

Results of Directional Survey

API number:	30-025-40422			
OGRID:		Operator:	DEVON ENERGY PRODUCTION COMPANY, LP	
		Property:	TIN CUP 35 STATE COM	# 2H

surface	ULSTR:	E	36	T 18S	R 34E
				2130 FNL	990 FWL

BH Loc	ULSTR:	E	35	T 18S	R 34E
15635 MD		9831.0	TVD	2049 FNL	328 FWL
					4952 FEL

Top Perf/OH	ULSTR:	E	36	T 18S	R 34E
10011 MD		9821.7	TVD	2018 FNL	659 FWL

Bot Perf/OH	ULSTR:	E	35	T 18S	R 34E
15577 MD		9829.2	TVD	2051 FNL	386 FWL
					4894 FEL

	MD	N/S	E/W	VD
	9980	111.90	-301.79	9811.85
TOP PERFS/OH	10011	112.32	-331.17	9821.72
	10012	112.33	-332.12	9822.04
	15541	77.65	-5848.34	9828.00
BOT PERFS/OH	15577	78.84	-5884.30	9829.16
	15635	80.76	-5942.24	9831.03

NEXT TO LAST	15541	77.65	-5848.34	9828.00
LAST READING	15635	80.76	-5942.24	9831.03
TD	15635	80.76	-5942.24	9831.03

Surface Location	2130 FN	990 FW
Projected BHL	2049 FN	4952 FE
Location of		
Top Perfs/OH	2018 FN	659 FW
Bottom Perfs/OH	2051 FN	4894 FE

SUMMARY of Subsurface Locations

Surface Location	E-36-18S-34E	2130 FN	990 FW	Vert. Depth
Top Perfs/OH	E-36-18S-34E	2018 FN	659 FW	9821.72
Bottom Perfs/OH	E-35-18S-34E	2051 FN	4894 FE	9829.16
Projected TD	E-35-18S-34E	2049 FN	4952 FE	9831.03

AUG 29 2012

Devon Energy Production Company, L.P.
Tin Cup 36 State Com 2H
Lea County, New Mexico
H&P 223
API# 30-025-40422-0000

April 24, 2012 – May 16, 2012
HD-XX-0009331920

HOBBS OCD

AUG 16 2012

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Sperry Drilling
MWD Survey Report

SUR: E-36-18s-34e, 2130/N & 990/W
BHL: E-35-18s-34e, 2049/N & 4952/E
API # 30-025-40422

Submitted by Richard Ago
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Drilling and Formation
Evaluation

HALLIBURTON

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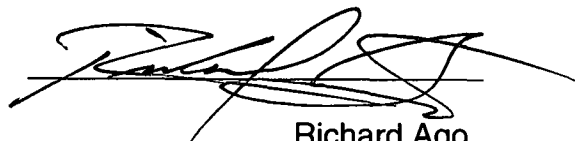
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AUG 16 2012

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State of New Mexico, Lea County

I, Richard Ago, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of 24 April 2012 through 16 May 2012, I did conduct or supervise the taking of a DGWD Directional Survey for the Tin Cup 36 State Com 2H well from a depth of 9001' MD to a depth of 15541' 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 Production Company, L.P. for the Tin Cup 36 State Com 2H well API No. 30-025-40422-0000 well in Lea County, NM. 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).



Richard Ago
Field Engineer

Survey Report for

Devon Energy Production Company, L.P.

Rig:	H&P 223
Well Name:	Tin Cup 36 State Com 2H
Field Name:	Tin Cup 36 State Com
Country:	U.S.A.
Job Number:	HD-XX-0009331920
Job Start Date:	25-Apr-12
API Number:	30-025-40422

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General Information

Company: Devon Energy Production Company, L.P.
Rig: H&P 223
Well: Tin Cup 36 State Com 2H
Field: Tin Cup 36 State Com
State: New Mexico
County: Lea County,
Country: U.S.A.
API Number: 30-025-40422
Sperry Job Number: HD-XX-0009331920
Job Start Date: 25-Apr-12
Job End Date: 16-May-12
North Reference: Grid
Total Correction (deg) : 7.137
Dip Angle (deg) : 60.588
Total Magnetic Field (nT) : 48859
Date of Magnetic Data: 25 April, 2012
Well Head coordinates N: 32 deg. 42 min 20.32 sec North
Well Head coordinates E: 103 deg. 31 min 8.99 sec West
Vertical section direction (deg): 270.94
Unit Number: 11579705
MWD Engineers: Richard Ago, LaKendrick Smith

Company Representatives: Ronnie Barret
Company Geologist: Zach Poland,

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')
95.90	0.14	160.62	95.90	0.11 S	0.04 E	-0.04	0.15
276.20	0.22	175.05	276.20	0.66 S	0.14 E	-0.15	0.05
457.10	0.20	155.52	457.10	1.30 S	0.30 E	-0.32	0.04
639.20	0.23	215.23	639.20	1.88 S	0.22 E	-0.25	0.12
821.90	0.26	217.05	821.90	2.51 S	0.24 W	0.20	0.02
1003.90	0.23	230.11	1,003.89	3.08 S	0.77 W	0.72	0.03
1192.80	0.26	235.31	1,192.79	3.57 S	1.41 W	1.35	0.02
1381.70	0.19	205.57	1,381.69	4.09 S	1.90 W	1.83	0.07
1570.70	0.21	168.06	1,570.69	4.71 S	1.96 W	1.88	0.07
1759.60	0.36	214.38	1,759.59	5.54 S	2.22 W	2.13	0.14
1948.60	0.30	206.49	1,948.58	6.48 S	2.78 W	2.67	0.04
2137.50	0.45	176.39	2,137.48	7.66 S	2.95 W	2.83	0.13
2326.40	0.48	183.77	2,326.37	9.19 S	2.96 W	2.81	0.04
2515.40	0.53	186.61	2,515.37	10.85 S	3.11 W	2.93	0.03
2704.30	0.61	159.50	2,704.26	12.66 S	2.86 W	2.65	0.15
2893.30	0.83	92.61	2,893.25	13.66 S	1.14 W	0.92	0.43
3082.20	1.07	68.91	3,082.12	13.09 S	1.87 E	-2.09	0.24
3271.10	1.20	60.15	3,270.98	11.47 S	5.23 E	-5.42	0.11
3460.10	0.81	49.23	3,459.95	9.61 S	7.96 E	-8.12	0.23
3649.00	0.49	52.71	3,648.84	8.25 S	9.61 E	-9.75	0.17
3838.00	0.39	26.47	3,837.84	7.18 S	10.54 E	-10.66	0.12
4026.90	0.41	339.86	4,026.73	5.97 S	10.60 E	-10.69	0.17
4215.80	0.41	331.62	4,215.63	4.75 S	10.04 E	-10.12	0.03
4404.80	0.43	317.72	4,404.62	3.63 S	9.25 E	-9.30	0.05
4593.70	0.56	317.21	4,593.52	2.42 S	8.14 E	-8.18	0.07
4782.70	0.77	309.20	4,782.50	0.94 S	6.53 E	-6.54	0.12
4971.60	0.81	319.18	4,971.38	0.87 N	4.67 E	-4.66	0.08
5160.50	0.89	305.67	5,160.26	2.73 N	2.61 E	-2.56	0.11
5349.50	0.79	318.94	5,349.24	4.57 N	0.56 E	-0.49	0.12
5538.40	0.65	325.85	5,538.13	6.44 N	0.90 W	1.00	0.09
5727.40	0.44	326.96	5,727.12	7.94 N	1.89 W	2.02	0.11
5916.30	0.24	324.43	5,916.02	8.87 N	2.52 W	2.66	0.11
6105.20	0.40	18.93	6,104.91	9.81 N	2.54 W	2.70	0.17
6294.20	0.60	45.89	6,293.91	11.13 N	1.61 W	1.79	0.16
6483.10	0.53	61.75	6,482.80	12.23 N	0.13 W	0.33	0.09
6672.10	0.52	41.92	6,671.79	13.28 N	1.21 E	-0.99	0.10
6861.00	0.72	357.23	6,860.68	15.10 N	1.73 E	-1.48	0.27
7049.90	0.89	7.80	7,049.56	17.74 N	1.87 E	-1.58	0.12
7238.90	1.03	15.64	7,238.54	20.83 N	2.53 E	-2.18	0.10
7427.80	1.18	29.92	7,427.40	24.15 N	3.95 E	-3.56	0.17
7616.80	1.38	28.85	7,616.35	27.83 N	6.02 E	-5.57	0.11
7805.70	1.66	35.57	7,805.19	32.05 N	8.71 E	-8.18	0.18

Directional Survey Data

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100)
7994.60	2.62	51.76	7,993.95	36.95 N	13.69 E	-13.09	0.60
8183.60	2.41	49.97	8,182.77	42.18 N	20.13 E	-19.44	0.12
8372.50	3.19	84.30	8,371.46	45.26 N	28.40 E	-27.66	0.96
8561.50	2.70	96.97	8,560.21	45.24 N	38.05 E	-37.31	0.43
8750.40	2.53	51.82	8,748.93	47.27 N	45.75 E	-44.97	1.07
8935.90	2.69	33.08	8,934.24	53.45 N	51.34 E	-50.46	0.47
9001.00	2.59	17.88	8,999.27	56.14 N	52.63 E	-51.70	1.08
9096.00	3.25	28.45	9,094.15	60.55 N	54.57 E	-53.57	0.89
9191.00	1.87	44.21	9,189.06	64.02 N	56.93 E	-55.87	1.61
9285.00	2.44	46.53	9,282.99	66.50 N	59.45 E	-58.35	0.61
9317.00	2.60	25.43	9,314.96	67.62 N	60.26 E	-59.14	2.93
9348.00	4.55	349.06	9,345.90	69.47 N	60.33 E	-59.18	9.34
9380.00	7.17	327.90	9,377.73	72.40 N	59.03 E	-57.83	10.48
9411.00	10.22	313.06	9,408.38	75.92 N	55.99 E	-54.74	12.14
9443.00	14.36	310.08	9,439.64	80.41 N	50.88 E	-49.55	13.09
9475.00	19.10	304.46	9,470.28	85.93 N	43.52 E	-42.11	15.63
9507.00	23.61	299.82	9,500.08	92.08 N	33.64 E	-32.12	15.05
9538.00	28.10	296.71	9,527.97	98.46 N	21.73 E	-20.11	15.13
9569.00	32.18	293.30	9,554.77	105.01 N	7.61 E	-5.89	14.26
9601.00	34.94	287.98	9,581.44	111.21 N	8.93 W	10.76	12.60
9632.00	37.30	281.77	9,606.49	115.86 N	26.58 W	28.48	14.04
9664.00	40.57	276.29	9,631.39	118.98 N	46.43 W	48.37	14.84
9695.00	44.42	272.18	9,654.24	120.50 N	67.30 W	69.27	15.31
9727.00	47.24	269.92	9,676.54	120.91 N	90.25 W	92.22	10.15
9759.00	49.55	268.40	9,697.78	120.55 N	114.17 W	116.13	8.05
9790.00	52.37	268.11	9,717.31	119.82 N	138.23 W	140.18	9.11
9822.00	53.44	266.92	9,736.61	118.71 N	163.73 W	165.66	4.46
9854.00	56.68	266.15	9,754.94	117.13 N	189.91 W	191.81	10.32
9885.00	58.97	265.81	9,771.44	115.29 N	216.08 W	217.95	7.46
9917.00	62.88	266.71	9,786.99	113.47 N	243.99 W	245.82	12.46
9949.00	66.75	268.42	9,800.61	112.24 N	272.91 W	274.72	13.01
9980.00	70.70	270.19	9,811.85	111.90 N	301.79 W	303.59	13.81
10012.00	72.18	271.42	9,822.04	112.33 N	332.12 W	333.92	5.90
10043.00	71.78	272.48	9,831.63	113.33 N	361.58 W	363.39	3.51
10075.00	71.36	273.13	9,841.75	114.82 N	391.90 W	393.74	2.34
10106.00	72.65	273.32	9,851.32	116.48 N	421.34 W	423.19	4.20
10138.00	76.35	273.48	9,859.87	118.30 N	452.12 W	454.00	11.57
10169.00	80.26	273.03	9,866.16	120.03 N	482.42 W	484.32	12.71
10232.00	87.04	271.26	9,873.12	122.36 N	544.95 W	546.88	11.11
10264.00	90.49	270.73	9,873.81	122.92 N	576.93 W	578.87	10.93
10327.00	91.64	271.94	9,872.64	124.39 N	639.90 W	641.86	2.64
10422.00	90.90	271.63	9,870.54	127.34 N	734.83 W	736.82	0.85
10516.00	89.01	270.37	9,870.62	128.98 N	828.81 W	830.82	2.41
10611.00	88.49	269.50	9,872.69	128.87 N	923.79 W	925.78	1.07
10705.00	88.51	267.39	9,875.15	126.32 N	1,017.72 W	1019.65	2.24

Directional Survey Data

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100)
10800.00	88.83	268.74	9,877.35	123.11 N	1,112.63 W	1114.50	1.46
10895.00	91.11	271.16	9,877.40	123.03 N	1,207.62 W	1209.48	3.50
10989.00	90.25	270.29	9,876.29	124.22 N	1,301.60 W	1303.47	1.31
11084.00	90.83	269.97	9,875.39	124.44 N	1,396.60 W	1398.45	0.70
11178.00	89.26	270.69	9,875.32	124.98 N	1,490.59 W	1492.44	1.84
11273.00	92.16	269.35	9,874.14	125.02 N	1,585.57 W	1587.41	3.37
11368.00	91.08	270.25	9,871.45	124.69 N	1,680.53 W	1682.35	1.48
11462.00	92.75	269.72	9,868.31	124.66 N	1,774.48 W	1776.28	1.86
11557.00	92.41	269.80	9,864.03	124.26 N	1,869.38 W	1871.17	0.37
11652.00	91.17	269.32	9,861.07	123.53 N	1,964.33 W	1966.09	1.40
11746.00	94.04	268.49	9,856.79	121.73 N	2,058.20 W	2059.92	3.18
11840.00	93.40	267.71	9,850.69	118.62 N	2,151.95 W	2153.61	1.07
11935.00	93.31	267.09	9,845.14	114.31 N	2,246.69 W	2248.26	0.66
12030.00	88.98	268.13	9,843.24	110.35 N	2,341.57 W	2343.06	4.68
12124.00	89.32	268.16	9,844.63	107.31 N	2,435.51 W	2436.94	0.36
12219.00	94.80	269.69	9,841.22	105.53 N	2,530.39 W	2531.78	5.99
12314.00	92.95	269.34	9,834.80	104.73 N	2,625.16 W	2626.53	1.98
12409.00	91.81	268.99	9,830.85	103.34 N	2,720.07 W	2721.40	1.26
12503.00	90.19	269.18	9,829.22	101.84 N	2,814.04 W	2815.33	1.74
12598.00	86.85	268.78	9,831.67	100.15 N	2,908.98 W	2910.23	3.53
12692.00	85.74	269.34	9,837.75	98.62 N	3,002.77 W	3003.98	1.33
12787.00	86.26	270.62	9,844.37	98.59 N	3,097.54 W	3098.74	1.45
12882.00	87.14	271.10	9,849.84	100.01 N	3,192.37 W	3193.58	1.05
12976.00	88.40	271.47	9,853.50	102.12 N	3,286.27 W	3287.50	1.39
13071.00	89.82	272.11	9,854.98	105.09 N	3,381.21 W	3382.48	1.64
13165.00	90.04	271.45	9,855.10	108.01 N	3,475.16 W	3476.47	0.74
13260.00	89.75	270.24	9,855.27	109.41 N	3,570.15 W	3571.47	1.31
13355.00	90.80	270.04	9,854.81	109.64 N	3,665.15 W	3666.45	1.13
13449.00	92.23	270.39	9,852.33	109.99 N	3,759.11 W	3760.41	1.56
13544.00	93.21	270.69	9,847.82	110.88 N	3,854.00 W	3855.30	1.08
13638.00	92.10	269.83	9,843.47	111.30 N	3,947.90 W	3949.19	1.49
13733.00	92.04	269.27	9,840.04	110.55 N	4,042.83 W	4044.10	0.59
13827.00	92.22	269.42	9,836.55	109.48 N	4,136.76 W	4138.00	0.25
13922.00	91.85	268.86	9,833.17	108.06 N	4,231.69 W	4232.89	0.71
14017.00	90.09	268.85	9,831.56	106.16 N	4,326.65 W	4327.81	1.85
14111.00	88.09	268.81	9,833.06	104.24 N	4,420.62 W	4421.73	2.14
14206.00	88.05	269.16	9,836.26	102.55 N	4,515.55 W	4516.62	0.37
14300.00	87.13	269.19	9,840.21	101.19 N	4,609.45 W	4610.49	0.99
14427.00	88.12	268.76	9,845.48	98.92 N	4,736.32 W	4737.31	0.85
14522.00	88.00	267.64	9,848.70	95.94 N	4,831.22 W	4832.14	1.19
14616.00	88.99	266.87	9,851.17	91.44 N	4,925.08 W	4925.91	1.34
14711.00	91.54	266.52	9,850.73	85.96 N	5,019.91 W	5020.64	2.71
14805.00	93.89	266.88	9,846.28	80.56 N	5,113.64 W	5114.27	2.53
14899.00	94.70	266.71	9,839.23	75.32 N	5,207.23 W	5207.76	0.88
14993.00	95.22	268.98	9,831.10	71.81 N	5,300.80 W	5301.27	2.47

Directional Survey Data

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
15088.00	92.90	269.57	9,824.37	70.61 N	5,395.55 W	5395.98	2.52
15182.00	90.40	270.32	9,821.66	70.53 N	5,489.50 W	5489.92	2.78
15277.00	89.69	270.99	9,821.58	71.62 N	5,584.50 W	5584.92	1.02
15372.00	88.52	270.94	9,823.07	73.22 N	5,679.47 W	5679.91	1.24
15466.00	88.30	271.64	9,825.68	75.34 N	5,773.41 W	5773.87	0.77
15541.00	88.15	271.90	9,828.00	77.65 N	5,848.34 W	5848.82	0.40
15635.00	88.15	271.90	9,831.03	80.76 N	5,942.24 W	5942.76	0.00

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 270.94 degrees (Grid)
- A total correction of 7.14 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 15,635.00 feet is 5,942.78 feet along 270.78 degrees (Grid)

SURVEYS CALCULATED USING LONG COLLAR METHOD.
WELL ASSUMED VERTICAL AT WELLHEAD.
SURVEYS FROM 0' MD TO 8935.90' MD PROVIDED BY GYRODATA.
SURVEYS FROM 9001' MD TO 15541' MD PROVIDED BY SPERRY DRILLING.
SURVEY AT 15541' MD IS PROJECTED TO TD AT 15635' MD.
SPERRY DRILLING ENGINEERS: R. AGO, AND L. SMITH

WARRANTY

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HALLIBURTON

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