Weatherford

DIRECTIONAL SURVEY

OMPANY	BTA OIL PRODUCERS
ELL	9012 JV-P ALINE #3
ELD	BERRY BONE SPRING NORTH
OVINCE/COUNTY	LEA
OUNTRY/STATE	U.S.A./NEW MEXICO
CATION	1650' FNL & 330' FEL
RMIT NUMBER	SEC. 36 TWP. 20S RGE. 34E

C 36	TWP 20S	RGE 34E	Other Services		
itude		+32.532194	PHOTO DENSITY	COMPENSATED NEUTRON	
ngitude		-103.505765	DUAL LATEROLOG	MICRO LATEROLOG	
l Number		[redacted]	COMPENSATED SONIC	SPECTRAL GAMMA RAY	

rmanent Datum GL, Elevation 3741 feet		Elevations:	feet
g Measured From KB		KB	3766.00
lling Measured From KB		DF	3765.00
		GL	3741.00

te	25-MAY-2016			
n Number	ONE			
rvice Order	3442-151052334			
pth Driller	11493.00	feet		
pth Logger	11488.00	feet		
st Reading	11479.89	feet		
st Reading	5826.00	feet		
sing Driller	5839.00	feet		
sing Logger	5826.00	feet		
Size	8.750	inches		
le Fluid Type	BRINE			
nsity / Viscosity	9.00 lb/USg	29.00 sec/qt.		
/ Fluid Loss	9.00	---		
mple Source	FLOWLINE			
@ Measured Temp	0.127 @ 68.1	ohm-m		
f @ Measured Temp	0.095 @ 68.1	ohm-m		
c @ Measured Temp	0.159 @ 68.1	ohm-m		
urce Rmf / Rmc	CALC	CALC		
@ BHT	0.06 @155.0	ohm-m		
e Since Circulation	9 HOURS			
x Recorded Temp	155.00	deg F		
uipment / Base	13242	4352		
corded By	ROSS KLABON			
nessed By	---			
	-		-	

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

Verticality Analysis Interpretation Notes

26-MAY-2016 14:39

All plotted output is automatically scaled to obtain the best visual effect within the physical space available. The maximum scales being 1:50000(metric) and 1:48000(imperial), and the minimum 1:1.

The analysis is derived by integrating 10cm sampled data down the borehole. The listing supplied will contain a maximum of 200

Computed verticality may only be fully derived in open sections of the borehole, away from the influence of any unusual magnetic effects, (as the azimuth calculations are derived from three solid state magnetometers). So the analysis will generally begin at the end of the casing and all borehole positional information will relate to this depth.

Up to ten cross sections may be requested for any borehole to be displayed at any scale, (the default scale is that of the cross-section for the entire hole).

Borehole positional error is derived assuming the following parameters.

	TILT (degrees)	AZIMUTH (degrees)
Typical Error	+/- 0.1000	+/- 5.0000
Maximum Error	+/- 0.2000	+/- 8.0000

Error analysis may be calculated and plotted from the data listing as follows:

a) Plot the four coordinates from the error listing (based upon zero azimuth error) on a target plot. Origin at the start of the analysis.

b) Describe arcs of +/- 10.00 degrees and +/- 15.00 degrees (centre at the origin) through the inner and outer points respectively.

c) Connect the respective arcs together with straight lines to give the typical and maximum borehole positional error.

Given below is a full description of the parameters displayed on the ensuing listing:

LOG DEPTH	The depth recorded on the field logs for the borehole.
TRUE DEPTH	The true vertical depth corresponding to the above depth. Corrected from the start of the analysis.
HOLE TILT AND AZIMUTH	The sampled borehole orientation. Tilt measured from Vertical.
AXIAL COORDINATES	The coordinates North and East from the target origin.
POLAR COORDINATES	The polar or radial coordinates of the borehole.
ERROR COORDINATES	The polar coordinates corresponding to the typical and maximum tilt error.

N.B. The reference point for all bearing angles on this listing is given at the top of each sheet.

Verticality Data Listing

H:\WIRELINE LOGGING JOBS\BTA OIL PRODUCERS\9012 JV-P ALINE #3\New Folder\9012 JV-P ALINE #3 R2_MAIN PASS_001.c

All Co-ordinates With Respect To True North, all depths in feet — Date Processed: 26-MAY-2016

First Depth 5816.00, 0.00 North, 0.00 East of Origin — Date Logged: 25-MAY-2016

DEPTHS		BOREHOLE		AXIAL CO-ORDS		POLAR		POLAR ERROR CO-ORDINATES (MAXIMUM & TYPICAL)							
Log	True	Tilt	Azi	North	East	Brg	Radius	Brg	Radius	Brg	Radius	Brg	Radius	Brg	Radius
5816.00	5816.00	0.4	9.2	0.00	0.00	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00
5850.00	5850.00	0.7	304.6	0.14	-0.21	304	0.25	304	0.37	304	0.13	304	0.31	304	0.19
5900.00	5900.00	0.6	344.1	0.63	-0.35	331	0.72	331	1.02	331	0.43	331	0.87	331	0.58
5950.00	5949.99	0.4	335.1	0.92	-0.48	333	1.04	333	1.51	333	0.57	333	1.27	333	0.81
6000.00	5999.99	0.3	359.5	1.13	-0.48	337	1.23	337	1.87	337	0.59	337	1.55	337	0.91
6050.00	6049.99	0.3	3.4	1.38	-0.47	341	1.45	341	2.27	341	0.64	341	1.86	341	1.04
6100.00	6099.99	0.2	353.7	1.54	-0.49	342	1.62	342	2.61	342	0.62	342	2.11	342	1.12
6150.00	6149.99	0.2	8.5	1.66	-0.47	344	1.73	344	2.89	344	0.56	344	2.31	344	1.14
6200.00	6199.99	0.2	359.2	1.80	-0.47	345	1.86	345	3.20	345	0.52	345	2.53	345	1.19
6250.00	6249.99	0.3	353.8	2.07	-0.50	346	2.13	346	3.64	346	0.61	346	2.89	346	1.37
6300.00	6299.99	0.3	345.2	2.29	-0.56	346	2.36	346	4.05	346	0.67	346	3.20	346	1.51
6350.00	6349.99	0.2	349.9	2.43	-0.58	346	2.50	346	4.36	346	0.64	346	3.43	346	1.57
6400.00	6399.99	0.1	16.6	2.49	-0.57	347	2.55	347	4.59	347	0.51	347	3.57	347	1.53
6450.00	6449.99	0.1	222.2	2.47	-0.59	347	2.54	347	4.75	347	0.32	347	3.64	347	1.43

6600.00	6599.99	0.2	318.1	2.85	-0.78	345	2.95	345	5.69	345	0.22	345	4.32	345	1.58
6650.00	6649.99	0.2	309.3	2.95	-0.90	343	3.09	343	6.00	343	0.17	343	4.54	343	1.63
6700.00	6699.99	0.3	301.1	3.08	-1.11	340	3.27	340	6.36	340	0.19	340	4.82	340	1.73
6750.00	6749.99	0.3	296.0	3.19	-1.34	337	3.46	337	6.72	337	0.19	337	5.09	337	1.83
6800.00	6799.99	0.2	286.3	3.24	-1.52	335	3.58	335	7.01	335	0.14	335	5.30	335	1.86
6850.00	6849.99	0.2	278.6	3.27	-1.71	332	3.69	332	7.30	332	0.08	332	5.49	332	1.88
6900.00	6899.99	0.3	272.4	3.28	-1.93	329	3.81	329	7.59	329	0.02	329	5.70	329	1.91
6950.00	6949.99	0.4	244.7	3.15	-2.20	325	3.85	325	7.80	145	0.11	325	5.82	325	1.87
7000.00	6999.98	0.3	223.2	3.03	-2.32	323	3.82	323	7.95	143	0.32	323	5.88	323	1.75
7050.00	7049.98	0.3	81.2	3.06	-2.13	325	3.73	325	8.04	145	0.58	325	5.88	325	1.58
7100.00	7099.98	0.3	19.5	3.26	-2.06	328	3.86	328	8.34	148	0.63	328	6.10	328	1.61
7150.00	7149.98	0.2	331.6	3.41	-2.14	328	4.03	328	8.69	148	0.63	328	6.36	328	1.70
7200.00	7199.98	0.3	266.5	3.40	-2.42	325	4.17	325	9.00	145	0.66	325	6.58	325	1.75
7250.00	7249.98	0.5	221.9	3.06	-2.71	318	4.09	318	9.10	138	0.91	318	6.60	318	1.59
7300.00	7299.98	0.5	193.2	2.66	-2.81	314	3.87	314	9.05	134	1.31	314	6.46	314	1.28
7350.00	7349.98	0.4	183.4	2.34	-2.83	310	3.67	310	9.03	130	1.68	310	6.35	310	0.99
7400.00	7399.98	0.4	196.4	2.02	-2.92	305	3.55	305	9.08	125	1.98	305	6.32	305	0.79
7450.00	7449.98	0.4	206.7	1.68	-3.09	299	3.52	299	9.22	119	2.19	299	6.37	299	0.67
7500.00	7499.97	0.6	209.8	1.24	-3.35	290	3.57	290	9.45	110	2.31	290	6.51	290	0.63
7550.00	7549.97	0.6	213.5	0.78	-3.65	282	3.73	282	9.78	102	2.32	282	6.76	282	0.70
7600.00	7599.97	0.7	220.6	0.33	-4.03	275	4.05	275	10.27	95	2.18	275	7.16	275	0.93
7650.00	7649.96	0.8	223.7	-0.15	-4.49	268	4.49	268	10.90	88	1.91	268	7.69	268	1.29
7700.00	7699.96	0.8	229.3	-0.61	-5.02	263	5.06	263	11.64	83	1.52	263	8.35	263	1.77
7750.00	7749.95	0.9	230.6	-1.09	-5.61	259	5.71	259	12.46	79	1.04	259	9.09	259	2.33
7800.00	7799.95	0.9	235.8	-1.51	-6.23	256	6.41	256	13.33	76	0.52	256	9.87	256	2.94
7850.00	7849.94	0.9	236.9	-1.92	-6.87	254	7.13	254	14.23	254	0.03	254	10.68	254	3.58
7900.00	7899.93	0.9	240.2	-2.32	-7.55	253	7.90	253	15.18	253	0.63	253	11.54	253	4.26
7950.00	7949.93	0.9	243.0	-2.66	-8.22	252	8.64	252	16.09	252	1.19	252	12.36	252	4.92
8000.00	7999.92	0.9	245.7	-2.98	-8.93	252	9.42	252	17.04	252	1.79	252	13.23	252	5.61
8050.00	8049.91	0.9	251.7	-3.24	-9.71	252	10.24	252	18.03	252	2.44	252	14.13	252	6.34
8100.00	8099.91	0.9	251.2	-3.50	-10.47	252	11.04	252	19.01	252	3.07	252	15.03	252	7.05
8150.00	8149.90	1.0	252.3	-3.77	-11.31	252	11.92	252	20.07	252	3.78	252	16.00	252	7.85
8200.00	8199.89	1.0	252.5	-4.02	-12.11	252	12.76	252	21.08	252	4.44	252	16.92	252	8.60
8250.00	8249.89	1.0	249.9	-4.31	-12.92	252	13.62	252	22.12	252	5.12	252	17.87	252	9.37
8300.00	8299.88	0.8	243.6	-4.64	-13.57	251	14.34	251	23.01	251	5.67	251	18.67	251	10.00
8350.00	8349.87	0.9	243.4	-4.99	-14.27	251	15.11	251	23.96	251	6.27	251	19.54	251	10.69
8400.00	8399.87	0.9	242.1	-5.36	-14.98	250	15.91	250	24.93	250	6.89	250	20.42	250	11.40
8450.00	8449.86	0.9	241.7	-5.74	-15.67	250	16.69	250	25.88	250	7.50	250	21.29	250	12.09
8500.00	8499.86	0.8	241.7	-6.09	-16.32	250	17.42	250	26.78	250	8.05	250	22.10	250	12.73
8550.00	8549.85	0.8	238.8	-6.46	-16.94	249	18.13	249	27.68	249	8.59	249	22.90	249	13.36
8600.00	8599.84	1.0	237.1	-6.93	-17.66	249	18.97	249	28.68	249	9.25	249	23.83	249	14.11
8650.00	8649.84	1.0	238.4	-7.37	-18.37	248	19.79	248	29.69	248	9.90	248	24.74	248	14.85
8700.00	8699.83	1.0	253.3	-7.62	-19.20	248	20.66	248	30.73	248	10.59	248	25.69	248	15.62
8750.00	8749.82	0.8	265.4	-7.67	-19.89	249	21.32	249	31.56	249	11.07	249	26.44	249	16.19
8800.00	8799.82	0.8	267.1	-7.71	-20.60	249	21.99	249	32.41	249	11.58	249	27.20	249	16.78
8850.00	8849.81	0.8	263.3	-7.79	-21.32	250	22.70	250	33.29	250	12.11	250	27.99	250	17.40
8900.00	8899.81	0.8	260.6	-7.91	-22.00	250	23.38	250	34.15	250	12.62	250	28.76	250	18.00
8950.00	8949.81	0.7	259.0	-8.02	-22.58	250	23.96	250	34.90	250	13.02	250	29.43	250	18.49
9000.00	8999.80	0.8	264.3	-8.08	-23.25	251	24.61	251	35.73	251	13.50	251	30.17	251	19.06
9050.00	9049.79	0.9	265.3	-8.15	-24.00	251	25.34	251	36.63	251	14.05	251	30.98	251	19.70
9100.00	9099.79	1.0	269.5	-8.15	-24.88	252	26.18	252	37.64	252	14.72	252	31.91	252	20.45
9150.00	9149.78	1.1	270.6	-8.14	-25.85	253	27.11	253	38.74	253	15.47	253	32.93	253	21.29
9200.00	9199.77	1.3	270.0	-8.14	-26.95	253	28.15	253	39.97	253	16.34	253	34.06	253	22.25
9250.00	9249.75	1.4	266.5	-8.22	-28.15	254	29.33	254	41.32	254	17.34	254	35.32	254	23.34
9300.00	9299.74	1.4	261.0	-8.41	-29.39	254	30.57	254	42.73	254	18.41	254	36.65	254	24.49
9350.00	9349.72	1.6	257.7	-8.71	-30.76	254	31.97	254	44.30	254	19.63	254	38.14	254	25.80
9400.00	9399.69	1.9	257.6	-9.07	-32.37	254	33.62	254	46.13	254	21.11	254	39.87	254	27.36
9450.00	9449.66	2.1	256.9	-9.47	-34.13	254	35.42	254	48.10	254	22.73	254	41.76	254	29.07
9500.00	9499.62	2.1	255.8	-9.93	-35.94	255	37.29	255	50.15	255	24.43	255	43.72	255	30.86
9550.00	9549.58	2.2	253.9	-10.46	-37.78	255	39.20	255	52.23	255	26.17	255	45.72	255	32.68
9600.00	9599.55	2.1	251.9	-11.04	-39.55	254	41.06	254	54.27	254	27.85	254	47.66	254	34.45
9650.00	9649.51	2.3	250.5	-11.70	-41.41	254	43.03	254	56.41	254	29.65	254	49.72	254	36.34
9700.00	9699.47	2.3	252.1	-12.31	-43.31	254	45.03	254	58.59	254	31.47	254	51.81	254	38.25
9750.00	9749.43	2.3	253.3	-12.90	-45.27	254	47.07	254	60.81	254	33.34	254	53.94	254	40.21
9800.00	9799.39	2.4	254.2	-13.46	-47.25	254	49.13	254	63.04	254	35.23	254	56.08	254	42.18
9850.00	9849.34	2.3	254.3	-14.01	-49.22	254	51.17	254	65.25	254	37.09	254	58.21	254	44.13
9900.00	9899.30	2.3	253.8	-14.58	-51.17	254	53.21	254	67.46	254	38.95	254	60.33	254	46.08
9950.00	9949.26	2.3	253.7	-15.15	-53.12	254	55.24	254	69.67	254	40.81	254	62.45	254	48.02
10000.00	9999.22	2.3	253.8	-15.72	-55.09	254	57.29	254	71.90	254	42.69	254	64.59	254	49.99

10150.00	10149.09	2.4	254.6	-17.41	-61.00	254	63.43	254	78.56	254	48.30	254	70.99	254	55.87
10200.00	10199.05	2.4	254.8	-17.96	-63.04	254	65.55	254	80.85	254	50.25	254	73.20	254	57.90
10250.00	10249.00	2.5	255.3	-18.53	-65.18	254	67.76	254	83.24	254	52.29	254	75.50	254	60.03
10300.00	10298.95	2.6	256.1	-19.08	-67.40	254	70.05	254	85.70	254	54.40	254	77.87	254	62.22
10350.00	10348.89	2.8	255.9	-19.66	-69.74	254	72.46	254	88.28	254	56.63	254	80.37	254	64.55
10400.00	10398.83	2.7	255.2	-20.26	-72.02	254	74.82	254	90.82	254	58.82	254	82.82	254	66.82
10450.00	10448.78	2.7	253.3	-20.94	-74.29	254	77.18	254	93.36	254	61.01	254	85.27	254	69.10
10500.00	10498.72	2.7	251.5	-21.70	-76.55	254	79.56	254	95.91	254	63.21	254	87.74	254	71.39
10550.00	10548.67	2.7	250.9	-22.47	-78.78	254	81.92	254	98.44	254	65.40	254	90.18	254	73.66
10600.00	10598.61	2.8	250.8	-23.27	-81.06	254	84.34	254	101.03	254	67.64	254	92.69	254	75.99
10650.00	10648.54	3.0	251.5	-24.11	-83.57	254	86.98	254	103.85	254	70.11	254	95.42	254	78.55
10700.00	10698.46	3.1	252.4	-24.94	-86.17	254	89.71	254	106.76	254	72.66	254	98.23	254	81.19
10750.00	10748.39	3.1	252.6	-25.74	-88.75	254	92.41	254	109.63	254	75.19	254	101.02	254	83.80
10800.00	10798.33	2.9	253.4	-26.46	-91.16	254	94.93	254	112.32	254	77.53	254	103.62	254	86.23
10850.00	10848.27	2.6	255.8	-27.03	-93.39	254	97.22	254	114.79	254	79.65	254	106.01	254	88.44
10900.00	10898.22	2.6	260.2	-27.41	-95.61	254	99.47	254	117.21	254	81.72	254	108.34	254	90.59
10950.00	10948.17	2.7	267.1	-27.53	-97.97	254	101.76	254	119.68	254	83.85	254	110.72	254	92.81
11000.00	10998.10	2.9	272.6	-27.41	-100.54	255	104.21	255	122.31	255	86.12	255	113.26	255	95.17
11050.00	11048.03	3.0	277.6	-27.07	-103.11	255	106.61	255	124.87	255	88.34	255	115.74	255	97.47
11100.00	11097.96	3.0	279.3	-26.64	-105.71	256	109.02	256	127.46	256	90.58	256	118.24	256	99.80
11150.00	11147.90	2.9	279.3	-26.23	-108.25	256	111.38	256	130.00	256	92.77	256	120.69	256	102.08
11200.00	11197.83	2.9	278.0	-25.88	-110.73	257	113.71	257	132.50	257	94.92	257	123.10	257	104.31
11250.00	11247.77	2.8	276.3	-25.60	-113.19	257	116.05	257	135.02	257	97.09	257	125.54	257	106.57
11300.00	11297.71	2.7	275.0	-25.39	-115.58	258	118.33	258	137.47	258	99.19	258	127.90	258	108.76
11350.00	11347.66	2.7	274.5	-25.21	-117.91	258	120.57	258	139.88	258	101.26	258	130.23	258	110.92
11400.00	11397.61	2.6	272.7	-25.10	-120.21	258	122.81	258	142.29	258	103.32	258	132.55	258	113.06
11412.53	11410.12	2.6	273.0	-25.07	-120.78	258	123.35	258	142.88	258	103.82	258	133.12	258	113.59

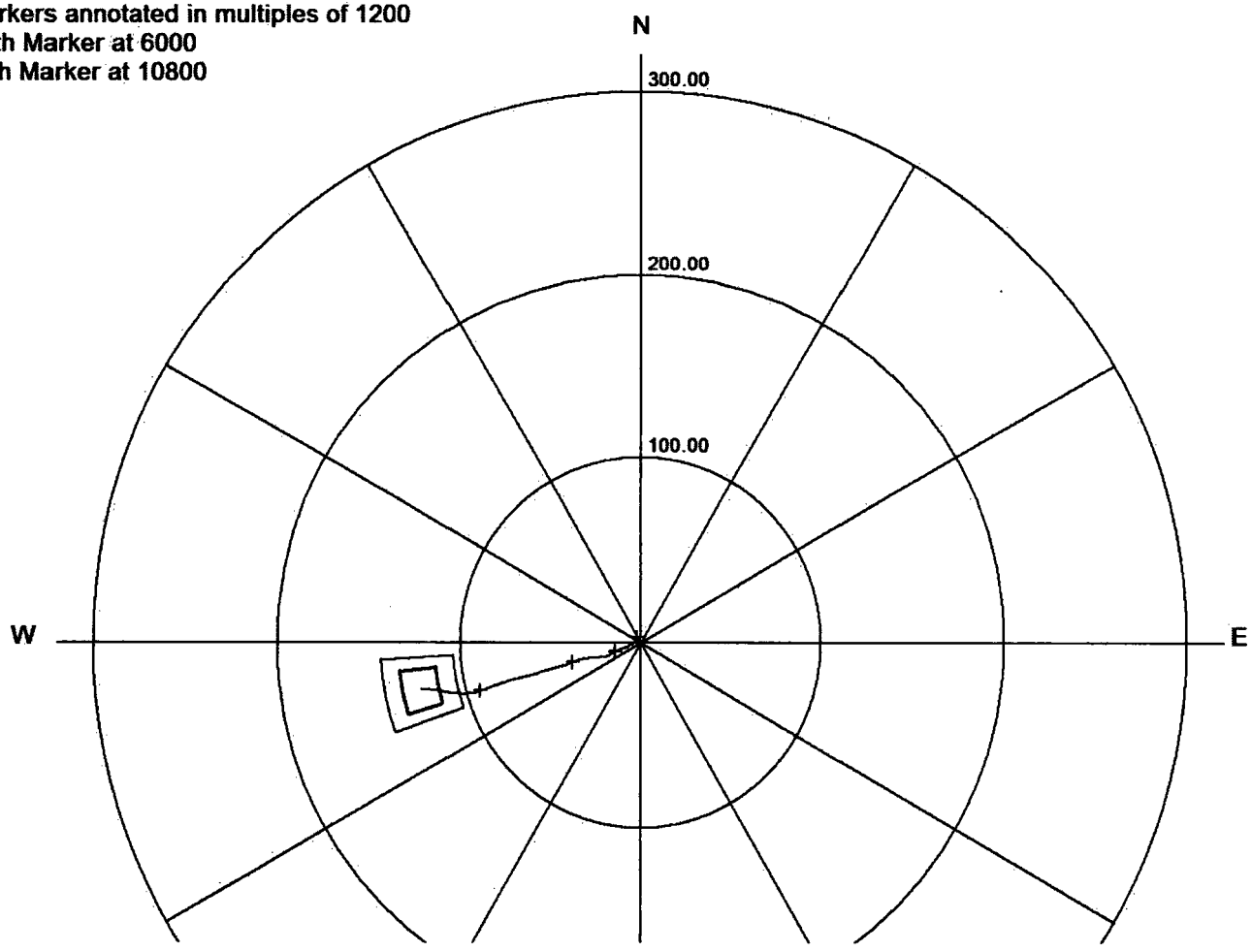
Cross Section

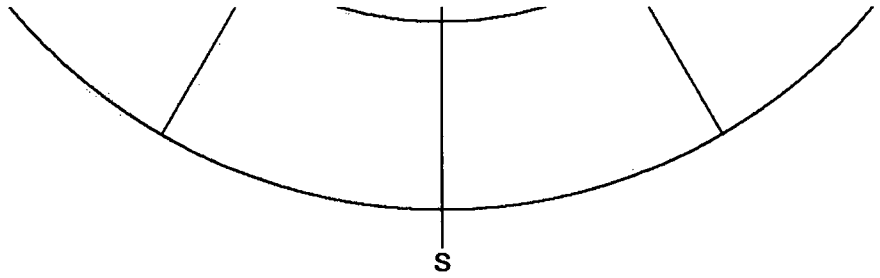
All Figures are Log Depths in feet

Plot With Respect to True North

Target Origin Depth 5816.00
Last Plotted Depth 11412.53
Depth Markers annotated in multiples of 1200
First Depth Marker at 6000
Last Depth Marker at 10800

Scale 1:1200
Declination 7.1 deg East





Borehole Positional Error

The two boxes surrounding the last plotted depth show the typical and maximum positional error at that depth.

Final Borehole Position

The last plotted depth is at
25.07 feet South
120.78 feet West
ie 123.35 feet from the origin
258 deg from True North

Vertical Sections

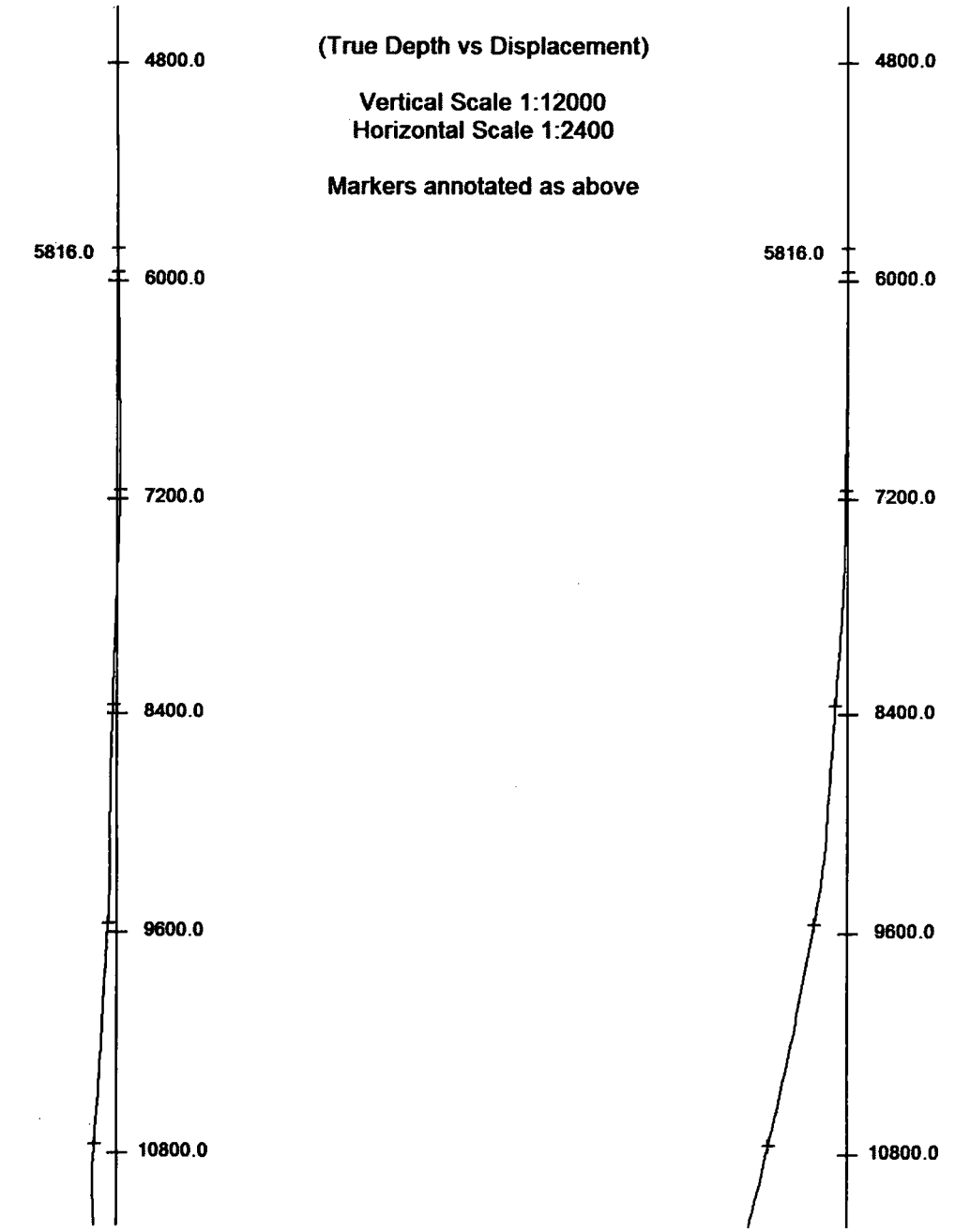
North-South Section

East-West Section

(True Depth vs Displacement)

Vertical Scale 1:12000
Horizontal Scale 1:2400

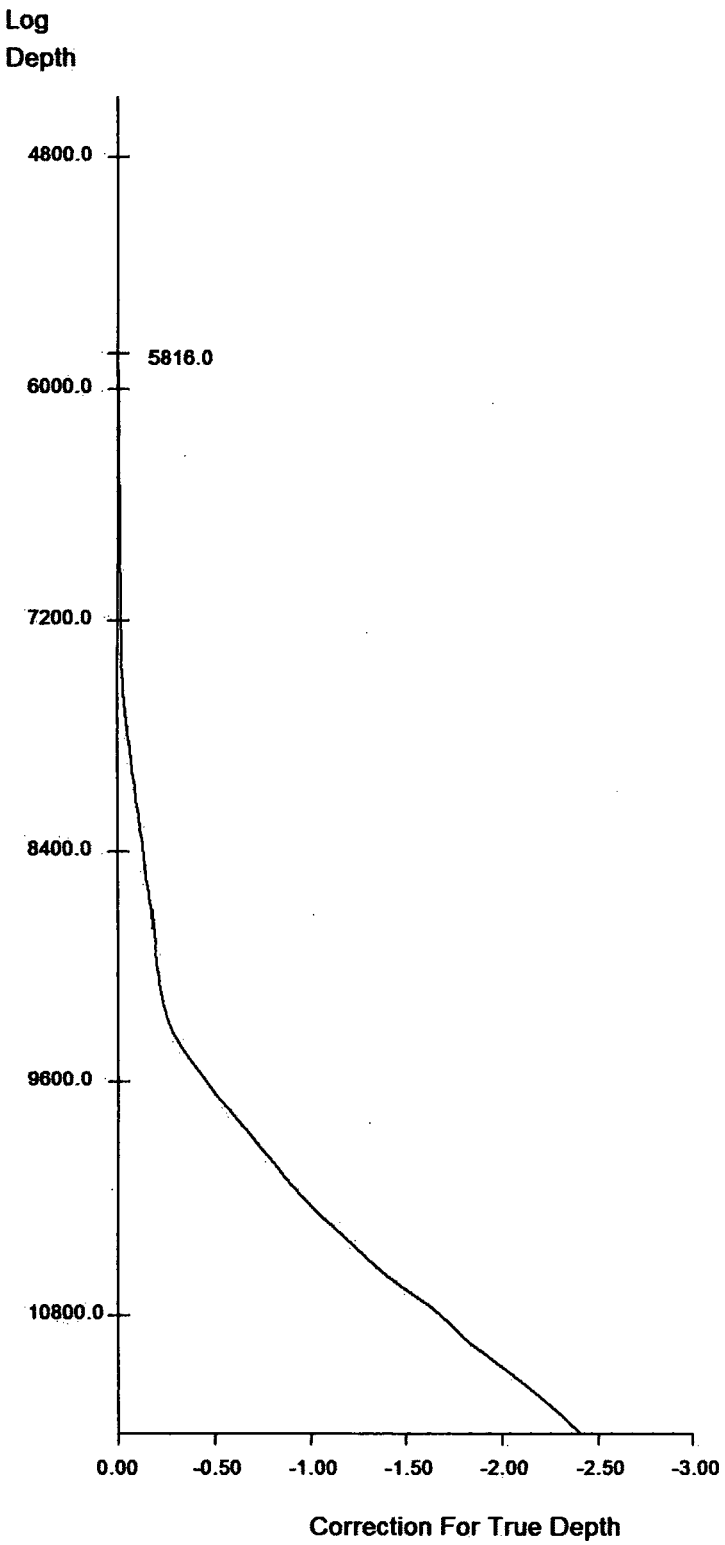
Markers annotated as above



-300.00 -200.00 -100.00 0.00 100.00 200.00 300.00 -300.00 -200.00 -100.00 0.00 100.00 200.00 300.00

Depth Correction Analysis

Vertical Scale 1:12000
Horizontal Scale 1:12

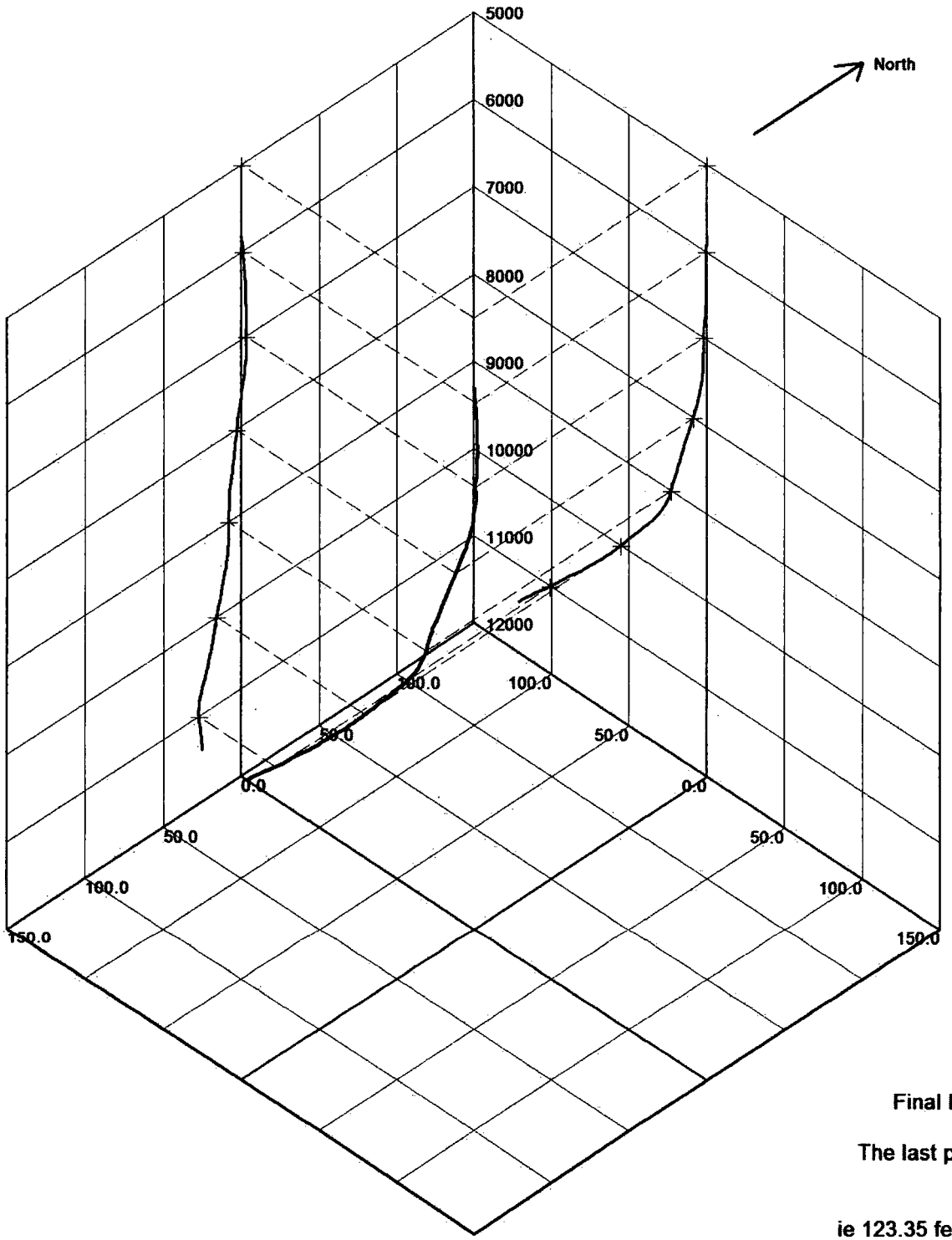


Depths Log	True	Depths Log	True
5816.00	5816.00	9150.00	9149.78
5850.00	5850.00	9200.00	9199.77
5900.00	5900.00	9250.00	9249.75
5950.00	5949.99	9300.00	9299.74
6000.00	5999.99	9350.00	9349.72
6050.00	6049.99	9400.00	9399.69
6100.00	6099.99	9450.00	9449.66
6150.00	6149.99	9500.00	9499.62
6200.00	6199.99	9550.00	9549.58
6250.00	6249.99	9600.00	9599.55
6300.00	6299.99	9650.00	9649.51
6350.00	6349.99	9700.00	9699.47
6400.00	6399.99	9750.00	9749.43
6450.00	6449.99	9800.00	9799.39
6500.00	6499.99	9850.00	9849.34
6550.00	6549.99	9900.00	9899.30
6600.00	6599.99	9950.00	9949.26
6650.00	6649.99	10000.00	9999.22
6700.00	6699.99	10050.00	10049.18
6750.00	6749.99	10100.00	10099.14
6800.00	6799.99	10150.00	10149.09
6850.00	6849.99	10200.00	10199.05
6900.00	6899.99	10250.00	10249.00
6950.00	6949.99	10300.00	10298.95
7000.00	6999.98	10350.00	10348.89
7050.00	7049.98	10400.00	10398.83
7100.00	7099.98	10450.00	10448.78
7150.00	7149.98	10500.00	10498.72
7200.00	7199.98	10550.00	10548.67
7250.00	7249.98	10600.00	10598.61
7300.00	7299.98	10650.00	10648.54
7350.00	7349.98	10700.00	10698.46
7400.00	7399.98	10750.00	10748.39
7450.00	7449.98	10800.00	10798.33
7500.00	7499.97	10850.00	10848.27
7550.00	7549.97	10900.00	10898.22
7600.00	7599.97	10950.00	10948.17
7650.00	7649.96	11000.00	10998.10
7700.00	7699.96	11050.00	11048.03
7750.00	7749.95	11100.00	11097.96
7800.00	7799.95	11150.00	11147.90
7850.00	7849.94	11200.00	11197.83
7900.00	7899.93	11250.00	11247.77
7950.00	7949.93	11300.00	11297.71
8000.00	7999.92	11350.00	11347.66
8050.00	8049.91	11400.00	11397.61
8100.00	8099.91	11412.53	11410.12
8150.00	8149.90		
8200.00	8199.89		
8250.00	8249.89		
8300.00	8299.88		
8350.00	8349.87		
8400.00	8399.87		
8450.00	8449.86		
8500.00	8499.86		
8550.00	8549.85		
8600.00	8599.84		
8650.00	8649.84		
8700.00	8699.83		
8750.00	8749.82		
8800.00	8799.82		
8850.00	8849.81		
8900.00	8899.81		
8950.00	8949.81		
9000.00	8999.80		
9050.00	9049.79		

3D Borehole Deviation

All figures are True Depths / displacements in feet
Origin Depth 5816.00
Last Plotted Depth 11412.53

Plot With Respect to True North
Declination 7.1 deg East



Final Borehole Position

The last plotted depth is at
25.07 feet South
120.78 feet West
ie 123.35 feet from the origin
258 deg from True North

COMPANY	BTA OIL PRODUCERS
WELL	9012 JV-P ALINE #3
FIELD	BERRY BONE SPRING NORTH
PROVINCE/COUNTY	LEA

COUNTRY/STATE	U.S.A./NEW MEXICO				
Elevation Kelly Bushing	3766.00	feet	First Reading	11479.89	feet
Elevation Drill Floor	3765.00	feet	Depth Driller	11493.00	feet
Elevation Ground Level	3741.00	feet	Depth Logger	11488.00	feet

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DIRECTIONAL SURVEY