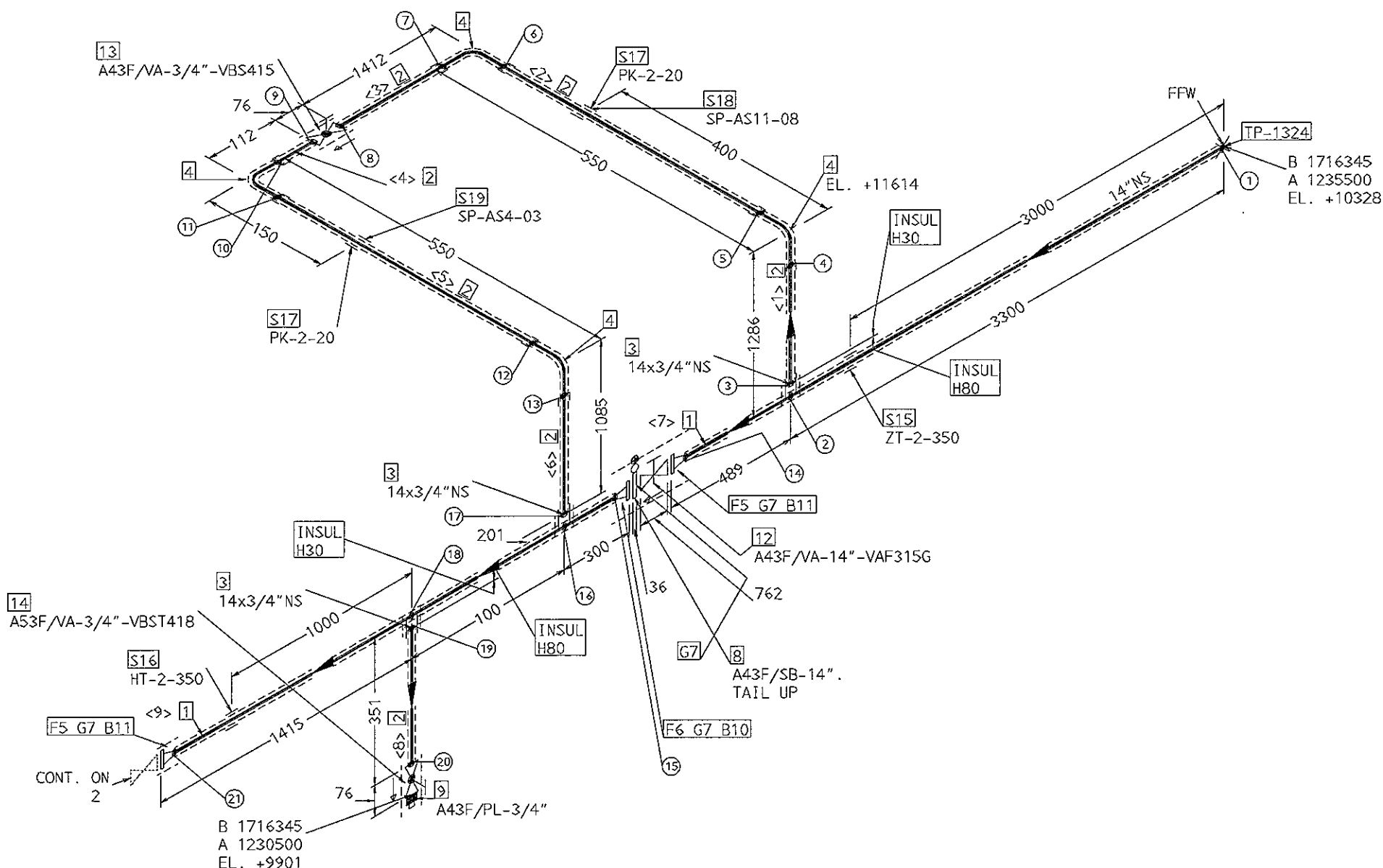
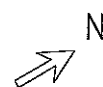


FABRICATION MATERIALS

PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	5.2M
2	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	4.8M
FITTINGS				
3	HALF COUPLING CL3000 SW A105 ASME B16.11	14 x 3/4	A43F/CHS-14"x3/4"	3
4	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"x90	4
FLANGES				
5	FLANGE CL300 RF WN A105 SCH40 BORE ASME B16.5	14	A43F/WFR-14"	2
6	FLANGE CL300 RF WN A105 SCH40 BORE ASME B16.5 A3.0755.21 (WITH JACK BOLT)	14	A43F/WFRJ-14"	1
GASKETS				
7	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	14	A43F/GR-14"-G214ACM	4
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
8	SPACER & BLANK CL300 RF A105 A3.0755.61	14	A43F/SB-14"	1
9	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	3/4	A43F/PL-3/4"	1
BOLTS				
10	235 MM LONG STUD BOLT, M30 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-14"-235	20
11	190 MM LONG STUD BOLT, M30 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-14"-190	40
COMPONENTS				
12	GATE VALVE CL300 RF A216 GR.WCB BODY #5 TRIM FLEXIBLE WEDGE OS&Y BB ASME B16.10 API600 GEAR OP. (VAF315G)	14	A43F/VA-14"-VAF315G	1
13	GLOBE VALVE CL800 SW A105 BODY #5 TRIM LOOSE DISC OS&Y BB API602 BY MFR (VBS415)	3/4	A43F/VA-3/4"-VBS415	1
14	GLOBE VALVE CL800 SW/SCRD(NPT) A105 BODY #8 TRIM LOOSE DISC OS&Y BB API602 BY MFR (VBST418)	3/4	A53F/VA-3/4"-VBST418	1
SUPPORTS				
15	PIPE SUPPORT (ZT-2-350)	14	SUP/ZT-2-14"	1
16	PIPE SUPPORT (HT-2-350)	14	SUP/HT-2-14"	1
17	PIPE SUPPORT (PK-2-20)	3/4	SUP/PK-2-3/4"	2
18	SPECIAL SUPPORT (SP-AS11-08)	3/4	SUP/AS11-3/4"	1
19	SPECIAL SUPPORT (SP-AS4-03)	3/4	SUP/AS4-3/4"	1

CUT PIPE LENGTH

PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<1>	1066	3/4		<2>	512	3/4	
<3>	1393	3/4		<4>	93	3/4	
<5>	512	3/4		<6>	1066	3/4	
<7>	3646	14	FF WELD	<8>	150	3/4	
<9>	1530	14					



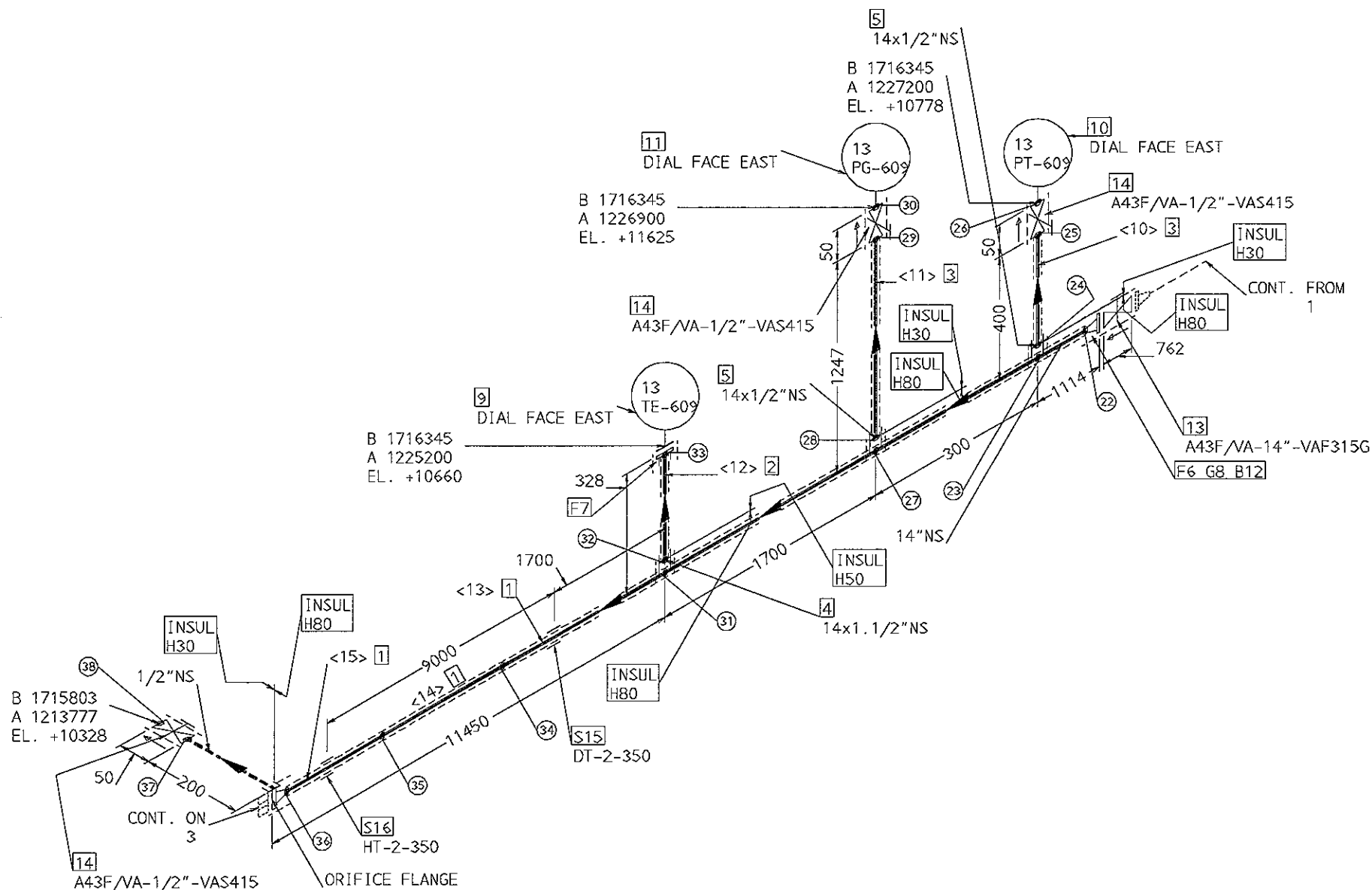
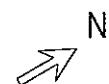
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置	
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN. D.H.LEE	06/01/2011			
△						HYDRD TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011			
△	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10	APPR. A.F.WU	06/01/2011			
A	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU	WELDED FIELD WELDED SOCKET THREAD COUPLING FIELD CONN. SUPPORT STEAM TRACE INSULATION 			DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-1	13-14"-MS-38004-A43F-H	1 OF 13	0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	14.3M
2	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	1.1/2	A43F/P-1.1/2"-80	0.2M
3	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	1/2	A43F/P-1/2"-80	1.3M
FITTINGS				
4	HALF COUPLING CL3000 SW A105 ASME B16.11	14 x 1.1/2	A43F/CHS-14"x1.1/2"	1
5	HALF COUPLING CL3000 SW A105 ASME B16.11	14 x 1/2	A43F/CHS-14"x1/2"	2
FLANGES				
6	FLANGE CL300 RF WN A105 SCH40 BORE ASME B16.5	14	A43F/WFR-14"	1
7	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	1.1/2	A43F/FR-1.1/2"	1
GASKETS				
8	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	14	A43F/GR-14"-G214ACM	1
INSTRUMENTS				
9	INSTRUMENT CL300 RF 13 TE-609	1.1/2		1
10	INSTRUMENT SW 13 PT-609	1/2		1
11	INSTRUMENT SW 13 PG-609	1/2		1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
12	190 MM LONG STUD BOLT . M30 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-14"-190	20
COMPONENTS				
13	GATE VALVE CL300 RF A216 GR.WCB BODY #5 TRIM FLEXIBLE WEDGE OS&Y BB ASME B16.10 API600 GEAR OP. (VAF315G)	14	A43F/VA-14"-VAF315G	1
14	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	1/2	A43F/VA-1/2"-VAS415	3
SUPPORTS				
15	PIPE SUPPORT (DT-2-350)	14	SUP/DT-2-14"	1
16	PIPE SUPPORT (HT-2-350)	14	SUP/HT-2-14"	1

CUT PIPE LENGTH							
PIECE NO	CUT LENGTH (INS)	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH (INS)	N.S. (INS)	REMARKS
<10>	201	1/2		<11>	1048	1/2	
<12>	106	1.1/2		<13>	6000	14	
<14>	6000	14		<15>	2279	14	



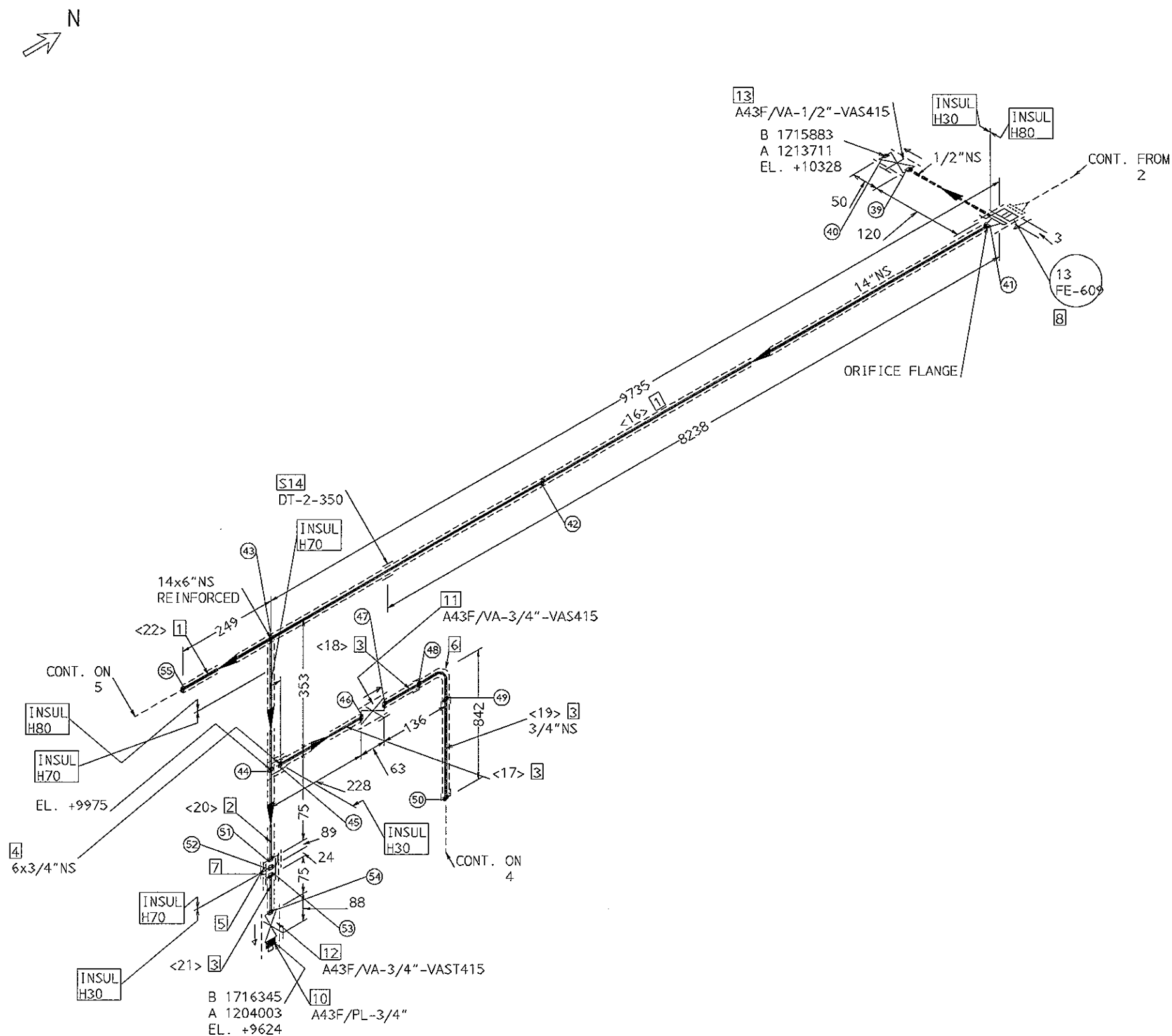
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	 富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.							
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DES. D.H.LEE	06/01/2011									
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011									
△						PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10 %	APPR. A.F.WU	06/01/2011									
△	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU								腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置						
△	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU														
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.										DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
															DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-2	13-14"-MS-38004-A43F-H	2 OF 13	0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	9.9M
2	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	6	A43F/P-6"-40	0.3M
3	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	1.2M
FITTINGS				
4	HALF COUPLING CL3000 SW A105 ASME B16.11	6 x 3/4	A43F/CHS-6"x3/4"	1
5	CAP A234 GR.WPB SCH40 SMLS BW ASME B16.9	6	A43F/CB-6"	1
6	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"x90	1
7	HALF COUPLING CL3000 SW A105 ASME B16.11	3/4	A43F/CHS-3/4"	1
INSTRUMENTS				
8	ORIFICE CL300 13 FE-609	14		1
MISCELLANEOUS COMPONENTS				
9	REINFORCING PAD A106 GR.B SCH40 SMLS BE ASME B36.10M	6	A43F/PAD-14"x6"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
10	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	3/4	A43F/PL-3/4"	1
COMPONENTS				
11	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	1
12	GATE VALVE CL800 SW/SCRD(NPT) A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAST415)	3/4	A43F/VA-3/4"-VAST415	1
13	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	1/2	A43F/VA-1/2"-VAS415	1
SUPPORTS				
14	PIPE SUPPORT (DT-2-350)	14	SUP/DT-2-14"	1

CUT PIPE LENGTH							
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<16>	6000	14		<17>	122	3/4	
<18>	117	3/4		<19>	823	3/4	
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FOR CONSTRUCTION

JULY, 14, 2011

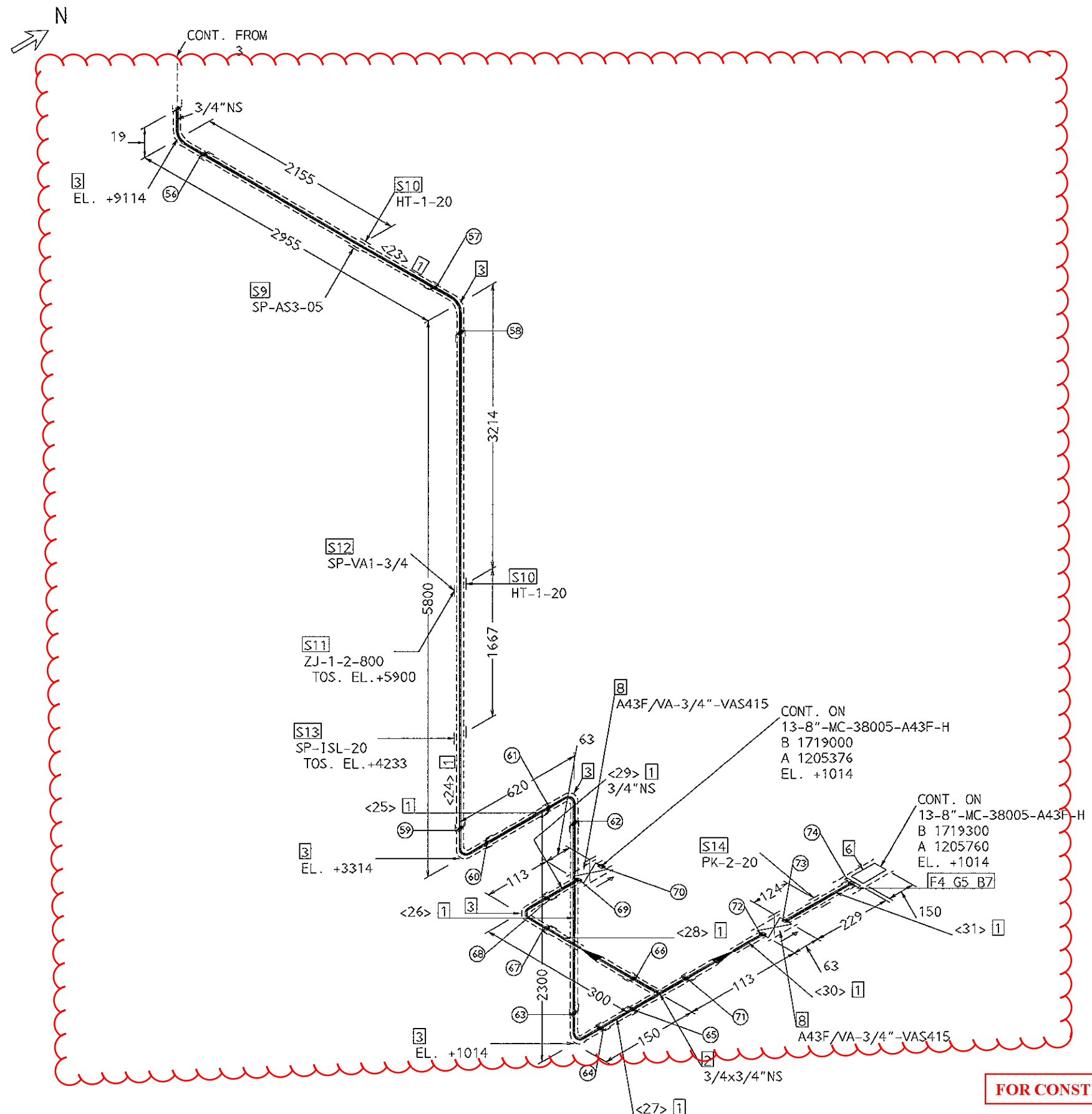
△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置	
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN. D.H.LEE	06/01/2011			
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011			
△	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10 %	APPR. A.F.WU	06/01/2011			
A	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU	WELDED FIELD WELDED SOCKET THREAD COUPLING FIELD CONN. SUPPORT STEAM TRACE INSULATION 			DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-3	13-14"-MS-38004-A43F-H	3 OF 13	0

FABRICATION MATERIALS

PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	12.3M
FITTINGS				
2	TEE CL3000 SW A105 ASME B16.11	3/4 x 3/4	A43F/TS-3/4"	1
3	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"X90	6
FLANGES				
4	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	3/4	A43F/FR-3/4"	1
GASKETS				
5	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	3/4	A43F/GR-3/4"-G214ACM	1
INSTRUMENTS				
6	TRAP CL300 RF	3/4	A43F/TRAP-3/4"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
7	80 MM LONG STUD BOLT . M16 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-3/4"-80	4
COMPONENTS				
8	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	2
SUPPORTS				
9	SPECIAL SUPPORT (SP-AS3-05)	3/4	SUP/AS3-3/4"	1
10	PIPE SUPPORT (HT-1-20)	3/4	SUP/HT-1-3/4"	2
11	PIPE SUPPORT (ZJ-1-2-800)	3/4	SUP/ZJ-1-2-3/4"	1
12	SPECIAL SUPPORT (SP-VA1-3/4)	3/4	SUP/VA1-3/4"	1
13	SPECIAL SUPPORT (SP-ISL-20)	3/4	SUP/ISL-3/4"	1
14	PIPE SUPPORT (PK-2-20)	3/4	SUP/PK-2-3/4"	1

CUT PIPE LENGTH

PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<23>	2917	3/4		<24>	5762	3/4	
<25>	582	3/4		<26>	2262	3/4	
<27>	112	3/4		<28>	262	3/4	
<29>	94	3/4		<30>	94	3/4	
<31>	214	3/4					



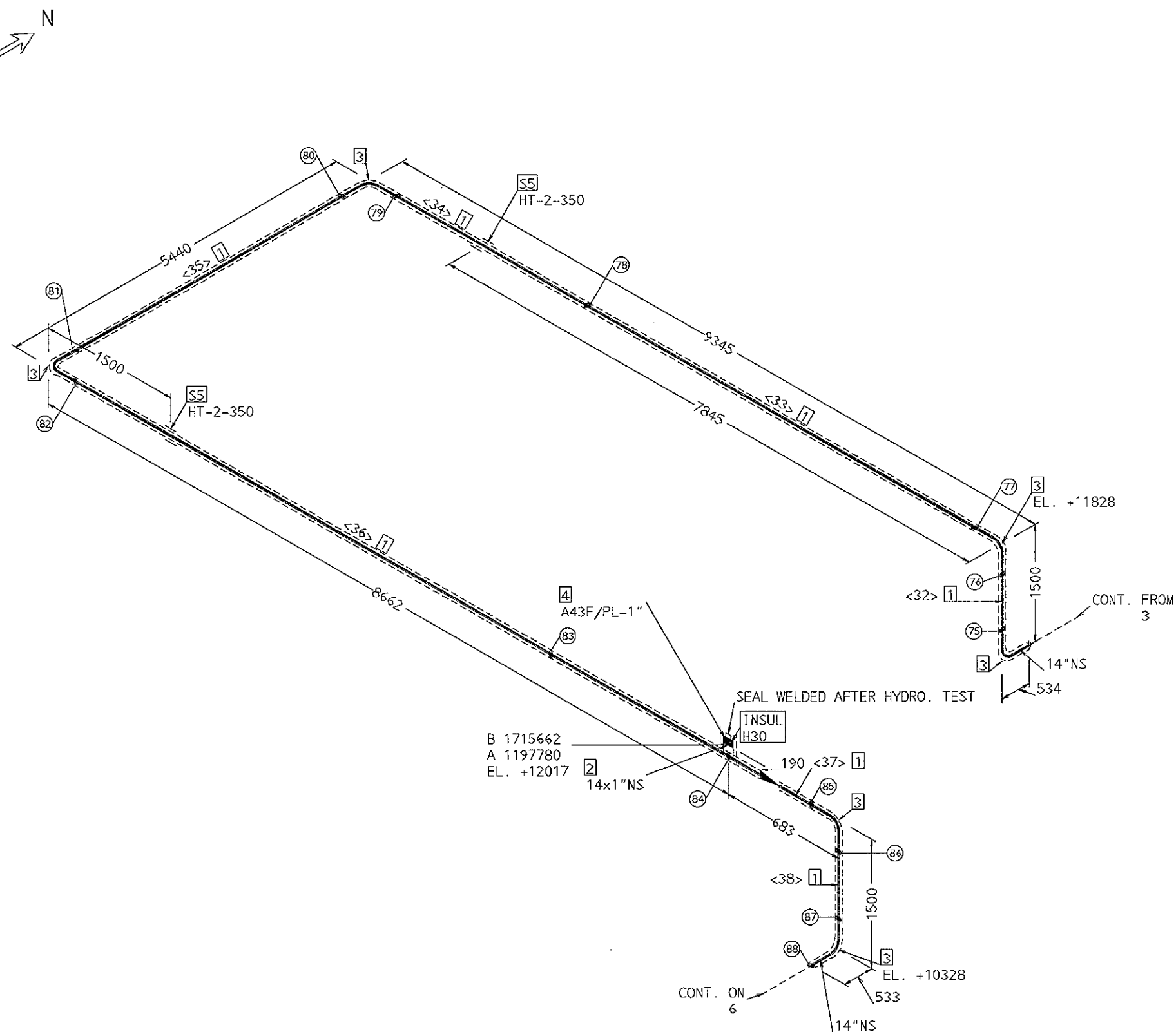
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.							
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN. D.H.LEE	06/01/2011									
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011									
△						PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10	APPR. A.F.WU	06/01/2011									
△	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU								腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置						
A	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU	WELDED	FIELD WELDED	SOCKET	THREAD	COUPLING	FIELD CONN.	SUPPORT	STEAM TRACE	INSULATION	DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.										DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-4	13-14"-MS-38004-A43F-H	4 OF 13	0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	21.8M
FITTINGS				
2	HALF COUPLING CL3000 SCRD(NPT) A105 ASME B16.11	14 x 1	A43F/CHT-14"x1"	1
3	90 DEG. ELBOW LR A234 GR.WPB SCH40 SMLS BW ASME B16.9	14	A43F/EB-14"x90	6
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
4	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	1	A43F/PL-1"	1
SUPPORTS				
5	PIPE SUPPORT (HT-2-350)	14	SUP/HT-2-14"	2

CUT PIPE LENGTH						
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)
<32>	434	14		<33>	6000	14
<34>	2279	14		<35>	4373	14
<36>	6000	14		<37>	2279	14
<38>	433	14				

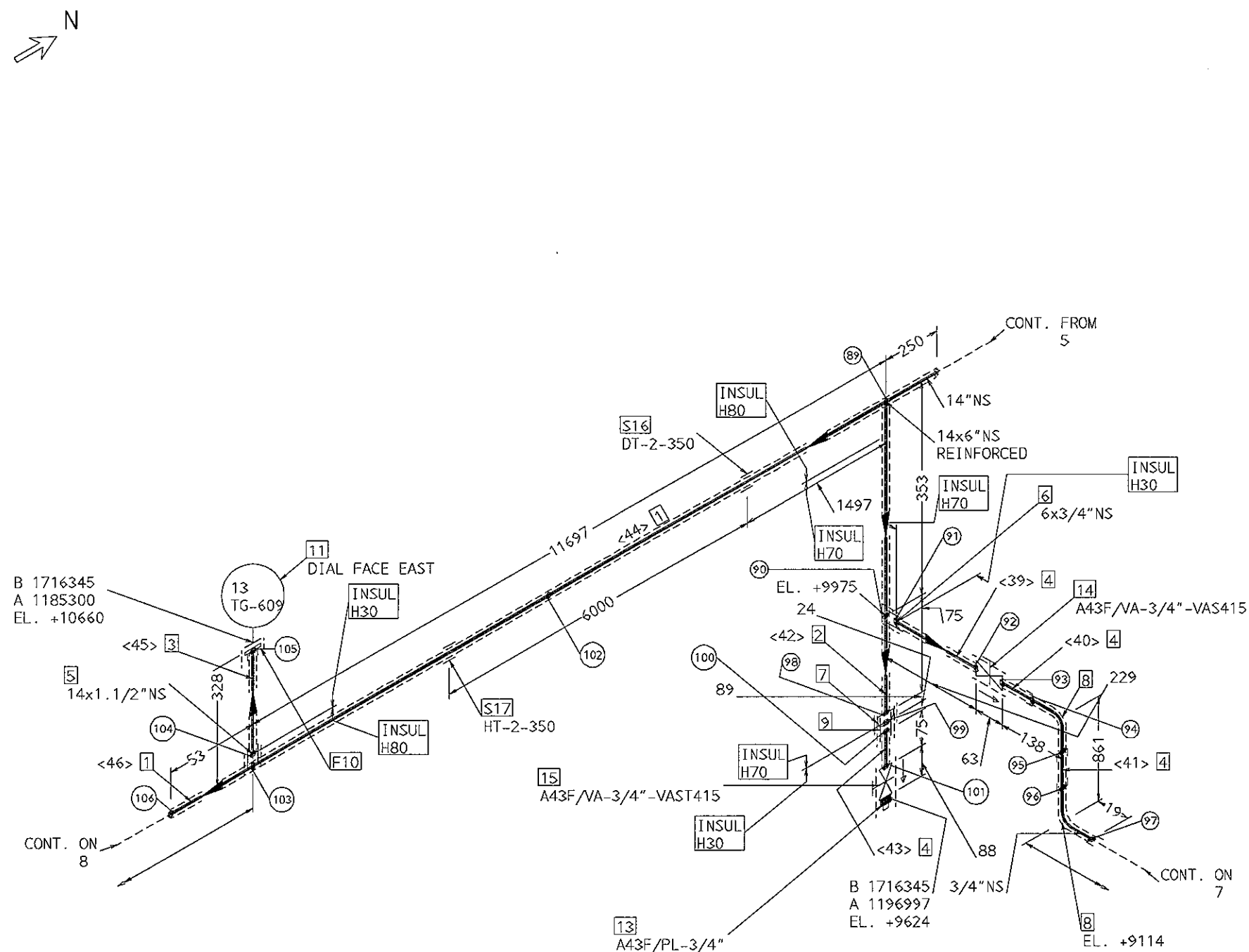


FOR CONSTRUCTION

JULY, 14, 2011

						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.			
						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN. D.H.LEE	06/01/2011					
						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011					
	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10 %	APPR. A.F.WU	06/01/2011					
	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU				DWG NO.: 314C,315C,316C		CONTRACT: C192502	LINE NO.:	SHT.	ISSUE	
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DIA. NO.: 1208-038/3390-020		FILE NO.: 13-MS38004-5	13-14"-MS-38004-A43F-H		5 OF 13	0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	12.0M
2	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	6	A43F/P-6"-40	0.3M
3	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	1.1/2	A43F/P-1.1/2"-80	0.2M
4	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	1.2M
FITTINGS				
5	HALF COUPLING CL3000 SW A105 ASME B16.11	14 x 1.1/2	A43F/CHS-14"x1.1/2"	1
6	HALF COUPLING CL3000 SW A105 ASME B16.11	6 x 3/4	A43F/CHS-6"x3/4"	1
7	CAP A234 GR.WPB SCH40 SMLS BW ASME B16.9	6	A43F/CB-6"	1
8	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"x90	2
9	HALF COUPLING CL3000 SW A105 ASME B16.11	3/4	A43F/CHS-3/4"	1
FLANGES				
10	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	1.1/2	A43F/FR-1.1/2"	1
INSTRUMENTS				
11	INSTRUMENT CL300 RF 13 TG-609	1.1/2		1
MISCELLANEOUS COMPONENTS				
12	REINFORCING PAD A106 GR.B SCH40 SMLS BE ASME B36.10M	6	A43F/PAD-14"x6"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
13	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	3/4	A43F/PL-3/4"	1
COMPONENTS				
14	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	1
15	GATE VALVE CL800 SW/SCRD(NPT) A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAST415)	3/4	A43F/VA-3/4"-VAST415	1
SUPPORTS				
16	PIPE SUPPORT (DT-2-350)	14	SUP/DT-2-14"	1
17	PIPE SUPPORT (HT-2-350)	14	SUP/HT-2-14"	1



CUT PIPE LENGTH						
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)
<39>	123	3/4		<40>	119	3/4
<41>	823	3/4		<42>	281	6
<43>	75	3/4		<44>	6000	14
<45>	107	1.1/2		<46>	6000	14

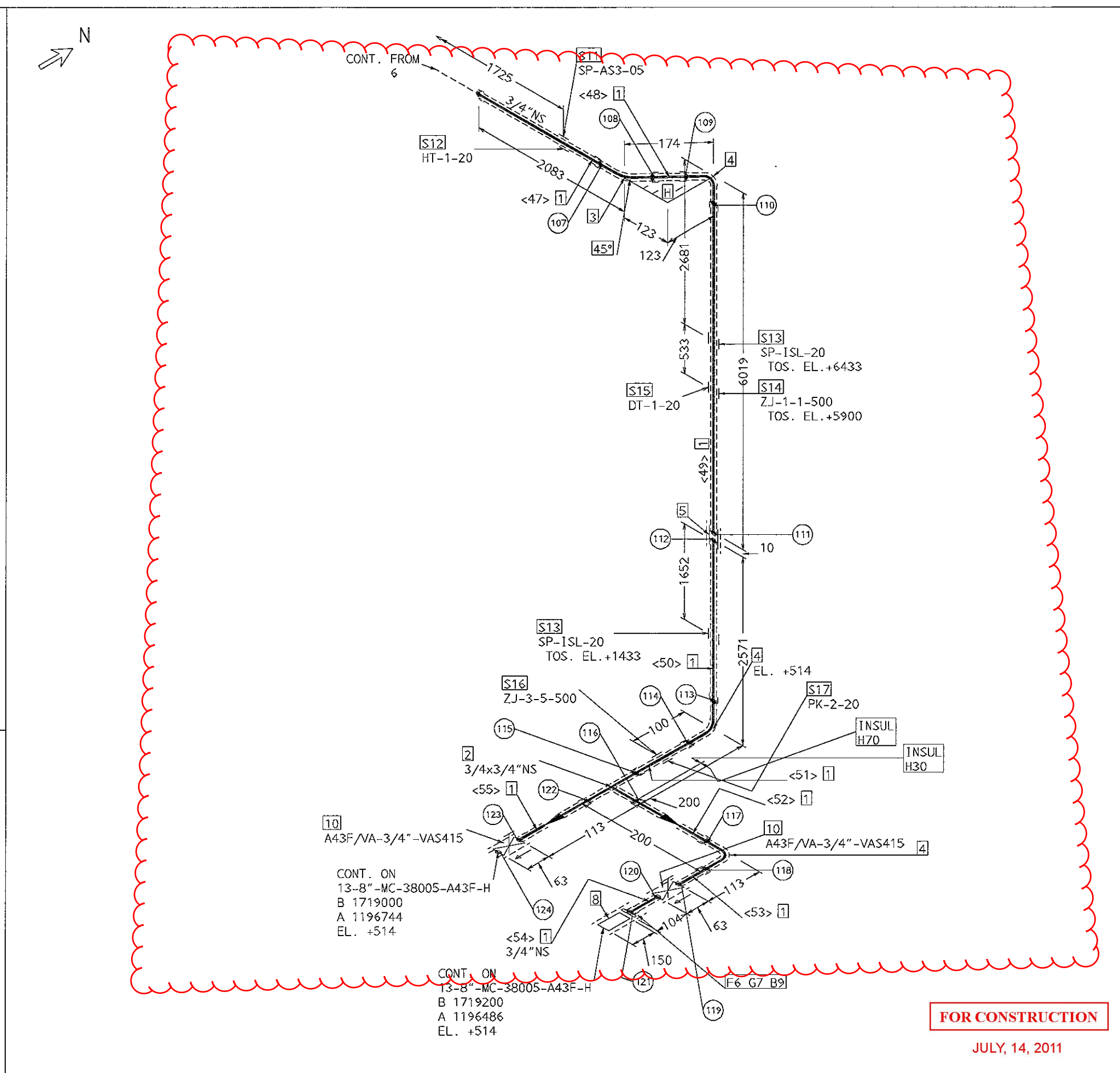
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN.	Y.M.LU	06/01/2011	REVIEWED	 富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.			
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN.	D.H.LEE	06/01/2011					
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK.	Y.C.CHOU	06/01/2011			腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置		
△						PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10	APPR.	A.F.WU	06/01/2011					
Q	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU					DWG NO.: 314C,315C,316C		CONTRACT: C192502	LINE NO.:	SHT.	ISSU	
A	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU							FILE NO.:	13-14"-MS-38004-A43F-H	6 OF 13	0	
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.											

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	11.4M
FITTINGS				
2	TEE CL3000 SW A105 ASME B16.11	3/4 x 3/4	A43F/TS-3/4"	1
3	45 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"X45	1
4	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"X90	3
5	FULL COUPLING CL3000 SW A105 ASME B16.11	3/4	A43F/CFS-3/4"	1
FLANGES				
6	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	3/4	A43F/FR-3/4"	1
GASKETS				
7	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	3/4	A43F/GR-3/4"-G214ACM	1
INSTRUMENTS				
8	TRAP CL300 RF	3/4	A43F/TRAP-3/4"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
9	80 MM LONG STUD BOLT . M16 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-3/4"-80	4
COMPONENTS				
10	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	2
SUPPORTS				
11	SPECIAL SUPPORT (SP-AS3-05)	3/4	SUP/AS3-3/4"	1
12	PIPE SUPPORT (HT-1-20)	3/4	SUP/HT-1-3/4"	1
13	SPECIAL SUPPORT (SP-ISL-20)	3/4	SUP/ISL-3/4"	2
14	PIPE SUPPORT (ZJ-1-1-500)	3/4	SUP/ZJ-1-1-3/4"	1
15	PIPE SUPPORT (DT-1-20)	3/4	SUP/DT-1-3/4"	1
16	PIPE SUPPORT (ZJ-3-5-500)	3/4	SUP/ZJ-3-5-3/4"	1
17	PIPE SUPPORT (PK-2-20)	3/4	SUP/PK-2-3/4"	1

CUT PIPE LENGTH							
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<47>	2070	3/4		<48>	142	3/4	
<49>	6000	3/4		<50>	2552	3/4	
<51>	162	3/4		<52>	162	3/4	
<53>	94	3/4		<54>	89	3/4	
<55>	94	3/4					



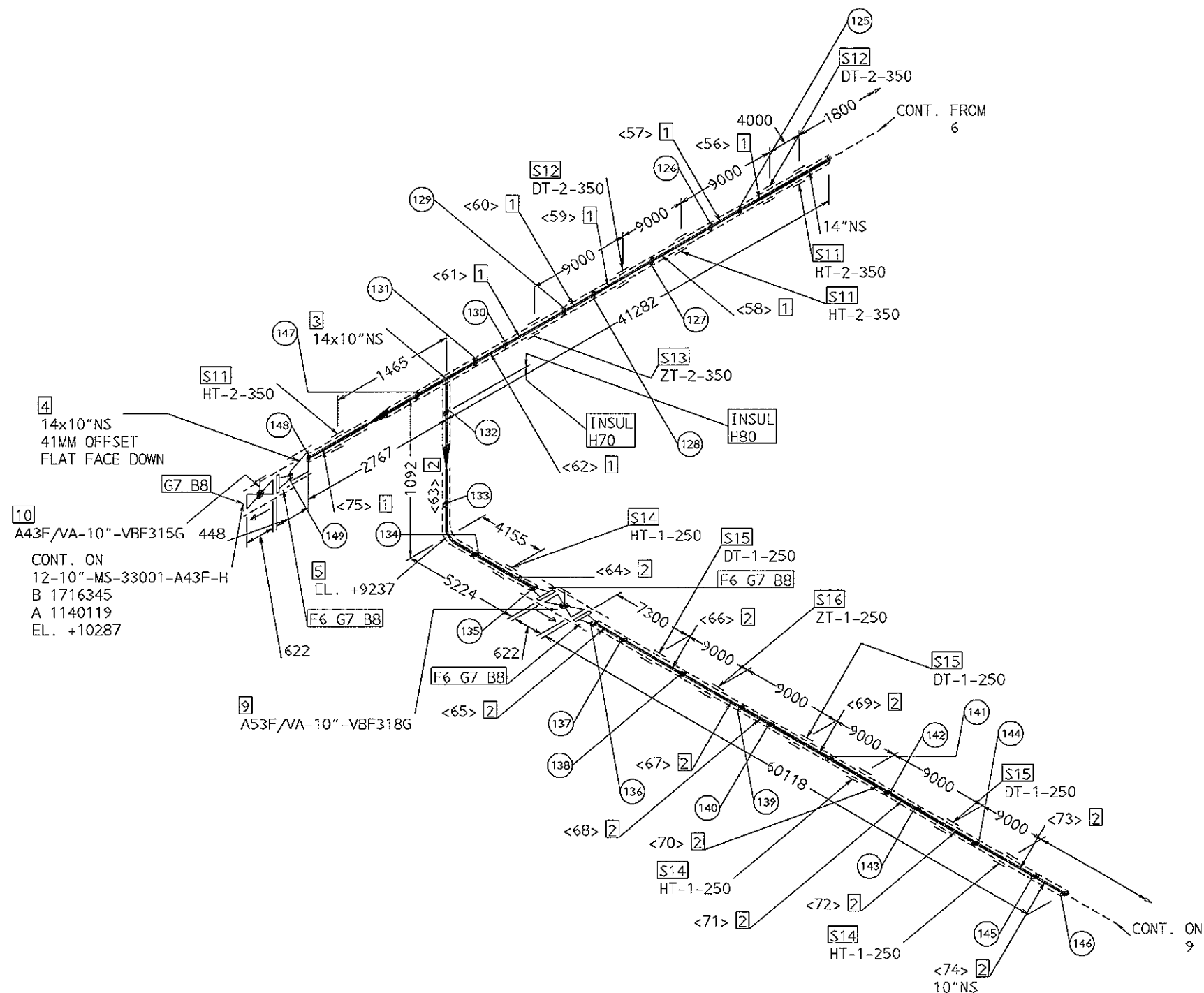
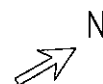
						DPR. PRESS.: 2 MPa(G)	DPR. TEMP.: 230 °C	CLASS: A43F	DWN.	Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置					
						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION: H70	DESN.	D.H.LEE	06/01/2011							
						HYDRO TEST: WATER 4.05 MPa(G)	PWHT: NO	TRACING: ---	CHK.	Y.C.CHOU	06/01/2011							
	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING: PER SPEC.	STEAM OUT: NO	RT: 10	APPR.	A.F.WU	06/01/2011							
	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU					DWG NO.: 314C,315C,316C		CONTRACT: C192502		LINE NO.:		SHT.	ISSUE	
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.					DIA. NO.: 1208-038/3390-020		FILE NO.: 13-MS38004-7		13-14"-MS-38004-A43F-H		7 OF 13	0	

FABRICATION MATERIALS

PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	14	A43F/P-14"-40	43.5M
2	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	10	A43F/P-10"-40	65.2M
FITTINGS				
3	REDU TEE A234 GR.WPB SCH40 SMLS BW ASME B16.9	14 x 10	A43F/TB-14"x10"	1
4	REDUCER ECC A234 GR.WPB SCH40 SMLS BW ASME B16.9	14 x 10	A43F/RE-14"x10"	1
5	90 DEG. ELBOW LR A234 GR.WPB SCH40 SMLS BW ASME B16.9	10	A43F/EB-10"x90	1
FLANGES				
6	FLANGE CL300 RF WN A105 SCH40 BORE ASME B16.5	10	A43F/WFR-10"	3
GASKETS				
7	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	10	A43F/GR-10"-G214ACM	4
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
8	170 MM LONG STUD BOLT . M27 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-10"-170	64
COMPONENTS				
9	GLOBE VALVE CL300 RF A216 GR.WCB BODY #8 TRIM LOOSE DISC OS&Y BB ASME B16.10 API600 GEAR OP. (VBF318G)	10	A53F/VA-10"-VBF318G	1
10	GLOBE VALVE CL300 RF A216 GR.WCB BODY #5 TRIM LOOSE DISC OS&Y BB ASME B16.10 API600 GEAR OP. (VBF315G)	10	A43F/VA-10"-VBF315G	1
SUPPORTS				
11	PIPE SUPPORT (HT-2-350)	14	SUP/HT-2-14"	3
12	PIPE SUPPORT (DT-2-350)	14	SUP/DT-2-14"	2
13	PIPE SUPPORT (ZT-2-350)	14	SUP/ZT-2-14"	1
14	PIPE SUPPORT (HT-1-250)	10	SUP/HT-1-10"	3
15	PIPE SUPPORT (DT-1-250)	10	SUP/DT-1-10"	3
16	PIPE SUPPORT (ZT-1-250)	10	SUP/ZT-1-10"	1

CUT PIPE LENGTH

PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<56>	6000	14		<57>	6000	14	
<58>	6000	14		<59>	6000	14	
<60>	6000	14		<61>	6000	14	
<62>	5002	14		<63>	453	10	
<64>	4725	10		<65>	6000	10	
<66>	6000	10		<67>	6000	10	
<68>	6000	10		<69>	6000	10	
<70>	6000	10		<71>	6000	10	
<72>	6000	10		<73>	6000	10	
<74>	6000	10		<75>	2488	14	



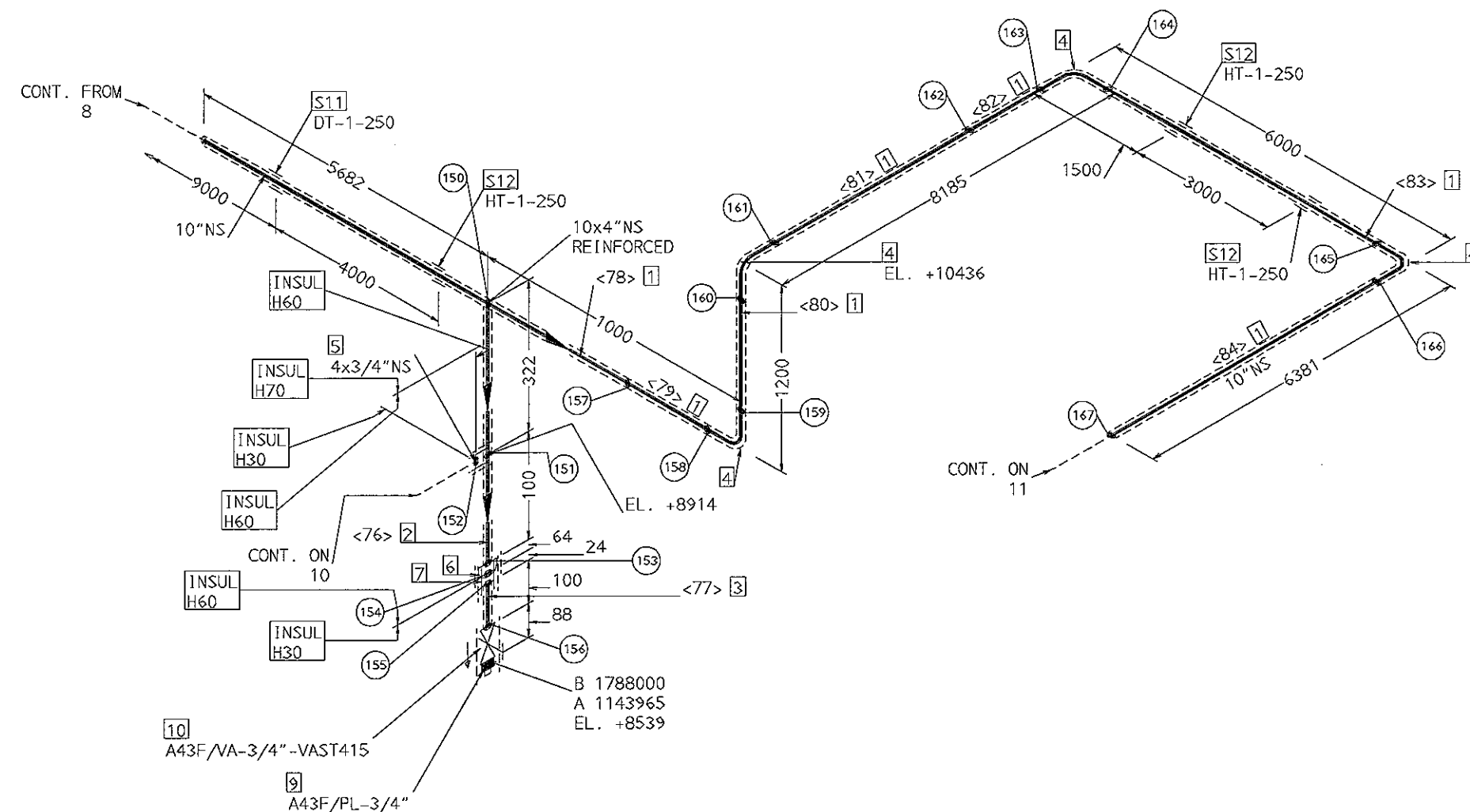
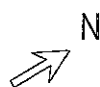
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU装置
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION: H70	DESN. D.H.LEE	06/01/2011		
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT: NO	TRACING: ---	CHK. Y.C.CHOU	06/01/2011		
△	07/08/2011	FOR CONSTRUCTION		Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING: PER SPEC.	STEAM OUT: NO	APPR. A.F.WU	06/01/2011		
△	06/01/2011	FOR APPROVAL		Y.M.LU	Y.C.CHOU	A.F.WU						
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DWG NO.: 314C, 315C, 316C	CONTRACT: C192502	LINE NO.:	SHT. ISSUE
									DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-8	13-14"-MS-38004-A43F-H	8 OF 13 0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	10	A43F/P-10"-40	25.4M
2	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	4	A43F/P-4"-40	0.4M
3	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	0.1M
FITTINGS				
4	90 DEG. ELBOW LR A234 GR.WPB SCH40 SMLS BW ASME B16.9	10	A43F/EB-10"x90	4
5	HALF COUPLING CL3000 SW A105 ASME B16.11	4 x 3/4	A43F/CHS-4"x3/4"	1
6	CAP A234 GR.WPB SCH40 SMLS BW ASME B16.9	4	A43F/CB-4"	1
7	HALF COUPLING CL3000 SW A105 ASME B16.11	3/4	A43F/CHS-3/4"	1
MISCELLANEOUS COMPONENTS				
8	REINFORCING PAD A106 GR.B SCH40 SMLS BE ASME B36.10M	4	A43F/PAD-10"x4"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
9	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	3/4	A43F/PL-3/4"	1
COMPONENTS				
10	GATE VALVE CL800 SW/SCRD(NPT) A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAST415)	3/4	A43F/VA-3/4"-VAST415	1
SUPPORTS				
11	PIPE SUPPORT (DT-1-250)	10	SUP/DT-1-10"	1
12	PIPE SUPPORT (HT-1-250)	10	SUP/HT-1-10"	3

CUT PIPE LENGTH							
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS
<76>	308	4		<77>	100	3/4	
<78>	6000	10		<79>	301	10	
<80>	438	10		<81>	6000	10	
<82>	1423	10		<83>	5238	10	
<84>	6000	10					



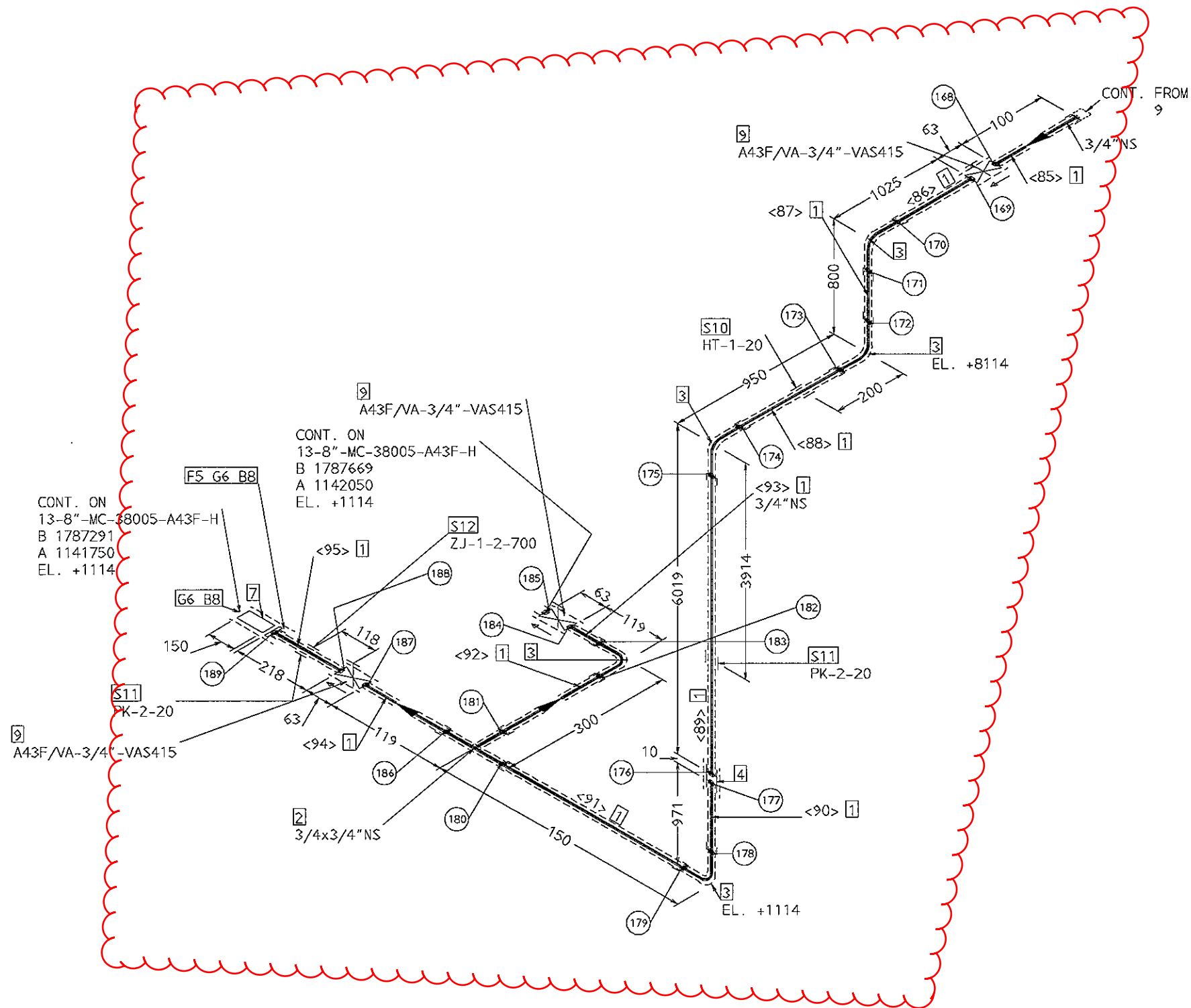
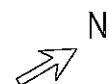
FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION: H70	DESN. D.H.LEE	06/01/2011		
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT: NO	TRACING: ---	CHK. Y.C.CHOU	06/01/2011		
△	07/08/2011	FOR CONSTRUCTION		Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING: PER SPEC.	STEAM OUT: NO	APPR. A.F.WU	06/01/2011		
△	06/01/2011	FOR APPROVAL		Y.M.LU	Y.C.CHOU	A.F.WU						
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DWG NO.: 314C, 315C, 316C	CONTRACT: C192502	LINE NO.:	SHT. ISSUE
									DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-9	13-14"-MS-38004-A43F-H	9 OF 13 0

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	10.6M
FITTINGS				
2	TEE CL3000 SW A105 ASME B16.11	3/4 x 3/4	A43F/TS-3/4"	1
3	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"X90	5
4	FULL COUPLING CL3000 SW A105 ASME B16.11	3/4	A43F/CFS-3/4"	1
FLANGES				
5	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	3/4	A43F/FR-3/4"	1
GASKETS				
6	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	3/4	A43F/GR-3/4"-G214ACM	2
INSTRUMENTS				
7	TRAP CL300 RF	3/4	A43F/TRAP-3/4"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
8	80 MM LONG STUD BOLT . M16 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-3/4"-80	8
COMPONENTS				
9	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	3
SUPPORTS				
10	PIPE SUPPORT (HT-1-20)	3/4	SUP/HT-1-3/4"	1
11	PIPE SUPPORT (PK-2-20)	3/4	SUP/PK-2-3/4"	2
12	PIPE SUPPORT (ZJ-1-2-700)	3/4	SUP/ZJ-1-2-3/4"	1

CUT PIPE LENGTH					
PIECE NO	CUT LENGTH (INS)	N.S.	REMARKS	PIECE NO	CUT LENGTH (INS)
<85>	100	3/4		<86>	1006
<87>	762	3/4		<88>	912
<89>	6000	3/4		<90>	952
<91>	112	3/4		<92>	262
<93>	100	3/4		<94>	100
<95>	204	3/4			



FOR CONSTRUCTION

JULY, 14, 2011

△						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置							
△						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DESN. D.H.LEE	06/01/2011									
△						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011									
△	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10 %	APPR. A.F.WU	06/01/2011									
A	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU	WELDED 	FIELD WELDED 	SOCKET 	THREAD 	COUPLING 	FIELD CONN. 	SUPPORT 	STEAM TRACE 	INSULATION 	DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.										DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-10	13-14"-MS-38004-A43F-H	10 OF 13	0

FABRICATION MATERIALS

PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH40 SMLS BE ASME B36.10M	10	A43F/P-10"-40	58.0M

FITTINGS

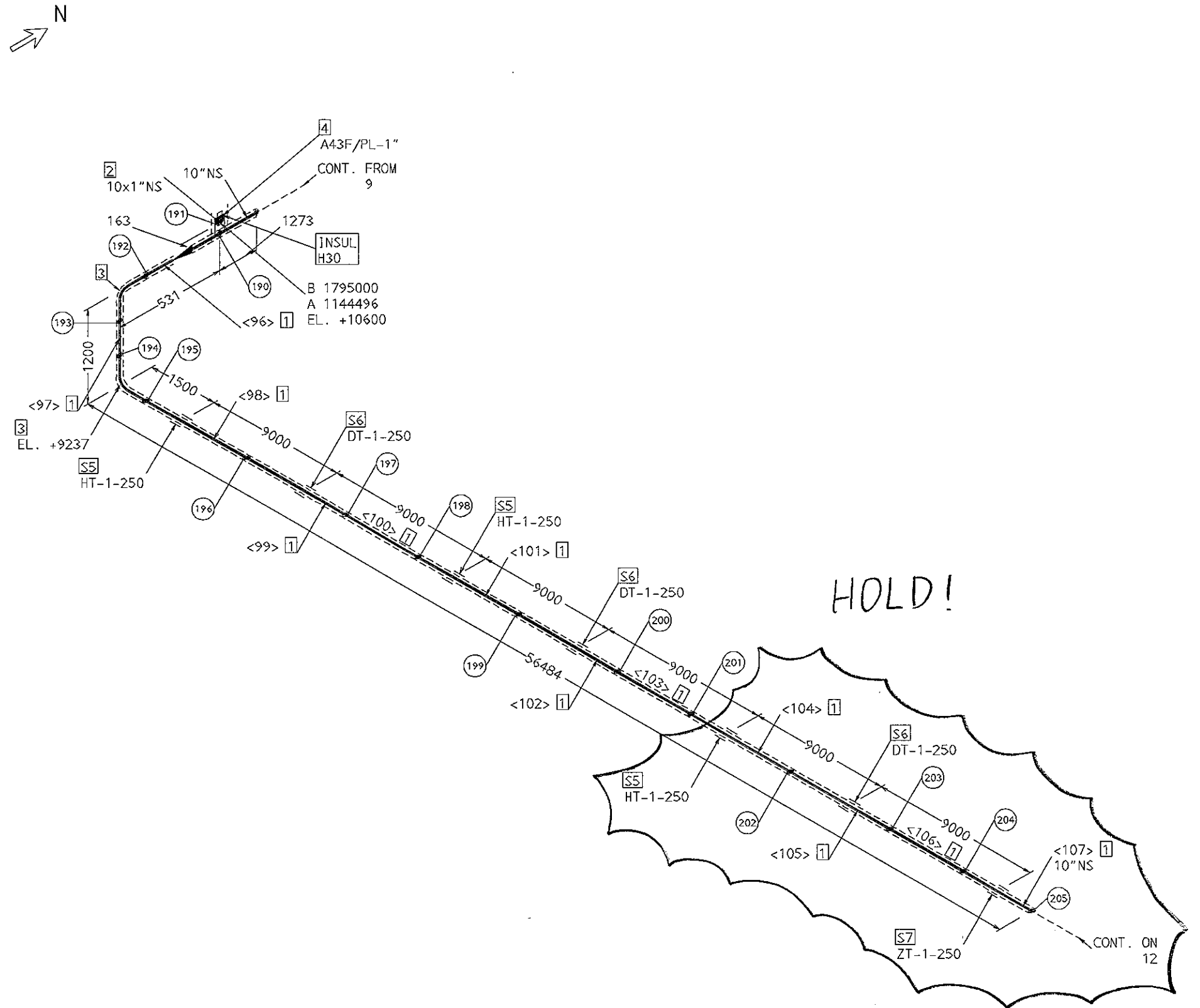
2	HALF COUPLING CL3000 SW A105 ASME B16.11	10 x 1	A43F/CHS-10"x1"	1
3	90 DEG. ELBOW LR A234 GR.WPB SCH40 SMLS BW ASME B16.9	10	A43F/EB-10"x90	2

ERECTION MATERIALS

PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
FITTINGS				
4	PLUG A105 HEXAGONAL TYPE SCRD(M-NPT) ASME B16.11	1	A43F/PL-1"	1
SUPPORTS				
5	PIPE SUPPORT (HT-1-250)	10	SUP/HT-1-10"	3
6	PIPE SUPPORT (DT-1-250)	10	SUP/DT-1-10"	3
7	PIPE SUPPORT (ZT-1-250)	10	SUP/ZT-1-10"	1

CUT PIPE LENGTH

PIECE NO	CUT LENGTH (INS)	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH (INS)	N.S. (INS)	REMARKS
<96>	1423	10		<97>	438	10	
<98>	6000	10		<99>	6000	10	
<100>	6000	10		<101>	6000	10	
<102>	6000	10		<103>	6000	10	
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FOR CONSTRUCTION

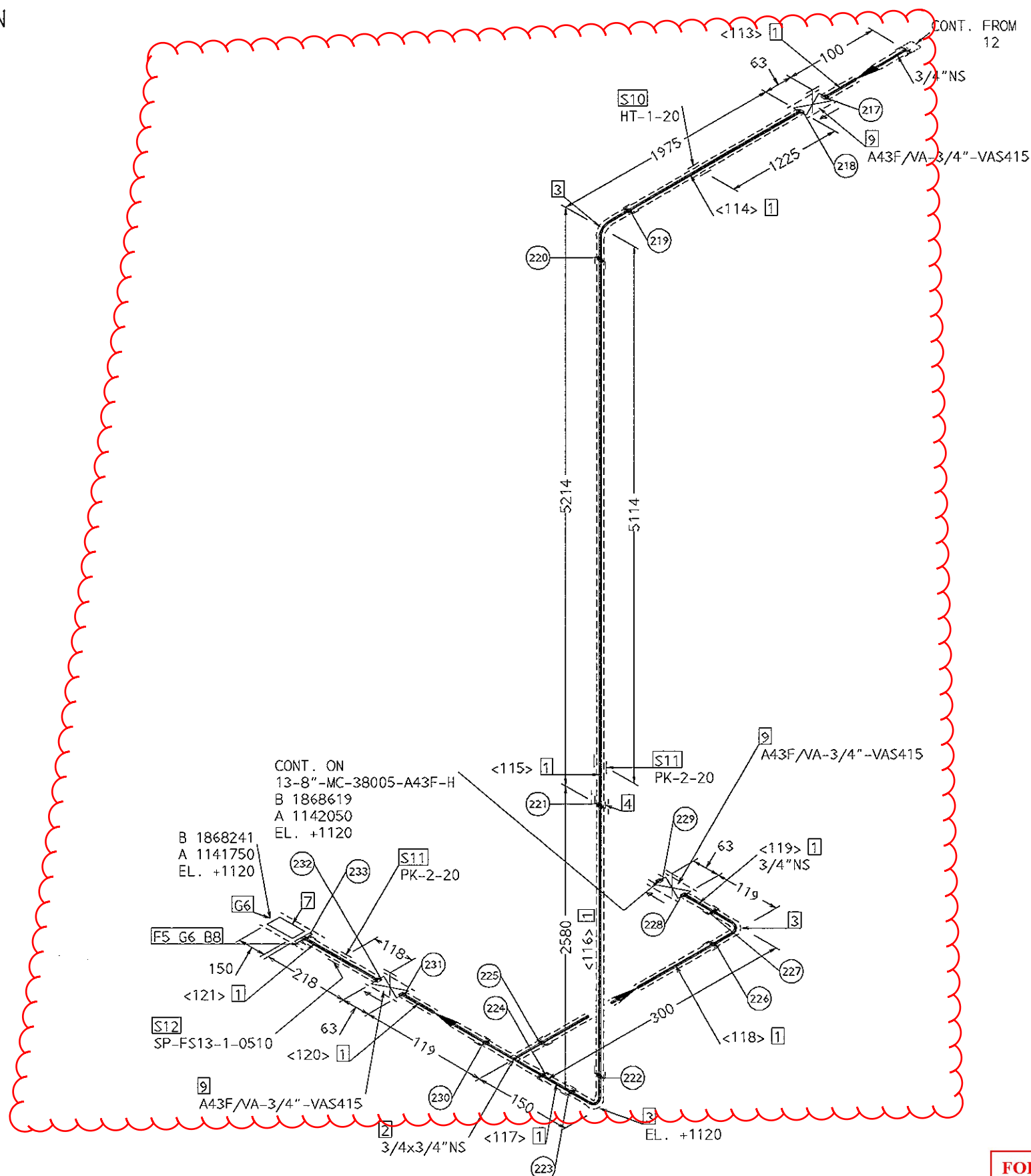
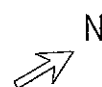
JULY, 14, 2011

						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD. 腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置		
						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DES. D.H.LEE	06/01/2011				
						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011				
	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10 %	APPR. A.F.WU	06/01/2011				
	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU	WELDED FIELD WELDED SOCKET THREAD COUPLING FIELD CONN. SUPPORT STEAM TRACE INSULATION				DWG NO.: 314C,315C,316C	CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.					DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-11	13-14"-MS-38004-A43F-H 11 OF 13 0		

FABRICATION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
PIPE				
1	PIPE A106 GR.B SCH80 SMLS PE ASME B36.10M	3/4	A43F/P-3/4"-80	10.6M
FITTINGS				
2	TEE CL3000 SW A105 ASME B16.11	3/4 x 3/4	A43F/TS-3/4"	1
3	90 DEG. ELBOW CL3000 SW A105 ASME B16.11	3/4	A43F/ES-3/4"X90	3
4	CAP CL3000 SW A105 ASME B16.11	3/4	A43F/CS-3/4"	1
FLANGES				
5	FLANGE CL300 RF SW A105 SCH80 BORE ASME B16.5	3/4	A43F/FR-3/4"	1
GASKETS				
6	GASKET CL300 RF 4.5mm 316SS SPIRAL WOUND FILLER FLEXIBLE GRAPHITE INNER RING 316SS OUTER RING LOW CS (G214ACM) ASME B16.20	3/4	A43F/GR-3/4"-G214ACM	2
INSTRUMENTS				
7	TRAP CL300 RF	3/4	A43F/TRAP-3/4"	1
ERECTION MATERIALS				
PT NO	DESCRIPTION & MATERIAL	N.S. (INS)	ITEM CODE	QTY
BOLTS				
8	80 MM LONG STUD BOLT . M16 A193 GR.B7 W/HEX HEAD HEAVY NUT A194 GR.2H		A43F/BSF-3/4"-80	4
COMPONENTS				
9	GATE VALVE CL800 SW A105 BODY #5 TRIM SOLID WEDGE OS&Y BB API602 BY MFR (VAS415)	3/4	A43F/VA-3/4"-VAS415	3
SUPPORTS				
10	PIPE SUPPORT (HT-1-20)	3/4	SUP/HT-1-3/4"	1
11	PIPE SUPPORT (PK-2-20)	3/4	SUP/PK-2-3/4"	2
12	SPECIAL SUPPORT (SP-FS13-1-0510)	3/4	SUP/FS13-1-3/4"	1

CUT PIPE LENGTH						
PIECE NO	CUT LENGTH	N.S. (INS)	REMARKS	PIECE NO	CUT LENGTH	N.S. (INS)
<113>	100	3/4		<114>	1956	3/4
<115>	5195	3/4		<116>	2561	3/4
<117>	112	3/4		<118>	262	3/4
<119>	100	3/4		<120>	100	3/4
<121>	204	3/4				

						OPR. PRESS.: 2 MPa(G)	OPR. TEMP.: 230 °C	CLASS: A43F	DWN. Y.M.LU	06/01/2011	REVIEWED	富台工程股份有限公司 FU-TAI ENGINEERING CO., LTD.	
						DES. PRESS.: 2.7/FV MPa(G)	DES. TEMP.: 260 °C	INSULATION : H70	DES.N. D.H.LEE	06/01/2011			
						HYDRO TEST: WATER 4.05 MPa(G)	PWHT : NO	TRACING : ---	CHK. Y.C.CHOU	06/01/2011			
	07/08/2011	FOR CONSTRUCTION	Y.M.LU	Y.C.CHOU	A.F.WU	PAINTING : PER SPEC.	STEAM OUT: NO	RT : 10	APPR. A.F.WU	06/01/2011			腾龙芳烃(漳州)80万吨/年对二甲苯工程 CSU/VDU 装置
	06/01/2011	FOR APPROVAL	Y.M.LU	Y.C.CHOU	A.F.WU		DWG NO.: 314C,315C,316C			CONTRACT: C192502	LINE NO.:	SHT.	ISSUE
REV. NO.	DATE	REVISION DESCRIPTION	BY	CHK.	APPR.				DIA. NO.: 1208-038/3390-020	FILE NO.: 13-MS38004-13	13-14"-MS-38004-A43F-H	13 OF 13	0



FOR CONSTRUCTION

JULY, 14, 2011