

BILL OF MATERIALS (THIS SHEET SET)

NO	ITEM	QTY	UNIT	NPS	DESCRIPTION
1	PIPE	83.4	ft	12	Pipe 12 in STD (0.375 in), API 5L X52 PSL2, BE, 3-coat paint
2	PIPE	7.1	ft	1	Pipe 1 in Sch 80 (0.179 in), ASTM A106 Gr B, BE, 3-coat paint
3	SPECIALTY	1	ea	12	IJ-101 monolithic insulating joint, NPS 12, 1,440 psig design, BW X52 pups 0.375 in, hydrotest 2,160 psig, dielectric per DS-008
4	SPECIALTY	1	ea	2	Restriction orifice plate with Class 600 orifice flanges, 2 in (bore per PRO)
5	FITTING	2	ea	12	Elbow 90 3R (pig path), B16.9, MSS SP-75 WPHY-52, STD (0.375 in)
6	FITTING	1	ea	12	Barred tee (flow bars, pig guide), straight, B16.9 / MSS SP-75 WPHY-52, STD (0.375 in)
7	FITTING	1	ea	12	Tee reducing 12x8, B16.9 / MSS SP-75 WPHY-52, STD (0.375 in)
8	FITTING	1	ea	12	Tee straight, B16.9 / MSS SP-75 WPHY-52, STD (0.375 in)
9	FITTING	3	ea	12	Elbow 90 LR, B16.9, MSS SP-75 WPHY-52, STD (0.375 in)
10	FITTING	2	ea	2	Weldolet, MSS SP-97, A105, 2 in x run
11	FITTING	1	ea	1-1/2	Weldolet, MSS SP-97, A105, 1-1/2 in x run, bore to suit Class 600 WN
12	FITTING	2	ea	1	Socketlet, MSS SP-97, A105N, Class 6000, 1 in x run (A6 branch)
13	FITTING	2	ea	1	Elbow 90 socket weld Class 6000, A105
14	FITTING	5	ea	3/4	Socketlet, MSS SP-97, A105, Class 6000, 3/4 in
15	FITTING	2	ea	3/4	Nipolet, MSS SP-97, ASTM A105, Class 6000, 3/4 in
16	FLANGE	8	ea	12	WN flange, 12 in Class 600 RF, A105N (CVN at -20 F), bore to match 0.375 in wall
17	FLANGE	4	ea	2	WN flange, 2 in Class 600 RF, A105N (CVN at -20 F)
18	FLANGE	1	ea	1-1/2	WN flange, 1-1/2 in Class 600 RF, A105N (CVN at -20 F)
19	GASKET	9	ea	12	Spiral-wound gasket, 12 in Class 600, 316 / flexible graphite, CS outer ring, 316 inner ring (ASME B16.20)
20	GASKET	2	ea	2	Spiral-wound gasket, 2 in Class 600, 316 / flexible graphite, CS outer ring, 316 inner ring (ASME B16.20)
21	BOLT	9	ea	12	Stud bolt set, 12 in Class 600 (20 studs 1.25 in dia x 8.75 in), A193 B7 with 2 A194 2H nuts, PTFE coated
22	BOLT	2	ea	2	Stud bolt set, 2 in Class 600 (8 studs 0.625 in dia x 4.25 in), A193 B7 with 2 A194 2H nuts, PTFE coated
23	VALVE	2	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (LPD)
24	VALVE	1	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (drain)
25	VALVE	2	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (HPV)
26	VALVE	2	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT (instrument root)
27	PIPE	0.5	ft	2	Pipe 2 in Sch 80 A106 B nozzle, 6 in
28	PIPE NIPPLE	5	ea	3/4	Nipple, 3/4 in Sch 160, A106 B, PBE x 4 in
29	VALVE	1	ea	12	HV-101B: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)
30	VALVE	1	ea	12	HV-101A: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)
31	VALVE	1	ea	12	SDV-101: Ball valve API 6D full bore trunnion, RF Class 600, electro-hydraulic spring-return FC (see LST-003)
32	VALVE	1	ea	12	HV-103A: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)
33	VALVE	1	ea	1	HV-101H: Globe valve, SW Class 800, lever (see LST-003)

PIPE AND COMPONENT WEIGHT EXCLUDING VALVES (APPROX.): 9,377 lb. Pipe quantities are net centerline take-off; the MTO (mto/mechanical_mto.csv) adds a 5 % allowance.

PIPE CUT LIST (NET, EXCL. ROOT GAP)

PICE	NPS	CUT LENGTH	WELDS	LOC
1001-A1	12	21'-0"	2 / 3	AG
1001-A2	12	14'-2"	4 / 5	AG
1001-A3	12	10'-2"	6 / 7	AG
1001-A4	12	0'-10 5/8"	8 / 9	AG
1001-B1	12	0'-10 3/8"	10 / 11	AG
1001-B2	12	0'-8"	12 / 13	AG
1001-B3	12	3'-0 5/8"	14 / 15	AG
1002-A1	12	2'-11 3/4"	16 / 17	AG
1002-A2	12	2'-11 5/8"	18 / 19	AG
1002-A3	12	8'-10 3/4"	20 / 21	AG
1002-A4	12	6'-3"	22 / 23	AG
1002-A5	12	11'-0"	24 / 25	AG
1002-A6	12	0'-5 3/4"	26 / 27	AG
1103-A1	1	1'-6 3/4"	- / 28	AG
1103-A2	1	1'-11 5/8"	29 / 30	AG
1103-A3	1	1'-11 5/8"	31 / 32	AG
1103-A4	1	1'-6 3/4"	33 / -	AG

WELD LIST (NDE PER SPC-SPC-008)

N	LINE	NPS	TYPE	S/F	NDE	LOCATION
1	1001	12	BW	FIELD	RT 100 %	tie-in weld T1-01 (Owner I
2	1001	12	BW	SHOP	RT 100 %	i/pipe
3	1001	12	BW	SHOP	RT 100 %	pipe/3R ell
4	1001	12	BW	FIELD	RT 100 %	3R ell/pipe
5	1001	12	BW	SHOP	RT 100 %	pipe/tee
6	1001	12	BW	SHOP	RT 100 %	tee/pipe
7	1001	12	BW	SHOP	RT 100 %	pipe/3R ell
8	1001	12	BW	SHOP	RT 100 %	3R ell/pipe
9	1001	12	BW	SHOP	RT 100 %	pipe/valve
10	1001	12	BW	FIELD	RT 100 %	branch to tee
11	1001	12	BW	SHOP	RT 100 %	pipe/valve
12	1001	12	BW	SHOP	RT 100 %	valve/pipe
13	1001	12	BW	SHOP	RT 100 %	pipe/tee
14	1001	12	BW	SHOP	RT 100 %	tee/pipe
15	1001	12	BW	SHOP	RT 100 %	pipe/valve
16	1002	12	BW	SHOP	RT 100 %	WN/pipe
17	1002	12	BW	SHOP	RT 100 %	pipe/tee
18	1002	12	BW	SHOP	RT 100 %	tee/pipe
19	1002	12	BW	SHOP	RT 100 %	pipe/valve
20	1002	12	BW	SHOP	RT 100 %	valve/pipe
21	1002	12	BW	SHOP	RT 100 %	pipe/ell
22	1002	12	BW	SHOP	RT 100 %	ell/pipe
23	1002	12	BW	SHOP	RT 100 %	pipe/ell
24	1002	12	BW	SHOP	RT 100 %	ell/pipe
25	1002	12	BW	SHOP	RT 100 %	pipe/ell
26	1002	12	BW	SHOP	RT 100 %	ell/pipe
27	1002	12	BW	SHOP	RT 100 %	pipe/WN
28	1103	1	SW	FIELD	MT/PT	pipe/ellsw
29	1103	1	SW	FIELD	MT/PT	ellsw/pipe
30	1103	1	SW	FIELD	MT/PT	pipe/valve
31	1103	1	SW	FIELD	MT/PT	valve/pipe
32	1103	1	SW	FIELD	MT/PT	pipe/ellsw
33	1103	1	SW	FIELD	MT/PT	ellsw/pipe

WELD SUMMARY: 33 welds (24 shop / 9 field). Weld numbers match sheet 1. Instrument and small-bore branch welds (olets, SW) are additional, counted in the MTO.

NOTES / REFERENCES

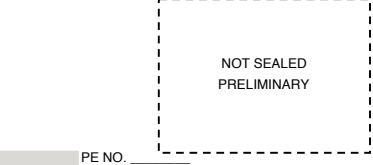
1. QUANTITIES TAKEN FROM THE SAME PIPING MODEL AS THE GA PIP-DWG-001 AND THE MTO.
2. VALVE DATA PER MEC-LST-003 AND MEC-DS-006 / DS-007.
3. SUPPORT ITEMS NOT INCLUDED; SEE MEC-CAL-005.
REF: PIP-SPC-001
REF: mto/mechanical_mto.csv

REVISIONS

REV	DATE	DESCRIPTION	BY	CHK	APP
A	2026-09-29	ISSUED FOR REVIEW (IFR)			

PRELIMINARY - ISSUED FOR REVIEW - NOT FOR CONSTRUCTION

ENGINEER OF RECORD SEAL



PROJECT

120 MMSCFD RECEIPT INTO _____

COUNTY, _____

DISCIPLINE: PIPING
SCALE: NTS

ISOMETRIC LINES 1001 / 1002

BILL OF MATERIALS, CUT LIST, WELD LIST

DRAWN: _____ CHECKED: _____ APPROVED: _____

DWG NO.

PIP-DWG-010

SHEET 2 OF 2 REV A