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NMOCD ARTESIA

Drilling Services

Proposal



devon

COTTON DRAW UNIT #116H

30-015-37926

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

APRIL 7, 2010

Weatherford International, Ltd.

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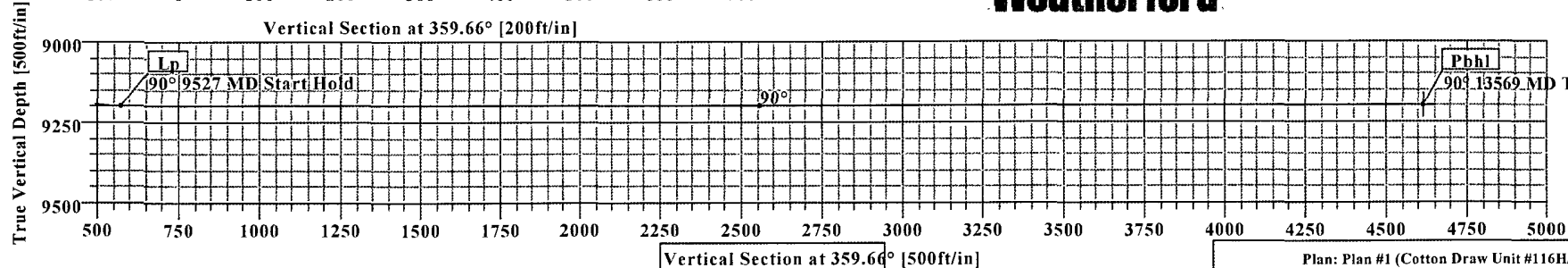
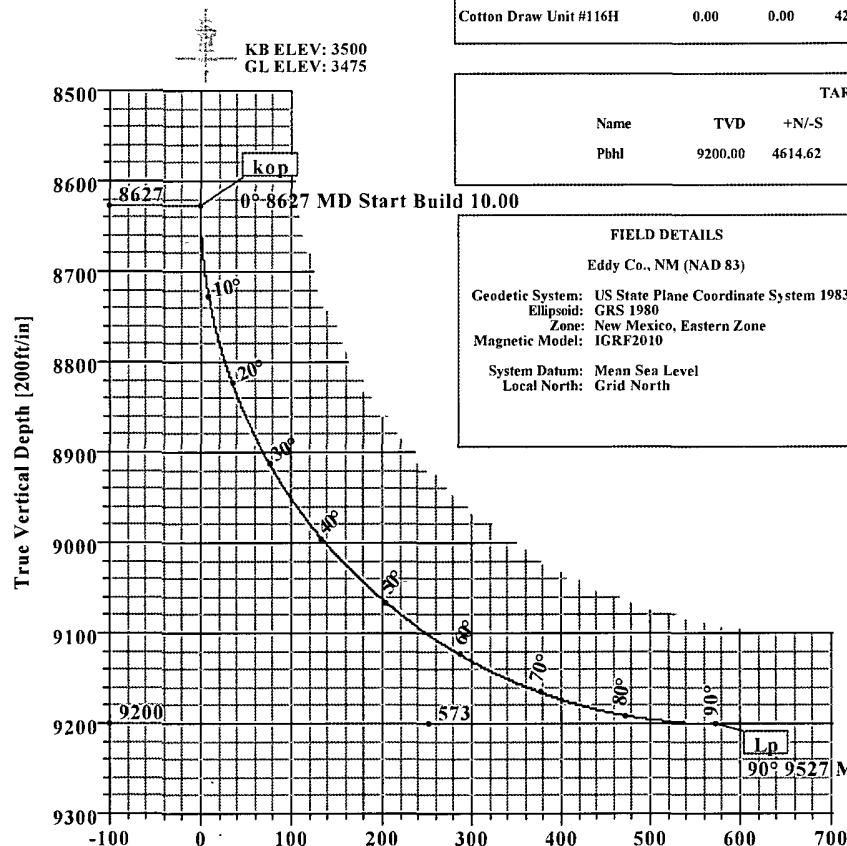
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www.weatherford.com

Accepted for record
NMOCD *DS*

devon

Cotton Draw Unit #116H Eddy Co., NM



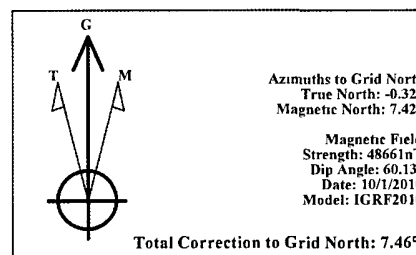
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	359.66	0.00	0.00	0.00	0.00	0.00	0.00	
2	8627.04	0.00	359.66	8627.04	0.00	0.00	0.00	0.00	0.00	
3	9527.04	90.00	359.66	9200.00	572.95	-3.38	10.00	359.66	572.96	
4	13568.78	90.00	359.66	9200.00	4614.62	-27.19	0.00	0.00	4614.70	Pbhl

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cotton Draw Unit #116H	0.00	0.00	425204.08	729770.63	32°10'02.986N	103°43'27.700W	N/A

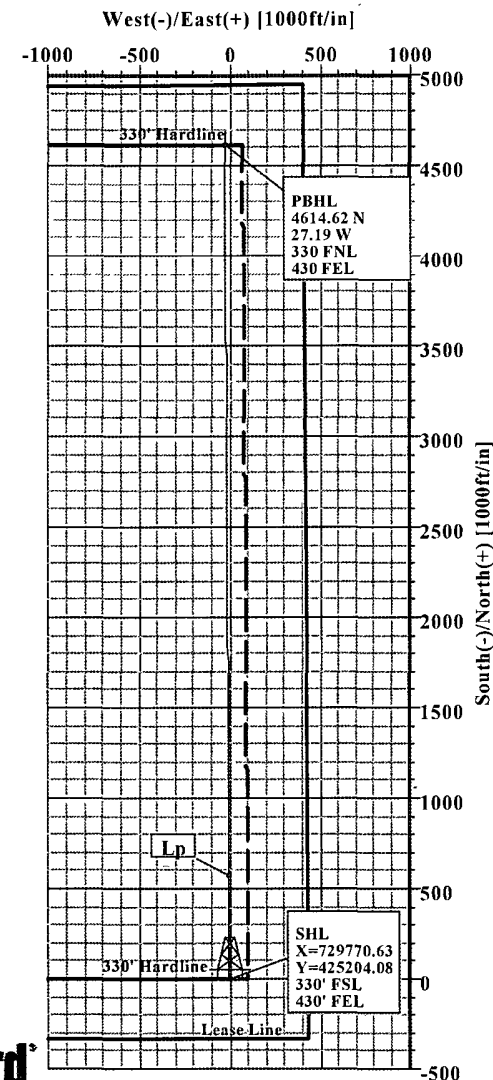
TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	9200.00	4614.62	-27.19	429818.70	729743.44	Point

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	
Cotton Draw Unit #116H	
Site Centre Northing:	425204.08
Easting:	729770.63
Ground Level:	3475.00
Positional Uncertainty:	0.00
Convergence:	0.32



Weatherford



Plan: Plan #1 (Cotton Draw Unit #116H/1)
Created By: Russell W Joyner
Date: 4/7/2010



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy	Date: 4/7/2010	Time: 10:59:49	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: Cotton Draw Unit #116H, Grid North		
Site: Cotton Draw Unit #116H	Vertical (TVD) Reference: SITE 3500.0		
Well: Cotton Draw Unit #116H	Section (VS) Reference: Well (0.00N,0.00E,359.66Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Eddy Co., NM (NAD 83)**Map System:** US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level**Map Zone:** New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010**Site:** Cotton Draw Unit #116H

Site Position:	Northing: 425204.08 ft	Latitude: 32 10 2.986 N
From: Map	Easting: 729770.63 ft	Longitude: 103 43 27.700 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3475.00 ft		Grid Convergence: 0.32 deg

Well: Cotton Draw Unit #116H**Slot Name:**

Well Position:	+N/-S 0.00 ft	Northing: 425204.08 ft	Latitude: 32 10 2.986 N
	+E/-W 0.00 ft	Easting: 729770.63 ft	Longitude: 103 43 27.700 W
Position Uncertainty: 0.00 ft			

Wellpath: 1

Current Datum: SITE	Height 3500.00 ft	Drilled From: Surface
Magnetic Data: 10/1/2010		Tie-on Depth: 0.00 ft
Field Strength: 48661 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)		Declination: 7.74 deg
ft	+N/-S ft	Mag Dip Angle: 60.13 deg
	+E/-W ft	Direction deg
9200.00	0.00	0.00
		359.66

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	359.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8627.04	0.00	359.66	8627.04	0.00	0.00	0.00	0.00	0.00	0.00	
9527.04	90.00	359.66	9200.00	572.95	-3.38	10.00	10.00	0.00	359.66	
13568.78	90.00	359.66	9200.00	4614.62	-27.19	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
8600.00	0.00	359.66	8600.00	0.00	0.00	0.00	0.00	425204.08	729770.63	
8627.04	0.00	359.66	8627.04	0.00	0.00	0.00	0.00	425204.08	729770.63	kop
8700.00	7.30	359.66	8699.80	4.64	-0.03	4.64	10.00	425208.72	729770.60	
8800.00	17.30	359.66	8797.39	25.91	-0.15	25.91	10.00	425229.99	729770.48	
8900.00	27.30	359.66	8889.79	63.80	-0.38	63.80	10.00	425267.88	729770.25	
9000.00	37.30	359.66	8974.21	117.16	-0.69	117.16	10.00	425321.24	729769.94	
9100.00	47.30	359.66	9048.09	184.37	-1.09	184.37	10.00	425388.45	729769.54	
9200.00	57.30	359.66	9109.17	263.38	-1.55	263.39	10.00	425467.47	729769.08	
9300.00	67.30	359.66	9155.60	351.80	-2.07	351.81	10.00	425555.89	729768.56	
9400.00	77.30	359.66	9185.97	446.95	-2.63	446.95	10.00	425651.03	729767.99	
9500.00	87.30	359.66	9199.36	545.92	-3.22	545.93	10.00	425750.00	729767.41	
9527.04	90.00	359.66	9200.00	572.95	-3.38	572.96	10.00	425777.03	729767.25	Lp
9600.00	90.00	359.66	9200.00	645.90	-3.81	645.92	0.00	425849.99	729766.82	
9700.00	90.00	359.66	9200.00	745.90	-4.39	745.92	0.00	425949.99	729766.23	
9800.00	90.00	359.66	9200.00	845.90	-4.98	845.92	0.00	426049.98	729765.64	
9900.00	90.00	359.66	9200.00	945.90	-5.57	945.92	0.00	426149.98	729765.06	
10000.00	90.00	359.66	9200.00	1045.90	-6.16	1045.92	0.00	426249.98	729764.47	
10100.00	90.00	359.66	9200.00	1145.90	-6.75	1145.92	0.00	426349.98	729763.88	
10200.00	90.00	359.66	9200.00	1245.89	-7.34	1245.92	0.00	426449.98	729763.29	
10300.00	90.00	359.66	9200.00	1345.89	-7.93	1345.92	0.00	426549.98	729762.70	



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit #116H
Well: Cotton Draw Unit #116H
Wellpath: 1

Date: 4/7/2010
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit #116H, Grid North
Vertical (TVD) Reference: SITE 3500.0
Section (VS) Reference: Well (0.00N,0.00E,359.66Azi)
Survey Calculation Method: Minimum Curvature

Time: 10:59:49
Page: 2
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
10400.00	90.00	359.66	9200.00	1445.89	-8.52	1445.92	0.00	426649.97	729762.11	
10500.00	90.00	359.66	9200.00	1545.89	-9.11	1545.92	0.00	426749.97	729761.52	
10600.00	90.00	359.66	9200.00	1645.89	-9.70	1645.92	0.00	426849.97	729760.93	
10700.00	90.00	359.66	9200.00	1745.89	-10.29	1745.92	0.00	426949.97	729760.34	
10800.00	90.00	359.66	9200.00	1845.88	-10.87	1845.92	0.00	427049.97	729759.75	
10900.00	90.00	359.66	9200.00	1945.88	-11.46	1945.92	0.00	427149.97	729759.16	
11000.00	90.00	359.66	9200.00	2045.88	-12.05	2045.92	0.00	427249.96	729758.58	
11100.00	90.00	359.66	9200.00	2145.88	-12.64	2145.92	0.00	427349.96	729757.99	
11200.00	90.00	359.66	9200.00	2245.88	-13.23	2245.92	0.00	427449.96	729757.40	
11300.00	90.00	359.66	9200.00	2345.87	-13.82	2345.92	0.00	427549.96	729756.81	
11400.00	90.00	359.66	9200.00	2445.87	-14.41	2445.92	0.00	427649.96	729756.22	
11500.00	90.00	359.66	9200.00	2545.87	-15.00	2545.92	0.00	427749.96	729755.63	
11600.00	90.00	359.66	9200.00	2645.87	-15.59	2645.92	0.00	427849.95	729755.04	
11700.00	90.00	359.66	9200.00	2745.87	-16.18	2745.92	0.00	427949.95	729754.45	
11800.00	90.00	359.66	9200.00	2845.87	-16.77	2845.92	0.00	428049.95	729753.86	
11900.00	90.00	359.66	9200.00	2945.86	-17.35	2945.92	0.00	428149.95	729753.27	
12000.00	90.00	359.66	9200.00	3045.86	-17.94	3045.92	0.00	428249.95	729752.68	
12100.00	90.00	359.66	9200.00	3145.86	-18.53	3145.92	0.00	428349.95	729752.09	
12200.00	90.00	359.66	9200.00	3245.86	-19.12	3245.92	0.00	428449.94	729751.51	
12300.00	90.00	359.66	9200.00	3345.86	-19.71	3345.92	0.00	428549.94	729750.92	
12400.00	90.00	359.66	9200.00	3445.86	-20.30	3445.92	0.00	428649.94	729750.33	
12500.00	90.00	359.66	9200.00	3545.85	-20.89	3545.92	0.00	428749.94	729749.74	
12600.00	90.00	359.66	9200.00	3645.85	-21.48	3645.92	0.00	428849.94	729749.15	
12700.00	90.00	359.66	9200.00	3745.85	-22.07	3745.92	0.00	428949.93	729748.56	
12800.00	90.00	359.66	9200.00	3845.85	-22.66	3845.92	0.00	429049.93	729747.97	
12900.00	90.00	359.66	9200.00	3945.85	-23.25	3945.92	0.00	429149.93	729747.38	
13000.00	90.00	359.66	9200.00	4045.85	-23.84	4045.92	0.00	429249.93	729746.79	
13100.00	90.00	359.66	9200.00	4145.84	-24.42	4145.92	0.00	429349.93	729746.20	
13200.00	90.00	359.66	9200.00	4245.84	-25.01	4245.92	0.00	429449.93	729745.61	
13300.00	90.00	359.66	9200.00	4345.84	-25.60	4345.92	0.00	429549.92	729745.03	
13400.00	90.00	359.66	9200.00	4445.84	-26.19	4445.92	0.00	429649.92	729744.44	
13500.00	90.00	359.66	9200.00	4545.84	-26.78	4545.92	0.00	429749.92	729743.85	
13568.78	90.00	359.66	9200.00	4614.62	-27.19	4614.70	0.00	429818.70	729743.44	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
Pbhl			9200.00	4614.62	-27.19	429818.70	729743.44	32 10 48.652 N	103 43 27.713 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8627.04	8627.04	kop
9527.04	9200.00	Lp
13568.77	9200.00	Pbhl



Weatherford International Ltd.
WFT Plan Report - X & Y's



Company: Devon Energy	Date: 4/7/2010	Time: 10.59.49	Page: 3
Field: Eddy Co. NM (NAD 83)	Co-ordinate(NE) Reference:	Well: Cotton Draw Unit #116H, Grid North	
Site: Cotton Draw Unit #116H	Vertical (TVD) Reference:	SITE 3500.0	
Well: Cotton Draw Unit #116H	Section (VS) Reference:	Well (0.00N,0.00E,359.66Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

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

GeoDec v5.03

Report Date: April 07, 2010
Job Number: _____
Customer: Devon Energy
Well Name: Cotton Draw Unit #116H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM
Block: _____
Engineer: R Joyner

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 425204.080 USFT	Latitude 32.1674985 DEG
East/West 729770.630 USFT	Longitude -103.7243564 DEG
Grid Convergence: .32°	
Total Correction: +7.42°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.16750° N	32° 10 min 2.995 sec
Longitude =	103.72436° W	103° 43 min 27.683 sec

Magnetic Declination =	7.74°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6545
Local Field Strength =	48657 nT	Magnetic Vector X = 24016 nT
Magnetic Dip =	60.13°	Magnetic Vector Y = 3264 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42192 nT
Spud Date =	Oct 01, 2010	Magnetic Vector H = 24237 nT

Signed: _____

Date: _____