

30-015-37878



COOTER 16 STATE #8H EDDY CO., NEW MEXICO

KB ELEV: 3061
GL ELEV: 3036

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7094.00	47.47	0.90	7033.55	128.71	41.68	0.00	0.00	128.78	
2	7154.00	53.14	0.73	7071.86	174.86	42.34	9.45	358.62	174.93	
3	7823.84	90.00	359.48	7280.00	799.42	42.72	5.51	-2.08	799.49	
4	11679.11	90.00	359.48	7280.00	4654.53	7.73	0.00	0.00	4654.54	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cooter 16 State #8H	0.00	0.00	408889.66	650015.16	32°07'25.060N	103°58'56.208W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7280.00	4654.53	7.73	413544.20	650022.89	Point

FIELD DETAILS

Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

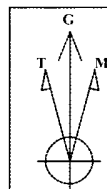
SITE DETAILS

Cooter 16 State #8H

Site Centre Northing: 408889.66
Easting: 650015.16
Ground Level: 3036.00
Positional Uncertainty: 0.00
Convergence: 0.19

LEGEND

- Cooter 16 State #8H, I, Plan #3
- Cooter 16 State #8H, I, Gyro
- Wft Svy



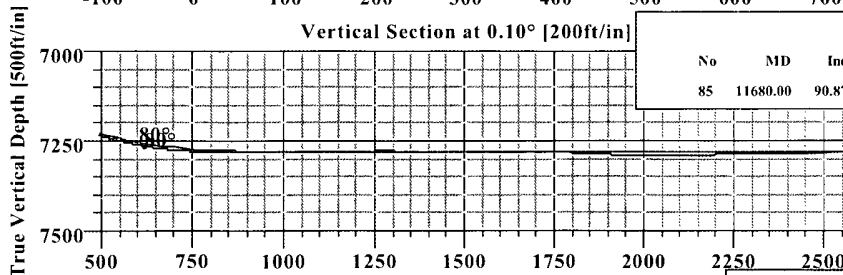
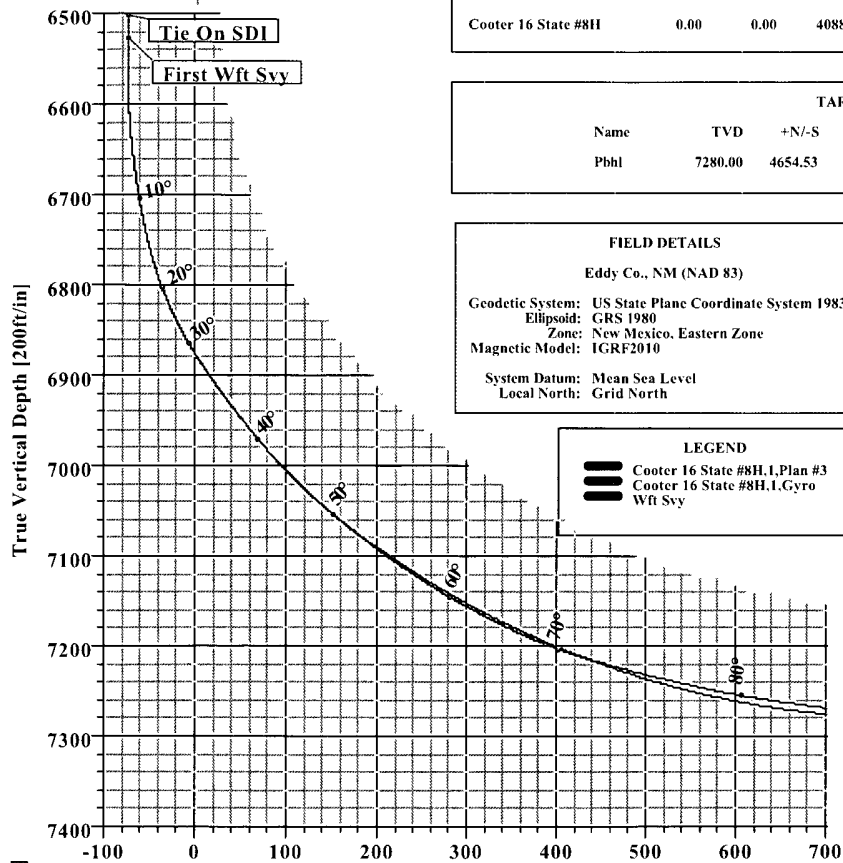
Azimuths to Grid North
True North: -0.19°
Magnetic North: 7.67°

Magnetic Field
Strength: 48605nT
Dip Angle: 60.04°
Date: 10/1/2010
Model: IGRF2010

Total Correction to Grid North: 7.67°



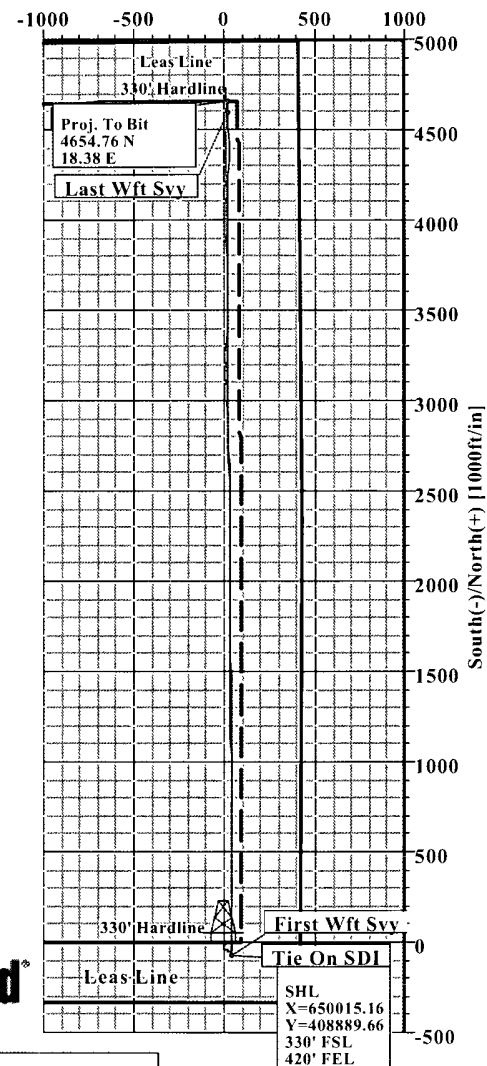
Weatherford®



Survey: Wft Svy (Cooter 16 State #8H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
85	11680.00	90.87	357.89	7289.06	4654.76	18.38	0.00	180.00	4654.78

West(-)/East(+) [1000ft/in]



Proj. To Bit
Last Wft Svy

Survey: Wft Svy (Cooter 16 State #8H/1)

Created By: Russell W. Joyner

Date: 10/11/2010



Weatherford International Ltd.

WFT Survey Report X & Y's

**Weatherford**

Company: Devon Energy	Date: 10/11/2010	Time: 07:51:38	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: Cooter 16 State #8H, Grid North		
Site: Cooter 16 State #8H	Vertical (TVD) Reference: SITE 3061.0		
Well: Cooter 16 State #8H	Section (VS) Reference: Well (0.00N,0.00E,0.10Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy	Start Date: 10/4/2010
Company: Weatherford International Ltd.	Engineer: Russell W. Joyner
Tool: MWD;MWD - Standard	Tied-to: User Defined

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Cooter 16 State #8H

Site Position:	Northing: 408889.66 ft	Latitude: 32 7 25.060 N
From: Map	Easting: 650015.16 ft	Longitude: 103 58 56.208 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3036.00 ft		Grid Convergence: 0.19 deg

Well: Cooter 16 State #8H	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 32 7 25.060 N
+E/-W 0.00 ft	Longitude: 103 58 56.208 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 10/1/2010	Above System Datum: Mean Sea Level
Field Strength: 48605 nT	Declination: 7.85 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.04 deg
ft	+N/-S
	ft
	+E/-W
	ft
	Direction
	deg
0.00	0.00
0.00	0.10

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6503.00	0.76	174.22	6501.56	-72.58	43.72	0.00	-72.51	408817.08	650058.89	Tie On SDI First Wft Svy
6528.00	1.10	161.19	6526.56	-72.97	43.82	1.59	-72.90	408816.69	650058.98	
6560.00	0.47	145.82	6558.55	-73.37	43.99	2.06	-73.30	408816.29	650059.15	
6591.00	1.94	6.35	6589.55	-72.96	44.12	7.48	-72.88	408816.71	650059.28	
6623.00	4.31	356.96	6621.50	-71.22	44.11	7.55	-71.14	408818.45	650059.28	
6654.00	6.45	353.02	6652.36	-68.32	43.84	7.00	-68.25	408821.34	650059.01	
6686.00	8.50	349.99	6684.09	-64.21	43.21	6.52	-64.14	408825.45	650058.38	
6717.00	10.86	351.34	6714.64	-59.07	42.37	7.65	-59.00	408830.60	650057.54	
6748.00	13.04	356.03	6744.97	-52.69	41.69	7.69	-52.62	408836.98	650056.86	
6780.00	16.23	359.11	6775.93	-44.61	41.37	10.26	-44.55	408845.05	650056.54	
6811.00	20.47	359.99	6805.35	-34.86	41.30	13.71	-34.79	408854.81	650056.47	
6843.00	25.33	358.26	6834.82	-22.41	41.10	15.33	-22.34	408867.25	650056.26	
6874.00	29.65	356.85	6862.31	-8.12	40.47	14.09	-8.05	408881.54	650055.64	
6906.00	33.23	356.75	6889.61	8.54	39.54	11.19	8.61	408898.21	650054.70	
6937.00	35.79	359.32	6915.15	26.09	38.95	9.50	26.15	408915.75	650054.11	
6969.00	37.43	2.31	6940.84	45.17	39.23	7.57	45.23	408934.83	650054.40	
7000.00	39.54	2.70	6965.10	64.44	40.08	6.85	64.50	408954.10	650055.24	
7031.00	41.61	1.59	6988.65	84.59	40.83	7.07	84.65	408974.25	650055.99	
7063.00	44.54	0.99	7012.02	106.43	41.32	9.25	106.50	408996.10	650056.48	
7094.00	47.47	0.90	7033.55	128.73	41.68	9.45	128.80	409018.39	650056.85	
7126.00	50.03	0.78	7054.65	152.78	42.03	8.00	152.85	409042.45	650057.20	
7157.00	51.81	0.35	7074.19	176.84	42.27	5.84	176.91	409066.51	650057.44	
7189.00	53.54	0.56	7093.59	202.29	42.47	5.43	202.36	409091.95	650057.64	
7220.00	55.72	359.46	7111.54	227.57	42.47	7.60	227.64	409117.23	650057.64	



Weatherford International Ltd.

WFT Survey Report X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cooter 16 State #8H
Well: Cooter 16 State #8H
Wellpath: 1

Date: 10/11/2010 Time: 07:51:38 Page: 2
Co-ordinate(NE) Reference: Well: Cooter 16 State #8H, Grid North
Vertical (TVD) Reference: SITE 3061.0
Section (VS) Reference: Well (0.00N,0.00E,0.10Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7252.00	57.87	359.06	7129.06	254.34	42.13	6.80	254.41	409144.00	650057.29	
7284.00	60.09	358.98	7145.55	281.75	41.66	6.94	281.82	409171.42	650056.82	
7315.00	62.08	358.73	7160.54	308.88	41.12	6.46	308.95	409198.55	650056.28	
7341.00	63.41	358.22	7172.44	331.99	40.50	5.40	332.05	409221.65	650055.66	
7373.00	65.51	357.72	7186.24	360.84	39.48	6.71	360.91	409250.51	650054.64	
7404.00	68.72	358.71	7198.29	389.38	38.59	10.76	389.45	409279.05	650053.75	
7436.00	71.60	359.92	7209.15	419.48	38.23	9.68	419.54	409309.14	650053.40	
7468.00	74.52	1.01	7218.48	450.08	38.48	9.69	450.15	409339.75	650053.65	
7499.00	75.70	2.12	7226.44	480.03	39.30	5.14	480.10	409369.70	650054.47	
7531.00	76.56	2.27	7234.11	511.07	40.49	2.73	511.14	409400.74	650055.66	
7563.00	77.20	1.07	7241.38	542.23	41.40	4.16	542.29	409431.89	650056.56	
7595.00	77.99	1.79	7248.25	573.47	42.18	3.31	573.54	409463.13	650057.34	
7626.00	79.91	1.46	7254.19	603.88	43.04	6.28	603.95	409493.54	650058.21	
7657.00	81.47	1.08	7259.21	634.46	43.72	5.18	634.53	409524.13	650058.88	
7689.00	82.11	0.15	7263.78	666.13	44.06	3.50	666.20	409555.80	650059.22	
7720.00	82.67	359.06	7267.88	696.86	43.85	3.93	696.93	409586.52	650059.01	
7752.00	83.72	359.25	7271.68	728.63	43.38	3.33	728.70	409618.29	650058.54	
7783.00	85.35	359.09	7274.63	759.48	42.93	5.28	759.55	409649.15	650058.10	
7814.00	87.17	359.03	7276.65	790.41	42.43	5.87	790.48	409680.08	650057.59	
7877.00	89.48	359.23	7278.49	853.37	41.47	3.68	853.44	409743.04	650056.63	
7972.00	89.76	358.39	7279.12	948.35	39.50	0.93	948.41	409838.02	650054.66	
8066.00	89.06	358.20	7280.09	1042.30	36.70	0.77	1042.36	409931.97	650051.86	
8160.00	90.59	359.65	7280.38	1136.28	34.94	2.24	1136.34	410025.95	650050.10	
8254.00	91.15	1.10	7278.95	1230.26	35.55	1.65	1230.32	410119.93	650050.72	
8348.00	88.85	358.26	7278.95	1324.25	35.03	3.89	1324.30	410213.91	650050.19	
8442.00	89.69	0.62	7280.15	1418.23	34.11	2.66	1418.28	410307.89	650049.27	
8536.00	90.66	1.28	7279.86	1512.21	35.67	1.25	1512.27	410401.88	650050.83	
8630.00	89.41	358.99	7279.80	1606.20	35.89	2.78	1606.26	410495.87	650051.05	
8724.00	89.06	0.69	7281.06	1700.19	35.63	1.85	1700.25	410589.86	650050.79	
8818.00	87.73	359.18	7283.69	1794.15	35.52	2.14	1794.21	410683.82	650050.68	
8912.00	86.96	358.39	7288.04	1888.03	33.53	1.17	1888.08	410777.69	650048.69	
9006.00	89.55	358.20	7290.91	1981.93	30.73	2.76	1981.98	410871.60	650045.90	
9100.00	90.94	359.62	7290.50	2075.91	28.94	2.11	2075.96	410965.58	650044.11	
9194.00	90.52	358.86	7289.31	2169.89	27.70	0.92	2169.94	411059.56	650042.86	
9289.00	89.90	359.26	7288.96	2264.88	26.14	0.78	2264.92	411154.55	650041.30	
9383.00	92.06	0.75	7287.35	2358.86	26.15	2.79	2358.90	411248.52	650041.31	
9477.00	91.57	0.18	7284.37	2452.81	26.91	0.80	2452.85	411342.47	650042.07	
9571.00	91.57	359.61	7281.80	2546.77	26.74	0.61	2546.81	411436.44	650041.90	
9665.00	91.01	0.13	7279.68	2640.75	26.52	0.81	2640.79	411530.41	650041.69	
9759.00	89.76	358.34	7279.05	2734.73	25.27	2.32	2734.77	411624.40	650040.43	
9854.00	88.71	357.72	7280.32	2829.66	22.00	1.28	2829.70	411719.33	650037.17	
9948.00	87.94	357.19	7283.07	2923.53	17.83	0.99	2923.56	411813.20	650033.00	
10042.00	90.03	357.95	7284.73	3017.43	13.85	2.37	3017.44	411907.09	650029.01	
10136.00	88.36	358.91	7286.05	3111.38	11.27	2.05	3111.39	412001.04	650026.44	
10230.00	90.03	1.18	7287.37	3205.36	11.35	3.00	3205.37	412095.02	650026.51	
10325.00	89.96	2.74	7287.38	3300.30	14.60	1.64	3300.32	412189.96	650029.76	
10419.00	91.01	1.03	7286.59	3394.24	17.69	2.13	3394.26	412283.90	650032.85	
10513.00	91.36	1.18	7284.64	3488.20	19.50	0.41	3488.23	412377.87	650034.66	
10607.00	91.08	1.77	7282.64	3582.15	21.92	0.69	3582.18	412471.81	650037.08	
10701.00	90.31	359.02	7281.50	3676.13	22.57	3.04	3676.16	412565.80	650037.73	
10795.00	90.11	0.60	7281.16	3770.13	22.26	1.69	3770.16	412659.79	650037.42	
10889.00	89.48	359.16	7281.49	3864.12	22.06	1.67	3864.15	412753.79	650037.22	



Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cooter 16 State #8H
Well: Cooter 16 State #8H
Wellpath: 1

Date: 10/11/2010
Co-ordinate(NE) Reference: Well: Cooter 16 State #8H, Grid North
Vertical (TVD) Reference: SITE 3061.0
Section (VS) Reference: Well (0.00N,0.00E,0.10Azi)
Survey Calculation Method: Minimum Curvature

Time: 07:51:38
Page: 3
Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
10983.00	90.31	0.15	7281.66	3958.12	21.49	1.37	3958.15	412847.78	650036.66	
11077.00	89.69	1.21	7281.66	4052.11	22.61	1.31	4052.14	412941.77	650037.77	
11172.00	89.20	359.63	7282.58	4147.10	23.30	1.74	4147.13	413036.76	650038.47	
11266.00	88.76	2.01	7284.26	4241.07	24.65	2.57	4241.10	413130.73	650039.81	
11360.00	87.23	0.46	7287.55	4334.98	26.67	2.32	4335.02	413224.65	650041.84	
11454.00	88.64	358.82	7290.93	4428.91	26.08	2.30	4428.95	413318.58	650041.25	
11549.00	91.08	357.78	7291.17	4523.86	23.27	2.79	4523.90	413413.53	650038.43	
11615.00	90.87	357.89	7290.04	4589.81	20.77	0.36	4589.84	413479.47	650035.94	Last Wft Svy
11680.00	90.87	357.89	7289.06	4654.76	18.38	0.00	4654.78	413544.42	650033.54	Proj. To Bit

Annotation

MD ft	TVD ft	
6503.00	6501.56	Tie On SDI
6528.00	6526.56	First Wft Svy
11615.00	7290.04	Last Wft Svy
11680.00	7289.06	Proj. To Bit



Weatherford[®]

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
20 North Broadway
Oklahoma City, OK, 73102

Date: October 12, 2010

Attention: Wes Handley

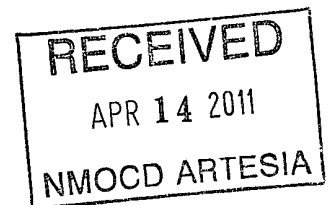
Re: Devon Energy
Well: Cooter 16 State #8H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Ralph Zamora MWD Supervisor	8H	6528' MD 11615' MD	10/1/2010 10/11/2010	Measurement While Drilling

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Luke Schnell
Area Manager



On this, the 12th day of October, 2010, before me a notary public, the undersigned officer, personally appeared Luke Schnell, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public