

FABRICATION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
PIPE				
1	PIPE, SMLS, API 5L GR.B PSL2, BE, SCH 160, ASME B36.10M, NACE MR0175 RG3 + HIC	2	PPSCACVZ1PZZAJJ	1.5M
FITTINGS				
2	TEE, STR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2 x 2	FSTSCAGBZ1PZZABJ	1
3	ELBOW, 90LR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2	F9LSCAGBZ1PZZABJ	1
FLANGES				
4	FLANGE, WN, FRGD, ASTM A105, 150#, RF, SRF, SCH 160, ASME B16.5, NACE MR0175 RG3	2	LWNFCAEZB1PZZAAG	1
SUPPORTS				
5	GUIDE SHOE	2	SB-04-A02-1-1	1

ERECTION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
GASKETS				
6	GASKET, SPW, AISI 316L WINDING/INNER & OUTER RING: AISI 316L, GRAPHITE FILLER, 150#, RF, SRF, 4.50 MM, ASME B16.20, NACE MR0175	2	GGSZGADZBE4ZZALC	1
BOLTS				
7	85 BOLT & NUTS, STUD/HEV HEX, FULTHD, ASTM A193 GR.B7M/ASTM A194 GR.2HM, Zinc Plated (min. 25 mic.) + Bichromate Treated, ASME B18.2.1/ASME B18.2.2	5/8	BBSUCALAIZ	4
PIPE SPOOLS				
[1]				

NOTES

1-ALL DIMENSIONS ELEVATIONS AND COORDINATES ARE IN MILLIMETERS.

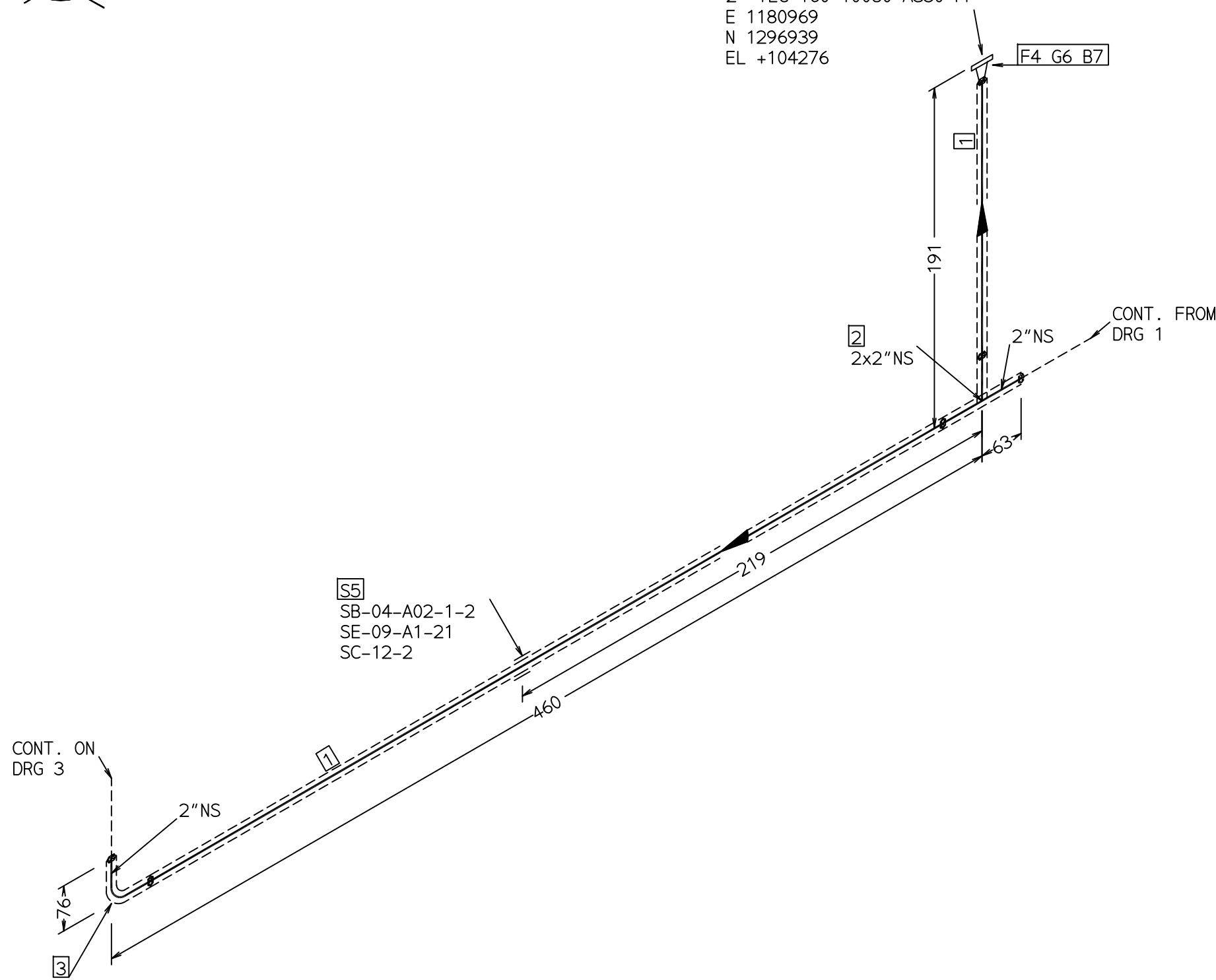
LEGEND:	BUTT WELD	SOCKET WELD	SCREWED JOINT	PIPE SUPPORT	INSULATED PIPE	EL TRACED PIPE

CONDITION	DESIGN	OPERATING								
PRESS. (barg)	7	2.6								
TEMP. (°C)	-1 TO 100	68.2								
TEST FLUID: WATER	PRESS. TEST (barg): 10.5									
DENSITY (kg/r ³): 821.	INSULATION THK.: 30									
INSULATION TYPE: PP	LINE CLASS: AN36									
PAINT CODE: 5	DESIGN AREA: 1601									
STRESS ANALYSIS: YES	NDT: 100%									
TRACING	ELEC. TRACING YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	PWMT: 100%								
		PHASE: MIXED	REV.	DESCRIPTION	PREPARED	CHECKED	APPROVED	DATE		

CLIENT :	CONTRACTOR :
XXX	XXX
CONTRACT No.:	XXX
LINE No.:	ISO DRAWING No.:
2"-TEG-160-10007-AN36-PP-01	xxx
P&ID DWG. No.:	xxx
DOCUMENT No.:	DOCUMENT TITLE :
xxx	xxx
REV.:	0
SHT. No.:	1/4



CONT. ON
 2"-TEG-160-10080-AS30-PP
 E 1180969
 N 1296939
 EL +104276



FABRICATION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
PIPE				
1	PIPE, SMLS, API 5L GR.B PSL2, BE, SCH 160, ASME B36.10M, NACE MR0175 RG3 + HIC	2	PPSCACVZ1PZZAJJ	0.4M
FITTINGS				
2	TEE, STR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2 x 2	FSTSCAGBZ1PZZABJ	1
3	ELBOW, 90LR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2	F9LSCAGBZ1PZZABJ	1
FLANGES				
4	FLANGE, WN, FRGD, ASTM A105, 150#, RF, SRF, SCH 160, ASME B16.5, NACE MR0175 RG3	2	LWNFCAEZB1PZZAAG	1
SUPPORTS				
5	GUIDE SHOE	2	SB-04-A02-1-2	1

ERECTION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
GASKETS				
6	Insulation Gasket:G10 or G11 material + PTFE ,3mm thick.flat full face with bolt holes to suit ASME 16.5	2		1
BOLTS				
7	85 BOLT & NUTS, STUD/HEV HEX, FULTHD, ASTM A193 GR.B7M/ASTM A194 GR.2HM, Zinc Plated (min. 25 mic.) + Bichromate Treated, ASME B18.2.1/ASME B18.2.2	5/8	BBSUCALAIZ	4

S5
 SB-04-A02-1-2
 SE-09-A1-21
 SC-12-2

CONT. ON
 DRG 3

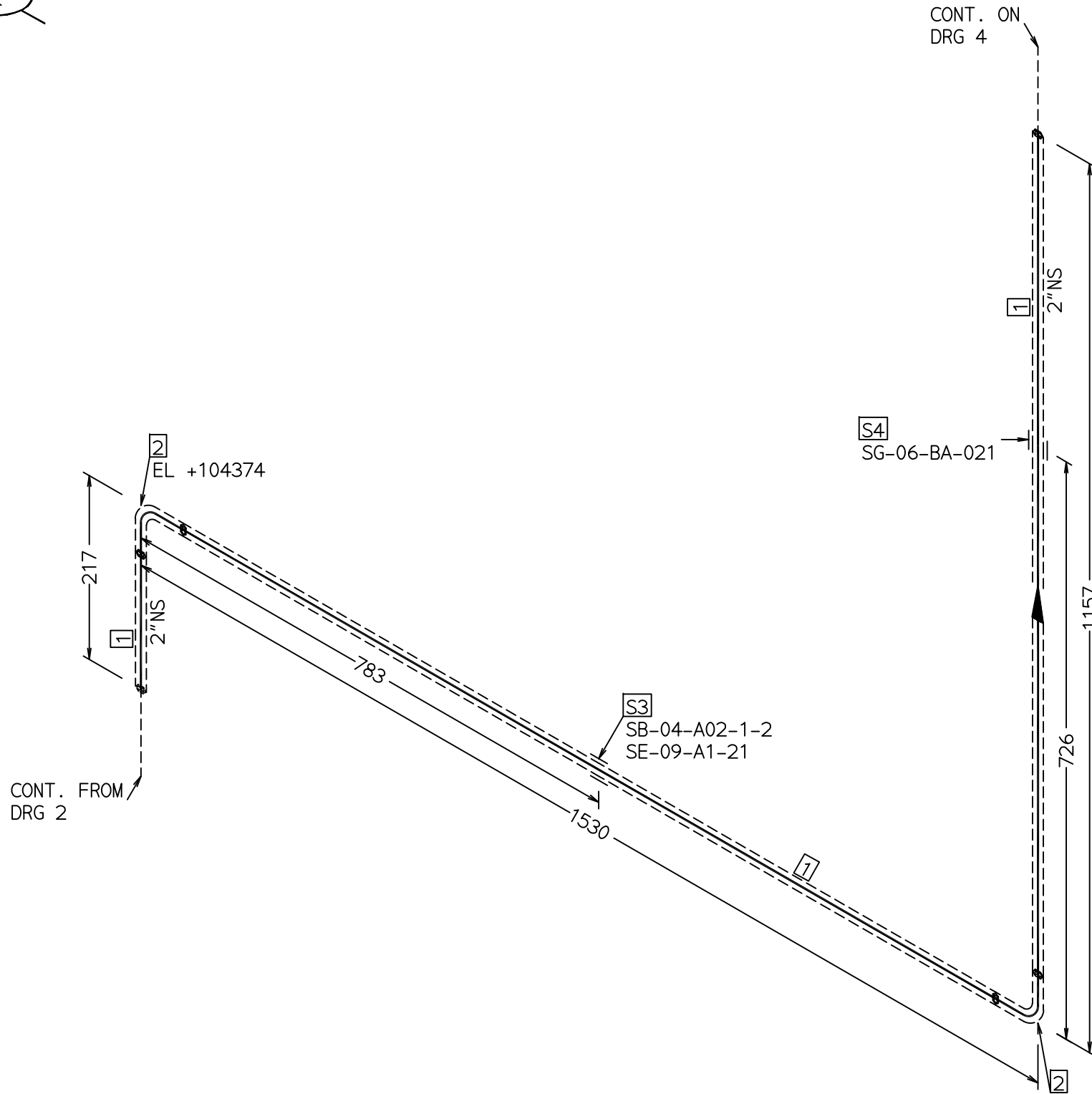
NOTES

1-ALL DIMENSIONS ELEVATIONS AND COORDINATES ARE IN MILLIMETERS.

LEGEND:	BUTT WELD	SOCKET WELD	SCREWED JOINT	PIPE SUPPORT	INSULATED PIPE	ELTRACED PIPE

CONDITION	DESIGN	OPERATING							
PRESS. (barg)	7	2.6							
TEMP.(°C)	-1 TO 100	68.2							
TEST FLUID: WATER	PRESS. TEST(barg): 10.5								
DENSITY (kg /m³): 821.	INSULATION THK.: 30								
INSULATION TYPE: PP	LINE CLASS: AN36								
PAINT CODE: 5	DESIGN AREA: 1601								
STRESS ANALYSIS: YES	NDT: 100%								
TRACING	ELEC. TRACING YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	PWMT: 100%							
		PHASE: MIXED	REV.	DESCRIPTION	PREPARED	CHECKED	APPROVED	DATE	

CLIENT :	CONTRACTOR :
XXX	XXX
CONTRACT No.:	XXX
LINE No.:	ISO DRAWING No.:
2"-TEG-160-10007-AN36-PP-01	xxx
DOCUMENT No.:	DOCUMENT TITLE :
xxx	xxx
REV.:	0
SHT. No.:	2/4



FABRICATION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
PIPE				
1	PIPE, SMLS, API 5L GR.B PSL2, BE, SCH 160, ASME B36.10M, NACE MR0175 RG3 + HIC	2	PPSCACVZ1PZZAJJ	2.6M
FITTINGS				
2	ELBOW, 90LR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2	F9LSCAGBZ1PZZABJ	2
SUPPORTS				
3	GUIDE SHOE	2	SB-04-A02-1-2	1
4	SINGLE TRUNNION	2	SG-06-BA-021	1

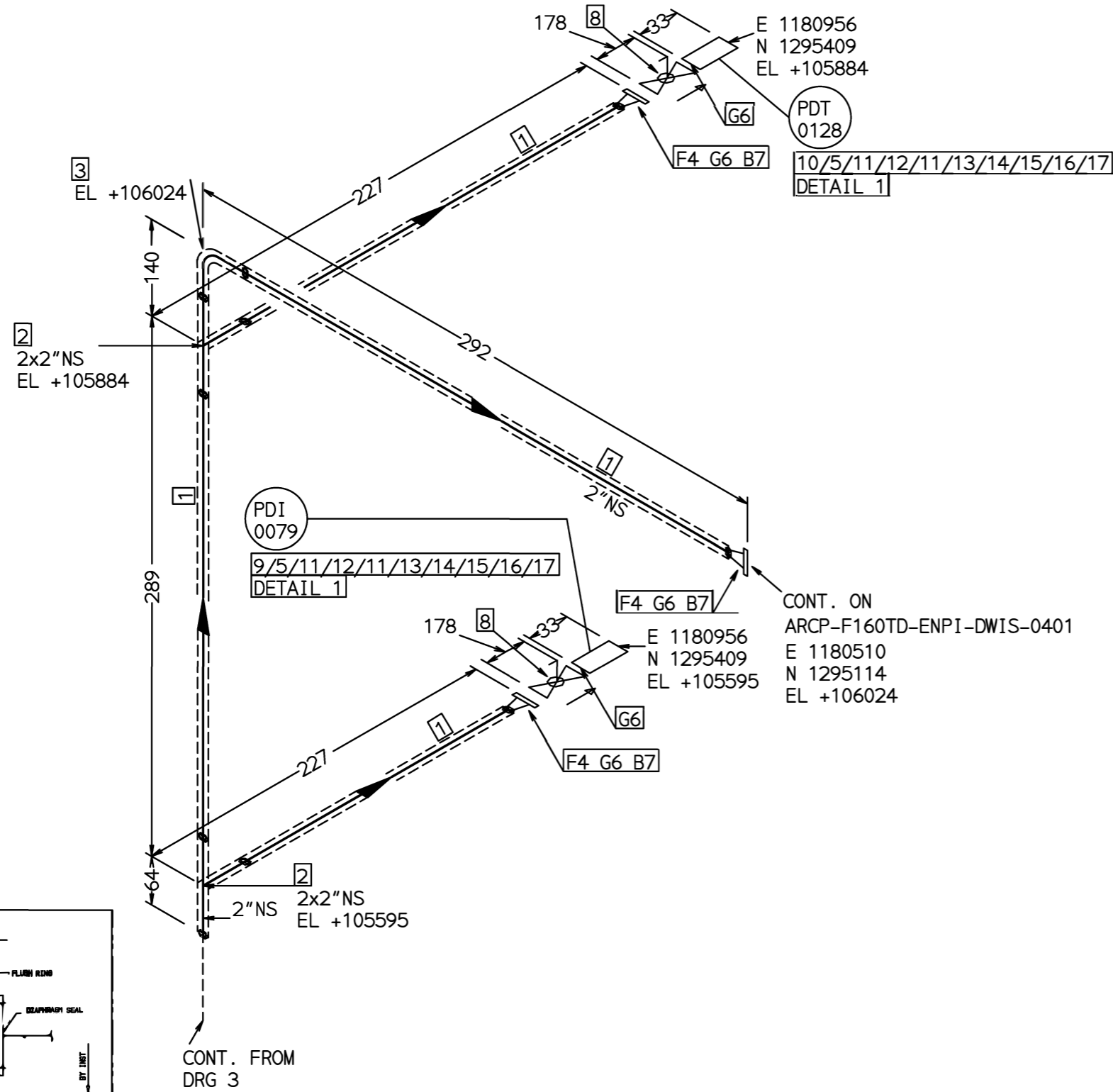
NOTES

1-ALL DIMENSIONS ELEVATIONS AND COORDINATES ARE IN MILLIMETERS.

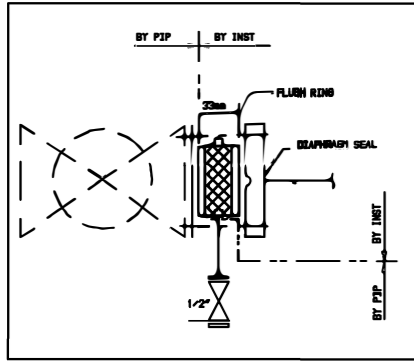
LEGEND:	BUTT WELD	SOCKET WELD	SCREWED JOINT	PIPE SUPPORT	INSULATED PIPE	EL TRACED PIPE

CONDITION	DESIGN	OPERATING							
PRESS. (barg)	7	2.6							
TEMP.(°C)	100	68.2							
TEST FLUID: WATER	PRESS. TEST(barg): 10.5								
DENSITY (kg/rft): 821.	INSULATION THK.: 30								
INSULATION TYPE: PP	LINE CLASS: AN36								
PAINT CODE: 5	DESIGN AREA: 1601								
STRESS ANALYSIS: YES	NDT: 100%								
TRACING	ELEC. TRACING YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	PWIT: 100%							
		PHASE: MIXED	REV.	DESCRIPTION	PREPARED	CHECKED	APPROVED	DATE	

CLIENT :	CONTRACTOR :		
XXX	XXX		
CONTRACT No.:	XXX		
XXX	XXX		
LINE No.:	ISO DRAWING No.:	P&ID DWG. No.:	
2"-TEG-160-10007-AN36-PP-01	xxx	xxx	
DOCUMENT No.:	DOCUMENT TITLE :	REV.:	SHT. No.:
xxx	xxx	0	3/4



DETAIL 1



NOTES

1-ALL DIMENSIONS ELEVATIONS AND COORDINATES ARE IN MILLIMETERS.

LEGEND:	BUTT WELD	SOCKET WELD	SCREWED JOINT	PIPE SUPPORT	INSULATED PIPE	EL TRACED PIPE

CONDITION	DESIGN	OPERATING																		
PRESS. (barg)	7	2.6																		
TEMP.(°C)	-1 TO 100	68.2																		
TEST FLUID: WATER	PRESS. TEST(barg): 10.5																			
DENSITY (kg /m³): 821.	INSULATION THK.: 30																			
INSULATION TYPE: PP	LINE CLASS: AN36																			
PAINT CODE: 5	DESIGN AREA: 1601																			
STRESS ANALYSIS: YES	NDT: 100%																			
TRACING	ELEC. TRACING	PWMT: 100%																		
YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	PHASE: MIXED	REV.	DESCRIPTION	PREPARED	CHECKED	APPROVED	DATE												

FABRICATION MATERIALS

PT NO	COMPONENT DESCRIPTION	N.S. ((INS))	ITEM CODE	QTY
PIPE				
1	PIPE, SMLS, API 5L GR.B PSL2, BE, SCH 160, ASME B36.10M, NACE MR0175 RG3 + HIC	2	PPSCACVZ1PZZAJJ	0.6M
FITTINGS				
2	TEE, STR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2 x 2	FSTSCAGBZ1PZZABJ	2
3	ELBOW, 90LR, SMLS, ASTM A234 GR.WPB, BW, SCH 160, ASME B16.9, NACE MR0175 RG3 + HIC	2	F9LSCAGBZ1PZZABJ	1
FLANGES				
4	FLANGE, WN, FRGD, ASTM A105, 150#, RF, SRF, SCH 160, ASME B16.5, NACE MR0175 RG3	2	LWNFCAEZB1PZZAAG	3
MISCELLANEOUS COMPONENTS				
5	FLANGE, WN, FRGD, ASTM A182 GR.F316L, 150#, RF, SRF, SCH 40S, ASME B16.5, NACE MR0175	1/2	LWNFAZB1SZZAAC	2
ERECTION MATERIALS				
GASKETS				
6	GASKET, SPW, AISI 316L WINDING/INNER & OUTER RING: AISI 316L, GRAPHITE FILLER, 150#, RF, SRF, 4.50 MM, ASME B16.20, NACE MR0175	2	GGSZGADZBE4ZZALC	5
BOLTS				
7	85 BOLT & NUTS, STUD/HEV HEX, FULTHD, ASTM A193 GR.B7M/ASTM A194 GR.2HM, Zinc Plated (min. 25 mic.) + Bichromate Treated, ASME B18.2.1/ASME B18.2.2	5/8	BBSUCALAIZ	12
VALVES / IN-LINE ITEMS				
8	VALVE, BALL, FB, FLB, CAST, ASTM A216 GR.WCB, 150#, RF, FLGD, HO, API 6D, NACE MR0175 RG3	2	VBAFFB37	2
INSTRUMENTS				
9	FLUSH RING WITH 1/2" Tap 150#	2	PDI 0079	1
10	FLUSH RING WITH 1/2" Tap 150#	2	PDT 0128	1
MISCELLANEOUS COMPONENTS				
11	GASKET, SPW, AISI 316L WINDING/INNER & OUTER RING: AISI 316L, GRAPHITE FILLER, 150#, RF, SRF, 4.50 MM, ASME B16.20, NACE MR0175	1/2	GGSZGADZBE4ZZALC	4

* CONT. ON DRG 4A *

CLIENT :	CONTRACTOR :
XXX	XXX
CONTRACT No.:	XXX
LINE No.:	ISO DRAWING No.:
2"-TEG-160-10007-AN36-PP-01	xxx
DOCUMENT No.:	DOCUMENT TITLE :
xxx	xxx
REV.:	0
SHT. No.:	4/4



 * CONT. FROM DRG 4 *

12	VALVE, GATE, SLW, FRGD, ASTM A182 GR.F316L, 150#, RF, FLGD, HO, API 602, NACE MR0175	1/2	VGASWR04	2
13	FLANGE, BLD, FRGD, ASTM A182 GR.F316L, 150#, RF, SRF, ASME B16.5, NACE MR0175	1/2	LFBFSAFZBZZZAAC	2
14	60 BOLT & NUTS, STUD/HEV HEX, FULTHD, ASTM A193 GR.B8M CL.2/ASTM A194 GR.8MA, ASME B18.2.1/ASME B18.2.2	1/2	BBSUSALAIZ	16
15	125 BOLT & NUTS, STUD/HEV HEX, FULTHD, ASTM A193 GR.B8M CL.2/ASTM A194 GR.8MA, ASME B18.2.1/ASME B18.2.2	5/8	BBSUSALAIZ	8
16	PIPE NIPPLE BEVEL END/THREADED END, 100mm LONG, ASTM A312 TP316L, SCH 40S, ASME B36.19M, NACE MR0175	1/2	PPSSABVZ1SZZAKC	2
17	PLUG, HEXH, FRGD, ASTM A182 GR.F316L, THD, ASME B16.11	1/2	FPHFSAFTZZZZADZ	2

NOTES

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LEGEND:	BUTT WELD	SOCKET WELD	SCREWED JOINT	PIPE SUPPORT	INSULATED PIPE	ELTRACED PIPE

CONDITION	DESIGN	OPERATING							
PRESS. (barg)	7	2.6							
TEMP.(°C)	-1 TO 100	68.2							
TEST FLUID: WATER	PRESS. TEST(barg): 10.5								
DENSITY (kg /m³): 821.	INSULATION THK.: 30								
INSULATION TYPE: PP	LINE CLASS: AN36								
PAINT CODE: 5	DESIGN AREA: 1601								
STRESS ANALYSIS: YES	NDT: 100%								
	PWHT: 100%								
TRACING	ELEC. TRACING YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	PHASE: MIXED	REV.	DESCRIPTION	PREPARED	CHECKED	APPROVED	DATE	

AZAR OIL FIELD DEVELOPMENT PROJECT				
CLIENT :	XXX		CONTRACTOR :	xxx
	XXX		CONTRACT No.:	xxx
LINE No.:	ISO DRAWING No.:	P&ID DWG. No. :		
2"-TEG-160-10007-AN36-PP-01	xxx	xxx		
DOCUMENT No.:	DOCUMENT TITLE :	REV.:	SHT. No.:	
xxx	xxx	0	4A	