

Results of Directional Survey

API number:	30-025-41454		
OGRID:		Operator:	APACHE CORP
		Property:	STATE C TRACT 12 COM # 1YH

surface	ULSTR:	D	16	T 21S	R 37E
				330 FNL	380 FWL

BH Loc	ULSTR:	M	16	T 21S	R 37E
11258	MD	6871.7	TVD	321 FSL	406 FWL
				4959 FNL	

Top Perf/OH	ULSTR:	D	16	T 21S	R 37E
7680	MD	6934.9	TVD	1382 FNL	400 FWL

Bot Perf/OH	ULSTR:	M	16	T 21S	R 37E
11008	MD	6878.9	TVD	571 FSL	414 FWL
				4709 FNL	

	MD	N/S	E/W	VD
	7624	-996.32	19.60	6933.52
TOP PERFS/OH	7680	-1052.29	20.13	6934.86
	7713	-1085.28	20.45	6935.65
	10998	-4368.79	34.46	6879.06
BOT PERFS/OH	11008	-4378.78	34.12	6878.85
	11085	-4455.72	31.49	6877.21

NEXT TO LAST	11206	-4576.61	27.60	6873.83
LAST READING	11258	-4628.55	26.35	6871.73
TD	11258	-4628.55	26.35	6871.73

Surface Location	330	FN	380	FW
Projected BHL	4959	FN	406	FW
Location of				
Top Perfs/OH	1382	FN	400	FW
Bottom Perfs/OH	4709	FN	414	FW

SUMMARY of Subsurface Locations

Surface Location	D-16-21S-37E	330	FN	380	FW	Vert. Depth
Top Perfs/OH	D-16-21S-37E	1382	FN	400	FW	6934.86
Bottom Perfs/OH	M-16-21S-37E	4709	FN	414	FW	6878.85
Projected TD	M-16-21S-37E	4959	FN	406	FW	6871.73

FEB 19 201

Apache Corporation (873)
303 Veterans Airpark Lane, #3000
Midland, TX 79705

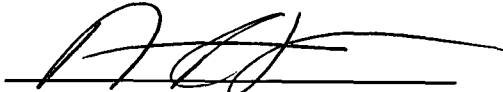
State C Tract 12 Com #001Y 30-025-41454 UL D 16-215-37E 330' FNL + 380' FUL
Lea County, New Mexico

221	2.21	1.20	2.10	4.64	4.64
454	2.33	1.50	2.63	6.12	10.76
650	1.96	1.50	2.63	5.15	15.90
880	2.30	2.50	4.38	10.06	25.96
1062	1.82	2.20	3.85	7.01	32.97
1297	2.35	2.60	4.55	10.69	43.66
1438	1.41	1.40	2.45	3.45	47.12
1752	3.14	0.40	0.70	2.20	49.32
1884	1.32	0.60	1.05	1.39	50.70
2102	2.18	1.10	1.93	4.20	54.90
2276	1.74	1.10	1.93	3.35	58.25
2497	2.21	1.00	1.75	3.87	62.12
2719	2.22	0.80	1.40	3.11	65.22
2934	2.15	0.50	0.88	1.88	67.11
3069	1.35	0.10	0.18	0.24	67.34
3331	2.62	0.30	0.53	1.38	68.72
3550	2.19	0.20	0.35	0.77	69.48
3727	1.77	0.30	0.53	0.93	70.41
3942	2.15	0.50	0.88	1.88	72.29
4248	3.06	0.00	0.00	0.00	72.29
4732	4.84	0.80	1.40	6.78	79.07
5001	2.69	0.30	0.53	1.41	80.48
5222	2.21	0.40	0.70	1.55	82.03
5446	2.24	0.30	0.53	1.18	83.21
5577	1.31	0.30	0.53	0.69	83.89
5749	1.72	0.50	0.88	1.51	85.40
5823	0.74	0.30	0.53	0.39	85.79
5993	1.70	0.20	0.35	0.60	86.38
6036	0.43	0.50	0.88	0.38	86.76
6113	0.77	0.60	1.05	0.81	87.57
6394	2.81	0.50	0.88	2.46	90.03
6620	2.26	0.20	0.35	0.79	90.82
6969	3.49	0.40	0.70	2.44	93.26
7340	3.71	0.50	0.88	3.25	96.51

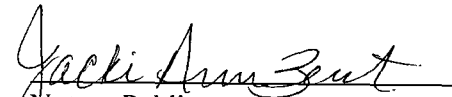
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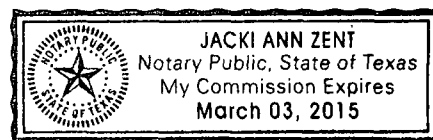
JAN 31 2014

RECEIVED


Archie Brown - General Manager

The attached instrument was acknowledged before me on the 3rd day of December, 2013 by
Archie Brown - General Manager, CapStar Drilling, Inc.


Notary Public



HALLIBURTON

3950 Interwood S. Pkwy • Houston, TX 77032

PHONE 281.986.4400 • FAX 281.986.4499

HOBBS OCD

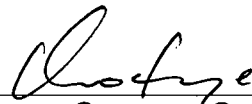
JAN 31 2014

RECEIVED

State of New Mexico, Lea County

I, Omotoye Omotoso certify that I am employed by Halliburton Energy Services, Inc. (aka Sperry Drilling) and that on the dates of 02-November-2013 through 18-November-2013, I did conduct or supervise the taking of MWD directional surveys for the well State C Tact 12 Com 1Y from a depth of 6240' MD to a depth of 11206' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling). I am authorized and qualified to make this report and these surveys were conducted at the request of Apache Corporation for the State C Tact 12 Com 1Y well, API No. 30-025-41454 in Lea County, New Mexico. I have reviewed this report and find that it conforms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling).

UL D 16-215-37E 330' FWL + 380' FWL



Omotoye Omotoso
Field Engineer

**Apache Corporation
State C Tract 12 Com 1Y
Lea County, New Mexico
Capster 133**

API# 30-025-41454

UL D 16-215-37E 330' FNL + 380' FWL

Nov 2, 2013 – Nov 18, 2013

HD-MJ-0900780525

**Sperry Drilling
MWD Survey Report**

Submitted by Omotoye Omotoso

3950 Interwood S. Pkwy

Houston, TX 77032

Ph: 281.986.4400

HALLIBURTON

**Drilling and Formation
Evaluation**

HOBBS OCD
JAN 31 2014
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[REDACTED]



Survey Report for Apache Corporation

Rig : Capstar 133
Well Name : State C Tact 12 Com 1Y
Field Name : Wantz : Abo
Country : USA
Job Number : HD-XX-0900780525
Job Start Date : 02-Nov-13
API Number : 30-025-41454



TABLE OF CONTENTS

1. General Information
2. Operational Overview
3. Directional Survey Data



GENERAL INFORMATION

Company	: Apache Corporation
Rig	: Capstar 133
Well	: State C Tact 12 Com 1Y
Field	: Wantz : Abo
State	: New Mexico
County	: Lea County, New Mexico
Country	: USA
API Number	: 30-025-41454
Sperry Drilling Job Number	: HD-XX-0900780525
Job Start Date	: 02-Nov-13
Job End Date	: 18-Nov-13
North Reference	: Grid
Total Correction (deg)	: 6.606
Dip Angle (deg)	: 60.427
Total Magnetic Field (nT)	: 48596
Date of Magnetic Data	: 02 November, 2013
Well Head coordinates N	: 32 deg. 29 min 6.59 sec North
Well Head coordinates E	: 103 deg. 10 min 29.62 sec West
Vertical section direction (deg)	: 179.50
Unit Number	: 11310662
MWD Engineers	: Daniel Obi, James Cobb, Omotoye Omotoso
Company Representatives	: Robert Smith, Steve Lewis
Company Geologist:	: Todd Parr, Todd Parr



OPERATIONAL OVERVIEW

HALLIBURTON/SPERRY DRILLING WAS CONTRACTED BY APACHE CORPORATION TO PROVIDE MWD DIRECTIONAL SERVICES FOR STATE C TRACT 12 COM 1Y WELL IN LEA COUNTY, NM. TOOLS AND CREW ARRIVED ON LOCATION ON 2-NOVEMBER-2013 AND RIGGED UP ACCORDINGLY.

RUN 100: TIH ON 02-NOVEMBER-13: DRILLED FROM 6257' MD TO 6364' MD. POOH DUE TO CHANGE MOTOR AND BIT. 100% MWD.

RUN 200: TIH ON 04-NOVEMBER-13: DRILLED FROM 6364' MD TO 6403' MD. POOH DUE TO CHANGE BIT. 100% MWD.

RUN 300: TIH ON 05-NOVEMBER-13: DRILLED FROM 6403' MD TO 6795' MD. POOH DUE TO CHANGE BIT AND MOTOR. 100% MWD.

RUN 400: TIH ON 07-NOVEMBER-13: NO FOOTAGE WAS DRILLED. POOH DUE TO PACK-OFF IN PIPE.

RUN 500: P/U TOOLS ON 08-NOVEMBER-13, TIH, DRILLED FROM 6795' MD TO 7321' MD. POOH TO P/U LATERAL ASSEMBLY

RUN 600: P/U TOOLS ON 10-NOVEMBER-13, TIH, DRILLED FROM 7321' MD TO 9946' MD. MOTOR FAILURE. POOH

RUN 700: P/U TOOLS ON 14-NOVEMBER-13, TIH, DRILLED FROM 9946' MD TO TD 11258' MD

DIRECTIONAL SURVEY DATA

Tie-in

0.00

0.00

0.00

0.00

0.00 N

0.00 E

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
17.20	0.33	3.18	17.20	0.05 N	0.00 E	-0.05	1.92
107.88	0.73	299.49	107.88	0.59 N	0.49 W	-0.60	0.72
198.13	1.03	286.80	198.12	1.11 N	1.76 W	-1.13	0.39
281.93	1.43	273.86	281.90	1.40 N	3.53 W	-1.43	0.58
367.06	1.67	260.74	367.00	1.27 N	5.81 W	-1.32	0.50
455.59	1.52	260.90	455.49	0.88 N	8.24 W	-0.95	0.17
541.13	1.50	263.31	541.00	0.57 N	10.48 W	-0.66	0.08
629.49	1.84	256.52	629.32	0.10 N	13.00 W	-0.22	0.44
717.85	2.44	249.86	717.62	0.87 S	16.15 W	0.73	0.73
806.21	2.47	247.58	805.90	2.25 S	19.68 W	2.08	0.12
894.57	2.70	249.95	894.17	3.69 S	23.39 W	3.48	0.29
982.93	2.15	242.97	982.45	5.16 S	26.82 W	4.92	0.71
1071.29	1.83	236.90	1,070.76	6.68 S	29.48 W	6.42	0.43
1159.65	1.81	218.94	1,159.08	8.53 S	31.54 W	8.26	0.64
1248.01	2.12	207.79	1,247.38	11.07 S	33.18 W	10.78	0.56
1336.37	1.86	206.04	1,335.69	13.80 S	34.57 W	13.50	0.30
1424.73	1.47	207.13	1,424.01	16.10 S	35.72 W	15.78	0.44
1513.09	1.16	197.82	1,512.35	17.96 S	36.51 W	17.64	0.42
1601.45	1.09	207.00	1,600.69	19.56 S	37.16 W	19.23	0.22
1689.81	0.83	199.21	1,689.04	20.91 S	37.75 W	20.58	0.33
1778.17	0.50	193.02	1,777.39	21.89 S	38.05 W	21.56	0.38
1866.53	0.60	137.33	1,865.75	22.61 S	37.82 W	22.28	0.59
1954.89	0.63	106.32	1,954.11	23.08 S	37.04 W	22.76	0.37
2043.25	0.98	86.56	2,042.46	23.17 S	35.82 W	22.86	0.50
2131.61	1.22	80.16	2,130.80	22.97 S	34.14 W	22.67	0.30
2219.97	1.20	78.92	2,219.14	22.63 S	32.31 W	22.35	0.04
2308.33	1.20	82.89	2,307.48	22.34 S	30.48 W	22.07	0.09
2396.69	1.21	78.73	2,395.82	22.04 S	28.65 W	21.79	0.10
2485.05	1.17	84.25	2,484.16	21.77 S	26.84 W	21.53	0.14
2573.41	1.05	73.91	2,572.51	21.45 S	25.16 W	21.23	0.26
2661.77	0.87	80.11	2,660.85	21.11 S	23.72 W	20.91	0.23
2750.13	0.77	70.67	2,749.20	20.80 S	22.50 W	20.60	0.19
2838.49	0.45	89.86	2,837.56	20.60 S	21.59 W	20.42	0.42
2926.85	0.56	99.93	2,925.92	20.68 S	20.82 W	20.50	0.16
3015.21	0.31	131.89	3,014.27	20.91 S	20.22 W	20.73	0.38
3103.57	0.20	65.52	3,102.63	21.01 S	19.90 W	20.83	0.33
3191.93	0.21	110.54	3,190.99	21.00 S	19.61 W	20.83	0.18
3280.29	0.10	262.81	3,279.35	21.07 S	19.53 W	20.90	0.34
3368.65	0.20	236.79	3,367.71	21.16 S	19.74 W	20.99	0.13
3457.01	0.05	158.77	3,456.07	21.28 S	19.85 W	21.11	0.22
3545.37	0.23	288.73	3,544.43	21.26 S	20.01 W	21.09	0.30

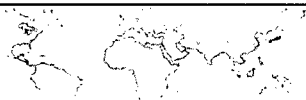
DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
3633.73	0.40	251.24	3,632.79	21.30 S	20.47 W	21.12	0.29
3722.09	0.30	255.50	3,721.15	21.46 S	20.98 W	21.28	0.12
3810.45	0.46	268.90	3,809.51	21.52 S	21.56 W	21.34	0.21
3898.81	0.37	241.01	3,897.86	21.67 S	22.17 W	21.48	0.25
3987.17	0.30	238.33	3,986.22	21.93 S	22.61 W	21.73	0.08
4075.53	0.13	260.42	4,074.58	22.07 S	22.91 W	21.87	0.21
4163.89	0.27	288.89	4,162.94	22.02 S	23.20 W	21.81	0.19
4252.25	0.45	314.91	4,251.30	21.70 S	23.65 W	21.50	0.27
4340.61	0.46	310.69	4,339.66	21.23 S	24.16 W	21.02	0.04
4428.97	0.58	308.65	4,428.01	20.72 S	24.78 W	20.50	0.14
4517.33	0.64	335.87	4,516.37	19.99 S	25.33 W	19.77	0.33
4605.69	0.54	352.30	4,604.72	19.13 S	25.59 W	18.90	0.22
4694.05	0.51	354.09	4,693.08	18.32 S	25.69 W	18.10	0.04
4782.41	0.38	13.72	4,781.44	17.65 S	25.66 W	17.42	0.22
4870.77	0.48	29.57	4,869.80	17.04 S	25.40 W	16.82	0.17
4959.13	0.45	26.55	4,958.15	16.41 S	25.07 W	16.19	0.04
5047.49	0.38	3.75	5,046.51	15.80 S	24.89 W	15.59	0.20
5135.85	0.53	16.76	5,134.87	15.12 S	24.75 W	14.90	0.21
5224.21	0.62	23.78	5,223.22	14.29 S	24.44 W	14.08	0.13
5312.57	0.50	18.46	5,311.58	13.49 S	24.13 W	13.28	0.15
5400.93	0.33	30.25	5,399.94	12.90 S	23.88 W	12.69	0.21
5489.29	0.41	41.97	5,488.29	12.45 S	23.54 W	12.24	0.12
5577.65	0.28	16.86	5,576.65	12.01 S	23.27 W	11.80	0.22
5666.01	0.16	26.16	5,665.01	11.69 S	23.15 W	11.49	0.14
5754.37	0.32	33.18	5,753.37	11.37 S	22.96 W	11.17	0.18
5842.73	0.58	9.12	5,841.73	10.72 S	22.75 W	10.52	0.36
5931.09	0.40	5.33	5,930.09	9.97 S	22.65 W	9.78	0.21
6019.45	0.41	22.09	6,018.44	9.37 S	22.51 W	9.18	0.13
6107.81	0.57	15.25	6,106.80	8.66 S	22.27 W	8.46	0.19
6196.17	0.51	10.67	6,195.16	7.85 S	22.08 W	7.65	0.08
6240.00	0.29	359.38	6,238.99	7.54 S	22.05 W	7.35	0.53
6286.00	1.85	198.51	6,284.98	8.13 S	22.29 W	7.94	4.62
6329.00	4.00	195.82	6,327.92	10.23 S	22.91 W	10.03	5.00
6377.00	8.58	205.54	6,375.62	15.07 S	24.91 W	14.86	9.76
6420.00	11.33	199.80	6,417.97	21.95 S	27.73 W	21.70	6.80
6465.00	16.44	195.65	6,461.64	32.25 S	30.95 W	31.97	11.56
6508.00	23.92	190.35	6,501.97	46.70 S	34.16 W	46.40	17.90
6551.00	30.28	185.92	6,540.24	66.09 S	36.85 W	65.76	15.51
6596.00	36.15	185.26	6,577.87	90.61 S	39.24 W	90.27	13.06
6639.00	40.29	181.44	6,611.65	117.16 S	40.75 W	116.80	11.08
6684.00	43.71	180.43	6,645.08	147.26 S	41.23 W	146.89	7.75
6727.00	44.30	178.26	6,676.01	177.12 S	40.89 W	176.76	3.76
6771.00	46.03	176.49	6,707.04	208.29 S	39.45 W	207.94	4.86
6817.00	47.46	175.43	6,738.56	241.70 S	37.08 W	241.37	3.53
6859.00	50.14	176.92	6,766.23	273.23 S	34.98 W	272.91	6.93



DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100)
6905.00	53.57	176.44	6,794.63	309.34 S	32.88 W	309.04	7.50
6951.00	57.07	175.97	6,820.81	347.08 S	30.38 W	346.80	7.65
6996.00	60.56	175.25	6,844.10	385.45 S	27.43 W	385.20	7.88
7042.00	64.96	174.99	6,865.16	426.19 S	23.95 W	425.97	9.57
7088.00	68.07	175.32	6,883.49	468.23 S	20.38 W	468.03	6.80
7133.00	71.05	175.92	6,899.20	510.27 S	17.17 W	510.10	6.74
7179.00	76.03	174.91	6,912.23	554.22 S	13.63 W	554.08	11.04
7225.00	80.42	174.10	6,921.61	599.04 S	9.32 W	598.93	9.68
7269.00	84.16	175.23	6,927.52	642.44 S	5.27 W	642.37	8.88
7310.00	87.16	174.19	6,930.62	683.15 S	1.50 W	683.11	7.74
7356.00	89.78	175.60	6,931.84	728.94 S	2.59 E	728.94	6.48
7402.00	91.17	175.67	6,931.46	774.81 S	6.09 E	774.83	3.02
7447.00	91.39	175.33	6,930.45	819.66 S	9.62 E	819.71	0.90
7493.00	88.76	176.56	6,930.39	865.54 S	12.87 E	865.62	6.30
7533.00	88.80	176.83	6,931.24	905.46 S	15.17 E	905.56	0.68
7579.00	88.83	176.49	6,932.20	951.37 S	17.85 E	951.49	0.75
7624.00	87.81	179.06	6,933.52	996.32 S	19.60 E	996.45	6.15
7713.00	89.44	179.84	6,935.65	1,085.28 S	20.45 E	1085.42	2.03
7801.00	89.63	179.16	6,936.36	1,173.28 S	21.22 E	1173.42	0.80
7890.00	90.15	179.11	6,936.53	1,262.26 S	22.56 E	1262.41	0.59
7981.00	88.86	179.46	6,937.31	1,353.25 S	23.70 E	1353.41	1.47
8072.00	89.29	179.31	6,938.78	1,444.23 S	24.68 E	1444.40	0.50
8163.00	89.91	178.61	6,939.42	1,535.22 S	26.34 E	1535.39	1.03
8251.00	90.43	179.91	6,939.16	1,623.21 S	27.48 E	1623.38	1.60
8339.00	89.38	180.13	6,939.30	1,711.20 S	27.44 E	1711.38	1.22
8428.00	89.72	180.64	6,940.00	1,800.20 S	26.84 E	1800.37	0.69
8519.00	90.12	180.57	6,940.12	1,891.19 S	25.88 E	1891.35	0.45
8606.00	90.71	180.40	6,939.49	1,978.19 S	25.14 E	1978.33	0.70
8694.00	91.05	179.44	6,938.14	2,066.18 S	25.26 E	2066.32	1.15
8780.00	91.08	179.71	6,936.54	2,152.16 S	25.90 E	2152.30	0.31
8869.00	91.11	179.46	6,934.84	2,241.14 S	26.54 E	2241.29	0.28
8957.00	90.99	179.48	6,933.23	2,329.12 S	27.35 E	2329.27	0.14
9046.00	91.48	179.65	6,931.31	2,418.10 S	28.03 E	2418.25	0.58
9134.00	92.66	179.84	6,928.13	2,506.04 S	28.42 E	2506.19	1.35
9226.00	91.64	179.67	6,924.69	2,597.97 S	28.81 E	2598.13	1.12
9313.00	91.79	179.53	6,922.09	2,684.93 S	29.42 E	2685.09	0.24
9401.00	92.75	179.43	6,918.60	2,772.86 S	30.21 E	2773.02	1.09
9492.00	91.88	178.70	6,914.92	2,863.77 S	31.70 E	2863.94	1.25
9577.00	92.50	178.78	6,911.67	2,948.69 S	33.56 E	2948.87	0.73
9669.00	91.66	180.13	6,908.33	3,040.62 S	34.43 E	3040.80	1.73
9756.00	91.33	180.15	6,906.06	3,127.59 S	34.22 E	3127.77	0.39
9848.00	91.73	179.69	6,903.60	3,219.56 S	34.34 E	3219.73	0.67
9938.00	91.27	177.86	6,901.25	3,309.50 S	36.27 E	3309.69	2.10
10025.00	91.54	177.92	6,899.12	3,396.41 S	39.48 E	3396.63	0.33
10115.00	91.42	176.91	6,896.79	3,486.29 S	43.54 E	3486.54	1.13

**DIRECTIONAL SURVEY DATA**

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
10204.00	91.17	179.14	6,894.78	3,575.21 S	46.61 E	3575.48	2.53
10294.00	91.95	179.05	6,892.33	3,665.16 S	48.03 E	3665.45	0.86
10378.00	90.80	179.86	6,890.31	3,749.13 S	48.82 E	3749.42	1.67
10463.00	91.14	180.79	6,888.87	3,834.12 S	48.34 E	3834.40	1.16
10551.00	92.19	181.18	6,886.31	3,922.07 S	46.83 E	3922.33	1.27
10643.00	91.24	181.16	6,883.56	4,014.01 S	44.96 E	4014.25	1.04
10734.00	89.88	180.94	6,882.68	4,104.99 S	43.30 E	4105.21	1.51
10823.00	90.31	182.11	6,882.53	4,193.95 S	40.93 E	4194.15	1.41
10908.00	91.27	182.07	6,881.36	4,278.89 S	37.83 E	4279.05	1.13
10998.00	91.67	182.23	6,879.06	4,368.79 S	34.46 E	4368.93	0.48
11085.00	90.77	181.68	6,877.21	4,455.72 S	31.49 E	4455.83	1.21
11173.00	92.01	182.10	6,875.08	4,543.65 S	28.60 E	4543.72	1.48
11206.00	92.32	181.37	6,873.83	4,576.61 S	27.60 E	4576.68	2.40
11258.00	92.32	181.37	6,871.73	4,628.55 S	26.35 E	4628.60	0.00

SURVEY FOOTER

SURVEYS CALCULATED USING THE SHORT COLLAR METHOD

TIE-ON ASSUMED VERTICAL AT SURFACE

SURVEYS FROM SURFACE TO 6196.17' MD PROVIDED BY GYRODATA DIRECTIONAL SURVEY.

SURVEYS FROM 6240' MD TO 11206' MD PROVIDED BY SPERRY DRILLING MWD

SURVEY AT 11206' MD IS PROJECTED TO TD AT 11258' MD

SPERRY DRILLING ENGINEERS: O. OMOTOSO, DANIEL OBI & J. COBBS

DIRECTIONAL SURVEY DATA NOTES

- Calculation based on minimum curvature method.
- Survey coordinates relative to well system reference point.
- TVD values given relative to drilling measurement point.
- Vertical section relative to well head.
- Vertical section is computed along a direction of 179.50 degrees (Grid)
- A total correction of 6.61 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 11,258.00 feet is 4,628.63 feet along 179.67 degrees (Grid)

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