30-015-39790

Devon Energy
Beryl 33 Federal 1H
Eddy County, NM
Cactus 126
API# 30-015-39790

April 3, 2012 – April 15, 2012
HD-MJ-0009332013

Sperry Drilling
MWD Survey Report

Submitted by Daniel Little
3950 Interwood South Parkway
Houston, TX 77032
Ph: 281.986.4400

HALLIBURTON

Drilling and Formation Evaluation

Survey Report for Devon Energy

Rig:	Cactus 126
Well Name:	Beryl 33 Federal 1H
Field Name:	Hackberry Lake (Bone Springs)
Country:	U.S.A.
Job Number:	HD-XX-0009332013
Job Start Date:	03-Apr-12
API Number:	30-015-39790

Table of Contents

HALLIBURTON

Directional Survey Data

Tie-in

0.00	0.00	0.00	0.00	0.00 N	0.00 E	

	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	DogLeg (°/100ft)
141.06	0.15	38.49	141.06	0.14 N	0.11 E	0.14	0.11
236.06	0.13	85.26	236.06	0.25 N	0.30 E	0.25	0.12
331.06	0.66	75.42	331.06	0.40 N	0.94 E	0.40	0.56
426.06	0.77	83.99	426.05	0.60 N	2.10 E	0.60	0.16
521.06	1.12	74.45	521.04	0.92 N	3.63 E	0.91	0.40
616.06	1.51	76.81	616.01	1.45 N	5.74 E	1.45	0.41
711.06	1.57	80.70	710.98	1.95 N	8.25 E	1.94	0.13
806.06	1.91	64.53	805.93	2.84 N	10.96 E	2.83	0.63
901.06	2.13	69.44	900.87	4.14 N	14.04 E	4.13	0.29
996.06	2.49	85.95	995.80	4.91 N	17.75 E	4.89	0.79
1091.06	2.03	86.46	1,090.72	5.16 N	21.49 E	5.13	0.48
1186.06	1.59	77.07	1,185.68	5.55 N	24.46 E	5.53	0.56
1281.06	1.17	63.93	1,280.65	6.28 N	26.61 E	6.25	0.55
1376.06	1.25	59.02	1,375.63	7.24 N	28.37 E	7.21	0.14
1471.06	1.20	54.19	1,470.61	8.35 N	30.07 E	8.32	0.12
1566.06	1.00	56.55	1,565.59	9.39 N	31.56 E	9.36	0.22
1661.06	0.82	47.18	1,660.58	10.31 N	32.75 E	10.27	0.25
1756.06	0.64	45.72	1,755.57	11.14 N	33.63 E	11.11	0.19
1851.06	0.48	39.95	1,850.57	11.82 N	34.27 E	11.78	0.18
1946.06	0.37	269.29	1,945.56	12.12 N	34.22 E	12.08	0.81
2041.06	0.47	298.79	2,040.56	12.30 N	33.57 E	12.27	0.25
2136.06	0.65	271.53	2,135.56	12.50 N	32.69 E	12.47	0.33
2231.06	0.64	273.33	2,230.55	12.55 N	31.62 E	12.52	0.02
2326.06	0.74	279.72	2,325.54	12.68 N	30.49 E	12.65	0.13
2421.06	0.59	302.56	2,420.54	13.05 N	29.47 E	13.02	0.32
2516.06	0.49	291.86	2,515.53	13.46 N	28.68 E	13.43	0.15
2611.06	0.21	307.27	2,610.53	13.72 N	28.16 E	13.69	0.31
2706.06	0.28	58.11	2,705.53	13.95 N	28.22 E	13.92	0.43
2801.06	0.39	53.39	2,800.53	14.26 N	28.68 E	14.23	0.12
2896.06	0.37	314.46	2,895.53	14.67 N	28.72 E	14.64	0.61
2991.06	0.96	296.19	2,990.52	15.24 N	27.79 E	15.21	0.65
3086.06	0.75	271.90	3,085.51	15.61 N	26.45 E	15.58	0.44
3181.06	0.78	275.00	3,180.50	15.69 N	25.19 E	15.66	0.05
3276.06	0.77	287.89	3,275.49	15.94 N	23.93 E	15.91	0.18
3371.06	0.32	288.39	3,370.49	16.22 N	23.08 E	16.20	0.47
3466.06	0.12	286.09	3,465.49	16.33 N	22.73 E	16.31	0.21
3561.06	0.12	209.08	3,560.49	16.27 N	22.58 E	16.25	0.16
3656.06	0.19	215.55	3,655.49	16.06 N	22.44 E	16.03	0.08
3751.06	0.11	210.25	3,750.49	15.85 N	22.31 E	15.83	0.09
3846.06	0.19	8.25	3,845.49	15.93 N	22.28 E	15.90	0.31
3941.06	0.27	0.99	3,940.49	16.31 N	22.31 E	16.28	0.09
4036.06	0.39	357.81	4,035.49	16.85 N	22.30 E	16.83	0.13

HALLIBURTON

Directional Survey Data

	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
4131.06	0.44	356.33	4,130.48	17.54 N	22.27 E	17.52	0.05
4226.06	0.55	355.30	4,225.48	18.36 N	22.21 E	18.34	0.12
4321.06	0.62	342.62	4,320.47	19.30 N	22.01 E	19.28	0.15
4416.06	0.62	352.88	4,415.47	20.30 N	21.80 E	20.28	0.12
4511.06	0.74	10.46	4,510.46	21.42 N	21.84 E	21.39	0.25
4606.06	0.82	5.70	4,605.45	22.70 N	22.02 E	22.67	0.11
4701.06	0.89	352.68	4,700.44	24.11 N	22.00 E	24.08	0.22
4796.06	0.93	354.42	4,795.43	25.60 N	21.83 E	25.58	0.05
4891.06	1.00	351.99	4,890.42	27.19 N	21.64 E	27.17	0.09
4986.06	1.02	359.58	4,985.40	28.86 N	21.52 E	28.84	0.14
5081.06	0.93	348.81	5,080.39	30.46 N	21.36 E	30.44	0.21
5176.06	1.10	345.90	5,175.37	32.10 N	20.99 E	32.08	0.19
5271.06	1.48	330.20	5,270.35	34.05 N	20.16 E	34.03	0.54
5366.06	1.63	330.46	5,365.32	36.29 N	18.88 E	36.27	0.16
5461.06	1.54	323.87	5,460.28	38.50 N	17.46 E	38.48	0.21
5556.06	1.66	324.57	5,555.24	40.65 N	15.91 E	40.63	0.13
5651.06	1.71	321.44	5,650.20	42.88 N	14.23 E	42.86	0.11
5746.06	1.80	321.64	5,745.16	45.16 N	12.42 E	45.14	0.09
5841.06	2.39	318.32	5,840.09	47.81 N	10.18 E	47.80	0.63
5936.06	3.08	312.92	5,934.98	51.02 N	6.99 E	51.02	0.77
6031.06	3.32	316.07	6,029.84	54.74 N	3.21 E	54.74	0.31
6126.06	3.15	322.16	6,124.68	58.79 N	0.30 W	58.79	0.40
6221.06	2.99	314.23	6,219.55	62.58 N	3.67 W	62.58	0.48
6316.06	2.62	307.48	6,314.44	65.62 N	7.17 W	65.63	0.52
6411.06	2.69	302.38	6,409.33	68.14 N	10.78 W	68.15	0.26
6506.06	2.37	305.26	6,504.24	70.47 N	14.26 W	70.48	0.36
6601.06	1.86	303.77	6,599.18	72.46 N	17.15 W	72.48	0.54
6696.06	1.65	311.63	6,694.13	74.22 N	19.45 W	74.24	0.34
6791.06	1.40	301.37	6,789.10	75.74 N	21.47 W	75.76	0.39
6886.06	1.39	321.49	6,884.07	77.24 N	23.17 W	77.27	0.51
6981.06	1.47	308.20	6,979.04	78.90 N	24.85 W	78.92	0.36
7076.06	1.45	304.19	7,074.01	80.33 N	26.80 W	80.35	0.11
7171.06	1.38	278.43	7,168.98	81.17 N	28.93 W	81.20	0.67
7266.06	2.25	269.53	7,263.93	81.32 N	31.92 W	81.36	0.96
7448.00	14.30	325.06	7,443.77	99.80 N	48.44 W	99.85	7.23
7479.00	17.67	327.39	7,473.57	106.90 N	53.17 W	106.95	11.05
7511.00	21.15	329.75	7,503.75	115.98 N	58.69 W	116.04	11.15
7543.00	23.02	331.66	7,533.40	126.47 N	64.57 W	126.54	6.27
7574.00	26.23	334.72	7,561.58	138.01 N	70.38 W	138.08	11.13
7605.00	30.02	336.61	7,588.92	151.32 N	76.38 W	151.40	12.55
7637.00	32.69	338.37	7,616.24	166.70 N	82.75 W	166.79	8.85
7668.00	34.63	340.05	7,642.04	182.77 N	88.84 W	182.86	6.91
7700.00	35.42	343.91	7,668.25	200.23 N	94.51 W	200.33	7.37
7732.00	36.01	348.41	7,694.24	218.35 N	98.97 W	218.46	8.41
7764.00	36.94	353.24	7,719.97	237.12 N	101.99 W	237.23	9.42

HALLIBURTON

Directional Survey Data

	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	DegLeg (°/100')
7795.00	39.06	356.78	7,744.40	256.13 N	103.64 W	256.24	9.81
7827.00	41.86	358.18	7,768.75	276.87 N	104.55 W	276.98	9.19
7858.00	44.88	358.81	7,791.28	298.15 N	105.10 W	298.26	9.84
7890.00	47.32	0.14	7,813.47	321.20 N	105.31 W	321.31	8.18
7922.00	48.95	2.69	7,834.83	345.02 N	104.71 W	345.13	7.83
7953.00	51.18	5.88	7,854.73	368.72 N	102.92 W	368.82	10.69
7985.00	54.59	8.35	7,874.04	394.03 N	99.75 W	394.13	12.30
8017.00	58.01	9.67	7,891.79	420.32 N	95.57 W	420.42	11.22
8049.00	61.09	10.63	7,908.01	447.47 N	90.71 W	447.56	9.95
8080.00	63.96	10.06	7,922.31	474.52 N	85.77 W	474.61	9.43
8112.00	66.22	8.11	7,935.79	503.18 N	81.19 W	503.26	8.95
8143.00	69.27	7.96	7,947.53	531.58 N	77.18 W	531.66	9.85
8175.00	72.16	8.11	7,958.10	561.49 N	72.96 W	561.56	9.04
8207.00	75.49	7.79	7,967.01	591.92 N	68.71 W	591.99	10.47
8238.00	78.94	7.89	7,973.87	621.86 N	64.59 W	621.93	11.14
8270.00	81.67	7.18	7,979.25	653.13 N	60.45 W	653.19	8.81
8302.00	85.12	6.42	7,982.93	684.69 N	56.69 W	684.75	11.02
8333.00	88.63	6.48	7,984.62	715.44 N	53.22 W	715.50	11.35
8364.00	90.13	5.77	7,984.96	746.26 N	49.91 W	746.32	5.34
8459.00	89.85	4.45	7,984.98	840.88 N	41.45 W	840.93	1.43
8554.00	89.78	5.89	7,985.28	935.49 N	32.89 W	935.53	1.52
8649.00	89.17	5.01	7,986.16	1,030.06 N	23.87 W	1030.09	1.13
8744.00	90.22	4.06	7,986.67	1,124.76 N	16.37 W	1124.78	1.49
8839.00	89.66	4.13	7,986.77	1,219.52 N	9.58 W	1219.53	0.59
8934.00	89.91	2.48	7,987.13	1,314.35 N	4.10 W	1314.36	1.76
9029.00	90.83	2.84	7,986.52	1,409.25 N	0.31 E	1409.25	1.05
9124.00	92.01	1.61	7,984.16	1,504.14 N	4.00 E	1504.14	1.80
9218.00	91.95	0.27	7,980.91	1,598.07 N	5.54 E	1598.07	1.42
9313.00	91.51	1.58	7,978.05	1,693.02 N	7.07 E	1693.01	1.45
9408.00	90.77	359.06	7,976.16	1,787.99 N	7.59 E	1787.98	2.76
9503.00	90.19	359.49	7,975.37	1,882.98 N	6.40 E	1882.97	0.77
9598.00	89.47	358.09	7,975.65	1,977.95 N	4.40 E	1977.95	1.66
9693.00	89.44	359.40	7,976.55	2,072.92 N	2.31 E	2072.92	1.38
9788.00	90.57	359.25	7,976.53	2,167.91 N	1.20 E	2167.91	1.20
9882.00	89.23	0.41	7,976.70	2,261.91 N	0.92 E	2261.91	1.89
9977.00	89.38	0.64	7,977.85	2,356.90 N	1.79 E	2356.90	0.29
10072.00	90.68	1.05	7,977.79	2,451.89 N	3.19 E	2451.88	1.43
10167.00	91.73	359.06	7,975.79	2,546.86 N	3.28 E	2546.85	2.37
10261.00	91.61	357.87	7,973.05	2,640.78 N	0.76 E	2640.78	1.28
10356.00	90.75	358.02	7,971.10	2,735.70 N	2.65 W	2735.70	0.92
10451.00	90.77	358.62	7,969.84	2,830.65 N	5.43 W	2830.66	0.63
10545.00	90.19	357.66	7,969.05	2,924.60 N	8.48 W	2924.60	1.20
10640.00	90.03	358.78	7,968.87	3,019.55 N	11.44 W	3019.56	1.19
10734.00	91.51	0.30	7,967.61	3,113.53 N	12.20 W	3113.54	2.26
10829.00	92.25	359.86	7,964.48	3,208.48 N	12.07 W	3208.49	0.91

HALLIBURTON

Directional Survey Data

	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
10923.00	92.47	358.84	7,960.61	3,302.39 N	13.14 W	3302.41	1.11
11018.00	93.12	359.33	7,955.98	3,397.27 N	14.66 W	3397.28	0.87
11113.00	91.88	357.95	7,951.84	3,492.15 N	16.91 W	3492.16	1.95
11207.00	92.35	359.28	7,948.36	3,586.05 N	19.18 W	3586.07	1.49
11302.00	90.93	358.10	7,945.65	3,680.98 N	21.35 W	3681.00	1.94
11397.00	90.58	357.70	7,944.40	3,775.91 N	24.83 W	3775.94	0.55
11491.00	90.12	357.75	7,943.81	3,869.84 N	28.56 W	3869.86	0.49
11586.00	89.51	358.10	7,944.12	3,964.77 N	32.00 W	3964.80	0.74
11681.00	89.69	357.19	7,944.79	4,059.69 N	35.91 W	4059.72	0.97
11776.00	88.76	357.79	7,946.07	4,154.59 N	40.07 W	4154.63	1.16
11870.00	88.58	358.67	7,948.25	4,248.52 N	42.98 W	4248.56	0.96
11965.00	87.68	0.45	7,951.35	4,343.46 N	43.71 W	4343.50	2.09
12059.00	87.19	2.18	7,955.55	4,437.34 N	41.56 W	4437.38	1.91
12154.00	87.96	3.52	7,959.57	4,532.13 N	36.85 W	4532.17	1.63
12249.00	89.20	4.44	7,961.92	4,626.87 N	30.26 W	4626.90	1.62
12344.00	89.25	4.01	7,963.21	4,721.60 N	23.26 W	4721.63	0.45
12439.00	88.55	4.38	7,965.03	4,816.33 N	16.32 W	4816.35	0.83
12464.00	88.05	3.90	7,965.77	4,841.25 N	14.52 W	4841.27	2.76
12522.00	88.05	3.90	7,967.74	4,899.09 N	10.58 W	4899.10	0.01

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 359.94 degrees (Grid)
- A total correction of 7.71 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 12,522.00 feet is 4,899.10 feet along 359.88 degrees (Grid)

SURVEYS ARE CALCULATED USING THE SHORT COLLAR METHOD.
WELL ASSUMED VERTICAL AT THE WELLHEAD.

SURVEYS FROM 141.06' MD TO 7266.06' MD PROVIDED BY VAUGHN ENERGY SERVICES.
SURVEYS FROM 7448' MD TO 12464' MD PROVIDED BY SPERRY DRILLING.

SURVEY AT 12464' MD HAS BEEN PROJECTED TO TD AT 12522' MD.
SPERRY DRILLING ENGINEERS: D. LITTLE, R. MEDALLA.

HALLIBURTON

WARRANTY

HALLIBURTON ENERGY SERVICES, INC. WILL USE ITS BEST EFFORTS TO FURNISH CUSTOMERS WITH ACCURATE INFORMATION AND INTERPRETATIONS THAT ARE PART OF, AND INCIDENT TO, THE SERVICES PROVIDED. HOWEVER, HALLIBURTON ENERGY SERVICES, INC. CANNOT AND DOES NOT WARRANT THE ACCURACY OR CORRECTNESS OF SUCH INFORMATION AND INTERPRETATIONS. UNDER NO CIRCUMSTANCES SHOULD ANY SUCH INFORMATION OR INTERPRETATION BE RELIED UPON AS THE SOLE BASIS FOR ANY DRILLING, COMPLETION, PRODUCTION, OR FINANCIAL DECISION OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING VENTURE, DRILLING RIG OR ITS CREW OR ANY THIRD PARTY. THE CUSTOMER HAS FULL RESPONSIBILITY FOR ALL DRILLING, COMPLETION, AND PRODUCTION OPERATION. HALLIBURTON ENERGY SERVICES, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE SERVICES RENDERED. IN NO EVENT WILL HALLIBURTON ENERGY SERVICES, INC. SERVICES BE LIABLE FOR FAILURE TO OBTAIN ANY PARTICULAR RESULTS OR FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OF ANY INFORMATION OR INTERPRETATION PROVIDED BY HALLIBURTON ENERGY SERVICES, INC.

HALLIBURTON

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HALLIBURTON

3950 Interwood South Pkwy Houston, TX 77032
Phone 281-986-4416 Fax 281-986-4499

April 18, 2012

Devon Energy Production, Co
Attn: Judy Barnett
20 N. Broadway
Oklahoma City, Ok
73102

Final Survey for:

Well Name:	Beryl 33 Federal 1H
County:	Eddy County, NM
Rig Name:	Cactus 126
Sperry Job #:	9332013

Judy Barnett

Enclosed you will find the following survey information on the above referenced well:

0 *Survey Report(s)*
0 *MWD End of Well Report(s)*
2 Certified Letters for New Mexico NMOCD

We appreciate the opportunity to serve you and welcome any comments or suggestions that you may have regarding our service. You may contact your local sales representative, **Ryan Annesley @ 405-231-1868**
Should you have any questions or require additional information regarding the enclosed information, please do not hesitate to contact me at (281) 986-4400.

Once again, we thank you for your business.

Sincerely,

Rachell Ortiz
Sperry Drilling Services

HALLIBURTON

3950 Interwood South Parkway • Houston, TX 77032

PHONE 281.986.4400 • FAX 281.986.4499

State of New Mexico, Eddy County

I, Daniel Little, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of April 3, 2012 through April 15, 2012 I did conduct or supervise the taking of a MWD Directional surveys for the well Beryl 33 Federal 1H from 7448' MD to 12464' 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 this survey was conducted at the request of Devon Energy for the Beryl 33 Federal 1H well, API No. 30-015-39790 in Eddy 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).

Daniel Little
MWD Field Engineer