



Weatherford®

Drilling Services

30-015 40424

Proposal



devon

ONYX PWU 29 #4H

EDDY COUNTY, NM

WELL FILE: **PLAN 2**

JUNE 15, 2012

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1 432.561.8892 Main

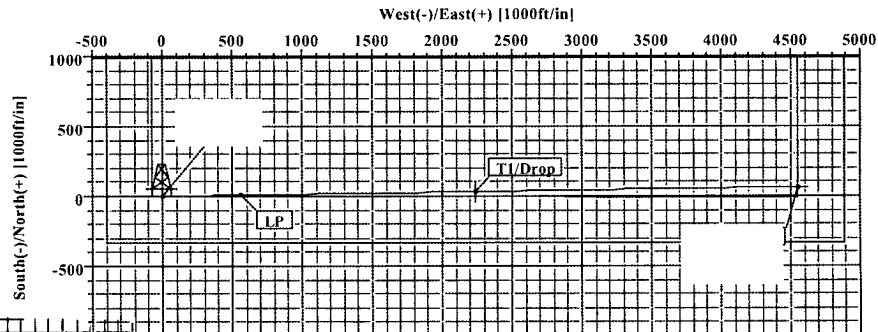
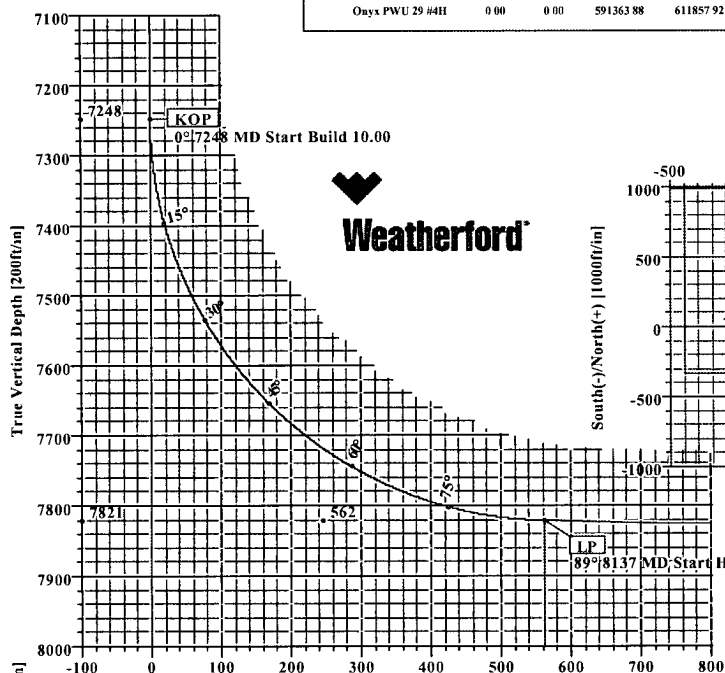
+1.432.561.8895 Fax

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Onyx PWU 29 #4H
Eddy Co, NM

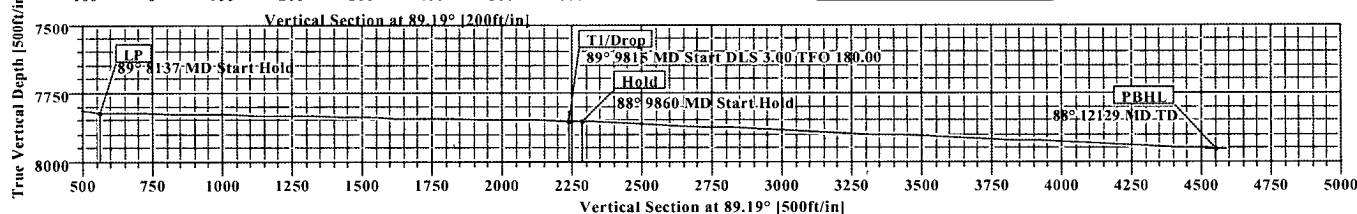
SECTION DETAILS										
Sec	MD	Inc	Azi	IVD	+N/-S	+E/-W	DI eg	T Fac	VSec	Target
1	0.00	0.00	89.19	0.00	0.00	0.00	0.00	0.00	0.00	
2	7248.15	0.00	89.19	7248.15	0.00	0.00	0.00	0.00	0.00	
3	8137.22	88.91	89.19	7821.00	7.95	561.98	10.00	89.19	562.03	
4	9815.27	88.91	89.19	7853.00	31.68	2239.55	0.00	0.00	2239.77	1gt
5	9860.19	87.56	89.19	7854.38	32.32	2284.44	3.00	180.00	2284.67	
6	12129.44	87.56	89.19	7951.00	64.38	4551.41	0.00	0.00	4551.87	PBHL

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Onyx PWU 29 #4H	0.00	0.00	591363.88	611857.92	32°37'31.790N	104°06'15.390W	N/A



LEGEND	
—	1
—	Plan #2

SITE DETAILS	
Onyx PWU 29 #4H	
Site Centre Northing:	591363.88
Easting:	611857.92
Ground Level:	3312.00
Positional Uncertainty:	0.00
Convergence:	0.12



```
##                                     #   ###
#                                     #   #
# ###      #####      ##   ##      #####      #####      #   #
##   #   #   #   ##      ##   #   #   #   #   #   #   #
#   #   #####   #   #   #   #####   #   #
#   #   #   #   #   #   #   #   #   #   #   #   #
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                                     #####
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Job : 188
Date: 6/26/2012
Time: 10:43:46 AM



Weatherford®

Drilling Services

Proposal



devon

ONYX PWU 29 #4H

EDDY COUNTY, NM

WELL FILE: **PLAN 2**

JUNE 15, 2012

Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432 561 8892 Main
+1 432.561 8895 Fax
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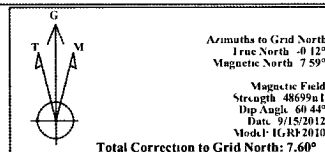
Onyx PWU 29 #4H
Eddy Co, NM

KB ELEV: 3331
GLELEV: 3312

SECTION DETAILS										
Sec	MD	Inc	Azi	IVD	+N/-S	+E/-W	DI Leg	T Face	V Sec	Target
1	0.00	0.00	89.19	0.00	0.00	0.00	0.00	0.00	0.00	
2	7248.15	0.00	89.19	7248.15	0.00	0.00	0.00	0.00	0.00	
3	8137.22	88.91	89.19	7821.00	7.95	561.98	10.00	89.19	562.03	Tgt
4	9815.27	88.91	89.19	7853.00	31.68	2239.55	0.00	0.00	2239.77	Tgt
5	9860.19	87.56	89.19	7854.38	32.32	2284.44	3.00	180.00	2284.67	
6	12129.44	87.56	89.19	7951.00	64.38	4551.41	0.00	0.00	4551.87	PBHL

WELL DETAILS						
Name	+N/-S	+E/-W	Northings	Eastings	Latitude	Longitude
Onyx PWU 29 #4H	0.00	0.00	591363.88	611857.92	32°37'31.790N	104°06'15.390W

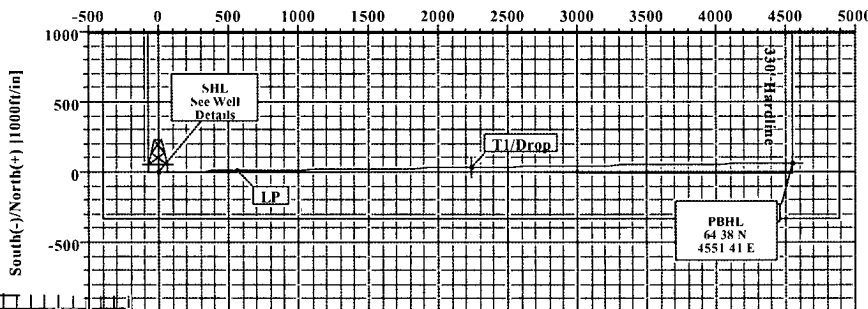
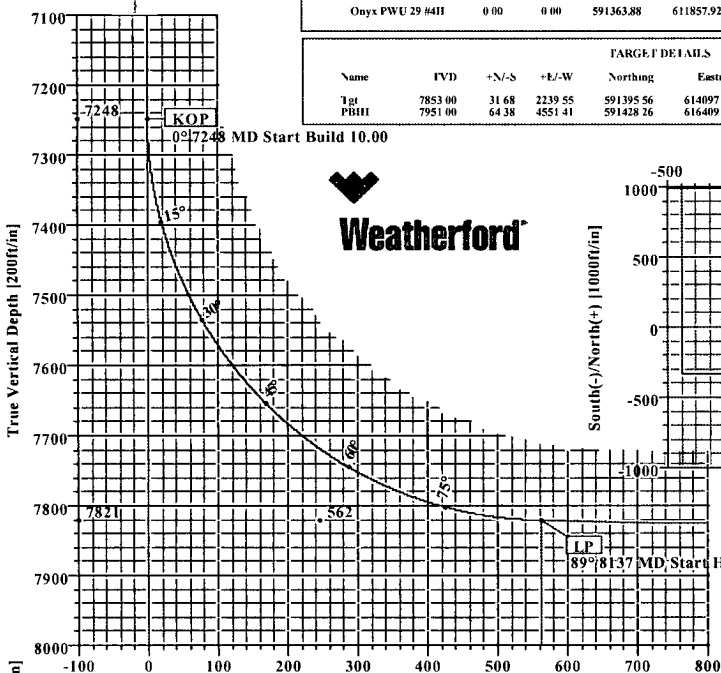
TARGET DETAILS						
Name	IVD	+N/-S	+E/-W	Northings	Eastings	Latitude
Tgt	7853.00	31.68	2239.55	591395.56	614097.47	32°37'32.055N
PBHL	7951.00	64.38	4551.41	591428.26	616409.33	32°37'32.327N



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



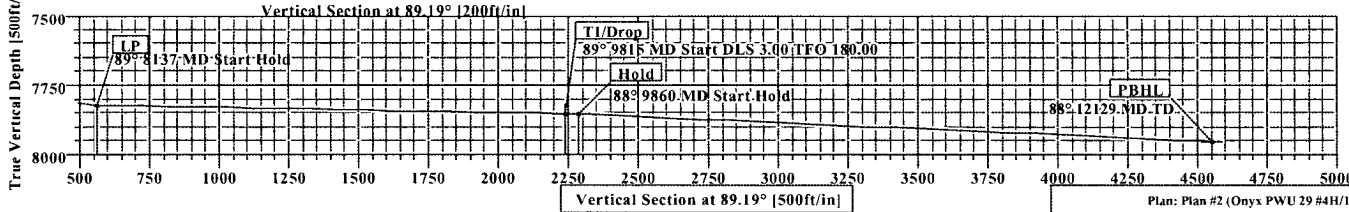
SHL DETAILS
Onyx PWU 29 #4H

Site Centre Northings 591363.88
Eastings 611857.92

Ground Level 3312.00
Positional Uncertainty 0.00
Convergence 0.12

LEGEND

1 Plan #2



Created By: Russell W. Joyner Date: 6/15/2012



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy Date: 6/15/2012 Time: 08 19.11 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well Onyx PWU 29 #4H, Grid North
Site: Onyx PWU 29 #4H Vertical (TVD) Reference: SITE 3331 0
Well: Onyx PWU 29 #4H Section (VS) Reference: Well (0 00N,0 00E,89 19Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #2 Date Composed: 6/15/2012
Principal: Yes Version: 1
Tied-to: From Surface

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: Onyx PWU 29 #4H

Site Position: Northing: 591363.88 ft Latitude: 32 37 31 790 N
From: Map Easting: 611857.92 ft Longitude: 104 6 15 390 W
Position Uncertainty: 0.00 ft North Reference: Grd
Ground Level: 3312 00 ft Grid Convergence: 0 12 deg

Well: Onyx PWU 29 #4H Slot Name:
Well Position: +N/-S 0 00 ft Northing: 591363 88 ft Latitude: 32 37 31.790 N
+E/-W 0 00 ft Easting: 611857.92 ft Longitude: 104 6 15 390 W
Position Uncertainty: 0.00 ft

Wellpath: 1
Current Datum: SITE Height 3331.00 ft
Magnetic Data: 9/15/2012
Field Strength: 48699 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0 00 0 00 0.00 89 19
Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.71 deg
Mag Dip Angle: 60 44 deg
+E/-W Direction
ft deg

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	89 19	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
7248.15	0 00	89.19	7248.15	0 00	0 00	0 00	0 00	0 00	0 00	
8137 22	88 91	89 19	7821 00	7 95	561 98	10 00	10.00	0 00	89 19	
9815 27	88 91	89 19	7853.00	31 68	2239 55	0 00	0 00	0 00	0 00	Tgt
9860 19	87 56	89 19	7854 38	32 32	2284 44	3 00	-3 00	0 00	180.00	
12129 44	87 56	89 19	7951 00	64 38	4551 41	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
7200 00	0 00	89 19	7200 00	0 00	0 00	0 00	0 00	591363 88	611857 92	
7248 15	0 00	89.19	7248.15	0 00	0 00	0 00	0 00	591363 88	611857 92	KOP
7250 00	0 19	89 19	7250 00	0 00	0 00	0 00	10 00	591363.88	611857 92	
7300.00	5 19	89 19	7299 93	0 03	2.34	2.34	10 00	591363.91	611860 26	
7350.00	10 19	89 19	7349 46	0 13	9 03	9.03	10 00	591364 01	611866 95	
7400 00	15 19	89 19	7398 23	0 28	20 00	20 00	10.00	591364.16	611877 92	
7450 00	20 19	89.19	7445.85	0 50	35 19	35 19	10 00	591364 38	611893.11	
7500 00	25 19	89.19	7491.97	0 77	54 46	54.47	10 00	591364 65	611912 38	
7550 00	30 19	89 19	7536 23	1 10	77 68	77.69	10.00	591364 98	611935 60	
7600 00	35 19	89 19	7578 30	1 48	104 67	104 68	10 00	591365.36	611962.59	
7650.00	40 19	89 19	7617 86	1 91	135.22	135.24	10 00	591365 79	611993 14	
7700.00	45 19	89 19	7654 60	2 39	169 11	169.13	10 00	591366 27	612027 03	
7750 00	50 19	89 19	7688 25	2 91	206 07	206.09	10 00	591366 79	612063.99	
7800.00	55.19	89.19	7718 55	3 48	245 82	245.84	10 00	591367 36	612103.74	
7850 00	60.19	89.19	7745.27	4.07	288.05	288.08	10 00	591367 95	612145 97	



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Onyx PWU 29 #4H
Well: Onyx PWU 29 #4H
Wellpath: 1

Date: 6/15/2012 Time: 08:19 11 Page: 2
Co-ordinate(NE) Reference: Well Onyx PWU 29 #4H, Grid North
Vertical (TVD) Reference: SITE 3331 0
Section (VS) Reference: Well (0 00N,0 00E,89 19Az)
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
7900.00	65.19	89.19	7768.21	4.70	332.46	332.49	10.00	591368.58	612190.38	
7950.00	70.19	89.19	7787.18	5.36	378.70	378.73	10.00	591369.24	612236.62	
8000.00	75.19	89.19	7802.06	6.03	426.41	426.45	10.00	591369.91	612284.33	
8050.00	80.19	89.19	7812.72	6.72	475.24	475.29	10.00	591370.60	612333.16	
8100.00	85.19	89.19	7819.09	7.42	524.81	524.86	10.00	591371.30	612382.73	
8137.22	88.91	89.19	7821.00	7.95	561.98	562.03	10.00	591371.83	612419.90	LP
8200.00	88.91	89.19	7822.20	8.84	624.73	624.80	0.00	591372.72	612482.65	
8300.00	88.91	89.19	7824.11	10.25	724.71	724.78	0.00	591374.13	612582.63	
8400.00	88.91	89.19	7826.01	11.67	824.68	824.76	0.00	591375.55	612682.60	
8500.00	88.91	89.19	7827.92	13.08	924.65	924.74	0.00	591376.96	612782.57	
8600.00	88.91	89.19	7829.83	14.49	1024.62	1024.72	0.00	591378.37	612882.54	
8700.00	88.91	89.19	7831.73	15.91	1124.59	1124.71	0.00	591379.79	612982.51	
8800.00	88.91	89.19	7833.64	17.32	1224.57	1224.69	0.00	591381.20	613082.49	
8900.00	88.91	89.19	7835.55	18.74	1324.54	1324.67	0.00	591382.62	613182.46	
9000.00	88.91	89.19	7837.45	20.15	1424.51	1424.65	0.00	591384.03	613282.43	
9100.00	88.91	89.19	7839.36	21.56	1524.48	1524.63	0.00	591385.44	613382.40	
9200.00	88.91	89.19	7841.27	22.98	1624.45	1624.62	0.00	591386.86	613482.37	
9300.00	88.91	89.19	7843.18	24.39	1724.42	1724.60	0.00	591388.27	613582.34	
9400.00	88.91	89.19	7845.08	25.81	1824.40	1824.58	0.00	591389.69	613682.32	
9500.00	88.91	89.19	7846.99	27.22	1924.37	1924.56	0.00	591391.10	613782.29	
9600.00	88.91	89.19	7848.90	28.64	2024.34	2024.54	0.00	591392.52	613882.26	
9700.00	88.91	89.19	7850.80	30.05	2124.31	2124.52	0.00	591393.93	613982.23	
9800.00	88.91	89.19	7852.71	31.46	2224.28	2224.51	0.00	591395.34	614082.20	
9815.27	88.91	89.19	7853.00	31.68	2239.55	2239.77	0.00	591395.56	614097.47	Tgt
9860.19	87.56	89.19	7854.38	32.32	2284.44	2284.67	3.00	591396.20	614142.36	Hold
9900.00	87.56	89.19	7856.08	32.88	2324.21	2324.44	0.00	591396.76	614182.13	
10000.00	87.56	89.19	7860.34	34.29	2424.11	2424.35	0.00	591398.17	614282.03	
10100.00	87.56	89.19	7864.59	35.70	2524.01	2524.26	0.00	591399.58	614381.93	
10200.00	87.56	89.19	7868.85	37.12	2623.91	2624.17	0.00	591401.00	614481.83	
10300.00	87.56	89.19	7873.11	38.53	2723.81	2724.08	0.00	591402.41	614581.73	
10400.00	87.56	89.19	7877.37	39.94	2823.71	2823.99	0.00	591403.82	614681.63	
10500.00	87.56	89.19	7881.63	41.36	2923.61	2923.90	0.00	591405.24	614781.53	
10600.00	87.56	89.19	7885.88	42.77	3023.51	3023.81	0.00	591406.65	614881.43	
10700.00	87.56	89.19	7890.14	44.18	3123.41	3123.72	0.00	591408.06	614981.33	
10800.00	87.56	89.19	7894.40	45.59	3223.31	3223.63	0.00	591409.47	615081.23	
10900.00	87.56	89.19	7898.66	47.01	3323.21	3323.54	0.00	591410.89	615181.13	
11000.00	87.56	89.19	7902.91	48.42	3423.11	3423.45	0.00	591412.30	615281.03	
11100.00	87.56	89.19	7907.17	49.83	3523.00	3523.36	0.00	591413.71	615380.92	
11200.00	87.56	89.19	7911.43	51.25	3622.90	3623.27	0.00	591415.13	615480.82	
11300.00	87.56	89.19	7915.69	52.66	3722.80	3723.18	0.00	591416.54	615580.72	
11400.00	87.56	89.19	7919.94	54.07	3822.70	3823.08	0.00	591417.95	615680.62	
11500.00	87.56	89.19	7924.20	55.49	3922.60	3922.99	0.00	591419.37	615780.52	
11600.00	87.56	89.19	7928.46	56.90	4022.50	4022.90	0.00	591420.78	615880.42	
11700.00	87.56	89.19	7932.72	58.31	4122.40	4122.81	0.00	591422.19	615980.32	
11800.00	87.56	89.19	7936.97	59.72	4222.30	4222.72	0.00	591423.60	616080.22	
11900.00	87.56	89.19	7941.23	61.14	4322.20	4322.63	0.00	591425.02	616180.12	
12000.00	87.56	89.19	7945.49	62.55	4422.10	4422.54	0.00	591426.43	616280.02	
12100.00	87.56	89.19	7949.75	63.96	4522.00	4522.45	0.00	591427.84	616379.92	
12129.44	87.56	89.19	7951.00	64.38	4551.41	4551.87	0.00	591428.26	616409.33	PBHL



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WFT Plan Report - X & Y's



Company: Devon Energy Date: 6/15/2012 Time: 08 19:11 Page: 3
Field: Eddy Co, NM (NAD 83) Co-ordinate(NE) Reference: Well: Onyx PWU 29 #4H, Grd North
Site: Onyx PWU 29 #4H Vertical (TVD) Reference: SITE 3331 0
Well: Onyx PWU 29 #4H Section (VS) Reference: Well (0 00N,0 00E,89.19Azi)
Wellpath: 1 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 ----> Deg Min Sec	<---- Longitude ----> Deg Min Sec
Tgt		7853 00	31 68	2239.55	591395.56	614097.47	32 37 32 055 N	104 5 49.201 W
PBHL		7951 00	64 38	4551 41	591428 26	616409.33	32 37 32 327 N	104 5 22 167 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
7248 15	7248 15	KOP
8137 22	7821.00	LP
9815 27	7853 00	T1/Drop
9860 19	7854 38	Hold
12129.44	7951.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle Dip Direction

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

GeoDec v5.03

Report Date: June 15, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Onyx PWU 29 #4H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM (NAD 83)
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 591363.880 USFT	Latitude 32.6255004 DEG
East/West 611857.920 USFT	Longitude -104.1042709 DEG
Grid Convergence: .12°	
Total Correction: +7.59°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.62550° N	32° 37 min 31.802 sec
Longitude =	104.10427° W	104° 6 min 15.375 sec

Magnetic Declination =	7.71°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6691
Local Field Strength =	48695 nT	Magnetic Vector X = 23809 nT
Magnetic Dip =	60.44°	Magnetic Vector Y = 3223 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42355 nT
Spud Date =	Sep 15, 2012	Magnetic Vector H = 24026 nT

Signed: _____

Date: _____