

HOBSOCD

FEB 26 2015

RECEIVED

OCCIDENTAL PERMIAN LTD.

Triple X Bone Spring
Lea County, NM (Grid North)
Foxglove 29 Federal #4H
DH - Job #321114-MPH-1319

Survey: MWD

Regulatory Report (Grid North)

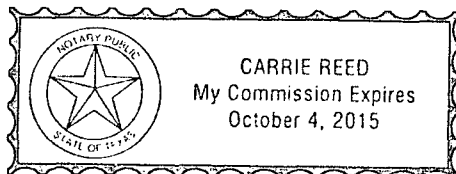
This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]

Notarized this date 2nd of January, 2015.

[Signature]

Notary Signature
County of Midland
State of Texas



MAR 04 2015

Regulatory Report (Grid North)

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Foxglove 29 Federal #4H
Project:	Triple X Bone Spring	TVD Reference:	Mean Sea Level (System)
Site:	Lea County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Foxglove 29 Federal #4H	North Reference:	Grid
Wellbore:	DH - Job #321114-MPH-1319	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #321114-MPH-1319	Database:	MID_Regulatory

Project	Triple X Bone Spring		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Lea County, NM (Grid North)		
Site Position:		Northing:	445,907.51 usft
From:	Lat/Long	Easting:	721,463.19 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 13' 25.997 N
		Longitude:	103° 37' 1.870 W
		Grid Convergence:	0.38 °

Well	Foxglove 29 Federal #4H, Horizontal		
Well Position	+N/-S	0.0 usft	Northing: 467,057.10 usft
	+E/-W	0.0 usft	Easting: 726,869.03 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 16' 54.922 N
		Longitude:	103° 35' 57.260 W
		Ground Level:	0.0 usft

Wellbore	DH - Job #321114-MPH-1319		
Magnetics	Model Name	Sample Date	Declination (°)
	BGGM2014	11/14/2014	7.35
			Dip Angle (°) 60.14
			Field Strength (nT) 48,289

Design	DH - Job #321114-MPH-1319		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°) 180.07

Survey Program	Date 1/22/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
202.0	15,636.0	MWD (DH - Job #321114-MPH-1319)	MWD
			Description MWD

Survey								
MD	Inc	Azi	TVD	N/S	E/W	Closure Azimuth	Closure Distance	
(usft)	(°)	(grid_north_azim)	(usft)	(usft)	(usft)	(°)	(usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
202.0	0.03	23.32	202.0	0.0	0.0	23.32	0.1	
232.0	0.20	196.64	232.0	0.0	0.0	58.21	0.0	
414.0	0.43	224.80	414.0	-0.8	-0.6	215.71	1.0	
686.0	0.26	255.06	686.0	-1.7	-1.9	228.42	2.5	
959.0	0.08	111.67	959.0	-1.9	-2.3	230.49	3.0	
1,239.0	0.55	240.71	1,239.0	-2.6	-3.3	231.40	4.2	
1,303.0	0.42	221.45	1,303.0	-3.0	-3.7	231.51	4.7	
1,522.0	0.52	278.02	1,522.0	-3.4	-5.2	236.85	6.2	
1,805.0	0.60	306.46	1,805.0	-2.4	-7.7	252.97	8.0	
2,088.0	0.20	338.76	2,088.0	-1.0	-9.1	263.61	9.1	
2,371.0	0.52	265.00	2,370.9	-0.7	-10.5	266.38	10.5	

Regulatory Report (Grid North)

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Foxglove 29 Federal #4H
Project:	Triple X Bone Spring	TVD Reference:	Mean Sea Level (System)
Site:	Lea County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Foxglove 29 Federal #4H	North Reference:	Grid
Wellbore:	DH - Job #321114-MPH-1319	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #321114-MPH-1319	Database:	MID_Regulatory

Survey								
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
2,654.0	0.18	328.03	2,653.9	-0.4	-12.0	268.09	268.09	12.0
2,937.0	0.27	285.88	2,936.9	0.2	-12.9	270.70	270.70	12.9
3,220.0	0.09	299.16	3,219.9	0.4	-13.7	271.87	271.87	13.8
3,503.0	0.07	21.88	3,502.9	0.7	-13.9	272.96	272.96	13.9
3,786.0	0.50	14.93	3,785.9	2.1	-13.5	278.73	278.73	13.7
4,069.0	0.03	130.87	4,068.9	3.2	-13.1	283.77	283.77	13.5
4,352.0	0.98	115.05	4,351.9	2.1	-10.9	281.15	281.15	11.1
4,635.0	1.62	116.57	4,634.8	-0.7	-5.1	262.51	262.51	5.1
4,917.0	1.52	339.62	4,916.8	1.1	-2.8	290.34	290.34	3.0
5,169.0	0.92	345.62	5,168.7	6.1	-4.5	323.75	323.75	7.6
5,290.0	0.85	339.47	5,289.7	7.9	-5.1	327.44	327.44	9.4
5,384.0	1.04	335.83	5,383.7	9.4	-5.7	328.85	328.85	10.9
5,478.0	1.19	209.27	5,477.7	9.3	-6.5	325.08	325.08	11.3
5,573.0	1.52	209.17	5,572.7	7.3	-7.6	314.02	314.02	10.5
5,667.0	1.62	204.28	5,666.6	5.0	-8.7	299.91	299.91	10.1
5,761.0	1.36	220.98	5,760.6	3.0	-10.0	286.53	286.53	10.4
5,855.0	1.18	219.57	5,854.6	1.4	-11.4	276.94	276.94	11.4
5,950.0	1.21	217.15	5,949.6	-0.2	-12.6	269.22	269.22	12.6
6,044.0	1.33	217.42	6,043.5	-1.8	-13.8	262.48	262.48	14.0
6,138.0	1.44	227.32	6,137.5	-3.5	-15.4	257.20	257.20	15.8
6,233.0	1.55	220.73	6,232.5	-5.3	-17.1	252.84	252.84	17.9
6,327.0	1.33	209.70	6,326.4	-7.2	-18.5	248.73	248.73	19.8
6,421.0	1.49	216.52	6,420.4	-9.1	-19.7	245.20	245.20	21.7
6,515.0	1.17	225.35	6,514.4	-10.8	-21.1	243.00	243.00	23.7
6,609.0	1.60	226.27	6,608.4	-12.4	-22.8	241.52	241.52	25.9
6,703.0	1.55	226.05	6,702.3	-14.1	-24.6	240.14	240.14	28.4
6,798.0	1.70	231.21	6,797.3	-15.9	-26.7	239.16	239.16	31.1
6,892.0	1.57	223.82	6,891.3	-17.7	-28.6	238.25	238.25	33.7
6,986.0	1.76	230.14	6,985.2	-19.6	-30.6	237.42	237.42	36.4
7,080.0	1.87	228.93	7,079.2	-21.5	-32.9	236.83	236.83	39.3
7,174.0	2.03	235.31	7,173.1	-23.5	-35.4	236.48	236.48	42.5
7,268.0	0.24	81.42	7,267.1	-24.4	-36.6	236.33	236.33	44.0
7,363.0	0.48	46.06	7,362.1	-24.1	-36.1	236.31	236.31	43.4
7,457.0	0.44	19.06	7,456.1	-23.5	-35.7	236.70	236.70	42.7
7,551.0	0.38	13.75	7,550.1	-22.8	-35.5	237.29	237.29	42.2
7,645.0	0.31	19.75	7,644.1	-22.3	-35.4	237.79	237.79	41.8
7,739.0	0.29	7.23	7,738.1	-21.8	-35.3	238.26	238.26	41.4
7,834.0	0.11	35.71	7,833.1	-21.5	-35.2	238.57	238.57	41.2
7,928.0	0.17	109.17	7,927.1	-21.5	-35.0	238.47	238.47	41.0
8,022.0	0.11	115.88	8,021.1	-21.5	-34.8	238.21	238.21	40.9
8,116.0	0.24	142.63	8,115.1	-21.7	-34.6	237.83	237.83	40.8
8,210.0	0.27	159.00	8,209.1	-22.1	-34.4	237.25	237.25	40.9
8,304.0	0.35	174.99	8,303.1	-22.6	-34.3	236.59	236.59	41.0
8,399.0	0.73	177.21	8,398.1	-23.5	-34.2	235.52	235.52	41.5

Regulatory Report (Grid North)

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Foxglove 29 Federal #4H
Project:	Triple X Bone Spring	TVD Reference:	Mean Sea Level (System)
Site:	Lea County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Foxglove 29 Federal #4H	North Reference:	Grid
Wellbore:	DH - Job #321114-MPH-1319	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #321114-MPH-1319	Database:	MID_Regulatory

Survey								
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
8,493.0	0.88	173.00	8,492.1	-24.8	-34.1	233.96	42.2	
8,587.0	1.00	182.76	8,586.1	-26.3	-34.0	232.27	43.0	
8,682.0	1.25	198.49	8,681.0	-28.2	-34.4	230.71	44.5	
8,776.0	1.22	202.14	8,775.0	-30.1	-35.1	229.44	46.2	
8,870.0	0.75	73.86	8,869.0	-30.8	-34.9	228.56	46.6	
8,964.0	0.65	60.87	8,963.0	-30.4	-33.8	228.09	45.5	
9,059.0	0.68	53.45	9,058.0	-29.8	-32.9	227.87	44.4	
9,153.0	0.72	107.14	9,152.0	-29.6	-31.9	227.13	43.5	
9,247.0	0.54	115.35	9,246.0	-30.0	-30.9	225.90	43.1	
9,342.0	0.42	100.63	9,341.0	-30.2	-30.2	224.96	42.7	
9,436.0	0.72	170.85	9,435.0	-30.9	-29.8	223.94	42.9	
9,530.0	1.26	168.76	9,529.0	-32.5	-29.5	222.21	43.9	
9,624.0	0.48	150.61	9,622.9	-33.8	-29.1	220.67	44.6	
9,719.0	0.74	224.58	9,717.9	-34.6	-29.3	220.25	45.4	
9,813.0	0.84	229.99	9,811.9	-35.5	-30.3	220.45	46.7	
9,907.0	1.42	232.97	9,905.9	-36.6	-31.7	220.88	48.5	
10,001.0	1.59	234.16	9,999.9	-38.1	-33.7	221.49	50.9	
10,095.0	1.88	243.89	10,093.8	-39.6	-36.2	222.43	53.6	
10,190.0	2.19	241.13	10,188.8	-41.1	-39.1	223.59	56.8	
10,284.0	1.96	239.60	10,282.7	-42.8	-42.1	224.53	60.0	
10,380.0	1.62	250.68	10,378.7	-44.1	-44.8	225.46	62.8	
10,474.0	1.27	256.04	10,472.6	-44.8	-47.1	226.43	65.0	
10,568.0	4.69	201.70	10,566.5	-48.6	-49.5	225.53	69.4	
10,663.0	12.11	197.40	10,660.4	-61.7	-53.9	221.14	82.0	
10,756.0	21.32	190.98	10,749.4	-87.7	-60.1	214.41	106.3	
10,852.0	26.24	187.36	10,837.2	-125.9	-66.1	207.71	142.2	
10,946.0	29.91	189.98	10,920.2	-169.6	-72.8	203.24	184.6	
11,040.0	41.82	192.91	10,996.2	-223.4	-83.9	200.59	238.7	
11,134.0	57.78	199.91	11,056.7	-291.9	-104.6	199.72	310.0	
11,229.0	72.98	201.41	11,096.2	-372.4	-135.1	199.94	396.1	
11,323.0	86.17	196.34	11,113.2	-459.7	-164.8	199.73	488.3	
11,425.0	93.40	189.45	11,113.6	-559.0	-187.6	198.55	589.6	
11,517.0	95.05	186.14	11,106.8	-649.9	-200.0	197.11	679.9	
11,611.0	87.62	181.41	11,104.6	-743.5	-206.2	195.50	771.6	
11,705.0	84.47	179.35	11,111.1	-837.3	-206.8	193.87	862.5	
11,800.0	84.01	176.67	11,120.6	-931.8	-203.5	192.32	953.7	
11,894.0	87.14	176.44	11,127.9	-1,025.3	-197.9	190.92	1,044.2	
11,988.0	90.20	175.65	11,130.0	-1,119.0	-191.4	189.71	1,135.3	
12,082.0	88.55	174.81	11,131.1	-1,212.7	-183.6	188.61	1,226.5	
12,176.0	89.09	175.29	11,133.0	-1,306.3	-175.5	187.65	1,318.1	
12,271.0	88.79	174.89	11,134.8	-1,401.0	-167.4	186.81	1,410.9	
12,365.0	91.45	173.67	11,134.6	-1,494.5	-158.0	186.03	1,502.8	
12,459.0	91.55	172.43	11,132.1	-1,587.8	-146.6	185.28	1,594.5	
12,553.0	89.40	175.58	11,131.3	-1,681.2	-136.8	184.65	1,686.8	

Regulatory Report (Grid North)

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Foxglove 29 Federal #4H
Project:	Triple X Bone Spring	TVD Reference:	Mean Sea Level (System)
Site:	Lea County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Foxglove 29 Federal #4H	North Reference:	Grid
Wellbore:	DH - Job #321114-MPH-1319	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #321114-MPH-1319	Database:	MID_Regulatory

Survey								
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
12,647.0	89.76	174.90	11,132.0	-1,774.9	-129.0	184.16	1,779.6	
12,741.0	89.97	174.22	11,132.2	-1,868.5	-120.1	183.68	1,872.3	
12,836.0	89.73	172.95	11,132.5	-1,962.9	-109.5	183.19	1,965.9	
12,930.0	90.24	176.45	11,132.5	-2,056.5	-100.8	182.81	2,058.9	
13,024.0	89.90	175.80	11,132.4	-2,150.2	-94.4	182.52	2,152.3	
13,118.0	90.03	175.34	11,132.4	-2,244.0	-87.2	182.23	2,245.7	
13,213.0	90.54	177.57	11,132.0	-2,338.8	-81.3	181.99	2,340.2	
13,307.0	90.00	178.85	11,131.5	-2,432.7	-78.4	181.85	2,434.0	
13,401.0	88.72	180.32	11,132.6	-2,526.7	-77.7	181.76	2,527.9	
13,495.0	88.76	179.85	11,134.6	-2,620.7	-77.8	181.70	2,621.8	
13,590.0	88.92	179.30	11,136.6	-2,715.7	-77.1	181.63	2,716.8	
13,684.0	88.89	178.80	11,138.4	-2,809.6	-75.6	181.54	2,810.6	
13,778.0	89.03	178.24	11,140.1	-2,903.6	-73.1	181.44	2,904.5	
13,872.0	88.79	177.53	11,141.9	-2,997.5	-69.7	181.33	2,998.3	
13,966.0	88.25	179.29	11,144.3	-3,091.4	-67.1	181.24	3,092.2	
14,060.0	90.74	179.63	11,145.1	-3,185.4	-66.2	181.19	3,186.1	
14,155.0	90.81	178.79	11,143.8	-3,280.4	-64.9	181.13	3,281.0	
14,249.0	90.40	177.95	11,142.8	-3,374.4	-62.2	181.06	3,374.9	
14,343.0	90.91	177.90	11,141.8	-3,468.3	-58.8	180.97	3,468.8	
14,438.0	91.25	177.57	11,140.0	-3,563.2	-55.0	180.89	3,563.6	
14,532.0	91.25	177.30	11,137.9	-3,657.1	-50.8	180.80	3,657.4	
14,626.0	91.51	176.82	11,135.7	-3,750.9	-46.0	180.70	3,751.2	
14,721.0	91.68	176.39	11,133.0	-3,845.7	-40.4	180.60	3,845.9	
14,815.0	92.19	176.19	11,129.8	-3,939.5	-34.3	180.50	3,939.6	
14,910.0	90.74	177.88	11,127.4	-4,034.3	-29.4	180.42	4,034.4	
15,004.0	89.33	178.23	11,127.4	-4,128.2	-26.2	180.36	4,128.3	
15,099.0	89.09	177.71	11,128.7	-4,223.2	-22.8	180.31	4,223.2	
15,193.0	89.40	176.94	11,129.9	-4,317.1	-18.5	180.25	4,317.1	
15,287.0	88.72	177.91	11,131.4	-4,411.0	-14.2	180.18	4,411.0	
15,382.0	88.79	177.52	11,133.5	-4,505.9	-10.5	180.13	4,505.9	
15,476.0	88.73	177.18	11,135.5	-4,599.7	-6.1	180.08	4,599.7	
15,571.0	89.23	176.50	11,137.2	-4,694.6	-0.9	180.01	4,694.6	
15,589.0	89.29	176.38	11,137.5	-4,712.6	0.2	180.00	4,712.6	
Last MWD Survey								
15,636.0	89.29	176.38	11,138.1	-4,759.4	3.2	179.96	4,759.4	
Projection to Bit								

Regulatory Report (Grid North)

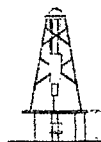
Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Foxglove 29 Federal #4H
Project:	Triple X Bone Spring	TVD Reference:	Mean Sea Level (System)
Site:	Lea County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Foxglove 29 Federal #4H	North Reference:	Grid
Wellbore:	DH - Job #321114-MPH-1319	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #321114-MPH-1319	Database:	MID_Regulatory

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
15,589.0	11,137.5	-4,712.6	0.2	Last MWD Survey
15,636.0	11,138.1	-4,759.4	3.2	Projection to Bit

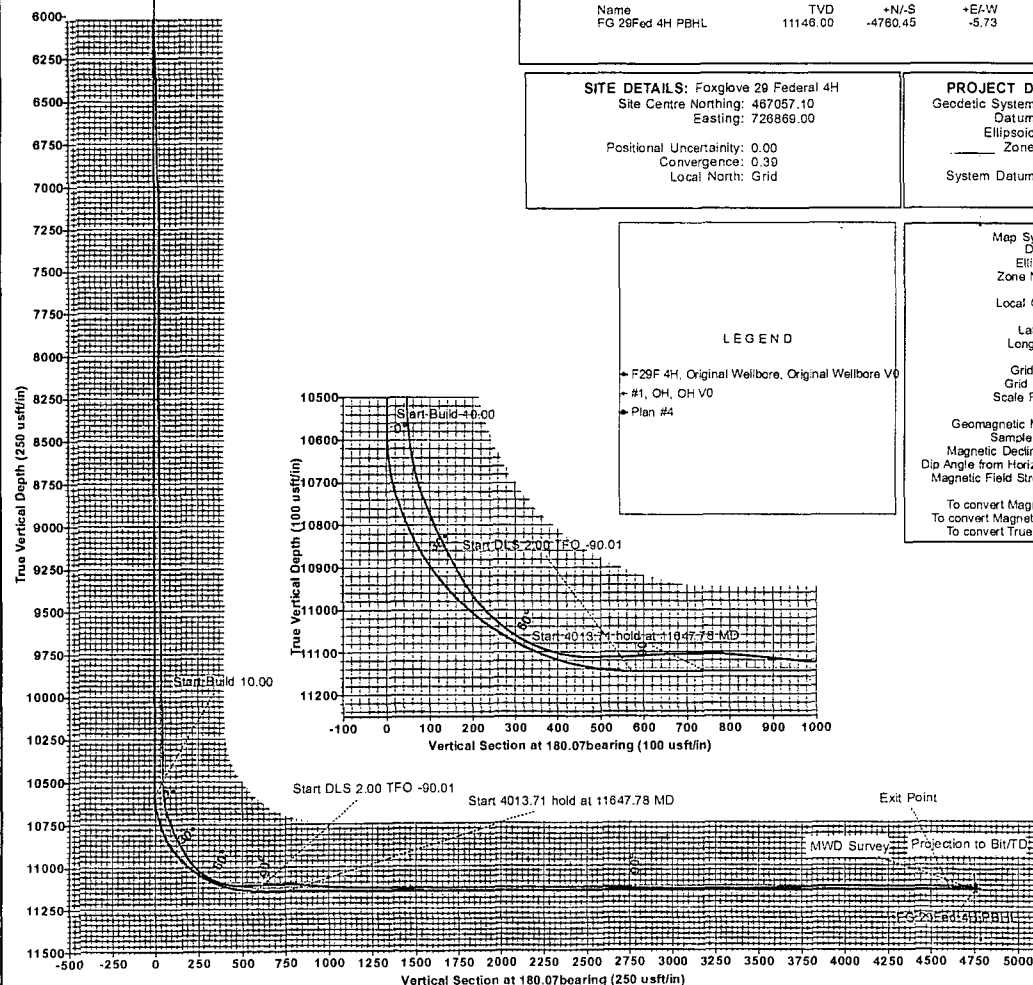
Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------



Foxglove 29 Federal 4H F29F 4H
Lea County, New Mexico
Northing: (Y) 467057.10
Easting: (X) 726869.00
Plan #4



KB @ 3716.10usft
Ground Level: 3692.10



WELL DETAILS:

Ground Level: 3692.10		Latitude		Longitude	
+N/-S	+E/-W	Northing	Easting	32° 16' 54.922 N	103° 35' 57.260 W
0.00	0.00	467057.10	726869.00		

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dlog	TFace	VSecl	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10573.00	0.00	0.00	10573.00	0.00	0.00	0.00	0.00	0.00	
11473.00	90.00	183.08	11145.96	-572.13	-30.79	10.00	183.08	572.17	
11647.78	90.00	179.58	11145.96	-746.84	-34.85	2.00	-90.01	746.88	
15661.50	90.00	179.58	11146.00	-4760.45	-5.73	0.00	0.00	4760.45	FG 29Fed 4H PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
FG 29Fed 4H PBHL	11146.00	-4760.45	-5.73	467057.10	726869.00

SITE DETAILS: Foxglove 29 Federal 4H

Site Centre Northing: 467057.10
Easting: 726869.00

Positional Uncertainty: 0.00
Convergence: 0.39
Local North: Grid

PROJECT DETAILS: Lea County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: New Mexico East 3001

System Datum: Mean Sea Level

Map System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone Name: New Mexico East 3001

Local Origin: Well F29F 4H, Grid North

Latitude: 32° 16' 54.922 N

Longitude: 103° 35' 57.260 W

Grid East: 726869.00

Grid North: 467057.10

Scale Factor: 1.000

Geomagnetic Model: IGRF2010

Sample Date: 11-Oct-13

Magnetic Declination: 7.32°

Dip Angle from Horizontal: 60.18°

Magnetic Field Strength: 48414

To convert Magnetic North to Grid, Add 6.92°

To convert Magnetic North to True, Add 7.32° East

To convert True North to Grid, Subtract 0.39°



Azimuths to Grid North

True North: -0.39°

Magnetic North: 6.92°

Magnetic Field

Strength: 48413.7gaT

Dip Angle: 60.18°

Date: 10/11/2013

Model: IGRF2010

To convert Magnetic North to Grid, Add 6.92°
To convert True North to Grid, Subtract 0.39°

