

Tucker

ENERGY SERVICES

Directional Survey

Company LASSO ENERGY LLC		File No : TUL-59478	
Well RENICK #2		Company: LASSO ENERGY LLC	
Field WILDCAT		Well : RENICK #2	
County GRAY		Field : WILDCAT	
State KANSAS		County : GRAY	
Country USA		State : KANSAS	
API No. 15-069-20460-00-00		Country : USA	
		API No : 15-069-20460-00-00	
Location : 680' FNL & 1960' FEL NW SE NW NE			
LSD :		Sect : 19 Twp : 25 S Rge : 29 W	
Permanent Datum:	GL	Elevations:	Services:
Drilling Measured From:	KB	KB 2822.00	CNT MST
Log Measured From:	KB	DF 2821.00	LDT WOT
Above Permanent Datum:	8.00 Ft	GL 2814.00	XYT PIT
Date	03-03-2014		
Run Number	1		
Depth--Driller	5205.0	Ft	
Depth--Logger	5206.0	Ft	
First Reading	5166.0	Ft	
Last Reading	1790.0	Ft	
Casing--Driller	1785.0	Ft	
Casing--Logger	1790.0	Ft	
Bit Size	7.875	In	
Casing Size	8.625	In	
Hole Fluid Type	GEL / CHEMICAL		
Density	8.8	LBS/GAL	
Fluid Loss	13.2	CC	
PH/Viscosity	11.0	49.0 SEC	
Sample Source	MEASURED		
RM@Measured Temp.	0.300	@ 44 F	
RMF@Measured Temp	0.264	@ 44 F	
RMC@Measured Temp.	0.363	@ 44 F	
Source RMF/RMC	CALCULATED / CALCULATED		
RM@BHT	0.129	@ 111 F	
Time Circulation Stopped	03-03-2014 7:00 pm		
Max Recorded Temp.	111	F	
Equipment/Base	TFRUCK 127	TULSA	
Recorded By	R. KING		
Witnessed By	M. BURTON		

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
7.875	5205.00	8.625	24.00	1785.00	0.00

Run Number	1	
Date	03-03-2014	
Date/Time On Bottom	03-04-2014 1:15 am	
Depth to Fluid	0.0 Ft	
Salinity	13600.000 PPM	
RMF@BHT	0.114 @ 111 F	
RMC@BHT	0.156 @ 111 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST

GRT, CNT, LDT, MLT, NAV AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING.
 PHIN IS CALIPER CORRECTED.

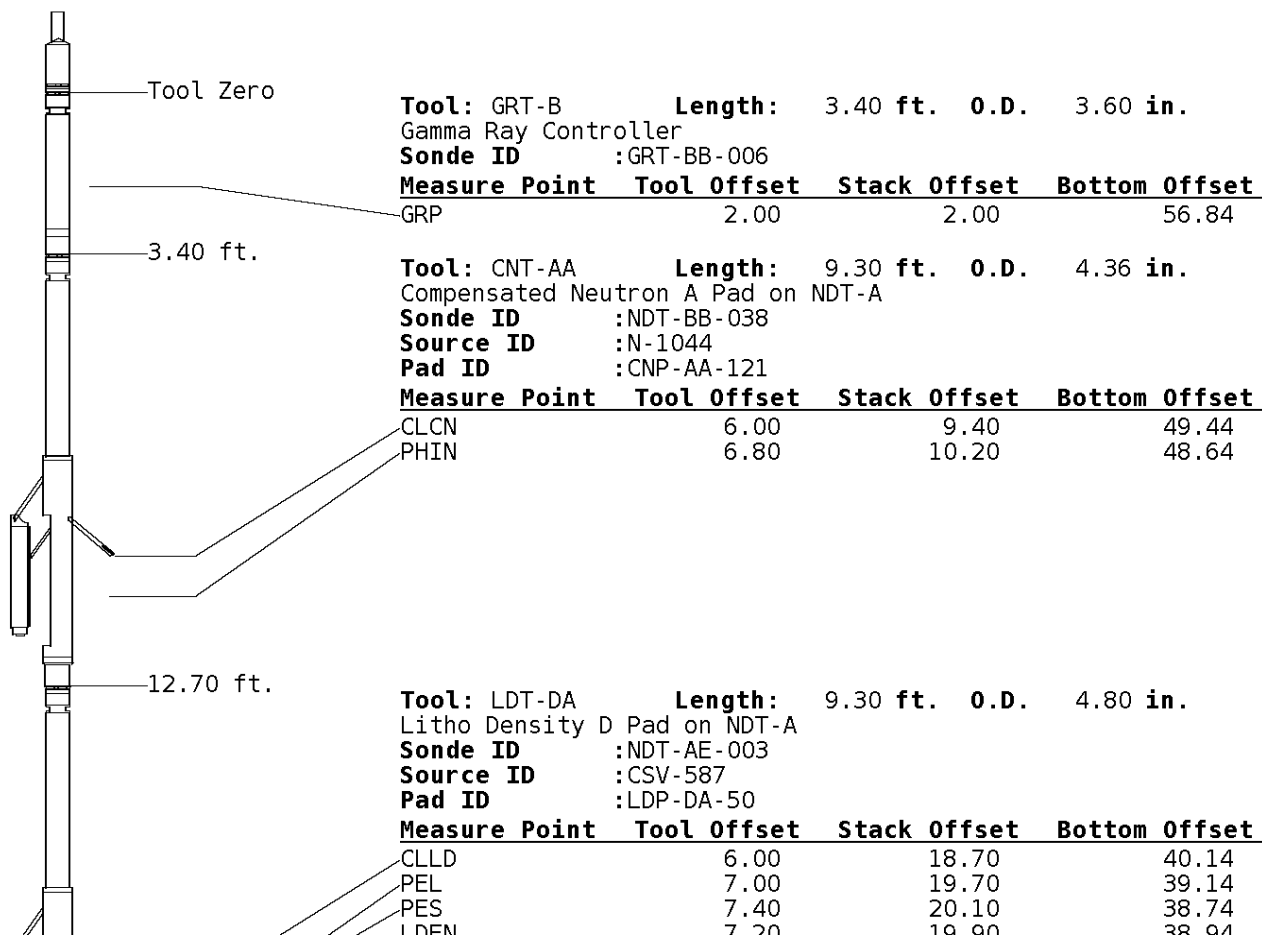
MAGNETIC DECLINATION: 5.98 DEG.

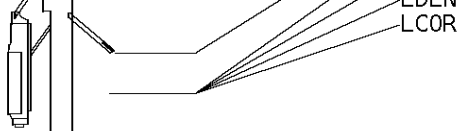
GRT: GRP
 CNT: PHIN, CLCNIN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN
 MLT: NOR_RF, INV_RF, MSCLPIN.
 NAV: CALIBRATED_WOT_AE, WOT_AE_NAVAGATION
 PIT: EIRMDS, VIRDDS, SPU, SFLAEC, CIRD.

OPERATORS:
 C. GONZALES
 A.DJAH

Tool String Schematic

Total Tool Length - 58.84 ft.
 Maximum Outside diameter - 6.00 in.
 Net Weight in Air - 1031.00 lbs.





22.00 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MST-DA-28

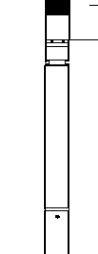
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	29.24
MSCLP	7.60	29.60	29.24
INV	7.60	29.60	29.24
NOR	7.60	29.60	29.24



31.66 ft.

Tool: WOT-AA **Length:** 5.69 ft. **O.D.** 3.50 in.
 Well Orientation Tool
Sonde ID :WGT-001

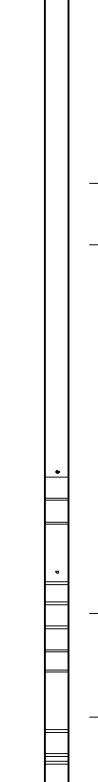
Measure Point	Tool Offset	Stack Offset	Bottom Offset
NAVTEMP	3.00	34.66	24.18
ACCX, ACCY, ACCZ	3.00	34.66	24.18
MAGX, MAGY, MAGZ	3.00	34.66	24.18



37.35 ft.

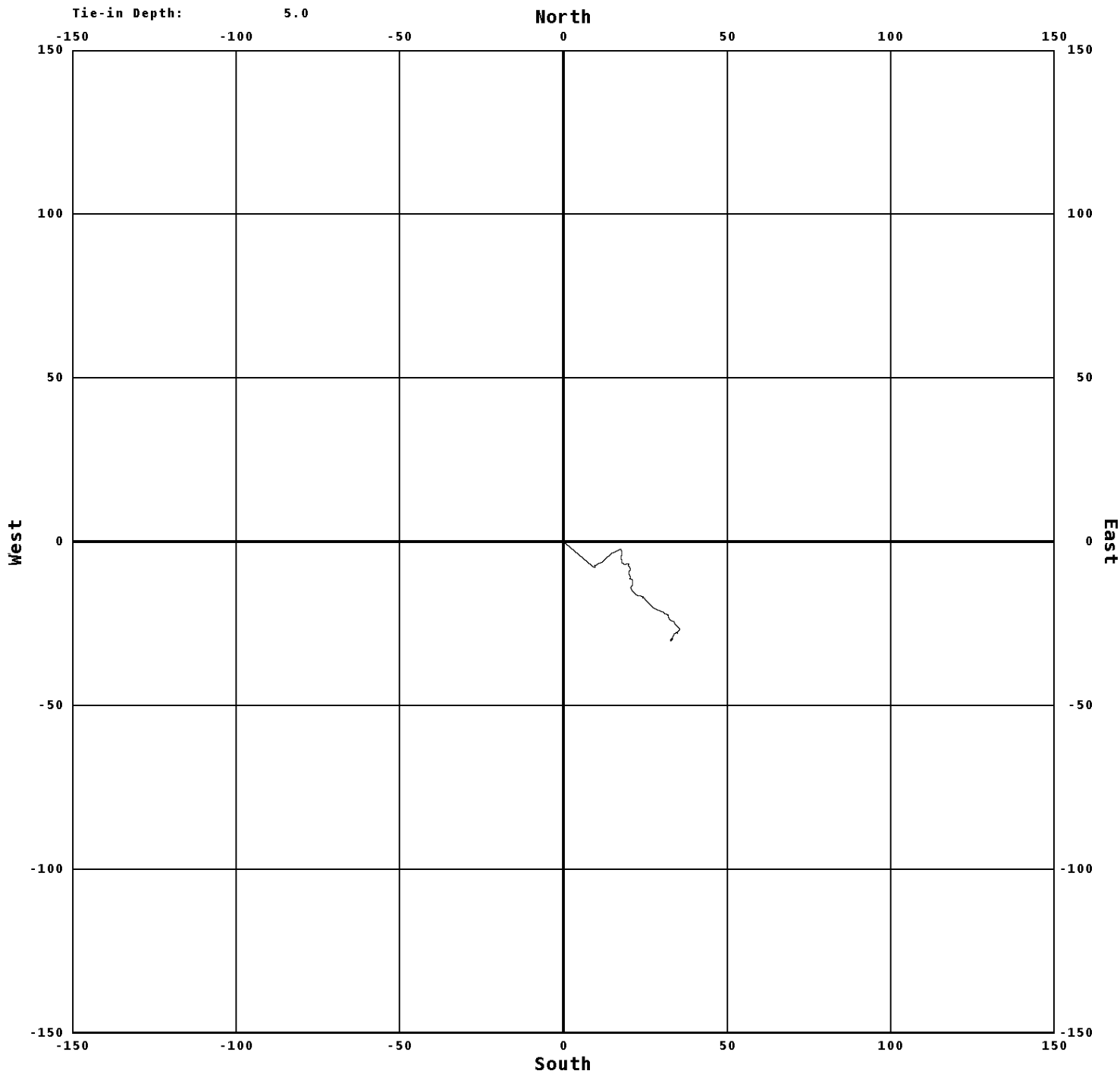
Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-BA-20

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	46.27	12.56
ILM	10.10	47.45	11.39
SFLU	17.49	54.84	4.00
SP	20.60	57.95	0.88

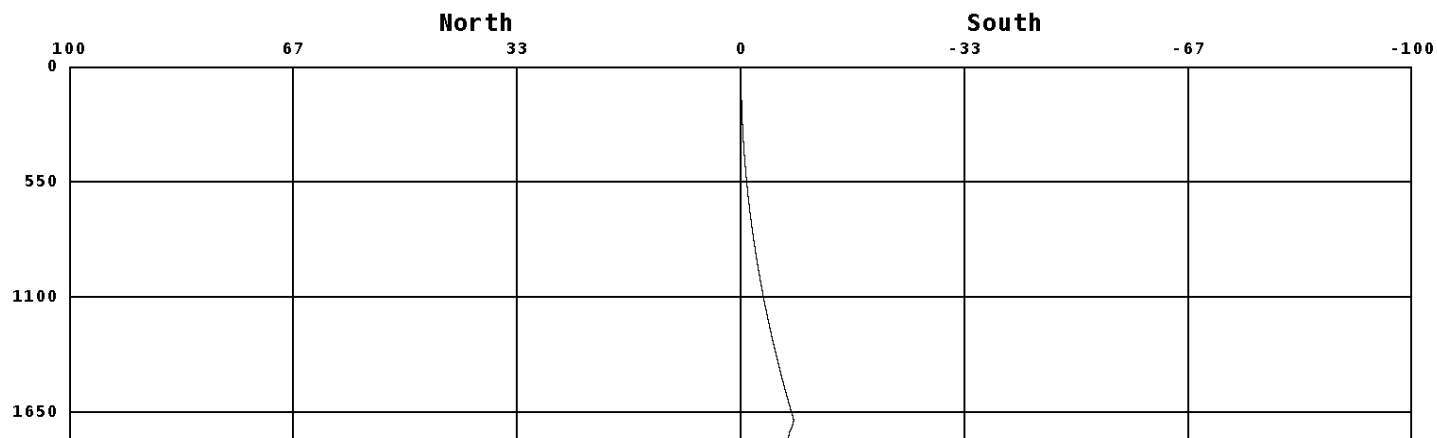


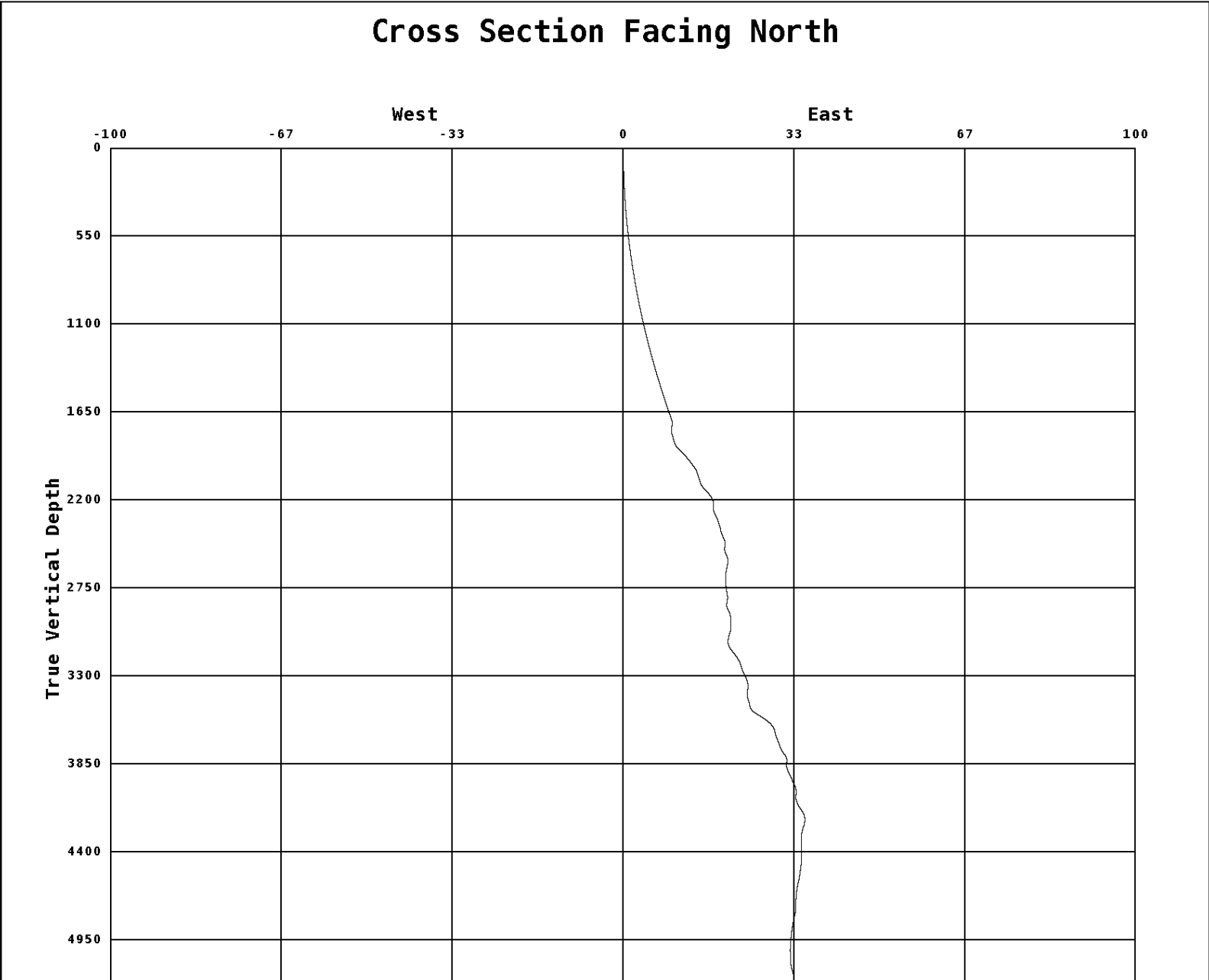
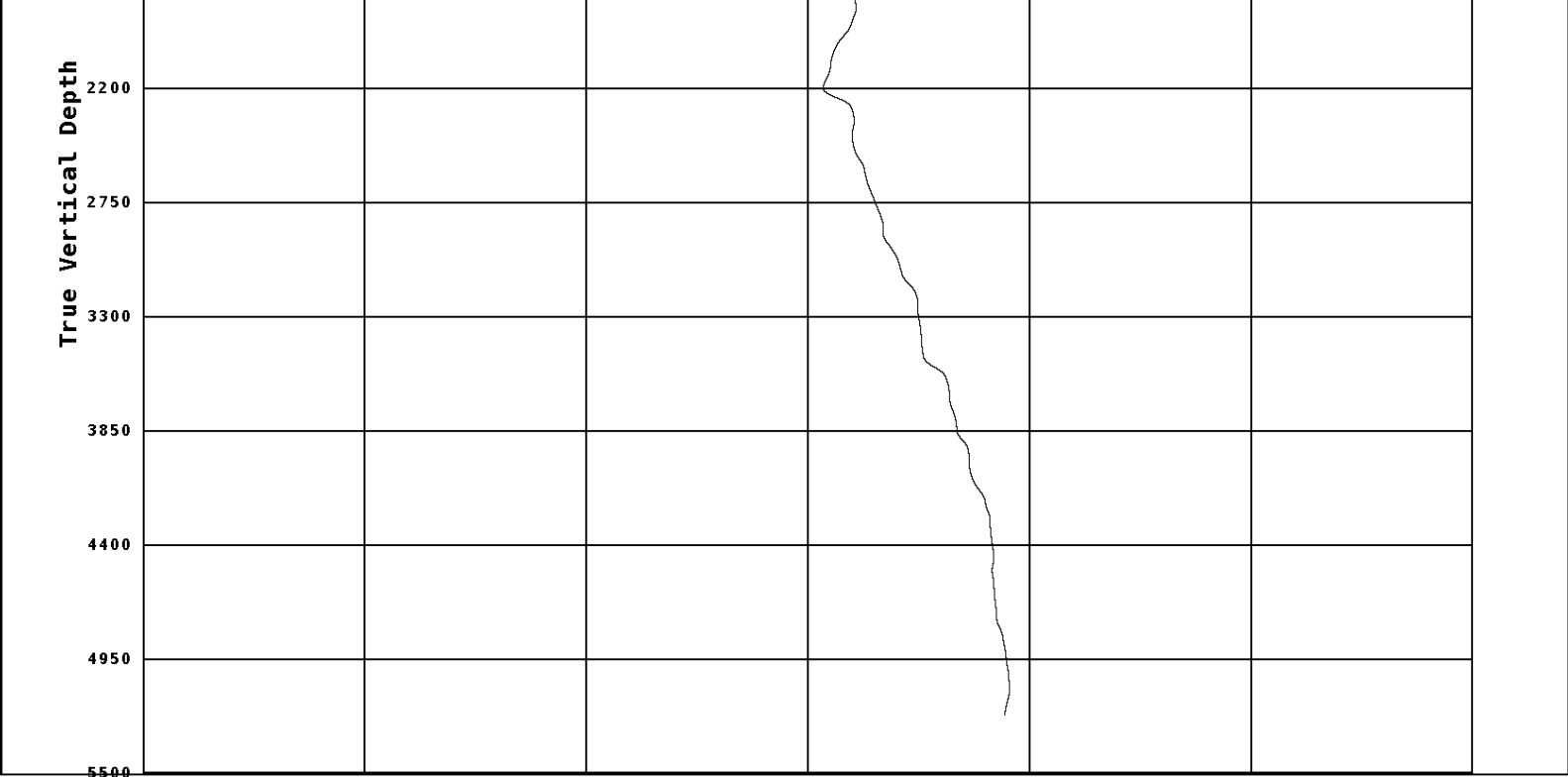
LWT 58.84 ft.

PLAN VIEW



Cross Section Facing East





**True Vertical Depth Summary
Minimum Curvature**

Page 1

Measured Depth (Feet)	Drift Angle (Degrees)	Drift Direction (Degrees)	Depth Interval (Feet)	True Vert Depth (Feet)	Dog Leg Severity (Deg/100 F)	Rectangular Coordinates (Feet) (Feet)	
0.00	0.00	0.00		0.00	0.00	0.00 N	0.00 E
1677.50	0.82	130.20	1677.50	1677.44	0.05	7.77 S	9.20 E
1690.50	0.75	67.99	13.00	1690.44	6.27	7.80 S	9.35 E
1740.50	0.96	335.50	50.00	1740.44	2.49	7.30 S	9.48 E
1790.50	0.68	133.28	50.00	1790.44	3.22	7.12 S	9.52 E
1840.50	0.93	35.78	50.00	1840.43	2.44	6.99 S	9.98 E
1890.50	1.99	74.26	50.00	1890.42	2.77	6.43 S	11.05 E
1940.50	2.28	41.07	50.00	1940.38	2.50	5.44 S	12.54 E
1990.50	1.62	53.32	50.00	1990.35	1.55	4.27 S	13.76 E
2040.50	0.73	42.68	50.00	2040.34	1.83	3.62 S	14.54 E
2090.50	0.61	80.65	50.00	2090.34	0.90	3.34 S	15.01 E
2140.50	2.07	62.40	50.00	2140.33	3.01	2.88 S	16.08 E
2190.50	1.12	60.45	50.00	2190.31	1.92	2.22 S	17.30 E
2240.50	4.82	183.17	50.00	2240.25	11.00	4.08 S	17.61 E
2290.50	1.17	124.83	50.00	2290.18	8.64	6.47 S	17.91 E
2340.50	0.62	109.52	50.00	2340.18	1.18	6.85 S	18.59 E
2390.50	0.64	39.49	50.00	2390.17	1.45	6.72 S	19.02 E
2440.50	0.95	102.31	50.00	2440.17	1.74	6.60 S	19.60 E
2490.50	0.69	221.22	50.00	2490.17	2.84	6.91 S	19.81 E
2540.50	1.66	142.20	50.00	2540.16	3.35	7.71 S	20.05 E
2590.50	0.42	218.66	50.00	2590.15	3.23	8.43 S	20.38 E
2640.50	0.61	220.06	50.00	2640.15	0.38	8.78 S	20.09 E
2690.50	0.79	180.32	50.00	2690.14	1.01	9.33 S	19.92 E
2740.50	0.74	158.60	50.00	2740.14	0.58	9.97 S	20.03 E
2790.50	0.82	158.27	50.00	2790.14	0.16	10.60 S	20.28 E

**True Vertical Depth Summary
Minimum Curvature**

Page 2

Measured Depth (Feet)	Drift Angle (Degrees)	Drift Direction (Degrees)	Depth Interval (Feet)	True Vert Depth (Feet)	Dog Leg Severity (Deg/100 F)	Rectangular Coordinates (Feet) (Feet)	
2840.50	0.70	221.48	50.00	2840.13	1.60	11.16 S	20.21 E
2890.50	1.10	78.50	50.00	2890.13	3.42	11.29 S	20.48 E
2940.50	1.45	182.51	50.00	2940.12	4.04	11.83 S	20.92 E
2990.50	1.07	173.92	50.00	2990.11	0.85	12.93 S	20.94 E
3040.50	0.85	231.37	50.00	3040.10	1.88	13.62 S	20.70 E
3090.50	0.48	174.60	50.00	3090.10	1.42	14.06 S	20.43 E
3140.50	2.45	140.89	50.00	3140.08	4.13	15.10 S	21.13 E
3190.50	1.30	119.75	50.00	3190.05	2.64	16.21 S	22.30 E
3240.50	0.49	78.52	50.00	3240.05	1.97	16.45 S	23.00 E
3290.50	0.99	107.51	50.00	3290.04	1.21	16.54 S	23.62 E
3340.50	0.51	123.19	50.00	3340.04	1.03	16.79 S	24.22 E
3390.50	0.44	255.19	50.00	3390.04	1.74	16.96 S	24.22 E
3440.50	0.61	104.53	50.00	3440.04	2.04	17.08 S	24.29 E
3490.50	0.52	139.24	50.00	3490.04	0.70	17.32 S	24.70 E
3540.50	4.49	137.81	50.00	3539.98	7.94	18.94 S	26.16 E
3590.50	2.23	107.01	50.00	3589.89	5.63	20.68 S	28.41 E
3640.50	0.49	131.06	50.00	3639.88	3.60	21.10 S	29.51 E
3690.50	0.68	92.42	50.00	3689.87	0.85	21.26 S	29.96 E
3740.50	1.00	138.60	50.00	3739.87	1.44	21.60 S	30.55 E

3740.50	1.00	150.00	50.00	3739.07	1.44	21.00 S	30.55 E
3790.50	1.42	107.54	50.00	3789.86	1.52	22.11 S	31.43 E
3840.50	0.36	260.55	50.00	3839.85	3.50	22.32 S	31.86 E
3890.50	1.97	154.45	50.00	3889.84	4.20	23.12 S	32.07 E
3940.50	0.87	113.59	50.00	3939.83	2.86	24.05 S	32.79 E
3990.50	0.80	86.56	50.00	3989.82	0.79	24.18 S	33.48 E
4040.50	0.47	221.58	50.00	4039.82	2.36	24.31 S	33.69 E

**True Vertical Depth Summary
Minimum Curvature**

Page 3

Measured Depth (Feet)	Drift Angle (Degrees)	Drift Direction (Degrees)	Depth Interval (Feet)	True Vert Depth (Feet)	Dog Leg Severity (Deg/100 F)	Rectangular Coordinates (Feet) (Feet)	
4090.50	1.13	140.86	50.00	4089.82	2.31	24.85 S	33.87 E
4140.50	1.95	138.27	50.00	4139.80	1.65	25.87 S	34.75 E
4190.50	0.29	146.34	50.00	4189.79	3.33	26.61 S	35.39 E
4240.50	1.00	222.29	50.00	4239.79	1.95	27.04 S	35.16 E
4290.50	0.21	280.58	50.00	4289.78	1.82	27.35 S	34.78 E
4340.50	0.21	182.76	50.00	4339.78	0.64	27.43 S	34.68 E
4390.50	0.28	179.63	50.00	4389.78	0.14	27.64 S	34.68 E
4440.50	0.25	152.20	50.00	4439.78	0.26	27.86 S	34.73 E
4490.50	0.58	327.68	50.00	4489.78	1.66	27.74 S	34.65 E
4540.50	0.43	210.99	50.00	4539.78	1.72	27.69 S	34.41 E
4590.50	0.44	258.23	50.00	4589.78	0.69	27.89 S	34.13 E
4640.50	0.27	236.45	50.00	4639.78	0.43	27.99 S	33.85 E
4690.50	0.28	205.94	50.00	4689.78	0.29	28.17 S	33.70 E
4740.50	0.05	103.01	50.00	4739.78	0.59	28.28 S	33.66 E
4790.50	1.04	205.89	50.00	4789.77	2.11	28.70 S	33.49 E
4840.50	0.44	233.02	50.00	4839.77	1.36	29.22 S	33.14 E
4890.50	0.47	214.16	50.00	4889.77	0.31	29.51 S	32.87 E
4940.50	0.20	224.23	50.00	4939.77	0.56	29.74 S	32.69 E
4990.50	0.38	197.30	50.00	4989.77	0.44	29.96 S	32.58 E
5040.50	0.14	127.44	50.00	5039.77	0.71	30.15 S	32.58 E
5090.50	0.09	130.00	50.00	5089.77	0.10	30.22 S	32.67 E
5140.50	0.74	48.51	50.00	5139.77	1.46	30.03 S	32.94 E
5190.50	0.39	14.38	50.00	5189.76	0.94	29.65 S	33.22 E

Tie In Point

Measured Depth	0.00	North	0.00
TVD	0.00	East	0.00



Tucker
ENERGY SERVICES

Company: LASSO ENERGY LLC
Well: RENICK #2
Location: 680' FNL & 1960' FEL
Logged: 03-03-2014
K.B. Elev: 2822.0 Ft