

MAOP Validation Report

Confidential
 Provided to CPSD pursuant to Public Utilities Code section 583



Report valid for the following date: 5/1/2019

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
	0.00	0.20	FLNG		12.75		0.000		0		ANSI_600		N/A		1.00	1440	0		0	840	1	0.00	Y	MAOP-R	840
	0.20	3.00	VALV	1962	12.75		0.000		0		ANSI_600		N/A		1.00	1440	0		0	840	1	0.00	Y	MAOP-R	840
	3.00	3.40	FLNG	1962	12.75		0.000		0		ANSI_600		N/A		1.00	1440	0		0	840	1	0.00	Y	MAOP-R	840
	3.40	3.90	MISC	1962	12.75		0.000		0		WOG_3000		N/A		1.00	3000	0		0	840	1	0.00	Y	MAOP-R	840
	3.90	6.00	ELBW	1962	12.75		0.375		35000		N/A		N/A		1.00	1029	0		0	840	1	40.80	Y	MAOP-R	840
	6.00	6.50	PIPE	1962	12.75		0.375		35000				Seamless		1.00	1029	0		0	840	1	40.80	Y	MAOP-R	840
	6.50	8.60	ELBW	1962	12.75		0.375		35000		N/A		N/A		1.00	1029	0		0	840	1	40.80	Y	MAOP-R	840
	8.60	10.30	RDCR	1962	20.00		0.500		42000		N/A		N/A		1.00	1050	0		0	840	1	40.00	Y	MAOP-R	840
	10.30	11.30	PIPE	1962	20.00		0.500		42000				Seamless		1.00	1050	0		0	840	1	40.00	Y	MAOP-R	840
	11.30	13.80	TEE	1962	20.00		0.500		42000		N/A		N/A		1.00	1050	1350	1962	0	840	1	40.00	Y	MAOP-R	840
	13.80	15.80	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	15.80	16.00	MISC	1962	1.90		0.000		0		WOG_6000		N/A		1.00	6000	1350	1962	0	840	1	0.00	Y	MAOP-R	840
	16.00	35.00	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	35.00	75.00	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	75.00	103.20	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	103.20	162.70	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	162.70	164.70	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	164.70	167.20	TEE	1962	20.00		0.500		42000		N/A		N/A		1.00	1050	1350	1962	0	840	1	40.00	Y	MAOP-R	840
	167.20	173.20	PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	1350	1962	0	840	1	50.00	Y	MAOP-R	840
	173.20	173.80	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	875	0		0	840	1	48.00	Y	MAOP-R	840
	173.80	183.80	PIPE	1962	20.00		0.500		52000				Double Submerged Arc We		1.00	1300	1282	1962	854	840	1	32.30	Y	MAOP-R	840
	183.80	186.70	PIPE	1962	20.00		0.500		52000				Double Submerged Arc We		1.00	1872	1282	1962	1025	840	1	32.30	Y	MAOP-R	840
	186.70	214.80	PIPE	1962	20.00		0.344		52000				Double Submerged Arc We		1.00	1287	1282	1962	1025	840	1	47.00	Y	MAOP-R	840
	214.80	222.80	PIPE	1962	20.00		0.344		52000				Double Submerged Arc We		1.00	1287	1282	1962	1025	840	1	47.00	Y	MAOP-R	840
	222.80	253.80	PIPE	1962	20.00		0.344		52000				Double Submerged Arc We		1.00	1287	1282	1962	1025	840	1	47.00	Y	MAOP-R	840
	253.80	1031.00	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	1031.00	1031.20	SLVE	1967	21.25		0.500		50000				N/A		1.00	1694	0		0	840	1	35.70	Y	MAOP-R	840

Footnote Key
 1 Historical Procurement Practices / Sound Engineering Analysis
 2 Field Verification
 A Design Pressure per 49 CFR, §192.611
 B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key
 R = MAOP per MAOP Catalog
 T = Test Pressure
 D = Design Pressure

Other Nomenclature
 N/A = Not Applicable

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Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
	1031.20	1032.70	PIPE	1967	20.00		0.375		52000				Electric Resistance Weld	1	1.00	1404	0		0	840	1	43.10	Y	MAOP-R	840
	1032.70	1034.40	ELBW	1967	20.00		0.375	1	35000	1	N/A		N/A		1.00	945	0		0	840	1	64.00	Y	MAOP-R	840
	1034.40	1041.00	PIPE	1967	20.00		0.375		52000				Electric Resistance Weld	1	1.00	1404	0		0	840	1	43.10	Y	MAOP-R	840
	1041.00	1053.60	PIPE	1967	20.00		0.375		46000				Electric Resistance Weld	1	1.00	1242	1673	1967	1338	840	1	48.70	Y	MAOP-R	840
	1053.60	1299.60	PIPE	1967	20.00		0.375		46000				Electric Resistance Weld	1	1.00	1242	1673	1967	1338	840	1	48.70	Y	MAOP-R	840
	1299.60	1300.70	PIPE	1967	20.00		0.375		46000				Electric Resistance Weld	1	1.00	1242	1673	1967	1338	840	1	48.70	Y	MAOP-R	840
	1300.70	1304.60	ELBW	1967	20.00		0.375		35000	1	N/A		N/A		1.00	945	1673	1967	1338	840	1	64.00	Y	MAOP-R	840
	1304.60	1614.20	PIPE	1967	20.00		0.375		46000				Electric Resistance Weld	1	1.00	1035	1673	1967	1338	840	1	48.70	Y	MAOP-R	840
	1614.20	1618.50	PIPE	1967	20.00		0.375		52000				Electric Resistance Weld	1	1.00	1170	0		0	840	1	43.10	Y	MAOP-R	840
	1618.50	1620.70	ELBW	1967	20.00		0.375	1	35000	1	N/A		N/A		1.00	945	0		0	840	1	64.00	Y	MAOP-R	840
	1620.70	1622.20	PIPE	1967	20.00		0.375		52000				Electric Resistance Weld	1	1.00	1404	0		0	840	1	43.10	Y	MAOP-R	840
	1622.20	1622.40	SLVE	1967	21.25		0.500		50000				N/A		1.00	1694	0		0	840	1	35.70	Y	MAOP-R	840
	1622.40	1867.40	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	1867.40	2095.40	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	2095.40	2095.80	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	2095.80	2873.80	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	2873.80	2874.10	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	2874.10	3251.10	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	3251.10	3877.60	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	3877.60	3878.70	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	3878.70	4131.20	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	4131.20	4131.50	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	4131.50	4447.40	PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	1080	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
	4447.40	4508.40	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	4508.40	4508.70	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	4508.70	4760.70	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	4760.70	4761.40	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	4761.40	5138.40	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	5138.40	5263.40	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	5263.40	5264.50	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	5264.50	5449.50	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	5449.50	5549.50	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	5549.50	5653.50	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
	5653.50	5654.70	ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
	5654.70	6001.30	PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840

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6001.30	6101.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
6101.30	6304.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
6304.30	6305.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
6305.00	6650.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
6650.00	6650.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
6650.50	7633.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
7633.40	7634.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
7634.60	7776.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
7776.00	7876.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
7876.00	8126.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8126.00	8226.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8226.00	8566.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8566.00	8567.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
8567.80	8590.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8590.00	8592.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
8592.80	8824.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8824.40	8842.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8842.40	8843.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
8843.00	8863.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8863.00	8868.00		PIPE	1962	20.00		0.250		60000				Double Submerged Arc We		1.00	900	1282	1962	1025	840	1	56.00	Y	MAOP-R	840
8868.00	8925.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
8925.00	9030.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
9030.00	9030.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
9030.80	9553.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
9553.90	9570.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
9570.30	9571.40		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
9571.40	9653.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
9653.40	9685.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
9685.40	9686.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
9686.50	10434.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
10434.50	10646.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
10646.50	10647.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
10647.70	10756.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
10756.70	10758.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
10758.30	10918.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840

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10918.30	10919.70		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
10919.70	11074.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11074.70	11075.20		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
11075.20	11183.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11183.10	11184.00		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
11184.00	11368.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11368.60	11417.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11417.60	11419.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
11419.50	11729.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11729.50	11729.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
11729.90	11939.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
11939.90	11940.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
11940.30	12350.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
12350.30	12350.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
12350.90	12607.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
12607.70	12609.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
12609.50	12709.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
12709.50	12984.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
12984.50	13098.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
13098.50	13098.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
13098.90	13485.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
13485.90	13585.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
13585.90	13735.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
13735.90	13835.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
13835.90	14150.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
14150.90	14162.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
14162.90	14163.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1050	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
14163.90	14251.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
14251.90	14460.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
14460.90	14461.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
14461.80	15060.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
15060.30	15061.40		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
15061.40	15309.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
15309.90	15310.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
15310.80	15559.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840

Footnote Key
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 B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key
 R = MAOP per MAOP Catalog
 T = Test Pressure
 D = Design Pressure

Other Nomenclature
 N/A = Not Applicable

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
15559.20	15560.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
15560.50	15682.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
15682.90	15926.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
15926.90	16111.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
16111.90	16113.00		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
16113.00	16263.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
16263.00	16263.40		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1282	1962	1025	840	1	48.00	Y	MAOP-R	840
16263.40	16378.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
16378.40	16409.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1282	1962	1025	840	1	64.60	Y	MAOP-R	840
16409.40	16478.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
16478.40	16548.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
16548.40	16549.10		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
16549.10	16879.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
16879.10	16920.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
16920.10	16920.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1050	1159	1962	927	840	1	48.00	Y	MAOP-R	840
16920.60	16979.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
16979.60	17293.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17293.60	17294.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
17294.30	17664.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17664.30	17666.40		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
17666.40	17751.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17751.80	17803.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17803.80	17877.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17877.80	17961.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17961.80	17977.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
17977.80	18005.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
18005.80	18274.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
18274.50	18277.20		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
18277.20	18284.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
18284.50	18287.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
18287.30	18886.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
18886.40	18889.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
18889.50	18926.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
18926.40	18929.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
18929.60	19179.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840

Footnote Key

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- B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key

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Other Nomenclature

N/A = Not Applicable

MAOP Report Version 3.0.030912

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
19179.00	19304.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19304.00	19429.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19429.00	19429.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
19429.90	19554.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19554.90	19577.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19577.90	19621.90		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
19621.90	19622.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1159	1962	927	840	1	48.00	Y	MAOP-R	840
19622.30	19630.30		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
19630.30	19655.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19655.30	19714.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
19714.30	19714.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
19714.70	20324.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
20324.20	20325.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
20325.20	20706.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
20706.70	20707.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
20707.50	21088.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
21088.50	21089.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
21089.30	21471.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
21471.30	21472.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
21472.10	21853.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
21853.70	21854.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
21854.10	22788.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
22788.40	22791.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
22791.10	22915.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
22915.70	22917.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
22917.80	23674.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
23674.80	23762.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
23762.80	24132.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
24132.80	24132.80		TAP	1962	1.05		0.000		0				N/A		1.00	0	1159	1962	927	840	1			MAOP-D	0
24132.80	24632.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
24632.80	24824.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
24824.80	24924.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
24924.80	25855.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
25855.80	26244.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
26244.80	26619.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840

Footnote Key

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Other Nomenclature

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MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
26619.80	27552.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
27552.80	27553.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
27553.80	27756.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
27756.50	27758.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
27758.10	28867.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
28867.60	28868.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
28868.30	28894.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
28894.30	28920.30		PIPE	1962	20.00		0.281		52000				Double Submerged Arc W		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
28920.30	28944.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
28944.30	29342.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
29342.30	29342.30		TAP	1962	2.38		0.000		0				N/A		1.00	0	1159	1962	927	840	1			MAOP-D	0
29342.30	29351.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
29351.30	29351.30		TAP	1962	1.32		0.000		0				N/A		1.00	0	1159	1962	927	840	1			MAOP-D	0
29351.30	29363.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
29363.30	29463.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
29463.30	32461.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
32461.00	32561.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
32561.00	34059.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
34059.80	34109.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
34109.80	34110.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1159	1962	927	840	1	48.00	Y	MAOP-R	840
34110.70	34160.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
34160.70	35654.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
35654.30	35737.30		PIPE	1962	20.00		0.281		52000				Double Submerged Arc W		1.00	1052	1159	1962	927	840	1	57.50	Y	MAOP-R	840
35737.30	35737.30		TAP	1986	3.50		0.000		0				N/A		1.00	0	1159	1962	0	840	1			MAOP-D	0
35737.30	35740.30		PIPE	1962	20.00		0.281		52000				Double Submerged Arc W		1.00	1052	1159	1962	927	840	1	57.50	Y	MAOP-R	840
35740.30	35776.80		PIPE	1962	20.00		0.281		52000				Double Submerged Arc W		1.00	1052	1159	1962	927	840	1	57.50	Y	MAOP-R	840
35776.80	35813.30		PIPE	1962	20.00		0.281		52000				Double Submerged Arc W		1.00	1052	1159	1962	927	840	1	57.50	Y	MAOP-R	840
35813.30	40419.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
40419.30	40519.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
40519.30	46872.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
46872.30	47002.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
47002.30	47177.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
47177.60	47277.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
47277.60	47452.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
47452.60	47453.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840

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MAOP Report Version 3.0.030912

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
47453.10	47871.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
47871.90	48380.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
48380.70	48381.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
48381.10	48766.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
48766.30	48767.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
48767.60	50261.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
50261.20	50311.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
50311.20	50312.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
50312.70	50362.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
50362.70	52937.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
52937.00	53037.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
53037.00	54324.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
54324.20	54381.20		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
54381.20	54381.20		TAP	1962	2.38		0.000		0				N/A		1.00	0	1159	1962	927	840	1			MAOP-D	0
54381.20	54395.20		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
54395.20	55203.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
55203.50	55204.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1159	1962	927	840	1	48.00	Y	MAOP-R	840
55204.00	57454.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1159	1962	927	840	1	64.60	Y	MAOP-R	840
57454.80	57514.80		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1159	1962	927	840	1	57.50	Y	MAOP-R	840
57514.80	58426.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
58426.70	59272.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
59272.60	59273.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
59273.50	60182.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
60182.40	60309.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
60309.10	60600.10		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1264	1962	1011	840	1	57.50	Y	MAOP-R	840
60600.10	60600.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
60600.60	60782.90		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1264	1962	1011	840	1	57.50	Y	MAOP-R	840
60782.90	60784.40		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
60784.40	60944.70		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1264	1962	1011	840	1	57.50	Y	MAOP-R	840
60944.70	60945.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
60945.50	61039.50		PIPE	1962	20.00		0.281		52000				Double Submerged Arc We		1.00	876	1264	1962	1011	840	1	57.50	Y	MAOP-R	840
61039.50	61064.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
61064.50	61065.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
61065.30	61085.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
61085.30	61929.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840

Footnote Key
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Other Nomenclature
 N/A = Not Applicable

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
61929.30	61930.00		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
61930.00	63182.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
63182.00	63185.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
63185.30	64005.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1264	1962	1011	840	1	64.60	Y	MAOP-R	840
64005.50	64005.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1264	1962	1011	840	1	48.00	Y	MAOP-R	840
64005.90	67106.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
67106.90	67108.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1137	1962	909	840	1	48.00	Y	MAOP-R	840
67108.50	68182.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
68182.30	68182.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1137	1962	909	840	1	48.00	Y	MAOP-R	840
68182.60	69632.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
69632.60	69732.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
69732.60	69842.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
69842.60	69843.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1137	1962	909	840	1	48.00	Y	MAOP-R	840
69843.60	71310.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
71310.30	71310.30		TAP	1962	1.32		0.000		0				N/A		1.00	1440	1137	1962	909	840	1		Y	MAOP-R	840
71310.30	71346.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1137	1962	909	840	1	64.60	Y	MAOP-R	840
71346.10	71353.10		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
71353.10	71355.60		TEE	1962	20.00		0.500		35000	1		N/A	N/A		1.00	875	0		0	840	1	48.00	Y	MAOP-R	840
71355.60	71358.60		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
71358.60	71362.10		VALV	1962	20.00		0.000		0			ANSI_400	N/A		1.00	960	0		0	840	1	0.00	Y	MAOP-R	840
71362.10	71365.10		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
71365.10	71367.60		TEE	1962	20.00		0.500		35000	1		N/A	N/A		1.00	875	0		0	840	1	48.00	Y	MAOP-R	840
71367.60	71374.60		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
71374.60	71410.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
71410.40	71410.40		TAP	1962	1.32		0.000		0				N/A		1.00	1440	1061	1962	848	840	1		Y	MAOP-R	840
71410.40	71455.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
71455.60	71456.50		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
71456.50	72155.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
72155.20	72155.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
72155.80	73105.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
73105.20	73107.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
73107.80	75351.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
75351.70	75352.40		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
75352.40	76761.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
76761.00	76763.20		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840

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76763.20	77288.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
77288.40	77289.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
77289.80	78123.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
78123.30	78213.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
78213.30	78214.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1061	1962	848	840	1	48.00	Y	MAOP-R	840
78214.90	78844.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
78844.90	79025.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
79025.40	79105.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
79105.40	79106.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1061	1962	848	840	1	48.00	Y	MAOP-R	840
79106.80	79375.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
79375.60	79376.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1061	1962	848	840	1	48.00	Y	MAOP-R	840
79376.70	79446.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
79446.70	80290.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
80290.90	80291.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
80291.50	80567.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
80567.40	80568.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
80568.80	80789.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
80789.10	80889.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
80889.10	80890.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1050	1061	1962	848	840	1	48.00	Y	MAOP-R	840
80890.20	80990.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
80990.20	81429.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
81429.80	81430.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
81430.70	81982.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
81982.40	81982.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
81982.70	84351.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
84351.80	84451.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
84451.80	84891.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
84891.80	84892.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
84892.70	85949.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
85949.70	85950.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
85950.80	86349.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
86349.60	86350.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
86350.90	86802.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
86802.00	86802.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
86802.60	87685.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

Footnote Key
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 2 Field Verification
 A Design Pressure per 49 CFR, §192.611
 B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key
 R = MAOP per MAOP Catalog
 T = Test Pressure
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Other Nomenclature
 N/A = Not Applicable

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
87685.30	87687.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
87687.30	88645.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
88645.70	88647.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
88647.00	89052.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
89052.20	89054.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
89054.50	90978.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
90978.50	90979.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
90979.60	92031.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
92031.70	92032.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
92032.20	93026.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
93026.50	93027.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
93027.10	95231.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
95231.10	95486.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
95486.70	95487.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
95487.60	96278.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
96278.80	96279.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
96279.60	96610.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
96610.00	96610.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
96610.50	96627.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
96627.30	96627.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
96627.80	97468.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
97468.40	97469.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
97469.30	97900.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
97900.60	97901.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
97901.20	97916.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
97916.90	97917.40		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
97917.40	98450.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
98450.70	98452.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
98452.20	99829.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
99829.20	99829.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
99829.80	100851.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
100851.20	100851.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
100851.90	100862.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
100862.50	100863.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
100863.20	101435.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

Footnote Key

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- 2 Field Verification
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- B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key

- R = MAOP per MAOP Catalog
- T = Test Pressure
- D = Design Pressure

Other Nomenclature

N/A = Not Applicable

MAOP Report Version 3.0.030912

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
101435.60	101436.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
101436.90	101446.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
101446.30	101447.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
101447.60	102647.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
102647.50	103165.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
103165.10	103165.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
103165.80	104121.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
104121.80	104123.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
104123.10	105774.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
105774.00	105774.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
105774.90	106773.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
106773.90	106774.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
106774.60	108930.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
108930.60	109030.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
109030.60	109825.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
109825.60	109925.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
109925.60	111987.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
111987.60	111988.10		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
111988.10	112076.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
112076.10	112076.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
112076.60	114089.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
114089.60	114189.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
114189.60	114869.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
114869.60	115169.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
115169.60	115469.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
115469.60	117283.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
117283.60	120091.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
120091.60	120092.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
120092.60	121021.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
121021.60	121121.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
121121.60	121489.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
121489.60	121589.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
121589.60	124197.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
124197.60	124198.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
124198.00	126574.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

Footnote Key

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Other Nomenclature

N/A = Not Applicable

MAOP Report Version 3.0.030912

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
126574.00	126574.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
126574.60	127116.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
127116.60	127117.20		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
127117.20	127617.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
127617.20	127617.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
127617.90	129493.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
129493.90	130789.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
130789.90	131977.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
131977.90	131978.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
131978.30	132518.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
132518.30	132518.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
132518.80	132950.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
132950.80	133166.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
133166.80	133558.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
133558.80	136190.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
136190.80	137351.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
137351.80	137451.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
137451.80	139351.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
139351.80	140551.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
140551.80	140651.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
140651.80	142010.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
142010.80	142014.80		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142014.80	142014.80		TAP	1962	1.32		0.000		0				N/A		1.00	1440	0		0	840	1		Y	MAOP-R	840
142014.80	142016.50		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142016.50	142019.00		TEE	1962	20.00		0.500		42000			N/A	N/A		1.00	1050	0		0	840	1	40.00	Y	MAOP-R	840
142019.00	142020.80		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142020.80	142024.30		VALV	1962	20.00		0.000		0			ANSI_400	N/A		1.00	960	0		0	840	1	0.00	Y	MAOP-R	840
142024.30	142026.10		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142026.10	142028.60		TEE	1962	20.00		0.500		42000			N/A	N/A		1.00	1050	0		0	840	1	40.00	Y	MAOP-R	840
142028.60	142030.30		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142030.30	142030.30		TAP	1962	1.32		0.000		0				N/A		1.00	1440	0		0	840	1		Y	MAOP-R	840
142030.30	142034.30		PIPE	1962	20.00		0.500		42000				Single Submerged Arc We	1	0.80	840	0		0	840	1	50.00	Y	MAOP-R	840
142034.30	142047.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	780	0		0	840	1	64.60	Y	MAOP-D	780
142047.20	142137.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	780	0		0	840	1	64.60	Y	MAOP-D	780
142137.00	143595.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

Footnote Key
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Other Nomenclature
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MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
143595.00	143695.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
143695.00	144207.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
144207.00	145269.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
145269.00	145269.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
145269.50	147011.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
147011.60	147012.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
147012.90	147452.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
147452.50	147454.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
147454.00	149398.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
149398.00	149398.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
149398.70	149841.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
149841.70	149941.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
149941.70	150046.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
150046.70	150047.80		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
150047.80	150695.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
150695.80	150696.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
150696.60	151117.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
151117.60	151118.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
151118.30	153278.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
153278.30	153818.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
153818.30	153818.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
153818.70	154318.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
154318.70	154319.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
154319.30	155475.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
155475.30	155575.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
155575.30	155979.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
155979.30	155979.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
155979.70	156461.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
156461.70	156462.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
156462.20	156555.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
156555.20	156555.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
156555.70	157482.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
157482.70	157582.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
157582.70	157626.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
157626.70	158746.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc W		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

Footnote Key

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- 2 Field Verification
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- B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

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Other Nomenclature

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MAOP Report Version 3.0.030912

MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
158746.70	160906.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
160906.70	160907.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
160907.30	161434.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
161434.30	161435.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
161435.20	163791.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
163791.70	163792.20		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
163792.20	163852.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
163852.20	163852.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
163852.70	166012.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
166012.70	166112.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
166112.70	167320.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
167320.70	167321.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
167321.60	167642.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
167642.50	167643.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
167643.90	167859.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
167859.90	167861.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
167861.00	168077.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
168077.00	168077.70		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
168077.70	169164.70		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
169164.70	169165.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
169165.30	169526.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
169526.30	169526.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
169526.90	169887.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
169887.90	169889.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
169889.90	170250.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
170250.90	170251.50		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
170251.50	170481.50		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
170481.50	170482.00		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
170482.00	170810.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
170810.00	170810.60		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
170810.60	170875.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
170875.30	170875.90		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
170875.90	173439.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
173439.60	173440.30		ELBW	1962	20.00		0.500		35000		N/A		N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
173440.30	175887.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc Wt		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840

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MAOP Report Details: 306_P1

Historic MP	Begin Measure	End Measure	Component	Year Installed	OD	OD Rationale	WT	Wall Thickness Rationale	SMYS	SMYS Rationale	Fitting Rating	Rating Rationale	Seam Type	Seam Type Rationale	Joint Efficiency Factor	MAOP Per Design	Test Pressure	Test Year	MAOP Per Test	MAOP per R	Class	% SMYS per R	Operating In Class	MAOP Limit Factor	Feature MAOP
175887.30	175887.60		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
175887.60	177091.60		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
177091.60	177092.10		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
177092.10	180548.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
180548.10	184868.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
184868.10	185484.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
185484.10	185485.20		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
185485.20	185948.20		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
185948.20	185949.90		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
185949.90	186149.90		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
186149.90	186150.30		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
186150.30	186200.30		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
186200.30	186201.00		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
186201.00	186388.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
186388.00	186413.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
186413.00	186513.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
186513.00	188444.00		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
188444.00	188444.40		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
188444.40	188516.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
188516.40	191701.40		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
191701.40	191701.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
191701.80	191873.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
191873.80	192254.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
192254.80	192255.10		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
192255.10	193778.10		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
193778.10	193778.80		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840
193778.80	197018.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
197018.80	198962.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
198962.80	200144.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
200144.80	202144.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
202144.80	207515.80		PIPE	1962	20.00		0.250		52000				Double Submerged Arc We		1.00	936	1061	1962	848	840	1	64.60	Y	MAOP-R	840
207515.80	207517.70		ELBW	1962	20.00		0.500		35000			N/A	N/A		1.00	1260	1061	1962	848	840	1	48.00	Y	MAOP-R	840

Footnote Key

- 1 Historical Procurement Practices / Sound Engineering Analysis
- 2 Field Verification
- A Design Pressure per 49 CFR, §192.611
- B Operating at a reduced pressure as compared to MAOP from MAOP Catalog

MAOP Limit Factor Key

- R = MAOP per MAOP Catalog
- T = Test Pressure
- D = Design Pressure

Other Nomenclature

N/A = Not Applicable

MAOP Report Version 3.0.030912

MAOP Validation Summary Report

Referenced from: "AGA White Paper on Verification of MAOPs for Existing Steel Transmission Pipelines"

Identity of Pipeline/Distribution Area: 306_P1



A. Maximum Allowable Operating Pressure: Steel or Plastic Pipelines (Part 192.619): and High-Pressure Distribution Systems (Part 192.621).

Part 192.619(a)(1) Design Pressure: Lowest design pressure
Part 192.621(a)(1) for any of the following system elements

Pipe (including service lines)	780
Valves	960
Flanges	N/A
Fittings	875
Mechanical Couplings	N/A
Leak Clamps	N/A
Instruments	N/A
Odorizers	N/A
Overpressure Protection Devices	N/A
Overpressure Protection Devices	N/A
Pressure Rating	N/A
Downstream Regulators-Inlet	N/A
Pressure Rating	N/A
Other (list)	N/A

Part 192.619(a)(2) Pressure Test

Plastic Pipe: Test Pressure divided by 1.5	N/A
Steel Pipe operated at or over 100 psi: Test Pressure divided by Class	848

NOTE: Some features on this line are not covered by a pressure test

Part 192.619(a)(3) Historic Operations

Highest operating pressure between 7/1/65 and 7/1/70 unless the pressure test in (a)(2) was after 7/1/65 or an uprating in accordance with Subpart K has been conducted.

N/A

B. Part 192.621: High Pressure Distribution Systems Only.

Part 192.621(a)(2) 60 psig unless all services have overpressure protection	N/A
Part 192.621(a)(3) 25 psig for any cast iron pipe with unreinforced joints	N/A
Part 192.621(a)(4) Pressure limit on joints	N/A

C. Part 192.619(a)(3) and Part 192.621(a)(5): Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe based on operating history	840
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D. Part 192.623: Low Pressure Distribution Systems.

C. Part 192.619(a)(3) and Part 192.621(a)(5): Additional Consideration for Transmission or High Pressure Distribution Lines.

Highest operating pressure considered safe based on operating history 840

D. Part 192.623: Low Pressure Distribution Systems.

Highest delivery pressure which can be safely applied to customer piping and properly adjusted gas appliances. N/A

E. Part 192.619(c): Alternate consideration for transmission lines. Highest operating pressure between 7/1/65 and 7/1/70 (7/1/71 and 7/1/76 for offshore gathering lines.)

N/A

F. Determination of MAOP.

Either item E, where applicable, or the lowest pressure on any of the above lines is the MAOP.

MAOP: 0 / 840

Data Current as of: 5/1/2019

PFL Build Team: _____

MAOP Documentation Reviewed by: _____
Technical Advisory Manager

MAOP Documentation Prepared by: _____
Field Verification Engineer

MAOP Documentation Approved by: _____
MAOP Engineering Director