



Weatherford[®]

Drilling Services

Proposal



devon

HARROUN TRUST 31-30 FED COM #2H

EDDY COUNTY, NM

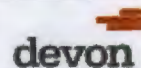
WELL FILE: **PLAN 2**

FEBRUARY 19, 2013

Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

Oil Conservation Division
Case No. _____
Exhibit No. 13



Harroun Trust 31-30 Fed Com #2H
Eddy Co, NM



Weatherford

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5837.97	0.00	0.00	5837.97	0.00	0.00	0.00	0.00	0.00	
3	6538.83	80.60	296.77	6329.80	187.73	-372.18	11.50	296.77	219.52	Tgt
4	7092.70	90.16	0.05	6379.16	634.73	-644.54	11.50	85.12	688.59	PBHL
5	13785.00	90.16	0.05	6360.00	7297.00	-639.20	0.00	0.00	7324.94	

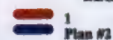
WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
HT 31-30 Fed Com #2H	0.00	0.00	456706.60	635686.20	32°15'18.68N	104°01'41.25W	N/A

TARGET DETAILS

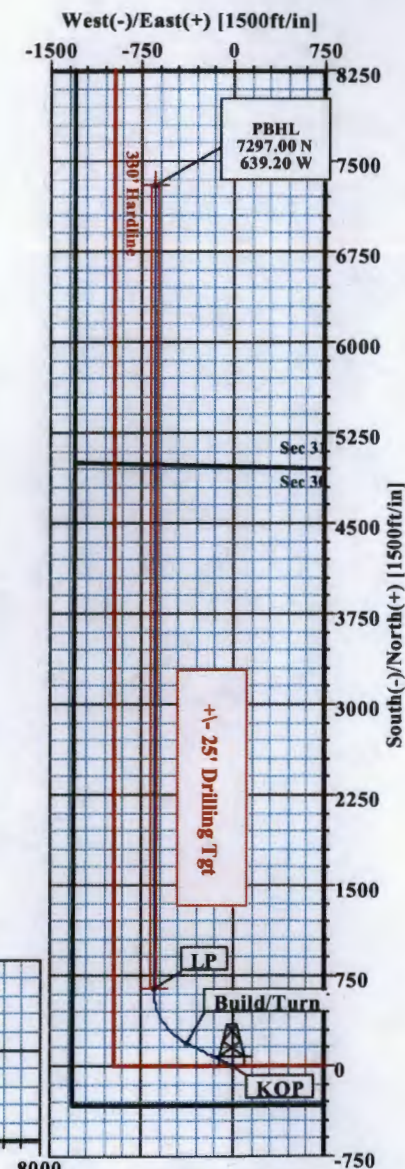
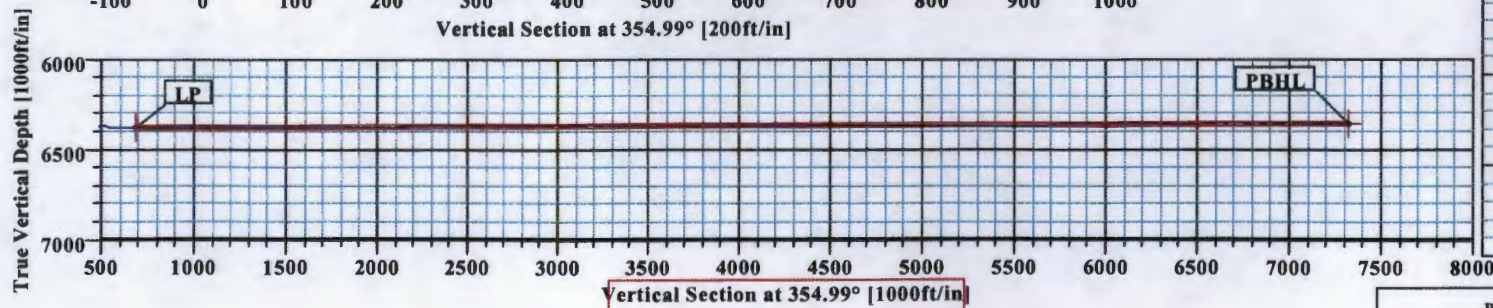
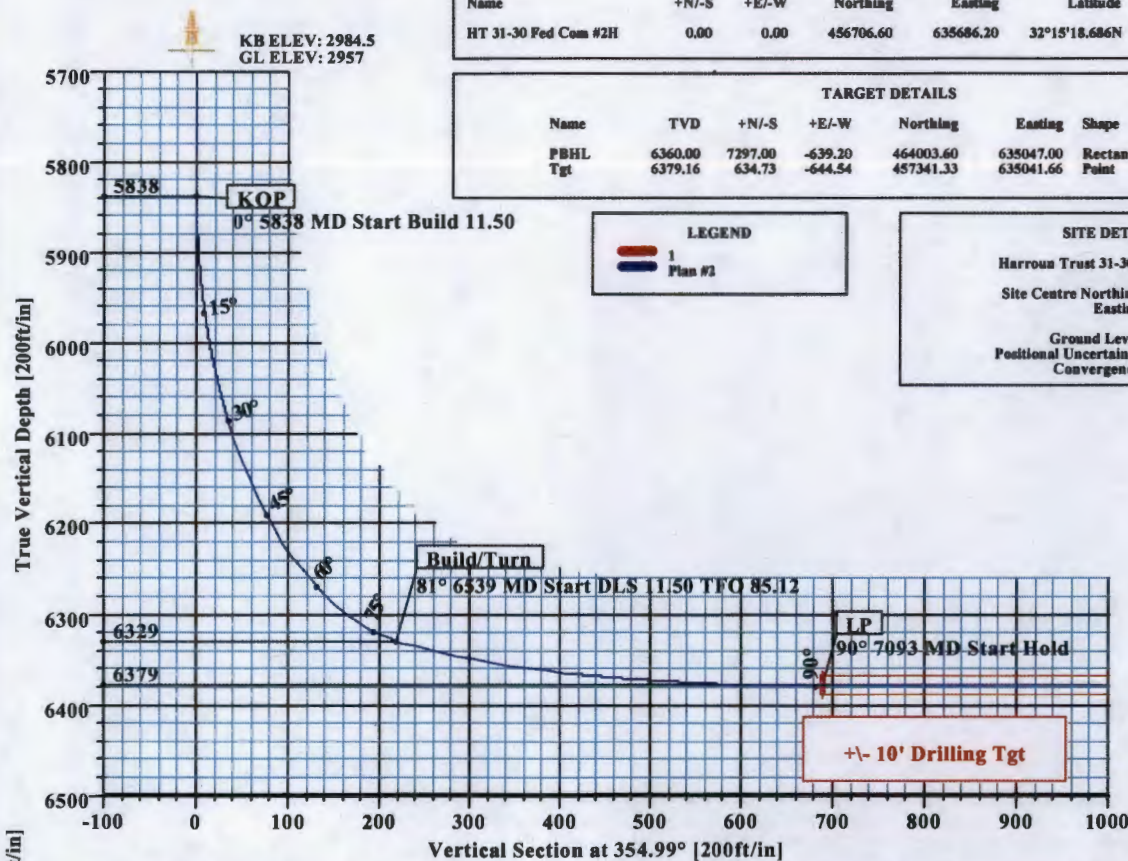
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	6360.00	7297.00	-639.20	464003.60	635047.00	Rectangle (6662x50)
Tgt	6379.16	634.73	-644.54	457341.33	635041.66	Point

LEGEND



SITE DETAILS

Harroun Trust 31-30 Fed Com #2H
Site Centre Northing: 456706.60
Easting: 635686.20
Ground Level: 2987.00
Positional Uncertainty: 0.00
Convergence: 0.16



Plan: Plan #2 (HT 31-30 Fed Com #2H/1)

Created By: Russell W. Joyner

Date: 2/19/2013



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Wft Plan Report X Y's.



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Harroun Trust 31-30 Fed Com #2H
Well: HT 31-30 Fed Com #2H
Wellpath: 1

Date: 2/19/2013 Time: 09:28:43 Page: 1
Co-ordinate(NE) Reference: Well: HT 31-30 Fed Com #2H, Grid North
Vertical (TVD) Reference: SITE 2984.5
Section (VS) Reference: Well (0.00N,0.00E,354.99Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #2

Date Composed: 2/19/2013

Principal: Yes

Version: 1

Tied-to: From Surface

Site: Harroun Trust 31-30 Fed Com #2H

Site Position: Northing: 456706.60 ft Latitude: 32 15 18.686 N
From: Map Easting: 635686.20 ft Longitude: 104 1 41.258 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 2957.00 ft Grid Convergence: 0.16 deg

Well: HT 31-30 Fed Com #2H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 456706.60 ft Latitude: 32 15 18.686 N
+E/-W 0.00 ft Easting: 635686.20 ft Longitude: 104 1 41.258 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Drilled From: Surface

Current Datum: SITE

Height 2984.50 ft

Tie-on Depth: 0.00 ft

Magnetic Data: 3/15/2013

Above System Datum: Mean Sea Level

Field Strength: 48435 nT

Declination: 7.58 deg

Vertical Section: Depth From (TVD)

+N/-S

Mag Dip Angle: 60.09 deg

+E/-W

Direction

ft

deg

0.00

0.00

0.00

354.99

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5837.97	0.00	0.00	5837.97	0.00	0.00	0.00	0.00	0.00	0.00	
6538.83	80.60	296.77	6329.50	187.73	-372.18	11.50	11.50	0.00	296.77	
7092.70	90.16	0.05	6379.16	634.73	-644.54	11.50	1.73	11.42	85.12	Tgt
13755.00	90.16	0.05	6360.00	7297.00	-639.20	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	0.00	456706.60	635686.20	
5837.97	0.00	0.00	5837.97	0.00	0.00	0.00	0.00	456706.60	635686.20	KOP
5850.00	1.38	296.77	5850.00	0.07	-0.13	0.08	11.50	456706.67	635686.07	
5875.00	4.26	296.77	5874.97	0.62	-1.23	0.72	11.50	456707.22	635684.97	
5900.00	7.13	296.77	5899.84	1.74	-3.44	2.03	11.50	456708.34	635682.76	
5925.00	10.01	296.77	5924.56	3.42	-6.77	3.99	11.50	456710.02	635679.43	
5950.00	12.88	296.77	5949.06	5.65	-11.20	6.61	11.50	456712.25	635675.00	
5975.00	15.76	296.77	5973.28	8.43	-16.72	9.86	11.50	456715.03	635669.48	
6000.00	18.63	296.77	5997.16	11.76	-23.32	13.75	11.50	456718.36	635662.88	
6025.00	21.51	296.77	6020.64	15.63	-30.98	18.27	11.50	456722.23	635655.22	
6050.00	24.38	296.77	6043.66	20.02	-39.68	23.40	11.50	456726.62	635646.52	
6075.00	27.26	296.77	6066.16	24.92	-49.40	29.14	11.50	456731.52	635636.80	
6100.00	30.13	296.77	6088.09	30.32	-60.12	35.46	11.50	456736.92	635626.08	
6125.00	33.01	296.77	6109.38	36.22	-71.80	42.35	11.50	456742.82	635614.40	
6150.00	35.88	296.77	6130.00	42.59	-84.43	49.80	11.50	456749.19	635601.77	
6175.00	38.76	296.77	6149.88	49.41	-97.96	57.78	11.50	456756.01	635588.24	
6200.00	41.63	296.77	6168.97	56.68	-112.36	66.27	11.50	456763.28	635573.84	
6225.00	44.51	296.77	6187.23	64.37	-127.61	75.26	11.50	456770.97	635558.59	
6250.00	47.38	296.77	6204.61	72.46	-143.65	84.73	11.50	456779.06	635542.55	
6275.00	50.26	296.77	6221.07	80.93	-160.44	94.63	11.50	456787.53	635525.76	
6300.00	53.13	296.77	6236.56	89.77	-177.96	104.96	11.50	456796.37	635508.24	
6325.00	56.01	296.77	6251.06	98.94	-196.14	115.69	11.50	456805.54	635490.06	



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Wft Plan Report X Y's.



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Harroun Trust 31-30 Fed Com #2H
Well: HT 31-30 Fed Com #2H
Wellpath: 1

Date: 2/19/2013 Time: 09:28:43 Page: 2
Co-ordinate(NE) Reference: Well: HT 31-30 Fed Com #2H, Grid North
Vertical (TVD) Reference: SITE 2984.5
Section (VS) Reference: Well (0.00N,0.00E,354.99Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
6350.00	58.88	296.77	6264.51	108.43	-214.96	126.79	11.50	456815.03	635471.24	
6375.00	61.76	296.77	6276.88	118.21	-234.35	138.22	11.50	456824.81	635451.85	
6400.00	64.63	296.77	6288.16	128.26	-254.27	149.97	11.50	456834.86	635431.93	
6425.00	67.51	296.77	6298.29	138.55	-274.67	162.01	11.50	456845.15	635411.53	
6450.00	70.38	296.77	6307.27	149.06	-295.50	174.29	11.50	456855.66	635390.70	
6475.00	73.26	296.77	6315.07	159.75	-316.70	186.80	11.50	456866.35	635369.50	
6500.00	76.13	296.77	6321.67	170.61	-338.23	199.50	11.50	456877.21	635347.97	
6525.00	79.01	296.77	6327.05	181.60	-360.03	212.35	11.50	456888.20	635326.17	
6538.83	80.60	296.77	6329.50	187.73	-372.18	219.52	11.50	456894.33	635314.02	Build/Turn
6550.00	80.71	298.06	6331.31	192.81	-381.96	225.43	11.50	456899.41	635304.24	
6575.00	80.98	300.96	6335.29	204.97	-403.44	239.42	11.50	456911.57	635282.76	
6600.00	81.27	303.86	6339.15	218.21	-424.29	254.42	11.50	456924.81	635261.91	
6625.00	81.58	306.75	6342.88	232.49	-444.46	270.42	11.50	456939.09	635241.74	
6650.00	81.91	309.64	6346.47	247.79	-463.90	287.35	11.50	456954.39	635222.30	
6675.00	82.26	312.52	6349.91	264.05	-482.57	305.19	11.50	456970.65	635203.63	
6700.00	82.64	315.39	6353.20	281.25	-500.41	323.88	11.50	456987.85	635185.79	
6725.00	83.03	318.26	6356.32	299.34	-517.38	343.38	11.50	457005.94	635168.82	
6750.00	83.43	321.13	6359.27	318.27	-533.43	363.64	11.50	457024.87	635152.77	
6775.00	83.86	323.99	6362.03	338.00	-548.54	384.61	11.50	457044.60	635137.66	
6800.00	84.30	326.85	6364.61	358.47	-562.65	406.24	11.50	457065.07	635123.55	
6825.00	84.75	329.70	6367.00	379.63	-575.73	428.46	11.50	457086.23	635110.47	
6850.00	85.22	332.55	6369.19	401.44	-587.76	451.23	11.50	457108.04	635098.44	
6875.00	85.69	335.39	6371.17	423.83	-598.69	474.49	11.50	457130.43	635087.51	
6900.00	86.18	338.23	6372.94	446.75	-608.51	498.18	11.50	457153.35	635077.69	
6925.00	86.68	341.07	6374.50	470.14	-617.19	522.24	11.50	457176.74	635069.01	
6950.00	87.18	343.90	6375.84	493.95	-624.70	546.61	11.50	457200.55	635061.50	
6975.00	87.70	346.73	6376.95	518.10	-631.03	571.23	11.50	457224.70	635055.17	
7000.00	88.22	349.56	6377.85	542.55	-636.16	596.04	11.50	457249.15	635050.04	
7025.00	88.74	352.39	6378.51	567.23	-640.08	620.96	11.50	457273.83	635046.12	
7050.00	89.26	355.22	6378.95	592.08	-642.78	645.95	11.50	457298.68	635043.42	
7075.00	89.79	358.05	6379.15	617.03	-644.25	670.94	11.50	457323.63	635041.95	
7092.70	90.16	0.05	6379.16	634.73	-644.54	688.59	11.50	457341.33	635041.66	Tgt
7100.00	90.16	0.05	6379.14	642.03	-644.53	695.86	0.00	457348.63	635041.67	
7200.00	90.16	0.05	6378.85	742.03	-644.45	795.47	0.00	457448.63	635041.75	
7300.00	90.16	0.05	6378.56	842.03	-644.37	895.08	0.00	457548.63	635041.83	
7400.00	90.16	0.05	6378.28	942.03	-644.29	994.69	0.00	457648.63	635041.91	
7500.00	90.16	0.05	6377.99	1042.03	-644.21	1094.31	0.00	457748.63	635041.99	
7600.00	90.16	0.05	6377.70	1142.03	-644.13	1193.92	0.00	457848.63	635042.07	
7700.00	90.16	0.05	6377.42	1242.03	-644.05	1293.53	0.00	457948.63	635042.15	
7800.00	90.16	0.05	6377.13	1342.03	-643.97	1393.14	0.00	458048.63	635042.23	
7900.00	90.16	0.05	6376.84	1442.03	-643.89	1492.75	0.00	458148.63	635042.31	
8000.00	90.16	0.05	6376.55	1542.03	-643.81	1592.36	0.00	458248.63	635042.39	
8100.00	90.16	0.05	6376.27	1642.02	-643.73	1691.97	0.00	458348.62	635042.47	
8200.00	90.16	0.05	6375.98	1742.02	-643.65	1791.58	0.00	458448.62	635042.55	
8300.00	90.16	0.05	6375.69	1842.02	-643.57	1891.19	0.00	458548.62	635042.63	
8400.00	90.16	0.05	6375.40	1942.02	-643.49	1990.80	0.00	458648.62	635042.71	
8500.00	90.16	0.05	6375.12	2042.02	-643.41	2090.41	0.00	458748.62	635042.79	
8600.00	90.16	0.05	6374.83	2142.02	-643.33	2190.02	0.00	458848.62	635042.87	
8700.00	90.16	0.05	6374.54	2242.02	-643.25	2289.63	0.00	458948.62	635042.95	
8800.00	90.16	0.05	6374.26	2342.02	-643.17	2389.24	0.00	459048.62	635043.03	
8900.00	90.16	0.05	6373.97	2442.02	-643.09	2488.85	0.00	459148.62	635043.11	
9000.00	90.16	0.05	6373.68	2542.02	-643.01	2588.46	0.00	459248.62	635043.19	
9100.00	90.16	0.05	6373.39	2642.02	-642.93	2688.07	0.00	459348.62	635043.27	



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Wft Plan Report X Y's.



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Harroun Trust 31-30 Fed Com #2H
Well: HT 31-30 Fed Com #2H
Wellpath: 1

Date: 2/19/2013 Time: 09:28:43 Page: 3
Co-ordinate(NE) Reference: Well: HT 31-30 Fed Com #2H, Grid North
Vertical (TVD) Reference: SITE 2984.5
Section (VS) Reference: Well (0.00N,0.00E,354.99Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9200.00	90.16	0.05	6373.11	2742.02	-642.85	2787.68	0.00	459448.62	635043.35	
9300.00	90.16	0.05	6372.82	2842.02	-642.77	2887.29	0.00	459548.62	635043.43	
9400.00	90.16	0.05	6372.53	2942.02	-642.69	2986.90	0.00	459648.62	635043.51	
9500.00	90.16	0.05	6372.24	3042.02	-642.61	3086.52	0.00	459748.62	635043.59	
9600.00	90.16	0.05	6371.96	3142.02	-642.53	3186.13	0.00	459848.62	635043.67	
9700.00	90.16	0.05	6371.67	3242.02	-642.45	3285.74	0.00	459948.62	635043.75	
9800.00	90.16	0.05	6371.38	3342.02	-642.37	3385.35	0.00	460048.62	635043.83	
9900.00	90.16	0.05	6371.10	3442.02	-642.29	3484.96	0.00	460148.62	635043.91	
10000.00	90.16	0.05	6370.81	3542.02	-642.21	3584.57	0.00	460248.62	635043.99	
10100.00	90.16	0.05	6370.52	3642.02	-642.13	3684.18	0.00	460348.62	635044.07	
10200.00	90.16	0.05	6370.23	3742.02	-642.05	3783.79	0.00	460448.62	635044.15	
10300.00	90.16	0.05	6369.95	3842.02	-641.97	3883.40	0.00	460548.62	635044.23	
10400.00	90.16	0.05	6369.66	3942.01	-641.89	3983.01	0.00	460648.61	635044.31	
10500.00	90.16	0.05	6369.37	4042.01	-641.81	4082.62	0.00	460748.61	635044.39	
10600.00	90.16	0.05	6369.08	4142.01	-641.73	4182.23	0.00	460848.61	635044.47	
10700.00	90.16	0.05	6368.80	4242.01	-641.65	4281.84	0.00	460948.61	635044.55	
10800.00	90.16	0.05	6368.51	4342.01	-641.57	4381.45	0.00	461048.61	635044.63	
10900.00	90.16	0.05	6368.22	4442.01	-641.49	4481.06	0.00	461148.61	635044.71	
11000.00	90.16	0.05	6367.94	4542.01	-641.41	4580.67	0.00	461248.61	635044.79	
11100.00	90.16	0.05	6367.65	4642.01	-641.33	4680.28	0.00	461348.61	635044.87	
11200.00	90.16	0.05	6367.36	4742.01	-641.24	4779.89	0.00	461448.61	635044.96	
11300.00	90.16	0.05	6367.07	4842.01	-641.16	4879.50	0.00	461548.61	635045.04	
11400.00	90.16	0.05	6366.79	4942.01	-641.08	4979.11	0.00	461648.61	635045.12	
11500.00	90.16	0.05	6366.50	5042.01	-641.00	5078.73	0.00	461748.61	635045.20	
11600.00	90.16	0.05	6366.21	5142.01	-640.92	5178.34	0.00	461848.61	635045.28	
11700.00	90.16	0.05	6365.92	5242.01	-640.84	5277.95	0.00	461948.61	635045.36	
11800.00	90.16	0.05	6365.64	5342.01	-640.76	5377.56	0.00	462048.61	635045.44	
11900.00	90.16	0.05	6365.35	5442.01	-640.68	5477.17	0.00	462148.61	635045.52	
12000.00	90.16	0.05	6365.06	5542.01	-640.60	5576.78	0.00	462248.61	635045.60	
12100.00	90.16	0.05	6364.78	5642.01	-640.52	5676.39	0.00	462348.61	635045.68	
12200.00	90.16	0.05	6364.49	5742.01	-640.44	5776.00	0.00	462448.61	635045.76	
12300.00	90.16	0.05	6364.20	5842.01	-640.36	5875.61	0.00	462548.61	635045.84	
12400.00	90.16	0.05	6363.91	5942.01	-640.28	5975.22	0.00	462648.61	635045.92	
12500.00	90.16	0.05	6363.63	6042.01	-640.20	6074.83	0.00	462748.61	635046.00	
12600.00	90.16	0.05	6363.34	6142.00	-640.12	6174.44	0.00	462848.60	635046.08	
12700.00	90.16	0.05	6363.05	6242.00	-640.04	6274.05	0.00	462948.60	635046.16	
12800.00	90.16	0.05	6362.76	6342.00	-639.96	6373.66	0.00	463048.60	635046.24	
12900.00	90.16	0.05	6362.48	6442.00	-639.88	6473.27	0.00	463148.60	635046.32	
13000.00	90.16	0.05	6362.19	6542.00	-639.80	6572.88	0.00	463248.60	635046.40	
13100.00	90.16	0.05	6361.90	6642.00	-639.72	6672.49	0.00	463348.60	635046.48	
13200.00	90.16	0.05	6361.62	6742.00	-639.64	6772.10	0.00	463448.60	635046.56	
13300.00	90.16	0.05	6361.33	6842.00	-639.56	6871.71	0.00	463548.60	635046.64	
13400.00	90.16	0.05	6361.04	6942.00	-639.48	6971.32	0.00	463648.60	635046.72	
13500.00	90.16	0.05	6360.75	7042.00	-639.40	7070.94	0.00	463748.60	635046.80	
13600.00	90.16	0.05	6360.47	7142.00	-639.32	7170.55	0.00	463848.60	635046.88	
13700.00	90.16	0.05	6360.18	7242.00	-639.24	7270.16	0.00	463948.60	635046.96	
13755.00	90.16	0.05	6360.00	7297.00	-639.20	7324.94	0.00	464003.60	635047.00	PBHL



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Wft Plan Report X Y's.



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Harroun Trust 31-30 Fed Com #2H
Well: HT 31-30 Fed Com #2H
Wellpath: 1

Date: 2/19/2013 Time: 09:28:43 Page: 4
Co-ordinate(NE) Reference: Well: HT 31-30 Fed Com #2H, Grid North
Vertical (TVD) Reference: SITE 2984.5
Section (VS) Reference: Well (0.00N,0.00E,354.99Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
							Deg	Min	Sec	Deg	Min	Sec
PBHL		6360.00	7297.00	-639.20	464003.60	635047.00	32	16	30.914 N	104	1	48.462 W
	-Rectangle (6662x50)											
Tgt		6379.16	634.73	-644.54	457341.33	635041.66	32	15	24.985 N	104	1	48.744 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
5837.97	5837.97	KOP
6538.83	6329.50	Build/Turn
7092.70	6379.16	LP
13755.00	6360.02	PBHL

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: February 19, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Harroun Trust 31-30 Fed Com #2H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 456706.600 USFT	Latitude 32.2551930 DEG
East/West 635686.200 USFT	Longitude -104.0281232 DEG
Grid Convergence: .16°	
Total Correction: +7.53°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.25519° N	32° 15 min 18.695 sec
Longitude =	104.02812° W	104° 1 min 41.244 sec

Magnetic Declination =	7.69°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6565
Local Field Strength =	48409 nT	Magnetic Vector X = 23951 nT
Magnetic Dip =	60.05°	Magnetic Vector Y = 3235 nT
Magnetic Model =	bggm2012	Magnetic Vector Z = 41944 nT
Spud Date =	Mar 15, 2013	Magnetic Vector H = 24169 nT

Signed: _____

Date: _____