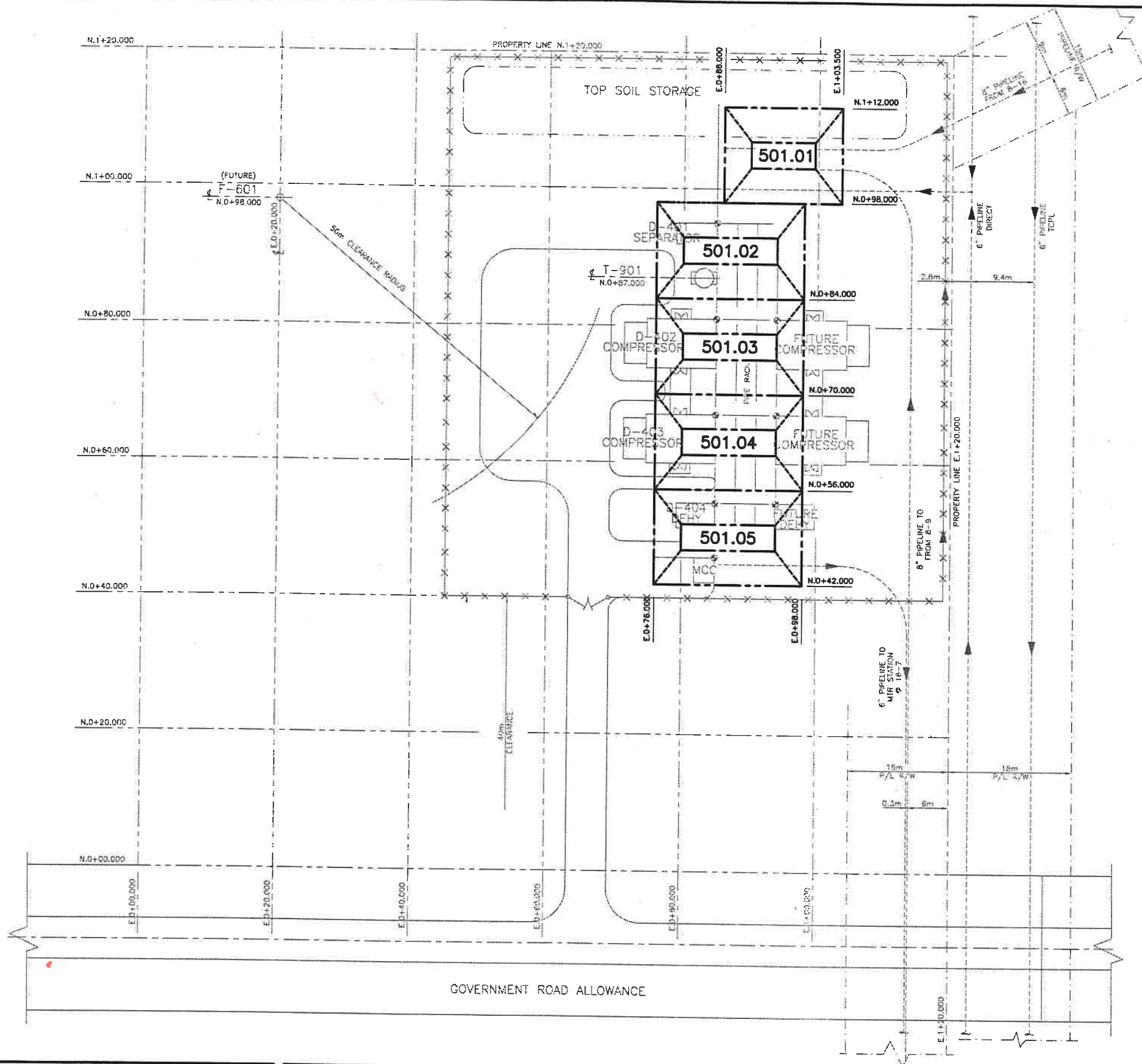
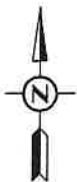


PLOT No. 23209

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SITE PLAN		100.00
REFERENCE DRAWINGS		DWG No

REV	DATE	REVISION DESCRIPTION	BY
0	02.02.08	ISSUED FOR CONSTRUCTION	RF

ENGINEER	B.TOMAS		
APPROVAL	B.TOMAS		
CHECKER	J.H-T		
DRAWN	WS GALL		
DATE	02.01.02		
SCALE:	1:300	APPROVED	DATE

LICENCE AND PERMIT	
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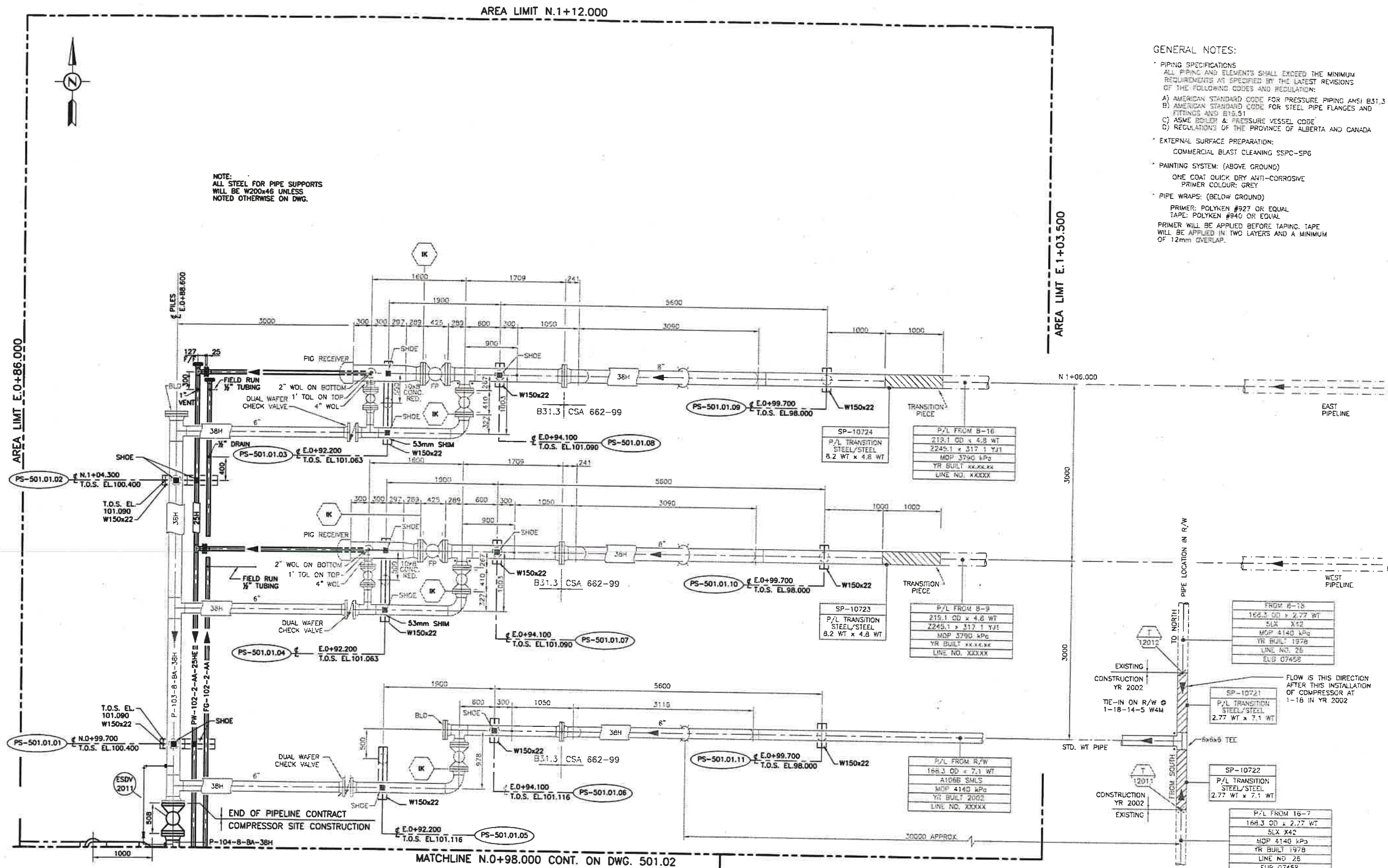
CHANNEL LAKE SOUTH COMPRESSOR STATION	
PIPING KEY PLAN LSD 1-18-14-5 W4M	
TECHSKIL INC. PHONE (403) 287-3375 TECHNICAL DRAFTING-DESIGN SERVICES FAX (403) 287-0982 EMAIL info@techskil.com	

 Direct Energy Resources		
PLANT No	DRAWING No	REV
U1	500.00	0

FEB 11 2008

PLOT No. 23231

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PIPING KEY PLAN	500.00
PIPELINE HEADER FLOW DIAGRAM	
REFERENCE DRAWINGS	DWG No

1	02.02.19	REV TO TRUNION MNT VALVE	LW
0	02.02.08	ISSUED FOR CONSTRUCTION	RF
REV	DATE	REVISION DESCRIPTION	BY

ENGINEER	B.TOMAS		
APPROVAL	B.TOMAS		
CHECKER	J.H-T		
DRAWN	WS GALL		
DATE	02.01.04		
SCALE:	1:30	APPROVED	DATE

LICENCE AND PERMIT

CHANNEL LAKE SOUTH COMPRESSOR STATION INLET HEADER AREA PIPING PLAN LSD 1-18-14-5 W4M	TECHSKIL INC. TECHNICAL DRAFTING-DESIGN SERVICES	PHONE (403) 287-3375 FAX (403) 287-8982 EMAIL info@techskil.com	PLANT No. U1 DRAWING No. 501.01 REV 1
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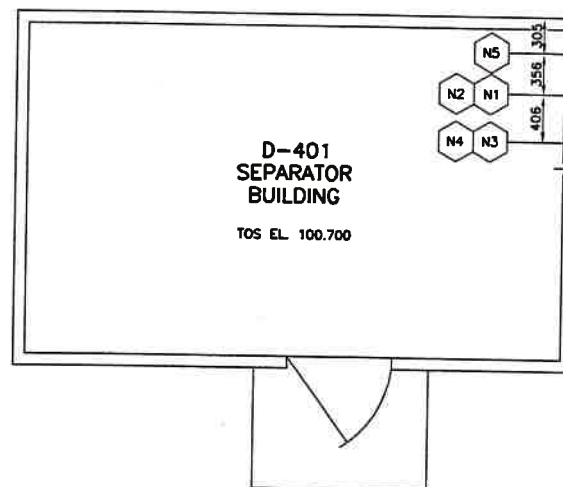
PLOT No. 23231

AREA LIMIT E.O+76.000



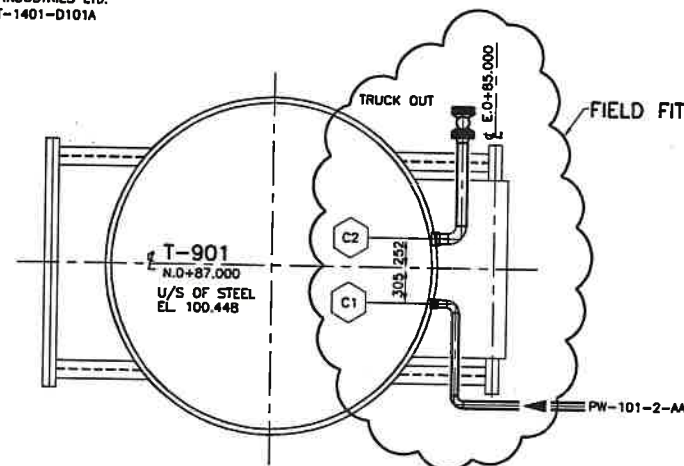
SEPARATOR BUILDING NOZZLE TABLE (D-401)						
NOZZLE	SERVICE	SIZE	RATING	£ NORTHING	£ EASTING	£ ELEVATION
N1	INLET	8" RF	300#	N.O+94.339	E.O+85.203	103.215
N2	OUTLET	8" RF	300#	N.O+94.339	E.O+85.203	101.995
N3	FUEL GAS INLET	2" RF	150#	N.O+93.833	E.O+85.203	101.310
N4	WATER OUTLET	2" RF	150#	N.O+93.833	E.O+85.203	100.852
N5	PSV OUTLET	2" RF	150#	N.O+94.895	E.O+85.203	103.135

VENDOR : PETRO FIELD
VENDOR DWG. : 01-298-LAY-01



T-901 NOZZLE TABLE						
NOZZLE	SERVICE	SIZE	RATING	£ NORTHING	£ EASTING	£ ELEVATION
C1	INLET	2" FULL CPLG.	3000#	N.O+86.695	FIELD DETER.	FIELD DETER.
C2	TRUCK OUT	3" FULL CPLG.	3000#	N.O+87.254	FIELD DETER.	FIELD DETER.
C3	FUEL GAS	1/2" CPLG.	3000#	N/A	N/A	FIELD DETER.

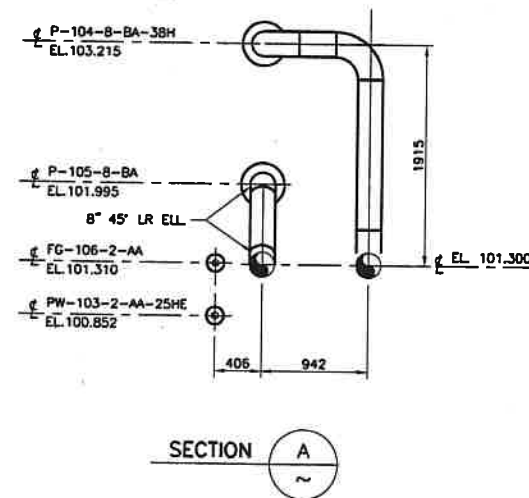
VENDOR : WILCO INDUSTRIES LTD.
VENDOR DWG. : T-1401-D101A



MATCHLINE N.O+98.000 CONT. ON DWG. 501.01

MATCHLINE N.O+84.000 CONT. ON DWG. 501.03

NOTE:
ALL STEEL FOR PIPE SUPPORTS
WILL BE W200x46 UNLESS
NOTED OTHERWISE ON DWG.



AREA LIMIT E.O+98.000

PIPING KEY PLAN	500.00
REFERENCE DRAWINGS	DWG No

REV	DATE	REVISION DESCRIPTION	BY
1	02.02.19	REV TO TRUNION MNT VALVE	LW
0	02.02.8	ISSUED FOR CONSTRUCTION	RF

ENGINEER	B.TOMAS
APPROVAL	B.TOMAS
CHECKER	J.H-T
DRAWN	R.FERN
DATE	02.01.21
SCALE:	1:30
APPROVED	DATE

CHANNEL LAKE
COMPRESSOR STATION
PROCESS AREA
PIPING PLAN
LSD 1-18-14-5 W4M

TECHSKIL INC.

TECHNICAL DRAFTING-DESIGN SERVICES

PHONE (403) 287-3375
FAX (403) 287-9882
EMAIL info@techskil.com

PLANT No
U1

DRAWING No. REV
501.02 1

Direct Energy Resources

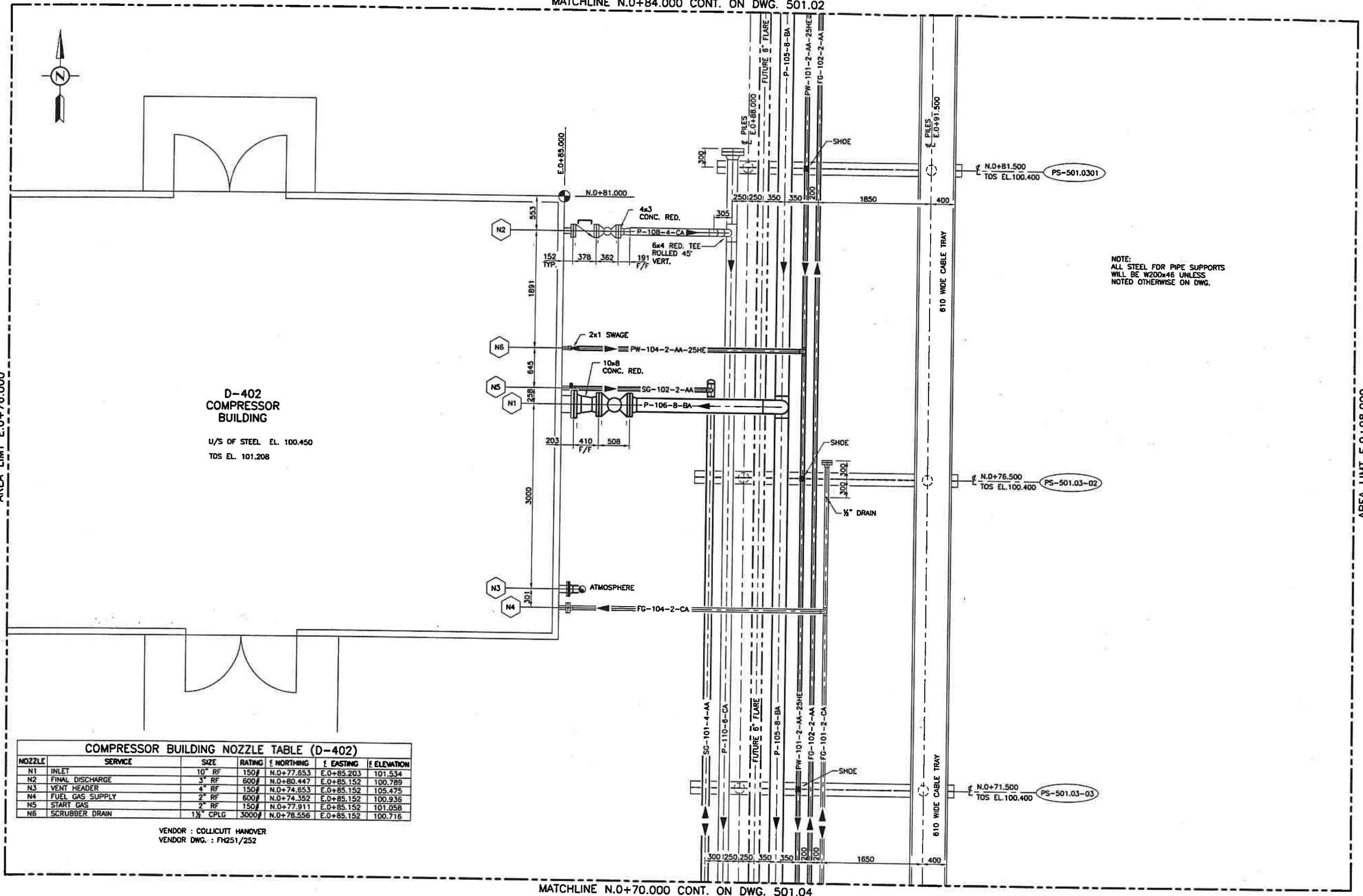
PLANT No
U1

DRAWING No. REV
501.02 1

PLOT No. 29231

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AREA LIMIT E.O.+76.000



COMPRESSOR BUILDING NOZZLE TABLE (D-402)						
NOZZLE	SERVICE	SIZE	RATING	NORTHING	EASTING	ELEVATION
N1	INLET	10" RF	150#	N.O.+77.653	E.O.+85.203	101.534
N2	FINAL DISCHARGE	3" RF	600#	N.O.+80.447	E.O.+85.152	100.789
N3	VENT HEADER	4" RF	150#	N.O.+74.653	E.O.+85.152	105.475
N4	FUEL GAS SUPPLY	2" RF	600#	N.O.+74.352	E.O.+85.152	100.936
N5	START GAS	2" RF	150#	N.O.+77.911	E.O.+85.152	101.058
N6	SCRUBBER DRAIN	1 1/2" CPLG	3000#	N.O.+78.556	E.O.+85.152	100.716

VENDOR : COLLICUTT HANOVER
VENDOR DWG. : FH251/252

MATCHLINE N.O.+70.000 CONT. ON DWG. 501.04

PIPING KEY PLAN	500.00
REFERENCE DRAWINGS	DWG No.

REV	DATE	REVISION DESCRIPTION	BY
1	02.02.19	REV TO TRUNION MNT VALVE	LW
0	02.02.08	ISSUED FOR CONSTRUCTION	RF

ENGINEER	B.TOMAS
APPROVAL	B.TOMAS
CHECKER	J.H-T
DRAWN	R.FERN
DATE	02.01.21
SCALE:	1:30
APPROVED	DATE

LICENCE AND PERMIT

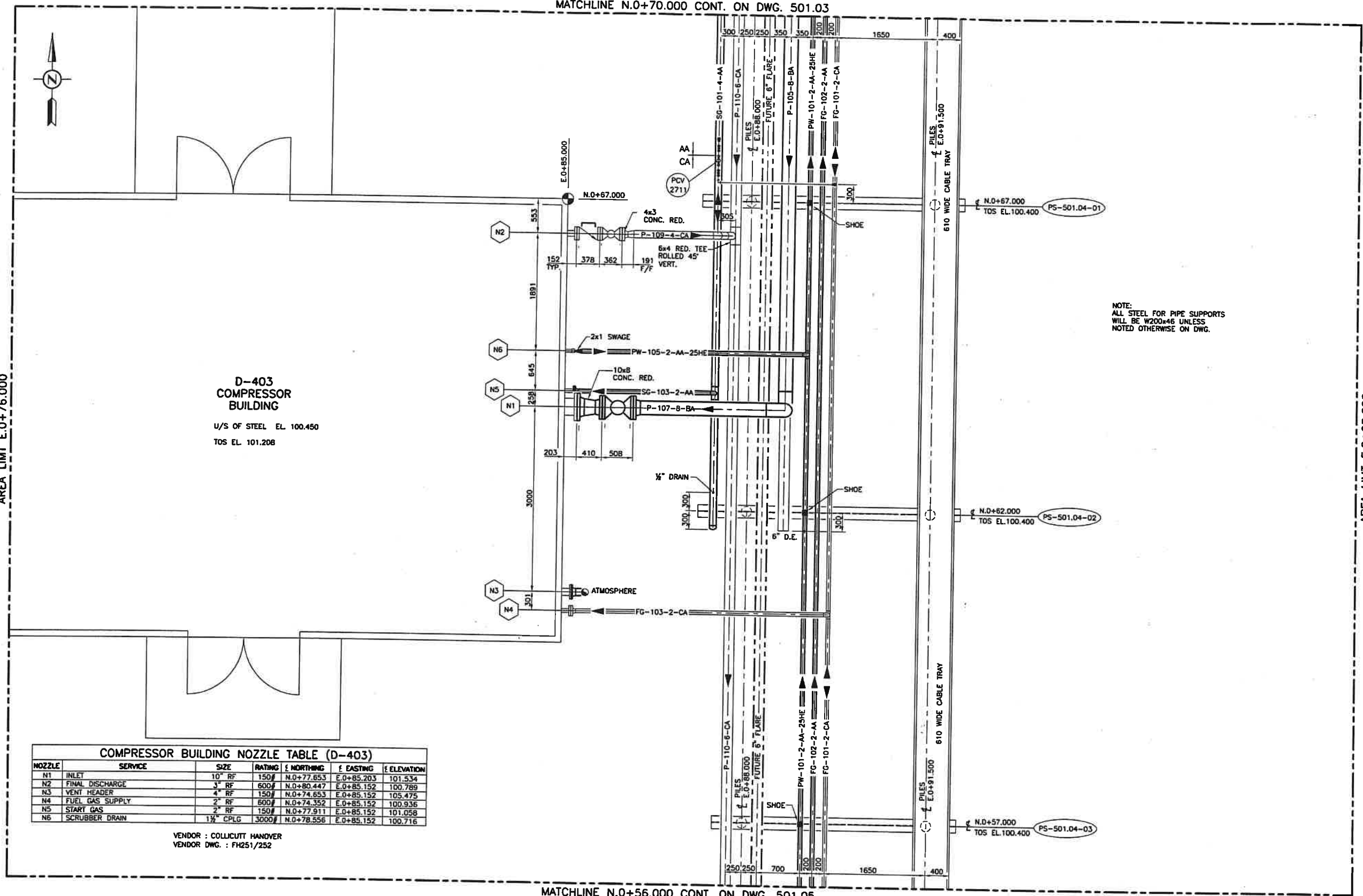
CHANNEL LAKE SOUTH COMPRESSOR STATION D-402 COMPRESSOR AREA PIPING PLAN LSD 1-18-14-5 W4M			
TECHSKIL INC.	PHONE (403) 287-3375 FAX (403) 287-9982 EMAIL info@techskil.com	PLANT No	DRAWING No.
U1	501.03	REV	1

AREA LIMIT E.O.+98.000

PLOT No. 23231

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AREA LIMIT E.O+76.000



COMPRESSOR BUILDING NOZZLE TABLE (D-403)						
NOZZLE	SERVICE	SIZE	RATING	NORTHING	EASTING	ELEVATION
N1	INLET	10" RF	150#	N.O+77.653	E.O+85.203	101.534
N2	FINAL DISCHARGE	3" RF	600#	N.O+80.447	E.O+85.152	100.789
N3	VENT HEADER	4" RF	150#	N.O+74.653	E.O+85.152	105.475
N4	FUEL GAS SUPPLY	2" RF	600#	N.O+74.352	E.O+85.152	100.936
N5	START GAS	2" RF	150#	N.O+77.911	E.O+85.152	101.058
N6	SCRUBBER DRAIN	1 1/2" CPLG	3000#	N.O+78.556	E.O+85.152	100.716

VENDOR : COLCUTT HANOVER
VENDOR DWG. : FH251/252

NOTE:
ALL STEEL FOR PIPE SUPPORTS
WILL BE W200x46 UNLESS
NOTED OTHERWISE ON DWG.

AREA LIMIT E.O+98.000

PIPING KEY PLAN	500.00
REFERENCE DRAWINGS	DWG No

REV	DATE	REVISION DESCRIPTION	BY
1	02.02.19	REV TO TRUNION MNT VALVE	LW
0	02.02.08	ISSUED FOR CONSTRUCTION	RF

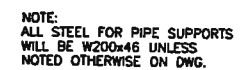
ENGINEER	B.TOMAS
APPROVAL	B.TOMAS
CHECKER	J.H-T
DRAWN	R.FERN
DATE	02.01.21
SCALE:	1:30
APPROVED	DATE

LICENCE AND PERMIT

CHANNEL LAKE SOUTH COMPRESSOR STATION D-403 COMPRESSOR AREA PIPING PLAN LSD 1-18-14-5 W4M		
TECHSKIL INC.	PHONE (403) 287-3375 FAX (403) 287-9982 EMAIL info@techskil.com	PLANT No U1

Direct Energy Resources		
PLANT No	DRAWING No.	REV
U1	501.04	1

VENDOR : OPSCD
VENDOR DWG. : L-01-3657-1957



PLOT No. 23231

QTY.	DESCRIPTION	SPECIFICATIONS
135m	PIPE 2" SCH 40 SMLS	A106B
16m	PIPE 4" SCH 40 SMLS	A106B
38m	PIPE 8" SCH 40 SMLS	A106B
5m	PIPE 1" SCH 80 SMLS	A106B
39m	PIPE 2" SCH 80 SMLS	A106B
3m	PIPE 4" SCH 80 SMLS	A106B
44m	PIPE 6" SCH 80 SMLS	A106B
13	FLANGE 2" 150 ANSI WN RF SCH 40	A105
1	FLANGE 3" 150 ANSI WN RF SCH 40	A105
3	FLANGE 4" 150 ANSI WN RF SCH 40	A105
3	FLANGE 2" 150 ANSI BLD RF	A105
1	FLANGE 3" 150 ANSI BLD RF	A105
2	FLANGE 2" 300 ANSI WN RF SCH 40	A105
1	FLANGE 3" 300 ANSI WN RF SCH 40	A105
1	FLANGE 3" 300 ANSI BLD RF	A105
2	FLANGE 6" 300 ANSI WN RF SCH 40	A105
10	FLANGE 8" 300 ANSI WN RF SCH 40	A105
2	FLANGE 10" 300 ANSI WN RF SCH 40	A105
1	FLANGE 3" 300 ANSI BLD RF	A105
7	FLANGE 2" 600 ANSI WN RF SCH 80	A105
2	FLANGE 3" 600 ANSI WN RF SCH 80	A105
6	FLANGE 6" 600 ANSI WN RF SCH 80	A105
2	FLANGE 2" 600 ANSI BLD RF c/w 1" FNPT TAP HOLE	A105
4	FLANGE 2" 600 ANSI BLD RF	A105
1	FLANGE 6" 600 ANSI BLD RF	A105
2	ELBOW 4" 45° SCH 80	A234 WPB
1	ELBOW 6" 45° SCH 80	A234WPB
4	ELBOW 1" 90° THR'D 3000#	A105
13	ELBOW 2" 90° LR SCH 40	A234 WPB
1	ELBOW 3" 90° LR SCH 40	A234 WPB
1	ELBOW 4" 90° SCH 40	A234 WPB
11	ELBOW 8" 90° LR SCH 40	A234 WPB
3	ELBOW 2" 90° LR SCH 80	A234 WPB
5	ELBOW 6" 90° LR SCH 80	A234 WPB

MATERIAL RECORDS REQUIRED WITH PIPE & FITTINGS NOTES: QTY. SHOWN COMPLETE SITE.

By LHW	Client DIRECT ENERGY RESOURCES	TECHSKIL INC.	
Checked LHW	Project: CHANNEL LAKE SOUTH COMP. STN. LSD 01-18-14-05 W4M	BILL OF MATERIAL	
Date 02.02.15	BM for SITE CONSTRUCTION	File No. U01-800-502	Rev. 0

QTY.	DESCRIPTION	SPECIFICATIONS
8	TEE 2 X 2 X 2 SCH 40	A234 WPB
2	TEE 4 X 4 X 2 SCH 40	A234 WPB
4	TEE 2 X 2 X 2 SCH 80	A234 WPB
2	TEE 6 X 6 X 4 SCH 80	A 234 WPB
1	TEE 8 X 8 X 8 SCH 40	A234 WPB
2	TEE 8 X 8 X 6 SCH 40	A234 WPB
2	REDUCER CONC 4 X 3 SCH 80	A234 WPB
2	REDUCER CONC 10 X 8 SCH 40	A234 WPB
10	TOL 1/2" ON 2" 3000#	A105
10	TOL 3/4" ON 4" 3000#	A105
1	TOL 1" ON 4" 3000#	A105
2	TOL 1" ON 6" 3000#	A105
1	WOL 2" ON 6" SCH 80	A105
1	WOL 3" ON 8" SCH 40	A105
10	NIPPLE 3/4" X 2" LG SCH 160 SMLS TBE	A106B
2	NIPPLE 1" X 2" LG SCH 160 SMLS TBE	A106B
4	NIPPLE 1" X 4" LG SCH 160 SMLS TBE	A106B
3	CONCENTRIC SWAGE - 2 X 1 SCH 80 TE X SCH 40 BE	A105
3	CONCENTRIC SWAGE - 2 X 1 SCH 80 TE X SCH 80 TE	A105
10	PLUGS 1/2" 3000# FS H X HD	A105
10	PLUGS 3/4" 3000# FS H X HD	A105
4	UNIONS 1" 3000# FS	A105
2	CAP 4" SCH 40 BW	A234 WPB
10	GASKET 2" 150 RF FLEXITALLIC	STYLE CG
2	GASKET 3" 150 RF FLEXITALLIC	
3	GASKET 4" 150 RF FLEXITALLIC	STYLE CG
1	GASKET 3" 300 RF FLEXITALLIC	STYLE CG
2	GASKET 6" 300 RF FLEXITALLIC	STYLE CG
12	GASKET 8" 300 RF FLEXITALLIC	STYLE CG
2	GASKET 10" 300 RF FLEXITALLIC	STYLE CG
7	GASKET 2" 600 RF FLEXITALLIC	STYLE CG
6	GASKET 3" 600 RF FLEXITALLIC	STYLE CG
7	GASKET 6" 600 RF FLEXITALLIC	STYLE CG

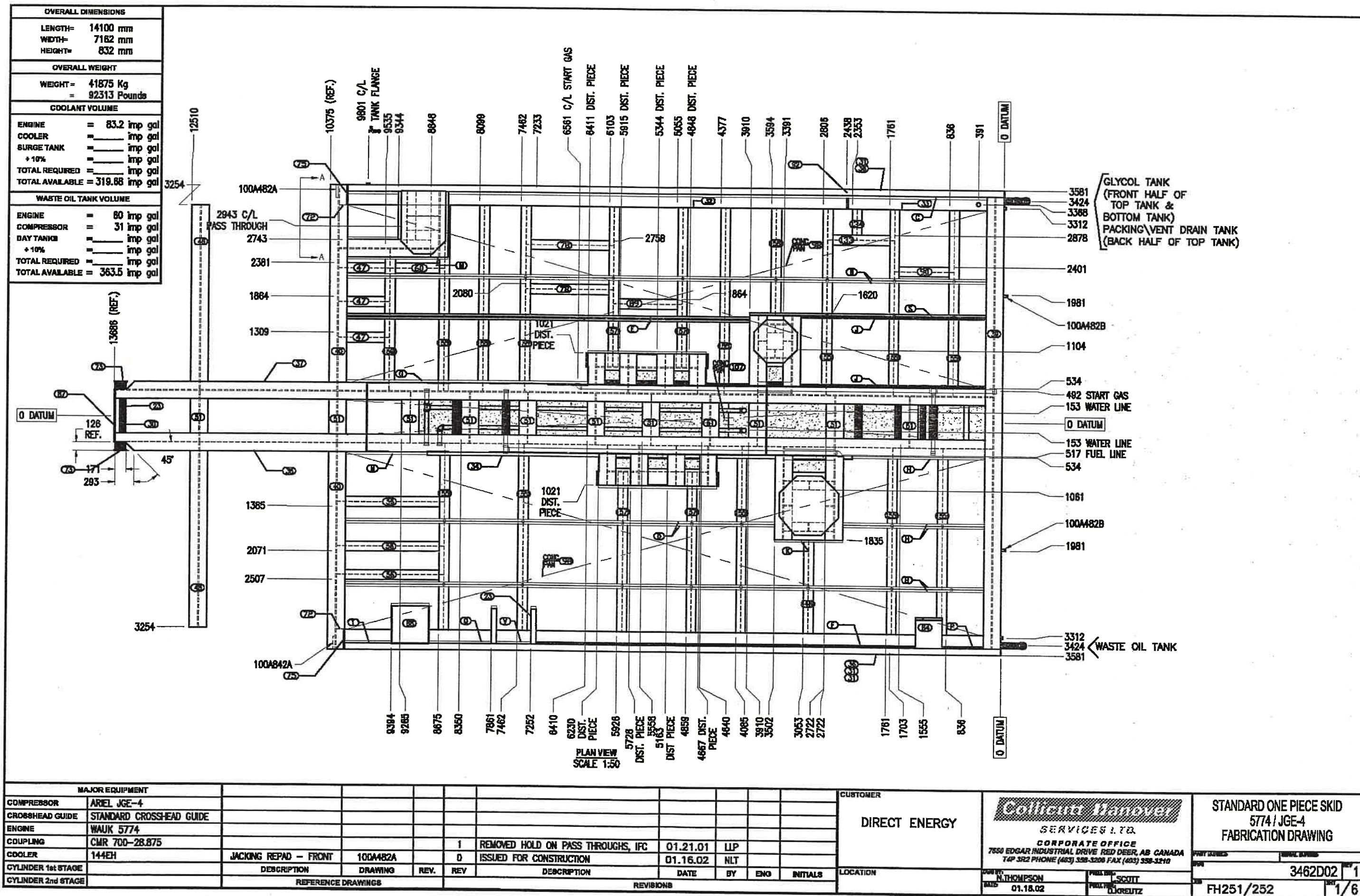
MATERIAL RECORDS REQUIRED WITH PIPE & FITTINGS NOTES: QTY. SHOWN FOR COMPLETE SITE.

By LHW	Client DIRECT ENERGY RESOURCES	TECHSKIL INC.	
Checked LHW	Project: CHANNEL LAKE SOUTH COMP. STN. LSD 01-18-14-05 W4M	BILL OF MATERIAL	
Date 02.02.15	BM for SITE CONSTRUCTION	File No. U01-800-502	Rev. 0

DIRECT ENERGY RESOURCES
CHANNEL LAKE SOUTH COMPRESSOR STATION
LSD 1-18-14-5 W4M
LINE LIST

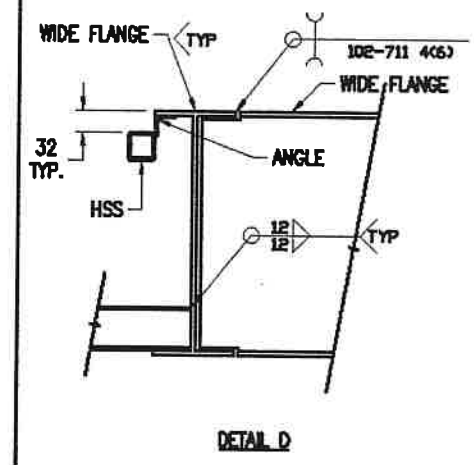
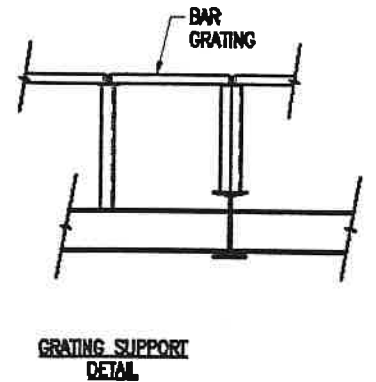
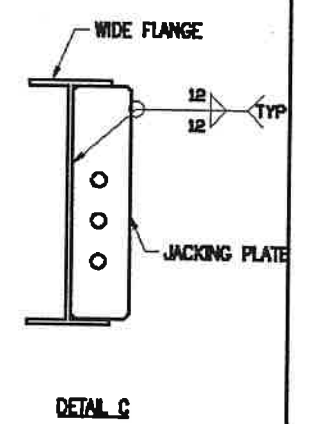
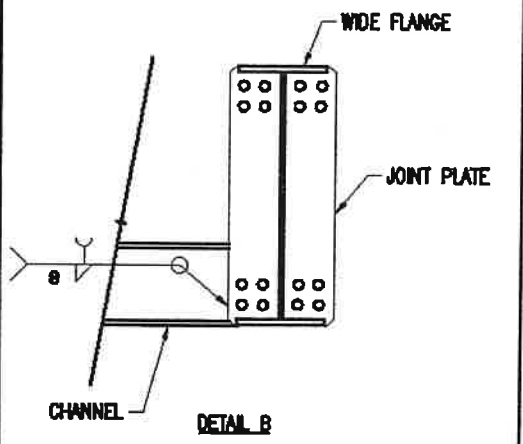
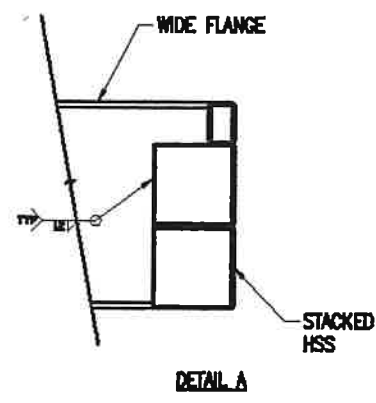
REV	SYS	LINE NO.	NOMINAL PIPE SIZE	PIPE SPEC	INSULATION	TRACING	FLOW FROM	FLOW TO	FLOW DIAGRAM NO.	X-RAY	PWHT	CORR. ALLOW.	PIPE WALL THICKNESS	DESIGN PRESSURE (kPa)	DESIGN TEMP. (Deg. C)	OPERATING PRESSURE (kPa)	OPERATING TEMP. (Deg. C)	TEST PRESSURE (kPa)	TEST MEDIUM	REMARKS
	FG	101	2	CA	-	-	V-272 DEHY.	HEADER	032.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	FG	102	2	AA	-	-	V-272 DEHY.	HEADER	032.01	10%	NO	1.6	SCH.80	1965	-29/38				WATER	
	FG	103	2	CA	-	-	FG-101-2-CA	K-161	032.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	FG	104	2	CA	-	-	FG-101-2-CA	K-151	032.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	FG	106	2	AA	-	-	FG-102-2-AA	V-201 SEP.	032.01	10%	NO	1.6	SCH.80	1965	-29/38				WATER	
	FG	107	2	CA	-	-	P-111-6-CA	FG-101-2-CA	011.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	FG	108	2	BA	-	-	P-106-8-AA	K-151 S.G.	020.02	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	FG	109	2	BA	-	-	P-107-8-AA	K-161 S.G.	020.03	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	101	6	BA	38H	-	PIPELINE	P-103-8-BA-38H	011.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	102	6	BA	38H	-	PIG RECEIVER	P-103-8-BA-38H	011.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	103	6 / 8	BA	38H	-	PIG RECEIVER	HEADER	011.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	104	8	BA	38H	-	P-103-8-BA-38H	V-201 SEP.	011.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	105	8	BA	-	-	V-201 SEP.	HEADER	012.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	106	8	BA	-	-	P-105-8-BA	K-151	012.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	107	8	BA	-	-	P-105-8-BA	K-161	012.01	10%	NO	1.6	SCH.40	5100	-29/38				WATER	
	P	108	4	CA	-	-	K-151	P-110-6-CA	020.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	P	109	4	CA	-	-	K-161	P-110-6-CA	020.03	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	P	110	6	CA	-	-	HEADER	V-271 DEHY.	032.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	P	111	6	CA	-	-	V-271 DEHY.	SALES	032.01	10%	NO	1.6	SCH.80	10200	-29/38				WATER	
	PW	101	2	AA	25H	E	HEADER	T-901	064.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	PW	102	2	AA	25H	E	HEADER	PW-101-2-AA-25HE	011.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	PW	103	2	AA	25H	E	V-201 SEP.	PW-101-2-AA-25HE	012.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	PW	104	2	AA	25H	E	K-151	PW-101-2-AA-25HE	020.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	PW	105	2	AA	25H	E	K-161	PW-101-2-AA-25HE	020.03	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	PW	106	2	AA	25H	E	V-271 DEHY.	PW-101-2-AA-25HE	032.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	SG	101	4	AA	-	-	FG-101-2-CA	HEADER	032.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	SG	102	2	AA	-	-	SG-101-4-AA	K-151	032.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	SG	103	2	AA	-	-	SG-101-4-AA	K-161	032.01	10%	NO	1.6	SCH.40	1965	-29/38				WATER	
	V	102	2	AA	25H	-	H-771 DEHY.	T-902	032.01	NO	NO	1.6	SCH.40	ATMOS	ATMOS					HOLD

PLOT No. 23203

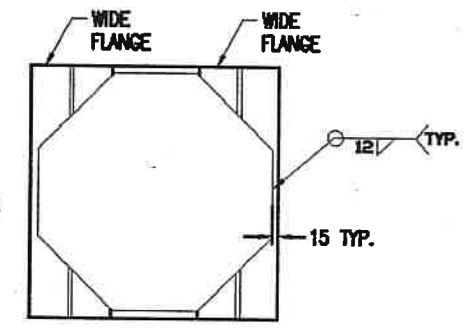
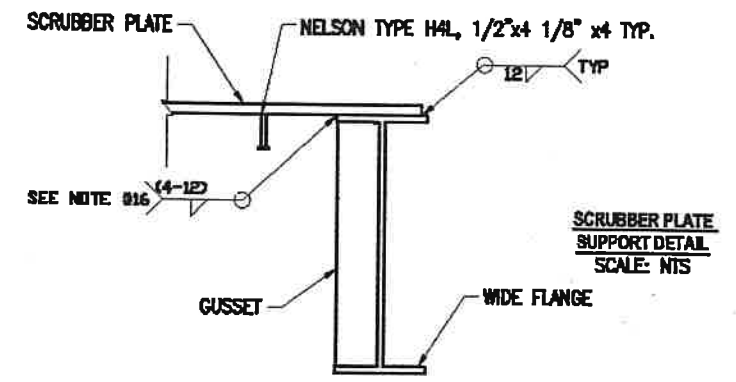
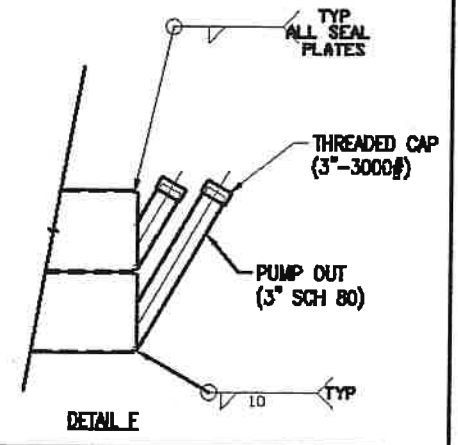
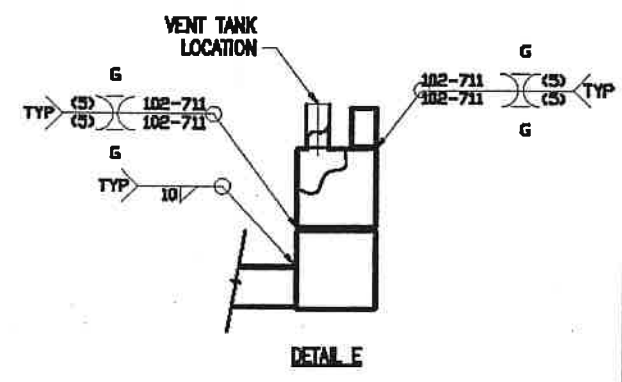


02.01.30 FEB 11 2002

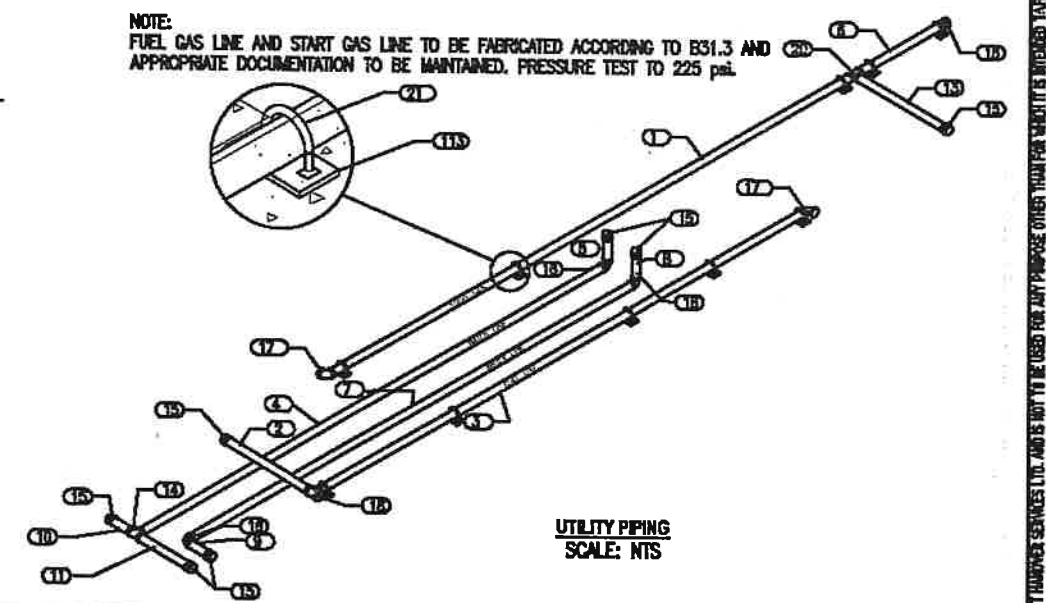
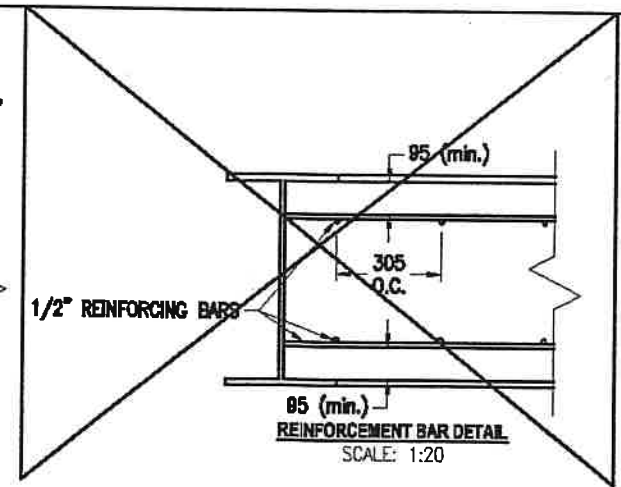
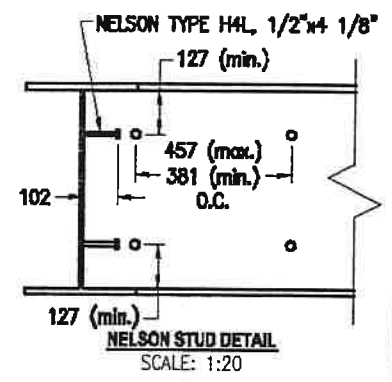
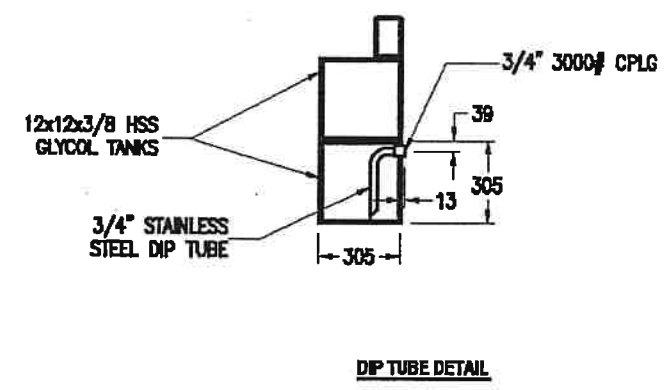
UTILITY PIPING BILL OF MATERIALS						STRUCTURAL BILL OF MATERIALS															
NO.	TYPE	SIZE	DESCRIPTION	WEIGHT	QUANTITY	POS. #	COUNT	NAME	LENGTH	WEIGHT	POS. #	COUNT	NAME	LENGTH	WEIGHT						
1	80	2	PIPE SMLS SCH 80 PBE	40.52	5.42 m	23	3	C 3x4.1	536.0	3.2	104	1	PLATE 952x363x3	952.1	9.7						
2	80	2	PIPE SMLS SCH 80 PBE	6.16	0.89 m	24	1	PIPE 8 STD	815.8	42.5	105	1	PLATE 1162x514x3	1162.2	14.1						
3	80	2	PIPE SMLS SCH 80 PBE	42.31	5.08 m	25	2	PIPE 6 Sch 40	1577.0	44.5	106	1	PLATE 535x524x3	534.6	6.61						
4	80	2	PIPE SMLS SCH 80 PBE	35.98	4.82 m	26	1	PIPE 10 STD	510.3	60.2	107	1	PLATE 9843x536x3	9843.0	110.21						
5	80	2	PIPE SMLS SCH 80 PBE	1.29	0.22 m	27	2	PIPE 3 Sch 80	809.4	9.1	113	10	PLATE 148x78x10	147.8	0.84						
6	80	2	PIPE SMLS SCH 80 PBE	6.69	0.90 m	28	1	PIPE 3 Sch 80	508.2	5.7	115	2	PLATE 51x51x6	51.2	0.12						
7	80	2	PIPE SMLS SCH 80 PBE	34.50	4.62 m	29	5	PIPE 4 Sch 40	816.0	13.1	120	2	TS 6x4x1/4	1576.9	36.7						
8	80	2	PIPE SMLS SCH 80 PBE	1.29	0.22 m	30	1	PIPE 6 Sch 80	1049.0	29.6	121	1	TS 6x4x1/4	815.8	19.0						
9	80	2	PIPE SMLS SCH 80 PBE	1.61	0.22 m	31	3	TS 12x12x3/8	10110.0	874.1	122	1	TS 6x4x1/4	793.6	18.4						
10	80	2	PIPE SMLS SCH 80 PBE	1.61	0.22 m	32	1	TS 12x12x3/8	7671.9	663.3	123	1	TS 6x4x1/4	532.7	12.4						
11	80	2	PIPE SMLS SCH 80 PBE	3.91	0.52 m	33	1	TS 12x12x3/8	2419.0	209.2	124	1	C 3x4.1	538.1	3.22						
12	80	2	PIPE SMLS SCH 80 PBE THRD. ONE END	1.68	0.23 m	34	1	TS 2x2x3/16	6548.0	42.1	125	1	C 3x4.1	916.8	5.5						
13	80	2	PIPE SMLS SCH 80 PBE	6.01	0.92 m	35	2	TS 6x4x3/16	10110.0	180.5	126	2	C 3x4.1	333.0	2.00						
			SUB 183.57		SUB 24.57 m	37	1	W 30x108	13534.0	2178.0	127	2	TS 2x2x3/16	638.1	4.1						
14	3000LB	2	3000LB STRAIGHT SOCKETWELD TEE	5.55	1	38	1	W 30x108	13534.0	2179.0	130	TOTAL	PRIMER	36	gal.						
15	3000LB	2	3000LB SWF. x THRD. FULL COUPLING	7.28	8	39	1	W 30x108	6959.8	1120.5	131	TOTAL	CONCRETE	7.481	m3						
16	3000LB	2	90 3000LB SFW ELBOW	8.80	5	40	2	W 30x108	3173.0	510.9	132	TOTAL	GR 1 1/4"x3/16"	53.95	m2						
17	3000LB	2	90 3000LB STR. SFWxTHRD ELBOW	7.40	2	41	1	PIPE 6 Sch 40	793.6	22.4											
18	3000LB	2	3000LB STR. THRDxTHRDxSFW TEE	7.40	1	42	2	W 30x108	1427.3	250.2	133	1	W 6x20	1038.0	32.0						
19	3000LB	3	3000LB THRD. CAP	7.40	3	43	1	W 30x108	1514.4	243.8	134	1	W 6x20	471.0	14.0						
20	3000LB	2	3000LB STR. SFWxTHRDxSFW TEE	7.40	1	44	2	W 30x108	1217.9	246.2											
21		2	U BOLT SUPPORT	-	10	45	1	W 6x20	1440.4	43.2											
TOTAL 205						46	3	W 6x20	774.0	23.2											
GRATING SUPPORT BILL OF MATERIALS SEE NOTE # 9						47	2	W 30x108	2846.0	458.2											
						48	1	W 30x108	1002.0	161.3											
						49	1	W 30x108	862.0	138.8											
						50	11	W 30x108	789.2	126.9											
						51	2	W 30x108	785.8	123.3											
						52	8	W 30x108	613.3	98.7											
						53	2	W 30x108	504.9	81.3											
						54	12	W 6x20	2888.0	86.0											
						55	3	W 6x20	1634.1	49.0											
						56	4	W 6x20	2484.0	73.9											
						57	1	W 6x20	1648.8	48.5											
						58	1	W 6x20	2195.1	65.9											
						59	1	W 6x20	820.5	24.8											
						60	2	1.5x1.5x3HSS	454.1	1.7											
						61	3	3/8" TANK FLANGE	28.0	0.2											
						62	2	PLATE 25.4x6	1060.0	1.3											
						63	1	PLATE 25.4x6	940.0	1.1											
						64	2	PLATE 25.4x6	790.0	0.9											
						65	1	PLATE 25.4x6	610.8	0.7											
						66	4	PLATE 25.4x6	330.0	0.4											
						67	8	PLATE 25.4x6	275.0	0.3											
						68	4	PLATE 25.4x6	216.2	0.3											
						69	2	PLATE 720x126x10	720.5	7.1											
						70	2	PLATE 200x200x10	199.8	2.3											
						71	1	PLATE 600x294x10	598.9	13.2											
						72	2	PLATE 758x305x10	758.0	18.2											
						73	2	PLATE 148x96x10	147.8	1.1											
						74	8	PLATE 717x120x13	717.4	8.8											
						75	2	W 8x20	1352.2	40.6											
						76	1	PLATE 483x203x13	482.7	9.5											
						77	2	PLATE 470x432x13	470.0	8.1											
						78	8	PLATE 261x230x13	261.0	8.0											
						79	4	PLATE 305x261x13	305.0	8.0											
						80	2	PLATE 567x292x13	566.7	8.1											
						81	1	PLATE 432x408x13	431.8	17.5											
						82	4	PLATE 720x482x13	720.0	34.7											
						83	2	PLATE 720x557x13	720.0	40.1											
						84	1	PLATE 818x560x13	818.0	45.6											
						85	1	PLATE 572x572x13	571.5	32.6											
						86	1	W 8x20	1057.2	31.7											
						87	1	W 8x20	918.5	27.8											
						88	1	PLATE 305x305x19	304.8	13.9											
						89	1	PLATE 914x914x25	914.4	182.8											
						90	1	PLATE 963x672x25	962.9	121.5											
						91	1	PLATE 660x660x25	660.4	141.8											
						92	2	PLATE 9843x2741x3	9843.0	638.8											
						93	1	PLATE 737x230x3	736.9	4.0											
						94	4	PLATE 230x226x3	230.1	1.2											
						95	2	PLATE 295x294x10	294.6	6.5											
						96	2	PLATE 305x226x3	305.0	1.8											
						MAJOR EQUIPMENT						CUSTOMER									
COMPRESSOR	ARIEL JCE-4					DIRECT ENERGY															
CROSSHEAD GUIDE	STANDARD CROSSHEAD GUIDE					STANDARD ONE PIECE SKID 5774/JGE-4 FABRICATION DRAWING															
ENGINE	WALK 5774					CORPORATE OFFICE 7330 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA T4P 3R2 PHONE (403) 368-3200 FAX (403) 368-3210															
COUPLING	CMR 700-28.875					3462D02															
COOLER	144EH					FH251/252															
CYLINDER 1st STAGE	JACKING REPAD -- FRONT					1															
CYLINDER 2nd STAGE	DESCRIPTION DRAWING REV. REV					DATE BY ENG INITIALS															
REFERENCE DRAWINGS						REVISIONS															



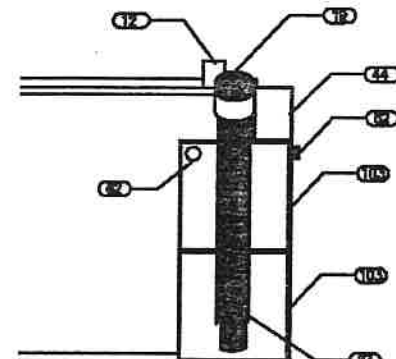
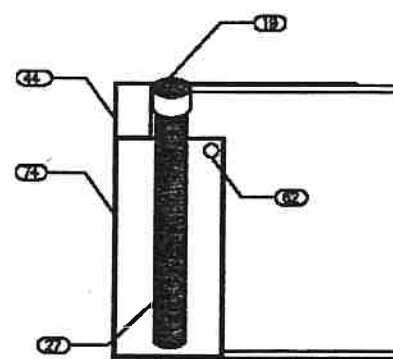
STAMP



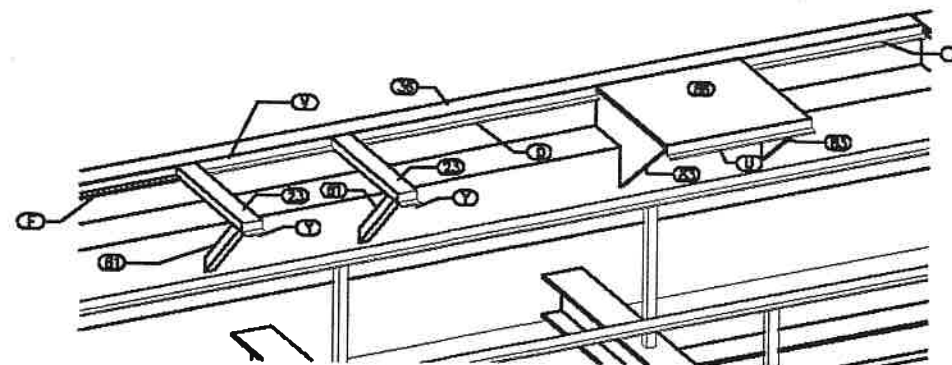
NOTE: FUEL GAS LINE AND START GAS LINE TO BE FABRICATED ACCORDING TO B31.3 AND APPROPRIATE DOCUMENTATION TO BE MAINTAINED. PRESSURE TEST TO 225 psi.



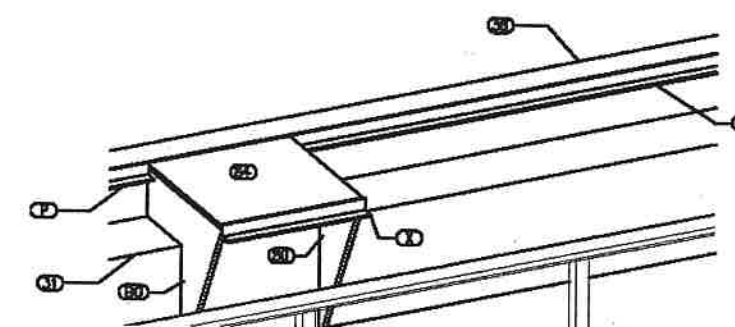
MAJOR EQUIPMENT										CUSTOMER		STANDARD ONE PIECE SKID	
COMPRESSOR	ARIEL JGE-4									DIRECT ENERGY		5774/JGE-4	
CROSSHEAD GUIDE	STANDARD CROSSHEAD GUIDE											FABRICATION DRAWING	
ENGINE	WAUK 5774												
COUPLING	CMR 700-28.875												
COOLER	144EH	JACKING REPAD - FRONT	100M82A										
CYLINDER 1st STAGE		DESCRIPTION	DRAWING	REV.	REV.	DESCRIPTION	DATE	BY	ENO	INITIALS	LOCATION	3462D02	1
CYLINDER 2nd STAGE												FH251/252	4/6
REVISIONS													
1 REMOVED HOLD ON PASS THROUGH, IFC										01.21.01 LLP			
0 ISSUED FOR CONSTRUCTION										01.16.02 NLT			



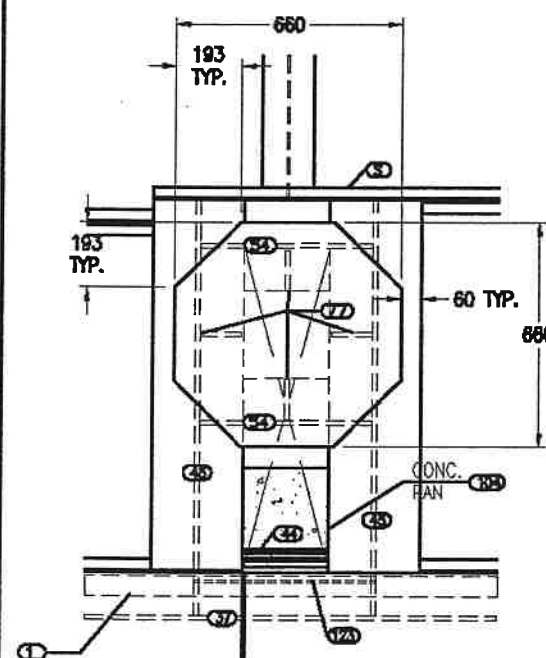
DETAIL OF SUCKOUTS
SUPPORT
SCALE: NTS



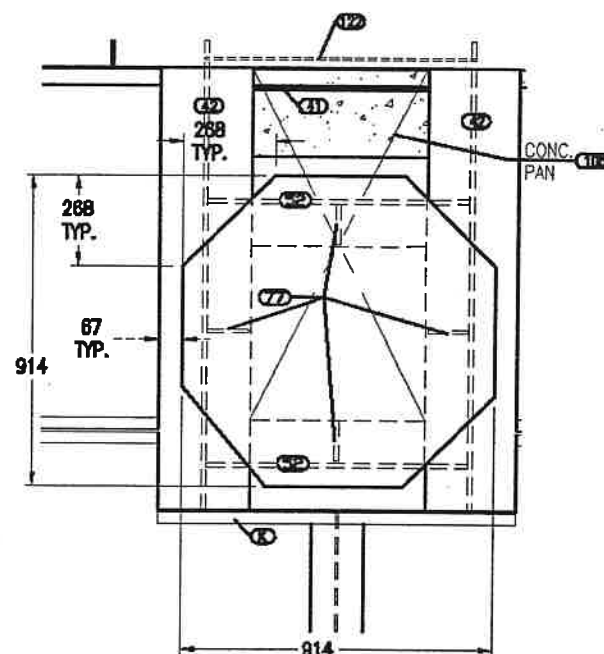
OIL COOLER AND OIL FILTER
SUPPORT
SCALE: NTS
NOTE: OIL COOLER SUPPORT IS NOT
NECESSARY ON THE 7044



FUEL FILTER
SUPPORT
SCALE: NTS



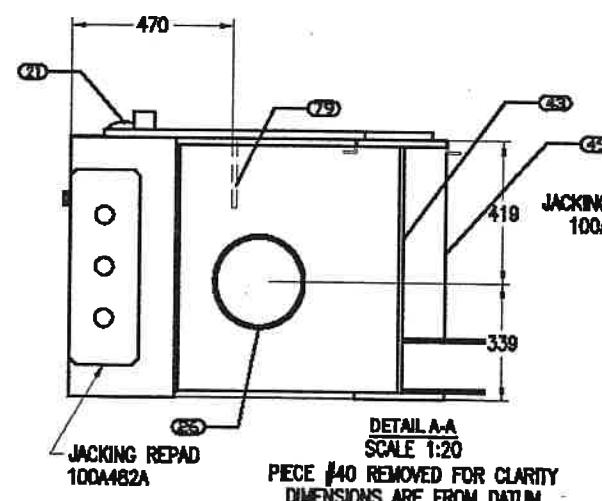
2nd STAGE SCRUBBER
SUPPORT DETAIL
SCALE 1:20
DIMENSIONS ARE FROM DATUM



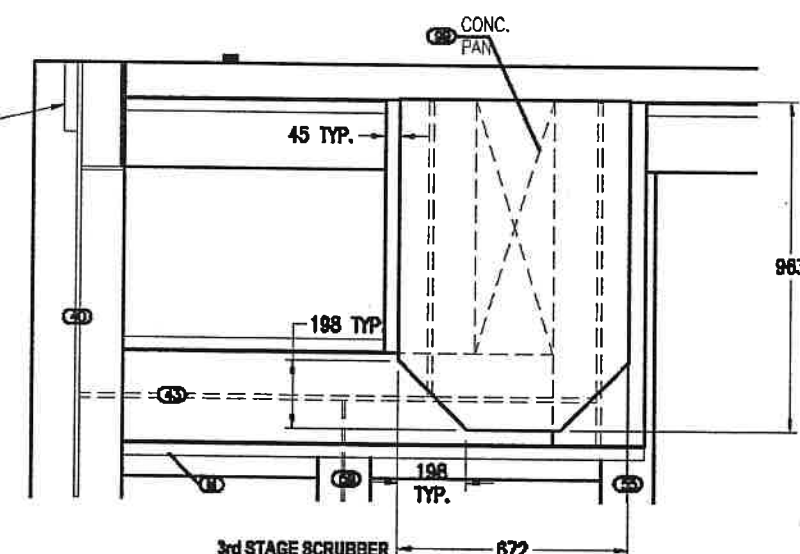
1st STAGE SCRUBBER
SUPPORT DETAIL
SCALE 1:20
DIMENSIONS ARE FROM DATUM

NOTE:
PLACE ADDITIONAL WELDS ALONG
UNDERSIDE OF SCRUBBER PLATE 4"
LONG. CENTER WELDS ON
CORNERS AND ALONG GUSSETS.

NOTE:
GUSSETS TO BE CENTERED
UNDER SCRUBBER PLATE.



DETAIL A-A
SCALE 1:20
PIECE #40 REMOVED FOR CLARITY
DIMENSIONS ARE FROM DATUM



3rd STAGE SCRUBBER
SUPPORT DETAIL
SCALE 1:20
DIMENSIONS ARE FROM DATUM

MAJOR EQUIPMENT									
COMPRESSOR	ARIEL JGE-4								
CROSSHEAD GUIDE	STANDARD CROSSHEAD GUIDE								
ENGINE	WAUK 5774								
COUPLING	CMR 700-28.875								
COOLER	144EH	JACKING REPAD - FRONT	100A482A						
CYLINDER 1st STAGE		DESCRIPTION	DRAWING	REV.	REV	DESCRIPTION	DATE	BY	ENQ
CYLINDER 2nd STAGE									

CUSTOMER
DIRECT ENERGY

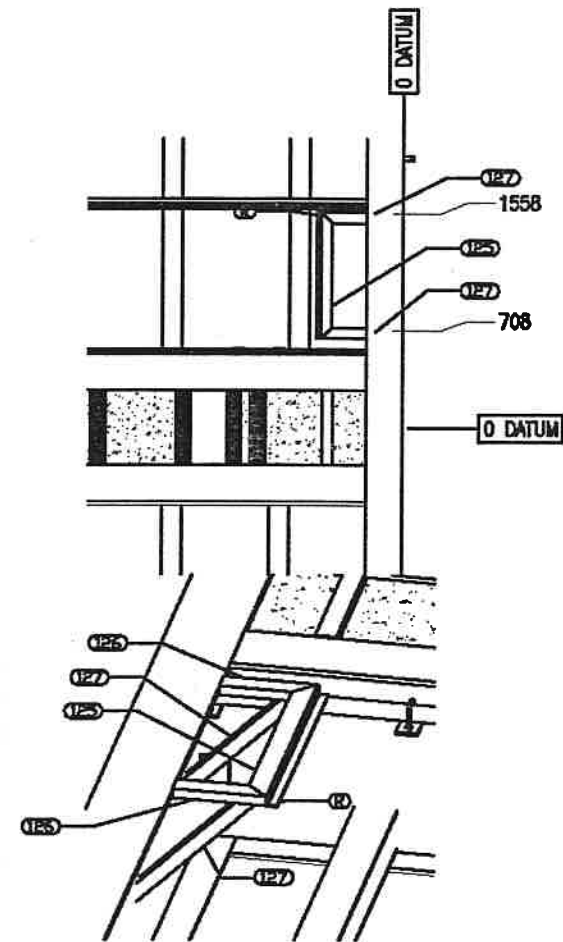
Collette Thompson
SERVICES LTD.
CORPORATE OFFICE
7600 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA
T4P 3R2 PHONE (403) 350-3200 FAX (403) 350-3210

STANDARD ONE PIECE SKID
5774/JGE-4
FABRICATION DRAWING

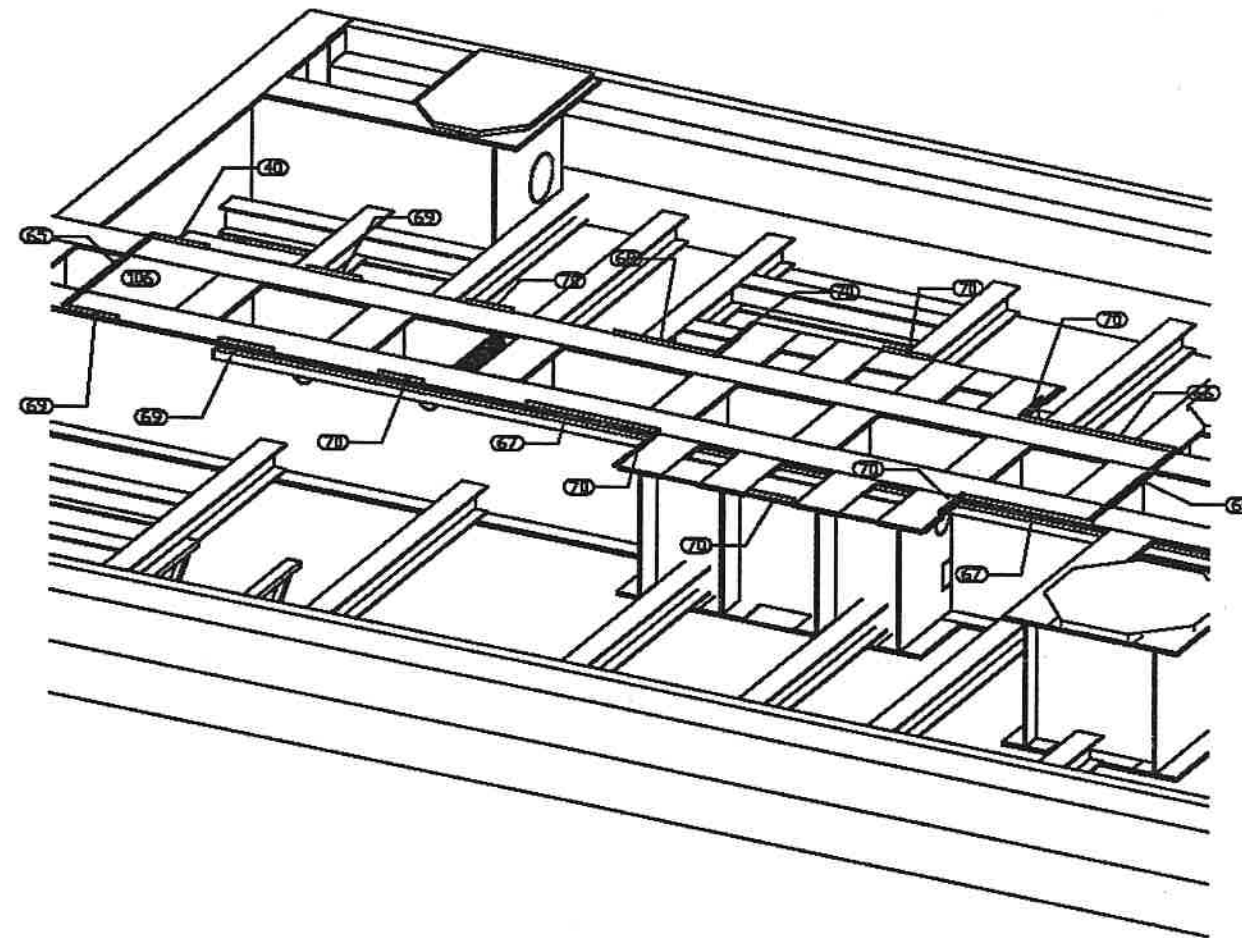
DATE 01.15.02
BY N. THOMPSON
CHECKED BY SCOTT
APPROVED BY D. KREUTZ

3462D02
FH251/252
5/6

02.01.30 FEB 11 2002



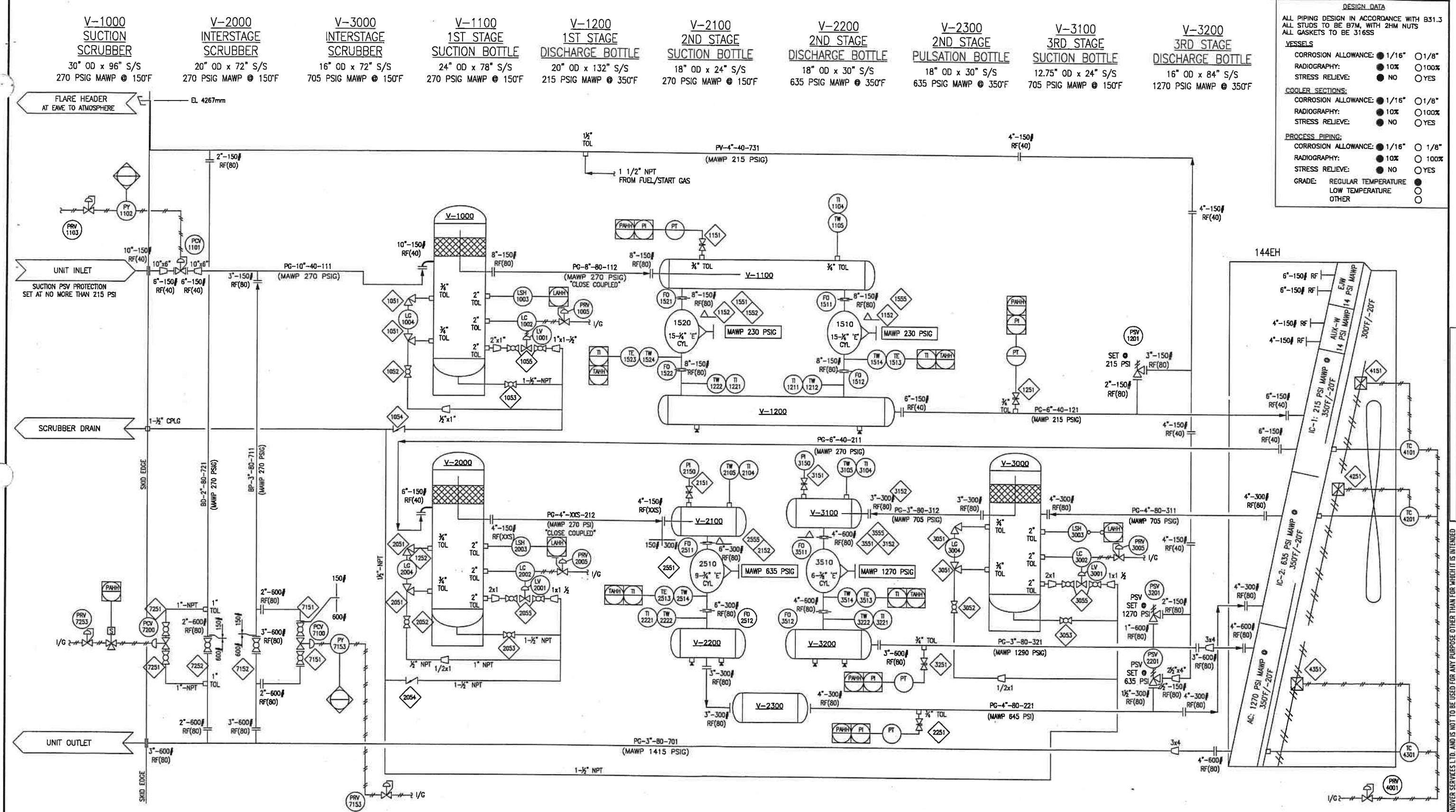
CONTROL PANEL
AT REAR OF SKID
SCALE 1:50
DIMENSIONS ARE
FROM DATUM



DRIP LIP DETAIL
SCALE 1:50
SHOP TO FIT
AFTER MAJOR EQUIPMENT
HAS BEEN PLACED

STAMP

MAJOR EQUIPMENT										CUSTOMER		Collette Hanover SERVICES LTD. CORPORATE OFFICE 7500 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA T4P 3R2 PHONE (403) 350-3200 FAX (403) 350-3210		STANDARD ONE PIECE SKID				
COMPRESSOR	ARIEL JGE-4									DIRECT ENERGY			5774 / JGE-4					
CROSSHEAD GUIDE	STANDARD CROSSHEAD GUIDE																	
ENGINE	Wauk 5774																	
COUPLING	CMR 700-28.875				1	REMOVED HOLD ON PASS THROUGH, IFC	01.21.01	LLP										
COOLER	144EH	JACKING REPAD - FRONT	100M82A		0	ISSUED FOR CONSTRUCTION	01.18.02	NLT										
CYLINDER 1st STAGE		DESCRIPTION	DRAWING	REV.	REV	DESCRIPTION	DATE	BY	ENG	INITIALS	LOCATION	ISSUED BY	DATE	PHOTO	DATE	INITIALS	DATE	INITIALS
CYLINDER 2nd STAGE		REFERENCE DRAWINGS				REVISIONS												



DESIGN DATA

ALL PIPING DESIGN IN ACCORDANCE WITH B31.3
ALL STUDS TO BE B7M, WITH 2HM NUTS
ALL GASKETS TO BE 316SS

VESSELS

CORROSION ALLOWANCE: 1/16" ☐ 1/8"
RADIOGRAPHY: 10% ☐ 100%
STRESS RELIEVE: NO ☐ YES

COOLER SECTIONS:

CORROSION ALLOWANCE: 1/16" ☐ 1/8"
RADIOGRAPHY: 10% ☐ 100%
STRESS RELIEVE: NO ☐ YES

PROCESS PIPING:

CORROSION ALLOWANCE: 1/16" ☐ 1/8"
RADIOGRAPHY: 10% ☐ 100%
STRESS RELIEVE: NO ☐ YES
GRADE: REGULAR TEMPERATURE ☐
LOW TEMPERATURE ☐
OTHER ☐

P&ID DATA

SERVICE	SWEET S.G.=0.65
DISTANCE PIECES	LONG SINGLE COMPARTMENT
COOLER	144-EH
PANEL	CTI ENHANCED
COMPRESSOR	ARIEL JGE-4
DRIVER	LS774LT
COUPLING	CMR 700

LINE DESIGNATION

XX-XX-XX-XXX	LINE NUMBER
	LINE SCHEDULE
	LINE SIZE
	LINE SERVICE

DESCRIPTION	DRAWING	REV	DESCRIPTION	DATE	BY	CHK
1	GENERAL REVISIONS			01.21.02	SLP	
0	ISSUED FOR APPROVAL			01.07.02	SLP	

CUSTOMER

DIRECT ENERGY
CHC / LEASE

LOCATION

Collicutt Hanover
SERVICES LTD.
CORPORATE OFFICE
7550 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA
T4P 3R2 PHONE (403) 358-3200 FAX (403) 358-3210

DWG BY: S.PUETZ
DATE: 01.06.02

PROJ. ENG: L.SCOTT
PROJ. MGR: D.KREUTZ

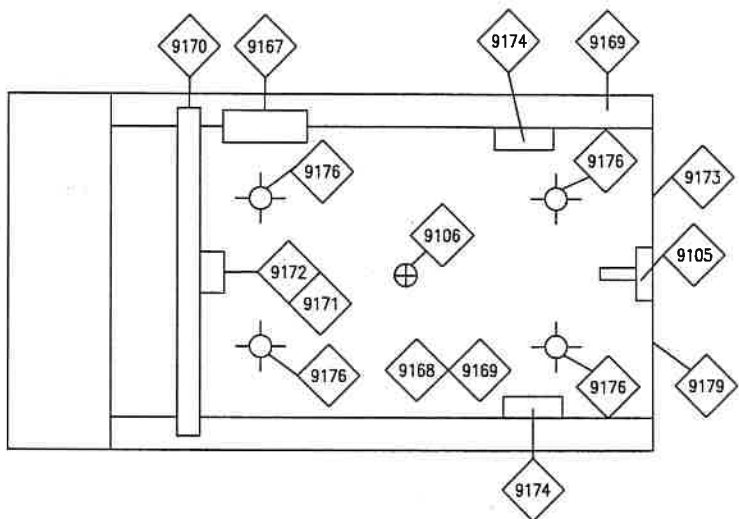
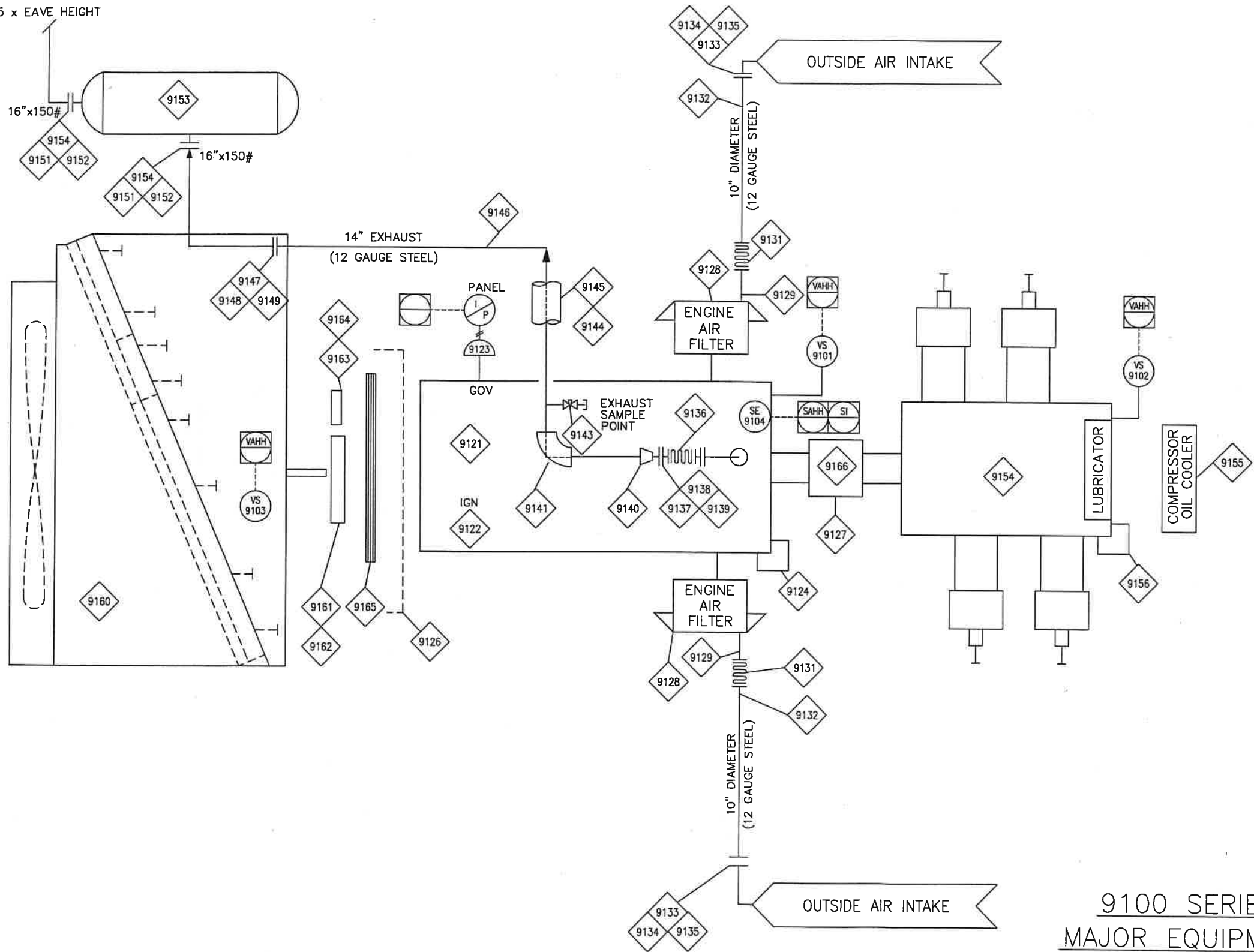
3 STAGE COMP PKG
L5774LT / JGE-4 / 144EH
PROCESS P&ID

DWG: 3411A02
REV: 1
SHT: 1/1

DATE: 02.01.23
FEB 11 2002

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1.5 x EAVE HEIGHT



9100 SERIES
MAJOR EQUIPMENT

STRUCTURAL
BUILDING & ELECTRICAL

SHOP NOTES

- LOCAL MOUNTED DEVICES
- ⊖ PANEL MOUNTED DEVICES

STANDARD	UC5790GLE4132EH	0	ISSUED FOR APPROVAL	01.23.02	LLP	
DESCRIPTION	DRAWING	REV	DESCRIPTION	DATE	BY	CHK
REFERENCE DRAWINGS			REVISIONS			

CUSTOMER		DIRECT ENERGY		CHANNEL LAKE #2	
LOCATION		1-18-14-5W4		3380A01	
DWG BY:		L. PODLUBNY		REV 0	
DATE:		01.23.02		1/5	
PROJ. ENG:		L. SCOTT		JOB	
PROJ. MGR:		M. CRAWFORD		FH251	

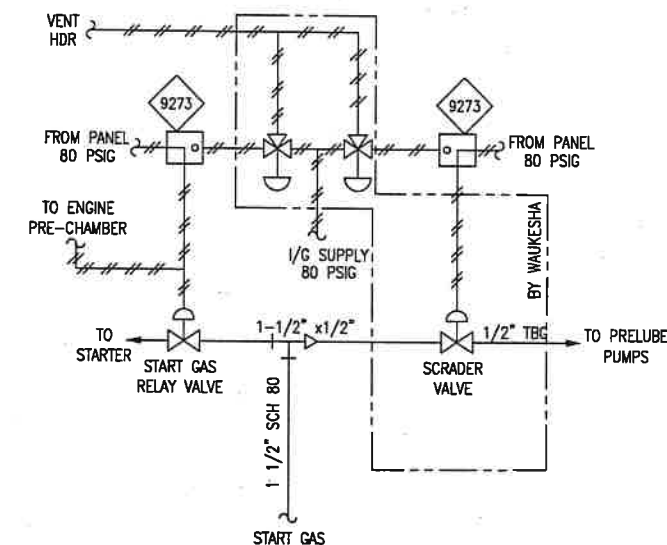
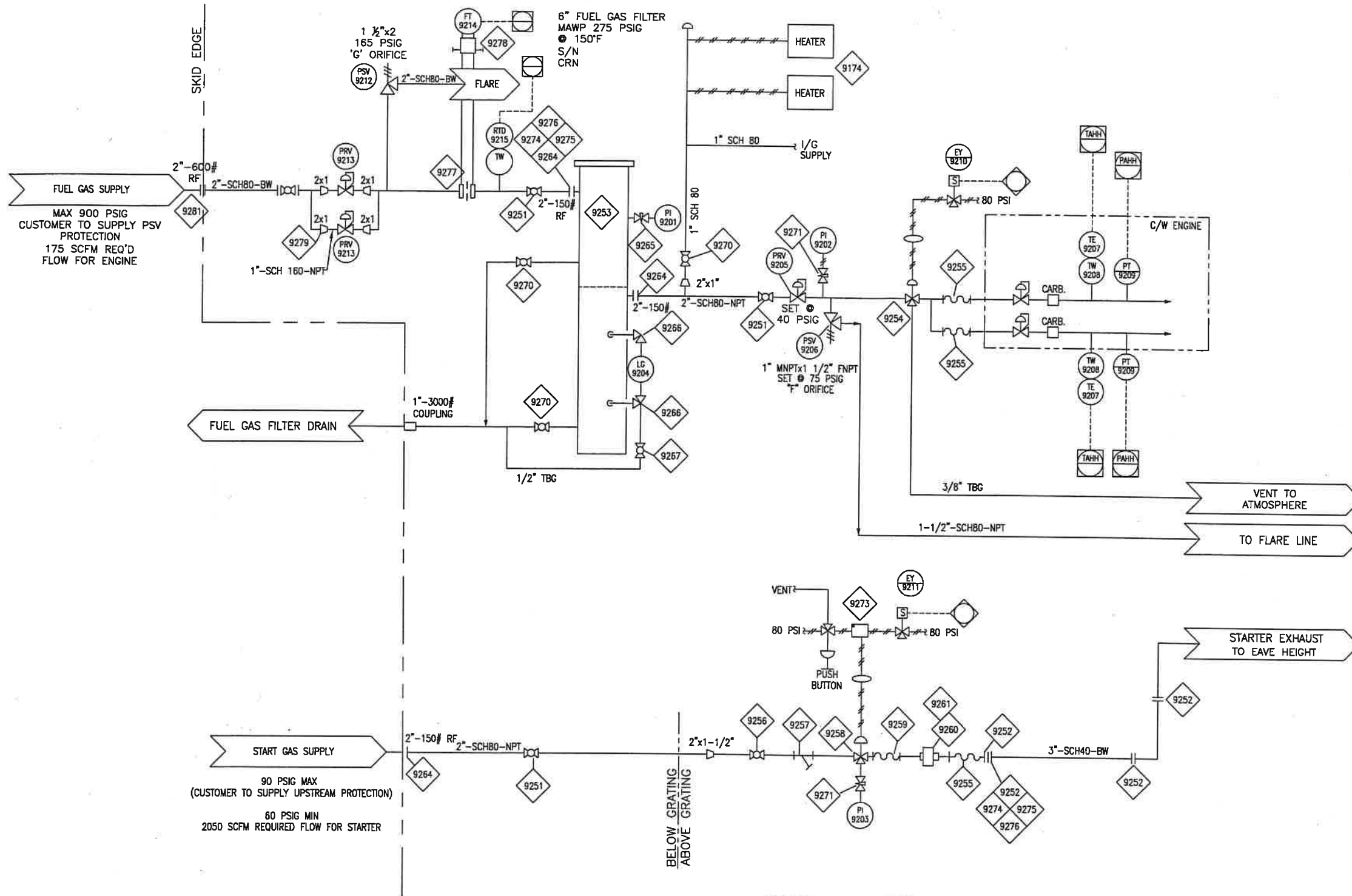
FEB 11 2002
JAN 24 REC'D

Collicutt Hanover
SERVICES LTD.
CORPORATE OFFICE
7550 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA
T4P 3R2 PHONE (403) 358-3200 FAX (403) 358-3210

3 STAGE COMPRESSOR PACKAGE
L5774LT / JGE-4 / 144EH
MAJOR EQUIPMENT

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107



START & PRELUBE FOR NEW
WAUKESHA VHP ENGINES

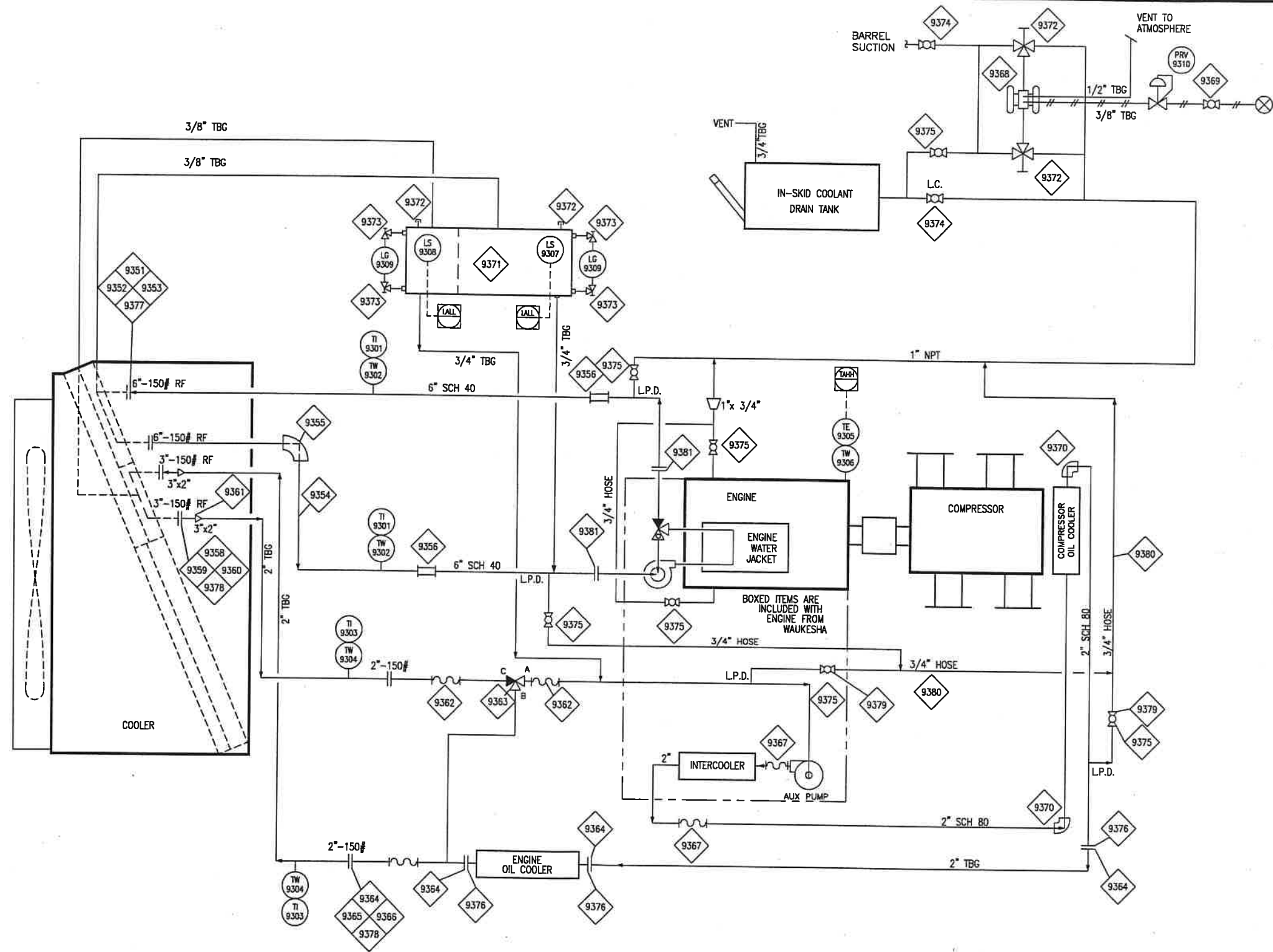
9200 SERIES FUEL AND START GAS SYSTEM

SHOP NOTES

- LOCAL MOUNTED DEVICES
- PANEL MOUNTED DEVICES

FEB 11 2002
JAN 24 REC'D

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