

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
JUL 1 OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505
RECEIVED

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-41118
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Devon Energy Production Company, L.P.		6. State Oil & Gas Lease No.
3. Address of Operator 333 West Sheridan Oklahoma City, OK 73102-5015 405-228-7203		7. Lease Name or Unit Agreement Name Thistle Unit
4. Well Location Unit Letter <u>N</u> : <u>350</u> feet from the <u>South</u> line and <u>2080</u> feet from the <u>West</u> line Section <u>33</u> Township <u>23S</u> Range <u>33E</u> NMPM Lea County		8. Well Number 46H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3659		9. OGRID Number 6137
		10. Pool name or Wildcat Triple X; Bone Spring

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: BHL Change ☒		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy Production Company L.P. respectfully requests approval to change the BHL on the approved APD:

Current BHL: 330 FNL & 660 FEL Section ~~23~~ ³³ T23S R33E

TO

Proposed BHL: 330 FNL & 1980 FEL Section ~~23~~ ³³ T23S R33E

Attachments:
C-102
Directional Survey

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: _____ TITLE: Regulatory Associate DATE: 7/12/2013

Type or print name Trina C. Couch E-mail address: trina.couch@dvnm.com PHONE: 405-228-7203
For State Use Only

APPROVED BY: [Signature] TITLE: Petroleum Engineer DATE: JUL 15 2013
Conditions of Approval (if any): _____

JUL 15 2013

HOBBS OCD

JUL 11 2013

RECEIVED

HOBBS OCD

JUL 11 2013

RECEIVED



Weatherford[®]

Drilling Services

Proposal


devon

THISTLE UNIT 46H

LEA COUNTY, NM

WELL FILE: **PLAN 3**

JULY 10, 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

devon

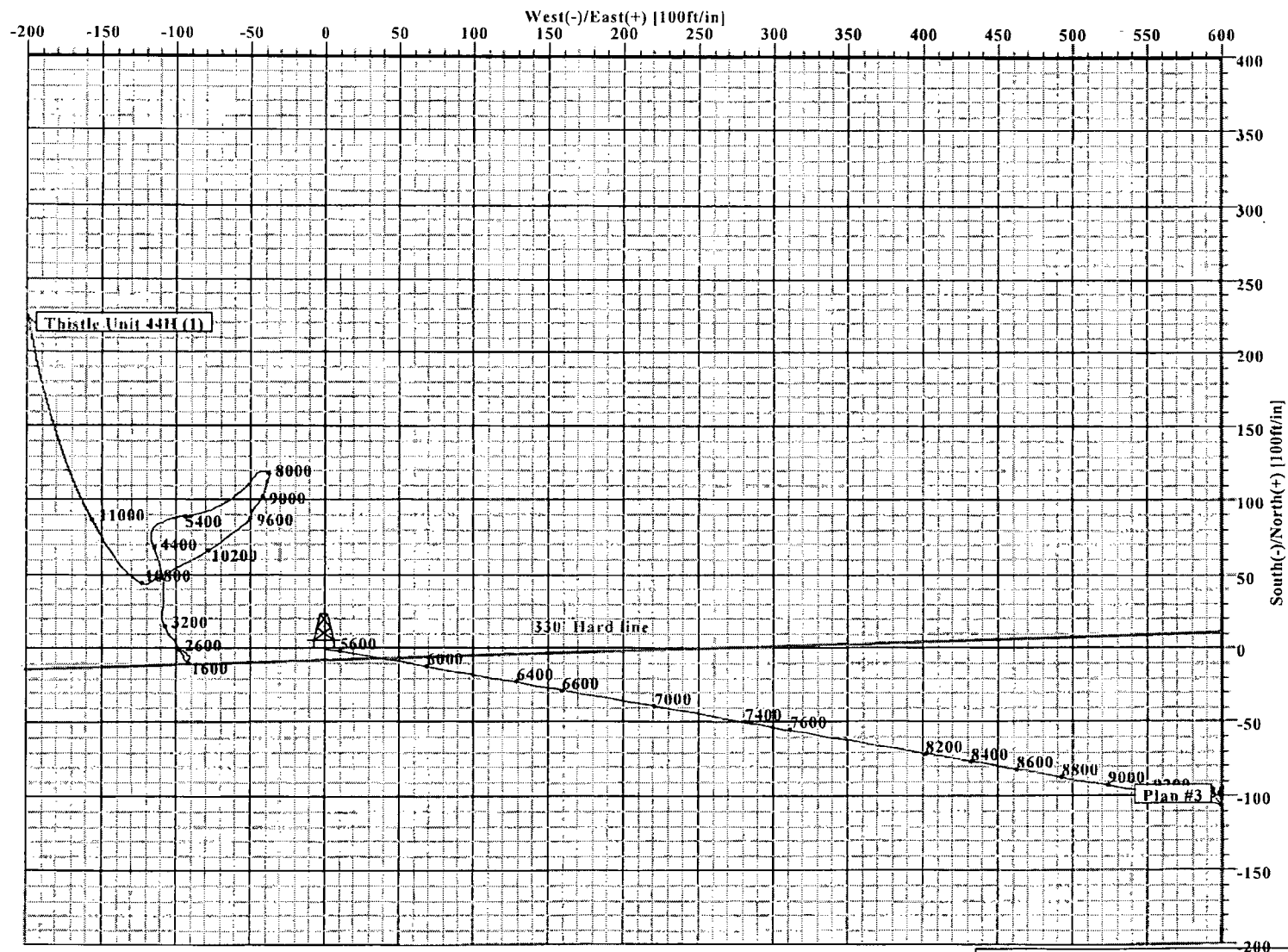
Thistle Unit Pad
Lea County, New Mexico

LEGEND

-  Thistle Unit 44H (1)
-  1
-  Plan #3



Weatherford



Plan: Plan #3 (Thistle Unit 46H/1)

Created By: Russell W. Joyner

Date: 7/10/2013

devon

Thistle Unit 46H
Lea County, New Mexico

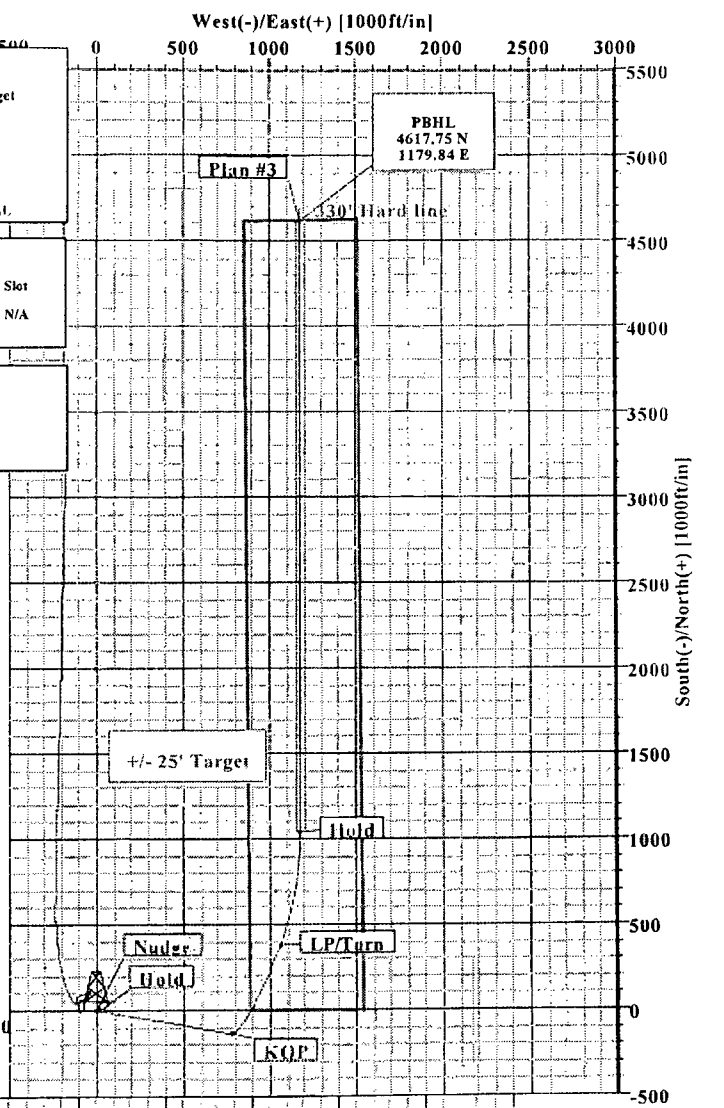
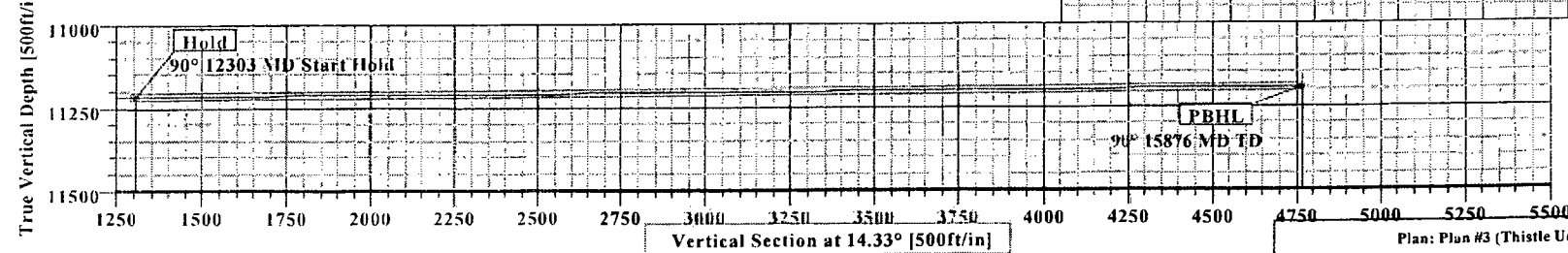
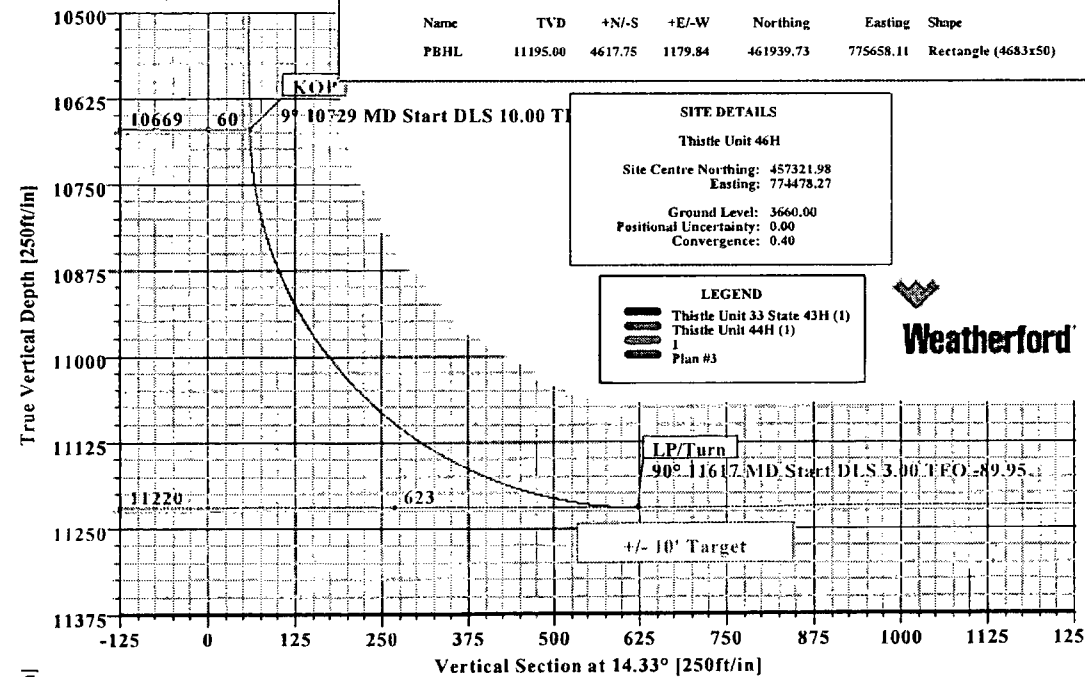
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec Target
1	0.00	0.00	14.33	0.00	0.00	0.00	0.00	0.00	0.00
2	5400.00	0.00	14.33	5400.00	0.00	0.00	0.00	14.33	0.00
3	5691.67	8.75	100.00	5690.53	-3.86	21.89	3.00	100.00	1.68
4	10729.24	8.75	100.00	10669.48	-136.93	776.58	0.00	0.00	59.54
5	11516.58	90.34	20.59	11220.07	372.89	1057.63	10.00	280.52	623.06
6	11302.79	90.34	0.00	11215.97	1044.41	1179.63	3.00	-89.95	1303.88
7	15876.19	90.34	0.00	11195.00	4617.75	1179.84	0.00	0.00	4766.09 PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Thistle Unit 46H	0.00	0.00	457321.98	774478.27	32°15'17.999N	103°34'44.965W	N/A

TARGET DETAILS						
Name	TVL	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	11195.00	4617.75	1179.84	461939.73	775658.11	Rectangle (4683x50)

SITE DETAILS
Thistle Unit 46H
Site Centre Northing: 457321.98
Easting: 774478.27
Ground Level: 3660.00
Positional Uncertainty: 0.00
Convergence: 0.40

LEGEND
 Thistle Unit 33 State 43H (1)
 Thistle Unit 44H (1)
 Plan #3





Weatherford

Wft Plan Report X Y's.



Weatherford®

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Thistle Unit 46H
Well: Thistle Unit 46H
Wellpath: 1

Date: 7/10/2013 Time: 17:21:27 Page: 1
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0
Section (VS) Reference: Well (0.00N,0.00E,14.33Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #3

Date Composed: 4/5/2013

Principal: Yes

Version: 1

Tied-to: From Surface

Site: Thistle Unit 46H

Site Position: Northing: 457321.98 ft Latitude: 32 15 17.999 N
From: Map Easting: 774478.27 ft Longitude: 103 34 44.965 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3660.00 ft Grid Convergence: 0.40 deg

Well: Thistle Unit 46H

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 457321.98 ft Latitude: 32 15 17.999 N
+E/-W 0.00 ft Easting: 774478.27 ft Longitude: 103 34 44.965 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Drilled From: Surface

Current Datum: SITE Height 3685.00 ft
Magnetic Data: 8/15/2013
Field Strength: 48443 nT
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
ft ft ft deg
0.00 0.00 0.00 14.33

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	14.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5400.00	0.00	14.33	5400.00	0.00	0.00	0.00	0.00	0.00	14.33	
5691.67	8.75	100.00	5690.53	-3.86	21.89	3.00	3.00	0.00	100.00	
10729.24	8.75	100.00	10669.48	-136.93	776.58	0.00	0.00	0.00	0.00	
11616.58	90.34	20.59	11220.07	372.89	1057.63	10.00	9.19	-8.95	280.52	
12302.79	90.34	0.00	11215.97	1044.41	1179.63	3.00	0.00	-3.00	-89.95	
15876.19	90.34	0.00	11195.00	4617.75	1179.84	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	Comments
5400.00	0.00	14.33	5400.00	0.00	0.00	0.00	0.00	457321.98	774478.27	Nudge
5500.00	3.00	100.00	5499.95	-0.45	2.58	0.20	3.00	457321.53	774480.85	
5600.00	6.00	100.00	5599.63	-1.82	10.30	0.79	3.00	457320.16	774488.57	
5691.67	8.75	100.00	5690.53	-3.86	21.89	1.68	3.00	457318.12	774500.16	Hold
5700.00	8.75	100.00	5698.77	-4.08	23.14	1.77	0.00	457317.90	774501.41	
5800.00	8.75	100.00	5797.61	-6.72	38.12	2.92	0.00	457315.26	774516.39	
5900.00	8.75	100.00	5896.44	-9.36	53.10	4.07	0.00	457312.62	774531.37	
6000.00	8.75	100.00	5995.28	-12.00	68.08	5.22	0.00	457309.98	774546.35	
6100.00	8.75	100.00	6094.12	-14.65	83.06	6.37	0.00	457307.33	774561.33	
6200.00	8.75	100.00	6192.95	-17.29	98.04	7.52	0.00	457304.69	774576.31	
6300.00	8.75	100.00	6291.79	-19.93	113.03	8.67	0.00	457302.05	774591.30	
6400.00	8.75	100.00	6390.62	-22.57	128.01	9.81	0.00	457299.41	774606.28	
6500.00	8.75	100.00	6489.46	-25.21	142.99	10.96	0.00	457296.77	774621.26	
6600.00	8.75	100.00	6588.30	-27.85	157.97	12.11	0.00	457294.13	774636.24	
6700.00	8.75	100.00	6687.13	-30.50	172.95	13.26	0.00	457291.48	774651.22	
6800.00	8.75	100.00	6785.97	-33.14	187.93	14.41	0.00	457288.84	774666.20	
6900.00	8.75	100.00	6884.80	-35.78	202.91	15.56	0.00	457286.20	774681.18	
7000.00	8.75	100.00	6983.64	-38.42	217.89	16.71	0.00	457283.56	774696.16	
7100.00	8.75	100.00	7082.48	-41.06	232.88	17.85	0.00	457280.92	774711.15	
7200.00	8.75	100.00	7181.31	-43.70	247.86	19.00	0.00	457278.28	774726.13	



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Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Thistle Unit 46H
Well: Thistle Unit 46H
Wellpath: 1

Date: 7/10/2013 Time: 17:21:27 Page: 2
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0
Section (VS) Reference: Well (0.00N,0.00E,14.33Azi)
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	Comments
7300.00	8.75	100.00	7280.15	-46.35	262.84	20.15	0.00	457275.63	774741.11	
7400.00	8.75	100.00	7378.99	-48.99	277.82	21.30	0.00	457272.99	774756.09	
7500.00	8.75	100.00	7477.82	-51.63	292.80	22.45	0.00	457270.35	774771.07	
7600.00	8.75	100.00	7576.66	-54.27	307.78	23.60	0.00	457267.71	774786.05	
7700.00	8.75	100.00	7675.49	-56.91	322.76	24.74	0.00	457265.07	774801.03	
7800.00	8.75	100.00	7774.33	-59.55	337.74	25.89	0.00	457262.43	774816.01	
7900.00	8.75	100.00	7873.17	-62.20	352.73	27.04	0.00	457259.78	774831.00	
8000.00	8.75	100.00	7972.00	-64.84	367.71	28.19	0.00	457257.14	774845.98	
8100.00	8.75	100.00	8070.84	-67.48	382.69	29.34	0.00	457254.50	774860.96	
8200.00	8.75	100.00	8169.67	-70.12	397.67	30.49	0.00	457251.86	774875.94	
8300.00	8.75	100.00	8268.51	-72.76	412.65	31.64	0.00	457249.22	774890.92	
8400.00	8.75	100.00	8367.35	-75.40	427.63	32.78	0.00	457246.58	774905.90	
8500.00	8.75	100.00	8466.18	-78.04	442.61	33.93	0.00	457243.94	774920.88	
8600.00	8.75	100.00	8565.02	-80.69	457.59	35.08	0.00	457241.29	774935.86	
8700.00	8.75	100.00	8663.86	-83.33	472.58	36.23	0.00	457238.65	774950.85	
8800.00	8.75	100.00	8762.69	-85.97	487.56	37.38	0.00	457236.01	774965.83	
8900.00	8.75	100.00	8861.53	-88.61	502.54	38.53	0.00	457233.37	774980.81	
9000.00	8.75	100.00	8960.36	-91.25	517.52	39.68	0.00	457230.73	774995.79	
9100.00	8.75	100.00	9059.20	-93.89	532.50	40.82	0.00	457228.09	775010.77	
9200.00	8.75	100.00	9158.04	-96.54	547.48	41.97	0.00	457225.44	775025.75	
9300.00	8.75	100.00	9256.87	-99.18	562.46	43.12	0.00	457222.80	775040.73	
9400.00	8.75	100.00	9355.71	-101.82	577.44	44.27	0.00	457220.16	775055.71	
9500.00	8.75	100.00	9454.54	-104.46	592.43	45.42	0.00	457217.52	775070.70	
9600.00	8.75	100.00	9553.38	-107.10	607.41	46.57	0.00	457214.88	775085.68	
9700.00	8.75	100.00	9652.22	-109.74	622.39	47.72	0.00	457212.24	775100.66	
9800.00	8.75	100.00	9751.05	-112.39	637.37	48.86	0.00	457209.59	775115.64	
9900.00	8.75	100.00	9849.89	-115.03	652.35	50.01	0.00	457206.95	775130.62	
10000.00	8.75	100.00	9948.73	-117.67	667.33	51.16	0.00	457204.31	775145.60	
10100.00	8.75	100.00	10047.56	-120.31	682.31	52.31	0.00	457201.67	775160.58	
10200.00	8.75	100.00	10146.40	-122.95	697.29	53.46	0.00	457199.03	775175.56	
10300.00	8.75	100.00	10245.23	-125.59	712.28	54.61	0.00	457196.39	775190.55	
10400.00	8.75	100.00	10344.07	-128.23	727.26	55.76	0.00	457193.75	775205.53	
10500.00	8.75	100.00	10442.91	-130.88	742.24	56.90	0.00	457191.10	775220.51	
10600.00	8.75	100.00	10541.74	-133.52	757.22	58.05	0.00	457188.46	775235.49	
10700.00	8.75	100.00	10640.58	-136.16	772.20	59.20	0.00	457185.82	775250.47	
10729.24	8.75	100.00	10669.48	-136.93	776.58	59.54	0.00	457185.05	775254.85	KOP
10800.00	12.20	65.04	10739.12	-134.71	788.67	64.69	10.00	457187.27	775266.94	
10900.00	20.51	44.50	10835.06	-117.71	810.59	86.58	10.00	457204.27	775288.86	
11000.00	29.84	35.93	10925.49	-84.99	837.53	124.95	10.00	457236.99	775315.80	
11100.00	39.48	31.22	11007.66	-37.53	868.69	178.64	10.00	457284.45	775346.96	
11200.00	49.25	28.13	11079.07	23.21	903.12	246.02	10.00	457345.19	775381.39	
11300.00	59.08	25.84	11137.55	95.40	939.76	325.03	10.00	457417.38	775418.03	
11400.00	68.94	23.98	11181.33	176.85	977.52	413.29	10.00	457498.83	775455.79	
11500.00	78.81	22.36	11209.07	265.06	1015.24	508.09	10.00	457587.04	775493.51	
11600.00	88.70	20.84	11219.93	357.38	1051.77	606.58	10.00	457679.36	775530.04	
11616.58	90.34	20.59	11220.07	372.89	1057.63	623.06	10.00	457694.87	775535.90	LP/Turn
11700.00	90.34	18.09	11219.57	451.59	1085.25	706.15	3.00	457773.57	775563.52	
11800.00	90.34	15.09	11218.97	547.42	1113.80	806.06	3.00	457869.40	775592.07	
11900.00	90.34	12.09	11218.37	644.61	1137.29	906.04	3.00	457966.59	775615.56	
12000.00	90.34	9.09	11217.77	742.89	1155.66	1005.81	3.00	458064.87	775633.93	
12100.00	90.34	6.09	11217.18	842.00	1168.86	1105.11	3.00	458163.98	775647.13	
12200.00	90.34	3.09	11216.58	941.67	1176.86	1203.65	3.00	458263.65	775655.13	
12300.00	90.34	0.09	11215.99	1041.62	1179.62	1301.17	3.00	458363.60	775657.89	



Weatherford

Wft Plan Report X Y's.

**Weatherford®**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Thistle Unit 46H
Well: Thistle Unit 46H
Wellpath: 1

Date: 7/10/2013 Time: 17:21:27 Page: 3
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0
Section (VS) Reference: Well (0.00N,0.00E,14.33Azi)
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	Comments
12302.79	90.34	0.00	11215.97	1044.41	1179.63	1303.88	3.00	458366.39	775657.90	Hold
12400.00	90.34	0.00	11215.40	1141.62	1179.63	1398.06	0.00	458463.60	775657.90	
12500.00	90.34	0.00	11214.82	1241.61	1179.64	1494.95	0.00	458563.59	775657.91	
12600.00	90.34	0.00	11214.23	1341.61	1179.64	1591.84	0.00	458663.59	775657.91	
12700.00	90.34	0.00	11213.64	1441.61	1179.65	1688.73	0.00	458763.59	775657.92	
12800.00	90.34	0.00	11213.06	1541.61	1179.66	1785.62	0.00	458863.59	775657.93	
12900.00	90.34	0.00	11212.47	1641.61	1179.66	1882.51	0.00	458963.59	775657.93	
13000.00	90.34	0.00	11211.88	1741.61	1179.67	1979.39	0.00	459063.59	775657.94	
13100.00	90.34	0.00	11211.30	1841.60	1179.67	2076.28	0.00	459163.58	775657.94	
13200.00	90.34	0.00	11210.71	1941.60	1179.68	2173.17	0.00	459263.58	775657.95	
13300.00	90.34	0.00	11210.12	2041.60	1179.69	2270.06	0.00	459363.58	775657.96	
13400.00	90.34	0.00	11209.53	2141.60	1179.69	2366.95	0.00	459463.58	775657.96	
13500.00	90.34	0.00	11208.95	2241.60	1179.70	2463.84	0.00	459563.58	775657.97	
13600.00	90.34	0.00	11208.36	2341.60	1179.70	2560.72	0.00	459663.58	775657.97	
13700.00	90.34	0.00	11207.77	2441.59	1179.71	2657.61	0.00	459763.57	775657.98	
13800.00	90.34	0.00	11207.19	2541.59	1179.72	2754.50	0.00	459863.57	775657.99	
13900.00	90.34	0.00	11206.60	2641.59	1179.72	2851.39	0.00	459963.57	775657.99	
14000.00	90.34	0.00	11206.01	2741.59	1179.73	2948.28	0.00	460063.57	775658.00	
14100.00	90.34	0.00	11205.43	2841.59	1179.73	3045.17	0.00	460163.57	775658.00	
14200.00	90.34	0.00	11204.84	2941.59	1179.74	3142.06	0.00	460263.57	775658.01	
14300.00	90.34	0.00	11204.25	3041.58	1179.75	3238.94	0.00	460363.56	775658.02	
14400.00	90.34	0.00	11203.66	3141.58	1179.75	3335.83	0.00	460463.56	775658.02	
14500.00	90.34	0.00	11203.08	3241.58	1179.76	3432.72	0.00	460563.56	775658.03	
14600.00	90.34	0.00	11202.49	3341.58	1179.76	3529.61	0.00	460663.56	775658.03	
14700.00	90.34	0.00	11201.90	3441.58	1179.77	3626.50	0.00	460763.56	775658.04	
14800.00	90.34	0.00	11201.32	3541.58	1179.78	3723.39	0.00	460863.56	775658.05	
14900.00	90.34	0.00	11200.73	3641.57	1179.78	3820.27	0.00	460963.55	775658.05	
15000.00	90.34	0.00	11200.14	3741.57	1179.79	3917.16	0.00	461063.55	775658.06	
15100.00	90.34	0.00	11199.56	3841.57	1179.79	4014.05	0.00	461163.55	775658.06	
15200.00	90.34	0.00	11198.97	3941.57	1179.80	4110.94	0.00	461263.55	775658.07	
15300.00	90.34	0.00	11198.38	4041.57	1179.81	4207.83	0.00	461363.55	775658.08	
15400.00	90.34	0.00	11197.80	4141.57	1179.81	4304.72	0.00	461463.55	775658.08	
15500.00	90.34	0.00	11197.21	4241.56	1179.82	4401.60	0.00	461563.54	775658.09	
15600.00	90.34	0.00	11196.62	4341.56	1179.82	4498.49	0.00	461663.54	775658.09	
15700.00	90.34	0.00	11196.03	4441.56	1179.83	4595.38	0.00	461763.54	775658.10	
15800.00	90.34	0.00	11195.45	4541.56	1179.84	4692.27	0.00	461863.54	775658.11	
15876.19	90.34	0.00	11195.00	4617.75	1179.84	4766.09	0.00	461939.73	775658.11	PBHL

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
	Dip.							Deg	Min	Sec	Deg	Min	Sec
PBHL -Rectangle (3580x50)			11195.00	4617.75	1179.84	461939.73	775658.11	32	16	3.610 N	103	34	30.847 W

Casing Points

MD	TVD	Diameter	Hole Size	Name



Weatherford

Wft Plan Report X Y's.



Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Site: Thistle Unit 46H
Well: Thistle Unit 46H
Wellpath: 1

Date: 7/10/2013 Time: 17:21:27 Page: 4
Co-ordinate(NE) Reference: Well: Thistle Unit 46H; Grid North
Vertical (TVD) Reference: SITE 3685.0
Section (VS) Reference: Well (0.00N,0.00E,14.33Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
5400.00	5400.00	Nudge
5691.67	5690.54	Hold
10729.24	10669.48	KOP
11616.58	11220.07	LP/Turn
12302.79	11215.97	Hold
15876.19	11195.00	PBHL



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Thistle Unit 46H
Reference Well: Thistle Unit 46H
Reference Wellpath:

Date: 7/10/2013 Time: 17:29:50 Page: 1
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0

Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method MD + Stations Interval: 100.00 ft
Depth Range: 100.00 to 12903.82 ft
Maximum Radius 0000.00 ft

Reference: Plan: Plan #3
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #3

Date Composed: 4/5/2013
Version: 1
Tied-to: From Surface

Principal: Yes

Summary

<----- Offset Wellpath ----->			Reference		Offset		Ctr-Ctr Edge		Separation		Warning
Site	Well	Wellpath	MD ft	TVD ft	MD ft	TVD ft	Distance ft	Distance ft	Factor		
Thistle Unit 44H	Thistle Unit 44H	1 V4	5500.00	5507.28	128.44	105.86	5.69				

Site: Thistle Unit 44H
Well: Thistle Unit 44H
Wellpath: 1 V4

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation		Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor		
100.00	100.00	101.97	101.97	0.08	0.10	269.48	-0.90	-99.40	99.41	99.22	529.97		
200.00	200.00	202.06	202.05	0.31	0.36	269.19	-1.39	-98.36	98.38	97.71	146.73		
300.00	300.00	302.20	302.18	0.53	0.63	268.96	-1.77	-97.21	97.23	96.07	83.87		
400.00	400.00	402.21	402.18	0.76	0.88	268.93	-1.80	-95.96	95.98	94.34	58.60		
500.00	500.00	501.87	501.84	0.98	1.13	268.74	-2.09	-94.95	94.98	92.86	44.90		
600.00	600.00	602.08	602.04	1.21	1.39	268.37	-2.68	-93.89	93.94	91.34	36.10		
700.00	700.00	701.88	701.84	1.43	1.66	267.97	-3.29	-92.86	92.92	89.83	30.09		
800.00	800.00	801.66	801.61	1.66	1.91	267.51	-4.01	-92.08	92.17	88.60	25.82		
900.00	900.00	901.54	901.49	1.88	2.17	267.06	-4.70	-91.43	91.55	87.50	22.61		
1000.00	1000.00	1001.17	1001.11	2.11	2.40	266.68	-5.29	-91.03	91.18	86.67	20.23		
1100.00	1100.00	1100.93	1100.87	2.33	2.60	266.26	-5.96	-91.08	91.28	86.35	18.51		
1200.00	1200.00	1201.11	1201.05	2.56	2.81	265.74	-6.79	-91.08	91.33	85.97	17.03		
1300.00	1300.00	1300.53	1300.46	2.78	3.01	265.09	-7.82	-91.07	91.41	85.61	15.78		
1400.00	1400.00	1400.78	1400.70	3.01	3.21	264.42	-8.96	-91.76	92.20	85.98	14.84		
1500.00	1500.00	1501.16	1501.08	3.23	3.44	263.93	-9.74	-91.62	92.14	85.47	13.81		
1600.00	1600.00	1600.82	1600.74	3.46	3.62	263.66	-10.18	-91.63	92.20	85.13	13.04		
1700.00	1700.00	1700.77	1700.69	3.68	3.68	263.72	-10.12	-92.01	92.57	85.21	12.58		
1800.00	1800.00	1800.83	1800.75	3.91	3.71	263.92	-9.83	-92.35	92.87	85.25	12.20		
1900.00	1900.00	1900.68	1900.59	4.13	3.75	264.48	-8.96	-92.77	93.21	85.33	11.83		
2000.00	2000.00	2000.31	2000.21	4.35	3.81	265.15	-7.94	-93.50	93.84	85.68	11.49		
2100.00	2100.00	2100.56	2100.45	4.58	3.89	265.65	-7.18	-94.29	94.57	86.10	11.17		
2200.00	2200.00	2200.87	2200.76	4.80	3.98	266.44	-5.89	-94.79	94.97	86.19	10.82		
2300.00	2300.00	2300.53	2300.41	5.03	4.08	267.30	-4.49	-95.31	95.42	86.31	10.48		
2400.00	2400.00	2400.37	2400.23	5.25	4.19	268.09	-3.20	-96.08	96.13	86.68	10.17		
2500.00	2500.00	2500.27	2500.12	5.48	4.32	268.96	-1.76	-96.96	96.98	87.17	9.89		
2600.00	2600.00	2600.08	2599.91	5.70	4.46	269.94	-0.10	-97.98	97.99	87.82	9.64		
2700.00	2700.00	2699.93	2699.73	5.93	4.62	270.98	1.70	-99.17	99.20	88.65	9.41		
2800.00	2800.00	2799.68	2799.45	6.15	4.78	272.22	3.89	-100.46	100.55	89.62	9.20		
2900.00	2900.00	2899.17	2898.90	6.38	4.95	273.45	6.15	-102.17	102.37	91.05	9.04		
3000.00	3000.00	2999.09	2998.77	6.60	5.13	274.78	8.70	-104.15	104.54	92.81	8.91		
3100.00	3100.00	3099.21	3098.83	6.83	5.31	276.33	11.75	-105.91	106.58	94.44	8.78		
3200.00	3200.00	3199.24	3198.80	7.05	5.50	277.81	14.75	-107.60	108.63	96.07	8.65		
3300.00	3300.00	3299.87	3299.34	7.28	5.70	279.74	18.69	-108.89	110.50	97.52	8.51		
3400.00	3400.00	3400.69	3400.07	7.50	5.91	281.84	22.90	-109.24	111.62	98.21	8.33		
3500.00	3500.00	3500.92	3500.21	7.73	6.11	284.10	27.36	-108.94	112.33	98.49	8.12		
3600.00	3600.00	3600.86	3600.05	7.95	6.32	286.27	31.69	-108.55	113.09	98.82	7.92		



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Thistle Unit 46H
Reference Well: Thistle Unit 46H
Reference Wellpath:

Date: 7/10/2013 Time: 17:29:50 Page: 2
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0

Db: Sybase

Site: Thistle Unit 44H
Well: Thistle Unit 44H
Wellpath: 1 V4

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3700.00	3700.00	3700.53	3699.62	8.18	6.53	288.37	35.96	-108.27	114.09	99.39	7.76	
3800.00	3800.00	3800.50	3799.51	8.40	6.75	290.39	40.19	-108.13	115.37	100.22	7.61	
3900.00	3900.00	3899.08	3897.99	8.63	6.97	292.39	44.64	-108.35	117.22	101.63	7.52	
4000.00	4000.00	3998.50	3997.29	8.85	7.20	294.34	49.46	-109.37	120.09	104.05	7.49	
4100.00	4100.00	4098.07	4096.72	9.07	7.42	296.20	54.45	-110.63	123.38	106.88	7.48	
4200.00	4200.00	4197.96	4196.48	9.30	7.66	297.99	59.51	-111.98	126.90	109.95	7.49	
4300.00	4300.00	4298.13	4296.54	9.52	7.89	299.41	64.01	-113.54	130.42	113.02	7.49	
4400.00	4400.00	4399.07	4397.40	9.75	8.13	300.45	67.63	-115.06	133.51	115.64	7.47	
4500.00	4500.00	4500.10	4498.38	9.97	8.36	301.33	70.57	-115.90	135.72	117.39	7.40	
4600.00	4600.00	4600.05	4598.29	10.20	8.60	302.17	73.31	-116.54	137.71	118.92	7.33	
4700.00	4700.00	4700.71	4698.91	10.42	8.84	303.05	76.08	-116.93	139.52	120.26	7.25	
4800.00	4800.00	4802.10	4800.24	10.65	9.07	304.31	79.22	-116.10	140.56	120.84	7.13	
4900.00	4900.00	4903.92	4902.00	10.87	9.29	305.78	82.16	-113.99	140.52	120.36	6.97	
5000.00	5000.00	5005.69	5003.68	11.10	9.49	307.43	84.54	-110.47	139.14	118.56	6.76	
5100.00	5100.00	5106.28	5104.18	11.32	9.67	308.94	86.00	-106.45	136.89	115.90	6.52	
5200.00	5200.00	5206.34	5204.14	11.55	9.85	310.52	87.41	-102.26	134.57	113.18	6.29	
5300.00	5300.00	5306.89	5304.59	11.77	10.03	312.17	88.65	-97.87	132.10	110.30	6.06	
5400.00	5400.00	5407.20	5404.79	12.00	10.21	313.80	89.41	-93.23	129.23	107.03	5.82	
5500.00	5499.95	5507.28	5504.76	12.21	10.39	214.76	89.96	-88.56	128.44	105.86	5.69	
5600.00	5599.63	5606.25	5603.62	12.41	10.57	214.55	90.80	-84.02	132.22	109.29	5.76	
5691.67	5690.53	5696.94	5694.23	12.60	10.76	213.36	91.94	-80.33	140.12	116.86	6.02	
5700.00	5698.77	5705.17	5702.45	12.62	10.77	213.20	92.05	-80.02	141.03	117.73	6.05	
5800.00	5797.61	5803.95	5801.16	12.84	10.98	211.41	93.47	-76.36	152.15	128.45	6.42	
5900.00	5896.44	5903.13	5900.26	13.06	11.19	209.89	95.06	-72.80	163.59	139.48	6.79	
6000.00	5995.28	6001.80	5998.85	13.29	11.40	208.56	96.73	-69.42	175.32	150.79	7.15	
6100.00	6094.12	6100.30	6097.30	13.53	11.62	207.30	98.37	-66.51	187.48	162.53	7.51	
6200.00	6192.95	6198.93	6195.88	13.77	11.84	206.14	100.06	-63.98	200.07	174.68	7.88	
6300.00	6291.79	6298.01	6294.92	14.01	12.07	205.07	101.66	-61.58	212.78	186.95	8.24	
6400.00	6390.62	6395.78	6392.66	14.26	12.30	204.09	103.35	-59.68	226.01	199.75	8.60	
6500.00	6489.46	6495.88	6492.72	14.52	12.54	203.20	105.04	-57.65	239.22	212.50	8.95	
6600.00	6588.30	6594.55	6591.37	14.77	12.77	202.35	106.42	-55.70	252.37	225.21	9.29	
6700.00	6687.13	6693.01	6689.79	15.04	13.00	201.62	108.06	-53.91	265.83	238.21	9.63	
6800.00	6785.97	6791.99	6788.75	15.30	13.24	200.93	109.59	-52.22	279.37	251.30	9.95	
6900.00	6884.80	6890.36	6887.09	15.57	13.48	200.29	111.12	-50.70	293.09	264.56	10.28	
7000.00	6983.64	6988.75	6985.46	15.85	13.72	199.69	112.72	-49.40	307.07	278.09	10.59	
7100.00	7082.48	7087.26	7083.95	16.13	13.97	199.13	114.31	-48.27	321.22	291.78	10.91	
7200.00	7181.31	7186.67	7183.34	16.41	14.22	198.59	115.85	-47.27	335.49	305.58	11.22	
7300.00	7280.15	7286.09	7282.74	16.69	14.46	198.12	117.37	-45.92	349.49	319.11	11.50	
7400.00	7378.99	7386.67	7383.30	16.97	14.70	197.63	118.59	-44.66	363.44	332.60	11.78	
7500.00	7477.82	7486.37	7483.00	17.26	14.93	197.09	119.06	-43.13	376.83	345.55	12.04	
7600.00	7576.66	7584.92	7581.54	17.55	15.14	196.56	119.34	-41.85	390.39	358.67	12.31	
7700.00	7675.49	7683.29	7679.90	17.85	15.36	196.05	119.56	-40.73	404.08	371.92	12.56	
7800.00	7774.33	7784.05	7780.65	18.14	15.57	195.55	119.70	-39.57	417.76	385.17	12.82	
7900.00	7873.17	7881.55	7878.15	18.44	15.72	195.02	119.19	-38.51	431.26	398.29	13.08	
8000.00	7972.00	7979.89	7976.48	18.74	15.83	194.43	118.22	-38.08	445.18	411.88	13.37	
8100.00	8070.84	8078.05	8074.63	19.04	15.92	193.84	117.11	-37.82	459.24	425.64	13.66	
8200.00	8169.67	8175.45	8172.03	19.35	15.99	193.30	116.08	-37.78	473.59	439.68	13.97	
8300.00	8268.51	8272.98	8269.56	19.65	16.06	192.79	115.27	-37.97	488.28	454.07	14.28	
8400.00	8367.35	8373.48	8370.05	19.96	16.14	192.30	114.36	-38.18	502.98	468.48	14.58	
8500.00	8466.18	8469.53	8466.09	20.27	16.22	191.83	113.36	-38.51	517.80	482.99	14.88	
8600.00	8565.02	8570.05	8566.61	20.58	16.29	191.35	112.21	-39.01	532.75	497.64	15.17	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Thistle Unit 46H
Reference Well: Thistle Unit 46H
Reference Wellpath:

Date: 7/10/2013

Time: 17:29:50

Page: 3

Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0

Db: Sybase

Site: Thistle Unit 44H
Well: Thistle Unit 44H
Wellpath: 1 V4

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor		
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft			
8700.00	8663.86	8669.68	8666.22	20.89	16.38	190.87	110.64	-39.41	547.50	512.08	15.46		
8800.00	8762.69	8768.65	8765.17	21.21	16.47	190.36	108.63	-39.93	562.24	526.50	15.73		
8900.00	8861.53	8869.27	8865.77	21.52	16.57	189.86	106.28	-40.21	576.69	540.63	15.99		
9000.00	8960.36	8963.29	8959.75	21.84	16.66	189.37	103.89	-40.96	591.60	555.22	16.26		
9100.00	9059.20	9060.30	9056.73	22.16	16.75	188.90	101.65	-42.17	607.04	570.34	16.54		
9200.00	9158.04	9157.14	9153.53	22.48	16.84	188.45	99.42	-43.65	622.79	585.78	16.83		
9300.00	9256.87	9255.27	9251.61	22.80	16.94	188.00	97.09	-45.50	638.88	601.54	17.11		
9400.00	9355.71	9357.44	9353.74	23.12	17.05	187.55	94.60	-46.95	654.56	616.89	17.37		
9500.00	9454.54	9456.25	9452.52	23.44	17.15	187.15	92.22	-48.19	670.14	632.13	17.63		
9600.00	9553.38	9553.77	9550.00	23.76	17.26	186.77	89.74	-49.38	685.66	647.31	17.88		
9700.00	9652.22	9649.41	9645.58	24.09	17.37	186.37	86.99	-51.15	701.73	663.04	18.14		
9800.00	9751.05	9744.69	9740.80	24.41	17.48	185.97	84.19	-53.13	718.02	678.99	18.40		
9900.00	9849.89	9834.60	9830.63	24.74	17.59	185.61	81.61	-55.86	735.28	695.92	18.68		
10000.00	9948.73	9924.43	9920.33	25.06	17.69	185.20	78.69	-59.79	753.74	714.05	18.99		
10100.00	10047.56	10016.31	10011.98	25.39	17.81	184.73	74.92	-64.92	773.18	733.15	19.31		
10200.00	10146.40	10108.09	10103.47	25.72	17.92	184.23	70.62	-70.81	793.33	752.96	19.65		
10300.00	10245.23	10195.48	10190.50	26.05	18.03	183.74	66.30	-77.45	814.61	773.91	20.01		
10400.00	10344.07	10285.23	10279.80	26.38	18.15	183.25	61.98	-85.28	837.05	796.01	20.39		
10500.00	10442.91	10387.09	10381.17	26.71	18.29	182.75	57.42	-94.27	859.73	818.31	20.76		
10600.00	10541.74	10493.29	10486.91	27.04	18.43	182.24	52.30	-102.63	881.47	839.65	21.08		
10700.00	10640.58	10592.62	10585.88	27.37	18.57	181.84	48.10	-109.98	902.94	860.75	21.40		
10729.24	10669.48	10623.94	10617.10	27.47	18.62	181.73	47.00	-112.14	909.12	866.81	21.49		
10750.00	10689.98	10646.16	10639.27	27.53	18.65	194.58	46.30	-113.59	913.51	871.12	21.55		
10800.00	10739.12	10705.17	10698.15	27.58	18.74	217.13	44.66	-117.02	924.23	881.65	21.70		
10850.00	10787.60	10753.53	10746.45	27.51	18.78	230.10	43.70	-119.37	935.23	892.49	21.88		
10900.00	10835.06	10783.87	10776.74	27.34	18.79	238.15	43.58	-121.03	947.33	904.49	22.11		
10950.00	10881.14	10805.38	10798.18	27.08	18.80	243.77	43.97	-122.58	961.12	918.15	22.37		
11000.00	10925.49	10824.80	10817.50	26.76	18.81	248.08	44.91	-124.39	976.75	933.65	22.66		
11050.00	10967.77	10842.98	10835.51	26.45	18.81	251.66	46.25	-126.47	994.16	950.88	22.97		
11100.00	11007.66	10860.54	10852.83	26.22	18.82	254.81	47.94	-128.84	1013.24	969.75	23.29		
11150.00	11044.86	10877.38	10869.34	26.10	18.83	257.74	49.99	-131.42	1033.85	990.10	23.63		
11200.00	11079.07	10900.37	10891.72	26.11	18.84	260.27	53.59	-135.28	1055.78	1011.73	23.97		
11250.00	11110.05	10928.57	10918.87	26.20	18.86	262.49	59.45	-140.14	1078.63	1034.27	24.32		
11300.00	11137.55	10955.18	10944.14	26.35	18.88	264.69	66.35	-144.75	1102.19	1057.49	24.66		
11350.00	11161.37	10976.23	10963.88	26.55	18.89	267.04	72.62	-148.56	1126.52	1081.47	25.01		
11400.00	11181.33	10994.75	10981.01	26.79	18.90	269.46	78.71	-152.06	1151.57	1106.18	25.37		
11450.00	11197.27	11013.77	10998.35	27.07	18.91	271.81	85.55	-155.82	1177.23	1131.51	25.75		
11500.00	11209.07	11036.16	11018.43	27.38	18.93	273.95	94.34	-160.36	1203.29	1157.28	26.15		
11550.00	11216.64	11073.71	11051.26	27.72	18.97	275.31	110.92	-167.93	1229.48	1183.17	26.54		
11600.00	11219.93	11122.97	11092.31	28.09	19.03	276.08	136.40	-177.42	1255.49	1208.83	26.91		
11616.58	11220.07	11140.41	11106.23	28.22	19.05	276.27	146.42	-180.59	1263.99	1217.22	27.02		
11700.00	11219.57	11274.37	11201.41	28.67	19.35	271.13	237.79	-201.55	1304.58	1256.79	27.30		
11800.00	11218.97	11438.63	11267.49	29.19	20.07	267.96	385.16	-224.27	1348.70	1299.54	27.43		
11900.00	11218.37	11715.33	11279.28	29.72	22.06	267.52	660.34	-234.43	1373.11	1321.38	26.54		
12000.00	11217.77	11816.68	11276.43	30.24	23.03	267.65	761.65	-233.32	1390.30	1337.07	26.12		
12100.00	11217.18	11921.22	11272.80	30.76	24.15	267.79	866.12	-231.87	1402.00	1347.13	25.55		
12200.00	11216.58	12031.41	11268.80	31.27	25.34	267.92	976.21	-229.70	1407.91	1351.36	24.90		
12300.00	11215.99	12134.26	11265.10	31.77	26.52	268.03	1078.97	-227.15	1408.09	1349.86	24.18		
12302.79	11215.97	12136.95	11265.02	31.79	26.55	268.04	1081.65	-227.08	1408.02	1349.75	24.16		
12400.00	11215.40	12230.19	11264.19	32.80	27.66	268.04	1174.85	-224.76	1405.60	1345.21	23.27		
12500.00	11214.82	12329.88	11264.21	33.87	28.88	268.02	1274.52	-222.53	1403.39	1340.70	22.39		



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Lea County, New Mexico (NAD 83)
Reference Site: Thistle Unit 46H
Reference Well: Thistle Unit 46H
Reference Wellpath:

Date: 7/10/2013 Time: 17:29:50 Page: 4
Co-ordinate(NE) Reference: Well: Thistle Unit 46H, Grid North
Vertical (TVD) Reference: SITE 3685.0
Db: Sybase

Site: Thistle Unit 44H
Well: Thistle Unit 44H
Wellpath: 1 V4

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
12600.00	11214.23	12439.09	11263.41	35.01	30.36	268.02	1383.68	-219.56	1400.67	1335.36	21.45	
12700.00	11213.64	12542.12	11261.82	36.20	31.84	268.05	1486.65	-216.39	1397.56	1329.59	20.56	
12800.00	11213.06	12643.56	11259.14	37.44	33.33	268.13	1588.00	-213.15	1394.31	1323.61	19.72	
12900.00	11212.47	12734.56	11256.70	38.73	34.64	268.21	1678.93	-210.36	1391.20	1317.90	18.98	

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

GeoDec v5.03

Report Date: June 03, 2013

Job Number: _____

Customer: Devon Energy

Well Name: Thistle Unit 46H

API Number: _____

Rig Name: _____

Location: Lea County, 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 457321.980 USFT

Latitude 32.2550022 DEG

East/West 774478.270 USFT

Longitude -103.5791520 DEG

Grid Convergence: .40°

Total Correction: +7.03°

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 32.25500° N 32° 15 min 18.008 sec

Longitude = 103.57915° W 103° 34 min 44.947 sec

Magnetic Declination = 7.43° [True North Offset]

Local Gravity = .9988 g CheckSum = 6517

Local Field Strength = 48433 nT Magnetic Vector X = 23905 nT

Magnetic Dip = 60.15° Magnetic Vector Y = 3118 nT

Magnetic Model = bggm2013 Magnetic Vector Z = 42007 nT

Spud Date = Aug 15, 2013 Magnetic Vector H = 24107 nT

Signed: _____

Date: _____