
J_MB6.0_0100	437.00	2368.65	49.61	0.00
J_MB6.0_0110	969.00	2364.07	52.25	0.00
J_MB6.0_0120	0.00	2364.03	51.66	0.00
J_MB6.2_0010	361.00	2393.11	41.82	0.00
J_MB6.3_0010	410.40	2392.89	41.42	0.00
J_MB6.4_0010	272.65	2392.59	41.41	0.00
J_MB6.5_0005	0.00	2392.18	40.98	0.00
J_MB6.8_0010	0.00	2391.68	42.55	0.00
J_MB6.8_0015	19.00	2391.68	42.44	0.00
J_MB7.5_0010	0.00	2389.90	40.42	0.00
J_MB7.5_0020	0.00	2389.90	40.42	0.00
J_MB7.5_0030	0.00	2389.80	42.51	0.00
J_MB7.5_0040	712.50	2389.05	41.87	0.00
J_MB7.5_0050	211.85	2386.65	41.78	0.00
J_MB7.5_0060	545.30	2386.64	42.10	0.00
J_MB7.5_0070	297.35	2386.64	42.10	0.00
J_MB7.5_0080	1091.55	2384.55	45.00	0.00
J_MB7.5_0090	599.45	2381.98	49.04	0.00
J_MB7.5_0100	735.30	2381.96	48.46	0.00
J_MB7.5_0110	712.50	2380.05	49.67	0.00
J_MB7.5_0120	695.40	2377.42	53.48	0.00
J_MB7.5_0130	176.70	2373.78	53.48	0.00
J_MB7.5_0140	387.60	2373.76	53.33	0.00
J_MB7.5_0150	638.40	2372.95	53.38	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB7.5_0160	28.50	2366.42	51.41	0.00
J_MB7.5_0170	171.00	2364.78	51.67	0.00
J_MB7.5_0180	798.00	2364.79	51.68	0.00
J_MB7.5_0190	494.00	2364.76	51.13	0.00
J_MB7.5_0210	665.00	2361.11	51.44	0.00
J_MB8.3_0010	0.00	2388.15	39.84	0.00
J_MB8.5_0020	949.05	2388.00	42.15	0.00
J_MB8.5_0030	336.30	2387.99	42.86	0.00
J_MB8.5_0040	331.55	2380.89	48.42	0.00
J_MB8.5_0050	543.40	2380.90	48.42	0.00

J_MB8.5_0060	80.75	2375.31	47.85	0.00
J_MB8.5_0070	513.95	2375.26	48.06	0.00
J_MB8.5_0080	0.00	2369.75	48.54	0.00
J_MB9.1_0010	0.00	2386.84	40.25	0.00
J_MB9.1_0020	9.50	2386.52	42.59	0.00
J_MB9.1_0030	475.95	2383.47	46.51	0.00
J_MB9.1_0040	104.50	2380.30	45.82	0.00
J_MB9.1_0065	408.50	2373.27	47.51	0.00
J_MB9.1_0066	0.00	2373.18	47.01	0.00
J_MB9.1_0070	522.50	2371.23	48.09	0.00
J_MB9.1_0080	369.55	2368.85	49.13	0.00
J_MB9.4_0010	0.00	2386.52	40.17	0.00
J_MB9.4_0015	1263.50	2386.52	41.46	0.00
J_MB9.4_0020	266.00	2382.71	46.38	0.00
J_MB9.4_0040	60.80	2378.10	47.33	0.00
J_MB9.4_0050	219.45	2378.10	47.33	0.00
J_MB9.4_0060	351.50	2378.09	47.36	0.00
J_MB9.4_0065	0.00	2377.58	48.46	0.00
J_ML_0000	0.00	2273.45	45.86	0.00
J_ML0.06_0010	0.00	2273.21	34.04	0.00
J_ML0.07_0010	0.00	2273.07	33.91	0.00
J_ML0.08_0010	447.64	2272.90	34.07	0.00
J_ML0.2_0010	72.74	2270.68	34.46	0.00
J_ML0.2_0020	263.55	2270.67	34.30	0.00
J_ML0.4_0010	0.00	2268.75	33.66	0.00
J_ML0.5_0010	0.00	2268.08	33.43	0.00
J_ML0.7_0010	187.45	2267.36	33.55	0.00
J_ML0.7_0020	343.90	2268.33	35.64	0.00
J_ML0.7_0030	44.76	2261.06	35.67	0.00
J_ML0.7_0040	50.36	2260.99	35.23	0.00
J_ML0.7_0045	214.31	2260.99	35.06	0.00
J_ML0.7_0050	55.95	2254.03	36.67	0.00
J_ML0.7_0060	190.25	2248.78	38.75	0.00
J_ML1.1_0010	34.69	2265.36	32.44	0.00
J_ML1.3_0008	0.00	2266.27	33.36	0.00
J_ML1.3_0009	0.00	2266.47	32.70	0.00
J_ML1.3_0010	210.95	2264.94	32.36	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ML1.3_0020	410.71	2264.93	32.40	0.00
J_ML1.3_0025	57.63	2264.92	32.34	0.00
J_ML1.3_0035	34.13	2264.77	32.08	0.00
J_ML1.3_0030	28.54	2264.89	32.44	0.00
J_ML1.3_0040	425.26	2254.98	37.13	0.00

J_ML1.3_0045	120.86	2249.57	36.10	0.00
J_ML1.3_0050	449.88	2244.68	37.17	0.00
J_ML1.5_0010	0.00	2263.66	37.22	0.00
J_ML1.5_0015	16.79	2263.30	31.74	0.00
J_ML1.5_0020	102.40	2263.50	32.02	0.00
J_ML1.7_0010	83.93	2262.09	30.97	0.00
J_ML1.8_0010	102.96	2261.65	31.22	0.00
J_ML2.0_0010	0.00	2260.56	29.20	0.00
J_ML2.0_0015	201.44	2260.55	29.20	0.00
J_ML2.0_0020	89.53	2260.60	30.97	0.00
J_ML2.1_0010	257.39	2259.58	30.39	0.00
J_ML2.1_0015	11.19	2259.58	30.39	0.00
J_ML2.2_0010	156.67	2259.03	29.87	0.00
J_ML2.2_0015	95.00	2259.03	29.87	0.00
J_ML2.4_0010	688.25	2257.03	29.49	0.00
J_ML2.5_0010	39.17	2256.27	29.81	0.00
J_ML2.7_0010	87.85	2254.83	29.16	0.00
J_ML2.8_0010	98.48	2253.84	28.73	0.00
J_ML2.8_0020	204.80	2253.78	28.84	0.00
J_ML3.1_0010	0.00	2251.69	27.02	0.00
J_ML3.1_0020	172.34	2251.70	27.81	0.00
J_ML3.1_0030	0.00	2251.70	27.81	0.00
J_ML3.1_0040	414.07	2251.69	27.02	0.00
J_ML3.1_0045	1829.73	2251.69	27.02	0.00
J_ML3.3_0010	363.71	2246.29	24.07	0.00
J_ML3.1_0050	417.42	2240.92	29.26	0.00
J_ML3.1_0070	731.89	2240.90	29.95	0.00
J_ML3.1_0080	109.67	2232.38	28.30	0.00
J_ML3.1_0090	212.63	2232.31	28.38	0.00
J_ML3.1_0100	119.18	2227.05	28.85	0.00
J_ML3.1_0110	190.81	2214.06	24.13	0.00
J_ML3.1_0120	106.87	2211.11	23.79	0.00
J_ML3.1_0130	141.57	2211.09	24.28	0.00
J_ML3.1_0140	167.31	2204.96	23.09	0.00
J_ML3.1_0150	62.67	2204.96	23.09	0.00
J_ML3.4_0010	139.89	2236.50	26.17	0.00
J_ML4.0_0010	104.64	2230.09	20.26	0.00
J_ML4.0_0020	11.19	2224.79	19.21	0.00
J_ML4.0_0030	279.77	2218.29	17.32	0.00
J_ML4.0_0035	768.26	2218.28	18.04	0.00
J_ML4.0_0040	0.00	2218.18	18.08	0.00
J_ML4.0_0070	179.06	2211.73	15.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_ML4.0_0080	95.68	2210.55	15.89	0.00
J_ML4.1_0010	124.22	2230.76	21.03	0.00
J_ML4.1_0030	11.75	2229.50	20.60	0.00
J_ML4.1_0040	107.99	2228.99	20.51	0.00
J_ML4.1_0050	63.79	2223.67	19.52	0.00
J_ML4.1_0060	364.27	2219.38	18.22	0.00
J_ML4.1_0070	202.00	2219.35	18.38	0.00
J_NA0.0_0010	45.60	2273.74	41.27	0.00
J_NA0.2_0005	13.30	2270.89	30.78	0.00
J_NA0.2_0006	14.25	2270.89	30.77	0.00
J_NA0.2_0010	3.80	2270.89	30.77	0.00
J_NA0.2_0020	5.70	2270.89	30.80	0.00
J_NA0.2E_0010	0.00	2270.47	36.39	0.00
J_NA0.3_0010	9.50	2269.14	31.06	0.00
J_NA0.3_0020	7.60	2268.86	31.31	0.00
J_NA0.4_0010	93.10	2266.83	32.22	0.00
J_NA0.4_0020	0.00	2266.82	32.24	0.00
J_NA0.8_0010	9.50	2262.29	30.71	0.00
J_NA0.9_0010	0.00	2261.63	31.01	0.00
J_NC10.5-0.9_0100	0.00	2546.08	85.78	0.00
J_NC10.5_0010	0.00	2560.97	5.00	0.00
J_NC10.5_0020	735.30	2560.88	5.20	0.00
J_NC10.5_0030	194.75	2560.09	22.15	0.00
J_NC10.5_0035	706.80	2557.94	53.69	0.00
J_NC10.5_0040	343.90	2557.88	53.24	0.00
J_NC10.5_0050	2076.70	2555.58	59.72	0.00
J_NC10.5_0070	368.60	2552.10	75.00	0.00
J_NC10.5_0080	329.65	2550.63	79.55	0.00
J_NC10.5_0090	1587.45	2546.33	82.48	0.00
J_NC10.5_0105	0.00	2546.73	84.98	0.00
J_NC10.5_0106	0.00	2543.37	85.44	0.00
J_NC10.5_0110	362.90	2543.17	85.52	0.00
J_NC10.5_0120	1322.40	2543.17	85.52	0.00
J_NC11.0_0010	0.00	2561.54	5.00	0.00
J_NC11.0_0020	361.00	2561.02	8.67	0.00
J_NC11.0_0030	0.00	2561.00	8.84	0.00
J_NC11.0_0040	0.00	2558.71	23.59	0.00
J_NC11.0_0050	0.00	2558.69	24.13	0.00
J_NC11.0_0060	266.00	2558.67	24.71	0.00
J_NC12.4P_0005	6047.70	2564.12	5.00	0.00
J_NC12.4P_0010	750.50	2559.60	42.11	0.00
J_NC12.4P_0020	1292.95	2555.88	58.24	0.00
J_NC12.4P_0030	0.00	2555.82	58.75	0.00
J_NC12.4P_0040	1368.00	2552.99	69.41	0.00
J_NC12.4P_0050	9.50	2552.94	70.74	0.00
J_NC12.4P_0060	670.70	2551.17	80.28	0.00
J_NC12.4P_0070	66.50	2550.02	81.91	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC12.4P_0080	696.35	2547.49	84.51	0.00
J_NC12.4P_0090	190.00	2545.18	85.55	0.00
J_NC12.4P_0100	521.55	2535.90	92.80	0.00
J_NC12.4P_0110	0.00	2535.89	92.80	0.00
J_NC12.4P_0120	0.00	2535.89	92.80	0.00
J_NC12.4P_0130	651.70	2535.89	92.94	0.00
J_NC12.4P_0140	674.50	2535.90	92.75	0.00
J_NC13.6_0010	0.00	2563.04	3.44	0.00
J_NC13.6_0030	579.50	2562.13	7.61	0.00
J_NC13.6_0035	1168.50	2562.08	9.18	0.00
J_NC13.6_0070	722.00	2561.09	21.90	0.00
J_NC13.6_0080	50.35	2559.45	36.42	0.00
J_NC13.6_0090	54.15	2555.94	53.78	0.00
J_NC13.6_0100	0.00	2555.42	55.57	0.00
J_NC13.6_0110	332.50	2553.96	64.98	0.00
J_NC13.6_0120	564.30	2553.07	68.40	0.00
J_NC13.6_0130	570.00	2551.97	70.11	0.00
J_NC13.6_0140	28.50	2549.30	72.75	0.00
J_NC13.6_0150	0.00	2545.39	77.08	0.00
J_NC13.6_0160	750.50	2545.35	77.27	0.00
J_NC13.6_0170	87.40	2545.28	77.26	0.00
J_NC13.6_0174	526.30	2537.12	81.69	0.00
J_NC13.6_0175	0.00	2537.10	82.00	0.00
J_NC14.5-0.2_0010	694.45	2560.67	7.63	0.00
J_NC14.5-0.2_0020	0.00	2560.67	7.54	0.00
J_NC14.5-1.5_0010	430.35	2555.28	22.76	0.00
J_NC14.5-1.5_0020	0.00	2555.28	22.75	0.00
J_NC14.5-1.5_0030	798.00	2549.69	22.24	0.00
J_NC14.5-1.5_0040	0.00	2547.56	22.07	0.00
J_NC14.5-1.5_0050	0.00	2547.49	21.28	0.00
J_NC14.5-1.5_0060	0.00	2547.47	22.45	0.00
J_NC14.5-3.0_0010	0.00	2544.23	36.99	0.00
J_NC14.5-3.5_0010	252.70	2539.77	49.73	0.00
J_NC14.5-3.5_0020	0.00	2539.80	49.96	0.00
J_NC14.5_0010	0.00	2561.87	1.27	0.00
J_NC14.5_0020	602.30	2561.76	7.87	0.00
J_NC14.5_0030	484.50	2557.88	11.48	0.00
J_NC14.5_0040	750.50	2557.17	11.78	0.00
J_NC14.5_0050	585.20	2556.53	20.43	0.00
J_NC14.5_0060	0.00	2556.49	20.03	0.00
J_NC14.5_0070	144.40	2553.92	24.16	0.00
J_NC14.5_0080	293.55	2552.34	23.79	0.00
J_NC14.5_0090	417.05	2550.00	23.76	0.00
J_NC14.5_0100	608.95	2549.02	23.87	0.00
J_NC14.5_0110	400.90	2546.18	22.93	0.00

J_NC14.5_0120	2109.00	2544.85	23.08	0.00
J_NC14.5_0130	0.00	2544.86	22.93	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC14.5_0140	484.50	2544.86	23.04	0.00
J_NC14.5_0150	722.00	2544.85	23.04	0.00
J_NC14.5_0160	0.00	2541.54	43.47	0.00
J_NC14.5_0170	361.00	2537.47	54.25	0.00
J_NC14.5_0180	454.10	2537.46	54.47	0.00
J_NC14.5_0190	278.35	2534.91	56.55	0.00
J_NC14.5_0200	704.90	2533.60	60.70	0.00
J_NC14.5_0205	1415.50	2533.59	60.76	0.00
J_NC14.5_0230	769.50	2525.22	80.94	0.00
J_NC14.5_0240	636.50	2525.11	80.67	0.00
J_NC14.5_0250	280.25	2522.71	79.97	0.00
J_NC18.6_0010	0.00	2552.98	5.00	0.00
J_NC18.6_0020	815.10	2552.49	5.37	0.00
J_NC19.9_0010	0.00	2552.76	5.00	0.00
J_NC20.3_0010	0.00	2555.90	3.69	0.00
J_NC20.3_0020	855.00	2555.75	7.10	0.00
J_NC20.3_0030	228.00	2553.51	7.31	0.00
J_NC20.3_0040	0.00	2552.26	6.92	0.00
J_NC22.8-0.1_0010	0.00	2548.94	5.57	0.00
J_NC22.8-0.1_0011	1520.00	2548.92	4.95	0.00
J_NC22.8-0.1_0012	0.00	2548.90	4.28	0.00
J_NC22.8_0010	0.00	2549.02	5.00	0.00
J_NC22.8_0020	266.00	2547.92	19.73	0.00
J_NC22.8_0030	114.95	2547.13	28.46	0.00
J_NC22.8_0035	28.50	2545.95	38.36	0.00
J_NC22.8_0040	342.95	2545.92	38.68	0.00
J_NC22.8_0050	219.45	2544.19	39.67	0.00
J_NC22.8_0060	0.00	2543.47	39.12	0.00
J_NC22.8_0070	63.65	2543.47	39.12	0.00
J_NC22.8_0080	826.50	2541.14	42.29	0.00
J_NC22.8_0083	0.00	2541.05	42.72	0.00
J_NC22.8_0085	19.00	2540.91	43.14	0.00
J_NC22.8_0090	492.10	2538.92	47.51	0.00
J_NC22.8_0100	388.55	2538.15	49.81	0.00
J_NC22.8_0110	0.00	2536.78	52.61	0.00
J_NC22.8_0120	655.50	2535.66	52.47	0.00
J_NC22.8_0130	369.55	2534.86	55.42	0.00
J_NC22.8_0140	245.10	2530.40	53.38	0.00
J_NC22.8_0145	0.00	2529.73	53.69	0.00
J_NC22.8_0150	19.00	2529.12	54.02	0.00

J_NC22.8_0160	0.00	2528.59	54.50	0.00
J_NC22.8_0170	503.50	2528.65	54.61	0.00
J_NC22.8_0180	152.00	2528.60	54.51	0.00
J_NC22.8_0190	598.50	2528.65	54.62	0.00
J_NC24.1-0.1_0010	95.00	2547.80	5.26	0.00
J_NC24.1-0.1_0020	0.00	2547.80	4.74	0.00
J_NC24.1_0010	0.00	2552.34	5.00	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC24.1_0020	1862.00	2552.29	6.58	0.00
J_NC24.1_0030	47.50	2552.27	6.70	0.00
J_NC24.1_0040	0.00	2552.17	6.49	0.00
J_NC24.1_0050	788.50	2549.40	20.48	0.00
J_NC25.4-0.3_0005	31.35	2545.61	15.92	0.00
J_NC25.4-0.3_0007	389.50	2545.57	18.36	0.00
J_NC25.4-0.3_0010	0.00	2545.36	21.22	0.00
J_NC25.4-0.7_0010	536.75	2543.68	31.09	0.00
J_NC25.4-0.7_0011	727.70	2543.67	31.22	0.00
J_NC25.4-1.2_0010	0.00	2542.28	31.51	0.00
J_NC25.4-1.2_0015	19.00	2541.98	33.37	0.00
J_NC25.4-1.6-1.1_0010	322.05	2524.55	51.51	0.00
J_NC25.4-1.6-2.3_0009	997.50	2510.19	56.99	0.00
J_NC25.4-1.6-2.3_0010	376.20	2510.13	57.22	0.00
J_NC25.4-1.6-2.7_0010	0.00	2512.64	54.22	0.00
J_NC25.4-1.6-2.7_0020	779.00	2512.67	54.43	0.00
J_NC25.4-1.6-2.7_0030	427.50	2503.35	83.07	0.00
J_NC25.4-1.6-2.7_0040	142.50	2502.87	83.57	0.00
J_NC25.4-1.6-2.7_0050	313.50	2498.28	85.16	0.00
J_NC25.4-1.6_0010	0.00	2540.79	36.39	0.00
J_NC25.4-1.6_0020	703.00	2538.48	39.88	0.00
J_NC25.4-1.6_0030	1016.50	2534.34	44.59	0.00
J_NC25.4-1.6_0040	741.00	2532.90	46.17	0.00
J_NC25.4-1.6_0050	0.00	2530.47	49.22	0.00
J_NC25.4-1.6_0080	115.90	2525.04	53.06	0.00
J_NC25.4-1.6_0090	0.00	2524.54	51.77	0.00
J_NC25.4-1.6_0100	0.00	2524.54	51.51	0.00
J_NC25.4-1.8-0.3_0010	1434.50	2537.47	41.29	0.00
J_NC25.4-1.8-1.0-0.3_0010	0.00	2529.56	52.57	0.00
J_NC25.4-1.8-1.0-0.3_0020	0.00	2525.99	55.78	0.00
J_NC25.4-1.8-1.0-0.3_0025	232.75	2525.96	56.04	0.00
J_NC25.4-1.8-1.0-0.3_0030	1016.50	2525.07	57.24	0.00
J_NC25.4-1.8-1.0-0.3_0040	722.00	2523.03	61.00	0.00
J_NC25.4-1.8-1.0-0.3_0050	737.20	2522.37	61.36	0.00
J_NC25.4-1.8-1.0-0.3_0060	275.50	2519.55	69.60	0.00

J_NC25.4-1.8-1.0_0010	0.00	2532.47	50.75	0.00
J_NC25.4-1.8-2.2_0010	251.75	2513.95	67.15	0.00
J_NC25.4-1.8-2.2_0020	133.95	2510.21	70.33	0.00
J_NC25.4-1.8-2.7_0010	0.00	2503.13	70.79	0.00
J_NC25.4-1.8_0085	684.00	2524.30	61.29	0.00
J_NC25.4-1.8_0010	0.00	2539.69	40.58	0.00
J_NC25.4-1.8_0020	0.00	2537.42	41.25	0.00
J_NC25.4-1.8_0030	712.50	2537.42	40.43	0.00
J_NC25.4-1.8_0040	684.00	2534.18	48.42	0.00
J_NC25.4-1.8_0050	317.30	2532.45	51.18	0.00
J_NC25.4-1.8_0060	1122.90	2530.28	54.21	0.00
J_NC25.4-1.8_0070	665.00	2527.79	57.20	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC25.4-1.8_0080	693.50	2524.32	61.34	0.00
J_NC25.4-1.8_0090	515.85	2521.16	62.70	0.00
J_NC25.4-1.8_0100	100.70	2517.23	64.72	0.00
J_NC25.4-1.8_0110	0.00	2516.97	66.03	0.00
J_NC25.4-1.8_0120	0.00	2516.96	66.16	0.00
J_NC25.4-1.8_0130	407.55	2505.59	67.10	0.00
J_NC25.4-1.8_0140	655.50	2505.57	67.06	0.00
J_NC25.4-1.8_0145	0.00	2505.54	66.72	0.00
J_NC25.4-1.8_0150	313.50	2505.21	66.03	0.00
J_NC25.4-1.8_0160	0.00	2505.22	66.03	0.00
J_NC25.4-3.2_0010	712.50	2526.51	61.17	0.00
J_NC25.4-3.3-0.4_0010	0.00	2516.96	64.97	0.00
J_NC25.4-3.3_0010	1073.50	2524.89	62.17	0.00
J_NC25.4-3.3_0020	0.00	2524.84	61.60	0.00
J_NC25.4-3.3_0030	370.50	2520.30	64.08	0.00
J_NC25.4-3.3_0040	526.30	2514.81	70.11	0.00
J_NC25.4-3.3_0045	275.50	2505.40	76.00	0.00
J_NC25.4-3.3_0050	9.50	2504.01	94.00	0.00
J_NC25.4-4.5_0010	222.30	2495.23	63.99	0.00
J_NC25.4-4.5_0011	0.00	2495.18	63.04	0.00
J_NC25.4-4.8_0010	0.00	2496.70	65.46	0.00
J_NC25.4-4.8_0020	180.50	2496.69	65.46	0.00
J_NC25.4_0010	0.00	2546.67	5.00	0.00
J_NC25.4_0020	437.00	2546.57	6.54	0.00
J_NC25.4_0030	684.00	2546.57	6.54	0.00
J_NC25.4_0035	2232.50	2546.29	9.65	0.00
J_NC25.4_0040	294.50	2546.20	10.99	0.00
J_NC25.4_0050	864.50	2546.19	10.88	0.00
J_NC25.4_0060	693.50	2544.27	22.86	0.00
J_NC25.4_0065	173.85	2541.66	32.77	0.00

J_NC25.4_0070	359.10	2541.44	34.67	0.00
J_NC25.4_0080	355.30	2540.00	38.94	0.00
J_NC25.4_0087	703.00	2539.03	42.08	0.00
J_NC25.4_0088	760.00	2539.01	42.51	0.00
J_NC25.4_0090	1349.00	2535.79	47.00	0.00
J_NC25.4_0100	0.00	2533.14	52.11	0.00
J_NC25.4_0110	1045.00	2533.10	51.30	0.00
J_NC25.4_0120	1387.00	2530.64	53.30	0.00
J_NC25.4_0130	1144.75	2520.05	61.68	0.00
J_NC25.4_0135	741.00	2511.47	63.62	0.00
J_NC25.4_0140	1054.50	2505.77	64.30	0.00
J_NC25.4_0150	0.00	2505.67	63.99	0.00
J_NC25.4_1.6_0060	988.00	2527.35	50.42	0.00
J_NC25.4_1.6_0070	107.35	2525.05	53.06	0.00
J_NC26.4_0010	0.00	2542.79	5.00	0.00
J_NC26.4_0020	0.00	2542.70	4.90	0.00
J_NC26.4_0025	453.15	2542.69	4.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC26.4_0030	762.85	2541.17	8.95	0.00
J_NC26.4_0040	477.85	2535.49	31.21	0.00
J_NC26.4_0050	731.50	2532.17	36.22	0.00
J_NC26.4_0060	598.50	2532.17	36.22	0.00
J_NC26.4_0070	0.00	2530.47	45.34	0.00
J_NC26.4_0080	1080.15	2526.90	48.15	0.00
J_NC26.4_0090	313.50	2525.78	50.25	0.00
J_NC26.4_0095	190.95	2524.04	52.85	0.00
J_NC26.4_0100	0.00	2519.07	60.93	0.00
J_NC26.4_0110	1391.75	2519.07	60.93	0.00
J_NC26.4_0120	0.00	2514.71	63.29	0.00
J_NC26.4_0125	49.40	2512.52	62.81	0.00
J_NC26.4_0127	218.50	2512.36	63.26	0.00
J_NC26.4_0130	0.00	2508.12	63.77	0.00
J_NC26.4_0140	655.50	2508.12	63.43	0.00
J_NC26.4_0150	144.40	2508.12	63.78	0.00
J_NC27.8_0010	0.00	2542.97	5.00	0.00
J_NC27.8_0015	432.25	2542.77	4.92	0.00
J_NC27.8_0016	628.90	2542.77	4.96	0.00
J_NC27.8_0020	0.00	2538.48	14.45	0.00
J_NC27.8_0030	1422.15	2533.99	20.24	0.00
J_NC27.8_0040	308.75	2533.77	21.38	0.00
J_NC27.8_0050	1083.00	2531.59	21.19	0.00
J_NC27.8_0060	0.00	2523.80	25.33	0.00
J_NC27.8_0065	0.00	2523.80	25.33	0.00

J_NC27.8_0070	152.00	2516.42	28.83	0.00
J_NC27.8_0080	156.75	2516.41	28.87	0.00
J_NC27.8_0090	146.30	2513.23	33.71	0.00
J_NC27.8_0100	0.00	2506.61	47.64	0.00
J_NC28.7-1.0-0.1_0010	0.00	2533.86	31.73	0.00
J_NC28.7-1.0_0160	161.50	2497.19	60.60	0.00
J_NC28.7-1.0-0.1_0020	400.90	2527.84	32.27	0.00
J_NC28.7-1.0-0.1_0030	290.70	2525.26	33.56	0.00
J_NC28.7-1.0-0.1_0040	317.30	2521.88	40.07	0.00
J_NC28.7-1.0-0.1_0050	128.25	2501.18	38.84	0.00
J_NC28.7_0053	0.00	2536.78	26.35	0.00
J_NC28.7-1.0_0020	361.00	2533.88	32.22	0.00
J_NC28.7-1.0_0030	356.25	2533.87	31.87	0.00
J_NC28.7-1.0_0040	643.15	2530.82	37.90	0.00
J_NC28.7-1.0_0050	351.50	2530.13	39.46	0.00
J_NC28.7-1.0_0060	399.00	2526.99	43.08	0.00
J_NC28.7-1.0_0070	1177.05	2524.94	45.34	0.00
J_NC28.7-1.0_0080	57.00	2506.52	51.14	0.00
J_NC28.7-1.0_0090	146.30	2506.44	50.79	0.00
J_NC28.7-1.0_0100	294.50	2504.82	52.93	0.00
J_NC28.7-1.0_0110	152.00	2501.10	52.87	0.00
J_NC28.7-1.0_0120	28.50	2501.09	52.91	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC28.7-1.0_0130	0.00	2501.07	52.46	0.00
J_NC28.7-1.0_0140	100.70	2501.09	52.89	0.00
J_NC28.7-1.0_0150	0.00	2499.23	54.73	0.00
J_NC28.7-2.0-0.4_0010	1862.00	2521.43	49.94	0.00
J_NC28.7-2.0_0010	224.20	2528.52	40.54	0.00
J_NC28.7-2.0_0020	0.00	2528.52	40.24	0.00
J_NC28.7-2.0_0030	544.35	2525.09	45.45	0.00
J_NC28.7-2.0_0040	0.00	2524.03	46.22	0.00
J_NC28.7-2.0_0050	0.00	2519.45	52.25	0.00
J_NC28.7-2.6_0010	133.95	2511.63	48.76	0.00
J_NC28.7-2.6_0020	705.85	2510.52	48.81	0.00
J_NC28.7-2.8_0010	98.80	2511.38	58.57	0.00
J_NC28.7-2.8_0020	0.00	2508.71	68.59	0.00
J_NC28.7_0010	0.00	2542.57	5.00	0.00
J_NC28.7_0020	341.05	2542.52	7.00	0.00
J_NC28.7_0030	200.45	2542.38	6.91	0.00
J_NC28.7_0035	764.75	2539.71	17.95	0.00
J_NC28.7_0040	499.70	2537.99	19.52	0.00
J_NC28.7_0050	900.60	2537.24	23.43	0.00
J_NC28.7_0060	308.75	2533.91	30.53	0.00

J_NC28.7_0070	553.85	2531.17	32.57	0.00
J_NC28.7_0080	787.55	2530.74	32.78	0.00
J_NC28.7_0083	703.00	2528.51	40.66	0.00
J_NC28.7_0085	361.95	2519.76	41.79	0.00
J_NC28.7_0090	2.85	2516.01	45.09	0.00
J_NC28.7_0100	0.00	2516.01	45.03	0.00
J_NC28.7_0110	119.70	2514.48	46.06	0.00
J_NC28.7_0120	672.60	2513.71	46.91	0.00
J_NC28.7_0130	0.00	2501.73	58.03	0.00
J_NC28.7_0140	281.20	2501.74	57.60	0.00
J_NC28.7_0150	250.80	2497.28	60.49	0.00
J_NC28.7_0160	190.00	2497.39	60.27	0.00
J_NC29.7_0010	532.00	2541.15	5.00	0.00
J_NC29.7_0020	532.00	2529.36	11.96	0.00
J_NC29.7_0030	456.00	2529.36	11.96	0.00
J_NC30.2-0.2_0010	798.00	2534.32	16.27	0.00
J_NC30.2-0.4_0010	258.40	2530.08	19.23	0.00
J_NC30.2-0.5_0010	655.50	2527.85	23.83	0.00
J_NC30.2-0.7_0010	122.55	2523.81	30.59	0.00
J_NC30.2_0010	0.00	2538.01	5.00	0.00
J_NC30.2_0020	500.65	2537.92	4.91	0.00
J_NC30.2_0030	428.45	2537.91	4.91	0.00
J_NC30.2_0040	0.00	2531.98	18.86	0.00
J_NC30.2_0050	136.80	2519.34	29.67	0.00
J_NC30.2_0060	122.55	2516.40	31.86	0.00
J_NC30.2_0070	199.50	2510.80	34.40	0.00
J_NC30.2_0080	294.50	2509.51	36.48	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC30.2_0090	218.50	2497.66	36.97	0.00
J_NC30.2_0100	408.50	2497.65	36.97	0.00
J_NC31.0-1.9_0010	0.00	2520.85	45.25	0.00
J_NC31.0-1.9_0020	237.50	2515.14	48.16	0.00
J_NC31.0-1.9_0030	155.80	2515.16	47.08	0.00
J_NC31.0-1.9_0035	494.00	2515.14	48.16	0.00
J_NC31.0-1.9_0040	229.90	2511.98	51.64	0.00
J_NC31.0_0010	0.00	2542.78	5.00	0.00
J_NC31.0_0020	0.00	2542.42	8.75	0.00
J_NC31.0_0030	28.50	2541.54	8.66	0.00
J_NC31.0_0040	115.90	2540.34	8.48	0.00
J_NC31.0_0050	560.50	2538.39	14.12	0.00
J_NC31.0_0060	360.05	2536.18	19.57	0.00
J_NC31.0_0070	423.70	2531.39	30.09	0.00
J_NC31.0_0080	320.15	2530.06	30.85	0.00

J_NC31.0_0090	340.10	2527.76	38.34	0.00
J_NC31.0_0100	857.85	2527.76	38.37	0.00
J_NC31.0_0110	270.75	2527.32	39.63	0.00
J_NC31.0_0120	218.50	2523.05	39.79	0.00
J_NC31.0_0130	0.00	2521.19	44.38	0.00
J_NC31.0_0140	327.75	2516.63	44.40	0.00
J_NC31.0_0150	503.50	2516.54	44.31	0.00
J_NC31.0_0160	247.00	2508.36	54.74	0.00
J_NC31.0_0165	0.00	2508.32	54.15	0.00
J_NC31.0_0170	636.50	2506.73	55.66	0.00
J_NC31.0_0180	0.00	2506.72	54.94	0.00
J_NC31.5_0010	0.00	2540.56	5.00	0.00
J_NC31.5_0020	805.60	2538.40	7.68	0.00
J_NC31.5_0025	150.10	2538.39	7.63	0.00
J_NC31.5_0030	332.50	2533.27	22.02	0.00
J_NC31.5_0040	175.75	2529.20	24.80	0.00
J_NC31.5_0050	225.15	2521.85	27.10	0.00
J_NC31.5_0055	152.00	2521.59	27.03	0.00
J_NC31.5_0060	304.00	2517.40	36.81	0.00
J_NC31.5_0070	311.60	2517.36	35.68	0.00
J_NC31.5_0080	370.50	2513.85	46.38	0.00
J_NC31.5_0090	0.00	2513.20	46.13	0.00
J_NC32.2-0.1_0010	313.50	2533.72	3.40	0.00
J_NC32.2-1.7_0010	133.00	2500.19	64.13	0.00
J_NC32.2-1.7_0020	503.50	2500.08	64.17	0.00
J_NC32.2_0010	0.00	2533.91	5.00	0.00
J_NC32.2_0020	341.05	2533.58	4.85	0.00
J_NC32.2_0030	665.00	2531.16	8.57	0.00
J_NC32.2_0040	0.00	2525.03	14.26	0.00
J_NC32.2_0050	356.25	2524.92	16.31	0.00
J_NC32.2_0060	263.15	2516.81	36.23	0.00
J_NC32.2_0070	27.55	2516.75	36.30	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC32.2_0080	436.05	2513.34	46.15	0.00
J_NC32.2_0090	133.00	2506.99	51.73	0.00
J_NC32.2_0100	28.50	2506.97	51.80	0.00
J_NC32.2_0110	0.00	2502.16	64.24	0.00
J_NC32.2_0140	190.00	2492.93	74.04	0.00
J_NC32.2_0150	503.50	2487.73	72.20	0.00
J_NC33.1_0010	0.00	2538.84	5.00	0.00
J_NC33.1_0020	836.00	2538.66	7.45	0.00
J_NC33.1_0030	57.00	2538.64	7.54	0.00
J_NC33.1_0040	266.00	2537.75	13.32	0.00

J_NC33.1_0050	0.00	2537.74	13.44	0.00
J_NC33.1_0060	304.00	2535.02	23.03	0.00
J_NC33.1_0065	1738.50	2535.01	23.04	0.00
J_NC33.1_0070	0.00	2526.03	36.60	0.00
J_NC33.1_0080	712.50	2522.74	42.46	0.00
J_NC33.1_0085	0.00	2522.70	42.23	0.00
J_NC33.1_0087	0.00	2516.72	60.15	0.00
J_NC33.1_0088	0.00	2516.61	60.11	0.00
J_NC33.1_0090	19.00	2504.28	77.93	0.00
J_NC33.1_0095	0.00	2504.29	77.94	0.00
J_NC33.1_0100	771.40	2499.94	81.34	0.00
J_NC33.1_0110	0.00	2484.28	88.85	0.00
J_NC33.1_0115	0.00	2484.28	88.65	0.00
J_NC33.1_0130	304.95	2515.88	74.72	0.00
J_NC33.1S-1.6_0010	649.80	2497.45	80.00	0.00
J_NC33.1S-1.6_0015	346.75	2495.07	83.53	0.00
J_NC33.1S-1.6_0020	0.00	2484.98	87.88	0.00
J_NC33.1S_0010	0.00	2536.95	16.71	0.00
J_NC33.1S_0060	146.30	2530.10	18.68	0.00
J_NC33.1S_0070	375.25	2529.98	19.42	0.00
J_NC33.1S_0075	0.00	2527.46	22.49	0.00
J_NC33.1S_0080	190.00	2526.97	22.49	0.00
J_NC33.1S_0090	448.40	2522.18	21.54	0.00
J_NC33.1S_0100	285.00	2522.06	21.68	0.00
J_NC33.1S_0110	95.00	2522.03	21.68	0.00
J_NC33.1S_0111	57.00	2522.00	21.61	0.00
J_NC33.1S_0120	0.00	2521.65	21.46	0.00
J_NC33.1S_0140	482.60	2515.84	74.71	0.00
J_NC35.1-0.1_0010	0.00	2535.82	11.40	0.00
J_NC35.1-0.1_0020	324.90	2532.45	18.57	0.00
J_NC35.1-0.1_0030	0.00	2532.41	18.82	0.00
J_NC35.1-0.7_0010	0.00	2520.56	33.78	0.00
J_NC35.1-0.7_0015	0.00	2515.69	13.81	0.00
J_NC35.1-0.7_0020	0.00	2515.69	13.81	0.00
J_NC35.1-0.7_0040	95.00	2515.66	13.82	0.00
J_NC35.1_0010	0.00	2536.29	5.00	0.00
J_NC35.1_0020	171.00	2535.84	11.61	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC35.1_0030	85.50	2535.83	11.88	0.00
J_NC35.1_0040	285.00	2529.19	26.37	0.00
J_NC35.1_0050	617.50	2521.25	33.49	0.00
J_NC35.1_0060	152.95	2508.09	29.46	0.00
J_NC35.1_0070	199.50	2505.72	42.20	0.00

J_NC35.1_0080	332.50	2503.08	51.98	0.00
J_NC35.1_0090	95.00	2503.05	51.98	0.00
J_NC35.1_0100	0.00	2500.63	75.60	0.00
J_NC35.7_0010	560.50	2531.23	5.00	0.00
J_NC35.7_0020	0.00	2531.23	5.00	0.00
J_NC35.7_0030	311.60	2521.77	16.38	0.00
J_NC35.7_0040	0.00	2521.77	16.38	0.00
J_NC35.7_0050	99.75	2521.79	16.25	0.00
J_NC37.6-0.2_0010	299.25	2524.44	41.29	0.00
J_NC37.6-0.5-0.1_0010	0.00	2518.84	88.39	0.00
J_NC37.6-0.5_0010	0.00	2521.28	73.65	0.00
J_NC37.6-0.5_0020	0.00	2515.95	74.59	0.00
J_NC37.6-0.5_0030	522.50	2515.98	74.77	0.00
J_NC37.6_0080	0.00	2522.06	72.12	0.00
J_NC37.6_0010	0.00	2526.48	5.00	0.00
J_NC37.6_0020	0.00	2526.31	8.81	0.00
J_NC37.6_0030	47.50	2526.18	11.63	0.00
J_NC37.6_0040	0.00	2526.09	11.80	0.00
J_NC37.6_0050	88.35	2525.96	12.72	0.00
J_NC37.6_0055	309.70	2525.93	13.13	0.00
J_NC37.6_0060	313.50	2522.10	70.52	0.00
J_NC37.6_0070	0.00	2522.08	70.03	0.00
J_NC37.6_0090	0.00	2509.09	82.71	0.00
J_NC37.6_0100	684.00	2509.08	83.12	0.00
J_NC37.6_0110	712.50	2505.35	86.71	0.00
J_NC37.6_0120	0.00	2505.28	86.69	0.00
J_NC37.6_0130	351.50	2505.27	86.66	0.00
J_NC37.6_0135	693.50	2500.21	90.16	0.00
J_NC38.7-0.1_0015	0.00	2530.54	8.94	0.00
J_NC38.7-0.1_0020	0.00	2527.12	35.90	0.00
J_NC38.7-0.15_0010	47.50	2528.57	15.71	0.00
J_NC38.7-0.2_0010	0.00	2526.94	34.72	0.00
J_NC38.7-0.2_0020	0.00	2526.92	34.83	0.00
J_NC38.7-0.2_0030	0.00	2526.91	34.77	0.00
J_NC38.7-0.2_0040	57.00	2526.76	36.13	0.00
J_NC38.7-0.8_0010	0.00	2519.47	71.93	0.00
J_NC38.7-1.1_0010	783.75	2511.71	85.86	0.00
J_NC38.7-1.2_0010	57.00	2465.71	83.29	0.00
J_NC38.7-1.2_0020	0.00	2455.06	83.97	0.00
J_NC38.7-1.2_0025	0.00	2455.02	84.68	0.00
J_NC38.7_0010	0.00	2530.70	5.00	0.00
J_NC38.7_0020	95.00	2530.60	6.71	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC38.7_0030	456.00	2530.60	6.61	0.00
J_NC38.7_0040	2109.00	2530.59	6.50	0.00
J_NC38.7_0050	304.00	2530.59	7.00	0.00
J_NC38.7_0060	978.50	2530.56	7.71	0.00
J_NC38.7_0070	2593.50	2530.60	6.47	0.00
J_NC38.7_0080	0.00	2522.79	57.51	0.00
J_NC38.7_0090	0.00	2522.76	57.66	0.00
J_NC38.7_0100	985.15	2474.56	80.00	0.00
J_NC38.7_0110	1476.30	2467.32	83.52	0.00
J_NC38.9-0.7_0010	0.00	2525.31	4.37	0.00
J_NC38.9-0.7_0020	2456.70	2525.30	3.55	0.00
J_NC38.9-0.7_0030	2660.00	2525.19	8.63	0.00
J_NC38.9-1.2_0010	0.00	2524.75	6.97	0.00
J_NC38.9-10.3_0010	0.00	2479.36	11.30	0.00
J_NC38.9-10.3_0020	0.00	2479.37	11.90	0.00
J_NC38.9-10.3_0030	152.00	2479.37	11.90	0.00
J_NC38.9-10.3_0040	0.00	2476.55	18.16	0.00
J_NC38.9-10.3_0050	0.00	2474.29	28.48	0.00
J_NC38.9-2.4-1.6_0010	0.00	2440.70	75.40	0.00
J_NC38.9-2.4-1.6_0020	456.00	2432.72	76.81	0.00
J_NC38.9-2.4-1.6_0030	171.00	2432.72	76.86	0.00
J_NC38.9-2.4-1.6_0040	902.50	2432.71	76.86	0.00
J_NC38.9-2.4_0010	0.00	2523.45	7.10	0.00
J_NC38.9-2.4_0015	741.00	2523.45	6.17	0.00
J_NC38.9-2.4_0020	85.50	2523.45	8.28	0.00
J_NC38.9-2.4_0030	9.50	2520.47	23.93	0.00
J_NC38.9-2.4_0040	57.00	2514.06	48.25	0.00
J_NC38.9-2.4_0048	19.00	2506.48	65.69	0.00
J_NC38.9-2.4_0045	494.00	2514.02	48.15	0.00
J_NC38.9-2.4_0050	0.00	2506.04	65.37	0.00
J_NC38.9-2.4_0060	142.50	2506.01	65.74	0.00
J_NC38.9-2.4_0070	28.50	2504.07	67.66	0.00
J_NC38.9-2.4_0080	133.00	2443.70	67.00	0.00
J_NC38.9-2.4_0090	38.00	2443.69	67.00	0.00
J_NC38.9-2.4_0100	19.00	2443.68	67.14	0.00
J_NC38.9-2.4_0110	76.00	2443.31	71.23	0.00
J_NC38.9-2.4_0120	0.00	2443.25	71.12	0.00
J_NC38.9-2.4_0130	522.50	2439.43	76.79	0.00
J_NC38.9-2.4_0135	111.15	2439.43	76.79	0.00
J_NC38.9-2.4_0137	0.00	2439.43	84.55	0.00
J_NC38.9-3.0-0.5_0010	342.00	2512.54	31.10	0.00
J_NC38.9-3.0-0.5_0020	703.00	2512.52	30.74	0.00
J_NC38.9-3.0-0.5_0030	484.50	2497.55	42.35	0.00
J_NC38.9-3.0-0.5_0040	446.50	2497.56	42.08	0.00
J_NC38.9-3.0_0010	0.00	2522.82	7.31	0.00
J_NC38.9-3.0_0020	722.00	2522.82	8.16	0.00
J_NC38.9-3.0_0030	0.00	2519.44	17.14	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9-3.0_0040	0.00	2517.96	20.64	0.00
J_NC38.9-3.0_0050	646.00	2512.92	29.94	0.00
J_NC38.9-3.8_0010	465.50	2522.31	10.48	0.00
J_NC38.9-3.8_0020	9.50	2522.31	10.54	0.00
J_NC38.9-4.8-0.5_0093	0.00	2475.36	45.00	0.00
J_NC38.9-4.8-0.5-1.3_0020	0.00	2498.90	59.50	0.00
J_NC38.9-4.8_0045	0.00	2517.54	29.85	0.00
J_NC38.9-4.8-0.5_0020	0.00	2517.53	29.71	0.00
J_NC38.9-4.8-0.5_0030	332.50	2517.53	29.71	0.00
J_NC38.9-4.8-0.5_0040	247.00	2514.57	39.93	0.00
J_NC38.9-4.8-0.5_0045	57.00	2512.12	39.22	0.00
J_NC38.9-4.8-0.5_0050	104.50	2511.85	41.42	0.00
J_NC38.9-4.8-0.5_0060	703.00	2511.80	41.35	0.00
J_NC38.9-4.8-0.5_0070	522.50	2504.08	52.92	0.00
J_NC38.9-4.8-0.5_0080	0.00	2503.57	55.18	0.00
J_NC38.9-4.8-0.5_0090	0.00	2503.59	55.28	0.00
J_NC38.9-4.8-0.5_0095	38.00	2472.22	53.64	0.00
J_NC38.9-4.8-0.5_0100	0.00	2470.73	80.18	0.00
J_NC38.9-4.8-0.5_0110	361.00	2470.73	80.15	0.00
J_NC38.9-4.8-0.5_0120	684.00	2463.31	87.08	0.00
J_NC38.9-4.8-0.5_0125	47.50	2463.14	87.73	0.00
J_NC38.9-4.8-0.5_0130	0.00	2463.09	88.08	0.00
J_NC38.9-4.8-2.5_0010	117.80	2443.78	70.00	0.00
J_NC38.9-4.8-2.5_0020	0.00	2442.82	69.64	0.00
J_NC38.9-4.8-2.5_0030	313.50	2442.87	69.70	0.00
J_NC38.9-4.8_0096	1064.00	2509.13	43.18	0.00
J_NC38.9-4.8_0020	0.00	2520.58	16.44	0.00
J_NC38.9-4.8_0030	703.00	2520.57	16.91	0.00
J_NC38.9-4.8_0040	272.65	2519.63	21.53	0.00
J_NC38.9-4.8_0050	47.50	2514.52	32.46	0.00
J_NC38.9-4.8_0060	807.50	2514.50	32.52	0.00
J_NC38.9-4.8_0070	0.00	2514.49	32.56	0.00
J_NC38.9-4.8_0090	399.00	2511.78	37.95	0.00
J_NC38.9-4.8_0093	0.00	2511.01	43.48	0.00
J_NC38.9-4.8_0094	370.50	2509.20	42.78	0.00
J_NC38.9-4.8_0110	294.50	2506.81	42.58	0.00
J_NC38.9-4.8_0120	465.50	2506.34	42.95	0.00
J_NC38.9-4.8_0130	484.50	2494.32	46.08	0.00
J_NC38.9-4.8_0140	209.00	2490.44	82.02	0.00
J_NC38.9-4.8_0150	0.00	2443.78	70.00	0.00
J_NC38.9-4.8_0160	541.50	2439.40	74.96	0.00
J_NC38.9-4.8_0170	0.00	2432.19	77.14	0.00
J_NC38.9-5.3_0010	0.00	2521.23	13.95	0.00
J_NC38.9-6.7_0010	0.00	2520.14	17.51	0.00
J_NC38.9-7.8-0.5_0010	0.00	2501.97	19.49	0.00

J_NC38.9-7.8-0.5_0020	418.00	2495.47	35.35	0.00
J_NC38.9-7.8-0.5_0030	123.50	2495.45	35.42	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9-7.8-0.5_0040	104.50	2494.73	37.29	0.00
J_NC38.9-7.8-0.5_0050	627.00	2494.72	37.66	0.00
J_NC38.9-7.8_0010	0.00	2509.14	14.91	0.00
J_NC38.9-7.8_0020	173.85	2509.00	15.92	0.00
J_NC38.9-7.8_0030	216.60	2508.96	15.99	0.00
J_NC38.9-7.8_0040	0.00	2508.93	16.26	0.00
J_NC38.9-7.8_0045	125.40	2503.41	20.42	0.00
J_NC38.9-7.8_0050	313.50	2502.28	20.08	0.00
J_NC38.9-7.8_0060	201.40	2501.99	19.89	0.00
J_NC38.9-7.9_0010	0.00	2507.64	14.62	0.00
J_NC38.9-7.9_0020	0.00	2507.64	14.62	0.00
J_NC38.9-7.9_0030	712.50	2505.87	21.36	0.00
J_NC38.9-8.5-0.2_0010	95.00	2477.44	20.72	0.00
J_NC38.9-8.5-0.2_0020	9.50	2477.44	20.84	0.00
J_NC38.9-8.5_0010	0.00	2500.87	14.73	0.00
J_NC38.9-8.5_0020	0.00	2496.51	25.50	0.00
J_NC38.9-9.3_0010	0.00	2491.76	13.48	0.00
J_NC38.9-9.3_0020	0.00	2491.77	13.87	0.00
J_NC38.9_0010	0.00	2526.47	5.00	0.00
J_NC38.9_0015	9.50	2526.40	5.14	0.00
J_NC38.9_0020	247.00	2526.30	5.87	0.00
J_NC38.9_0025	28.50	2526.09	5.93	0.00
J_NC38.9_0030	47.50	2525.87	5.96	0.00
J_NC38.9_0035	57.00	2525.65	5.74	0.00
J_NC38.9-0.7_0040	0.00	2524.70	22.01	0.00
J_NC38.9_0040	332.50	2525.65	5.72	0.00
J_NC38.9_0050	90.25	2524.26	7.26	0.00
J_NC38.9_0060	451.25	2523.54	8.21	0.00
J_NC38.9_0070	500.65	2523.42	8.26	0.00
J_NC38.9_0080	439.85	2522.95	9.22	0.00
J_NC38.9_0085	9.50	2522.51	10.42	0.00
J_NC38.9_0090	932.90	2522.30	10.55	0.00
J_NC38.9_0100	0.00	2522.07	11.72	0.00
J_NC38.9_0110	188.10	2521.51	13.46	0.00
J_NC38.9_0120	159.60	2521.04	14.47	0.00
J_NC38.9_0130	810.35	2520.44	16.32	0.00
J_NC38.9_0140	0.00	2520.43	16.38	0.00
J_NC38.9_0150	202.35	2515.40	17.21	0.00
J_NC38.9_0160	0.00	2515.39	17.37	0.00
J_NC38.9_0170	22.80	2509.32	16.61	0.00

J_NC38.9_0180	0.00	2502.25	15.09	0.00
J_NC38.9_0185	522.50	2501.92	15.36	0.00
J_NC38.9_0190	0.00	2500.38	15.16	0.00
J_NC38.9_0200	522.50	2500.40	15.04	0.00
J_NC38.9_0210	114.00	2500.33	14.92	0.00
J_NC38.9_0220	0.00	2488.48	13.45	0.00
J_NC38.9_0230	0.00	2488.48	13.45	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9_0240	0.00	2485.30	13.24	0.00
J_NC38.9_0250	323.00	2481.88	12.58	0.00
J_NC38.9_0260	0.00	2478.29	10.74	0.00
J_NC38.9_0270	0.00	2477.95	11.67	0.00
J_NC38.9_0280	0.00	2474.39	13.86	0.00
J_NC39.8-4.8-0.9_0010	0.00	2512.70	35.75	0.00
J_NC39.8-4.8-0.9_0020	0.00	2512.65	35.65	0.00
J_NC43.2-0.8_0010	0.00	2439.30	5.53	0.00
J_NC43.2-0.8_0030	0.00	2435.13	41.37	0.00
J_NC43.2-0.8_0040	931.95	2433.05	61.63	0.00
J_NC43.2-11.6_0010	0.00	2399.04	13.07	0.00
J_NC43.2-11.6_0015	0.00	2399.03	13.07	0.00
J_NC43.2-11.6_0020	532.00	2398.74	15.03	0.00
J_NC43.2-11.6_0030	152.00	2396.13	20.61	0.00
J_NC43.2-11.6_0040	0.00	2383.95	22.54	0.00
J_NC43.2-12.7_0010	0.00	2393.34	13.61	0.00
J_NC43.2-12.7_0020	712.50	2390.22	21.26	0.00
J_NC43.2-12.7_0030	0.00	2384.47	29.13	0.00
J_NC43.2-12.7_0040	0.00	2381.70	27.94	0.00
J_NC43.2-12.7_0050	1092.50	2382.21	28.37	0.00
J_NC43.2-12.9-0.5_0010	1212.20	2384.49	13.05	0.00
J_NC43.2-12.9-0.5_0015	180.50	2384.53	13.98	0.00
J_NC43.2-12.9-0.5_0020	0.00	2384.25	12.90	0.00
J_NC43.2-12.9-0.5_0030	0.00	2378.85	16.03	0.00
J_NC43.2-12.9-0.5_0040	0.00	2377.28	17.25	0.00
J_NC43.2-12.9-0.5_0050	47.50	2360.77	14.77	0.00
J_NC43.2-12.9-0.5_0060	0.00	2360.73	14.81	0.00
J_NC43.2-12.9_0010	0.00	2391.53	13.60	0.00
J_NC43.2-12.9_0020	123.50	2391.43	14.00	0.00
J_NC43.2-12.9_0040	2118.50	2380.08	15.94	0.00
J_NC43.2-14.4_0010	0.00	2374.46	8.84	0.00
J_NC43.2-14.4_0020	0.00	2370.24	26.67	0.00
J_NC43.2-14.4_0030	984.20	2368.44	26.42	0.00
J_NC43.2-14.4_0040	9.50	2368.22	34.46	0.00
J_NC43.2-14.7_0010	0.00	2371.11	8.02	0.00

J_NC43.2-14.7_0020	0.00	2371.13	8.01	0.00
J_NC43.2-14.7_0030	1007.00	2371.10	8.00	0.00
J_NC43.2-14.7_0040	0.00	2371.11	8.02	0.00
J_NC43.2-14.7_0050	360.05	2366.06	19.44	0.00
J_NC43.2-14.7_0060	541.50	2357.69	17.42	0.00
J_NC43.2-14.7_0070	1434.50	2357.67	17.38	0.00
J_NC43.2-14.7_0080	209.00	2357.67	17.38	0.00
J_NC43.2_0035	187.15	2436.11	8.09	0.00
J_NC43.2-2.1_0010	0.00	2435.52	6.28	0.00
J_NC43.2-3.8_0010	0.00	2430.54	7.61	0.00
J_NC43.2-3.8_0020	0.00	2430.43	9.85	0.00
J_NC43.2-3.8_0030	0.00	2430.40	9.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC43.2-3.8_0040	0.00	2430.38	10.02	0.00
J_NC43.2-3.8_0055	19.00	2417.14	63.71	0.00
J_NC43.2-3.8_0060	772.35	2417.05	62.21	0.00
J_NC43.2-6.1_0010	684.00	2420.33	11.37	0.00
J_NC43.2-6.6_0010	684.00	2418.19	11.51	0.00
J_NC43.2-6.6_0020	415.15	2414.07	45.44	0.00
J_NC43.2-6.6_0040	304.00	2413.88	45.57	0.00
J_NC43.2-7.3_0010	99.75	2415.73	10.91	0.00
J_NC43.2-7.3_0020	427.50	2415.76	11.76	0.00
J_NC43.2-9.4_0010	693.50	2410.07	13.52	0.00
J_NC43.2-9.4_0020	0.00	2410.04	12.41	0.00
J_NC43.2_0010	0.00	2441.79	4.83	0.00
J_NC43.2_0020	0.00	2441.00	6.02	0.00
J_NC43.2_0040	475.00	2433.42	8.91	0.00
J_NC43.2_0044	389.50	2432.76	9.24	0.00
J_NC43.2_0030	31.35	2439.42	6.45	0.00
J_NC43.2_0047	95.00	2432.22	9.41	0.00
J_NC43.2_0050	513.00	2431.50	9.76	0.00
J_NC43.2_0060	0.00	2430.53	9.81	0.00
J_NC43.2_0070	446.50	2430.22	9.88	0.00
J_NC43.2_0100	351.50	2425.07	10.34	0.00
J_NC43.2_0110	351.50	2417.64	11.27	0.00
J_NC43.2_0120	503.50	2417.65	11.26	0.00
J_NC43.2_0130	1216.00	2416.66	11.76	0.00
J_NC43.2_0140	1495.30	2413.95	12.29	0.00
J_NC43.2_0150	560.50	2413.45	12.50	0.00
J_NC43.2_0170	551.00	2409.61	14.26	0.00
J_NC43.2_0175	47.50	2409.61	14.11	0.00
J_NC43.2_0180	114.00	2409.44	14.53	0.00
J_NC43.2_0190	85.50	2409.27	14.98	0.00

J_NC43.2_0200	332.50	2408.01	13.48	0.00
J_NC43.2_0210	237.50	2408.03	13.88	0.00
J_NC43.2_0220	0.00	2408.00	13.33	0.00
J_NC43.2_0230	560.50	2402.61	15.40	0.00
J_NC43.2_0250	646.00	2395.74	15.26	0.00
J_NC43.2_0270	19.00	2393.27	14.74	0.00
J_NC43.2_0280	717.25	2386.15	13.59	0.00
J_NC43.2_0290	432.25	2381.20	12.27	0.00
J_NC43.2_0300	52.25	2379.18	11.79	0.00
J_NC43.2_0310	261.25	2375.73	10.63	0.00
J_NC43.2_0320	1672.95	2373.70	10.06	0.00
J_NC43.2_0340	0.00	2371.31	24.55	0.00
J_NC45.4_0010	0.00	2433.12	5.00	0.00
J_NC45.4_0015	332.50	2432.93	4.84	0.00
J_NC45.4_0020	0.00	2432.92	5.06	0.00
J_NC46.7-0.5-0.2_0010	0.00	2422.56	10.84	0.00
J_NC46.7-0.5-0.2_0020	1028.85	2419.80	10.00	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC46.7-0.5-0.2_0030	0.00	2419.78	9.99	0.00
J_NC46.7-0.5_0010	0.00	2428.16	13.53	0.00
J_NC46.7-0.5_0020	0.00	2427.31	13.45	0.00
J_NC46.7-0.5_0030	76.00	2422.73	10.63	0.00
J_NC46.7-0.5_0040	538.65	2416.72	9.02	0.00
J_NC46.7-0.5_0050	88.35	2411.08	14.51	0.00
J_NC46.7-0.5_0060	351.50	2407.89	22.05	0.00
J_NC46.7-0.5_0070	418.00	2401.28	93.07	0.00
J_NC46.7-1.0_0010	142.50	2420.06	14.66	0.00
J_NC46.7-1.0_0020	1007.00	2420.01	14.67	0.00
J_NC46.7-1.0_0030	456.00	2419.98	14.54	0.00
J_NC46.7-1.0_0040	375.25	2409.55	14.18	0.00
J_NC46.7-1.0_0045	465.50	2409.59	14.18	0.00
J_NC46.7-1.0_0050	413.25	2409.55	14.24	0.00
J_NC46.7-1.0_0060	142.50	2407.66	15.06	0.00
J_NC46.7-1.0_0070	247.00	2397.93	15.47	0.00
J_NC46.7_0010	226.10	2433.57	2.81	0.00
J_NC46.7_0020	38.00	2433.51	6.57	0.00
J_NC46.7_0025	85.50	2433.51	6.57	0.00
J_NC46.7_0030	841.70	2430.13	13.61	0.00
J_NC46.7_0040	0.00	2428.67	13.59	0.00
J_NC46.7_0050	217.55	2428.65	13.75	0.00
J_NC48.3_0010	0.00	2429.17	4.13	0.00
J_NC48.3_0040	56.05	2420.38	12.09	0.00
J_NC48.3_0050	0.00	2420.32	12.16	0.00

J_NC49.2-0.2_0010	0.00	2425.82	4.58	0.00
J_NC49.2-0.2_0020	361.95	2425.75	4.74	0.00
J_NC49.2-0.2_0030	0.00	2425.71	5.69	0.00
J_NC49.2-0.3_0010	42.75	2423.93	7.01	0.00
J_NC49.2-0.3_0020	617.50	2423.93	6.89	0.00
J_NC49.2-0.3_0030	418.00	2423.93	6.89	0.00
J_NC49.2-0.4-0.6_0010	28.50	2413.40	11.78	0.00
J_NC49.2-0.4-0.6_0020	114.00	2409.80	11.32	0.00
J_NC49.2-0.4-0.6_0023	9.50	2409.80	12.03	0.00
J_NC49.2-0.4-0.6_0025	161.50	2409.76	11.39	0.00
J_NC49.2-0.4-0.6_0026	9.50	2409.01	11.66	0.00
J_NC49.2-0.4-0.6_0030	0.00	2407.69	13.64	0.00
J_NC49.2-0.4-0.6_0040	380.95	2406.56	14.45	0.00
J_NC49.2-0.4-0.6_0050	31.35	2401.57	17.75	0.00
J_NC49.2-0.4-0.6_0060	684.00	2401.53	17.66	0.00
J_NC49.2-0.4-0.6_0070	0.00	2398.34	19.47	0.00
J_NC49.2-0.4-0.6_0080	0.00	2398.35	19.49	0.00
J_NC49.2-0.4-0.6_0090	148.20	2398.22	19.58	0.00
J_NC49.2-0.4-0.6_0115	0.00	2398.09	25.33	0.00
J_NC49.2-0.4_0010	209.00	2415.50	13.11	0.00
J_NC49.2-0.4_0020	0.00	2415.49	13.03	0.00
J_NC49.2-0.4_0030	1102.00	2415.50	13.10	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2-0.4_0040	0.00	2415.52	13.11	0.00
J_NC49.2-0.4_0070	0.00	2407.86	20.28	0.00
J_NC49.2-0.9_0010	0.00	2407.78	21.24	0.00
J_NC49.2-0.9_0015	41.80	2407.69	21.20	0.00
J_NC49.2-0.9_0020	558.60	2403.08	17.30	0.00
J_NC49.2-0.9_0030	38.00	2397.16	16.93	0.00
J_NC49.2-0.9_0040	190.00	2393.26	12.76	0.00
J_NC49.2-0.9_0050	47.50	2393.20	12.72	0.00
J_NC49.2-0.9_0055	228.00	2393.19	12.70	0.00
J_NC49.2-0.9_0060	0.00	2393.18	12.69	0.00
J_NC49.2-0.9_0070	57.00	2390.99	12.73	0.00
J_NC49.2-2.3_0010	0.00	2404.70	21.50	0.00
J_NC49.2-2.3_0020	34.20	2393.87	18.33	0.00
J_NC49.2-2.3_0030	0.00	2393.64	17.08	0.00
J_NC49.2-2.9_0010	161.50	2394.64	19.10	0.00
J_NC49.2-2.9_0020	0.00	2394.63	18.71	0.00
J_NC49.2-2.9_0030	47.50	2394.63	18.71	0.00
J_NC49.2-2.9_0040	228.00	2387.94	17.78	0.00
J_NC49.2-2.9_0050	0.00	2387.47	17.54	0.00
J_NC49.2-2.9_0060	256.50	2382.14	17.65	0.00

J_NC49.2-2.9_0070	38.00	2381.91	17.77	0.00
J_NC49.2-2.9_0080	133.00	2381.88	17.92	0.00
J_NC49.2-2.9_0090	545.30	2381.87	17.67	0.00
J_NC49.2-2.9_0100	380.00	2380.78	19.48	0.00
J_NC49.2_0010	0.00	2426.30	3.57	0.00
J_NC49.2_0020	289.75	2426.30	5.00	0.00
J_NC49.2_0030	0.00	2426.15	4.07	0.00
J_NC49.2_0040	156.75	2421.76	12.72	0.00
J_NC49.2_0050	105.45	2420.95	12.76	0.00
J_NC49.2_0055	129.20	2419.57	14.59	0.00
J_NC49.2_0060	102.60	2419.55	14.61	0.00
J_NC49.2_0070	358.15	2418.88	16.67	0.00
J_NC49.2_0080	332.50	2417.55	19.64	0.00
J_NC49.2_0090	323.00	2410.55	23.90	0.00
J_NC49.2_0095	199.50	2410.54	23.83	0.00
J_NC49.2_0100	266.00	2405.75	21.98	0.00
J_NC49.2_0110	19.00	2405.80	22.21	0.00
J_NC49.2_0120	104.50	2405.85	21.69	0.00
J_NC49.2_0130	608.00	2401.48	20.70	0.00
J_NC49.2_0140	0.00	2396.96	18.69	0.00
J_NC49.2_0150	123.50	2395.99	19.50	0.00
J_NC49.2_0160	171.00	2392.92	18.65	0.00
J_NC49.2_0163	9.50	2392.47	19.65	0.00
J_NC49.2_0165	9.50	2391.26	21.50	0.00
J_NC49.2_0170	494.00	2389.32	83.35	0.00
J_NC49.2_0180	275.50	2376.25	80.00	0.00
J_NC49.2_0190	256.50	2372.35	83.53	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2_0200	0.00	2365.80	81.71	0.00
J_NC49.2_0210	0.00	2365.75	81.70	0.00
J_NC49.4-0.4_0010	684.00	2425.19	4.05	0.00
J_NC49.4-0.4_0020	427.50	2425.18	4.22	0.00
J_NC49.4-0.4_0030	403.75	2420.68	10.96	0.00
J_NC49.4_0010	0.00	2426.14	3.17	0.00
J_NC49.4_0020	313.50	2426.04	4.85	0.00
J_NC49.4_0030	665.00	2425.74	4.97	0.00
J_NC49.4_0040	19.00	2423.83	7.54	0.00
J_NC49.4_0050	0.00	2421.14	12.04	0.00
J_NC49.4_0060	342.00	2421.13	11.72	0.00
J_NC49.4_0070	0.00	2418.09	14.48	0.00
J_NC49.4_0080	0.00	2418.09	14.48	0.00
J_NC49.4_0090	501.60	2414.25	18.25	0.00
J_NC5.3-0.3_0010	47.50	2569.87	49.03	0.00

J_NC5.3_0010	0.00	2573.01	8.01	0.00
J_NC5.3_0020	606.10	2572.91	8.62	0.00
J_NC5.3_0030	49.40	2572.80	10.54	0.00
J_NC5.3_0040	1339.50	2566.70	51.75	0.00
J_NC5.3_0050	380.00	2564.32	51.60	0.00
J_NC5.3_0060	1188.45	2468.69	81.20	0.00
J_NC5.3_0070	0.00	2468.69	81.20	0.00
J_NC5.3_0080	276.45	2468.69	81.20	0.00
J_NC50.8_0010	0.00	2422.31	1.36	0.00
J_NC50.8_0020	104.50	2422.22	4.37	0.00
J_NC50.8_0030	204.25	2421.20	4.14	0.00
J_NC50.8_0035	242.25	2421.19	4.19	0.00
J_NC50.8_0040	138.70	2418.07	11.30	0.00
J_NC50.8_0041	141.55	2418.07	11.30	0.00
J_NC50.8_0050	305.90	2411.93	12.82	0.00
J_NC50.8_0060	168.15	2411.92	12.76	0.00
J_NC50.8_0065	235.60	2407.63	11.92	0.00
J_NC50.8_0070	56.05	2407.62	12.15	0.00
J_NC50.8_0080	0.00	2405.60	11.65	0.00
J_NC50.8_0090	304.00	2405.59	11.97	0.00
J_NC50.8_0091	28.50	2405.56	12.09	0.00
J_NC50.8_0100	256.50	2404.24	13.48	0.00
J_NC50.8_0110	57.00	2401.78	18.26	0.00
J_NC50.8_0120	0.00	2401.78	17.89	0.00
J_NC52.5_0010	0.00	2417.98	3.28	0.00
J_NC52.5_0020	0.00	2417.91	3.55	0.00
J_NC52.5_0030	209.00	2417.91	3.54	0.00
J_NC52.5_0040	1691.00	2417.91	3.57	0.00
J_NC52.5_0050	19.00	2415.75	3.48	0.00
J_NC52.5_0059	152.00	2414.72	6.62	0.00
J_NC52.5_0060	0.00	2414.72	6.81	0.00
J_NC53.2-0.4_0010	0.00	2406.15	11.76	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC53.2-0.4_0020	9.50	2395.90	9.78	0.00
J_NC53.2-0.4_0025	0.00	2395.94	9.74	0.00
J_NC53.2-0.4_0040	123.50	2391.91	8.57	0.00
J_NC53.2_0020	0.00	2416.33	3.37	0.00
J_NC53.2_0025	1529.50	2415.94	3.65	0.00
J_NC53.2_0030	0.00	2412.26	11.88	0.00
J_NC53.2_0040	349.60	2402.85	13.23	0.00
J_NC53.2_0050	38.00	2396.75	11.91	0.00
J_NC53.2_0055	9.50	2396.74	11.90	0.00
J_NC53.2_0060	351.50	2396.75	11.91	0.00

J_NC53.2_0070	218.50	2393.74	15.55	0.00
J_NC53.2_0090	275.50	2385.10	17.60	0.00
J_NC53.2_0100	190.95	2381.11	17.83	0.00
J_NC53.2_0110	94.05	2377.25	16.96	0.00
J_NC53.2_0120	275.50	2375.39	15.29	0.00
J_NC53.2_0125	0.00	2375.38	15.67	0.00
J_NC53.2_0130	152.00	2375.39	15.29	0.00
J_NC53.2_0140	0.00	2375.06	22.86	0.00
J_NC54.2-2.8_0010	0.00	2367.47	73.42	0.00
J_NC54.2_0010	0.00	2413.33	0.04	0.00
J_NC54.2_0020	466.45	2413.24	3.80	0.00
J_NC54.2_0030	87.40	2411.38	8.92	0.00
J_NC54.2_0040	582.35	2411.01	8.73	0.00
J_NC54.2_0050	109.25	2407.29	12.47	0.00
J_NC54.2_0060	0.00	2407.25	12.37	0.00
J_NC54.2_0070	478.80	2404.32	12.10	0.00
J_NC54.2_0080	0.00	2404.32	12.33	0.00
J_NC54.2_0090	579.50	2404.26	11.83	0.00
J_NC54.2_0100	291.65	2400.85	14.24	0.00
J_NC54.2_0110	513.00	2400.86	14.24	0.00
J_NC54.2_0120	408.50	2400.85	14.26	0.00
J_NC54.2_0130	128.25	2400.84	14.14	0.00
J_NC54.2_0140	190.00	2394.48	15.94	0.00
J_NC54.2_0150	503.50	2394.48	15.94	0.00
J_NC54.2_0160	103.55	2394.44	15.88	0.00
J_NC54.2_0165	28.50	2391.35	17.34	0.00
J_NC54.2_0168	19.00	2389.22	20.72	0.00
J_NC54.2_0170	418.00	2388.65	20.59	0.00
J_NC54.2_0180	1083.00	2386.71	22.83	0.00
J_NC54.2_0190	19.00	2386.70	22.91	0.00
J_NC54.2_0210	85.50	2374.34	23.74	0.00
J_NC54.2_0220	104.50	2374.26	23.79	0.00
J_NC54.2_0230	123.50	2374.03	23.75	0.00
J_NC54.2_0240	1178.00	2369.91	33.32	0.00
J_NC54.2_0260	0.00	2356.16	72.42	0.00
J_NC54.2_0270	0.00	2356.15	73.13	0.00
J_NC54.2_0280	0.00	2356.13	73.24	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC54.3_0010	0.00	2412.89	2.23	0.00
J_NC54.3_0020	36.10	2412.85	1.20	0.00
J_NC54.3_0030	204.25	2412.74	2.06	0.00
J_NC54.3_0040	1116.25	2409.52	9.96	0.00
J_NC54.3_0050	304.00	2407.35	9.75	0.00

J_NC54.4-0.3_0010	126.35	2411.24	7.62	0.00
J_NC54.4-0.5_0010	1261.60	2409.97	8.43	0.00
J_NC54.4-0.5_0020	122.55	2409.19	8.24	0.00
J_NC54.4-0.5_0025	102.60	2409.40	8.46	0.00
J_NC54.4-0.5_0030	0.00	2409.17	8.33	0.00
J_NC54.4_0010	0.00	2412.52	2.86	0.00
J_NC54.4_0020	722.00	2412.32	3.76	0.00
J_NC54.4_0030	133.00	2407.44	13.56	0.00
J_NC54.4_0050	940.50	2403.60	15.46	0.00
J_NC54.4_0060	228.00	2403.15	15.12	0.00
J_NC54.4_0065	90.25	2403.16	15.17	0.00
J_NC54.4_0070	0.00	2403.14	14.96	0.00
J_NC54.4_0080	206.15	2402.85	15.33	0.00
J_NC54.4_0085	354.35	2398.70	26.30	0.00
J_NC54.4_0090	812.25	2391.37	27.18	0.00
J_NC54.4_0100	589.00	2391.33	27.11	0.00
J_NC54.4_0110	38.00	2388.39	34.70	0.00
J_NC54.4_0120	38.00	2388.39	34.70	0.00
J_NC54.4_0130	142.50	2386.18	74.21	0.00
J_NC54.4_0140	0.00	2386.18	74.21	0.00
J_NC55.5_0005	342.00	2407.03	5.00	0.00
J_NC55.5_0006	0.00	2407.03	4.14	0.00
J_NC55.5_0007	308.75	2405.62	8.85	0.00
J_NC55.6-0.1-0.7_0010	0.00	2397.39	11.14	0.00
J_NC55.6-0.1-0.7_0020	0.00	2396.29	14.83	0.00
J_NC55.6-0.1-0.7_0030	724.85	2394.68	18.14	0.00
J_NC55.6-0.1-0.7_0040	456.00	2394.30	17.76	0.00
J_NC55.6-0.1-0.7_0045	0.00	2394.19	18.64	0.00
J_NC55.6-0.1_0010	0.00	2401.16	14.24	0.00
J_NC55.6-0.1_0020	307.80	2398.04	12.46	0.00
J_NC55.6-0.1_0030	225.15	2392.89	11.43	0.00
J_NC55.6-0.1_0040	146.30	2392.87	11.38	0.00
J_NC55.6-0.1_0050	228.00	2392.83	11.67	0.00
J_NC55.6-0.1_0060	332.50	2392.84	11.35	0.00
J_NC55.6-0.1_0065	0.00	2386.94	16.08	0.00
J_NC55.6-0.1_0070	0.00	2384.15	11.88	0.00
J_NC55.6-0.1_0080	142.50	2384.15	11.81	0.00
J_NC55.6-0.1_0090	57.00	2384.14	11.82	0.00
J_NC55.6-0.1_0100	57.00	2384.14	11.82	0.00
J_NC55.6-0.1_0110	285.00	2384.13	11.72	0.00
J_NC55.6-0.1_0120	28.50	2384.11	11.69	0.00
J_NC55.6-0.1_0130	28.50	2384.10	11.60	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC55.6-0.1_0140	47.50	2384.10	11.68	0.00
J_NC55.6-0.1_0150	0.00	2384.09	11.80	0.00
J_NC55.6-0.1_0155	19.00	2383.94	16.24	0.00
J_NC55.6-0.5-1.8_0010	0.00	2385.32	32.24	0.00
J_NC55.6-0.5-2.6_0010	0.00	2372.47	31.09	0.00
J_NC55.6-0.5-2.6_0020	276.45	2368.37	32.96	0.00
J_NC55.6-0.5-2.6_0030	380.00	2367.68	32.44	0.00
J_NC55.6-0.5-2.6_0040	0.00	2364.37	34.61	0.00
J_NC55.6-0.5-2.6_0050	389.50	2359.46	35.07	0.00
J_NC55.6-0.5-2.6_0060	0.00	2359.42	35.03	0.00
J_NC55.6-0.5-2.6_0070	351.50	2359.39	35.08	0.00
J_NC55.6-0.5_0010	0.00	2399.91	12.28	0.00
J_NC55.6-0.5_0020	41.80	2396.64	17.56	0.00
J_NC55.6-0.5_0030	342.00	2393.65	21.94	0.00
J_NC55.6-0.5_0040	364.80	2393.66	21.76	0.00
J_NC55.6-0.5_0050	0.00	2393.65	21.94	0.00
J_NC55.6-0.5_0060	342.00	2391.08	23.66	0.00
J_NC55.6-0.5_0070	351.50	2390.49	24.21	0.00
J_NC55.6-0.5_0080	133.00	2390.17	24.44	0.00
J_NC55.6-0.5_0090	0.00	2390.16	24.44	0.00
J_NC55.6-0.5_0100	26.60	2384.83	33.16	0.00
J_NC55.6-0.5_0110	0.00	2381.51	34.58	0.00
J_NC55.6-0.5_0130	28.50	2375.48	32.64	0.00
J_NC55.6-0.5_0140	627.00	2375.47	32.67	0.00
J_NC55.6-0.5_0150	275.50	2370.69	33.00	0.00
J_NC55.6-0.5_0155	9.50	2370.65	32.67	0.00
J_NC55.6-0.5_0160	332.50	2370.67	32.98	0.00
J_NC55.6-0.5_0170	437.00	2366.34	37.96	0.00
J_NC55.6-0.5_0180	0.00	2362.26	37.79	0.00
J_NC55.6-0.5_0185	23.75	2362.25	37.79	0.00
J_NC55.6-0.5_0190	304.00	2362.30	36.79	0.00
J_NC55.6-0.5_0200	0.00	2361.56	37.41	0.00
J_NC55.6-0.5_0210	114.00	2361.61	37.62	0.00
J_NC55.6-0.5_0220	0.00	2361.51	36.73	0.00
J_NC55.6-0.5_0230	494.00	2361.52	36.58	0.00
J_NC55.6-2.4_0010	174.80	2385.09	25.15	0.00
J_NC55.6-2.6_0010	283.10	2382.78	25.48	0.00
J_NC55.6-3.3_0010	0.00	2377.87	29.32	0.00
J_NC55.6_0020	722.00	2401.30	9.98	0.00
J_NC55.6_0030	0.00	2398.59	19.55	0.00
J_NC55.6_0035	445.55	2398.60	19.30	0.00
J_NC55.6_0040	1415.50	2398.59	19.55	0.00
J_NC55.6_0050	285.00	2391.75	21.36	0.00
J_NC55.6_0060	85.50	2391.72	21.39	0.00
J_NC55.6_0070	650.75	2387.21	22.54	0.00
J_NC55.6_0080	230.85	2382.78	25.41	0.00
J_NC55.6_0090	223.25	2382.76	24.95	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC55.6_0100	351.50	2382.03	25.52	0.00
J_NC55.6_0110	38.00	2379.92	27.61	0.00
J_NC55.6_0120	128.25	2379.93	27.61	0.00
J_NC55.6_0130	142.50	2379.08	29.81	0.00
J_NC55.6_0140	727.70	2379.00	30.20	0.00
J_NC55.6_0150	703.00	2379.00	30.20	0.00
J_NC55.6_0160	0.00	2373.48	30.83	0.00
J_NC55.6_0170	43.70	2372.32	31.49	0.00
J_NC55.6_0180	212.80	2372.33	31.50	0.00
J_NC55.6_0185	38.00	2369.45	31.87	0.00
J_NC55.6_0187	532.00	2369.31	30.92	0.00
J_NC55.6_0190	85.50	2362.17	30.40	0.00
J_NC55.6_0200	0.00	2360.66	29.90	0.00
J_NC55.6_0210	503.50	2357.75	29.13	0.00
J_NC55.6_0220	494.00	2354.81	28.56	0.00
J_NC55.6_0230	184.30	2348.82	28.43	0.00
J_NC57.4_0010	1434.50	2404.68	7.95	0.00
J_NC57.4_0020	1328.10	2404.66	7.84	0.00
J_NC57.4_0030	495.90	2404.65	7.85	0.00
J_NC57.7_0010	693.50	2403.37	7.84	0.00
J_NC58.0_0010	836.00	2399.52	7.51	0.00
J_NC58.0_0020	1349.00	2399.55	7.62	0.00
J_NC58.7-0.7_0010	617.50	2380.62	23.79	0.00
J_NC58.7-0.7_0020	351.50	2379.91	22.66	0.00
J_NC58.7-0.7_0030	0.00	2379.87	22.60	0.00
J_NC58.7-0.7_0040	32.30	2375.91	21.72	0.00
J_NC58.7-0.7_0050	38.00	2375.90	21.67	0.00
J_NC58.7_0020	731.50	2390.46	11.06	0.00
J_NC58.7_0040	0.00	2377.97	30.16	0.00
J_NC58.8_0010	47.50	2398.91	7.67	0.00
J_NC58.8_0020	114.00	2398.44	7.75	0.00
J_NC58.8_0030	228.00	2397.42	7.68	0.00
J_NC59.5_0010	1938.00	2389.57	5.00	0.00
J_NC59.5_0030	741.00	2376.79	20.03	0.00
J_NC59.5_0040	0.00	2372.56	22.78	0.00
J_NC59.5_0050	342.00	2365.19	28.95	0.00
J_NC59.5_0060	56.05	2365.19	28.95	0.00
J_NC59.5_0070	379.05	2365.19	28.95	0.00
J_NC60.0-0.6_0010	0.00	2383.39	14.80	0.00
J_NC60.0-0.6_0020	370.50	2383.43	16.18	0.00
J_NC60.0-0.6_0030	370.50	2383.27	16.40	0.00
J_NC60.0-0.9_0010	0.00	2380.70	28.84	0.00
J_NC60.0-0.9_0020	374.30	2380.70	28.84	0.00
J_NC60.0-0.9_0030	314.45	2376.53	30.87	0.00
J_NC60.0-0.9_0040	0.00	2376.50	29.55	0.00

J_NC60.0-0.9_0050	741.00	2376.31	30.52	0.00
J_NC60.0-1.6-0.7_0010	0.00	2360.72	30.26	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC60.0-1.6-0.7_0020	380.95	2350.97	31.04	0.00
J_NC60.0-1.6-0.7_0030	427.50	2350.97	30.85	0.00
J_NC60.0-1.6_0010	0.00	2374.04	29.52	0.00
J_NC60.0-1.6_0020	1244.50	2364.32	31.36	0.00
J_NC60.0_0010	0.00	2387.77	6.32	0.00
J_NC60.0_0020	1396.50	2387.59	8.93	0.00
J_NC60.0_0040	366.70	2381.26	25.10	0.00
J_NC60.0_0060	12.35	2375.46	30.46	0.00
J_NC60.0-0.9-0.4_0010	0.00	2372.33	36.04	0.00
J_NC60.0_0065	171.00	2367.77	34.61	0.00
J_NC60.0_0070	0.00	2364.90	34.52	0.00
J_NC60.0_0075	95.00	2364.90	34.52	0.00
J_NC60.0_0080	0.00	2374.08	30.63	0.00
J_NC60.0_0090	1403.15	2366.21	32.99	0.00
J_NC60.0_0100	969.00	2366.17	33.43	0.00
J_NC60.0_0110	0.00	2366.17	33.27	0.00
J_NC60.0_0120	142.50	2366.09	38.95	0.00
J_NC60.0_0130	0.00	2366.09	39.08	0.00
J_NC60.0_0140	171.00	2366.07	59.50	0.00
J_NC60.5_0010	475.00	2393.85	8.18	0.00
J_NC61.1_0010	237.50	2392.43	8.69	0.00
J_NC61.3_0005	1700.50	2387.64	5.00	0.00
J_NC61.3_0010	579.50	2383.56	8.83	0.00
J_NC61.3_0020	0.00	2383.55	8.99	0.00
J_NC61.3_0030	1520.00	2377.76	12.34	0.00
J_NC62.1-0.5_0010	0.00	2369.94	9.09	0.00
J_NC62.1-0.5_0015	306.85	2367.56	9.11	0.00
J_NC62.1-0.5_0020	693.50	2367.08	9.11	0.00
J_NC62.1-0.5_0030	960.45	2358.81	6.52	0.00
J_NC62.1-0.5_0040	162.45	2358.52	6.60	0.00
J_NC62.1_0010	456.00	2379.48	4.60	0.00
J_NC62.1_0020	0.00	2379.42	4.81	0.00
J_NC62.1_0030	541.50	2366.80	7.46	0.00
J_NC62.1_0040	570.00	2366.79	7.76	0.00
J_NC62.1_0050	0.00	2355.03	30.11	0.00
J_NC62.1_0060	608.00	2355.04	29.81	0.00
J_NC62.5_0010	66.50	2389.55	10.27	0.00
J_NC63.3_0010	357.20	2387.72	11.53	0.00
J_NC63.3_0020	779.00	2387.72	11.80	0.00
J_NC63.3_0030	360.05	2387.71	11.74	0.00

J_NC64.0_0010	315.40	2385.21	12.73	0.00
J_NC64.0_0020	218.50	2384.99	12.96	0.00
J_NC64.5_0010	64.60	2383.80	13.75	0.00
J_NC64.5_0020	116.85	2383.79	13.62	0.00
J_NC64.7_0010	247.00	2378.79	12.46	0.00
J_NC64.7_0020	0.00	2378.77	12.11	0.00
J_NC65.5_0010	114.00	2381.76	54.66	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC65.7_0010	114.00	2379.99	54.75	0.00
J_NC65.9_0010	224.20	2378.39	54.25	0.00
J_NC66.2_0010	342.00	2376.13	54.58	0.00
J_NC66.2_0020	237.50	2376.14	54.61	0.00
J_NC66.5_0010	155.80	2373.19	54.36	0.00
J_NC66.7_0010	0.00	2366.68	55.76	0.00
J_NC66.9_0010	165.30	2371.49	54.42	0.00
J_NC67.2_0010	416.10	2369.46	54.31	0.00
J_NC67.4_0010	341.05	2368.61	54.60	0.00
J_NC67.5_0010	181.45	2366.67	55.76	0.00
J_NC68.1_0010	0.00	2365.91	55.97	0.00
J_NC68.2_0010	39.90	2365.47	56.46	0.00
J_NC68.5_0010	598.50	2364.85	56.84	0.00
J_NC68.8_0010	532.00	2364.25	57.53	0.00
J_NC69.2_0010	370.50	2363.99	58.97	0.00
J_NC69.5_0010	171.00	2363.87	59.64	0.00
J_NC69.8_0010	218.50	2363.76	60.65	0.00
J_NC7.3_0010	0.00	2500.48	5.00	0.00
J_NC7.3_0020	659.30	2490.84	27.02	0.00
J_NC7.3_0030	0.00	2480.72	14.25	0.00
J_NC7.3_0040	904.40	2480.74	14.24	0.00
J_NC70.1_0010	294.50	2363.72	61.17	0.00
J_NC70.2_0010	114.00	2363.72	61.54	0.00
J_NC8.5_0010	0.00	2570.50	3.63	0.00
J_NC8.5_0020	299.25	2570.38	8.44	0.00
J_NC8.5_0030	88.35	2569.59	12.79	0.00
J_NC8.5_0040	0.00	2565.44	33.79	0.00
J_NC8.5_0050	0.00	2565.42	34.04	0.00
J_NC8.5_0060	123.50	2562.75	46.64	0.00
J_NC8.5_0070	0.00	2562.34	46.07	0.00
J_NC8.5_0080	966.15	2560.28	47.06	0.00
J_NC8.5_0090	0.00	2558.91	46.38	0.00
J_NC8.5_0100	0.00	2558.91	46.38	0.00
J_NC8.5_0110	350.55	2556.39	71.72	0.00
J_NC8.5_0120	2162.20	2514.10	80.00	0.00

J_NC8.5_0130	0.00	2514.05	80.28	0.00
J_NC8.5_0140	0.00	2507.36	89.80	0.00
J_ON0.1_0004	71.06	2384.88	65.32	0.00
J_ON0.1_0005	138.77	2384.88	65.38	0.00
J_ON0.1_0010	184.09	2384.88	61.48	0.00
J_ON0.1_0020	318.38	2384.88	61.65	0.00
J_ON0.1_0030	170.10	2384.14	64.23	0.00
J_ON0.1_0040	95.68	2383.05	63.23	0.00
J_ON0.2_0010	288.73	2384.88	61.44	0.00
J_ON0.3_0010	307.75	2384.88	60.58	0.00
J_ON0.5_0020	335.73	2384.88	55.89	0.00
J_ON0.7_0010	168.98	2384.79	45.41	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON1.2_0010	165.63	2384.49	45.27	0.00
J_ON1.2_0015	1117.42	2384.49	45.30	0.00
J_ON1.3_0010	149.96	2384.45	45.44	0.00
J_ON1.7_0010	1408.95	2384.17	45.54	0.00
J_ON1.9_0010	378.26	2384.09	45.59	0.00
J_ON10.0_0010	67.71	2375.28	49.14	0.00
J_ON10.6_0010	167.31	2374.69	49.66	0.00
J_ON10.8_0010	223.82	2374.50	49.67	0.00
J_ON10.8_0020	167.86	2374.43	49.61	0.00
J_ON11.0_0010	168.98	2374.30	49.64	0.00
J_ON11.1_0010	0.00	2374.19	50.38	0.00
J_ON11.2_0010	97.92	2374.05	49.75	0.00
J_ON11.6_0010	141.57	2373.67	50.46	0.00
J_ON11.8_0010	223.82	2373.46	50.26	0.00
J_ON11.8_0020	196.96	2373.45	50.33	0.00
J_ON11.8_0030	189.13	2373.43	50.33	0.00
J_ON11.8_0040	107.99	2373.25	50.28	0.00
J_ON12.2_0010	628.37	2372.69	49.95	0.00
J_ON12.5_0010	0.00	2372.17	50.17	0.00
J_ON12.5_0015	214.31	2372.09	50.29	0.00
J_ON12.5_0020	867.30	2372.17	50.14	0.00
J_ON12.6_0010	62.67	2371.97	50.15	0.00
J_ON12.9_0010	94.00	2371.48	50.19	0.00
J_ON13.2_0010	205.35	2371.09	48.99	0.00
J_ON13.2_0020	0.00	2370.91	50.00	0.00
J_ON13.2_0030	218.22	2368.67	59.21	0.00
J_ON13.2_0040	235.01	2368.67	59.21	0.00
J_ON13.3_0010	11.19	2370.98	50.34	0.00
J_ON13.4_0010	37.49	2370.77	50.50	0.00
J_ON13.6_0010	212.63	2370.53	50.52	0.00

J_ON13.7_0010	11.19	2370.27	50.37	0.00
J_ON13.9_0010	0.00	2369.81	49.28	0.00
J_ON13.9_0020	668.10	2364.34	65.67	0.00
J_ON14.0_0010	209.27	2369.62	50.53	0.00
J_ON14.3_0005	438.13	2368.91	50.41	0.00
J_ON14.3_0010	137.65	2368.89	50.41	0.00
J_ON14.6_0010	434.77	2368.15	50.18	0.00
J_ON14.7_0010	0.00	2368.07	50.65	0.00
J_ON14.7_0020	179.06	2368.07	50.55	0.00
J_ON15.0_0010	411.83	2367.49	50.61	0.00
J_ON15.3_0010	102.96	2367.03	50.35	0.00
J_ON15.5_0010	298.24	2366.65	50.67	0.00
J_ON15.6_0010	127.02	2366.37	50.37	0.00
J_ON16.0_0010	151.08	2365.46	50.02	0.00
J_ON16.0_0020	369.30	2365.45	50.09	0.00
J_ON16.2_0030	414.07	2365.39	49.95	0.00
J_ON16.4_0010	9.50	2364.41	50.21	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON16.4_0020	9.50	2364.31	50.44	0.00
J_ON16.8_0005	872.90	2363.54	50.07	0.00
J_ON16.8_0010	632.29	2363.49	50.21	0.00
J_ON17.2_0010	297.12	2362.94	50.44	0.00
J_ON17.6_0010	1275.77	2361.76	50.14	0.00
J_ON17.6_0020	212.07	2361.73	50.27	0.00
J_ON17.7_0010	100.72	2361.22	50.18	0.00
J_ON17.9_0020	130.38	2360.24	47.81	0.00
J_ON17.9_0030	205.91	2358.89	55.86	0.00
J_ON17.9_0040	0.00	2357.47	58.21	0.00
J_ON17.9_0050	212.63	2357.48	57.96	0.00
J_ON18.1_0010	132.61	2359.66	49.60	0.00
J_ON18.2_0010	0.00	2356.67	56.10	0.00
J_ON18.2_0015	205.91	2359.25	47.37	0.00
J_ON18.6_0010	358.11	2357.66	49.35	0.00
J_ON18.8_0010	995.44	2357.16	49.11	0.00
J_ON18.8_0020	27.42	2357.16	49.11	0.00
J_ON19.2_0010	311.67	2354.62	48.36	0.00
J_ON19.3_0010	0.00	2353.86	48.22	0.00
J_ON19.4_0010	107.99	2353.13	47.89	0.00
J_ON19.4_0020	0.00	2353.03	46.34	0.00
J_ON19.4_0025	57.07	2353.02	47.90	0.00
J_ON19.4_0030	212.63	2352.13	47.93	0.00
J_ON19.4_0040	352.52	2348.61	52.08	0.00
J_ON19.7_0010	212.63	2351.22	47.26	0.00

J_ON19.8_0010	0.00	2350.25	47.05	0.00
J_ON19.9_0020	0.00	2347.36	56.32	0.00
J_ON2.2_0010	208.15	2383.91	45.95	0.00
J_ON2.4_0010	0.00	2383.79	46.57	0.00
J_ON2.4_0020	0.00	2383.79	46.57	0.00
J_ON2.5_0010	151.08	2383.76	46.51	0.00
J_ON2.6_0010	16.79	2383.71	46.57	0.00
J_ON2.6_0020	336.85	2383.71	46.49	0.00
J_ON2.6_0030	0.00	2383.71	46.55	0.00
J_ON2.6_0040	330.69	2383.71	46.72	0.00
J_ON2.6_0050	767.70	2383.71	46.74	0.00
J_ON2.9_0010	0.00	2383.65	46.79	0.00
J_ON20.1_0010	162.27	2347.29	47.24	0.00
J_ON20.1_0020	0.00	2347.29	47.24	0.00
J_ON3.3_0010	516.46	2383.50	47.07	0.00
J_ON3.7_0010	259.63	2383.37	47.66	0.00
J_ON3.8_0010	175.14	2383.24	47.55	0.00
J_ON4.0_0010	135.97	2382.82	47.56	0.00
J_ON4.0_0020	477.30	2382.80	47.55	0.00
J_ON4.3_0010	304.40	2382.41	47.44	0.00
J_ON4.4_0005	0.00	2382.37	47.48	0.00
J_ON4.4_0010	167.86	2382.36	47.49	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON4.5_0010	256.27	2382.07	47.41	0.00
J_ON4.5_0020	107.43	2382.07	47.38	0.00
J_ON4.7_0010	72.74	2381.74	47.19	0.00
J_ON5.0_0010	236.13	2381.26	47.51	0.00
J_ON5.3_0010	195.84	2380.89	47.62	0.00
J_ON5.5_0010	292.09	2380.64	47.58	0.00
J_ON5.6_0005	458.83	2380.56	47.64	0.00
J_ON5.6_0010	71.06	2380.56	47.61	0.00
J_ON5.6_0020	243.96	2380.48	47.59	0.00
J_ON6.3_0010	22.38	2379.64	47.41	0.00
J_ON6.4_0010	91.77	2379.45	47.57	0.00
J_ON6.7_0005	0.00	2379.19	47.57	0.00
J_ON6.7_0010	279.77	2379.11	48.28	0.00
J_ON7.4_0005	39.17	2378.40	48.08	0.00
J_ON7.4_0010	190.25	2378.24	48.03	0.00
J_ON7.9_0010	33.57	2377.69	48.35	0.00
J_ON8.1_0010	363.71	2377.40	48.49	0.00
J_ON8.4_0010	20.14	2377.07	48.26	0.00
J_ON8.6_0010	279.77	2376.76	48.12	0.00
J_ON8.8_0010	156.11	2376.57	48.13	0.00

J_ON9.5_0010	44.76	2375.86	48.82	0.00
J_ON9.7_0010	84.49	2375.65	48.82	0.00
J_ON9.8_0020	16.15	2375.52	49.05	0.00
J_SA0.0_0000	0.00	2247.58	26.87	0.00
J_SA0.0_0010	6.65	2247.57	26.86	0.00
J_SA0.1_0010	28.50	2247.10	20.73	0.00
J_SA0.2_0010	37.05	2246.47	20.60	0.00
J_SA0.3_0010	38.95	2245.96	20.75	0.00
J_SA0.3_0020	71.25	2245.94	20.94	0.00
J_SA0.3_0030	7.60	2245.93	19.65	0.00
J_SA0.5_0010	0.00	2245.26	20.26	0.00
J_SA0.7_0010	39.90	2244.65	20.45	0.00
J_SA0.7_0020	3.80	2244.64	20.75	0.00
J_SA0.8_0010	74.10	2244.37	20.45	0.00
J_SA0.9_0010	276.45	2244.08	19.44	0.00
J_SA0.9_0020	62.70	2243.96	20.61	0.00
J_SA1.0_0010	95.00	2243.64	20.91	0.00
J_SA1.0_0020	19.95	2243.62	20.56	0.00
J_SA1.1_0010	33.25	2243.20	20.74	0.00
J_SA1.2_0010	10.45	2243.04	20.73	0.00
J_SA1.2_0020	54.15	2243.03	20.57	0.00
J_SA1.3_0010	19.00	2242.79	20.90	0.00
J_SA1.3_0020	186.20	2242.78	21.01	0.00
J_SA1.3_0030	149.15	2242.75	20.92	0.00
J_SA1.5_0010	49.40	2242.71	20.26	0.00
J_SA1.5_0020	142.50	2242.71	23.32	0.00
J_SA1.7_0005	39.90	2242.78	21.68	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_SA1.7_0006	151.05	2242.79	21.04	0.00
J_SA1.7_0007	72.20	2242.87	20.79	0.00
J_SA1.7_0010	85.50	2242.88	20.79	0.00
J_SA1.8_0010	25.65	2244.14	21.93	0.00
J_SA1.9_0010	5.70	2246.01	23.17	0.00
J_SA2.3_0010	0.00	2253.39	27.07	0.00
J_SA2.5_0010	0.00	2256.52	31.63	0.00
J_ML_0190	0.00	2264.88	32.59	0.00
J_CL_0190	0.00	2244.33	39.09	0.00
J_CL_0180	0.00	2246.47	40.17	0.00
J_CL1.84_0035	0.00	2235.15	36.61	0.00
J_HL_0060	0.00	2271.60	22.97	0.00
J_HL_0110	0.00	2264.52	21.37	0.00
J_HL_0130	0.00	2262.83	20.91	0.00
J_HL_0570	0.00	2199.87	8.23	0.00

J_HL_0150	0.00	2261.48	21.08	0.00
J_HL_0300	0.00	2251.49	21.49	0.00
J_HL5.5_0037	0.00	2239.66	27.04	0.00
J_HL_0380	0.00	2242.43	20.26	0.00
J_HL7.2_0110	0.00	2231.96	20.49	0.00
J_HL_0490	0.00	2222.52	14.60	0.00
J_HL9.4_0075	0.00	2202.90	15.16	0.00
J_KL_0107	0.00	2555.43	15.76	0.00
J_KL5.4_0022	0.00	2553.14	23.84	0.00
J_KL5.4-0.5_0063	0.00	2541.16	22.04	0.00
J_KL5.4-0.5_0065	0.00	2539.90	21.82	0.00
J_KL5.4-0.8_0135	0.00	2470.38	86.68	0.00
J_KL5.4-0.8_0113	0.00	2472.91	83.92	0.00
J_KL5.4-0.8-2.2_0015	0.00	2468.54	77.26	0.00
J_KL5.4_0065	0.00	2444.17	45.33	0.00
J_KL5.4_0075	0.00	2442.73	52.44	0.00
J_KL5.4_0095	0.00	2438.66	57.21	0.00
J_KL5.4-3.0_0045	0.00	2436.08	65.88	0.00
J_KL5.4_0109	0.00	2436.86	56.57	0.00
J_KL_0135	0.00	2553.09	16.01	0.00
J_KL_0195	0.00	2549.33	16.75	0.00
J_KL7.6-9.3N_0057	0.00	2352.53	53.37	0.00
J_KL7.6-9.3N_0058	0.00	2352.12	53.91	0.00
J_KL9.3_0070	0.00	2358.21	44.09	0.00
J_KL_0225	0.00	2548.05	60.78	0.00
J_KL9.3_0095	0.00	2345.59	41.63	0.00
J_LL_0185	0.00	2233.94	39.16	0.00
J_LL_0205	0.00	2228.43	37.06	0.00
J_LL_0075	0.00	2264.53	44.62	0.00
J_MB_0030	0.00	2568.36	11.84	0.00
J_MB_0400	0.00	2385.43	45.69	0.00
J_MB_0170	0.00	2398.45	40.53	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB_0180	0.00	2397.03	40.86	0.00
J_MB_0210	0.00	2395.15	41.77	0.00
J_MB_0220	0.00	2393.79	41.48	0.00
J_MB7.5_0117	0.00	2379.51	52.11	0.00
J_MB_0320	0.00	2389.93	42.76	0.00
J_MB7.5_0035	0.00	2389.80	42.51	0.00
J_MB8.5_0100	1091.55	2363.49	56.27	0.00
J_MB9.1_0067	0.00	2373.19	47.44	0.00
J_MB_0340	0.00	2386.89	42.76	0.00
J_MB9.4_0070	355.30	2369.83	61.24	0.00

J_ML0.2_0015	0.00	2269.26	34.09	0.00
J_ML_0130	0.00	2266.51	32.94	0.00
J_ML_0280	0.00	2260.63	30.63	0.00
J_ML_0400	0.00	2243.89	24.42	0.00
J_ML_0410	0.00	2235.59	21.94	0.00
J_ML4.1_0002	0.00	2234.63	21.36	0.00
J_NA_0100	48.45	2257.09	35.70	0.00
J_NA0.4_0030	174.80	2261.64	37.03	0.00
J_NA_0090	0.00	2261.16	32.84	0.00
J_NC10.5_0032	0.00	2558.68	46.94	0.00
J_NC10.5_0085	0.00	2546.85	82.34	0.00
J_NC14.5_0023	0.00	2560.81	8.61	0.00
J_NC14.5-1.5_0045	0.00	2547.49	22.20	0.00
J_NC14.5_0065	0.00	2555.31	23.93	0.00
J_NC14.5_0155	0.00	2544.23	36.89	0.00
J_NC14.5_0217	0.00	2533.43	61.45	0.00
J_NC22.8_0015	0.00	2548.96	4.37	0.00
J_NC24.1_0025	0.00	2552.28	6.62	0.00
J_NC25.4_0056	0.00	2545.36	20.00	0.00
J_NC25.4_0057	0.00	2545.35	19.87	0.00
J_NC54.2_0095	0.00	2403.24	14.82	0.00
J_NC25.4-1.6_0055	0.00	2530.45	49.68	0.00
J_NC25.4_0075	0.00	2540.81	37.50	0.00
J_NC25.4-1.8_0127	0.00	2505.67	66.99	0.00
J_NC25.4_0082	0.00	2539.71	41.39	0.00
J_NC25.4-1.8_0045	0.00	2532.49	51.30	0.00
J_NC25.4-1.8_0125	0.00	2513.97	67.18	0.00
J_NC25.4_0127	0.00	2524.96	62.59	0.00
J_NC25.4_0170	0.00	2495.25	64.68	0.00
J_NC25.4_0160	0.00	2502.54	66.22	0.00
J_NC27.8_0055	0.00	2523.82	25.73	0.00
J_NC28.7-1.0_0015	0.00	2533.92	32.56	0.00
J_NC28.7-1.0-0.1_0047	0.00	2507.73	39.55	0.00
J_NC28.7_0105	0.00	2515.98	45.04	0.00
J_NC28.7_0122	0.00	2511.38	58.57	0.00
J_NC28.7-2.8_0015	0.00	2508.71	68.59	0.00
J_NC31.0_0135	0.00	2520.85	45.26	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC32.2_0015	0.00	2533.72	4.65	0.00
J_NC32.2_0107	0.00	2502.18	63.45	0.00
J_NC33.1_0055	0.00	2536.96	16.55	0.00
J_NC35.1_0025	0.00	2535.84	11.86	0.00
J_NC37.6-0.5_0040	617.50	2515.73	74.76	0.00

J_NC37.6-0.5_0005	0.00	2521.29	73.66	0.00
J_NC38.7-0.1_0017	0.00	2527.12	24.21	0.00
J_NC38.7_0095	0.00	2519.47	71.97	0.00
J_NC38.7_0120	0.00	2465.76	84.36	0.00
J_NC38.9_0043	0.00	2525.32	5.87	0.00
J_NC38.9_0255	0.00	2479.38	12.06	0.00
J_NC38.9_0063	0.00	2523.46	8.10	0.00
J_NC38.9-2.4_0127	0.00	2440.76	76.00	0.00
J_NC38.9_0082	0.00	2522.85	9.05	0.00
J_NC38.9_0105	0.00	2521.74	13.14	0.00
J_NC38.9-4.8-0.5_0075	0.00	2503.61	54.91	0.00
J_NC38.9-4.8-2.5_0015	0.00	2443.70	68.81	0.00
J_NC38.9_0173	0.00	2509.19	16.07	0.00
J_NC38.9_0175	0.00	2507.67	15.74	0.00
J_NC38.9_0187	0.00	2500.93	14.84	0.00
J_NC38.9-8.5_0013	0.00	2499.11	20.22	0.00
J_NC43.2_0032	0.00	2439.37	6.39	0.00
J_NC43.2_0195	0.00	2408.09	15.49	0.00
J_NC43.2_0225	0.00	2408.07	15.44	0.00
J_NC43.2_0240	0.00	2399.05	15.23	0.00
J_NC43.2_0260	0.00	2393.38	14.68	0.00
J_NC43.2_0275	0.00	2391.55	14.63	0.00
J_NC43.2-12.9_0030	0.00	2384.55	14.63	0.00
J_NC43.2_0315	0.00	2374.48	9.90	0.00
J_NC43.2_0325	0.00	2371.38	9.34	0.00
J_NC43.2_0037	0.00	2435.52	7.87	0.00
J_NC43.2_0055	0.00	2430.56	10.30	0.00
J_NC43.2-3.8_0025	0.00	2430.42	10.04	0.00
J_NC43.2_0135	0.00	2415.77	12.15	0.00
J_NC43.2-9.4_0030	437.00	2403.87	47.07	0.00
J_NC45.4_0040	1102.00	2338.18	60.00	0.00
J_NC43.2_0108	0.00	2418.16	11.62	0.00
J_NC46.7_0060	0.00	2428.21	15.18	0.00
J_NC46.7-0.5_0035	0.00	2422.68	11.68	0.00
J_NC49.2_0127	0.00	2404.71	21.50	0.00
J_NC49.2_0037	0.00	2425.84	5.62	0.00
J_NC49.2_0027	0.00	2426.17	5.77	0.00
J_NC49.2_0039	0.00	2424.49	12.80	0.00
J_NC49.2-0.4_0005	0.00	2417.28	13.72	0.00
J_NC49.2_0065	0.00	2419.51	16.27	0.00
J_NC49.2_0155	0.00	2394.65	19.17	0.00
J_NC49.4_0037	0.00	2425.21	3.89	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC5.3_0055	0.00	2469.81	82.00	0.00
J_NC5.3_0035	0.00	2569.88	49.37	0.00
J_NC53.2_0035	0.00	2409.18	14.29	0.00
J_NC54.2-2.8_0020	47.50	2359.43	65.95	0.00
J_NC54.2_0290	0.00	2356.09	73.37	0.00
J_NC_1140	0.00	2409.17	7.65	0.00
J_NC55.5_0023	0.00	2397.41	12.19	0.00
J_NC_1160	0.00	2408.82	7.74	0.00
J_NC55.6_0022	0.00	2399.94	13.41	0.00
J_NC55.6-0.5_0097	0.00	2385.32	33.32	0.00
J_NC55.6-0.5_0145	0.00	2372.50	31.87	0.00
J_NC55.6_0155	0.00	2377.87	29.84	0.00
J_NC_1270	0.00	2398.98	7.42	0.00
J_NC58.7_0026	0.00	2380.64	24.12	0.00
J_NC_1330	0.00	2396.26	7.82	0.00
J_NC_1340	0.00	2394.90	7.93	0.00
J_NC60.0-0.9_0025	0.00	2376.55	31.36	0.00
J_NC60.0-0.9_0057	0.00	2372.42	36.03	0.00
J_NC_1390	0.00	2392.01	8.71	0.00
J_NC_1400	0.00	2390.35	9.53	0.00
J_NC62.1_0025	0.00	2369.96	9.57	0.00
J_NC_1500	0.00	2383.15	14.13	0.00
J_ON_0860	0.00	2371.09	50.04	0.00
J_ON_0900	0.00	2369.82	50.20	0.00
J_ON_1110	0.00	2360.25	49.92	0.00
J_ON_1130	0.00	2359.29	48.86	0.00
J_ON_1190	0.00	2353.13	47.97	0.00
J_SA_0100	0.00	2244.64	21.72	0.00
J_SA_0340	0.00	2256.52	31.70	0.00
J_SA_0330	0.00	2253.39	27.18	0.00
J_SA2.5_0020	10.45	2256.41	31.86	0.00
J_CL1.84-0.55_0070	598.72	2215.94	37.96	0.00
J_HL_0650	626.70	2160.87	33.03	0.00
J_HL2.5_0025	486.81	2252.50	24.90	0.00
J_HL2.9_0050	162.27	2258.54	19.74	0.00
J_HL6.4_0030	27.98	2247.19	-2.60	0.00
J_HL5.5_0110	0.00	2225.34	21.84	0.00
J_HL7.2E_0170	145.48	2182.03	8.03	0.00
J_HL7.2M_0100	259.63	2189.26	10.82	0.00
J_HL7.2W_0100	674.26	2188.71	10.65	0.00
J_HL9.4_0125	299.36	2196.85	16.93	0.00
J_KL_0230	0.00	2546.68	63.34	0.00
J_KL_0300	0.00	2357.55	15.12	0.00
J_KL5.4-0.5_0100	0.00	2531.70	18.95	0.00
J_KL5.4-0.5-1.3_0040	0.00	2539.79	27.66	0.00
J_KL5.4-0.5-1.4_0030	494.00	2530.24	52.87	0.00
J_KL5.4-2.0_0030	329.65	2434.24	46.77	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4-2.3_0020	750.50	2438.16	51.21	0.00
J_KL5.4-3.0-0.3_0040	646.00	2422.60	75.57	0.00
J_KL5.4-3.2_0040	0.00	2434.84	55.38	0.00
J_KL7.4_0100	1881.00	2529.83	56.94	0.00
J_KL7.6-9.3-0.1_0010	332.50	2351.04	56.86	0.00
J_KL7.6-9.3-0.2_0010	0.00	2352.12	54.91	0.00
J_KP0.1_0010	332.50	2344.65	56.40	0.00
J_LL0.6_0010	0.00	2264.53	54.75	0.00
J_ON_0090	0.00	2384.89	46.01	0.00
J_MB11.0_0060	0.00	2384.06	60.59	0.00
J_MB4.2_0040	234.65	2397.65	40.13	0.00
J_MB5.4_0040	864.50	2388.26	46.89	0.00
J_MB6.0_0130	209.00	2360.33	52.60	0.00
J_MB7.5_0113	0.00	2379.96	50.69	0.00
J_MB7.5-0.1_0010	351.50	2386.30	45.99	0.00
J_MB_0330	0.00	2388.17	42.38	0.00
J_MB9.1-0.9_0040	351.50	2370.00	48.98	0.00
J_MB_0350	0.00	2386.56	42.54	0.00
J_ML2.0_0025	487.37	2251.79	33.09	0.00
J_ML3.1_0160	0.00	2204.96	23.59	0.00
J_NA0.2E_0020	25.65	2269.83	36.76	0.00
J_NA1.0_0010	0.00	2261.16	31.88	0.00
J_HL_0520	0.00	2214.09	12.79	0.00
J_NC10.5-0.3_0010	0.00	2558.68	47.30	0.00
J_NC10.5-0.9_0110	474.05	2537.33	82.79	0.00
J_NC12.4P_0150	0.00	2535.89	92.94	0.00
J_NC13.6_0185	636.50	2502.11	95.00	0.00
J_NC14.5-0.2_0030	0.00	2560.67	7.28	0.00
J_NC14.5-1.5-0.5_0020	0.00	2547.49	24.45	0.00
J_NC14.5-1.5_0070	41.80	2547.12	28.66	0.00
J_NC14.5-3.0_0020	0.00	2544.23	61.43	0.00
J_NC14.5-4.2_0010	0.00	2533.43	68.86	0.00
J_NC18.6_0030	0.00	2552.49	5.10	0.00
J_NC19.9_0020	1618.80	2552.06	7.10	0.00
J_NC20.3_0050	2299.00	2548.67	29.67	0.00
J_NC22.8_0200	678.30	2524.48	81.37	0.00
J_NC22.8-0.1_0022	1007.00	2543.51	37.03	0.00
J_NC25.4-0.3_0020	0.00	2545.36	22.08	0.00
J_NC25.4-0.4_0010	0.00	2545.35	21.21	0.00
J_NC54.2-0.7_0010	0.00	2403.24	16.21	0.00
J_NC25.4-1.6_0120	874.00	2518.11	64.77	0.00
J_NC25.4-1.8_0165	874.00	2501.85	74.55	0.00
J_NC25.4-1.8-1.0_0090	0.00	2519.55	69.48	0.00
J_NC25.4-3.3_0060	0.00	2504.01	94.71	0.00
J_NC25.4_0190	674.50	2490.96	65.01	0.00

J_NC27.8_0110	437.95	2506.10	45.74	0.00
J_NC27.8-0.9_0030	73.15	2522.39	29.61	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC28.7-1.0-0.1_0045	0.00	2515.38	40.85	0.00
J_NC28.7-2.0_0060	1616.90	2518.05	55.63	0.00
J_NC28.7-2.8_0030	36.10	2508.65	68.49	0.00
J_NC28.7-2.8-0.4_0010	0.00	2508.71	91.22	0.00
J_NC31.0_0190	332.50	2502.95	73.95	0.00
J_NC31.0-1.9_0050	0.00	2511.98	51.61	0.00
J_NC31.0-2.5_0030	275.50	2505.26	57.54	0.00
J_NC31.5_0100	216.60	2512.25	46.26	0.00
J_NC32.2_0160	0.00	2487.73	72.70	0.00
J_NC21.2-0.1_0030	0.00	2533.72	4.47	0.00
J_NC32.2-1.7_0030	0.00	2500.08	64.08	0.00
J_NC33.1-1.8_0010	256.50	2481.45	91.62	0.00
J_NC33.1S_0180	570.00	2479.39	91.04	0.00
J_ON_0830	0.00	2371.71	50.44	0.00
J_NC35.1-0.1_0040	788.50	2532.00	19.42	0.00
J_NC35.7_0060	0.00	2521.77	16.38	0.00
J_NC35.1_0110	332.50	2498.12	82.15	0.00
J_NC37.6-0.5-0.1_0020	328.70	2518.03	91.14	0.00
J_NC38.7-0.1-0.2_0010	693.50	2522.50	79.30	0.00
J_NC38.7-0.8_0020	0.00	2519.47	104.66	0.00
J_NC38.7-1.2_0035	247.00	2455.02	84.68	0.00
J_NC38.9_0290	988.00	2469.28	13.95	0.00
J_NC38.9-0.7_0050	38.00	2523.12	46.77	0.00
J_NC38.9-10.3_0060	1672.95	2473.81	32.81	0.00
J_NC38.9-2.4-1.5_0010	0.00	2443.66	69.16	0.00
J_NC38.9-4.8_0180	522.50	2431.99	77.55	0.00
J_NC38.9-4.8-0.5_0140	674.50	2463.08	88.20	0.00
J_NC38.9-4.8-0.5-1.2_0030	541.50	2496.32	53.31	0.00
J_NC38.9-4.8-0.5-1.3_0025	237.50	2465.01	81.13	0.00
J_NC38.9-4.8-2.5_0040	256.50	2442.71	69.26	0.00
J_NC38.9-4.8-2.5-0.0_0010	0.00	2443.70	93.77	0.00
J_NC38.9-8.5_0030	826.50	2488.77	32.86	0.00
J_NC43.2_0350	4.00	2371.27	36.95	0.00
J_NC43.2-10.3_0040	579.50	2404.91	20.16	0.00
J_NC43.2-10.4_0010	0.00	2408.07	29.85	0.00
J_NC43.2-11.6_0060	237.50	2378.18	36.38	0.00
J_NC43.2-12.7_0060	332.50	2381.62	28.13	0.00
J_NC43.2-12.9_0050	0.00	2380.08	18.62	0.00
J_NC43.2-12.9-0.5_0070	76.00	2355.19	23.91	0.00
J_NC43.2-14.7_0090	0.00	2357.67	17.42	0.00

J_NC43.2-2.1_0020	0.00	2435.52	30.58	0.00
J_NC43.2-3.8-0.0_0010	1444.00	2423.54	46.59	0.00
J_NC43.2-7.3_0030	0.00	2415.73	30.07	0.00
J_NC43.2_0160	0.00	2410.12	13.88	0.00
J_NC45.4-0.5_0010	0.00	2338.18	60.72	0.00
J_NC45.4_0050	0.00	2338.18	61.39	0.00
J_NC43.2-6.6_0050	0.00	2413.88	45.93	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC46.7-0.5-0.2_0050	123.50	2379.73	78.28	0.00
J_NC48.3_0070	180.50	2412.21	41.85	0.00
J_NC49.2_0220	418.00	2363.54	81.81	0.00
J_NC49.2-0.2_0040	128.25	2423.48	5.79	0.00
J_NC49.2-0.4_0080	722.95	2406.47	22.28	0.00
J_NC49.2-0.4-0.6_0125	9.50	2398.09	25.80	0.00
J_NC49.2-0.9_0080	0.00	2390.99	12.79	0.00
J_NC49.2-2.3_0040	589.00	2381.05	15.69	0.00
J_NC49.4_0100	0.00	2414.25	18.69	0.00
J_NC49.4-0.4_0040	0.00	2420.68	10.96	0.00
J_NC5.3-1.4_0010	0.00	2469.81	94.52	0.00
J_NC5.3-0.3_0020	0.00	2569.87	54.97	0.00
J_NC50.8_0130	0.00	2401.78	18.41	0.00
J_NC52.5_0070	0.00	2414.72	6.50	0.00
J_NC53.2_0150	19.00	2374.69	29.51	0.00
J_NC53.2-0.4_0050	0.00	2391.91	8.51	0.00
J_NC54.2_0300	0.00	2356.09	73.45	0.00
J_NC54.2-3.4_0010	190.00	2345.31	89.22	0.00
J_NC54.4_0150	0.00	2386.18	73.91	0.00
J_NC55.6-0.1-0.7_0055	85.50	2393.10	19.58	0.00
J_NC55.6-0.5_0250	142.50	2359.29	40.54	0.00
J_NC55.6-0.5-1.8_0020	0.00	2385.32	36.15	0.00
J_NC55.6-3.3_0020	51.30	2375.87	33.32	0.00
J_NC58.7_0050	209.00	2374.85	32.54	0.00
J_HL_0120	0.00	2263.45	20.92	0.00
J_NC60.0-0.6_0040	1444.00	2377.86	18.73	0.00
J_NC60.0-0.9_0080	423.70	2362.56	36.41	0.00
J_NC60.0-0.9-0.2_0030	598.50	2368.32	31.34	0.00
J_NC60.0-0.9-0.4_0020	526.30	2363.34	36.30	0.00
J_NC60.0-1.6-0.7_0050	1111.50	2357.39	29.92	0.00
J_NC62.1_0070	274.55	2346.67	30.02	0.00
J_NC62.1-0.5_0050	0.00	2358.52	6.14	0.00
J_NC64.7_0030	902.50	2376.56	12.93	0.00
J_NC7.3_0050	483.55	2455.36	83.10	0.00
J_NC8.5_0150	275.50	2504.68	93.71	0.00

J_ON_1270	833.73	2342.98	59.16	0.00
J_ON13.2_0050	0.00	2368.67	59.21	0.00
J_ON17.9_0060	391.68	2357.45	58.49	0.00
J_ON18.2_0020	665.86	2356.60	55.83	0.00
J_ON_1260	0.00	2347.34	56.31	0.00
J_SA_0060	0.00	2245.93	21.06	0.00
J_SA0.5_0020	24.70	2244.82	23.54	0.00
J_SA2.3_0020	22.80	2252.26	29.02	0.00
J_NC38.9-4.8_0145	0.00	2443.78	70.00	0.00
J_NC38.9-7.8_0070	0.00	2501.99	19.89	0.00
J_NC38.7_0072	0.00	2530.54	8.95	0.00
J_NC49.2-0.3_0007	0.00	2425.19	5.35	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC54.4_0250	0.00	2367.49	74.69	0.00
J_NC60.0_0025	0.00	2383.44	16.19	0.00
J_NC60.0_0050	0.00	2380.70	28.84	0.00
J_KL_0270	0.00	2359.73	16.25	0.00
J_ON_0050	0.00	2384.88	61.91	0.00
J_ON_1230	0.00	2349.18	46.49	0.00
J_ON_1225	0.00	2350.24	46.96	0.00
J_NC38.9-2.4_0105	0.00	2443.66	67.14	0.00
J_SA_0350	0.00	2273.72	41.36	0.00
J_NA_0060	0.00	2266.85	32.39	0.00
J_NC28.7_0082	0.00	2528.52	40.54	0.00
J_NC31.0_0158	0.00	2508.37	54.74	0.00
J_NC35.1_0055	0.00	2520.58	34.13	0.00
J_NC35.1-0.7_0050	0.00	2515.66	13.73	0.00
J_ML_0090	0.00	2269.27	34.07	0.00
J_KL_0058	0.00	2560.74	15.67	0.00
J_KL5.4_0183	0.00	2424.05	66.07	0.00
J_KL5.4_0187	0.00	2422.50	66.90	0.00
J_KL9.3_0115	0.00	2340.43	41.51	0.00
J_KL7.6-9.3N_0025	0.00	2357.22	44.14	0.00
J_KL_0252	0.00	2363.10	16.37	0.00
J_MB_0120	0.00	2401.01	39.73	0.00
J_MB_0130	0.00	2400.90	40.30	0.00
J_MB_0190	0.00	2396.52	39.89	0.00
J_MB4.8_0035	0.00	2386.33	43.88	0.00
J_MB_0200	0.00	2396.17	41.05	0.00
J_MB_0270	0.00	2392.16	41.17	0.00
J_MB_0280	0.00	2392.05	41.91	0.00
J_MB_0300	0.00	2391.45	42.54	0.00
J_MB_0310	0.00	2391.39	42.61	0.00

J_MB6.0_0053	0.00	2385.90	42.69	0.00
J_MB8.5_0090	0.00	2364.85	49.31	0.00
J_MB8.5_0045	0.00	2380.91	48.74	0.00
J_MB9.1-0.9_0030	0.00	2372.48	47.43	0.00
J_MB9.1-0.9_0020	0.00	2373.07	47.18	0.00
J_MB9.4_0019	0.00	2382.75	46.55	0.00
J_MB9.4_0017	0.00	2386.16	43.69	0.00
J_NC25.4-1.6_0057	0.00	2530.37	49.75	0.00
J_NC25.4-1.6-0.9_0020	0.00	2527.28	51.67	0.00
J_NC25.4-1.6-0.9_0060	0.00	2504.62	83.37	0.00
J_NC25.4-1.8-2.2_0025	0.00	2509.81	70.30	0.00
J_NC25.4-1.8-1.0_0020	0.00	2526.04	56.55	0.00
J_NC25.4-1.8-1.0_0015	0.00	2529.12	54.19	0.00
J_NC26.4_0073	0.00	2528.32	51.47	0.00
J_NC26.4_0077	0.00	2526.91	48.16	0.00
J_NC27.8_0018	0.00	2542.61	6.57	0.00
J_NC27.8_0035	0.00	2533.97	21.07	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC27.8_0069	0.00	2521.62	30.43	0.00
J_NC27.8_0093	0.00	2510.03	40.75	0.00
J_NC27.8_0097	0.00	2507.81	45.78	0.00
J_ON_0180	0.00	2384.00	45.87	0.00
J_ON_0200	0.00	2383.84	46.01	0.00
J_ON_0690	0.00	2374.30	50.41	0.00
J_ON_0210	0.00	2383.79	46.47	0.00
J_NC28.7_0055	0.00	2536.76	26.15	0.00
J_NC28.7-1.0_0065	0.00	2526.31	44.02	0.00
J_NC28.7_0057	0.00	2535.85	29.67	0.00
J_NC28.7_0024	0.00	2507.52	57.94	0.00
J_NC28.7_0027	0.00	2503.09	58.00	0.00
J_NC28.7-1.0_0075	0.00	2506.52	50.63	0.00
J_NC28.7-1.0_0145	0.00	2501.07	52.46	0.00
J_NC28.7-1.0-0.1_0013	0.00	2531.43	31.55	0.00
J_NC28.7-1.0-0.1_0017	0.00	2527.96	32.53	0.00
J_NC29.7_0013	0.00	2540.16	7.03	0.00
J_NC29.7_0017	0.00	2536.10	13.58	0.00
J_KL7.7_0035	0.00	2467.26	83.84	0.00
J_NC38.9_0147	0.00	2519.82	17.65	0.00
J_NC38.9_0148	0.00	2519.32	18.19	0.00
J_NC31.0_0185	0.00	2506.68	55.51	0.00
J_NC31.5_0065	0.00	2517.39	36.65	0.00
J_NC31.5_0075	0.00	2513.94	46.50	0.00
J_NC32.2_0083	0.00	2509.64	49.66	0.00

J_NC32.2_0087	0.00	2507.03	52.10	0.00
J_NC33.1S_0072	0.00	2529.90	20.62	0.00
J_ON_0700	0.00	2374.21	50.65	0.00
J_NC35.1_0095	0.00	2501.84	51.55	0.00
J_NC35.7_0025	0.00	2527.61	8.55	0.00
J_ON13.9_0015	0.00	2368.08	62.42	0.00
J_NC38.7_0077	0.00	2526.77	36.09	0.00
J_NC38.7_0093	0.00	2522.71	58.46	0.00
J_NC38.9-2.4_0136	0.00	2439.43	77.76	0.00
J_NC38.9-3.0_0080	0.00	2502.03	41.94	0.00
J_NC38.9-4.8-0.5_0108	0.00	2470.74	80.19	0.00
J_NC43.2-0.8_0020	0.00	2435.47	38.65	0.00
J_NC45.4_0025	0.00	2432.60	5.08	0.00
J_NC45.4_0030	0.00	2427.20	19.88	0.00
J_NC46.7_0027	0.00	2430.13	13.67	0.00
J_NC46.7-1.0_0005	0.00	2426.84	15.05	0.00
J_NC46.7-0.5_0015	0.00	2427.34	13.73	0.00
J_NC46.7-0.5_0045	0.00	2416.08	11.20	0.00
J_NC46.7-1.0_0035	0.00	2409.66	14.48	0.00
J_NC46.7-1.0_0065	0.00	2402.66	15.55	0.00
J_NC46.7-0.5-0.2_0040	0.00	2405.37	18.87	0.00
J_NC49.2-2.3_0025	0.00	2393.71	18.06	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2-2.3_0035	0.00	2385.19	16.35	0.00
J_NC49.2_0143	0.00	2396.93	19.77	0.00
J_NC49.2-2.9_0055	0.00	2382.16	18.11	0.00
J_NC49.2-0.9_0045	0.00	2393.26	12.76	0.00
J_NC49.2-0.4-0.6_0015	0.00	2413.38	12.72	0.00
J_NC49.2-0.4-0.6_0045	0.00	2405.74	16.55	0.00
J_NC49.2-0.4-0.6_0055	0.00	2401.56	17.91	0.00
J_NC49.4_0034	0.00	2425.24	5.39	0.00
J_NC53.2_0033	0.00	2411.95	12.44	0.00
J_NC53.2_0037	0.00	2404.32	13.73	0.00
J_NC53.2_0045	0.00	2397.42	11.82	0.00
J_NC53.2_0080	0.00	2393.41	18.21	0.00
J_NC53.2_0093	0.00	2383.50	17.96	0.00
J_NC53.2_0097	0.00	2382.79	18.64	0.00
J_NC53.2_0115	0.00	2375.48	16.61	0.00
J_NC53.2_0145	0.00	2375.02	24.43	0.00
J_NC53.2-0.4_0005	0.00	2406.18	11.88	0.00
J_SA_0015	0.00	2247.15	21.88	0.00
J_SA_0230	0.00	2242.71	21.95	0.00
J_NC54.2_0195	0.00	2380.41	20.33	0.00

J_NC54.2_0200	0.00	2378.50	20.46	0.00
J_NC54.4_0128	0.00	2386.63	73.53	0.00
J_NC54.4_0123	0.00	2387.81	50.81	0.00
J_NC54.4_0126	0.00	2386.85	70.53	0.00
J_NC_1170	0.00	2406.70	7.75	0.00
J_NC_1370	0.00	2392.91	8.61	0.00
J_NC_1180	0.00	2405.88	7.43	0.00
J_NC_1250	0.00	2399.34	7.91	0.00
J_NC_1260	0.00	2399.19	7.65	0.00
J_NC_1310	0.00	2397.29	7.92	0.00
J_NC_1320	0.00	2396.82	7.40	0.00
J_NC_1360	0.00	2393.06	8.71	0.00
J_NC55.5_0015	0.00	2398.19	12.52	0.00
J_NC55.5_0026	0.00	2395.86	12.21	0.00
J_NC55.6_0135	0.00	2379.02	30.00	0.00
J_NC55.6_0188	0.00	2369.27	32.12	0.00
J_NC55.6_0189	0.00	2366.86	31.52	0.00
J_NC55.6-0.5_0093	0.00	2390.16	24.80	0.00
J_NC55.6-0.5_0095	0.00	2385.94	33.94	0.00
J_NC55.6-0.5_0175	0.00	2366.33	37.96	0.00
J_NC55.6-0.5_0183	0.00	2362.28	38.09	0.00
J_NC55.6-0.5_0240	0.00	2360.10	38.01	0.00
J_NC55.6-0.5-2.6_0045	0.00	2364.31	34.91	0.00
J_NC58.7_0023	0.00	2383.77	23.89	0.00
J_NC58.7_0030	0.00	2378.40	31.24	0.00
J_NC59.5_0020	0.00	2376.98	19.87	0.00
J_NC59.5_0045	0.00	2372.56	22.78	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC60.0-1.6_0015	0.00	2364.34	29.90	0.00
J_NC60.0-1.6_0030	0.00	2351.80	31.27	0.00
J_NC60.0_0083	0.00	2372.36	33.95	0.00
J_HL_0040	0.00	2272.05	22.38	0.00
J_HL_0270	0.00	2252.49	20.86	0.00
J_HL_0050	0.00	2271.90	22.71	0.00
J_HL_0280	0.00	2251.99	21.57	0.00
J_HL_0600	0.00	2185.89	4.68	0.00
J_NC62.1_0042	0.00	2366.77	9.25	0.00
J_NC62.1_0046	0.00	2364.02	12.18	0.00
J_NC62.1_0048	0.00	2361.97	26.73	0.00
J_NC64.7_0005	0.00	2378.81	13.45	0.00
J_ML_0010	0.00	2273.31	33.75	0.00
J_ML_0050	0.00	2271.89	33.83	0.00
J_ML_0060	0.00	2271.38	34.52	0.00

J_ML_0210	0.00	2264.15	31.80	0.00
J_CL_0007	0.00	2263.56	36.25	0.00
J_CL_0008	0.00	2262.95	37.35	0.00
J_CL_0060	0.00	2256.48	41.79	0.00
J_CL_0070	0.00	2253.39	41.90	0.00
J_CL_0090	0.00	2250.93	41.38	0.00
J_CL_0120	0.00	2248.50	40.51	0.00
J_ML0.7_0055	0.00	2251.19	37.48	0.00
J_CL1.74_0020	0.00	2238.43	37.77	0.00
J_CL1.74_0055	0.00	2229.14	34.83	0.00
J_CL1.84-0.55_0025	0.00	2222.30	31.74	0.00
J_ML_0230	0.00	2263.53	30.83	0.00
J_ML3.1_0047	0.00	2246.07	28.82	0.00
J_ML3.1_0076	0.00	2240.88	30.72	0.00
J_ML3.1_0125	0.00	2211.10	24.28	0.00
J_ML4.0_0015	0.00	2225.62	19.57	0.00
J_ML4.0_0050	0.00	2212.15	16.44	0.00
J_ML4.1_0004	0.00	2230.86	20.97	0.00
J_HL5.5_0033	0.00	2250.23	23.11	0.00
J_HL5.5_0065	0.00	2235.27	23.93	0.00
J_HL_0610	0.00	2184.56	5.43	0.00
J_HL6.4_0025	0.00	2247.19	0.94	0.00
J_NC43.2-14.7_0045	0.00	2366.07	19.48	0.00
J_NC43.2-3.8_0043	0.00	2425.41	46.21	0.00
J_NC43.2-12.7_0024	0.00	2389.73	23.50	0.00
J_NC43.2-12.7_0028	0.00	2384.49	28.26	0.00
J_NC43.2-11.6_0045	0.00	2383.80	22.56	0.00
J_NC43.2-11.6_0050	0.00	2381.43	28.87	0.00
J_HL7.2W_0083	0.00	2208.83	18.65	0.00
J_HL7.2E_0073	0.00	2223.75	19.33	0.00
J_HL7.2E_0077	0.00	2221.02	18.78	0.00
J_HL7.2E_0123	0.00	2200.41	14.43	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL7.2E_0127	0.00	2197.21	13.59	0.00
J_HL7.2W_0087	0.00	2199.67	15.84	0.00
J_HL9.4_0052	0.00	2213.92	18.10	0.00
J_HL9.4_0056	0.00	2208.88	18.64	0.00
J_NC43.2-12.9_0035	0.00	2380.95	16.92	0.00
J_NC25.4-1.6-0.9_0070	0.00	2503.35	83.22	0.00
J_ON_0170	0.00	2384.03	45.96	0.00
J_NC46.7_0035	0.00	2428.70	13.85	0.00
J_NC62.1_0044	0.00	2364.55	8.89	0.00
J_NC55.5_0012	0.00	2401.10	13.93	0.00

J_LL1.8_0010	0.00	2233.90	39.29	0.00
J_LL_0255	0.00	2225.18	34.37	0.00
J_NC49.2_0132	0.00	2401.46	20.45	0.00
J_MB4.8_0045	0.00	2383.00	47.75	0.00
J_MB6.0_0057	0.00	2383.77	44.78	0.00
J_SA_0280	0.00	2242.82	21.17	0.00
J_NA_0040	0.00	2268.90	31.14	0.00
J_NC27.8_0068	0.00	2523.74	24.46	0.00
J_KL_0055	0.00	2564.21	12.64	0.00
J_KL_0056	0.00	2563.66	15.26	0.00
J_KL_0052	0.00	2565.58	9.76	0.00
J_KL_0053	0.00	2564.99	12.61	0.00
J_KL_0023	0.00	2567.49	6.75	0.00
J_KL_0027	0.00	2567.07	6.74	0.00
J_KL_0017	0.00	2571.71	5.97	0.00
J_KL_0018	0.00	2571.53	6.61	0.00
J_NC10.5_0033	0.00	2558.57	48.27	0.00
J_NC10.5_0075	0.00	2551.84	75.90	0.00
J_NC10.5_0107	0.00	2544.58	87.41	0.00
J_KL5.4-0.8_0065	0.00	2478.12	69.74	0.00
J_KL5.4-0.8_0095	0.00	2476.52	74.42	0.00
J_KL5.4-0.8_0117	0.00	2472.60	83.40	0.00
J_KL5.4-0.8-2.4_0005	0.00	2468.83	88.35	0.00
J_KL5.4-0.8-2.4_0015	0.00	2464.19	87.74	0.00
J_KL5.4-0.8-2.2_0005	0.00	2472.52	85.95	0.00
J_KL5.4-0.8-2.2_0025	0.00	2468.01	74.96	0.00
J_KL5.4-0.8-2.2_0045	0.00	2463.06	72.05	0.00
J_NC12.4P_0015	0.00	2557.78	48.62	0.00
J_NC12.4P_0035	0.00	2554.92	63.84	0.00
J_NC12.4P_0055	0.00	2552.67	71.96	0.00
J_NC12.4P_0085	0.00	2547.08	85.70	0.00
J_NC48.3_0055	0.00	2418.76	11.44	0.00
J_NC48.3_0060	0.00	2417.01	9.68	0.00
J_HL9.4_0065	0.00	2203.20	16.24	0.00
J_NC60.0-1.6_0025	0.00	2360.75	29.99	0.00
J_NA_0020	0.00	2270.90	30.79	0.00
J_KL_0015	0.00	2574.65	4.42	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL_0115	0.00	2555.31	15.61	0.00
J_KL_0105	0.00	2555.46	15.64	0.00
J_KL_0183	0.00	2549.38	17.12	0.00
J_KL_0186	0.00	2549.36	17.38	0.00
J_KL5.4-0.5_0005	0.00	2553.07	23.38	0.00

J_KL5.4-0.5_0075	0.00	2531.78	20.08	0.00
J_KL5.4_0015	0.00	2555.17	22.36	0.00
J_MB_0025	0.00	2569.02	10.20	0.00
J_MB7.5_0043	0.00	2388.94	41.97	0.00
J_MB7.5_0220	0.00	2361.11	51.50	0.00
J_MB9.5_0010	0.00	2386.54	44.06	0.00
J_NC13.6_0040	0.00	2561.40	20.51	0.00
J_NC13.6_0172	0.00	2544.09	78.27	0.00
J_NC14.5_0025	0.00	2560.53	12.37	0.00
J_NC14.5_0245	0.00	2522.85	80.07	0.00
J_NC25.4-1.8-2.2_0015	0.00	2500.52	67.61	0.00
J_NC25.4-1.8_0013	0.00	2539.54	41.67	0.00
J_NC25.4_0033	0.00	2546.31	9.74	0.00
J_NC25.4_0085	0.00	2539.63	40.10	0.00
J_NC25.4_0155	0.00	2503.31	66.06	0.00
J_NC26.4_0028	0.00	2542.25	6.80	0.00
J_NC26.4_0128	0.00	2508.18	63.34	0.00
J_NC28.7_0033	0.00	2542.29	7.29	0.00
J_NC28.7_0155	0.00	2497.43	60.48	0.00
J_NC31.0_0025	0.00	2542.02	8.88	0.00
J_NC31.0_0156	0.00	2509.91	54.50	0.00
J_NC32.2_0025	0.00	2533.08	6.79	0.00
J_NC32.2_0105	0.00	2502.51	53.74	0.00
J_NC33.1_0035	0.00	2538.26	10.75	0.00
J_NC33.1_0105	0.00	2489.36	87.00	0.00
J_NC35.1_0015	0.00	2536.11	7.23	0.00
J_NC35.1_0073	0.00	2505.64	42.20	0.00
J_NC38.9-4.8_0010	0.00	2521.43	15.40	0.00
J_NC38.9-4.8_0157	0.00	2439.69	74.81	0.00
J_NC38.9_0017	0.00	2526.37	5.01	0.00
J_NC38.9_0177	0.00	2502.47	14.98	0.00
J_NC43.2_0013	0.00	2441.75	5.18	0.00
J_NC43.2_0330	0.00	2371.35	21.03	0.00
J_NC49.2_0035	0.00	2426.15	5.89	0.00
J_NC49.2_0125	0.00	2405.72	21.81	0.00
J_NC50.8_0025	0.00	2422.21	4.24	0.00
J_NC50.8_0063	0.00	2408.28	11.88	0.00
J_NC54.2_0025	0.00	2413.13	5.78	0.00
J_NC54.4_0023	0.00	2412.31	3.45	0.00
J_NC54.4_0095	0.00	2390.41	30.20	0.00
J_NC54.4_0245	0.00	2367.56	73.28	0.00
J_NC55.55_0010	0.00	2408.86	7.75	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC55.6-0.5_0015	0.00	2398.37	15.13	0.00
J_NC55.6-0.5_0105	0.00	2384.09	33.34	0.00
J_NC55.6_0010	0.00	2402.36	6.77	0.00
J_NC55.6_0025	0.00	2399.65	16.83	0.00
J_NC55.6_0225	0.00	2354.62	29.66	0.00
J_NC60.0_0005	0.00	2387.95	4.97	0.00
J_NC60.0_0145	0.00	2366.07	58.68	0.00
J_NC63.8_0010	0.00	2385.86	12.60	0.00
J_ON0.6_0010	0.00	2384.87	45.39	0.00
J_ON3.6_0010	0.00	2383.40	47.52	0.00
J_HL0.1_0010	0.00	2273.28	22.64	0.00
J_KP_0001	0.00	2347.71	65.94	0.00
J_HL0.0_0020	0.00	2273.62	60.93	0.00
J_ON0.0_0000	0.00	2384.88	85.31	0.00
J_MB_0395	0.00	2385.43	45.74	0.00
J_HL10.0_0010	0.00	2214.09	12.42	0.00
J_NC70.5_0010	0.00	2363.72	77.11	0.00
J_NC70.5_0020	0.00	2214.09	12.61	0.00
J_HL_0115	0.00	2263.46	20.94	0.00
J_NC60.0_0147	0.00	2366.07	61.30	0.00
J_HL_0116	0.00	2263.46	20.87	0.00
J_NC60.0_0148	0.00	2263.45	20.16	0.00
J_MB_0405	0.00	2385.43	45.52	0.00
J_MB_0406	0.00	2385.43	45.57	0.00
J_MB_0394	0.00	2385.43	45.49	0.00
J_NA0.0_0009	0.00	2273.79	41.38	0.00
J_SA_0345	0.00	2273.72	41.42	0.00
J_NA0.0_0008	0.00	2273.79	41.76	0.00
J_NA0.0_0007	0.00	2273.84	41.71	0.00
J_HL0.0_0010	0.00	2132.98	1.01	0.00
J_MB1.7_0010	0.00	2405.76	40.00	0.00
J_KL7.6S_0005	0.00	2540.88	133.96	0.00
J_KL7.7_0023	0.00	2541.83	103.64	0.00
J_NC13.6_0183	0.00	2527.71	105.70	0.00
J_NC25.4-3.3_0048	0.00	2505.30	94.33	0.00
J_NC33.1S-1.6_0018	0.00	2485.70	86.27	0.00
J_NC33.1_0103	0.00	2492.01	88.21	0.00
J_NC38.9-2.4_0078	0.00	2503.13	87.02	0.00
J_NC38.9-4.8-0.5_0092	0.00	2502.87	56.65	0.00
J_NC38.9-4.8_0143	0.00	2486.09	87.51	0.00
J_NC46.7-0.5_0068	0.00	2401.28	92.13	0.00
J_NC38.7_0099	0.00	2510.29	95.67	0.00
J_NC54.2_0258	0.00	2356.16	72.21	0.00
J_KL_0107.5	0.00	2555.43	15.76	0.00
J_NC5.3_0053	0.00	2541.10	112.70	0.00
J_NC_0023	0.00	2574.76	4.38	0.00
J_NC_0017	0.00	2575.57	4.54	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC_0015	0.00	2575.85	1.63	0.00
J_NC_0013	0.00	2576.68	2.44	0.00
J_NC_0011	0.00	2577.00	1.31	0.00
J_NC_0009	0.00	2577.63	0.57	0.00
J_NC_0007	0.00	2577.71	0.17	0.00
J_NC_0019	0.00	2575.03	4.44	0.00
J_NC_0005	0.00	2578.55	-0.13	0.00
J_NC_0020	0.00	2574.77	4.39	0.00
J_NC11.7_0010	0.00	2565.88	9.23	0.00
J_NC12.9_0010	0.00	2564.07	9.25	0.00
J_NC15.0_0010	0.00	2561.64	8.43	0.00
J_NC15.3_0010	0.00	2561.12	7.87	0.00
J_NC15.8_0010	0.00	2560.55	9.39	0.00
J_NC16.8_0010	0.00	2559.54	8.77	0.00
J_NC17.3_0010	0.00	2558.96	9.16	0.00
J_NC20.1_0010	0.00	2556.00	8.69	0.00
J_NC21.1_0010	0.00	2555.19	8.26	0.00
J_NC25.1_0010	0.00	2551.61	9.19	0.00
J_NC27.3_0009	0.00	2550.64	9.17	0.00
J_NC27.3_0010	0.00	2550.64	9.13	0.00
J_NC27.3_0020	0.00	2550.64	9.11	0.00
J_NC28.4_0010	0.00	2550.35	9.63	0.00
J_NC29.1_0010	0.00	2550.14	10.65	0.00
J_NC30.4_0010	0.00	2549.91	10.92	0.00
J_NC31.8_0010	0.00	2549.77	12.46	0.00
J_NC33.5_0010	0.00	2548.78	12.52	0.00
J_NC36.3_0010	0.00	2543.19	11.42	0.00
J_NC36.3_0020	0.00	2543.19	11.42	0.00
J_NC38.2_0010	0.00	2539.60	11.01	0.00
J_NC38.3_0010	0.00	2539.42	11.13	0.00
J_NC5.8_0010	0.00	2572.47	9.33	0.00
J_NC5.8_0020	0.00	2572.47	9.33	0.00
J_NC5.8_0030	0.00	2572.47	9.33	0.00
J_NC6.9_0010	0.00	2571.27	8.94	0.00
J_NC9.9_0010	0.00	2568.77	10.08	0.00
J_NC_0170	0.00	2569.08	10.20	0.00
J_NC_0780	0.00	2538.38	10.22	0.00
J_NC_0200	0.00	2567.81	9.85	0.00
J_NC_0210	0.00	2566.88	9.40	0.00
J_NC_0230	0.00	2564.73	9.08	0.00
J_NC_0250	0.00	2563.04	8.62	0.00
J_NC_0340	0.00	2557.71	8.77	0.00
J_NC_0350	0.00	2556.28	8.38	0.00
J_NC_0370	0.00	2555.90	8.57	0.00
J_NC_0390	0.00	2553.50	7.94	0.00

J_NC_0410	0.00	2552.42	8.06	0.00
J_NC_0470	0.00	2551.29	9.10	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC_0480	0.00	2550.91	8.96	0.00
J_NC_0520	0.00	2550.47	9.27	0.00
J_NC_0560	0.00	2550.19	10.41	0.00
J_NC_0580	0.00	2550.03	10.83	0.00
J_NC_0590	0.00	2549.96	10.79	0.00
J_NC_0630	0.00	2549.85	12.13	0.00
J_NC_0640	0.00	2549.82	12.18	0.00
J_NC_0660	0.00	2549.74	12.64	0.00
J_NC_0670	0.00	2549.68	12.79	0.00
J_NC_0690	0.00	2545.53	11.67	0.00
J_NC_0700	0.00	2544.38	11.61	0.00
J_NC_0730	0.00	2540.60	11.35	0.00
J_NC_0770	0.00	2538.64	11.11	0.00
J_NC_0050	0.00	2573.05	9.26	0.00
J_NC_0110	0.00	2570.88	10.41	0.00
J_NC_0130	0.00	2570.50	9.61	0.00
J_NC_0260	0.00	2561.87	8.44	0.00
J_NC_0100	0.00	2570.94	9.68	0.00
J_NC_0040	0.00	2573.54	9.90	0.00
J_NC_0140	0.00	2569.73	9.15	0.00
J_NC_0120	0.00	2570.79	10.37	0.00
J_NC_0290	0.00	2561.10	8.51	0.00
J_NC_0150	0.00	2569.27	9.61	0.00
J_NC_0430	0.00	2552.13	8.04	0.00
J_NC_0300	0.00	2560.92	9.90	0.00
J_NC_0540	0.00	2550.34	8.99	0.00
J_NC_0440	0.00	2551.91	9.58	0.00
J_NC_0610	0.00	2549.91	11.56	0.00
J_NC_0550	0.00	2550.29	9.42	0.00
J_NC_0620	0.00	2549.88	12.67	0.00
J_NC_0030	0.00	2574.08	4.41	0.00
J_NC_0025	0.00	2574.66	4.36	0.00
J_NC24.0_0010	0.00	2552.50	7.94	0.00
J_NC24.9_0010	0.00	2551.87	8.92	0.00
J_NC38.6_0010	0.00	2538.66	10.98	0.00
J_NC9.7_0010	0.00	2569.09	10.14	0.00
J_NC9.8_0010	0.00	2569.02	9.89	0.00
J_NC43.6_0010	0.00	2440.82	4.74	0.00
J_NC44.1_0010	0.00	2440.00	4.76	0.00
J_NC44.2_0010	0.00	2439.46	6.35	0.00

J_NC45.7_0010	0.00	2436.05	6.57	0.00
J_NC46.5_0010	0.00	2434.02	6.83	0.00
J_NC47.2_0010	0.00	2432.29	6.46	0.00
J_NC48.1_0010	0.00	2429.58	6.75	0.00
J_NC48.1_0020	0.00	2429.58	6.72	0.00
J_NC50.3_0010	0.00	2423.85	5.54	0.00
J_NC51.6_0010	0.00	2420.20	5.06	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC53.7_0010	0.00	2414.82	4.47	0.00
J_NC54.1_0010	0.00	2413.49	3.86	0.00
J_NC54.5_0010	0.00	2412.35	3.82	0.00
J_NC_0870	0.00	2436.70	7.12	0.00
J_NC_0920	0.00	2433.57	6.73	0.00
J_NC_0980	0.00	2429.17	6.30	0.00
J_NC_0990	0.00	2426.82	6.07	0.00
J_NC_1000	0.00	2426.15	5.71	0.00
J_NC_1020	0.00	2422.31	5.22	0.00
J_NC_1040	0.00	2417.98	4.58	0.00
J_NC_1050	0.00	2416.33	4.30	0.00
J_NC_1080	0.00	2413.33	3.76	0.00
J_NC_1090	0.00	2412.89	3.99	0.00
J_NC_1100	0.00	2412.52	3.77	0.00
J_NC_0840	0.00	2439.86	5.34	0.00
J_NC_0850	0.00	2439.49	6.49	0.00
J_NC_0890	0.00	2435.24	6.22	0.00
J_NC_0900	0.00	2435.16	6.92	0.00
J_NC_0940	0.00	2431.27	5.81	0.00
J_NC_0950	0.00	2431.18	6.80	0.00
J_NC_1120	0.00	2412.34	4.18	0.00
J_NC_1130	0.00	2410.84	7.91	0.00
J_NC43.3_0010	0.00	2441.63	4.94	0.00
J_NC35.1-1.4_0010	0.00	2500.63	106.30	0.00
J_NC_0800	0.00	2441.80	5.00	0.00
J_NC_0790	0.00	2530.30	44.22	0.00
J_ON_0096	0.00	2385.10	46.03	0.00
J_ON_0095	0.00	2385.10	46.03	0.00
J_ON_0093	0.00	2384.88	45.93	0.00
J_ON_0094	0.00	2385.11	46.04	0.00
J_ON_0092	0.00	2385.11	46.04	0.00
J_NC65.5_0005	0.00	2381.76	54.66	0.00
J_NC_0041	0.00	2574.77	10.43	0.00
J_MB_0218	0.00	2393.79	41.49	0.00
J_MB3.9_0025	0.00	2399.59	40.97	0.00

J_NC55.6_0005	0.00	2402.51	5.00	0.00	
J_NC58.7_0010	0.00	2393.38	5.00	0.00	
J_NC60.0_0003	0.00	2388.14	5.00	0.00	
J_NC62.1_0005	0.00	2379.90	5.00	0.00	
J_NC8.5_0115	0.00	2552.44	96.61	0.00	
J_KL5.4-0.8_0037	0.00	2547.82	79.25	0.00	
J_KL5.4_0025	0.00	2550.80	85.19	0.00	
J_NC33.1S-1.6_0005	0.00	2512.34	86.45	0.00	
J_NC45.4_0035	0.00	2425.39	97.79	0.00	
J_NC49.2_0175	0.00	2385.51	84.01	0.00	
J_NC_0460	0.00	2557.64	10.43	0.00	
R_DEAD_OX	-52670.55	2133.00	0.00	0.00	Reservoir

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality	
R_DUNAWAY	0.00	2188.00	0.00	0.00	Reservoir
R_SOUTH_ADVANCEMENT	-1307.78	2185.57	0.00	0.00	Reservoir
R_NORTH_ADVANCEMENT	-987.43	2178.49	0.00	0.00	Reservoir
R_OWYHEE_RES	-503923.60	2579.21	0.00	0.00	Reservoir

Link Results:

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL_0060	34621.98	4.08	0.72	Open
C_KL_0080	33985.48	4.00	0.70	Open
C_KL_0070	34612.48	4.08	0.72	Open
C_KL_0140	28681.45	3.38	0.51	Open
C_KL_0135	29061.45	3.42	0.52	Open
C_KL_0130	29374.95	3.46	0.53	Open
C_KL_0115	29650.45	3.49	0.54	Open
C_KL_0107	32645.98	3.85	0.65	Open
C_KL_0105	32645.98	3.85	0.65	Open
C_KL_0100	33396.48	3.93	0.68	Open
C_KL_0090	33510.48	3.95	0.68	Open
C_KL_0120	29650.45	3.49	0.54	Open
C_KL_0225	17895.15	3.93	0.97	Open
C_KL_0230	16761.80	3.68	0.86	Open
C_KL_0220	18588.65	3.91	0.94	Open
C_KL_0195	23008.05	3.69	0.71	Open
C_KL_0200	18588.65	3.91	0.94	Open
C_KL_0190	23756.65	3.81	0.76	Open
C_KL_0186	23756.65	3.81	0.76	Open
C_KL_0183	23756.65	3.81	0.76	Open

C_KL_0180	23756.65	3.81	0.76	Open
C_KL_0170	25204.45	4.04	0.85	Open
C_KL_0160	26638.95	3.14	0.44	Open
C_KL_0150	27607.95	3.25	0.48	Open
C_KL5.4-0.5_0005	5267.75	3.64	1.65	Open
C_KL5.4-0.5_0040	4770.90	3.87	2.02	Open
C_KL5.4-0.5_0020	5267.75	3.64	1.65	Open
C_KL5.4-0.5_0100	0.00	0.00	0.00	Open
C_KL5.4-0.5_0090	0.00	0.00	0.00	Open
C_KL5.4-0.5_0080	2413.00	3.48	2.32	Open
C_KL5.4-0.5_0063	3619.50	2.94	1.23	Open
C_KL5.4-0.5_0070	2774.00	4.00	3.01	Open
C_KL5.4-0.5_0065	3268.00	3.82	2.44	Open
C_KL5.4-0.5_0060	3771.50	3.06	1.31	Open
C_KL5.4-0.5_0050	3877.90	3.15	1.38	Open
C_KL5.4-0.5_0075	2413.00	3.48	2.33	Open
C_KL5.4-0.5-1.3_0020	351.50	2.21	2.35	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL5.4-0.5-1.3_0040	0.00	0.00	0.00	Open
C_KL5.4-0.5-1.3_0030	351.50	2.21	2.37	Open
C_KL5.4-0.5-1.4_0020	494.00	3.11	4.45	Open
C_KL5.4-0.5-1.4_0030	494.00	3.36	5.39	Open
C_KL5.4_0010	36746.01	4.33	0.82	Open
C_KL5.4_0022	36746.01	4.33	0.81	Open
C_KL5.4_0030	18936.35	3.36	0.64	Open
C_KL5.4_0015	36746.01	4.33	0.81	Open
C_KL5.4_0075	14945.40	3.96	1.10	Open
C_KL5.4_0080	14194.90	3.90	1.09	Open
C_KL5.4_0065	15742.45	3.19	0.63	Open
C_KL5.4_0070	15412.80	4.08	1.16	Open
C_KL5.4_0060	16421.70	3.33	0.68	Open
C_KL5.4_0050	17134.20	3.48	0.75	Open
C_KL5.4_0040	18200.10	2.92	0.47	Open
C_KL5.4_0130	4911.50	4.13	2.33	Open
C_KL5.4_0120	6355.50	3.92	1.77	Open
C_KL5.4_0105	8180.45	3.87	1.48	Open
C_KL5.4_0095	13849.10	3.80	1.04	Open
C_KL5.4_0090	13947.90	3.83	1.06	Open
C_KL5.4_0109	7809.00	3.69	1.35	Open
C_KL5.4_0110	6355.50	3.92	2.15	Open
C_KL5.4_0107	7809.00	3.69	1.44	Open
C_KL5.4_0100	8759.95	4.14	1.67	Open
C_KL5.4_0183	2674.25	3.38	2.04	Open

C_KL5.4_0180	2674.25	3.38	2.04	Open
C_KL5.4_0170	3044.75	3.85	2.60	Open
C_KL5.4_0160	3114.10	3.93	2.70	Open
C_KL5.4_0150	3239.50	3.92	2.60	Open
C_KL5.4_0140	3961.50	3.33	1.57	Open
C_KL5.4-2.0_0010	329.65	3.64	8.30	Open
C_KL5.4-2.0_0030	329.65	3.64	8.30	Open
C_KL5.4-2.0_0020	329.65	3.64	8.30	Open
C_KL5.4-2.3_0010	750.50	3.04	3.29	Open
C_KL5.4-2.3_0020	750.50	3.04	3.30	Open
C_KL7.4_0010	4419.40	3.59	1.77	Open
C_KL7.4_0100	1881.00	3.72	3.16	Open
C_KL7.4_0090	1881.00	3.72	3.15	Open
C_KL7.4_0080	1881.00	3.43	2.60	Open
C_KL7.4_0070	2325.60	3.35	2.18	Open
C_KL7.4_0060	2405.40	3.47	2.31	Open
C_KL7.4_0050	2813.90	4.06	3.09	Open
C_KL7.4_0020	4419.40	3.59	1.76	Open
C_KL7.4_0030	3507.40	4.10	2.78	Open
C_KL5.4_0190	2674.25	3.38	2.04	Open
C_KL5.4_0200	2565.00	4.00	3.15	Open
C_KL5.4_0220	1805.00	3.57	2.92	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL5.4_0210	1881.00	3.72	3.16	Open
C_KL5.4-3.0_0030	5089.15	3.65	1.68	Open
C_KL5.4-3.0_0120	264.10	3.04	6.07	Open
C_KL5.4-3.0_0110	568.10	2.49	2.39	Open
C_KL5.4-3.0_0100	891.10	2.77	2.39	Open
C_KL5.4-3.0_0095	891.10	2.77	2.39	Open
C_KL5.4-3.0_0090	891.10	2.77	2.40	Open
C_KL5.4-3.0_0080	2304.70	3.60	2.59	Open
C_KL5.4-3.0_0070	2304.70	3.60	2.59	Open
C_KL5.4-3.0_0060	2656.20	3.97	3.03	Open
C_KL5.4-3.0_0040	4376.65	3.68	1.81	Open
C_KL5.4-3.0_0045	3645.15	3.07	1.34	Open
C_KL5.4-3.0_0050	2656.20	3.97	3.03	Open
C_KL5.4-3.0_0130	264.10	3.11	6.43	Open
C_KL5.4-3.0-0.3_0010	988.95	2.95	2.62	Open
C_KL5.4-3.0-0.3_0030	646.00	2.83	3.03	Open
C_KL5.4-3.0-0.3_0040	646.00	2.83	3.03	Open
C_KL5.4-3.0-0.3_0020	988.95	2.95	2.61	Open
C_KL9.3_0020	10247.65	4.14	1.53	Open
C_KL9.3_0040	9659.60	3.91	1.37	Open

C_KL9.3_0030	10010.15	4.05	1.46	Open
C_KL9.3_0095	3445.65	4.03	2.69	Open
C_KL9.3_0110	3102.70	3.62	2.22	Open
C_KL9.3_0090	3719.25	4.34	3.10	Open
C_KL9.3_0070	9024.05	4.12	1.63	Open
C_KL9.3_0080	4422.25	3.59	1.76	Open
C_KL9.3_0060	9236.85	3.74	1.26	Open
C_KL9.3_0050	9460.10	3.83	1.33	Open
C_KL9.3_0115	3102.70	3.62	2.22	Open
C_KL7.6-9.3N_0025	4288.30	3.48	1.59	Open
C_KL7.6-9.3N_0020	4288.30	3.48	1.67	Open
C_KL7.6-9.3N_0010	4601.80	3.73	1.89	Open
C_KL10.0_0020	585.20	3.68	6.09	Open
C_KL10.0_0030	270.75	2.99	5.77	Open
C_KL_0254	4144.85	3.36	1.62	Open
C_KL_0280	0.00	0.00	0.00	Open
C_KL_0278	774.25	3.13	3.48	Open
C_KL_0276	1130.50	3.25	3.06	Open
C_KL_0270	2647.65	3.82	2.76	Open
C_KL_0267	2904.15	3.39	1.93	Open
C_KL_0260	3543.50	4.14	2.85	Open
C_KL_0265	3209.10	3.75	2.36	Open
C_KL_0262	3389.60	3.96	2.63	Open
C_KL_0256	3755.35	3.05	1.30	Open
C_KL_0274	2062.45	3.76	3.09	Open
C_KL_0300	0.00	0.00	0.00	Open
C_KL_0290	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC5.3_0010	3887.40	3.15	1.45	Open
C_NC5.3_0035	3231.90	3.78	2.39	Open
C_NC5.3_0040	3184.40	3.72	2.33	Open
C_NC5.3_0030	3281.30	3.83	2.46	Open
C_NC5.3_0020	3887.40	3.15	1.39	Open
C_NC5.3_0053	1464.90	3.99	4.34	Open
C_NC5.3_0060	1464.90	3.78	3.79	Open
C_NC5.3_0050	1844.90	3.37	2.51	Open
C_NC5.3-0.3_0010	47.50	1.25	1.86	Open
C_NC5.3-0.3_0020	0.00	0.00	0.00	Open
C_NC5.3-1.4_0010	0.00	0.00	0.00	Open
C_NC8.5_0090	2788.25	4.02	3.04	Open
C_NC8.5_0070	3754.40	3.05	1.30	Open
C_NC8.5_0060	3877.90	3.15	1.38	Open
C_NC8.5_0050	3877.90	3.15	1.37	Open

C_NC8.5_0040	3877.90	3.15	1.38	Open
C_NC8.5_0030	3966.25	3.22	1.44	Open
C_NC8.5_0020	4265.50	3.46	1.71	Open
C_NC8.5_0150	275.50	3.17	6.56	Open
C_NC8.5_0135	275.50	3.35	7.49	Open
C_NC8.5_0130	275.50	1.92	1.93	Open
C_NC8.5_0120	2437.70	3.89	3.04	Open
C_NC8.5_0110	2788.25	3.38	1.98	Open
C_NC8.5_0100	2788.25	4.02	3.05	Open
C_NC8.5_0080	3754.40	3.05	1.30	Open
C_MB_0070	61740.16	3.57	0.40	Open
C_MB_0080	30943.81	3.64	0.59	Open
C_MB_0030	66431.26	3.35	0.33	Open
C_MB_0040	63154.70	3.66	0.42	Open
C_MB_0025	66431.26	3.35	0.33	Open
C_MB_0020	66431.26	3.35	0.00	Open
C_MB_0060	61740.16	3.57	0.40	Open
C_MB_0050	62861.16	3.64	0.41	Open
C_MB_0120	30622.71	3.61	0.58	Open
C_MB_0115	30622.71	3.61	0.58	Open
C_MB_0100	30759.51	3.62	0.61	Open
C_MB_0090	30905.81	3.64	0.57	Open
C_MB_0110	30759.51	3.62	0.58	Open
C_MB_0140	30622.71	3.61	0.58	Open
C_MB_0170	30325.30	3.57	0.57	Open
C_MB_0190	28616.26	3.37	0.51	Open
C_MB_0180	29628.01	3.49	0.54	Open
C_MB_0150	31175.56	3.67	0.60	Open
C_MB0.4_0010	3276.55	3.83	2.45	Open
C_MB0.4_0050	2077.65	3.79	3.13	Open
C_MB0.4_0040	2660.00	3.84	2.72	Open
C_MB0.4_0030	2928.85	3.42	1.99	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_MB0.4_0020	3276.55	3.83	2.45	Open
C_MB4.8_0010	1011.75	4.09	5.72	Open
C_MB4.8_0035	347.70	2.19	2.32	Open
C_MB4.8_0030	880.65	3.56	4.43	Open
C_MB4.8_0020	1011.75	4.09	5.73	Open
C_MB_0210	28616.26	3.37	0.51	Open
C_MB_0220	27627.31	3.25	0.48	Open
C_MB_0230	28351.68	3.34	0.50	Open
C_MB_0270	27307.63	3.22	0.46	Open
C_MB_0260	27307.63	3.22	0.47	Open

C_MB_0250	27580.29	3.25	0.47	Open
C_MB_0240	27990.69	3.30	0.49	Open
C_MB_0290	27307.63	3.22	0.47	Open
C_MB_0300	27288.63	3.21	0.47	Open
C_MB_0295	27307.63	3.22	0.47	Open
C_MB7.5_0010	27288.63	3.21	0.47	Open
C_MB_0330	17976.73	2.88	0.46	Open
C_MB_0340	14130.18	2.27	0.29	Open
C_MB_0350	11888.18	1.91	0.21	Open
C_MB_0360	9371.63	1.50	0.14	Open
C_MB_0370	9371.63	1.50	0.14	Open
C_MB_0420	17082.05	2.01	0.20	Open
C_MB_0390	9321.28	1.49	0.16	Open
C_MB_0394	9321.28	1.49	0.13	Open
C_MB_0410	17273.98	2.03	0.20	Open
C_MB_0380	9321.28	1.49	0.13	Open
C_MB5.4_0010	988.95	4.00	5.49	Open
C_MB5.4_0040	864.50	3.50	4.28	Open
C_MB5.4_0030	864.50	3.50	4.28	Open
C_MB5.4_0020	988.95	4.00	5.49	Open
C_MB6.0_0010	6107.55	3.64	1.50	Open
C_MB6.0_0053	3107.45	3.63	2.22	Open
C_MB6.0_0050	3450.40	4.03	2.70	Open
C_MB6.0_0040	3821.85	3.10	1.34	Open
C_MB6.0_0030	5104.35	4.14	2.29	Open
C_MB6.0_0020	6107.55	3.64	1.51	Open
C_MB6.0_0075	2413.95	3.48	2.33	Open
C_MB6.0_0090	1615.00	3.99	4.10	Open
C_MB6.0_0080	2099.50	3.97	3.47	Open
C_MB7.5_0113	4054.60	3.29	1.50	Open
C_MB7.5_0110	4767.10	3.87	2.02	Open
C_MB7.5_0100	5502.40	3.81	1.78	Open
C_MB7.5_0090	6101.85	3.64	1.51	Open
C_MB7.5_0080	7193.40	3.74	1.46	Open
C_MB7.5_0070	7490.75	3.89	1.34	Open
C_MB7.5_0060	8036.05	3.67	1.35	Open
C_MB7.5_0050	8247.90	3.77	1.38	Open

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_MB7.5_0043	8247.90	3.77	1.38	Open
C_MB7.5_0035	9311.90	3.77	1.26	Open
C_MB7.5_0040	8960.40	4.09	1.60	Open
C_MB7.5_0030	9311.90	4.84	2.36	Open
C_MB7.5_0020	9311.90	4.84	2.44	Open

C_MB7.5_0120	4054.60	3.41	1.63	Open
C_MB7.5_0130	3359.20	4.07	2.80	Open
C_MB7.5_0220	0.00	0.00	0.00	Open
C_MB7.5_0210	665.00	2.79	2.88	Open
C_MB7.5_0180	1330.00	3.96	4.25	Open
C_MB7.5_0190	1159.00	3.45	3.52	Open
C_MB7.5_0170	2128.00	4.02	3.56	Open
C_MB7.5_0160	2156.50	4.08	3.65	Open
C_MB7.5_0150	2794.90	3.38	1.99	Open
C_MB7.5_0140	3182.50	3.85	2.55	Open
C_MB8.5_0090	1091.55	3.25	3.13	Open
C_MB8.5_0040	2561.20	3.69	2.65	Open
C_MB8.5_0050	2017.80	3.68	2.86	Open
C_MB8.5_0080	1091.55	3.14	2.87	Open
C_MB8.5_0070	1605.50	3.83	3.73	Open
C_MB8.5_0060	1686.25	3.08	2.13	Open
C_MB9.1_0010	2242.00	4.09	3.60	Open
C_MB9.1_0080	369.55	2.41	2.83	Open
C_MB9.1_0067	1243.55	3.58	3.66	Open
C_MB9.1_0070	892.05	3.61	4.54	Open
C_MB9.1_0065	1652.05	3.94	3.92	Open
C_MB9.1_0040	1756.55	3.21	2.29	Open
C_MB9.1_0030	2232.50	4.07	3.57	Open
C_MB9.1_0020	2242.00	4.09	3.60	Open
C_MB9.1-0.9_0040	351.50	2.29	2.58	Open
C_MB9.1-0.9_0010	351.50	2.21	2.35	Open
C_MB9.1-0.9_0020	351.50	2.21	2.37	Open
C_MB9.4_0070	355.30	2.31	2.63	Open
C_MB9.4_0060	706.80	2.86	2.92	Open
C_MB9.4_0040	987.05	2.84	2.38	Open
C_MB9.4_0050	767.60	3.10	4.07	Open
C_MB9.4_0020	1253.05	3.60	3.70	Open
C_MB9.4_0065	355.30	2.23	2.42	Open
C_MB9.4_0017	1253.05	3.60	3.71	Open
C_MB9.4_0010	2516.55	3.63	2.51	Open
C_MB9.4_0015	1253.05	3.60	3.94	Open
C_NC10.5-0.3_0010	0.00	0.00	0.00	Open
C_NC11.0_0060	266.00	2.94	5.58	Open
C_NC11.0_0050	266.00	2.94	5.57	Open
C_NC11.0_0040	266.00	2.94	5.58	Open
C_NC11.0_0030	266.00	2.94	5.66	Open
C_NC11.0_0020	627.00	3.94	7.21	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit ft/Kft	Headloss	Status

C_NC13.6_0030	6070.50	3.62	1.56	Open
C_NC13.6_0174	1162.80	3.81	4.45	Open
C_NC13.6_0172	1162.80	3.81	4.45	Open
C_NC13.6_0170	1250.20	4.10	5.09	Open
C_NC13.6_0160	2000.70	4.16	4.02	Open
C_NC13.6_0150	2000.70	3.95	3.54	Open
C_NC13.6_0140	2029.20	3.84	3.26	Open
C_NC13.6_0130	2599.20	3.89	2.91	Open
C_NC13.6_0120	3163.50	3.83	2.51	Open
C_NC13.6_0110	3496.00	2.94	1.24	Open
C_NC13.6_0100	3496.00	4.08	2.77	Open
C_NC13.6_0090	3550.15	4.15	2.85	Open
C_NC13.6_0080	3600.50	2.92	1.20	Open
C_NC13.6_0070	4322.50	3.51	1.69	Open
C_NC13.6_0040	4322.50	3.51	1.69	Open
C_NC13.6_0035	5491.00	3.80	1.78	Open
C_NC13.6_0183	636.50	2.09	1.46	Open
C_NC13.6_0175	636.50	2.09	1.46	Open
C_NC14.5_0250	280.25	1.91	1.88	Open
C_NC14.5_0245	280.25	1.91	1.88	Open
C_NC14.5_0240	916.75	4.01	5.79	Open
C_NC14.5_0230	1686.25	3.33	2.58	Open
C_NC14.5_0217	1686.25	3.19	2.32	Open
C_NC14.5_0205	3101.75	3.75	2.44	Open
C_NC14.5_0200	3806.65	3.20	1.45	Open
C_NC14.5_0190	4085.00	3.44	1.66	Open
C_NC14.5_0025	13423.50	3.56	0.90	Open
C_NC14.5_0020	14720.26	3.90	1.11	Open
C_NC14.5_0023	14117.96	3.74	0.99	Open
C_NC14.5_0100	9478.15	3.83	1.32	Open
C_NC14.5_0090	9895.20	4.00	1.43	Open
C_NC14.5_0080	10188.75	4.12	1.51	Open
C_NC14.5_0070	10333.15	3.73	1.18	Open
C_NC14.5_0065	11603.31	3.08	0.69	Open
C_NC14.5_0060	11603.31	3.08	0.69	Open
C_NC14.5_0050	12188.50	3.23	0.75	Open
C_NC14.5_0040	12939.00	3.43	0.84	Open
C_NC14.5_0030	13423.50	3.56	0.90	Open
C_NC14.5_0180	4539.10	3.68	1.82	Open
C_NC14.5_0170	4900.10	3.98	2.13	Open
C_NC14.5_0160	5152.80	3.56	1.58	Open
C_NC14.5_0155	5152.80	3.56	1.58	Open
C_NC14.5_0150	5874.80	4.06	2.06	Open
C_NC14.5_0130	8468.30	3.87	1.47	Open
C_NC14.5_0120	8468.30	3.87	1.44	Open
C_NC14.5_0140	7983.80	4.15	1.69	Open
C_NC14.5_0110	8869.20	4.05	1.57	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC14.5_0163	5152.80	3.56	1.58	Open
C_NC14.5_0167	5152.80	3.56	1.58	Open
C_NC14.5-3.0_0010	0.00	0.00	0.00	Open
C_NC14.5-3.0_0020	0.00	0.00	0.00	Open
C_NC14.5-1.5_0010	1270.15	3.65	3.81	Open
C_NC14.5-1.5_0070	41.80	1.10	1.50	Open
C_NC14.5-1.5_0045	41.80	1.10	1.50	Open
C_NC14.5-1.5_0060	41.80	1.10	1.49	Open
C_NC14.5-1.5_0040	41.80	1.10	1.50	Open
C_NC14.5-1.5_0030	839.80	3.40	4.06	Open
C_NC14.5-1.5_0020	839.80	2.41	1.83	Open
C_NC14.5-1.5-0.5_0010	0.00	0.00	0.00	Open
C_NC14.5-1.5-0.5_0020	0.00	0.00	0.00	Open
C_NC19.9_0020	1618.80	3.86	3.94	Open
C_NC20.3_0050	2299.00	3.32	2.13	Open
C_NC20.3_0040	2299.00	3.32	2.13	Open
C_NC20.3_0030	2527.00	3.64	2.53	Open
C_NC20.3_0020	3382.00	3.95	2.71	Open
C_NC24.1_0050	788.50	3.19	3.61	Open
C_NC24.1_0040	788.50	3.19	3.61	Open
C_NC24.1_0025	931.00	2.22	1.34	Open
C_NC24.1_0030	836.00	2.40	1.77	Open
C_NC24.1_0020	2793.00	2.27	0.78	Open
C_NC25.4_0066	33591.05	3.96	0.68	Open
C_NC25.4_0100	9312.70	4.25	1.72	Open
C_NC25.4_0090	10661.70	4.31	1.65	Open
C_NC25.4_0088	11421.70	4.62	1.85	Open
C_NC25.4_0087	12124.70	4.37	1.58	Open
C_NC25.4_0082	24779.80	3.97	0.82	Open
C_NC25.4_0085	12124.70	4.37	1.58	Open
C_NC25.4_0075	33039.11	3.89	0.66	Open
C_NC25.4_0080	25135.10	4.03	0.85	Open
C_NC25.4_0070	33398.20	3.93	0.68	Open
C_NC25.4_0068	33572.05	3.95	0.68	Open
C_NC25.4_0160	972.65	4.26	6.46	Open
C_NC25.4_0170	792.15	3.47	4.42	Open
C_NC25.4_0155	972.65	4.26	6.46	Open
C_NC25.4_0150	972.65	4.26	6.45	Open
C_NC25.4_0140	2027.15	4.00	3.62	Open
C_NC25.4_0135	2768.15	4.14	3.27	Open
C_NC25.4_0123	6880.70	4.25	2.05	Open
C_NC25.4_0120	8267.70	4.30	1.89	Open
C_NC25.4_0110	9312.70	4.25	1.72	Open
C_NC25.4_0127	6168.20	4.42	2.41	Open
C_NC25.4_0130	3912.90	4.74	3.72	Open

C_NC25.4_0052	35969.86	4.24	0.78	Open
C_NC25.4_0050	36834.36	4.34	0.81	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC25.4_0040	37128.86	4.37	0.82	Open
C_NC25.4_0035	39361.36	4.64	0.92	Open
C_NC25.4_0033	39361.36	4.64	0.92	Open
C_NC25.4_0030	40045.36	4.72	0.96	Open
C_NC25.4_0020	40482.36	4.77	1.01	Open
C_NC25.4_0062	34855.50	4.11	0.73	Open
C_NC25.4_0064	33591.05	3.96	0.68	Open
C_NC25.4_0063	34318.75	4.04	0.71	Open
C_NC25.4_0056	35549.01	4.19	0.76	Open
C_NC25.4_0060	35549.01	4.19	0.76	Open
C_NC25.4_0057	35549.01	4.19	0.77	Open
C_NC25.4_0054	35938.51	4.23	0.77	Open
C_NC25.4-1.6_0010	7904.00	4.11	1.75	Open
C_NC25.4-1.6_0055	5443.50	4.42	2.61	Open
C_NC25.4-1.6_0057	1196.05	3.44	3.40	Open
C_NC25.4-1.6_0050	5443.50	4.42	2.58	Open
C_NC25.4-1.6_0040	6184.50	4.28	2.22	Open
C_NC25.4-1.6_0030	7201.00	4.30	2.05	Open
C_NC25.4-1.6_0020	7904.00	4.11	1.74	Open
C_NC25.4-3.3_0010	2255.30	4.26	3.97	Open
C_NC25.4-3.3_0045	285.00	3.28	6.99	Open
C_NC25.4-3.3_0035	811.30	3.40	4.16	Open
C_NC25.4-3.3_0030	1181.80	3.52	3.63	Open
C_NC25.4-3.3_0020	1181.80	3.52	3.63	Open
C_NC25.4-3.3_0040	811.30	3.55	4.62	Open
C_NC25.4-3.3_0060	0.00	0.00	0.00	Open
C_NC25.4-3.3_0048	9.50	0.25	0.10	Open
C_NC25.4-1.6-0.9_0030	3259.45	4.70	4.06	Open
C_NC25.4-1.6-0.9_0040	3152.10	4.71	4.18	Open
C_NC25.4-1.6-0.9_0050	3036.20	4.54	3.88	Open
C_NC25.4-1.6-0.9-0.1_0010	1373.70	4.09	4.80	Open
C_NC25.4-1.6-0.9-0.1_0020	1373.70	4.09	4.79	Open
C_NC25.4-1.6-0.9-0.1_0030	376.20	2.45	2.92	Open
C_NC25.4-1.6-0.9_0060	883.50	2.81	2.49	Open
C_NC25.4-1.8_0010	12655.11	4.57	1.70	Open
C_NC25.4-1.8_0125	2740.90	4.28	3.57	Open
C_NC25.4-1.8_0120	2740.90	3.32	1.94	Open
C_NC25.4-1.8_0110	2740.90	4.10	3.21	Open
C_NC25.4-1.8_0100	2841.60	4.25	3.44	Open
C_NC25.4-1.8_0070	5399.95	3.87	1.88	Open

C_NC25.4-1.8_0060	6522.85	3.89	1.71	Open
C_NC25.4-1.8_0045	9824.11	3.97	1.42	Open
C_NC25.4-1.8_0050	6840.15	4.08	1.86	Open
C_NC25.4-1.8_0030	10508.11	3.79	1.16	Open
C_NC25.4-1.8_0040	10508.11	3.79	1.21	Open
C_NC25.4-1.8_0015	12655.11	4.57	1.71	Open
C_NC25.4-1.8_0013	12655.11	4.57	1.71	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC25.4-1.8_0020	11220.61	4.05	1.37	Open
C_NC25.4-1.8_0085	4041.45	3.40	1.63	Open
C_NC25.4-1.8_0080	4734.95	3.98	2.18	Open
C_NC25.4-1.8_0090	3357.45	4.06	2.80	Open
C_NC25.4-1.8-2.8_0020	313.50	3.61	8.14	Open
C_NC25.4-1.8-2.8_0010	313.50	3.61	8.34	Open
C_NC25.4-1.8_0130	1937.05	3.83	3.33	Open
C_NC25.4-1.8_0150	874.00	3.83	5.30	Open
C_NC25.4-1.8_0145	874.00	3.83	5.27	Open
C_NC25.4-1.8_0140	1529.50	3.94	4.12	Open
C_NC25.4-1.8_0165	874.00	3.83	5.30	Open
C_NC25.4-1.8-2.2_0030	104.65	2.75	8.21	Open
C_NC25.4-1.8-2.2_0040	104.65	2.75	8.21	Open
C_NC25.4-1.8-2.2_0010	490.35	2.15	1.81	Open
C_NC25.4-1.8-2.2_0025	104.65	2.75	8.20	Open
C_NC25.4-1.8-2.2_0020	238.60	2.74	5.03	Open
C_NC25.4-1.8-1.0_0010	2983.95	3.49	2.05	Open
C_NC25.4-1.8-1.0_0010	2983.95	3.49	2.06	Open
C_NC25.4-1.8-1.0_0030	2983.95	3.61	2.25	Open
C_NC25.4-1.8-1.0_0090	0.00	0.00	0.00	Open
C_NC25.4-1.8-1.0_0080	275.50	1.87	1.83	Open
C_NC25.4-1.8-1.0_0070	1012.70	3.02	2.73	Open
C_NC25.4-1.8-1.0_0060	1734.70	3.28	2.44	Open
C_NC25.4-1.8-1.0_0050	2751.20	4.11	3.24	Open
C_NC25.4-1.8-1.0_0040	2983.95	3.61	2.25	Open
C_NC25.4-1.8-1.0_0015	2983.95	3.49	2.06	Open
C_NC26.4_0073	4044.15	3.28	1.49	Open
C_NC26.4_0070	4044.15	3.28	1.49	Open
C_NC26.4_0060	4642.65	3.77	1.94	Open
C_NC26.4_0050	5374.15	3.72	1.71	Open
C_NC26.4_0040	5852.00	4.05	2.00	Open
C_NC26.4_0030	6614.85	3.95	1.75	Open
C_NC26.4_0028	6614.85	3.95	1.75	Open
C_NC26.4_0025	7068.00	3.67	1.40	Open
C_NC26.4_0020	7068.00	3.67	1.48	Open

C_NC26.4_0080	4044.15	3.28	1.49	Open
C_NC26.4_0140	144.40	0.61	0.16	Open
C_NC26.4_0150	144.40	0.61	0.68	Open
C_NC26.4_0130	799.90	3.35	4.05	Open
C_NC26.4_0090	2964.00	3.46	2.04	Open
C_NC26.4_0128	799.90	3.35	4.05	Open
C_NC26.4_0127	1018.40	3.03	2.76	Open
C_NC26.4_0125	1067.80	3.18	3.01	Open
C_NC26.4_0110	1067.80	3.18	3.21	Open
C_NC26.4_0120	1067.80	3.18	3.01	Open
C_NC26.4_0100	2459.55	3.68	2.63	Open
C_NC26.4_0095	2650.50	3.82	2.77	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC27.8_0016	4212.30	3.42	1.70	Open
C_NC27.8_0018	3780.05	3.07	1.31	Open
C_NC27.8_0015	4841.20	3.93	2.17	Open
C_NC27.8_0040	2357.90	4.30	3.95	Open
C_NC27.8_0055	966.15	3.91	5.26	Open
C_NC27.8_0050	2049.15	4.89	5.84	Open
C_NC27.8_0070	893.00	3.61	4.55	Open
C_NC27.8_0090	584.25	3.67	6.07	Open
C_NC27.8_0080	741.00	3.00	3.21	Open
C_NC27.8_0097	437.95	2.75	3.56	Open
C_ON_0190	11782.56	1.39	0.10	Open
C_ON_0200	11574.41	1.36	0.09	Open
C_ON_0540	18667.56	2.20	0.23	Open
C_ON_0530	18706.73	2.20	0.23	Open
C_ON_0520	18986.50	2.24	0.24	Open
C_ON_0510	18986.50	2.24	0.24	Open
C_ON_0500	19078.27	2.25	0.24	Open
C_ON_0570	18080.03	2.13	0.22	Open
C_ON_0550	18477.31	2.18	0.23	Open
C_ON_0630	17478.61	2.06	0.20	Open
C_ON_0620	17494.76	2.06	0.20	Open
C_ON_0610	17579.25	2.07	0.21	Open
C_ON_0600	17624.01	2.08	0.21	Open
C_ON_0590	17780.13	2.09	0.21	Open
C_ON_0580	18059.89	2.13	0.22	Open
C_ON_0560	18443.74	2.17	0.23	Open
C_ON_0650	17243.59	2.03	0.20	Open
C_ON_0640	17410.90	2.05	0.20	Open
C_ON_0680	16682.93	1.97	0.19	Open
C_ON_0670	16851.91	1.98	0.19	Open

C_ON_0660	17019.77	2.00	0.19	Open
C_ON_0220	11574.41	1.36	0.09	Open
C_ON_0350	22120.53	2.61	0.32	Open
C_ON_0340	22295.67	2.63	0.32	Open
C_ON_0330	9454.84	1.11	0.07	Open
C_ON_0320	9454.84	1.11	0.07	Open
C_ON_0310	9971.30	1.17	0.07	Open
C_ON_0300	9971.30	1.17	0.07	Open
C_ON_0290	10739.00	1.26	0.11	Open
C_ON_0280	11069.69	1.30	0.09	Open
C_ON_0270	11069.69	1.30	0.08	Open
C_ON_0260	11406.54	1.34	0.08	Open
C_ON_0250	11423.33	1.35	0.09	Open
C_ON_0240	11574.41	1.36	0.09	Open
C_ON_0230	11574.41	1.36	0.00	Open
C_ON_0450	20166.59	2.38	0.27	Open
C_ON_0440	20362.43	2.40	0.27	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ON_0430	20598.56	2.43	0.28	Open
C_ON_0420	20671.30	2.43	0.28	Open
C_ON_0410	20778.73	2.45	0.28	Open
C_ON_0400	21035.00	2.48	0.29	Open
C_ON_0390	21202.86	2.50	0.30	Open
C_ON_0380	21202.86	2.50	0.29	Open
C_ON_0370	21507.26	2.53	0.30	Open
C_ON_0360	21984.56	2.59	0.31	Open
C_ON_0490	19100.65	2.25	0.24	Open
C_ON_0480	19344.61	2.28	0.25	Open
C_ON_0470	19415.67	2.29	0.26	Open
C_ON_0460	19874.50	2.34	0.26	Open
C_NC28.7_0050	15720.60	4.17	1.21	Open
C_NC28.7_0040	16220.30	4.30	1.28	Open
C_NC28.7_0053	14820.00	3.93	1.08	Open
C_NC28.7_0055	9454.40	4.32	1.77	Open
C_NC28.7_0035	16985.05	4.50	1.39	Open
C_NC28.7_0033	16985.05	3.45	0.73	Open
C_NC28.7_0030	17185.50	3.49	0.74	Open
C_NC28.7_0020	17526.55	3.56	0.80	Open
C_NC28.7-1.0_0015	5365.60	4.35	2.52	Open
C_NC28.7-1.0_0020	4228.45	4.94	3.94	Open
C_NC28.7-1.0_0065	2117.55	3.87	3.24	Open
C_NC28.7-1.0_0060	2516.55	4.59	4.46	Open
C_NC28.7-1.0_0050	2868.05	4.14	3.20	Open

C_NC28.7-1.0_0040	3511.20	4.10	2.79	Open
C_NC28.7-1.0_0030	3867.45	4.52	3.30	Open
C_NC28.7_0060	9454.40	4.32	1.77	Open
C_NC28.7_0122	856.90	3.59	4.60	Open
C_NC28.7_0120	1529.50	4.40	5.36	Open
C_NC28.7_0100	2491.85	4.55	4.37	Open
C_NC28.7_0105	2489.00	4.54	4.36	Open
C_NC28.7_0110	1649.20	4.74	6.17	Open
C_NC28.7_0090	2491.85	4.55	4.38	Open
C_NC28.7_0124	722.00	3.03	3.35	Open
C_NC28.7_0085	2853.80	4.12	3.17	Open
C_NC28.7_0082	7804.25	4.05	1.70	Open
C_NC28.7_0080	8591.80	4.46	2.03	Open
C_NC28.7_0070	9145.65	4.18	1.67	Open
C_NC28.7_0083	3556.80	4.15	2.88	Open
C_NC28.7-2.0_0020	4023.25	3.26	1.50	Open
C_NC28.7-2.0_0045	3478.90	4.06	2.74	Open
C_NC28.7-2.0_0040	3478.90	4.06	2.74	Open
C_NC28.7-2.0_0030	4023.25	4.70	3.59	Open
C_NC28.7-2.0_0050	1616.90	3.85	3.77	Open
C_NC28.7-2.0_0060	1616.90	3.99	4.11	Open
C_NC28.7-2.8_0010	134.90	1.49	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC28.7-2.8_0015	36.10	0.95	1.14	Open
C_NC28.7-2.8_0020	36.10	0.95	1.05	Open
C_NC28.7-2.8_0030	36.10	0.95	1.15	Open
C_NC28.7_0130	722.00	3.03	3.35	Open
C_NC28.7_0160	250.80	2.77	5.01	Open
C_NC28.7_0155	440.80	2.87	3.93	Open
C_NC28.7_0140	440.80	1.85	1.34	Open
C_NC28.7_0150	440.80	2.87	3.92	Open
C_NC28.7-2.6_0010	839.80	3.40	4.06	Open
C_NC28.7-2.6_0020	705.85	4.44	8.62	Open
C_NC27.8-0.9_0010	73.15	1.92	4.24	Open
C_NC27.8-0.9_0030	73.15	1.92	4.23	Open
C_NC28.7-1.0_0080	940.50	3.94	5.09	Open
C_NC28.7-1.0_0100	737.20	3.09	3.48	Open
C_NC28.7-1.0_0090	883.50	3.70	4.88	Open
C_NC28.7-1.0_0130	190.00	2.10	2.97	Open
C_NC28.7-1.0_0145	161.50	1.78	1.88	Open
C_NC28.7-1.0_0140	161.50	1.78	2.23	Open
C_NC28.7-1.0_0120	290.70	1.89	1.80	Open
C_NC28.7-1.0_0110	442.70	2.88	3.96	Open

C_NC28.7-1.0-0.1_0010	1137.15	3.27	3.11	Open
C_NC28.7-1.0-0.1_0013	1137.15	3.27	3.10	Open
C_NC28.7-1.0-0.1_0020	1137.15	4.60	7.11	Open
C_NC28.7-1.0-0.1_0045	128.25	3.37	11.96	Open
C_NC28.7-1.0-0.1_0040	445.55	2.80	3.67	Open
C_NC28.7-1.0-0.1_0030	736.25	2.98	3.18	Open
C_NC28.7-1.0-0.1_0050	128.25	3.37	11.96	Open
C_NC29.7_0013	988.00	4.00	5.72	Open
C_NC29.7_0020	988.00	4.00	5.48	Open
C_KL7.7_0010	1133.35	3.53	3.72	Open
C_KL7.7_0030	876.85	3.84	5.33	Open
C_KL7.7_0035	667.85	2.92	3.05	Open
C_KL7.7_0023	895.85	3.02	2.93	Open
C_KL7.7_0020	1133.35	3.53	3.73	Open
C_KL9.3_0160	2914.60	3.53	2.15	Open
C_KL9.3_0190	1703.35	3.22	2.36	Open
C_KL9.3_0180	2001.65	3.78	3.18	Open
C_KL9.3_0170	2802.50	3.39	2.00	Open
C_MB6.0_0110	1178.00	3.51	3.61	Open
C_MB6.0_0130	209.00	2.31	3.57	Open
C_MB6.0_0120	209.00	2.31	3.57	Open
C_MB11.0_0010	1170.90	2.14	1.10	Open
C_MB11.0_0060	0.00	0.00	0.00	Open
C_MB11.0_0050	570.74	2.39	1.63	Open
C_MB11.0_0030	990.40	2.36	1.56	Open
C_MB11.0_0040	990.40	2.45	1.66	Open
C_MB11.0_0020	1170.90	2.14	1.08	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9_0147	8467.35	4.40	1.98	Open
C_NC38.9_0143	8467.35	1.50	0.14	Open
C_NC38.9_0140	8467.35	1.50	0.14	Open
C_NC38.9_0130	9277.70	1.64	0.17	Open
C_NC38.9_0115	9437.30	1.67	0.18	Open
C_NC38.9_0105	21045.35	1.66	0.12	Open
C_NC38.9_0110	9625.40	1.71	0.18	Open
C_NC38.9_0100	21045.35	1.66	0.12	Open
C_NC38.9_0087	22453.25	1.77	0.13	Open
C_NC38.9_0120	9437.30	1.67	0.18	Open
C_NC38.9_0090	21978.25	1.73	0.13	Open
C_NC38.9-3.8_0089	21987.75	1.73	0.12	Open
C_NC38.9_0082	25806.75	2.03	0.17	Open
C_NC38.9_0085	22462.75	1.77	0.13	Open
C_NC38.9_0080	26246.60	2.07	0.17	Open

C_NC38.9_0063	30753.40	2.42	0.23	Open
C_NC38.9_0067	26832.75	2.11	0.18	Open
C_NC38.9_0060	31204.65	2.46	0.24	Open
C_NC38.9_0070	26747.25	2.11	0.18	Open
C_NC38.9_0050	31294.90	2.47	0.24	Open
C_NC38.9_0043	36449.60	2.87	0.32	Open
C_NC38.9_0046	31294.90	2.47	0.24	Open
C_NC38.9_0040	36782.10	2.90	0.33	Open
C_NC38.9_0035	36839.10	2.90	0.33	Open
C_NC38.9_0030	36886.60	2.91	0.33	Open
C_NC38.9_0025	36915.10	2.91	0.33	Open
C_NC38.9_0020	37162.10	2.93	0.33	Open
C_NC38.9_0017	37162.10	2.93	0.33	Open
C_NC38.9_0015	37171.60	2.93	0.33	Open
C_NC38.9_0150	8467.35	4.40	1.98	Open
C_NC38.9_0240	3135.95	3.66	2.26	Open
C_NC38.9_0230	3135.95	3.66	2.30	Open
C_NC38.9_0255	2812.95	4.06	3.09	Open
C_NC38.9_0260	988.00	2.84	2.39	Open
C_NC38.9_0250	3135.95	3.66	2.26	Open
C_NC38.9_0213	3135.95	3.66	2.26	Open
C_NC38.9_0200	3249.95	3.80	2.40	Open
C_NC38.9_0210	3249.95	3.80	2.42	Open
C_NC38.9_0192	4703.45	3.82	1.97	Open
C_NC38.9_0190	3772.45	3.06	1.31	Open
C_NC38.9_0185	5225.95	4.24	2.40	Open
C_NC38.9_0180	5225.95	4.24	2.39	Open
C_NC38.9_0172	8242.20	4.28	1.88	Open
C_NC38.9_0177	5225.95	4.24	2.40	Open
C_NC38.9_0175	5938.45	4.11	2.06	Open
C_NC38.9_0160	8265.00	4.29	1.89	Open
C_NC38.9_0170	8265.00	4.29	1.89	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9_0217	3135.95	3.66	2.23	Open
C_NC38.9_0220	3135.95	3.66	2.26	Open
C_NC38.9_0290	988.00	2.84	2.39	Open
C_NC38.9_0280	988.00	2.84	2.39	Open
C_NC38.9_0270	988.00	2.84	2.39	Open
C_NC30.2_0090	627.00	3.94	6.92	Open
C_NC30.2_0080	921.50	3.73	4.82	Open
C_NC30.2_0070	1121.00	4.53	6.93	Open
C_NC30.2_0060	1243.55	3.58	3.66	Open
C_NC30.2_0050	1380.35	3.97	4.44	Open

C_NC30.2_0047	1502.90	4.32	5.19	Open
C_NC30.2_0043	2416.80	4.41	4.14	Open
C_NC30.2_0035	3214.80	4.64	3.96	Open
C_NC30.2_0030	3643.25	2.96	1.31	Open
C_NC30.2_0020	4143.90	3.36	1.62	Open
C_NC30.2_0045	2158.40	3.94	3.36	Open
C_NC30.2_0040	2416.80	4.41	4.14	Open
C_NC31.0_0130	3439.95	4.02	2.68	Open
C_NC31.0_0185	332.50	2.17	2.33	Open
C_NC31.0_0180	332.50	2.17	2.33	Open
C_NC31.0_0170	969.00	4.06	5.78	Open
C_NC31.0_0158	1491.50	3.68	3.54	Open
C_NC31.0_0156	1491.50	3.68	3.54	Open
C_NC31.0_0150	1995.00	4.76	5.56	Open
C_NC31.0_0135	3439.95	4.02	2.68	Open
C_NC31.0_0140	2322.75	4.24	3.85	Open
C_NC31.0_0120	3658.45	4.27	3.01	Open
C_NC31.0_0110	3929.20	4.59	3.43	Open
C_NC31.0_0100	4787.05	3.88	2.02	Open
C_NC31.0_0090	5127.15	4.16	2.31	Open
C_NC31.0_0080	5447.30	4.42	2.59	Open
C_NC31.0_0070	5871.00	4.06	2.02	Open
C_NC31.0_0060	6231.05	4.31	2.25	Open
C_NC31.0_0050	6791.55	4.05	1.84	Open
C_NC31.0_0040	6907.45	4.12	1.90	Open
C_NC31.0_0030	6935.95	4.14	1.91	Open
C_NC31.0_0025	6935.95	4.14	1.91	Open
C_NC31.0_0020	6935.95	4.14	1.99	Open
C_NC31.0-2.5_0020	275.50	3.04	5.95	Open
C_NC31.0-2.5_0030	275.50	3.04	5.96	Open
C_NC31.0-1.9_0050	0.00	0.00	0.00	Open
C_NC31.0-1.9_0040	229.90	2.54	4.26	Open
C_NC31.0-1.9_0035	467.40	1.89	1.32	Open
C_NC31.5_0060	1202.70	3.46	3.44	Open
C_NC31.5_0055	1354.70	3.89	4.29	Open
C_NC31.5_0050	1579.85	4.54	5.70	Open
C_NC31.5_0040	1755.60	4.19	4.39	Open

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC31.5_0030	2088.10	3.81	3.16	Open
C_NC31.5_0025	2238.20	4.09	3.63	Open
C_NC31.5_0020	3043.80	3.56	2.23	Open
C_NC31.5_0065	898.70	3.63	4.59	Open
C_NC31.5_0080	587.10	3.69	6.12	Open

C_NC31.5_0100	216.60	2.39	3.81	Open
C_NC31.5_0090	216.60	2.39	3.82	Open
C_NC32.2_0083	1491.50	3.56	3.24	Open
C_NC32.2_0080	1927.55	3.52	2.72	Open
C_NC32.2_0070	1955.10	3.57	2.79	Open
C_NC32.2_0060	2218.25	4.05	3.53	Open
C_NC32.2_0050	2574.50	4.70	4.66	Open
C_NC32.2_0040	2574.50	4.70	4.65	Open
C_NC32.2_0030	3239.50	3.78	2.40	Open
C_NC32.2_0025	3239.50	3.78	2.40	Open
C_NC32.2_0015	3894.05	3.16	1.45	Open
C_NC32.2_0020	3580.55	2.90	1.19	Open
C_NC32.2_0090	1491.50	3.68	3.53	Open
C_NC32.2_0150	503.50	3.42	5.58	Open
C_NC32.2_0140	693.50	3.04	3.45	Open
C_NC32.2_0107	1330.00	3.96	4.51	Open
C_NC32.2_0110	693.50	2.91	3.13	Open
C_NC32.2_0105	1330.00	3.96	4.52	Open
C_NC32.2_0100	1358.50	4.05	4.71	Open
C_NC32.2_0160	0.00	0.00	0.00	Open
C_NC32.2-1.7_0010	636.50	2.79	2.94	Open
C_NC32.2-1.7_0030	0.00	0.00	0.00	Open
C_NC32.2-1.7_0020	503.50	3.42	5.58	Open
C_NC33.1_0090	1046.90	4.58	7.40	Open
C_NC33.1_0088	1046.90	4.39	6.67	Open
C_NC33.1_0087	1046.90	4.39	6.66	Open
C_NC33.1_0085	1046.90	4.23	6.12	Open
C_NC33.1_0080	1759.40	4.19	4.41	Open
C_NC33.1_0070	1759.40	4.19	4.41	Open
C_NC33.1_0065	3497.90	4.09	2.78	Open
C_NC33.1_0055	7752.95	4.03	1.68	Open
C_NC33.1_0060	3801.90	4.44	3.23	Open
C_NC33.1_0050	7752.95	4.03	1.67	Open
C_NC33.1_0040	8018.95	3.66	1.31	Open
C_NC33.1_0035	8018.95	3.66	1.31	Open
C_NC33.1_0030	8075.95	3.69	1.33	Open
C_NC33.1_0020	8911.95	4.07	1.65	Open
C_NC33.1_0115	0.00	0.00	0.00	Open
C_NC33.1_0110	256.50	2.95	5.75	Open
C_NC33.1_0103	256.50	3.02	6.09	Open
C_NC33.1_0095	1046.90	3.26	3.18	Open
C_NC33.1_0100	1027.90	4.50	7.15	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_NC33.1-1.8_0010	256.50	2.95	5.75	Open
C_NC33.1S_0075	3429.50	4.01	2.67	Open
C_NC33.1S_0150	1566.55	4.04	4.30	Open
C_NC33.1S_0130	2354.10	4.65	4.78	Open
C_NC33.1S_0120	2354.10	4.65	4.78	Open
C_NC33.1S_0111	2411.10	4.40	4.12	Open
C_NC33.1S_0110	2506.10	4.57	4.42	Open
C_NC33.1S_0100	2791.10	4.03	3.05	Open
C_NC33.1S_0090	3239.50	4.67	4.01	Open
C_NC33.1S_0080	3429.50	4.01	2.67	Open
C_NC33.1S_0140	2049.15	4.05	3.72	Open
C_ON_0710	16682.93	1.97	0.19	Open
C_ON_0810	14229.87	2.36	0.32	Open
C_ON_0820	14015.56	2.33	0.31	Open
C_ON_0800	15097.17	2.51	0.34	Open
C_ON_0790	15097.17	2.51	0.36	Open
C_ON_0780	15725.54	2.61	0.39	Open
C_ON_0770	15833.53	2.63	0.39	Open
C_ON_0760	16022.66	1.96	0.19	Open
C_ON_0750	16219.62	1.98	0.19	Open
C_ON_0740	16443.44	2.01	0.20	Open
C_ON_0730	16585.01	2.02	0.20	Open
C_ON_0720	16682.93	1.97	0.19	Open
C_ON_0915	12050.44	2.53	0.42	Open
C_ON_0900	12927.81	2.72	0.48	Open
C_ON_0910	12259.71	2.58	0.43	Open
C_ON_0890	12939.00	2.72	0.48	Open
C_ON_0880	13151.63	2.18	0.28	Open
C_ON_0870	13189.12	2.19	0.28	Open
C_ON_0850	13858.89	2.30	0.31	Open
C_ON_0860	13200.31	2.19	0.28	Open
C_ON_0840	13952.89	2.32	0.31	Open
C_ON_0990	10047.80	2.11	0.30	Open
C_ON_0980	10346.04	2.17	0.32	Open
C_ON_0970	10449.00	2.20	0.32	Open
C_ON_0960	10860.83	2.28	0.35	Open
C_ON_0940	11039.89	2.32	0.36	Open
C_ON_0930	11474.66	2.41	0.38	Open
C_ON_0920	11612.31	2.44	0.39	Open
C_ON_1080	7165.02	2.68	0.65	Open
C_ON_1060	8094.43	2.22	0.39	Open
C_ON_1050	8967.33	2.46	0.46	Open
C_ON_1040	8976.83	2.46	0.47	Open
C_ON_1030	8986.33	2.47	0.47	Open
C_ON_1020	9400.40	2.58	0.51	Open
C_ON_1010	9769.70	2.68	0.54	Open
C_ON_1000	9920.78	2.72	0.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ON_1270	833.73	2.59	2.11	Open
C_ON_1227	162.27	1.79	2.23	Open
C_ON_1220	996.00	2.46	1.67	Open
C_ON_1210	1208.63	2.28	1.25	Open
C_ON_1190	1938.84	2.35	1.01	Open
C_ON_1200	1265.70	2.39	1.36	Open
C_ON_1180	1938.84	2.35	1.01	Open
C_ON_1240	162.27	1.79	2.23	Open
C_ON_1170	2250.51	2.72	1.33	Open
C_ON_1160	2277.93	1.92	0.52	Open
C_ON_1150	3273.37	2.34	0.74	Open
C_ON_1130	4503.25	2.42	0.67	Open
C_ON_1140	3631.48	2.60	0.90	Open
C_ON_1110	5576.46	2.64	0.73	Open
C_ON_1120	4635.86	2.50	0.71	Open
C_ON_1100	5677.18	2.68	0.75	Open
C_ON_1090	5889.25	2.20	0.45	Open
C_NC35.1_0055	1207.45	3.47	3.46	Open
C_NC35.1_0050	1824.95	4.35	4.71	Open
C_NC35.1_0040	2109.95	3.85	3.22	Open
C_NC35.1_0025	3308.85	3.87	2.47	Open
C_NC35.1_0030	2195.45	4.01	3.46	Open
C_NC35.1_0020	3479.85	4.07	2.74	Open
C_NC35.1_0015	3479.85	4.07	2.86	Open
C_NC35.1_0060	1112.45	4.50	6.83	Open
C_NC35.1_0095	332.50	2.17	2.33	Open
C_NC35.1_0090	427.50	2.78	3.70	Open
C_NC35.1_0080	760.00	3.19	3.68	Open
C_NC35.1_0073	760.00	3.07	3.37	Open
C_NC35.1_0070	959.50	3.88	5.19	Open
C_NC35.1-0.1_0010	1113.40	3.20	2.96	Open
C_NC35.1-0.1_0040	788.50	3.19	3.61	Open
C_NC35.1-0.1_0030	788.50	3.19	3.60	Open
C_NC35.1-0.1_0020	1113.40	3.20	2.98	Open
C_NC35.7_0025	411.35	2.59	3.17	Open
C_ON13.9_0020	668.10	2.08	1.40	Open
C_NC37.6_0080	3910.20	3.29	1.53	Open
C_NC37.6_0070	3910.20	3.29	1.51	Open
C_NC37.6_0058	4522.95	3.67	1.83	Open
C_NC37.6_0055	4832.65	3.92	2.06	Open
C_NC37.6_0050	4921.00	3.99	2.14	Open
C_NC37.6_0040	4921.00	3.99	2.14	Open
C_NC37.6_0030	4968.50	4.03	2.18	Open
C_NC37.6_0020	4968.50	4.03	2.27	Open
C_NC37.6_0090	2441.50	3.81	2.88	Open

C_NC37.6_0060	4223.70	3.55	1.76	Open
C_NC37.6_0135	693.50	3.11	3.65	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC37.6_0130	1045.00	3.25	3.26	Open
C_NC37.6_0120	1045.00	3.25	3.20	Open
C_NC37.6_0110	1757.50	3.47	2.78	Open
C_NC37.6_0100	2441.50	4.82	5.18	Open
C_NC37.6-0.5_0040	617.50	4.20	8.15	Open
C_NC37.6-0.5_0010	1140.00	3.40	3.36	Open
C_NC37.6-0.5_0005	1468.70	4.38	5.43	Open
C_NC37.6-0.5_0020	1140.00	3.55	3.77	Open
C_NC37.6-0.5_0030	617.50	4.20	8.17	Open
C_NC37.6-0.5-0.1_0010	328.70	2.24	2.53	Open
C_NC37.6-0.5-0.1_0020	328.70	2.24	2.53	Open
C_NC38.7_0040	8194.70	4.26	1.78	Open
C_NC38.7_0072	4347.20	3.53	1.70	Open
C_NC38.7_0070	5325.70	4.32	2.46	Open
C_NC38.7_0060	5629.70	3.89	1.88	Open
C_NC38.7_0050	7738.70	4.02	1.72	Open
C_NC38.7_0030	10788.20	4.36	1.77	Open
C_NC38.7_0020	10883.20	4.40	1.78	Open
C_NC38.7_0073	3653.70	4.27	3.00	Open
C_NC38.7_0077	3606.20	4.21	2.93	Open
C_NC38.7_0076	3606.20	4.21	2.95	Open
C_NC38.7_0075	3606.20	4.21	2.92	Open
C_NC38.7_0074	3606.20	4.21	2.93	Open
C_NC38.7_0095	3549.20	4.30	3.10	Open
C_NC38.7_0097	3549.20	4.48	3.44	Open
C_NC38.7_0110	1780.30	4.59	5.44	Open
C_NC38.7_0100	2765.45	4.32	3.63	Open
C_NC38.7_0120	304.00	3.50	7.88	Open
C_NC38.9-0.7_0010	5154.70	3.57	1.58	Open
C_NC38.9-0.7_0050	38.00	1.00	1.26	Open
C_NC38.9-0.7_0040	38.00	1.00	1.26	Open
C_NC38.9-0.7_0020	5154.70	3.57	1.61	Open
C_NC38.9-0.7_0030	2698.00	3.89	2.86	Open
C_NC38.9-2.4_0010	3920.65	3.18	1.41	Open
C_NC38.9-2.4_0040	3170.15	3.70	2.31	Open
C_NC38.9-2.4_0015	3920.65	3.18	1.34	Open
C_NC38.9-2.4_0030	3179.65	3.71	2.32	Open
C_NC38.9-2.4_0135	522.50	2.29	3.05	Open
C_NC38.9-2.4_0136	0.00	0.00	0.00	Open
C_NC38.9-2.4_0127	2163.15	4.27	4.09	Open

C_NC38.9-2.4_0130	633.65	2.77	2.92	Open
C_NC38.9-2.4_0120	2163.15	4.09	3.66	Open
C_NC38.9-2.4_0110	2239.15	3.35	2.21	Open
C_NC38.9-2.4_0078	2429.15	3.79	2.85	Open
C_NC38.9-2.4_0070	2457.65	3.67	2.63	Open
C_NC38.9-2.4_0060	2600.15	3.89	2.91	Open
C_NC38.9-2.4_0048	2619.15	3.92	2.95	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-2.4_0050	2600.15	3.89	2.91	Open
C_NC38.9-2.4_0045	3113.15	4.49	3.73	Open
C_NC38.9-2.4-1.5_0010	0.00	0.00	0.00	Open
C_NC38.9-3.0_0010	3344.00	3.91	2.54	Open
C_NC38.9-3.0_0060	1976.00	3.61	2.85	Open
C_NC38.9-3.0_0050	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0040	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0020	2622.00	3.78	2.79	Open
C_NC38.9-3.0_0030	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0080	931.00	3.77	4.91	Open
C_NC38.9-3.0_0070	1634.00	3.90	3.86	Open
C_NC38.9-4.8-0.5_0020	4550.50	3.69	1.84	Open
C_NC38.9-4.8-0.5_0030	4550.50	3.69	1.74	Open
C_NC38.9-4.8-0.5_0040	4218.00	3.42	1.61	Open
C_NC38.9-4.8-0.5_0108	1767.00	3.49	2.81	Open
C_NC38.9-4.8-0.5_0092	2042.50	3.86	3.30	Open
C_NC38.9-4.8-0.5_0075	2584.00	3.86	2.88	Open
C_NC38.9-4.8-0.5_0090	2042.50	3.86	3.30	Open
C_NC38.9-4.8-0.5_0070	3106.50	3.76	2.42	Open
C_NC38.9-4.8-0.5_0060	3809.50	4.45	3.23	Open
C_NC38.9-4.8-0.5_0050	3914.00	4.57	3.41	Open
C_NC38.9-4.8-0.5_0045	3971.00	4.64	3.50	Open
C_NC38.9-4.8-0.5_0095	1805.00	3.29	2.41	Open
C_NC38.9-4.8_0010	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0045	10444.30	4.22	1.59	Open
C_NC38.9-4.8_0040	10716.95	4.33	1.66	Open
C_NC38.9-4.8_0030	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0020	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0050	5893.80	4.08	2.03	Open
C_NC38.9-4.8_0157	1064.00	3.31	3.32	Open
C_NC38.9-4.8_0143	1751.80	4.62	5.60	Open
C_NC38.9-4.8_0140	1960.80	3.87	3.41	Open
C_NC38.9-4.8_0150	1064.00	3.17	3.09	Open
C_NC39.8-4.8_0090	5038.80	4.09	2.24	Open
C_NC39.8-4.8_0085	5038.80	4.09	2.25	Open

C_NC38.9-4.8_0130	2445.30	4.46	4.23	Open
C_NC38.9-4.8_0120	2910.80	4.20	3.29	Open
C_NC38.9-4.8_0096	4269.30	3.46	1.65	Open
C_NC38.9-4.8_0094	4639.80	3.76	1.92	Open
C_NC38.9-4.8_0093	4639.80	3.76	1.92	Open
C_NC39.8-4.8_0080	5038.80	4.09	2.24	Open
C_NC38.9-4.8_0070	5038.80	4.09	2.27	Open
C_NC38.9-4.8_0060	5846.30	4.04	2.01	Open
C_NC38.9-4.8_0110	3205.30	4.62	3.93	Open
C_NC38.9-4.8_0160	1064.00	3.31	3.32	Open
C_NC38.9-4.8-2.5_0015	570.00	3.71	6.33	Open
C_NC38.9-4.8-2.5_0020	570.00	3.71	6.32	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-4.8-2.5_0030	256.50	2.83	5.21	Open
C_NC38.9-4.8-2.5_0040	256.50	2.83	5.22	Open
C_NC38.9-7.8_0010	2303.75	4.20	3.80	Open
C_NC38.9-7.8_0060	1474.40	4.24	5.01	Open
C_NC38.9-7.8_0050	1787.90	3.26	2.37	Open
C_NC38.9-7.8_0045	1913.30	3.49	2.69	Open
C_NC38.9-7.8_0040	1913.30	3.49	2.69	Open
C_NC38.9-7.8_0030	2129.90	3.89	3.27	Open
C_NC38.9-7.8_0020	2303.75	4.20	3.79	Open
C_NC38.9-7.8-0.5_0010	1273.00	3.66	3.77	Open
C_NC38.9-7.8-0.5_0020	1273.00	3.66	3.82	Open
C_NC38.9-7.8-0.5_0040	731.50	2.96	3.14	Open
C_NC38.9-7.8-0.5_0030	855.00	3.46	4.16	Open
C_NC38.9-7.9_0010	712.50	2.88	3.01	Open
C_NC38.9-7.9_0020	712.50	2.88	2.66	Open
C_NC38.9-7.9_0030	712.50	2.88	2.99	Open
C_NC38.9-8.5_0010	931.00	3.77	4.92	Open
C_NC38.9-8.5_0030	826.50	3.34	3.94	Open
C_NC38.9-8.5_0015	931.00	3.77	4.91	Open
C_NC38.9-8.5_0020	826.50	3.34	3.94	Open
C_NC38.9-10.3_0010	1824.95	3.33	2.51	Open
C_NC38.9-10.3_0020	1672.95	3.99	4.19	Open
C_NC38.9-10.3_0030	1672.95	3.99	3.99	Open
C_NC38.9-10.3_0040	1672.95	3.05	2.09	Open
C_NC38.9-10.3_0060	1672.95	3.05	2.09	Open
C_NC38.9-10.3_0050	1672.95	3.05	2.09	Open
C_NC43.2_0010	31203.91	3.68	0.61	Open
C_NC43.2_0260	13600.40	3.60	0.92	Open
C_NC43.2_0270	11462.90	4.14	1.43	Open
C_NC43.2_0195	16877.91	2.71	0.40	Open

C_NC43.2_0230	15728.40	4.17	1.21	Open
C_NC43.2_0225	15728.41	2.52	0.36	Open
C_NC43.2_0190	16963.41	2.72	0.41	Open
C_NC43.2_0180	17077.41	2.74	0.41	Open
C_NC43.2_0175	17124.90	2.75	0.40	Open
C_NC43.2_0350	4.00	0.11	0.02	Open
C_NC43.2_0340	4.00	0.11	0.02	Open
C_NC43.2_0325	3556.05	4.15	2.85	Open
C_NC43.2_0330	4.00	0.11	0.02	Open
C_NC43.2_0315	6222.70	4.30	2.25	Open
C_NC43.2_0320	5229.00	4.24	2.40	Open
C_NC43.2_0310	6483.95	4.49	2.42	Open
C_NC43.2_0300	6536.20	4.52	2.46	Open
C_NC43.2_0290	6968.45	4.16	1.93	Open
C_NC43.2_0275	11443.90	4.13	1.42	Open
C_NC43.2_0280	7685.70	4.58	2.31	Open
C_NC43.2_0240	15167.90	4.02	1.13	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC43.2_0250	14246.40	3.78	1.01	Open
C_NC43.2_0160	18806.40	3.01	0.49	Open
C_NC43.2_0170	17675.90	2.83	0.44	Open
C_NC43.2_0150	19366.91	3.93	0.93	Open
C_NC43.2_0135	21389.46	3.43	0.63	Open
C_NC43.2_0140	20862.21	3.34	0.60	Open
C_NC43.2_0120	22956.96	3.68	0.72	Open
C_NC43.2_0130	22605.46	3.62	0.70	Open
C_NC43.2-6.6_0108	24179.61	3.88	0.79	Open
C_NC43.2_0110	23460.46	3.76	0.74	Open
C_NC43.2-6.6_0105	24863.61	3.99	0.83	Open
C_NC43.2_0100	25899.11	4.15	0.89	Open
C_NC43.2_0070	26345.61	3.10	0.44	Open
C_NC43.2_0055	28580.96	3.37	0.51	Open
C_NC43.2_0060	26345.61	3.10	0.44	Open
C_NC43.2_0050	29093.96	3.43	0.52	Open
C_NC43.2_0047	29188.96	3.44	0.53	Open
C_NC43.2_0044	29578.46	3.48	0.54	Open
C_NC43.2_0037	30053.46	3.54	0.56	Open
C_NC43.2_0040	30053.46	3.54	0.56	Open
C_NC43.2_0032	31172.56	3.67	0.60	Open
C_NC43.2_0035	30240.61	3.56	0.56	Open
C_NC43.2_0030	31203.91	3.68	0.60	Open
C_NC43.2_0020	31203.91	3.68	0.60	Open
C_NC43.2_0013	31203.91	3.68	0.60	Open

C_NC43.2_0103	25547.61	4.10	0.87	Open
C_NC43.2-2.1_0010	0.00	0.00	0.00	Open
C_NC43.2-2.1_0020	0.00	0.00	0.00	Open
C_NC43.2-0.8_0010	931.95	3.77	4.93	Open
C_NC43.2-0.8_0020	931.95	3.77	4.92	Open
C_NC45.4_0025	1102.00	3.17	3.05	Open
C_NC45.4_0015	1434.50	3.42	3.15	Open
C_NC45.4-0.5_0010	0.00	0.00	0.00	Open
C_NC45.4_0040	1102.00	3.51	3.74	Open
C_NC45.4_0050	0.00	0.00	0.00	Open
C_NC46.7_0025	6971.10	2.51	0.57	Open
C_NC46.7_0027	6933.10	4.14	1.91	Open
C_NC46.7_0020	7056.60	2.55	0.61	Open
C_NC46.7-1.0_0005	3249.00	4.69	4.03	Open
C_NC46.7-0.5_0020	2624.85	4.79	4.83	Open
C_NC46.7-0.5_0035	2548.85	4.65	4.57	Open
C_NC46.7-0.5_0030	2624.85	4.79	4.82	Open
C_NC46.7-0.5_0050	857.85	3.47	4.22	Open
C_NC46.7-0.5_0068	418.00	2.91	4.18	Open
C_NC46.7-0.5_0060	769.50	3.11	3.45	Open
C_NC46.7-1.0_0040	1643.50	3.92	3.89	Open
C_NC46.7-1.0_0065	247.00	2.73	4.87	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC46.7-1.0_0060	389.50	2.45	2.87	Open
C_NC46.7-1.0_0045	1178.00	3.39	3.29	Open
C_NC46.7-1.0_0050	802.75	3.25	3.69	Open
C_NC46.7-0.5-0.2_0050	123.50	3.25	11.15	Open
C_NC49.2_0090	5690.50	4.62	2.81	Open
C_NC49.2_0080	6023.00	4.17	2.11	Open
C_NC49.2_0070	6381.15	4.41	2.35	Open
C_NC49.2_0060	7644.65	4.56	2.29	Open
C_NC49.2_0055	7773.85	4.04	1.69	Open
C_NC49.2_0050	7879.30	4.09	1.73	Open
C_NC49.2_0127	4778.50	3.88	2.03	Open
C_NC49.2_0110	5063.50	4.11	2.27	Open
C_NC49.2_0120	5044.50	4.09	2.24	Open
C_NC49.2_0125	4778.50	3.88	2.04	Open
C_NC49.2_0100	5168.00	4.19	2.35	Open
C_NC49.2_0095	5367.50	4.35	2.56	Open
C_NC49.2_0040	8036.05	4.18	1.80	Open
C_NC49.2_0020	13215.45	2.68	0.47	Open
C_NC49.2_0027	13215.45	2.68	0.46	Open
C_NC49.2_0035	12137.20	2.46	0.39	Open

C_NC49.2-2.3_0010	623.20	3.92	6.85	Open
C_NC49.2-2.3_0020	623.20	3.92	6.84	Open
C_NC49.2-2.3_0025	589.00	3.70	6.17	Open
C_NC49.2-2.3_0040	589.00	3.70	6.16	Open
C_NC49.2_0150	3547.30	4.14	2.84	Open
C_NC49.2_0220	418.00	2.84	3.95	Open
C_NC49.2_0210	418.00	2.84	3.96	Open
C_NC49.2_0200	418.00	2.84	3.95	Open
C_NC49.2_0188	674.50	2.95	3.28	Open
C_NC49.2_0155	3423.80	4.00	2.66	Open
C_NC49.2_0160	1634.00	4.70	6.06	Open
C_NC49.2_0175	950.00	3.02	2.84	Open
C_NC49.2_0170	1444.00	4.60	6.17	Open
C_NC49.2_0165	1453.50	4.18	4.88	Open
C_NC49.2_0163	1463.00	4.21	4.94	Open
C_NC49.2-2.9_0010	1789.80	4.27	4.60	Open
C_NC49.2-2.9_0055	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0050	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0040	1580.80	4.54	5.70	Open
C_NC49.2-2.9_0030	1628.30	3.88	3.92	Open
C_NC49.2-2.9_0020	1628.30	3.88	3.76	Open
C_NC49.2-0.9_0050	332.50	3.67	8.45	Open
C_NC49.2-0.9_0080	0.00	0.00	0.00	Open
C_NC49.2-0.9_0070	57.00	1.50	2.66	Open
C_NC49.2-0.9_0060	57.00	1.50	2.72	Open
C_NC49.2-0.9_0055	285.00	1.79	1.58	Open
C_NC49.2-0.2_0010	490.20	1.98	1.51	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2-0.2_0040	128.25	1.42	1.45	Open
C_NC49.2-0.2_0030	128.25	1.42	1.45	Open
C_NC49.2-0.2_0020	490.20	1.98	1.50	Open
C_NC49.2-0.4_0005	3610.95	4.22	2.94	Open
C_NC49.2-0.4_0010	2033.95	3.71	3.01	Open
C_NC49.2-0.4_0020	2033.95	3.71	3.02	Open
C_NC49.2-0.4_0040	722.95	2.92	2.97	Open
C_NC49.2-0.4_0070	722.95	2.92	3.07	Open
C_NC49.2-0.4_0030	1824.95	3.33	2.48	Open
C_NC49.2-0.4_0080	722.95	2.92	3.07	Open
C_NC49.2-0.4-0.6_0020	1548.50	3.69	3.48	Open
C_NC49.2-0.4-0.6_0045	873.05	2.51	1.90	Open
C_NC49.2-0.4-0.6_0040	1254.00	3.61	3.71	Open
C_NC49.2-0.4-0.6_0030	1254.00	3.61	3.71	Open
C_NC49.2-0.4-0.6_0026	1263.50	3.63	3.76	Open

C_NC49.2-0.4-0.6_0023	1539.00	3.67	3.49	Open
C_NC49.2-0.4-0.6_0025	1425.00	4.10	4.71	Open
C_NC49.2-0.4-0.6_0060	841.70	3.40	4.08	Open
C_NC49.2-0.4-0.6_0125	9.50	0.25	0.10	Open
C_NC49.2-0.4-0.6_0115	9.50	0.25	0.10	Open
C_NC49.2-0.4-0.6_0080	157.70	1.74	2.15	Open
C_NC49.2-0.4-0.6_0090	157.70	1.74	2.12	Open
C_NC49.2-0.4-0.6_0070	157.70	1.74	2.12	Open
C_NC49.4_0010	3356.35	2.32	0.75	Open
C_NC49.4_0030	3042.85	2.11	0.60	Open
C_NC49.4_0020	3356.35	2.32	0.72	Open
C_NC49.4_0034	2377.85	1.93	0.56	Open
C_NC50.8_0010	218.61	0.18	0.00	Open
C_NC50.8_0110	57.00	1.50	2.66	Open
C_NC50.8_0080	646.00	2.61	2.50	Open
C_NC50.8_0070	702.05	2.02	1.24	Open
C_NC50.8_0040	1691.95	3.09	2.14	Open
C_NC50.8_0035	1934.20	2.79	1.54	Open
C_NC50.8_0130	0.00	0.00	0.00	Open
C_NC50.8_0120	0.00	0.00	0.00	Open
C_NC50.8_0030	2138.45	3.08	1.86	Open
C_NC50.8_0025	2138.45	2.50	1.16	Open
C_NC50.8_0020	2242.95	2.62	1.27	Open
C_NC50.8_0100	313.50	1.97	1.92	Open
C_NC50.8_0091	342.00	2.15	2.26	Open
C_NC50.8_0090	646.00	2.61	2.50	Open
C_NC50.8_0065	937.65	2.70	2.17	Open
C_NC50.8_0063	937.65	2.70	2.17	Open
C_NC50.8_0060	1105.80	3.18	2.95	Open
C_NC50.8_0041	1550.40	3.70	3.45	Open
C_NC50.8_0050	1411.70	4.06	4.62	Open
C_NC53.2_0033	2107.10	3.85	3.21	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC53.2_0030	2107.10	3.85	3.21	Open
C_NC53.2_0025	3636.60	2.52	0.83	Open
C_NC53.2_0040	1974.10	4.71	5.45	Open
C_NC53.2_0045	1624.50	4.67	6.00	Open
C_NC53.2_0090	1007.00	2.90	2.47	Open
C_NC53.2_0093	731.50	2.96	3.14	Open
C_NC53.2_0100	731.50	2.96	3.14	Open
C_NC53.2_0115	446.50	2.81	3.69	Open
C_NC53.2_0110	540.55	3.40	5.26	Open
C_NC53.2_0150	19.00	0.50	0.35	Open

C_NC53.2-0.4_0005	133.00	3.50	12.79	Open
C_SA_0020	1301.13	2.37	1.32	Open
C_SA_0050	1196.63	2.18	1.14	Open
C_SA_0040	1235.58	2.26	1.19	Open
C_SA_0030	1272.63	2.32	1.26	Open
C_SA_0110	1053.18	1.92	0.91	Open
C_SA_0140	698.83	1.67	0.80	Open
C_SA_0130	975.28	1.78	0.77	Open
C_SA_0120	1049.38	1.92	0.88	Open
C_SA_0170	521.18	1.50	0.73	Open
C_SA_0160	541.13	1.56	0.78	Open
C_SA_0150	636.13	1.52	0.67	Open
C_SA_0230	68.98	0.28	0.04	Open
C_SA_0220	218.13	0.88	0.34	Open
C_SA_0210	404.33	1.16	0.45	Open
C_SA_0200	423.33	1.22	0.50	Open
C_SA_0190	477.48	1.37	0.62	Open
C_SA_0180	487.93	1.40	0.65	Open
C_NC54.2_0140	4093.55	4.78	3.70	Open
C_NC54.2_0130	4221.80	3.42	1.59	Open
C_NC54.2_0110	4921.95	3.99	2.05	Open
C_NC54.2_0120	4630.30	3.76	1.99	Open
C_NC54.2_0095	5434.95	4.41	2.58	Open
C_NC54.2_0100	5434.95	4.41	2.58	Open
C_NC54.2_0090	6014.45	4.16	2.11	Open
C_NC54.2_0080	6014.45	4.16	2.22	Open
C_NC54.2_0070	6493.25	4.49	2.43	Open
C_NC54.2_0060	6493.25	4.49	2.43	Open
C_NC54.2_0050	6602.50	4.57	2.51	Open
C_NC54.2_0040	7184.85	4.29	2.04	Open
C_NC54.2_0195	1729.00	4.12	4.27	Open
C_NC54.2_0190	1748.00	3.19	2.38	Open
C_NC54.2_0180	2831.00	4.08	3.13	Open
C_NC54.2_0170	3249.00	4.69	4.03	Open
C_NC54.2_0168	3268.00	4.71	4.08	Open
C_NC54.2_0165	3296.50	4.75	4.14	Open
C_NC54.2_0160	3400.05	4.90	4.39	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC54.2_0150	3903.55	4.56	3.49	Open
C_NC54.2_0030	7272.25	3.78	1.49	Open
C_NC54.2_0025	7272.25	2.62	0.61	Open
C_NC54.2_0020	7738.70	2.79	0.72	Open
C_NC54.2_0210	1729.00	4.12	4.27	Open

C_NC54.4_0250	237.50	2.73	4.99	Open
C_NC54.4_0245	237.50	2.73	4.99	Open
C_NC54.2_0258	190.00	2.24	3.49	Open
C_NC54.2_0290	190.00	2.10	2.99	Open
C_NC54.2_0300	0.00	0.00	0.00	Open
C_NC54.2_0280	190.00	2.10	3.00	Open
C_NC54.2_0270	190.00	2.10	2.96	Open
C_NC54.2_0240	1415.50	4.07	4.65	Open
C_NC54.2_0230	1539.00	4.42	5.42	Open
C_NC54.2_0220	1643.50	4.73	6.14	Open
C_NC54.2-2.8_0020	-47.50	1.25	1.90	Open
C_NC54.2-0.7_0010	0.00	0.00	0.00	Open
C_NC54.4_0100	218.50	2.41	3.88	Open
C_NC54.4_0110	218.50	2.41	3.88	Open
C_NC54.4_0095	807.50	3.27	3.77	Open
C_NC54.4_0090	1619.75	3.86	3.78	Open
C_NC54.4_0060	2498.50	4.56	4.40	Open
C_NC54.4_0050	3439.00	4.02	2.68	Open
C_NC54.4_0024	5185.10	2.69	0.80	Open
C_NC54.4_0023	5185.10	2.37	0.58	Open
C_NC54.4_0020	5907.10	2.70	0.74	Open
C_NC54.4_0030	3572.00	4.17	2.88	Open
C_NC54.4-0.5_0027	3694.55	4.32	3.06	Open
C_NC54.4-0.5_0028	3572.00	4.17	2.89	Open
C_NC54.4_0026	3797.15	4.44	3.22	Open
C_NC54.4_0025	5058.75	4.10	2.26	Open
C_NC54.4_0085	1974.10	3.60	2.85	Open
C_NC54.4_0080	2180.25	3.98	3.42	Open
C_NC54.4_0065	2408.25	4.40	4.14	Open
C_NC54.4_0070	2180.25	3.98	3.42	Open
C_NC54.4_0130	142.50	1.64	1.94	Open
C_NC54.4_0140	142.50	1.64	2.12	Open
C_NC54.4_0150	0.00	0.00	0.00	Open
C_NC54.4_0126	142.50	1.64	1.94	Open
C_NC_1140	60522.60	4.06	0.56	Open
C_NC_1150	56700.75	4.47	0.73	Open
C_NC_1160	56700.75	4.47	0.73	Open
C_NC_1170	42161.00	3.32	0.42	Open
C_NC_1380	16668.70	2.67	0.40	Open
C_NC_1390	16431.20	2.63	0.39	Open
C_NC_1400	12631.20	2.56	0.42	Open
C_NC_1410	8057.90	2.14	0.35	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_NC_1420	7991.40	2.12	0.34	Open
C_NC_1470	6179.75	2.23	0.45	Open
C_NC_1460	6495.15	2.34	0.50	Open
C_NC_1450	6495.15	2.34	0.50	Open
C_NC_1440	6855.20	2.47	0.55	Open
C_NC_1430	7634.20	2.02	0.32	Open
C_NC_1640	2299.00	1.93	0.57	Open
C_NC_1630	2338.90	1.97	0.59	Open
C_NC_1620	2338.90	1.97	0.59	Open
C_NC_1600	2520.35	2.12	0.68	Open
C_NC_1590	2861.40	2.41	0.86	Open
C_NC_1580	3277.50	2.76	1.10	Open
C_NC_1570	3442.80	2.90	1.21	Open
C_NC_1550	3940.60	3.31	1.56	Open
C_NC_1560	3598.60	3.03	1.31	Open
C_NC_1540	4178.10	3.51	1.73	Open
C_NC_1530	4402.30	3.70	1.90	Open
C_NC_1520	4516.30	3.80	2.00	Open
C_NC_1500	5779.80	2.09	0.40	Open
C_NC_1510	4630.30	3.89	2.09	Open
C_NC_1490	5896.65	2.13	0.43	Open
C_NC_1480	5961.25	2.15	0.42	Open
C_NC_1680	627.00	0.55	0.06	Open
C_NC_1670	798.00	0.67	0.08	Open
C_NC_1660	1168.50	0.98	0.16	Open
C_NC_1650	1700.50	1.43	0.33	Open
C_NC_1710	0.00	0.00	0.00	Open
C_NC_1700	114.00	0.10	0.00	Open
C_NC_1690	408.50	0.36	0.03	Open
C_NC_1190	42161.00	3.32	0.42	Open
C_NC_1230	38209.00	4.50	0.87	Open
C_NC_1220	38902.50	4.58	0.90	Open
C_NC_1210	39398.41	4.64	0.93	Open
C_NC_1200	40726.50	4.80	0.97	Open
C_NC_1240	36860.00	4.34	0.81	Open
C_NC_1250	36024.00	4.24	0.78	Open
C_NC_1270	36024.00	4.24	0.78	Open
C_NC_1280	34044.20	4.01	0.70	Open
C_NC_1310	33654.70	3.96	0.69	Open
C_NC_1300	33882.70	3.99	0.69	Open
C_NC_1290	33996.71	4.00	0.70	Open
C_NC_1330	33654.70	3.96	0.69	Open
C_NC_1350	17143.71	2.75	0.42	Open
C_NC_1340	30198.60	3.56	0.56	Open
C_NC_1360	16668.70	2.67	0.40	Open
C_NC55.5_0020	3171.10	3.70	2.31	Open
C_NC55.5_0023	2863.30	3.34	1.91	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.5_0026	1596.95	3.81	3.68	Open
C_NC55.5-0.1-0.7_0010	1266.35	2.31	1.26	Open
C_NC55.6-0.1-0.7_0055	85.50	2.25	5.64	Open
C_NC55.6-0.1-0.7_0045	85.50	2.25	5.65	Open
C_NC55.6-0.1-0.7_0040	541.50	3.41	5.27	Open
C_NC55.6-0.1-0.7_0030	1266.35	2.31	1.25	Open
C_NC55.6-0.1-0.7_0020	1266.35	2.31	1.25	Open
C_NC55.6_0010	14539.75	2.95	0.57	Open
C_NC55.6_0020	14539.75	3.85	1.05	Open
C_NC55.6_0070	5798.80	4.01	1.97	Open
C_NC55.6_0060	5884.30	4.07	2.03	Open
C_NC55.6_0040	6169.30	3.68	0.00	Open
C_NC55.6_0035	7584.80	3.94	1.61	Open
C_NC55.6_0050	6169.30	3.68	1.54	Open
C_NC55.6_0030	8030.35	3.67	1.31	Open
C_NC55.6_0075	5148.05	3.56	1.58	Open
C_NC55.6_0078	4973.25	4.03	2.19	Open
C_NC55.6_0022	13817.75	3.66	0.95	Open
C_NC55.6_0025	8030.35	3.67	1.31	Open
C_NC55.6-3.3_0010	51.30	1.35	2.24	Open
C_NC55.6-3.3_0020	51.30	1.35	2.19	Open
C_NC55.6_0140	3575.80	2.90	1.19	Open
C_NC55.6_0188	1267.30	3.64	3.78	Open
C_NC55.6_0187	1799.30	3.28	2.40	Open
C_NC55.6_0180	1881.00	3.43	2.68	Open
C_NC55.6_0185	1837.30	3.35	2.49	Open
C_NC55.6_0170	2093.80	3.82	3.17	Open
C_NC55.6_0155	2145.10	3.92	3.32	Open
C_NC55.6_0160	2093.80	3.82	3.17	Open
C_NC55.6_0150	2848.10	4.11	0.00	Open
C_NC55.6_0190	1267.30	3.64	3.79	Open
C_NC55.6_0230	184.30	2.04	2.83	Open
C_NC55.6_0225	184.30	2.04	2.83	Open
C_NC55.6_0220	678.30	2.74	2.73	Open
C_NC55.6_0210	1181.80	3.40	3.33	Open
C_NC55.6_0200	1181.80	3.40	3.33	Open
C_NC55.6-0.5_0010	5787.40	4.00	1.98	Open
C_NC55.6-0.5_0015	5787.40	4.00	1.96	Open
C_NC55.6-0.5_0093	4212.30	3.42	1.56	Open
C_NC55.6-0.5_0090	4212.30	3.42	1.63	Open
C_NC55.6-0.5_0080	4345.30	3.53	1.70	Open
C_NC55.6-0.5_0070	4696.80	3.81	1.97	Open
C_NC55.6-0.5_0060	5038.80	4.09	2.24	Open
C_NC55.6-0.5_0040	5380.80	3.72	1.71	Open
C_NC55.6-0.5_0050	5038.80	4.09	1.98	Open

C_NC55.6-0.5_0030	5745.60	3.97	1.94	Open
C_NC55.6-0.5_0020	5787.40	4.00	1.96	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.6-0.5_0097	4212.30	3.42	1.61	Open
C_NC55.6-0.5_0100	4212.30	3.42	1.61	Open
C_NC55.6-0.5_0145	3530.20	4.12	2.82	Open
C_NC55.6-0.5_0150	2132.75	3.89	3.28	Open
C_NC55.6-0.5_0140	4157.20	4.86	3.82	Open
C_NC55.6-0.5_0130	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0110	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0105	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0175	1078.25	3.10	2.71	Open
C_NC55.6-0.5_0160	1524.75	3.64	3.39	Open
C_NC55.6-0.5_0170	1515.25	3.61	3.34	Open
C_NC55.6-0.5_0155	1857.25	4.43	4.87	Open
C_NC55.6-0.5_0183	774.25	3.13	3.48	Open
C_NC55.6-0.5_0230	142.50	1.57	1.75	Open
C_NC55.6-0.5_0240	142.50	1.57	1.76	Open
C_NC55.6-0.5_0210	636.50	4.00	7.10	Open
C_NC55.6-0.5_0220	636.50	4.00	7.14	Open
C_NC55.6-0.5_0200	750.50	3.04	3.30	Open
C_NC55.6-0.5_0185	774.25	3.13	3.37	Open
C_NC55.6-0.5-1.8_0010	0.00	0.00	0.00	Open
C_NC55.6-0.5-1.8_0020	0.00	0.00	0.00	Open
C_NC55.6-0.5-2.6_0010	1397.45	4.02	4.54	Open
C_NC55.6-0.5-2.6_0045	741.00	3.00	3.22	Open
C_NC55.6-0.5-2.6_0040	741.00	3.00	3.22	Open
C_NC55.6-0.5-2.6_0030	1121.00	4.53	6.93	Open
C_NC55.6-0.5-2.6_0020	1397.45	4.02	4.54	Open
C_NC58.7_0020	1979.80	4.72	5.72	Open
C_NC58.7_0023	1248.30	3.59	3.68	Open
C_NC58.7-0.7_0010	1039.30	4.20	6.06	Open
C_NC58.7-0.7_0040	70.30	1.85	3.93	Open
C_NC58.7-0.7_0030	70.30	1.85	3.94	Open
C_NC58.7-0.7_0020	421.80	2.65	3.32	Open
C_NC58.7_0030	209.00	2.31	3.57	Open
C_NC59.5_0020	1518.10	3.62	3.35	Open
C_NC59.5_0050	777.10	3.14	3.51	Open
C_NC60.0_0005	13054.90	4.71	1.89	Open
C_NC60.0_0050	9106.70	4.16	1.65	Open
C_NC60.0_0025	11658.40	4.21	1.47	Open
C_NC60.0_0020	13054.90	4.71	1.81	Open
C_NC60.0_0010	13054.90	4.71	1.81	Open

C_NC60.0_0040	9473.40	4.33	1.78	Open
C_NC60.0_0060	5862.45	4.06	2.01	Open
C_NC60.0_0080	5850.10	4.05	2.00	Open
C_NC60.0-0.9-0.2_0010	912.95	3.69	4.72	Open
C_NC60.0-0.9-0.2_0030	598.50	3.76	6.35	Open
C_NC60.0-0.9-0.2_0020	598.50	3.76	6.36	Open
C_NC60.0-0.9_0010	3244.25	4.68	3.91	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0-0.9_0025	2869.95	4.14	3.21	Open
C_NC60.0-0.9-0.4_0010	526.30	3.31	5.00	Open
C_NC60.0-0.9-0.4_0020	526.30	3.31	5.00	Open
C_NC60.0-0.9_0030	1957.00	4.67	5.37	Open
C_NC60.0-0.9_0057	1216.00	3.50	3.51	Open
C_NC60.0-0.6_0010	1814.50	3.31	2.33	Open
C_NC60.0-0.6_0020	1444.00	4.15	4.84	Open
C_NC60.0-0.6_0030	1444.00	4.15	4.82	Open
C_NC60.0-1.6_0020	3164.45	4.56	3.85	Open
C_NC60.0-1.6_0025	1919.95	4.58	5.18	Open
C_NC60.0-1.6-0.7_0020	1111.50	4.50	6.82	Open
C_NC60.0-1.6_0040	808.45	3.27	3.78	Open
C_NC60.0_0090	2685.65	3.87	2.84	Open
C_NC60.0_0140	171.00	0.26	0.02	Open
C_NC60.0_0130	171.00	0.25	0.00	Open
C_NC60.0_0120	313.50	0.45	0.05	Open
C_NC60.0_0110	313.50	0.45	0.05	Open
C_NC60.0_0100	1282.50	1.85	0.72	Open
C_NC60.0_0150	0.00	0.00	0.00	Open
C_NC60.0_0145	0.00	0.00	0.00	Open
C_LL_0140	1473.85	4.39	5.46	Open
C_LL_0130	1473.85	3.64	3.46	Open
C_LL_0120	1608.14	3.97	4.07	Open
C_LL_0110	1641.71	4.06	4.23	Open
C_LL_0100	1692.07	4.18	4.47	Open
C_LL_0090	1820.77	4.50	5.12	Open
C_LL_0080	1837.56	3.47	2.71	Open
C_LL_0075	1837.56	3.47	2.71	Open
C_LL_0050	2112.30	3.99	3.51	Open
C_LL_0040	2251.95	4.26	3.96	Open
C_LL_0020	2542.36	3.80	2.80	Open
C_LL_0010	2583.77	3.86	2.88	Open
C_LL_0004	2583.77	3.86	2.88	Open
C_HL_0040	28765.48	3.39	0.51	Open
C_HL_0030	28793.97	3.39	0.51	Open

C_HL_0020	28821.96	3.39	0.51	Open
C_HL_0010	28913.16	3.41	0.52	Open
C_HL_0270	21730.79	3.48	0.65	Open
C_HL_0080	26168.60	4.19	0.91	Open
C_HL_0070	26168.60	4.19	0.91	Open
C_HL_0060	28765.48	3.39	0.51	Open
C_HL_0160	23672.45	3.79	0.76	Open
C_HL_0150	24456.38	3.92	0.80	Open
C_HL_0140	24746.23	3.97	0.82	Open
C_HL_0120	25159.18	4.03	0.85	Open
C_HL_0130	25159.18	4.03	0.85	Open
C_HL_0110	25816.09	4.14	0.89	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_HL_0090	26006.33	4.17	0.90	Open
C_HL_260	21753.18	3.49	0.65	Open
C_HL_0240	22223.20	3.56	0.67	Open
C_HL_0230	22577.40	3.62	0.69	Open
C_HL_0210	22966.29	3.68	0.72	Open
C_HL_0200	23116.81	3.71	0.72	Open
C_HL_0190	23215.85	3.72	0.73	Open
C_HL_0180	23315.45	3.74	0.74	Open
C_HL_0290	21730.79	3.48	0.65	Open
C_HL_0380	16388.24	4.34	1.30	Open
C_HL_0390	8044.64	4.18	1.80	Open
C_HL_0370	16620.45	4.40	1.34	Open
C_HL_0360	17587.35	3.57	0.78	Open
C_HL_0350	17615.33	3.57	0.78	Open
C_HL_0340	17872.71	3.63	0.80	Open
C_HL_0330	18257.13	3.70	0.83	Open
C_HL_0320	18662.80	3.79	0.87	Open
C_HL_0300	21634.56	3.47	0.64	Open
C_HL_0310	18785.34	3.81	0.88	Open
C_HL_0480	6656.95	3.97	1.77	Open
C_HL_0470	6917.14	4.13	1.90	Open
C_HL_0460	7132.57	4.25	2.02	Open
C_HL_0450	7278.05	4.34	2.09	Open
C_HL_0440	7487.32	4.47	2.20	Open
C_HL_0430	7515.30	4.48	2.22	Open
C_HL_0420	7779.97	4.04	1.69	Open
C_HL_0410	7807.95	4.06	1.70	Open
C_HL_0400	7897.48	4.10	1.74	Open
C_HL_0570	1785.53	4.26	4.53	Open
C_HL_0580	898.65	3.63	4.60	Open

C_HL_0560	1833.65	4.37	4.76	Open
C_HL_0550	2198.48	4.01	3.47	Open
C_HL_0540	2583.45	3.73	2.64	Open
C_HL10.0_0010	2675.21	3.86	2.81	Open
C_HL_0530	2675.22	3.86	2.81	Open
C_HL_0510	2896.79	4.18	3.26	Open
C_HL_0500	3416.05	3.99	2.65	Open
C_HL_0490	6304.43	4.36	2.30	Open
C_HL_0600	644.61	4.05	7.28	Open
C_HL_0590	822.55	3.33	3.90	Open
C_NC62.1_0010	4573.30	3.71	1.95	Open
C_NC62.1_0042	882.55	3.57	4.44	Open
C_NC62.1_0040	1452.55	4.18	4.86	Open
C_NC62.1_0025	4117.30	4.81	3.74	Open
C_NC62.1_0030	1994.05	4.75	5.56	Open
C_NC62.1_0020	4117.30	4.81	3.75	Open
C_NC62.1_0048	882.55	3.57	4.45	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC62.1-0.5_0010	2123.25	3.88	3.25	Open
C_NC62.1-0.5_0050	0.00	0.00	0.00	Open
C_NC62.1-0.5_0040	162.45	1.80	2.24	Open
C_NC62.1-0.5_0030	1122.90	4.54	6.95	Open
C_NC62.1-0.5_0020	1816.40	4.33	4.67	Open
C_NC62.1-0.5_0015	2123.25	3.88	3.26	Open
C_NC64.7_0005	1149.50	2.74	2.00	Open
C_HL0.9_0005	2596.88	3.03	1.60	Open
C_HL0.9_0100	501.36	3.15	4.57	Open
C_HL0.9_0090	631.18	3.97	7.00	Open
C_HL0.9_0086	681.54	4.29	8.07	Open
C_HL0.9_0080	855.00	2.04	1.28	Open
C_HL0.9_0085	838.21	3.39	4.04	Open
C_HL0.9_0070	855.00	3.46	4.19	Open
C_HL0.9_0060	952.36	3.85	5.12	Open
C_HL0.9_0045	1159.39	2.12	0.74	Open
C_HL0.9_0040	1276.90	3.67	3.84	Open
C_HL0.9_0010	1494.01	4.30	5.14	Open
C_HL0.9_0030	1494.01	4.30	5.14	Open
C_HL0.9_0130	270.82	2.99	5.77	Open
C_HL0.9_0120	449.32	2.83	3.73	Open
C_ML_0020	21173.61	4.30	1.09	Open
C_ML_0050	20725.97	4.21	1.05	Open
C_ML_0040	21173.61	4.30	1.09	Open
C_ML_0030	21173.61	4.30	1.09	Open

C_ML_0070	20725.97	4.21	1.05	Open
C_ML_0090	20389.68	4.14	1.02	Open
C_ML_0100	19490.15	3.95	0.94	Open
C_ML_0080	20653.23	4.19	1.05	Open
C_ML_0120	19490.15	3.95	0.94	Open
C_ML_0110	19490.15	3.95	0.94	Open
C_ML_0190	17564.18	3.56	0.79	Open
C_ML_0200	10249.73	4.15	1.53	Open
C_ML_0210	10215.60	4.13	1.52	Open
C_ML_0180	17592.72	3.57	0.78	Open
C_ML_0170	17650.35	3.58	0.75	Open
C_ML_0160	18061.06	3.66	0.82	Open
C_ML_0150	18272.01	3.71	0.83	Open
C_ML_0130	19302.70	3.92	0.92	Open
C_ML_0140	18306.70	3.71	0.84	Open
C_CL_0005	7314.45	4.36	2.09	Open
C_CL_0007	7314.45	4.36	2.11	Open
C_CL_0010	7314.45	4.36	2.11	Open
C_CL_0060	5983.84	4.29	2.27	Open
C_CL_0050	6604.94	4.08	1.90	Open
C_CL_0030	6817.57	4.21	2.00	Open
C_CL_0020	7023.48	4.34	2.13	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_CL_0080	5983.84	4.29	2.27	Open
C_CL_0090	5508.22	3.95	1.95	Open
C_CL1.84_0035	1284.17	3.83	4.23	Open
C_CL1.84_0040	288.17	3.07	5.93	Open
C_CL1.84_0070	97.92	2.58	7.25	Open
C_CL1.84_0050	288.17	3.18	6.42	Open
C_CL1.84_0060	97.92	2.58	7.27	Open
C_CL_0130	5040.44	4.24	2.45	Open
C_CL_0180	4066.25	3.42	1.65	Open
C_CL_0190	2767.54	3.35	1.96	Open
C_CL1.84_0020	2347.88	4.44	4.28	Open
C_CL_0160	4831.16	4.06	2.25	Open
C_CL_0170	4690.71	3.94	2.14	Open
C_CL_0150	4899.43	4.12	2.32	Open
C_CL_0140	4924.05	4.14	2.34	Open
C_ML0.7_0020	899.53	3.64	4.61	Open
C_ML0.7_0053	190.25	2.10	3.00	Open
C_ML0.7_0050	246.20	2.72	4.84	Open
C_ML0.7_0040	510.87	3.21	4.74	Open
C_ML0.7_0030	555.63	3.49	5.53	Open

C_CL1.74_0040	1298.71	3.87	4.32	Open
C_CL1.74_0055	346.92	3.83	9.15	Open
C_CL1.74_0050	665.86	4.34	8.42	Open
C_CL1.84-0.55_0010	996.00	4.18	6.08	Open
C_CL1.84-0.55_0025	766.58	2.28	1.62	Open
C_CL1.84-0.55_0020	794.56	3.33	4.00	Open
C_ML_0240	10215.60	4.13	1.52	Open
C_ML_0340	8610.93	4.47	2.04	Open
C_ML_0320	8862.60	4.05	1.57	Open
C_ML_0300	9131.18	4.17	1.66	Open
C_ML_0280	9909.52	4.01	1.44	Open
C_ML_0290	9220.71	4.21	1.69	Open
C_ML_0270	10012.48	4.05	1.47	Open
C_ML_0250	10113.20	4.09	1.50	Open
C_ML_0260	10096.41	4.08	1.49	Open
C_ML_0400	2452.51	4.48	4.25	Open
C_ML4.1_0002	874.02	3.53	4.37	Open
C_ML_0410	2312.62	4.22	3.81	Open
C_ML_0390	2816.22	4.06	3.10	Open
C_ML_0380	7492.38	3.89	1.58	Open
C_ML_0370	7697.18	4.00	1.66	Open
C_ML_0360	7795.66	4.05	1.70	Open
C_ML_0350	7883.51	4.10	1.73	Open
C_ML_0345	7922.68	4.12	1.75	Open
C_ML3.1_0020	4503.82	3.65	1.80	Open
C_ML3.1_0030	2674.09	2.17	2.22	Open
C_ML3.1_0040	2260.02	1.83	0.49	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ML3.1_0047	2260.02	4.13	3.66	Open
C_ML3.1_0080	1110.71	3.31	3.23	Open
C_ML3.1_0098	788.41	3.31	3.94	Open
C_ML3.1_0090	1001.04	4.20	6.13	Open
C_ML3.1_0120	478.42	3.12	4.57	Open
C_ML3.1_0110	669.23	4.36	8.50	Open
C_ML3.1_0125	371.55	2.42	2.81	Open
C_ML4.0_0010	1438.60	4.14	4.79	Open
C_ML4.0_0015	1333.96	3.84	4.16	Open
C_ML4.0_0070	274.74	3.04	5.92	Open
C_ML4.0_0080	95.68	1.06	0.84	Open
C_ML4.1_0010	874.02	3.53	4.37	Open
C_ML4.1_0070	202.00	2.23	3.36	Open
C_ML4.1_0060	566.27	3.56	5.73	Open
C_ML4.1_0050	630.06	3.96	6.98	Open

C_ML4.1_0040	738.05	2.98	3.19	Open
C_ML4.1_0030	749.80	3.03	3.29	Open
C_HL5.5_0005	2849.22	4.11	3.16	Open
C_HL5.5_0030	2373.61	3.42	2.00	Open
C_HL5.5_0033	2105.03	3.84	3.20	Open
C_HL5.5_0020	2642.19	3.81	2.75	Open
C_HL5.5_0010	2849.22	4.11	3.16	Open
C_HL5.5_0070	1382.08	3.97	4.44	Open
C_Hl5.5_0080	1179.52	3.39	3.32	Open
C_HL5.5_0100	218.78	1.38	1.01	Open
C_HL5.5_0110	0.00	0.00	0.00	Open
C_Hl5.5_0090	972.49	3.93	5.32	Open
C_HL_0620	644.61	4.05	7.28	Open
C_HL_0650	626.70	4.26	8.37	Open
C_HL_0640	626.70	3.94	6.91	Open
C_HL_0630	626.70	3.94	6.91	Open
C_HL6.4_0010	27.98	0.03	0.00	Open
C_NC43.2-14.7_0050	2545.05	2.97	1.52	Open
C_NC43.2-14.7_0090	0.00	0.00	0.00	Open
C_NC43.2-14.7_0080	209.00	2.31	3.49	Open
C_NC43.2-14.7_0070	1643.50	3.92	3.84	Open
C_NC43.2-14.7_0060	2185.00	3.15	1.93	Open
C_NC43.2-3.8_0010	2235.35	2.61	1.22	Open
C_NC43.2-3.8_0043	791.35	3.20	3.63	Open
C_NC43.2-3.8_0040	791.35	3.20	3.67	Open
C_NC43.2-3.8_0025	2235.35	4.08	3.57	Open
C_NC43.2-3.8_0030	791.35	3.20	3.62	Open
C_NC43.2-3.8_0020	2235.35	4.08	3.58	Open
C_NC43.2-12.7_0010	2137.50	3.90	3.30	Open
C_NC43.2-12.7_0024	1425.00	2.60	1.56	Open
C_NC43.2-12.7_0020	2137.50	3.90	3.30	Open
C_NC43.2-12.7_0040	1425.00	3.40	2.98	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC43.2-12.7_0050	332.50	3.67	8.44	Open
C_NC43.2-12.7_0060	332.50	3.67	8.43	Open
C_NC43.2-11.6_0010	921.50	2.65	2.12	Open
C_NC43.2-11.6_0045	237.50	2.62	4.53	Open
C_NC43.2-11.6_0040	237.50	2.62	4.52	Open
C_NC43.2-11.6_0030	389.50	2.45	2.86	Open
C_NC43.2-11.6_0020	921.50	3.73	4.82	Open
C_NC43.2-11.6_0015	921.50	2.65	2.12	Open
C_NC43.2-11.6_0060	237.50	2.62	4.52	Open
C_HL7.2_0010	8343.60	4.33	1.94	Open

C_HL7.2_0110	3589.37	4.19	2.90	Open
C_HL7.2E_0010	2270.50	4.14	3.69	Open
C_HL7.2_0100	3718.07	4.34	3.10	Open
C_HL7.2_0088	6312.72	3.77	1.61	Open
C_HL7.2_0080	6523.11	3.89	1.71	Open
C_HL7.2_0070	7219.46	4.31	2.06	Open
C_HL7.2_0060	7398.52	3.84	1.54	Open
C_HL7.2_0050	7820.42	4.06	1.70	Open
C_HL7.2_0020	8167.34	4.24	1.86	Open
C_HL7.2_0040	8033.05	4.17	1.79	Open
C_HL7.2_0030	8167.34	4.24	1.77	Open
C_HL7.2W_0010	2379.22	4.34	4.02	Open
C_HL7.2W_0083	674.26	4.39	8.62	Open
C_HL7.2W_0080	824.78	3.46	4.29	Open
C_HL7.2W_0070	1116.31	3.33	3.26	Open
C_HL7.2W_0060	1295.93	3.73	4.01	Open
C_HL7.2W_0050	1650.13	3.93	3.91	Open
C_HL7.2W_0040	1712.80	4.08	4.19	Open
C_HL7.2W_0030	1795.61	4.28	4.58	Open
C_HL7.2W_0020	1980.26	3.61	2.86	Open
C_HL7.2E_0073	1130.14	3.25	3.06	Open
C_HL7.2E_0070	1279.54	3.68	3.85	Open
C_HL7.2E_0060	1342.21	3.86	4.22	Open
C_HL7.2E_0050	1789.29	4.27	4.55	Open
C_HL7.2E_0040	1935.33	3.53	2.74	Open
C_HL7.2E_0030	1980.09	3.61	2.86	Open
C_HL7.2E_0080	1130.14	3.25	3.08	Open
C_HL7.2E_0110	878.35	3.68	4.81	Open
C_HL7.2E_0090	1085.38	3.12	2.85	Open
C_HL7.2E_0100	878.35	2.53	1.91	Open
C_HL7.2E_0123	562.76	3.66	6.17	Open
C_HL7.2E_0120	648.37	4.22	8.02	Open
C_HL7.2E_0130	562.76	3.66	6.17	Open
C_HL7.2E_0160	145.48	1.61	1.83	Open
C_HL7.2E_0170	145.48	1.61	1.83	Open
C_HL7.2E_0140	391.54	4.33	11.42	Open
C_HL7.2E_0150	195.84	2.16	3.17	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_HL7.2W_0090	674.26	4.39	8.62	Open
C_HL7.2W_0100	674.26	4.39	8.62	Open
C_HL7.2M_0010	1318.87	3.93	4.45	Open
C_HL7.2M_0100	259.63	2.87	5.34	Open
C_HL7.2M_0090	259.63	2.87	5.35	Open

C_HL7.2M_0080	259.63	2.87	5.33	Open
C_HL7.2M_0060	684.89	1.97	1.18	Open
C_HL7.2M_0070	377.14	4.17	10.65	Open
C_HL7.2M_0050	701.68	2.94	3.18	Open
C_HL7.2M_0040	890.81	3.74	4.94	Open
C_HL7.2M_0030	974.74	2.80	2.32	Open
C_HL7.2M_0020	1190.17	2.17	0.98	Open
C_HL9.4_0010	2888.38	2.34	0.00	Open
C_HL9.4_0050	2521.88	3.77	2.67	Open
C_HL9.4_0052	2161.53	4.09	3.67	Open
C_HL9.4_0040	2703.73	4.04	3.13	Open
C_HL9.4_0020	2888.38	4.17	3.24	Open
C_HL9.4_0030	2888.38	4.17	3.24	Open
C_HL9.4_0057	2149.22	4.06	3.58	Open
C_HL9.4_0065	1813.49	4.48	5.08	Open
C_HL9.4_0060	1943.87	4.80	5.78	Open
C_HL10.8_0005	886.88	3.59	4.49	Open
C_HL10.8_0018	708.38	2.86	2.96	Open
C_HL10.8_0010	886.88	3.59	4.49	Open
C_HL10.8_0040	207.03	2.29	3.51	Open
C_HL10.8_0030	514.78	3.35	5.23	Open
C_NC43.2-14.4_0010	993.70	2.86	2.43	Open
C_NC43.2-14.4_0020	993.70	2.86	2.41	Open
C_NC43.2-12.9_0010	3758.20	4.39	3.14	Open
C_NC43.2-12.9_0030	3634.70	4.25	2.97	Open
C_NC43.2-12.9_0035	2118.50	3.87	3.24	Open
C_NC43.2-12.9_0020	3758.20	4.39	3.17	Open
C_NC25.4-1.6-0.9_0100	313.50	2.18	2.46	Open
C_NC25.4-1.6-0.9_0090	456.00	3.17	4.92	Open
C_KL6.2_0030	380.00	2.39	2.74	Open
C_MB4.2_0010	697.30	2.82	2.87	Open
C_MB4.2_0040	234.65	2.59	4.42	Open
C_MB4.2_0030	234.65	2.59	4.43	Open
C_MB4.2_0020	697.30	2.82	2.88	Open
C_ON13.2_0010	658.58	1.96	1.20	Open
C_ON13.2_0050	0.00	0.00	0.00	Open
C_ON13.2_0030	453.23	1.90	1.41	Open
C_ON13.2_0020	453.23	1.90	1.41	Open
C_ON19.4_0010	673.14	2.01	1.33	Open
C_ON19.4_0040	352.52	2.30	2.59	Open
C_ON19.4_0030	565.15	2.37	2.13	Open
C_ON19.4_0020	565.15	2.37	2.12	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_NC38.9-4.8_0170	522.50	3.55	5.98	Open
C_NC38.9-4.8_0180	522.50	3.55	5.97	Open
C_HL2.9_0020	412.95	4.56	12.60	Open
C_HL2.9_0050	162.27	1.79	2.23	Open
C_HL2.9_0030	162.27	1.79	2.23	Open
C_HL2.9_0025	412.95	4.56	12.59	Open
C_CL1.84-0.55_0050	598.72	2.51	2.35	Open
C_CL1.84-0.55_0060	598.72	4.07	7.69	Open
C_CL1.84-0.55_0070	598.72	2.62	2.65	Open
C_HL6.7_0010	833.17	3.37	4.00	Open
C_HL6.7_0016	208.15	2.30	3.54	Open
C_HL6.7_0015	417.98	2.63	3.26	Open
C_HL6.7_0011	833.17	3.37	4.00	Open
C_ON_0100	15171.76	1.79	0.16	Open
C_ON_0120	15002.78	1.77	0.15	Open
C_ON_0110	15171.76	1.79	0.16	Open
C_ON_0170	11782.56	1.39	0.10	Open
C_ON_0160	12160.82	1.43	0.10	Open
C_ON_0150	13569.77	1.60	0.13	Open
C_ON_0140	13719.73	1.62	0.13	Open
C_ON_0130	14837.15	1.75	0.17	Open
C_MB8.5_0030	2897.50	3.38	1.95	Open
C_MB8.5_0020	3846.55	3.12	1.36	Open
C_MB8.5_0010	3846.55	3.12	1.36	Open
C_NC46.7_0040	6091.40	4.21	2.16	Open
C_NC46.7_0060	5873.85	4.77	2.97	Open
C_NC46.7_0050	6091.40	4.21	2.15	Open
C_NC46.7_0030	6933.10	4.14	2.01	Open
C_NC46.7_0035	6091.40	4.21	2.16	Open
C_NC46.7-0.5_0010	2624.85	4.79	4.83	Open
C_NC46.7-0.5_0015	2624.85	4.79	4.82	Open
C_NC46.7-0.5_0040	1396.50	4.01	4.53	Open
C_NC46.7-0.5_0045	857.85	3.47	4.22	Open
C_NC46.7-1.0_0010	3249.00	4.69	4.03	Open
C_NC46.7-1.0_0035	1643.50	3.92	3.88	Open
C_NC46.7-1.0_0030	2099.50	3.03	1.80	Open
C_NC46.7-1.0_0020	3106.50	4.48	3.73	Open
C_NC45.4_0030	1102.00	3.17	2.92	Open
C_NC46.7-1.0_0070	247.00	2.73	4.87	Open
C_NC46.7-0.5-0.2_0010	1152.35	4.66	7.29	Open
C_NC46.7-0.5-0.2_0040	123.50	3.25	11.15	Open
C_NC46.7-0.5-0.2_0030	123.50	3.25	11.17	Open
C_NC46.7-0.5-0.2_0020	1152.35	4.66	7.29	Open
C_NC60.0-1.6_0010	3164.45	4.56	3.84	Open
C_NC60.0-1.6_0015	3164.45	4.56	3.84	Open
C_NC60.0_0083	2685.65	3.87	2.84	Open
C_NC60.0-0.9_0065	689.70	2.79	2.82	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0-0.9_0075	423.70	2.66	3.05	Open
C_NC60.0-0.9_0080	423.70	2.66	3.35	Open
C_NC60.0-0.9_0070	518.70	3.26	4.87	Open
C_NC62.1_0044	882.55	3.57	4.45	Open
C_NC62.1_0050	882.55	3.57	4.45	Open
C_NC62.1_0060	274.55	3.03	5.84	Open
C_NC62.1_0070	274.55	3.03	5.92	Open
C_NC64.7_0010	1149.50	2.74	2.00	Open
C_NC64.7_0030	902.50	2.59	2.02	Open
C_NC64.7_0020	902.50	2.59	2.01	Open
C_HL9.4_0075	1813.49	4.48	5.08	Open
C_HL9.4P_0010	749.23	3.14	3.59	Open
C_HL9.4P_0030	481.21	1.43	0.69	Open
C_HL9.4P_0020	481.21	1.43	0.64	Open
C_HL9.4_0080	1064.26	4.46	6.87	Open
C_HL9.4_0100	904.23	3.79	5.08	Open
C_HL9.4_0125	299.36	1.95	1.92	Open
C_HL9.4_0115	299.36	1.95	1.90	Open
C_HL9.4_0110	593.68	2.49	2.33	Open
C_HL9.4_0055	2161.53	4.09	3.67	Open
C_HL5.5_0037	2105.03	3.84	3.21	Open
C_HL5.5_0040	1903.59	4.54	5.10	Open
C_HL5.5_0065	1382.08	3.97	4.45	Open
C_HL5.5_0060	1585.76	3.78	3.60	Open
C_HL5.5_0050	1778.25	4.24	4.51	Open
C_ML4.1_0004	874.02	3.53	4.37	Open
C_HL7.2E_0077	1130.14	3.25	3.06	Open
C_HL7.2E_0127	562.76	3.66	6.17	Open
C_CL_0008	7314.45	4.36	2.11	Open
C_CL_0100	5508.22	3.95	1.94	Open
C_CL_0120	5040.44	4.24	2.45	Open
C_CL_0110	5043.24	4.24	2.42	Open
C_CL_0105	5301.19	4.46	2.69	Open
C_CL1.74_0010	1298.71	3.87	4.19	Open
C_CL1.74_0020	1298.71	3.87	4.32	Open
C_ML3.1_0050	2260.02	4.13	3.66	Open
C_ML3.1_0076	1110.71	3.31	3.23	Open
C_ML3.1_0070	1842.60	3.48	2.72	Open
C_NC58.7_0026	1248.30	3.59	3.68	Open
C_NC55.6-0.5_0178	1078.25	3.10	2.81	Open
C_NC55.6-0.5_0180	774.25	3.13	3.48	Open
C_HL_0050	28765.48	3.39	0.51	Open
C_ML_0060	20725.97	4.21	1.05	Open
C_HL7.2W_0087	674.26	4.39	8.62	Open
C_NC55.6_0189	1267.30	3.64	3.79	Open

C_NC55.6_0080	4690.15	3.80	1.93	Open
C_NC55.6_0100	4236.05	3.44	1.62	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.6_0090	4459.30	3.62	1.78	Open
C_NC55.6_0135	3575.80	2.90	1.19	Open
C_NC55.6_0120	3756.30	3.05	1.16	Open
C_NC55.6_0130	3718.30	3.02	1.28	Open
C_NC55.6_0110	3884.55	3.15	1.38	Open
C_NC55.6-0.1_0010	3171.10	3.70	2.31	Open
C_NC55.5_0007	3479.85	2.82	1.13	Open
C_NC55.5_0006	3479.85	2.41	0.82	Open
C_NC55.5_0012	3171.10	3.70	2.31	Open
C_NC55.5_0015	3171.10	3.70	2.31	Open
C_NC55.5_0030	1596.95	3.81	3.68	Open
C_NC55.6-0.1_0060	893.00	2.57	1.98	Open
C_NC55.6-0.1_0065	665.00	2.69	2.63	Open
C_NC55.6-0.1_0050	1225.50	3.52	3.56	Open
C_NC55.6-0.1_0040	1371.80	3.94	4.38	Open
C_NC55.5_0155	19.00	0.50	0.35	Open
C_NC55.5_0070	665.00	2.69	2.63	Open
C_LL_0160	1317.17	3.92	4.43	Open
C_LL_0185	1087.76	3.24	3.12	Open
C_LL1.8_0010	212.63	2.35	3.69	Open
C_LL_0200	875.13	3.67	4.78	Open
C_LL_0255	421.90	2.75	3.62	Open
C_LL_0205	785.60	3.29	3.92	Open
C_LL_0210	533.81	3.48	5.59	Open
C_LL_0260	421.90	2.75	3.62	Open
C_LL_0270	214.87	2.37	3.76	Open
C_LL2.0_0010	251.79	2.78	5.04	Open
C_LL2.0_0020	151.07	3.62	12.88	Open
C_NC55.6-0.5_0095	4212.30	3.42	1.61	Open
C_LL0.6_0010	0.00	0.00	0.00	Open
C_NC54.4_0123	142.50	1.57	1.76	Open
C_NC54.4_0128	142.50	1.64	1.94	Open
C_NC54.2_0200	1729.00	4.12	4.27	Open
C_NC53.2_0097	731.50	2.96	3.14	Open
C_NC53.2_0120	446.50	2.81	3.69	Open
C_NC53.2_0125	294.50	1.85	1.74	Open
C_NC53.2_0140	19.00	0.50	0.35	Open
C_NC53.2_0130	19.00	0.50	0.35	Open
C_NC53.2_0145	19.00	0.50	0.35	Open
C_NC49.2-2.3_0030	589.00	3.70	6.16	Open

C_NC49.2-2.3_0035	589.00	3.70	6.16	Open
C_NC49.2-2.9_0060	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0100	380.00	2.39	2.74	Open
C_NC49.2-2.9_0090	925.30	3.74	4.86	Open
C_NC49.2-2.9_0080	1058.30	4.28	6.24	Open
C_NC49.2-2.9_0070	1096.30	4.43	6.65	Open
C_NC49.2_0140	3547.30	4.14	2.84	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2_0143	3547.30	4.14	2.83	Open
C_NC49.2-0.4-0.6_0010	1577.00	3.76	3.60	Open
C_NC49.2-0.4-0.6_0015	1548.50	3.69	3.48	Open
C_NC49.2-0.4-0.6_0050	873.05	3.53	4.36	Open
C_NC49.2-0.4-0.6_0055	841.70	3.40	4.03	Open
C_NC49.2-0.9_0010	1160.90	3.34	3.22	Open
C_NC49.2-0.9_0045	332.50	3.67	8.31	Open
C_NC49.2-0.9_0040	522.50	3.29	4.94	Open
C_NC49.2-0.9_0030	560.50	3.52	5.62	Open
C_NC49.2-0.9_0020	1119.10	4.53	6.91	Open
C_NC49.2-0.9_0015	1160.90	3.34	3.22	Open
C_NC43.2-14.7_0045	2545.05	2.97	1.54	Open
C_NC43.2-14.7_0020	3552.05	4.15	2.84	Open
C_NC43.2-14.7_0040	3552.05	4.15	2.81	Open
C_NC43.2-14.7_0010	3552.05	4.15	2.85	Open
C_NC43.2-14.7_0030	3552.05	4.15	2.89	Open
C_NC43.2-14.4_0030	993.70	2.86	2.41	Open
C_NC43.2-14.4_0040	9.50	0.25	0.10	Open
C_NC43.2-12.7_0028	1425.00	2.60	1.56	Open
C_NC43.2-12.7_0030	1425.00	3.40	3.01	Open
C_NC43.2-11.6_0050	237.50	2.62	4.52	Open
C_NC43.2-10.4_0010	0.00	0.00	0.00	Open
C_NC43.2-10.3_0010	1149.50	4.65	7.27	Open
C_NC43.2-10.3_0040	579.50	3.64	5.98	Open
C_NC43.2-10.3_0020	912.00	3.69	4.68	Open
C_NC43.2-10.3_0030	579.50	3.64	6.00	Open
C_NC43.2-9.4_0030	437.00	2.85	3.86	Open
C_NC43.2-9.4_0020	437.00	2.75	3.55	Open
C_NC43.2-9.4_0010	1130.50	4.57	7.06	Open
C_NC43.2-7.3_0010	527.25	3.32	5.03	Open
C_NC43.2-7.3_0020	99.75	2.62	7.48	Open
C_NC43.2-7.3_0030	0.00	0.00	0.00	Open
C_NC43.2-6.6_0020	719.15	2.07	1.33	Open
C_NC43.2-6.6_0050	0.00	0.00	0.00	Open
C_NC43.2-6.6_0040	304.00	3.36	7.15	Open

C_NC43.2-3.8-0.0_0010	1444.00	4.15	4.82	Open
C_NC43.2-3.8_0055	791.35	3.32	3.97	Open
C_NC43.2-3.8_0060	772.35	3.24	3.79	Open
C_NC43.2-0.8_0030	931.95	3.77	4.92	Open
C_NC43.2-0.8_0040	931.95	3.91	5.37	Open
C_NC43.2-12.9-0.5_0010	1516.20	3.61	3.37	Open
C_NC43.2-12.9-0.5_0070	76.00	2.00	4.54	Open
C_NC43.2-12.9-0.5_0060	76.00	2.00	4.53	Open
C_NC43.2-12.9-0.5_0050	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0040	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0030	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0015	1335.70	3.84	4.18	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC43.2-12.9-0.5_0020	123.50	3.25	11.15	Open
C_NC22.8_0170	1333.80	3.97	4.44	Open
C_NC22.8_0190	678.30	2.84	2.97	Open
C_NC22.8_0180	830.30	3.48	4.35	Open
C_NC22.8_0200	678.30	2.97	3.31	Open
C_NC22.8_0160	1932.30	3.65	2.98	Open
C_NC22.8_0150	1951.30	3.56	2.79	Open
C_NC22.8_0145	1951.30	3.56	2.78	Open
C_NC22.8_0140	2196.40	4.01	3.47	Open
C_NC22.8_0130	2565.95	3.70	2.61	Open
C_NC22.8_0120	3221.45	3.76	2.38	Open
C_NC22.8_0110	3221.45	3.76	2.38	Open
C_NC22.8_0100	3610.00	2.93	1.21	Open
C_NC22.8_0090	4102.10	3.33	1.53	Open
C_NC22.8_0085	4121.10	3.34	1.54	Open
C_NC22.8_0083	4121.10	3.34	1.54	Open
C_NC22.8_0030	5717.10	3.96	1.92	Open
C_NC22.8_0015	8510.10	3.89	1.52	Open
C_NC22.8_0017	5983.10	4.14	2.07	Open
C_NC22.8_0020	5983.10	4.14	2.09	Open
C_NC22.8_0080	4947.60	4.01	2.17	Open
C_NC22.8_0070	5011.25	4.07	2.18	Open
C_NC22.8_0060	5011.25	4.07	2.22	Open
C_NC22.8_0050	5230.70	3.62	1.63	Open
C_NC22.8_0040	5573.65	3.86	1.84	Open
C_NC22.8_0035	5602.15	3.88	1.85	Open
C_NC10.5-0.9_0010	2061.50	4.07	3.74	Open
C_NC10.5-0.9_0020	474.05	3.22	4.99	Open
C_NC10.5-0.9_0030	474.05	3.22	4.99	Open
C_MB4.8_0040	347.70	2.19	2.32	Open

C_MB4.8_0045	95.95	2.52	6.99	Open
C_MB6.0_0060	3107.45	3.63	2.22	Open
C_NC7.3_0030	1387.95	3.99	4.48	Open
C_NC7.3_0020	2047.25	3.74	3.04	Open
C_NC7.3_0040	483.55	3.04	4.28	Open
C_NC7.3_0050	483.55	3.37	5.48	Open
C_NC22.8-0.1_0010	2527.00	3.64	2.53	Open
C_NC22.8-0.1_0022	1007.00	2.90	2.47	Open
C_NC22.8-0.1_0012	1007.00	2.90	2.48	Open
C_SA_0240	68.98	0.28	0.05	Open
C_SA_0280	-313.87	1.97	1.92	Open
C_SA_0270	-162.82	0.66	0.19	Open
C_SA_0260	-122.92	0.50	0.12	Open
C_SA_0250	19.58	0.08	0.00	Open
C_NC49.4_0037	2377.85	1.93	0.56	Open
C_NC49.4_0040	862.60	2.48	1.86	Open
C_NC49.4_0100	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.4_0090	501.60	3.15	4.58	Open
C_NC49.4_0080	501.60	3.15	5.09	Open
C_NC49.4_0070	501.60	3.15	4.58	Open
C_NC49.4_0060	843.60	2.43	1.78	Open
C_NC49.4_0050	843.60	2.43	1.78	Open
C_NC49.4-0.4_0010	1515.25	2.77	1.75	Open
C_NC49.4-0.4_0040	0.00	0.00	0.00	Open
C_NC49.4-0.4_0030	403.75	2.54	3.06	Open
C_NC49.4-0.4_0020	831.25	2.39	1.73	Open
C_NC52.5_0070	0.00	0.00	0.00	Open
C_NC52.5_0060	0.00	0.00	0.00	Open
C_NC52.5_0059	152.00	1.68	1.98	Open
C_NC52.5_0050	171.00	1.89	2.46	Open
C_NC52.5_0030	1862.00	2.18	0.93	Open
C_NC52.5_0040	1862.00	2.18	0.84	Open
C_NC52.5_0020	2071.00	2.42	1.09	Open
C_NC53.2_0035	2107.10	3.85	3.21	Open
C_NC53.2_0037	1974.10	4.71	5.45	Open
C_NC53.2-0.4_0010	133.00	3.50	12.74	Open
C_NC53.2-0.4_0050	0.00	0.00	0.00	Open
C_NC53.2-0.4_0025	133.00	3.50	12.76	Open
C_NC53.2-0.4_0040	123.50	3.25	11.15	Open
C_NC53.2-0.4_0020	133.00	3.50	12.79	Open
C_NC53.2_0050	1624.50	4.67	6.00	Open
C_NC53.2_0080	1007.00	2.90	2.47	Open

C_NC53.2_0060	1235.00	3.55	3.62	Open
C_NC53.2_0070	1225.50	3.52	3.56	Open
C_NC53.2_0055	1586.50	4.56	5.89	Open
C_NC54.2-3.4_0010	190.00	2.18	3.30	Open
C_NA0.4_0030	174.80	1.93	2.56	Open
C_NA0.4_0020	174.80	1.93	2.59	Open
C_NA_0060	325.85	2.05	2.06	Open
C_NA_0050	333.45	2.10	2.15	Open
C_NA_0070	57.95	1.52	2.75	Open
C_NA_0100	48.45	1.27	1.97	Open
C_NA_0080	48.45	1.27	1.97	Open
C_NA_0030	342.95	2.16	2.26	Open
C_NA_0040	333.45	2.10	2.15	Open
C_NA_0020	405.65	2.55	3.09	Open
C_SA_0090	1093.08	2.00	0.95	Open
C_SA_0080	1117.78	2.04	0.99	Open
C_KL5.4_0187	2674.25	3.38	2.04	Open
C_NC58.7_0040	209.00	2.31	3.57	Open
C_NC58.7_0050	209.00	2.31	3.57	Open
C_SA_0345	-536.17	3.37	5.18	Open
C_SA_0290	-313.87	1.97	1.92	Open
C_SA_0330	-502.92	3.16	4.60	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_SA_0340	-525.72	3.31	4.99	Open
C_SA_0320	-497.22	3.13	4.50	Open
C_SA_0310	-471.57	2.97	4.08	Open
C_SA_0300	-386.07	4.12	10.33	Open
C_SA2.3_0010	22.80	0.60	0.49	Open
C_SA2.3_0020	22.80	0.60	0.49	Open
C_NA1.0_0010	0.00	0.00	0.00	Open
C_SA_0010	1307.78	2.39	1.33	Open
C_SA_0015	1301.13	2.37	1.31	Open
C_NA0.2E_0025	25.65	0.67	0.61	Open
C_NA0.2E_0030	25.65	0.67	0.61	Open
C_NC55.6-0.5-2.6_0050	741.00	3.00	3.22	Open
C_NC55.6-0.5_0250	142.50	1.57	1.76	Open
C_NC61.3_0030	1520.00	4.37	5.30	Open
C_NC61.3_0020	1520.00	3.62	3.37	Open
C_NC61.3_0010	2099.50	3.83	3.19	Open
C_NC60.0-1.6_0030	808.45	3.27	3.78	Open
C_NC35.1-0.7_0015	95.00	2.50	6.86	Open
C_NC35.1-0.7_0050	0.00	0.00	0.00	Open
C_NC35.1-0.7_0030	95.00	2.50	6.90	Open

C_NC33.1S_0010	3951.05	3.21	1.46	Open
C_NC33.1S_0072	3429.50	4.01	2.67	Open
C_NC33.1S_0070	3804.75	4.44	3.23	Open
C_NC33.1S_0060	3951.05	4.62	3.47	Open
C_NC32.2_0087	1491.50	3.68	3.54	Open
C_NC31.5_0070	898.70	3.63	4.60	Open
C_NC31.5_0075	587.10	2.37	2.09	Open
C_NC31.0-1.9_0010	1117.20	3.21	3.05	Open
C_NC31.0-1.9_0020	1117.20	3.21	3.00	Open
C_NC31.0-1.9_0030	961.40	3.89	5.24	Open
C_NC38.7-0.1-0.2_0010	693.50	3.04	3.45	Open
C_NC38.7_0078	3606.20	4.21	2.88	Open
C_NC38.7_0093	3549.20	4.15	2.84	Open
C_NC38.7_0090	3549.20	4.15	2.85	Open
C_NC38.7_0080	3549.20	4.15	2.84	Open
C_NC38.7-0.8_0010	0.00	0.00	0.00	Open
C_NC38.7-0.8_0020	0.00	0.00	0.00	Open
C_NC38.7-1.2_0010	304.00	3.50	7.90	Open
C_NC38.7-1.2_0035	247.00	2.84	5.03	Open
C_NC38.7-1.2_0025	247.00	2.84	5.37	Open
C_NC38.9-2.4-1.6_0010	1529.50	4.76	6.49	Open
C_NC38.9-2.4-1.6_0020	1529.50	4.76	6.50	Open
C_NC38.9-2.4-1.6_0030	1073.50	3.34	3.36	Open
C_NC38.9-2.4_0137	0.00	0.00	0.00	Open
C_NC38.9-4.8-0.5-1.3_0025	237.50	2.73	4.99	Open
C_NC38.9-4.8-0.5_0110	1767.00	4.55	5.38	Open
C_NC38.9-4.8-0.5_0120	1406.00	4.37	5.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-4.8-0.5_0140	674.50	2.95	3.32	Open
C_NC38.9-4.8-0.5_0130	674.50	2.95	3.27	Open
C_NC38.9-4.8-0.5_0125	722.00	3.16	3.72	Open
C_NC38.9-4.8-2.5-0.0_0010	0.00	0.00	0.00	Open
C_NC38.9-8.5-0.2_0010	104.50	2.75	8.18	Open
C_NC38.9-8.5-0.2_0020	9.50	0.25	0.00	Open
C_NC38.9-3.0_0090	931.00	3.77	4.91	Open
C_NC38.9-3.0_0100	484.50	3.05	4.25	Open
C_NC25.4-1.6-0.9_0010	4247.45	3.45	1.63	Open
C_NC25.4-1.6-0.9_0020	3259.45	4.70	4.05	Open
C_NC25.4-1.8-1.0_0020	2983.95	3.61	2.25	Open
C_NC25.4-1.8_0127	2250.55	4.45	4.40	Open
C_NC25.4-4.8_0010	180.50	2.08	3.00	Open
C_NC27.8_0093	437.95	2.75	3.56	Open
C_NC27.8_0069	893.00	3.61	4.55	Open

C_NC27.8_0020	3780.05	4.42	3.20	Open
C_NC27.8_0035	2357.90	4.30	3.97	Open
C_NC27.8_0030	3780.05	4.42	3.20	Open
C_NC28.7_0057	9454.40	4.32	1.77	Open
C_NC28.7_0127	722.00	3.03	3.35	Open
C_NC28.7-1.0_0070	2117.55	3.87	3.24	Open
C_NC28.7-1.0_0075	940.50	3.94	5.46	Open
C_NC26.4_0077	4044.15	3.28	1.49	Open
C_NC25.4_0175	896.80	3.93	5.53	Open
C_NC25.4_0190	674.50	2.95	3.28	Open
C_NC25.4_0180	674.50	2.95	3.29	Open
C_NC35.1_0100	332.50	2.26	2.59	Open
C_NC25.4-1.6_0060	1196.05	3.44	3.40	Open
C_NC14.5-4.2_0010	0.00	0.00	0.00	Open
C_NC27.8_0100	437.95	2.75	3.56	Open
C_NC27.8_0110	437.95	2.75	3.56	Open
C_MB8.5_0100	1091.55	3.25	3.13	Open
C_NC25.4-0.3_0010	0.00	0.00	0.00	Open
C_NC25.4-0.3_0020	0.00	0.00	0.00	Open
C_NC25.4-0.4_0010	0.00	0.00	0.00	Open
C_NC28.7-2.8-0.4_0010	0.00	0.00	0.00	Open
C_NC33.1S_0180	570.00	3.88	7.02	Open
C_ML4.0_0020	1333.96	3.84	4.16	Open
C_ML4.0_0050	274.74	3.04	5.93	Open
C_ML4.0_0040	274.74	3.04	5.93	Open
C_ML4.0_0030	1322.77	3.80	4.10	Open
C_KL7.6-9.3N_0030	4288.30	3.61	1.81	Open
C_KL7.6-9.3N_0057	363.85	2.37	0.00	Open
C_KL7.6-9.3N_0060	31.35	0.82	0.88	Open
C_KL7.6-9.3N_0058	31.35	0.83	0.88	Open
C_KL7.6-9.3N_0055	363.85	2.37	2.80	Open
C_KL7.6-9.3N_0050	363.85	2.37	2.75	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL7.6-9.3N_0040	392.35	2.56	3.16	Open
C_KL7.6-9.3-0.2_0010	0.00	0.00	0.00	Open
C_KL7.6-9.3-0.1_0010	332.50	2.17	2.33	Open
C_NC38.9-4.8-0.5-1.2_0010	541.50	3.53	5.74	Open
C_NC38.9-4.8-0.5-1.2_0020	541.50	3.53	5.74	Open
C_NC38.9-4.8-0.5-1.2_0030	541.50	3.53	5.74	Open
C_HL_0280	21730.79	3.48	0.75	Open
C_KL_0056	34621.98	4.08	0.83	Open
C_KL_0053	34621.98	4.08	0.83	Open
C_KL_0027	34949.73	4.12	0.85	Open

C_KL_0018	70671.46	4.09	0.55	Open
C_KL_0235	8370.38	4.16	2.01	Open
C_KL_0240	16065.45	3.26	0.76	Open
C_KL_0237	16084.45	3.38	0.83	Open
C_KL_0252	4144.85	3.36	1.80	Open
C_KL_0242	16065.45	3.26	0.76	Open
C_KL_0244	15885.90	3.22	0.79	Open
C_KL_0250	14392.50	3.81	1.18	Open
C_KL_0247	15219.00	4.03	1.31	Open
C_KL_0245	15276.00	4.05	1.33	Open
C_KL_0017	70671.46	4.09	0.52	Open
C_KL_0015	70671.46	4.09	0.52	Open
C_KL_0020	70671.46	4.75	0.74	Open
C_KL_0023	34949.73	4.12	0.74	Open
C_KL_0030	34949.73	4.12	0.74	Open
C_KL_0052	34621.98	4.08	0.72	Open
C_KL_0050	34621.98	4.08	0.72	Open
C_KL_0055	34621.98	4.08	0.72	Open
C_NC10.5_0035	7572.45	3.93	1.61	Open
C_NC10.5_0075	4076.45	3.58	1.83	Open
C_NC10.5_0070	4445.05	3.74	1.94	Open
C_NC10.5_0050	6521.75	3.89	1.71	Open
C_NC10.5_0040	6865.65	4.10	1.87	Open
C_NC10.5_0105	1685.30	3.33	2.57	Open
C_NC10.5_0107	1685.30	3.33	2.57	Open
C_NC10.5_0108	1685.30	3.33	2.57	Open
C_NC10.5_0120	362.90	2.47	3.05	Open
C_NC10.5_0110	1685.30	3.33	2.57	Open
C_NC10.5_0080	4076.45	3.58	1.83	Open
C_NC10.5_0085	3746.80	3.29	1.56	Open
C_NC10.5_0032	7572.45	3.93	1.61	Open
C_NC10.5_0033	7572.45	3.93	1.61	Open
C_NC10.5_0030	7767.20	4.04	1.69	Open
C_NC10.5_0020	8502.50	3.88	1.52	Open
C_MB4.8_0050	95.95	2.52	6.99	Open
C_KL7.7_0045	667.85	2.92	3.22	Open
C_KL7.7_0080	380.00	2.58	2.96	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL7.7_0050	553.85	3.77	6.66	Open
C_KL9.3-0.8_0010	342.95	2.16	2.23	Open
C_KL9.3-0.8_0030	85.50	2.25	5.39	Open
C_KL9.3-0.8_0020	342.95	2.23	2.47	Open
C_KL9.3_0120	3102.70	3.62	2.23	Open

C_KL9.3_0155	2914.60	3.40	1.98	Open
C_KL9.3_0150	3102.70	3.76	2.42	Open
C_KL9.3_0200	665.00	2.79	2.87	Open
C_KL9.3_0210	617.50	2.59	2.51	Open
C_KL7.6-9.6_0070	3546.35	2.98	1.28	Open
C_KL7.6-9.6_0075	1380.35	4.11	4.84	Open
C_KL7.6-9.6_0080	679.25	2.85	2.71	Open
C_KP0.1_0010	332.50	2.17	2.33	Open
C_KP_0020	1833.50	3.47	2.70	Open
C_KP_0040	370.50	2.41	2.84	Open
C_KP_0035	684.00	2.87	3.04	Open
C_KP_0030	684.00	2.87	3.00	Open
C_KP_0005	2166.00	4.09	3.68	Open
C_KP_0010	2166.00	4.09	3.68	Open
C_KL5.4-0.8_0010	12541.90	3.32	0.80	Open
C_KL5.4-0.8_0030	11532.05	3.30	0.82	Open
C_KL5.4-0.8_0025	11884.50	3.40	0.87	Open
C_KL5.4-0.8_0020	11884.50	3.40	0.87	Open
C_KL5.4-0.8_0015	12541.90	3.59	0.96	Open
C_KL5.4-0.8_0065	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0060	8807.45	3.69	1.26	Open
C_KL5.4-0.8_0050	9551.30	3.57	1.11	Open
C_KL5.4-0.8_0040	10450.95	3.07	0.73	Open
C_KL5.4-0.8_0035	11156.80	3.27	0.82	Open
C_KL5.4-0.8_0070	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0095	7797.60	3.69	1.35	Open
C_KL5.4-0.8_0090	8100.65	3.83	1.45	Open
C_KL5.4-0.8_0080	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0100	7797.60	3.69	1.35	Open
C_KL5.4-0.8_0113	7257.05	4.08	1.80	Open
C_KL5.4-0.8_0117	4601.80	4.04	2.29	Open
C_KL5.4-0.8_0110	7617.10	3.77	1.44	Open
C_KL5.4-0.8_0120	4601.80	4.04	2.29	Open
C_KL5.4-0.8_0135	4305.40	3.78	2.02	Open
C_KL5.4-0.8_0130	4305.40	3.78	2.02	Open
C_KL5.4-0.8-2.4_0010	2772.10	3.50	2.18	Open
C_KL5.4-0.8-2.4_0015	1398.40	3.60	3.48	Open
C_KL5.4-0.8-2.4_0020	1398.40	3.60	3.48	Open
C_KL5.4-0.8-2.4_0030	1075.40	3.34	3.38	Open
C_KL5.4-0.8-2.2_0005	2655.25	4.14	3.36	Open
C_KL5.4-0.8-2.2_0010	2655.25	4.14	3.36	Open
C_KL5.4-0.8-2.2_0025	1558.00	4.02	4.25	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_KL5.4-0.8-2.2_0015	2322.75	3.62	2.63	Open
C_KL5.4-0.8-2.2_0020	1662.50	4.11	4.33	Open
C_KL5.4-0.8-2.2_0030	1558.00	3.85	3.83	Open
C_KL5.4-0.8-2.2_0045	705.85	2.96	3.21	Open
C_KL5.4-0.8-2.2_0040	1214.10	3.00	2.42	Open
C_KL5.4-0.8-2.2_0050	705.85	2.96	3.21	Open
C_KL5.4-0.8-2.2_0060	351.50	3.88	9.35	Open
C_KL5.4-0.8-2.2-0.2_0010	660.25	2.89	3.15	Open
C_KL5.4-0.8_0140	1533.30	3.95	4.13	Open
C_KL5.4-0.8_0160	1168.50	3.01	2.50	Open
C_KL5.4-0.8_0150	1533.30	3.95	4.13	Open
C_NC12.4P_0015	6141.75	3.66	1.53	Open
C_NC12.4P_0010	6892.25	4.11	1.89	Open
C_NC12.4P_0020	6141.75	3.66	1.53	Open
C_NC12.4P_0035	4848.80	4.08	2.28	Open
C_NC12.4P_0030	4848.80	3.93	2.08	Open
C_NC12.4P_0040	4848.80	4.08	2.28	Open
C_NC12.4P_0055	3471.30	2.92	1.23	Open
C_NC12.4P_0050	3480.80	2.93	1.23	Open
C_NC12.4P_0060	3471.30	3.04	1.36	Open
C_NC12.4P_0085	2037.75	4.03	3.66	Open
C_NC12.4P_0080	2734.10	3.45	2.12	Open
C_NC12.4P_0070	2800.60	3.54	2.22	Open
C_NC12.4P_0090	2037.75	4.03	3.66	Open
C_NC12.4P_0110	1173.25	2.37	1.30	Open
C_NC12.4P_0150	0.00	0.00	0.00	Open
C_NC12.4P_0140	651.70	2.92	3.57	Open
C_NC12.4P_0130	651.70	2.92	3.27	Open
C_NC12.4P_0120	651.70	2.92	3.26	Open
C_NC12.4P_0100	1847.75	3.74	3.23	Open
C_MB6.0_0057	3107.45	3.63	2.22	Open
C_MB6.0_0100	1615.00	3.99	4.10	Open
C_MB7.5-0.1_0010	351.50	2.21	2.37	Open
C_MB8.5_0045	2561.20	3.69	2.60	Open
C_NC35.7_0030	411.35	2.59	3.17	Open
C_NC35.7_0040	311.60	3.44	7.43	Open
C_NC35.7_0060	0.00	0.00	0.00	Open
C_NC28.7-1.0-0.1_0017	1137.15	3.27	3.57	Open
C_NC28.7-1.0_0150	161.50	1.78	2.22	Open
C_NC28.7-1.0_0160	161.50	1.86	2.44	Open
C_NC29.7_0017	988.00	4.00	5.48	Open
C_NC31.0_0190	332.50	2.26	2.59	Open
C_NC33.1S_0170	570.00	3.88	7.02	Open
C_NC35.1_0110	332.50	2.26	2.59	Open
C_NC48.3_0060	180.50	1.99	2.72	Open
C_NC49.2-0.3_0010	1078.25	2.57	1.78	Open
C_NC49.2-0.3_0020	1035.50	2.98	2.57	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2_0130	4155.30	4.85	3.81	Open
C_NC49.2_0132	3547.30	4.14	2.82	Open
C_NC54.3_0040	1420.25	3.39	2.96	Open
C_NC54.3_0030	1624.50	2.34	1.12	Open
C_NC54.3_0020	1660.60	2.39	1.21	Open
C_ON_0010	-0.01	0.00	0.00	Open
C_ON_0090	-1910.29	0.23	0.00	Open
C_ON0.5_0080	-1574.56	0.19	0.00	Open
C_ON0.3_0070	-1266.81	0.15	0.00	Open
C_ON_0040	-528.21	0.06	0.00	Open
C_ON_0050	-712.30	0.09	0.00	Open
C_ON_0060	-978.08	0.12	0.00	Open
C_ON_0030	-209.83	0.03	0.00	Open
C_ON_0020	-71.06	0.01	0.00	Open
C_ON0.1_0030	265.78	1.11	0.53	Open
C_ON0.1_0040	95.68	1.06	0.84	Open
C_ON_0180	11782.56	1.39	0.11	Open
C_ON_0210	11574.41	1.36	0.11	Open
C_ON_0700	16682.93	1.97	0.22	Open
C_ON13.9_0010	668.10	1.99	1.28	Open
C_ON13.9_0015	668.10	1.99	1.26	Open
C_ON17.9_0020	940.60	2.32	1.49	Open
C_ON17.9_0050	391.68	1.64	1.06	Open
C_ON17.9_0060	391.68	1.64	1.08	Open
C_ON17.9_0040	604.31	1.80	1.05	Open
C_ON17.9_0030	810.22	2.41	1.80	Open
C_ON18.2_0005	871.77	2.60	2.06	Open
C_ON18.2_0010	665.86	1.98	1.25	Open
C_ON18.2_0020	665.86	1.98	1.25	Open
C_ON19.9_0020	833.73	2.15	1.34	Open
C_ON19.9_0030	833.73	2.59	2.12	Open
C_LL1.8_0020	212.63	2.35	3.69	Open
C_ML0.7_0060	190.25	2.10	3.00	Open
C_CL1.74_0060	346.92	3.83	9.13	Open
C_CL_0200	419.66	2.73	3.58	Open
C_CL_0210	106.31	2.80	8.45	Open
C_CL1.84-0.55_0040	766.58	3.21	3.74	Open
C_ML2.0_0010	688.81	4.33	8.24	Open
C_ML2.0_0025	487.37	3.06	4.34	Open
C_ML2.0_0015	688.81	4.33	8.47	Open
C_ML3.1_0130	371.55	2.42	2.86	Open
C_ML3.1_0150	62.67	0.69	1.16	Open
C_ML3.1_0160	0.00	0.00	0.00	Open
C_ML3.1_0140	229.98	2.54	4.26	Open
C_ML3.4_0010	139.89	1.55	1.70	Open

C_HL2.5_0010	656.91	4.13	7.55	Open
C_HL2.5_0025	486.81	3.06	4.33	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_HL2.5_0015	486.81	3.06	4.34	Open
C_HL2.7P_0010	783.93	3.17	3.57	Open
C_HL2.7P_0040	392.24	2.47	2.85	Open
C_HL2.7P_0050	182.97	1.15	0.72	Open
C_HL2.7P_0060	36.37	0.23	0.00	Open
C_HL2.7P_0020	532.13	2.15	1.72	Open
C_HL2.7P_0030	532.13	3.35	5.11	Open
C_HL5.5-0.7_0010	201.44	2.23	3.34	Open
C_NC25.4-1.6_0090	874.00	3.53	4.31	Open
C_NC25.4-1.6_0100	874.00	2.60	2.07	Open
C_NC49.2-0.3_0005	1078.25	2.57	1.77	Open
C_NC49.2-0.3_0007	1078.25	2.57	1.78	Open
C_NC38.7-0.1_0017	693.50	2.80	2.85	Open
C_NC38.7-0.1_0020	0.00	0.00	0.00	Open
C_ML_0010	21173.61	4.30	1.26	Open
C_KL5.4-0.8-2.4_0005	2772.10	3.50	2.18	Open
C_MB9.1-0.9_0030	351.50	2.21	2.37	Open
C_MB_0130	30622.71	3.61	0.66	Open
C_MB_0200	28616.26	3.37	0.59	Open
C_MB_0280	27307.63	3.22	0.47	Open
C_MB_0310	27288.63	3.21	0.46	Open
C_NC25.4-1.6-0.9_0070	883.50	3.96	5.72	Open
C_SA2.5_0020	10.45	0.27	0.12	Open
C_SA2.5_0010	-10.45	0.27	0.11	Open
C_NC33.1S_0160	916.75	4.01	5.79	Open
C_NC38.9_0148	8467.35	4.40	2.28	Open
C_NC43.2-12.9_0040	2118.50	3.87	3.24	Open
C_NC43.2-12.9_0050	0.00	0.00	0.00	Open
C_NC48.3_0040	236.55	2.61	4.49	Open
C_NC48.3_0055	180.50	1.99	2.72	Open
C_NC48.3_0050	180.50	1.99	2.72	Open
C_NC48.3_0070	180.50	1.99	2.72	Open
C_NC54.3_0050	304.00	1.91	1.81	Open
C_NC_1180	42161.00	3.32	0.42	Open
C_NC_1260	36024.00	4.24	0.78	Open
C_NC_1320	33654.70	3.96	0.69	Open
C_NC59.5_0030	1518.10	3.62	3.35	Open
C_NC59.5_0045	777.10	3.14	3.59	Open
C_NC59.5_0040	777.10	3.14	3.51	Open
C_HL6.4_0020	27.98	0.03	0.00	Open

C_HL_0610	644.61	4.05	8.40	Open
C_NC_1370	16668.70	2.67	0.40	Open
C_NC62.1_0046	882.55	3.57	4.45	Open
C_ML1.3_0010	996.00	4.03	5.58	Open
C_ML1.3_0050	449.88	2.93	4.07	Open
C_ML1.3_0045	570.74	3.72	6.33	Open
C_ML1.3_0020	996.00	4.03	5.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ML1.3_0040	996.00	4.18	6.08	Open
C_ML_0230	10215.60	4.13	1.52	Open
C_ML_0220	10215.60	4.13	1.52	Open
C_CL_0070	5983.84	4.29	2.27	Open
C_SA0.5_0020	24.70	0.65	0.57	Open
C_NC18.6_0030	0.00	0.00	0.00	Open
C_NC18.6_0020	815.10	3.30	4.00	Open
C_KL5.4-3.2_0010	1453.50	3.59	3.38	Open
C_KL5.4-3.2_0040	0.00	0.00	0.00	Open
C_KL5.4-3.2_0030	1453.50	3.59	3.37	Open
C_MB9.4_0019	1253.05	3.60	3.71	Open
C_KL_0058	34621.98	4.08	0.72	Open
C_NC27.8_0068	893.00	3.61	4.55	Open
C_NC24.1-0.1_0010	95.00	2.50	6.86	Open
C_NC14.5-0.2_0020	0.00	0.00	0.00	Open
C_NC32.2-0.1_0020	0.00	0.00	0.00	Open
C_ML_0310	8873.79	2.35	0.00	Open
C_ML_0330	8705.93	2.31	0.00	Open
C_ML3.1_0010	4503.82	3.65	1.82	Open
C_ML4.0_0035	1043.00	3.00	2.61	Open
C_CL1.84_0030	1698.24	2.06	0.00	Open
C_NC32.2-0.1_0010	313.50	1.27	0.66	Open
C_NC35.7_0020	411.35	2.59	3.11	Open
C_NC38.9-4.8-0.5_0115	1767.00	4.55	5.81	Open
C_NC38.9-4.8-2.5_0010	687.80	4.48	8.98	Open
C_NC38.9-7.8_0070	1273.00	3.66	4.52	Open
C_NC38.9-7.8-0.5_0050	627.00	3.94	6.30	Open
C_NC38.7-0.1_0015	693.50	4.36	8.68	Open
C_NC45.4_0020	1102.00	3.17	3.03	Open
C_NC49.2-0.3_0030	418.00	2.63	2.71	Open
C_NC49.2_0037	12137.20	2.46	0.39	Open
C_NC49.2_0039	11647.00	4.20	1.47	Open
C_NC54.2-2.8_0010	47.50	1.25	1.90	Open
C_NC54.4_0120	180.50	1.99	2.75	Open
C_NC55.5_0120	123.50	3.25	11.09	Open

C_NC55.5_0080	665.00	2.69	2.59	Open
C_NC55.5_0090	522.50	3.29	4.97	Open
C_NC55.5_0100	465.50	1.88	1.38	Open
C_NC55.5_0110	408.50	2.57	3.17	Open
C_NC55.5_0130	95.00	2.50	6.88	Open
C_NC55.5_0140	66.50	1.75	3.51	Open
C_NC55.5_0150	19.00	0.50	0.44	Open
C_NC55.6-0.5-2.6_0060	351.50	3.88	9.37	Open
C_NC55.6-0.5-2.6_0070	351.50	3.88	9.32	Open
C_NC58.7-0.7_0050	38.00	1.00	1.30	Open
C_NC59.5_0060	435.10	2.74	3.15	Open
C_NC59.5_0070	379.05	2.38	2.53	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0_0030	9843.90	4.49	1.91	Open
C_NC60.0-0.9_0020	3244.25	4.68	4.12	Open
C_NC60.0-1.6_0050	427.50	2.69	3.49	Open
C_NC_1610	2520.35	3.77	2.71	Open
C_HL0.9_0140	213.19	2.36	3.70	Open
C_HL_0100	25961.57	3.06	0.33	Open
C_HL2.9_0040	162.27	1.79	2.54	Open
C_HL_0250	21814.73	3.50	0.38	Open
C_KL5.4-3.0_0010	5089.15	3.65	1.67	Open
C_KL5.4_0250	969.00	3.01	2.87	Open
C_KL5.4_0230	1786.00	3.53	2.77	Open
C_KL5.4_0240	1710.00	3.38	2.77	Open
C_KL5.4_0260	190.00	2.18	3.12	Open
C_KL6.2_0010	380.00	2.39	2.74	Open
C_KL7.7_0060	456.00	3.10	5.43	Open
C_KL7.7_0070	389.50	2.65	3.37	Open
C_MB_0160	31175.56	3.67	0.61	Open
C_MB6.0_0070	2765.45	3.99	3.49	Open
C_MB7.5_0117	4054.60	3.29	1.50	Open
C_ON13.2_0040	235.01	1.48	1.88	Open
C_ON_0950	11039.89	2.32	1.28	Open
C_ON_1250	0.00	0.00	0.00	Open
C_ON_1225	996.00	2.46	1.68	Open
C_NC38.9-2.4_0105	2239.15	3.35	2.22	Open
C_NC38.9-2.4_0100	2258.15	3.38	2.25	Open
C_NC38.9-2.4_0090	2296.15	4.34	4.07	Open
C_NC38.9-2.4-1.6_0040	902.50	3.95	5.79	Open
C_SA_0060	1125.38	2.05	1.00	Open
C_SA_0070	1125.38	2.05	0.99	Open
C_SA_0100	1053.18	1.92	0.84	Open

C_SA_0350	-536.17	3.37	5.17	Open
C_NA0.2E_0005	62.70	1.65	3.22	Open
C_NA0.2E_0006	49.40	1.30	2.03	Open
C_NA0.2E_0010	35.15	0.92	1.02	Open
C_NA0.2E_0020	31.35	0.82	0.82	Open
C_NA0.4_0010	267.90	2.96	5.62	Open
C_NA_0090	48.45	1.27	1.97	Open
C_NC5.3_0070	276.45	3.36	8.14	Open
C_NC5.3_0080	276.45	3.36	8.14	Open
C_NC14.5-0.2_0010	694.45	4.37	8.36	Open
C_NC14.5-0.2_0030	0.00	0.00	0.00	Open
C_NC25.4-1.6_0070	874.00	3.53	4.51	Open
C_NC25.4-4.8_0020	180.50	2.08	4.44	Open
C_NC27.8-0.9_0020	73.15	1.92	4.11	Open
C_NC28.7-1.0-0.1_0047	128.25	3.37	11.96	Open
C_NC28.7-2.0_0010	4247.45	3.45	1.44	Open
C_NC29.7_0030	456.00	1.84	1.53	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC30.2_0100	408.50	2.57	3.05	Open
C_NC31.0-2.5_0010	522.50	3.40	5.43	Open
C_NC35.1-0.7_0010	95.00	2.50	6.83	Open
C_NC35.1-0.7_0020	95.00	2.50	6.57	Open
C_NC35.7_0050	0.00	0.00	0.00	Open
C_LL_0030	2368.90	4.48	4.36	Open
C_LL_0070	1843.16	3.48	2.75	Open
C_LL_0060	1938.84	3.67	2.99	Open
C_LL_0150	1401.11	2.65	1.53	Open
C_LL_0155	1384.32	2.62	1.93	Open
C_LL_0170	1188.47	3.54	3.59	Open
C_LL_0180	1143.71	3.41	3.39	Open
C_LL2.0_0030	55.95	1.47	2.57	Open
C_LL_0250	522.62	3.40	5.37	Open
C_ML0.7_0015	899.53	3.64	4.57	Open
C_ML0.7_0045	460.51	2.90	3.78	Open
C_NC49.2_0065	7542.05	4.50	2.24	Open
C_CL1.74_0070	156.67	4.12	17.35	Open
C_NC24.1-0.1_0020	0.00	0.00	0.00	Open
C_NC60.0-1.6-0.7_0010	1111.50	4.50	6.85	Open
C_HL_0000	52670.55	4.15	0.63	Open
C_HL_0005	28913.16	3.41	0.52	Open
C_KP_0001	2166.00	3.38	2.31	Open
C_HL_0520	0.00	0.00	0.00	Open
C_NC60.0_0148	0.00	0.00	0.00	Open

C_HL_0116	25159.18	4.03	0.87	Open
C_MB_0405	17273.98	2.03	0.20	Open
C_MB_0400	18444.89	2.17	0.22	Open
C_NA0.0_0008	987.43	3.99	5.47	Open
C_NA0.0_0010	987.42	3.99	5.47	Open
C_HL0.0_0005	52670.55	4.15	0.64	Open
C_KL_0110	34624.48	4.08	0.72	Open
C_MB_DUAL_015	22224.07	2.62	0.32	Open
C_KL_0114	30524.45	3.60	0.58	Open
C_KL_0113	34624.48	4.08	0.67	Open
C_MB7.5_0015	9311.90	4.84	2.34	Open
C_HL3.7_0010	23445.27	3.76	0.74	Open
C_ON3.7_0010	13100.46	1.54	0.12	Open
C_HL9.4_0056	2149.22	4.06	3.63	Open
C_KL_0234	8391.42	4.17	2.02	Open
C_NC_0017	328648.20	4.14	0.23	Open
C_NC_0013	328648.20	4.14	0.23	Open
C_NC_0009	328648.20	4.14	0.23	Open
C_NC_0023	328648.20	4.14	0.22	Open
C_NC_0020	328648.20	4.14	0.22	Open
C_NC_0019	328648.20	4.14	0.22	Open
C_NC_0015	328648.20	4.14	0.22	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC_0011	328648.20	4.14	0.22	Open
C_NC_0007	328648.20	4.14	0.22	Open
C_NC_0005	328648.20	4.14	0.22	Open
C_NC_0100	254089.30	3.95	0.22	Open
C_NC_0060	254089.30	3.95	0.22	Open
C_NC_0050	257976.70	4.02	0.23	Open
C_NC_0090	254089.30	3.95	0.22	Open
C_NC_0140	247776.60	3.86	0.21	Open
C_NC_0130	252042.10	3.92	0.22	Open
C_NC_0290	138485.10	3.25	0.20	Open
C_NC_0190	181345.30	4.25	0.33	Open
C_NC_0180	181345.30	4.25	0.33	Open
C_NC_0170	247776.60	3.86	0.22	Open
C_NC_0160	247776.60	3.86	0.21	Open
C_NC_0220	172215.80	4.04	0.30	Open
C_NC_0210	172842.80	4.05	0.30	Open
C_NC_0200	181345.30	4.25	0.33	Open
C_NC_0240	159275.90	3.73	0.26	Open
C_NC_0230	172215.80	4.04	0.30	Open
C_NC_0280	138485.10	3.25	0.20	Open

C_NC_0270	138485.10	3.25	0.20	Open
C_NC_0250	159275.90	3.73	0.26	Open
C_NC_0260	153205.40	3.59	0.24	Open
C_NC_0320	138485.10	3.25	0.20	Open
C_NC_0310	138485.10	3.25	0.20	Open
C_NC_0330	138485.10	3.25	0.20	Open
C_NC_0380	132669.20	3.11	0.18	Open
C_NC_0370	136051.20	3.19	0.19	Open
C_NC_0360	136051.20	3.19	0.19	Open
C_NC_0350	137670.00	3.23	0.20	Open
C_NC_0340	138485.10	3.25	0.20	Open
C_NC_0420	121366.10	2.85	0.16	Open
C_NC_0410	124159.10	2.91	0.16	Open
C_NC_0400	124159.10	2.91	0.16	Open
C_NC_0390	132669.20	3.11	0.18	Open
C_NC_0540	68974.55	1.62	0.06	Open
C_NC_0460	121366.10	2.85	0.16	Open
C_NC_0450	121366.10	2.85	0.15	Open
C_NC_0490	73815.76	1.73	0.06	Open
C_NC_0480	80883.76	1.90	0.07	Open
C_NC_0470	121366.10	2.85	0.16	Open
C_NC_0530	68974.55	1.62	0.05	Open
C_NC_0520	73815.76	1.73	0.06	Open
C_NC_0610	45784.11	1.07	0.03	Open
C_NC_0570	51448.01	1.21	0.03	Open
C_NC_0560	68974.55	1.62	0.05	Open
C_NC_0600	45784.11	1.07	0.03	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC_0590	49928.01	1.17	0.03	Open
C_NC_0580	51448.01	1.21	0.03	Open
C_NC_0770	188853.60	4.43	0.35	Open
C_NC_0780	177970.40	4.17	0.32	Open
C_NC_0680	198273.80	4.65	0.39	Open
C_NC_0660	35804.36	0.84	0.02	Open
C_NC_0670	31910.30	0.75	0.01	Open
C_NC_0650	35804.36	0.84	0.02	Open
C_NC_0640	38848.16	0.91	0.02	Open
C_NC_0630	45784.11	1.07	0.03	Open
C_NC_0710	193822.10	4.54	0.37	Open
C_NC_0690	198273.80	4.65	0.39	Open
C_NC_0700	194793.90	4.57	0.37	Open
C_NC_0760	188853.60	4.43	0.35	Open
C_NC_0750	188853.60	4.43	0.35	Open

C_NC_0740	188853.60	4.43	0.35	Open
C_NC_0730	193822.10	4.54	0.37	Open
C_NC_0620	45784.11	1.07	0.03	Open
C_NC_0300	138485.10	3.25	0.21	Open
C_NC_0150	247776.60	3.86	0.23	Open
C_NC_0120	252042.10	3.92	0.24	Open
C_NC_0110	254089.30	3.95	0.24	Open
C_NC_0040	257976.70	4.02	0.25	Open
C_NC_0030	257976.70	4.02	0.23	Open
C_NC_0025	257976.70	4.02	0.23	Open
C_NC_0440	121366.10	2.85	0.17	Open
C_NC_0550	68974.55	1.62	0.06	Open
C_NC_0510	73815.76	1.73	0.06	Open
C_NC_0500	73815.76	1.73	0.07	Open
C_NC_0810	109594.90	4.30	0.45	Open
C_NC_0830	109594.90	4.30	0.45	Open
C_NC_0820	109594.90	4.30	0.45	Open
C_NC_0840	109594.90	4.30	0.45	Open
C_NC_0860	109594.90	4.30	0.45	Open
C_NC_0870	109594.90	4.30	0.45	Open
C_NC_0880	108160.40	4.25	0.44	Open
C_NC_0890	108160.40	4.25	0.44	Open
C_NC_0910	108160.40	4.25	0.44	Open
C_NC_0920	108160.40	4.25	0.44	Open
C_NC_0930	100877.70	4.47	0.52	Open
C_NC_0940	100877.70	4.47	0.52	Open
C_NC_0960	100877.70	4.47	0.52	Open
C_NC_0980	100877.70	4.47	0.52	Open
C_NC_1010	83779.57	4.23	0.50	Open
C_NC_0990	100641.10	4.46	0.52	Open
C_NC_1020	83779.57	4.23	0.50	Open
C_NC_1030	81536.62	4.11	0.48	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC_1040	81536.62	4.11	0.48	Open
C_NC_1050	79465.62	4.01	0.46	Open
C_NC_1060	75829.02	4.39	0.59	Open
C_NC_1070	75829.02	4.39	0.59	Open
C_NC_1080	75829.02	4.39	0.59	Open
C_NC_1110	60522.60	4.06	0.56	Open
C_NC_1100	66429.70	4.46	0.66	Open
C_NC_1090	68090.30	3.94	0.48	Open
C_NC_0850	109594.90	4.30	0.48	Open
C_NC_0900	108160.40	4.25	0.47	Open

C_NC_0950	100877.70	4.47	0.56	Open
C_NC_1130	60522.60	4.06	0.60	Open
C_NC_1000	87135.93	4.39	0.54	Open
C_ON_0830	13952.89	2.32	0.31	Open
C_ON12.6_0010	0.00	0.00	0.00	Open
C_ON_1070	7462.14	2.05	0.33	Open
C_NC38.7-1.2_0020	247.00	2.84	5.36	Open
C_NC_0790	140798.80	3.99	0.35	Open
C_NC_0080	254089.30	3.95	0.00	Open
C_NC_0070	254089.30	3.95	0.66	Open
C_NC_0720	193822.10	4.54	0.39	Open
C_NC_0970	100877.70	4.47	0.51	Open
C_NC_1120	60522.60	4.06	0.54	Open
C_ON_0093	0.00	0.00	0.00	Open
C_ON_0096	0.00	0.00	0.00	Open
C_MB_DUAL_030	13100.47	1.54	0.12	Open
C_NC_0670_DUAL_I	175275.40	3.27	0.18	Open
C_NC_0041	175275.40	3.27	0.18	Open
C_MB_DUAL_020	13100.47	1.54	0.12	Open
C_MB_DUAL_014	6831.93	0.80	0.06	Open
C_MB_DUAL_013	29056.00	3.42	0.52	Open
C_MB_DUAL_010	30796.35	3.63	0.58	Open
C_MB3.9_0025	1740.35	0.20	0.00	Open
C_NC33.1S_0175	570.00	3.88	7.02	Open
C_NC_0670_DUAL_II	175275.40	3.27	0.18	Open
P_SOUTH_ADVANCEMENT	1307.78	0.00	-62.01	Open Pump
P_NORTH_ADVANCEMENT	987.43	0.00	-95.35	Open Pump
P_DEAD_OX	52670.55	0.00	-140.64	Open Pump
P_DUNAWAY	0.00	0.00	0.00	Closed Pump
V_MB_0395	18444.89	1.45	0.00	Open Valve
V_HL_0520	2675.21	3.37	0.00	Open Valve
V_NC70.5_0020	0.00	0.00	0.00	Closed Valve
V_HL_0116	25159.18	3.52	0.00	Open Valve
V_NC60.0_0148	0.00	0.00	0.00	Closed Valve
V_MB_0406	17273.98	1.96	0.00	Open Valve
V_NA0.0_0009	987.43	4.03	0.00	Open Valve
V_SA_0350	-536.17	3.42	0.00	Open Valve

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
V_MB1.7_0010	61740.16	2.52	159.90	Active Valve
V_KL7.6S_0010	16761.80	2.97	171.78	Active Valve
V_KL7.7_0025	895.85	2.54	72.01	Active Valve
V_NC13.6_0185	636.50	2.79	25.60	Active Valve
V_NC25.4-3.3_0050	9.50	0.24	1.30	Active Valve

V_NC33.1_0105	256.50	2.91	2.65	Active Valve
V_NC38.9-2.4_0080	2429.15	2.48	59.43	Active Valve
V_NC38.9-4.8-0.5_0093	2042.50	3.26	27.51	Active Valve
V_NC38.9-4.8_0145	1751.80	3.65	42.30	Active Valve
V_NC46.7-0.5_0070	418.00	4.26	0.00	Open Valve
V_NC38.7_0100	2765.45	3.49	35.72	Active Valve
V_NC54.2_0260	190.00	2.16	0.00	Open Valve
V_NC5.3_0055	1464.90	3.05	71.28	Active Valve
V_MB_DUAL_030	13100.46	1.49	0.00	Open Valve
V_ON_0095	0.00	0.00	0.00	Closed Valve
V_NC_0800	140798.80	4.43	88.50	Active Valve
V_NC65.5_0010	4630.30	3.28	0.00	Open Valve
V_NC_0023	70671.46	4.09	0.00	Open Valve
V_NC_0110	2047.25	3.27	70.40	Active Valve
V_NC_0130	4265.50	3.03	0.00	Open Valve
V_NC_0170	66431.26	3.35	0.00	Open Valve
V_NC_0200	8502.50	3.39	6.84	Active Valve
V_NC_0210	627.00	4.00	5.34	Active Valve
V_NC_0230	12939.95	3.00	0.61	Active Valve
V_NC_0250	6070.50	3.16	0.00	Open Valve
V_NC_0260	14720.26	3.41	0.00	Open Valve
V_NC_0340	815.10	3.33	4.73	Active Valve
V_NC_0350	1618.80	3.37	3.52	Active Valve
V_NC_0370	3382.00	3.45	0.00	Open Valve
V_NC_0390	8510.10	3.39	4.48	Active Valve
V_NC_0410	2793.00	1.98	0.08	Active Valve
V_NC_0470	40482.35	4.59	4.62	Active Valve
V_NC_0480	7068.00	3.21	8.12	Active Valve
V_NC_0520	4841.20	3.43	7.50	Active Valve
V_NC_0560	17526.55	3.11	7.62	Active Valve
V_NC_0580	1520.00	3.17	8.88	Active Valve
V_NC_0590	4143.90	2.94	11.95	Active Valve
V_NC_0630	6935.95	3.61	7.07	Active Valve
V_NC_0640	3043.80	3.11	9.26	Active Valve
V_NC_0660	3894.05	2.76	15.83	Active Valve
V_NC_0670	8911.95	3.56	10.84	Active Valve
V_NC_0690	3479.85	3.55	9.24	Active Valve
V_NC_0700	971.85	2.76	13.14	Active Valve
V_NC_0730	4968.50	3.52	14.12	Active Valve
V_NC_0770	10883.20	3.85	7.93	Active Valve
V_NC_0780	37171.61	2.93	11.91	Active Valve
V_NC_0870	1434.50	2.99	3.58	Active Valve

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

V_NC_0920	7282.70	2.30	0.00	Open Valve
V_NC_0980	236.55	2.68	0.00	Open Valve
V_NC_0990	13505.20	2.39	0.52	Active Valve
V_NC_1020	2024.34	1.44	0.00	Open Valve
V_NC_1040	2071.01	2.12	0.00	Open Valve
V_NC_1050	3636.60	2.20	0.00	Open Valve
V_NC_1080	7738.70	2.44	0.00	Open Valve
V_NC_1090	1660.60	2.09	0.00	Open Valve
V_NC_1100	5907.10	2.36	0.00	Open Valve
V_NC_1140	3821.85	2.31	2.14	Active Valve
V_NC_1160	14539.75	2.58	6.31	Active Valve
V_NC_1270	1979.80	4.13	5.59	Active Valve
V_NC_1330	3456.10	3.53	6.69	Active Valve
V_NC_1340	13054.90	4.11	6.76	Active Valve
V_NC_1390	3800.00	2.30	4.37	Active Valve
V_NC_1400	4573.30	3.24	10.45	Active Valve
V_NC8.5_0120	2437.70	3.07	38.34	Active Valve
V_KL5.4-0.8_0040	10450.95	2.42	67.50	Active Valve
V_KL5.4_0030	18936.35	2.65	104.29	Active Valve
V_NC25.4-1.6-2.7_0030	883.50	3.61	0.00	Open Valve
V_NC33.1S-1.6_0010	1566.55	3.26	14.89	Active Valve
V_NC45.4_0040	1102.00	3.13	87.21	Active Valve
V_NC49.2_0180	950.00	2.69	9.26	Active Valve

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*********************************************************************
*                            E P A N E T                            *
*                     Hydraulic and Water Quality                   *
*                     Analysis for Pipe Networks                    *
*                          Version 2.0                              *
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Input File: OwyheeID_Interconnects_202001008.INP
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Link - Node Table:

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL_0060	J_KL_0058	J_KL_0060	599.35	58.89
C_KL_0080	J_KL_0070	J_KL_0080	726.53	58.89
C_KL_0070	J_KL_0060	J_KL_0070	1320.15	58.89
C_KL_0140	J_KL_0135	J_KL_0140	1371.37	58.89
C_KL_0135	J_KL_0130	J_KL_0135	1381.91	58.89
C_KL_0130	J_KL_0120	J_KL_0130	2381.6	58.89
C_KL_0115	J_KL_0110	J_KL_0115	196.53	58.89
C_KL_0107	J_KL_0105	J_KL_0107	44.85	58.89
C_KL_0105	J_KL_0100	J_KL_0105	197.56	58.89
C_KL_0100	J_KL_0090	J_KL_0100	3286.12	58.89
C_KL_0090	J_KL_0080	J_KL_0090	1522.92	58.89
C_KL_0120	J_KL_0115	J_KL_0120	409.65	58.89
C_KL_0225	J_KL_0220	J_KL_0225	436.94	43.15
C_KL_0230	J_KL_0225	J_KL_0230	1604.83	43.15
C_KL_0220	J_KL_0200	J_KL_0220	21.37	44.09
C_KL_0195	J_KL_0190	J_KL_0195	8.56	50.48
C_KL_0200	J_KL_0195	J_KL_0200	886.32	44.09
C_KL_0190	J_KL_0186	J_KL_0190	36	50.48
C_KL_0186	J_KL_0183	J_KL_0186	23.74	50.48
C_KL_0183	J_KL_0180	J_KL_0183	148.96	50.48
C_KL_0180	J_KL_0170	J_KL_0180	503.73	50.48
C_KL_0170	J_KL_0160	J_KL_0170	1341.46	50.48
C_KL_0160	J_KL_0150	J_KL_0160	583.32	58.89
C_KL_0150	J_KL_0140	J_KL_0150	2344.18	58.89
C_KL5.4-0.5_0005	J_KL5.4_0022	J_KL5.4-0.5_0005	42.02	24.3
C_KL5.4-0.5_0040	J_KL5.4-0.5_0020	J_KL5.4-0.5_0040	3429.97	22.44
C_KL5.4-0.5_0020	J_KL5.4-0.5_0005	J_KL5.4-0.5_0020	1069.16	24.3
C_KL5.4-0.5_0100	J_KL5.4-0.5_0090	J_KL5.4-0.5_0100	2.63	16.83
C_KL5.4-0.5_0090	J_KL5.4-0.5_0080	J_KL5.4-0.5_0090	2.62	16.83
C_KL5.4-0.5_0080	J_KL5.4-0.5_0075	J_KL5.4-0.5_0080	34.25	16.83
C_KL5.4-0.5_0063	J_KL5.4-0.5_0060	J_KL5.4-0.5_0063	5.16	22.44
C_KL5.4-0.5_0070	J_KL5.4-0.5_0065	J_KL5.4-0.5_0070	687.16	16.83
C_KL5.4-0.5_0065	J_KL5.4-0.5_0063	J_KL5.4-0.5_0065	516.72	18.7

C_KL5.4-0.5_0060J_KL5.4-0.5_0050J_KL5.4-0.5_0060 789.3 22.44
C_KL5.4-0.5_0050J_KL5.4-0.5_0040J_KL5.4-0.5_0050 1566.74 22.44
C_KL5.4-0.5_0075J_KL5.4-0.5_0070J_KL5.4-0.5_0075 2604.33 16.83
C_KL5.4-0.5-1.3_0020J_KL5.4-0.5_0063J_KL5.4-0.5-1.3_0020 4.05 8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4-0.5-1.3_0040	J_KL5.4-0.5-1.3_0030	J_KL5.4-0.5-1.3_0040	13.03	6.08
C_KL5.4-0.5-1.3_0030	J_KL5.4-0.5-1.3_0020	J_KL5.4-0.5-1.3_0030	573.56	8.06
C_KL5.4-0.5-1.4_0020	J_KL5.4-0.5_0065	J_KL5.4-0.5-1.4_0020	347.27	8.06
C_KL5.4-0.5-1.4_0030	J_KL5.4-0.5-1.4_0020	J_KL5.4-0.5-1.4_0030	1507.86	7.75
C_KL5.4_0010	J_KL_0107	J_KL5.4_0010	9.47	58.89
C_KL5.4_0022	J_KL5.4_0015	J_KL5.4_0022	2518.91	58.89
C_KL5.4_0030	J_KL5.4_0022	J_KL5.4_0025	3645.98	47.98
C_KL5.4_0015	J_KL5.4_0010	J_KL5.4_0015	309.74	58.89
C_KL5.4_0075	J_KL5.4_0070	J_KL5.4_0075	385.02	39.26
C_KL5.4_0080	J_KL5.4_0075	J_KL5.4_0080	1746.57	38.58
C_KL5.4_0065	J_KL5.4_0060	J_KL5.4_0065	1304.96	44.87
C_KL5.4_0070	J_KL5.4_0065	J_KL5.4_0070	880	39.26
C_KL5.4_0060	J_KL5.4_0050	J_KL5.4_0060	1265.44	44.87
C_KL5.4_0050	J_KL5.4_0040	J_KL5.4_0050	19.19	44.87
C_KL5.4_0040	J_KL5.4_0030	J_KL5.4_0040	1354.1	50.48
C_KL5.4_0130	J_KL5.4_0120	J_KL5.4_0130	1332.83	22.04
C_KL5.4_0120	J_KL5.4_0110	J_KL5.4_0120	1996.39	25.72
C_KL5.4_0105	J_KL5.4_0100	J_KL5.4-3.1_0010	1145.72	29.39
C_KL5.4_0095	J_KL5.4_0090	J_KL5.4_0095	2081	38.58
C_KL5.4_0090	J_KL5.4_0080	J_KL5.4_0090	0.69	38.58
C_KL5.4_0109	J_KL5.4-3.1_0020	J_KL5.4_0109	60.37	29.39
C_KL5.4_0110	J_KL5.4_0109	J_KL5.4_0110	0.34	25.72
C_KL5.4_0107	J_KL5.4-3.1_0010	J_KL5.4-3.1_0020	0.17	29.39
C_KL5.4_0100	J_KL5.4_0095	J_KL5.4_0100	16.09	29.39
C_KL5.4_0183	J_KL5.4_0180	J_KL5.4_0183	482.68	17.98
C_KL5.4_0180	J_KL5.4_0170	J_KL5.4_0180	79.61	17.98
C_KL5.4_0170	J_KL5.4_0160	J_KL5.4_0170	16.72	17.98
C_KL5.4_0160	J_KL5.4_0150	J_KL5.4_0160	1060.89	17.98
C_KL5.4_0150	J_KL5.4_0140	J_KL5.4_0150	3.38	18.37
C_KL5.4_0140	J_KL5.4_0130	J_KL5.4_0140	1342.11	22.04
C_KL5.4-2.0_0010	J_KL5.4_0065	J_KL5.4-2.0_0010	10.35	6.08
C_KL5.4-2.0_0030	J_KL5.4-2.0_0020	J_KL5.4-2.0_0030	1122.15	6.08
C_KL5.4-2.0_0020	J_KL5.4-2.0_0010	J_KL5.4-2.0_0020	64.18	6.08
C_KL5.4-2.3_0010	J_KL5.4_0075	J_KL5.4-2.3_0010	5.86	10.05
C_KL5.4-2.3_0020	J_KL5.4-2.3_0010	J_KL5.4-2.3_0020	1379.55	10.05
C_KL7.4_0010	J_KL_0195	J_KL7.4_0010	14.51	22.44
C_KL7.4_0100	J_KL7.4_0090	J_KL7.4_0100	91.68	14.38
C_KL7.4_0090	J_KL7.4_0080	J_KL7.4_0090	1509.89	14.38

C_KL7.4_0080	J_KL7.4_0070	J_KL7.4_0080	3.76	14.96
C_KL7.4_0070	J_KL7.4_0060	J_KL7.4_0070	3.13	16.83
C_KL7.4_0060	J_KL7.4_0050	J_KL7.4_0060	240.71	16.83
C_KL7.4_0050	J_KL7.4_0030	J_KL7.4_0050	2473.98	16.83
C_KL7.4_0020	J_KL7.4_0010	J_KL7.4_0020	390.16	22.44
C_KL7.4_0030	J_KL7.4_0020	J_KL7.4_0030	1979.95	18.7
C_KL5.4_0190	J_KL5.4_0187	J_KL5.4_0190	478.83	17.98
C_KL5.4_0200	J_KL5.4_0190	J_KL5.4_0200	768.94	16.18
C_KL5.4_0220	J_KL5.4_0210	J_KL5.4_0220	662.82	14.38

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4_0210	J_KL5.4_0200	J_KL5.4_0210	7.66	14.38
C_KL5.4-3.0_0030	J_KL5.4-3.0_0010	J_KL5.4-3.0_0040	852.28	23.88
C_KL5.4-3.0_0120	J_KL5.4-3.0_0110	J_KL5.4-3.0_0120	1365.37	5.96
C_KL5.4-3.0_0110	J_KL5.4-3.0_0100	J_KL5.4-3.0_0110	470.3	9.66
C_KL5.4-3.0_0100	J_KL5.4-3.0_0095	J_KL5.4-3.0_0100	442.37	11.46
C_KL5.4-3.0_0095	J_KL5.4-3.0_0090	J_KL5.4-3.0_0095	1715.74	11.46
C_KL5.4-3.0_0090	J_KL5.4-3.0_0080	J_KL5.4-3.0_0090	12.42	11.46
C_KL5.4-3.0_0080	J_KL5.4-3.0_0070	J_KL5.4-3.0_0080	287.33	16.18
C_KL5.4-3.0_0070	J_KL5.4-3.0_0060	J_KL5.4-3.0_0070	984.19	16.18
C_KL5.4-3.0_0060	J_KL5.4-3.0_0050	J_KL5.4-3.0_0060	70.6	16.53
C_KL5.4-3.0_0040	J_KL5.4-3.0_0040	J_KL5.4-3.0_0030	0.27	22.04
C_KL5.4-3.0_0045	J_KL5.4-3.0_0030	J_KL5.4-3.0_0045	843.2	22.04
C_KL5.4-3.0_0050	J_KL5.4-3.0_0045	J_KL5.4-3.0_0050	1764.22	16.53
C_KL5.4-3.0_0130	J_KL5.4-3.0_0120	J_KL5.4-3.0_0130	1091.93	5.89
C_KL5.4-3.0-0.3_0010	J_KL5.4-3.0_0045	J_KL5.4-3.0-0.3_0010	6.16	11.71
C_KL5.4-3.0-0.3_0030	J_KL5.4-3.0-0.3_0020	J_KL5.4-3.0-0.3_0030	1007.89	9.66
C_KL5.4-3.0-0.3_0040	J_KL5.4-3.0-0.3_0030	J_KL5.4-3.0-0.3_0040	916.74	9.66
C_KL5.4-3.0-0.3_0020	J_KL5.4-3.0-0.3_0010	J_KL5.4-3.0-0.3_0020	2929.06	11.71
C_KL9.3_0020	J_KL9.3_0010	J_KL9.3_0020	1692.62	31.78
C_KL9.3_0040	J_KL9.3_0030	J_KL9.3_0040	1267.13	31.78
C_KL9.3_0030	J_KL9.3_0020	J_KL9.3_0030	21.11	31.78
C_KL9.3_0095	J_KL9.3_0090	J_KL9.3_0095	512.37	18.7
C_KL9.3_0110	J_KL9.3_0095	J_KL9.3_0110	141.24	18.7
C_KL9.3_0090	J_KL9.3_0080	J_KL9.3_0090	3575.93	18.7
C_KL9.3_0070	J_KL9.3_0060	J_KL9.3_0070	691.44	29.91
C_KL9.3_0080	J_KL9.3_0070	J_KL9.3_0080	84.93	22.44
C_KL9.3_0060	J_KL9.3_0050	J_KL9.3_0060	1390.57	31.78
C_KL9.3_0050	J_KL9.3_0040	J_KL9.3_0050	9.75	31.78
C_KL9.3_0115	J_KL9.3_0110	J_KL9.3_0115	2188.71	18.7
C_KL7.6-9.3N_0025	J_KL7.6-9.3N_0020	J_KL7.6-9.3N_0025	0.46	22.44
C_KL7.6-9.3N_0020	J_KL7.6-9.3N_0010	J_KL7.6-9.3N_0020	6.58	22.44
C_KL7.6-9.3N_0010	J_KL9.3_0070	J_KL7.6-9.3N_0010	515.2	22.44
C_KL10.0_0020	J_KL_0270	J_KL10.0_0020	1175.19	8.06

C_KL10.0_0030	J_KL10.0_0020	J_KL10.0_0030	838.52	6.08
C_KL_0254	J_KL_0252	J_KL9.8_0000	2.26	22.44
C_KL_0280	J_KL9.8_0100	J_KL_0280	6.05	10.05
C_KL_0278	J_KL9.8_0090	J_KL9.8_0100	5.33	10.05
C_KL_0276	J_KL9.8_0080	J_KL9.8_0090	6.06	11.92
C_KL_0270	J_KL9.8_0050	J_KL_0270	50.46	16.83
C_KL_0267	J_KL9.8_0040	J_KL9.8_0050	6.71	18.7
C_KL_0260	J_KL9.8_0030	J_KL9.8_0010	2.4	18.7
C_KL_0265	J_KL9.8_0020	J_KL9.8_0040	700.33	18.7
C_KL_0262	J_KL9.8_0010	J_KL9.8_0020	3.81	18.7
C_KL_0256	J_KL9.8_0000	J_KL9.8_0030	1186.61	22.44
C_KL_0274	J_KL_0270	J_KL9.8_0080	695.28	14.96
C_KL_0300	J_KL_0290	J_KL_0300	9.57	10.05
C_KL_0290	J_KL_0280	J_KL_0290	2.9	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC5.3_0010	J_NC_0050	J_NC5.3_0010	23.78	22.44
C_NC5.3_0035	J_NC5.3_0030	J_NC5.3_0035	1221.15	18.7
C_NC5.3_0040	J_NC5.3_0035	J_NC5.3_0040	1366.45	18.7
C_NC5.3_0030	J_NC5.3_0020	J_NC5.3_0030	45.69	18.7
C_NC5.3_0020	J_NC5.3_0010	J_NC5.3_0020	72.97	22.44
C_NC5.3_0053	J_NC5.3_0050	J_NC5.3_0053	5356.06	12.25
C_NC5.3_0060	J_NC5.3_0055	J_NC5.3_0060	296.52	12.59
C_NC5.3_0050	J_NC5.3_0040	J_NC5.3_0050	949.01	14.96
C_NC5.3-0.3_0010	J_NC5.3_0035	J_NC5.3-0.3_0010	4.33	3.94
C_NC5.3-0.3_0020	J_NC5.3-0.3_0010	J_NC5.3-0.3_0020	1283.75	3.94
C_NC5.3-1.4_0010	J_NC5.3_0055	J_NC5.3-1.4_0010	1271.19	3.94
C_NC8.5_0090	J_NC8.5_0080	J_NC8.5_0090	449.68	16.83
C_NC8.5_0070	J_NC8.5_0060	J_NC8.5_0070	311.36	22.44
C_NC8.5_0060	J_NC8.5_0050	J_NC8.5_0060	1935.82	22.44
C_NC8.5_0050	J_NC8.5_0040	J_NC8.5_0050	18.87	22.44
C_NC8.5_0040	J_NC8.5_0030	J_NC8.5_0040	3007.9	22.44
C_NC8.5_0030	J_NC8.5_0020	J_NC8.5_0030	550.57	22.44
C_NC8.5_0020	J_NC8.5_0010	J_NC8.5_0020	69.55	22.44
C_NC8.5_0150	J_NC8.5_0140	J_NC8.5_0150	408.48	5.96
C_NC8.5_0135	J_NC8.5_0130	J_NC8.5_0140	892.59	5.8
C_NC8.5_0130	J_NC8.5_0120	J_NC8.5_0130	24.23	7.66
C_NC8.5_0120	J_NC8.5_0110	J_NC8.5_0115	1301.05	15.99
C_NC8.5_0110	J_NC8.5_0100	J_NC8.5_0110	1267.79	18.37
C_NC8.5_0100	J_NC8.5_0090	J_NC8.5_0100	0.56	16.83
C_NC8.5_0080	J_NC8.5_0070	J_NC8.5_0080	1591.2	22.44
C_MB_0070	J_MB1.6_0020	J_MB1.6_0010	77.16	84
C_MB_0080	J_MB1.7_0010	J_MB2.5_0020	3343.64	58.89
C_MB_0030	J_MB_0025	J_MB_0030	2008.93	90

C_MB_0040	J_MB_0030	J_MB0.8_0010	2040.34	84
C_MB_0025	J_MB_0020	J_MB_0025	195.14	90
C_MB_0020	J_MB_0010	J_MB_0020	0.4	90
C_MB_0060	J_MB1.0_0010	J_MB1.6_0020	3357.62	84
C_MB_0050	J_MB0.8_0010	J_MB1.0_0010	1118.53	84
C_MB_0120	J_MB3.0_0010	J_MB_0120	1910.9	58.89
C_MB_0115	J_MB2.9_0010	J_MB3.0_0010	282.65	58.89
C_MB_0100	J_MB2.5_0030	J_MB2.5_0010	4.77	58.89
C_MB_0090	J_MB2.5_0020	J_MB2.5_0030	6.88	58.89
C_MB_0110	J_MB2.5_0010	J_MB2.9_0010	2605.85	58.89
C_MB_0140	J_MB_0130	J_MB3.9_0020	2269.41	58.89
C_MB_0170	J_MB3.9_0030	J_MB_0170	2004.96	58.89
C_MB_0190	J_MB_0180	J_MB_0190	1002.18	58.89
C_MB_0180	J_MB_0170	J_MB_0180	2613.53	58.89
C_MB_0150	J_MB3.9_0020	J_MB3.9_0010	4.07	58.89
C_MB0.4_0010	J_MB_0030	J_MB0.4_0010	15.05	18.7
C_MB0.4_0050	J_MB0.4_0040	J_MB0.4_0050	1402.24	14.96
C_MB0.4_0040	J_MB0.4_0030	J_MB0.4_0040	2.24	16.83
C_MB0.4_0030	J_MB0.4_0020	J_MB0.4_0030	1660.26	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_MB0.4_0020	J_MB0.4_0010	J_MB0.4_0020	153.5	18.7
C_MB4.8_0010	J_MB_0180	J_MB4.8_0010	17.11	10.05
C_MB4.8_0035	J_MB4.8_0030	J_MB4.8_0035	50.52	8.06
C_MB4.8_0030	J_MB4.8_0020	J_MB4.8_0030	78.91	10.05
C_MB4.8_0020	J_MB4.8_0010	J_MB4.8_0020	1770.17	10.05
C_MB_0210	J_MB_0200	J_MB_0210	2000.65	58.89
C_MB_0220	J_MB_0210	J_MB_0220	2855.54	58.89
C_MB_0230	J_MB_0220	J_MB6.2_0010	1367.85	58.89
C_MB_0270	J_MB6.5_0005	J_MB_0270	22.88	58.89
C_MB_0260	J_MB6.4_0010	J_MB6.5_0005	883.23	58.89
C_MB_0250	J_MB6.3_0010	J_MB6.4_0010	629.69	58.89
C_MB_0240	J_MB6.2_0010	J_MB6.3_0010	451.21	58.89
C_MB_0290	J_MB_0280	J_MB6.8_0010	777.44	58.89
C_MB_0300	J_MB6.8_0015	J_MB_0300	487.24	58.89
C_MB_0295	J_MB6.8_0010	J_MB6.8_0015	10.98	58.89
C_MB7.5_0010	J_MB_0310	J_MB_0320	3132.71	58.89
C_MB_0330	J_MB_0320	J_MB_0330	3858.93	50.48
C_MB_0340	J_MB_0330	J_MB_0340	4387.17	50.48
C_MB_0350	J_MB_0340	J_MB_0350	1590.79	50.48
C_MB_0360	J_MB_0350	J_MB9.5_0010	148.77	50.48
C_MB_0370	J_MB9.5_0010	J_MB10.7_0010	6362.16	50.48
C_MB_0420	J_MB11.5_0010	J_ON_0090	738.61	58.89
C_MB_0390	J_MB10.8_0020	J_MB10.8_0010	4.46	50.48

C_MB_0394	J_MB10.8_0010	J_MB_0394	1526.7	50.48
C_MB_0410	J_MB_0406	J_MB11.5_0010	1984.59	58.89
C_MB_0380	J_MB10.7_0010	J_MB10.8_0020	227.33	50.48
C_MB5.4_0010	J_MB_0210	J_MB5.4_0010	17.69	10.05
C_MB5.4_0040	J_MB5.4_0030	J_MB5.4_0040	429.94	10.05
C_MB5.4_0030	J_MB5.4_0020	J_MB5.4_0030	569.78	10.05
C_MB5.4_0020	J_MB5.4_0010	J_MB5.4_0020	457.64	10.05
C_MB6.0_0010	J_MB_0220	J_MB6.0_0010	16.07	26.17
C_MB6.0_0053	J_MB6.0_0050	J_MB6.0_0053	4.5	18.7
C_MB6.0_0050	J_MB6.0_0040	J_MB6.0_0050	395.57	18.7
C_MB6.0_0040	J_MB6.0_0030	J_MB6.0_0040	827.2	22.44
C_MB6.0_0030	J_MB6.0_0020	J_MB6.0_0030	2411.84	22.44
C_MB6.0_0020	J_MB6.0_0010	J_MB6.0_0020	96.22	26.17
C_MB6.0_0075	J_MB6.0_0070	J_MB6.0_0075	830.2	16.83
C_MB6.0_0090	J_MB6.0_0080	J_MB6.0_0090	57.34	12.86
C_MB6.0_0080	J_MB6.0_0075	J_MB6.0_0080	2267.23	14.7
C_MB7.5_0113	J_MB7.5_0110	J_MB7.5_0113	60.84	22.44
C_MB7.5_0110	J_MB7.5_0100	J_MB7.5_0110	944.04	22.44
C_MB7.5_0100	J_MB7.5_0090	J_MB7.5_0100	12.2	24.3
C_MB7.5_0090	J_MB7.5_0080	J_MB7.5_0090	1702.02	26.17
C_MB7.5_0080	J_MB7.5_0070	J_MB7.5_0080	1433.6	28.04
C_MB7.5_0070	J_MB7.5_0060	J_MB7.5_0070	0.73	28.04
C_MB7.5_0060	J_MB7.5_0050	J_MB7.5_0060	5.24	29.91
C_MB7.5_0050	J_MB7.5_0043	J_MB7.5_0050	1666.43	29.91

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_MB7.5_0043	J_MB7.5_0040	J_MB7.5_0043	75.44	29.91
C_MB7.5_0035	J_MB7.5_0030	J_MB7.5_0035	0.58	31.78
C_MB7.5_0040	J_MB7.5_0035	J_MB7.5_0040	468.12	29.91
C_MB7.5_0030	J_MB7.5_0020	J_MB7.5_0030	41.42	28.04
C_MB7.5_0020	J_MB7.5_0010	J_MB7.5_0020	0.6	28.04
C_MB7.5_0120	J_MB7.5_0117	J_MB7.5_0120	1279.25	22.04
C_MB7.5_0130	J_MB7.5_0120	J_MB7.5_0130	1298.68	18.37
C_MB7.5_0220	J_MB7.5_0210	J_MB7.5_0220	3.06	9.87
C_MB7.5_0210	J_MB7.5_0190	J_MB7.5_0210	1268.85	9.87
C_MB7.5_0180	J_MB7.5_0180	J_MB7.5_0170	0.69	11.71
C_MB7.5_0190	J_MB7.5_0170	J_MB7.5_0190	5.89	11.71
C_MB7.5_0170	J_MB7.5_0160	J_MB7.5_0180	458.87	14.7
C_MB7.5_0160	J_MB7.5_0150	J_MB7.5_0160	1788.12	14.7
C_MB7.5_0150	J_MB7.5_0140	J_MB7.5_0150	410.37	18.37
C_MB7.5_0140	J_MB7.5_0130	J_MB7.5_0140	6.71	18.37
C_MB8.5_0090	J_MB8.5_0080	J_MB8.5_0090	1562.24	11.71
C_MB8.5_0040	J_MB8.5_0045	J_MB8.5_0050	3.78	16.83
C_MB8.5_0050	J_MB8.5_0050	J_MB8.5_0040	1.45	14.96

C_MB8.5_0080	J_MB8.5_0070	J_MB8.5_0080	1919.61	11.92
C_MB8.5_0070	J_MB8.5_0060	J_MB8.5_0070	14.09	13.09
C_MB8.5_0060	J_MB8.5_0040	J_MB8.5_0060	2626.64	14.96
C_MB9.1_0010	J_MB_0340	J_MB9.1_0010	16.01	14.96
C_MB9.1_0080	J_MB9.1_0070	J_MB9.1_0080	838.61	7.92
C_MB9.1_0067	J_MB9.1_0065	J_MB9.1_0067	19.36	11.92
C_MB9.1_0070	J_MB9.1_0067	J_MB9.1_0070	433.62	10.05
C_MB9.1_0065	J_MB9.1_0040	J_MB9.1_0065	1793.04	13.09
C_MB9.1_0040	J_MB9.1_0030	J_MB9.1_0040	1385.67	14.96
C_MB9.1_0030	J_MB9.1_0020	J_MB9.1_0030	853.1	14.96
C_MB9.1_0020	J_MB9.1_0010	J_MB9.1_0020	87.59	14.96
C_MB9.1-0.9_0040	J_MB9.1-0.9_0030	J_MB9.1-0.9_0040	961	7.92
C_MB9.1-0.9_0010	J_MB9.1_0067	J_MB9.1_0066	6.43	8.06
C_MB9.1-0.9_0020	J_MB9.1_0066	J_MB9.1-0.9_0020	44.65	8.06
C_MB9.4_0070	J_MB9.4_0065	J_MB9.4_0070	2945.67	7.92
C_MB9.4_0060	J_MB9.4_0040	J_MB9.4_0060	6.03	10.05
C_MB9.4_0040	J_MB9.4_0020	J_MB9.4_0050	1934.4	11.92
C_MB9.4_0050	J_MB9.4_0050	J_MB9.4_0040	0.18	10.05
C_MB9.4_0020	J_MB9.4_0019	J_MB9.4_0020	9.56	11.92
C_MB9.4_0065	J_MB9.4_0060	J_MB9.4_0065	208.09	8.06
C_MB9.4_0017	J_MB9.4_0010	J_MB9.4_0017	96.31	11.92
C_MB9.4_0010	J_MB_0350	J_MB9.4_0015	15.28	16.83
C_MB9.4_0015	J_MB9.4_0015	J_MB9.4_0010	0.31	11.92
C_NC10.5-0.3_0010	J_NC10.5_0032	J_NC10.5-0.3_0010	1023.48	3.94
C_NC11.0_0060	J_NC11.0_0050	J_NC11.0_0060	4.11	6.08
C_NC11.0_0050	J_NC11.0_0040	J_NC11.0_0050	3.9	6.08
C_NC11.0_0040	J_NC11.0_0030	J_NC11.0_0040	410.38	6.08
C_NC11.0_0030	J_NC11.0_0020	J_NC11.0_0030	2.46	6.08
C_NC11.0_0020	J_NC11.0_0010	J_NC11.0_0020	72.49	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC13.6_0030	J_NC13.6_0010	J_NC13.6_0030	585.66	26.17
C_NC13.6_0174	J_NC13.6_0172	J_NC13.6_0174	1566.41	11.16
C_NC13.6_0172	J_NC13.6_0170	J_NC13.6_0172	266.23	11.16
C_NC13.6_0170	J_NC13.6_0160	J_NC13.6_0170	13.91	11.16
C_NC13.6_0160	J_NC13.6_0150	J_NC13.6_0160	9.41	14.01
C_NC13.6_0150	J_NC13.6_0140	J_NC13.6_0150	1107.27	14.38
C_NC13.6_0140	J_NC13.6_0130	J_NC13.6_0140	818.55	14.7
C_NC13.6_0130	J_NC13.6_0120	J_NC13.6_0130	377.2	16.53
C_NC13.6_0120	J_NC13.6_0110	J_NC13.6_0120	353.77	18.37
C_NC13.6_0110	J_NC13.6_0100	J_NC13.6_0110	1174.15	22.04
C_NC13.6_0100	J_NC13.6_0090	J_NC13.6_0100	189.52	18.7
C_NC13.6_0090	J_NC13.6_0080	J_NC13.6_0090	1234.08	18.7
C_NC13.6_0080	J_NC13.6_0070	J_NC13.6_0080	1365.91	22.44

C_NC13.6_0070	J_NC13.6_0040	J_NC13.6_0070	180.47	22.44
C_NC13.6_0040	J_NC13.6_0035	J_NC13.6_0040	401.83	22.44
C_NC13.6_0035	J_NC13.6_0030	J_NC13.6_0035	28.23	24.3
C_NC13.6_0183	J_NC13.6_0175	J_NC13.6_0183	6437.82	11.16
C_NC13.6_0175	J_NC13.6_0174	J_NC13.6_0175	17.85	11.16
C_NC14.5_0250	J_NC14.5_0245	J_NC14.5_0250	75.29	7.75
C_NC14.5_0245	J_NC14.5_0240	J_NC14.5_0245	1200.8	7.75
C_NC14.5_0240	J_NC14.5_0230	J_NC14.5_0240	18.2	9.66
C_NC14.5_0230	J_NC14.5_0217	J_NC14.5_0230	3189.22	14.38
C_NC14.5_0217	J_NC14.5_0205	J_NC14.5_0217	68.53	14.7
C_NC14.5_0205	J_NC14.5_0200	J_NC14.5_0205	2	18.37
C_NC14.5_0200	J_NC14.5_0190	J_NC14.5_0200	899.17	22.04
C_NC14.5_0190	J_NC14.5_0180	J_NC14.5_0190	1542.74	22.04
C_NC14.5_0025	J_NC14.5_0023	J_NC14.5_0025	306.05	39.26
C_NC14.5_0020	J_NC14.5_0010	J_NC14.5_0020	105.12	39.26
C_NC14.5_0023	J_NC14.5_0020	J_NC14.5_0023	955.94	39.26
C_NC14.5_0100	J_NC14.5_0090	J_NC14.5_0100	740.47	31.78
C_NC14.5_0090	J_NC14.5_0080	J_NC14.5_0090	1628	31.78
C_NC14.5_0080	J_NC14.5_0070	J_NC14.5_0080	1046.4	31.78
C_NC14.5_0070	J_NC14.5_0065	J_NC14.5_0070	1181.68	33.65
C_NC14.5_0065	J_NC14.5_0060	J_NC14.5_0065	1714.09	39.26
C_NC14.5_0060	J_NC14.5_0050	J_NC14.5_0060	55.41	39.26
C_NC14.5_0050	J_NC14.5_0040	J_NC14.5_0050	850.08	39.26
C_NC14.5_0040	J_NC14.5_0030	J_NC14.5_0040	849.7	39.26
C_NC14.5_0030	J_NC14.5_0025	J_NC14.5_0030	2939.17	39.26
C_NC14.5_0180	J_NC14.5_0170	J_NC14.5_0180	4.96	22.44
C_NC14.5_0170	J_NC14.5-3.5_0010	J_NC14.5_0170	1082.95	22.44
C_NC14.5_0160	J_NC14.5_0155	J_NC14.5_0160	1697.07	24.3
C_NC14.5_0155	J_NC14.5_0150	J_NC14.5_0155	390.36	24.3
C_NC14.5_0150	J_NC14.5_0120	J_NC14.5_0150	1.66	24.3
C_NC14.5_0130	J_NC14.5_0130	J_NC14.5_0140	4.98	29.91
C_NC14.5_0120	J_NC14.5_0110	J_NC14.5_0130	912.91	29.91
C_NC14.5_0140	J_NC14.5_0140	J_NC14.5_0120	2.45	28.04
C_NC14.5_0110	J_NC14.5_0100	J_NC14.5_0110	1801.21	29.91

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC14.5_0163	J_NC14.5_0160	J_NC14.5-3.5_0020	1098.17	24.3
C_NC14.5_0167	J_NC14.5-3.5_0020	J_NC14.5-3.5_0010	19.33	24.3
C_NC14.5-3.0_0010	J_NC14.5_0155	J_NC14.5-3.0_0010	65.25	3.94
C_NC14.5-3.0_0020	J_NC14.5-3.0_0010	J_NC14.5-3.0_0020	1097.16	3.94
C_NC14.5-1.5_0010	J_NC14.5_0065	J_NC14.5-1.5_0010	8.33	11.92
C_NC14.5-1.5_0070	J_NC14.5-1.5_0060	J_NC14.5-1.5_0070	233.87	3.94
C_NC14.5-1.5_0045	J_NC14.5-1.5_0040	J_NC14.5-1.5_0045	47.9	3.94
C_NC14.5-1.5_0060	J_NC14.5-1.5_0045	J_NC14.5-1.5_0060	9.52	3.94

C_NC14.5-1.5_0040	J_NC14.5-1.5_0030	J_NC14.5-1.5_0040	1424.79	3.94
C_NC14.5-1.5_0030	J_NC14.5-1.5_0020	J_NC14.5-1.5_0030	1375.81	10.05
C_NC14.5-1.5_0020	J_NC14.5-1.5_0010	J_NC14.5-1.5_0020	1.07	11.92
C_NC14.5-1.5-0.5_0010	J_NC14.5-1.5_0045	J_NC14.5-1.5_0050	8.95	3.94
C_NC14.5-1.5-0.5_0020	J_NC14.5-1.5_0050	J_NC14.5-1.5-0.5_0020	1382.92	3.94
C_NC19.9_0020	J_NC19.9_0010	J_NC19.9_0020	178.9	13.09
C_NC20.3_0050	J_NC20.3_0040	J_NC20.3_0050	1687.84	16.83
C_NC20.3_0040	J_NC20.3_0030	J_NC20.3_0040	586.52	16.83
C_NC20.3_0030	J_NC20.3_0020	J_NC20.3_0030	884.19	16.83
C_NC20.3_0020	J_NC20.3_0010	J_NC20.3_0020	56.62	18.7
C_NC24.1_0050	J_NC24.1_0040	J_NC24.1_0050	767.55	10.05
C_NC24.1_0040	J_NC24.1_0030	J_NC24.1_0040	26.17	10.05
C_NC24.1_0025	J_NC24.1_0020	J_NC24.1_0025	8.91	13.09
C_NC24.1_0030	J_NC24.1_0025	J_NC24.1_0030	6.19	11.92
C_NC24.1_0020	J_NC24.1_0010	J_NC24.1_0020	60.72	22.44
C_NC25.4_0066	J_NC25.4-1.2_0010	J_NC25.4-1.2_0015	429.79	58.89
C_NC25.4_0100	J_NC25.4_0090	J_NC25.4_0100	1537.77	29.91
C_NC25.4_0090	J_NC25.4_0088	J_NC25.4_0090	1958.09	31.78
C_NC25.4_0088	J_NC25.4_0087	J_NC25.4_0088	9.63	31.78
C_NC25.4_0087	J_NC25.4_0085	J_NC25.4_0087	375.07	33.65
C_NC25.4_0082	J_NC25.4_0080	J_NC25.4_0082	355.55	50.48
C_NC25.4_0085	J_NC25.4_0082	J_NC25.4_0085	52.35	33.65
C_NC25.4_0075	J_NC25.4_0070	J_NC25.4_0075	958.62	58.89
C_NC25.4_0080	J_NC25.4_0075	J_NC25.4_0080	952.14	50.48
C_NC25.4_0070	J_NC25.4_0065	J_NC25.4_0070	322.85	58.89
C_NC25.4_0068	J_NC25.4-1.2_0015	J_NC25.4_0065	471.83	58.89
C_NC25.4_0160	J_NC25.4_0155	J_NC25.4_0160	118.43	9.66
C_NC25.4_0170	J_NC25.4_0160	J_NC25.4_0170	1650.69	9.66
C_NC25.4_0155	J_NC25.4_0150	J_NC25.4_0155	365.51	9.66
C_NC25.4_0150	J_NC25.4_0140	J_NC25.4_0150	16.04	9.66
C_NC25.4_0140	J_NC25.4_0135	J_NC25.4_0140	1571.92	14.38
C_NC25.4_0135	J_NC25.4_0130	J_NC25.4_0135	2622.94	16.53
C_NC25.4_0123	J_NC25.4_0120	J_NC25.4-3.2_0010	2008.7	25.72
C_NC25.4_0120	J_NC25.4_0110	J_NC25.4_0120	1300.09	28.04
C_NC25.4_0110	J_NC25.4_0100	J_NC25.4_0110	25.21	29.91
C_NC25.4_0127	J_NC25.4-3.2_0010	J_NC25.4_0127	644.75	23.88
C_NC25.4_0130	J_NC25.4_0127	J_NC25.4_0130	1321.13	18.37
C_NC25.4_0052	J_NC25.4_0050	J_NC25.4-0.3_0005	747.63	58.89
C_NC25.4_0050	J_NC25.4_0040	J_NC25.4_0050	11.99	58.89

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC25.4_0040	J_NC25.4_0035	J_NC25.4_0040	109.98	58.89
C_NC25.4_0035	J_NC25.4_0033	J_NC25.4_0035	20.42	58.89
C_NC25.4_0033	J_NC25.4_0030	J_NC25.4_0033	277.57	58.89

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  C_NC25.4_0030  J_NC25.4_0020  J_NC25.4_0030        2.03     58.89
  C_NC25.4_0020  J_NC25.4_0010  J_NC25.4_0020      100.71     58.89
  C_NC25.4_0062  J_NC25.4_0060  J_NC25.4-0.7_0010    793.91     58.89
  C_NC25.4_0064  J_NC25.4-0.7_0011J_NC25.4-1.2_0010   2039.82     58.89
  C_NC25.4_0063  J_NC25.4-0.7_0010J_NC25.4-0.7_0011     16.52     58.89
  C_NC25.4_0056  J_NC25.4-0.3_0007J_NC25.4_0056      274.06     58.89
  C_NC25.4_0060  J_NC25.4_0057  J_NC25.4_0060     1430.89     58.89
  C_NC25.4_0057  J_NC25.4_0056  J_NC25.4_0057        9.85     58.89
  C_NC25.4_0054  J_NC25.4-0.3_0005J_NC25.4-0.3_0007     56.42     58.89
  C_NC25.4-1.6_0010J_NC25.4_0075  J_NC25.4-1.6_0010      8.11     28.04
  C_NC25.4-1.6_0055J_NC25.4-1.6_0050J_NC25.4-1.6_0055      9.93     22.44
  C_NC25.4-1.6_0057J_NC25.4-1.6_0055J_NC25.4-1.6_0057     22.86     11.92
  C_NC25.4-1.6_0050J_NC25.4-1.6_0040J_NC25.4-1.6_0050     940.5     22.44
  C_NC25.4-1.6_0040J_NC25.4-1.6_0030J_NC25.4-1.6_0040    648.18      24.3
  C_NC25.4-1.6_0030J_NC25.4-1.6_0020J_NC25.4-1.6_0030   2016.24     26.17
  C_NC25.4-1.6_0020J_NC25.4-1.6_0010J_NC25.4-1.6_0020   1329.92     28.04
  C_NC25.4-3.3_0010J_NC25.4_0127  J_NC25.4-3.3_0010     17.76      14.7
  C_NC25.4-3.3_0045J_NC25.4-3.3_0040J_NC25.4-3.3_0045   1346.48      5.96
  C_NC25.4-3.3_0035J_NC25.4-3.3_0030J_NC25.4-3.3-0.4_0010     805.1      9.87
  C_NC25.4-3.3_0030J_NC25.4-3.3_0020J_NC25.4-3.3_0030   1251.11     11.71
  C_NC25.4-3.3_0020J_NC25.4-3.3_0010J_NC25.4-3.3_0020     14.11     11.71
  C_NC25.4-3.3_0040J_NC25.4-3.3-0.4_0010J_NC25.4-3.3_0040    464.49      9.66
  C_NC25.4-3.3_0060J_NC25.4-3.3_0050J_NC25.4-3.3_0060    116.16      3.94
  C_NC25.4-3.3_0048J_NC25.4-3.3_0045J_NC25.4-3.3_0048   1014.86      3.94
  C_NC25.4-1.6-0.9_0030J_NC25.4-1.6-0.9_0020J_NC25.4_1.6_0070    549.15     16.83
  C_NC25.4-1.6-0.9_0040J_NC25.4_1.6_0070J_NC25.4-1.6_0080      1.46     16.53
  C_NC25.4-1.6-0.9_0050J_NC25.4-1.6_0080J_NC25.4-1.6-2.7_0020   3187.11     16.53
  C_NC25.4-1.6-0.9-0.1_0010J_NC25.4-1.6-2.7_0020J_NC25.4-1.6-2.7_0010      4.93
11.71
  C_NC25.4-1.6-0.9-0.1_0020J_NC25.4-1.6-2.7_0010J_NC25.4-1.6-2.3_0009    511.36
11.71
  C_NC25.4-1.6-0.9-0.1_0030J_NC25.4-1.6-2.3_0009J_NC25.4-1.6-2.3_0010     21.87
7.92
  C_NC25.4-1.6-0.9_0060J_NC25.4-1.6-2.7_0020J_NC25.4-1.6-0.9_0060   3235.33
11.33
  C_NC25.4-1.8_0010J_NC25.4_0082  J_NC25.4-1.8_0010      8.49     33.65
  C_NC25.4-1.8_0125J_NC25.4-1.8_0120J_NC25.4-1.8_0125     836.2     16.18
  C_NC25.4-1.8_0120J_NC25.4-1.8_0110J_NC25.4-1.8_0120      5.42     18.37
  C_NC25.4-1.8_0110J_NC25.4-1.8_0100J_NC25.4-1.8_0110     82.62     16.53
  C_NC25.4-1.8_0100J_NC25.4-1.8_0090J_NC25.4-1.8_0100   1142.75     16.53
  C_NC25.4-1.8_0070J_NC25.4-1.8_0060J_NC25.4-1.8_0070   1322.02     23.88
  C_NC25.4-1.8_0060J_NC25.4-1.8_0050J_NC25.4-1.8_0060   1274.11     26.17
  C_NC25.4-1.8_0045J_NC25.4-1.8_0040J_NC25.4-1.8_0045   1194.91     31.78
  C_NC25.4-1.8_0050J_NC25.4-1.8_0045J_NC25.4-1.8_0050     18.02     26.17
  C_NC25.4-1.8_0030J_NC25.4-1.8_0030J_NC25.4-1.8_0020      1.05     33.65
  C_NC25.4-1.8_0040J_NC25.4-1.8_0020J_NC25.4-1.8_0040   2673.92     33.65
  C_NC25.4-1.8_0015J_NC25.4-1.8_0013J_NC25.4-1.8-0.3_0010   1208.33     33.65
  C_NC25.4-1.8_0013J_NC25.4-1.8_0010J_NC25.4-1.8_0013        92     33.65
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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC25.4-1.8_0020J_NC25.4-1.8-0.3_0010J_NC25.4-1.8_0030			31.27	33.65
C_NC25.4-1.8_0085J_NC25.4-1.8_0080J_NC25.4-1.8_0085			12.86	22.04
C_NC25.4-1.8_0080J_NC25.4-1.8_0070J_NC25.4-1.8_0080			1593.99	22.04
C_NC25.4-1.8_0090J_NC25.4-1.8_0085J_NC25.4-1.8_0090			1121.68	18.37
C_NC25.4-1.8-2.8_0020J_NC25.4-1.8_0160J_NC25.4-1.8_0150			0.75	5.96
C_NC25.4-1.8-2.8_0010J_NC25.4-1.8_0127J_NC25.4-1.8_0160			54.78	5.96
C_NC25.4-1.8_0130J_NC25.4-1.8_0127J_NC25.4-1.8_0130			25.02	14.38
C_NC25.4-1.8_0150J_NC25.4-1.8_0145J_NC25.4-1.8-2.7_0010			456.07	9.66
C_NC25.4-1.8_0145J_NC25.4-1.8_0140J_NC25.4-1.8_0145			5.74	9.66
C_NC25.4-1.8_0140J_NC25.4-1.8_0130J_NC25.4-1.8_0140			3.91	12.59
C_NC25.4-1.8_0165J_NC25.4-1.8-2.7_0010J_NC25.4-1.8_0165			240.4	9.66
C_NC25.4-1.8-2.2_0030J_NC25.4-1.8-2.2_0025J_NC25.4-1.8-2.2_0015			1132.13	3.94
C_NC25.4-1.8-2.2_0040J_NC25.4-1.8-2.2_0015J_NC25.4_0170			641.19	3.94
C_NC25.4-1.8-2.2_0010J_NC25.4-1.8_0125J_NC25.4-1.8-2.2_0010			13.32	9.66
C_NC25.4-1.8-2.2_0025J_NC25.4-1.8-2.2_0020J_NC25.4-1.8-2.2_0025			49.04	3.94
C_NC25.4-1.8-2.2_0020J_NC25.4-1.8-2.2_0010J_NC25.4-1.8-2.2_0020			743.55	5.96
C_NC25.4-1.8-1.0_0010J_NC25.4-1.8_0045J_NC25.4-1.8-1.0_0010			7.13	18.7
C_NC25.4-1.8-1.0_0010J_NC25.4-1.8-1.0_0010J_NC25.4-1.8-1.0-0.3_0010			1412.99	18.7
C_NC25.4-1.8-1.0_0030J_NC25.4-1.8-1.0_0020J_NC25.4-1.8-1.0-0.3_0020			20.52	18.37
C_NC25.4-1.8-1.0_0090J_NC25.4-1.8-1.0-0.3_0060J_NC25.4-1.8-1.0_0090			4.21	7.75
C_NC25.4-1.8-1.0_0080J_NC25.4-1.8-1.0-0.3_0050J_NC25.4-1.8-1.0-0.3_0060			1543.43	7.75
C_NC25.4-1.8-1.0_0070J_NC25.4-1.8-1.0-0.3_0040J_NC25.4-1.8-1.0-0.3_0050			243.04	11.71
C_NC25.4-1.8-1.0_0060J_NC25.4-1.8-1.0-0.3_0030J_NC25.4-1.8-1.0-0.3_0040			835.88	14.7
C_NC25.4-1.8-1.0_0050J_NC25.4-1.8-1.0-0.3_0025J_NC25.4-1.8-1.0-0.3_0030			274.75	16.53
C_NC25.4-1.8-1.0_0040J_NC25.4-1.8-1.0-0.3_0020J_NC25.4-1.8-1.0-0.3_0025			13.03	18.37
C_NC25.4-1.8-1.0_0015J_NC25.4-1.8-1.0-0.3_0010J_NC25.4-1.8-1.0_0015			210.55	18.7
C_NC26.4_0073	J_NC26.4_0070	J_NC26.4_0073	1443.17	22.44
C_NC26.4_0070	J_NC26.4_0060	J_NC26.4_0070	1138.91	22.44
C_NC26.4_0060	J_NC26.4_0050	J_NC26.4_0060	0.88	22.44
C_NC26.4_0050	J_NC26.4_0040	J_NC26.4_0050	1942.58	24.3
C_NC26.4_0040	J_NC26.4_0030	J_NC26.4_0040	2832.5	24.3
C_NC26.4_0030	J_NC26.4_0028	J_NC26.4_0030	616.93	26.17

C_NC26.4_0028	J_NC26.4_0025	J_NC26.4_0028	250.89	26.17
C_NC26.4_0025	J_NC26.4_0020	J_NC26.4_0025	7.48	28.04
C_NC26.4_0020	J_NC26.4_0010	J_NC26.4_0020	60.4	28.04
C_NC26.4_0080	J_NC26.4_0077	J_NC26.4_0080	8.7	22.44
C_NC26.4_0140	J_NC26.4_0140	J_NC26.4_0130	10.37	9.87
C_NC26.4_0150	J_NC26.4_0130	J_NC26.4_0150	0.36	9.87
C_NC26.4_0130	J_NC26.4_0128	J_NC26.4_0140	14.28	9.87
C_NC26.4_0090	J_NC26.4_0080	J_NC26.4_0090	547.04	18.7
C_NC26.4_0128	J_NC26.4_0127	J_NC26.4_0128	1033.23	9.87
C_NC26.4_0127	J_NC26.4_0125	J_NC26.4_0127	60.39	11.71
C_NC26.4_0125	J_NC26.4_0120	J_NC26.4_0125	726.65	11.71
C_NC26.4_0110	J_NC26.4_0110	J_NC26.4_0100	0.38	11.71
C_NC26.4_0120	J_NC26.4_0100	J_NC26.4_0120	1451.21	11.71
C_NC26.4_0100	J_NC26.4_0095	J_NC26.4_0110	1889.43	16.53
C_NC26.4_0095	J_NC26.4_0090	J_NC26.4_0095	629.29	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC27.8_0016	J_NC27.8_0016	J_NC27.8_0015	2.3	22.44
C_NC27.8_0018	J_NC27.8_0015	J_NC27.8_0018	120.07	22.44
C_NC27.8_0015	J_NC27.8_0010	J_NC27.8_0016	93.51	22.44
C_NC27.8_0040	J_NC27.8_0035	J_NC27.8_0040	49.52	14.96
C_NC27.8_0055	J_NC27.8_0050	J_NC27.8_0055	1477.28	10.05
C_NC27.8_0050	J_NC27.8_0040	J_NC27.8_0050	373.7	13.09
C_NC27.8_0070	J_NC27.8_0069	J_NC27.8_0070	1142.81	10.05
C_NC27.8_0090	J_NC27.8_0080	J_NC27.8_0090	524.44	8.06
C_NC27.8_0080	J_NC27.8_0070	J_NC27.8_0080	3.27	10.05
C_NC27.8_0097	J_NC27.8_0093	J_NC27.8_0097	624.87	8.06
C_ON_0190	J_ON_0180	J_ON2.2_0010	974.62	58.89
C_ON_0200	J_ON2.2_0010	J_ON_0200	702.32	58.89
C_ON_0540	J_ON7.4_0005	J_ON7.4_0010	692	58.89
C_ON_0530	J_ON6.7_0010	J_ON7.4_0005	3049.61	58.89
C_ON_0520	J_ON6.7_0005	J_ON6.7_0010	333.48	58.89
C_ON_0510	J_ON6.4_0010	J_ON6.7_0005	1104.56	58.89
C_ON_0500	J_ON6.3_0010	J_ON6.4_0010	815.47	58.89
C_ON_0570	J_ON8.1_0010	J_ON8.4_0010	1534.72	58.89
C_ON_0550	J_ON7.4_0010	J_ON7.9_0010	2422.68	58.89
C_ON_0630	J_ON9.8_0020	J_ON10.0_0010	1176.82	58.89
C_ON_0620	J_ON9.7_0010	J_ON9.8_0020	627.2	58.89
C_ON_0610	J_ON9.5_0010	J_ON9.7_0010	1022.73	58.89
C_ON_0600	J_ON8.8_0010	J_ON9.5_0010	3401.71	58.89
C_ON_0590	J_ON8.6_0010	J_ON8.8_0010	937.01	58.89
C_ON_0580	J_ON8.4_0010	J_ON8.6_0010	1418.52	58.89
C_ON_0560	J_ON7.9_0010	J_ON8.1_0010	1290.25	58.89
C_ON_0650	J_ON10.6_0010	J_ON10.8_0010	981.7	58.89

C_ON_0640	J_ON10.0_0010	J_ON10.6_0010	2899.77	58.89
C_ON_0680	J_ON11.0_0010	J_ON_0690	18.47	58.89
C_ON_0670	J_ON10.8_0020	J_ON11.0_0010	653.73	58.89
C_ON_0660	J_ON10.8_0010	J_ON10.8_0020	379.37	58.89
C_ON_0220	J_ON_0210	J_ON2.4_0010	24.52	58.89
C_ON_0350	J_ON3.8_0010	J_ON4.0_0010	1349.06	58.89
C_ON_0340	J_ON3.7_0010	J_ON3.8_0010	405.74	58.89
C_ON_0330	J_ON3.6_0010	J_ON3.7_0010	408.29	58.89
C_ON_0320	J_ON3.3_0010	J_ON3.6_0010	1591.75	58.89
C_ON_0310	J_ON2.9_0010	J_ON3.3_0010	2022.97	58.89
C_ON_0300	J_ON2.6_0050	J_ON2.9_0010	838.56	58.89
C_ON_0290	J_ON2.6_0040	J_ON2.6_0050	2.15	58.89
C_ON_0280	J_ON2.6_0030	J_ON2.6_0040	17.07	58.89
C_ON_0270	J_ON2.6_0020	J_ON2.6_0030	9.63	58.89
C_ON_0260	J_ON2.6_0010	J_ON2.6_0020	3.02	58.89
C_ON_0250	J_ON2.5_0010	J_ON2.6_0010	500.52	58.89
C_ON_0240	J_ON2.4_0020	J_ON2.5_0010	350.01	58.89
C_ON_0230	J_ON2.4_0010	J_ON2.4_0020	0.15	58.89
C_ON_0450	J_ON5.3_0010	J_ON5.5_0010	940.74	58.89
C_ON_0440	J_ON5.0_0010	J_ON5.3_0010	1378.39	58.89

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ON_0430	J_ON4.7_0010	J_ON5.0_0010	1710.12	58.89
C_ON_0420	J_ON4.5_0020	J_ON4.7_0010	1209.15	58.89
C_ON_0410	J_ON4.5_0010	J_ON4.5_0020	3.43	58.89
C_ON_0400	J_ON4.4_0010	J_ON4.5_0010	1002.71	58.89
C_ON_0390	J_ON4.4_0005	J_ON4.4_0010	13.06	58.89
C_ON_0380	J_ON4.3_0010	J_ON4.4_0005	163.61	58.89
C_ON_0370	J_ON4.0_0020	J_ON4.3_0010	1296.03	58.89
C_ON_0360	J_ON4.0_0010	J_ON4.0_0020	47.03	58.89
C_ON_0490	J_ON5.6_0020	J_ON6.3_0010	3476.93	58.89
C_ON_0480	J_ON5.6_0010	J_ON5.6_0020	325.86	58.89
C_ON_0470	J_ON5.6_0005	J_ON5.6_0010	11.29	58.89
C_ON_0460	J_ON5.5_0010	J_ON5.6_0005	307.55	58.89
C_NC28.7_0050	J_NC28.7_0040	J_NC28.7_0050	615.38	39.26
C_NC28.7_0040	J_NC28.7_0035	J_NC28.7_0040	1350.73	39.26
C_NC28.7_0053	J_NC28.7_0050	J_NC28.7_0053	432.25	39.26
C_NC28.7_0055	J_NC28.7_0053	J_NC28.7_0055	11.28	29.91
C_NC28.7_0035	J_NC28.7_0033	J_NC28.7_0035	1846.81	39.26
C_NC28.7_0033	J_NC28.7_0030	J_NC28.7_0033	129.22	44.87
C_NC28.7_0030	J_NC28.7_0020	J_NC28.7_0030	190.63	44.87
C_NC28.7_0020	J_NC28.7_0010	J_NC28.7_0020	58.19	44.87
C_NC28.7-1.0_0015	J_NC28.7_0053	J_NC28.7-1.0_0015	1135.31	22.44
C_NC28.7-1.0_0020	J_NC28.7-1.0_0015	J_NC28.7-1.0_0020	9.47	18.7

C_NC28.7-1.0_0065	J_NC28.7-1.0_0060	J_NC28.7-1.0_0065	208.96	14.96
C_NC28.7-1.0_0060	J_NC28.7-1.0_0050	J_NC28.7-1.0_0060	704.26	14.96
C_NC28.7-1.0_0050	J_NC28.7-1.0_0040	J_NC28.7-1.0_0050	215.59	16.83
C_NC28.7-1.0_0040	J_NC28.7-1.0_0030	J_NC28.7-1.0_0040	1096.32	18.7
C_NC28.7-1.0_0030	J_NC28.7-1.0_0020	J_NC28.7-1.0_0030	2.29	18.7
C_NC28.7_0060	J_NC28.7_0057	J_NC28.7_0060	1097.07	29.91
C_NC28.7_0122	J_NC28.7_0120	J_NC28.7_0122	507.42	9.87
C_NC28.7_0120	J_NC28.7_0110	J_NC28.7_0120	143.37	11.92
C_NC28.7_0100	J_NC28.7_0100	J_NC28.7_0090	1.34	14.96
C_NC28.7_0105	J_NC28.7_0090	J_NC28.7_0105	5.49	14.96
C_NC28.7_0110	J_NC28.7_0105	J_NC28.7_0110	242.82	11.92
C_NC28.7_0090	J_NC28.7_0085	J_NC28.7_0100	854.94	14.96
C_NC28.7_0124	J_NC28.7_0122	J_NC28.7_0024	1152.25	9.87
C_NC28.7_0085	J_NC28.7_0083	J_NC28.7_0085	2760.5	16.83
C_NC28.7_0082	J_NC28.7_0080	J_NC28.7_0082	1305.71	28.04
C_NC28.7_0080	J_NC28.7_0070	J_NC28.7_0080	212.1	28.04
C_NC28.7_0070	J_NC28.7_0060	J_NC28.7_0070	1642.56	29.91
C_NC28.7_0083	J_NC28.7_0082	J_NC28.7_0083	2.46	18.7
C_NC28.7-2.0_0020	J_NC28.7-2.0_0010	J_NC28.7-2.0_0020	3.42	22.44
C_NC28.7-2.0_0045	J_NC28.7-2.0_0040	J_NC28.7-2.0-0.4_0010	949.84	18.7
C_NC28.7-2.0_0040	J_NC28.7-2.0_0030	J_NC28.7-2.0_0040	385.18	18.7
C_NC28.7-2.0_0030	J_NC28.7-2.0_0020	J_NC28.7-2.0_0030	955.71	18.7
C_NC28.7-2.0_0050	J_NC28.7-2.0-0.4_0010	J_NC28.7-2.0_0050	525.09	13.09
C_NC28.7-2.0_0060	J_NC28.7-2.0_0050	J_NC28.7-2.0_0060	340.55	12.86
C_NC28.7-2.8_0010	J_NC28.7_0122	J_NC28.7-2.8_0010	0.03	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC28.7-2.8_0015	J_NC28.7-2.8_0010	J_NC28.7-2.8_0015	2337.83	3.94
C_NC28.7-2.8_0020	J_NC28.7-2.8_0015	J_NC28.7-2.8_0020	1.63	3.94
C_NC28.7-2.8_0030	J_NC28.7-2.8_0020	J_NC28.7-2.8_0030	48.11	3.94
C_NC28.7_0130	J_NC28.7_0027	J_NC28.7_0140	402.77	9.87
C_NC28.7_0160	J_NC28.7_0160	J_NC28.7_0150	20.91	6.08
C_NC28.7_0155	J_NC28.7_0155	J_NC28.7_0160	9.88	7.92
C_NC28.7_0140	J_NC28.7_0140	J_NC28.7_0130	6.19	9.87
C_NC28.7_0150	J_NC28.7_0130	J_NC28.7_0155	1097	7.92
C_NC28.7-2.6_0010	J_NC28.7_0105	J_NC28.7-2.6_0010	1073.49	10.05
C_NC28.7-2.6_0020	J_NC28.7-2.6_0010	J_NC28.7-2.6_0020	128.65	8.06
C_NC27.8-0.9_0010	J_NC27.8_0055	J_NC27.8_0060	4.03	3.94
C_NC27.8-0.9_0030	J_NC27.8_0065	J_NC27.8-0.9_0030	332.67	3.94
C_NC28.7-1.0_0080	J_NC28.7-1.0_0075	J_NC28.7-1.0_0080	0.48	9.87
C_NC28.7-1.0_0100	J_NC28.7-1.0_0090	J_NC28.7-1.0_0100	465.63	9.87
C_NC28.7-1.0_0090	J_NC28.7-1.0_0080	J_NC28.7-1.0_0090	17.21	9.87
C_NC28.7-1.0_0130	J_NC28.7-1.0_0140	J_NC28.7-1.0_0120	1.15	6.08
C_NC28.7-1.0_0145	J_NC28.7-1.0_0130	J_NC28.7-1.0_0145	0.26	6.08

C_NC28.7-1.0_0140	J_NC28.7-1.0_0120	J_NC28.7-1.0_0130	7.11	6.08
C_NC28.7-1.0_0120	J_NC28.7-1.0_0110	J_NC28.7-1.0_0140	5.03	7.92
C_NC28.7-1.0_0110	J_NC28.7-1.0_0100	J_NC28.7-1.0_0110	939.54	7.92
C_NC28.7-1.0-0.1_0010	J_NC28.7-1.0_0015	J_NC28.7-1.0-0.1_0010	18.08	11.92
C_NC28.7-1.0-0.1_0013	J_NC28.7-1.0-0.1_0010	J_NC28.7-1.0-0.1_0013	786.7	11.92
C_NC28.7-1.0-0.1_0020	J_NC28.7-1.0-0.1_0017	J_NC28.7-1.0-0.1_0020	16.89	10.05
C_NC28.7-1.0-0.1_0045	J_NC28.7-1.0-0.1_0040	J_NC28.7-1.0-0.1_0045	543.48	3.94
C_NC28.7-1.0-0.1_0040	J_NC28.7-1.0-0.1_0030	J_NC28.7-1.0-0.1_0040	919.25	8.06
C_NC28.7-1.0-0.1_0030	J_NC28.7-1.0-0.1_0020	J_NC28.7-1.0-0.1_0030	813.22	10.05
C_NC28.7-1.0-0.1_0050	J_NC28.7-1.0-0.1_0047	J_NC28.7-1.0-0.1_0050	547.88	3.94
C_NC29.7_0013	J_NC29.7_0010	J_NC29.7_0013	173.97	10.05
C_NC29.7_0020	J_NC29.7_0017	J_NC29.7_0020	1229.51	10.05
C_KL7.7_0010	J_KL_0225	J_KL7.7_0010	3.87	11.46
C_KL7.7_0030	J_KL7.7_0025	J_KL7.7_0030	481.14	9.66
C_KL7.7_0035	J_KL7.7_0030	J_KL7.7_0035	0.08	9.66
C_KL7.7_0023	J_KL7.7_0020	J_KL7.7_0023	1265.98	11.01
C_KL7.7_0020	J_KL7.7_0010	J_KL7.7_0020	668.44	11.46
C_KL9.3_0160	J_KL9.3_0155	J_KL9.3_0160	1578.9	18.37
C_KL9.3_0190	J_KL9.3_0180	J_KL9.3_0190	16.37	14.7
C_KL9.3_0180	J_KL9.3_0170	J_KL9.3_0180	46.82	14.7
C_KL9.3_0170	J_KL9.3_0160	J_KL9.3_0170	779.47	18.37
C_MB6.0_0110	J_MB6.0_0100	J_MB6.0_0110	1270.89	11.71
C_MB6.0_0130	J_MB6.0_0120	J_MB6.0_0130	1035.04	6.08
C_MB6.0_0120	J_MB6.0_0110	J_MB6.0_0120	10.4	6.08
C_MB11.0_0010	J_MB_0400	J_MB11.0_0010	8.02	14.96
C_MB11.0_0060	J_MB11.0_0050	J_MB11.0_0060	4.58	9.87
C_MB11.0_0050	J_MB11.0_0040	J_MB11.0_0050	0.15	9.87
C_MB11.0_0030	J_MB11.0_0030	J_MB11.0_0020	0.47	13.09
C_MB11.0_0040	J_MB11.0_0020	J_MB11.0_0040	787.13	12.86
C_MB11.0_0020	J_MB11.0_0010	J_MB11.0_0030	50.95	14.96

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9_0147	J_NC38.9-6.7_0010	J_NC38.9_0147	162.29	28.04
C_NC38.9_0143	J_NC38.9_0140	J_NC38.9-6.7_0010	2050.27	48
C_NC38.9_0140	J_NC38.9_0130	J_NC38.9_0140	22.2	48
C_NC38.9_0130	J_NC38.9_0120	J_NC38.9_0130	3494.71	48
C_NC38.9_0115	J_NC38.9_0110	J_NC38.9-5.3_0010	1558.06	48
C_NC38.9_0105	J_NC38.9_0100	J_NC38.9_0105	2854.21	72

C_NC38.9_0110	J_NC38.9_0105	J_NC38.9_0110	1263.19	48
C_NC38.9_0100	J_NC38.9_0090	J_NC38.9_0100	2018.68	72
C_NC38.9_0087	J_NC38.9_0085	J_NC38.9-3.8_0010	1488.47	72
C_NC38.9_0120	J_NC38.9-5.3_0010	J_NC38.9_0120	1130.83	48
C_NC38.9_0090	J_NC38.9-3.8_0020	J_NC38.9_0090	68.08	72
C_NC38.9-3.8_0089	J_NC38.9-3.8_0010	J_NC38.9-3.8_0020	8.19	72
C_NC38.9_0082	J_NC38.9_0080	J_NC38.9_0082	598.05	72
C_NC38.9_0085	J_NC38.9_0082	J_NC38.9_0085	2628.03	72
C_NC38.9_0080	J_NC38.9_0070	J_NC38.9_0080	2681.64	72
C_NC38.9_0063	J_NC38.9_0060	J_NC38.9_0063	317.97	72
C_NC38.9_0067	J_NC38.9_0063	J_NC38.9-2.4_0020	94.4	72
C_NC38.9_0060	J_NC38.9_0050	J_NC38.9_0060	3019.06	72
C_NC38.9_0070	J_NC38.9-2.4_0020	J_NC38.9_0070	135.76	72
C_NC38.9_0050	J_NC38.9-1.2_0010	J_NC38.9_0050	2019.62	72
C_NC38.9_0043	J_NC38.9_0040	J_NC38.9_0043	1011.38	72
C_NC38.9_0046	J_NC38.9_0043	J_NC38.9-1.2_0010	2358.19	72
C_NC38.9_0040	J_NC38.9_0035	J_NC38.9_0040	13.16	72
C_NC38.9_0035	J_NC38.9_0030	J_NC38.9_0035	660.94	72
C_NC38.9_0030	J_NC38.9_0025	J_NC38.9_0030	672.03	72
C_NC38.9_0025	J_NC38.9_0020	J_NC38.9_0025	643.35	72
C_NC38.9_0020	J_NC38.9_0017	J_NC38.9_0020	214.76	72
C_NC38.9_0017	J_NC38.9_0015	J_NC38.9_0017	97.71	72
C_NC38.9_0015	J_NC38.9_0010	J_NC38.9_0015	217.38	72
C_NC38.9_0150	J_NC38.9_0148	J_NC38.9_0150	1982.97	28.04
C_NC38.9_0240	J_NC38.9_0230	J_NC38.9_0240	1402.48	18.7
C_NC38.9_0230	J_NC38.9_0220	J_NC38.9_0230	0.85	18.7
C_NC38.9_0255	J_NC38.9_0250	J_NC38.9_0255	809	16.83
C_NC38.9_0260	J_NC38.9_0255	J_NC38.9_0260	455.34	11.92
C_NC38.9_0250	J_NC38.9_0240	J_NC38.9_0250	1514.27	18.7
C_NC38.9_0213	J_NC38.9_0210	J_NC38.9-9.3_0020	3789.16	18.7
C_NC38.9_0200	J_NC38.9_0200	J_NC38.9_0190	6.6	18.7
C_NC38.9_0210	J_NC38.9_0190	J_NC38.9_0210	19.04	18.7
C_NC38.9_0192	J_NC38.9_0185	J_NC38.9_0187	504.2	22.44
C_NC38.9_0190	J_NC38.9_0187	J_NC38.9_0200	405.71	22.44
C_NC38.9_0185	J_NC38.9_0180	J_NC38.9_0185	138.77	22.44
C_NC38.9_0180	J_NC38.9_0177	J_NC38.9_0180	91.08	22.44
C_NC38.9_0172	J_NC38.9_0170	J_NC38.9_0173	69.55	28.04
C_NC38.9_0177	J_NC38.9_0175	J_NC38.9_0177	2169.84	22.44
C_NC38.9_0175	J_NC38.9_0173	J_NC38.9_0175	734.84	24.3
C_NC38.9_0160	J_NC38.9_0150	J_NC38.9_0160	3.36	28.04
C_NC38.9_0170	J_NC38.9_0160	J_NC38.9_0170	3212.41	28.04

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9_0217	J_NC38.9-9.3_0020	J_NC38.9-9.3_0010	4.93	18.7

C_NC38.9_0220	J_NC38.9-9.3_0010J_NC38.9_0220	1449.24	18.7	
C_NC38.9_0290	J_NC38.9_0280	J_NC38.9_0290	2139.26	11.92
C_NC38.9_0280	J_NC38.9_0270	J_NC38.9_0280	1490.11	11.92
C_NC38.9_0270	J_NC38.9_0260	J_NC38.9_0270	143.78	11.92
C_NC30.2_0090	J_NC30.2_0080	J_NC30.2_0090	1713.73	8.06
C_NC30.2_0080	J_NC30.2_0070	J_NC30.2_0080	266.83	10.05
C_NC30.2_0070	J_NC30.2_0060	J_NC30.2_0070	808.7	10.05
C_NC30.2_0060	J_NC30.2_0050	J_NC30.2_0060	805.26	11.92
C_NC30.2_0050	J_NC30.2-0.7_0010J_NC30.2_0050	1006.77	11.92	
C_NC30.2_0047	J_NC30.2-0.5_0010J_NC30.2-0.7_0010	778.13	11.92	
C_NC30.2_0043	J_NC30.2_0040	J_NC30.2-0.4_0010	458.54	14.96
C_NC30.2_0035	J_NC30.2_0030	J_NC30.2-0.2_0010	907.9	16.83
C_NC30.2_0030	J_NC30.2_0020	J_NC30.2_0030	0.93	22.44
C_NC30.2_0020	J_NC30.2_0010	J_NC30.2_0020	57.42	22.44
C_NC30.2_0045	J_NC30.2-0.4_0010J_NC30.2-0.5_0010	664.8	14.96	
C_NC30.2_0040	J_NC30.2-0.2_0010J_NC30.2_0040	566	14.96	
C_NC31.0_0130	J_NC31.0_0120	J_NC31.0_0130	693.47	18.7
C_NC31.0_0185	J_NC31.0_0180	J_NC31.0_0185	19.53	7.92
C_NC31.0_0180	J_NC31.0_0170	J_NC31.0_0180	4.2	7.92
C_NC31.0_0170	J_NC31.0_0158	J_NC31.0_0170	283.05	9.87
C_NC31.0_0158	J_NC31.0_0156	J_NC31.0_0158	434.83	12.86
C_NC31.0_0156	J_NC31.0_0150	J_NC31.0_0156	1875.65	12.86
C_NC31.0_0150	J_NC31.0_0140	J_NC31.0_0150	16.91	13.09
C_NC31.0_0135	J_NC31.0_0130	J_NC31.0_0135	124.69	18.7
C_NC31.0_0140	J_NC31.0_0135	J_NC31.0_0140	1097.13	14.96
C_NC31.0_0120	J_NC31.0_0110	J_NC31.0_0120	1420.67	18.7
C_NC31.0_0110	J_NC31.0_0100	J_NC31.0_0110	126.21	18.7
C_NC31.0_0100	J_NC31.0_0090	J_NC31.0_0100	3.74	22.44
C_NC31.0_0090	J_NC31.0_0080	J_NC31.0_0090	993.37	22.44
C_NC31.0_0080	J_NC31.0_0070	J_NC31.0_0080	514.86	22.44
C_NC31.0_0070	J_NC31.0_0060	J_NC31.0_0070	2374.77	24.3
C_NC31.0_0060	J_NC31.0_0050	J_NC31.0_0060	980.02	24.3
C_NC31.0_0050	J_NC31.0_0040	J_NC31.0_0050	1062.75	26.17
C_NC31.0_0040	J_NC31.0_0030	J_NC31.0_0040	629.63	26.17
C_NC31.0_0030	J_NC31.0_0025	J_NC31.0_0030	248.56	26.17
C_NC31.0_0025	J_NC31.0_0020	J_NC31.0_0025	212.37	26.17
C_NC31.0_0020	J_NC31.0_0010	J_NC31.0_0020	179.32	26.17
C_NC31.0-2.5_0020J_NC31.0_0160	J_NC31.0_0165	6.61	6.08	
C_NC31.0-2.5_0030J_NC31.0_0165	J_NC31.0-2.5_0030	514.69	6.08	
C_NC31.0-1.9_0050J_NC31.0-1.9_0050J_NC31.0-1.9_0040	2.43	6.08		
C_NC31.0-1.9_0040J_NC31.0-1.9_0020J_NC31.0-1.9_0040	741.24	6.08		
C_NC31.0-1.9_0035J_NC31.0-1.9_0035J_NC31.0-1.9_0020	1.48	10.05		
C_NC31.5_0060	J_NC31.5_0055	J_NC31.5_0060	1218.02	11.92
C_NC31.5_0055	J_NC31.5_0050	J_NC31.5_0055	60.71	11.92
C_NC31.5_0050	J_NC31.5_0040	J_NC31.5_0050	1289.89	11.92
C_NC31.5_0040	J_NC31.5_0030	J_NC31.5_0040	929.23	13.09

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC31.5_0030	J_NC31.5_0025	J_NC31.5_0030	1619.59	14.96
C_NC31.5_0025	J_NC31.5_0020	J_NC31.5_0025	2.42	14.96
C_NC31.5_0020	J_NC31.5_0010	J_NC31.5_0020	969.69	18.7
C_NC31.5_0065	J_NC31.5_0060	J_NC31.5_0065	2.98	10.05
C_NC31.5_0080	J_NC31.5_0075	J_NC31.5_0080	15.44	8.06
C_NC31.5_0100	J_NC31.5_0090	J_NC31.5_0100	250.71	6.08
C_NC31.5_0090	J_NC31.5_0080	J_NC31.5_0090	168.68	6.08
C_NC32.2_0083	J_NC32.2_0080	J_NC32.2_0083	1143.37	13.09
C_NC32.2_0080	J_NC32.2_0070	J_NC32.2_0080	1251.55	14.96
C_NC32.2_0070	J_NC32.2_0060	J_NC32.2_0070	22.21	14.96
C_NC32.2_0060	J_NC32.2_0050	J_NC32.2_0060	2296.12	14.96
C_NC32.2_0050	J_NC32.2_0040	J_NC32.2_0050	22.6	14.96
C_NC32.2_0040	J_NC32.2_0030	J_NC32.2_0040	1317.31	14.96
C_NC32.2_0030	J_NC32.2_0025	J_NC32.2_0030	800.09	18.7
C_NC32.2_0025	J_NC32.2_0020	J_NC32.2_0025	209.38	18.7
C_NC32.2_0015	J_NC32.2_0010	J_NC32.2_0015	131.08	22.44
C_NC32.2_0020	J_NC32.2_0015	J_NC32.2_0020	116.74	22.44
C_NC32.2_0090	J_NC32.2_0087	J_NC32.2_0090	13.22	12.86
C_NC32.2_0150	J_NC32.2_0140	J_NC32.2_0150	932.34	7.75
C_NC32.2_0140	J_NC32.2_0110	J_NC32.2_0140	2673.22	9.66
C_NC32.2_0107	J_NC32.2_0105	J_NC32.2_0107	72.63	11.71
C_NC32.2_0110	J_NC32.2_0107	J_NC32.2_0110	6.01	9.87
C_NC32.2_0105	J_NC32.2_0100	J_NC32.2_0105	988.4	11.71
C_NC32.2_0100	J_NC32.2_0090	J_NC32.2_0100	3.58	11.71
C_NC32.2_0160	J_NC32.2_0150	J_NC32.2_0160	84.39	7.75
C_NC32.2-1.7_0010	J_NC32.2_0107	J_NC32.2-1.7_0010	675.46	9.66
C_NC32.2-1.7_0030	J_NC32.2-1.7_0020	J_NC32.2-1.7_0030	5.09	7.75
C_NC32.2-1.7_0020	J_NC32.2-1.7_0010	J_NC32.2-1.7_0020	19.16	7.75
C_NC33.1_0090	J_NC33.1_0088	J_NC33.1_0095	1665.83	9.66
C_NC33.1_0088	J_NC33.1_0087	J_NC33.1_0088	16.33	9.87
C_NC33.1_0087	J_NC33.1_0085	J_NC33.1_0087	896.2	9.87
C_NC33.1_0085	J_NC33.1_0080	J_NC33.1_0085	6.78	10.05
C_NC33.1_0080	J_NC33.1_0070	J_NC33.1_0080	748.43	13.09
C_NC33.1_0070	J_NC33.1_0065	J_NC33.1_0070	2038.08	13.09
C_NC33.1_0065	J_NC33.1_0060	J_NC33.1_0065	3.43	18.7
C_NC33.1_0055	J_NC33.1_0050	J_NC33.1_0055	461.81	28.04
C_NC33.1_0060	J_NC33.1_0055	J_NC33.1_0060	599.47	18.7
C_NC33.1_0050	J_NC33.1_0040	J_NC33.1_0050	5.69	28.04
C_NC33.1_0040	J_NC33.1_0035	J_NC33.1_0040	391.29	29.91
C_NC33.1_0035	J_NC33.1_0030	J_NC33.1_0035	292.26	29.91
C_NC33.1_0030	J_NC33.1_0020	J_NC33.1_0030	12.46	29.91
C_NC33.1_0020	J_NC33.1_0010	J_NC33.1_0020	112.28	29.91
C_NC33.1_0115	J_NC33.1_0110	J_NC33.1_0115	59.15	3.94
C_NC33.1_0110	J_NC33.1_0105	J_NC33.1_0110	883.47	5.96
C_NC33.1_0103	J_NC33.1_0100	J_NC33.1_0103	1301.89	5.89
C_NC33.1_0095	J_NC33.1_0095	J_NC33.1_0090	1.38	11.46

C_NC33.1_0100	J_NC33.1_0090	J_NC33.1_0100	606.94	9.66

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC33.1-1.8_0010	J_NC33.1_0110	J_NC33.1-1.8_0010	492.54	5.96
C_NC33.1S_0075	J_NC33.1S_0072	J_NC33.1S_0075	913.35	18.7
C_NC33.1S_0150	J_NC33.1S_0140	J_NC33.1S-1.6_0005	815.03	12.59
C_NC33.1S_0130	J_NC33.1S_0120	J_NC33.1_0130	1206.63	14.38
C_NC33.1S_0120	J_NC33.1S_0111	J_NC33.1S_0120	74.7	14.38
C_NC33.1S_0111	J_NC33.1S_0110	J_NC33.1S_0111	7.23	14.96
C_NC33.1S_0110	J_NC33.1S_0100	J_NC33.1S_0110	7.02	14.96
C_NC33.1S_0100	J_NC33.1S_0090	J_NC33.1S_0100	37.17	16.83
C_NC33.1S_0090	J_NC33.1S_0080	J_NC33.1S_0090	1195.72	16.83
C_NC33.1S_0080	J_NC33.1S_0075	J_NC33.1S_0080	182.8	18.7
C_NC33.1S_0140	J_NC33.1_0130	J_NC33.1S_0140	9.66	14.38
C_ON_0710	J_ON_0700	J_ON11.1_0010	82.98	58.89
C_ON_0810	J_ON12.5_0020	J_ON12.5_0015	258.46	49.6
C_ON_0820	J_ON12.5_0015	J_ON12.6_0010	367.2	49.6
C_ON_0800	J_ON12.5_0010	J_ON12.5_0020	6.55	49.6
C_ON_0790	J_ON12.2_0010	J_ON12.5_0010	1431.09	49.6
C_ON_0780	J_ON11.8_0040	J_ON12.2_0010	1443.61	49.6
C_ON_0770	J_ON11.8_0030	J_ON11.8_0040	470.26	49.6
C_ON_0760	J_ON11.8_0020	J_ON11.8_0030	110.23	57.86
C_ON_0750	J_ON11.8_0010	J_ON11.8_0020	42.6	57.86
C_ON_0740	J_ON11.6_0010	J_ON11.8_0010	1037.78	57.86
C_ON_0730	J_ON11.2_0010	J_ON11.6_0010	1924.99	57.86
C_ON_0720	J_ON11.1_0010	J_ON11.2_0010	726.72	58.89
C_ON_0915	J_ON14.0_0010	J_ON14.3_0005	1684.15	44.09
C_ON_0900	J_ON13.7_0010	J_ON_0900	940.77	44.09
C_ON_0910	J_ON_0900	J_ON14.0_0010	478.85	44.09
C_ON_0890	J_ON13.6_0010	J_ON13.7_0010	543.98	44.09
C_ON_0880	J_ON13.4_0010	J_ON13.6_0010	841.97	49.6
C_ON_0870	J_ON13.3_0010	J_ON13.4_0010	769.29	49.6
C_ON_0850	J_ON12.9_0010	J_ON_0860	1242.4	49.6
C_ON_0860	J_ON_0860	J_ON13.3_0010	404.36	49.6
C_ON_0840	J_ON_0830	J_ON12.9_0010	753.18	49.6
C_ON_0990	J_ON15.5_0010	J_ON15.6_0010	933.23	44.09
C_ON_0980	J_ON15.3_0010	J_ON15.5_0010	1204.11	44.09
C_ON_0970	J_ON15.0_0010	J_ON15.3_0010	1430.02	44.09
C_ON_0960	J_ON14.7_0020	J_ON15.0_0010	1671.6	44.09
C_ON_0940	J_ON14.6_0010	J_ON14.7_0010	223.22	44.09
C_ON_0930	J_ON14.3_0010	J_ON14.6_0010	1928	44.09
C_ON_0920	J_ON14.3_0005	J_ON14.3_0010	51.16	44.09
C_ON_1080	J_ON17.2_0010	J_ON17.6_0010	1814.33	33.06
C_ON_1060	J_ON16.8_0005	J_ON16.8_0010	150.71	38.58

C_ON_1050	J_ON16.4_0020	J_ON16.8_0005	1654.59	38.58
C_ON_1040	J_ON16.4_0010	J_ON16.4_0020	201.43	38.58
C_ON_1030	J_ON16.2_0030	J_ON16.4_0010	2103.06	38.58
C_ON_1020	J_ON16.0_0020	J_ON16.2_0030	119.23	38.58
C_ON_1010	J_ON16.0_0010	J_ON16.0_0020	14.53	38.58
C_ON_1000	J_ON15.6_0010	J_ON16.0_0010	1632.45	38.58

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ON_1270	J_ON_1260	J_ON_1270	2063.67	11.46
C_ON_1227	J_ON_1225	J_ON_1230	474.4	6.08
C_ON_1220	J_ON19.7_0010	J_ON19.8_0010	579.46	12.86
C_ON_1210	J_ON19.4_0025	J_ON19.7_0010	1435.69	14.7
C_ON_1190	J_ON19.3_0010	J_ON_1190	718.78	18.37
C_ON_1200	J_ON_1190	J_ON19.4_0025	86	14.7
C_ON_1180	J_ON19.2_0010	J_ON19.3_0010	747.58	18.37
C_ON_1240	J_ON_1230	J_ON20.1_0010	841.89	6.08
C_ON_1170	J_ON18.8_0020	J_ON19.2_0010	1903	18.37
C_ON_1160	J_ON18.8_0010	J_ON18.8_0020	2.35	22.04
C_ON_1150	J_ON18.6_0010	J_ON18.8_0010	672.44	23.88
C_ON_1130	J_ON18.1_0010	J_ON_1130	553.95	27.55
C_ON_1140	J_ON_1130	J_ON18.6_0010	1807.92	23.88
C_ON_1110	J_ON17.7_0010	J_ON_1110	1326.35	29.39
C_ON_1120	J_ON_1110	J_ON18.1_0010	841.04	27.55
C_ON_1100	J_ON17.6_0020	J_ON17.7_0010	683.39	29.39
C_ON_1090	J_ON17.6_0010	J_ON17.6_0020	66.81	33.06
C_NC35.1_0055	J_NC35.1_0050	J_NC35.1_0055	194.46	11.92
C_NC35.1_0050	J_NC35.1_0040	J_NC35.1_0050	1685	13.09
C_NC35.1_0040	J_NC35.1_0030	J_NC35.1_0040	2061.43	14.96
C_NC35.1_0025	J_NC35.1_0020	J_NC35.1_0025	1.98	18.7
C_NC35.1_0030	J_NC35.1_0025	J_NC35.1_0030	2.33	14.96
C_NC35.1_0020	J_NC35.1_0015	J_NC35.1_0020	97.62	18.7
C_NC35.1_0015	J_NC35.1_0010	J_NC35.1_0015	61.23	18.7
C_NC35.1_0060	J_NC35.1_0055	J_NC35.1_0060	1828.43	10.05
C_NC35.1_0095	J_NC35.1_0090	J_NC35.1_0095	518.89	7.92
C_NC35.1_0090	J_NC35.1_0080	J_NC35.1_0090	7.85	7.92
C_NC35.1_0080	J_NC35.1_0073	J_NC35.1_0080	694.99	9.87
C_NC35.1_0073	J_NC35.1_0070	J_NC35.1_0073	24.61	10.05
C_NC35.1_0070	J_NC35.1_0060	J_NC35.1_0070	455.25	10.05
C_NC35.1-0.1_0010	J_NC35.1_0025	J_NC35.1-0.1_0010	6.1	11.92
C_NC35.1-0.1_0040	J_NC35.1-0.1_0030	J_NC35.1-0.1_0040	114.56	10.05
C_NC35.1-0.1_0030	J_NC35.1-0.1_0020	J_NC35.1-0.1_0030	11.19	10.05
C_NC35.1-0.1_0020	J_NC35.1-0.1_0010	J_NC35.1-0.1_0020	1129.8	11.92
C_NC35.7_0025	J_NC35.7_0020	J_NC35.7_0025	1143.74	8.06
C_ON13.9_0020	J_ON13.9_0015	J_ON13.9_0020	2667.68	11.46

C_NC37.6_0080	J_NC37.6_0070	J_NC37.6_0080	14.37	22.04
C_NC37.6_0070	J_NC37.6_0060	J_NC37.6_0070	10.02	22.04
C_NC37.6_0058	J_NC37.6_0055	J_NC37.6-0.2_0010	811.58	22.44
C_NC37.6_0055	J_NC37.6_0050	J_NC37.6_0055	14.19	22.44
C_NC37.6_0050	J_NC37.6_0040	J_NC37.6_0050	63.2	22.44
C_NC37.6_0040	J_NC37.6_0030	J_NC37.6_0040	41.59	22.44
C_NC37.6_0030	J_NC37.6_0020	J_NC37.6_0030	56.69	22.44
C_NC37.6_0020	J_NC37.6_0010	J_NC37.6_0020	74.94	22.44
C_NC37.6_0090	J_NC37.6_0080	J_NC37.6_0090	4505.88	16.18
C_NC37.6_0060	J_NC37.6-0.2_0010	J_NC37.6_0060	1330.13	22.04
C_NC37.6_0135	J_NC37.6_0130	J_NC37.6_0135	1386.05	9.55

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC37.6_0130	J_NC37.6_0120	J_NC37.6_0130	3.6	11.46
C_NC37.6_0120	J_NC37.6_0110	J_NC37.6_0120	21.57	11.46
C_NC37.6_0110	J_NC37.6_0100	J_NC37.6_0110	1340.63	14.38
C_NC37.6_0100	J_NC37.6_0090	J_NC37.6_0100	0.99	14.38
C_NC37.6-0.5_0040	J_NC37.6-0.5_0020	J_NC37.6-0.5_0040	27.72	7.75
C_NC37.6-0.5_0010	J_NC37.6-0.5_0005	J_NC37.6-0.5_0010	2.54	11.71
C_NC37.6-0.5_0005	J_NC37.6_0080	J_NC37.6-0.5_0005	141.4	11.71
C_NC37.6-0.5_0020	J_NC37.6-0.5_0010	J_NC37.6-0.5_0030	1407.3	11.46
C_NC37.6-0.5_0030	J_NC37.6-0.5_0030	J_NC37.6-0.5_0020	2.96	7.75
C_NC37.6-0.5-0.1_0010	J_NC37.6-0.5_0005	J_NC37.6-0.5-0.1_0010	967.82	7.75
C_NC37.6-0.5-0.1_0020	J_NC37.6-0.5-0.1_0010	J_NC37.6-0.5-0.1_0020	320.75	7.75
C_NC38.7_0040	J_NC38.7_0070	J_NC38.7_0030	2.19	28.04
C_NC38.7_0072	J_NC38.7_0060	J_NC38.7_0072	14.75	22.44
C_NC38.7_0070	J_NC38.7_0050	J_NC38.7_0060	8.54	22.44
C_NC38.7_0060	J_NC38.7_0040	J_NC38.7_0050	3.12	24.3
C_NC38.7_0050	J_NC38.7_0030	J_NC38.7_0040	3.27	28.04
C_NC38.7_0030	J_NC38.7_0020	J_NC38.7_0070	2.34	31.78
C_NC38.7_0020	J_NC38.7_0010	J_NC38.7_0020	55.9	31.78
C_NC38.7_0073	J_NC38.7_0072	J_NC38.7-0.15_0010	654.58	18.7
C_NC38.7_0077	J_NC38.7-0.2_0030	J_NC38.7_0077	49.62	18.7
C_NC38.7_0076	J_NC38.7-0.2_0020	J_NC38.7-0.2_0030	2.07	18.7
C_NC38.7_0075	J_NC38.7-0.2_0010	J_NC38.7-0.2_0020	5.85	18.7
C_NC38.7_0074	J_NC38.7-0.15_0010	J_NC38.7-0.2_0010	559.12	18.7
C_NC38.7_0095	J_NC38.7_0093	J_NC38.7_0095	1045.55	18.37
C_NC38.7_0097	J_NC38.7_0095	J_NC38.7-1.1_0010	2251.99	17.98
C_NC38.7_0110	J_NC38.7_0100	J_NC38.7_0110	1329.96	12.59
C_NC38.7_0100	J_NC38.7-1.1_0010	J_NC38.7_0099	393.34	16.18
C_NC38.7_0120	J_NC38.7_0110	J_NC38.7_0120	198.75	5.96
C_NC38.9-0.7_0010	J_NC38.9_0043	J_NC38.9-0.7_0010	9.27	24.3
C_NC38.9-0.7_0050	J_NC38.9-0.7_0040	J_NC38.9-0.7_0050	1254.48	3.94

C_NC38.9-0.7_0040J_NC38.9-0.7_0030J_NC38.9-0.7_0040	393.43	3.94		
C_NC38.9-0.7_0020J_NC38.9-0.7_0010J_NC38.9-0.7_0020	2.42	24.3		
C_NC38.9-0.7_0030J_NC38.9-0.7_0020J_NC38.9-0.7_0030	39.35	16.83		
C_NC38.9-2.4_0010J_NC38.9_0063	J_NC38.9-2.4_0010	8.34	22.44	
C_NC38.9-2.4_0040J_NC38.9-2.4_0030J_NC38.9-2.4_0040	2779.8	18.7		
C_NC38.9-2.4_0015J_NC38.9-2.4_0010J_NC38.9-2.4_0015	2.36	22.44		
C_NC38.9-2.4_0030J_NC38.9-2.4_0015J_NC38.9-2.4_0030	1283.46	18.7		
C_NC38.9-2.4_0135J_NC38.9-2.4_0135J_NC38.9-2.4_0130	0.16	9.66		
C_NC38.9-2.4_0136J_NC38.9-2.4_0130J_NC38.9-2.4_0136	117.16	5.96		
C_NC38.9-2.4_0127J_NC38.9-2.4_0120J_NC38.9-2.4_0127	609.55	14.38		
C_NC38.9-2.4_0130J_NC38.9-2.4_0127J_NC38.9-2.4_0135	455.58	9.66		
C_NC38.9-2.4_0120J_NC38.9-2.4_0110J_NC38.9-2.4_0120	15.53	14.7		
C_NC38.9-2.4_0110J_NC38.9-2.4_0105J_NC38.9-2.4_0110	160.18	16.53		
C_NC38.9-2.4_0078J_NC38.9-2.4_0070J_NC38.9-2.4_0078	332.6	16.18		
C_NC38.9-2.4_0070J_NC38.9-2.4_0060J_NC38.9-2.4_0070	738.07	16.53		
C_NC38.9-2.4_0060J_NC38.9-2.4_0050J_NC38.9-2.4_0060	10.47	16.53		
C_NC38.9-2.4_0048J_NC38.9-2.4_0045J_NC38.9-2.4_0048	2553.43	16.53		

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-2.4_0050J_NC38.9-2.4_0048J_NC38.9-2.4_0050	150.08	16.53		
C_NC38.9-2.4_0045J_NC38.9-2.4_0040J_NC38.9-2.4_0045	8.64	16.83		
C_NC38.9-2.4-1.5_0010J_NC38.9-2.4_0105J_NC38.9-2.4-1.5_0010	392.28	3.94		
C_NC38.9-3.0_0010J_NC38.9_0082	J_NC38.9-3.0_0020	14.03	18.7	
C_NC38.9-3.0_0060J_NC38.9-3.0_0050J_NC38.9-3.0-0.5_0010	136.3	14.96		
C_NC38.9-3.0_0050J_NC38.9-3.0_0040J_NC38.9-3.0_0050	1045.68	14.96		
C_NC38.9-3.0_0040J_NC38.9-3.0_0030J_NC38.9-3.0_0040	307.44	14.96		
C_NC38.9-3.0_0020J_NC38.9-3.0_0020J_NC38.9-3.0_0010	0.35	16.83		
C_NC38.9-3.0_0030J_NC38.9-3.0_0010J_NC38.9-3.0_0030	701.91	14.96		
C_NC38.9-3.0_0080J_NC38.9-3.0-0.5_0020J_NC38.9-3.0_0080	2135.08	10.05		
C_NC38.9-3.0_0070J_NC38.9-3.0-0.5_0010J_NC38.9-3.0-0.5_0020	3.92	13.09		
C_NC38.9-4.8-0.5_0020J_NC38.9-4.8_0045J_NC38.9-4.8-0.5_0020	3.31	22.44		
C_NC38.9-4.8-0.5_0030J_NC38.9-4.8-0.5_0020J_NC38.9-4.8-0.5_0030	0.42	22.44		
C_NC38.9-4.8-0.5_0040J_NC38.9-4.8-0.5_0030J_NC38.9-4.8-0.5_0040	1837.75	22.44		
C_NC38.9-4.8-0.5_0108J_NC38.9-4.8-0.5_0095J_NC38.9-4.8-0.5_0108	526.99	14.38		
C_NC38.9-4.8-0.5_0092J_NC38.9-4.8-0.5_0090J_NC38.9-4.8-0.5_0092	217.14	14.7		
C_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0070J_NC38.9-4.8-0.5_0075	164.19	16.53		
C_NC38.9-4.8-0.5_0090J_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0090	6.28	14.7		
C_NC38.9-4.8-0.5_0070J_NC38.9-4.8-0.5_0060J_NC38.9-4.8-0.5_0070	3185.94			

18.37
C_NC38.9-4.8-0.5_0060J_NC38.9-4.8-0.5_0050J_NC38.9-4.8-0.5_0060 15.03
18.7
C_NC38.9-4.8-0.5_0050J_NC38.9-4.8-0.5_0045J_NC38.9-4.8-0.5_0050 78.05
18.7
C_NC38.9-4.8-0.5_0045J_NC38.9-4.8-0.5_0040J_NC38.9-4.8-0.5_0045 701.13
18.7
C_NC38.9-4.8-0.5_0095J_NC38.9-4.8-0.5_0093J_NC38.9-4.8-0.5_0095 1301.36
14.96
C_NC38.9-4.8_0010J_NC38.9_0105 J_NC38.9-4.8_0010 220.43 33.65
C_NC38.9-4.8_0045J_NC38.9-4.8_0040J_NC38.9-4.8_0045 1315.8 31.78
C_NC38.9-4.8_0040J_NC38.9-4.8_0030J_NC38.9-4.8_0040 567.91 31.78
C_NC38.9-4.8_0030J_NC38.9-4.8_0020J_NC38.9-4.8_0030 4.99 33.65
C_NC38.9-4.8_0020J_NC38.9-4.8_0010J_NC38.9-4.8_0020 599.53 33.65
C_NC38.9-4.8_0050J_NC38.9-4.8_0045J_NC38.9-4.8_0050 1489.04 24.3
C_NC38.9-4.8_0157J_NC38.9-4.8_0150J_NC38.9-4.8_0157 1232.34 11.46
C_NC38.9-4.8_0143J_NC38.9-4.8_0140J_NC38.9-4.8_0143 776.35 12.44
C_NC38.9-4.8_0140J_NC38.9-4.8_0130J_NC38.9-4.8_0140 1139.78 14.38
C_NC38.9-4.8_0150J_NC38.9-4.8_0145J_NC38.9-4.8_0150 1.66 11.71
C_NC39.8-4.8_0090J_NC39.8-4.8-0.9_0020J_NC38.9-4.8_0090 391.08 22.44
C_NC39.8-4.8_0085J_NC39.8-4.8-0.9_0010J_NC39.8-4.8-0.9_0020 22.48 22.44
C_NC38.9-4.8_0130J_NC38.9-4.8_0120J_NC38.9-4.8_0130 2841.27 14.96
C_NC38.9-4.8_0120J_NC38.9-4.8_0110J_NC38.9-4.8_0120 143.11 16.83
C_NC38.9-4.8_0096J_NC38.9-4.8_0094J_NC38.9-4.8_0096 39.18 22.44
C_NC38.9-4.8_0094J_NC38.9-4.8_0093J_NC38.9-4.8_0094 944.76 22.44
C_NC38.9-4.8_0093J_NC38.9-4.8_0090J_NC38.9-4.8_0093 398.27 22.44
C_NC39.8-4.8_0080J_NC38.9-4.8_0070J_NC39.8-4.8-0.9_0010 798.55 22.44
C_NC38.9-4.8_0070J_NC38.9-4.8_0060J_NC38.9-4.8_0070 2.8 22.44
C_NC38.9-4.8_0060J_NC38.9-4.8_0050J_NC38.9-4.8_0060 9.13 24.3
C_NC38.9-4.8_0110J_NC38.9-4.8_0096J_NC38.9-4.8_0110 590.26 16.83
C_NC38.9-4.8_0160J_NC38.9-4.8_0157J_NC38.9-4.8_0160 86.68 11.46
C_NC38.9-4.8-2.5_0015J_NC38.9-4.8-2.5_0010J_NC38.9-4.8-2.5_0015 11.27
7.92
C_NC38.9-4.8-2.5_0020J_NC38.9-4.8-2.5_0015J_NC38.9-4.8-2.5_0030 132.45
7.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8-2.5_0030J_NC38.9-4.8-2.5_0030J_NC38.9-4.8-2.5_0020			9.6	6.08
C_NC38.9-4.8-2.5_0040J_NC38.9-4.8-2.5_0020J_NC38.9-4.8-2.5_0040			20.62	6.08
C_NC38.9-7.8_0010J_NC38.9_0173	J_NC38.9-7.8_0010		11.51	14.96
C_NC38.9-7.8_0060J_NC38.9-7.8_0050J_NC38.9-7.8_0060			58.13	11.92
C_NC38.9-7.8_0050J_NC38.9-7.8_0045J_NC38.9-7.8_0050			477.05	14.96

C_NC38.9-7.8_0045J_NC38.9-7.8_0040J_NC38.9-7.8_0045 2054.29 14.96
C_NC38.9-7.8_0040J_NC38.9-7.8_0030J_NC38.9-7.8_0040 12.63 14.96
C_NC38.9-7.8_0030J_NC38.9-7.8_0020J_NC38.9-7.8_0030 10.45 14.96
C_NC38.9-7.8_0020J_NC38.9-7.8_0010J_NC38.9-7.8_0020 38.61 14.96
C_NC38.9-7.8-0.5_0010J_NC38.9-7.8_0070J_NC38.9-7.8-0.5_0010 4.15 11.92
C_NC38.9-7.8-0.5_0020J_NC38.9-7.8-0.5_0010J_NC38.9-7.8-0.5_0020 1702.7
11.92
C_NC38.9-7.8-0.5_0040J_NC38.9-7.8-0.5_0030J_NC38.9-7.8-0.5_0040 228.84
10.05
C_NC38.9-7.8-0.5_0030J_NC38.9-7.8-0.5_0020J_NC38.9-7.8-0.5_0030 6.04
10.05
C_NC38.9-7.9_0010J_NC38.9_0175 J_NC38.9-7.9_0010 10.37 10.05
C_NC38.9-7.9_0020J_NC38.9-7.9_0010J_NC38.9-7.9_0020 0.55 10.05
C_NC38.9-7.9_0030J_NC38.9-7.9_0020J_NC38.9-7.9_0030 589.91 10.05
C_NC38.9-8.5_0010J_NC38.9_0187 J_NC38.9-8.5_0010 11.72 10.05
C_NC38.9-8.5_0030J_NC38.9-8.5_0020J_NC38.9-8.5_0030 1962.71 10.05
C_NC38.9-8.5_0015J_NC38.9-8.5_0010J_NC38.9-8.5_0013 359.05 10.05
C_NC38.9-8.5_0020J_NC38.9-8.5_0013J_NC38.9-8.5_0020 660.61 10.05
C_NC38.9-10.3_0010J_NC38.9_0255 J_NC38.9-10.3_0030 2.63 14.96
C_NC38.9-10.3_0020J_NC38.9-10.3_0030J_NC38.9-10.3_0020 0.35 13.09
C_NC38.9-10.3_0030J_NC38.9-10.3_0020J_NC38.9-10.3_0010 2.08 13.09
C_NC38.9-10.3_0040J_NC38.9-10.3_0010J_NC38.9-10.3_0040 1342.96 14.96
C_NC38.9-10.3_0060J_NC38.9-10.3_0050J_NC38.9-10.3_0060 228.03 14.96
C_NC38.9-10.3_0050J_NC38.9-10.3_0040J_NC38.9-10.3_0050 1082.13 14.96
C_NC43.2_0010 J_NC_0800 J_NC43.2_0010 17.87 58.89
C_NC43.2_0260 J_NC43.2_0250 J_NC43.2_0260 2558.28 39.26
C_NC43.2_0270 J_NC43.2_0260 J_NC43.2_0270 73.83 33.65
C_NC43.2_0195 J_NC43.2_0190 J_NC43.2_0195 2910.59 50.48
C_NC43.2_0230 J_NC43.2_0225 J_NC43.2_0230 4516.83 39.26
C_NC43.2_0225 J_NC43.2_0195 J_NC43.2_0225 60.26 50.48
C_NC43.2_0190 J_NC43.2_0180 J_NC43.2_0190 405.87 50.48
C_NC43.2_0180 J_NC43.2_0175 J_NC43.2_0180 427.99 50.48
C_NC43.2_0175 J_NC43.2_0170 J_NC43.2_0175 3.65 50.48
C_NC43.2_0350 J_NC43.2_0340 J_NC43.2_0350 1760.71 3.94
C_NC43.2_0340 J_NC43.2_0330 J_NC43.2_0340 2187.08 3.94
C_NC43.2_0325 J_NC43.2_0320 J_NC43.2_0325 814.37 18.7
C_NC43.2_0330 J_NC43.2_0325 J_NC43.2_0330 1407.06 3.94
C_NC43.2_0315 J_NC43.2_0310 J_NC43.2_0315 557.13 24.3
C_NC43.2_0320 J_NC43.2_0315 J_NC43.2_0320 323.39 22.44
C_NC43.2_0310 J_NC43.2_0300 J_NC43.2_0310 1421.75 24.3
C_NC43.2_0300 J_NC43.2_0290 J_NC43.2_0300 825.03 24.3
C_NC43.2_0290 J_NC43.2_0280 J_NC43.2_0290 2561.75 26.17
C_NC43.2_0275 J_NC43.2_0270 J_NC43.2_0275 1209.27 33.65
C_NC43.2_0280 J_NC43.2_0275 J_NC43.2_0280 2334.61 26.17
C_NC43.2_0240 J_NC43.2_0230 J_NC43.2_0240 3148.39 39.26

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2_0250	J_NC43.2_0240	J_NC43.2_0250	3291.05	39.26
C_NC43.2_0160	J_NC43.2_0150	J_NC43.2_0160	6734.5	50.48
C_NC43.2_0170	J_NC43.2_0160	J_NC43.2_0170	1137.41	50.48
C_NC43.2_0150	J_NC43.2_0140	J_NC43.2_0150	543.51	44.87
C_NC43.2_0135	J_NC43.2_0130	J_NC43.2_0135	1405.7	50.48
C_NC43.2_0140	J_NC43.2_0135	J_NC43.2_0140	3036.58	50.48
C_NC43.2_0120	J_NC43.2_0120	J_NC43.2_0110	14.68	50.48
C_NC43.2_0130	J_NC43.2_0110	J_NC43.2_0130	1418.78	50.48
C_NC43.2-6.6_0108	J_NC43.2-6.6_0010	J_NC43.2_0108	43.63	50.48
C_NC43.2_0110	J_NC43.2_0108	J_NC43.2_0120	680.67	50.48
C_NC43.2-6.6_0105	J_NC43.2-6.1_0010	J_NC43.2-6.6_0010	2572.63	50.48
C_NC43.2_0100	J_NC43.2_0070	J_NC43.2_0100	5755.36	50.48
C_NC43.2_0070	J_NC43.2_0060	J_NC43.2_0070	700.09	58.89
C_NC43.2_0055	J_NC43.2_0050	J_NC43.2_0055	1862.28	58.89
C_NC43.2_0060	J_NC43.2_0055	J_NC43.2_0060	73.5	58.89
C_NC43.2_0050	J_NC43.2_0047	J_NC43.2_0050	1361.37	58.89
C_NC43.2_0047	J_NC43.2_0044	J_NC43.2_0047	1023.21	58.89
C_NC43.2_0044	J_NC43.2_0040	J_NC43.2_0044	1234.91	58.89
C_NC43.2_0037	J_NC43.2_0035	J_NC43.2_0037	1054.37	58.89
C_NC43.2_0040	J_NC43.2_0037	J_NC43.2_0040	3769.66	58.89
C_NC43.2_0032	J_NC43.2_0030	J_NC43.2_0032	75.35	58.89
C_NC43.2_0035	J_NC43.2_0032	J_NC43.2_0035	5798.83	58.89
C_NC43.2_0030	J_NC43.2_0020	J_NC43.2_0030	2651.3	58.89
C_NC43.2_0020	J_NC43.2_0013	J_NC43.2_0020	1262.77	58.89
C_NC43.2_0013	J_NC43.2_0010	J_NC43.2_0013	57.61	58.89
C_NC43.2_0103	J_NC43.2_0100	J_NC43.2-6.1_0010	5437.63	50.48
C_NC43.2-2.1_0010	J_NC43.2_0037	J_NC43.2-2.1_0010	13.53	3.94
C_NC43.2-2.1_0020	J_NC43.2-2.1_0010	J_NC43.2-2.1_0020	429.29	3.94
C_NC43.2-0.8_0010	J_NC43.2_0032	J_NC43.2-0.8_0010	14.32	10.05
C_NC43.2-0.8_0020	J_NC43.2-0.8_0010	J_NC43.2-0.8_0020	779.15	10.05
C_NC45.4_0025	J_NC45.4_0020	J_NC45.4_0025	105.26	11.92
C_NC45.4_0015	J_NC45.4_0010	J_NC45.4_0015	59.1	13.09
C_NC45.4-0.5_0010	J_NC45.4_0040	J_NC45.4-0.5_0010	937.95	3.94
C_NC45.4_0040	J_NC45.4_0030	J_NC45.4_0035	484.84	11.33
C_NC45.4_0050	J_NC45.4_0040	J_NC45.4_0050	1348.55	3.94
C_NC46.7_0025	J_NC46.7_0025	J_NC46.7_0020	0.86	33.65
C_NC46.7_0027	J_NC46.7_0020	J_NC46.7_0027	1766.56	26.17
C_NC46.7_0020	J_NC46.7_0010	J_NC46.7_0025	106.9	33.65
C_NC46.7-1.0_0005	J_NC46.7_0060	J_NC46.7-1.0_0005	338	16.83
C_NC46.7-0.5_0020	J_NC46.7-0.5_0015	J_NC46.7-0.5_0020	5.91	14.96
C_NC46.7-0.5_0035	J_NC46.7-0.5_0030	J_NC46.7-0.5_0035	9.29	14.96
C_NC46.7-0.5_0030	J_NC46.7-0.5_0020	J_NC46.7-0.5_0030	950.99	14.96
C_NC46.7-0.5_0050	J_NC46.7-0.5_0045	J_NC46.7-0.5_0050	1183.74	10.05
C_NC46.7-0.5_0068	J_NC46.7-0.5_0060	J_NC46.7-0.5_0068	1578.31	7.66
C_NC46.7-0.5_0060	J_NC46.7-0.5_0050	J_NC46.7-0.5_0060	926.19	10.05
C_NC46.7-1.0_0040	J_NC46.7-1.0_0035	J_NC46.7-1.0_0045	17.06	13.09
C_NC46.7-1.0_0065	J_NC46.7-1.0_0060	J_NC46.7-1.0_0065	1028.24	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC46.7-1.0_0060J_NC46.7-1.0_0050J_NC46.7-1.0_0060			660.38	8.06
C_NC46.7-1.0_0045J_NC46.7-1.0_0045J_NC46.7-1.0_0040			10.53	11.92
C_NC46.7-1.0_0050J_NC46.7-1.0_0040J_NC46.7-1.0_0050			0.53	10.05
C_NC46.7-0.5-0.2_0050J_NC46.7-0.5-0.2_0040J_NC46.7-0.5-0.2_0050			2299.53	3.94
C_NC49.2_0090	J_NC49.2_0080	J_NC49.2_0090	2497.49	22.44
C_NC49.2_0080	J_NC49.2_0070	J_NC49.2_0080	626.44	24.3
C_NC49.2_0070	J_NC49.2_0065	J_NC49.2_0070	266.5	24.3
C_NC49.2_0060	J_NC49.2_0055	J_NC49.2_0060	9.38	26.17
C_NC49.2_0055	J_NC49.2_0050	J_NC49.2_0055	816	28.04
C_NC49.2_0050	J_NC49.2_0040	J_NC49.2_0050	469.91	28.04
C_NC49.2_0127	J_NC49.2_0125	J_NC49.2_0127	499.4	22.44
C_NC49.2_0110	J_NC49.2_0120	J_NC49.2_0110	21.76	22.44
C_NC49.2_0120	J_NC49.2_0110	J_NC49.2_0100	25.73	22.44
C_NC49.2_0125	J_NC49.2_0100	J_NC49.2_0125	11.03	22.44
C_NC49.2_0100	J_NC49.2_0095	J_NC49.2_0120	1998.06	22.44
C_NC49.2_0095	J_NC49.2_0090	J_NC49.2_0095	1.91	22.44
C_NC49.2_0040	J_NC49.2_0039	J_NC49.2_0040	1521.24	28.04
C_NC49.2_0020	J_NC49.2_0020	J_NC49.2_0010	4.14	44.87
C_NC49.2_0027	J_NC49.2_0010	J_NC49.2_0027	280.53	44.87
C_NC49.2_0035	J_NC49.2_0027	J_NC49.2_0035	51.01	44.87
C_NC49.2-2.3_0010J_NC49.2_0127		J_NC49.2-2.3_0010	1.64	8.06
C_NC49.2-2.3_0020J_NC49.2-2.3_0010J_NC49.2-2.3_0020			1583.36	8.06
C_NC49.2-2.3_0025J_NC49.2-2.3_0020J_NC49.2-2.3_0025			26.04	8.06
C_NC49.2-2.3_0040J_NC49.2-2.3_0035J_NC49.2-2.3_0040			671.35	8.06
C_NC49.2_0150	J_NC49.2_0143	J_NC49.2_0150	328.64	18.7
C_NC49.2_0220	J_NC49.2_0210	J_NC49.2_0220	559.19	7.75
C_NC49.2_0210	J_NC49.2_0200	J_NC49.2_0210	13.37	7.75
C_NC49.2_0200	J_NC49.2_0190	J_NC49.2_0200	1656.76	7.75
C_NC49.2_0188	J_NC49.2_0180	J_NC49.2_0190	1187.2	9.66
C_NC49.2_0155	J_NC49.2_0150	J_NC49.2_0155	504.4	18.7
C_NC49.2_0160	J_NC49.2_0155	J_NC49.2_0160	285.83	11.92
C_NC49.2_0175	J_NC49.2_0170	J_NC49.2_0175	1340.99	11.33
C_NC49.2_0170	J_NC49.2_0165	J_NC49.2_0170	313.08	11.33
C_NC49.2_0165	J_NC49.2_0163	J_NC49.2_0165	248.17	11.92
C_NC49.2_0163	J_NC49.2_0160	J_NC49.2_0163	91.49	11.92
C_NC49.2-2.9_0010J_NC49.2_0155		J_NC49.2-2.9_0010	2.28	13.09
C_NC49.2-2.9_0055J_NC49.2-2.9_0050J_NC49.2-2.9_0055			1242.68	11.92
C_NC49.2-2.9_0050J_NC49.2-2.9_0040J_NC49.2-2.9_0050			111.07	11.92
C_NC49.2-2.9_0040J_NC49.2-2.9_0030J_NC49.2-2.9_0040			1172.17	11.92
C_NC49.2-2.9_0030J_NC49.2-2.9_0020J_NC49.2-2.9_0030			1.12	13.09
C_NC49.2-2.9_0020J_NC49.2-2.9_0010J_NC49.2-2.9_0020			2.27	13.09

C_NC49.2-0.9_0050J_NC49.2-0.9_0045J_NC49.2-0.9_0050			6.82	6.08
C_NC49.2-0.9_0080J_NC49.2-0.9_0070J_NC49.2-0.9_0080			4.61	3.94
C_NC49.2-0.9_0070J_NC49.2-0.9_0060J_NC49.2-0.9_0070			822.03	3.94
C_NC49.2-0.9_0060J_NC49.2-0.9_0055J_NC49.2-0.9_0060			2.69	3.94
C_NC49.2-0.9_0055J_NC49.2-0.9_0050J_NC49.2-0.9_0055			6.01	8.06
C_NC49.2-0.2_0010J_NC49.2_0037	J_NC49.2-0.2_0010		11.31	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2-0.2_0040J_NC49.2-0.2_0030J_NC49.2-0.2_0040			1545.66	6.08
C_NC49.2-0.2_0030J_NC49.2-0.2_0020J_NC49.2-0.2_0030			27.69	6.08
C_NC49.2-0.2_0020J_NC49.2-0.2_0010J_NC49.2-0.2_0020			47.5	10.05
C_NC49.2-0.4_0005J_NC49.2_0039	J_NC49.2-0.4_0005		2456.94	18.7
C_NC49.2-0.4_0010J_NC49.2-0.4_0005J_NC49.2-0.4_0040			585.18	14.96
C_NC49.2-0.4_0020J_NC49.2-0.4_0040J_NC49.2-0.4_0010			5.82	14.96
C_NC49.2-0.4_0040J_NC49.2-0.4_0030J_NC49.2-0.4_0020			1.81	10.05
C_NC49.2-0.4_0070J_NC49.2-0.4_0020J_NC49.2-0.4_0070			2481.1	10.05
C_NC49.2-0.4_0030J_NC49.2-0.4_0010J_NC49.2-0.4_0030			1.77	14.96
C_NC49.2-0.4_0080J_NC49.2-0.4_0070J_NC49.2-0.4_0080			453.01	10.05
C_NC49.2-0.4-0.6_0020J_NC49.2-0.4-0.6_0015J_NC49.2-0.4-0.6_0023			1028.45	13.09
C_NC49.2-0.4-0.6_0045J_NC49.2-0.4-0.6_0040J_NC49.2-0.4-0.6_0045			430.4	11.92
C_NC49.2-0.4-0.6_0040J_NC49.2-0.4-0.6_0030J_NC49.2-0.4-0.6_0040			305.91	11.92
C_NC49.2-0.4-0.6_0030J_NC49.2-0.4-0.6_0026J_NC49.2-0.4-0.6_0030			353.7	11.92
C_NC49.2-0.4-0.6_0026J_NC49.2-0.4-0.6_0025J_NC49.2-0.4-0.6_0026			199.54	11.92
C_NC49.2-0.4-0.6_0023J_NC49.2-0.4-0.6_0023J_NC49.2-0.4-0.6_0020			1.12	13.09
C_NC49.2-0.4-0.6_0025J_NC49.2-0.4-0.6_0020J_NC49.2-0.4-0.6_0025			8.09	11.92
C_NC49.2-0.4-0.6_0060J_NC49.2-0.4-0.6_0055J_NC49.2-0.4-0.6_0060			7.77	10.05
C_NC49.2-0.4-0.6_0125J_NC49.2-0.4-0.6_0115J_NC49.2-0.4-0.6_0125			47.21	3.94
C_NC49.2-0.4-0.6_0115J_NC49.2-0.4-0.6_0090J_NC49.2-0.4-0.6_0115			1328.68	3.94
C_NC49.2-0.4-0.6_0080J_NC49.2-0.4-0.6_0080J_NC49.2-0.4-0.6_0070			4.78	6.08
C_NC49.2-0.4-0.6_0090J_NC49.2-0.4-0.6_0070J_NC49.2-0.4-0.6_0090			54.42	6.08
C_NC49.2-0.4-0.6_0070J_NC49.2-0.4-0.6_0060J_NC49.2-0.4-0.6_0080			1500.68	6.08

C_NC49.4_0010	J_NC_1000	J_NC49.4_0010	11.73	24.3
C_NC49.4_0030	J_NC49.4_0020	J_NC49.4_0030	498.62	24.3
C_NC49.4_0020	J_NC49.4_0010	J_NC49.4_0020	139.77	24.3
C_NC49.4_0034	J_NC49.4_0030	J_NC49.4_0034	904.8	22.44
C_NC50.8_0010	J_NC_1020	J_NC50.8_0010	21.09	22.44
C_NC50.8_0110	J_NC50.8_0100	J_NC50.8_0110	923.36	3.94
C_NC50.8_0080	J_NC50.8_0070	J_NC50.8_0080	809.56	10.05
C_NC50.8_0070	J_NC50.8_0065	J_NC50.8_0070	6.71	11.92
C_NC50.8_0040	J_NC50.8_0035	J_NC50.8_0041	1458.26	14.96
C_NC50.8_0035	J_NC50.8_0030	J_NC50.8_0035	7.43	16.83
C_NC50.8_0130	J_NC50.8_0120	J_NC50.8_0130	5.97	3.94
C_NC50.8_0120	J_NC50.8_0110	J_NC50.8_0120	21.33	3.94
C_NC50.8_0030	J_NC50.8_0025	J_NC50.8_0030	546.47	16.83
C_NC50.8_0025	J_NC50.8_0020	J_NC50.8_0025	5.28	18.7
C_NC50.8_0020	J_NC50.8_0010	J_NC50.8_0020	71.31	18.7
C_NC50.8_0100	J_NC50.8_0091	J_NC50.8_0100	688.2	8.06
C_NC50.8_0091	J_NC50.8_0090	J_NC50.8_0091	13.42	8.06
C_NC50.8_0090	J_NC50.8_0080	J_NC50.8_0090	4.69	10.05
C_NC50.8_0065	J_NC50.8_0063	J_NC50.8_0065	302.74	11.92
C_NC50.8_0063	J_NC50.8_0060	J_NC50.8_0063	1680.01	11.92
C_NC50.8_0060	J_NC50.8_0050	J_NC50.8_0060	2.07	11.92
C_NC50.8_0041	J_NC50.8_0041	J_NC50.8_0040	0.85	13.09
C_NC50.8_0050	J_NC50.8_0040	J_NC50.8_0050	1326.93	11.92
C_NC53.2_0033	J_NC53.2_0030	J_NC53.2_0033	97.74	14.96

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC53.2_0030	J_NC53.2_0025	J_NC53.2_0030	1145.78	14.96
C_NC53.2_0025	J_NC53.2_0020	J_NC53.2_0025	477.05	24.3
C_NC53.2_0040	J_NC53.2_0037	J_NC53.2_0040	269.76	13.09
C_NC53.2_0045	J_NC53.2_0040	J_NC53.2_0045	905.55	11.92
C_NC53.2_0090	J_NC53.2_0080	J_NC53.2_0090	3360.83	11.92
C_NC53.2_0093	J_NC53.2_0090	J_NC53.2_0093	508.04	10.05
C_NC53.2_0100	J_NC53.2_0097	J_NC53.2_0100	534.7	10.05
C_NC53.2_0115	J_NC53.2_0110	J_NC53.2_0115	481.34	8.06
C_NC53.2_0110	J_NC53.2_0100	J_NC53.2_0110	733.19	8.06
C_NC53.2_0150	J_NC53.2_0145	J_NC53.2_0150	946.16	3.94
C_NC53.2-0.4_0005	J_NC53.2_0035	J_NC53.2-0.4_0005	234.63	3.94
C_SA_0020	J_SA_0015	J_SA0.1_0010	38.02	14.96
C_SA_0050	J_SA0.3_0010	J_SA0.3_0020	14.18	14.96
C_SA_0040	J_SA0.2_0010	J_SA0.3_0010	429.85	14.96
C_SA_0030	J_SA0.1_0010	J_SA0.2_0010	500.96	14.96
C_SA_0110	J_SA_0100	J_SA0.7_0020	9.17	14.96
C_SA_0140	J_SA0.9_0010	J_SA0.9_0020	152.84	13.09
C_SA_0130	J_SA0.8_0010	J_SA0.9_0010	375.73	14.96

C_SA_0120	J_SA0.7_0020	J_SA0.8_0010	298.85	14.96
C_SA_0170	J_SA1.0_0020	J_SA1.1_0010	572.87	11.92
C_SA_0160	J_SA1.0_0010	J_SA1.0_0020	25.96	11.92
C_SA_0150	J_SA0.9_0020	J_SA1.0_0010	476.48	13.09
C_SA_0230	J_SA1.3_0030	J_SA_0230	1138.69	10.05
C_SA_0220	J_SA1.3_0020	J_SA1.3_0030	81.29	10.05
C_SA_0210	J_SA1.3_0010	J_SA1.3_0020	24.94	11.92
C_SA_0200	J_SA1.2_0020	J_SA1.3_0010	483.71	11.92
C_SA_0190	J_SA1.2_0010	J_SA1.2_0020	21.88	11.92
C_SA_0180	J_SA1.1_0010	J_SA1.2_0010	244.96	11.92
C_NC54.2_0140	J_NC54.2_0130	J_NC54.2_0140	1716.96	18.7
C_NC54.2_0130	J_NC54.2_0120	J_NC54.2_0130	2.61	22.44
C_NC54.2_0110	J_NC54.2_0110	J_NC54.2_0100	1.43	22.44
C_NC54.2_0120	J_NC54.2_0100	J_NC54.2_0120	1.72	22.44
C_NC54.2_0095	J_NC54.2_0090	J_NC54.2_0095	395.53	22.44
C_NC54.2_0100	J_NC54.2_0095	J_NC54.2_0110	924.68	22.44
C_NC54.2_0090	J_NC54.2_0080	J_NC54.2_0090	28.63	24.3
C_NC54.2_0080	J_NC54.2_0070	J_NC54.2_0080	0.66	24.3
C_NC54.2_0070	J_NC54.2_0060	J_NC54.2_0070	1205.07	24.3
C_NC54.2_0060	J_NC54.2_0050	J_NC54.2_0060	16.06	24.3
C_NC54.2_0050	J_NC54.2_0040	J_NC54.2_0050	1487.36	24.3
C_NC54.2_0040	J_NC54.2_0030	J_NC54.2_0040	179.26	26.17
C_NC54.2_0195	J_NC54.2_0190	J_NC54.2_0195	1474.35	13.09
C_NC54.2_0190	J_NC54.2_0180	J_NC54.2_0190	1.64	14.96
C_NC54.2_0180	J_NC54.2_0170	J_NC54.2_0180	620.83	16.83
C_NC54.2_0170	J_NC54.2_0168	J_NC54.2_0170	142.48	16.83
C_NC54.2_0168	J_NC54.2_0165	J_NC54.2_0168	520.62	16.83
C_NC54.2_0165	J_NC54.2_0160	J_NC54.2_0165	747.13	16.83
C_NC54.2_0160	J_NC54.2_0150	J_NC54.2_0160	9.74	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC54.2_0150	J_NC54.2_0140	J_NC54.2_0150	0.14	18.7
C_NC54.2_0030	J_NC54.2_0025	J_NC54.2_0030	1169.54	28.04
C_NC54.2_0025	J_NC54.2_0020	J_NC54.2_0025	186.49	33.65
C_NC54.2_0020	J_NC54.2_0010	J_NC54.2_0020	119.77	33.65
C_NC54.2_0210	J_NC54.2_0200	J_NC54.2_0210	974.55	13.09
C_NC54.4_0250	J_NC54.4_0245	J_NC54.4_0250	14.88	5.96
C_NC54.4_0245	J_NC54.2_0240	J_NC54.4_0245	470.61	5.96
C_NC54.2_0258	J_NC54.4_0250	J_NC54.2_0258	3241.51	5.89
C_NC54.2_0290	J_NC54.2_0280	J_NC54.2_0290	13.72	6.08
C_NC54.2_0300	J_NC54.2_0290	J_NC54.2_0300	130.77	3.94
C_NC54.2_0280	J_NC54.2_0270	J_NC54.2_0280	4.4	6.08
C_NC54.2_0270	J_NC54.2_0260	J_NC54.2_0270	4.62	6.08
C_NC54.2_0240	J_NC54.2_0230	J_NC54.2_0240	886.46	11.92

C_NC54.2_0230	J_NC54.2_0220	J_NC54.2_0230	43.68	11.92
C_NC54.2_0220	J_NC54.2_0210	J_NC54.2_0220	12.49	11.92
C_NC54.2-2.8_0020J	NC54.2-2.8_0020J	NC54.2-2.8_0010	4227.63	3.94
C_NC54.2-0.7_0010J	NC54.2_0095	J_NC54.2-0.7_0010	2462.53	3.94
C_NC54.4_0100	J_NC54.4_0100	J_NC54.4_0095	238.64	6.08
C_NC54.4_0110	J_NC54.4_0095	J_NC54.4_0110	518.89	6.08
C_NC54.4_0095	J_NC54.4_0090	J_NC54.4_0100	9.51	10.05
C_NC54.4_0090	J_NC54.4_0085	J_NC54.4_0090	1940.29	13.09
C_NC54.4_0060	J_NC54.4_0050	J_NC54.4_0065	99.2	14.96
C_NC54.4_0050	J_NC54.4_0030	J_NC54.4_0050	1432.69	18.7
C_NC54.4_0024	J_NC54.4_0023	J_NC54.4-0.3_0010	1339.18	28.04
C_NC54.4_0023	J_NC54.4_0020	J_NC54.4_0023	26.65	29.91
C_NC54.4_0020	J_NC54.4_0010	J_NC54.4_0020	263.42	29.91
C_NC54.4_0030	J_NC54.4-0.5_0030J	NC54.4_0030	601.91	18.7
C_NC54.4-0.5_0027J	NC54.4-0.5_0025J	NC54.4-0.5_0020	68.32	18.7
C_NC54.4-0.5_0028J	NC54.4-0.5_0020J	NC54.4-0.5_0030	6.76	18.7
C_NC54.4_0026	J_NC54.4-0.5_0010J	NC54.4-0.5_0025	177.3	18.7
C_NC54.4_0025	J_NC54.4-0.3_0010J	NC54.4-0.5_0010	560.2	22.44
C_NC54.4_0085	J_NC54.4_0080	J_NC54.4_0085	1458.31	14.96
C_NC54.4_0080	J_NC54.4_0070	J_NC54.4_0080	84.48	14.96
C_NC54.4_0065	J_NC54.4_0065	J_NC54.4_0060	1.71	14.96
C_NC54.4_0070	J_NC54.4_0060	J_NC54.4_0070	4.07	14.96
C_NC54.4_0130	J_NC54.4_0128	J_NC54.4_0140	232.22	5.96
C_NC54.4_0140	J_NC54.4_0140	J_NC54.4_0130	0.92	5.96
C_NC54.4_0150	J_NC54.4_0130	J_NC54.4_0150	16.75	5.96
C_NC54.4_0126	J_NC54.4_0123	J_NC54.4_0126	494.77	5.96
C_NC_1140	J_NC_1130	J_NC_1140	3002.93	78
C_NC_1150	J_NC_1140	J_NC55.55_0010	433.45	72
C_NC_1160	J_NC55.55_0010	J_NC_1160	54.71	72
C_NC_1170	J_NC_1160	J_NC_1170	5046.57	72
C_NC_1380	J_NC_1370	J_NC61.1_0010	1201.6	50.48
C_NC_1390	J_NC61.1_0010	J_NC_1390	1093.47	50.48
C_NC_1400	J_NC_1390	J_NC_1400	3941.35	44.87
C_NC_1410	J_NC_1400	J_NC62.5_0010	2287.36	39.26

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_1420	J_NC62.5_0010	J_NC63.3_0010	5308.19	39.26
C_NC_1470	J_NC64.0_0010	J_NC64.0_0020	486.57	33.65
C_NC_1460	J_NC63.8_0010	J_NC64.0_0010	1289.1	33.65
C_NC_1450	J_NC63.3_0030	J_NC63.8_0010	3726.45	33.65
C_NC_1440	J_NC63.3_0020	J_NC63.3_0030	5.36	33.65
C_NC_1430	J_NC63.3_0010	J_NC63.3_0020	19.36	39.26
C_NC_1640	J_NC68.2_0010	J_NC68.5_0010	1085.41	22.04
C_NC_1630	J_NC68.1_0010	J_NC68.2_0010	753.14	22.04

C_NC_1620	J_NC67.5_0010	J_NC68.1_0010	1288.59	22.04
C_NC_1600	J_NC67.4_0010	J_NC66.7_0010	2849.87	22.04
C_NC_1590	J_NC67.2_0010	J_NC67.4_0010	999.25	22.04
C_NC_1580	J_NC66.9_0010	J_NC67.2_0010	1837.77	22.04
C_NC_1570	J_NC66.5_0010	J_NC66.9_0010	1406.95	22.04
C_NC_1550	J_NC66.2_0020	J_NC66.2_0010	5.18	22.04
C_NC_1560	J_NC66.2_0010	J_NC66.5_0010	2244.95	22.04
C_NC_1540	J_NC65.9_0010	J_NC66.2_0020	1305.91	22.04
C_NC_1530	J_NC65.7_0010	J_NC65.9_0010	837.47	22.04
C_NC_1520	J_NC65.5_0010	J_NC65.7_0010	885.66	22.04
C_NC_1500	J_NC64.5_0020	J_NC_1500	1590.29	33.65
C_NC_1510	J_NC_1500	J_NC65.5_0005	668.43	22.04
C_NC_1490	J_NC64.5_0010	J_NC64.5_0020	19.99	33.65
C_NC_1480	J_NC64.0_0020	J_NC64.5_0010	2811.02	33.65
C_NC_1680	J_NC69.5_0010	J_NC69.8_0010	2057.04	21.58
C_NC_1670	J_NC69.2_0010	J_NC69.5_0010	1422.56	22.04
C_NC_1660	J_NC68.8_0010	J_NC69.2_0010	1619.98	22.04
C_NC_1650	J_NC68.5_0010	J_NC68.8_0010	1828.51	22.04
C_NC_1710	J_NC70.2_0010	J_NC70.5_0010	1575.15	21.58
C_NC_1700	J_NC70.1_0010	J_NC70.2_0010	548.16	21.58
C_NC_1690	J_NC69.8_0010	J_NC70.1_0010	1200.59	21.58
C_NC_1190	J_NC_1180	J_NC57.4_0010	2874.62	72
C_NC_1230	J_NC57.7_0010	J_NC58.0_0020	4396.42	58.89
C_NC_1220	J_NC57.4_0030	J_NC57.7_0010	1429.72	58.89
C_NC_1210	J_NC57.4_0020	J_NC57.4_0030	13.69	58.89
C_NC_1200	J_NC57.4_0010	J_NC57.4_0020	16.34	58.89
C_NC_1240	J_NC58.0_0020	J_NC58.0_0010	33.39	58.89
C_NC_1250	J_NC58.0_0010	J_NC_1250	235.6	58.89
C_NC_1270	J_NC_1260	J_NC_1270	268.3	58.89
C_NC_1280	J_NC_1270	J_NC58.8_0010	102.46	58.89
C_NC_1310	J_NC58.8_0030	J_NC_1310	195.08	58.89
C_NC_1300	J_NC58.8_0020	J_NC58.8_0030	1473.77	58.89
C_NC_1290	J_NC58.8_0010	J_NC58.8_0020	660.08	58.89
C_NC_1330	J_NC_1320	J_NC_1330	813.71	58.89
C_NC_1350	J_NC_1340	J_NC60.5_0010	2505.04	50.48
C_NC_1340	J_NC_1330	J_NC_1340	2424.21	58.89
C_NC_1360	J_NC60.5_0010	J_NC_1360	2016.39	50.48
C_NC55.5_0020	J_NC55.5_0015	J_NC55.6-0.1_0020	64.56	18.7
C_NC55.5_0023	J_NC55.6-0.1_0020	J_NC55.5_0023	329.01	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.5_0026	J_NC55.5_0023	J_NC55.5_0026	421.09	13.09
C_NC55.5-0.1-0.7_0010	J_NC55.5_0023	J_NC55.6-0.1-0.7_0010	14.78	14.96
C_NC55.6-0.1-0.7_0055	J_NC55.6-0.1-0.7_0045	J_NC55.6-0.1-0.7_0055	193.17	

3.94
C_NC55.6-0.1-0.7_0045J_NC55.6-0.1-0.7_0040J_NC55.6-0.1-0.7_0045 18.8
3.94
C_NC55.6-0.1-0.7_0040J_NC55.6-0.1-0.7_0030J_NC55.6-0.1-0.7_0040 72.55
8.06
C_NC55.6-0.1-0.7_0030J_NC55.6-0.1-0.7_0020J_NC55.6-0.1-0.7_0030 1284.76
14.96
C_NC55.6-0.1-0.7_0020J_NC55.6-0.1-0.7_0010J_NC55.6-0.1-0.7_0020 885.14
14.96
C_NC55.6_0010 J_NC55.6_0005 J_NC55.6_0010 252.08 44.87
C_NC55.6_0020 J_NC55.6_0010 J_NC55.6_0020 1014.17 39.26
C_NC55.6_0070 J_NC55.6_0060 J_NC55.6_0070 2288.85 24.3
C_NC55.6_0060 J_NC55.6_0050 J_NC55.6_0060 16.81 24.3
C_NC55.6_0040 J_NC55.6_0040 J_NC55.6_0030 0.08 26.17
C_NC55.6_0035 J_NC55.6_0035 J_NC55.6_0040 10.14 28.04
C_NC55.6_0050 J_NC55.6_0030 J_NC55.6_0050 4436.46 26.17
C_NC55.6_0030 J_NC55.6_0025 J_NC55.6_0035 797.46 29.91
C_NC55.6_0075 J_NC55.6_0070 J_NC55.6-2.4_0010 1339.42 24.3
C_NC55.6_0078 J_NC55.6-2.4_0010J_NC55.6-2.6_0010 1055.85 22.44
C_NC55.6_0022 J_NC55.6_0020 J_NC55.6_0022 1437.28 39.26
C_NC55.6_0025 J_NC55.6_0022 J_NC55.6_0025 220.74 29.91
C_NC55.6-3.3_0010J_NC55.6_0155 J_NC55.6-3.3_0010 3.6 3.94
C_NC55.6-3.3_0020J_NC55.6-3.3_0010J_NC55.6-3.3_0020 909.61 3.94
C_NC55.6_0140 J_NC55.6_0135 J_NC55.6_0140 17.08 22.44
C_NC55.6_0188 J_NC55.6_0187 J_NC55.6_0188 10.15 11.92
C_NC55.6_0187 J_NC55.6_0185 J_NC55.6_0187 58.93 14.96
C_NC55.6_0180 J_NC55.6_0180 J_NC55.6_0170 2.28 14.96
C_NC55.6_0185 J_NC55.6_0170 J_NC55.6_0185 1152.65 14.96
C_NC55.6_0170 J_NC55.6_0160 J_NC55.6_0180 363.29 14.96
C_NC55.6_0155 J_NC55.6_0150 J_NC55.6_0155 339.03 14.96
C_NC55.6_0160 J_NC55.6_0155 J_NC55.6_0160 1385.04 14.96
C_NC55.6_0150 J_NC55.6_0140 J_NC55.6_0150 0.02 16.83
C_NC55.6_0190 J_NC55.6_0189 J_NC55.6_0190 1239.8 11.92
C_NC55.6_0230 J_NC55.6_0225 J_NC55.6_0230 2050.33 6.08
C_NC55.6_0225 J_NC55.6_0220 J_NC55.6_0225 67.54 6.08
C_NC55.6_0220 J_NC55.6_0210 J_NC55.6_0220 1074.91 10.05
C_NC55.6_0210 J_NC55.6_0200 J_NC55.6_0210 874.45 11.92
C_NC55.6_0200 J_NC55.6_0190 J_NC55.6_0200 453.86 11.92
C_NC55.6-0.5_0010J_NC55.6_0022 J_NC55.6-0.5_0010 13.09 24.3
C_NC55.6-0.5_0015J_NC55.6-0.5_0010J_NC55.6-0.5_0015 783.47 24.3
C_NC55.6-0.5_0093J_NC55.6-0.5_0090J_NC55.6-0.5_0093 4.38 22.44
C_NC55.6-0.5_0090J_NC55.6-0.5_0080J_NC55.6-0.5_0090 1.5 22.44
C_NC55.6-0.5_0080J_NC55.6-0.5_0070J_NC55.6-0.5_0080 191.56 22.44
C_NC55.6-0.5_0070J_NC55.6-0.5_0060J_NC55.6-0.5_0070 301.02 22.44
C_NC55.6-0.5_0060J_NC55.6-0.5_0050J_NC55.6-0.5_0060 1146.58 22.44
C_NC55.6-0.5_0040J_NC55.6-0.5_0040J_NC55.6-0.5_0030 7 24.3
C_NC55.6-0.5_0050J_NC55.6-0.5_0030J_NC55.6-0.5_0050 0.37 22.44
C_NC55.6-0.5_0030J_NC55.6-0.5_0020J_NC55.6-0.5_0040 1537.78 24.3
C_NC55.6-0.5_0020J_NC55.6-0.5_0015J_NC55.6-0.5_0020 879.93 24.3

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.6-0.5_0097J_NC55.6-0.5_0095J_NC55.6-0.5_0097			385.34	22.44
C_NC55.6-0.5_0100J_NC55.6-0.5_0097J_NC55.6-0.5_0100			305.77	22.44
C_NC55.6-0.5_0145J_NC55.6-0.5_0140J_NC55.6-0.5_0145			1053.8	18.7
C_NC55.6-0.5_0150J_NC55.6-0.5_0145J_NC55.6-0.5_0150			550.95	14.96
C_NC55.6-0.5_0140J_NC55.6-0.5_0130J_NC55.6-0.5_0140			2.75	18.7
C_NC55.6-0.5_0130J_NC55.6-0.5_0110J_NC55.6-0.5_0130			1562.46	18.7
C_NC55.6-0.5_0110J_NC55.6-0.5_0105J_NC55.6-0.5_0110			667.79	18.7
C_NC55.6-0.5_0105J_NC55.6-0.5_0100J_NC55.6-0.5_0105			193.02	18.7
C_NC55.6-0.5_0175J_NC55.6-0.5_0170J_NC55.6-0.5_0175			1.17	11.92
C_NC55.6-0.5_0160J_NC55.6-0.5_0160J_NC55.6-0.5_0155			6.55	13.09
C_NC55.6-0.5_0170J_NC55.6-0.5_0155J_NC55.6-0.5_0170			1292.06	13.09
C_NC55.6-0.5_0155J_NC55.6-0.5_0150J_NC55.6-0.5_0160			3.11	13.09
C_NC55.6-0.5_0183J_NC55.6-0.5_0183J_NC55.6-0.5_0180			5.83	10.05
C_NC55.6-0.5_0230J_NC55.6-0.5_0230J_NC55.6-0.5_0220			7.81	6.08
C_NC55.6-0.5_0240J_NC55.6-0.5_0220J_NC55.6-0.5_0240			804.57	6.08
C_NC55.6-0.5_0210J_NC55.6-0.5_0210J_NC55.6-0.5_0200			6.74	8.06
C_NC55.6-0.5_0220J_NC55.6-0.5_0200J_NC55.6-0.5_0230			5.88	8.06
C_NC55.6-0.5_0200J_NC55.6-0.5_0185J_NC55.6-0.5_0210			194.77	10.05
C_NC55.6-0.5_0185J_NC55.6-0.5_0180J_NC55.6-0.5_0185			0.58	10.05
C_NC55.6-0.5-1.8_0010J_NC55.6-0.5_0097J_NC55.6-0.5-1.8_0010			3.54	3.94
C_NC55.6-0.5-1.8_0020J_NC55.6-0.5-1.8_0010J_NC55.6-0.5-1.8_0020			686.24	3.94
C_NC55.6-0.5-2.6_0010J_NC55.6-0.5_0145J_NC55.6-0.5-2.6_0010			6.67	11.92
C_NC55.6-0.5-2.6_0045J_NC55.6-0.5-2.6_0040J_NC55.6-0.5-2.6_0045			18.51	10.05
C_NC55.6-0.5-2.6_0040J_NC55.6-0.5-2.6_0030J_NC55.6-0.5-2.6_0040			1027.9	10.05
C_NC55.6-0.5-2.6_0030J_NC55.6-0.5-2.6_0020J_NC55.6-0.5-2.6_0030			99.36	10.05
C_NC55.6-0.5-2.6_0020J_NC55.6-0.5-2.6_0010J_NC55.6-0.5-2.6_0020			903.06	11.92
C_NC58.7_0020	J_NC58.7_0010	J_NC58.7_0020	511.47	13.09
C_NC58.7_0023	J_NC58.7_0020	J_NC58.7_0023	1818.47	11.92
C_NC58.7-0.7_0010J_NC58.7_0026		J_NC58.7-0.7_0010	3.02	10.05
C_NC58.7-0.7_0040J_NC58.7-0.7_0030J_NC58.7-0.7_0040			1010.49	3.94
C_NC58.7-0.7_0030J_NC58.7-0.7_0020J_NC58.7-0.7_0030			9.98	3.94
C_NC58.7-0.7_0020J_NC58.7-0.7_0010J_NC58.7-0.7_0020			212.52	8.06
C_NC58.7_0030	J_NC58.7_0026	J_NC58.7_0030	625.79	6.08
C_NC59.5_0020	J_NC59.5_0010	J_NC59.5_0020	3753.53	13.09
C_NC59.5_0050	J_NC59.5_0045	J_NC59.5_0050	2095.72	10.05
C_NC60.0_0005	J_NC60.0_0003	J_NC60.0_0005	101.87	33.65
C_NC60.0_0050	J_NC60.0_0040	J_NC60.0_0050	338.18	29.91
C_NC60.0_0025	J_NC60.0_0020	J_NC60.0_0025	2825.67	33.65

C_NC60.0_0020	J_NC60.0_0010	J_NC60.0_0020	96.09	33.65
C_NC60.0_0010	J_NC60.0_0005	J_NC60.0_0010	98.5	33.65
C_NC60.0_0040	J_NC60.0-0.6_0030	J_NC60.0_0040	1131.89	29.91
C_NC60.0_0060	J_NC60.0_0050	J_NC60.0_0060	2606.81	24.3
C_NC60.0_0080	J_NC60.0_0060	J_NC60.0_0080	688.43	24.3
C_NC60.0-0.9-0.2_0010	J_NC60.0-0.9_0025	J_NC60.0-0.9_0030	3.57	10.05
C_NC60.0-0.9-0.2_0030	J_NC60.0-0.9_0040	J_NC60.0-0.9-0.2_0030	1289.54	8.06
C_NC60.0-0.9-0.2_0020	J_NC60.0-0.9_0030	J_NC60.0-0.9_0040	3.76	8.06
C_NC60.0-0.9_0010	J_NC60.0_0050	J_NC60.0-0.9_0010	0.25	16.83

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0-0.9_0025	J_NC60.0-0.9_0020	J_NC60.0-0.9_0025	1295.28	16.83
C_NC60.0-0.9-0.4_0010	J_NC60.0-0.9_0057	J_NC60.0-0.9-0.4_0010	17.08	8.06
C_NC60.0-0.9-0.4_0020	J_NC60.0-0.9-0.4_0010	J_NC60.0-0.9-0.4_0020	1797.09	8.06
C_NC60.0-0.9_0030	J_NC60.0-0.9_0025	J_NC60.0-0.9_0050	44.15	13.09
C_NC60.0-0.9_0057	J_NC60.0-0.9_0050	J_NC60.0-0.9_0057	1109.93	11.92
C_NC60.0-0.6_0010	J_NC60.0_0025	J_NC60.0-0.6_0020	1.57	14.96
C_NC60.0-0.6_0020	J_NC60.0-0.6_0020	J_NC60.0-0.6_0010	9.24	11.92
C_NC60.0-0.6_0030	J_NC60.0-0.6_0010	J_NC60.0-0.6_0040	1147.41	11.92
C_NC60.0-1.6_0020	J_NC60.0-1.6_0015	J_NC60.0-1.6_0020	5.7	16.83
C_NC60.0-1.6_0025	J_NC60.0-1.6_0020	J_NC60.0-1.6_0025	689.54	13.09
C_NC60.0-1.6-0.7_0020	J_NC60.0-1.6-0.7_0010	J_NC60.0-1.6-0.7_0050	488.83	10.05
C_NC60.0-1.6_0040	J_NC60.0-1.6_0030	J_NC60.0-1.6-0.7_0020	220.08	10.05
C_NC60.0_0090	J_NC60.0_0083	J_NC60.0_0090	2169.06	16.83
C_NC60.0_0140	J_NC60.0_0130	J_NC60.0_0140	1147.84	16.53
C_NC60.0_0130	J_NC60.0_0120	J_NC60.0_0130	10.11	16.83
C_NC60.0_0120	J_NC60.0_0110	J_NC60.0_0120	1404.02	16.83
C_NC60.0_0110	J_NC60.0_0100	J_NC60.0_0110	10.33	16.83
C_NC60.0_0100	J_NC60.0_0090	J_NC60.0_0100	62.36	16.83
C_NC60.0_0150	J_NC60.0_0145	J_NC60.0_0147	123.33	16.53
C_NC60.0_0145	J_NC60.0_0140	J_NC60.0_0145	19.16	16.53
C_LL_0140	J_LL_0130	J_LL_0140	30.07	11.71
C_LL_0130	J_LL_0120	J_LL_0130	168.08	12.86
C_LL_0120	J_LL_0110	J_LL_0120	699.17	12.86
C_LL_0110	J_LL_0100	J_LL_0110	836.24	12.86
C_LL_0100	J_LL_0090	J_LL_0100	789.9	12.86
C_LL_0090	J_LL_0080	J_LL_0090	1531.89	12.86
C_LL_0080	J_LL_0075	J_LL_0080	103.26	14.7
C_LL_0075	J_LL_0070	J_LL_0075	53.3	14.7
C_LL_0050	J_LL_0040	J_LL_0050	1754.93	14.7
C_LL_0040	J_LL_0030	J_LL_0040	210.03	14.7
C_LL_0020	J_LL_0010	J_LL_0020	211.31	16.53

C_LL_0010	J_LL_0005	J_LL_0010	51.12	16.53
C_LL_0004	J_ML_0000	J_LL_0005	339.15	16.53
C_HL_0040	J_HL0.5_0015	J_HL_0040	322.22	58.89
C_HL_0030	J_HL0.5_0010	J_HL0.5_0015	450.67	58.89
C_HL_0020	J_HL0.2_0010	J_HL0.5_0010	1216.07	58.89
C_HL_0010	J_HL0.1_0010	J_HL0.2_0010	410.15	58.89
C_HL_0270	J_HL_0265	J_HL_0270	95.84	50.48
C_HL_0080	J_HL1.8_0010	J_HL1.9_0010	730.09	50.48
C_HL_0070	J_HL_0060	J_HL1.8_0010	4305.85	50.48
C_HL_0060	J_HL_0050	J_HL_0060	578.89	58.89
C_HL_0160	J_HL_0150	J_HL3.4_0010	562.88	50.48
C_HL_0150	J_HL3.1_0010	J_HL_0150	865.18	50.48
C_HL_0140	J_HL_0130	J_HL3.1_0010	792.97	50.48
C_HL_0120	J_HL_0110	J_HL_0115	1259.65	50.48
C_HL_0130	J_HL_0120	J_HL_0130	728.38	50.48
C_HL_0110	J_HL2.4_0015	J_HL_0110	420.29	50.48

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL_0090	J_HL1.9_0010	J_HL2.4_0010	2342.85	50.48
C_HL_260	J_HL5.3_0015	J_HL_0265	760.45	50.48
C_HL_0240	J_HL4.7_0010	J_HL5.3_0010	3313.51	50.48
C_HL_0230	J_HL4.6_0010	J_HL4.7_0010	2617.44	50.48
C_HL_0210	J_HL4.6_0005	J_HL4.6_0010	478.32	50.48
C_HL_0200	J_HL4.0_0010	J_HL4.6_0005	2340.18	50.48
C_HL_0190	J_HL3.9_0010	J_HL4.0_0010	212.35	50.48
C_HL_0180	J_HL3.7_0010	J_HL3.9_0010	1098.17	50.48
C_HL_0290	J_HL_0280	J_HL5.5_0015	241.15	50.48
C_HL_0380	J_HL6.9_0010	J_HL_0380	1478.43	39.26
C_HL_0390	J_HL_0380	J_HL7.7_0010	2149.9	28.04
C_HL_0370	J_HL6.7_0020	J_HL6.9_0010	1413.51	39.26
C_HL_0360	J_HL6.4_0020	J_HL6.7_0020	1214.36	44.87
C_HL_0350	J_HL6.4_0010	J_HL6.4_0020	187.77	44.87
C_HL_0340	J_HL5.8_0010	J_HL6.4_0010	2263.68	44.87
C_HL_0330	J_HL5.7_0010	J_HL5.8_0010	488.2	44.87
C_HL_0320	J_HL_0305	J_HL5.7_0010	2043.55	44.87
C_HL_0300	J_HL5.5_0015	J_HL_0300	549.66	50.48
C_HL_0310	J_HL_0300	J_HL_0305	184.31	44.87
C_HL_0480	J_HL9.0_0010	J_HL9.0_0020	1056.69	26.17
C_HL_0470	J_HL8.8_0010	J_HL9.0_0010	959.33	26.17
C_HL_0460	J_HL8.6_0010	J_HL8.8_0010	1047.08	26.17
C_HL_0450	J_HL8.4_0010	J_HL8.6_0010	806.59	26.17
C_HL_0440	J_HL8.1_0020	J_HL8.4_0010	1265.33	26.17
C_HL_0430	J_HL8.1_0010	J_HL8.1_0020	71.88	26.17
C_HL_0420	J_HL7.7_0030	J_HL8.1_0010	1180.75	28.04

C_HL_0410	J_HL7.7_0020	J_HL7.7_0030	611.57	28.04
C_HL_0400	J_HL7.7_0010	J_HL7.7_0020	13.72	28.04
C_HL_0570	J_HL_0567	J_HL_0570	1027.37	13.09
C_HL_0580	J_HL_0570	J_HL11.4_0010	1547.4	10.05
C_HL_0560	J_HL_0565	J_HL_0567	82.46	13.09
C_HL_0550	J_HL10.6_0010	J_HL_0565	1068.38	14.96
C_HL_0540	J_HL10.1_0010	J_HL10.6_0010	1996.42	16.83
C_HL10.0_0010	J_HL9.9_0020	J_HL10.0_0010	734.08	16.83
C_HL_0530	J_HL_0520	J_HL10.1_0010	69.13	16.83
C_HL_0510	J_HL9.9_0010	J_HL9.9_0020	30.46	16.83
C_HL_0500	J_HL_0490	J_HL9.9_0010	2362.85	18.7
C_HL_0490	J_HL9.0_0020	J_HL_0490	1101.69	24.3
C_HL_0600	J_HL11.5_0010	J_HL_0600	301.49	8.06
C_HL_0590	J_HL11.4_0010	J_HL11.5_0010	1197.15	10.05
C_NC62.1_0010	J_NC62.1_0005	J_NC62.1_0010	216.65	22.44
C_NC62.1_0042	J_NC62.1_0040	J_NC62.1_0042	4.89	10.05
C_NC62.1_0040	J_NC62.1_0030	J_NC62.1_0040	2.41	11.92
C_NC62.1_0025	J_NC62.1_0020	J_NC62.1_0025	2524.71	18.7
C_NC62.1_0030	J_NC62.1_0025	J_NC62.1_0030	569.35	13.09
C_NC62.1_0020	J_NC62.1_0010	J_NC62.1_0020	17.44	18.7
C_NC62.1_0048	J_NC62.1_0046	J_NC62.1_0048	460.09	10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC62.1-0.5_0010	J_NC62.1_0025	J_NC62.1-0.5_0010	6.46	14.96
C_NC62.1-0.5_0050	J_NC62.1-0.5_0040	J_NC62.1-0.5_0050	23.23	6.08
C_NC62.1-0.5_0040	J_NC62.1-0.5_0030	J_NC62.1-0.5_0040	127.7	6.08
C_NC62.1-0.5_0030	J_NC62.1-0.5_0020	J_NC62.1-0.5_0030	1190.56	10.05
C_NC62.1-0.5_0020	J_NC62.1-0.5_0015	J_NC62.1-0.5_0020	102.43	13.09
C_NC62.1-0.5_0015	J_NC62.1-0.5_0010	J_NC62.1-0.5_0015	731.71	14.96
C_NC64.7_0005	J_NC_1500	J_NC64.7_0005	2168.21	13.09
C_HL0.9_0005	J_HL_0060	J_HL0.6_0010	11.58	18.7
C_HL0.9_0100	J_HL0.9_0090	J_HL0.9_0100	589.73	8.06
C_HL0.9_0090	J_HL0.9_0086	J_HL0.9_0090	1672.5	8.06
C_HL0.9_0086	J_HL0.9_0085	J_HL0.9_0086	13.31	8.06
C_HL0.9_0080	J_HL0.9_0080	J_HL0.9_0070	0.57	13.09
C_HL0.9_0085	J_HL0.9_0070	J_HL0.9_0085	10.58	10.05
C_HL0.9_0070	J_HL0.9_0060	J_HL0.9_0080	1706.28	10.05
C_HL0.9_0060	J_HL0.9_0045	J_HL0.9_0060	957.03	10.05
C_HL0.9_0045	J_HL0.9_0040	J_HL0.9_0045	0.66	14.96
C_HL0.9_0040	J_HL0.9_0030	J_HL0.9_0040	1290.25	11.92
C_HL0.9_0010	J_HL0.6_0010	J_HL0.6_0008	4.18	11.92
C_HL0.9_0030	J_HL0.6_0008	J_HL0.9_0030	1310.2	11.92
C_HL0.9_0130	J_HL0.9_0120	J_HL0.9_0130	89.14	6.08
C_HL0.9_0120	J_HL0.9_0100	J_HL0.9_0120	1053.92	8.06

C_ML_0020	J_ML_0010	J_ML0.06_0010	90.34	44.87
C_ML_0050	J_ML0.08_0010	J_ML_0050	961.57	44.87
C_ML_0040	J_ML0.07_0010	J_ML0.08_0010	152.88	44.87
C_ML_0030	J_ML0.06_0010	J_ML0.07_0010	132.63	44.87
C_ML_0070	J_ML_0060	J_ML0.2_0010	662.24	44.87
C_ML_0090	J_ML0.2_0020	J_ML_0090	1364.54	44.87
C_ML_0100	J_ML_0090	J_ML0.4_0010	555.58	44.87
C_ML_0080	J_ML0.2_0010	J_ML0.2_0020	15.31	44.87
C_ML_0120	J_ML0.5_0010	J_ML0.7_0010	769.53	44.87
C_ML_0110	J_ML0.4_0010	J_ML0.5_0010	720.25	44.87
C_ML_0190	J_ML1.3_0030	J_ML_0190	14.57	44.87
C_ML_0200	J_ML_0190	J_ML1.3_0035	70.1	31.78
C_ML_0210	J_ML1.3_0035	J_ML_0210	412.15	31.78
C_ML_0180	J_ML1.3_0025	J_ML1.3_0030	40.61	44.87
C_ML_0170	J_ML1.3_0020	J_ML1.3_0025	3.93	44.87
C_ML_0160	J_ML1.3_0010	J_ML1.3_0020	9.58	44.87
C_ML_0150	J_ML1.1_0010	J_ML1.3_0010	506.39	44.87
C_ML_0130	J_ML0.7_0010	J_ML_0130	916.62	44.87
C_ML_0140	J_ML_0130	J_ML1.1_0010	1381.1	44.87
C_CL_0005	J_ML_0190	J_CL_0005	8.19	26.17
C_CL_0007	J_CL_0005	J_CL_0007	619.17	26.17
C_CL_0010	J_CL_0008	J_CL0.0_0010	26.14	26.17
C_CL_0060	J_CL0.66_0010	J_CL_0060	16.21	23.88
C_CL_0050	J_CL0.35_0020	J_CL0.66_0010	1215.61	25.72
C_CL_0030	J_CL0.35_0010	J_CL0.35_0020	14.03	25.72
C_CL_0020	J_CL0.0_0010	J_CL0.35_0010	1893.81	25.72

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_CL_0080	J_CL_0070	J_CL1.03_0010	3.87	23.88
C_CL_0090	J_CL1.03_0010	J_CL_0090	1260.53	23.88
C_CL1.84_0035	J_CL1.84_0030	J_CL1.84_0035	2158.91	11.71
C_CL1.84_0040	J_CL1.84_0035	J_CL1.84_0050	753.28	6.19
C_CL1.84_0070	J_CL1.84_0060	J_CL1.84_0070	32.69	3.94
C_CL1.84_0050	J_CL1.84_0050	J_CL1.84_0040	3.04	6.08
C_CL1.84_0060	J_CL1.84_0040	J_CL1.84_0060	19.05	3.94
C_CL_0130	J_CL_0120	J_CL1.51_0010	268.61	22.04
C_CL_0180	J_CL1.56_0020	J_CL_0180	25.05	22.04
C_CL_0190	J_CL_0180	J_CL_0190	1094.29	18.37
C_CL1.84_0020	J_CL_0190	J_CL1.84_0020	10.16	14.7
C_CL_0160	J_CL1.56_0016	J_CL1.56_0015	4.24	22.04
C_CL_0170	J_CL1.56_0015	J_CL1.56_0020	191.77	22.04
C_CL_0150	J_CL1.56_0010	J_CL1.56_0016	189.08	22.04
C_CL_0140	J_CL1.51_0010	J_CL1.56_0010	200.93	22.04
C_ML0.7_0020	J_ML0.2_0015	J_ML0.7_0020	201.72	10.05

C_ML0.7_0053	J_ML0.7_0050	J_ML0.7_0055	945.66	6.08
C_ML0.7_0050	J_ML0.7_0045	J_ML0.7_0050	1438.77	6.08
C_ML0.7_0040	J_ML0.7_0030	J_ML0.7_0040	14.74	8.06
C_ML0.7_0030	J_ML0.7_0020	J_ML0.7_0030	1314.84	8.06
C_CL1.74_0040	J_CL1.74_0020	J_CL1.74_0040	446.03	11.71
C_CL1.74_0055	J_CL1.74_0050	J_CL1.74_0055	4.11	6.08
C_CL1.74_0050	J_CL1.74_0040	J_CL1.74_0050	869.97	7.92
C_CL1.84-0.55_0010	J_CL1.84_0035	J_CL1.84-0.55_0010	1807.64	9.87
C_CL1.84-0.55_0025	J_CL1.84-0.55_0020	J_CL1.84-0.55_0025	4.51	11.71
C_CL1.84-0.55_0020	J_CL1.84-0.55_0010	J_CL1.84-0.55_0020	465.49	9.87
C_ML_0240	J_ML_0230	J_ML1.5_0020	17.82	31.78
C_ML_0340	J_ML2.2_0015	J_ML2.4_0010	977.83	28.04
C_ML_0320	J_ML2.1_0015	J_ML2.2_0010	352.64	29.91
C_ML_0300	J_ML2.0_0020	J_ML2.1_0010	610.28	29.91
C_ML_0280	J_ML1.8_0010	J_ML_0280	714.77	31.78
C_ML_0290	J_ML_0280	J_ML2.0_0020	17.03	29.91
C_ML_0270	J_ML1.7_0010	J_ML1.8_0010	294.4	31.78
C_ML_0250	J_ML1.5_0020	J_ML1.5_0015	134.54	31.78
C_ML_0260	J_ML1.5_0015	J_ML1.7_0010	813.74	31.78
C_ML_0400	J_ML3.3_0010	J_ML_0400	564.29	14.96
C_ML4.1_0002	J_ML_0410	J_ML4.1_0002	218.46	10.05
C_ML_0410	J_ML_0400	J_ML_0410	2177.21	14.96
C_ML_0390	J_ML3.1_0020	J_ML3.3_0010	1746.13	16.83
C_ML_0380	J_ML2.8_0020	J_ML3.1_0020	1317.16	28.04
C_ML_0370	J_ML2.8_0010	J_ML2.8_0020	37.85	28.04
C_ML_0360	J_ML2.7_0010	J_ML2.8_0010	581.85	28.04
C_ML_0350	J_ML2.5_0010	J_ML2.7_0010	829.51	28.04
C_ML_0345	J_ML2.4_0010	J_ML2.5_0010	439.5	28.04
C_ML3.1_0020	J_ML3.1_0030	J_ML3.1_0045	2.72	22.44
C_ML3.1_0030	J_ML3.1_0045	J_ML3.1_0040	0.11	22.44
C_ML3.1_0040	J_ML3.1_0040	J_ML3.1_0010	1.48	22.44

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_ML3.1_0047	J_ML3.1_0010	J_ML3.1_0047	1537.66	14.96
C_ML3.1_0080	J_ML3.1_0076	J_ML3.1_0080	2629.36	11.71
C_ML3.1_0098	J_ML3.1_0090	J_ML3.1_0100	1333.92	9.87
C_ML3.1_0090	J_ML3.1_0080	J_ML3.1_0090	11.7	9.87
C_ML3.1_0120	J_ML3.1_0110	J_ML3.1_0120	646.71	7.92
C_ML3.1_0110	J_ML3.1_0100	J_ML3.1_0110	1527.6	7.92
C_ML3.1_0125	J_ML3.1_0120	J_ML3.1_0125	3.3	7.92
C_ML4.0_0010	J_ML_0410	J_ML4.0_0010	1148.93	11.92
C_ML4.0_0015	J_ML4.0_0010	J_ML4.0_0015	1073.14	11.92
C_ML4.0_0070	J_ML4.0_0050	J_ML4.0_0070	71.71	6.08
C_ML4.0_0080	J_ML4.0_0070	J_ML4.0_0080	1401.47	6.08

C_ML4.1_0010	J_ML4.1_0004	J_ML4.1_0010	23.37	10.05
C_ML4.1_0070	J_ML4.1_0060	J_ML4.1_0070	6.97	6.08
C_ML4.1_0060	J_ML4.1_0050	J_ML4.1_0060	749.12	8.06
C_ML4.1_0050	J_ML4.1_0040	J_ML4.1_0050	761.6	8.06
C_ML4.1_0040	J_ML4.1_0030	J_ML4.1_0040	159.8	10.05
C_ML4.1_0030	J_ML4.1_0010	J_ML4.1_0030	383.97	10.05
C_HL5.5_0005	J_HL_0300	J_HL5.5_0017	11.98	16.83
C_HL5.5_0030	J_HL5.5_0030	J_HL5.5_0020	0.61	16.83
C_HL5.5_0033	J_HL5.5_0020	J_HL5.5_0033	159.82	14.96
C_HL5.5_0020	J_HL5.5_0010	J_HL5.5_0030	5.95	16.83
C_HL5.5_0010	J_HL5.5_0017	J_HL5.5_0010	218.29	16.83
C_HL5.5_0070	J_HL5.5_0065	J_HL5.5_0070	36.79	11.92
C_Hl5.5_0080	J_HL5.5_0070	J_Hl5.5_0080	1102.92	11.92
C_HL5.5_0100	J_HL5.5_0100	J_HL5.5_0090	1.45	8.06
C_HL5.5_0110	J_HL5.5_0090	J_HL5.5_0110	7.77	8.06
C_Hl5.5_0090	J_Hl5.5_0080	J_HL5.5_0100	1147.37	10.05
C_HL_0620	J_HL_0610	J_HL11.5_0020	170.63	8.06
C_HL_0650	J_HL11.7_0010	J_HL_0650	1570.22	7.75
C_HL_0640	J_HL11.6_0010	J_HL11.7_0010	495.12	8.06
C_HL_0630	J_HL11.5_0020	J_HL11.6_0010	852.18	8.06
C_HL6.4_0010	J_HL6.4_0020	J_HL6.4_0025	755	18.7
C_NC43.2-14.7_0050	J_NC43.2-14.7_0045	J_NC43.2-14.7_0050	11.22	18.7
C_NC43.2-14.7_0090	J_NC43.2-14.7_0080	J_NC43.2-14.7_0090	3.85	6.08
C_NC43.2-14.7_0080	J_NC43.2-14.7_0070	J_NC43.2-14.7_0080	0.35	6.08
C_NC43.2-14.7_0070	J_NC43.2-14.7_0060	J_NC43.2-14.7_0070	3.62	13.09
C_NC43.2-14.7_0060	J_NC43.2-14.7_0050	J_NC43.2-14.7_0060	4326.02	16.83
C_NC43.2-3.8_0010	J_NC43.2_0055	J_NC43.2-3.8_0010	15.26	18.7
C_NC43.2-3.8_0043	J_NC43.2-3.8_0040	J_NC43.2-3.8_0043	1368.43	10.05
C_NC43.2-3.8_0040	J_NC43.2-3.8_0030	J_NC43.2-3.8_0040	5.25	10.05
C_NC43.2-3.8_0025	J_NC43.2-3.8_0020	J_NC43.2-3.8_0025	3.01	14.96
C_NC43.2-3.8_0030	J_NC43.2-3.8_0025	J_NC43.2-3.8_0030	6.13	10.05
C_NC43.2-3.8_0020	J_NC43.2-3.8_0010	J_NC43.2-3.8_0020	30.67	14.96
C_NC43.2-12.7_0010	J_NC43.2_0260	J_NC43.2-12.7_0010	12	14.96
C_NC43.2-12.7_0024	J_NC43.2-12.7_0020	J_NC43.2-12.7_0024	316.71	14.96
C_NC43.2-12.7_0020	J_NC43.2-12.7_0010	J_NC43.2-12.7_0020	945.09	14.96
C_NC43.2-12.7_0040	J_NC43.2-12.7_0030	J_NC43.2-12.7_0050	759.26	13.09

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2-12.7_0050	J_NC43.2-12.7_0050	J_NC43.2-12.7_0040	60.32	6.08
C_NC43.2-12.7_0060	J_NC43.2-12.7_0040	J_NC43.2-12.7_0060	8.98	6.08
C_NC43.2-11.6_0010	J_NC43.2_0240	J_NC43.2-11.6_0010	7.73	11.92
C_NC43.2-11.6_0045	J_NC43.2-11.6_0040	J_NC43.2-11.6_0045	32.74	6.08
C_NC43.2-11.6_0040	J_NC43.2-11.6_0030	J_NC43.2-11.6_0040	2691.46	6.08
C_NC43.2-11.6_0030	J_NC43.2-11.6_0020	J_NC43.2-11.6_0030	912.83	8.06

C_NC43.2-11.6_0020	J_NC43.2-11.6_0015	J_NC43.2-11.6_0020	60.33	10.05
C_NC43.2-11.6_0015	J_NC43.2-11.6_0010	J_NC43.2-11.6_0015	0.23	11.92
C_NC43.2-11.6_0060	J_NC43.2-11.6_0050	J_NC43.2-11.6_0060	717.85	6.08
C_HL7.2_0010	J_HL_0380	J_HL7.2_0030	5.04	28.04
C_HL7.2_0110	J_HL7.2_0100	J_HL7.2_0110	232	18.7
C_HL7.2E_0010	J_HL7.2_0110	J_HL7.2E_0010	431.86	14.96
C_HL7.2_0100	J_HL7.2_0090	J_HL7.2_0100	603.51	18.7
C_HL7.2_0088	J_HL7.2_0080	J_HL7.2_0090	1268.34	26.17
C_HL7.2_0080	J_HL7.2_0070	J_HL7.2_0080	1301.43	26.17
C_HL7.2_0070	J_HL7.2_0060	J_HL7.2_0070	1265.78	26.17
C_HL7.2_0060	J_HL7.2_0050	J_HL7.2_0060	35.27	28.04
C_HL7.2_0050	J_HL7.2_0040	J_HL7.2_0050	16.77	28.04
C_HL7.2_0020	J_HL7.2_0030	J_HL7.2_0010	6.04	28.04
C_HL7.2_0040	J_HL7.2_0020	J_HL7.2_0040	531.69	28.04
C_HL7.2_0030	J_HL7.2_0010	J_HL7.2_0020	0.69	28.04
C_HL7.2W_0010	J_HL7.2_0090	J_HL7.2W_0010	1376.75	14.96
C_HL7.2W_0083	J_HL7.2W_0080	J_HL7.2W_0083	342.6	7.92
C_HL7.2W_0080	J_HL7.2W_0070	J_HL7.2W_0080	582.62	9.87
C_HL7.2W_0070	J_HL7.2W_0060	J_HL7.2W_0070	2687.81	11.71
C_HL7.2W_0060	J_HL7.2W_0050	J_HL7.2W_0060	3.84	11.92
C_HL7.2W_0050	J_HL7.2W_0040	J_HL7.2W_0050	12.73	13.09
C_HL7.2W_0040	J_HL7.2W_0030	J_HL7.2W_0040	274.05	13.09
C_HL7.2W_0030	J_HL7.2W_0020	J_HL7.2W_0030	382.58	13.09
C_HL7.2W_0020	J_HL7.2W_0010	J_HL7.2W_0020	1028.87	14.96
C_HL7.2E_0073	J_HL7.2E_0070	J_HL7.2E_0073	423.19	11.92
C_HL7.2E_0070	J_HL7.2E_0060	J_HL7.2E_0070	14.95	11.92
C_HL7.2E_0060	J_HL7.2E_0050	J_HL7.2E_0060	3.7	11.92
C_HL7.2E_0050	J_HL7.2E_0040	J_HL7.2E_0050	616.99	13.09
C_HL7.2E_0040	J_HL7.2E_0030	J_HL7.2E_0040	11.68	14.96
C_HL7.2E_0030	J_HL7.2E_0010	J_HL7.2E_0030	841.3	14.96
C_HL7.2E_0080	J_HL7.2E_0077	J_HL7.2E_0090	4.36	11.92
C_HL7.2E_0110	J_HL7.2E_0100	J_HL7.2E_0110	1277.37	9.87
C_HL7.2E_0090	J_HL7.2E_0090	J_HL7.2E_0080	4.89	11.92
C_HL7.2E_0100	J_HL7.2E_0080	J_HL7.2E_0100	7.79	11.92
C_HL7.2E_0123	J_HL7.2E_0120	J_HL7.2E_0123	1079.05	7.92
C_HL7.2E_0120	J_HL7.2E_0110	J_HL7.2E_0120	968.81	7.92
C_HL7.2E_0130	J_HL7.2E_0127	J_HL7.2E_0130	168.73	7.92
C_HL7.2E_0160	J_HL7.2E_0160	J_HL7.2E_0150	34.36	6.08
C_HL7.2E_0170	J_HL7.2E_0150	J_HL7.2E_0170	19.75	6.08
C_HL7.2E_0140	J_HL7.2E_0130	J_HL2.7E_0140	949.72	6.08
C_HL7.2E_0150	J_HL2.7E_0140	J_HL7.2E_0160	1008.76	6.08

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL7.2W_0090	J_HL7.2W_0087	J_HL7.2W_0090	23.7	7.92

C_HL7.2W_0100	J_HL7.2W_0090	J_HL7.2W_0100	1248.44	7.92
C_HL7.2M_0010	J_HL7.2_0110	J_HL7.2M_0010	1491.68	11.71
C_HL7.2M_0100	J_HL7.2M_0090	J_HL7.2M_0100	612.42	6.08
C_HL7.2M_0090	J_HL7.2M_0080	J_HL7.2M_0090	17.22	6.08
C_HL7.2M_0080	J_HL7.2M_0070	J_HL7.2M_0080	8.98	6.08
C_HL7.2M_0060	J_HL7.2M_0060	J_HL7.2M_0050	0.62	11.92
C_HL7.2M_0070	J_HL7.2M_0050	J_HL7.2M_0070	2201.63	6.08
C_HL7.2M_0050	J_HL7.2M_0040	J_HL7.2M_0060	1053.13	9.87
C_HL7.2M_0040	J_HL7.2M_0030	J_HL7.2M_0040	1180.99	9.87
C_HL7.2M_0030	J_HL7.2M_0020	J_HL7.2M_0030	6.2	11.92
C_HL7.2M_0020	J_HL7.2M_0010	J_HL7.2M_0020	0.25	14.96
C_HL9.4_0010	J_HL_0490	J_HL9.4_0020	0.01	22.44
C_HL9.4_0050	J_HL9.4_0050	J_HL9.4_0040	1.19	16.53
C_HL9.4_0052	J_HL9.4_0040	J_HL9.4_0052	536.2	14.7
C_HL9.4_0040	J_HL9.4_0030	J_HL9.4_0050	1032.06	16.53
C_HL9.4_0020	J_HL9.4_0020	J_HL9.4_0010	15.32	16.83
C_HL9.4_0030	J_HL9.4_0010	J_HL9.4_0030	1032.69	16.83
C_HL9.4_0057	J_HL9.4_0056	J_HL9.4_0057	1.98	14.7
C_HL9.4_0065	J_HL9.4_0060	J_HL9.4_0065	173.54	12.86
C_HL9.4_0060	J_HL9.4_0057	J_HL9.4_0060	829.88	12.86
C_HL10.8_0005	J_HL_0570	J_HL11.1_0010	19.29	10.05
C_HL10.8_0018	J_HL10.8_0010	J_HL10.8_0020	1712.35	10.05
C_HL10.8_0010	J_HL11.1_0010	J_HL10.8_0010	46.81	10.05
C_HL10.8_0040	J_HL10.8_0030	J_HL10.8_0040	1183.38	6.08
C_HL10.8_0030	J_HL10.8_0020	J_HL10.8_0030	1854.02	7.92
C_NC43.2-14.4_0010	J_NC43.2_0315	J_NC43.2-14.4_0010	8.44	11.92
C_NC43.2-14.4_0020	J_NC43.2-14.4_0010	J_NC43.2-14.4_0020	1749.49	11.92
C_NC43.2-12.9_0010	J_NC43.2_0275	J_NC43.2-12.9_0010	6.68	18.7
C_NC43.2-12.9_0030	J_NC43.2-12.9_0020	J_NC43.2-12.9_0030	2315.31	18.7
C_NC43.2-12.9_0035	J_NC43.2-12.9_0030	J_NC43.2-12.9_0035	1110.16	14.96
C_NC43.2-12.9_0020	J_NC43.2-12.9_0010	J_NC43.2-12.9_0020	32.84	18.7
C_NC25.4-1.6-0.9_0100	J_NC25.4-1.6-2.7_0040	J_NC25.4-1.6-2.7_0050	1866.67	7.66
C_NC25.4-1.6-0.9_0090	J_NC25.4-1.6-2.7_0030	J_NC25.4-1.6-2.7_0040	99.29	7.66
C_KL6.2_0030	J_KL6.2_0010	J_KL6.2_0030	542.24	8.06
C_MB4.2_0010	J_MB_0170	J_MB4.2_0010	15.47	10.05
C_MB4.2_0040	J_MB4.2_0030	J_MB4.2_0040	6.18	6.08
C_MB4.2_0030	J_MB4.2_0020	J_MB4.2_0030	14.78	6.08
C_MB4.2_0020	J_MB4.2_0010	J_MB4.2_0020	229.39	10.05
C_ON13.2_0010	J_ON_0860	J_ON13.2_0010	4.49	11.71
C_ON13.2_0050	J_ON13.2_0040	J_ON13.2_0050	0.22	8.06
C_ON13.2_0030	J_ON13.2_0020	J_ON13.2_0030	1586.32	9.87
C_ON13.2_0020	J_ON13.2_0010	J_ON13.2_0020	126.65	9.87
C_ON19.4_0010	J_ON_1190	J_ON19.4_0010	3.3	11.71
C_ON19.4_0040	J_ON19.4_0030	J_ON19.4_0040	1353.69	7.92
C_ON19.4_0030	J_ON19.4_0020	J_ON19.4_0030	424.98	9.87
C_ON19.4_0020	J_ON19.4_0010	J_ON19.4_0020	46.23	9.87

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8_0170J_NC38.9-4.8_0160J_NC38.9-4.8_0170			1207.7	7.75
C_NC38.9-4.8_0180J_NC38.9-4.8_0170J_NC38.9-4.8_0180			32.49	7.75
C_HL2.9_0020	J_HL_0130	J_HL2.9_0020	5	6.08
C_HL2.9_0050	J_HL2.9_0040	J_HL2.9_0050	16.56	6.08
C_HL2.9_0030	J_HL2.9_0025	J_HL2.9_0030	1820.14	6.08
C_HL2.9_0025	J_HL2.9_0020	J_HL2.9_0025	9.77	6.08
C_CL1.84-0.55_0050J_CL1.84-0.55_0040J_CL1.84-0.55_0050			5.09	9.87
C_CL1.84-0.55_0060J_CL1.84-0.55_0050J_CL1.84-0.55_0030			498.51	7.75
C_CL1.84-0.55_0070J_CL1.84-0.55_0030J_CL1.84-0.55_0070			6.18	9.66
C_HL6.7_0010	J_HL6.7_0020	J_HL6.7_0010	13.99	10.05
C_HL6.7_0016	J_HL6.7_0015	J_HL6.7_0016	1789.82	6.08
C_HL6.7_0015	J_HL6.7_0011	J_HL6.7_0015	1461.4	8.06
C_HL6.7_0011	J_HL6.7_0010	J_HL6.7_0011	598.01	10.05
C_ON_0100	J_ON_0090	J_ON0.6_0010	117.68	58.89
C_ON_0120	J_ON0.7_0010	J_ON1.2_0010	2005.69	58.89
C_ON_0110	J_ON0.6_0010	J_ON0.7_0010	465.73	58.89
C_ON_0170	J_ON1.9_0010	J_ON_0170	595.56	58.89
C_ON_0160	J_ON1.7_0010	J_ON1.9_0010	764.17	58.89
C_ON_0150	J_ON1.3_0010	J_ON1.7_0010	2220.89	58.89
C_ON_0140	J_ON1.2_0015	J_ON1.3_0010	250.48	58.89
C_ON_0130	J_ON1.2_0010	J_ON1.2_0015	4.42	58.89
C_MB8.5_0030	J_MB8.5_0020	J_MB8.5_0030	3.88	18.7
C_MB8.5_0020	J_MB8.3_0010	J_MB8.5_0020	113.93	22.44
C_MB8.5_0010	J_MB_0330	J_MB8.3_0010	15.06	22.44
C_NC46.7_0040	J_NC46.7_0035	J_NC46.7_0040	13.57	24.3
C_NC46.7_0060	J_NC46.7_0050	J_NC46.7_0060	147.8	22.44
C_NC46.7_0050	J_NC46.7_0040	J_NC46.7_0050	11.9	24.3
C_NC46.7_0030	J_NC46.7_0027	J_NC46.7_0030	1.46	26.17
C_NC46.7_0035	J_NC46.7_0030	J_NC46.7_0035	660.87	24.3
C_NC46.7-0.5_0010J_NC46.7_0060		J_NC46.7-0.5_0010	10.26	14.96
C_NC46.7-0.5_0015J_NC46.7-0.5_0010J_NC46.7-0.5_0015			169.09	14.96
C_NC46.7-0.5_0040J_NC46.7-0.5_0035J_NC46.7-0.5_0040			1315.81	11.92
C_NC46.7-0.5_0045J_NC46.7-0.5_0040J_NC46.7-0.5_0045			151.41	10.05
C_NC46.7-1.0_0010J_NC46.7-1.0_0005J_NC46.7-1.0_0010			1682.22	16.83
C_NC46.7-1.0_0035J_NC46.7-1.0_0030J_NC46.7-1.0_0035			2657.63	13.09
C_NC46.7-1.0_0030J_NC46.7-1.0_0020J_NC46.7-1.0_0030			17.13	16.83
C_NC46.7-1.0_0020J_NC46.7-1.0_0010J_NC46.7-1.0_0020			13.17	16.83
C_NC45.4_0030	J_NC45.4_0025	J_NC45.4_0030	1846.73	11.92
C_NC46.7-1.0_0070J_NC46.7-1.0_0065J_NC46.7-1.0_0070			972.73	6.08
C_NC46.7-0.5-0.2_0010J_NC46.7-0.5_0035J_NC46.7-0.5-0.2_0010			16.85	10.05
C_NC46.7-0.5-0.2_0040J_NC46.7-0.5-0.2_0030J_NC46.7-0.5-0.2_0040			1291.95	3.94
C_NC46.7-0.5-0.2_0030J_NC46.7-0.5-0.2_0020J_NC46.7-0.5-0.2_0030			2.23	3.94

C_NC46.7-0.5-0.2_0020J_NC46.7-0.5-0.2_0010J_NC46.7-0.5-0.2_0020 378.27
10.05
C_NC60.0-1.6_0010J_NC60.0_0080 J_NC60.0-1.6_0010 11.19 16.83
C_NC60.0-1.6_0015J_NC60.0-1.6_0010J_NC60.0-1.6_0015 2523.15 16.83
C_NC60.0_0083 J_NC60.0_0080 J_NC60.0_0083 606.41 16.83
C_NC60.0-0.9_0065J_NC60.0-0.9_0057J_NC60.0_0065 1648.79 10.05

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0-0.9_0075J_NC60.0_0075	J_NC60.0_0075	J_NC60.0_0070	0.4	8.06
C_NC60.0-0.9_0080J_NC60.0_0070	J_NC60.0_0070	J_NC60.0-0.9_0080	698.62	8.06
C_NC60.0-0.9_0070J_NC60.0_0065	J_NC60.0_0065	J_NC60.0_0075	588.28	8.06
C_NC62.1_0044	J_NC62.1_0042	J_NC62.1_0044	499.18	10.05
C_NC62.1_0050	J_NC62.1_0048	J_NC62.1_0060	1558.66	10.05
C_NC62.1_0060	J_NC62.1_0060	J_NC62.1_0050	1.38	6.08
C_NC62.1_0070	J_NC62.1_0050	J_NC62.1_0070	1411.8	6.08
C_NC64.7_0010	J_NC64.7_0005	J_NC64.7_0010	7.45	13.09
C_NC64.7_0030	J_NC64.7_0020	J_NC64.7_0030	1097.13	11.92
C_NC64.7_0020	J_NC64.7_0010	J_NC64.7_0020	10.43	11.92
C_HL9.4_0075	J_HL9.4_0065	J_HL9.4_0075	58.03	12.86
C_HL9.4P_0010	J_HL9.4_0075	J_HL9.4P_0010	2313.99	9.87
C_HL9.4P_0030	J_HL9.4P_0020	J_HL9.4P_0030	2.12	11.71
C_HL9.4P_0020	J_HL9.4P_0010	J_HL9.4P_0020	1.91	11.71
C_HL9.4_0080	J_HL9.4_0075	J_HL9.4_0080	14.5	9.87
C_HL9.4_0100	J_HL9.4_0080	J_HL9.4_0100	1145.98	9.87
C_HL9.4_0125	J_HL9.4_0115	J_HL9.4_0125	40.88	7.92
C_HL9.4_0115	J_HL9.4_0110	J_HL9.4_0115	4.88	7.92
C_HL9.4_0110	J_HL9.4_0100	J_HL9.4_0110	17.2	9.87
C_HL9.4_0055	J_HL9.4_0052	J_HL9.4_0055	1286.38	14.7
C_HL5.5_0037	J_HL5.5_0033	J_HL5.5_0037	3297.43	14.96
C_HL5.5_0040	J_HL5.5_0037	J_HL5.5_0040	408.43	13.09
C_HL5.5_0065	J_HL5.5_0060	J_HL5.5_0065	510.16	11.92
C_HL5.5_0060	J_HL5.5_0050	J_HL5.5_0060	1.9	13.09
C_HL5.5_0050	J_HL5.5_0040	J_HL5.5_0050	6.77	13.09
C_ML4.1_0004	J_ML4.1_0002	J_ML4.1_0004	863.56	10.05
C_HL7.2E_0077	J_HL7.2E_0073	J_HL7.2E_0077	890.7	11.92
C_HL7.2E_0127	J_HL7.2E_0123	J_HL7.2E_0127	519.07	7.92
C_CL_0008	J_CL_0007	J_CL_0008	287	26.17
C_CL_0100	J_CL_0090	J_CL1.27_0010	3.9	23.88
C_CL_0120	J_CL1.27_0030	J_CL_0120	913.14	22.04
C_CL_0110	J_CL1.27_0020	J_CL1.27_0030	1.01	22.04
C_CL_0105	J_CL1.27_0010	J_CL1.27_0020	67.71	22.04
C_CL1.74_0010	J_CL_0180	J_CL1.74_0010	0.99	11.71
C_CL1.74_0020	J_CL1.74_0010	J_CL1.74_0020	1859.29	11.71
C_ML3.1_0050	J_ML3.1_0047	J_ML3.1_0050	1409.31	14.96

C_ML3.1_0076	J_ML3.1_0070	J_ML3.1_0076	6.27	11.71
C_ML3.1_0070	J_ML3.1_0050	J_ML3.1_0070	4.85	14.7
C_NC58.7_0026	J_NC58.7_0023	J_NC58.7_0026	849.57	11.92
C_NC55.6-0.5_0178	J_NC55.6-0.5_0175	J_NC55.6-0.5_0190	1437.23	11.92
C_NC55.6-0.5_0180	J_NC55.6-0.5_0190	J_NC55.6-0.5_0183	6.17	10.05
C_HL_0050	J_HL_0040	J_HL_0050	280.99	58.89
C_ML_0060	J_ML_0050	J_ML_0060	487.61	44.87
C_HL7.2W_0087	J_HL7.2W_0083	J_HL7.2W_0087	1062.4	7.92
C_NC55.6_0189	J_NC55.6_0188	J_NC55.6_0189	635.54	11.92
C_NC55.6_0080	J_NC55.6-2.6_0010	J_NC55.6_0080	3.03	22.44
C_NC55.6_0100	J_NC55.6_0090	J_NC55.6_0100	452.03	22.44

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC55.6_0090	J_NC55.6_0080	J_NC55.6_0090	7.4	22.44
C_NC55.6_0135	J_NC55.6_0130	J_NC55.6_0135	50	22.44
C_NC55.6_0120	J_NC55.6_0120	J_NC55.6_0110	1.26	22.44
C_NC55.6_0130	J_NC55.6_0110	J_NC55.6_0130	662.81	22.44
C_NC55.6_0110	J_NC55.6_0100	J_NC55.6_0120	1520.45	22.44
C_NC55.6-0.1_0010	J_NC55.5_0007	J_NC55.6-0.1_0010	1930.71	18.7
C_NC55.5_0007	J_NC55.5_0006	J_NC55.5_0007	1248.53	22.44
C_NC55.5_0006	J_NC55.5_0005	J_NC55.5_0006	5.94	24.3
C_NC55.5_0012	J_NC55.6-0.1_0010	J_NC55.5_0012	27.21	18.7
C_NC55.5_0015	J_NC55.5_0012	J_NC55.5_0015	1261.06	18.7
C_NC55.5_0030	J_NC55.5_0026	J_NC55.6-0.1_0030	807.11	13.09
C_NC55.6-0.1_0060	J_NC55.6-0.1_0060	J_NC55.6-0.1_0050	7.77	11.92
C_NC55.6-0.1_0065	J_NC55.6-0.1_0050	J_NC55.6-0.1_0065	2235.92	10.05
C_NC55.6-0.1_0050	J_NC55.6-0.1_0040	J_NC55.6-0.1_0060	7.13	11.92
C_NC55.6-0.1_0040	J_NC55.6-0.1_0030	J_NC55.6-0.1_0040	4.4	11.92
C_NC55.5_0155	J_NC55.6-0.1_0150	J_NC55.6-0.1_0155	444.33	3.94
C_NC55.5_0070	J_NC55.6-0.1_0065	J_NC55.6-0.1_0070	1059.06	10.05
C_LL_0160	J_LL_0155	J_LL_0160	2655.69	11.71
C_LL_0185	J_LL_0180	J_LL_0185	6.73	11.71
C_LL1.8_0010	J_LL_0185	J_LL1.8_0010	12.69	6.08
C_LL_0200	J_LL_0185	J_LL_0200	1142.57	9.87
C_LL_0255	J_LL_0250	J_LL_0255	67.71	7.92
C_LL_0205	J_LL_0200	J_LL_0205	12.77	9.87
C_LL_0210	J_LL_0205	J_LL_0210	530.65	7.92
C_LL_0260	J_LL_0255	J_LL_0260	561.74	7.92
C_LL_0270	J_LL_0260	J_LL_0270	746.59	6.08
C_LL2.0_0010	J_LL_0205	J_LL_0220	1046.02	6.08
C_LL2.0_0020	J_LL_0220	J_LL_0230	67.02	4.13
C_NC55.6-0.5_0095	J_NC55.6-0.5_0093	J_NC55.6-0.5_0095	2622.78	22.44
C_LL0.6_0010	J_LL_0075	J_LL0.6_0010	1616.94	3.94
C_NC54.4_0123	J_NC54.4_0120	J_NC54.4_0123	333.22	6.08

C_NC54.4_0128	J_NC54.4_0126	J_NC54.4_0128	110.37	5.96
C_NC54.2_0200	J_NC54.2_0195	J_NC54.2_0200	449.25	13.09
C_NC53.2_0097	J_NC53.2_0093	J_NC53.2_0097	226.47	10.05
C_NC53.2_0120	J_NC53.2_0115	J_NC53.2_0130	25.01	8.06
C_NC53.2_0125	J_NC53.2_0130	J_NC53.2_0120	0.28	8.06
C_NC53.2_0140	J_NC53.2_0125	J_NC53.2_0140	913.38	3.94
C_NC53.2_0130	J_NC53.2_0120	J_NC53.2_0125	18.15	3.94
C_NC53.2_0145	J_NC53.2_0140	J_NC53.2_0145	117.17	3.94
C_NC49.2-2.3_0030	J_NC49.2-2.3_0025	J_NC49.2-2.3_0030	10.63	8.06
C_NC49.2-2.3_0035	J_NC49.2-2.3_0030	J_NC49.2-2.3_0035	1371.57	8.06
C_NC49.2-2.9_0060	J_NC49.2-2.9_0055	J_NC49.2-2.9_0060	4.8	11.92
C_NC49.2-2.9_0100	J_NC49.2-2.9_0090	J_NC49.2-2.9_0100	396.67	8.06
C_NC49.2-2.9_0090	J_NC49.2-2.9_0080	J_NC49.2-2.9_0090	1.81	10.05
C_NC49.2-2.9_0080	J_NC49.2-2.9_0070	J_NC49.2-2.9_0080	5.75	10.05
C_NC49.2-2.9_0070	J_NC49.2-2.9_0060	J_NC49.2-2.9_0070	34.27	10.05
C_NC49.2_0140	J_NC49.2_0132	J_NC49.2_0140	1584.37	18.7

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2_0143	J_NC49.2_0140	J_NC49.2_0143	12.41	18.7
C_NC49.2-0.4-0.6_0010	J_NC49.2-0.4_0005	J_NC49.2-0.4-0.6_0010	1077.85	13.09
C_NC49.2-0.4-0.6_0015	J_NC49.2-0.4-0.6_0010	J_NC49.2-0.4-0.6_0015	7.22	13.09
C_NC49.2-0.4-0.6_0050	J_NC49.2-0.4-0.6_0045	J_NC49.2-0.4-0.6_0050	956.2	10.05
C_NC49.2-0.4-0.6_0055	J_NC49.2-0.4-0.6_0050	J_NC49.2-0.4-0.6_0055	3.15	10.05
C_NC49.2-0.9_0010	J_NC49.2_0065	J_NC49.2-0.9_0010	3643.28	11.92
C_NC49.2-0.9_0045	J_NC49.2-0.9_0040	J_NC49.2-0.9_0045	0.47	6.08
C_NC49.2-0.9_0040	J_NC49.2-0.9_0030	J_NC49.2-0.9_0040	790.72	8.06
C_NC49.2-0.9_0030	J_NC49.2-0.9_0020	J_NC49.2-0.9_0030	1052.04	8.06
C_NC49.2-0.9_0020	J_NC49.2-0.9_0015	J_NC49.2-0.9_0020	668.32	10.05
C_NC49.2-0.9_0015	J_NC49.2-0.9_0010	J_NC49.2-0.9_0015	26.16	11.92
C_NC43.2-14.7_0045	J_NC43.2-14.7_0030	J_NC43.2-14.7_0045	3268.45	18.7
C_NC43.2-14.7_0020	J_NC43.2-14.7_0020	J_NC43.2-14.7_0040	6.62	18.7
C_NC43.2-14.7_0040	J_NC43.2-14.7_0010	J_NC43.2-14.7_0030	3.73	18.7
C_NC43.2-14.7_0010	J_NC43.2_0325	J_NC43.2-14.7_0020	87.14	18.7
C_NC43.2-14.7_0030	J_NC43.2-14.7_0040	J_NC43.2-14.7_0010	1.86	18.7
C_NC43.2-14.4_0030	J_NC43.2-14.4_0020	J_NC43.2-14.4_0030	744.24	11.92
C_NC43.2-14.4_0040	J_NC43.2-14.4_0030	J_NC43.2-14.4_0040	2291	3.94
C_NC43.2-12.7_0028	J_NC43.2-12.7_0024	J_NC43.2-12.7_0028	3367.87	14.96
C_NC43.2-12.7_0030	J_NC43.2-12.7_0028	J_NC43.2-12.7_0030	5.11	13.09
C_NC43.2-11.6_0050	J_NC43.2-11.6_0045	J_NC43.2-11.6_0050	523.93	6.08
C_NC43.2-10.4_0010	J_NC43.2_0225	J_NC43.2-10.4_0010	931.68	3.94
C_NC43.2-10.3_0010	J_NC43.2_0195	J_NC43.2_0210	9.07	10.05

C_NC43.2-10.3_0040J_NC43.2_0220	J_NC43.2-10.3_0040	516.63	8.06	
C_NC43.2-10.3_0020J_NC43.2_0210	J_NC43.2_0200	2.71	10.05	
C_NC43.2-10.3_0030J_NC43.2_0200	J_NC43.2_0220	2.89	8.06	
C_NC43.2-9.4_0030J_NC43.2-9.4_0020J_NC43.2-9.4_0030		1597.52	7.92	
C_NC43.2-9.4_0020J_NC43.2-9.4_0010J_NC43.2-9.4_0020		9.56	8.06	
C_NC43.2-9.4_0010J_NC43.2_0160	J_NC43.2-9.4_0010	6.4	10.05	
C_NC43.2-7.3_0010J_NC43.2_0135	J_NC43.2-7.3_0020	3.4	8.06	
C_NC43.2-7.3_0020J_NC43.2-7.3_0020J_NC43.2-7.3_0010		3.56	3.94	
C_NC43.2-7.3_0030J_NC43.2-7.3_0010J_NC43.2-7.3_0030		895.4	3.94	
C_NC43.2-6.6_0020J_NC43.2_0108	J_NC43.2-6.6_0020	3087.6	11.92	
C_NC43.2-6.6_0050J_NC43.2-6.6_0040J_NC43.2-6.6_0050		13.36	6.08	
C_NC43.2-6.6_0040J_NC43.2-6.6_0020J_NC43.2-6.6_0040		26.58	6.08	
C_NC43.2-3.8-0.0_0010J_NC43.2-3.8_0025J_NC43.2-3.8-0.0_0010		1427.5	11.92	
C_NC43.2-3.8_0055J_NC43.2-3.8_0043J_NC43.2-3.8_0055		2082.66	9.87	
C_NC43.2-3.8_0060J_NC43.2-3.8_0055J_NC43.2-3.8_0060		24.91	9.87	
C_NC43.2-0.8_0030J_NC43.2-0.8_0020J_NC43.2-0.8_0030		69.67	10.05	
C_NC43.2-0.8_0040J_NC43.2-0.8_0030J_NC43.2-0.8_0040		386.54	9.87	
C_NC43.2-12.9-0.5_0010J_NC43.2-12.9_0030J_NC43.2-12.9-0.5_0015		4.42	13.09	
C_NC43.2-12.9-0.5_0070J_NC43.2-12.9-0.5_0060J_NC43.2-12.9-0.5_0070		1220.57	3.94	
C_NC43.2-12.9-0.5_0060J_NC43.2-12.9-0.5_0050J_NC43.2-12.9-0.5_0060		9.43	3.94	
C_NC43.2-12.9-0.5_0050J_NC43.2-12.9-0.5_0040J_NC43.2-12.9-0.5_0050		1480.52	3.94	
C_NC43.2-12.9-0.5_0040J_NC43.2-12.9-0.5_0030J_NC43.2-12.9-0.5_0040		140.56	3.94	
C_NC43.2-12.9-0.5_0030J_NC43.2-12.9-0.5_0020J_NC43.2-12.9-0.5_0030		483.97	3.94	
C_NC43.2-12.9-0.5_0015J_NC43.2-12.9-0.5_0015J_NC43.2-12.9-0.5_0010		10.1	11.92	

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC43.2-12.9-0.5_0020J_NC43.2-12.9-0.5_0010J_NC43.2-12.9-0.5_0020			21.61	3.94
C_NC22.8_0170	J_NC22.8_0190	J_NC22.8_0170	1.43	11.71
C_NC22.8_0190	J_NC22.8_0180	J_NC22.8_0160	2.55	9.87
C_NC22.8_0180	J_NC22.8_0170	J_NC22.8_0180	11.46	9.87
C_NC22.8_0200	J_NC22.8_0160	J_NC22.8_0200	1240.88	9.66
C_NC22.8_0160	J_NC22.8_0150	J_NC22.8_0190	156.56	14.7
C_NC22.8_0150	J_NC22.8_0145	J_NC22.8_0150	219.91	14.96
C_NC22.8_0145	J_NC22.8_0140	J_NC22.8_0145	239.5	14.96
C_NC22.8_0140	J_NC22.8_0130	J_NC22.8_0140	1286.09	14.96
C_NC22.8_0130	J_NC22.8_0120	J_NC22.8_0130	308.37	16.83
C_NC22.8_0120	J_NC22.8_0110	J_NC22.8_0120	472.5	18.7

C_NC22.8_0110	J_NC22.8_0100	J_NC22.8_0110	576.93	18.7
C_NC22.8_0100	J_NC22.8_0090	J_NC22.8_0100	632.18	22.44
C_NC22.8_0090	J_NC22.8_0085	J_NC22.8_0090	1299.05	22.44
C_NC22.8_0085	J_NC22.8_0083	J_NC22.8_0085	96.76	22.44
C_NC22.8_0083	J_NC22.8_0080	J_NC22.8_0083	55.51	22.44
C_NC22.8_0030	J_NC22.8_0020	J_NC22.8_0030	409.2	24.3
C_NC22.8_0015	J_NC22.8_0010	J_NC22.8_0015	38.84	29.91
C_NC22.8_0017	J_NC22.8_0015	J_NC22.8-0.1_0010	9.06	24.3
C_NC22.8_0020	J_NC22.8-0.1_0010	J_NC22.8_0020	489.64	24.3
C_NC22.8_0080	J_NC22.8_0070	J_NC22.8_0080	1073.76	22.44
C_NC22.8_0070	J_NC22.8_0060	J_NC22.8_0070	2.24	22.44
C_NC22.8_0060	J_NC22.8_0050	J_NC22.8_0060	323.16	22.44
C_NC22.8_0050	J_NC22.8_0040	J_NC22.8_0050	1066.83	24.3
C_NC22.8_0040	J_NC22.8_0035	J_NC22.8_0040	15.01	24.3
C_NC22.8_0035	J_NC22.8_0030	J_NC22.8_0035	637.89	24.3
C_NC10.5-0.9_0010	J_NC10.5_0085	J_NC10.5_0090	136.59	14.38
C_NC10.5-0.9_0020	J_NC10.5_0090	J_NC10.5-0.9_0100	51.08	7.75
C_NC10.5-0.9_0030	J_NC10.5-0.9_0100	J_NC10.5-0.9_0110	1752.75	7.75
C_MB4.8_0040	J_MB4.8_0035	J_MB4.8_0040	1419.72	8.06
C_MB4.8_0045	J_MB4.8_0040	J_MB4.8_0045	5.24	3.94
C_MB6.0_0060	J_MB6.0_0057	J_MB6.0_0060	1281.21	18.7
C_NC7.3_0030	J_NC7.3_0020	J_NC7.3_0040	2253.23	11.92
C_NC7.3_0020	J_NC7.3_0010	J_NC7.3_0020	3167.97	14.96
C_NC7.3_0040	J_NC7.3_0040	J_NC7.3_0030	3.71	8.06
C_NC7.3_0050	J_NC7.3_0030	J_NC7.3_0050	4628.74	7.66
C_NC22.8-0.1_0010	J_NC22.8_0015	J_NC22.8-0.1_0011	15.61	16.83
C_NC22.8-0.1_0022	J_NC22.8-0.1_0012	J_NC22.8-0.1_0022	2182.17	11.92
C_NC22.8-0.1_0012	J_NC22.8-0.1_0011	J_NC22.8-0.1_0012	5.21	11.92
C_SA_0240	J_SA_0230	J_SA1.5_0010	4.53	10.05
C_SA_0280	J_SA1.7_0006	J_SA_0280	15.91	8.06
C_SA_0270	J_SA1.7_0005	J_SA1.7_0006	22.78	10.05
C_SA_0260	J_SA1.5_0020	J_SA1.7_0005	683.98	10.05
C_SA_0250	J_SA1.5_0010	J_SA1.5_0020	253.87	10.05
C_NC49.4_0037	J_NC49.4_0034	J_NC49.4_0037	42.65	22.44
C_NC49.4_0040	J_NC49.4_0037	J_NC49.4_0040	745.56	11.92
C_NC49.4_0100	J_NC49.4_0090	J_NC49.4_0100	11.45	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.4_0090	J_NC49.4_0080	J_NC49.4_0090	837.92	8.06
C_NC49.4_0080	J_NC49.4_0070	J_NC49.4_0080	0.24	8.06
C_NC49.4_0070	J_NC49.4_0060	J_NC49.4_0070	665.29	8.06
C_NC49.4_0060	J_NC49.4_0050	J_NC49.4_0060	3.83	11.92
C_NC49.4_0050	J_NC49.4_0040	J_NC49.4_0050	1508.31	11.92
C_NC49.4-0.4_0010	J_NC49.4_0037	J_NC49.4-0.4_0010	11.05	14.96

C_NC49.4-0.4_0040	J_NC49.4-0.4_0030	J_NC49.4-0.4_0040	2.04	8.06
C_NC49.4-0.4_0030	J_NC49.4-0.4_0020	J_NC49.4-0.4_0030	1468.84	8.06
C_NC49.4-0.4_0020	J_NC49.4-0.4_0010	J_NC49.4-0.4_0020	9.57	11.92
C_NC52.5_0070	J_NC52.5_0060	J_NC52.5_0070	6.18	3.94
C_NC52.5_0060	J_NC52.5_0059	J_NC52.5_0060	83.51	3.94
C_NC52.5_0059	J_NC52.5_0050	J_NC52.5_0059	520.18	6.08
C_NC52.5_0050	J_NC52.5_0040	J_NC52.5_0050	876.62	6.08
C_NC52.5_0030	J_NC52.5_0030	J_NC52.5_0020	2.63	18.7
C_NC52.5_0040	J_NC52.5_0020	J_NC52.5_0040	3.21	18.7
C_NC52.5_0020	J_NC52.5_0010	J_NC52.5_0030	59.73	18.7
C_NC53.2_0035	J_NC53.2_0033	J_NC53.2_0035	860.92	14.96
C_NC53.2_0037	J_NC53.2_0035	J_NC53.2_0037	891.7	13.09
C_NC53.2-0.4_0010	J_NC53.2-0.4_0005	J_NC53.2-0.4_0010	2.74	3.94
C_NC53.2-0.4_0050	J_NC53.2-0.4_0040	J_NC53.2-0.4_0050	1.07	3.94
C_NC53.2-0.4_0025	J_NC53.2-0.4_0025	J_NC53.2-0.4_0020	3.1	3.94
C_NC53.2-0.4_0040	J_NC53.2-0.4_0020	J_NC53.2-0.4_0040	358.06	3.94
C_NC53.2-0.4_0020	J_NC53.2-0.4_0010	J_NC53.2-0.4_0025	797.51	3.94
C_NC53.2_0050	J_NC53.2_0045	J_NC53.2_0050	110.94	11.92
C_NC53.2_0080	J_NC53.2_0070	J_NC53.2_0080	133.39	11.92
C_NC53.2_0060	J_NC53.2_0060	J_NC53.2_0055	2.43	11.92
C_NC53.2_0070	J_NC53.2_0055	J_NC53.2_0070	843.8	11.92
C_NC53.2_0055	J_NC53.2_0050	J_NC53.2_0060	0.29	11.92
C_NC54.2-3.4_0010	J_NC54.2_0290	J_NC54.2-3.4_0010	3268.52	5.96
C_NA0.4_0030	J_NA0.4_0020	J_NA0.4_0030	2020.44	6.08
C_NA0.4_0020	J_NA0.4_0010	J_NA0.4_0020	5.47	6.08
C_NA_0060	J_NA0.3_0020	J_NA_0060	980.2	8.06
C_NA_0050	J_NA_0040	J_NA0.3_0020	14.91	8.06
C_NA_0070	J_NA_0060	J_NA0.8_0010	1659.45	3.94
C_NA_0100	J_NA_0090	J_NA_0100	2067.9	3.94
C_NA_0080	J_NA0.8_0010	J_NA0.9_0010	332.66	3.94
C_NA_0030	J_NA_0020	J_NA0.3_0010	779.43	8.06
C_NA_0040	J_NA0.3_0010	J_NA_0040	111.69	8.06
C_NA_0020	J_NA0.0_0010	J_NA_0020	920.42	8.06
C_SA_0090	J_SA0.5_0010	J_SA0.7_0010	644.09	14.96
C_SA_0080	J_SA0.3_0030	J_SA0.5_0010	670.43	14.96
C_KL5.4_0187	J_KL5.4_0183	J_KL5.4_0187	761.08	17.98
C_NC58.7_0040	J_NC58.7_0030	J_NC58.7_0040	120.19	6.08
C_NC58.7_0050	J_NC58.7_0040	J_NC58.7_0050	873.48	6.08
C_SA_0345	J_SA_0340	J_SA_0345	3321.68	8.06
C_SA_0290	J_SA_0280	J_SA1.7_0007	27.56	8.06
C_SA_0330	J_SA1.9_0010	J_SA_0330	1605.51	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_SA_0340	J_SA_0330	J_SA_0340	627.42	8.06

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  C_SA_0320      J_SA1.8_0010   J_SA1.9_0010       415.17      8.06
  C_SA_0310      J_SA1.7_0010   J_SA1.8_0010       309.68      8.06
  C_SA_0300      J_SA1.7_0007   J_SA1.7_0010         0.26      6.19
  C_SA2.3_0010   J_SA_0330      J_SA2.3_0010         5.99      3.94
  C_SA2.3_0020   J_SA2.3_0010   J_SA2.3_0020      2323.91      3.94
  C_NA1.0_0010   J_NA_0090      J_NA1.0_0010       238.35      3.94
  C_SA_0010      J_SA0.0_0000   J_SA0.0_0010        13.91     14.96
  C_SA_0015      J_SA0.0_0010   J_SA_0015          316.18     14.96
  C_NA0.2E_0025  J_NA0.2_0020   J_NA0.2E_0010       693.8      3.94
  C_NA0.2E_0030  J_NA0.2E_0010  J_NA0.2E_0020     1054.82      3.94
  C_NC55.6-0.5-2.6_0050J_NC55.6-0.5-2.6_0045J_NC55.6-0.5-2.6_0050   1507.48
10.05
  C_NC55.6-0.5_0250J_NC55.6-0.5_0240J_NC55.6-0.5_0250    460.38      6.08
  C_NC61.3_0030  J_NC61.3_0020  J_NC61.3_0030     1092.17     11.92
  C_NC61.3_0020  J_NC61.3_0010  J_NC61.3_0020        3.04     13.09
  C_NC61.3_0010  J_NC61.3_0005  J_NC61.3_0010     1280.44     14.96
  C_NC60.0-1.6_0030J_NC60.0-1.6_0025J_NC60.0-1.6_0030   2365.94     10.05
  C_NC35.1-0.7_0015J_NC35.1-0.7_0010J_NC35.1-0.7_0015    709.55      3.94
  C_NC35.1-0.7_0050J_NC35.1-0.7_0040J_NC35.1-0.7_0050      2.54      3.94
  C_NC35.1-0.7_0030J_NC35.1-0.7_0020J_NC35.1-0.7_0040      4.07      3.94
  C_NC33.1S_0010 J_NC33.1_0055  J_NC33.1S_0010       4.02     22.44
  C_NC33.1S_0072 J_NC33.1S_0070 J_NC33.1S_0072      30.13      18.7
  C_NC33.1S_0070 J_NC33.1S_0060 J_NC33.1S_0070      36.28      18.7
  C_NC33.1S_0060 J_NC33.1S_0010 J_NC33.1S_0060    1976.87      18.7
  C_NC32.2_0087  J_NC32.2_0083  J_NC32.2_0087      735.25     12.86
  C_NC31.5_0070  J_NC31.5_0065  J_NC31.5_0070        6.16     10.05
  C_NC31.5_0075  J_NC31.5_0070  J_NC31.5_0075     1634.25     10.05
  C_NC31.0-1.9_0010J_NC31.0_0135  J_NC31.0-1.9_0010       2.4     11.92
  C_NC31.0-1.9_0020J_NC31.0-1.9_0010J_NC31.0-1.9_0030   1896.84     11.92
  C_NC31.0-1.9_0030J_NC31.0-1.9_0030J_NC31.0-1.9_0035      2.84     10.05
  C_NC38.7-0.1-0.2_0010J_NC38.7-0.1_0017J_NC38.7-0.1-0.2_0010   1338.63      9.66
  C_NC38.7_0078  J_NC38.7_0077  J_NC38.7-0.2_0040      1.27      18.7
  C_NC38.7_0093  J_NC38.7_0090  J_NC38.7_0093       18.14      18.7
  C_NC38.7_0090  J_NC38.7_0080  J_NC38.7_0090        9.59      18.7
  C_NC38.7_0080  J_NC38.7-0.2_0040J_NC38.7_0080     1398.01      18.7
  C_NC38.7-0.8_0010J_NC38.7_0095  J_NC38.7-0.8_0010         7      3.94
  C_NC38.7-0.8_0020J_NC38.7-0.8_0010J_NC38.7-0.8_0020   2981.58      3.94
  C_NC38.7-1.2_0010J_NC38.7_0120  J_NC38.7-1.2_0010      6.03      5.96
  C_NC38.7-1.2_0035J_NC38.7-1.2_0025J_NC38.7-1.2_0035      0.68      5.96
  C_NC38.7-1.2_0025J_NC38.7-1.2_0020J_NC38.7-1.2_0025      7.46      5.96
  C_NC38.9-2.4-1.6_0010J_NC38.9-2.4_0127J_NC38.9-2.4-1.6_0010      8.46     11.46
  C_NC38.9-2.4-1.6_0020J_NC38.9-2.4-1.6_0010J_NC38.9-2.4-1.6_0020   1228.39
11.46
  C_NC38.9-2.4-1.6_0030J_NC38.9-2.4-1.6_0020J_NC38.9-2.4-1.6_0030      1.96
11.46
  C_NC38.9-2.4_0137J_NC38.9-2.4_0136J_NC38.9-2.4_0137   1765.11      5.96
  C_NC38.9-4.8-0.5-1.3_0025J_NC38.9-4.8-0.5_0093J_NC38.9-4.8-0.5-1.3_0025   2076.35
    5.96
  C_NC38.9-4.8-0.5_0110J_NC38.9-4.8-0.5_0108J_NC38.9-4.8-0.5_0100      2.45
12.59
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C_NC38.9-4.8-0.5_0120J_NC38.9-4.8-0.5_0110J_NC38.9-4.8-0.5_0120 1335.01
11.46

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC38.9-4.8-0.5_0140	J_NC38.9-4.8-0.5_0130	J_NC38.9-4.8-0.5_0140	1.69	9.66
C_NC38.9-4.8-0.5_0130	J_NC38.9-4.8-0.5_0125	J_NC38.9-4.8-0.5_0130	16.18	9.66
C_NC38.9-4.8-0.5_0125	J_NC38.9-4.8-0.5_0120	J_NC38.9-4.8-0.5_0125	44.57	9.66
C_NC38.9-4.8-2.5-0.0_0010	J_NC38.9-4.8-2.5_0015	J_NC38.9-4.8-2.5-0.0_0010	1361.87	3.94
C_NC38.9-8.5-0.2_0010	J_NC38.9-8.5_0013	J_NC38.9-8.5-0.2_0010	2647.62	3.94
C_NC38.9-8.5-0.2_0020	J_NC38.9-8.5-0.2_0010	J_NC38.9-8.5-0.2_0020	1.91	3.94
C_NC38.9-3.0_0090	J_NC38.9-3.0_0080	J_NC38.9-3.0-0.5_0040	912	10.05
C_NC38.9-3.0_0100	J_NC38.9-3.0-0.5_0040	J_NC38.9-3.0-0.5_0030	2.01	8.06
C_NC25.4-1.6-0.9_0010	J_NC25.4-1.6_0055	J_NC25.4_1.6_0060	1899.79	22.44
C_NC25.4-1.6-0.9_0020	J_NC25.4_1.6_0060	J_NC25.4-1.6-0.9_0020	16.56	16.83
C_NC25.4-1.8-1.0_0020	J_NC25.4-1.8-1.0_0015	J_NC25.4-1.8-1.0_0020	1371.25	18.37
C_NC25.4-1.8_0127	J_NC25.4-1.8_0125	J_NC25.4-1.8_0127	1887.04	14.38
C_NC25.4-4.8_0010	J_NC25.4_0160	J_NC25.4-4.8_0010	1949.83	5.96
C_NC27.8_0093	J_NC27.8_0090	J_NC27.8_0093	897.38	8.06
C_NC27.8_0069	J_NC27.8_0068	J_NC27.8_0069	467.77	10.05
C_NC27.8_0020	J_NC27.8_0018	J_NC27.8_0020	1292.27	18.7
C_NC27.8_0035	J_NC27.8_0030	J_NC27.8_0035	5.78	14.96
C_NC27.8_0030	J_NC27.8_0020	J_NC27.8_0030	1404.45	18.7
C_NC28.7_0057	J_NC28.7_0055	J_NC28.7_0057	508.6	29.91
C_NC28.7_0127	J_NC28.7_0024	J_NC28.7_0027	1323.62	9.87
C_NC28.7-1.0_0070	J_NC28.7-1.0_0065	J_NC28.7-1.0_0070	421.72	14.96
C_NC28.7-1.0_0075	J_NC28.7-1.0_0070	J_NC28.7-1.0_0075	3370.5	9.87
C_NC26.4_0077	J_NC26.4_0073	J_NC26.4_0077	945.39	22.44
C_NC25.4_0175	J_NC25.4_0170	J_NC25.4-4.5_0010	5.08	9.66
C_NC25.4_0190	J_NC25.4-4.5_0011	J_NC25.4_0190	1286.67	9.66
C_NC25.4_0180	J_NC25.4-4.5_0010	J_NC25.4-4.5_0011	13.51	9.66
C_NC35.1_0100	J_NC35.1_0095	J_NC35.1_0100	468.9	7.75
C_NC25.4-1.6_0060	J_NC25.4-1.6_0057	J_NC25.4-1.6-1.1_0010	1711.44	11.92
C_NC14.5-4.2_0010	J_NC14.5_0217	J_NC14.5-4.2_0010	1639.86	3.94
C_NC27.8_0100	J_NC27.8_0097	J_NC27.8_0100	338.24	8.06
C_NC27.8_0110	J_NC27.8_0100	J_NC27.8_0110	141.25	8.06
C_MB8.5_0100	J_MB8.5_0090	J_MB8.5_0100	435.14	11.71
C_NC25.4-0.3_0010	J_NC25.4_0056	J_NC25.4-0.3_0010	144.53	3.94
C_NC25.4-0.3_0020	J_NC25.4-0.3_0010	J_NC25.4-0.3_0020	33.67	3.94

C_NC25.4-0.4_0010J_NC25.4_0057 J_NC25.4-0.4_0010 217.79 3.94
C_NC28.7-2.8-0.4_0010J_NC28.7-2.8_0015J_NC28.7-2.8-0.4_0010 658.52 3.94
C_NC33.1S_0180 J_NC33.1S-1.6_0020J_NC33.1S_0180 797.55 7.75
C_ML4.0_0020 J_ML4.0_0015 J_ML4.0_0020 198.7 11.92
C_ML4.0_0050 J_ML4.0_0040 J_ML4.0_0050 1017.12 6.08
C_ML4.0_0040 J_ML4.0_0035 J_ML4.0_0040 17.46 6.08
C_ML4.0_0030 J_ML4.0_0020 J_ML4.0_0030 1585.23 11.92
C_KL7.6-9.3N_0030J_KL7.6-9.3N_0025J_KL7.6-9.3N_0030 1478.68 22.04
C_KL7.6-9.3N_0057J_KL7.6-9.3N_0055J_KL7.6-9.3N_0057 0.08 7.92
C_KL7.6-9.3N_0060J_KL7.6-9.3N_0058J_KL7.6-9.3N_0060 501.77 3.94
C_KL7.6-9.3N_0058J_KL7.6-9.3N_0057J_KL7.6-9.3N_0058 469.19 3.94
C_KL7.6-9.3N_0055J_KL7.6-9.3N_0050J_KL7.6-9.3N_0055 4.89 7.92
C_KL7.6-9.3N_0050J_KL7.6-9.3N_0040J_KL7.6-9.3N_0050 453.39 7.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL7.6-9.3N_0040J_KL7.6-9.3N_0030J_KL7.6-9.3N_0040			237.19	7.92
C_KL7.6-9.3-0.2_0010J_KL7.6-9.3N_0058J_KL7.6-9.3-0.2_0010			147.16	3.94
C_KL7.6-9.3-0.1_0010J_KL7.6-9.3N_0057J_KL7.6-9.3-0.1_0010			642.15	7.92
C_NC38.9-4.8-0.5-1.2_0010J_NC38.9-4.8-0.5_0075J_NC38.9-4.8-0.5_0080			7.15	7.92
C_NC38.9-4.8-0.5-1.2_0020J_NC38.9-4.8-0.5_0080J_NC38.9-4.8-0.5-1.3_0020			813.49	7.92
C_NC38.9-4.8-0.5-1.2_0030J_NC38.9-4.8-0.5-1.3_0020J_NC38.9-4.8-0.5-1.2_0030			449.33	7.92
C_HL_0280	J_HL_0270	J_HL_0280	664.25	50.48
C_KL_0056	J_KL_0055	J_KL_0056	655.07	58.89
C_KL_0053	J_KL_0052	J_KL_0053	704.96	58.89
C_KL_0027	J_KL_0023	J_KL_0027	496.32	58.89
C_KL_0018	J_KL_0017	J_KL_0018	324.35	84
C_KL_0235	J_KL_0230	J_KL7.6S_0005	2887.24	28.66
C_KL_0240	J_KL7.6S_0020	J_KL9.3-0.1_0070	1811.26	44.87
C_KL_0237	J_KL7.6S_0010	J_KL7.6S_0020	185.49	44.09
C_KL_0252	J_KL9.3_0010	J_KL_0252	1313.77	22.44
C_KL_0242	J_KL9.3-0.1_0070	J_KL7.6S_0030	471.63	44.87
C_KL_0244	J_KL7.6S_0030	J_KL7.6_0040	1.54	44.87
C_KL_0250	J_KL7.6_0060	J_KL9.3_0010	18.49	39.26
C_KL_0247	J_KL7.6_0050	J_KL7.6_0060	1318.1	39.26
C_KL_0245	J_KL7.6_0040	J_KL7.6_0050	0.55	39.26
C_KL_0017	J_KL_0015	J_KL_0017	5695.17	84
C_KL_0015	J_KL_0010	J_KL_0015	213.67	84
C_KL_0020	J_KL_0018	J_KL_0020	3009.48	78
C_KL_0023	J_KL_0020	J_KL_0023	2468.58	58.89
C_KL_0030	J_KL_0027	J_KL_0030	1023.81	58.89
C_KL_0052	J_KL_0050	J_KL_0052	243.7	58.89

C_KL_0050	J_KL_0030	J_KL_0050	771.85	58.89
C_KL_0055	J_KL_0053	J_KL_0055	1086.44	58.89
C_NC10.5_0035	J_NC10.5_0033	J_NC10.5_0035	387.12	28.04
C_NC10.5_0075	J_NC10.5_0070	J_NC10.5_0075	141.55	21.58
C_NC10.5_0070	J_NC10.5_0050	J_NC10.5_0070	1795.76	22.04
C_NC10.5_0050	J_NC10.5_0040	J_NC10.5_0050	1347.19	26.17
C_NC10.5_0040	J_NC10.5_0035	J_NC10.5_0040	32.83	26.17
C_NC10.5_0105	J_NC10.5_0085	J_NC10.5_0105	44.87	14.38
C_NC10.5_0107	J_NC10.5_0105	J_NC10.5_0107	833.87	14.38
C_NC10.5_0108	J_NC10.5_0107	J_NC10.5_0106	471.84	14.38
C_NC10.5_0120	J_NC10.5_0120	J_NC10.5_0110	0.48	7.75
C_NC10.5_0110	J_NC10.5_0106	J_NC10.5_0120	76.82	14.38
C_NC10.5_0080	J_NC10.5_0075	J_NC10.5_0080	665.19	21.58
C_NC10.5_0085	J_NC10.5_0080	J_NC10.5_0085	2416	21.58
C_NC10.5_0032	J_NC10.5_0030	J_NC10.5_0032	878.05	28.04
C_NC10.5_0033	J_NC10.5_0032	J_NC10.5_0033	67.98	28.04
C_NC10.5_0030	J_NC10.5_0020	J_NC10.5_0030	472.4	28.04
C_NC10.5_0020	J_NC10.5_0010	J_NC10.5_0020	57.03	29.91
C_MB4.8_0050	J_MB4.8_0045	J_MB4.8_0050	1009.32	3.94
C_KL7.7_0045	J_KL7.7_0035	J_KL7.7_0045	1636.06	9.66
C_KL7.7_0080	J_KL7.7_0070	J_KL7.7_0080	0.33	7.75

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL7.7_0050	J_KL7.7_0045	J_KL7.7_0050	827.37	7.75
C_KL9.3-0.8_0010	J_KL9.3_0095	J_KL9.3_0100	3.95	8.06
C_KL9.3-0.8_0030	J_KL9.3_0140	J_KL9.3_0130	0.86	3.94
C_KL9.3-0.8_0020	J_KL9.3_0100	J_KL9.3_0140	1648.96	7.92
C_KL9.3_0120	J_KL9.3_0115	J_KL9.3_0120	9.98	18.7
C_KL9.3_0155	J_KL9.3_0150	J_KL9.3_0155	192.21	18.7
C_KL9.3_0150	J_KL9.3_0120	J_KL9.3_0150	1244.32	18.37
C_KL9.3_0200	J_KL9.3_0190	J_KL9.3_0200	12.26	9.87
C_KL9.3_0210	J_KL9.3_0200	J_KL9.3_0210	1814.33	9.87
C_KL7.6-9.6_0070	J_KL7.6-9.3N_0030	J_KL7.6-9.6_0070	862.58	22.04
C_KL7.6-9.6_0075	J_KL7.6-9.6_0070	J_KL7.6-9.6_0075	892.17	11.71
C_KL7.6-9.6_0080	J_KL7.6-9.6_0075	J_KL7.6-9.6_0080	0.09	9.87
C_KP0.1_0010	J_KP_0010	J_KP0.1_0010	695.09	7.92
C_KP_0020	J_KP_0010	J_KP_0020	1498.85	14.7
C_KP_0040	J_KP_0035	J_KP_0040	1303.42	7.92
C_KP_0035	J_KP_0030	J_KP_0035	8.74	9.87
C_KP_0030	J_KP_0020	J_KP_0030	3.83	9.87
C_KP_0005	J_KP_0001	J_KP_0050	51.41	14.7
C_KP_0010	J_KP_0050	J_KP_0010	339.99	14.7
C_KL5.4-0.8_0010	J_KL5.4_0022	J_KL5.4-0.8_0010	14.91	39.26
C_KL5.4-0.8_0030	J_KL5.4-0.8_0025	J_KL5.4-0.8_0030	1036.76	37.76

C_KL5.4-0.8_0025J_KL5.4-0.8_0020J_KL5.4-0.8_0025	280.96	37.76		
C_KL5.4-0.8_0020J_KL5.4-0.8_0015J_KL5.4-0.8_0020	1251.17	37.76		
C_KL5.4-0.8_0015J_KL5.4-0.8_0010J_KL5.4-0.8_0015	1121.26	37.76		
C_KL5.4-0.8_0065J_KL5.4-0.8_0060J_KL5.4-0.8_0065	490.37	29.39		
C_KL5.4-0.8_0060J_KL5.4-0.8_0050J_KL5.4-0.8_0060	88.55	31.23		
C_KL5.4-0.8_0050J_KL5.4-0.8_0040J_KL5.4-0.8_0050	1190.06	33.06		
C_KL5.4-0.8_0040J_KL5.4-0.8_0035J_KL5.4-0.8_0037	1585.06	37.31		
C_KL5.4-0.8_0035J_KL5.4-0.8_0030J_KL5.4-0.8_0035	1090.87	37.31		
C_KL5.4-0.8_0070J_KL5.4-0.8_0065J_KL5.4-0.8_0070	441.96	29.39		
C_KL5.4-0.8_0095J_KL5.4-0.8_0090J_KL5.4-0.8_0095	280.3	29.39		
C_KL5.4-0.8_0090J_KL5.4-0.8_0080J_KL5.4-0.8_0090	50.4	29.39		
C_KL5.4-0.8_0080J_KL5.4-0.8_0070J_KL5.4-0.8_0080	286.58	29.39		
C_KL5.4-0.8_0100J_KL5.4-0.8_0095J_KL5.4-0.8_0100	933.07	29.39		
C_KL5.4-0.8_0113J_KL5.4-0.8_0110J_KL5.4-0.8_0113	1098.55	26.97		
C_KL5.4-0.8_0117J_KL5.4-0.8_0113J_KL5.4-0.8_0117	135.92	21.58		
C_KL5.4-0.8_0110J_KL5.4-0.8_0100J_KL5.4-0.8_0110	260.78	28.73		
C_KL5.4-0.8_0120J_KL5.4-0.8_0117J_KL5.4-0.8_0120	65.41	21.58		
C_KL5.4-0.8_0135J_KL5.4-0.8_0130J_KL5.4-0.8_0135	561.17	21.58		
C_KL5.4-0.8_0130J_KL5.4-0.8_0120J_KL5.4-0.8_0130	462.41	21.58		
C_KL5.4-0.8-2.4_0010J_KL5.4-0.8-2.4_0005J_KL5.4-0.8-2.4_0010	2015.33	17.98		
C_KL5.4-0.8-2.4_0015J_KL5.4-0.8-2.4_0010J_KL5.4-0.8-2.4_0015	71.11	12.59		
C_KL5.4-0.8-2.4_0020J_KL5.4-0.8-2.4_0015J_KL5.4-0.8-2.4_0020	1749.38	12.59		
C_KL5.4-0.8-2.4_0030J_KL5.4-0.8-2.4_0020J_KL5.4-0.8-2.4_0030	19.77	11.46		
C_KL5.4-0.8-2.2_0005J_KL5.4-0.8_0113J_KL5.4-0.8-2.2_0005	115.9	16.18		
C_KL5.4-0.8-2.2_0010J_KL5.4-0.8-2.2_0005J_KL5.4-0.8-2.2_0010	1160.88	16.18		
C_KL5.4-0.8-2.2_0025J_KL5.4-0.8-2.2_0020J_KL5.4-0.8-2.2_0025	59.42	12.59		

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2_0010J_KL5.4-0.8-2.2_0015			29.54	16.18
C_KL5.4-0.8-2.2_0020J_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2_0020			64.89	12.86
C_KL5.4-0.8-2.2_0030J_KL5.4-0.8-2.2_0025J_KL5.4-0.8-2.2_0030			1132.91	12.86
C_KL5.4-0.8-2.2_0045J_KL5.4-0.8-2.2_0040J_KL5.4-0.8-2.2_0045			158.1	9.87
C_KL5.4-0.8-2.2_0040J_KL5.4-0.8-2.2_0030J_KL5.4-0.8-2.2_0040			38.44	12.86
C_KL5.4-0.8-2.2_0050J_KL5.4-0.8-2.2_0045J_KL5.4-0.8-2.2_0050			1190.25	9.87
C_KL5.4-0.8-2.2_0060J_KL5.4-0.8-2.2_0050J_KL5.4-0.8-2.2_0060			31.36	6.08
C_KL5.4-0.8-2.2-0.2_0010J_KL5.4-0.8-2.2_0015J_KL5.4-0.8-2.2-0.2_0010			1251.67	9.66
C_KL5.4-0.8_0140J_KL5.4-0.8_0135J_KL5.4-0.8_0140			1245.62	12.59
C_KL5.4-0.8_0160J_KL5.4-0.8_0150J_KL5.4-0.8_0160			53.78	12.59
C_KL5.4-0.8_0150J_KL5.4-0.8_0140J_KL5.4-0.8_0150			1244.05	12.59
C_NC12.4P_0015	J_NC12.4P_0010	J_NC12.4P_0015	1188.93	26.17
C_NC12.4P_0010	J_NC12.4P_0005	J_NC12.4P_0010	2390.65	26.17
C_NC12.4P_0020	J_NC12.4P_0015	J_NC12.4P_0020	1247.19	26.17
C_NC12.4P_0035	J_NC12.4P_0030	J_NC12.4P_0035	395.38	22.04

C_NC12.4P_0030 J_NC12.4P_0020 J_NC12.4P_0030 28.88 22.44
C_NC12.4P_0040 J_NC12.4P_0035 J_NC12.4P_0040 848.11 22.04
C_NC12.4P_0055 J_NC12.4P_0050 J_NC12.4P_0055 220.39 22.04
C_NC12.4P_0050 J_NC12.4P_0040 J_NC12.4P_0050 35.75 22.04
C_NC12.4P_0060 J_NC12.4P_0055 J_NC12.4P_0060 1108.4 21.58
C_NC12.4P_0085 J_NC12.4P_0080 J_NC12.4P_0085 111.96 14.38
C_NC12.4P_0080 J_NC12.4P_0070 J_NC12.4P_0080 1193.35 17.98
C_NC12.4P_0070 J_NC12.4P_0060 J_NC12.4P_0070 515.37 17.98
C_NC12.4P_0090 J_NC12.4P_0085 J_NC12.4P_0090 518.53 14.38
C_NC12.4P_0110 J_NC12.4P_0140 J_NC12.4P_0100 1.5 14.21
C_NC12.4P_0150 J_NC12.4P_0130 J_NC12.4P_0150 0.65 9.55
C_NC12.4P_0140 J_NC12.4P_0120 J_NC12.4P_0130 0.41 9.55
C_NC12.4P_0130 J_NC12.4P_0110 J_NC12.4P_0120 1.12 9.55
C_NC12.4P_0120 J_NC12.4P_0100 J_NC12.4P_0110 0.75 9.55
C_NC12.4P_0100 J_NC12.4P_0090 J_NC12.4P_0140 2870.5 14.21
C_MB6.0_0057 J_MB6.0_0053 J_MB6.0_0057 959.1 18.7
C_MB6.0_0100 J_MB6.0_0090 J_MB6.0_0100 543.1 12.86
C_MB7.5-0.1_0010J_MB7.5_0035 J_MB7.5-0.1_0010 1475.68 8.06
C_MB8.5_0045 J_MB8.5_0030 J_MB8.5_0045 2727.45 16.83
C_NC35.7_0030 J_NC35.7_0025 J_NC35.7_0050 1833.94 8.06
C_NC35.7_0040 J_NC35.7_0050 J_NC35.7_0030 2.76 6.08
C_NC35.7_0060 J_NC35.7_0040 J_NC35.7_0060 0.95 6.08
C_NC28.7-1.0-0.1_0017J_NC28.7-1.0-0.1_0013J_NC28.7-1.0-0.1_0017 968.9
11.92
C_NC28.7-1.0_0150J_NC28.7-1.0_0145J_NC28.7-1.0_0150 830.78 6.08
C_NC28.7-1.0_0160J_NC28.7-1.0_0150J_NC28.7-1.0_0160 834.07 5.96
C_NC29.7_0017 J_NC29.7_0013 J_NC29.7_0017 739.83 10.05
C_NC31.0_0190 J_NC31.0_0185 J_NC31.0_0190 1439.07 7.75
C_NC33.1S_0170 J_NC33.1S-1.6_0015J_NC33.1S-1.6_0018 1334 7.75
C_NC35.1_0110 J_NC35.1_0100 J_NC35.1_0110 972.53 7.75
C_NC48.3_0060 J_NC48.3_0055 J_NC48.3_0060 643.11 6.08
C_NC49.2-0.3_0010J_NC49.2-0.3_0007J_NC49.2-0.3_0010 707.58 13.09
C_NC49.2-0.3_0020J_NC49.2-0.3_0010J_NC49.2-0.3_0020 0.19 11.92

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC49.2_0130	J_NC49.2_0127	J_NC49.2_0130	847.75	18.7
C_NC49.2_0132	J_NC49.2_0130	J_NC49.2_0132	6.49	18.7
C_NC54.3_0040	J_NC54.3_0030	J_NC54.3_0040	1085.49	13.09
C_NC54.3_0030	J_NC54.3_0020	J_NC54.3_0030	97.27	16.83
C_NC54.3_0020	J_NC54.3_0010	J_NC54.3_0020	33.79	16.83
C_ON_0010	J_ON0.0_0000	J_ON0.1_0004	504.17	57.86
C_ON_0090	J_ON0.5_0020	J_ON_0090	870.68	58.89
C_ON0.5_0080	J_ON0.3_0010	J_ON0.5_0020	1123.12	57.86
C_ON0.3_0070	J_ON0.2_0010	J_ON0.3_0010	636.24	57.86

C_ON_0040	J_ON0.1_0020	J_ON0.1_0010	3.42	57.86
C_ON_0050	J_ON0.1_0010	J_ON_0050	406.8	57.86
C_ON_0060	J_ON_0050	J_ON0.2_0010	1121.41	57.86
C_ON_0030	J_ON0.1_0005	J_ON0.1_0020	1892.39	57.86
C_ON_0020	J_ON0.1_0004	J_ON0.1_0005	12.54	57.86
C_ON0.1_0030	J_ON_0050	J_ON0.1_0030	1402.43	9.87
C_ON0.1_0040	J_ON0.1_0030	J_ON0.1_0040	1300.08	6.08
C_ON_0180	J_ON_0170	J_ON_0180	253.35	58.89
C_ON_0210	J_ON_0200	J_ON_0210	417.53	58.89
C_ON_0700	J_ON_0690	J_ON_0700	427.98	58.89
C_ON13.9_0010	J_ON_0900	J_ON13.9_0010	10.53	11.71
C_ON13.9_0015	J_ON13.9_0010	J_ON13.9_0015	1370.1	11.71
C_ON17.9_0020	J_ON_1110	J_ON17.9_0020	8.85	12.86
C_ON17.9_0050	J_ON17.9_0050	J_ON17.9_0040	7.84	9.87
C_ON17.9_0060	J_ON17.9_0040	J_ON17.9_0060	17.63	9.87
C_ON17.9_0040	J_ON17.9_0030	J_ON17.9_0050	1345.74	11.71
C_ON17.9_0030	J_ON17.9_0020	J_ON17.9_0030	750.76	11.71
C_ON18.2_0005	J_ON_1130	J_ON18.2_0015	18.29	11.71
C_ON18.2_0010	J_ON18.2_0015	J_ON18.2_0010	2056.82	11.71
C_ON18.2_0020	J_ON18.2_0010	J_ON18.2_0020	54.15	11.71
C_ON19.9_0020	J_ON_1225	J_ON19.9_0020	2153.92	12.59
C_ON19.9_0030	J_ON19.9_0020	J_ON_1260	10.72	11.46
C_LL1.8_0020	J_LL1.8_0010	J_LL_0190	852.83	6.08
C_ML0.7_0060	J_ML0.7_0055	J_ML0.7_0060	803.28	6.08
C_CL1.74_0060	J_CL1.74_0055	J_CL1.74_0060	941.41	6.08
C_CL_0200	J_CL_0190	J_CL2.09_0020	1854.29	7.92
C_CL_0210	J_CL2.09_0020	J_CL2.55_0010	1980.21	3.94
C_CL1.84-0.55_0040	J_CL1.84-0.55_0025	J_CL1.84-0.55_0040	667.32	9.87
C_ML2.0_0010	J_ML_0280	J_ML2.0_0010	8.44	8.06
C_ML2.0_0025	J_ML2.0_0015	J_ML2.0_0025	2019.49	8.06
C_ML2.0_0015	J_ML2.0_0010	J_ML2.0_0015	0.49	8.06
C_ML3.1_0130	J_ML3.1_0125	J_ML3.1_0130	2.05	7.92
C_ML3.1_0150	J_ML3.1_0140	J_ML3.1_0150	0.21	6.08
C_ML3.1_0160	J_ML3.1_0150	J_ML3.1_0160	4.45	6.08
C_ML3.1_0140	J_ML3.1_0130	J_ML3.1_0140	1439.45	6.08
C_ML3.4_0010	J_ML_0400	J_ML3.4_0010	4355.45	6.08
C_HL2.5_0010	J_HL_0110	J_HL2.5_0010	5.4	8.06
C_HL2.5_0025	J_HL2.5_0015	J_HL2.5_0025	2762.91	8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_HL2.5_0015	J_HL2.5_0010	J_HL2.5_0015	4.44	8.06
C_HL2.7P_0010	J_HL_0150	J_HL3.3_0020	9.03	10.05
C_HL2.7P_0040	J_HL2.7P_0040	J_HL2.7P_0030	1.2	8.06
C_HL2.7P_0050	J_HL2.7P_0030	J_HL2.7P_0020	3.74	8.06

C_HL2.7P_0060 J_HL2.7P_0020 J_HL2.7P_0010 0.42 8.06
C_HL2.7P_0020 J_HL3.3_0020 J_HL2.7_0010 3.69 10.05
C_HL2.7P_0030 J_HL2.7_0010 J_HL2.7P_0040 2194 8.06
C_HL5.5-0.7_0010J_HL5.5_0037 J_HL5.5_0035 818.49 6.08
C_NC25.4-1.6_0090J_NC25.4-1.6_0100J_NC25.4-1.6_0090 1.7 10.05
C_NC25.4-1.6_0100J_NC25.4-1.6_0090J_NC25.4-1.6_0120 3100.03 11.71
C_NC49.2-0.3_0005J_NC49.2_0027 J_NC49.2_0030 12.28 13.09
C_NC49.2-0.3_0007J_NC49.2_0030 J_NC49.2-0.3_0007 536.53 13.09
C_NC38.7-0.1_0017J_NC38.7-0.1_0015J_NC38.7-0.1_0017 1200.83 10.05
C_NC38.7-0.1_0020J_NC38.7-0.1_0017J_NC38.7-0.1_0020 1333 3.94
C_ML_0010 J_ML_0000 J_ML_0010 110.14 44.87
C_KL5.4-0.8-2.4_0005J_KL5.4-0.8_0135J_KL5.4-0.8-2.4_0005 712.51 17.98
C_MB9.1-0.9_0030J_MB9.1-0.9_0020J_MB9.1-0.9_0030 249.87 8.06
C_MB_0130 J_MB_0120 J_MB_0130 169.19 58.89
C_MB_0200 J_MB_0190 J_MB_0200 613.94 58.89
C_MB_0280 J_MB_0270 J_MB_0280 254.92 58.89
C_MB_0310 J_MB_0300 J_MB_0310 139.78 58.89
C_NC25.4-1.6-0.9_0070J_NC25.4-1.6-0.9_0060J_NC25.4-1.6-0.9_0070 222.01
9.55
C_SA2.5_0020 J_SA2.5_0010 J_SA2.5_0020 984.93 3.94
C_SA2.5_0010 J_SA2.5_0010 J_SA_0340 8.55 3.94
C_NC33.1S_0160 J_NC33.1S-1.6_0010J_NC33.1S-1.6_0015 411.31 9.66
C_NC38.9_0148 J_NC38.9_0147 J_NC38.9_0148 217.34 28.04
C_NC43.2-12.9_0040J_NC43.2-12.9_0035J_NC43.2-12.9_0040 268.28 14.96
C_NC43.2-12.9_0050J_NC43.2-12.9_0040J_NC43.2-12.9_0050 53.29 14.96
C_NC48.3_0040 J_NC48.3_0010 J_NC48.3_0040 1955.89 6.08
C_NC48.3_0055 J_NC48.3_0050 J_NC48.3_0055 574.88 6.08
C_NC48.3_0050 J_NC48.3_0040 J_NC48.3_0050 21.69 6.08
C_NC48.3_0070 J_NC48.3_0060 J_NC48.3_0070 1761.65 6.08
C_NC54.3_0050 J_NC54.3_0040 J_NC54.3_0050 1199.22 8.06
C_NC_1180 J_NC_1170 J_NC_1180 1949.2 72
C_NC_1260 J_NC_1250 J_NC_1260 196.93 58.89
C_NC_1320 J_NC_1310 J_NC_1320 683.88 58.89
C_NC59.5_0030 J_NC59.5_0020 J_NC59.5_0030 56.43 13.09
C_NC59.5_0045 J_NC59.5_0040 J_NC59.5_0045 1.36 10.05
C_NC59.5_0040 J_NC59.5_0030 J_NC59.5_0040 1203.31 10.05
C_HL6.4_0020 J_HL6.4_0025 J_HL6.4_0030 170.6 18.7
C_HL_0610 J_HL_0600 J_HL_0610 157.54 8.06
C_NC_1370 J_NC_1360 J_NC_1370 376.96 50.48
C_NC62.1_0046 J_NC62.1_0044 J_NC62.1_0046 119.08 10.05
C_ML1.3_0010 J_ML_0130 J_ML1.3_0009 7.97 10.05
C_ML1.3_0050 J_ML1.3_0045 J_ML1.3_0050 1198.08 7.92
C_ML1.3_0045 J_ML1.3_0040 J_ML1.3_0045 854.91 7.92
C_ML1.3_0020 J_ML1.3_0009 J_ML1.3_0008 34.91 10.05

Link	Start	End	Length	Diameter

ID	Node	Node	ft	in
C_ML1.3_0040	J_ML1.3_0008	J_ML1.3_0040	1858.33	9.87
C_ML_0230	J_ML1.5_0010	J_ML_0230	88.88	31.78
C_ML_0220	J_ML_0210	J_ML1.5_0010	318.98	31.78
C_CL_0070	J_CL_0060	J_CL_0070	1358.8	23.88
C_SA0.5_0020	J_SA0.5_0010	J_SA0.5_0020	777.83	3.94
C_NC18.6_0030	J_NC18.6_0020	J_NC18.6_0030	47.16	10.05
C_NC18.6_0020	J_NC18.6_0010	J_NC18.6_0020	121.75	10.05
C_KL5.4-3.2_0010	J_KL5.4_0109	J_KL5.4-3.2_0010	6.07	12.86
C_KL5.4-3.2_0040	J_KL5.4-3.2_0030	J_KL5.4-3.2_0040	14.09	12.86
C_KL5.4-3.2_0030	J_KL5.4-3.2_0010	J_KL5.4-3.2_0030	594.07	12.86
C_MB9.4_0019	J_MB9.4_0017	J_MB9.4_0019	919.96	11.92
C_KL_0058	J_KL_0056	J_KL_0058	4038.98	58.89
C_NC27.8_0068	J_NC27.8_0055	J_NC27.8_0068	15.89	10.05
C_NC24.1-0.1_0010	J_NC24.1_0025	J_NC24.1-0.1_0010	653.11	3.94
C_NC14.5-0.2_0020	J_NC14.5-0.2_0010	J_NC14.5-0.2_0020	30.32	8.06
C_NC32.2-0.1_0020	J_NC32.2-0.1_0010	J_NC21.2-0.1_0030	103.68	10.05
C_ML_0310	J_ML2.1_0010	J_ML2.1_0015	0.05	39.26
C_ML_0330	J_ML2.2_0010	J_ML2.2_0015	0.16	39.26
C_ML3.1_0010	J_ML3.1_0020	J_ML3.1_0030	1.74	22.44
C_ML4.0_0035	J_ML4.0_0030	J_ML4.0_0035	4.4	11.92
C_CL1.84_0030	J_CL1.84_0020	J_CL1.84_0030	0.06	18.37
C_NC32.2-0.1_0010	J_NC32.2_0015	J_NC32.2-0.1_0010	7.04	10.05
C_NC35.7_0020	J_NC35.7_0010	J_NC35.7_0020	0.55	8.06
C_NC38.9-4.8-0.5_0115	J_NC38.9-4.8-0.5_0100	J_NC38.9-4.8-0.5_0110	0.21	12.59
C_NC38.9-4.8-2.5_0010	J_NC38.9-4.8_0145	J_NC38.9-4.8-2.5_0010	0.87	7.92
C_NC38.9-7.8_0070	J_NC38.9-7.8_0060	J_NC38.9-7.8_0070	0.27	11.92
C_NC38.9-7.8-0.5_0050	J_NC38.9-7.8-0.5_0040	J_NC38.9-7.8-0.5_0050	0.31	8.06
C_NC38.7-0.1_0015	J_NC38.7_0072	J_NC38.7-0.1_0015	0.45	8.06
C_NC45.4_0020	J_NC45.4_0015	J_NC45.4_0020	3.38	11.92
C_NC49.2-0.3_0030	J_NC49.2-0.3_0020	J_NC49.2-0.3_0030	0.09	8.06
C_NC49.2_0037	J_NC49.2_0035	J_NC49.2_0037	789.5	44.87
C_NC49.2_0039	J_NC49.2_0037	J_NC49.2_0039	917.29	33.65
C_NC54.2-2.8_0010	J_NC54.2_0250	J_NC54.2-2.8_0010	9.65	3.94
C_NC54.4_0120	J_NC54.4_0110	J_NC54.4_0120	1.33	6.08
C_NC55.5_0120	J_NC55.6-0.1_0110	J_NC55.6-0.1_0120	1.85	3.94
C_NC55.5_0080	J_NC55.6-0.1_0070	J_NC55.6-0.1_0080	1.7	10.05
C_NC55.5_0090	J_NC55.6-0.1_0080	J_NC55.6-0.1_0090	1.77	8.06
C_NC55.5_0100	J_NC55.6-0.1_0090	J_NC55.6-0.1_0100	1.59	10.05
C_NC55.5_0110	J_NC55.6-0.1_0100	J_NC55.6-0.1_0110	1.85	8.06
C_NC55.5_0130	J_NC55.6-0.1_0120	J_NC55.6-0.1_0130	1.1	3.94
C_NC55.5_0140	J_NC55.6-0.1_0130	J_NC55.6-0.1_0140	1.95	3.94
C_NC55.5_0150	J_NC55.6-0.1_0140	J_NC55.6-0.1_0150	1.68	3.94
C_NC55.6-0.5-2.6_0060	J_NC55.6-0.5-2.6_0050	J_NC55.6-0.5-2.6_0060	4.77	6.08
C_NC55.6-0.5-2.6_0070	J_NC55.6-0.5-2.6_0060	J_NC55.6-0.5-2.6_0070	3.17	6.08

C_NC58.7-0.7_0050J_NC58.7-0.7_0040J_NC58.7-0.7_0050 4.7 3.94
C_NC59.5_0060 J_NC59.5_0050 J_NC59.5_0060 0.31 8.06
C_NC59.5_0070 J_NC59.5_0060 J_NC59.5_0070 0.29 8.06

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC60.0_0030	J_NC60.0_0025	J_NC60.0-0.6_0030	85.46	29.91
C_NC60.0-0.9_0020	J_NC60.0-0.9_0010	J_NC60.0-0.9_0020	0.77	16.83
C_NC60.0-1.6_0050	J_NC60.0-1.6-0.7_0020	J_NC60.0-1.6-0.7_0030	0.7	8.06
C_NC_1610	J_NC66.7_0010	J_NC67.5_0010	0.45	16.53
C_HL0.9_0140	J_HL0.9_0130	J_HL0.9_0140	5.67	6.08
C_HL_0100	J_HL2.4_0010	J_HL2.4_0015	0.74	58.89
C_HL2.9_0040	J_HL2.9_0030	J_HL2.9_0040	0.48	6.08
C_HL_0250	J_HL5.3_0010	J_HL5.3_0015	0.65	50.48
C_KL5.4-3.0_0010	J_KL5.4_0095	J_KL5.4-3.0_0010	8.33	23.88
C_KL5.4_0250	J_KL5.4_0240	J_KL5.4_0250	0.51	11.46
C_KL5.4_0230	J_KL5.4_0220	J_KL5.4_0230	0.44	14.38
C_KL5.4_0240	J_KL5.4_0230	J_KL5.4_0240	0.44	14.38
C_KL5.4_0260	J_KL5.4_0250	J_KL5.4_0260	0.47	5.96
C_KL6.2_0010	J_KL_0135	J_KL6.2_0010	9.81	8.06
C_KL7.7_0060	J_KL7.7_0050	J_KL7.7_0060	0.27	7.75
C_KL7.7_0070	J_KL7.7_0060	J_KL7.7_0070	0.29	7.75
C_MB_0160	J_MB3.9_0010	J_MB3.9_0030	2.41	58.89
C_MB6.0_0070	J_MB6.0_0060	J_MB6.0_0070	0.07	16.83
C_MB7.5_0117	J_MB7.5_0113	J_MB7.5_0117	297.93	22.44
C_ON13.2_0040	J_ON13.2_0030	J_ON13.2_0040	0.13	8.06
C_ON_0950	J_ON14.7_0010	J_ON14.7_0020	0.19	44.09
C_ON_1250	J_ON20.1_0010	J_ON20.1_0020	0.44	6.08
C_ON_1225	J_ON19.8_0010	J_ON_1225	9.57	12.86
C_NC38.9-2.4_0105	J_NC38.9-2.4_0100	J_NC38.9-2.4_0105	9.12	16.53
C_NC38.9-2.4_0100	J_NC38.9-2.4_0090	J_NC38.9-2.4_0100	2.71	16.53
C_NC38.9-2.4_0090	J_NC38.9-2.4_0080	J_NC38.9-2.4_0090	2.58	14.7
C_NC38.9-2.4-1.6_0040	J_NC38.9-2.4-1.6_0030	J_NC38.9-2.4-1.6_0040	0.59	9.66
C_SA_0060	J_SA0.3_0020	J_SA_0060	4.38	14.96
C_SA_0070	J_SA_0060	J_SA0.3_0030	8.61	14.96
C_SA_0100	J_SA0.7_0010	J_SA_0100	4.07	14.96
C_SA_0350	J_SA_0350	J_NA0.0_0010	3.73	8.06
C_NA0.2E_0005	J_NA_0020	J_NA0.2_0005	2.43	3.94
C_NA0.2E_0006	J_NA0.2_0005	J_NA0.2_0006	0.6	3.94
C_NA0.2E_0010	J_NA0.2_0006	J_NA0.2_0010	1.43	3.94
C_NA0.2E_0020	J_NA0.2_0010	J_NA0.2_0020	1.49	3.94
C_NA0.4_0010	J_NA_0060	J_NA0.4_0010	2.39	6.08
C_NA_0090	J_NA0.9_0010	J_NA_0090	237.85	3.94
C_NC5.3_0070	J_NC5.3_0060	J_NC5.3_0070	0.06	5.8

C_NC5.3_0080 J_NC5.3_0070 J_NC5.3_0080 0.06 5.8
C_NC14.5-0.2_0010J_NC14.5_0023 J_NC14.5-0.2_0010 16.82 8.06
C_NC14.5-0.2_0030J_NC14.5-0.2_0020J_NC14.5-0.2_0030 21.84 8.06
C_NC25.4-1.6_0070J_NC25.4-1.6-1.1_0010J_NC25.4-1.6_0100 0.65 10.05
C_NC25.4-4.8_0020J_NC25.4-4.8_0010J_NC25.4-4.8_0020 0.11 5.96
C_NC27.8-0.9_0020J_NC27.8_0060 J_NC27.8_0065 0.89 3.94
C_NC28.7-1.0-0.1_0047J_NC28.7-1.0-0.1_0045J_NC28.7-1.0-0.1_0047 639.45
3.94
C_NC28.7-2.0_0010J_NC28.7_0082 J_NC28.7-2.0_0010 0.17 22.44
C_NC29.7_0030 J_NC29.7_0020 J_NC29.7_0030 0.16 10.05

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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC30.2_0100	J_NC30.2_0090	J_NC30.2_0100	1.04	8.06
C_NC31.0-2.5_0010J_NC31.0_0158	J_NC31.0_0160		0.63	7.92
C_NC35.1-0.7_0010J_NC35.1_0055	J_NC35.1-0.7_0010		2.86	3.94
C_NC35.1-0.7_0020J_NC35.1-0.7_0015J_NC35.1-0.7_0020			0.26	3.94
C_NC35.7_0050	J_NC35.7_0030	J_NC35.7_0040	0.73	6.08
C_LL_0030	J_LL_0020	J_LL_0030	6.67	14.7
C_LL_0070	J_LL_0060	J_LL_0070	10.12	14.7
C_LL_0060	J_LL_0050	J_LL_0060	3.76	14.7
C_LL_0150	J_LL_0140	J_LL_0150	0.32	14.7
C_LL_0155	J_LL_0150	J_LL_0155	0.38	14.7
C_LL_0170	J_LL_0160	J_LL_0170	1.7	11.71
C_LL_0180	J_LL_0170	J_LL_0180	2.23	11.71
C_LL2.0_0030	J_LL_0230	J_LL_0240	3.7	3.94
C_LL_0250	J_LL_0210	J_LL_0250	5.77	7.92
C_ML0.7_0015	J_ML_0090	J_ML0.2_0015	2.35	10.05
C_ML0.7_0045	J_ML0.7_0040	J_ML0.7_0045	0.71	8.06
C_NC49.2_0065	J_NC49.2_0060	J_NC49.2_0065	19.53	26.17
C_CL1.74_0070	J_CL1.74_0060	J_CL1.74_0070	5.67	3.94
C_NC24.1-0.1_0020J_NC24.1-0.1_0010J_NC24.1-0.1_0020			3.87	3.94
C_NC60.0-1.6-0.7_0010J_NC60.0-1.6_0025J_NC60.0-1.6-0.7_0010			4.35	10.05
C_HL_0000	J_HL0.0_0020	J_ML_0000	269.33	72
C_HL_0005	J_ML_0000	J_HL0.1_0010	331.14	58.89
C_KP_0001	J_KL7.6-9.6_0070J_KP_0001		2487.68	16.18
C_HL_0520	J_NC70.5_0020	J_HL_0520	9.38	16.83
C_NC60.0_0148	J_NC60.0_0148	J_HL_0120	12.69	16.83
C_HL_0116	J_HL_0116	J_HL_0120	9.03	50.48
C_MB_0405	J_MB_0400	J_MB_0405	24.64	58.89
C_MB_0400	J_MB_0395	J_MB_0400	9.96	58.89
C_NA0.0_0008	J_NA0.0_0007	J_NA0.0_0008	10.39	10.05
C_NA0.0_0010	J_NA0.0_0009	J_NA0.0_0010	8.12	10.05
C_HL0.0_0005	R_DEAD_OX	J_HL0.0_0010	27.23	72
C_KL_0110	J_KL_0020	J_KL_0107.5	19184.86	58.89

C_MB_DUAL_015	J_MB_0218	J_MB_0394	26258.42	58.89
C_KL_0114	J_KL_0107	J_KL_0110	28.32	58.89
C_KL_0113	J_KL_0107.5	J_KL_0107	4	58.89
C_MB7.5_0015	J_MB_0320	J_MB7.5_0010	12.5	28.04
C_HL3.7_0010	J_HL3.4_0010	J_HL3.7_0010	1286.99	50.48
C_ON3.7_0010	J_ON_0096	J_ON3.7_0010	14478.86	58.89
C_HL9.4_0056	J_HL9.4_0055	J_HL9.4_0056	87.63	14.7
C_KL_0234	J_KL_0230	J_KL7.6S_0005	2873.85	28.66
C_NC_0017	J_NC_0015	J_NC_0017	1218.15	180
C_NC_0013	J_NC_0011	J_NC_0013	1381.2	180
C_NC_0009	J_NC_0007	J_NC_0009	354.24	180
C_NC_0023	J_NC_0020	J_NC_0023	58.9	180
C_NC_0020	J_NC_0019	J_NC_0020	1178.57	180
C_NC_0019	J_NC_0017	J_NC_0019	2487.78	180
C_NC_0015	J_NC_0013	J_NC_0015	3821.3	180

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_0011	J_NC_0009	J_NC_0011	2891.53	180
C_NC_0007	J_NC_0005	J_NC_0007	3878.13	180
C_NC_0005	R_OWYHEE_RES	J_NC_0005	3030.3	180
C_NC_0100	J_NC6.9_0010	J_NC_0100	1487.99	162
C_NC_0060	J_NC_0050	J_NC5.8_0010	2583.94	162
C_NC_0050	J_NC_0040	J_NC_0050	2134.6	162
C_NC_0090	J_NC5.8_0030	J_NC6.9_0010	5298.71	162
C_NC_0140	J_NC_0130	J_NC_0140	3586.23	162
C_NC_0130	J_NC_0120	J_NC_0130	1326.56	162
C_NC_0290	J_NC15.3_0010	J_NC_0290	81.32	132
C_NC_0190	J_NC9.8_0010	J_NC9.9_0010	772.57	132
C_NC_0180	J_NC_0170	J_NC9.8_0010	185.29	132
C_NC_0170	J_NC9.7_0010	J_NC_0170	55.07	162
C_NC_0160	J_NC_0150	J_NC9.7_0010	818.07	162
C_NC_0220	J_NC_0210	J_NC11.7_0010	3360.4	132
C_NC_0210	J_NC_0200	J_NC_0210	3110.45	132
C_NC_0200	J_NC9.9_0010	J_NC_0200	2936.17	132
C_NC_0240	J_NC_0230	J_NC12.9_0010	2551.08	132
C_NC_0230	J_NC11.7_0010	J_NC_0230	3880.45	132
C_NC_0280	J_NC15.0_0010	J_NC15.3_0010	2640.92	132
C_NC_0270	J_NC_0260	J_NC15.0_0010	1170.61	132
C_NC_0250	J_NC12.9_0010	J_NC_0250	4028.93	132
C_NC_0260	J_NC_0250	J_NC_0260	4877.57	132
C_NC_0320	J_NC15.8_0010	J_NC16.8_0010	5090.37	132
C_NC_0310	J_NC_0300	J_NC15.8_0010	1864.13	132
C_NC_0330	J_NC16.8_0010	J_NC17.3_0010	2906.99	132
C_NC_0380	J_NC_0370	J_NC21.1_0010	3878.49	132

C_NC_0370	J_NC20.1_0010	J_NC_0370	526.59	132
C_NC_0360	J_NC_0350	J_NC20.1_0010	1437.48	132
C_NC_0350	J_NC_0340	J_NC_0350	7271.68	132
C_NC_0340	J_NC17.3_0010	J_NC_0340	6333.81	132
C_NC_0420	J_NC_0410	J_NC_0430	1844.03	132
C_NC_0410	J_NC24.0_0010	J_NC_0410	488.5	132
C_NC_0400	J_NC_0390	J_NC24.0_0010	6201.06	132
C_NC_0390	J_NC21.1_0010	J_NC_0390	9241.3	132
C_NC_0540	J_NC28.4_0010	J_NC_0540	117.68	132
C_NC_0460	J_NC24.9_0010	J_NC25.1_0010	1637.02	132
C_NC_0450	J_NC_0440	J_NC24.9_0010	252.2	132
C_NC_0490	J_NC_0480	J_NC27.3_0009	4303.75	132
C_NC_0480	J_NC_0470	J_NC_0480	5225.08	132
C_NC_0470	J_NC25.1_0010	J_NC_0470	2066.25	132
C_NC_0530	J_NC_0520	J_NC28.4_0010	2248.71	132
C_NC_0520	J_NC27.3_0020	J_NC_0520	2697.46	132
C_NC_0610	J_NC30.4_0010	J_NC_0610	225.58	132
C_NC_0570	J_NC_0560	J_NC29.1_0010	1814.52	132
C_NC_0560	J_NC_0550	J_NC_0560	1751.74	132
C_NC_0600	J_NC_0590	J_NC30.4_0010	1734.32	132

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_0590	J_NC_0580	J_NC_0590	2606.6	132
C_NC_0580	J_NC29.1_0010	J_NC_0580	3230.85	132
C_NC_0770	J_NC38.6_0010	J_NC_0770	79.62	132
C_NC_0780	J_NC_0770	J_NC_0780	811.49	132
C_NC_0680	J_NC_0670	J_NC33.5_0010	2335.35	132
C_NC_0660	J_NC31.8_0010	J_NC_0660	2123.96	132
C_NC_0670	J_NC_0660	J_NC_0670	4385.09	132
C_NC_0650	J_NC_0640	J_NC31.8_0010	2576.16	132
C_NC_0640	J_NC_0630	J_NC_0640	1918.58	132
C_NC_0630	J_NC_0620	J_NC_0630	994.39	132
C_NC_0710	J_NC_0700	J_NC36.3_0010	3196.26	132
C_NC_0690	J_NC33.5_0010	J_NC_0690	8445.13	132
C_NC_0700	J_NC_0690	J_NC_0700	3092.12	132
C_NC_0760	J_NC38.3_0010	J_NC38.6_0010	2131.55	132
C_NC_0750	J_NC38.2_0010	J_NC38.3_0010	523.64	132
C_NC_0740	J_NC_0730	J_NC38.2_0010	2839.8	132
C_NC_0730	J_NC36.3_0020	J_NC_0730	7019.11	132
C_NC_0620	J_NC_0610	J_NC_0620	1048.97	132
C_NC_0300	J_NC_0290	J_NC_0300	871.62	132
C_NC_0150	J_NC_0140	J_NC_0150	2009.53	162
C_NC_0120	J_NC_0110	J_NC_0120	347.7	162
C_NC_0110	J_NC_0100	J_NC_0110	251.03	162

C_NC_0040	J_NC_0030	J_NC_0040	2153.54	162
C_NC_0030	J_NC_0025	J_NC_0030	2537.42	162
C_NC_0025	J_NC_0023	J_NC_0025	417.14	162
C_NC_0440	J_NC_0430	J_NC_0440	1346.35	132
C_NC_0550	J_NC_0540	J_NC_0550	947.54	132
C_NC_0510	J_NC27.3_0010	J_NC27.3_0020	25.97	132
C_NC_0500	J_NC27.3_0009	J_NC27.3_0010	30.04	132
C_NC_0810	J_NC_0800	J_NC43.3_0010	367.27	102
C_NC_0830	J_NC43.6_0010	J_NC44.1_0010	1816.83	102
C_NC_0820	J_NC43.3_0010	J_NC43.6_0010	1807.25	102
C_NC_0840	J_NC44.1_0010	J_NC_0840	295.79	102
C_NC_0860	J_NC_0850	J_NC44.2_0010	66.34	102
C_NC_0870	J_NC44.2_0010	J_NC_0870	6107.16	102
C_NC_0880	J_NC_0870	J_NC45.7_0010	1478.6	102
C_NC_0890	J_NC45.7_0010	J_NC_0890	1843.48	102
C_NC_0910	J_NC_0900	J_NC46.5_0010	2607.39	102
C_NC_0920	J_NC46.5_0010	J_NC_0920	1005.92	102
C_NC_0930	J_NC_0920	J_NC47.2_0010	2472.56	96
C_NC_0940	J_NC47.2_0010	J_NC_0940	1964.34	96
C_NC_0960	J_NC_0950	J_NC48.1_0020	3069.36	96
C_NC_0980	J_NC48.1_0010	J_NC_0980	797.36	96
C_NC_1010	J_NC_1000	J_NC50.3_0010	4559.15	90
C_NC_0990	J_NC_0980	J_NC_0990	4538.6	96
C_NC_1020	J_NC50.3_0010	J_NC_1020	3042.09	90
C_NC_1030	J_NC_1020	J_NC51.6_0010	4400	90

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in
C_NC_1040	J_NC51.6_0010	J_NC_1040	4621.42	90
C_NC_1050	J_NC_1040	J_NC_1050	3593.29	90
C_NC_1060	J_NC_1050	J_NC53.7_0010	2585.49	84
C_NC_1070	J_NC53.7_0010	J_NC54.1_0010	2252.58	84
C_NC_1080	J_NC54.1_0010	J_NC_1080	284.62	84
C_NC_1110	J_NC_1100	J_NC54.5_0010	306.57	78
C_NC_1100	J_NC_1090	J_NC_1100	564.41	78
C_NC_1090	J_NC_1080	J_NC_1090	907.33	84
C_NC_0850	J_NC_0840	J_NC_0850	777.75	102
C_NC_0900	J_NC_0890	J_NC_0900	154.49	102
C_NC_0950	J_NC_0940	J_NC_0950	154.02	96
C_NC_1130	J_NC_1120	J_NC_1130	2515.79	78
C_NC_1000	J_NC_0990	J_NC_1000	1229.44	90
C_ON_0830	J_ON12.6_0010	J_ON_0830	854.95	49.6
C_ON12.6_0010	J_NC35.1_0100	J_NC35.1-1.4_0010	835.85	7.75
C_ON_1070	J_ON16.8_0010	J_ON17.2_0010	1649.24	38.58
C_NC38.7-1.2_0020	J_NC38.7-1.2_0010	J_NC38.7-1.2_0020	1986.16	5.96

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C_NC_0790      J_NC_0780      J_NC_0790        23109.04       120
C_NC_0080      J_NC5.8_0020   J_NC5.8_0030          0.5       162
C_NC_0070      J_NC5.8_0010   J_NC5.8_0020         0.37       162
C_NC_0720      J_NC36.3_0010  J_NC36.3_0020        3.79       132
C_NC_0970      J_NC48.1_0020  J_NC48.1_0010        9.07        96
C_NC_1120      J_NC54.5_0010  J_NC_1120            8.61        78
C_ON_0093      J_ON0.0_0000   J_ON_0093          6356.74     58.89
C_ON_0096      J_ON_0095      J_ON_0096            71.88     58.89
C_MB_DUAL_030  J_ON_0094      J_ON_0096            70.85     58.89
C_NC_0670_DUAL_IJ_NC_0041      J_NC_0460         97494.28       148
C_NC_0041      R_OWYHEE_RES   J_NC_0041        25304.73       148
C_MB_DUAL_020  J_MB_0394      J_ON_0092         2688.84     58.89
C_MB_DUAL_014  J_MB_0218      J_MB_0220            4.02     58.89
C_MB_DUAL_013  J_MB3.9_0025   J_MB_0218        11095.37     58.89
C_MB_DUAL_010  J_MB1.7_0010   J_MB3.9_0025     10594.64     58.89
C_MB3.9_0025   J_MB3.9_0025   J_MB3.9_0020         3.71     58.89
C_NC33.1S_0175 J_NC33.1S-1.6_0018J_NC33.1S-1.6_0020    102.67      7.75
C_NC_0670_DUAL_IIJ_NC_0460      J_NC_0670         45318.4       148
P_SOUTH_ADVANCEMENTR_SOUTH_ADVANCEMENTJ_SA0.0_0000         #N/A      #N/A Pump
P_NORTH_ADVANCEMENTR_NORTH_ADVANCEMENTJ_NA0.0_0007         #N/A      #N/A Pump
P_DEAD_OX      J_HL0.0_0010   J_HL0.0_0020          #N/A      #N/A Pump
P_DUNAWAY      R_DUNAWAY      J_ON0.0_0000          #N/A      #N/A Pump
V_MB_0395      J_MB_0394      J_MB_0395             #N/A        72 Valve
V_HL_0520      J_HL10.0_0010  J_HL_0520             #N/A        18 Valve
V_NC70.5_0020  J_NC70.5_0010  J_NC70.5_0020         #N/A        18 Valve
V_HL_0116      J_HL_0115      J_HL_0116             #N/A        54 Valve
V_NC60.0_0148  J_NC60.0_0147  J_NC60.0_0148         #N/A        18 Valve
V_MB_0406      J_MB_0405      J_MB_0406             #N/A        60 Valve
V_NA0.0_0009   J_NA0.0_0008   J_NA0.0_0009          #N/A        10 Valve
V_SA_0350      J_SA_0345      J_SA_0350             #N/A         8 Valve
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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in	
V_MB1.7_0010	J_MB1.6_0010	J_MB1.7_0010	#N/A	100	Valve
V_KL7.6S_0010	J_KL7.6S_0005	J_KL7.6S_0010	#N/A	48	Valve
V_KL7.7_0025	J_KL7.7_0023	J_KL7.7_0025	#N/A	12	Valve
V_NC13.6_0185	J_NC13.6_0183	J_NC13.6_0185	#N/A	9.66	Valve
V_NC25.4-3.3_0050	J_NC25.4-3.3_0048	J_NC25.4-3.3_0050	#N/A	4	Valve
V_NC33.1_0105	J_NC33.1_0103	J_NC33.1_0105	#N/A	6	Valve
V_NC38.9-2.4_0080	J_NC38.9-2.4_0078	J_NC38.9-2.4_0080	#N/A	20	Valve
V_NC38.9-4.8-0.5_0093	J_NC38.9-4.8-0.5_0092	J_NC38.9-4.8-0.5_0093	#N/A	16	Valve
V_NC38.9-4.8_0145	J_NC38.9-4.8_0143	J_NC38.9-4.8_0145	#N/A	14	Valve
V_NC46.7-0.5_0070	J_NC46.7-0.5_0068	J_NC46.7-0.5_0070	#N/A	6.33	Valve
V_NC38.7_0100	J_NC38.7_0099	J_NC38.7_0100	#N/A	18	Valve

V_NC54.2_0260	J_NC54.2_0258	J_NC54.2_0260	#N/A	6	Valve
V_NC5.3_0055	J_NC5.3_0053	J_NC5.3_0055	#N/A	14	Valve
V_MB_DUAL_030	J_ON_0092	J_ON_0094	#N/A	60	Valve
V_ON_0095	J_ON_0093	J_ON_0095	#N/A	60	Valve
V_NC_0800	J_NC_0790	J_NC_0800	#N/A	114	Valve
V_NC65.5_0010	J_NC65.5_0005	J_NC65.5_0010	#N/A	24	Valve
V_NC_0023	J_NC_0023	J_KL_0010	#N/A	84	Valve
V_NC_0110	J_NC_0110	J_NC7.3_0010	#N/A	16	Valve
V_NC_0130	J_NC_0130	J_NC8.5_0010	#N/A	24	Valve
V_NC_0170	J_NC_0170	J_MB_0010	#N/A	90	Valve
V_NC_0200	J_NC_0200	J_NC10.5_0010	#N/A	32	Valve
V_NC_0210	J_NC_0210	J_NC11.0_0010	#N/A	8	Valve
V_NC_0230	J_NC_0230	J_NC12.4P_0005	#N/A	42	Valve
V_NC_0250	J_NC_0250	J_NC13.6_0010	#N/A	28	Valve
V_NC_0260	J_NC_0260	J_NC14.5_0010	#N/A	42	Valve
V_NC_0340	J_NC_0340	J_NC18.6_0010	#N/A	10	Valve
V_NC_0350	J_NC_0350	J_NC19.9_0010	#N/A	14	Valve
V_NC_0370	J_NC_0370	J_NC20.3_0010	#N/A	20	Valve
V_NC_0390	J_NC_0390	J_NC22.8_0010	#N/A	32	Valve
V_NC_0410	J_NC_0410	J_NC24.1_0010	#N/A	24	Valve
V_NC_0470	J_NC_0470	J_NC25.4_0010	#N/A	60	Valve
V_NC_0480	J_NC_0480	J_NC26.4_0010	#N/A	30	Valve
V_NC_0520	J_NC_0520	J_NC27.8_0010	#N/A	24	Valve
V_NC_0560	J_NC_0560	J_NC28.7_0010	#N/A	48	Valve
V_NC_0580	J_NC_0580	J_NC29.7_0010	#N/A	14	Valve
V_NC_0590	J_NC_0590	J_NC30.2_0010	#N/A	24	Valve
V_NC_0630	J_NC_0630	J_NC31.0_0010	#N/A	28	Valve
V_NC_0640	J_NC_0640	J_NC31.5_0010	#N/A	20	Valve
V_NC_0660	J_NC_0660	J_NC32.2_0010	#N/A	24	Valve
V_NC_0670	J_NC_0670	J_NC33.1_0010	#N/A	32	Valve
V_NC_0690	J_NC_0690	J_NC35.1_0010	#N/A	20	Valve
V_NC_0700	J_NC_0700	J_NC35.7_0010	#N/A	12	Valve
V_NC_0730	J_NC_0730	J_NC37.6_0010	#N/A	24	Valve
V_NC_0770	J_NC_0770	J_NC38.7_0010	#N/A	34	Valve
V_NC_0780	J_NC_0780	J_NC38.9_0010	#N/A	72	Valve
V_NC_0870	J_NC_0870	J_NC45.4_0010	#N/A	14	Valve

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length ft	Diameter in	
V_NC_0920	J_NC_0920	J_NC46.7_0010	#N/A	36	Valve
V_NC_0980	J_NC_0980	J_NC48.3_0010	#N/A	6	Valve
V_NC_0990	J_NC_0990	J_NC49.2_0020	#N/A	48	Valve
V_NC_1020	J_NC_1020	J_NC50.8_0010	#N/A	24	Valve
V_NC_1040	J_NC_1040	J_NC52.5_0010	#N/A	20	Valve
V_NC_1050	J_NC_1050	J_NC53.2_0020	#N/A	26	Valve

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  V_NC_1080      J_NC_1080      J_NC54.2_0010        #N/A        36 Valve
  V_NC_1090      J_NC_1090      J_NC54.3_0010        #N/A        18 Valve
  V_NC_1100      J_NC_1100      J_NC54.4_0010        #N/A        32 Valve
  V_NC_1140      J_NC_1140      J_NC55.5_0005        #N/A        26 Valve
  V_NC_1160      J_NC_1160      J_NC55.6_0005        #N/A        48 Valve
  V_NC_1270      J_NC_1270      J_NC58.7_0010        #N/A        14 Valve
  V_NC_1330      J_NC_1330      J_NC59.5_0010        #N/A        20 Valve
  V_NC_1340      J_NC_1340      J_NC60.0_0003        #N/A        36 Valve
  V_NC_1390      J_NC_1390      J_NC61.3_0005        #N/A        26 Valve
  V_NC_1400      J_NC_1400      J_NC62.1_0005        #N/A        24 Valve
  V_NC8.5_0120   J_NC8.5_0115   J_NC8.5_0120         #N/A        18 Valve
  V_KL5.4-0.8_0040J_KL5.4-0.8_0037J_KL5.4-0.8_0040      #N/A        42 Valve
  V_KL5.4_0030   J_KL5.4_0025   J_KL5.4_0030        #N/A        54 Valve
  V_NC25.4-1.6-2.7_0030J_NC25.4-1.6-0.9_0070J_NC25.4-1.6-2.7_0030      #N/A
10 Valve
  V_NC33.1S-1.6_0010J_NC33.1S-1.6_0005J_NC33.1S-1.6_0010      #N/A        14 Valve
  V_NC45.4_0040  J_NC45.4_0035  J_NC45.4_0040        #N/A        12 Valve
  V_NC49.2_0180  J_NC49.2_0175  J_NC49.2_0180        #N/A        12 Valve

  Energy Usage:
  ---------------------------------------------------------------------
                    Usage   Avg.     Kw-hr      Avg.      Peak      Cost
  Pump             Factor Effic.     /Mgal        Kw        Kw      /day
  ---------------------------------------------------------------------
  P_SOUTH_ADVANCEMENT  100.00  75.00    259.65     20.37     20.37      0.00
  P_NORTH_ADVANCEMENT  100.00  75.00    399.06     23.64     23.64      0.00
  P_DEAD_OX        100.00  75.00    589.12   1861.76   1861.76      0.00
  P_DUNAWAY        100.00  75.00    827.36   1565.97   1565.97      0.00
  ---------------------------------------------------------------------
                                              Demand Charge:      0.00
                                              Total Cost:         0.00


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  Node Results:
  ---------------------------------------------------------------------
  Node                Demand      Head  Pressure   Quality
  ID                     GPM        ft       psi
  ---------------------------------------------------------------------
  J_CL_0005             0.00   2264.86     30.35      0.00
  J_CL0.0_0010        290.97   2262.90     37.80      0.00
  J_CL0.35_0010       205.91   2258.86     40.96      0.00
  J_CL0.35_0020       212.63   2258.83     40.89      0.00
  J_CL0.66_0010       621.10   2256.52     41.90      0.00
  J_CL1.03_0010       475.62   2253.38     42.16      0.00
  J_CL1.27_0010       207.03   2250.92     41.40      0.00
  J_CL1.27_0020       257.95   2250.74     41.17      0.00
  J_CL1.27_0030         2.80   2250.73     41.17      0.00
  J_CL1.51_0010       116.39   2247.84     40.22      0.00
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J_CL1.56_0010	24.62	2247.37	39.96	0.00
J_CL1.56_0015	140.45	2246.92	39.77	0.00
J_CL1.56_0016	68.27	2246.93	39.78	0.00
J_CL1.56_0020	624.46	2246.51	39.81	0.00
J_CL1.74_0010	0.00	2246.47	40.17	0.00
J_CL1.74_0040	632.85	2236.51	36.27	0.00
J_CL1.74_0050	318.94	2229.18	34.33	0.00
J_CL1.74_0060	190.25	2220.55	32.31	0.00
J_CL1.74_0070	156.67	2220.45	32.14	0.00
J_CL1.84-0.55_0010	201.44	2224.17	32.52	0.00
J_CL1.84-0.55_0020	27.98	2222.31	31.40	0.00
J_CL1.84-0.55_0030	0.00	2215.96	37.80	0.00
J_CL1.84-0.55_0040	167.86	2219.80	31.26	0.00
J_CL1.84-0.55_0050	0.00	2219.79	31.66	0.00
J_CL1.84_0020	649.64	2244.29	39.76	0.00
J_CL1.84_0030	414.07	2244.29	39.76	0.00
J_CL1.84_0040	190.25	2230.66	35.09	0.00
J_CL1.84_0050	0.00	2230.68	35.31	0.00
J_CL1.84_0060	0.00	2230.53	33.90	0.00
J_CL1.84_0070	97.92	2230.29	35.17	0.00
J_CL2.09_0020	313.35	2237.69	36.70	0.00
J_CL2.55_0010	106.31	2220.96	32.94	0.00
J_HL0.2_0010	91.21	2273.07	22.86	0.00
J_HL0.5_0010	27.98	2272.44	22.91	0.00
J_HL0.5_0015	28.50	2272.21	22.82	0.00
J_HL0.6_0008	0.00	2271.56	20.65	0.00
J_HL0.6_0010	1102.87	2271.59	22.52	0.00
J_HL0.9_0030	217.11	2264.84	22.41	0.00
J_HL0.9_0040	117.51	2259.88	21.11	0.00
J_HL0.9_0045	207.03	2259.88	21.11	0.00
J_HL0.9_0060	97.36	2254.98	19.69	0.00
J_HL0.9_0070	16.79	2247.82	17.83	0.00
J_HL0.9_0080	0.00	2247.82	17.94	0.00
J_HL0.9_0085	156.67	2247.78	17.51	0.00
J_HL0.9_0086	50.36	2247.67	17.91	0.00
J_HL0.9_0090	129.82	2235.96	13.16	0.00
J_HL0.9_0100	52.04	2233.26	11.81	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL0.9_0120	178.50	2229.33	10.76	0.00
J_HL0.9_0130	57.63	2228.81	10.57	0.00
J_HL0.9_0140	213.19	2228.79	10.79	0.00
J_HL1.8_0010	0.00	2267.68	22.26	0.00
J_HL1.9_0010	162.27	2267.01	22.11	0.00

J_HL10.1_0010	91.77	2213.90	12.50	0.00
J_HL10.6_0010	384.97	2208.63	10.69	0.00
J_HL_0565	364.83	2204.92	9.24	0.00
J_HL_0567	48.12	2204.53	9.41	0.00
J_HL11.1_0010	0.00	2199.79	5.53	0.00
J_HL11.4_0010	76.10	2192.76	6.10	0.00
J_HL11.5_0010	177.94	2188.08	4.27	0.00
J_HL11.5_0020	17.91	2183.32	5.65	0.00
J_HL11.6_0010	0.00	2177.43	7.68	0.00
J_HL11.7_0010	0.00	2174.01	7.80	0.00
J_HL2.4_0010	44.76	2264.90	21.49	0.00
J_HL2.4_0015	145.48	2264.90	21.49	0.00
J_HL2.5_0010	170.10	2264.48	21.34	0.00
J_HL2.5_0015	0.00	2264.46	21.51	0.00
J_HL2.7_0010	0.00	2261.44	20.66	0.00
J_HL2.9_0020	0.00	2262.77	20.96	0.00
J_HL2.9_0025	250.68	2262.64	19.34	0.00
J_HL2.9_0030	0.00	2258.58	19.79	0.00
J_HL2.9_0040	0.00	2258.58	19.79	0.00
J_HL3.1_0010	289.85	2262.18	20.74	0.00
J_HL3.3_0020	251.80	2261.45	20.67	0.00
J_HL3.4_0010	227.18	2261.05	21.07	0.00
J_HL3.7_0010	129.82	2260.10	20.75	0.00
J_HL3.9_0010	99.60	2259.29	20.95	0.00
J_HL4.0_0010	99.04	2259.13	20.86	0.00
J_HL4.6_0005	150.52	2257.44	20.43	0.00
J_HL4.6_0010	388.89	2257.09	20.78	0.00
J_HL4.7_0010	354.20	2255.28	20.44	0.00
J_HL5.3_0010	408.47	2253.04	20.73	0.00
J_HL5.3_0015	61.55	2253.04	20.73	0.00
J_HL_0265	22.38	2252.55	20.47	0.00
J_HL5.5_0015	96.24	2251.84	21.26	0.00
J_HL5.5_0017	0.00	2251.45	20.71	0.00
J_HL_0305	122.54	2251.32	21.49	0.00
J_HL5.7_0010	405.67	2249.55	21.40	0.00
J_HL5.8_0010	384.41	2249.15	21.53	0.00
J_HL6.4_0010	257.39	2247.34	21.18	0.00
J_HL6.4_0020	0.00	2247.19	21.07	0.00
J_HL6.7_0010	0.00	2246.20	19.23	0.00
J_HL6.7_0020	133.73	2246.25	21.04	0.00
J_HL6.9_0010	232.21	2244.36	19.97	0.00
J_HL7.2_0010	0.00	2242.41	18.56	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_HL7.2_0020	134.29	2242.41	18.56	0.00
J_HL7.2_0030	176.26	2242.42	19.89	0.00
J_HL7.7_0010	147.16	2238.56	19.23	0.00
J_HL7.7_0020	89.53	2238.54	17.52	0.00
J_HL7.7_0030	27.98	2237.50	19.51	0.00
J_HL8.1_0010	264.67	2235.50	18.89	0.00
J_HL8.1_0020	27.98	2235.34	19.20	0.00
J_HL8.4_0010	209.27	2232.55	17.70	0.00
J_HL8.6_0010	145.48	2230.86	17.19	0.00
J_HL8.8_0010	215.43	2228.75	16.66	0.00
J_HL9.0_0010	260.19	2226.93	15.78	0.00
J_HL9.0_0020	352.52	2225.05	15.81	0.00
J_HL9.4_0010	0.00	2222.47	13.05	0.00
J_HL9.4_0020	0.00	2222.52	14.60	0.00
J_HL9.9_0010	519.26	2216.26	13.13	0.00
J_HL9.9_0020	221.58	2216.16	13.16	0.00
J_HL10.8_0010	178.50	2199.58	8.31	0.00
J_HL10.8_0020	193.60	2194.51	19.86	0.00
J_HL10.8_0030	307.75	2184.81	25.20	0.00
J_HL10.8_0040	207.03	2180.66	26.28	0.00
J_HL2.7E_0140	195.70	2185.32	8.25	0.00
J_HL2.7P_0010	36.37	2250.23	24.21	0.00
J_HL2.7P_0020	146.60	2250.23	24.21	0.00
J_HL2.7P_0030	209.27	2250.24	24.37	0.00
J_HL2.7P_0040	139.89	2250.24	24.37	0.00
J_HL5.5_0010	207.03	2250.76	22.00	0.00
J_HL5.5_0020	268.58	2250.74	22.07	0.00
J_HL5.5_0030	268.58	2250.74	22.06	0.00
J_HL5.5_0035	201.44	2236.93	25.44	0.00
J_HL5.5_0040	125.34	2237.58	24.75	0.00
J_HL5.5_0050	192.49	2237.55	24.80	0.00
J_HL5.5_0060	203.68	2237.54	24.81	0.00
J_HL5.5_0070	202.56	2235.11	23.33	0.00
J_Hl5.5_0080	207.03	2231.45	22.43	0.00
J_HL5.5_0090	218.78	2225.34	21.92	0.00
J_HL5.5_0100	753.71	2225.34	21.74	0.00
J_HL6.7_0011	415.19	2243.80	21.54	0.00
J_HL6.7_0015	209.83	2239.03	24.79	0.00
J_HL6.7_0016	208.15	2232.69	24.14	0.00
J_HL7.2_0040	212.63	2241.45	19.86	0.00
J_HL7.2_0050	421.90	2241.43	19.83	0.00
J_HL7.2_0060	179.06	2241.37	19.75	0.00
J_HL7.2_0070	696.35	2238.76	21.42	0.00
J_HL7.2_0080	210.39	2236.54	21.43	0.00
J_HL7.2_0090	215.43	2234.50	20.93	0.00
J_HL7.2_0100	128.70	2232.63	20.38	0.00
J_HL7.2E_0010	290.41	2230.36	19.01	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL7.2E_0030	44.76	2227.96	19.94	0.00
J_HL7.2E_0040	146.04	2227.93	19.94	0.00
J_HL7.2E_0050	447.08	2225.12	20.05	0.00
J_HL7.2E_0060	62.67	2225.10	20.14	0.00
J_HL7.2E_0070	149.40	2225.05	19.88	0.00
J_HL7.2E_0080	207.03	2221.00	18.54	0.00
J_HL7.2E_0090	44.76	2221.01	18.69	0.00
J_HL7.2E_0100	0.00	2220.98	18.51	0.00
J_HL7.2E_0110	229.98	2214.83	18.69	0.00
J_HL7.2E_0120	85.61	2207.06	16.53	0.00
J_HL7.2E_0130	171.22	2196.16	12.38	0.00
J_HL7.2E_0150	0.00	2182.06	8.31	0.00
J_HL7.2E_0160	50.36	2182.13	7.51	0.00
J_HL7.2M_0010	128.70	2225.33	21.23	0.00
J_HL7.2M_0020	215.43	2225.33	21.23	0.00
J_HL7.2M_0030	83.93	2225.31	21.25	0.00
J_HL7.2M_0040	189.13	2219.47	19.58	0.00
J_HL7.2M_0050	307.75	2216.13	18.69	0.00
J_HL7.2M_0060	16.79	2216.13	18.69	0.00
J_HL7.2M_0070	117.51	2192.67	12.36	0.00
J_HL7.2M_0080	0.00	2192.62	12.42	0.00
J_HL7.2M_0090	0.00	2192.53	12.56	0.00
J_HL7.2W_0010	398.96	2228.97	21.83	0.00
J_HL7.2W_0020	184.65	2226.02	21.00	0.00
J_HL7.2W_0030	82.81	2224.27	20.23	0.00
J_HL7.2W_0040	62.67	2223.12	20.16	0.00
J_HL7.2W_0050	354.20	2223.07	20.32	0.00
J_HL7.2W_0060	179.62	2223.06	20.11	0.00
J_HL7.2W_0070	291.53	2214.28	20.57	0.00
J_HL7.2W_0080	150.52	2211.79	19.34	0.00
J_HL7.2W_0090	0.00	2199.47	15.70	0.00
J_HL9.4_0030	184.65	2219.12	17.17	0.00
J_HL9.4_0040	360.35	2215.88	19.16	0.00
J_HL9.4_0055	12.31	2209.20	17.04	0.00
J_HL9.4_0050	181.85	2215.88	19.16	0.00
J_HL9.4_0057	205.35	2208.87	18.66	0.00
J_HL9.4_0060	130.38	2204.08	16.42	0.00
J_HL9.4_0080	160.03	2202.80	15.40	0.00
J_HL9.4_0100	310.55	2196.98	16.84	0.00
J_HL9.4_0110	294.32	2196.94	16.84	0.00
J_HL9.4_0115	0.00	2196.93	16.90	0.00
J_HL9.4P_0010	268.02	2194.60	16.26	0.00
J_HL9.4P_0020	0.00	2194.60	16.29	0.00
J_HL9.4P_0030	481.21	2194.60	16.26	0.00
J_KL_0010	0.00	2575.45	4.68	0.00

J_KL_0020	1097.25	2570.00	6.98	0.00
J_KL_0030	327.75	2567.00	7.06	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL_0050	0.00	2566.45	9.99	0.00
J_KL_0060	9.50	2561.00	16.14	0.00
J_KL_0070	627.00	2560.04	15.33	0.00
J_KL_0080	475.00	2559.53	16.53	0.00
J_KL_0090	114.00	2558.50	15.58	0.00
J_KL_0100	750.50	2556.27	15.66	0.00
J_KL_0110	874.00	2556.10	15.73	0.00
J_KL_0120	275.50	2555.77	16.08	0.00
J_KL_0130	313.50	2554.50	16.45	0.00
J_KL_0140	1073.50	2553.08	17.65	0.00
J_KL_0150	969.00	2551.96	17.26	0.00
J_KL_0160	1434.50	2551.70	17.53	0.00
J_KL_0170	1447.80	2550.56	17.49	0.00
J_KL_0180	0.00	2550.18	17.47	0.00
J_KL_0190	748.60	2550.02	17.34	0.00
J_KL_0200	0.00	2549.18	44.24	0.00
J_KL_0220	693.50	2549.16	43.97	0.00
J_KL_0280	0.00	2357.55	15.12	0.00
J_KL_0290	0.00	2357.55	15.22	0.00
J_KL10.0_0020	314.45	2352.58	20.75	0.00
J_KL10.0_0030	270.75	2347.74	28.53	0.00
J_KL5.4-0.5-1.3_0020	0.00	2541.84	21.70	0.00
J_KL5.4-0.5-1.3_0030	351.50	2540.48	26.16	0.00
J_KL5.4-0.5_0070	361.00	2538.52	21.70	0.00
J_KL5.4-0.5-1.4_0020	0.00	2539.04	29.79	0.00
J_KL5.4-0.5_0020	496.85	2551.99	24.61	0.00
J_KL5.4-0.5_0040	893.00	2545.05	23.30	0.00
J_KL5.4-0.5_0050	106.40	2542.89	22.06	0.00
J_KL5.4-0.5_0060	152.00	2541.86	22.36	0.00
J_KL5.4-0.5_0080	2413.00	2532.38	19.71	0.00
J_KL5.4-0.5_0090	0.00	2532.38	19.42	0.00
J_KL5.4-0.8-2.2-0.2_0010	660.25	2464.60	79.35	0.00
J_KL5.4-0.8-2.2_0010	332.50	2468.62	77.26	0.00
J_KL5.4-0.8-2.2_0020	104.50	2468.26	74.86	0.00
J_KL5.4-0.8-2.2_0030	343.90	2463.66	72.72	0.00
J_KL5.4-0.8-2.2_0040	508.25	2463.57	72.58	0.00
J_KL5.4-0.8-2.2_0050	354.35	2459.24	69.91	0.00
J_KL5.4-0.8-2.2_0060	351.50	2458.95	69.70	0.00
J_KL5.4-0.8-2.4_0010	1373.70	2464.44	86.53	0.00
J_KL5.4-0.8-2.4_0020	323.00	2458.10	84.40	0.00

J_KL5.4-0.8-2.4_0030	1075.40	2458.03	85.28	0.00
J_KL5.4-0.8_0010	0.00	2553.81	22.78	0.00
J_KL5.4-0.8_0015	657.40	2552.74	70.79	0.00
J_KL5.4-0.8_0020	0.00	2551.65	74.83	0.00
J_KL5.4-0.8_0025	352.45	2551.40	73.86	0.00
J_KL5.4-0.8_0030	375.25	2550.55	75.24	0.00
J_KL5.4-0.8_0035	705.85	2549.66	78.38	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4-0.8_0040	899.65	2480.32	50.00	0.00
J_KL5.4-0.8_0050	743.85	2479.00	62.57	0.00
J_KL5.4-0.8_0060	351.50	2478.89	63.67	0.00
J_KL5.4-0.8_0070	0.00	2477.42	72.15	0.00
J_KL5.4-0.8_0080	355.30	2476.97	73.64	0.00
J_KL5.4-0.8_0090	303.05	2476.90	73.14	0.00
J_KL5.4-0.8_0100	180.50	2475.26	76.46	0.00
J_KL5.4-0.8_0110	360.05	2474.89	79.31	0.00
J_KL5.4-0.8_0120	296.40	2472.45	83.00	0.00
J_KL5.4-0.8_0130	0.00	2471.51	84.54	0.00
J_KL5.4-0.8_0140	0.00	2465.24	89.72	0.00
J_KL5.4-0.8_0150	364.80	2460.10	90.18	0.00
J_KL5.4-0.8_0160	1168.50	2459.97	90.34	0.00
J_KL5.4-2.0_0010	0.00	2444.09	43.84	0.00
J_KL5.4-2.0_0020	0.00	2443.56	45.31	0.00
J_KL5.4-2.3_0010	0.00	2442.71	51.74	0.00
J_KL5.4-3.0-0.3_0010	0.00	2436.06	64.68	0.00
J_KL5.4-3.0-0.3_0030	0.00	2425.37	70.03	0.00
J_KL5.4-3.0-0.3_0020	342.95	2428.42	64.93	0.00
J_KL5.4-3.0_0010	0.00	2438.65	55.58	0.00
J_KL5.4-3.0_0030	731.50	2437.21	57.58	0.00
J_KL5.4-3.0_0040	712.50	2437.21	57.58	0.00
J_KL5.4-3.0_0050	0.00	2430.73	65.49	0.00
J_KL5.4-3.0_0060	351.50	2430.51	65.57	0.00
J_KL5.4-3.0_0070	0.00	2427.97	68.15	0.00
J_KL5.4-3.0_0080	1413.60	2427.22	68.87	0.00
J_KL5.4-3.0_0090	0.00	2427.20	68.88	0.00
J_KL5.4-3.0_0095	0.00	2423.10	67.29	0.00
J_KL5.4-3.0_0100	323.00	2422.04	68.43	0.00
J_KL5.4-3.0_0110	304.00	2420.92	68.60	0.00
J_KL5.4-3.0_0120	0.00	2412.63	75.46	0.00
J_KL5.4-3.0_0130	264.10	2405.61	76.79	0.00
J_KL5.4-3.1_0010	371.45	2436.94	56.52	0.00
J_KL5.4-3.1_0020	0.00	2436.94	56.52	0.00
J_KL5.4-3.2_0010	0.00	2436.84	56.20	0.00

J_KL5.4-3.2_0030	1453.50	2434.84	54.49	0.00
J_KL5.4_0010	0.00	2556.11	15.37	0.00
J_KL5.4_0030	736.25	2446.51	40.00	0.00
J_KL5.4_0040	1065.90	2445.88	43.97	0.00
J_KL5.4_0050	712.50	2445.86	44.00	0.00
J_KL5.4_0060	679.25	2445.00	45.21	0.00
J_KL5.4_0070	467.40	2443.15	50.70	0.00
J_KL5.4_0080	247.00	2440.83	56.56	0.00
J_KL5.4_0090	98.80	2440.82	56.56	0.00
J_KL5.4_0100	579.50	2438.63	57.08	0.00
J_KL5.4_0110	0.00	2436.86	56.57	0.00
J_KL5.4_0120	1444.00	2433.32	58.42	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4_0130	950.00	2430.22	63.99	0.00
J_KL5.4_0140	722.00	2428.12	64.44	0.00
J_KL5.4_0150	125.40	2428.11	64.31	0.00
J_KL5.4_0160	69.35	2425.24	66.73	0.00
J_KL5.4_0170	370.50	2425.20	66.35	0.00
J_KL5.4_0180	0.00	2425.03	65.98	0.00
J_KL5.4_0190	109.25	2421.52	66.31	0.00
J_KL5.4_0200	684.00	2419.10	65.06	0.00
J_KL5.4_0210	76.00	2419.07	65.36	0.00
J_KL5.4_0220	19.00	2417.13	65.23	0.00
J_KL5.4_0230	76.00	2417.13	65.21	0.00
J_KL5.4_0240	741.00	2417.13	65.21	0.00
J_KL5.4_0250	779.00	2417.13	65.21	0.00
J_KL5.4_0260	190.00	2417.13	65.20	0.00
J_KL6.2_0010	0.00	2553.75	15.79	0.00
J_KL6.2_0030	380.00	2552.27	42.17	0.00
J_KL7.4_0010	0.00	2549.99	15.39	0.00
J_KL7.4_0020	912.00	2549.30	17.42	0.00
J_KL7.4_0030	693.50	2543.79	15.30	0.00
J_KL7.4_0050	408.50	2536.15	13.09	0.00
J_KL7.4_0060	79.80	2535.59	12.94	0.00
J_KL7.4_0070	444.60	2535.58	12.89	0.00
J_KL7.4_0080	0.00	2535.57	13.03	0.00
J_KL7.4_0090	0.00	2530.81	55.75	0.00
J_KL7.6-9.3N_0010	313.50	2357.24	44.21	0.00
J_KL7.6-9.3N_0020	0.00	2357.23	44.24	0.00
J_KL7.6-9.3N_0030	349.60	2354.54	55.52	0.00
J_KL7.6-9.3N_0040	28.50	2353.79	54.88	0.00
J_KL7.6-9.3N_0050	0.00	2352.55	53.82	0.00
J_KL7.6-9.3N_0055	0.00	2352.53	53.37	0.00

J_KL7.6-9.3N_0060	31.35	2351.68	60.20	0.00
J_KL7.6-9.6_0075	701.10	2349.13	53.98	0.00
J_KL7.6-9.6_0070	0.00	2353.44	63.08	0.00
J_KL7.6-9.6_0080	679.25	2349.13	53.98	0.00
J_KL7.6_0040	609.90	2367.22	45.64	0.00
J_KL7.6_0050	57.00	2367.22	45.64	0.00
J_KL7.6_0060	826.50	2365.49	41.25	0.00
J_KL7.6S_0010	677.35	2369.10	65.00	0.00
J_KL7.6S_0020	19.00	2368.94	61.81	0.00
J_KL7.6S_0030	179.55	2367.22	45.63	0.00
J_KL7.7_0010	0.00	2548.73	61.05	0.00
J_KL7.7_0020	237.50	2546.23	60.48	0.00
J_KL7.7_0030	209.00	2467.26	83.84	0.00
J_KL7.7_0045	114.00	2461.99	87.31	0.00
J_KL7.7_0050	97.85	2456.48	85.96	0.00
J_KL7.7_0025	19.00	2469.82	75.00	0.00
J_KL7.7_0060	66.50	2456.48	85.96	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL7.7_0070	9.50	2456.48	85.96	0.00
J_KL7.7_0080	380.00	2456.48	85.96	0.00
J_KL9.3-0.1_0070	0.00	2367.57	48.40	0.00
J_KL9.3_0010	0.00	2365.47	42.91	0.00
J_KL9.3_0020	237.50	2362.87	43.08	0.00
J_KL9.3_0030	350.55	2362.84	42.92	0.00
J_KL9.3_0040	199.50	2361.10	43.03	0.00
J_KL9.3_0050	223.25	2361.09	42.84	0.00
J_KL9.3_0060	212.80	2359.34	43.41	0.00
J_KL9.3_0080	703.00	2358.06	44.06	0.00
J_KL9.3_0090	273.60	2346.97	41.93	0.00
J_KL9.3_0100	0.00	2345.58	41.46	0.00
J_KL9.3_0110	0.00	2345.28	41.46	0.00
J_KL9.3_0120	0.00	2340.40	39.95	0.00
J_KL9.3_0130	85.50	2341.51	55.88	0.00
J_KL9.3_0140	257.45	2341.52	55.88	0.00
J_KL9.3_0150	188.10	2337.39	51.12	0.00
J_KL9.3_0155	0.00	2337.01	45.16	0.00
J_KL9.3_0160	112.10	2333.61	46.17	0.00
J_KL9.3_0170	800.85	2332.05	45.95	0.00
J_KL9.3_0180	298.30	2331.90	45.64	0.00
J_KL9.3_0190	1038.35	2331.87	45.22	0.00
J_KL9.3_0200	47.50	2331.83	45.62	0.00
J_KL9.3_0210	617.50	2327.28	46.34	0.00
J_KL9.8_0000	389.50	2363.10	16.34	0.00

J_KL9.8_0010	153.90	2361.55	16.69	0.00
J_KL9.8_0020	180.50	2361.54	16.91	0.00
J_KL9.8_0030	211.85	2361.56	16.59	0.00
J_KL9.8_0040	304.95	2359.89	16.06	0.00
J_KL9.8_0050	256.50	2359.87	15.97	0.00
J_KL9.8_0080	931.95	2357.59	14.93	0.00
J_KL9.8_0090	356.25	2357.57	14.98	0.00
J_KL9.8_0100	774.25	2357.55	15.04	0.00
J_KP_0010	0.00	2346.26	58.97	0.00
J_KP_0020	1149.50	2342.21	50.77	0.00
J_KP_0030	0.00	2342.20	50.58	0.00
J_KP_0035	313.50	2342.18	50.69	0.00
J_KP_0040	370.50	2338.47	50.28	0.00
J_KP_0050	0.00	2347.52	62.86	0.00
J_LL_0005	0.00	2272.48	46.10	0.00
J_LL_0010	41.41	2272.33	45.92	0.00
J_LL_0020	173.46	2271.74	45.69	0.00
J_LL_0030	116.95	2271.71	45.59	0.00
J_LL_0040	139.65	2270.88	45.55	0.00
J_LL_0050	173.46	2264.71	44.36	0.00
J_LL_0060	95.68	2264.70	44.62	0.00
J_LL_0070	5.60	2264.67	44.38	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_LL_0080	16.79	2264.25	44.45	0.00
J_LL_0090	128.70	2256.41	41.61	0.00
J_LL_0100	50.36	2252.88	40.86	0.00
J_LL_0110	33.57	2249.34	39.55	0.00
J_LL_0120	134.29	2246.50	38.63	0.00
J_LL_0130	0.00	2245.92	38.23	0.00
J_LL_0140	72.74	2245.76	38.20	0.00
J_LL_0150	16.79	2245.76	38.20	0.00
J_LL_0155	67.15	2245.75	38.19	0.00
J_LL_0160	128.70	2233.98	39.38	0.00
J_LL_0170	44.76	2233.97	39.22	0.00
J_LL_0180	55.95	2233.96	39.37	0.00
J_LL_0190	212.63	2230.75	38.69	0.00
J_LL_0200	89.53	2228.48	37.36	0.00
J_LL_0210	11.19	2225.46	34.18	0.00
J_LL_0220	100.72	2223.15	34.20	0.00
J_LL_0230	95.12	2222.29	33.48	0.00
J_LL_0240	55.95	2222.28	33.66	0.00
J_LL_0250	100.72	2225.43	34.19	0.00
J_LL_0260	207.03	2223.15	36.26	0.00

J_LL_0270	214.87	2220.35	33.61	0.00
J_MB_0010	0.00	2570.89	4.59	0.00
J_MB_0020	0.00	2570.89	4.59	0.00
J_MB0.4_0010	0.00	2570.63	10.75	0.00
J_MB0.4_0020	347.70	2570.26	16.50	0.00
J_MB0.4_0030	268.85	2566.95	55.91	0.00
J_MB0.4_0040	582.35	2566.94	55.91	0.00
J_MB0.4_0050	2077.65	2562.56	56.29	0.00
J_MB0.8_0010	293.55	2570.43	12.99	0.00
J_MB1.0_0010	1121.00	2570.31	12.88	0.00
J_MB1.6_0010	0.00	2569.94	14.29	0.00
J_MB1.6_0020	0.00	2569.95	13.68	0.00
J_MB10.7_0010	50.35	2392.51	47.37	0.00
J_MB10.8_0010	0.00	2392.51	47.68	0.00
J_MB10.8_0020	0.00	2392.51	47.88	0.00
J_MB11.0_0010	0.00	2381.42	42.79	0.00
J_MB11.0_0020	0.00	2381.36	43.82	0.00
J_MB11.0_0030	180.50	2381.36	43.82	0.00
J_MB11.0_0040	419.66	2380.06	58.13	0.00
J_MB11.0_0050	570.74	2380.06	58.13	0.00
J_MB11.5_0010	191.93	2381.43	44.25	0.00
J_MB2.5_0010	0.00	2403.87	39.76	0.00
J_MB2.5_0020	38.00	2403.88	40.12	0.00
J_MB2.5_0030	146.30	2403.88	40.16	0.00
J_MB2.9_0010	136.80	2402.43	40.49	0.00
J_MB3.0_0010	0.00	2402.27	40.24	0.00
J_MB3.9_0010	0.00	2399.86	41.00	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB3.9_0020	1187.50	2399.86	41.09	0.00
J_MB3.9_0030	850.25	2399.86	40.85	0.00
J_MB4.2_0010	0.00	2398.85	37.36	0.00
J_MB4.2_0020	462.65	2398.19	39.59	0.00
J_MB4.2_0030	0.00	2398.12	39.97	0.00
J_MB4.8_0010	0.00	2397.59	37.95	0.00
J_MB4.8_0020	131.10	2387.45	44.15	0.00
J_MB4.8_0030	532.95	2387.10	44.34	0.00
J_MB4.8_0040	251.75	2383.69	48.00	0.00
J_MB4.8_0050	95.95	2376.60	49.95	0.00
J_MB5.4_0010	0.00	2396.00	38.52	0.00
J_MB5.4_0020	124.45	2393.49	43.34	0.00
J_MB5.4_0030	0.00	2391.05	45.52	0.00
J_MB6.0_0010	0.00	2394.93	38.74	0.00
J_MB6.0_0020	1003.20	2394.78	41.50	0.00

J_MB6.0_0030	1282.50	2389.25	41.48	0.00
J_MB6.0_0040	371.45	2388.14	42.62	0.00
J_MB6.0_0050	342.95	2387.07	43.26	0.00
J_MB6.0_0060	342.00	2382.08	47.23	0.00
J_MB6.0_0070	351.50	2382.08	47.23	0.00
J_MB6.0_0075	314.45	2380.15	49.06	0.00
J_MB6.0_0080	484.50	2372.28	50.93	0.00
J_MB6.0_0090	0.00	2372.04	51.01	0.00
J_MB6.0_0100	437.00	2369.81	50.11	0.00
J_MB6.0_0110	969.00	2365.23	52.75	0.00
J_MB6.0_0120	0.00	2365.19	52.17	0.00
J_MB6.2_0010	361.00	2394.63	42.48	0.00
J_MB6.3_0010	410.40	2394.52	42.13	0.00
J_MB6.4_0010	272.65	2394.38	42.19	0.00
J_MB6.5_0005	0.00	2394.19	41.86	0.00
J_MB6.8_0010	0.00	2393.97	43.54	0.00
J_MB6.8_0015	19.00	2393.97	43.43	0.00
J_MB7.5_0010	0.00	2393.13	41.82	0.00
J_MB7.5_0020	0.00	2393.13	41.82	0.00
J_MB7.5_0030	0.00	2393.03	43.91	0.00
J_MB7.5_0040	712.50	2392.28	43.27	0.00
J_MB7.5_0050	211.85	2389.88	43.18	0.00
J_MB7.5_0060	545.30	2389.87	43.50	0.00
J_MB7.5_0070	297.35	2389.87	43.50	0.00
J_MB7.5_0080	1091.55	2387.78	46.40	0.00
J_MB7.5_0090	599.45	2385.21	50.44	0.00
J_MB7.5_0100	735.30	2385.19	49.85	0.00
J_MB7.5_0110	712.50	2383.28	51.07	0.00
J_MB7.5_0120	695.40	2380.65	54.88	0.00
J_MB7.5_0130	176.70	2377.01	54.88	0.00
J_MB7.5_0140	387.60	2376.99	54.73	0.00
J_MB7.5_0150	638.40	2376.18	54.78	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB7.5_0160	28.50	2369.65	52.81	0.00
J_MB7.5_0170	171.00	2368.01	53.07	0.00
J_MB7.5_0180	798.00	2368.02	53.07	0.00
J_MB7.5_0190	494.00	2367.99	52.53	0.00
J_MB7.5_0210	665.00	2364.34	52.83	0.00
J_MB8.3_0010	0.00	2392.68	41.80	0.00
J_MB8.5_0020	949.05	2392.53	44.11	0.00
J_MB8.5_0030	336.30	2392.52	44.82	0.00
J_MB8.5_0040	331.55	2385.43	50.39	0.00
J_MB8.5_0050	543.40	2385.43	50.39	0.00

J_MB8.5_0060	80.75	2379.84	49.81	0.00
J_MB8.5_0070	513.95	2379.79	50.02	0.00
J_MB8.5_0080	0.00	2374.28	50.51	0.00
J_MB9.1_0010	0.00	2392.47	42.69	0.00
J_MB9.1_0020	9.50	2392.16	45.03	0.00
J_MB9.1_0030	475.95	2389.11	48.95	0.00
J_MB9.1_0040	104.50	2385.93	48.26	0.00
J_MB9.1_0065	408.50	2378.90	49.95	0.00
J_MB9.1_0066	0.00	2378.82	49.46	0.00
J_MB9.1_0070	522.50	2376.86	50.53	0.00
J_MB9.1_0080	369.55	2374.49	51.57	0.00
J_MB9.4_0010	0.00	2392.47	42.75	0.00
J_MB9.4_0015	1263.50	2392.47	44.04	0.00
J_MB9.4_0020	266.00	2388.67	48.96	0.00
J_MB9.4_0040	60.80	2384.06	49.91	0.00
J_MB9.4_0050	219.45	2384.06	49.91	0.00
J_MB9.4_0060	351.50	2384.04	49.94	0.00
J_MB9.4_0065	0.00	2383.54	51.04	0.00
J_ML_0000	0.00	2273.45	45.86	0.00
J_ML0.06_0010	0.00	2273.21	34.04	0.00
J_ML0.07_0010	0.00	2273.07	33.91	0.00
J_ML0.08_0010	447.64	2272.90	34.07	0.00
J_ML0.2_0010	72.74	2270.68	34.46	0.00
J_ML0.2_0020	263.55	2270.67	34.30	0.00
J_ML0.4_0010	0.00	2268.75	33.66	0.00
J_ML0.5_0010	0.00	2268.08	33.43	0.00
J_ML0.7_0010	187.45	2267.36	33.55	0.00
J_ML0.7_0020	343.90	2268.33	35.64	0.00
J_ML0.7_0030	44.76	2261.06	35.67	0.00
J_ML0.7_0040	50.36	2260.99	35.23	0.00
J_ML0.7_0045	214.31	2260.99	35.06	0.00
J_ML0.7_0050	55.95	2254.03	36.67	0.00
J_ML0.7_0060	190.25	2248.78	38.75	0.00
J_ML1.1_0010	34.69	2265.36	32.44	0.00
J_ML1.3_0008	0.00	2266.27	33.36	0.00
J_ML1.3_0009	0.00	2266.47	32.70	0.00
J_ML1.3_0010	210.95	2264.94	32.36	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ML1.3_0020	410.71	2264.93	32.40	0.00
J_ML1.3_0025	57.63	2264.92	32.34	0.00
J_ML1.3_0035	34.13	2264.77	32.08	0.00
J_ML1.3_0030	28.54	2264.89	32.44	0.00
J_ML1.3_0040	425.26	2254.98	37.13	0.00

J_ML1.3_0045	120.86	2249.57	36.10	0.00
J_ML1.3_0050	449.88	2244.68	37.17	0.00
J_ML1.5_0010	0.00	2263.66	37.22	0.00
J_ML1.5_0015	16.79	2263.30	31.74	0.00
J_ML1.5_0020	102.40	2263.50	32.02	0.00
J_ML1.7_0010	83.93	2262.09	30.97	0.00
J_ML1.8_0010	102.96	2261.65	31.22	0.00
J_ML2.0_0010	0.00	2260.56	29.20	0.00
J_ML2.0_0015	201.44	2260.55	29.20	0.00
J_ML2.0_0020	89.53	2260.60	30.97	0.00
J_ML2.1_0010	257.39	2259.58	30.39	0.00
J_ML2.1_0015	11.19	2259.58	30.39	0.00
J_ML2.2_0010	156.67	2259.03	29.87	0.00
J_ML2.2_0015	95.00	2259.03	29.87	0.00
J_ML2.4_0010	688.25	2257.03	29.49	0.00
J_ML2.5_0010	39.17	2256.27	29.81	0.00
J_ML2.7_0010	87.85	2254.83	29.16	0.00
J_ML2.8_0010	98.48	2253.84	28.73	0.00
J_ML2.8_0020	204.80	2253.78	28.84	0.00
J_ML3.1_0010	0.00	2251.69	27.02	0.00
J_ML3.1_0020	172.34	2251.70	27.81	0.00
J_ML3.1_0030	0.00	2251.70	27.81	0.00
J_ML3.1_0040	414.07	2251.69	27.02	0.00
J_ML3.1_0045	1829.73	2251.69	27.02	0.00
J_ML3.3_0010	363.71	2246.29	24.07	0.00
J_ML3.1_0050	417.42	2240.92	29.26	0.00
J_ML3.1_0070	731.89	2240.90	29.95	0.00
J_ML3.1_0080	109.67	2232.38	28.30	0.00
J_ML3.1_0090	212.63	2232.31	28.38	0.00
J_ML3.1_0100	119.18	2227.05	28.85	0.00
J_ML3.1_0110	190.81	2214.06	24.13	0.00
J_ML3.1_0120	106.87	2211.11	23.79	0.00
J_ML3.1_0130	141.57	2211.09	24.28	0.00
J_ML3.1_0140	167.31	2204.96	23.09	0.00
J_ML3.1_0150	62.67	2204.96	23.09	0.00
J_ML3.4_0010	139.89	2236.50	26.17	0.00
J_ML4.0_0010	104.64	2230.09	20.26	0.00
J_ML4.0_0020	11.19	2224.79	19.21	0.00
J_ML4.0_0030	279.77	2218.29	17.32	0.00
J_ML4.0_0035	768.26	2218.28	18.04	0.00
J_ML4.0_0040	0.00	2218.18	18.08	0.00
J_ML4.0_0070	179.06	2211.73	15.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_ML4.0_0080	95.68	2210.55	15.89	0.00
J_ML4.1_0010	124.22	2230.76	21.03	0.00
J_ML4.1_0030	11.75	2229.50	20.60	0.00
J_ML4.1_0040	107.99	2228.99	20.51	0.00
J_ML4.1_0050	63.79	2223.67	19.52	0.00
J_ML4.1_0060	364.27	2219.38	18.22	0.00
J_ML4.1_0070	202.00	2219.35	18.38	0.00
J_NA0.0_0010	45.60	2273.66	41.24	0.00
J_NA0.2_0005	13.30	2270.81	30.75	0.00
J_NA0.2_0006	14.25	2270.81	30.74	0.00
J_NA0.2_0010	3.80	2270.81	30.74	0.00
J_NA0.2_0020	5.70	2270.81	30.76	0.00
J_NA0.2E_0010	0.00	2270.38	36.36	0.00
J_NA0.3_0010	9.50	2269.05	31.03	0.00
J_NA0.3_0020	7.60	2268.78	31.28	0.00
J_NA0.4_0010	93.10	2266.75	32.18	0.00
J_NA0.4_0020	0.00	2266.74	32.21	0.00
J_NA0.8_0010	9.50	2262.21	30.67	0.00
J_NA0.9_0010	0.00	2261.55	30.97	0.00
J_NC10.5-0.9_0100	0.00	2546.08	85.78	0.00
J_NC10.5_0010	0.00	2560.97	5.00	0.00
J_NC10.5_0020	735.30	2560.88	5.20	0.00
J_NC10.5_0030	194.75	2560.09	22.15	0.00
J_NC10.5_0035	706.80	2557.94	53.69	0.00
J_NC10.5_0040	343.90	2557.88	53.24	0.00
J_NC10.5_0050	2076.70	2555.58	59.72	0.00
J_NC10.5_0070	368.60	2552.10	75.00	0.00
J_NC10.5_0080	329.65	2550.63	79.55	0.00
J_NC10.5_0090	1587.45	2546.33	82.48	0.00
J_NC10.5_0105	0.00	2546.73	84.98	0.00
J_NC10.5_0106	0.00	2543.37	85.44	0.00
J_NC10.5_0110	362.90	2543.17	85.52	0.00
J_NC10.5_0120	1322.40	2543.17	85.52	0.00
J_NC11.0_0010	0.00	2561.54	5.00	0.00
J_NC11.0_0020	361.00	2561.02	8.67	0.00
J_NC11.0_0030	0.00	2561.00	8.84	0.00
J_NC11.0_0040	0.00	2558.71	23.59	0.00
J_NC11.0_0050	0.00	2558.69	24.13	0.00
J_NC11.0_0060	266.00	2558.67	24.71	0.00
J_NC12.4P_0005	6047.70	2564.12	5.00	0.00
J_NC12.4P_0010	750.50	2559.60	42.11	0.00
J_NC12.4P_0020	1292.95	2555.88	58.24	0.00
J_NC12.4P_0030	0.00	2555.82	58.75	0.00
J_NC12.4P_0040	1368.00	2552.99	69.41	0.00
J_NC12.4P_0050	9.50	2552.94	70.74	0.00
J_NC12.4P_0060	670.70	2551.17	80.28	0.00
J_NC12.4P_0070	66.50	2550.02	81.91	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC12.4P_0080	696.35	2547.49	84.51	0.00
J_NC12.4P_0090	190.00	2545.18	85.55	0.00
J_NC12.4P_0100	521.55	2535.90	92.80	0.00
J_NC12.4P_0110	0.00	2535.89	92.80	0.00
J_NC12.4P_0120	0.00	2535.89	92.80	0.00
J_NC12.4P_0130	651.70	2535.89	92.94	0.00
J_NC12.4P_0140	674.50	2535.90	92.75	0.00
J_NC13.6_0010	0.00	2564.65	4.14	0.00
J_NC13.6_0030	579.50	2563.73	8.31	0.00
J_NC13.6_0035	1168.50	2563.68	9.88	0.00
J_NC13.6_0070	722.00	2562.70	22.60	0.00
J_NC13.6_0080	50.35	2561.06	37.12	0.00
J_NC13.6_0090	54.15	2557.55	54.47	0.00
J_NC13.6_0100	0.00	2557.03	56.27	0.00
J_NC13.6_0110	332.50	2555.57	65.68	0.00
J_NC13.6_0120	564.30	2554.68	69.09	0.00
J_NC13.6_0130	570.00	2553.58	70.80	0.00
J_NC13.6_0140	28.50	2550.91	73.45	0.00
J_NC13.6_0150	0.00	2547.00	77.78	0.00
J_NC13.6_0160	750.50	2546.96	77.97	0.00
J_NC13.6_0170	87.40	2546.89	77.95	0.00
J_NC13.6_0174	526.30	2538.73	82.39	0.00
J_NC13.6_0175	0.00	2538.71	82.70	0.00
J_NC14.5-0.2_0010	694.45	2562.23	8.30	0.00
J_NC14.5-0.2_0020	0.00	2562.23	8.21	0.00
J_NC14.5-1.5_0010	430.35	2556.84	23.43	0.00
J_NC14.5-1.5_0020	0.00	2556.84	23.43	0.00
J_NC14.5-1.5_0030	798.00	2551.26	22.92	0.00
J_NC14.5-1.5_0040	0.00	2549.12	22.74	0.00
J_NC14.5-1.5_0050	0.00	2549.05	21.96	0.00
J_NC14.5-1.5_0060	0.00	2549.04	23.12	0.00
J_NC14.5-3.0_0010	0.00	2545.80	37.66	0.00
J_NC14.5-3.5_0010	252.70	2541.34	50.41	0.00
J_NC14.5-3.5_0020	0.00	2541.37	50.64	0.00
J_NC14.5_0010	0.00	2563.44	1.94	0.00
J_NC14.5_0020	602.30	2563.32	8.54	0.00
J_NC14.5_0030	484.50	2559.45	12.16	0.00
J_NC14.5_0040	750.50	2558.73	12.46	0.00
J_NC14.5_0050	585.20	2558.09	21.10	0.00
J_NC14.5_0060	0.00	2558.05	20.71	0.00
J_NC14.5_0070	144.40	2555.48	24.84	0.00
J_NC14.5_0080	293.55	2553.90	24.46	0.00
J_NC14.5_0090	417.05	2551.56	24.43	0.00
J_NC14.5_0100	608.95	2550.58	24.55	0.00
J_NC14.5_0110	400.90	2547.75	23.61	0.00

J_NC14.5_0120	2109.00	2546.42	23.76	0.00
J_NC14.5_0130	0.00	2546.43	23.61	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC14.5_0140	484.50	2546.42	23.72	0.00
J_NC14.5_0150	722.00	2546.41	23.72	0.00
J_NC14.5_0160	0.00	2543.11	44.14	0.00
J_NC14.5_0170	361.00	2539.04	54.93	0.00
J_NC14.5_0180	454.10	2539.03	55.15	0.00
J_NC14.5_0190	278.35	2536.47	57.23	0.00
J_NC14.5_0200	704.90	2535.16	61.38	0.00
J_NC14.5_0205	1415.50	2535.16	61.44	0.00
J_NC14.5_0230	769.50	2526.78	81.62	0.00
J_NC14.5_0240	636.50	2526.68	81.35	0.00
J_NC14.5_0250	280.25	2524.27	80.65	0.00
J_NC18.6_0010	0.00	2552.98	5.00	0.00
J_NC18.6_0020	815.10	2552.49	5.37	0.00
J_NC19.9_0010	0.00	2552.76	5.00	0.00
J_NC20.3_0010	0.00	2557.22	4.26	0.00
J_NC20.3_0020	855.00	2557.06	7.67	0.00
J_NC20.3_0030	228.00	2554.83	7.88	0.00
J_NC20.3_0040	0.00	2553.58	7.49	0.00
J_NC22.8-0.1_0010	0.00	2548.94	5.57	0.00
J_NC22.8-0.1_0011	1520.00	2548.92	4.95	0.00
J_NC22.8-0.1_0012	0.00	2548.90	4.28	0.00
J_NC22.8_0010	0.00	2549.02	5.00	0.00
J_NC22.8_0020	266.00	2547.92	19.73	0.00
J_NC22.8_0030	114.95	2547.13	28.46	0.00
J_NC22.8_0035	28.50	2545.95	38.36	0.00
J_NC22.8_0040	342.95	2545.92	38.68	0.00
J_NC22.8_0050	219.45	2544.19	39.67	0.00
J_NC22.8_0060	0.00	2543.47	39.12	0.00
J_NC22.8_0070	63.65	2543.47	39.12	0.00
J_NC22.8_0080	826.50	2541.14	42.29	0.00
J_NC22.8_0083	0.00	2541.05	42.72	0.00
J_NC22.8_0085	19.00	2540.91	43.14	0.00
J_NC22.8_0090	492.10	2538.92	47.51	0.00
J_NC22.8_0100	388.55	2538.15	49.81	0.00
J_NC22.8_0110	0.00	2536.78	52.61	0.00
J_NC22.8_0120	655.50	2535.66	52.47	0.00
J_NC22.8_0130	369.55	2534.86	55.42	0.00
J_NC22.8_0140	245.10	2530.40	53.38	0.00
J_NC22.8_0145	0.00	2529.73	53.69	0.00
J_NC22.8_0150	19.00	2529.12	54.02	0.00

J_NC22.8_0160	0.00	2528.59	54.50	0.00
J_NC22.8_0170	503.50	2528.65	54.61	0.00
J_NC22.8_0180	152.00	2528.60	54.51	0.00
J_NC22.8_0190	598.50	2528.65	54.62	0.00
J_NC24.1-0.1_0010	95.00	2547.80	5.26	0.00
J_NC24.1-0.1_0020	0.00	2547.80	4.74	0.00
J_NC24.1_0010	0.00	2552.34	5.00	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC24.1_0020	1862.00	2552.29	6.58	0.00
J_NC24.1_0030	47.50	2552.27	6.70	0.00
J_NC24.1_0040	0.00	2552.17	6.49	0.00
J_NC24.1_0050	788.50	2549.40	20.48	0.00
J_NC25.4-0.3_0005	31.35	2545.61	15.92	0.00
J_NC25.4-0.3_0007	389.50	2545.57	18.36	0.00
J_NC25.4-0.3_0010	0.00	2545.36	21.22	0.00
J_NC25.4-0.7_0010	536.75	2543.68	31.09	0.00
J_NC25.4-0.7_0011	727.70	2543.67	31.22	0.00
J_NC25.4-1.2_0010	0.00	2542.28	31.51	0.00
J_NC25.4-1.2_0015	19.00	2541.98	33.37	0.00
J_NC25.4-1.6-1.1_0010	322.05	2524.55	51.51	0.00
J_NC25.4-1.6-2.3_0009	997.50	2510.19	56.99	0.00
J_NC25.4-1.6-2.3_0010	376.20	2510.13	57.22	0.00
J_NC25.4-1.6-2.7_0010	0.00	2512.64	54.22	0.00
J_NC25.4-1.6-2.7_0020	779.00	2512.67	54.43	0.00
J_NC25.4-1.6-2.7_0030	427.50	2503.35	83.07	0.00
J_NC25.4-1.6-2.7_0040	142.50	2502.87	83.57	0.00
J_NC25.4-1.6-2.7_0050	313.50	2498.28	85.16	0.00
J_NC25.4-1.6_0010	0.00	2540.79	36.39	0.00
J_NC25.4-1.6_0020	703.00	2538.48	39.88	0.00
J_NC25.4-1.6_0030	1016.50	2534.34	44.59	0.00
J_NC25.4-1.6_0040	741.00	2532.90	46.17	0.00
J_NC25.4-1.6_0050	0.00	2530.47	49.22	0.00
J_NC25.4-1.6_0080	115.90	2525.04	53.06	0.00
J_NC25.4-1.6_0090	0.00	2524.54	51.77	0.00
J_NC25.4-1.6_0100	0.00	2524.54	51.51	0.00
J_NC25.4-1.8-0.3_0010	1434.50	2537.47	41.29	0.00
J_NC25.4-1.8-1.0-0.3_0010	0.00	2529.56	52.57	0.00
J_NC25.4-1.8-1.0-0.3_0020	0.00	2525.99	55.78	0.00
J_NC25.4-1.8-1.0-0.3_0025	232.75	2525.96	56.04	0.00
J_NC25.4-1.8-1.0-0.3_0030	1016.50	2525.07	57.24	0.00
J_NC25.4-1.8-1.0-0.3_0040	722.00	2523.03	61.00	0.00
J_NC25.4-1.8-1.0-0.3_0050	737.20	2522.37	61.36	0.00
J_NC25.4-1.8-1.0-0.3_0060	275.50	2519.55	69.60	0.00

J_NC25.4-1.8-1.0_0010	0.00	2532.47	50.75	0.00
J_NC25.4-1.8-2.2_0010	251.75	2513.95	67.15	0.00
J_NC25.4-1.8-2.2_0020	133.95	2510.21	70.33	0.00
J_NC25.4-1.8-2.7_0010	0.00	2503.13	70.79	0.00
J_NC25.4-1.8_0085	684.00	2524.30	61.29	0.00
J_NC25.4-1.8_0010	0.00	2539.69	40.58	0.00
J_NC25.4-1.8_0020	0.00	2537.42	41.25	0.00
J_NC25.4-1.8_0030	712.50	2537.42	40.43	0.00
J_NC25.4-1.8_0040	684.00	2534.18	48.42	0.00
J_NC25.4-1.8_0050	317.30	2532.45	51.18	0.00
J_NC25.4-1.8_0060	1122.90	2530.28	54.21	0.00
J_NC25.4-1.8_0070	665.00	2527.79	57.20	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC25.4-1.8_0080	693.50	2524.32	61.34	0.00
J_NC25.4-1.8_0090	515.85	2521.16	62.70	0.00
J_NC25.4-1.8_0100	100.70	2517.23	64.72	0.00
J_NC25.4-1.8_0110	0.00	2516.97	66.03	0.00
J_NC25.4-1.8_0120	0.00	2516.96	66.16	0.00
J_NC25.4-1.8_0130	407.55	2505.59	67.10	0.00
J_NC25.4-1.8_0140	655.50	2505.57	67.06	0.00
J_NC25.4-1.8_0145	0.00	2505.54	66.72	0.00
J_NC25.4-1.8_0150	313.50	2505.21	66.03	0.00
J_NC25.4-1.8_0160	0.00	2505.22	66.03	0.00
J_NC25.4-3.2_0010	712.50	2526.51	61.17	0.00
J_NC25.4-3.3-0.4_0010	0.00	2516.96	64.97	0.00
J_NC25.4-3.3_0010	1073.50	2524.89	62.17	0.00
J_NC25.4-3.3_0020	0.00	2524.84	61.60	0.00
J_NC25.4-3.3_0030	370.50	2520.30	64.08	0.00
J_NC25.4-3.3_0040	526.30	2514.81	70.11	0.00
J_NC25.4-3.3_0045	275.50	2505.40	76.00	0.00
J_NC25.4-3.3_0050	9.50	2504.01	94.00	0.00
J_NC25.4-4.5_0010	222.30	2495.23	63.99	0.00
J_NC25.4-4.5_0011	0.00	2495.18	63.04	0.00
J_NC25.4-4.8_0010	0.00	2496.70	65.46	0.00
J_NC25.4-4.8_0020	180.50	2496.69	65.46	0.00
J_NC25.4_0010	0.00	2546.67	5.00	0.00
J_NC25.4_0020	437.00	2546.57	6.54	0.00
J_NC25.4_0030	684.00	2546.57	6.54	0.00
J_NC25.4_0035	2232.50	2546.29	9.65	0.00
J_NC25.4_0040	294.50	2546.20	10.99	0.00
J_NC25.4_0050	864.50	2546.19	10.88	0.00
J_NC25.4_0060	693.50	2544.27	22.86	0.00
J_NC25.4_0065	173.85	2541.66	32.77	0.00

J_NC25.4_0070	359.10	2541.44	34.67	0.00
J_NC25.4_0080	355.30	2540.00	38.94	0.00
J_NC25.4_0087	703.00	2539.03	42.08	0.00
J_NC25.4_0088	760.00	2539.01	42.51	0.00
J_NC25.4_0090	1349.00	2535.79	47.00	0.00
J_NC25.4_0100	0.00	2533.14	52.11	0.00
J_NC25.4_0110	1045.00	2533.10	51.30	0.00
J_NC25.4_0120	1387.00	2530.64	53.30	0.00
J_NC25.4_0130	1144.75	2520.05	61.68	0.00
J_NC25.4_0135	741.00	2511.47	63.62	0.00
J_NC25.4_0140	1054.50	2505.77	64.30	0.00
J_NC25.4_0150	0.00	2505.67	63.99	0.00
J_NC25.4_1.6_0060	988.00	2527.35	50.42	0.00
J_NC25.4_1.6_0070	107.35	2525.05	53.06	0.00
J_NC26.4_0010	0.00	2542.79	5.00	0.00
J_NC26.4_0020	0.00	2542.70	4.90	0.00
J_NC26.4_0025	453.15	2542.69	4.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC26.4_0030	762.85	2541.17	8.95	0.00
J_NC26.4_0040	477.85	2535.49	31.21	0.00
J_NC26.4_0050	731.50	2532.17	36.22	0.00
J_NC26.4_0060	598.50	2532.17	36.22	0.00
J_NC26.4_0070	0.00	2530.47	45.34	0.00
J_NC26.4_0080	1080.15	2526.90	48.15	0.00
J_NC26.4_0090	313.50	2525.78	50.25	0.00
J_NC26.4_0095	190.95	2524.04	52.85	0.00
J_NC26.4_0100	0.00	2519.07	60.93	0.00
J_NC26.4_0110	1391.75	2519.07	60.93	0.00
J_NC26.4_0120	0.00	2514.71	63.29	0.00
J_NC26.4_0125	49.40	2512.52	62.81	0.00
J_NC26.4_0127	218.50	2512.36	63.26	0.00
J_NC26.4_0130	0.00	2508.12	63.77	0.00
J_NC26.4_0140	655.50	2508.12	63.43	0.00
J_NC26.4_0150	144.40	2508.12	63.78	0.00
J_NC27.8_0010	0.00	2542.97	5.00	0.00
J_NC27.8_0015	432.25	2542.77	4.92	0.00
J_NC27.8_0016	628.90	2542.77	4.96	0.00
J_NC27.8_0020	0.00	2538.48	14.45	0.00
J_NC27.8_0030	1422.15	2533.99	20.24	0.00
J_NC27.8_0040	308.75	2533.77	21.38	0.00
J_NC27.8_0050	1083.00	2531.59	21.19	0.00
J_NC27.8_0060	0.00	2523.80	25.33	0.00
J_NC27.8_0065	0.00	2523.80	25.33	0.00

J_NC27.8_0070	152.00	2516.42	28.83	0.00
J_NC27.8_0080	156.75	2516.41	28.87	0.00
J_NC27.8_0090	146.30	2513.23	33.71	0.00
J_NC27.8_0100	0.00	2506.61	47.64	0.00
J_NC28.7-1.0-0.1_0010	0.00	2533.86	31.73	0.00
J_NC28.7-1.0_0160	161.50	2497.19	60.60	0.00
J_NC28.7-1.0-0.1_0020	400.90	2527.84	32.27	0.00
J_NC28.7-1.0-0.1_0030	290.70	2525.26	33.56	0.00
J_NC28.7-1.0-0.1_0040	317.30	2521.88	40.07	0.00
J_NC28.7-1.0-0.1_0050	128.25	2501.18	38.84	0.00
J_NC28.7_0053	0.00	2536.78	26.35	0.00
J_NC28.7-1.0_0020	361.00	2533.88	32.22	0.00
J_NC28.7-1.0_0030	356.25	2533.87	31.87	0.00
J_NC28.7-1.0_0040	643.15	2530.82	37.90	0.00
J_NC28.7-1.0_0050	351.50	2530.13	39.46	0.00
J_NC28.7-1.0_0060	399.00	2526.99	43.08	0.00
J_NC28.7-1.0_0070	1177.05	2524.94	45.34	0.00
J_NC28.7-1.0_0080	57.00	2506.52	51.14	0.00
J_NC28.7-1.0_0090	146.30	2506.44	50.79	0.00
J_NC28.7-1.0_0100	294.50	2504.82	52.93	0.00
J_NC28.7-1.0_0110	152.00	2501.10	52.87	0.00
J_NC28.7-1.0_0120	28.50	2501.09	52.91	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC28.7-1.0_0130	0.00	2501.07	52.46	0.00
J_NC28.7-1.0_0140	100.70	2501.09	52.89	0.00
J_NC28.7-1.0_0150	0.00	2499.23	54.73	0.00
J_NC28.7-2.0-0.4_0010	1862.00	2521.43	49.94	0.00
J_NC28.7-2.0_0010	224.20	2528.52	40.54	0.00
J_NC28.7-2.0_0020	0.00	2528.52	40.24	0.00
J_NC28.7-2.0_0030	544.35	2525.09	45.45	0.00
J_NC28.7-2.0_0040	0.00	2524.03	46.22	0.00
J_NC28.7-2.0_0050	0.00	2519.45	52.25	0.00
J_NC28.7-2.6_0010	133.95	2511.63	48.76	0.00
J_NC28.7-2.6_0020	705.85	2510.52	48.81	0.00
J_NC28.7-2.8_0010	98.80	2511.38	58.57	0.00
J_NC28.7-2.8_0020	0.00	2508.71	68.59	0.00
J_NC28.7_0010	0.00	2542.57	5.00	0.00
J_NC28.7_0020	341.05	2542.52	7.00	0.00
J_NC28.7_0030	200.45	2542.38	6.91	0.00
J_NC28.7_0035	764.75	2539.71	17.95	0.00
J_NC28.7_0040	499.70	2537.99	19.52	0.00
J_NC28.7_0050	900.60	2537.24	23.43	0.00
J_NC28.7_0060	308.75	2533.91	30.53	0.00

J_NC28.7_0070	553.85	2531.17	32.57	0.00
J_NC28.7_0080	787.55	2530.74	32.78	0.00
J_NC28.7_0083	703.00	2528.51	40.66	0.00
J_NC28.7_0085	361.95	2519.76	41.79	0.00
J_NC28.7_0090	2.85	2516.01	45.09	0.00
J_NC28.7_0100	0.00	2516.01	45.03	0.00
J_NC28.7_0110	119.70	2514.48	46.06	0.00
J_NC28.7_0120	672.60	2513.71	46.91	0.00
J_NC28.7_0130	0.00	2501.73	58.03	0.00
J_NC28.7_0140	281.20	2501.74	57.60	0.00
J_NC28.7_0150	250.80	2497.28	60.49	0.00
J_NC28.7_0160	190.00	2497.39	60.27	0.00
J_NC29.7_0010	532.00	2541.15	5.00	0.00
J_NC29.7_0020	532.00	2529.36	11.96	0.00
J_NC29.7_0030	456.00	2529.36	11.96	0.00
J_NC30.2-0.2_0010	798.00	2534.32	16.27	0.00
J_NC30.2-0.4_0010	258.40	2530.08	19.23	0.00
J_NC30.2-0.5_0010	655.50	2527.85	23.83	0.00
J_NC30.2-0.7_0010	122.55	2523.81	30.59	0.00
J_NC30.2_0010	0.00	2538.01	5.00	0.00
J_NC30.2_0020	500.65	2537.92	4.91	0.00
J_NC30.2_0030	428.45	2537.91	4.91	0.00
J_NC30.2_0040	0.00	2531.98	18.86	0.00
J_NC30.2_0050	136.80	2519.34	29.67	0.00
J_NC30.2_0060	122.55	2516.40	31.86	0.00
J_NC30.2_0070	199.50	2510.80	34.40	0.00
J_NC30.2_0080	294.50	2509.51	36.48	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC30.2_0090	218.50	2497.66	36.97	0.00
J_NC30.2_0100	408.50	2497.65	36.97	0.00
J_NC31.0-1.9_0010	0.00	2520.85	45.25	0.00
J_NC31.0-1.9_0020	237.50	2515.14	48.16	0.00
J_NC31.0-1.9_0030	155.80	2515.16	47.08	0.00
J_NC31.0-1.9_0035	494.00	2515.14	48.16	0.00
J_NC31.0-1.9_0040	229.90	2511.98	51.64	0.00
J_NC31.0_0010	0.00	2542.78	5.00	0.00
J_NC31.0_0020	0.00	2542.42	8.75	0.00
J_NC31.0_0030	28.50	2541.54	8.66	0.00
J_NC31.0_0040	115.90	2540.34	8.48	0.00
J_NC31.0_0050	560.50	2538.39	14.12	0.00
J_NC31.0_0060	360.05	2536.18	19.57	0.00
J_NC31.0_0070	423.70	2531.39	30.09	0.00
J_NC31.0_0080	320.15	2530.06	30.85	0.00

J_NC31.0_0090	340.10	2527.76	38.34	0.00
J_NC31.0_0100	857.85	2527.76	38.37	0.00
J_NC31.0_0110	270.75	2527.32	39.63	0.00
J_NC31.0_0120	218.50	2523.05	39.79	0.00
J_NC31.0_0130	0.00	2521.19	44.38	0.00
J_NC31.0_0140	327.75	2516.63	44.40	0.00
J_NC31.0_0150	503.50	2516.54	44.31	0.00
J_NC31.0_0160	247.00	2508.36	54.74	0.00
J_NC31.0_0165	0.00	2508.32	54.15	0.00
J_NC31.0_0170	636.50	2506.73	55.66	0.00
J_NC31.0_0180	0.00	2506.72	54.94	0.00
J_NC31.5_0010	0.00	2540.56	5.00	0.00
J_NC31.5_0020	805.60	2538.40	7.68	0.00
J_NC31.5_0025	150.10	2538.39	7.63	0.00
J_NC31.5_0030	332.50	2533.27	22.02	0.00
J_NC31.5_0040	175.75	2529.20	24.80	0.00
J_NC31.5_0050	225.15	2521.85	27.10	0.00
J_NC31.5_0055	152.00	2521.59	27.03	0.00
J_NC31.5_0060	304.00	2517.40	36.81	0.00
J_NC31.5_0070	311.60	2517.36	35.68	0.00
J_NC31.5_0080	370.50	2513.85	46.38	0.00
J_NC31.5_0090	0.00	2513.20	46.13	0.00
J_NC32.2-0.1_0010	313.50	2533.72	3.40	0.00
J_NC32.2-1.7_0010	133.00	2500.19	64.13	0.00
J_NC32.2-1.7_0020	503.50	2500.08	64.17	0.00
J_NC32.2_0010	0.00	2533.91	5.00	0.00
J_NC32.2_0020	341.05	2533.58	4.85	0.00
J_NC32.2_0030	665.00	2531.16	8.57	0.00
J_NC32.2_0040	0.00	2525.03	14.26	0.00
J_NC32.2_0050	356.25	2524.92	16.31	0.00
J_NC32.2_0060	263.15	2516.81	36.23	0.00
J_NC32.2_0070	27.55	2516.75	36.30	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC32.2_0080	436.05	2513.34	46.15	0.00
J_NC32.2_0090	133.00	2506.99	51.73	0.00
J_NC32.2_0100	28.50	2506.97	51.80	0.00
J_NC32.2_0110	0.00	2502.16	64.24	0.00
J_NC32.2_0140	190.00	2492.93	74.04	0.00
J_NC32.2_0150	503.50	2487.73	72.20	0.00
J_NC33.1_0010	0.00	2538.84	5.00	0.00
J_NC33.1_0020	836.00	2538.66	7.45	0.00
J_NC33.1_0030	57.00	2538.64	7.54	0.00
J_NC33.1_0040	266.00	2537.75	13.32	0.00

J_NC33.1_0050	0.00	2537.74	13.44	0.00
J_NC33.1_0060	304.00	2535.02	23.03	0.00
J_NC33.1_0065	1738.50	2535.01	23.04	0.00
J_NC33.1_0070	0.00	2526.03	36.60	0.00
J_NC33.1_0080	712.50	2522.74	42.46	0.00
J_NC33.1_0085	0.00	2522.70	42.23	0.00
J_NC33.1_0087	0.00	2516.72	60.15	0.00
J_NC33.1_0088	0.00	2516.61	60.11	0.00
J_NC33.1_0090	19.00	2504.28	77.93	0.00
J_NC33.1_0095	0.00	2504.29	77.94	0.00
J_NC33.1_0100	771.40	2499.94	81.34	0.00
J_NC33.1_0110	0.00	2484.28	88.85	0.00
J_NC33.1_0115	0.00	2484.28	88.65	0.00
J_NC33.1_0130	304.95	2515.88	74.72	0.00
J_NC33.1S-1.6_0010	649.80	2497.45	80.00	0.00
J_NC33.1S-1.6_0015	346.75	2495.07	83.53	0.00
J_NC33.1S-1.6_0020	0.00	2484.98	87.88	0.00
J_NC33.1S_0010	0.00	2536.95	16.71	0.00
J_NC33.1S_0060	146.30	2530.10	18.68	0.00
J_NC33.1S_0070	375.25	2529.98	19.42	0.00
J_NC33.1S_0075	0.00	2527.46	22.49	0.00
J_NC33.1S_0080	190.00	2526.97	22.49	0.00
J_NC33.1S_0090	448.40	2522.18	21.54	0.00
J_NC33.1S_0100	285.00	2522.06	21.68	0.00
J_NC33.1S_0110	95.00	2522.03	21.68	0.00
J_NC33.1S_0111	57.00	2522.00	21.61	0.00
J_NC33.1S_0120	0.00	2521.65	21.46	0.00
J_NC33.1S_0140	482.60	2515.84	74.71	0.00
J_NC35.1-0.1_0010	0.00	2535.82	11.40	0.00
J_NC35.1-0.1_0020	324.90	2532.45	18.57	0.00
J_NC35.1-0.1_0030	0.00	2532.41	18.82	0.00
J_NC35.1-0.7_0010	0.00	2520.56	33.78	0.00
J_NC35.1-0.7_0015	0.00	2515.69	13.81	0.00
J_NC35.1-0.7_0020	0.00	2515.69	13.81	0.00
J_NC35.1-0.7_0040	95.00	2515.66	13.82	0.00
J_NC35.1_0010	0.00	2536.29	5.00	0.00
J_NC35.1_0020	171.00	2535.84	11.61	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC35.1_0030	85.50	2535.83	11.88	0.00
J_NC35.1_0040	285.00	2529.19	26.37	0.00
J_NC35.1_0050	617.50	2521.25	33.49	0.00
J_NC35.1_0060	152.95	2508.09	29.46	0.00
J_NC35.1_0070	199.50	2505.72	42.20	0.00

J_NC35.1_0080	332.50	2503.08	51.98	0.00
J_NC35.1_0090	95.00	2503.05	51.98	0.00
J_NC35.1_0100	0.00	2500.63	75.60	0.00
J_NC35.7_0010	560.50	2531.23	5.00	0.00
J_NC35.7_0020	0.00	2531.23	5.00	0.00
J_NC35.7_0030	311.60	2521.77	16.38	0.00
J_NC35.7_0040	0.00	2521.77	16.38	0.00
J_NC35.7_0050	99.75	2521.79	16.25	0.00
J_NC37.6-0.2_0010	299.25	2524.44	41.29	0.00
J_NC37.6-0.5-0.1_0010	0.00	2518.84	88.39	0.00
J_NC37.6-0.5_0010	0.00	2521.28	73.65	0.00
J_NC37.6-0.5_0020	0.00	2515.95	74.59	0.00
J_NC37.6-0.5_0030	522.50	2515.98	74.77	0.00
J_NC37.6_0080	0.00	2522.06	72.12	0.00
J_NC37.6_0010	0.00	2526.48	5.00	0.00
J_NC37.6_0020	0.00	2526.31	8.81	0.00
J_NC37.6_0030	47.50	2526.18	11.63	0.00
J_NC37.6_0040	0.00	2526.09	11.80	0.00
J_NC37.6_0050	88.35	2525.96	12.72	0.00
J_NC37.6_0055	309.70	2525.93	13.13	0.00
J_NC37.6_0060	313.50	2522.10	70.52	0.00
J_NC37.6_0070	0.00	2522.08	70.03	0.00
J_NC37.6_0090	0.00	2509.09	82.71	0.00
J_NC37.6_0100	684.00	2509.08	83.12	0.00
J_NC37.6_0110	712.50	2505.35	86.71	0.00
J_NC37.6_0120	0.00	2505.28	86.69	0.00
J_NC37.6_0130	351.50	2505.27	86.66	0.00
J_NC37.6_0135	693.50	2500.21	90.16	0.00
J_NC38.7-0.1_0015	0.00	2530.54	8.94	0.00
J_NC38.7-0.1_0020	0.00	2527.12	35.90	0.00
J_NC38.7-0.15_0010	47.50	2528.57	15.71	0.00
J_NC38.7-0.2_0010	0.00	2526.94	34.72	0.00
J_NC38.7-0.2_0020	0.00	2526.92	34.83	0.00
J_NC38.7-0.2_0030	0.00	2526.91	34.77	0.00
J_NC38.7-0.2_0040	57.00	2526.76	36.13	0.00
J_NC38.7-0.8_0010	0.00	2519.47	71.93	0.00
J_NC38.7-1.1_0010	783.75	2511.71	85.86	0.00
J_NC38.7-1.2_0010	57.00	2465.71	83.29	0.00
J_NC38.7-1.2_0020	0.00	2455.06	83.97	0.00
J_NC38.7-1.2_0025	0.00	2455.02	84.68	0.00
J_NC38.7_0010	0.00	2530.70	5.00	0.00
J_NC38.7_0020	95.00	2530.60	6.71	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC38.7_0030	456.00	2530.60	6.61	0.00
J_NC38.7_0040	2109.00	2530.59	6.50	0.00
J_NC38.7_0050	304.00	2530.59	7.00	0.00
J_NC38.7_0060	978.50	2530.56	7.71	0.00
J_NC38.7_0070	2593.50	2530.60	6.47	0.00
J_NC38.7_0080	0.00	2522.79	57.51	0.00
J_NC38.7_0090	0.00	2522.76	57.66	0.00
J_NC38.7_0100	985.15	2474.56	80.00	0.00
J_NC38.7_0110	1476.30	2467.32	83.52	0.00
J_NC38.9-0.7_0010	0.00	2525.31	4.37	0.00
J_NC38.9-0.7_0020	2456.70	2525.30	3.55	0.00
J_NC38.9-0.7_0030	2660.00	2525.19	8.63	0.00
J_NC38.9-1.2_0010	0.00	2524.75	6.97	0.00
J_NC38.9-10.3_0010	0.00	2479.36	11.30	0.00
J_NC38.9-10.3_0020	0.00	2479.37	11.90	0.00
J_NC38.9-10.3_0030	152.00	2479.37	11.90	0.00
J_NC38.9-10.3_0040	0.00	2476.55	18.16	0.00
J_NC38.9-10.3_0050	0.00	2474.29	28.48	0.00
J_NC38.9-2.4-1.6_0010	0.00	2440.70	75.40	0.00
J_NC38.9-2.4-1.6_0020	456.00	2432.72	76.81	0.00
J_NC38.9-2.4-1.6_0030	171.00	2432.72	76.86	0.00
J_NC38.9-2.4-1.6_0040	902.50	2432.71	76.86	0.00
J_NC38.9-2.4_0010	0.00	2523.45	7.10	0.00
J_NC38.9-2.4_0015	741.00	2523.45	6.17	0.00
J_NC38.9-2.4_0020	85.50	2523.45	8.28	0.00
J_NC38.9-2.4_0030	9.50	2520.47	23.93	0.00
J_NC38.9-2.4_0040	57.00	2514.06	48.25	0.00
J_NC38.9-2.4_0048	19.00	2506.48	65.69	0.00
J_NC38.9-2.4_0045	494.00	2514.02	48.15	0.00
J_NC38.9-2.4_0050	0.00	2506.04	65.37	0.00
J_NC38.9-2.4_0060	142.50	2506.01	65.74	0.00
J_NC38.9-2.4_0070	28.50	2504.07	67.66	0.00
J_NC38.9-2.4_0080	133.00	2443.70	67.00	0.00
J_NC38.9-2.4_0090	38.00	2443.69	67.00	0.00
J_NC38.9-2.4_0100	19.00	2443.68	67.14	0.00
J_NC38.9-2.4_0110	76.00	2443.31	71.23	0.00
J_NC38.9-2.4_0120	0.00	2443.25	71.12	0.00
J_NC38.9-2.4_0130	522.50	2439.43	76.79	0.00
J_NC38.9-2.4_0135	111.15	2439.43	76.79	0.00
J_NC38.9-2.4_0137	0.00	2439.43	84.55	0.00
J_NC38.9-3.0-0.5_0010	342.00	2512.54	31.10	0.00
J_NC38.9-3.0-0.5_0020	703.00	2512.52	30.74	0.00
J_NC38.9-3.0-0.5_0030	484.50	2497.55	42.35	0.00
J_NC38.9-3.0-0.5_0040	446.50	2497.56	42.08	0.00
J_NC38.9-3.0_0010	0.00	2522.82	7.31	0.00
J_NC38.9-3.0_0020	722.00	2522.82	8.16	0.00
J_NC38.9-3.0_0030	0.00	2519.44	17.14	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9-3.0_0040	0.00	2517.96	20.64	0.00
J_NC38.9-3.0_0050	646.00	2512.92	29.94	0.00
J_NC38.9-3.8_0010	465.50	2522.31	10.48	0.00
J_NC38.9-3.8_0020	9.50	2522.31	10.54	0.00
J_NC38.9-4.8-0.5_0093	0.00	2475.36	45.00	0.00
J_NC38.9-4.8-0.5-1.3_0020	0.00	2498.90	59.50	0.00
J_NC38.9-4.8_0045	0.00	2517.54	29.85	0.00
J_NC38.9-4.8-0.5_0020	0.00	2517.53	29.71	0.00
J_NC38.9-4.8-0.5_0030	332.50	2517.53	29.71	0.00
J_NC38.9-4.8-0.5_0040	247.00	2514.57	39.93	0.00
J_NC38.9-4.8-0.5_0045	57.00	2512.12	39.22	0.00
J_NC38.9-4.8-0.5_0050	104.50	2511.85	41.42	0.00
J_NC38.9-4.8-0.5_0060	703.00	2511.80	41.35	0.00
J_NC38.9-4.8-0.5_0070	522.50	2504.08	52.92	0.00
J_NC38.9-4.8-0.5_0080	0.00	2503.57	55.18	0.00
J_NC38.9-4.8-0.5_0090	0.00	2503.59	55.28	0.00
J_NC38.9-4.8-0.5_0095	38.00	2472.22	53.64	0.00
J_NC38.9-4.8-0.5_0100	0.00	2470.73	80.18	0.00
J_NC38.9-4.8-0.5_0110	361.00	2470.73	80.15	0.00
J_NC38.9-4.8-0.5_0120	684.00	2463.31	87.08	0.00
J_NC38.9-4.8-0.5_0125	47.50	2463.14	87.73	0.00
J_NC38.9-4.8-0.5_0130	0.00	2463.09	88.08	0.00
J_NC38.9-4.8-2.5_0010	117.80	2443.78	70.00	0.00
J_NC38.9-4.8-2.5_0020	0.00	2442.82	69.64	0.00
J_NC38.9-4.8-2.5_0030	313.50	2442.87	69.70	0.00
J_NC38.9-4.8_0096	1064.00	2509.13	43.18	0.00
J_NC38.9-4.8_0020	0.00	2520.58	16.44	0.00
J_NC38.9-4.8_0030	703.00	2520.57	16.91	0.00
J_NC38.9-4.8_0040	272.65	2519.63	21.53	0.00
J_NC38.9-4.8_0050	47.50	2514.52	32.46	0.00
J_NC38.9-4.8_0060	807.50	2514.50	32.52	0.00
J_NC38.9-4.8_0070	0.00	2514.49	32.56	0.00
J_NC38.9-4.8_0090	399.00	2511.78	37.95	0.00
J_NC38.9-4.8_0093	0.00	2511.01	43.48	0.00
J_NC38.9-4.8_0094	370.50	2509.20	42.78	0.00
J_NC38.9-4.8_0110	294.50	2506.81	42.58	0.00
J_NC38.9-4.8_0120	465.50	2506.34	42.95	0.00
J_NC38.9-4.8_0130	484.50	2494.32	46.08	0.00
J_NC38.9-4.8_0140	209.00	2490.44	82.02	0.00
J_NC38.9-4.8_0150	0.00	2443.78	70.00	0.00
J_NC38.9-4.8_0160	541.50	2439.40	74.96	0.00
J_NC38.9-4.8_0170	0.00	2432.19	77.14	0.00
J_NC38.9-5.3_0010	0.00	2521.23	13.95	0.00
J_NC38.9-6.7_0010	0.00	2520.14	17.51	0.00
J_NC38.9-7.8-0.5_0010	0.00	2501.97	19.49	0.00

J_NC38.9-7.8-0.5_0020	418.00	2495.47	35.35	0.00
J_NC38.9-7.8-0.5_0030	123.50	2495.45	35.42	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9-7.8-0.5_0040	104.50	2494.73	37.29	0.00
J_NC38.9-7.8-0.5_0050	627.00	2494.72	37.66	0.00
J_NC38.9-7.8_0010	0.00	2509.14	14.91	0.00
J_NC38.9-7.8_0020	173.85	2509.00	15.92	0.00
J_NC38.9-7.8_0030	216.60	2508.96	15.99	0.00
J_NC38.9-7.8_0040	0.00	2508.93	16.26	0.00
J_NC38.9-7.8_0045	125.40	2503.41	20.42	0.00
J_NC38.9-7.8_0050	313.50	2502.28	20.08	0.00
J_NC38.9-7.8_0060	201.40	2501.99	19.89	0.00
J_NC38.9-7.9_0010	0.00	2507.64	14.62	0.00
J_NC38.9-7.9_0020	0.00	2507.64	14.62	0.00
J_NC38.9-7.9_0030	712.50	2505.87	21.36	0.00
J_NC38.9-8.5-0.2_0010	95.00	2477.44	20.72	0.00
J_NC38.9-8.5-0.2_0020	9.50	2477.44	20.84	0.00
J_NC38.9-8.5_0010	0.00	2500.87	14.73	0.00
J_NC38.9-8.5_0020	0.00	2496.51	25.50	0.00
J_NC38.9-9.3_0010	0.00	2491.76	13.48	0.00
J_NC38.9-9.3_0020	0.00	2491.77	13.87	0.00
J_NC38.9_0010	0.00	2526.47	5.00	0.00
J_NC38.9_0015	9.50	2526.40	5.14	0.00
J_NC38.9_0020	247.00	2526.30	5.87	0.00
J_NC38.9_0025	28.50	2526.09	5.93	0.00
J_NC38.9_0030	47.50	2525.87	5.96	0.00
J_NC38.9_0035	57.00	2525.65	5.74	0.00
J_NC38.9-0.7_0040	0.00	2524.70	22.01	0.00
J_NC38.9_0040	332.50	2525.65	5.72	0.00
J_NC38.9_0050	90.25	2524.26	7.26	0.00
J_NC38.9_0060	451.25	2523.54	8.21	0.00
J_NC38.9_0070	500.65	2523.42	8.26	0.00
J_NC38.9_0080	439.85	2522.95	9.22	0.00
J_NC38.9_0085	9.50	2522.51	10.42	0.00
J_NC38.9_0090	932.90	2522.30	10.55	0.00
J_NC38.9_0100	0.00	2522.07	11.72	0.00
J_NC38.9_0110	188.10	2521.51	13.46	0.00
J_NC38.9_0120	159.60	2521.04	14.47	0.00
J_NC38.9_0130	810.35	2520.44	16.32	0.00
J_NC38.9_0140	0.00	2520.43	16.38	0.00
J_NC38.9_0150	202.35	2515.40	17.21	0.00
J_NC38.9_0160	0.00	2515.39	17.37	0.00
J_NC38.9_0170	22.80	2509.32	16.61	0.00

J_NC38.9_0180	0.00	2502.25	15.09	0.00
J_NC38.9_0185	522.50	2501.92	15.36	0.00
J_NC38.9_0190	0.00	2500.38	15.16	0.00
J_NC38.9_0200	522.50	2500.40	15.04	0.00
J_NC38.9_0210	114.00	2500.33	14.92	0.00
J_NC38.9_0220	0.00	2488.48	13.45	0.00
J_NC38.9_0230	0.00	2488.48	13.45	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC38.9_0240	0.00	2485.30	13.24	0.00
J_NC38.9_0250	323.00	2481.88	12.58	0.00
J_NC38.9_0260	0.00	2478.29	10.74	0.00
J_NC38.9_0270	0.00	2477.95	11.67	0.00
J_NC38.9_0280	0.00	2474.39	13.86	0.00
J_NC39.8-4.8-0.9_0010	0.00	2512.70	35.75	0.00
J_NC39.8-4.8-0.9_0020	0.00	2512.65	35.65	0.00
J_NC43.2-0.8_0010	0.00	2439.30	5.53	0.00
J_NC43.2-0.8_0030	0.00	2435.13	41.37	0.00
J_NC43.2-0.8_0040	931.95	2433.05	61.63	0.00
J_NC43.2-11.6_0010	0.00	2399.04	13.07	0.00
J_NC43.2-11.6_0015	0.00	2399.03	13.07	0.00
J_NC43.2-11.6_0020	532.00	2398.74	15.03	0.00
J_NC43.2-11.6_0030	152.00	2396.13	20.61	0.00
J_NC43.2-11.6_0040	0.00	2383.95	22.54	0.00
J_NC43.2-12.7_0010	0.00	2393.34	13.61	0.00
J_NC43.2-12.7_0020	712.50	2390.22	21.26	0.00
J_NC43.2-12.7_0030	0.00	2384.47	29.13	0.00
J_NC43.2-12.7_0040	0.00	2381.70	27.94	0.00
J_NC43.2-12.7_0050	1092.50	2382.21	28.37	0.00
J_NC43.2-12.9-0.5_0010	1212.20	2384.49	13.05	0.00
J_NC43.2-12.9-0.5_0015	180.50	2384.53	13.98	0.00
J_NC43.2-12.9-0.5_0020	0.00	2384.25	12.90	0.00
J_NC43.2-12.9-0.5_0030	0.00	2378.85	16.03	0.00
J_NC43.2-12.9-0.5_0040	0.00	2377.28	17.25	0.00
J_NC43.2-12.9-0.5_0050	47.50	2360.77	14.77	0.00
J_NC43.2-12.9-0.5_0060	0.00	2360.73	14.81	0.00
J_NC43.2-12.9_0010	0.00	2391.53	13.60	0.00
J_NC43.2-12.9_0020	123.50	2391.43	14.00	0.00
J_NC43.2-12.9_0040	2118.50	2380.08	15.94	0.00
J_NC43.2-14.4_0010	0.00	2374.46	8.84	0.00
J_NC43.2-14.4_0020	0.00	2370.24	26.67	0.00
J_NC43.2-14.4_0030	984.20	2368.44	26.42	0.00
J_NC43.2-14.4_0040	9.50	2368.22	34.46	0.00
J_NC43.2-14.7_0010	0.00	2371.11	8.02	0.00

J_NC43.2-14.7_0020	0.00	2371.13	8.01	0.00
J_NC43.2-14.7_0030	1007.00	2371.10	8.00	0.00
J_NC43.2-14.7_0040	0.00	2371.11	8.02	0.00
J_NC43.2-14.7_0050	360.05	2366.06	19.44	0.00
J_NC43.2-14.7_0060	541.50	2357.69	17.42	0.00
J_NC43.2-14.7_0070	1434.50	2357.67	17.38	0.00
J_NC43.2-14.7_0080	209.00	2357.67	17.38	0.00
J_NC43.2_0035	187.15	2436.11	8.09	0.00
J_NC43.2-2.1_0010	0.00	2435.52	6.28	0.00
J_NC43.2-3.8_0010	0.00	2430.54	7.61	0.00
J_NC43.2-3.8_0020	0.00	2430.43	9.85	0.00
J_NC43.2-3.8_0030	0.00	2430.40	9.80	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC43.2-3.8_0040	0.00	2430.38	10.02	0.00
J_NC43.2-3.8_0055	19.00	2417.14	63.71	0.00
J_NC43.2-3.8_0060	772.35	2417.05	62.21	0.00
J_NC43.2-6.1_0010	684.00	2420.33	11.37	0.00
J_NC43.2-6.6_0010	684.00	2418.19	11.51	0.00
J_NC43.2-6.6_0020	415.15	2414.07	45.44	0.00
J_NC43.2-6.6_0040	304.00	2413.88	45.57	0.00
J_NC43.2-7.3_0010	99.75	2415.73	10.91	0.00
J_NC43.2-7.3_0020	427.50	2415.76	11.76	0.00
J_NC43.2-9.4_0010	693.50	2410.07	13.52	0.00
J_NC43.2-9.4_0020	0.00	2410.04	12.41	0.00
J_NC43.2_0010	0.00	2441.79	4.83	0.00
J_NC43.2_0020	0.00	2441.00	6.02	0.00
J_NC43.2_0040	475.00	2433.42	8.91	0.00
J_NC43.2_0044	389.50	2432.76	9.24	0.00
J_NC43.2_0030	31.35	2439.42	6.45	0.00
J_NC43.2_0047	95.00	2432.22	9.41	0.00
J_NC43.2_0050	513.00	2431.50	9.76	0.00
J_NC43.2_0060	0.00	2430.53	9.81	0.00
J_NC43.2_0070	446.50	2430.22	9.88	0.00
J_NC43.2_0100	351.50	2425.07	10.34	0.00
J_NC43.2_0110	351.50	2417.64	11.27	0.00
J_NC43.2_0120	503.50	2417.65	11.26	0.00
J_NC43.2_0130	1216.00	2416.66	11.76	0.00
J_NC43.2_0140	1495.30	2413.95	12.29	0.00
J_NC43.2_0150	560.50	2413.45	12.50	0.00
J_NC43.2_0170	551.00	2409.61	14.26	0.00
J_NC43.2_0175	47.50	2409.61	14.11	0.00
J_NC43.2_0180	114.00	2409.44	14.53	0.00
J_NC43.2_0190	85.50	2409.27	14.98	0.00

J_NC43.2_0200	332.50	2408.01	13.48	0.00
J_NC43.2_0210	237.50	2408.03	13.88	0.00
J_NC43.2_0220	0.00	2408.00	13.33	0.00
J_NC43.2_0230	560.50	2402.61	15.40	0.00
J_NC43.2_0250	646.00	2395.74	15.26	0.00
J_NC43.2_0270	19.00	2393.27	14.74	0.00
J_NC43.2_0280	717.25	2386.15	13.59	0.00
J_NC43.2_0290	432.25	2381.20	12.27	0.00
J_NC43.2_0300	52.25	2379.18	11.79	0.00
J_NC43.2_0310	261.25	2375.73	10.63	0.00
J_NC43.2_0320	1672.95	2373.70	10.06	0.00
J_NC43.2_0340	0.00	2371.31	24.55	0.00
J_NC45.4_0010	0.00	2433.12	5.00	0.00
J_NC45.4_0015	332.50	2432.93	4.84	0.00
J_NC45.4_0020	0.00	2432.92	5.06	0.00
J_NC46.7-0.5-0.2_0010	0.00	2422.56	10.84	0.00
J_NC46.7-0.5-0.2_0020	1028.85	2419.80	10.00	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC46.7-0.5-0.2_0030	0.00	2419.78	9.99	0.00
J_NC46.7-0.5_0010	0.00	2428.16	13.53	0.00
J_NC46.7-0.5_0020	0.00	2427.31	13.45	0.00
J_NC46.7-0.5_0030	76.00	2422.73	10.63	0.00
J_NC46.7-0.5_0040	538.65	2416.72	9.02	0.00
J_NC46.7-0.5_0050	88.35	2411.08	14.51	0.00
J_NC46.7-0.5_0060	351.50	2407.89	22.05	0.00
J_NC46.7-0.5_0070	418.00	2401.28	93.07	0.00
J_NC46.7-1.0_0010	142.50	2420.06	14.66	0.00
J_NC46.7-1.0_0020	1007.00	2420.01	14.67	0.00
J_NC46.7-1.0_0030	456.00	2419.98	14.54	0.00
J_NC46.7-1.0_0040	375.25	2409.55	14.18	0.00
J_NC46.7-1.0_0045	465.50	2409.59	14.18	0.00
J_NC46.7-1.0_0050	413.25	2409.55	14.24	0.00
J_NC46.7-1.0_0060	142.50	2407.66	15.06	0.00
J_NC46.7-1.0_0070	247.00	2397.93	15.47	0.00
J_NC46.7_0010	226.10	2433.57	2.81	0.00
J_NC46.7_0020	38.00	2433.51	6.57	0.00
J_NC46.7_0025	85.50	2433.51	6.57	0.00
J_NC46.7_0030	841.70	2430.13	13.61	0.00
J_NC46.7_0040	0.00	2428.67	13.59	0.00
J_NC46.7_0050	217.55	2428.65	13.75	0.00
J_NC48.3_0010	0.00	2429.17	4.13	0.00
J_NC48.3_0040	56.05	2420.38	12.09	0.00
J_NC48.3_0050	0.00	2420.32	12.16	0.00

J_NC49.2-0.2_0010	0.00	2425.82	4.58	0.00
J_NC49.2-0.2_0020	361.95	2425.75	4.74	0.00
J_NC49.2-0.2_0030	0.00	2425.71	5.69	0.00
J_NC49.2-0.3_0010	42.75	2423.93	7.01	0.00
J_NC49.2-0.3_0020	617.50	2423.93	6.89	0.00
J_NC49.2-0.3_0030	418.00	2423.93	6.89	0.00
J_NC49.2-0.4-0.6_0010	28.50	2413.40	11.78	0.00
J_NC49.2-0.4-0.6_0020	114.00	2409.80	11.32	0.00
J_NC49.2-0.4-0.6_0023	9.50	2409.80	12.03	0.00
J_NC49.2-0.4-0.6_0025	161.50	2409.76	11.39	0.00
J_NC49.2-0.4-0.6_0026	9.50	2409.01	11.66	0.00
J_NC49.2-0.4-0.6_0030	0.00	2407.69	13.64	0.00
J_NC49.2-0.4-0.6_0040	380.95	2406.56	14.45	0.00
J_NC49.2-0.4-0.6_0050	31.35	2401.57	17.75	0.00
J_NC49.2-0.4-0.6_0060	684.00	2401.53	17.66	0.00
J_NC49.2-0.4-0.6_0070	0.00	2398.34	19.47	0.00
J_NC49.2-0.4-0.6_0080	0.00	2398.35	19.49	0.00
J_NC49.2-0.4-0.6_0090	148.20	2398.22	19.58	0.00
J_NC49.2-0.4-0.6_0115	0.00	2398.09	25.33	0.00
J_NC49.2-0.4_0010	209.00	2415.50	13.11	0.00
J_NC49.2-0.4_0020	0.00	2415.49	13.03	0.00
J_NC49.2-0.4_0030	1102.00	2415.50	13.10	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2-0.4_0040	0.00	2415.52	13.11	0.00
J_NC49.2-0.4_0070	0.00	2407.86	20.28	0.00
J_NC49.2-0.9_0010	0.00	2407.78	21.24	0.00
J_NC49.2-0.9_0015	41.80	2407.69	21.20	0.00
J_NC49.2-0.9_0020	558.60	2403.08	17.30	0.00
J_NC49.2-0.9_0030	38.00	2397.16	16.93	0.00
J_NC49.2-0.9_0040	190.00	2393.26	12.76	0.00
J_NC49.2-0.9_0050	47.50	2393.20	12.72	0.00
J_NC49.2-0.9_0055	228.00	2393.19	12.70	0.00
J_NC49.2-0.9_0060	0.00	2393.18	12.69	0.00
J_NC49.2-0.9_0070	57.00	2390.99	12.73	0.00
J_NC49.2-2.3_0010	0.00	2404.70	21.50	0.00
J_NC49.2-2.3_0020	34.20	2393.87	18.33	0.00
J_NC49.2-2.3_0030	0.00	2393.64	17.08	0.00
J_NC49.2-2.9_0010	161.50	2394.64	19.10	0.00
J_NC49.2-2.9_0020	0.00	2394.63	18.71	0.00
J_NC49.2-2.9_0030	47.50	2394.63	18.71	0.00
J_NC49.2-2.9_0040	228.00	2387.94	17.78	0.00
J_NC49.2-2.9_0050	0.00	2387.47	17.54	0.00
J_NC49.2-2.9_0060	256.50	2382.14	17.65	0.00

J_NC49.2-2.9_0070	38.00	2381.91	17.77	0.00
J_NC49.2-2.9_0080	133.00	2381.88	17.92	0.00
J_NC49.2-2.9_0090	545.30	2381.87	17.67	0.00
J_NC49.2-2.9_0100	380.00	2380.78	19.48	0.00
J_NC49.2_0010	0.00	2426.30	3.57	0.00
J_NC49.2_0020	289.75	2426.30	5.00	0.00
J_NC49.2_0030	0.00	2426.15	4.07	0.00
J_NC49.2_0040	156.75	2421.76	12.72	0.00
J_NC49.2_0050	105.45	2420.95	12.76	0.00
J_NC49.2_0055	129.20	2419.57	14.59	0.00
J_NC49.2_0060	102.60	2419.55	14.61	0.00
J_NC49.2_0070	358.15	2418.88	16.67	0.00
J_NC49.2_0080	332.50	2417.55	19.64	0.00
J_NC49.2_0090	323.00	2410.55	23.90	0.00
J_NC49.2_0095	199.50	2410.54	23.83	0.00
J_NC49.2_0100	266.00	2405.75	21.98	0.00
J_NC49.2_0110	19.00	2405.80	22.21	0.00
J_NC49.2_0120	104.50	2405.85	21.69	0.00
J_NC49.2_0130	608.00	2401.48	20.70	0.00
J_NC49.2_0140	0.00	2396.96	18.69	0.00
J_NC49.2_0150	123.50	2395.99	19.50	0.00
J_NC49.2_0160	171.00	2392.92	18.65	0.00
J_NC49.2_0163	9.50	2392.47	19.65	0.00
J_NC49.2_0165	9.50	2391.26	21.50	0.00
J_NC49.2_0170	494.00	2389.32	83.35	0.00
J_NC49.2_0180	275.50	2376.25	80.00	0.00
J_NC49.2_0190	256.50	2372.35	83.53	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2_0200	0.00	2365.80	81.71	0.00
J_NC49.2_0210	0.00	2365.75	81.70	0.00
J_NC49.4-0.4_0010	684.00	2425.19	4.05	0.00
J_NC49.4-0.4_0020	427.50	2425.18	4.22	0.00
J_NC49.4-0.4_0030	403.75	2420.68	10.96	0.00
J_NC49.4_0010	0.00	2426.14	3.17	0.00
J_NC49.4_0020	313.50	2426.04	4.85	0.00
J_NC49.4_0030	665.00	2425.74	4.97	0.00
J_NC49.4_0040	19.00	2423.83	7.54	0.00
J_NC49.4_0050	0.00	2421.14	12.04	0.00
J_NC49.4_0060	342.00	2421.13	11.72	0.00
J_NC49.4_0070	0.00	2418.09	14.48	0.00
J_NC49.4_0080	0.00	2418.09	14.48	0.00
J_NC49.4_0090	501.60	2414.25	18.25	0.00
J_NC5.3-0.3_0010	47.50	2570.89	49.47	0.00

J_NC5.3_0010	0.00	2574.03	8.45	0.00
J_NC5.3_0020	606.10	2573.93	9.07	0.00
J_NC5.3_0030	49.40	2573.82	10.98	0.00
J_NC5.3_0040	1339.50	2567.72	52.19	0.00
J_NC5.3_0050	380.00	2565.34	52.04	0.00
J_NC5.3_0060	1188.45	2468.69	81.20	0.00
J_NC5.3_0070	0.00	2468.69	81.20	0.00
J_NC5.3_0080	276.45	2468.69	81.20	0.00
J_NC50.8_0010	0.00	2422.31	1.36	0.00
J_NC50.8_0020	104.50	2422.22	4.37	0.00
J_NC50.8_0030	204.25	2421.20	4.14	0.00
J_NC50.8_0035	242.25	2421.19	4.19	0.00
J_NC50.8_0040	138.70	2418.07	11.30	0.00
J_NC50.8_0041	141.55	2418.07	11.30	0.00
J_NC50.8_0050	305.90	2411.93	12.82	0.00
J_NC50.8_0060	168.15	2411.92	12.76	0.00
J_NC50.8_0065	235.60	2407.63	11.92	0.00
J_NC50.8_0070	56.05	2407.62	12.15	0.00
J_NC50.8_0080	0.00	2405.60	11.65	0.00
J_NC50.8_0090	304.00	2405.59	11.97	0.00
J_NC50.8_0091	28.50	2405.56	12.09	0.00
J_NC50.8_0100	256.50	2404.24	13.48	0.00
J_NC50.8_0110	57.00	2401.78	18.26	0.00
J_NC50.8_0120	0.00	2401.78	17.89	0.00
J_NC52.5_0010	0.00	2417.98	3.28	0.00
J_NC52.5_0020	0.00	2417.91	3.55	0.00
J_NC52.5_0030	209.00	2417.91	3.54	0.00
J_NC52.5_0040	1691.00	2417.91	3.57	0.00
J_NC52.5_0050	19.00	2415.75	3.48	0.00
J_NC52.5_0059	152.00	2414.72	6.62	0.00
J_NC52.5_0060	0.00	2414.72	6.81	0.00
J_NC53.2-0.4_0010	0.00	2406.15	11.76	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC53.2-0.4_0020	9.50	2395.90	9.78	0.00
J_NC53.2-0.4_0025	0.00	2395.94	9.74	0.00
J_NC53.2-0.4_0040	123.50	2391.91	8.57	0.00
J_NC53.2_0020	0.00	2416.33	3.37	0.00
J_NC53.2_0025	1529.50	2415.94	3.65	0.00
J_NC53.2_0030	0.00	2412.26	11.88	0.00
J_NC53.2_0040	349.60	2402.85	13.23	0.00
J_NC53.2_0050	38.00	2396.75	11.91	0.00
J_NC53.2_0055	9.50	2396.74	11.90	0.00
J_NC53.2_0060	351.50	2396.75	11.91	0.00

J_NC53.2_0070	218.50	2393.74	15.55	0.00
J_NC53.2_0090	275.50	2385.10	17.60	0.00
J_NC53.2_0100	190.95	2381.11	17.83	0.00
J_NC53.2_0110	94.05	2377.25	16.96	0.00
J_NC53.2_0120	275.50	2375.39	15.29	0.00
J_NC53.2_0125	0.00	2375.38	15.67	0.00
J_NC53.2_0130	152.00	2375.39	15.29	0.00
J_NC53.2_0140	0.00	2375.06	22.86	0.00
J_NC54.2-2.8_0010	0.00	2367.47	73.42	0.00
J_NC54.2_0010	0.00	2413.33	0.04	0.00
J_NC54.2_0020	466.45	2413.24	3.80	0.00
J_NC54.2_0030	87.40	2411.38	8.92	0.00
J_NC54.2_0040	582.35	2411.01	8.73	0.00
J_NC54.2_0050	109.25	2407.29	12.47	0.00
J_NC54.2_0060	0.00	2407.25	12.37	0.00
J_NC54.2_0070	478.80	2404.32	12.10	0.00
J_NC54.2_0080	0.00	2404.32	12.33	0.00
J_NC54.2_0090	579.50	2404.26	11.83	0.00
J_NC54.2_0100	291.65	2400.85	14.24	0.00
J_NC54.2_0110	513.00	2400.86	14.24	0.00
J_NC54.2_0120	408.50	2400.85	14.26	0.00
J_NC54.2_0130	128.25	2400.84	14.14	0.00
J_NC54.2_0140	190.00	2394.48	15.94	0.00
J_NC54.2_0150	503.50	2394.48	15.94	0.00
J_NC54.2_0160	103.55	2394.44	15.88	0.00
J_NC54.2_0165	28.50	2391.35	17.34	0.00
J_NC54.2_0168	19.00	2389.22	20.72	0.00
J_NC54.2_0170	418.00	2388.65	20.59	0.00
J_NC54.2_0180	1083.00	2386.71	22.83	0.00
J_NC54.2_0190	19.00	2386.70	22.91	0.00
J_NC54.2_0210	85.50	2374.34	23.74	0.00
J_NC54.2_0220	104.50	2374.26	23.79	0.00
J_NC54.2_0230	123.50	2374.03	23.75	0.00
J_NC54.2_0240	1178.00	2369.91	33.32	0.00
J_NC54.2_0260	0.00	2356.16	72.42	0.00
J_NC54.2_0270	0.00	2356.15	73.13	0.00
J_NC54.2_0280	0.00	2356.13	73.24	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC54.3_0010	0.00	2412.89	2.23	0.00
J_NC54.3_0020	36.10	2412.85	1.20	0.00
J_NC54.3_0030	204.25	2412.74	2.06	0.00
J_NC54.3_0040	1116.25	2409.52	9.96	0.00
J_NC54.3_0050	304.00	2407.35	9.75	0.00

J_NC54.4-0.3_0010	126.35	2411.24	7.62	0.00
J_NC54.4-0.5_0010	1261.60	2409.97	8.43	0.00
J_NC54.4-0.5_0020	122.55	2409.19	8.24	0.00
J_NC54.4-0.5_0025	102.60	2409.40	8.46	0.00
J_NC54.4-0.5_0030	0.00	2409.17	8.33	0.00
J_NC54.4_0010	0.00	2412.52	2.86	0.00
J_NC54.4_0020	722.00	2412.32	3.76	0.00
J_NC54.4_0030	133.00	2407.44	13.56	0.00
J_NC54.4_0050	940.50	2403.60	15.46	0.00
J_NC54.4_0060	228.00	2403.16	15.12	0.00
J_NC54.4_0065	90.25	2403.16	15.17	0.00
J_NC54.4_0070	0.00	2403.14	14.96	0.00
J_NC54.4_0080	206.15	2402.85	15.33	0.00
J_NC54.4_0085	354.35	2398.70	26.30	0.00
J_NC54.4_0090	812.25	2391.37	27.18	0.00
J_NC54.4_0100	589.00	2391.33	27.11	0.00
J_NC54.4_0110	38.00	2388.39	34.70	0.00
J_NC54.4_0120	38.00	2388.39	34.70	0.00
J_NC54.4_0130	142.50	2386.18	74.21	0.00
J_NC54.4_0140	0.00	2386.18	74.21	0.00
J_NC55.5_0005	342.00	2407.03	5.00	0.00
J_NC55.5_0006	0.00	2407.03	4.14	0.00
J_NC55.5_0007	308.75	2405.62	8.85	0.00
J_NC55.6-0.1-0.7_0010	0.00	2397.39	11.14	0.00
J_NC55.6-0.1-0.7_0020	0.00	2396.29	14.83	0.00
J_NC55.6-0.1-0.7_0030	724.85	2394.68	18.14	0.00
J_NC55.6-0.1-0.7_0040	456.00	2394.30	17.76	0.00
J_NC55.6-0.1-0.7_0045	0.00	2394.19	18.64	0.00
J_NC55.6-0.1_0010	0.00	2401.16	14.24	0.00
J_NC55.6-0.1_0020	307.80	2398.04	12.46	0.00
J_NC55.6-0.1_0030	225.15	2392.89	11.43	0.00
J_NC55.6-0.1_0040	146.30	2392.87	11.38	0.00
J_NC55.6-0.1_0050	228.00	2392.83	11.67	0.00
J_NC55.6-0.1_0060	332.50	2392.84	11.35	0.00
J_NC55.6-0.1_0065	0.00	2386.94	16.08	0.00
J_NC55.6-0.1_0070	0.00	2384.15	11.88	0.00
J_NC55.6-0.1_0080	142.50	2384.15	11.81	0.00
J_NC55.6-0.1_0090	57.00	2384.14	11.82	0.00
J_NC55.6-0.1_0100	57.00	2384.14	11.82	0.00
J_NC55.6-0.1_0110	285.00	2384.13	11.72	0.00
J_NC55.6-0.1_0120	28.50	2384.11	11.69	0.00
J_NC55.6-0.1_0130	28.50	2384.10	11.60	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC55.6-0.1_0140	47.50	2384.10	11.68	0.00
J_NC55.6-0.1_0150	0.00	2384.09	11.80	0.00
J_NC55.6-0.1_0155	19.00	2383.94	16.24	0.00
J_NC55.6-0.5-1.8_0010	0.00	2385.32	32.24	0.00
J_NC55.6-0.5-2.6_0010	0.00	2372.47	31.09	0.00
J_NC55.6-0.5-2.6_0020	276.45	2368.37	32.96	0.00
J_NC55.6-0.5-2.6_0030	380.00	2367.68	32.44	0.00
J_NC55.6-0.5-2.6_0040	0.00	2364.37	34.61	0.00
J_NC55.6-0.5-2.6_0050	389.50	2359.46	35.07	0.00
J_NC55.6-0.5-2.6_0060	0.00	2359.42	35.03	0.00
J_NC55.6-0.5-2.6_0070	351.50	2359.39	35.08	0.00
J_NC55.6-0.5_0010	0.00	2399.91	12.28	0.00
J_NC55.6-0.5_0020	41.80	2396.64	17.56	0.00
J_NC55.6-0.5_0030	342.00	2393.65	21.94	0.00
J_NC55.6-0.5_0040	364.80	2393.66	21.76	0.00
J_NC55.6-0.5_0050	0.00	2393.65	21.94	0.00
J_NC55.6-0.5_0060	342.00	2391.08	23.66	0.00
J_NC55.6-0.5_0070	351.50	2390.49	24.21	0.00
J_NC55.6-0.5_0080	133.00	2390.17	24.44	0.00
J_NC55.6-0.5_0090	0.00	2390.16	24.44	0.00
J_NC55.6-0.5_0100	26.60	2384.83	33.16	0.00
J_NC55.6-0.5_0110	0.00	2381.51	34.58	0.00
J_NC55.6-0.5_0130	28.50	2375.48	32.64	0.00
J_NC55.6-0.5_0140	627.00	2375.47	32.67	0.00
J_NC55.6-0.5_0150	275.50	2370.69	33.00	0.00
J_NC55.6-0.5_0155	9.50	2370.65	32.67	0.00
J_NC55.6-0.5_0160	332.50	2370.67	32.98	0.00
J_NC55.6-0.5_0170	437.00	2366.34	37.96	0.00
J_NC55.6-0.5_0180	0.00	2362.26	37.79	0.00
J_NC55.6-0.5_0185	23.75	2362.25	37.79	0.00
J_NC55.6-0.5_0190	304.00	2362.30	36.79	0.00
J_NC55.6-0.5_0200	0.00	2361.56	37.41	0.00
J_NC55.6-0.5_0210	114.00	2361.61	37.62	0.00
J_NC55.6-0.5_0220	0.00	2361.51	36.73	0.00
J_NC55.6-0.5_0230	494.00	2361.52	36.58	0.00
J_NC55.6-2.4_0010	174.80	2385.09	25.15	0.00
J_NC55.6-2.6_0010	283.10	2382.78	25.48	0.00
J_NC55.6-3.3_0010	0.00	2377.87	29.32	0.00
J_NC55.6_0020	722.00	2401.30	9.98	0.00
J_NC55.6_0030	0.00	2398.59	19.55	0.00
J_NC55.6_0035	445.55	2398.60	19.30	0.00
J_NC55.6_0040	1415.50	2398.59	19.55	0.00
J_NC55.6_0050	285.00	2391.75	21.36	0.00
J_NC55.6_0060	85.50	2391.72	21.39	0.00
J_NC55.6_0070	650.75	2387.21	22.54	0.00
J_NC55.6_0080	230.85	2382.78	25.41	0.00
J_NC55.6_0090	223.25	2382.76	24.95	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC55.6_0100	351.50	2382.03	25.52	0.00
J_NC55.6_0110	38.00	2379.92	27.61	0.00
J_NC55.6_0120	128.25	2379.93	27.61	0.00
J_NC55.6_0130	142.50	2379.08	29.81	0.00
J_NC55.6_0140	727.70	2379.00	30.20	0.00
J_NC55.6_0150	703.00	2379.00	30.20	0.00
J_NC55.6_0160	0.00	2373.48	30.83	0.00
J_NC55.6_0170	43.70	2372.32	31.49	0.00
J_NC55.6_0180	212.80	2372.33	31.50	0.00
J_NC55.6_0185	38.00	2369.45	31.87	0.00
J_NC55.6_0187	532.00	2369.31	30.92	0.00
J_NC55.6_0190	85.50	2362.17	30.40	0.00
J_NC55.6_0200	0.00	2360.66	29.90	0.00
J_NC55.6_0210	503.50	2357.75	29.13	0.00
J_NC55.6_0220	494.00	2354.81	28.56	0.00
J_NC55.6_0230	184.30	2348.82	28.43	0.00
J_NC57.4_0010	1434.50	2404.68	7.95	0.00
J_NC57.4_0020	1328.10	2404.66	7.84	0.00
J_NC57.4_0030	495.90	2404.65	7.85	0.00
J_NC57.7_0010	693.50	2403.37	7.84	0.00
J_NC58.0_0010	836.00	2399.52	7.51	0.00
J_NC58.0_0020	1349.00	2399.55	7.62	0.00
J_NC58.7-0.7_0010	617.50	2380.62	23.79	0.00
J_NC58.7-0.7_0020	351.50	2379.91	22.66	0.00
J_NC58.7-0.7_0030	0.00	2379.87	22.60	0.00
J_NC58.7-0.7_0040	32.30	2375.91	21.72	0.00
J_NC58.7-0.7_0050	38.00	2375.90	21.67	0.00
J_NC58.7_0020	731.50	2390.46	11.06	0.00
J_NC58.7_0040	0.00	2377.97	30.16	0.00
J_NC58.8_0010	47.50	2398.91	7.67	0.00
J_NC58.8_0020	114.00	2398.44	7.75	0.00
J_NC58.8_0030	228.00	2397.42	7.68	0.00
J_NC59.5_0010	1938.00	2389.57	5.00	0.00
J_NC59.5_0030	741.00	2376.79	20.03	0.00
J_NC59.5_0040	0.00	2372.56	22.78	0.00
J_NC59.5_0050	342.00	2365.19	28.95	0.00
J_NC59.5_0060	56.05	2365.19	28.95	0.00
J_NC59.5_0070	379.05	2365.19	28.95	0.00
J_NC60.0-0.6_0010	0.00	2383.39	14.80	0.00
J_NC60.0-0.6_0020	370.50	2383.43	16.18	0.00
J_NC60.0-0.6_0030	370.50	2383.27	16.40	0.00
J_NC60.0-0.9_0010	0.00	2380.70	28.84	0.00
J_NC60.0-0.9_0020	374.30	2380.70	28.84	0.00
J_NC60.0-0.9_0030	314.45	2376.53	30.87	0.00
J_NC60.0-0.9_0040	0.00	2376.50	29.55	0.00

J_NC60.0-0.9_0050	741.00	2376.31	30.52	0.00
J_NC60.0-1.6-0.7_0010	0.00	2360.72	30.26	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC60.0-1.6-0.7_0020	380.95	2350.97	31.04	0.00
J_NC60.0-1.6-0.7_0030	427.50	2350.97	30.85	0.00
J_NC60.0-1.6_0010	0.00	2374.04	29.52	0.00
J_NC60.0-1.6_0020	1244.50	2364.32	31.36	0.00
J_NC60.0_0010	0.00	2387.77	6.32	0.00
J_NC60.0_0020	1396.50	2387.59	8.93	0.00
J_NC60.0_0040	366.70	2381.26	25.10	0.00
J_NC60.0_0060	12.35	2375.46	30.46	0.00
J_NC60.0-0.9-0.4_0010	0.00	2372.33	36.04	0.00
J_NC60.0_0065	171.00	2367.77	34.61	0.00
J_NC60.0_0070	0.00	2364.90	34.52	0.00
J_NC60.0_0075	95.00	2364.90	34.52	0.00
J_NC60.0_0080	0.00	2374.08	30.63	0.00
J_NC60.0_0090	1403.15	2366.21	32.99	0.00
J_NC60.0_0100	969.00	2366.17	33.43	0.00
J_NC60.0_0110	0.00	2366.17	33.27	0.00
J_NC60.0_0120	142.50	2366.09	38.95	0.00
J_NC60.0_0130	0.00	2366.09	39.08	0.00
J_NC60.0_0140	171.00	2366.07	59.50	0.00
J_NC60.5_0010	475.00	2393.85	8.18	0.00
J_NC61.1_0010	237.50	2392.43	8.69	0.00
J_NC61.3_0005	1700.50	2387.64	5.00	0.00
J_NC61.3_0010	579.50	2383.56	8.83	0.00
J_NC61.3_0020	0.00	2383.55	8.99	0.00
J_NC61.3_0030	1520.00	2377.76	12.34	0.00
J_NC62.1-0.5_0010	0.00	2369.94	9.09	0.00
J_NC62.1-0.5_0015	306.85	2367.56	9.11	0.00
J_NC62.1-0.5_0020	693.50	2367.08	9.11	0.00
J_NC62.1-0.5_0030	960.45	2358.81	6.52	0.00
J_NC62.1-0.5_0040	162.45	2358.52	6.60	0.00
J_NC62.1_0010	456.00	2379.48	4.60	0.00
J_NC62.1_0020	0.00	2379.42	4.81	0.00
J_NC62.1_0030	541.50	2366.80	7.46	0.00
J_NC62.1_0040	570.00	2366.79	7.76	0.00
J_NC62.1_0050	0.00	2355.03	30.11	0.00
J_NC62.1_0060	608.00	2355.04	29.81	0.00
J_NC62.5_0010	66.50	2389.55	10.27	0.00
J_NC63.3_0010	357.20	2387.72	11.53	0.00
J_NC63.3_0020	779.00	2387.72	11.80	0.00
J_NC63.3_0030	360.05	2387.71	11.74	0.00

J_NC64.0_0010	315.40	2385.21	12.73	0.00
J_NC64.0_0020	218.50	2384.99	12.96	0.00
J_NC64.5_0010	64.60	2383.80	13.75	0.00
J_NC64.5_0020	116.85	2383.79	13.62	0.00
J_NC64.7_0010	247.00	2378.79	12.46	0.00
J_NC64.7_0020	0.00	2378.77	12.11	0.00
J_NC65.5_0010	114.00	2381.76	54.66	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC65.7_0010	114.00	2379.99	54.75	0.00
J_NC65.9_0010	224.20	2378.39	54.25	0.00
J_NC66.2_0010	342.00	2376.13	54.58	0.00
J_NC66.2_0020	237.50	2376.14	54.61	0.00
J_NC66.5_0010	155.80	2373.19	54.36	0.00
J_NC66.7_0010	0.00	2366.68	55.76	0.00
J_NC66.9_0010	165.30	2371.49	54.42	0.00
J_NC67.2_0010	416.10	2369.46	54.31	0.00
J_NC67.4_0010	341.05	2368.61	54.60	0.00
J_NC67.5_0010	181.45	2366.67	55.76	0.00
J_NC68.1_0010	0.00	2365.91	55.97	0.00
J_NC68.2_0010	39.90	2365.47	56.46	0.00
J_NC68.5_0010	598.50	2364.85	56.84	0.00
J_NC68.8_0010	532.00	2364.25	57.53	0.00
J_NC69.2_0010	370.50	2363.99	58.97	0.00
J_NC69.5_0010	171.00	2363.87	59.64	0.00
J_NC69.8_0010	218.50	2363.76	60.65	0.00
J_NC7.3_0010	0.00	2500.48	5.00	0.00
J_NC7.3_0020	659.30	2490.84	27.02	0.00
J_NC7.3_0030	0.00	2480.72	14.25	0.00
J_NC7.3_0040	904.40	2480.74	14.24	0.00
J_NC70.1_0010	294.50	2363.72	61.17	0.00
J_NC70.2_0010	114.00	2363.72	61.54	0.00
J_NC8.5_0010	0.00	2572.03	4.29	0.00
J_NC8.5_0020	299.25	2571.91	9.10	0.00
J_NC8.5_0030	88.35	2571.11	13.45	0.00
J_NC8.5_0040	0.00	2566.97	34.46	0.00
J_NC8.5_0050	0.00	2566.94	34.70	0.00
J_NC8.5_0060	123.50	2564.27	47.30	0.00
J_NC8.5_0070	0.00	2563.87	46.73	0.00
J_NC8.5_0080	966.15	2561.80	47.72	0.00
J_NC8.5_0090	0.00	2560.44	47.04	0.00
J_NC8.5_0100	0.00	2560.43	47.04	0.00
J_NC8.5_0110	350.55	2557.92	72.38	0.00
J_NC8.5_0120	2162.20	2514.10	80.00	0.00

J_NC8.5_0130	0.00	2514.05	80.28	0.00
J_NC8.5_0140	0.00	2507.36	89.80	0.00
J_ON0.1_0004	71.06	2385.18	65.46	0.00
J_ON0.1_0005	138.77	2385.17	65.51	0.00
J_ON0.1_0010	184.09	2383.93	61.07	0.00
J_ON0.1_0020	318.38	2383.93	61.24	0.00
J_ON0.1_0030	170.10	2382.93	63.71	0.00
J_ON0.1_0040	95.68	2381.84	62.71	0.00
J_ON0.2_0010	288.73	2382.97	60.61	0.00
J_ON0.3_0010	307.75	2382.58	59.58	0.00
J_ON0.5_0020	335.73	2381.90	54.60	0.00
J_ON0.7_0010	168.98	2381.14	43.83	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON1.2_0010	165.63	2380.15	43.39	0.00
J_ON1.2_0015	1117.42	2380.15	43.42	0.00
J_ON1.3_0010	149.96	2380.04	43.52	0.00
J_ON1.7_0010	1408.95	2379.05	43.32	0.00
J_ON1.9_0010	378.26	2378.74	43.27	0.00
J_ON10.0_0010	67.71	2367.48	45.76	0.00
J_ON10.6_0010	167.31	2366.90	46.28	0.00
J_ON10.8_0010	223.82	2366.70	46.29	0.00
J_ON10.8_0020	167.86	2366.63	46.24	0.00
J_ON11.0_0010	168.98	2366.50	46.26	0.00
J_ON11.1_0010	0.00	2366.39	47.00	0.00
J_ON11.2_0010	97.92	2366.26	46.37	0.00
J_ON11.6_0010	141.57	2365.87	47.08	0.00
J_ON11.8_0010	223.82	2365.66	46.88	0.00
J_ON11.8_0020	196.96	2365.65	46.95	0.00
J_ON11.8_0030	189.13	2365.63	46.95	0.00
J_ON11.8_0040	107.99	2365.45	46.90	0.00
J_ON12.2_0010	628.37	2364.89	46.57	0.00
J_ON12.5_0010	0.00	2364.38	46.79	0.00
J_ON12.5_0015	214.31	2364.29	46.91	0.00
J_ON12.5_0020	867.30	2364.37	46.77	0.00
J_ON12.6_0010	62.67	2364.18	46.77	0.00
J_ON12.9_0010	94.00	2363.68	46.81	0.00
J_ON13.2_0010	205.35	2363.29	45.61	0.00
J_ON13.2_0020	0.00	2363.11	46.62	0.00
J_ON13.2_0030	218.22	2360.87	55.83	0.00
J_ON13.2_0040	235.01	2360.87	55.83	0.00
J_ON13.3_0010	11.19	2363.18	46.96	0.00
J_ON13.4_0010	37.49	2362.97	47.12	0.00
J_ON13.6_0010	212.63	2362.73	47.14	0.00

J_ON13.7_0010	11.19	2362.47	46.99	0.00
J_ON13.9_0010	0.00	2362.01	45.90	0.00
J_ON13.9_0020	668.10	2356.54	62.30	0.00
J_ON14.0_0010	209.27	2361.82	47.15	0.00
J_ON14.3_0005	438.13	2361.11	47.03	0.00
J_ON14.3_0010	137.65	2361.09	47.03	0.00
J_ON14.6_0010	434.77	2360.35	46.80	0.00
J_ON14.7_0010	0.00	2360.27	47.27	0.00
J_ON14.7_0020	179.06	2360.27	47.17	0.00
J_ON15.0_0010	411.83	2359.69	47.23	0.00
J_ON15.3_0010	102.96	2359.23	46.97	0.00
J_ON15.5_0010	298.24	2358.85	47.29	0.00
J_ON15.6_0010	127.02	2358.57	46.99	0.00
J_ON16.0_0010	151.08	2357.66	46.65	0.00
J_ON16.0_0020	369.30	2357.65	46.72	0.00
J_ON16.2_0030	414.07	2357.59	46.57	0.00
J_ON16.4_0010	9.50	2356.61	46.83	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON16.4_0020	9.50	2356.51	47.06	0.00
J_ON16.8_0005	872.90	2355.75	46.70	0.00
J_ON16.8_0010	632.29	2355.69	46.83	0.00
J_ON17.2_0010	297.12	2355.14	47.06	0.00
J_ON17.6_0010	1275.77	2353.96	46.76	0.00
J_ON17.6_0020	212.07	2353.93	46.89	0.00
J_ON17.7_0010	100.72	2353.42	46.80	0.00
J_ON17.9_0020	130.38	2352.44	44.43	0.00
J_ON17.9_0030	205.91	2351.09	52.48	0.00
J_ON17.9_0040	0.00	2349.67	54.83	0.00
J_ON17.9_0050	212.63	2349.68	54.58	0.00
J_ON18.1_0010	132.61	2351.86	46.22	0.00
J_ON18.2_0010	0.00	2348.87	52.72	0.00
J_ON18.2_0015	205.91	2351.45	44.00	0.00
J_ON18.6_0010	358.11	2349.86	45.97	0.00
J_ON18.8_0010	995.44	2349.36	45.73	0.00
J_ON18.8_0020	27.42	2349.36	45.73	0.00
J_ON19.2_0010	311.67	2346.82	44.98	0.00
J_ON19.3_0010	0.00	2346.06	44.84	0.00
J_ON19.4_0010	107.99	2345.33	44.51	0.00
J_ON19.4_0020	0.00	2345.23	42.96	0.00
J_ON19.4_0025	57.07	2345.22	44.52	0.00
J_ON19.4_0030	212.63	2344.33	44.55	0.00
J_ON19.4_0040	352.52	2340.82	48.70	0.00
J_ON19.7_0010	212.63	2343.42	43.88	0.00

J_ON19.8_0010	0.00	2342.45	43.67	0.00
J_ON19.9_0020	0.00	2339.56	52.94	0.00
J_ON2.2_0010	208.15	2378.01	43.39	0.00
J_ON2.4_0010	0.00	2377.54	43.87	0.00
J_ON2.4_0020	0.00	2377.54	43.87	0.00
J_ON2.5_0010	151.08	2377.41	43.76	0.00
J_ON2.6_0010	16.79	2377.22	43.76	0.00
J_ON2.6_0020	336.85	2377.22	43.67	0.00
J_ON2.6_0030	0.00	2377.21	43.74	0.00
J_ON2.6_0040	330.69	2377.21	43.90	0.00
J_ON2.6_0050	767.70	2377.20	43.92	0.00
J_ON2.9_0010	0.00	2376.92	43.88	0.00
J_ON20.1_0010	162.27	2339.50	43.86	0.00
J_ON20.1_0020	0.00	2339.50	43.86	0.00
J_ON3.3_0010	516.46	2376.23	43.91	0.00
J_ON3.7_0010	259.63	2375.57	44.29	0.00
J_ON3.8_0010	175.14	2375.44	44.17	0.00
J_ON4.0_0010	135.97	2375.02	44.18	0.00
J_ON4.0_0020	477.30	2375.00	44.17	0.00
J_ON4.3_0010	304.40	2374.62	44.07	0.00
J_ON4.4_0005	0.00	2374.57	44.11	0.00
J_ON4.4_0010	167.86	2374.56	44.11	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_ON4.5_0010	256.27	2374.28	44.04	0.00
J_ON4.5_0020	107.43	2374.28	44.01	0.00
J_ON4.7_0010	72.74	2373.94	43.81	0.00
J_ON5.0_0010	236.13	2373.47	44.13	0.00
J_ON5.3_0010	195.84	2373.09	44.25	0.00
J_ON5.5_0010	292.09	2372.84	44.20	0.00
J_ON5.6_0005	458.83	2372.76	44.26	0.00
J_ON5.6_0010	71.06	2372.76	44.23	0.00
J_ON5.6_0020	243.96	2372.68	44.21	0.00
J_ON6.3_0010	22.38	2371.85	44.03	0.00
J_ON6.4_0010	91.77	2371.65	44.19	0.00
J_ON6.7_0005	0.00	2371.39	44.19	0.00
J_ON6.7_0010	279.77	2371.31	44.90	0.00
J_ON7.4_0005	39.17	2370.60	44.70	0.00
J_ON7.4_0010	190.25	2370.44	44.65	0.00
J_ON7.9_0010	33.57	2369.90	44.97	0.00
J_ON8.1_0010	363.71	2369.60	45.12	0.00
J_ON8.4_0010	20.14	2369.27	44.88	0.00
J_ON8.6_0010	279.77	2368.96	44.74	0.00
J_ON8.8_0010	156.11	2368.77	44.75	0.00

J_ON9.5_0010	44.76	2368.06	45.44	0.00
J_ON9.7_0010	84.49	2367.85	45.45	0.00
J_ON9.8_0020	16.15	2367.72	45.67	0.00
J_SA0.0_0000	0.00	2247.56	26.86	0.00
J_SA0.0_0010	6.65	2247.54	26.85	0.00
J_SA0.1_0010	28.50	2247.08	20.72	0.00
J_SA0.2_0010	37.05	2246.44	20.59	0.00
J_SA0.3_0010	38.95	2245.93	20.74	0.00
J_SA0.3_0020	71.25	2245.91	20.93	0.00
J_SA0.3_0030	7.60	2245.90	19.64	0.00
J_SA0.5_0010	0.00	2245.24	20.24	0.00
J_SA0.7_0010	39.90	2244.62	20.44	0.00
J_SA0.7_0020	3.80	2244.61	20.74	0.00
J_SA0.8_0010	74.10	2244.35	20.44	0.00
J_SA0.9_0010	276.45	2244.06	19.43	0.00
J_SA0.9_0020	62.70	2243.94	20.60	0.00
J_SA1.0_0010	95.00	2243.62	20.90	0.00
J_SA1.0_0020	19.95	2243.60	20.55	0.00
J_SA1.1_0010	33.25	2243.18	20.73	0.00
J_SA1.2_0010	10.45	2243.02	20.72	0.00
J_SA1.2_0020	54.15	2243.01	20.56	0.00
J_SA1.3_0010	19.00	2242.77	20.89	0.00
J_SA1.3_0020	186.20	2242.76	21.00	0.00
J_SA1.3_0030	149.15	2242.73	20.91	0.00
J_SA1.5_0010	49.40	2242.69	20.25	0.00
J_SA1.5_0020	142.50	2242.69	23.32	0.00
J_SA1.7_0005	39.90	2242.77	21.67	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_SA1.7_0006	151.05	2242.77	21.04	0.00
J_SA1.7_0007	72.20	2242.86	20.78	0.00
J_SA1.7_0010	85.50	2242.86	20.79	0.00
J_SA1.8_0010	25.65	2244.12	21.92	0.00
J_SA1.9_0010	5.70	2245.98	23.16	0.00
J_SA2.3_0010	0.00	2253.35	27.05	0.00
J_SA2.5_0010	0.00	2256.48	31.61	0.00
J_ML_0190	0.00	2264.88	32.59	0.00
J_CL_0190	0.00	2244.33	39.09	0.00
J_CL_0180	0.00	2246.47	40.17	0.00
J_CL1.84_0035	0.00	2235.15	36.61	0.00
J_HL_0060	0.00	2271.60	22.97	0.00
J_HL_0110	0.00	2264.52	21.37	0.00
J_HL_0130	0.00	2262.83	20.91	0.00
J_HL_0570	0.00	2199.87	8.23	0.00

J_HL_0150	0.00	2261.48	21.08	0.00
J_HL_0300	0.00	2251.49	21.49	0.00
J_HL5.5_0037	0.00	2239.66	27.04	0.00
J_HL_0380	0.00	2242.43	20.26	0.00
J_HL7.2_0110	0.00	2231.96	20.49	0.00
J_HL_0490	0.00	2222.52	14.60	0.00
J_HL9.4_0075	0.00	2202.90	15.16	0.00
J_KL_0107	0.00	2556.12	16.06	0.00
J_KL5.4_0022	0.00	2553.82	24.14	0.00
J_KL5.4-0.5_0063	0.00	2541.85	22.34	0.00
J_KL5.4-0.5_0065	0.00	2540.59	22.12	0.00
J_KL5.4-0.8_0135	0.00	2470.38	86.68	0.00
J_KL5.4-0.8_0113	0.00	2472.91	83.92	0.00
J_KL5.4-0.8-2.2_0015	0.00	2468.54	77.26	0.00
J_KL5.4_0065	0.00	2444.17	45.33	0.00
J_KL5.4_0075	0.00	2442.73	52.44	0.00
J_KL5.4_0095	0.00	2438.66	57.21	0.00
J_KL5.4-3.0_0045	0.00	2436.08	65.88	0.00
J_KL5.4_0109	0.00	2436.86	56.57	0.00
J_KL_0135	0.00	2553.78	16.31	0.00
J_KL_0195	0.00	2550.01	17.05	0.00
J_KL7.6-9.3N_0057	0.00	2352.53	53.37	0.00
J_KL7.6-9.3N_0058	0.00	2352.12	53.91	0.00
J_KL9.3_0070	0.00	2358.21	44.09	0.00
J_KL_0225	0.00	2548.74	61.08	0.00
J_KL9.3_0095	0.00	2345.59	41.63	0.00
J_LL_0185	0.00	2233.94	39.16	0.00
J_LL_0205	0.00	2228.43	37.06	0.00
J_LL_0075	0.00	2264.53	44.62	0.00
J_MB_0030	0.00	2570.67	12.85	0.00
J_MB_0400	0.00	2381.43	43.96	0.00
J_MB_0170	0.00	2398.89	40.72	0.00

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_MB_0180	0.00	2397.69	41.15	0.00
J_MB_0210	0.00	2396.10	42.18	0.00
J_MB_0220	0.00	2394.95	41.99	0.00
J_MB7.5_0117	0.00	2382.74	53.51	0.00
J_MB_0320	0.00	2393.16	44.16	0.00
J_MB7.5_0035	0.00	2393.03	43.91	0.00
J_MB8.5_0100	1091.55	2368.02	58.24	0.00
J_MB9.1_0067	0.00	2378.83	49.88	0.00
J_MB_0340	0.00	2392.53	45.21	0.00
J_MB9.4_0070	355.30	2375.78	63.82	0.00

J_ML0.2_0015	0.00	2269.26	34.09	0.00
J_ML_0130	0.00	2266.51	32.94	0.00
J_ML_0280	0.00	2260.63	30.63	0.00
J_ML_0400	0.00	2243.89	24.42	0.00
J_ML_0410	0.00	2235.59	21.94	0.00
J_ML4.1_0002	0.00	2234.63	21.36	0.00
J_NA_0100	48.45	2257.00	35.66	0.00
J_NA0.4_0030	174.80	2261.55	36.99	0.00
J_NA_0090	0.00	2261.08	32.81	0.00
J_NC10.5_0032	0.00	2558.68	46.94	0.00
J_NC10.5_0085	0.00	2546.85	82.34	0.00
J_NC14.5_0023	0.00	2562.37	9.28	0.00
J_NC14.5-1.5_0045	0.00	2549.05	22.87	0.00
J_NC14.5_0065	0.00	2556.88	24.61	0.00
J_NC14.5_0155	0.00	2545.80	37.57	0.00
J_NC14.5_0217	0.00	2535.00	62.13	0.00
J_NC22.8_0015	0.00	2548.96	4.37	0.00
J_NC24.1_0025	0.00	2552.28	6.62	0.00
J_NC25.4_0056	0.00	2545.36	20.00	0.00
J_NC25.4_0057	0.00	2545.35	19.87	0.00
J_NC54.2_0095	0.00	2403.24	14.82	0.00
J_NC25.4-1.6_0055	0.00	2530.45	49.68	0.00
J_NC25.4_0075	0.00	2540.81	37.50	0.00
J_NC25.4-1.8_0127	0.00	2505.67	66.99	0.00
J_NC25.4_0082	0.00	2539.71	41.39	0.00
J_NC25.4-1.8_0045	0.00	2532.49	51.30	0.00
J_NC25.4-1.8_0125	0.00	2513.97	67.18	0.00
J_NC25.4_0127	0.00	2524.96	62.59	0.00
J_NC25.4_0170	0.00	2495.25	64.68	0.00
J_NC25.4_0160	0.00	2502.54	66.22	0.00
J_NC27.8_0055	0.00	2523.82	25.73	0.00
J_NC28.7-1.0_0015	0.00	2533.92	32.56	0.00
J_NC28.7-1.0-0.1_0047	0.00	2507.73	39.55	0.00
J_NC28.7_0105	0.00	2515.98	45.04	0.00
J_NC28.7_0122	0.00	2511.38	58.57	0.00
J_NC28.7-2.8_0015	0.00	2508.71	68.59	0.00
J_NC31.0_0135	0.00	2520.85	45.26	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC32.2_0015	0.00	2533.72	4.65	0.00
J_NC32.2_0107	0.00	2502.18	63.45	0.00
J_NC33.1_0055	0.00	2536.96	16.55	0.00
J_NC35.1_0025	0.00	2535.84	11.86	0.00
J_NC37.6-0.5_0040	617.50	2515.73	74.76	0.00

J_NC37.6-0.5_0005	0.00	2521.29	73.66	0.00
J_NC38.7-0.1_0017	0.00	2527.12	24.21	0.00
J_NC38.7_0095	0.00	2519.47	71.97	0.00
J_NC38.7_0120	0.00	2465.76	84.36	0.00
J_NC38.9_0043	0.00	2525.32	5.87	0.00
J_NC38.9_0255	0.00	2479.38	12.06	0.00
J_NC38.9_0063	0.00	2523.46	8.10	0.00
J_NC38.9-2.4_0127	0.00	2440.76	76.00	0.00
J_NC38.9_0082	0.00	2522.85	9.05	0.00
J_NC38.9_0105	0.00	2521.74	13.14	0.00
J_NC38.9-4.8-0.5_0075	0.00	2503.61	54.91	0.00
J_NC38.9-4.8-2.5_0015	0.00	2443.70	68.81	0.00
J_NC38.9_0173	0.00	2509.19	16.07	0.00
J_NC38.9_0175	0.00	2507.67	15.74	0.00
J_NC38.9_0187	0.00	2500.93	14.84	0.00
J_NC38.9-8.5_0013	0.00	2499.11	20.22	0.00
J_NC43.2_0032	0.00	2439.37	6.39	0.00
J_NC43.2_0195	0.00	2408.09	15.49	0.00
J_NC43.2_0225	0.00	2408.07	15.44	0.00
J_NC43.2_0240	0.00	2399.05	15.23	0.00
J_NC43.2_0260	0.00	2393.38	14.68	0.00
J_NC43.2_0275	0.00	2391.55	14.63	0.00
J_NC43.2-12.9_0030	0.00	2384.55	14.63	0.00
J_NC43.2_0315	0.00	2374.48	9.90	0.00
J_NC43.2_0325	0.00	2371.38	9.34	0.00
J_NC43.2_0037	0.00	2435.52	7.87	0.00
J_NC43.2_0055	0.00	2430.56	10.30	0.00
J_NC43.2-3.8_0025	0.00	2430.42	10.04	0.00
J_NC43.2_0135	0.00	2415.77	12.15	0.00
J_NC43.2-9.4_0030	437.00	2403.87	47.07	0.00
J_NC45.4_0040	1102.00	2338.18	60.00	0.00
J_NC43.2_0108	0.00	2418.16	11.62	0.00
J_NC46.7_0060	0.00	2428.21	15.18	0.00
J_NC46.7-0.5_0035	0.00	2422.68	11.68	0.00
J_NC49.2_0127	0.00	2404.71	21.50	0.00
J_NC49.2_0037	0.00	2425.84	5.62	0.00
J_NC49.2_0027	0.00	2426.17	5.77	0.00
J_NC49.2_0039	0.00	2424.49	12.80	0.00
J_NC49.2-0.4_0005	0.00	2417.28	13.72	0.00
J_NC49.2_0065	0.00	2419.51	16.27	0.00
J_NC49.2_0155	0.00	2394.65	19.17	0.00
J_NC49.4_0037	0.00	2425.21	3.89	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC5.3_0055	0.00	2469.81	82.00	0.00
J_NC5.3_0035	0.00	2570.90	49.81	0.00
J_NC53.2_0035	0.00	2409.18	14.29	0.00
J_NC54.2-2.8_0020	47.50	2359.43	65.95	0.00
J_NC54.2_0290	0.00	2356.09	73.37	0.00
J_NC_1140	0.00	2409.17	7.65	0.00
J_NC55.5_0023	0.00	2397.41	12.19	0.00
J_NC_1160	0.00	2408.82	7.74	0.00
J_NC55.6_0022	0.00	2399.94	13.41	0.00
J_NC55.6-0.5_0097	0.00	2385.32	33.32	0.00
J_NC55.6-0.5_0145	0.00	2372.50	31.87	0.00
J_NC55.6_0155	0.00	2377.87	29.84	0.00
J_NC_1270	0.00	2398.98	7.42	0.00
J_NC58.7_0026	0.00	2380.64	24.12	0.00
J_NC_1330	0.00	2396.26	7.82	0.00
J_NC_1340	0.00	2394.90	7.93	0.00
J_NC60.0-0.9_0025	0.00	2376.55	31.36	0.00
J_NC60.0-0.9_0057	0.00	2372.42	36.03	0.00
J_NC_1390	0.00	2392.01	8.71	0.00
J_NC_1400	0.00	2390.35	9.53	0.00
J_NC62.1_0025	0.00	2369.96	9.57	0.00
J_NC_1500	0.00	2383.15	14.13	0.00
J_ON_0860	0.00	2363.30	46.66	0.00
J_ON_0900	0.00	2362.03	46.82	0.00
J_ON_1110	0.00	2352.45	46.54	0.00
J_ON_1130	0.00	2351.49	45.48	0.00
J_ON_1190	0.00	2345.33	44.59	0.00
J_SA_0100	0.00	2244.62	21.71	0.00
J_SA_0340	0.00	2256.48	31.68	0.00
J_SA_0330	0.00	2253.35	27.17	0.00
J_SA2.5_0020	10.45	2256.36	31.84	0.00
J_CL1.84-0.55_0070	598.72	2215.94	37.96	0.00
J_HL_0650	626.70	2160.87	33.03	0.00
J_HL2.5_0025	486.81	2252.50	24.90	0.00
J_HL2.9_0050	162.27	2258.54	19.74	0.00
J_HL6.4_0030	27.98	2247.19	-2.60	0.00
J_HL5.5_0110	0.00	2225.34	21.84	0.00
J_HL7.2E_0170	145.48	2182.03	8.03	0.00
J_HL7.2M_0100	259.63	2189.26	10.82	0.00
J_HL7.2W_0100	674.26	2188.71	10.65	0.00
J_HL9.4_0125	299.36	2196.85	16.93	0.00
J_KL_0230	0.00	2547.36	63.64	0.00
J_KL_0300	0.00	2357.55	15.12	0.00
J_KL5.4-0.5_0100	0.00	2532.38	19.25	0.00
J_KL5.4-0.5-1.3_0040	0.00	2540.48	27.96	0.00
J_KL5.4-0.5-1.4_0030	494.00	2530.92	53.17	0.00
J_KL5.4-2.0_0030	329.65	2434.24	46.77	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL5.4-2.3_0020	750.50	2438.16	51.21	0.00
J_KL5.4-3.0-0.3_0040	646.00	2422.60	75.57	0.00
J_KL5.4-3.2_0040	0.00	2434.84	55.38	0.00
J_KL7.4_0100	1881.00	2530.52	57.24	0.00
J_KL7.6-9.3-0.1_0010	332.50	2351.04	56.86	0.00
J_KL7.6-9.3-0.2_0010	0.00	2352.12	54.91	0.00
J_KP0.1_0010	332.50	2344.65	56.40	0.00
J_LL0.6_0010	0.00	2264.53	54.75	0.00
J_ON_0090	0.00	2381.43	44.51	0.00
J_MB11.0_0060	0.00	2380.06	58.86	0.00
J_MB4.2_0040	234.65	2398.10	40.32	0.00
J_MB5.4_0040	864.50	2389.21	47.30	0.00
J_MB6.0_0130	209.00	2361.50	53.11	0.00
J_MB7.5_0113	0.00	2383.19	52.09	0.00
J_MB7.5-0.1_0010	351.50	2389.53	47.39	0.00
J_MB_0330	0.00	2392.70	44.34	0.00
J_MB9.1-0.9_0040	351.50	2375.64	51.43	0.00
J_MB_0350	0.00	2392.51	45.12	0.00
J_ML2.0_0025	487.37	2251.79	33.09	0.00
J_ML3.1_0160	0.00	2204.96	23.59	0.00
J_NA0.2E_0020	25.65	2269.74	36.72	0.00
J_NA1.0_0010	0.00	2261.08	31.84	0.00
J_HL_0520	0.00	2214.09	12.79	0.00
J_NC10.5-0.3_0010	0.00	2558.68	47.30	0.00
J_NC10.5-0.9_0110	474.05	2537.33	82.79	0.00
J_NC12.4P_0150	0.00	2535.89	92.94	0.00
J_NC13.6_0185	636.50	2502.11	95.00	0.00
J_NC14.5-0.2_0030	0.00	2562.23	7.96	0.00
J_NC14.5-1.5-0.5_0020	0.00	2549.05	25.13	0.00
J_NC14.5-1.5_0070	41.80	2548.69	29.33	0.00
J_NC14.5-3.0_0020	0.00	2545.80	62.10	0.00
J_NC14.5-4.2_0010	0.00	2535.00	69.54	0.00
J_NC18.6_0030	0.00	2552.49	5.10	0.00
J_NC19.9_0020	1618.80	2552.06	7.10	0.00
J_NC20.3_0050	2299.00	2549.99	30.24	0.00
J_NC22.8_0200	678.30	2524.48	81.37	0.00
J_NC22.8-0.1_0022	1007.00	2543.51	37.03	0.00
J_NC25.4-0.3_0020	0.00	2545.36	22.08	0.00
J_NC25.4-0.4_0010	0.00	2545.35	21.21	0.00
J_NC54.2-0.7_0010	0.00	2403.24	16.21	0.00
J_NC25.4-1.6_0120	874.00	2518.11	64.77	0.00
J_NC25.4-1.8_0165	874.00	2501.85	74.55	0.00
J_NC25.4-1.8-1.0_0090	0.00	2519.55	69.48	0.00
J_NC25.4-3.3_0060	0.00	2504.01	94.71	0.00
J_NC25.4_0190	674.50	2490.96	65.01	0.00

J_NC27.8_0110	437.95	2506.10	45.74	0.00
J_NC27.8-0.9_0030	73.15	2522.39	29.61	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC28.7-1.0-0.1_0045	0.00	2515.38	40.85	0.00
J_NC28.7-2.0_0060	1616.90	2518.05	55.63	0.00
J_NC28.7-2.8_0030	36.10	2508.65	68.49	0.00
J_NC28.7-2.8-0.4_0010	0.00	2508.71	91.22	0.00
J_NC31.0_0190	332.50	2502.95	73.95	0.00
J_NC31.0-1.9_0050	0.00	2511.98	51.61	0.00
J_NC31.0-2.5_0030	275.50	2505.26	57.54	0.00
J_NC31.5_0100	216.60	2512.25	46.26	0.00
J_NC32.2_0160	0.00	2487.73	72.70	0.00
J_NC21.2-0.1_0030	0.00	2533.72	4.47	0.00
J_NC32.2-1.7_0030	0.00	2500.08	64.08	0.00
J_NC33.1-1.8_0010	256.50	2481.45	91.62	0.00
J_NC33.1S_0180	570.00	2479.39	91.04	0.00
J_ON_0830	0.00	2363.91	47.06	0.00
J_NC35.1-0.1_0040	788.50	2532.00	19.42	0.00
J_NC35.7_0060	0.00	2521.77	16.38	0.00
J_NC35.1_0110	332.50	2498.12	82.15	0.00
J_NC37.6-0.5-0.1_0020	328.70	2518.03	91.14	0.00
J_NC38.7-0.1-0.2_0010	693.50	2522.50	79.30	0.00
J_NC38.7-0.8_0020	0.00	2519.47	104.66	0.00
J_NC38.7-1.2_0035	247.00	2455.02	84.68	0.00
J_NC38.9_0290	988.00	2469.28	13.95	0.00
J_NC38.9-0.7_0050	38.00	2523.12	46.77	0.00
J_NC38.9-10.3_0060	1672.95	2473.81	32.81	0.00
J_NC38.9-2.4-1.5_0010	0.00	2443.66	69.16	0.00
J_NC38.9-4.8_0180	522.50	2431.99	77.55	0.00
J_NC38.9-4.8-0.5_0140	674.50	2463.08	88.20	0.00
J_NC38.9-4.8-0.5-1.2_0030	541.50	2496.32	53.31	0.00
J_NC38.9-4.8-0.5-1.3_0025	237.50	2465.01	81.13	0.00
J_NC38.9-4.8-2.5_0040	256.50	2442.71	69.26	0.00
J_NC38.9-4.8-2.5-0.0_0010	0.00	2443.70	93.77	0.00
J_NC38.9-8.5_0030	826.50	2488.77	32.86	0.00
J_NC43.2_0350	4.00	2371.27	36.95	0.00
J_NC43.2-10.3_0040	579.50	2404.91	20.16	0.00
J_NC43.2-10.4_0010	0.00	2408.07	29.85	0.00
J_NC43.2-11.6_0060	237.50	2378.18	36.38	0.00
J_NC43.2-12.7_0060	332.50	2381.62	28.13	0.00
J_NC43.2-12.9_0050	0.00	2380.08	18.62	0.00
J_NC43.2-12.9-0.5_0070	76.00	2355.19	23.91	0.00
J_NC43.2-14.7_0090	0.00	2357.67	17.42	0.00

J_NC43.2-2.1_0020	0.00	2435.52	30.58	0.00
J_NC43.2-3.8-0.0_0010	1444.00	2423.54	46.59	0.00
J_NC43.2-7.3_0030	0.00	2415.73	30.07	0.00
J_NC43.2_0160	0.00	2410.12	13.88	0.00
J_NC45.4-0.5_0010	0.00	2338.18	60.72	0.00
J_NC45.4_0050	0.00	2338.18	61.39	0.00
J_NC43.2-6.6_0050	0.00	2413.88	45.93	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC46.7-0.5-0.2_0050	123.50	2379.73	78.28	0.00
J_NC48.3_0070	180.50	2412.21	41.85	0.00
J_NC49.2_0220	418.00	2363.54	81.81	0.00
J_NC49.2-0.2_0040	128.25	2423.48	5.79	0.00
J_NC49.2-0.4_0080	722.95	2406.47	22.28	0.00
J_NC49.2-0.4-0.6_0125	9.50	2398.09	25.80	0.00
J_NC49.2-0.9_0080	0.00	2390.99	12.79	0.00
J_NC49.2-2.3_0040	589.00	2381.05	15.69	0.00
J_NC49.4_0100	0.00	2414.25	18.69	0.00
J_NC49.4-0.4_0040	0.00	2420.68	10.96	0.00
J_NC5.3-1.4_0010	0.00	2469.81	94.52	0.00
J_NC5.3-0.3_0020	0.00	2570.89	55.41	0.00
J_NC50.8_0130	0.00	2401.78	18.41	0.00
J_NC52.5_0070	0.00	2414.72	6.50	0.00
J_NC53.2_0150	19.00	2374.69	29.51	0.00
J_NC53.2-0.4_0050	0.00	2391.91	8.51	0.00
J_NC54.2_0300	0.00	2356.09	73.45	0.00
J_NC54.2-3.4_0010	190.00	2345.31	89.22	0.00
J_NC54.4_0150	0.00	2386.18	73.91	0.00
J_NC55.6-0.1-0.7_0055	85.50	2393.10	19.58	0.00
J_NC55.6-0.5_0250	142.50	2359.29	40.54	0.00
J_NC55.6-0.5-1.8_0020	0.00	2385.32	36.15	0.00
J_NC55.6-3.3_0020	51.30	2375.87	33.32	0.00
J_NC58.7_0050	209.00	2374.85	32.54	0.00
J_HL_0120	0.00	2263.45	20.92	0.00
J_NC60.0-0.6_0040	1444.00	2377.86	18.73	0.00
J_NC60.0-0.9_0080	423.70	2362.56	36.41	0.00
J_NC60.0-0.9-0.2_0030	598.50	2368.32	31.34	0.00
J_NC60.0-0.9-0.4_0020	526.30	2363.34	36.30	0.00
J_NC60.0-1.6-0.7_0050	1111.50	2357.39	29.92	0.00
J_NC62.1_0070	274.55	2346.67	30.02	0.00
J_NC62.1-0.5_0050	0.00	2358.52	6.14	0.00
J_NC64.7_0030	902.50	2376.56	12.93	0.00
J_NC7.3_0050	483.55	2455.36	83.10	0.00
J_NC8.5_0150	275.50	2504.68	93.71	0.00

J_ON_1270	833.73	2335.18	55.78	0.00
J_ON13.2_0050	0.00	2360.87	55.83	0.00
J_ON17.9_0060	391.68	2349.65	55.11	0.00
J_ON18.2_0020	665.86	2348.81	52.45	0.00
J_ON_1260	0.00	2339.54	52.93	0.00
J_SA_0060	0.00	2245.91	21.04	0.00
J_SA0.5_0020	24.70	2244.80	23.53	0.00
J_SA2.3_0020	22.80	2252.21	29.01	0.00
J_NC38.9-4.8_0145	0.00	2443.78	70.00	0.00
J_NC38.9-7.8_0070	0.00	2501.99	19.89	0.00
J_NC38.7_0072	0.00	2530.54	8.95	0.00
J_NC49.2-0.3_0007	0.00	2425.19	5.35	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC54.4_0250	0.00	2367.49	74.69	0.00
J_NC60.0_0025	0.00	2383.44	16.19	0.00
J_NC60.0_0050	0.00	2380.70	28.84	0.00
J_KL_0270	0.00	2359.73	16.25	0.00
J_ON_0050	0.00	2383.67	61.39	0.00
J_ON_1230	0.00	2341.38	43.11	0.00
J_ON_1225	0.00	2342.44	43.58	0.00
J_NC38.9-2.4_0105	0.00	2443.66	67.14	0.00
J_SA_0350	0.00	2273.64	41.33	0.00
J_NA_0060	0.00	2266.76	32.35	0.00
J_NC28.7_0082	0.00	2528.52	40.54	0.00
J_NC31.0_0158	0.00	2508.37	54.74	0.00
J_NC35.1_0055	0.00	2520.58	34.13	0.00
J_NC35.1-0.7_0050	0.00	2515.66	13.73	0.00
J_ML_0090	0.00	2269.27	34.07	0.00
J_KL_0058	0.00	2561.43	15.96	0.00
J_KL5.4_0183	0.00	2424.05	66.07	0.00
J_KL5.4_0187	0.00	2422.50	66.90	0.00
J_KL9.3_0115	0.00	2340.43	41.51	0.00
J_KL7.6-9.3N_0025	0.00	2357.22	44.14	0.00
J_KL_0252	0.00	2363.10	16.37	0.00
J_MB_0120	0.00	2401.22	39.82	0.00
J_MB_0130	0.00	2401.11	40.39	0.00
J_MB_0190	0.00	2397.26	40.20	0.00
J_MB4.8_0035	0.00	2386.98	44.17	0.00
J_MB_0200	0.00	2396.95	41.39	0.00
J_MB_0270	0.00	2394.19	42.05	0.00
J_MB_0280	0.00	2394.13	42.82	0.00
J_MB_0300	0.00	2393.86	43.59	0.00
J_MB_0310	0.00	2393.83	43.67	0.00

J_MB6.0_0053	0.00	2387.06	43.19	0.00
J_MB8.5_0090	0.00	2369.39	51.28	0.00
J_MB8.5_0045	0.00	2385.44	50.70	0.00
J_MB9.1-0.9_0030	0.00	2378.12	49.88	0.00
J_MB9.1-0.9_0020	0.00	2378.71	49.63	0.00
J_MB9.4_0019	0.00	2388.70	49.13	0.00
J_MB9.4_0017	0.00	2392.11	46.27	0.00
J_NC25.4-1.6_0057	0.00	2530.37	49.75	0.00
J_NC25.4-1.6-0.9_0020	0.00	2527.28	51.67	0.00
J_NC25.4-1.6-0.9_0060	0.00	2504.62	83.37	0.00
J_NC25.4-1.8-2.2_0025	0.00	2509.81	70.30	0.00
J_NC25.4-1.8-1.0_0020	0.00	2526.04	56.55	0.00
J_NC25.4-1.8-1.0_0015	0.00	2529.12	54.19	0.00
J_NC26.4_0073	0.00	2528.32	51.47	0.00
J_NC26.4_0077	0.00	2526.91	48.16	0.00
J_NC27.8_0018	0.00	2542.61	6.57	0.00
J_NC27.8_0035	0.00	2533.97	21.07	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC27.8_0069	0.00	2521.62	30.43	0.00
J_NC27.8_0093	0.00	2510.03	40.75	0.00
J_NC27.8_0097	0.00	2507.81	45.78	0.00
J_ON_0180	0.00	2378.39	43.44	0.00
J_ON_0200	0.00	2377.74	43.37	0.00
J_ON_0690	0.00	2366.50	47.03	0.00
J_ON_0210	0.00	2377.55	43.76	0.00
J_NC28.7_0055	0.00	2536.76	26.15	0.00
J_NC28.7-1.0_0065	0.00	2526.31	44.02	0.00
J_NC28.7_0057	0.00	2535.85	29.67	0.00
J_NC28.7_0024	0.00	2507.52	57.94	0.00
J_NC28.7_0027	0.00	2503.09	58.00	0.00
J_NC28.7-1.0_0075	0.00	2506.52	50.63	0.00
J_NC28.7-1.0_0145	0.00	2501.07	52.46	0.00
J_NC28.7-1.0-0.1_0013	0.00	2531.43	31.55	0.00
J_NC28.7-1.0-0.1_0017	0.00	2527.96	32.53	0.00
J_NC29.7_0013	0.00	2540.16	7.03	0.00
J_NC29.7_0017	0.00	2536.10	13.58	0.00
J_KL7.7_0035	0.00	2467.26	83.84	0.00
J_NC38.9_0147	0.00	2519.82	17.65	0.00
J_NC38.9_0148	0.00	2519.32	18.19	0.00
J_NC31.0_0185	0.00	2506.68	55.51	0.00
J_NC31.5_0065	0.00	2517.39	36.65	0.00
J_NC31.5_0075	0.00	2513.94	46.50	0.00
J_NC32.2_0083	0.00	2509.64	49.66	0.00

J_NC32.2_0087	0.00	2507.03	52.10	0.00
J_NC33.1S_0072	0.00	2529.90	20.62	0.00
J_ON_0700	0.00	2366.41	47.27	0.00
J_NC35.1_0095	0.00	2501.84	51.55	0.00
J_NC35.7_0025	0.00	2527.61	8.55	0.00
J_ON13.9_0015	0.00	2360.28	59.04	0.00
J_NC38.7_0077	0.00	2526.77	36.09	0.00
J_NC38.7_0093	0.00	2522.71	58.46	0.00
J_NC38.9-2.4_0136	0.00	2439.43	77.76	0.00
J_NC38.9-3.0_0080	0.00	2502.03	41.94	0.00
J_NC38.9-4.8-0.5_0108	0.00	2470.74	80.19	0.00
J_NC43.2-0.8_0020	0.00	2435.47	38.65	0.00
J_NC45.4_0025	0.00	2432.60	5.08	0.00
J_NC45.4_0030	0.00	2427.20	19.88	0.00
J_NC46.7_0027	0.00	2430.13	13.67	0.00
J_NC46.7-1.0_0005	0.00	2426.84	15.05	0.00
J_NC46.7-0.5_0015	0.00	2427.34	13.73	0.00
J_NC46.7-0.5_0045	0.00	2416.08	11.20	0.00
J_NC46.7-1.0_0035	0.00	2409.66	14.48	0.00
J_NC46.7-1.0_0065	0.00	2402.66	15.55	0.00
J_NC46.7-0.5-0.2_0040	0.00	2405.37	18.87	0.00
J_NC49.2-2.3_0025	0.00	2393.71	18.06	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC49.2-2.3_0035	0.00	2385.19	16.35	0.00
J_NC49.2_0143	0.00	2396.93	19.77	0.00
J_NC49.2-2.9_0055	0.00	2382.16	18.11	0.00
J_NC49.2-0.9_0045	0.00	2393.26	12.76	0.00
J_NC49.2-0.4-0.6_0015	0.00	2413.38	12.72	0.00
J_NC49.2-0.4-0.6_0045	0.00	2405.74	16.55	0.00
J_NC49.2-0.4-0.6_0055	0.00	2401.56	17.91	0.00
J_NC49.4_0034	0.00	2425.24	5.39	0.00
J_NC53.2_0033	0.00	2411.95	12.44	0.00
J_NC53.2_0037	0.00	2404.32	13.73	0.00
J_NC53.2_0045	0.00	2397.42	11.82	0.00
J_NC53.2_0080	0.00	2393.41	18.21	0.00
J_NC53.2_0093	0.00	2383.50	17.96	0.00
J_NC53.2_0097	0.00	2382.79	18.64	0.00
J_NC53.2_0115	0.00	2375.48	16.61	0.00
J_NC53.2_0145	0.00	2375.02	24.43	0.00
J_NC53.2-0.4_0005	0.00	2406.18	11.88	0.00
J_SA_0015	0.00	2247.13	21.87	0.00
J_SA_0230	0.00	2242.69	21.94	0.00
J_NC54.2_0195	0.00	2380.41	20.33	0.00

J_NC54.2_0200	0.00	2378.50	20.46	0.00
J_NC54.4_0128	0.00	2386.63	73.53	0.00
J_NC54.4_0123	0.00	2387.81	50.81	0.00
J_NC54.4_0126	0.00	2386.85	70.53	0.00
J_NC_1170	0.00	2406.70	7.75	0.00
J_NC_1370	0.00	2392.91	8.61	0.00
J_NC_1180	0.00	2405.88	7.43	0.00
J_NC_1250	0.00	2399.34	7.91	0.00
J_NC_1260	0.00	2399.19	7.65	0.00
J_NC_1310	0.00	2397.29	7.92	0.00
J_NC_1320	0.00	2396.82	7.40	0.00
J_NC_1360	0.00	2393.06	8.71	0.00
J_NC55.5_0015	0.00	2398.19	12.52	0.00
J_NC55.5_0026	0.00	2395.86	12.21	0.00
J_NC55.6_0135	0.00	2379.02	30.00	0.00
J_NC55.6_0188	0.00	2369.27	32.12	0.00
J_NC55.6_0189	0.00	2366.86	31.52	0.00
J_NC55.6-0.5_0093	0.00	2390.16	24.80	0.00
J_NC55.6-0.5_0095	0.00	2385.94	33.94	0.00
J_NC55.6-0.5_0175	0.00	2366.33	37.96	0.00
J_NC55.6-0.5_0183	0.00	2362.28	38.09	0.00
J_NC55.6-0.5_0240	0.00	2360.10	38.01	0.00
J_NC55.6-0.5-2.6_0045	0.00	2364.31	34.91	0.00
J_NC58.7_0023	0.00	2383.77	23.89	0.00
J_NC58.7_0030	0.00	2378.40	31.24	0.00
J_NC59.5_0020	0.00	2376.98	19.87	0.00
J_NC59.5_0045	0.00	2372.56	22.78	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC60.0-1.6_0015	0.00	2364.34	29.90	0.00
J_NC60.0-1.6_0030	0.00	2351.80	31.27	0.00
J_NC60.0_0083	0.00	2372.36	33.95	0.00
J_HL_0040	0.00	2272.05	22.38	0.00
J_HL_0270	0.00	2252.49	20.86	0.00
J_HL_0050	0.00	2271.90	22.71	0.00
J_HL_0280	0.00	2251.99	21.57	0.00
J_HL_0600	0.00	2185.89	4.68	0.00
J_NC62.1_0042	0.00	2366.77	9.25	0.00
J_NC62.1_0046	0.00	2364.02	12.18	0.00
J_NC62.1_0048	0.00	2361.97	26.73	0.00
J_NC64.7_0005	0.00	2378.81	13.45	0.00
J_ML_0010	0.00	2273.31	33.75	0.00
J_ML_0050	0.00	2271.89	33.83	0.00
J_ML_0060	0.00	2271.38	34.52	0.00

J_ML_0210	0.00	2264.15	31.80	0.00
J_CL_0007	0.00	2263.56	36.25	0.00
J_CL_0008	0.00	2262.95	37.35	0.00
J_CL_0060	0.00	2256.48	41.79	0.00
J_CL_0070	0.00	2253.39	41.90	0.00
J_CL_0090	0.00	2250.93	41.38	0.00
J_CL_0120	0.00	2248.50	40.51	0.00
J_ML0.7_0055	0.00	2251.19	37.48	0.00
J_CL1.74_0020	0.00	2238.43	37.77	0.00
J_CL1.74_0055	0.00	2229.14	34.83	0.00
J_CL1.84-0.55_0025	0.00	2222.30	31.74	0.00
J_ML_0230	0.00	2263.53	30.83	0.00
J_ML3.1_0047	0.00	2246.07	28.82	0.00
J_ML3.1_0076	0.00	2240.88	30.72	0.00
J_ML3.1_0125	0.00	2211.10	24.28	0.00
J_ML4.0_0015	0.00	2225.62	19.57	0.00
J_ML4.0_0050	0.00	2212.15	16.44	0.00
J_ML4.1_0004	0.00	2230.86	20.97	0.00
J_HL5.5_0033	0.00	2250.23	23.11	0.00
J_HL5.5_0065	0.00	2235.27	23.93	0.00
J_HL_0610	0.00	2184.56	5.43	0.00
J_HL6.4_0025	0.00	2247.19	0.94	0.00
J_NC43.2-14.7_0045	0.00	2366.07	19.48	0.00
J_NC43.2-3.8_0043	0.00	2425.41	46.21	0.00
J_NC43.2-12.7_0024	0.00	2389.73	23.50	0.00
J_NC43.2-12.7_0028	0.00	2384.49	28.26	0.00
J_NC43.2-11.6_0045	0.00	2383.80	22.56	0.00
J_NC43.2-11.6_0050	0.00	2381.43	28.87	0.00
J_HL7.2W_0083	0.00	2208.83	18.65	0.00
J_HL7.2E_0073	0.00	2223.75	19.33	0.00
J_HL7.2E_0077	0.00	2221.02	18.78	0.00
J_HL7.2E_0123	0.00	2200.41	14.43	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_HL7.2E_0127	0.00	2197.21	13.59	0.00
J_HL7.2W_0087	0.00	2199.67	15.84	0.00
J_HL9.4_0052	0.00	2213.92	18.10	0.00
J_HL9.4_0056	0.00	2208.88	18.64	0.00
J_NC43.2-12.9_0035	0.00	2380.95	16.92	0.00
J_NC25.4-1.6-0.9_0070	0.00	2503.35	83.22	0.00
J_ON_0170	0.00	2378.51	43.56	0.00
J_NC46.7_0035	0.00	2428.70	13.85	0.00
J_NC62.1_0044	0.00	2364.55	8.89	0.00
J_NC55.5_0012	0.00	2401.10	13.93	0.00

J_LL1.8_0010	0.00	2233.90	39.29	0.00
J_LL_0255	0.00	2225.18	34.37	0.00
J_NC49.2_0132	0.00	2401.46	20.45	0.00
J_MB4.8_0045	0.00	2383.65	48.04	0.00
J_MB6.0_0057	0.00	2384.93	45.28	0.00
J_SA_0280	0.00	2242.80	21.16	0.00
J_NA_0040	0.00	2268.81	31.10	0.00
J_NC27.8_0068	0.00	2523.74	24.46	0.00
J_KL_0055	0.00	2564.90	12.94	0.00
J_KL_0056	0.00	2564.35	15.56	0.00
J_KL_0052	0.00	2566.27	10.06	0.00
J_KL_0053	0.00	2565.68	12.90	0.00
J_KL_0023	0.00	2568.18	7.05	0.00
J_KL_0027	0.00	2567.76	7.04	0.00
J_KL_0017	0.00	2572.40	6.27	0.00
J_KL_0018	0.00	2572.22	6.90	0.00
J_NC10.5_0033	0.00	2558.57	48.27	0.00
J_NC10.5_0075	0.00	2551.84	75.90	0.00
J_NC10.5_0107	0.00	2544.58	87.41	0.00
J_KL5.4-0.8_0065	0.00	2478.12	69.74	0.00
J_KL5.4-0.8_0095	0.00	2476.52	74.42	0.00
J_KL5.4-0.8_0117	0.00	2472.60	83.40	0.00
J_KL5.4-0.8-2.4_0005	0.00	2468.83	88.35	0.00
J_KL5.4-0.8-2.4_0015	0.00	2464.19	87.74	0.00
J_KL5.4-0.8-2.2_0005	0.00	2472.52	85.95	0.00
J_KL5.4-0.8-2.2_0025	0.00	2468.01	74.96	0.00
J_KL5.4-0.8-2.2_0045	0.00	2463.06	72.05	0.00
J_NC12.4P_0015	0.00	2557.78	48.62	0.00
J_NC12.4P_0035	0.00	2554.92	63.84	0.00
J_NC12.4P_0055	0.00	2552.67	71.96	0.00
J_NC12.4P_0085	0.00	2547.08	85.70	0.00
J_NC48.3_0055	0.00	2418.76	11.44	0.00
J_NC48.3_0060	0.00	2417.01	9.68	0.00
J_HL9.4_0065	0.00	2203.20	16.24	0.00
J_NC60.0-1.6_0025	0.00	2360.75	29.99	0.00
J_NA_0020	0.00	2270.82	30.75	0.00
J_KL_0015	0.00	2575.34	4.71	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_KL_0115	0.00	2555.99	15.91	0.00
J_KL_0105	0.00	2556.15	15.94	0.00
J_KL_0183	0.00	2550.06	17.41	0.00
J_KL_0186	0.00	2550.05	17.68	0.00
J_KL5.4-0.5_0005	0.00	2553.76	23.67	0.00

J_KL5.4-0.5_0075	0.00	2532.46	20.37	0.00
J_KL5.4_0015	0.00	2555.86	22.66	0.00
J_MB_0025	0.00	2570.87	11.00	0.00
J_MB7.5_0043	0.00	2392.17	43.37	0.00
J_MB7.5_0220	0.00	2364.34	52.90	0.00
J_MB9.5_0010	0.00	2392.51	46.65	0.00
J_NC13.6_0040	0.00	2563.01	21.20	0.00
J_NC13.6_0172	0.00	2545.70	78.97	0.00
J_NC14.5_0025	0.00	2562.10	13.05	0.00
J_NC14.5_0245	0.00	2524.41	80.74	0.00
J_NC25.4-1.8-2.2_0015	0.00	2500.52	67.61	0.00
J_NC25.4-1.8_0013	0.00	2539.54	41.67	0.00
J_NC25.4_0033	0.00	2546.31	9.74	0.00
J_NC25.4_0085	0.00	2539.63	40.10	0.00
J_NC25.4_0155	0.00	2503.31	66.06	0.00
J_NC26.4_0028	0.00	2542.25	6.80	0.00
J_NC26.4_0128	0.00	2508.18	63.34	0.00
J_NC28.7_0033	0.00	2542.29	7.29	0.00
J_NC28.7_0155	0.00	2497.43	60.48	0.00
J_NC31.0_0025	0.00	2542.02	8.88	0.00
J_NC31.0_0156	0.00	2509.91	54.50	0.00
J_NC32.2_0025	0.00	2533.08	6.79	0.00
J_NC32.2_0105	0.00	2502.51	53.74	0.00
J_NC33.1_0035	0.00	2538.26	10.75	0.00
J_NC33.1_0105	0.00	2489.36	87.00	0.00
J_NC35.1_0015	0.00	2536.11	7.23	0.00
J_NC35.1_0073	0.00	2505.64	42.20	0.00
J_NC38.9-4.8_0010	0.00	2521.43	15.40	0.00
J_NC38.9-4.8_0157	0.00	2439.69	74.81	0.00
J_NC38.9_0017	0.00	2526.37	5.01	0.00
J_NC38.9_0177	0.00	2502.47	14.98	0.00
J_NC43.2_0013	0.00	2441.75	5.18	0.00
J_NC43.2_0330	0.00	2371.35	21.03	0.00
J_NC49.2_0035	0.00	2426.15	5.89	0.00
J_NC49.2_0125	0.00	2405.72	21.81	0.00
J_NC50.8_0025	0.00	2422.21	4.24	0.00
J_NC50.8_0063	0.00	2408.28	11.88	0.00
J_NC54.2_0025	0.00	2413.13	5.78	0.00
J_NC54.4_0023	0.00	2412.31	3.45	0.00
J_NC54.4_0095	0.00	2390.41	30.20	0.00
J_NC54.4_0245	0.00	2367.56	73.28	0.00
J_NC55.55_0010	0.00	2408.86	7.75	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality

J_NC55.6-0.5_0015	0.00	2398.37	15.13	0.00
J_NC55.6-0.5_0105	0.00	2384.09	33.34	0.00
J_NC55.6_0010	0.00	2402.36	6.77	0.00
J_NC55.6_0025	0.00	2399.65	16.83	0.00
J_NC55.6_0225	0.00	2354.62	29.66	0.00
J_NC60.0_0005	0.00	2387.95	4.97	0.00
J_NC60.0_0145	0.00	2366.07	58.68	0.00
J_NC63.8_0010	0.00	2385.86	12.60	0.00
J_ON0.6_0010	0.00	2381.37	43.87	0.00
J_ON3.6_0010	0.00	2375.71	44.19	0.00
J_HL0.1_0010	0.00	2273.28	22.64	0.00
J_KP_0001	0.00	2347.71	65.94	0.00
J_HL0.0_0020	0.00	2273.62	60.93	0.00
J_ON0.0_0000	0.00	2385.52	85.58	0.00
J_MB_0395	0.00	2381.43	44.01	0.00
J_HL10.0_0010	0.00	2214.09	12.42	0.00
J_NC70.5_0010	0.00	2363.72	77.11	0.00
J_NC70.5_0020	0.00	2214.09	12.61	0.00
J_HL_0115	0.00	2263.46	20.94	0.00
J_NC60.0_0147	0.00	2366.07	61.30	0.00
J_HL_0116	0.00	2263.46	20.87	0.00
J_NC60.0_0148	0.00	2263.45	20.16	0.00
J_MB_0405	0.00	2381.43	43.79	0.00
J_MB_0406	0.00	2381.43	43.83	0.00
J_MB_0394	0.00	2394.95	49.61	0.00
J_NA0.0_0009	0.00	2273.70	41.34	0.00
J_SA_0345	0.00	2273.64	41.39	0.00
J_NA0.0_0008	0.00	2273.70	41.72	0.00
J_NA0.0_0007	0.00	2273.76	41.68	0.00
J_HL0.0_0010	0.00	2132.98	1.01	0.00
J_MB1.7_0010	0.00	2405.76	40.00	0.00
J_KL7.6S_0005	0.00	2541.57	134.26	0.00
J_KL7.7_0023	0.00	2542.52	103.94	0.00
J_NC13.6_0183	0.00	2529.32	106.39	0.00
J_NC25.4-3.3_0048	0.00	2505.30	94.33	0.00
J_NC33.1S-1.6_0018	0.00	2485.70	86.27	0.00
J_NC33.1_0103	0.00	2492.01	88.21	0.00
J_NC38.9-2.4_0078	0.00	2503.13	87.02	0.00
J_NC38.9-4.8-0.5_0092	0.00	2502.87	56.65	0.00
J_NC38.9-4.8_0143	0.00	2486.09	87.51	0.00
J_NC46.7-0.5_0068	0.00	2401.28	92.13	0.00
J_NC38.7_0099	0.00	2510.29	95.67	0.00
J_NC54.2_0258	0.00	2356.16	72.21	0.00
J_KL_0107.5	0.00	2556.12	16.06	0.00
J_NC5.3_0053	0.00	2542.12	113.14	0.00
J_NC_0023	0.00	2575.45	4.68	0.00
J_NC_0017	0.00	2576.13	4.78	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC_0015	0.00	2576.37	1.85	0.00
J_NC_0013	0.00	2577.07	2.61	0.00
J_NC_0011	0.00	2577.34	1.45	0.00
J_NC_0009	0.00	2577.87	0.68	0.00
J_NC_0007	0.00	2577.94	0.27	0.00
J_NC_0019	0.00	2575.67	4.72	0.00
J_NC_0005	0.00	2578.65	-0.08	0.00
J_NC_0020	0.00	2575.46	4.68	0.00
J_NC11.7_0010	0.00	2567.59	9.97	0.00
J_NC12.9_0010	0.00	2565.72	9.96	0.00
J_NC15.0_0010	0.00	2563.20	9.10	0.00
J_NC15.3_0010	0.00	2562.65	8.54	0.00
J_NC15.8_0010	0.00	2562.06	10.05	0.00
J_NC16.8_0010	0.00	2561.00	9.41	0.00
J_NC17.3_0010	0.00	2560.40	9.78	0.00
J_NC20.1_0010	0.00	2557.32	9.26	0.00
J_NC21.1_0010	0.00	2556.48	8.82	0.00
J_NC25.1_0010	0.00	2552.74	9.68	0.00
J_NC27.3_0009	0.00	2551.70	9.63	0.00
J_NC27.3_0010	0.00	2551.70	9.59	0.00
J_NC27.3_0020	0.00	2551.70	9.57	0.00
J_NC28.4_0010	0.00	2551.39	10.07	0.00
J_NC29.1_0010	0.00	2551.15	11.09	0.00
J_NC30.4_0010	0.00	2550.90	11.34	0.00
J_NC31.8_0010	0.00	2550.74	12.88	0.00
J_NC33.5_0010	0.00	2549.74	12.93	0.00
J_NC36.3_0010	0.00	2544.15	11.84	0.00
J_NC36.3_0020	0.00	2544.15	11.84	0.00
J_NC38.2_0010	0.00	2540.55	11.42	0.00
J_NC38.3_0010	0.00	2540.37	11.54	0.00
J_NC5.8_0010	0.00	2573.60	9.83	0.00
J_NC5.8_0020	0.00	2573.60	9.83	0.00
J_NC5.8_0030	0.00	2573.60	9.83	0.00
J_NC6.9_0010	0.00	2572.64	9.54	0.00
J_NC9.9_0010	0.00	2570.57	10.86	0.00
J_NC_0170	0.00	2570.89	10.99	0.00
J_NC_0780	0.00	2539.33	10.63	0.00
J_NC_0200	0.00	2569.58	10.62	0.00
J_NC_0210	0.00	2568.62	10.16	0.00
J_NC_0230	0.00	2566.40	9.80	0.00
J_NC_0250	0.00	2564.65	9.32	0.00
J_NC_0340	0.00	2559.10	9.37	0.00
J_NC_0350	0.00	2557.61	8.96	0.00
J_NC_0370	0.00	2557.22	9.14	0.00
J_NC_0390	0.00	2554.71	8.46	0.00

J_NC_0410	0.00	2553.58	8.57	0.00
J_NC_0470	0.00	2552.40	9.58	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC_0480	0.00	2551.99	9.43	0.00
J_NC_0520	0.00	2551.52	9.72	0.00
J_NC_0560	0.00	2551.22	10.85	0.00
J_NC_0580	0.00	2551.04	11.26	0.00
J_NC_0590	0.00	2550.95	11.23	0.00
J_NC_0630	0.00	2550.83	12.55	0.00
J_NC_0640	0.00	2550.79	12.61	0.00
J_NC_0660	0.00	2550.70	13.06	0.00
J_NC_0670	0.00	2550.64	13.20	0.00
J_NC_0690	0.00	2546.48	12.08	0.00
J_NC_0700	0.00	2545.33	12.02	0.00
J_NC_0730	0.00	2541.55	11.77	0.00
J_NC_0770	0.00	2539.59	11.52	0.00
J_NC_0050	0.00	2574.07	9.71	0.00
J_NC_0110	0.00	2572.33	11.03	0.00
J_NC_0130	0.00	2572.03	10.27	0.00
J_NC_0260	0.00	2563.44	9.11	0.00
J_NC_0100	0.00	2572.38	10.30	0.00
J_NC_0040	0.00	2574.47	10.30	0.00
J_NC_0140	0.00	2571.41	9.88	0.00
J_NC_0120	0.00	2572.26	11.00	0.00
J_NC_0290	0.00	2562.63	9.18	0.00
J_NC_0150	0.00	2571.04	10.38	0.00
J_NC_0430	0.00	2553.28	8.54	0.00
J_NC_0300	0.00	2562.44	10.56	0.00
J_NC_0540	0.00	2551.38	9.44	0.00
J_NC_0440	0.00	2553.04	10.07	0.00
J_NC_0610	0.00	2550.89	11.99	0.00
J_NC_0550	0.00	2551.32	9.86	0.00
J_NC_0620	0.00	2550.86	13.09	0.00
J_NC_0030	0.00	2574.90	4.76	0.00
J_NC_0025	0.00	2575.37	4.67	0.00
J_NC24.0_0010	0.00	2553.66	8.45	0.00
J_NC24.9_0010	0.00	2553.00	9.41	0.00
J_NC38.6_0010	0.00	2539.62	11.39	0.00
J_NC9.7_0010	0.00	2570.90	10.93	0.00
J_NC9.8_0010	0.00	2570.83	10.68	0.00
J_NC43.6_0010	0.00	2440.82	4.74	0.00
J_NC44.1_0010	0.00	2440.00	4.76	0.00
J_NC44.2_0010	0.00	2439.46	6.35	0.00

J_NC45.7_0010	0.00	2436.05	6.57	0.00
J_NC46.5_0010	0.00	2434.02	6.83	0.00
J_NC47.2_0010	0.00	2432.29	6.46	0.00
J_NC48.1_0010	0.00	2429.58	6.75	0.00
J_NC48.1_0020	0.00	2429.58	6.72	0.00
J_NC50.3_0010	0.00	2423.85	5.54	0.00
J_NC51.6_0010	0.00	2420.20	5.06	0.00

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality
J_NC53.7_0010	0.00	2414.82	4.47	0.00
J_NC54.1_0010	0.00	2413.49	3.86	0.00
J_NC54.5_0010	0.00	2412.35	3.82	0.00
J_NC_0870	0.00	2436.70	7.12	0.00
J_NC_0920	0.00	2433.57	6.73	0.00
J_NC_0980	0.00	2429.17	6.30	0.00
J_NC_0990	0.00	2426.82	6.07	0.00
J_NC_1000	0.00	2426.15	5.71	0.00
J_NC_1020	0.00	2422.31	5.22	0.00
J_NC_1040	0.00	2417.98	4.58	0.00
J_NC_1050	0.00	2416.33	4.30	0.00
J_NC_1080	0.00	2413.33	3.76	0.00
J_NC_1090	0.00	2412.89	3.99	0.00
J_NC_1100	0.00	2412.52	3.77	0.00
J_NC_0840	0.00	2439.86	5.34	0.00
J_NC_0850	0.00	2439.49	6.49	0.00
J_NC_0890	0.00	2435.24	6.22	0.00
J_NC_0900	0.00	2435.16	6.92	0.00
J_NC_0940	0.00	2431.27	5.81	0.00
J_NC_0950	0.00	2431.18	6.80	0.00
J_NC_1120	0.00	2412.34	4.18	0.00
J_NC_1130	0.00	2410.84	7.91	0.00
J_NC43.3_0010	0.00	2441.63	4.94	0.00
J_NC35.1-1.4_0010	0.00	2500.63	106.30	0.00
J_NC_0800	0.00	2441.80	5.00	0.00
J_NC_0790	0.00	2531.25	44.64	0.00
J_ON_0096	0.00	2375.57	41.90	0.00
J_ON_0095	0.00	2385.52	46.21	0.00
J_ON_0093	0.00	2385.52	46.21	0.00
J_ON_0094	0.00	2375.57	41.90	0.00
J_ON_0092	0.00	2394.95	50.30	0.00
J_NC65.5_0005	0.00	2381.76	54.66	0.00
J_NC_0041	0.00	2574.91	10.49	0.00
J_MB_0218	0.00	2394.95	41.99	0.00
J_MB3.9_0025	0.00	2394.95	38.96	0.00

J_NC55.6_0005	0.00	2402.51	5.00	0.00	
J_NC58.7_0010	0.00	2393.38	5.00	0.00	
J_NC60.0_0003	0.00	2388.14	5.00	0.00	
J_NC62.1_0005	0.00	2379.90	5.00	0.00	
J_NC8.5_0115	0.00	2553.96	97.27	0.00	
J_KL5.4-0.8_0037	0.00	2548.50	79.54	0.00	
J_KL5.4_0025	0.00	2551.49	85.49	0.00	
J_NC33.1S-1.6_0005	0.00	2512.34	86.45	0.00	
J_NC45.4_0035	0.00	2425.39	97.79	0.00	
J_NC49.2_0175	0.00	2385.51	84.01	0.00	
J_NC_0460	0.00	2558.34	10.73	0.00	
R_DEAD_OX	-52670.55	2133.00	0.00	0.00	Reservoir

Node Results: (continued)

Node ID	Demand GPM	Head ft	Pressure psi	Quality	
R_DUNAWAY	-31545.35	2188.00	0.00	0.00	Reservoir
R_SOUTH_ADVANCEMENT	-1307.75	2185.57	0.00	0.00	Reservoir
R_NORTH_ADVANCEMENT	-987.46	2178.49	0.00	0.00	Reservoir
R_OWYHEE_RES	-472378.30	2579.21	0.00	0.00	Reservoir

Link Results:

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL_0060	34621.98	4.08	0.72	Open
C_KL_0080	33985.48	4.00	0.70	Open
C_KL_0070	34612.48	4.08	0.72	Open
C_KL_0140	28681.45	3.38	0.51	Open
C_KL_0135	29061.45	3.42	0.52	Open
C_KL_0130	29374.95	3.46	0.53	Open
C_KL_0115	29650.45	3.49	0.54	Open
C_KL_0107	32645.98	3.85	0.65	Open
C_KL_0105	32645.98	3.85	0.65	Open
C_KL_0100	33396.48	3.93	0.68	Open
C_KL_0090	33510.48	3.95	0.68	Open
C_KL_0120	29650.45	3.49	0.54	Open
C_KL_0225	17895.15	3.93	0.97	Open
C_KL_0230	16761.80	3.68	0.86	Open
C_KL_0220	18588.65	3.91	0.94	Open
C_KL_0195	23008.05	3.69	0.74	Open
C_KL_0200	18588.65	3.91	0.94	Open
C_KL_0190	23756.65	3.81	0.76	Open
C_KL_0186	23756.65	3.81	0.76	Open
C_KL_0183	23756.65	3.81	0.76	Open

C_KL_0180	23756.65	3.81	0.76	Open
C_KL_0170	25204.45	4.04	0.85	Open
C_KL_0160	26638.95	3.14	0.45	Open
C_KL_0150	27607.95	3.25	0.48	Open
C_KL5.4-0.5_0005	5267.75	3.64	1.65	Open
C_KL5.4-0.5_0040	4770.90	3.87	2.02	Open
C_KL5.4-0.5_0020	5267.75	3.64	1.65	Open
C_KL5.4-0.5_0100	0.00	0.00	0.00	Open
C_KL5.4-0.5_0090	0.00	0.00	0.00	Open
C_KL5.4-0.5_0080	2413.00	3.48	2.32	Open
C_KL5.4-0.5_0063	3619.50	2.94	1.23	Open
C_KL5.4-0.5_0070	2774.00	4.00	3.01	Open
C_KL5.4-0.5_0065	3268.00	3.82	2.44	Open
C_KL5.4-0.5_0060	3771.50	3.06	1.31	Open
C_KL5.4-0.5_0050	3877.90	3.15	1.38	Open
C_KL5.4-0.5_0075	2413.00	3.48	2.33	Open
C_KL5.4-0.5-1.3_0020	351.50	2.21	2.35	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL5.4-0.5-1.3_0040	0.00	0.00	0.00	Open
C_KL5.4-0.5-1.3_0030	351.50	2.21	2.37	Open
C_KL5.4-0.5-1.4_0020	494.00	3.11	4.45	Open
C_KL5.4-0.5-1.4_0030	494.00	3.36	5.39	Open
C_KL5.4_0010	36746.01	4.33	0.80	Open
C_KL5.4_0022	36746.01	4.33	0.81	Open
C_KL5.4_0030	18936.35	3.36	0.64	Open
C_KL5.4_0015	36746.01	4.33	0.81	Open
C_KL5.4_0075	14945.40	3.96	1.10	Open
C_KL5.4_0080	14194.90	3.90	1.09	Open
C_KL5.4_0065	15742.45	3.19	0.63	Open
C_KL5.4_0070	15412.80	4.08	1.16	Open
C_KL5.4_0060	16421.70	3.33	0.68	Open
C_KL5.4_0050	17134.20	3.48	0.75	Open
C_KL5.4_0040	18200.10	2.92	0.47	Open
C_KL5.4_0130	4911.50	4.13	2.33	Open
C_KL5.4_0120	6355.50	3.92	1.77	Open
C_KL5.4_0105	8180.45	3.87	1.48	Open
C_KL5.4_0095	13849.10	3.80	1.04	Open
C_KL5.4_0090	13947.90	3.83	1.06	Open
C_KL5.4_0109	7809.00	3.69	1.35	Open
C_KL5.4_0110	6355.50	3.92	2.15	Open
C_KL5.4_0107	7809.00	3.69	1.44	Open
C_KL5.4_0100	8759.95	4.14	1.67	Open
C_KL5.4_0183	2674.25	3.38	2.04	Open

C_KL5.4_0180	2674.25	3.38	2.04	Open
C_KL5.4_0170	3044.75	3.85	2.60	Open
C_KL5.4_0160	3114.10	3.93	2.70	Open
C_KL5.4_0150	3239.50	3.92	2.60	Open
C_KL5.4_0140	3961.50	3.33	1.57	Open
C_KL5.4-2.0_0010	329.65	3.64	8.30	Open
C_KL5.4-2.0_0030	329.65	3.64	8.30	Open
C_KL5.4-2.0_0020	329.65	3.64	8.30	Open
C_KL5.4-2.3_0010	750.50	3.04	3.29	Open
C_KL5.4-2.3_0020	750.50	3.04	3.30	Open
C_KL7.4_0010	4419.40	3.59	1.75	Open
C_KL7.4_0100	1881.00	3.72	3.16	Open
C_KL7.4_0090	1881.00	3.72	3.15	Open
C_KL7.4_0080	1881.00	3.43	2.60	Open
C_KL7.4_0070	2325.60	3.35	2.18	Open
C_KL7.4_0060	2405.40	3.47	2.31	Open
C_KL7.4_0050	2813.90	4.06	3.09	Open
C_KL7.4_0020	4419.40	3.59	1.76	Open
C_KL7.4_0030	3507.40	4.10	2.78	Open
C_KL5.4_0190	2674.25	3.38	2.04	Open
C_KL5.4_0200	2565.00	4.00	3.15	Open
C_KL5.4_0220	1805.00	3.57	2.92	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL5.4_0210	1881.00	3.72	3.16	Open
C_KL5.4-3.0_0030	5089.15	3.65	1.68	Open
C_KL5.4-3.0_0120	264.10	3.04	6.07	Open
C_KL5.4-3.0_0110	568.10	2.49	2.39	Open
C_KL5.4-3.0_0100	891.10	2.77	2.39	Open
C_KL5.4-3.0_0095	891.10	2.77	2.39	Open
C_KL5.4-3.0_0090	891.10	2.77	2.40	Open
C_KL5.4-3.0_0080	2304.70	3.60	2.59	Open
C_KL5.4-3.0_0070	2304.70	3.60	2.59	Open
C_KL5.4-3.0_0060	2656.20	3.97	3.03	Open
C_KL5.4-3.0_0040	4376.65	3.68	1.81	Open
C_KL5.4-3.0_0045	3645.15	3.07	1.34	Open
C_KL5.4-3.0_0050	2656.20	3.97	3.03	Open
C_KL5.4-3.0_0130	264.10	3.11	6.43	Open
C_KL5.4-3.0-0.3_0010	988.95	2.95	2.62	Open
C_KL5.4-3.0-0.3_0030	646.00	2.83	3.03	Open
C_KL5.4-3.0-0.3_0040	646.00	2.83	3.03	Open
C_KL5.4-3.0-0.3_0020	988.95	2.95	2.61	Open
C_KL9.3_0020	10247.65	4.14	1.53	Open
C_KL9.3_0040	9659.60	3.91	1.37	Open

C_KL9.3_0030	10010.15	4.05	1.46	Open
C_KL9.3_0095	3445.65	4.03	2.69	Open
C_KL9.3_0110	3102.70	3.62	2.22	Open
C_KL9.3_0090	3719.25	4.34	3.10	Open
C_KL9.3_0070	9024.05	4.12	1.63	Open
C_KL9.3_0080	4422.25	3.59	1.76	Open
C_KL9.3_0060	9236.85	3.74	1.26	Open
C_KL9.3_0050	9460.10	3.83	1.33	Open
C_KL9.3_0115	3102.70	3.62	2.22	Open
C_KL7.6-9.3N_0025	4288.30	3.48	1.59	Open
C_KL7.6-9.3N_0020	4288.30	3.48	1.67	Open
C_KL7.6-9.3N_0010	4601.80	3.73	1.89	Open
C_KL10.0_0020	585.20	3.68	6.09	Open
C_KL10.0_0030	270.75	2.99	5.77	Open
C_KL_0254	4144.85	3.36	1.62	Open
C_KL_0280	0.00	0.00	0.00	Open
C_KL_0278	774.25	3.13	3.48	Open
C_KL_0276	1130.50	3.25	3.06	Open
C_KL_0270	2647.65	3.82	2.76	Open
C_KL_0267	2904.15	3.39	1.93	Open
C_KL_0260	3543.50	4.14	2.85	Open
C_KL_0265	3209.10	3.75	2.36	Open
C_KL_0262	3389.60	3.96	2.63	Open
C_KL_0256	3755.35	3.05	1.30	Open
C_KL_0274	2062.45	3.76	3.09	Open
C_KL_0300	0.00	0.00	0.00	Open
C_KL_0290	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC5.3_0010	3887.40	3.15	1.45	Open
C_NC5.3_0035	3231.90	3.78	2.39	Open
C_NC5.3_0040	3184.40	3.72	2.33	Open
C_NC5.3_0030	3281.30	3.83	2.46	Open
C_NC5.3_0020	3887.40	3.15	1.39	Open
C_NC5.3_0053	1464.90	3.99	4.34	Open
C_NC5.3_0060	1464.90	3.78	3.79	Open
C_NC5.3_0050	1844.90	3.37	2.51	Open
C_NC5.3-0.3_0010	47.50	1.25	1.86	Open
C_NC5.3-0.3_0020	0.00	0.00	0.00	Open
C_NC5.3-1.4_0010	0.00	0.00	0.00	Open
C_NC8.5_0090	2788.25	4.02	3.04	Open
C_NC8.5_0070	3754.40	3.05	1.30	Open
C_NC8.5_0060	3877.90	3.15	1.38	Open
C_NC8.5_0050	3877.90	3.15	1.38	Open

C_NC8.5_0040	3877.90	3.15	1.38	Open
C_NC8.5_0030	3966.25	3.22	1.44	Open
C_NC8.5_0020	4265.50	3.46	1.72	Open
C_NC8.5_0150	275.50	3.17	6.56	Open
C_NC8.5_0135	275.50	3.35	7.49	Open
C_NC8.5_0130	275.50	1.92	1.93	Open
C_NC8.5_0120	2437.70	3.89	3.04	Open
C_NC8.5_0110	2788.25	3.38	1.98	Open
C_NC8.5_0100	2788.25	4.02	3.05	Open
C_NC8.5_0080	3754.40	3.05	1.30	Open
C_MB_0070	30194.80	1.75	0.11	Open
C_MB_0080	30194.79	3.56	0.56	Open
C_MB_0030	34885.90	1.76	0.10	Open
C_MB_0040	31609.35	1.83	0.12	Open
C_MB_0025	34885.90	1.76	0.10	Open
C_MB_0020	34885.90	1.76	0.00	Open
C_MB_0060	30194.80	1.75	0.11	Open
C_MB_0050	31315.80	1.81	0.11	Open
C_MB_0120	29873.69	3.52	0.55	Open
C_MB_0115	29873.69	3.52	0.55	Open
C_MB_0100	30010.49	3.53	0.56	Open
C_MB_0090	30156.79	3.55	0.57	Open
C_MB_0110	30010.49	3.53	0.55	Open
C_MB_0140	29873.69	3.52	0.55	Open
C_MB_0170	27835.95	3.28	0.48	Open
C_MB_0190	26126.90	3.08	0.43	Open
C_MB_0180	27138.64	3.20	0.46	Open
C_MB_0150	28686.20	3.38	0.48	Open
C_MB0.4_0010	3276.55	3.83	2.45	Open
C_MB0.4_0050	2077.65	3.79	3.13	Open
C_MB0.4_0040	2660.00	3.84	2.83	Open
C_MB0.4_0030	2928.85	3.42	1.99	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_MB0.4_0020	3276.55	3.83	2.45	Open
C_MB4.8_0010	1011.75	4.09	5.72	Open
C_MB4.8_0035	347.70	2.19	2.32	Open
C_MB4.8_0030	880.65	3.56	4.43	Open
C_MB4.8_0020	1011.75	4.09	5.73	Open
C_MB_0210	26126.90	3.08	0.43	Open
C_MB_0220	25137.95	2.96	0.40	Open
C_MB_0230	19030.40	2.24	0.24	Open
C_MB_0270	17986.35	2.12	0.21	Open
C_MB_0260	17986.35	2.12	0.22	Open

C_MB_0250	18259.00	2.15	0.22	Open
C_MB_0240	18669.40	2.20	0.23	Open
C_MB_0290	17986.35	2.12	0.21	Open
C_MB_0300	17967.35	2.12	0.21	Open
C_MB_0295	17986.35	2.12	0.22	Open
C_MB7.5_0010	17967.35	2.12	0.21	Open
C_MB_0330	8655.45	1.39	0.12	Open
C_MB_0340	4808.90	0.77	0.04	Open
C_MB_0350	2566.90	0.41	0.01	Open
C_MB_0360	50.35	0.01	0.00	Open
C_MB_0370	50.35	0.01	0.00	Open
C_MB_0420	-1362.83	0.16	0.00	Open
C_MB_0390	0.00	0.00	0.00	Open
C_MB_0394	0.00	0.00	0.00	Closed
C_MB_0410	-1170.90	0.14	0.00	Open
C_MB_0380	0.00	0.00	0.00	Open
C_MB5.4_0010	988.95	4.00	5.49	Open
C_MB5.4_0040	864.50	3.50	4.28	Open
C_MB5.4_0030	864.50	3.50	4.28	Open
C_MB5.4_0020	988.95	4.00	5.49	Open
C_MB6.0_0010	6107.55	3.64	1.52	Open
C_MB6.0_0053	3107.45	3.63	2.22	Open
C_MB6.0_0050	3450.40	4.03	2.70	Open
C_MB6.0_0040	3821.85	3.10	1.34	Open
C_MB6.0_0030	5104.35	4.14	2.29	Open
C_MB6.0_0020	6107.55	3.64	1.51	Open
C_MB6.0_0075	2413.95	3.48	2.33	Open
C_MB6.0_0090	1615.00	3.99	4.10	Open
C_MB6.0_0080	2099.50	3.97	3.47	Open
C_MB7.5_0113	4054.60	3.29	1.50	Open
C_MB7.5_0110	4767.10	3.87	2.02	Open
C_MB7.5_0100	5502.40	3.81	1.80	Open
C_MB7.5_0090	6101.85	3.64	1.51	Open
C_MB7.5_0080	7193.40	3.74	1.46	Open
C_MB7.5_0070	7490.75	3.89	1.67	Open
C_MB7.5_0060	8036.05	3.67	1.30	Open
C_MB7.5_0050	8247.90	3.77	1.38	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_MB7.5_0043	8247.90	3.77	1.38	Open
C_MB7.5_0035	9311.90	3.77	1.26	Open
C_MB7.5_0040	8960.40	4.09	1.60	Open
C_MB7.5_0030	9311.90	4.84	2.36	Open
C_MB7.5_0020	9311.90	4.84	2.44	Open

C_MB7.5_0120	4054.60	3.41	1.63	Open
C_MB7.5_0130	3359.20	4.07	2.80	Open
C_MB7.5_0220	0.00	0.00	0.00	Open
C_MB7.5_0210	665.00	2.79	2.88	Open
C_MB7.5_0180	1330.00	3.96	4.60	Open
C_MB7.5_0190	1159.00	3.45	3.52	Open
C_MB7.5_0170	2128.00	4.02	3.56	Open
C_MB7.5_0160	2156.50	4.08	3.65	Open
C_MB7.5_0150	2794.90	3.38	1.99	Open
C_MB7.5_0140	3182.50	3.85	2.55	Open
C_MB8.5_0090	1091.55	3.25	3.13	Open
C_MB8.5_0040	2561.20	3.69	2.58	Open
C_MB8.5_0050	2017.80	3.68	3.03	Open
C_MB8.5_0080	1091.55	3.14	2.87	Open
C_MB8.5_0070	1605.50	3.83	3.73	Open
C_MB8.5_0060	1686.25	3.08	2.13	Open
C_MB9.1_0010	2242.00	4.09	3.61	Open
C_MB9.1_0080	369.55	2.41	2.83	Open
C_MB9.1_0067	1243.55	3.58	3.66	Open
C_MB9.1_0070	892.05	3.61	4.54	Open
C_MB9.1_0065	1652.05	3.94	3.92	Open
C_MB9.1_0040	1756.55	3.21	2.29	Open
C_MB9.1_0030	2232.50	4.07	3.57	Open
C_MB9.1_0020	2242.00	4.09	3.60	Open
C_MB9.1-0.9_0040	351.50	2.29	2.58	Open
C_MB9.1-0.9_0010	351.50	2.21	2.35	Open
C_MB9.1-0.9_0020	351.50	2.21	2.37	Open
C_MB9.4_0070	355.30	2.31	2.63	Open
C_MB9.4_0060	706.80	2.86	2.96	Open
C_MB9.4_0040	987.05	2.84	2.38	Open
C_MB9.4_0050	767.60	3.10	2.71	Open
C_MB9.4_0020	1253.05	3.60	3.70	Open
C_MB9.4_0065	355.30	2.23	2.42	Open
C_MB9.4_0017	1253.05	3.60	3.71	Open
C_MB9.4_0010	2516.55	3.63	2.51	Open
C_MB9.4_0015	1253.05	3.60	3.94	Open
C_NC10.5-0.3_0010	0.00	0.00	0.00	Open
C_NC11.0_0060	266.00	2.94	5.58	Open
C_NC11.0_0050	266.00	2.94	5.57	Open
C_NC11.0_0040	266.00	2.94	5.58	Open
C_NC11.0_0030	266.00	2.94	5.66	Open
C_NC11.0_0020	627.00	3.94	7.21	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit ft/Kft	Headloss	Status

C_NC13.6_0030	6070.50	3.62	1.56	Open
C_NC13.6_0174	1162.80	3.81	4.45	Open
C_NC13.6_0172	1162.80	3.81	4.45	Open
C_NC13.6_0170	1250.20	4.10	5.09	Open
C_NC13.6_0160	2000.70	4.16	4.02	Open
C_NC13.6_0150	2000.70	3.95	3.54	Open
C_NC13.6_0140	2029.20	3.84	3.26	Open
C_NC13.6_0130	2599.20	3.89	2.91	Open
C_NC13.6_0120	3163.50	3.83	2.51	Open
C_NC13.6_0110	3496.00	2.94	1.24	Open
C_NC13.6_0100	3496.00	4.08	2.76	Open
C_NC13.6_0090	3550.15	4.15	2.85	Open
C_NC13.6_0080	3600.50	2.92	1.20	Open
C_NC13.6_0070	4322.50	3.51	1.69	Open
C_NC13.6_0040	4322.50	3.51	1.69	Open
C_NC13.6_0035	5491.00	3.80	1.78	Open
C_NC13.6_0183	636.50	2.09	1.46	Open
C_NC13.6_0175	636.50	2.09	1.45	Open
C_NC14.5_0250	280.25	1.91	1.88	Open
C_NC14.5_0245	280.25	1.91	1.88	Open
C_NC14.5_0240	916.75	4.01	5.79	Open
C_NC14.5_0230	1686.25	3.33	2.58	Open
C_NC14.5_0217	1686.25	3.19	2.32	Open
C_NC14.5_0205	3101.75	3.75	2.32	Open
C_NC14.5_0200	3806.65	3.20	1.45	Open
C_NC14.5_0190	4085.00	3.44	1.66	Open
C_NC14.5_0025	13423.51	3.56	0.90	Open
C_NC14.5_0020	14720.26	3.90	1.11	Open
C_NC14.5_0023	14117.96	3.74	0.99	Open
C_NC14.5_0100	9478.16	3.83	1.32	Open
C_NC14.5_0090	9895.21	4.00	1.43	Open
C_NC14.5_0080	10188.75	4.12	1.51	Open
C_NC14.5_0070	10333.16	3.73	1.18	Open
C_NC14.5_0065	11603.31	3.08	0.69	Open
C_NC14.5_0060	11603.31	3.08	0.69	Open
C_NC14.5_0050	12188.51	3.23	0.75	Open
C_NC14.5_0040	12939.01	3.43	0.84	Open
C_NC14.5_0030	13423.51	3.56	0.90	Open
C_NC14.5_0180	4539.10	3.68	1.82	Open
C_NC14.5_0170	4900.10	3.98	2.13	Open
C_NC14.5_0160	5152.80	3.56	1.58	Open
C_NC14.5_0155	5152.81	3.56	1.58	Open
C_NC14.5_0150	5874.81	4.06	2.06	Open
C_NC14.5_0130	8468.31	3.87	1.47	Open
C_NC14.5_0120	8468.31	3.87	1.44	Open
C_NC14.5_0140	7983.81	4.15	1.69	Open
C_NC14.5_0110	8869.21	4.05	1.57	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC14.5_0163	5152.80	3.56	1.58	Open
C_NC14.5_0167	5152.80	3.56	1.58	Open
C_NC14.5-3.0_0010	0.00	0.00	0.00	Open
C_NC14.5-3.0_0020	0.00	0.00	0.00	Open
C_NC14.5-1.5_0010	1270.15	3.65	3.81	Open
C_NC14.5-1.5_0070	41.80	1.10	1.50	Open
C_NC14.5-1.5_0045	41.80	1.10	1.50	Open
C_NC14.5-1.5_0060	41.80	1.10	1.49	Open
C_NC14.5-1.5_0040	41.80	1.10	1.50	Open
C_NC14.5-1.5_0030	839.80	3.40	4.06	Open
C_NC14.5-1.5_0020	839.80	2.41	1.83	Open
C_NC14.5-1.5-0.5_0010	0.00	0.00	0.00	Open
C_NC14.5-1.5-0.5_0020	0.00	0.00	0.00	Open
C_NC19.9_0020	1618.80	3.86	3.94	Open
C_NC20.3_0050	2299.00	3.32	2.13	Open
C_NC20.3_0040	2299.00	3.32	2.13	Open
C_NC20.3_0030	2527.00	3.64	2.53	Open
C_NC20.3_0020	3382.00	3.95	2.71	Open
C_NC24.1_0050	788.50	3.19	3.61	Open
C_NC24.1_0040	788.50	3.19	3.61	Open
C_NC24.1_0025	931.00	2.22	1.34	Open
C_NC24.1_0030	836.00	2.40	1.77	Open
C_NC24.1_0020	2793.00	2.27	0.78	Open
C_NC25.4_0066	33591.05	3.96	0.68	Open
C_NC25.4_0100	9312.70	4.25	1.72	Open
C_NC25.4_0090	10661.70	4.31	1.65	Open
C_NC25.4_0088	11421.70	4.62	1.85	Open
C_NC25.4_0087	12124.70	4.37	1.58	Open
C_NC25.4_0082	24779.80	3.97	0.82	Open
C_NC25.4_0085	12124.70	4.37	1.58	Open
C_NC25.4_0075	33039.11	3.89	0.66	Open
C_NC25.4_0080	25135.10	4.03	0.85	Open
C_NC25.4_0070	33398.20	3.93	0.68	Open
C_NC25.4_0068	33572.06	3.95	0.68	Open
C_NC25.4_0160	972.65	4.26	6.46	Open
C_NC25.4_0170	792.15	3.47	4.42	Open
C_NC25.4_0155	972.65	4.26	6.46	Open
C_NC25.4_0150	972.65	4.26	6.45	Open
C_NC25.4_0140	2027.15	4.00	3.62	Open
C_NC25.4_0135	2768.15	4.14	3.27	Open
C_NC25.4_0123	6880.70	4.25	2.05	Open
C_NC25.4_0120	8267.70	4.30	1.89	Open
C_NC25.4_0110	9312.70	4.25	1.72	Open
C_NC25.4_0127	6168.20	4.42	2.41	Open
C_NC25.4_0130	3912.90	4.74	3.72	Open

C_NC25.4_0052	35969.86	4.24	0.78	Open
C_NC25.4_0050	36834.36	4.34	0.81	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC25.4_0040	37128.86	4.37	0.82	Open
C_NC25.4_0035	39361.36	4.64	0.92	Open
C_NC25.4_0033	39361.36	4.64	0.92	Open
C_NC25.4_0030	40045.36	4.72	0.96	Open
C_NC25.4_0020	40482.36	4.77	1.01	Open
C_NC25.4_0062	34855.50	4.11	0.73	Open
C_NC25.4_0064	33591.05	3.96	0.68	Open
C_NC25.4_0063	34318.75	4.04	0.71	Open
C_NC25.4_0056	35549.01	4.19	0.76	Open
C_NC25.4_0060	35549.01	4.19	0.76	Open
C_NC25.4_0057	35549.01	4.19	0.77	Open
C_NC25.4_0054	35938.51	4.23	0.77	Open
C_NC25.4-1.6_0010	7904.00	4.11	1.75	Open
C_NC25.4-1.6_0055	5443.50	4.42	2.61	Open
C_NC25.4-1.6_0057	1196.05	3.44	3.40	Open
C_NC25.4-1.6_0050	5443.50	4.42	2.58	Open
C_NC25.4-1.6_0040	6184.50	4.28	2.22	Open
C_NC25.4-1.6_0030	7201.00	4.30	2.05	Open
C_NC25.4-1.6_0020	7904.00	4.11	1.74	Open
C_NC25.4-3.3_0010	2255.30	4.26	3.96	Open
C_NC25.4-3.3_0045	285.00	3.28	6.99	Open
C_NC25.4-3.3_0035	811.30	3.40	4.16	Open
C_NC25.4-3.3_0030	1181.80	3.52	3.63	Open
C_NC25.4-3.3_0020	1181.80	3.52	3.63	Open
C_NC25.4-3.3_0040	811.30	3.55	4.62	Open
C_NC25.4-3.3_0060	0.00	0.00	0.00	Open
C_NC25.4-3.3_0048	9.50	0.25	0.10	Open
C_NC25.4-1.6-0.9_0030	3259.45	4.70	4.06	Open
C_NC25.4-1.6-0.9_0040	3152.10	4.71	4.18	Open
C_NC25.4-1.6-0.9_0050	3036.20	4.54	3.88	Open
C_NC25.4-1.6-0.9-0.1_0010	1373.70	4.09	4.80	Open
C_NC25.4-1.6-0.9-0.1_0020	1373.70	4.09	4.79	Open
C_NC25.4-1.6-0.9-0.1_0030	376.20	2.45	2.92	Open
C_NC25.4-1.6-0.9_0060	883.50	2.81	2.49	Open
C_NC25.4-1.8_0010	12655.11	4.57	1.70	Open
C_NC25.4-1.8_0125	2740.90	4.28	3.57	Open
C_NC25.4-1.8_0120	2740.90	3.32	1.94	Open
C_NC25.4-1.8_0110	2740.90	4.10	3.21	Open
C_NC25.4-1.8_0100	2841.60	4.25	3.44	Open
C_NC25.4-1.8_0070	5399.95	3.87	1.88	Open

C_NC25.4-1.8_0060	6522.85	3.89	1.71	Open
C_NC25.4-1.8_0045	9824.11	3.97	1.42	Open
C_NC25.4-1.8_0050	6840.15	4.08	1.86	Open
C_NC25.4-1.8_0030	10508.11	3.79	1.16	Open
C_NC25.4-1.8_0040	10508.11	3.79	1.21	Open
C_NC25.4-1.8_0015	12655.11	4.57	1.71	Open
C_NC25.4-1.8_0013	12655.11	4.57	1.71	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC25.4-1.8_0020	11220.61	4.05	1.37	Open
C_NC25.4-1.8_0085	4041.45	3.40	1.63	Open
C_NC25.4-1.8_0080	4734.95	3.98	2.18	Open
C_NC25.4-1.8_0090	3357.45	4.06	2.80	Open
C_NC25.4-1.8-2.8_0020	313.50	3.61	8.14	Open
C_NC25.4-1.8-2.8_0010	313.50	3.61	8.34	Open
C_NC25.4-1.8_0130	1937.05	3.83	3.33	Open
C_NC25.4-1.8_0150	874.00	3.83	5.30	Open
C_NC25.4-1.8_0145	874.00	3.83	5.27	Open
C_NC25.4-1.8_0140	1529.50	3.94	4.12	Open
C_NC25.4-1.8_0165	874.00	3.83	5.30	Open
C_NC25.4-1.8-2.2_0030	104.65	2.75	8.21	Open
C_NC25.4-1.8-2.2_0040	104.65	2.75	8.21	Open
C_NC25.4-1.8-2.2_0010	490.35	2.15	1.81	Open
C_NC25.4-1.8-2.2_0025	104.65	2.75	8.20	Open
C_NC25.4-1.8-2.2_0020	238.60	2.74	5.03	Open
C_NC25.4-1.8-1.0_0010	2983.95	3.49	2.05	Open
C_NC25.4-1.8-1.0_0010	2983.95	3.49	2.06	Open
C_NC25.4-1.8-1.0_0030	2983.95	3.61	2.25	Open
C_NC25.4-1.8-1.0_0090	0.00	0.00	0.00	Open
C_NC25.4-1.8-1.0_0080	275.50	1.87	1.83	Open
C_NC25.4-1.8-1.0_0070	1012.70	3.02	2.73	Open
C_NC25.4-1.8-1.0_0060	1734.70	3.28	2.44	Open
C_NC25.4-1.8-1.0_0050	2751.20	4.11	3.24	Open
C_NC25.4-1.8-1.0_0040	2983.95	3.61	2.25	Open
C_NC25.4-1.8-1.0_0015	2983.95	3.49	2.06	Open
C_NC26.4_0073	4044.15	3.28	1.49	Open
C_NC26.4_0070	4044.15	3.28	1.49	Open
C_NC26.4_0060	4642.65	3.77	1.94	Open
C_NC26.4_0050	5374.15	3.72	1.71	Open
C_NC26.4_0040	5852.00	4.05	2.00	Open
C_NC26.4_0030	6614.85	3.95	1.75	Open
C_NC26.4_0028	6614.85	3.95	1.75	Open
C_NC26.4_0025	7068.00	3.67	1.40	Open
C_NC26.4_0020	7068.00	3.67	1.48	Open

C_NC26.4_0080	4044.15	3.28	1.49	Open
C_NC26.4_0140	144.40	0.61	0.16	Open
C_NC26.4_0150	144.40	0.61	0.68	Open
C_NC26.4_0130	799.90	3.35	4.05	Open
C_NC26.4_0090	2964.00	3.46	2.04	Open
C_NC26.4_0128	799.90	3.35	4.05	Open
C_NC26.4_0127	1018.40	3.03	2.76	Open
C_NC26.4_0125	1067.80	3.18	3.01	Open
C_NC26.4_0110	1067.80	3.18	3.21	Open
C_NC26.4_0120	1067.80	3.18	3.01	Open
C_NC26.4_0100	2459.55	3.68	2.63	Open
C_NC26.4_0095	2650.50	3.82	2.77	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC27.8_0016	4212.30	3.42	1.70	Open
C_NC27.8_0018	3780.05	3.07	1.31	Open
C_NC27.8_0015	4841.20	3.93	2.17	Open
C_NC27.8_0040	2357.90	4.30	3.95	Open
C_NC27.8_0055	966.15	3.91	5.26	Open
C_NC27.8_0050	2049.15	4.89	5.84	Open
C_NC27.8_0070	893.00	3.61	4.55	Open
C_NC27.8_0090	584.25	3.67	6.07	Open
C_NC27.8_0080	741.00	3.00	3.21	Open
C_NC27.8_0097	437.95	2.75	3.56	Open
C_ON_0190	24883.02	2.93	0.39	Open
C_ON_0200	24674.87	2.91	0.39	Open
C_ON_0540	18667.56	2.20	0.23	Open
C_ON_0530	18706.73	2.20	0.23	Open
C_ON_0520	18986.50	2.24	0.24	Open
C_ON_0510	18986.50	2.24	0.24	Open
C_ON_0500	19078.27	2.25	0.24	Open
C_ON_0570	18080.03	2.13	0.22	Open
C_ON_0550	18477.31	2.18	0.23	Open
C_ON_0630	17478.61	2.06	0.20	Open
C_ON_0620	17494.76	2.06	0.20	Open
C_ON_0610	17579.25	2.07	0.21	Open
C_ON_0600	17624.01	2.08	0.21	Open
C_ON_0590	17780.13	2.09	0.21	Open
C_ON_0580	18059.89	2.13	0.22	Open
C_ON_0560	18443.74	2.17	0.23	Open
C_ON_0650	17243.59	2.03	0.20	Open
C_ON_0640	17410.90	2.05	0.20	Open
C_ON_0680	16682.93	1.97	0.19	Open
C_ON_0670	16851.91	1.98	0.19	Open

C_ON_0660	17019.77	2.00	0.19	Open
C_ON_0220	24674.87	2.91	0.38	Open
C_ON_0350	22120.53	2.61	0.32	Open
C_ON_0340	22295.67	2.63	0.32	Open
C_ON_0330	22555.30	2.66	0.33	Open
C_ON_0320	22555.30	2.66	0.33	Open
C_ON_0310	23071.76	2.72	0.34	Open
C_ON_0300	23071.76	2.72	0.34	Open
C_ON_0290	23839.46	2.81	0.34	Open
C_ON_0280	24170.15	2.85	0.37	Open
C_ON_0270	24170.15	2.85	0.38	Open
C_ON_0260	24507.00	2.89	0.40	Open
C_ON_0250	24523.79	2.89	0.38	Open
C_ON_0240	24674.87	2.91	0.39	Open
C_ON_0230	24674.87	2.91	1.63	Open
C_ON_0450	20166.59	2.38	0.27	Open
C_ON_0440	20362.43	2.40	0.27	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ON_0430	20598.56	2.43	0.28	Open
C_ON_0420	20671.30	2.43	0.28	Open
C_ON_0410	20778.73	2.45	0.28	Open
C_ON_0400	21035.00	2.48	0.29	Open
C_ON_0390	21202.86	2.50	0.30	Open
C_ON_0380	21202.86	2.50	0.29	Open
C_ON_0370	21507.26	2.53	0.30	Open
C_ON_0360	21984.56	2.59	0.31	Open
C_ON_0490	19100.65	2.25	0.24	Open
C_ON_0480	19344.61	2.28	0.25	Open
C_ON_0470	19415.67	2.29	0.26	Open
C_ON_0460	19874.50	2.34	0.26	Open
C_NC28.7_0050	15720.60	4.17	1.21	Open
C_NC28.7_0040	16220.30	4.30	1.28	Open
C_NC28.7_0053	14820.00	3.93	1.08	Open
C_NC28.7_0055	9454.40	4.32	1.77	Open
C_NC28.7_0035	16985.05	4.50	1.39	Open
C_NC28.7_0033	16985.05	3.45	0.73	Open
C_NC28.7_0030	17185.50	3.49	0.74	Open
C_NC28.7_0020	17526.55	3.56	0.80	Open
C_NC28.7-1.0_0015	5365.60	4.35	2.52	Open
C_NC28.7-1.0_0020	4228.45	4.94	3.94	Open
C_NC28.7-1.0_0065	2117.55	3.87	3.24	Open
C_NC28.7-1.0_0060	2516.55	4.59	4.46	Open
C_NC28.7-1.0_0050	2868.05	4.14	3.20	Open

C_NC28.7-1.0_0040	3511.20	4.10	2.79	Open
C_NC28.7-1.0_0030	3867.45	4.52	3.30	Open
C_NC28.7_0060	9454.40	4.32	1.77	Open
C_NC28.7_0122	856.90	3.59	4.60	Open
C_NC28.7_0120	1529.50	4.40	5.36	Open
C_NC28.7_0100	2491.85	4.55	4.37	Open
C_NC28.7_0105	2489.00	4.54	4.36	Open
C_NC28.7_0110	1649.20	4.74	6.17	Open
C_NC28.7_0090	2491.85	4.55	4.38	Open
C_NC28.7_0124	722.00	3.03	3.35	Open
C_NC28.7_0085	2853.80	4.12	3.17	Open
C_NC28.7_0082	7804.25	4.05	1.70	Open
C_NC28.7_0080	8591.80	4.46	2.03	Open
C_NC28.7_0070	9145.65	4.18	1.67	Open
C_NC28.7_0083	3556.80	4.15	2.88	Open
C_NC28.7-2.0_0020	4023.25	3.26	1.50	Open
C_NC28.7-2.0_0045	3478.90	4.06	2.74	Open
C_NC28.7-2.0_0040	3478.90	4.06	2.74	Open
C_NC28.7-2.0_0030	4023.25	4.70	3.59	Open
C_NC28.7-2.0_0050	1616.90	3.85	3.77	Open
C_NC28.7-2.0_0060	1616.90	3.99	4.11	Open
C_NC28.7-2.8_0010	134.90	1.49	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC28.7-2.8_0015	36.10	0.95	1.14	Open
C_NC28.7-2.8_0020	36.10	0.95	1.05	Open
C_NC28.7-2.8_0030	36.10	0.95	1.15	Open
C_NC28.7_0130	722.00	3.03	3.35	Open
C_NC28.7_0160	250.80	2.77	5.01	Open
C_NC28.7_0155	440.80	2.87	3.93	Open
C_NC28.7_0140	440.80	1.85	1.34	Open
C_NC28.7_0150	440.80	2.87	3.92	Open
C_NC28.7-2.6_0010	839.80	3.40	4.06	Open
C_NC28.7-2.6_0020	705.85	4.44	8.62	Open
C_NC27.8-0.9_0010	73.15	1.92	4.24	Open
C_NC27.8-0.9_0030	73.15	1.92	4.23	Open
C_NC28.7-1.0_0080	940.50	3.94	5.09	Open
C_NC28.7-1.0_0100	737.20	3.09	3.48	Open
C_NC28.7-1.0_0090	883.50	3.70	4.88	Open
C_NC28.7-1.0_0130	190.00	2.10	2.97	Open
C_NC28.7-1.0_0145	161.50	1.78	1.88	Open
C_NC28.7-1.0_0140	161.50	1.78	2.23	Open
C_NC28.7-1.0_0120	290.70	1.89	1.80	Open
C_NC28.7-1.0_0110	442.70	2.88	3.96	Open

C_NC28.7-1.0-0.1_0010	1137.15	3.27	3.11	Open
C_NC28.7-1.0-0.1_0013	1137.15	3.27	3.10	Open
C_NC28.7-1.0-0.1_0020	1137.15	4.60	7.11	Open
C_NC28.7-1.0-0.1_0045	128.25	3.37	11.96	Open
C_NC28.7-1.0-0.1_0040	445.55	2.80	3.67	Open
C_NC28.7-1.0-0.1_0030	736.25	2.98	3.18	Open
C_NC28.7-1.0-0.1_0050	128.25	3.37	11.96	Open
C_NC29.7_0013	988.00	4.00	5.72	Open
C_NC29.7_0020	988.00	4.00	5.48	Open
C_KL7.7_0010	1133.35	3.53	3.72	Open
C_KL7.7_0030	876.85	3.84	5.33	Open
C_KL7.7_0035	667.85	2.92	3.05	Open
C_KL7.7_0023	895.85	3.02	2.93	Open
C_KL7.7_0020	1133.35	3.53	3.73	Open
C_KL9.3_0160	2914.60	3.53	2.15	Open
C_KL9.3_0190	1703.35	3.22	2.36	Open
C_KL9.3_0180	2001.65	3.78	3.18	Open
C_KL9.3_0170	2802.50	3.39	2.00	Open
C_MB6.0_0110	1178.00	3.51	3.61	Open
C_MB6.0_0130	209.00	2.31	3.57	Open
C_MB6.0_0120	209.00	2.31	3.59	Open
C_MB11.0_0010	1170.90	2.14	1.10	Open
C_MB11.0_0060	0.00	0.00	0.00	Open
C_MB11.0_0050	570.74	2.39	3.26	Open
C_MB11.0_0030	990.40	2.36	1.56	Open
C_MB11.0_0040	990.40	2.45	1.66	Open
C_MB11.0_0020	1170.90	2.14	1.08	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9_0147	8467.35	4.40	1.98	Open
C_NC38.9_0143	8467.35	1.50	0.14	Open
C_NC38.9_0140	8467.35	1.50	0.14	Open
C_NC38.9_0130	9277.70	1.64	0.17	Open
C_NC38.9_0115	9437.30	1.67	0.18	Open
C_NC38.9_0105	21045.35	1.66	0.12	Open
C_NC38.9_0110	9625.40	1.71	0.18	Open
C_NC38.9_0100	21045.35	1.66	0.12	Open
C_NC38.9_0087	22453.25	1.77	0.13	Open
C_NC38.9_0120	9437.30	1.67	0.18	Open
C_NC38.9_0090	21978.25	1.73	0.13	Open
C_NC38.9-3.8_0089	21987.75	1.73	0.12	Open
C_NC38.9_0082	25806.75	2.03	0.17	Open
C_NC38.9_0085	22462.75	1.77	0.13	Open
C_NC38.9_0080	26246.60	2.07	0.17	Open

C_NC38.9_0063	30753.40	2.42	0.23	Open
C_NC38.9_0067	26832.75	2.11	0.18	Open
C_NC38.9_0060	31204.65	2.46	0.24	Open
C_NC38.9_0070	26747.25	2.11	0.18	Open
C_NC38.9_0050	31294.90	2.47	0.24	Open
C_NC38.9_0043	36449.60	2.87	0.32	Open
C_NC38.9_0046	31294.90	2.47	0.24	Open
C_NC38.9_0040	36782.10	2.90	0.33	Open
C_NC38.9_0035	36839.10	2.90	0.33	Open
C_NC38.9_0030	36886.60	2.91	0.33	Open
C_NC38.9_0025	36915.10	2.91	0.33	Open
C_NC38.9_0020	37162.10	2.93	0.33	Open
C_NC38.9_0017	37162.10	2.93	0.33	Open
C_NC38.9_0015	37171.60	2.93	0.33	Open
C_NC38.9_0150	8467.35	4.40	1.98	Open
C_NC38.9_0240	3135.95	3.66	2.26	Open
C_NC38.9_0230	3135.95	3.66	2.30	Open
C_NC38.9_0255	2812.95	4.06	3.09	Open
C_NC38.9_0260	988.00	2.84	2.39	Open
C_NC38.9_0250	3135.95	3.66	2.26	Open
C_NC38.9_0213	3135.95	3.66	2.26	Open
C_NC38.9_0200	3249.95	3.80	2.40	Open
C_NC38.9_0210	3249.95	3.80	2.42	Open
C_NC38.9_0192	4703.45	3.82	1.97	Open
C_NC38.9_0190	3772.45	3.06	1.31	Open
C_NC38.9_0185	5225.95	4.24	2.40	Open
C_NC38.9_0180	5225.95	4.24	2.39	Open
C_NC38.9_0172	8242.20	4.28	1.88	Open
C_NC38.9_0177	5225.95	4.24	2.40	Open
C_NC38.9_0175	5938.45	4.11	2.06	Open
C_NC38.9_0160	8265.00	4.29	1.89	Open
C_NC38.9_0170	8265.00	4.29	1.89	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9_0217	3135.95	3.66	2.23	Open
C_NC38.9_0220	3135.95	3.66	2.26	Open
C_NC38.9_0290	988.00	2.84	2.39	Open
C_NC38.9_0280	988.00	2.84	2.39	Open
C_NC38.9_0270	988.00	2.84	2.39	Open
C_NC30.2_0090	627.00	3.94	6.92	Open
C_NC30.2_0080	921.50	3.73	4.82	Open
C_NC30.2_0070	1121.00	4.53	6.93	Open
C_NC30.2_0060	1243.55	3.58	3.66	Open
C_NC30.2_0050	1380.35	3.97	4.44	Open

C_NC30.2_0047	1502.90	4.32	5.19	Open
C_NC30.2_0043	2416.80	4.41	4.14	Open
C_NC30.2_0035	3214.80	4.64	3.96	Open
C_NC30.2_0030	3643.25	2.96	1.31	Open
C_NC30.2_0020	4143.90	3.36	1.62	Open
C_NC30.2_0045	2158.40	3.94	3.36	Open
C_NC30.2_0040	2416.80	4.41	4.14	Open
C_NC31.0_0130	3439.95	4.02	2.68	Open
C_NC31.0_0185	332.50	2.17	2.33	Open
C_NC31.0_0180	332.50	2.17	2.33	Open
C_NC31.0_0170	969.00	4.06	5.78	Open
C_NC31.0_0158	1491.50	3.68	3.54	Open
C_NC31.0_0156	1491.50	3.68	3.54	Open
C_NC31.0_0150	1995.00	4.76	5.56	Open
C_NC31.0_0135	3439.95	4.02	2.68	Open
C_NC31.0_0140	2322.75	4.24	3.85	Open
C_NC31.0_0120	3658.45	4.27	3.01	Open
C_NC31.0_0110	3929.20	4.59	3.43	Open
C_NC31.0_0100	4787.05	3.88	2.02	Open
C_NC31.0_0090	5127.15	4.16	2.31	Open
C_NC31.0_0080	5447.30	4.42	2.59	Open
C_NC31.0_0070	5871.00	4.06	2.02	Open
C_NC31.0_0060	6231.05	4.31	2.25	Open
C_NC31.0_0050	6791.55	4.05	1.84	Open
C_NC31.0_0040	6907.45	4.12	1.90	Open
C_NC31.0_0030	6935.95	4.14	1.91	Open
C_NC31.0_0025	6935.95	4.14	1.91	Open
C_NC31.0_0020	6935.95	4.14	1.99	Open
C_NC31.0-2.5_0020	275.50	3.04	5.95	Open
C_NC31.0-2.5_0030	275.50	3.04	5.96	Open
C_NC31.0-1.9_0050	0.00	0.00	0.00	Open
C_NC31.0-1.9_0040	229.90	2.54	4.26	Open
C_NC31.0-1.9_0035	467.40	1.89	1.32	Open
C_NC31.5_0060	1202.70	3.46	3.44	Open
C_NC31.5_0055	1354.70	3.89	4.29	Open
C_NC31.5_0050	1579.85	4.54	5.70	Open
C_NC31.5_0040	1755.60	4.19	4.39	Open

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC31.5_0030	2088.10	3.81	3.16	Open
C_NC31.5_0025	2238.20	4.09	3.63	Open
C_NC31.5_0020	3043.80	3.56	2.23	Open
C_NC31.5_0065	898.70	3.63	4.59	Open
C_NC31.5_0080	587.10	3.69	6.12	Open

C_NC31.5_0100	216.60	2.39	3.81	Open
C_NC31.5_0090	216.60	2.39	3.82	Open
C_NC32.2_0083	1491.50	3.56	3.24	Open
C_NC32.2_0080	1927.55	3.52	2.72	Open
C_NC32.2_0070	1955.10	3.57	2.79	Open
C_NC32.2_0060	2218.25	4.05	3.53	Open
C_NC32.2_0050	2574.50	4.70	4.66	Open
C_NC32.2_0040	2574.50	4.70	4.65	Open
C_NC32.2_0030	3239.50	3.78	2.40	Open
C_NC32.2_0025	3239.50	3.78	2.40	Open
C_NC32.2_0015	3894.06	3.16	1.45	Open
C_NC32.2_0020	3580.55	2.90	1.19	Open
C_NC32.2_0090	1491.50	3.68	3.55	Open
C_NC32.2_0150	503.50	3.42	5.58	Open
C_NC32.2_0140	693.50	3.04	3.45	Open
C_NC32.2_0107	1330.00	3.96	4.51	Open
C_NC32.2_0110	693.50	2.91	3.13	Open
C_NC32.2_0105	1330.00	3.96	4.52	Open
C_NC32.2_0100	1358.50	4.05	4.64	Open
C_NC32.2_0160	0.00	0.00	0.00	Open
C_NC32.2-1.7_0010	636.50	2.79	2.95	Open
C_NC32.2-1.7_0030	0.00	0.00	0.00	Open
C_NC32.2-1.7_0020	503.50	3.42	5.58	Open
C_NC33.1_0090	1046.90	4.58	7.40	Open
C_NC33.1_0088	1046.90	4.39	6.67	Open
C_NC33.1_0087	1046.90	4.39	6.66	Open
C_NC33.1_0085	1046.90	4.23	6.12	Open
C_NC33.1_0080	1759.40	4.19	4.41	Open
C_NC33.1_0070	1759.40	4.19	4.41	Open
C_NC33.1_0065	3497.90	4.09	2.78	Open
C_NC33.1_0055	7752.95	4.03	1.68	Open
C_NC33.1_0060	3801.90	4.44	3.23	Open
C_NC33.1_0050	7752.95	4.03	1.67	Open
C_NC33.1_0040	8018.95	3.66	1.31	Open
C_NC33.1_0035	8018.95	3.66	1.31	Open
C_NC33.1_0030	8075.95	3.69	1.33	Open
C_NC33.1_0020	8911.95	4.07	1.65	Open
C_NC33.1_0115	0.00	0.00	0.00	Open
C_NC33.1_0110	256.50	2.95	5.75	Open
C_NC33.1_0103	256.50	3.02	6.09	Open
C_NC33.1_0095	1046.90	3.26	3.18	Open
C_NC33.1_0100	1027.90	4.50	7.15	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status

C_NC33.1-1.8_0010	256.50	2.95	5.75	Open
C_NC33.1S_0075	3429.50	4.01	2.67	Open
C_NC33.1S_0150	1566.55	4.04	4.30	Open
C_NC33.1S_0130	2354.10	4.65	4.78	Open
C_NC33.1S_0120	2354.10	4.65	4.78	Open
C_NC33.1S_0111	2411.10	4.40	4.12	Open
C_NC33.1S_0110	2506.10	4.57	4.42	Open
C_NC33.1S_0100	2791.10	4.03	3.05	Open
C_NC33.1S_0090	3239.50	4.67	4.01	Open
C_NC33.1S_0080	3429.50	4.01	2.67	Open
C_NC33.1S_0140	2049.15	4.05	3.72	Open
C_ON_0710	16682.93	1.97	0.19	Open
C_ON_0810	14229.87	2.36	0.32	Open
C_ON_0820	14015.56	2.33	0.31	Open
C_ON_0800	15097.17	2.51	0.37	Open
C_ON_0790	15097.17	2.51	0.36	Open
C_ON_0780	15725.54	2.61	0.39	Open
C_ON_0770	15833.53	2.63	0.39	Open
C_ON_0760	16022.66	1.96	0.19	Open
C_ON_0750	16219.62	1.98	0.19	Open
C_ON_0740	16443.44	2.01	0.20	Open
C_ON_0730	16585.01	2.02	0.20	Open
C_ON_0720	16682.93	1.97	0.19	Open
C_ON_0915	12050.44	2.53	0.42	Open
C_ON_0900	12927.81	2.72	0.48	Open
C_ON_0910	12259.71	2.58	0.43	Open
C_ON_0890	12939.00	2.72	0.48	Open
C_ON_0880	13151.63	2.18	0.28	Open
C_ON_0870	13189.12	2.19	0.28	Open
C_ON_0850	13858.89	2.30	0.31	Open
C_ON_0860	13200.31	2.19	0.28	Open
C_ON_0840	13952.89	2.32	0.31	Open
C_ON_0990	10047.80	2.11	0.30	Open
C_ON_0980	10346.04	2.17	0.32	Open
C_ON_0970	10449.00	2.20	0.32	Open
C_ON_0960	10860.83	2.28	0.35	Open
C_ON_0940	11039.89	2.32	0.36	Open
C_ON_0930	11474.66	2.41	0.38	Open
C_ON_0920	11612.31	2.44	0.39	Open
C_ON_1080	7165.02	2.68	0.65	Open
C_ON_1060	8094.43	2.22	0.38	Open
C_ON_1050	8967.33	2.46	0.46	Open
C_ON_1040	8976.83	2.46	0.47	Open
C_ON_1030	8986.33	2.47	0.47	Open
C_ON_1020	9400.40	2.58	0.51	Open
C_ON_1010	9769.70	2.68	0.55	Open
C_ON_1000	9920.78	2.72	0.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ON_1270	833.73	2.59	2.11	Open
C_ON_1227	162.27	1.79	2.24	Open
C_ON_1220	996.00	2.46	1.67	Open
C_ON_1210	1208.63	2.28	1.25	Open
C_ON_1190	1938.84	2.35	1.01	Open
C_ON_1200	1265.70	2.39	1.36	Open
C_ON_1180	1938.84	2.35	1.01	Open
C_ON_1240	162.27	1.79	2.23	Open
C_ON_1170	2250.51	2.72	1.33	Open
C_ON_1160	2277.93	1.92	0.62	Open
C_ON_1150	3273.37	2.34	0.74	Open
C_ON_1130	4503.25	2.42	0.67	Open
C_ON_1140	3631.48	2.60	0.90	Open
C_ON_1110	5576.46	2.64	0.73	Open
C_ON_1120	4635.86	2.50	0.71	Open
C_ON_1100	5677.18	2.68	0.75	Open
C_ON_1090	5889.25	2.20	0.45	Open
C_NC35.1_0055	1207.45	3.47	3.46	Open
C_NC35.1_0050	1824.95	4.35	4.71	Open
C_NC35.1_0040	2109.95	3.85	3.22	Open
C_NC35.1_0025	3308.85	3.87	2.47	Open
C_NC35.1_0030	2195.45	4.01	3.46	Open
C_NC35.1_0020	3479.85	4.07	2.74	Open
C_NC35.1_0015	3479.85	4.07	2.86	Open
C_NC35.1_0060	1112.45	4.50	6.83	Open
C_NC35.1_0095	332.50	2.17	2.33	Open
C_NC35.1_0090	427.50	2.78	3.73	Open
C_NC35.1_0080	760.00	3.19	3.68	Open
C_NC35.1_0073	760.00	3.07	3.37	Open
C_NC35.1_0070	959.50	3.88	5.19	Open
C_NC35.1-0.1_0010	1113.40	3.20	2.96	Open
C_NC35.1-0.1_0040	788.50	3.19	3.61	Open
C_NC35.1-0.1_0030	788.50	3.19	3.60	Open
C_NC35.1-0.1_0020	1113.40	3.20	2.98	Open
C_NC35.7_0025	411.35	2.59	3.17	Open
C_ON13.9_0020	668.10	2.08	1.40	Open
C_NC37.6_0080	3910.20	3.29	1.53	Open
C_NC37.6_0070	3910.20	3.29	1.51	Open
C_NC37.6_0058	4522.95	3.67	1.83	Open
C_NC37.6_0055	4832.65	3.92	2.06	Open
C_NC37.6_0050	4921.00	3.99	2.14	Open
C_NC37.6_0040	4921.00	3.99	2.14	Open
C_NC37.6_0030	4968.50	4.03	2.18	Open
C_NC37.6_0020	4968.50	4.03	2.27	Open
C_NC37.6_0090	2441.50	3.81	2.88	Open

C_NC37.6_0060	4223.70	3.55	1.76	Open
C_NC37.6_0135	693.50	3.11	3.65	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC37.6_0130	1045.00	3.25	3.26	Open
C_NC37.6_0120	1045.00	3.25	3.20	Open
C_NC37.6_0110	1757.50	3.47	2.78	Open
C_NC37.6_0100	2441.50	4.82	5.18	Open
C_NC37.6-0.5_0040	617.50	4.20	8.15	Open
C_NC37.6-0.5_0010	1140.00	3.40	3.36	Open
C_NC37.6-0.5_0005	1468.70	4.38	5.43	Open
C_NC37.6-0.5_0020	1140.00	3.55	3.77	Open
C_NC37.6-0.5_0030	617.50	4.20	8.17	Open
C_NC37.6-0.5-0.1_0010	328.70	2.24	2.53	Open
C_NC37.6-0.5-0.1_0020	328.70	2.24	2.53	Open
C_NC38.7_0040	8194.70	4.26	1.78	Open
C_NC38.7_0072	4347.20	3.53	1.70	Open
C_NC38.7_0070	5325.70	4.32	2.46	Open
C_NC38.7_0060	5629.70	3.89	1.88	Open
C_NC38.7_0050	7738.70	4.02	1.72	Open
C_NC38.7_0030	10788.20	4.36	1.77	Open
C_NC38.7_0020	10883.20	4.40	1.78	Open
C_NC38.7_0073	3653.70	4.27	3.00	Open
C_NC38.7_0077	3606.20	4.21	2.93	Open
C_NC38.7_0076	3606.20	4.21	2.95	Open
C_NC38.7_0075	3606.20	4.21	2.92	Open
C_NC38.7_0074	3606.20	4.21	2.93	Open
C_NC38.7_0095	3549.20	4.30	3.10	Open
C_NC38.7_0097	3549.20	4.48	3.44	Open
C_NC38.7_0110	1780.30	4.59	5.44	Open
C_NC38.7_0100	2765.45	4.32	3.63	Open
C_NC38.7_0120	304.00	3.50	7.88	Open
C_NC38.9-0.7_0010	5154.70	3.57	1.58	Open
C_NC38.9-0.7_0050	38.00	1.00	1.26	Open
C_NC38.9-0.7_0040	38.00	1.00	1.26	Open
C_NC38.9-0.7_0020	5154.70	3.57	1.61	Open
C_NC38.9-0.7_0030	2698.00	3.89	2.86	Open
C_NC38.9-2.4_0010	3920.65	3.18	1.41	Open
C_NC38.9-2.4_0040	3170.15	3.70	2.31	Open
C_NC38.9-2.4_0015	3920.65	3.18	1.34	Open
C_NC38.9-2.4_0030	3179.65	3.71	2.32	Open
C_NC38.9-2.4_0135	522.50	2.29	3.05	Open
C_NC38.9-2.4_0136	0.00	0.00	0.00	Open
C_NC38.9-2.4_0127	2163.15	4.27	4.09	Open

C_NC38.9-2.4_0130	633.65	2.77	2.92	Open
C_NC38.9-2.4_0120	2163.15	4.09	3.66	Open
C_NC38.9-2.4_0110	2239.15	3.35	2.21	Open
C_NC38.9-2.4_0078	2429.15	3.79	2.85	Open
C_NC38.9-2.4_0070	2457.65	3.67	2.63	Open
C_NC38.9-2.4_0060	2600.15	3.89	2.91	Open
C_NC38.9-2.4_0048	2619.15	3.92	2.95	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-2.4_0050	2600.15	3.89	2.91	Open
C_NC38.9-2.4_0045	3113.15	4.49	3.73	Open
C_NC38.9-2.4-1.5_0010	0.00	0.00	0.00	Open
C_NC38.9-3.0_0010	3344.00	3.91	2.54	Open
C_NC38.9-3.0_0060	1976.00	3.61	2.85	Open
C_NC38.9-3.0_0050	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0040	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0020	2622.00	3.78	2.79	Open
C_NC38.9-3.0_0030	2622.00	4.79	4.81	Open
C_NC38.9-3.0_0080	931.00	3.77	4.91	Open
C_NC38.9-3.0_0070	1634.00	3.90	3.86	Open
C_NC38.9-4.8-0.5_0020	4550.50	3.69	1.84	Open
C_NC38.9-4.8-0.5_0030	4550.50	3.69	1.74	Open
C_NC38.9-4.8-0.5_0040	4218.00	3.42	1.61	Open
C_NC38.9-4.8-0.5_0108	1767.00	3.49	2.81	Open
C_NC38.9-4.8-0.5_0092	2042.50	3.86	3.30	Open
C_NC38.9-4.8-0.5_0075	2584.00	3.86	2.88	Open
C_NC38.9-4.8-0.5_0090	2042.50	3.86	3.30	Open
C_NC38.9-4.8-0.5_0070	3106.50	3.76	2.42	Open
C_NC38.9-4.8-0.5_0060	3809.50	4.45	3.23	Open
C_NC38.9-4.8-0.5_0050	3914.00	4.57	3.41	Open
C_NC38.9-4.8-0.5_0045	3971.00	4.64	3.50	Open
C_NC38.9-4.8-0.5_0095	1805.00	3.29	2.41	Open
C_NC38.9-4.8_0010	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0045	10444.30	4.22	1.59	Open
C_NC38.9-4.8_0040	10716.95	4.33	1.66	Open
C_NC38.9-4.8_0030	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0020	11419.95	4.12	1.42	Open
C_NC38.9-4.8_0050	5893.80	4.08	2.03	Open
C_NC38.9-4.8_0157	1064.00	3.31	3.32	Open
C_NC38.9-4.8_0143	1751.80	4.62	5.60	Open
C_NC38.9-4.8_0140	1960.80	3.87	3.41	Open
C_NC38.9-4.8_0150	1064.00	3.17	3.09	Open
C_NC39.8-4.8_0090	5038.80	4.09	2.24	Open
C_NC39.8-4.8_0085	5038.80	4.09	2.25	Open

C_NC38.9-4.8_0130	2445.30	4.46	4.23	Open
C_NC38.9-4.8_0120	2910.80	4.20	3.29	Open
C_NC38.9-4.8_0096	4269.30	3.46	1.65	Open
C_NC38.9-4.8_0094	4639.80	3.76	1.92	Open
C_NC38.9-4.8_0093	4639.80	3.76	1.92	Open
C_NC39.8-4.8_0080	5038.80	4.09	2.24	Open
C_NC38.9-4.8_0070	5038.80	4.09	2.27	Open
C_NC38.9-4.8_0060	5846.30	4.04	2.01	Open
C_NC38.9-4.8_0110	3205.30	4.62	3.93	Open
C_NC38.9-4.8_0160	1064.00	3.31	3.32	Open
C_NC38.9-4.8-2.5_0015	570.00	3.71	6.33	Open
C_NC38.9-4.8-2.5_0020	570.00	3.71	6.32	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-4.8-2.5_0030	256.50	2.83	5.21	Open
C_NC38.9-4.8-2.5_0040	256.50	2.83	5.22	Open
C_NC38.9-7.8_0010	2303.75	4.20	3.80	Open
C_NC38.9-7.8_0060	1474.40	4.24	5.01	Open
C_NC38.9-7.8_0050	1787.90	3.26	2.37	Open
C_NC38.9-7.8_0045	1913.30	3.49	2.69	Open
C_NC38.9-7.8_0040	1913.30	3.49	2.69	Open
C_NC38.9-7.8_0030	2129.90	3.89	3.27	Open
C_NC38.9-7.8_0020	2303.75	4.20	3.79	Open
C_NC38.9-7.8-0.5_0010	1273.00	3.66	3.77	Open
C_NC38.9-7.8-0.5_0020	1273.00	3.66	3.82	Open
C_NC38.9-7.8-0.5_0040	731.50	2.96	3.14	Open
C_NC38.9-7.8-0.5_0030	855.00	3.46	4.16	Open
C_NC38.9-7.9_0010	712.50	2.88	3.01	Open
C_NC38.9-7.9_0020	712.50	2.88	2.66	Open
C_NC38.9-7.9_0030	712.50	2.88	2.99	Open
C_NC38.9-8.5_0010	931.00	3.77	4.92	Open
C_NC38.9-8.5_0030	826.50	3.34	3.94	Open
C_NC38.9-8.5_0015	931.00	3.77	4.91	Open
C_NC38.9-8.5_0020	826.50	3.34	3.94	Open
C_NC38.9-10.3_0010	1824.95	3.33	2.51	Open
C_NC38.9-10.3_0020	1672.95	3.99	4.19	Open
C_NC38.9-10.3_0030	1672.95	3.99	3.99	Open
C_NC38.9-10.3_0040	1672.95	3.05	2.09	Open
C_NC38.9-10.3_0060	1672.95	3.05	2.09	Open
C_NC38.9-10.3_0050	1672.95	3.05	2.09	Open
C_NC43.2_0010	31203.91	3.68	0.61	Open
C_NC43.2_0260	13600.41	3.60	0.92	Open
C_NC43.2_0270	11462.91	4.14	1.43	Open
C_NC43.2_0195	16877.91	2.71	0.40	Open

C_NC43.2_0230	15728.41	4.17	1.21	Open
C_NC43.2_0225	15728.41	2.52	0.36	Open
C_NC43.2_0190	16963.41	2.72	0.41	Open
C_NC43.2_0180	17077.41	2.74	0.41	Open
C_NC43.2_0175	17124.91	2.75	0.40	Open
C_NC43.2_0350	4.00	0.11	0.02	Open
C_NC43.2_0340	4.00	0.11	0.02	Open
C_NC43.2_0325	3556.05	4.15	2.85	Open
C_NC43.2_0330	4.00	0.11	0.02	Open
C_NC43.2_0315	6222.70	4.30	2.25	Open
C_NC43.2_0320	5229.00	4.24	2.40	Open
C_NC43.2_0310	6483.95	4.49	2.42	Open
C_NC43.2_0300	6536.20	4.52	2.46	Open
C_NC43.2_0290	6968.45	4.16	1.93	Open
C_NC43.2_0275	11443.90	4.13	1.42	Open
C_NC43.2_0280	7685.70	4.58	2.31	Open
C_NC43.2_0240	15167.91	4.02	1.13	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC43.2_0250	14246.41	3.78	1.01	Open
C_NC43.2_0160	18806.41	3.01	0.49	Open
C_NC43.2_0170	17675.90	2.83	0.44	Open
C_NC43.2_0150	19366.91	3.93	0.93	Open
C_NC43.2_0135	21389.46	3.43	0.63	Open
C_NC43.2_0140	20862.21	3.34	0.60	Open
C_NC43.2_0120	22956.96	3.68	0.72	Open
C_NC43.2_0130	22605.46	3.62	0.70	Open
C_NC43.2-6.6_0108	24179.61	3.88	0.79	Open
C_NC43.2_0110	23460.46	3.76	0.74	Open
C_NC43.2-6.6_0105	24863.61	3.99	0.83	Open
C_NC43.2_0100	25899.11	4.15	0.89	Open
C_NC43.2_0070	26345.61	3.10	0.44	Open
C_NC43.2_0055	28580.96	3.37	0.51	Open
C_NC43.2_0060	26345.61	3.10	0.44	Open
C_NC43.2_0050	29093.96	3.43	0.52	Open
C_NC43.2_0047	29188.96	3.44	0.53	Open
C_NC43.2_0044	29578.46	3.48	0.54	Open
C_NC43.2_0037	30053.46	3.54	0.56	Open
C_NC43.2_0040	30053.46	3.54	0.56	Open
C_NC43.2_0032	31172.56	3.67	0.60	Open
C_NC43.2_0035	30240.61	3.56	0.56	Open
C_NC43.2_0030	31203.91	3.68	0.60	Open
C_NC43.2_0020	31203.91	3.68	0.60	Open
C_NC43.2_0013	31203.91	3.68	0.60	Open

C_NC43.2_0103	25547.61	4.10	0.87	Open
C_NC43.2-2.1_0010	0.00	0.00	0.00	Open
C_NC43.2-2.1_0020	0.00	0.00	0.00	Open
C_NC43.2-0.8_0010	931.95	3.77	4.93	Open
C_NC43.2-0.8_0020	931.95	3.77	4.92	Open
C_NC45.4_0025	1102.00	3.17	3.05	Open
C_NC45.4_0015	1434.50	3.42	3.15	Open
C_NC45.4-0.5_0010	0.00	0.00	0.00	Open
C_NC45.4_0040	1102.00	3.51	3.74	Open
C_NC45.4_0050	0.00	0.00	0.00	Open
C_NC46.7_0025	6971.10	2.51	0.57	Open
C_NC46.7_0027	6933.10	4.14	1.91	Open
C_NC46.7_0020	7056.60	2.55	0.61	Open
C_NC46.7-1.0_0005	3249.00	4.69	4.03	Open
C_NC46.7-0.5_0020	2624.85	4.79	4.83	Open
C_NC46.7-0.5_0035	2548.85	4.65	4.57	Open
C_NC46.7-0.5_0030	2624.85	4.79	4.82	Open
C_NC46.7-0.5_0050	857.85	3.47	4.22	Open
C_NC46.7-0.5_0068	418.00	2.91	4.18	Open
C_NC46.7-0.5_0060	769.50	3.11	3.45	Open
C_NC46.7-1.0_0040	1643.50	3.92	3.89	Open
C_NC46.7-1.0_0065	247.00	2.73	4.87	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC46.7-1.0_0060	389.50	2.45	2.87	Open
C_NC46.7-1.0_0045	1178.00	3.39	3.29	Open
C_NC46.7-1.0_0050	802.75	3.25	3.69	Open
C_NC46.7-0.5-0.2_0050	123.50	3.25	11.15	Open
C_NC49.2_0090	5690.50	4.62	2.81	Open
C_NC49.2_0080	6023.00	4.17	2.11	Open
C_NC49.2_0070	6381.15	4.41	2.35	Open
C_NC49.2_0060	7644.65	4.56	2.29	Open
C_NC49.2_0055	7773.85	4.04	1.69	Open
C_NC49.2_0050	7879.30	4.09	1.73	Open
C_NC49.2_0127	4778.50	3.88	2.03	Open
C_NC49.2_0110	5063.50	4.11	2.27	Open
C_NC49.2_0120	5044.50	4.09	2.24	Open
C_NC49.2_0125	4778.50	3.88	2.04	Open
C_NC49.2_0100	5168.00	4.19	2.35	Open
C_NC49.2_0095	5367.50	4.35	2.56	Open
C_NC49.2_0040	8036.05	4.18	1.80	Open
C_NC49.2_0020	13215.45	2.68	0.47	Open
C_NC49.2_0027	13215.45	2.68	0.46	Open
C_NC49.2_0035	12137.20	2.46	0.39	Open

C_NC49.2-2.3_0010	623.20	3.92	6.85	Open
C_NC49.2-2.3_0020	623.20	3.92	6.84	Open
C_NC49.2-2.3_0025	589.00	3.70	6.17	Open
C_NC49.2-2.3_0040	589.00	3.70	6.16	Open
C_NC49.2_0150	3547.30	4.14	2.84	Open
C_NC49.2_0220	418.00	2.84	3.95	Open
C_NC49.2_0210	418.00	2.84	3.96	Open
C_NC49.2_0200	418.00	2.84	3.95	Open
C_NC49.2_0188	674.50	2.95	3.28	Open
C_NC49.2_0155	3423.80	4.00	2.66	Open
C_NC49.2_0160	1634.00	4.70	6.06	Open
C_NC49.2_0175	950.00	3.02	2.84	Open
C_NC49.2_0170	1444.00	4.60	6.17	Open
C_NC49.2_0165	1453.50	4.18	4.88	Open
C_NC49.2_0163	1463.00	4.21	4.94	Open
C_NC49.2-2.9_0010	1789.80	4.27	4.60	Open
C_NC49.2-2.9_0055	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0050	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0040	1580.80	4.54	5.70	Open
C_NC49.2-2.9_0030	1628.30	3.88	3.92	Open
C_NC49.2-2.9_0020	1628.30	3.88	3.76	Open
C_NC49.2-0.9_0050	332.50	3.67	8.45	Open
C_NC49.2-0.9_0080	0.00	0.00	0.00	Open
C_NC49.2-0.9_0070	57.00	1.50	2.66	Open
C_NC49.2-0.9_0060	57.00	1.50	2.72	Open
C_NC49.2-0.9_0055	285.00	1.79	1.58	Open
C_NC49.2-0.2_0010	490.20	1.98	1.51	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2-0.2_0040	128.25	1.42	1.45	Open
C_NC49.2-0.2_0030	128.25	1.42	1.45	Open
C_NC49.2-0.2_0020	490.20	1.98	1.50	Open
C_NC49.2-0.4_0005	3610.95	4.22	2.94	Open
C_NC49.2-0.4_0010	2033.95	3.71	3.01	Open
C_NC49.2-0.4_0020	2033.95	3.71	3.02	Open
C_NC49.2-0.4_0040	722.95	2.92	2.97	Open
C_NC49.2-0.4_0070	722.95	2.92	3.07	Open
C_NC49.2-0.4_0030	1824.95	3.33	2.48	Open
C_NC49.2-0.4_0080	722.95	2.92	3.07	Open
C_NC49.2-0.4-0.6_0020	1548.50	3.69	3.48	Open
C_NC49.2-0.4-0.6_0045	873.05	2.51	1.90	Open
C_NC49.2-0.4-0.6_0040	1254.00	3.61	3.71	Open
C_NC49.2-0.4-0.6_0030	1254.00	3.61	3.71	Open
C_NC49.2-0.4-0.6_0026	1263.50	3.63	3.76	Open

C_NC49.2-0.4-0.6_0023	1539.00	3.67	3.49	Open
C_NC49.2-0.4-0.6_0025	1425.00	4.10	4.71	Open
C_NC49.2-0.4-0.6_0060	841.70	3.40	4.08	Open
C_NC49.2-0.4-0.6_0125	9.50	0.25	0.10	Open
C_NC49.2-0.4-0.6_0115	9.50	0.25	0.10	Open
C_NC49.2-0.4-0.6_0080	157.70	1.74	2.15	Open
C_NC49.2-0.4-0.6_0090	157.70	1.74	2.12	Open
C_NC49.2-0.4-0.6_0070	157.70	1.74	2.12	Open
C_NC49.4_0010	3356.35	2.32	0.75	Open
C_NC49.4_0030	3042.85	2.11	0.60	Open
C_NC49.4_0020	3356.35	2.32	0.72	Open
C_NC49.4_0034	2377.85	1.93	0.56	Open
C_NC50.8_0010	1031.88	0.84	0.00	Open
C_NC50.8_0110	57.00	1.50	2.66	Open
C_NC50.8_0080	646.00	2.61	2.50	Open
C_NC50.8_0070	702.05	2.02	1.24	Open
C_NC50.8_0040	1691.95	3.09	2.14	Open
C_NC50.8_0035	1934.20	2.79	1.54	Open
C_NC50.8_0130	0.00	0.00	0.00	Open
C_NC50.8_0120	0.00	0.00	0.00	Open
C_NC50.8_0030	2138.45	3.08	1.86	Open
C_NC50.8_0025	2138.45	2.50	1.16	Open
C_NC50.8_0020	2242.95	2.62	1.27	Open
C_NC50.8_0100	313.50	1.97	1.92	Open
C_NC50.8_0091	342.00	2.15	2.26	Open
C_NC50.8_0090	646.00	2.61	2.50	Open
C_NC50.8_0065	937.65	2.70	2.17	Open
C_NC50.8_0063	937.65	2.70	2.17	Open
C_NC50.8_0060	1105.80	3.18	2.95	Open
C_NC50.8_0041	1550.40	3.70	3.45	Open
C_NC50.8_0050	1411.70	4.06	4.62	Open
C_NC53.2_0033	2107.10	3.85	3.21	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC53.2_0030	2107.10	3.85	3.21	Open
C_NC53.2_0025	3636.60	2.52	0.83	Open
C_NC53.2_0040	1974.10	4.71	5.45	Open
C_NC53.2_0045	1624.50	4.67	6.00	Open
C_NC53.2_0090	1007.00	2.90	2.47	Open
C_NC53.2_0093	731.50	2.96	3.14	Open
C_NC53.2_0100	731.50	2.96	3.14	Open
C_NC53.2_0115	446.50	2.81	3.69	Open
C_NC53.2_0110	540.55	3.40	5.26	Open
C_NC53.2_0150	19.00	0.50	0.35	Open

C_NC53.2-0.4_0005	133.00	3.50	12.79	Open
C_SA_0020	1301.10	2.37	1.32	Open
C_SA_0050	1196.60	2.18	1.12	Open
C_SA_0040	1235.55	2.26	1.19	Open
C_SA_0030	1272.60	2.32	1.26	Open
C_SA_0110	1053.15	1.92	0.88	Open
C_SA_0140	698.80	1.67	0.80	Open
C_SA_0130	975.25	1.78	0.77	Open
C_SA_0120	1049.35	1.92	0.88	Open
C_SA_0170	521.15	1.50	0.73	Open
C_SA_0160	541.10	1.56	0.78	Open
C_SA_0150	636.10	1.52	0.67	Open
C_SA_0230	68.95	0.28	0.03	Open
C_SA_0220	218.10	0.88	0.33	Open
C_SA_0210	404.30	1.16	0.46	Open
C_SA_0200	423.30	1.22	0.50	Open
C_SA_0190	477.45	1.37	0.61	Open
C_SA_0180	487.90	1.40	0.64	Open
C_NC54.2_0140	4093.55	4.78	3.70	Open
C_NC54.2_0130	4221.80	3.42	1.59	Open
C_NC54.2_0110	4921.95	3.99	2.05	Open
C_NC54.2_0120	4630.30	3.76	1.99	Open
C_NC54.2_0095	5434.95	4.41	2.58	Open
C_NC54.2_0100	5434.95	4.41	2.58	Open
C_NC54.2_0090	6014.45	4.16	2.11	Open
C_NC54.2_0080	6014.45	4.16	2.22	Open
C_NC54.2_0070	6493.25	4.49	2.43	Open
C_NC54.2_0060	6493.25	4.49	2.43	Open
C_NC54.2_0050	6602.50	4.57	2.51	Open
C_NC54.2_0040	7184.85	4.29	2.04	Open
C_NC54.2_0195	1729.00	4.12	4.27	Open
C_NC54.2_0190	1748.00	3.19	2.38	Open
C_NC54.2_0180	2831.00	4.08	3.13	Open
C_NC54.2_0170	3249.00	4.69	4.03	Open
C_NC54.2_0168	3268.00	4.71	4.08	Open
C_NC54.2_0165	3296.50	4.75	4.14	Open
C_NC54.2_0160	3400.05	4.90	4.39	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC54.2_0150	3903.55	4.56	3.49	Open
C_NC54.2_0030	7272.25	3.78	1.49	Open
C_NC54.2_0025	7272.25	2.62	0.61	Open
C_NC54.2_0020	7738.70	2.79	0.72	Open
C_NC54.2_0210	1729.00	4.12	4.27	Open

C_NC54.4_0250	237.50	2.73	4.99	Open
C_NC54.4_0245	237.50	2.73	4.99	Open
C_NC54.2_0258	190.00	2.24	3.49	Open
C_NC54.2_0290	190.00	2.10	2.99	Open
C_NC54.2_0300	0.00	0.00	0.00	Open
C_NC54.2_0280	190.00	2.10	3.00	Open
C_NC54.2_0270	190.00	2.10	3.01	Open
C_NC54.2_0240	1415.50	4.07	4.65	Open
C_NC54.2_0230	1539.00	4.42	5.43	Open
C_NC54.2_0220	1643.50	4.73	6.14	Open
C_NC54.2-2.8_0020	-47.50	1.25	1.90	Open
C_NC54.2-0.7_0010	0.00	0.00	0.00	Open
C_NC54.4_0100	218.50	2.41	3.88	Open
C_NC54.4_0110	218.50	2.41	3.88	Open
C_NC54.4_0095	807.50	3.27	3.77	Open
C_NC54.4_0090	1619.75	3.86	3.78	Open
C_NC54.4_0060	2498.50	4.56	4.40	Open
C_NC54.4_0050	3439.00	4.02	2.68	Open
C_NC54.4_0024	5185.10	2.69	0.80	Open
C_NC54.4_0023	5185.10	2.37	0.58	Open
C_NC54.4_0020	5907.10	2.70	0.74	Open
C_NC54.4_0030	3572.00	4.17	2.88	Open
C_NC54.4-0.5_0027	3694.55	4.32	3.06	Open
C_NC54.4-0.5_0028	3572.00	4.17	2.89	Open
C_NC54.4_0026	3797.15	4.44	3.22	Open
C_NC54.4_0025	5058.75	4.10	2.26	Open
C_NC54.4_0085	1974.10	3.60	2.85	Open
C_NC54.4_0080	2180.25	3.98	3.42	Open
C_NC54.4_0065	2408.25	4.40	4.00	Open
C_NC54.4_0070	2180.25	3.98	3.48	Open
C_NC54.4_0130	142.50	1.64	1.94	Open
C_NC54.4_0140	142.50	1.64	1.86	Open
C_NC54.4_0150	0.00	0.00	0.00	Open
C_NC54.4_0126	142.50	1.64	1.94	Open
C_NC_1140	60522.60	4.06	0.56	Open
C_NC_1150	56700.75	4.47	0.73	Open
C_NC_1160	56700.75	4.47	0.73	Open
C_NC_1170	42161.00	3.32	0.42	Open
C_NC_1380	16668.70	2.67	0.40	Open
C_NC_1390	16431.20	2.63	0.39	Open
C_NC_1400	12631.20	2.56	0.42	Open
C_NC_1410	8057.90	2.14	0.35	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_NC_1420	7991.40	2.12	0.34	Open
C_NC_1470	6179.75	2.23	0.45	Open
C_NC_1460	6495.15	2.34	0.50	Open
C_NC_1450	6495.15	2.34	0.50	Open
C_NC_1440	6855.20	2.47	0.55	Open
C_NC_1430	7634.20	2.02	0.32	Open
C_NC_1640	2299.00	1.93	0.57	Open
C_NC_1630	2338.90	1.97	0.59	Open
C_NC_1620	2338.90	1.97	0.59	Open
C_NC_1600	2520.35	2.12	0.68	Open
C_NC_1590	2861.40	2.41	0.86	Open
C_NC_1580	3277.50	2.76	1.10	Open
C_NC_1570	3442.80	2.90	1.21	Open
C_NC_1550	3940.60	3.31	1.56	Open
C_NC_1560	3598.60	3.03	1.31	Open
C_NC_1540	4178.10	3.51	1.73	Open
C_NC_1530	4402.30	3.70	1.90	Open
C_NC_1520	4516.30	3.80	2.00	Open
C_NC_1500	5779.80	2.09	0.40	Open
C_NC_1510	4630.30	3.89	2.09	Open
C_NC_1490	5896.65	2.13	0.42	Open
C_NC_1480	5961.25	2.15	0.42	Open
C_NC_1680	627.00	0.55	0.06	Open
C_NC_1670	798.00	0.67	0.08	Open
C_NC_1660	1168.50	0.98	0.16	Open
C_NC_1650	1700.50	1.43	0.33	Open
C_NC_1710	0.00	0.00	0.00	Open
C_NC_1700	114.00	0.10	0.00	Open
C_NC_1690	408.50	0.36	0.03	Open
C_NC_1190	42161.00	3.32	0.42	Open
C_NC_1230	38209.00	4.50	0.87	Open
C_NC_1220	38902.50	4.58	0.90	Open
C_NC_1210	39398.40	4.64	0.93	Open
C_NC_1200	40726.50	4.80	0.97	Open
C_NC_1240	36860.00	4.34	0.81	Open
C_NC_1250	36024.00	4.24	0.78	Open
C_NC_1270	36024.00	4.24	0.78	Open
C_NC_1280	34044.20	4.01	0.70	Open
C_NC_1310	33654.70	3.96	0.69	Open
C_NC_1300	33882.70	3.99	0.69	Open
C_NC_1290	33996.70	4.00	0.70	Open
C_NC_1330	33654.70	3.96	0.69	Open
C_NC_1350	17143.70	2.75	0.42	Open
C_NC_1340	30198.60	3.56	0.56	Open
C_NC_1360	16668.70	2.67	0.40	Open
C_NC55.5_0020	3171.10	3.70	2.31	Open
C_NC55.5_0023	2863.30	3.34	1.91	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.5_0026	1596.95	3.81	3.68	Open
C_NC55.5-0.1-0.7_0010	1266.35	2.31	1.26	Open
C_NC55.6-0.1-0.7_0055	85.50	2.25	5.64	Open
C_NC55.6-0.1-0.7_0045	85.50	2.25	5.65	Open
C_NC55.6-0.1-0.7_0040	541.50	3.41	5.27	Open
C_NC55.6-0.1-0.7_0030	1266.35	2.31	1.25	Open
C_NC55.6-0.1-0.7_0020	1266.35	2.31	1.25	Open
C_NC55.6_0010	14539.75	2.95	0.57	Open
C_NC55.6_0020	14539.75	3.85	1.05	Open
C_NC55.6_0070	5798.80	4.01	1.97	Open
C_NC55.6_0060	5884.30	4.07	2.03	Open
C_NC55.6_0040	6169.30	3.68	0.00	Open
C_NC55.6_0035	7584.80	3.94	1.61	Open
C_NC55.6_0050	6169.30	3.68	1.54	Open
C_NC55.6_0030	8030.35	3.67	1.31	Open
C_NC55.6_0075	5148.05	3.56	1.58	Open
C_NC55.6_0078	4973.25	4.03	2.19	Open
C_NC55.6_0022	13817.75	3.66	0.95	Open
C_NC55.6_0025	8030.35	3.67	1.31	Open
C_NC55.6-3.3_0010	51.30	1.35	2.24	Open
C_NC55.6-3.3_0020	51.30	1.35	2.19	Open
C_NC55.6_0140	3575.80	2.90	1.19	Open
C_NC55.6_0188	1267.30	3.64	3.78	Open
C_NC55.6_0187	1799.30	3.28	2.40	Open
C_NC55.6_0180	1881.00	3.43	2.68	Open
C_NC55.6_0185	1837.30	3.35	2.49	Open
C_NC55.6_0170	2093.80	3.82	3.17	Open
C_NC55.6_0155	2145.10	3.92	3.32	Open
C_NC55.6_0160	2093.80	3.82	3.17	Open
C_NC55.6_0150	2848.10	4.11	0.00	Open
C_NC55.6_0190	1267.30	3.64	3.79	Open
C_NC55.6_0230	184.30	2.04	2.83	Open
C_NC55.6_0225	184.30	2.04	2.83	Open
C_NC55.6_0220	678.30	2.74	2.73	Open
C_NC55.6_0210	1181.80	3.40	3.33	Open
C_NC55.6_0200	1181.80	3.40	3.33	Open
C_NC55.6-0.5_0010	5787.40	4.00	1.98	Open
C_NC55.6-0.5_0015	5787.40	4.00	1.96	Open
C_NC55.6-0.5_0093	4212.30	3.42	1.56	Open
C_NC55.6-0.5_0090	4212.30	3.42	1.63	Open
C_NC55.6-0.5_0080	4345.30	3.53	1.70	Open
C_NC55.6-0.5_0070	4696.80	3.81	1.97	Open
C_NC55.6-0.5_0060	5038.80	4.09	2.24	Open
C_NC55.6-0.5_0040	5380.80	3.72	1.71	Open
C_NC55.6-0.5_0050	5038.80	4.09	1.98	Open

C_NC55.6-0.5_0030	5745.60	3.97	1.94	Open
C_NC55.6-0.5_0020	5787.40	4.00	1.96	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.6-0.5_0097	4212.30	3.42	1.61	Open
C_NC55.6-0.5_0100	4212.30	3.42	1.61	Open
C_NC55.6-0.5_0145	3530.20	4.12	2.82	Open
C_NC55.6-0.5_0150	2132.75	3.89	3.28	Open
C_NC55.6-0.5_0140	4157.20	4.86	3.82	Open
C_NC55.6-0.5_0130	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0110	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0105	4185.70	4.89	3.86	Open
C_NC55.6-0.5_0175	1078.25	3.10	2.71	Open
C_NC55.6-0.5_0160	1524.75	3.64	3.39	Open
C_NC55.6-0.5_0170	1515.25	3.61	3.34	Open
C_NC55.6-0.5_0155	1857.25	4.43	4.87	Open
C_NC55.6-0.5_0183	774.25	3.13	3.48	Open
C_NC55.6-0.5_0230	142.50	1.57	1.75	Open
C_NC55.6-0.5_0240	142.50	1.57	1.76	Open
C_NC55.6-0.5_0210	636.50	4.00	7.10	Open
C_NC55.6-0.5_0220	636.50	4.00	7.14	Open
C_NC55.6-0.5_0200	750.50	3.04	3.30	Open
C_NC55.6-0.5_0185	774.25	3.13	3.37	Open
C_NC55.6-0.5-1.8_0010	0.00	0.00	0.00	Open
C_NC55.6-0.5-1.8_0020	0.00	0.00	0.00	Open
C_NC55.6-0.5-2.6_0010	1397.45	4.02	4.54	Open
C_NC55.6-0.5-2.6_0045	741.00	3.00	3.22	Open
C_NC55.6-0.5-2.6_0040	741.00	3.00	3.22	Open
C_NC55.6-0.5-2.6_0030	1121.00	4.53	6.93	Open
C_NC55.6-0.5-2.6_0020	1397.45	4.02	4.54	Open
C_NC58.7_0020	1979.80	4.72	5.72	Open
C_NC58.7_0023	1248.30	3.59	3.68	Open
C_NC58.7-0.7_0010	1039.30	4.20	6.06	Open
C_NC58.7-0.7_0040	70.30	1.85	3.93	Open
C_NC58.7-0.7_0030	70.30	1.85	3.94	Open
C_NC58.7-0.7_0020	421.80	2.65	3.32	Open
C_NC58.7_0030	209.00	2.31	3.57	Open
C_NC59.5_0020	1518.10	3.62	3.35	Open
C_NC59.5_0050	777.10	3.14	3.51	Open
C_NC60.0_0005	13054.90	4.71	1.89	Open
C_NC60.0_0050	9106.70	4.16	1.65	Open
C_NC60.0_0025	11658.40	4.21	1.47	Open
C_NC60.0_0020	13054.90	4.71	1.81	Open
C_NC60.0_0010	13054.90	4.71	1.81	Open

C_NC60.0_0040	9473.40	4.33	1.78	Open
C_NC60.0_0060	5862.45	4.06	2.01	Open
C_NC60.0_0080	5850.10	4.05	2.00	Open
C_NC60.0-0.9-0.2_0010	912.95	3.69	4.72	Open
C_NC60.0-0.9-0.2_0030	598.50	3.76	6.35	Open
C_NC60.0-0.9-0.2_0020	598.50	3.76	6.36	Open
C_NC60.0-0.9_0010	3244.25	4.68	3.91	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0-0.9_0025	2869.95	4.14	3.21	Open
C_NC60.0-0.9-0.4_0010	526.30	3.31	5.00	Open
C_NC60.0-0.9-0.4_0020	526.30	3.31	5.00	Open
C_NC60.0-0.9_0030	1957.00	4.67	5.37	Open
C_NC60.0-0.9_0057	1216.00	3.50	3.51	Open
C_NC60.0-0.6_0010	1814.50	3.31	2.33	Open
C_NC60.0-0.6_0020	1444.00	4.15	4.84	Open
C_NC60.0-0.6_0030	1444.00	4.15	4.82	Open
C_NC60.0-1.6_0020	3164.45	4.56	3.85	Open
C_NC60.0-1.6_0025	1919.95	4.58	5.18	Open
C_NC60.0-1.6-0.7_0020	1111.50	4.50	6.82	Open
C_NC60.0-1.6_0040	808.45	3.27	3.78	Open
C_NC60.0_0090	2685.65	3.87	2.84	Open
C_NC60.0_0140	171.00	0.26	0.02	Open
C_NC60.0_0130	171.00	0.25	0.00	Open
C_NC60.0_0120	313.50	0.45	0.05	Open
C_NC60.0_0110	313.50	0.45	0.05	Open
C_NC60.0_0100	1282.50	1.85	0.72	Open
C_NC60.0_0150	0.00	0.00	0.00	Open
C_NC60.0_0145	0.00	0.00	0.00	Open
C_LL_0140	1473.85	4.39	5.46	Open
C_LL_0130	1473.85	3.64	3.46	Open
C_LL_0120	1608.14	3.97	4.07	Open
C_LL_0110	1641.71	4.06	4.23	Open
C_LL_0100	1692.07	4.18	4.47	Open
C_LL_0090	1820.77	4.50	5.12	Open
C_LL_0080	1837.56	3.47	2.71	Open
C_LL_0075	1837.56	3.47	2.71	Open
C_LL_0050	2112.30	3.99	3.51	Open
C_LL_0040	2251.95	4.26	3.96	Open
C_LL_0020	2542.36	3.80	2.80	Open
C_LL_0010	2583.77	3.86	2.88	Open
C_LL_0004	2583.77	3.86	2.88	Open
C_HL_0040	28765.47	3.39	0.51	Open
C_HL_0030	28793.97	3.39	0.51	Open

C_HL_0020	28821.95	3.39	0.51	Open
C_HL_0010	28913.16	3.41	0.52	Open
C_HL_0270	21730.80	3.48	0.65	Open
C_HL_0080	26168.59	4.19	0.91	Open
C_HL_0070	26168.59	4.19	0.91	Open
C_HL_0060	28765.47	3.39	0.51	Open
C_HL_0160	23672.45	3.79	0.76	Open
C_HL_0150	24456.38	3.92	0.80	Open
C_HL_0140	24746.23	3.97	0.82	Open
C_HL_0120	25159.17	4.03	0.85	Open
C_HL_0130	25159.18	4.03	0.85	Open
C_HL_0110	25816.08	4.14	0.89	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_HL_0090	26006.32	4.17	0.90	Open
C_HL_260	21753.18	3.49	0.65	Open
C_HL_0240	22223.20	3.56	0.67	Open
C_HL_0230	22577.40	3.62	0.69	Open
C_HL_0210	22966.29	3.68	0.72	Open
C_HL_0200	23116.81	3.71	0.72	Open
C_HL_0190	23215.85	3.72	0.73	Open
C_HL_0180	23315.45	3.74	0.74	Open
C_HL_0290	21730.80	3.48	0.65	Open
C_HL_0380	16388.24	4.34	1.30	Open
C_HL_0390	8044.64	4.18	1.80	Open
C_HL_0370	16620.45	4.40	1.34	Open
C_HL_0360	17587.35	3.57	0.78	Open
C_HL_0350	17615.33	3.57	0.78	Open
C_HL_0340	17872.72	3.63	0.80	Open
C_HL_0330	18257.13	3.70	0.83	Open
C_HL_0320	18662.80	3.79	0.87	Open
C_HL_0300	21634.56	3.47	0.64	Open
C_HL_0310	18785.34	3.81	0.88	Open
C_HL_0480	6656.95	3.97	1.77	Open
C_HL_0470	6917.14	4.13	1.90	Open
C_HL_0460	7132.57	4.25	2.02	Open
C_HL_0450	7278.05	4.34	2.09	Open
C_HL_0440	7487.32	4.47	2.20	Open
C_HL_0430	7515.30	4.48	2.22	Open
C_HL_0420	7779.97	4.04	1.69	Open
C_HL_0410	7807.95	4.06	1.70	Open
C_HL_0400	7897.48	4.10	1.74	Open
C_HL_0570	1785.53	4.26	4.53	Open
C_HL_0580	898.65	3.63	4.60	Open

C_HL_0560	1833.65	4.37	4.75	Open
C_HL_0550	2198.48	4.01	3.47	Open
C_HL_0540	2583.45	3.73	2.64	Open
C_HL10.0_0010	2675.21	3.86	2.81	Open
C_HL_0530	2675.22	3.86	2.81	Open
C_HL_0510	2896.79	4.18	3.26	Open
C_HL_0500	3416.05	3.99	2.65	Open
C_HL_0490	6304.43	4.36	2.30	Open
C_HL_0600	644.61	4.05	7.28	Open
C_HL_0590	822.55	3.33	3.90	Open
C_NC62.1_0010	4573.30	3.71	1.95	Open
C_NC62.1_0042	882.55	3.57	4.44	Open
C_NC62.1_0040	1452.55	4.18	4.86	Open
C_NC62.1_0025	4117.30	4.81	3.74	Open
C_NC62.1_0030	1994.05	4.75	5.56	Open
C_NC62.1_0020	4117.30	4.81	3.75	Open
C_NC62.1_0048	882.55	3.57	4.45	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC62.1-0.5_0010	2123.25	3.88	3.25	Open
C_NC62.1-0.5_0050	0.00	0.00	0.00	Open
C_NC62.1-0.5_0040	162.45	1.80	2.24	Open
C_NC62.1-0.5_0030	1122.90	4.54	6.95	Open
C_NC62.1-0.5_0020	1816.40	4.33	4.67	Open
C_NC62.1-0.5_0015	2123.25	3.88	3.26	Open
C_NC64.7_0005	1149.50	2.74	2.00	Open
C_HL0.9_0005	2596.88	3.03	1.60	Open
C_HL0.9_0100	501.36	3.15	4.57	Open
C_HL0.9_0090	631.18	3.97	7.00	Open
C_HL0.9_0086	681.54	4.29	8.07	Open
C_HL0.9_0080	855.00	2.04	1.28	Open
C_HL0.9_0085	838.21	3.39	4.04	Open
C_HL0.9_0070	855.00	3.46	4.19	Open
C_HL0.9_0060	952.36	3.85	5.12	Open
C_HL0.9_0045	1159.39	2.12	1.11	Open
C_HL0.9_0040	1276.90	3.67	3.84	Open
C_HL0.9_0010	1494.01	4.30	5.14	Open
C_HL0.9_0030	1494.01	4.30	5.14	Open
C_HL0.9_0130	270.82	2.99	5.77	Open
C_HL0.9_0120	449.32	2.83	3.73	Open
C_ML_0020	21173.61	4.30	1.09	Open
C_ML_0050	20725.97	4.21	1.05	Open
C_ML_0040	21173.61	4.30	1.09	Open
C_ML_0030	21173.61	4.30	1.09	Open

C_ML_0070	20725.97	4.21	1.05	Open
C_ML_0090	20389.68	4.14	1.02	Open
C_ML_0100	19490.15	3.95	0.94	Open
C_ML_0080	20653.23	4.19	1.05	Open
C_ML_0120	19490.15	3.95	0.94	Open
C_ML_0110	19490.15	3.95	0.94	Open
C_ML_0190	17564.18	3.56	0.79	Open
C_ML_0200	10249.73	4.15	1.53	Open
C_ML_0210	10215.60	4.13	1.52	Open
C_ML_0180	17592.72	3.57	0.78	Open
C_ML_0170	17650.35	3.58	0.75	Open
C_ML_0160	18061.06	3.66	0.82	Open
C_ML_0150	18272.01	3.71	0.83	Open
C_ML_0130	19302.70	3.92	0.92	Open
C_ML_0140	18306.70	3.71	0.84	Open
C_CL_0005	7314.45	4.36	2.09	Open
C_CL_0007	7314.45	4.36	2.11	Open
C_CL_0010	7314.45	4.36	2.12	Open
C_CL_0060	5983.84	4.29	2.27	Open
C_CL_0050	6604.94	4.08	1.90	Open
C_CL_0030	6817.57	4.21	2.02	Open
C_CL_0020	7023.48	4.34	2.13	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_CL_0080	5983.84	4.29	2.27	Open
C_CL_0090	5508.22	3.95	1.95	Open
C_CL1.84_0035	1284.17	3.83	4.23	Open
C_CL1.84_0040	288.17	3.07	5.93	Open
C_CL1.84_0070	97.92	2.58	7.25	Open
C_CL1.84_0050	288.17	3.18	6.42	Open
C_CL1.84_0060	97.92	2.58	7.27	Open
C_CL_0130	5040.44	4.24	2.45	Open
C_CL_0180	4066.25	3.42	1.65	Open
C_CL_0190	2767.54	3.35	1.96	Open
C_CL1.84_0020	2347.88	4.44	4.28	Open
C_CL_0160	4831.16	4.06	2.25	Open
C_CL_0170	4690.71	3.94	2.14	Open
C_CL_0150	4899.43	4.12	2.32	Open
C_CL_0140	4924.05	4.14	2.34	Open
C_ML0.7_0020	899.53	3.64	4.61	Open
C_ML0.7_0053	190.25	2.10	3.00	Open
C_ML0.7_0050	246.20	2.72	4.84	Open
C_ML0.7_0040	510.87	3.21	4.74	Open
C_ML0.7_0030	555.63	3.49	5.53	Open

C_CL1.74_0040	1298.71	3.87	4.32	Open
C_CL1.74_0055	346.92	3.83	9.15	Open
C_CL1.74_0050	665.86	4.34	8.42	Open
C_CL1.84-0.55_0010	996.00	4.18	6.08	Open
C_CL1.84-0.55_0025	766.58	2.28	1.62	Open
C_CL1.84-0.55_0020	794.56	3.33	4.00	Open
C_ML_0240	10215.60	4.13	1.52	Open
C_ML_0340	8610.93	4.47	2.04	Open
C_ML_0320	8862.60	4.05	1.57	Open
C_ML_0300	9131.18	4.17	1.66	Open
C_ML_0280	9909.52	4.01	1.44	Open
C_ML_0290	9220.71	4.21	1.69	Open
C_ML_0270	10012.48	4.05	1.47	Open
C_ML_0250	10113.20	4.09	1.50	Open
C_ML_0260	10096.41	4.08	1.49	Open
C_ML_0400	2452.51	4.48	4.25	Open
C_ML4.1_0002	874.02	3.53	4.37	Open
C_ML_0410	2312.62	4.22	3.81	Open
C_ML_0390	2816.22	4.06	3.10	Open
C_ML_0380	7492.38	3.89	1.58	Open
C_ML_0370	7697.18	4.00	1.66	Open
C_ML_0360	7795.66	4.05	1.70	Open
C_ML_0350	7883.51	4.10	1.73	Open
C_ML_0345	7922.68	4.12	1.75	Open
C_ML3.1_0020	4503.82	3.65	1.80	Open
C_ML3.1_0030	2674.09	2.17	2.22	Open
C_ML3.1_0040	2260.02	1.83	0.49	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ML3.1_0047	2260.02	4.13	3.66	Open
C_ML3.1_0080	1110.71	3.31	3.23	Open
C_ML3.1_0098	788.41	3.31	3.94	Open
C_ML3.1_0090	1001.04	4.20	6.13	Open
C_ML3.1_0120	478.42	3.12	4.57	Open
C_ML3.1_0110	669.23	4.36	8.50	Open
C_ML3.1_0125	371.55	2.42	2.89	Open
C_ML4.0_0010	1438.60	4.14	4.79	Open
C_ML4.0_0015	1333.96	3.84	4.16	Open
C_ML4.0_0070	274.74	3.04	5.92	Open
C_ML4.0_0080	95.68	1.06	0.84	Open
C_ML4.1_0010	874.02	3.53	4.37	Open
C_ML4.1_0070	202.00	2.23	3.33	Open
C_ML4.1_0060	566.27	3.56	5.73	Open
C_ML4.1_0050	630.06	3.96	6.98	Open

C_ML4.1_0040	738.05	2.98	3.19	Open
C_ML4.1_0030	749.80	3.03	3.29	Open
C_HL5.5_0005	2849.22	4.11	3.16	Open
C_HL5.5_0030	2373.61	3.42	2.00	Open
C_HL5.5_0033	2105.03	3.84	3.20	Open
C_HL5.5_0020	2642.19	3.81	2.75	Open
C_HL5.5_0010	2849.22	4.11	3.16	Open
C_HL5.5_0070	1382.08	3.97	4.45	Open
C_Hl5.5_0080	1179.52	3.39	3.32	Open
C_HL5.5_0100	218.78	1.38	1.01	Open
C_HL5.5_0110	0.00	0.00	0.00	Open
C_Hl5.5_0090	972.49	3.93	5.32	Open
C_HL_0620	644.61	4.05	7.28	Open
C_HL_0650	626.70	4.26	8.37	Open
C_HL_0640	626.70	3.94	6.91	Open
C_HL_0630	626.70	3.94	6.91	Open
C_HL6.4_0010	27.98	0.03	0.00	Open
C_NC43.2-14.7_0050	2545.05	2.97	1.52	Open
C_NC43.2-14.7_0090	0.00	0.00	0.00	Open
C_NC43.2-14.7_0080	209.00	2.31	4.19	Open
C_NC43.2-14.7_0070	1643.50	3.92	3.84	Open
C_NC43.2-14.7_0060	2185.00	3.15	1.93	Open
C_NC43.2-3.8_0010	2235.35	2.61	1.22	Open
C_NC43.2-3.8_0043	791.35	3.20	3.63	Open
C_NC43.2-3.8_0040	791.35	3.20	3.67	Open
C_NC43.2-3.8_0025	2235.35	4.08	3.57	Open
C_NC43.2-3.8_0030	791.35	3.20	3.62	Open
C_NC43.2-3.8_0020	2235.35	4.08	3.58	Open
C_NC43.2-12.7_0010	2137.50	3.90	3.30	Open
C_NC43.2-12.7_0024	1425.00	2.60	1.56	Open
C_NC43.2-12.7_0020	2137.50	3.90	3.30	Open
C_NC43.2-12.7_0040	1425.00	3.40	2.98	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC43.2-12.7_0050	332.50	3.67	8.44	Open
C_NC43.2-12.7_0060	332.50	3.67	8.43	Open
C_NC43.2-11.6_0010	921.50	2.65	2.12	Open
C_NC43.2-11.6_0045	237.50	2.62	4.53	Open
C_NC43.2-11.6_0040	237.50	2.62	4.52	Open
C_NC43.2-11.6_0030	389.50	2.45	2.86	Open
C_NC43.2-11.6_0020	921.50	3.73	4.82	Open
C_NC43.2-11.6_0015	921.50	2.65	2.12	Open
C_NC43.2-11.6_0060	237.50	2.62	4.52	Open
C_HL7.2_0010	8343.60	4.33	1.94	Open

C_HL7.2_0110	3589.37	4.19	2.90	Open
C_HL7.2E_0010	2270.50	4.14	3.69	Open
C_HL7.2_0100	3718.07	4.34	3.10	Open
C_HL7.2_0088	6312.72	3.77	1.61	Open
C_HL7.2_0080	6523.11	3.89	1.71	Open
C_HL7.2_0070	7219.46	4.31	2.06	Open
C_HL7.2_0060	7398.52	3.84	1.54	Open
C_HL7.2_0050	7820.42	4.06	1.70	Open
C_HL7.2_0020	8167.34	4.24	1.82	Open
C_HL7.2_0040	8033.05	4.17	1.79	Open
C_HL7.2_0030	8167.34	4.24	2.12	Open
C_HL7.2W_0010	2379.22	4.34	4.02	Open
C_HL7.2W_0083	674.26	4.39	8.62	Open
C_HL7.2W_0080	824.78	3.46	4.29	Open
C_HL7.2W_0070	1116.31	3.33	3.26	Open
C_HL7.2W_0060	1295.93	3.73	4.01	Open
C_HL7.2W_0050	1650.13	3.93	3.91	Open
C_HL7.2W_0040	1712.80	4.08	4.19	Open
C_HL7.2W_0030	1795.61	4.28	4.58	Open
C_HL7.2W_0020	1980.26	3.61	2.86	Open
C_HL7.2E_0073	1130.14	3.25	3.06	Open
C_HL7.2E_0070	1279.54	3.68	3.85	Open
C_HL7.2E_0060	1342.21	3.86	4.22	Open
C_HL7.2E_0050	1789.29	4.27	4.55	Open
C_HL7.2E_0040	1935.33	3.53	2.74	Open
C_HL7.2E_0030	1980.09	3.61	2.86	Open
C_HL7.2E_0080	1130.14	3.25	3.08	Open
C_HL7.2E_0110	878.35	3.68	4.81	Open
C_HL7.2E_0090	1085.38	3.12	2.85	Open
C_HL7.2E_0100	878.35	2.53	1.91	Open
C_HL7.2E_0123	562.76	3.66	6.17	Open
C_HL7.2E_0120	648.37	4.22	8.02	Open
C_HL7.2E_0130	562.76	3.66	6.17	Open
C_HL7.2E_0160	145.48	1.61	1.83	Open
C_HL7.2E_0170	145.48	1.61	1.83	Open
C_HL7.2E_0140	391.54	4.33	11.42	Open
C_HL7.2E_0150	195.84	2.16	3.17	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_HL7.2W_0090	674.26	4.39	8.62	Open
C_HL7.2W_0100	674.26	4.39	8.62	Open
C_HL7.2M_0010	1318.87	3.93	4.45	Open
C_HL7.2M_0100	259.63	2.87	5.34	Open
C_HL7.2M_0090	259.63	2.87	5.35	Open

C_HL7.2M_0080	259.63	2.87	5.33	Open
C_HL7.2M_0060	684.89	1.97	1.18	Open
C_HL7.2M_0070	377.14	4.17	10.65	Open
C_HL7.2M_0050	701.68	2.94	3.18	Open
C_HL7.2M_0040	890.81	3.74	4.94	Open
C_HL7.2M_0030	974.74	2.80	2.32	Open
C_HL7.2M_0020	1190.17	2.17	0.98	Open
C_HL9.4_0010	2888.38	2.34	0.00	Open
C_HL9.4_0050	2521.88	3.77	2.67	Open
C_HL9.4_0052	2161.53	4.09	3.67	Open
C_HL9.4_0040	2703.73	4.04	3.13	Open
C_HL9.4_0020	2888.38	4.17	3.24	Open
C_HL9.4_0030	2888.38	4.17	3.24	Open
C_HL9.4_0057	2149.22	4.06	3.58	Open
C_HL9.4_0065	1813.49	4.48	5.08	Open
C_HL9.4_0060	1943.87	4.80	5.78	Open
C_HL10.8_0005	886.88	3.59	4.49	Open
C_HL10.8_0018	708.38	2.86	2.96	Open
C_HL10.8_0010	886.88	3.59	4.49	Open
C_HL10.8_0040	207.03	2.29	3.51	Open
C_HL10.8_0030	514.78	3.35	5.23	Open
C_NC43.2-14.4_0010	993.70	2.86	2.40	Open
C_NC43.2-14.4_0020	993.70	2.86	2.41	Open
C_NC43.2-12.9_0010	3758.20	4.39	3.14	Open
C_NC43.2-12.9_0030	3634.70	4.25	2.97	Open
C_NC43.2-12.9_0035	2118.50	3.87	3.24	Open
C_NC43.2-12.9_0020	3758.20	4.39	3.17	Open
C_NC25.4-1.6-0.9_0100	313.50	2.18	2.46	Open
C_NC25.4-1.6-0.9_0090	456.00	3.17	4.92	Open
C_KL6.2_0030	380.00	2.39	2.74	Open
C_MB4.2_0010	697.30	2.82	2.89	Open
C_MB4.2_0040	234.65	2.59	4.42	Open
C_MB4.2_0030	234.65	2.59	4.43	Open
C_MB4.2_0020	697.30	2.82	2.87	Open
C_ON13.2_0010	658.58	1.96	1.25	Open
C_ON13.2_0050	0.00	0.00	0.00	Open
C_ON13.2_0030	453.23	1.90	1.41	Open
C_ON13.2_0020	453.23	1.90	1.41	Open
C_ON19.4_0010	673.14	2.01	1.33	Open
C_ON19.4_0040	352.52	2.30	2.59	Open
C_ON19.4_0030	565.15	2.37	2.13	Open
C_ON19.4_0020	565.15	2.37	2.13	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_NC38.9-4.8_0170	522.50	3.55	5.98	Open
C_NC38.9-4.8_0180	522.50	3.55	5.97	Open
C_HL2.9_0020	412.95	4.56	12.60	Open
C_HL2.9_0050	162.27	1.79	2.23	Open
C_HL2.9_0030	162.27	1.79	2.23	Open
C_HL2.9_0025	412.95	4.56	12.59	Open
C_CL1.84-0.55_0050	598.72	2.51	2.35	Open
C_CL1.84-0.55_0060	598.72	4.07	7.69	Open
C_CL1.84-0.55_0070	598.72	2.62	2.65	Open
C_HL6.7_0010	833.17	3.37	4.00	Open
C_HL6.7_0016	208.15	2.30	3.54	Open
C_HL6.7_0015	417.98	2.63	3.26	Open
C_HL6.7_0011	833.17	3.37	4.00	Open
C_ON_0100	28272.22	3.33	0.50	Open
C_ON_0120	28103.24	3.31	0.49	Open
C_ON_0110	28272.22	3.33	0.50	Open
C_ON_0170	24883.02	2.93	0.39	Open
C_ON_0160	25261.28	2.98	0.40	Open
C_ON_0150	26670.23	3.14	0.45	Open
C_ON_0140	26820.19	3.16	0.45	Open
C_ON_0130	27937.61	3.29	0.50	Open
C_MB8.5_0030	2897.50	3.38	1.95	Open
C_MB8.5_0020	3846.55	3.12	1.36	Open
C_MB8.5_0010	3846.55	3.12	1.36	Open
C_NC46.7_0040	6091.40	4.21	2.16	Open
C_NC46.7_0060	5873.85	4.77	2.97	Open
C_NC46.7_0050	6091.40	4.21	2.15	Open
C_NC46.7_0030	6933.10	4.14	2.01	Open
C_NC46.7_0035	6091.40	4.21	2.16	Open
C_NC46.7-0.5_0010	2624.85	4.79	4.83	Open
C_NC46.7-0.5_0015	2624.85	4.79	4.82	Open
C_NC46.7-0.5_0040	1396.50	4.01	4.53	Open
C_NC46.7-0.5_0045	857.85	3.47	4.22	Open
C_NC46.7-1.0_0010	3249.00	4.69	4.03	Open
C_NC46.7-1.0_0035	1643.50	3.92	3.88	Open
C_NC46.7-1.0_0030	2099.50	3.03	1.80	Open
C_NC46.7-1.0_0020	3106.50	4.48	3.73	Open
C_NC45.4_0030	1102.00	3.17	2.92	Open
C_NC46.7-1.0_0070	247.00	2.73	4.87	Open
C_NC46.7-0.5-0.2_0010	1152.35	4.66	7.29	Open
C_NC46.7-0.5-0.2_0040	123.50	3.25	11.15	Open
C_NC46.7-0.5-0.2_0030	123.50	3.25	11.17	Open
C_NC46.7-0.5-0.2_0020	1152.35	4.66	7.29	Open
C_NC60.0-1.6_0010	3164.45	4.56	3.84	Open
C_NC60.0-1.6_0015	3164.45	4.56	3.84	Open
C_NC60.0_0083	2685.65	3.87	2.84	Open
C_NC60.0-0.9_0065	689.70	2.79	2.82	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0-0.9_0075	423.70	2.66	3.05	Open
C_NC60.0-0.9_0080	423.70	2.66	3.35	Open
C_NC60.0-0.9_0070	518.70	3.26	4.87	Open
C_NC62.1_0044	882.55	3.57	4.45	Open
C_NC62.1_0050	882.55	3.57	4.45	Open
C_NC62.1_0060	274.55	3.03	5.84	Open
C_NC62.1_0070	274.55	3.03	5.92	Open
C_NC64.7_0010	1149.50	2.74	2.00	Open
C_NC64.7_0030	902.50	2.59	2.02	Open
C_NC64.7_0020	902.50	2.59	2.01	Open
C_HL9.4_0075	1813.49	4.48	5.08	Open
C_HL9.4P_0010	749.23	3.14	3.59	Open
C_HL9.4P_0030	481.21	1.43	0.69	Open
C_HL9.4P_0020	481.21	1.43	0.64	Open
C_HL9.4_0080	1064.26	4.46	6.87	Open
C_HL9.4_0100	904.23	3.79	5.08	Open
C_HL9.4_0125	299.36	1.95	1.92	Open
C_HL9.4_0115	299.36	1.95	1.90	Open
C_HL9.4_0110	593.68	2.49	2.33	Open
C_HL9.4_0055	2161.53	4.09	3.67	Open
C_HL5.5_0037	2105.03	3.84	3.21	Open
C_HL5.5_0040	1903.59	4.54	5.10	Open
C_HL5.5_0065	1382.08	3.97	4.45	Open
C_HL5.5_0060	1585.76	3.78	3.60	Open
C_HL5.5_0050	1778.25	4.24	4.51	Open
C_ML4.1_0004	874.02	3.53	4.37	Open
C_HL7.2E_0077	1130.14	3.25	3.06	Open
C_HL7.2E_0127	562.76	3.66	6.17	Open
C_CL_0008	7314.45	4.36	2.11	Open
C_CL_0100	5508.22	3.95	1.94	Open
C_CL_0120	5040.44	4.24	2.45	Open
C_CL_0110	5043.24	4.24	2.42	Open
C_CL_0105	5301.19	4.46	2.69	Open
C_CL1.74_0010	1298.71	3.87	4.19	Open
C_CL1.74_0020	1298.71	3.87	4.32	Open
C_ML3.1_0050	2260.02	4.13	3.66	Open
C_ML3.1_0076	1110.71	3.31	3.23	Open
C_ML3.1_0070	1842.60	3.48	2.72	Open
C_NC58.7_0026	1248.30	3.59	3.68	Open
C_NC55.6-0.5_0178	1078.25	3.10	2.81	Open
C_NC55.6-0.5_0180	774.25	3.13	3.48	Open
C_HL_0050	28765.47	3.39	0.51	Open
C_ML_0060	20725.97	4.21	1.05	Open
C_HL7.2W_0087	674.26	4.39	8.62	Open
C_NC55.6_0189	1267.30	3.64	3.79	Open

C_NC55.6_0080	4690.15	3.80	1.93	Open
C_NC55.6_0100	4236.05	3.44	1.62	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC55.6_0090	4459.30	3.62	1.78	Open
C_NC55.6_0135	3575.80	2.90	1.19	Open
C_NC55.6_0120	3756.30	3.05	1.16	Open
C_NC55.6_0130	3718.30	3.02	1.28	Open
C_NC55.6_0110	3884.55	3.15	1.38	Open
C_NC55.6-0.1_0010	3171.10	3.70	2.31	Open
C_NC55.5_0007	3479.85	2.82	1.13	Open
C_NC55.5_0006	3479.85	2.41	0.82	Open
C_NC55.5_0012	3171.10	3.70	2.31	Open
C_NC55.5_0015	3171.10	3.70	2.31	Open
C_NC55.5_0030	1596.95	3.81	3.68	Open
C_NC55.6-0.1_0060	893.00	2.57	1.98	Open
C_NC55.6-0.1_0065	665.00	2.69	2.63	Open
C_NC55.6-0.1_0050	1225.50	3.52	3.56	Open
C_NC55.6-0.1_0040	1371.80	3.94	4.38	Open
C_NC55.5_0155	19.00	0.50	0.35	Open
C_NC55.5_0070	665.00	2.69	2.63	Open
C_LL_0160	1317.17	3.92	4.43	Open
C_LL_0185	1087.76	3.24	3.12	Open
C_LL1.8_0010	212.63	2.35	3.69	Open
C_LL_0200	875.13	3.67	4.78	Open
C_LL_0255	421.90	2.75	3.62	Open
C_LL_0205	785.60	3.29	3.92	Open
C_LL_0210	533.81	3.48	5.59	Open
C_LL_0260	421.90	2.75	3.62	Open
C_LL_0270	214.87	2.37	3.76	Open
C_LL2.0_0010	251.79	2.78	5.04	Open
C_LL2.0_0020	151.07	3.62	12.88	Open
C_NC55.6-0.5_0095	4212.30	3.42	1.61	Open
C_LL0.6_0010	0.00	0.00	0.00	Open
C_NC54.4_0123	142.50	1.57	1.76	Open
C_NC54.4_0128	142.50	1.64	1.94	Open
C_NC54.2_0200	1729.00	4.12	4.27	Open
C_NC53.2_0097	731.50	2.96	3.14	Open
C_NC53.2_0120	446.50	2.81	3.69	Open
C_NC53.2_0125	294.50	1.85	1.74	Open
C_NC53.2_0140	19.00	0.50	0.35	Open
C_NC53.2_0130	19.00	0.50	0.35	Open
C_NC53.2_0145	19.00	0.50	0.35	Open
C_NC49.2-2.3_0030	589.00	3.70	6.16	Open

C_NC49.2-2.3_0035	589.00	3.70	6.16	Open
C_NC49.2-2.9_0060	1352.80	3.89	4.27	Open
C_NC49.2-2.9_0100	380.00	2.39	2.74	Open
C_NC49.2-2.9_0090	925.30	3.74	4.86	Open
C_NC49.2-2.9_0080	1058.30	4.28	6.24	Open
C_NC49.2-2.9_0070	1096.30	4.43	6.65	Open
C_NC49.2_0140	3547.30	4.14	2.84	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2_0143	3547.30	4.14	2.83	Open
C_NC49.2-0.4-0.6_0010	1577.00	3.76	3.60	Open
C_NC49.2-0.4-0.6_0015	1548.50	3.69	3.48	Open
C_NC49.2-0.4-0.6_0050	873.05	3.53	4.36	Open
C_NC49.2-0.4-0.6_0055	841.70	3.40	4.03	Open
C_NC49.2-0.9_0010	1160.90	3.34	3.22	Open
C_NC49.2-0.9_0045	332.50	3.67	8.31	Open
C_NC49.2-0.9_0040	522.50	3.29	4.94	Open
C_NC49.2-0.9_0030	560.50	3.52	5.62	Open
C_NC49.2-0.9_0020	1119.10	4.53	6.91	Open
C_NC49.2-0.9_0015	1160.90	3.34	3.22	Open
C_NC43.2-14.7_0045	2545.05	2.97	1.54	Open
C_NC43.2-14.7_0020	3552.05	4.15	2.84	Open
C_NC43.2-14.7_0040	3552.05	4.15	2.81	Open
C_NC43.2-14.7_0010	3552.05	4.15	2.85	Open
C_NC43.2-14.7_0030	3552.05	4.15	2.89	Open
C_NC43.2-14.4_0030	993.70	2.86	2.41	Open
C_NC43.2-14.4_0040	9.50	0.25	0.10	Open
C_NC43.2-12.7_0028	1425.00	2.60	1.56	Open
C_NC43.2-12.7_0030	1425.00	3.40	3.01	Open
C_NC43.2-11.6_0050	237.50	2.62	4.52	Open
C_NC43.2-10.4_0010	0.00	0.00	0.00	Open
C_NC43.2-10.3_0010	1149.50	4.65	7.27	Open
C_NC43.2-10.3_0040	579.50	3.64	5.98	Open
C_NC43.2-10.3_0020	912.00	3.69	4.68	Open
C_NC43.2-10.3_0030	579.50	3.64	6.00	Open
C_NC43.2-9.4_0030	437.00	2.85	3.86	Open
C_NC43.2-9.4_0020	437.00	2.75	3.55	Open
C_NC43.2-9.4_0010	1130.50	4.57	7.06	Open
C_NC43.2-7.3_0010	527.25	3.32	5.03	Open
C_NC43.2-7.3_0020	99.75	2.62	7.48	Open
C_NC43.2-7.3_0030	0.00	0.00	0.00	Open
C_NC43.2-6.6_0020	719.15	2.07	1.33	Open
C_NC43.2-6.6_0050	0.00	0.00	0.00	Open
C_NC43.2-6.6_0040	304.00	3.36	7.15	Open

C_NC43.2-3.8-0.0_0010	1444.00	4.15	4.82	Open
C_NC43.2-3.8_0055	791.35	3.32	3.97	Open
C_NC43.2-3.8_0060	772.35	3.24	3.79	Open
C_NC43.2-0.8_0030	931.95	3.77	4.92	Open
C_NC43.2-0.8_0040	931.95	3.91	5.37	Open
C_NC43.2-12.9-0.5_0010	1516.20	3.61	3.37	Open
C_NC43.2-12.9-0.5_0070	76.00	2.00	4.54	Open
C_NC43.2-12.9-0.5_0060	76.00	2.00	4.53	Open
C_NC43.2-12.9-0.5_0050	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0040	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0030	123.50	3.25	11.15	Open
C_NC43.2-12.9-0.5_0015	1335.70	3.84	4.18	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC43.2-12.9-0.5_0020	123.50	3.25	11.15	Open
C_NC22.8_0170	1333.80	3.97	4.44	Open
C_NC22.8_0190	678.30	2.84	2.97	Open
C_NC22.8_0180	830.30	3.48	4.35	Open
C_NC22.8_0200	678.30	2.97	3.31	Open
C_NC22.8_0160	1932.30	3.65	2.98	Open
C_NC22.8_0150	1951.30	3.56	2.79	Open
C_NC22.8_0145	1951.30	3.56	2.78	Open
C_NC22.8_0140	2196.40	4.01	3.47	Open
C_NC22.8_0130	2565.95	3.70	2.61	Open
C_NC22.8_0120	3221.45	3.76	2.38	Open
C_NC22.8_0110	3221.45	3.76	2.38	Open
C_NC22.8_0100	3610.00	2.93	1.21	Open
C_NC22.8_0090	4102.10	3.33	1.53	Open
C_NC22.8_0085	4121.10	3.34	1.54	Open
C_NC22.8_0083	4121.10	3.34	1.54	Open
C_NC22.8_0030	5717.10	3.96	1.92	Open
C_NC22.8_0015	8510.10	3.89	1.52	Open
C_NC22.8_0017	5983.10	4.14	2.07	Open
C_NC22.8_0020	5983.10	4.14	2.09	Open
C_NC22.8_0080	4947.60	4.01	2.17	Open
C_NC22.8_0070	5011.25	4.07	2.18	Open
C_NC22.8_0060	5011.25	4.07	2.22	Open
C_NC22.8_0050	5230.70	3.62	1.63	Open
C_NC22.8_0040	5573.65	3.86	1.84	Open
C_NC22.8_0035	5602.15	3.88	1.85	Open
C_NC10.5-0.9_0010	2061.50	4.07	3.74	Open
C_NC10.5-0.9_0020	474.05	3.22	4.99	Open
C_NC10.5-0.9_0030	474.05	3.22	4.99	Open
C_MB4.8_0040	347.70	2.19	2.32	Open

C_MB4.8_0045	95.95	2.52	6.99	Open
C_MB6.0_0060	3107.45	3.63	2.22	Open
C_NC7.3_0030	1387.95	3.99	4.48	Open
C_NC7.3_0020	2047.25	3.74	3.04	Open
C_NC7.3_0040	483.55	3.04	4.28	Open
C_NC7.3_0050	483.55	3.37	5.48	Open
C_NC22.8-0.1_0010	2527.00	3.64	2.53	Open
C_NC22.8-0.1_0022	1007.00	2.90	2.47	Open
C_NC22.8-0.1_0012	1007.00	2.90	2.48	Open
C_SA_0240	68.95	0.28	0.05	Open
C_SA_0280	-313.90	1.97	1.90	Open
C_SA_0270	-162.85	0.66	0.19	Open
C_SA_0260	-122.95	0.50	0.11	Open
C_SA_0250	19.55	0.08	0.00	Open
C_NC49.4_0037	2377.85	1.93	0.56	Open
C_NC49.4_0040	862.60	2.48	1.86	Open
C_NC49.4_0100	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.4_0090	501.60	3.15	4.58	Open
C_NC49.4_0080	501.60	3.15	4.07	Open
C_NC49.4_0070	501.60	3.15	4.58	Open
C_NC49.4_0060	843.60	2.43	1.78	Open
C_NC49.4_0050	843.60	2.43	1.78	Open
C_NC49.4-0.4_0010	1515.25	2.77	1.75	Open
C_NC49.4-0.4_0040	0.00	0.00	0.00	Open
C_NC49.4-0.4_0030	403.75	2.54	3.06	Open
C_NC49.4-0.4_0020	831.25	2.39	1.73	Open
C_NC52.5_0070	0.00	0.00	0.00	Open
C_NC52.5_0060	0.00	0.00	0.00	Open
C_NC52.5_0059	152.00	1.68	1.98	Open
C_NC52.5_0050	171.00	1.89	2.46	Open
C_NC52.5_0030	1862.00	2.18	0.93	Open
C_NC52.5_0040	1862.00	2.18	0.84	Open
C_NC52.5_0020	2071.00	2.42	1.09	Open
C_NC53.2_0035	2107.10	3.85	3.21	Open
C_NC53.2_0037	1974.10	4.71	5.45	Open
C_NC53.2-0.4_0010	133.00	3.50	12.74	Open
C_NC53.2-0.4_0050	0.00	0.00	0.00	Open
C_NC53.2-0.4_0025	133.00	3.50	12.76	Open
C_NC53.2-0.4_0040	123.50	3.25	11.15	Open
C_NC53.2-0.4_0020	133.00	3.50	12.79	Open
C_NC53.2_0050	1624.50	4.67	6.00	Open
C_NC53.2_0080	1007.00	2.90	2.47	Open

C_NC53.2_0060	1235.00	3.55	3.62	Open
C_NC53.2_0070	1225.50	3.52	3.56	Open
C_NC53.2_0055	1586.50	4.56	5.89	Open
C_NC54.2-3.4_0010	190.00	2.18	3.30	Open
C_NA0.4_0030	174.80	1.93	2.56	Open
C_NA0.4_0020	174.80	1.93	2.54	Open
C_NA_0060	325.85	2.05	2.06	Open
C_NA_0050	333.45	2.10	2.16	Open
C_NA_0070	57.95	1.52	2.75	Open
C_NA_0100	48.45	1.27	1.97	Open
C_NA_0080	48.45	1.27	1.97	Open
C_NA_0030	342.95	2.16	2.26	Open
C_NA_0040	333.45	2.10	2.15	Open
C_NA_0020	405.65	2.55	3.09	Open
C_SA_0090	1093.05	2.00	0.95	Open
C_SA_0080	1117.75	2.04	0.99	Open
C_KL5.4_0187	2674.25	3.38	2.04	Open
C_NC58.7_0040	209.00	2.31	3.57	Open
C_NC58.7_0050	209.00	2.31	3.57	Open
C_SA_0345	-536.20	3.37	5.17	Open
C_SA_0290	-313.90	1.97	1.91	Open
C_SA_0330	-502.95	3.16	4.59	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_SA_0340	-525.75	3.31	4.98	Open
C_SA_0320	-497.25	3.13	4.49	Open
C_SA_0310	-471.60	2.97	4.07	Open
C_SA_0300	-386.10	4.12	10.33	Open
C_SA2.3_0010	22.80	0.60	0.49	Open
C_SA2.3_0020	22.80	0.60	0.49	Open
C_NA1.0_0010	0.00	0.00	0.00	Open
C_SA_0010	1307.75	2.39	1.33	Open
C_SA_0015	1301.10	2.37	1.31	Open
C_NA0.2E_0025	25.65	0.67	0.61	Open
C_NA0.2E_0030	25.65	0.67	0.61	Open
C_NC55.6-0.5-2.6_0050	741.00	3.00	3.22	Open
C_NC55.6-0.5_0250	142.50	1.57	1.76	Open
C_NC61.3_0030	1520.00	4.37	5.30	Open
C_NC61.3_0020	1520.00	3.62	3.37	Open
C_NC61.3_0010	2099.50	3.83	3.19	Open
C_NC60.0-1.6_0030	808.45	3.27	3.78	Open
C_NC35.1-0.7_0015	95.00	2.50	6.86	Open
C_NC35.1-0.7_0050	0.00	0.00	0.00	Open
C_NC35.1-0.7_0030	95.00	2.50	6.84	Open

C_NC33.1S_0010	3951.05	3.21	1.46	Open
C_NC33.1S_0072	3429.50	4.01	2.67	Open
C_NC33.1S_0070	3804.75	4.44	3.23	Open
C_NC33.1S_0060	3951.05	4.62	3.47	Open
C_NC32.2_0087	1491.50	3.68	3.54	Open
C_NC31.5_0070	898.70	3.63	4.60	Open
C_NC31.5_0075	587.10	2.37	2.09	Open
C_NC31.0-1.9_0010	1117.20	3.21	3.05	Open
C_NC31.0-1.9_0020	1117.20	3.21	3.00	Open
C_NC31.0-1.9_0030	961.40	3.89	5.24	Open
C_NC38.7-0.1-0.2_0010	693.50	3.04	3.45	Open
C_NC38.7_0078	3606.20	4.21	2.88	Open
C_NC38.7_0093	3549.20	4.15	2.84	Open
C_NC38.7_0090	3549.20	4.15	2.85	Open
C_NC38.7_0080	3549.20	4.15	2.84	Open
C_NC38.7-0.8_0010	0.00	0.00	0.00	Open
C_NC38.7-0.8_0020	0.00	0.00	0.00	Open
C_NC38.7-1.2_0010	304.00	3.50	7.90	Open
C_NC38.7-1.2_0035	247.00	2.84	5.03	Open
C_NC38.7-1.2_0025	247.00	2.84	5.37	Open
C_NC38.9-2.4-1.6_0010	1529.50	4.76	6.49	Open
C_NC38.9-2.4-1.6_0020	1529.50	4.76	6.50	Open
C_NC38.9-2.4-1.6_0030	1073.50	3.34	3.36	Open
C_NC38.9-2.4_0137	0.00	0.00	0.00	Open
C_NC38.9-4.8-0.5-1.3_0025	237.50	2.73	4.99	Open
C_NC38.9-4.8-0.5_0110	1767.00	4.55	5.38	Open
C_NC38.9-4.8-0.5_0120	1406.00	4.37	5.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC38.9-4.8-0.5_0140	674.50	2.95	3.32	Open
C_NC38.9-4.8-0.5_0130	674.50	2.95	3.27	Open
C_NC38.9-4.8-0.5_0125	722.00	3.16	3.72	Open
C_NC38.9-4.8-2.5-0.0_0010	0.00	0.00	0.00	Open
C_NC38.9-8.5-0.2_0010	104.50	2.75	8.18	Open
C_NC38.9-8.5-0.2_0020	9.50	0.25	0.00	Open
C_NC38.9-3.0_0090	931.00	3.77	4.91	Open
C_NC38.9-3.0_0100	484.50	3.05	4.25	Open
C_NC25.4-1.6-0.9_0010	4247.45	3.45	1.63	Open
C_NC25.4-1.6-0.9_0020	3259.45	4.70	4.05	Open
C_NC25.4-1.8-1.0_0020	2983.95	3.61	2.25	Open
C_NC25.4-1.8_0127	2250.55	4.45	4.40	Open
C_NC25.4-4.8_0010	180.50	2.08	3.00	Open
C_NC27.8_0093	437.95	2.75	3.56	Open
C_NC27.8_0069	893.00	3.61	4.55	Open

C_NC27.8_0020	3780.05	4.42	3.20	Open
C_NC27.8_0035	2357.90	4.30	3.97	Open
C_NC27.8_0030	3780.05	4.42	3.20	Open
C_NC28.7_0057	9454.40	4.32	1.77	Open
C_NC28.7_0127	722.00	3.03	3.35	Open
C_NC28.7-1.0_0070	2117.55	3.87	3.24	Open
C_NC28.7-1.0_0075	940.50	3.94	5.46	Open
C_NC26.4_0077	4044.15	3.28	1.49	Open
C_NC25.4_0175	896.80	3.93	5.53	Open
C_NC25.4_0190	674.50	2.95	3.28	Open
C_NC25.4_0180	674.50	2.95	3.29	Open
C_NC35.1_0100	332.50	2.26	2.59	Open
C_NC25.4-1.6_0060	1196.05	3.44	3.40	Open
C_NC14.5-4.2_0010	0.00	0.00	0.00	Open
C_NC27.8_0100	437.95	2.75	3.56	Open
C_NC27.8_0110	437.95	2.75	3.56	Open
C_MB8.5_0100	1091.55	3.25	3.13	Open
C_NC25.4-0.3_0010	0.00	0.00	0.00	Open
C_NC25.4-0.3_0020	0.00	0.00	0.00	Open
C_NC25.4-0.4_0010	0.00	0.00	0.00	Open
C_NC28.7-2.8-0.4_0010	0.00	0.00	0.00	Open
C_NC33.1S_0180	570.00	3.88	7.02	Open
C_ML4.0_0020	1333.96	3.84	4.16	Open
C_ML4.0_0050	274.74	3.04	5.93	Open
C_ML4.0_0040	274.74	3.04	5.93	Open
C_ML4.0_0030	1322.77	3.80	4.10	Open
C_KL7.6-9.3N_0030	4288.30	3.61	1.81	Open
C_KL7.6-9.3N_0057	363.85	2.37	0.00	Open
C_KL7.6-9.3N_0060	31.35	0.82	0.88	Open
C_KL7.6-9.3N_0058	31.35	0.83	0.88	Open
C_KL7.6-9.3N_0055	363.85	2.37	2.80	Open
C_KL7.6-9.3N_0050	363.85	2.37	2.75	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_KL7.6-9.3N_0040	392.35	2.56	3.16	Open
C_KL7.6-9.3-0.2_0010	0.00	0.00	0.00	Open
C_KL7.6-9.3-0.1_0010	332.50	2.17	2.33	Open
C_NC38.9-4.8-0.5-1.2_0010	541.50	3.53	5.74	Open
C_NC38.9-4.8-0.5-1.2_0020	541.50	3.53	5.74	Open
C_NC38.9-4.8-0.5-1.2_0030	541.50	3.53	5.74	Open
C_HL_0280	21730.80	3.48	0.75	Open
C_KL_0056	34621.98	4.08	0.83	Open
C_KL_0053	34621.98	4.08	0.83	Open
C_KL_0027	34949.73	4.12	0.85	Open

C_KL_0018	70671.46	4.09	0.55	Open
C_KL_0235	8370.38	4.16	2.01	Open
C_KL_0240	16065.45	3.26	0.76	Open
C_KL_0237	16084.46	3.38	0.83	Open
C_KL_0252	4144.85	3.36	1.80	Open
C_KL_0242	16065.45	3.26	0.76	Open
C_KL_0244	15885.91	3.22	0.79	Open
C_KL_0250	14392.50	3.81	1.18	Open
C_KL_0247	15219.00	4.03	1.31	Open
C_KL_0245	15276.01	4.05	1.33	Open
C_KL_0017	70671.46	4.09	0.52	Open
C_KL_0015	70671.46	4.09	0.52	Open
C_KL_0020	70671.46	4.75	0.74	Open
C_KL_0023	34949.73	4.12	0.74	Open
C_KL_0030	34949.73	4.12	0.74	Open
C_KL_0052	34621.98	4.08	0.72	Open
C_KL_0050	34621.98	4.08	0.72	Open
C_KL_0055	34621.98	4.08	0.72	Open
C_NC10.5_0035	7572.45	3.93	1.61	Open
C_NC10.5_0075	4076.45	3.58	1.83	Open
C_NC10.5_0070	4445.05	3.74	1.94	Open
C_NC10.5_0050	6521.75	3.89	1.71	Open
C_NC10.5_0040	6865.65	4.10	1.87	Open
C_NC10.5_0105	1685.30	3.33	2.57	Open
C_NC10.5_0107	1685.30	3.33	2.57	Open
C_NC10.5_0108	1685.30	3.33	2.57	Open
C_NC10.5_0120	362.90	2.47	3.05	Open
C_NC10.5_0110	1685.30	3.33	2.57	Open
C_NC10.5_0080	4076.45	3.58	1.83	Open
C_NC10.5_0085	3746.80	3.29	1.56	Open
C_NC10.5_0032	7572.45	3.93	1.61	Open
C_NC10.5_0033	7572.45	3.93	1.61	Open
C_NC10.5_0030	7767.20	4.04	1.69	Open
C_NC10.5_0020	8502.50	3.88	1.52	Open
C_MB4.8_0050	95.95	2.52	6.99	Open
C_KL7.7_0045	667.85	2.92	3.22	Open
C_KL7.7_0080	380.00	2.58	2.96	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_KL7.7_0050	553.85	3.77	6.66	Open
C_KL9.3-0.8_0010	342.95	2.16	2.23	Open
C_KL9.3-0.8_0030	85.50	2.25	5.39	Open
C_KL9.3-0.8_0020	342.95	2.23	2.47	Open
C_KL9.3_0120	3102.70	3.62	2.23	Open

C_KL9.3_0155	2914.60	3.40	1.98	Open
C_KL9.3_0150	3102.70	3.76	2.42	Open
C_KL9.3_0200	665.00	2.79	2.87	Open
C_KL9.3_0210	617.50	2.59	2.51	Open
C_KL7.6-9.6_0070	3546.35	2.98	1.28	Open
C_KL7.6-9.6_0075	1380.35	4.11	4.84	Open
C_KL7.6-9.6_0080	679.25	2.85	2.71	Open
C_KP0.1_0010	332.50	2.17	2.33	Open
C_KP_0020	1833.50	3.47	2.70	Open
C_KP_0040	370.50	2.41	2.84	Open
C_KP_0035	684.00	2.87	3.04	Open
C_KP_0030	684.00	2.87	3.00	Open
C_KP_0005	2166.00	4.09	3.68	Open
C_KP_0010	2166.00	4.09	3.68	Open
C_KL5.4-0.8_0010	12541.90	3.32	0.79	Open
C_KL5.4-0.8_0030	11532.05	3.30	0.82	Open
C_KL5.4-0.8_0025	11884.50	3.40	0.87	Open
C_KL5.4-0.8_0020	11884.50	3.40	0.87	Open
C_KL5.4-0.8_0015	12541.90	3.59	0.96	Open
C_KL5.4-0.8_0065	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0060	8807.45	3.69	1.26	Open
C_KL5.4-0.8_0050	9551.30	3.57	1.11	Open
C_KL5.4-0.8_0040	10450.95	3.07	0.73	Open
C_KL5.4-0.8_0035	11156.80	3.27	0.82	Open
C_KL5.4-0.8_0070	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0095	7797.60	3.69	1.35	Open
C_KL5.4-0.8_0090	8100.65	3.83	1.45	Open
C_KL5.4-0.8_0080	8455.95	4.00	1.57	Open
C_KL5.4-0.8_0100	7797.60	3.69	1.35	Open
C_KL5.4-0.8_0113	7257.05	4.08	1.80	Open
C_KL5.4-0.8_0117	4601.80	4.04	2.29	Open
C_KL5.4-0.8_0110	7617.10	3.77	1.44	Open
C_KL5.4-0.8_0120	4601.80	4.04	2.29	Open
C_KL5.4-0.8_0135	4305.40	3.78	2.02	Open
C_KL5.4-0.8_0130	4305.40	3.78	2.02	Open
C_KL5.4-0.8-2.4_0010	2772.10	3.50	2.18	Open
C_KL5.4-0.8-2.4_0015	1398.40	3.60	3.48	Open
C_KL5.4-0.8-2.4_0020	1398.40	3.60	3.48	Open
C_KL5.4-0.8-2.4_0030	1075.40	3.34	3.38	Open
C_KL5.4-0.8-2.2_0005	2655.25	4.14	3.36	Open
C_KL5.4-0.8-2.2_0010	2655.25	4.14	3.36	Open
C_KL5.4-0.8-2.2_0025	1558.00	4.02	4.25	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status

C_KL5.4-0.8-2.2_0015	2322.75	3.62	2.63	Open
C_KL5.4-0.8-2.2_0020	1662.50	4.11	4.33	Open
C_KL5.4-0.8-2.2_0030	1558.00	3.85	3.83	Open
C_KL5.4-0.8-2.2_0045	705.85	2.96	3.21	Open
C_KL5.4-0.8-2.2_0040	1214.10	3.00	2.42	Open
C_KL5.4-0.8-2.2_0050	705.85	2.96	3.21	Open
C_KL5.4-0.8-2.2_0060	351.50	3.88	9.35	Open
C_KL5.4-0.8-2.2-0.2_0010	660.25	2.89	3.15	Open
C_KL5.4-0.8_0140	1533.30	3.95	4.13	Open
C_KL5.4-0.8_0160	1168.50	3.01	2.50	Open
C_KL5.4-0.8_0150	1533.30	3.95	4.13	Open
C_NC12.4P_0015	6141.75	3.66	1.53	Open
C_NC12.4P_0010	6892.25	4.11	1.89	Open
C_NC12.4P_0020	6141.75	3.66	1.53	Open
C_NC12.4P_0035	4848.80	4.08	2.28	Open
C_NC12.4P_0030	4848.80	3.93	2.08	Open
C_NC12.4P_0040	4848.80	4.08	2.28	Open
C_NC12.4P_0055	3471.30	2.92	1.23	Open
C_NC12.4P_0050	3480.80	2.93	1.23	Open
C_NC12.4P_0060	3471.30	3.04	1.36	Open
C_NC12.4P_0085	2037.75	4.03	3.66	Open
C_NC12.4P_0080	2734.10	3.45	2.12	Open
C_NC12.4P_0070	2800.60	3.54	2.22	Open
C_NC12.4P_0090	2037.75	4.03	3.66	Open
C_NC12.4P_0110	1173.25	2.37	1.30	Open
C_NC12.4P_0150	0.00	0.00	0.00	Open
C_NC12.4P_0140	651.70	2.92	3.57	Open
C_NC12.4P_0130	651.70	2.92	3.27	Open
C_NC12.4P_0120	651.70	2.92	3.26	Open
C_NC12.4P_0100	1847.75	3.74	3.23	Open
C_MB6.0_0057	3107.45	3.63	2.22	Open
C_MB6.0_0100	1615.00	3.99	4.10	Open
C_MB7.5-0.1_0010	351.50	2.21	2.37	Open
C_MB8.5_0045	2561.20	3.69	2.60	Open
C_NC35.7_0030	411.35	2.59	3.17	Open
C_NC35.7_0040	311.60	3.44	7.43	Open
C_NC35.7_0060	0.00	0.00	0.00	Open
C_NC28.7-1.0-0.1_0017	1137.15	3.27	3.57	Open
C_NC28.7-1.0_0150	161.50	1.78	2.22	Open
C_NC28.7-1.0_0160	161.50	1.86	2.44	Open
C_NC29.7_0017	988.00	4.00	5.48	Open
C_NC31.0_0190	332.50	2.26	2.59	Open
C_NC33.1S_0170	570.00	3.88	7.02	Open
C_NC35.1_0110	332.50	2.26	2.59	Open
C_NC48.3_0060	180.50	1.99	2.72	Open
C_NC49.2-0.3_0010	1078.25	2.57	1.78	Open
C_NC49.2-0.3_0020	1035.50	2.98	2.57	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC49.2_0130	4155.30	4.85	3.81	Open
C_NC49.2_0132	3547.30	4.14	2.82	Open
C_NC54.3_0040	1420.25	3.39	2.96	Open
C_NC54.3_0030	1624.50	2.34	1.12	Open
C_NC54.3_0020	1660.60	2.39	1.21	Open
C_ON_0010	31545.34	3.85	0.66	Open
C_ON_0090	29635.05	3.49	0.54	Open
C_ON0.5_0080	29970.78	3.66	0.60	Open
C_ON0.3_0070	30278.53	3.69	0.62	Open
C_ON_0040	31017.13	3.78	0.64	Open
C_ON_0050	30833.04	3.76	0.64	Open
C_ON_0060	30567.26	3.73	0.63	Open
C_ON_0030	31335.51	3.82	0.66	Open
C_ON_0020	31474.28	3.84	0.66	Open
C_ON0.1_0030	265.78	1.11	0.53	Open
C_ON0.1_0040	95.68	1.06	0.84	Open
C_ON_0180	24883.02	2.93	0.45	Open
C_ON_0210	24674.87	2.91	0.45	Open
C_ON_0700	16682.93	1.97	0.22	Open
C_ON13.9_0010	668.10	1.99	1.28	Open
C_ON13.9_0015	668.10	1.99	1.26	Open
C_ON17.9_0020	940.60	2.32	1.52	Open
C_ON17.9_0050	391.68	1.64	1.09	Open
C_ON17.9_0060	391.68	1.64	1.08	Open
C_ON17.9_0040	604.31	1.80	1.05	Open
C_ON17.9_0030	810.22	2.41	1.80	Open
C_ON18.2_0005	871.77	2.60	2.06	Open
C_ON18.2_0010	665.86	1.98	1.25	Open
C_ON18.2_0020	665.86	1.98	1.25	Open
C_ON19.9_0020	833.73	2.15	1.34	Open
C_ON19.9_0030	833.73	2.59	2.10	Open
C_LL1.8_0020	212.63	2.35	3.69	Open
C_ML0.7_0060	190.25	2.10	3.00	Open
C_CL1.74_0060	346.92	3.83	9.13	Open
C_CL_0200	419.66	2.73	3.58	Open
C_CL_0210	106.31	2.80	8.45	Open
C_CL1.84-0.55_0040	766.58	3.21	3.74	Open
C_ML2.0_0010	688.81	4.33	8.24	Open
C_ML2.0_0025	487.37	3.06	4.34	Open
C_ML2.0_0015	688.81	4.33	8.47	Open
C_ML3.1_0130	371.55	2.42	2.86	Open
C_ML3.1_0150	62.67	0.69	0.00	Open
C_ML3.1_0160	0.00	0.00	0.00	Open
C_ML3.1_0140	229.98	2.54	4.26	Open
C_ML3.4_0010	139.89	1.55	1.70	Open

C_HL2.5_0010	656.91	4.13	7.55	Open
C_HL2.5_0025	486.81	3.06	4.33	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_HL2.5_0015	486.81	3.06	4.34	Open
C_HL2.7P_0010	783.93	3.17	3.57	Open
C_HL2.7P_0040	392.24	2.47	2.85	Open
C_HL2.7P_0050	182.97	1.15	0.72	Open
C_HL2.7P_0060	36.37	0.23	0.00	Open
C_HL2.7P_0020	532.13	2.15	1.72	Open
C_HL2.7P_0030	532.13	3.35	5.11	Open
C_HL5.5-0.7_0010	201.44	2.23	3.34	Open
C_NC25.4-1.6_0090	874.00	3.53	4.31	Open
C_NC25.4-1.6_0100	874.00	2.60	2.07	Open
C_NC49.2-0.3_0005	1078.25	2.57	1.77	Open
C_NC49.2-0.3_0007	1078.25	2.57	1.78	Open
C_NC38.7-0.1_0017	693.50	2.80	2.85	Open
C_NC38.7-0.1_0020	0.00	0.00	0.00	Open
C_ML_0010	21173.61	4.30	1.26	Open
C_KL5.4-0.8-2.4_0005	2772.10	3.50	2.18	Open
C_MB9.1-0.9_0030	351.50	2.21	2.37	Open
C_MB_0130	29873.69	3.52	0.63	Open
C_MB_0200	26126.90	3.08	0.50	Open
C_MB_0280	17986.35	2.12	0.22	Open
C_MB_0310	17967.35	2.12	0.21	Open
C_NC25.4-1.6-0.9_0070	883.50	3.96	5.72	Open
C_SA2.5_0020	10.45	0.27	0.12	Open
C_SA2.5_0010	-10.45	0.27	0.11	Open
C_NC33.1S_0160	916.75	4.01	5.79	Open
C_NC38.9_0148	8467.35	4.40	2.28	Open
C_NC43.2-12.9_0040	2118.50	3.87	3.24	Open
C_NC43.2-12.9_0050	0.00	0.00	0.00	Open
C_NC48.3_0040	236.55	2.61	4.49	Open
C_NC48.3_0055	180.50	1.99	2.72	Open
C_NC48.3_0050	180.50	1.99	2.72	Open
C_NC48.3_0070	180.50	1.99	2.72	Open
C_NC54.3_0050	304.00	1.91	1.81	Open
C_NC_1180	42161.00	3.32	0.42	Open
C_NC_1260	36024.00	4.24	0.78	Open
C_NC_1320	33654.70	3.96	0.69	Open
C_NC59.5_0030	1518.10	3.62	3.35	Open
C_NC59.5_0045	777.10	3.14	3.59	Open
C_NC59.5_0040	777.10	3.14	3.51	Open
C_HL6.4_0020	27.98	0.03	0.00	Open

C_HL_0610	644.61	4.05	8.40	Open
C_NC_1370	16668.70	2.67	0.40	Open
C_NC62.1_0046	882.55	3.57	4.45	Open
C_ML1.3_0010	996.00	4.03	5.58	Open
C_ML1.3_0050	449.88	2.93	4.07	Open
C_ML1.3_0045	570.74	3.72	6.33	Open
C_ML1.3_0020	996.00	4.03	5.56	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_ML1.3_0040	996.00	4.18	6.08	Open
C_ML_0230	10215.60	4.13	1.52	Open
C_ML_0220	10215.60	4.13	1.52	Open
C_CL_0070	5983.84	4.29	2.27	Open
C_SA0.5_0020	24.70	0.65	0.57	Open
C_NC18.6_0030	0.00	0.00	0.00	Open
C_NC18.6_0020	815.10	3.30	4.00	Open
C_KL5.4-3.2_0010	1453.50	3.59	3.38	Open
C_KL5.4-3.2_0040	0.00	0.00	0.00	Open
C_KL5.4-3.2_0030	1453.50	3.59	3.37	Open
C_MB9.4_0019	1253.05	3.60	3.71	Open
C_KL_0058	34621.98	4.08	0.72	Open
C_NC27.8_0068	893.00	3.61	4.55	Open
C_NC24.1-0.1_0010	95.00	2.50	6.86	Open
C_NC14.5-0.2_0020	0.00	0.00	0.00	Open
C_NC32.2-0.1_0020	0.00	0.00	0.00	Open
C_ML_0310	8873.79	2.35	0.00	Open
C_ML_0330	8705.93	2.31	0.00	Open
C_ML3.1_0010	4503.82	3.65	1.82	Open
C_ML4.0_0035	1043.00	3.00	2.61	Open
C_CL1.84_0030	1698.24	2.06	0.00	Open
C_NC32.2-0.1_0010	313.50	1.27	0.66	Open
C_NC35.7_0020	411.35	2.59	3.11	Open
C_NC38.9-4.8-0.5_0115	1767.00	4.55	5.81	Open
C_NC38.9-4.8-2.5_0010	687.80	4.48	8.98	Open
C_NC38.9-7.8_0070	1273.00	3.66	4.52	Open
C_NC38.9-7.8-0.5_0050	627.00	3.94	6.30	Open
C_NC38.7-0.1_0015	693.50	4.36	8.68	Open
C_NC45.4_0020	1102.00	3.17	3.03	Open
C_NC49.2-0.3_0030	418.00	2.63	2.71	Open
C_NC49.2_0037	12137.20	2.46	0.39	Open
C_NC49.2_0039	11647.00	4.20	1.47	Open
C_NC54.2-2.8_0010	47.50	1.25	1.90	Open
C_NC54.4_0120	180.50	1.99	2.57	Open
C_NC55.5_0120	123.50	3.25	11.09	Open

C_NC55.5_0080	665.00	2.69	2.59	Open
C_NC55.5_0090	522.50	3.29	4.97	Open
C_NC55.5_0100	465.50	1.88	1.38	Open
C_NC55.5_0110	408.50	2.57	3.17	Open
C_NC55.5_0130	95.00	2.50	6.88	Open
C_NC55.5_0140	66.50	1.75	3.51	Open
C_NC55.5_0150	19.00	0.50	0.44	Open
C_NC55.6-0.5-2.6_0060	351.50	3.88	9.37	Open
C_NC55.6-0.5-2.6_0070	351.50	3.88	9.32	Open
C_NC58.7-0.7_0050	38.00	1.00	1.30	Open
C_NC59.5_0060	435.10	2.74	3.15	Open
C_NC59.5_0070	379.05	2.38	2.53	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC60.0_0030	9843.90	4.49	1.91	Open
C_NC60.0-0.9_0020	3244.25	4.68	4.12	Open
C_NC60.0-1.6_0050	427.50	2.69	3.49	Open
C_NC_1610	2520.35	3.77	2.71	Open
C_HL0.9_0140	213.19	2.36	3.70	Open
C_HL_0100	25961.56	3.06	0.33	Open
C_HL2.9_0040	162.27	1.79	2.54	Open
C_HL_0250	21814.73	3.50	0.38	Open
C_KL5.4-3.0_0010	5089.15	3.65	1.67	Open
C_KL5.4_0250	969.00	3.01	2.87	Open
C_KL5.4_0230	1786.00	3.53	2.77	Open
C_KL5.4_0240	1710.00	3.38	2.77	Open
C_KL5.4_0260	190.00	2.18	3.12	Open
C_KL6.2_0010	380.00	2.39	2.74	Open
C_KL7.7_0060	456.00	3.10	5.43	Open
C_KL7.7_0070	389.50	2.65	3.37	Open
C_MB_0160	28686.20	3.38	0.51	Open
C_MB6.0_0070	2765.45	3.99	3.49	Open
C_MB7.5_0117	4054.60	3.29	1.50	Open
C_ON13.2_0040	235.01	1.48	1.88	Open
C_ON_0950	11039.89	2.32	0.00	Open
C_ON_1250	0.00	0.00	0.00	Open
C_ON_1225	996.00	2.46	1.66	Open
C_NC38.9-2.4_0105	2239.15	3.35	2.22	Open
C_NC38.9-2.4_0100	2258.15	3.38	2.25	Open
C_NC38.9-2.4_0090	2296.15	4.34	4.07	Open
C_NC38.9-2.4-1.6_0040	902.50	3.95	5.79	Open
C_SA_0060	1125.35	2.05	1.00	Open
C_SA_0070	1125.35	2.05	1.02	Open
C_SA_0100	1053.15	1.92	0.90	Open

C_SA_0350	-536.20	3.37	5.17	Open
C_NA0.2E_0005	62.70	1.65	3.22	Open
C_NA0.2E_0006	49.40	1.30	2.03	Open
C_NA0.2E_0010	35.15	0.92	1.02	Open
C_NA0.2E_0020	31.35	0.82	0.82	Open
C_NA0.4_0010	267.90	2.96	5.72	Open
C_NA_0090	48.45	1.27	1.97	Open
C_NC5.3_0070	276.45	3.36	8.14	Open
C_NC5.3_0080	276.45	3.36	8.14	Open
C_NC14.5-0.2_0010	694.45	4.37	8.36	Open
C_NC14.5-0.2_0030	0.00	0.00	0.00	Open
C_NC25.4-1.6_0070	874.00	3.53	4.51	Open
C_NC25.4-4.8_0020	180.50	2.08	4.44	Open
C_NC27.8-0.9_0020	73.15	1.92	4.11	Open
C_NC28.7-1.0-0.1_0047	128.25	3.37	11.96	Open
C_NC28.7-2.0_0010	4247.45	3.45	1.44	Open
C_NC29.7_0030	456.00	1.84	1.53	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC30.2_0100	408.50	2.57	3.05	Open
C_NC31.0-2.5_0010	522.50	3.40	5.43	Open
C_NC35.1-0.7_0010	95.00	2.50	6.83	Open
C_NC35.1-0.7_0020	95.00	2.50	6.57	Open
C_NC35.7_0050	0.00	0.00	0.00	Open
C_LL_0030	2368.90	4.48	4.36	Open
C_LL_0070	1843.16	3.48	2.75	Open
C_LL_0060	1938.84	3.67	2.99	Open
C_LL_0150	1401.11	2.65	1.53	Open
C_LL_0155	1384.32	2.62	1.93	Open
C_LL_0170	1188.47	3.54	3.59	Open
C_LL_0180	1143.71	3.41	3.39	Open
C_LL2.0_0030	55.95	1.47	2.57	Open
C_LL_0250	522.62	3.40	5.37	Open
C_ML0.7_0015	899.53	3.64	4.57	Open
C_ML0.7_0045	460.51	2.90	3.78	Open
C_NC49.2_0065	7542.05	4.50	2.24	Open
C_CL1.74_0070	156.67	4.12	17.35	Open
C_NC24.1-0.1_0020	0.00	0.00	0.00	Open
C_NC60.0-1.6-0.7_0010	1111.50	4.50	6.85	Open
C_HL_0000	52670.55	4.15	0.63	Open
C_HL_0005	28913.16	3.41	0.52	Open
C_KP_0001	2166.00	3.38	2.31	Open
C_HL_0520	0.00	0.00	0.00	Open
C_NC60.0_0148	0.00	0.00	0.00	Open

C_HL_0116	25159.18	4.03	0.87	Open
C_MB_0405	-1170.90	0.14	0.00	Open
C_MB_0400	0.00	0.00	0.00	Open
C_NA0.0_0008	987.46	3.99	5.47	Open
C_NA0.0_0010	987.45	3.99	5.47	Open
C_HL0.0_0005	52670.55	4.15	0.64	Open
C_KL_0110	34624.48	4.08	0.72	Open
C_MB_DUAL_015	0.00	0.00	0.00	Open
C_KL_0114	30524.45	3.60	0.57	Open
C_KL_0113	34624.48	4.08	0.73	Open
C_MB7.5_0015	9311.90	4.84	2.36	Open
C_HL3.7_0010	23445.27	3.76	0.74	Open
C_ON3.7_0010	0.00	0.00	0.00	Open
C_HL9.4_0056	2149.22	4.06	3.63	Open
C_KL_0234	8391.42	4.17	2.02	Open
C_NC_0017	300180.80	3.78	0.20	Open
C_NC_0013	300180.80	3.78	0.20	Open
C_NC_0009	300180.80	3.78	0.20	Open
C_NC_0023	300180.80	3.78	0.18	Open
C_NC_0020	300180.80	3.78	0.18	Open
C_NC_0019	300180.80	3.78	0.18	Open
C_NC_0015	300180.80	3.78	0.18	Open

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status
C_NC_0011	300180.80	3.78	0.18	Open
C_NC_0007	300180.80	3.78	0.18	Open
C_NC_0005	300180.80	3.78	0.18	Open
C_NC_0100	225621.90	3.51	0.18	Open
C_NC_0060	225621.90	3.51	0.18	Open
C_NC_0050	229509.30	3.57	0.19	Open
C_NC_0090	225621.90	3.51	0.18	Open
C_NC_0140	219309.20	3.41	0.17	Open
C_NC_0130	223574.70	3.48	0.18	Open
C_NC_0290	141563.10	3.32	0.21	Open
C_NC_0190	184423.30	4.32	0.34	Open
C_NC_0180	184423.30	4.32	0.34	Open
C_NC_0170	219309.20	3.41	0.17	Open
C_NC_0160	219309.20	3.41	0.17	Open
C_NC_0220	175293.80	4.11	0.31	Open
C_NC_0210	175920.80	4.12	0.31	Open
C_NC_0200	184423.30	4.32	0.34	Open
C_NC_0240	162353.80	3.81	0.27	Open
C_NC_0230	175293.80	4.11	0.31	Open
C_NC_0280	141563.10	3.32	0.21	Open

C_NC_0270	141563.10	3.32	0.21	Open
C_NC_0250	162353.80	3.81	0.27	Open
C_NC_0260	156283.30	3.66	0.25	Open
C_NC_0320	141563.10	3.32	0.21	Open
C_NC_0310	141563.10	3.32	0.21	Open
C_NC_0330	141563.10	3.32	0.21	Open
C_NC_0380	135747.20	3.18	0.19	Open
C_NC_0370	139129.20	3.26	0.20	Open
C_NC_0360	139129.20	3.26	0.20	Open
C_NC_0350	140748.00	3.30	0.20	Open
C_NC_0340	141563.10	3.32	0.21	Open
C_NC_0420	124444.10	2.92	0.16	Open
C_NC_0410	127237.10	2.98	0.17	Open
C_NC_0400	127237.10	2.98	0.17	Open
C_NC_0390	135747.20	3.18	0.19	Open
C_NC_0540	72052.51	1.69	0.06	Open
C_NC_0460	124444.10	2.92	0.16	Open
C_NC_0450	124444.10	2.92	0.16	Open
C_NC_0490	76893.70	1.80	0.07	Open
C_NC_0480	83961.71	1.97	0.08	Open
C_NC_0470	124444.10	2.92	0.16	Open
C_NC_0530	72052.51	1.69	0.06	Open
C_NC_0520	76893.70	1.80	0.07	Open
C_NC_0610	48862.05	1.15	0.03	Open
C_NC_0570	54525.96	1.28	0.04	Open
C_NC_0560	72052.51	1.69	0.06	Open
C_NC_0600	48862.05	1.15	0.03	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC_0590	53005.96	1.24	0.03	Open
C_NC_0580	54525.96	1.28	0.04	Open
C_NC_0770	188853.60	4.43	0.35	Open
C_NC_0780	177970.40	4.17	0.32	Open
C_NC_0680	198273.80	4.65	0.39	Open
C_NC_0660	38882.31	0.91	0.02	Open
C_NC_0670	34988.25	0.82	0.02	Open
C_NC_0650	38882.31	0.91	0.02	Open
C_NC_0640	41926.11	0.98	0.02	Open
C_NC_0630	48862.05	1.15	0.03	Open
C_NC_0710	193822.10	4.54	0.37	Open
C_NC_0690	198273.80	4.65	0.39	Open
C_NC_0700	194793.90	4.57	0.37	Open
C_NC_0760	188853.60	4.43	0.35	Open
C_NC_0750	188853.60	4.43	0.35	Open

C_NC_0740	188853.60	4.43	0.35	Open
C_NC_0730	193822.10	4.54	0.37	Open
C_NC_0620	48862.05	1.15	0.03	Open
C_NC_0300	141563.10	3.32	0.22	Open
C_NC_0150	219309.20	3.41	0.18	Open
C_NC_0120	223574.70	3.48	0.19	Open
C_NC_0110	225621.90	3.51	0.19	Open
C_NC_0040	229509.30	3.57	0.20	Open
C_NC_0030	229509.30	3.57	0.19	Open
C_NC_0025	229509.30	3.57	0.19	Open
C_NC_0440	124444.10	2.92	0.17	Open
C_NC_0550	72052.51	1.69	0.06	Open
C_NC_0510	76893.70	1.80	0.07	Open
C_NC_0500	76893.70	1.80	0.07	Open
C_NC_0810	109594.90	4.30	0.45	Open
C_NC_0830	109594.90	4.30	0.45	Open
C_NC_0820	109594.90	4.30	0.45	Open
C_NC_0840	109594.90	4.30	0.45	Open
C_NC_0860	109594.90	4.30	0.45	Open
C_NC_0870	109594.90	4.30	0.45	Open
C_NC_0880	108160.40	4.25	0.44	Open
C_NC_0890	108160.40	4.25	0.44	Open
C_NC_0910	108160.40	4.25	0.44	Open
C_NC_0920	108160.40	4.25	0.44	Open
C_NC_0930	100877.70	4.47	0.52	Open
C_NC_0940	100877.70	4.47	0.52	Open
C_NC_0960	100877.70	4.47	0.52	Open
C_NC_0980	100877.70	4.47	0.52	Open
C_NC_1010	83779.56	4.23	0.50	Open
C_NC_0990	100641.10	4.46	0.52	Open
C_NC_1020	83779.56	4.23	0.50	Open
C_NC_1030	81536.62	4.11	0.48	Open

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
C_NC_1040	81536.62	4.11	0.48	Open
C_NC_1050	79465.61	4.01	0.46	Open
C_NC_1060	75829.01	4.39	0.59	Open
C_NC_1070	75829.01	4.39	0.59	Open
C_NC_1080	75829.01	4.39	0.59	Open
C_NC_1110	60522.60	4.06	0.55	Open
C_NC_1100	66429.70	4.46	0.66	Open
C_NC_1090	68090.30	3.94	0.48	Open
C_NC_0850	109594.90	4.30	0.48	Open
C_NC_0900	108160.40	4.25	0.47	Open

C_NC_0950	100877.70	4.47	0.56	Open
C_NC_1130	60522.60	4.06	0.60	Open
C_NC_1000	87135.91	4.39	0.54	Open
C_ON_0830	13952.89	2.32	0.31	Open
C_ON12.6_0010	0.00	0.00	0.00	Open
C_ON_1070	7462.14	2.05	0.33	Open
C_NC38.7-1.2_0020	247.00	2.84	5.36	Open
C_NC_0790	140798.80	3.99	0.35	Open
C_NC_0080	225621.90	3.51	0.49	Open
C_NC_0070	225621.90	3.51	0.00	Open
C_NC_0720	193822.10	4.54	0.39	Open
C_NC_0970	100877.70	4.47	0.51	Open
C_NC_1120	60522.60	4.06	0.57	Open
C_ON_0093	0.00	0.00	0.00	Open
C_ON_0096	0.00	0.00	0.00	Closed
C_MB_DUAL_030	0.00	0.00	0.00	Open
C_NC_0670_DUAL_I	172197.50	3.21	0.17	Open
C_NC_0041	172197.50	3.21	0.17	Open
C_MB_DUAL_020	0.00	0.00	0.00	Open
C_MB_DUAL_014	0.01	0.00	0.00	Open
C_MB_DUAL_013	0.00	0.00	0.00	Open
C_MB_DUAL_010	0.00	0.00	0.00	Closed
C_MB3.9_0025	0.00	0.00	0.00	Closed
C_NC33.1S_0175	570.00	3.88	7.02	Open
C_NC_0670_DUAL_II	172197.50	3.21	0.17	Open
P_SOUTH_ADVANCEMENT	1307.75	0.00	-61.99	Open Pump
P_NORTH_ADVANCEMENT	987.46	0.00	-95.27	Open Pump
P_DEAD_OX	52670.55	0.00	-140.64	Open Pump
P_DUNAWAY	31545.35	0.00	-197.52	Open Pump
V_MB_0395	0.00	0.00	0.00	Closed Valve
V_HL_0520	2675.21	3.37	0.00	Open Valve
V_NC70.5_0020	0.00	0.00	0.00	Closed Valve
V_HL_0116	25159.18	3.52	0.00	Open Valve
V_NC60.0_0148	0.00	0.00	0.00	Closed Valve
V_MB_0406	-1170.90	0.13	0.00	Open Valve
V_NA0.0_0009	987.46	4.03	0.00	Open Valve
V_SA_0350	-536.21	3.42	0.00	Open Valve

Link Results: (continued)

Link ID	Flow GPM	Velocity fps	Unit Headloss ft/Kft	Status
V_MB1.7_0010	30194.80	1.23	164.18	Active Valve
V_KL7.6S_0010	16761.80	2.97	172.47	Active Valve
V_KL7.7_0025	895.85	2.54	72.70	Active Valve
V_NC13.6_0185	636.50	2.79	27.21	Active Valve
V_NC25.4-3.3_0050	9.50	0.24	1.30	Active Valve

V_NC33.1_0105	256.50	2.91	2.65	Active Valve
V_NC38.9-2.4_0080	2429.15	2.48	59.43	Active Valve
V_NC38.9-4.8-0.5_0093	2042.50	3.26	27.51	Active Valve
V_NC38.9-4.8_0145	1751.80	3.65	42.30	Active Valve
V_NC46.7-0.5_0070	418.00	4.26	0.00	Open Valve
V_NC38.7_0100	2765.45	3.49	35.72	Active Valve
V_NC54.2_0260	190.00	2.16	0.00	Open Valve
V_NC5.3_0055	1464.90	3.05	72.30	Active Valve
V_MB_DUAL_030	0.00	0.00	0.00	Closed Valve
V_ON_0095	0.00	0.00	0.00	Open Valve
V_NC_0800	140798.80	4.43	89.46	Active Valve
V_NC65.5_0010	4630.30	3.28	0.00	Open Valve
V_NC_0023	70671.46	4.09	0.00	Open Valve
V_NC_0110	2047.25	3.27	71.85	Active Valve
V_NC_0130	4265.50	3.03	0.00	Open Valve
V_NC_0170	34885.91	1.76	0.00	Open Valve
V_NC_0200	8502.50	3.39	8.61	Active Valve
V_NC_0210	627.00	4.00	7.08	Active Valve
V_NC_0230	12939.95	3.00	2.28	Active Valve
V_NC_0250	6070.50	3.16	0.00	Open Valve
V_NC_0260	14720.26	3.41	0.00	Open Valve
V_NC_0340	815.10	3.33	6.12	Active Valve
V_NC_0350	1618.80	3.37	4.85	Active Valve
V_NC_0370	3382.00	3.45	0.00	Open Valve
V_NC_0390	8510.10	3.39	5.70	Active Valve
V_NC_0410	2793.00	1.98	1.24	Active Valve
V_NC_0470	40482.36	4.59	5.73	Active Valve
V_NC_0480	7068.00	3.21	9.20	Active Valve
V_NC_0520	4841.20	3.43	8.55	Active Valve
V_NC_0560	17526.55	3.11	8.64	Active Valve
V_NC_0580	1520.00	3.17	9.89	Active Valve
V_NC_0590	4143.90	2.94	12.94	Active Valve
V_NC_0630	6935.95	3.61	8.05	Active Valve
V_NC_0640	3043.80	3.11	10.23	Active Valve
V_NC_0660	3894.05	2.76	16.79	Active Valve
V_NC_0670	8911.95	3.56	11.79	Active Valve
V_NC_0690	3479.85	3.55	10.20	Active Valve
V_NC_0700	971.85	2.76	14.09	Active Valve
V_NC_0730	4968.50	3.52	15.08	Active Valve
V_NC_0770	10883.20	3.85	8.89	Active Valve
V_NC_0780	37171.61	2.93	12.86	Active Valve
V_NC_0870	1434.50	2.99	3.58	Active Valve

Link Results: (continued)

Link ID	Flow GPM	VelocityUnit fps	Headloss ft/Kft	Status

V_NC_0920	7282.70	2.30	0.00	Open Valve
V_NC_0980	236.55	2.68	0.00	Open Valve
V_NC_0990	13505.20	2.39	0.52	Active Valve
V_NC_1020	1211.06	0.86	0.00	Open Valve
V_NC_1040	2071.00	2.11	0.00	Open Valve
V_NC_1050	3636.60	2.20	0.00	Open Valve
V_NC_1080	7738.71	2.44	0.00	Open Valve
V_NC_1090	1660.60	2.09	0.00	Open Valve
V_NC_1100	5907.10	2.36	0.00	Open Valve
V_NC_1140	3821.85	2.31	2.14	Active Valve
V_NC_1160	14539.75	2.58	6.31	Active Valve
V_NC_1270	1979.80	4.13	5.59	Active Valve
V_NC_1330	3456.10	3.53	6.69	Active Valve
V_NC_1340	13054.90	4.11	6.76	Active Valve
V_NC_1390	3800.00	2.30	4.37	Active Valve
V_NC_1400	4573.30	3.24	10.45	Active Valve
V_NC8.5_0120	2437.70	3.07	39.87	Active Valve
V_KL5.4-0.8_0040	10450.95	2.42	68.19	Active Valve
V_KL5.4_0030	18936.35	2.65	104.98	Active Valve
V_NC25.4-1.6-2.7_0030	883.50	3.61	0.00	Open Valve
V_NC33.1S-1.6_0010	1566.55	3.26	14.89	Active Valve
V_NC45.4_0040	1102.00	3.13	87.21	Active Valve
V_NC49.2_0180	950.00	2.69	9.26	Active Valve

APPENDIX E
Capital Costs Detailed Table

Table E-1. Capital Cost of Piping Owyhee Irrigation District.

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
Mitchell Butte	Kingman	Kingman Lateral	Junction	$248,000	$14,900	$29,800	$87,800	$380,500
			Pipe	$29,176,600	$1,750,600	$3,501,200	$10,328,500	$44,756,900
		5.4	Junction	$424,000	$25,400	$50,900	$150,100	$650,400
			Pipe	$12,743,100	$764,600	$1,529,200	$4,511,100	$19,548,000
			Valve	$480,000	$28,800	$57,600	$169,900	$736,300
		6.2	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$6,600	$400	$800	$2,300	$10,100
		7.4	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$406,500	$24,400	$48,800	$143,900	$623,600
		7.6	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$372,400	$22,300	$44,700	$131,800	$571,200
		7.6S	Valve	$300,000	$18,000	$36,000	$106,200	$460,200
		7.7	Junction	$64,000	$3,800	$7,700	$22,700	$98,200
			Pipe	$168,300	$10,100	$20,200	$59,600	$258,200
			Valve	$45,000	$2,700	$5,400	$15,900	$69,000
		9.3	Junction	$128,000	$7,700	$15,400	$45,300	$196,400

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$1,563,000	$93,800	$187,600	$553,300	$2,397,700
		10.0	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$21,400	$1,300	$2,600	$7,600	$32,900
			Subtotal	**$46,266,800**	**$2,776,000**	**$5,552,000**	**$16,378,400**	**$70,973,200**
	Kingman Pump	Kingman Pump Lateral	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$312,700	$18,800	$37,500	$110,700	$479,700
		0.1	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$10,300	$600	$1,200	$3,600	$15,700
			Subtotal	**$355,000**	**$21,300**	**$42,600**	**$125,700**	**$544,600**
	Mitchell Butte	Mitchell Butte Lateral	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$43,469,100	$2,608,100	$5,216,300	$15,388,100	$66,681,600
			Valve	$600,000	$36,000	$72,000	$212,400	$920,400
		0.4	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$175,200	$10,500	$21,000	$62,000	$268,700
		1.7	Valve	$300,000	$18,000	$36,000	$106,200	$460,200

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		3.9	Pipe	$1,600	$100	$200	$600	$2,500
		4.2	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$4,700	$300	$600	$1,700	$7,300
		4.8	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$58,400	$3,500	$7,000	$20,700	$89,600
		5.4	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$27,400	$1,600	$3,300	$9,700	$42,000
		6.0	Junction	$88,000	$5,300	$10,600	$31,200	$135,100
			Pipe	$713,600	$42,800	$85,600	$252,600	$1,094,600
		7.5	Junction	$144,000	$8,600	$17,300	$51,000	$220,900
			Pipe	$2,561,100	$153,700	$307,300	$906,600	$3,928,700
		8.5	Junction	$56,000	$3,400	$6,700	$19,800	$85,900
			Pipe	$377,700	$22,700	$45,300	$133,700	$579,400
		9.1	Junction	$56,000	$3,400	$6,700	$19,800	$85,900
			Pipe	$193,500	$11,600	$23,200	$68,500	$296,800
		9.4	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$124,300	$7,500	$14,900	$44,000	$190,700
		11.0.	Junction	$24,000	$1,400	$2,900	$8,500	$36,800

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$33,200	$2,000	$4,000	$11,800	$51,000
			Subtotal	**$49,255,900**	**$2,955,400**	**$5,910,700**	**$17,436,600**	**$75,558,600**
	North Canal	North Canal	Pipe	$746,574,800	$44,794,500	$89,589,000	$264,287,500	$1,145,245,800
			Valve	$3,850,000	$231,000	$462,000	$1,362,900	$5,905,900
		5.3	Junction	$56,000	$3,400	$6,700	$19,800	$85,900
			Pipe	$559,500	$33,600	$67,100	$198,100	$858,300
			Valve	$55,000	$3,300	$6,600	$19,500	$84,400
		7.3	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$281,500	$16,900	$33,800	$99,700	$431,900
		8.5	Junction	$56,000	$3,400	$6,700	$19,800	$85,900
			Pipe	$946,500	$56,800	$113,600	$335,100	$1,452,000
			Valve	$75,000	$4,500	$9,000	$26,600	$115,100
		10.5	Junction	$88,000	$5,300	$10,600	$31,200	$135,100
			Pipe	$1,166,500	$70,000	$140,000	$413,000	$1,789,500
		11.0	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$4,500	$300	$500	$1,600	$6,900
		12.4P	Junction	$96,000	$5,800	$11,500	$34,000	$147,300

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$1,241,300	$74,500	$149,000	$439,400	$1,904,200
		12.6	Junction	$0	$0	$0	$0	$0
		13.6	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$1,036,500	$62,200	$124,400	$366,900	$1,590,000
			Valve	$45,000	$2,700	$5,400	$15,900	$69,000
		14.5	Junction	$200,000	$12,000	$24,000	$70,800	$306,800
			Pipe	$3,904,100	$234,200	$468,500	$1,382,000	$5,988,800
		18.6	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$3,100	$200	$400	$1,100	$4,800
		19.9	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$5,600	$300	$700	$2,000	$8,600
		20.3	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$168,200	$10,100	$20,200	$59,600	$258,100
		22.8	Junction	$160,000	$9,600	$19,200	$56,600	$245,400
			Pipe	$821,900	$49,300	$98,600	$290,900	$1,260,700
		24.1	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$24,800	$1,500	$3,000	$8,800	$38,100
		25.4	Junction	$408,000	$24,500	$49,000	$144,500	$626,000

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$8,852,600	$531,200	$1,062,300	$3,133,800	$13,579,900
			Valve	$75,000	$4,500	$9,000	$26,600	$115,100
		26.4	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$1,145,600	$68,700	$137,500	$405,500	$1,757,300
		27.8	Junction	$80,000	$4,800	$9,600	$28,300	$122,700
			Pipe	$297,200	$17,800	$35,700	$105,200	$455,900
		28.7	Junction	$288,000	$17,300	$34,600	$102,000	$441,900
			Pipe	$2,695,400	$161,700	$323,400	$954,200	$4,134,700
		29.7	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$39,900	$2,400	$4,800	$14,100	$61,200
		30.2	Junction	$96,000	$5,800	$11,500	$34,000	$147,300
			Pipe	$230,200	$13,800	$27,600	$81,500	$353,100
		31.0	Junction	$160,000	$9,600	$19,200	$56,600	$245,400
			Pipe	$1,070,100	$64,200	$128,400	$378,800	$1,641,500
		31.5	Junction	$80,000	$4,800	$9,600	$28,300	$122,700
			Pipe	$259,700	$15,600	$31,200	$92,000	$398,500
		32.2	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$504,900	$30,300	$60,600	$178,700	$774,500

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		33.1	Junction	$72,000	$4,300	$8,600	$25,500	$110,400
			Pipe	$409,500	$24,600	$49,100	$145,000	$628,200
			Valve	$30,000	$1,800	$3,600	$10,600	$46,000
		33.1S	Junction	$96,000	$5,800	$11,500	$34,000	$147,300
			Pipe	$438,800	$26,300	$52,700	$155,300	$673,100
			Valve	$55,000	$3,300	$6,600	$19,500	$84,400
		35.1	Junction	$96,000	$5,800	$11,500	$34,000	$147,300
			Pipe	$282,600	$17,000	$33,900	$100,100	$433,600
		35.7	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$35,600	$2,100	$4,300	$12,600	$54,600
		37.6	Junction	$88,000	$5,300	$10,600	$31,200	$135,100
			Pipe	$822,400	$49,300	$98,700	$291,100	$1,261,500
		38.7	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$693,100	$41,600	$83,200	$245,400	$1,063,300
			Valve	$75,000	$4,500	$9,000	$26,600	$115,100
		38.9	Junction	$512,000	$30,700	$61,400	$181,200	$785,300
			Pipe	$13,907,600	$834,500	$1,668,900	$4,923,300	$21,334,300
			Valve	$185,000	$11,100	$22,200	$65,500	$283,800

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, CONSTRUCTION MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		39.8	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$112,100	$6,700	$13,500	$39,700	$172,000
			Subtotal	**$796,197,200**	**$47,771,800**	**$95,543,700**	**$281,853,800**	**$1,221,366,500**
	Ontario-Nyssa	Ontario-Nyssa Canal	Junction	$760,000	$45,600	$91,200	$269,000	$1,165,800
			Pipe	$41,423,500	$2,485,400	$4,970,800	$14,663,900	$63,543,600
			Valve	$600,000	$36,000	$72,000	$212,400	$920,400
		0.1	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$43,600	$2,600	$5,200	$15,400	$66,800
		0.3	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$335,300	$20,100	$40,200	$118,700	$514,300
		0.5	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$592,000	$35,500	$71,000	$209,600	$908,100
		3.7	Pipe	$6,156,100	$369,400	$738,700	$2,179,300	$9,443,500
		12.6	Pipe	$15,200	$900	$1,800	$5,400	$23,300
		13.2	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$39,600	$2,400	$4,700	$14,000	$60,700

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		13.9	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$150,500	$9,000	$18,100	$53,300	$230,900
		17.9	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$68,800	$4,100	$8,300	$24,400	$105,600
		18.2	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$68,900	$4,100	$8,300	$24,400	$105,700
		19.4	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$31,000	$1,900	$3,700	$11,000	$47,600
		19.9	Pipe	$103,600	$6,200	$12,400	$36,700	$158,900
			Subtotal	**$50,524,100**	**$3,031,400**	**$6,062,900**	**$17,885,500**	**$77,503,900**
	North Canal	Malheur Siphon	Pipe	$72,850,000	$4,371,000	$8,742,000	$25,788,900	$111,751,900
			Valve	$300,000	$18,000	$36,000	$106,200	$460,200
			Subtotal	**$73,150,000**	**$4,389,000**	**$8,778,000**	**$25,895,100**	**$112,212,100**
Dead Ox Flat above Jacobsen Gulch	North Canal	North Canal	Pipe	$29,000,500	$1,740,000	$3,480,100	$10,266,200	$44,486,800
			Valve	$1,250,000	$75,000	$150,000	$442,500	$1,917,500
		43.2	Junction	$440,000	$26,400	$52,800	$155,800	$675,000

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$24,663,900	$1,479,800	$2,959,700	$8,731,000	$37,834,400
		45.4	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$87,800	$5,300	$10,500	$31,100	$134,700
			Valve	$45,000	$2,700	$5,400	$15,900	$69,000
		46.7	Junction	$144,000	$8,600	$17,300	$51,000	$220,900
			Pipe	$681,100	$40,900	$81,700	$241,100	$1,044,800
			Valve	$40,000	$2,400	$4,800	$14,200	$61,400
		48.3	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$43,300	$2,600	$5,200	$15,300	$66,400
		49.2	Junction	$368,000	$22,100	$44,200	$130,300	$564,600
			Pipe	$2,452,300	$147,100	$294,300	$868,100	$3,761,800
			Valve	$45,000	$2,700	$5,400	$15,900	$69,000
		49.4	Junction	$64,000	$3,800	$7,700	$22,700	$98,200
			Pipe	$241,800	$14,500	$29,000	$85,600	$370,900
		50.8	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$211,600	$12,700	$25,400	$74,900	$324,600
		52.5	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$17,000	$1,000	$2,000	$6,000	$26,000

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		53.2	Junction	$112,000	$6,700	$13,400	$39,600	$171,700
			Pipe	$365,000	$21,900	$43,800	$129,200	$559,900
		54.2	Junction	$184,000	$11,000	$22,100	$65,100	$282,200
			Pipe	$1,030,800	$61,800	$123,700	$364,900	$1,581,200
			Valve	$30,000	$1,800	$3,600	$10,600	$46,000
		54.3	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$55,300	$3,300	$6,600	$19,600	$84,800
		54.4	Junction	$136,000	$8,200	$16,300	$48,200	$208,700
			Pipe	$552,900	$33,200	$66,300	$195,700	$848,100
			Subtotal	**$62,461,200**	**$3,747,700**	**$7,495,300**	**$22,111,300**	**$95,815,500**
Dead Ox Flat below Jacobsen Gulch	North Canal	North Canal	Junction	$296,000	$17,800	$35,500	$104,800	$454,100
			Pipe	$21,045,200	$1,262,700	$2,525,400	$7,450,000	$32,283,300
			Valve	$1,035,000	$62,100	$124,200	$366,400	$1,587,700
		55.5	Junction	$88,000	$5,300	$10,600	$31,200	$135,100
			Pipe	$285,900	$17,200	$34,300	$101,200	$438,600
		55.6	Junction	$376,000	$22,600	$45,100	$133,100	$576,800

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$3,631,400	$217,900	$435,800	$1,285,500	$5,570,600
		58.7	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$108,700	$6,500	$13,000	$38,500	$166,700
		59.5	Junction	$40,000	$2,400	$4,800	$14,200	$61,400
			Pipe	$181,500	$10,900	$21,800	$64,300	$278,500
		60	Junction	$136,000	$8,200	$16,300	$48,200	$208,700
			Pipe	$1,782,500	$107,000	$213,900	$631,000	$2,734,400
			Valve	$75,000	$4,500	$9,000	$26,600	$115,100
		61.3	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$81,200	$4,900	$9,700	$28,700	$124,500
		62.1	Junction	$72,000	$4,300	$8,600	$25,500	$110,400
			Pipe	$319,900	$19,200	$38,400	$113,300	$490,800
		64.7	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$97,500	$5,800	$11,700	$34,500	$149,500
			Subtotal	**$29,739,700**	**$1,784,400**	**$3,568,800**	**$10,527,900**	**$45,620,800**
	Lower Lift	Lower Lift Lateral	Junction	$184,000	$11,000	$22,100	$65,100	$282,200

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$442,700	$26,600	$53,100	$156,700	$679,100
		0.6	Pipe	$9,800	$600	$1,200	$3,500	$15,100
		1.8	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$7,600	$500	$900	$2,700	$11,700
		2.0	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$9,700	$600	$1,200	$3,500	$15,000
			Subtotal	**$685,800**	**$41,100**	**$82,300**	**$242,800**	**$1,052,000**
	Middle Lift	Middle Lift Lateral	Junction	$208,000	$12,500	$25,000	$73,700	$319,200
			Pipe	$4,031,100	$241,900	$483,700	$1,427,000	$6,183,700
		0.7	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$47,500	$2,900	$5,700	$16,800	$72,900
		1.3	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$74,000	$4,400	$8,900	$26,200	$113,500
		2.0	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$24,200	$1,500	$2,900	$8,600	$37,200
		3.1	Junction	$96,000	$5,800	$11,500	$34,000	$147,300

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$283,100	$17,000	$34,000	$100,200	$434,300
		3.4	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$38,000	$2,300	$4,600	$13,500	$58,400
		4.0	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$126,500	$7,600	$15,200	$44,800	$194,100
		4.1	Junction	$48,000	$2,900	$5,800	$17,000	$73,700
			Pipe	$48,800	$2,900	$5,900	$17,300	$74,900
			Subtotal	**$5,169,300**	**$310,200**	**$620,300**	**$1,829,900**	**$7,929,700**
	High Lift	High Lift Lateral	Junction	$344,000	$20,600	$41,300	$121,800	$527,700
			Pipe	$13,452,600	$807,200	$1,614,300	$4,762,200	$20,636,300
			Valve	$375,000	$22,500	$45,000	$132,800	$575,300
		0.0	Junction	$0	$0	$0	$0	$0
			Pipe	$8,500	$500	$1,000	$3,000	$13,000
		0.9	Junction	$104,000	$6,200	$12,500	$36,800	$159,500
			Pipe	$159,000	$9,500	$19,100	$56,300	$243,900
		2.5	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$33,100	$2,000	$4,000	$11,700	$50,800

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
		2.7P	Junction	$40,000	$2,400	$4,800	$14,200	$61,400
			Pipe	$26,500	$1,600	$3,200	$9,400	$40,700
		2.9	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$16,200	$1,000	$1,900	$5,700	$24,800
		3.7	Pipe	$402,200	$24,100	$48,300	$142,400	$617,000
		5.5	Junction	$88,000	$5,300	$10,600	$31,200	$135,100
			Pipe	$239,200	$14,400	$28,700	$84,700	$367,000
		6.4	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$59,500	$3,600	$7,100	$21,100	$91,300
		6.7	Junction	$24,000	$1,400	$2,900	$8,500	$36,800
			Pipe	$44,500	$2,700	$5,300	$15,800	$68,300
		7.2	Junction	$72,000	$4,300	$8,600	$25,500	$110,400
			Pipe	$528,500	$31,700	$63,400	$187,100	$810,700
		7.2E	Junction	$112,000	$6,700	$13,400	$39,600	$171,700
			Pipe	$195,000	$11,700	$23,400	$69,000	$299,100
		7.2M	Junction	$64,000	$3,800	$7,700	$22,700	$98,200
			Pipe	$105,500	$6,300	$12,700	$37,400	$161,900
		7.2W	Junction	$72,000	$4,300	$8,600	$25,500	$110,400

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$260,200	$15,600	$31,200	$92,100	$399,100
		9.4	Junction	$80,000	$4,800	$9,600	$28,300	$122,700
			Pipe	$287,900	$17,300	$34,500	$101,900	$441,600
		9.4P	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$53,400	$3,200	$6,400	$18,900	$81,900
		10.0	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$38,200	$2,300	$4,600	$13,500	$58,600
		10.8	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$70,900	$4,300	$8,500	$25,100	$108,800
			Subtotal	**$17,451,800**	**$1,047,100**	**$2,094,200**	**$6,177,900**	**$26,771,000**
	Crystal Lift	Crystal Lift Lateral	Junction	$120,000	$7,200	$14,400	$42,500	$184,100
			Pipe	$1,142,200	$68,500	$137,100	$404,300	$1,752,100
		1.74	Junction	$32,000	$1,900	$3,800	$11,300	$49,000
			Pipe	$95,800	$5,800	$11,500	$33,900	$147,000
		1.84	Junction	$64,000	$3,800	$7,700	$22,700	$98,200
			Pipe	$154,500	$9,300	$18,500	$54,700	$237,000

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Subtotal	**$1,608,600**	**$96,500**	**$193,000**	**$569,400**	**$2,467,500**
Advancements	South Advancement		Junction	$216,000	$13,000	$25,900	$76,500	$331,400
			Pipe	$308,700	$18,500	$37,000	$109,300	$473,500
			Valve	$40,000	$2,400	$4,800	$14,200	$61,400
		0.5	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$4,700	$300	$600	$1,700	$7,300
		2.3	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$14,100	$800	$1,700	$5,000	$21,600
		2.5	Junction	$8,000	$500	$1,000	$2,900	$12,400
			Pipe	$6,000	$400	$700	$2,100	$9,200
			Subtotal	**$613,500**	**$36,800**	**$73,600**	**$217,200**	**$941,100**
	North Advancement		Junction	$40,000	$2,400	$4,800	$14,200	$61,400
			Pipe	$59,500	$3,600	$7,100	$21,100	$91,300
		0.0	Pipe	$300	$0	$0	$100	$400
			Valve	$45,000	$2,700	$5,400	$15,900	$69,000
		0.2E	Junction	$40,000	$2,400	$4,800	$14,200	$61,400

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	PROPOSED FEATURE	CONSTRUCTION COSTS	ENGINEERING, CONSTRUCTION MANAGEMENT, SURVEY	GENERAL MANAGEMENT, GENERAL CONTRACTOR	CONTINGENCY COSTS	TOTAL COST
			Pipe	$10,600	$600	$1,300	$3,800	$16,300
		0.4	Junction	$16,000	$1,000	$1,900	$5,700	$24,600
			Pipe	$17,700	$1,100	$2,100	$6,300	$27,200
		1.0	Pipe	$1,400	$100	$200	$500	$2,200
			Subtotal	**$230,600**	**$13,800**	**$27,700**	**$81,600**	**$353,700**
			Total	**$1,133,709,400**	**$68,022,600**	**$136,045,100**	**$401,333,100**	**$1,739,110,200**

APPENDIX F
Energy Conservation Detailed Table

Table F-1. Kingman Lateral Estimated On-Farm Energy Savings.

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	ANNUAL EXISTING PUMP ENERGY (KWH)	PROPOSED ANNUAL PUMP ENERGY (KWH)	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
Mitchell Butte	Kingman[1]	Kingman Lateral	720,900	329,500	160,100	391,400
		5.4	1,214,500	115,200	449,600	1,099,300
		6.2	18,900	2,400	6,700	16,500
		7.4	198,000	106,600	37,400	91,400
		7.6	15,600	1,300	5,800	14,300
		7.7	45,900	0	18,800	45,900
		9.3	138,900	12,200	51,800	126,700
		10	29,200	11,200	7,400	18,000
		Subtotal	**2,381,900**	**578,200**	**737,700**	**1,803,700**
	Mitchell Butte	Mitchell Butte Lateral	215,300	60,500	63,300	154,800
		0.4	30,700	9,100	8,800	21,600
		3.9	59,200	9,800	20,200	49,400
		4.2	23,100	4,500	7,600	18,600
		4.8	33,100	4,400	11,700	28,700
		5.4	49,300	6,400	17,500	42,900
		6.0	198,000	22,900	71,600	175,100
		7.5	417,500	41,400	153,800	376,100
		8.5	158,400	22,800	55,500	135,600
		9.1	93,300	13,700	32,600	79,600
		11.0	92,800	1,800	37,200	91,000
		9.4	107,700	21,800	35,100	85,900

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	ANNUAL EXISTING PUMP ENERGY (KWH)	PROPOSED ANNUAL PUMP ENERGY (KWH)	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
		Subtotal	**1,478,200**	**219,000**	**515,000**	**1,259,200**
	North Canal	North Canal	1,019,000	646,800	152,200	372,200
		5.3	104,300	1,500	42,000	102,800
		8.5	87,300	14,600	29,700	72,700
		11.0	31,200	19,200	4,900	12,000
		13.6	243,800	70,300	71,000	173,500
		14.5	551,800	142,300	167,500	409,500
		20.3	168,500	109,100	24,300	59,400
		24.1	139,200	91,000	19,700	48,200
		25.4	1,661,100	208,800	594,000	1,452,300
		26.4	283,200	30,300	103,400	252,900
		27.8	148,500	73,200	30,800	75,300
		28.7	520,500	89,800	176,200	430,700
		29.7	49,200	27,900	8,700	21,300
		30.2	193,600	80,700	46,200	112,900
		31.0	218,400	34,200	75,300	184,200
		31.5	84,800	22,100	25,600	62,700
		32.2	142,200	40,500	41,600	101,700
		33.1	247,200	80,400	68,200	166,800
		33.1S	129,600	22,600	43,800	107,000
		35.1	156,800	50,400	43,500	106,400
		37.6	247,600	14,200	95,500	233,400
		38.7	524,300	232,700	119,300	291,600
		38.9	1,506,800	545,300	393,300	961,500

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	ANNUAL EXISTING PUMP ENERGY (KWH)	PROPOSED ANNUAL PUMP ENERGY (KWH)	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
		39.8	19,900	3,600	6,700	16,300
		Subtotal	**8,478,600**	**2,651,500**	**2,383,300**	**5,827,100**
	Ontario-Nyssa	Ontario-Nyssa Canal	1,366,000	408,700	391,500	957,300
		13.2	55,700	11,800	18,000	43,900
		19.4	56,900	28,700	11,500	28,200
		Subtotal	**1,478,600**	**449,200**	**421,000**	**1,029,400**
Dead Ox Flat above Jacobsen Gulch	North Canal	North Canal	192,400	127,800	26,400	64,600
		43.2	1,022,300	537,400	198,300	484,900
		45.4	71,500	48,000	9,600	23,500
		46.7	122,300	52,900	28,400	69,400
		49.2	449,000	199,500	102,000	249,500
		49.4	48,800	32,800	6,500	16,000
		50.8	103,400	61,200	17,300	42,200
		53.2	104,100	66,200	15,500	37,900
		54.2	316,200	136,800	73,400	179,400
		54.4	266,400	135,400	53,600	131,000
		Subtotal	**2,696,300**	**1,397,800**	**531,100**	**1,298,500**
Dead Ox Flat below Jacobsen Gulch	North Canal	North Canal	831,600	418,900	168,800	412,700
		55.5	33,100	18,800	5,800	14,300

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	ANNUAL EXISTING PUMP ENERGY (KWH)	PROPOSED ANNUAL PUMP ENERGY (KWH)	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
		55.6	575,600	198,300	154,300	377,300
		58.7	88,200	41,800	19,000	46,400
		59.5	56,800	22,700	13,900	34,100
		60	501,300	188,400	128,000	312,900
		62.1	120,700	76,700	18,000	44,000
		Subtotal	**2,207,400**	**965,700**	**507,900**	**1,241,700**
	Lower Lift	Lower Lift Lateral	114,300	15,200	40,500	99,100
		2.0	12,800	3,100	4,000	9,700
		Subtotal	**127,100**	**18,300**	**44,500**	**108,800**
	Middle Lift	Middle Lift Lateral	345,900	99,400	100,800	246,500
		0.7	29,900	6,400	9,600	23,500
		3.1	252,300	86,800	67,700	165,500
		4.0	111,900	54,400	23,500	57,500
		4.1	32,600	15,000	7,200	17,600
		Subtotal	**772,600**	**261,800**	**208,900**	**510,800**
	High Lift	High Lift Lateral	490,900	242,800	101,500	248,100
		0.9	73,700	36,900	15,100	36,800
		2.9	13,700	6,200	3,100	7,500
		5.5	116,100	48,000	27,900	68,100
		6.7	70,500	28,400	17,200	42,100
		7.2	142,000	63,300	32,200	78,700

DIVISION	CONVEYANCE	LATERAL OR SUB-LATERAL	ANNUAL EXISTING PUMP ENERGY (KWH)	PROPOSED ANNUAL PUMP ENERGY (KWH)	PUMP ENERGY CONSERVATION (KWH) CURRENT PRESSURE PATRONS ONLY	PUMP ENERGY CONSERVATION (KWH) 100% OF PATRONS PRESSURIZED
		7.2E	142,800	71,400	29,200	71,400
		7.2M	73,600	33,900	16,200	39,700
		7.2W	119,500	56,600	25,700	62,900
		9.4	89,900	42,400	19,400	47,500
		10.8	59,900	23,200	15,000	36,700
		Subtotal	**1,392,700**	**653,100**	**302,500**	**739,600**
	Crystal Lift	Crystal Lift Lateral	159,200	21,500	56,300	137,700
		1.74	56,300	14,100	17,300	42,200
		1.84	129,500	29,700	40,800	99,800
		Subtotal	**345,000**	**65,300**	**114,400**	**279,700**
Advancements	South Advancement	*Subtotal*	**54,000**	**23,800**	**12,400**	**30,200**
	North Advancement	0.0	2,300	300	800	2,000
		0.2E	3,100	800	900	2,300
		0.4	4,600	1,200	1,400	3,400
		Subtotal	**10,000**	**2,300**	**3,100**	**7,700**
		Total	**21,422,200**	**7,286,200**	**5,781,600**	**14,136,000**

Notes:

1. By interconnecting the Kingman Pump Lateral with Kingman Lateral 7.6-9.6N, the Kingman Pump could be decommissioned, saving an estimated 115,700 kWh/season.