

Results of Directional Survey

API number:	30-025-41395	DD
OGRID:		Operator: CONOCOPHILLIPS COMPANY
		Property: MCA UNIT # 507

surface	ULSTR:	O	22	T 17S	R 32E
				1225 FSL	2045 FEL

BH Loc	ULSTR:	O	22	T 17S	R 32E
4225 MD		4224.2	TVD	1260 FSL	2071 FEL

Top Perf/OH	ULSTR:	O	22	T 17S	R 32E
3828 MD		3827.4	TVD	1256 FSL	2060 FEL

Bot Perf/OH	ULSTR:	O	22	T 17S	R 32E
4057 MD		4056.3	TVD	1258 FSL	2066 FEL

	MD	N/S	E/W	VD
	3788	30.44	-13.35	3787.46
TOP PERFS/OH	3828	30.86	-14.53	3827.44
	4168	34.46	-24.59	4167.27
	3788	30.44	-13.35	3787.46
BOT PERFS/OH	4057	33.29	-21.31	4056.33
	4168	34.46	-24.59	4167.27

NEXT TO LAST	4172	34.50	-24.72	4171.27
LAST READING	4225	35.14	-26.45	4224.24
TD	4225	35.14	-26.45	4224.24

Surface Location	1225	FS	2045	FE
Projected BHL	1260	FS	2071	FE
Location of				
Top Perfs/OH	1256	FS	2060	FE
Bottom Perfs/OH	1258	FS	2066	FE

SUMMARY of Subsurface Locations

Surface Location	O-22-17S-32E	1225	FS	2045	FE	Vert. Depth
Top Perfs/OH	O-22-17S-32E	1256	FS	2060	FE	3827.44
Bottom Perfs/OH	O-22-17S-32E	1258	FS	2066	FE	4056.33
Projected TD	O-22-17S-32E	1260	FS	2071	FE	4224.24

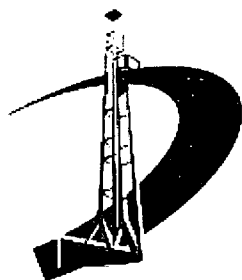
Accepted for Record Only

MAR 20 2014

HOBBS OCD

FEB 25 2014

RECEIVED



PRODIRECTIONAL

P.O. Box 750, Conroe, TX 77305 Phone: 936-441-7266

ConocoPhillips

MCA Unit Well No. 507

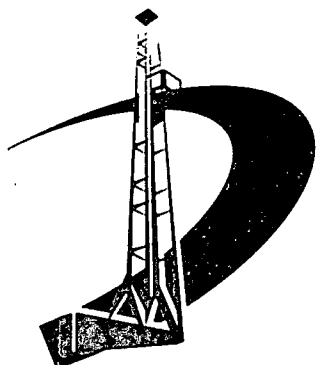
Lea County, NM

December 11, 2013

Job Number LNM 5107513

Survey Completion Report

ORIGINAL



PRODIRECTIONAL

P.O. Box 750, Conroe, TX 77305 Phone: 936-441-7266 Fax: 936-441-7268

December 11, 2013

ConocoPhillips

MCA Unit Well No. 507
Lea County, NM

This is to certify surveys from **935' MD** to a depth of **4,225' MD** are true and correct MWD surveys. These surveys were taken from **12/01/2013** through **12/05/2013**.

Sincerely,

John Jordan

Well Planning



ConocoPhillips

Lea County, NM

MCA Unit Well

No. 507

OH

HOBBS OCD
FEB 25 2014
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Survey: ProDirectional

Survey Report

10 December, 2013





Professional Directional
Survey Report with Dleg



Company: Conoco Phillips
Project: Lea County, N.M.
Site: MCA Unit
Well: No. 507
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 507
TVD Reference: WELL @ 4007.00usft (Original Well Elev)
MD Reference: WELL @ 4007.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Project Lea County, N.M.

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site MCA Unit

Site Position:		Northing:	656,769.90 usft	Latitude:	32° 48' 15.158 N
From:	Map	Easting:	677,918.00 usft	Longitude:	103° 45' 15.436 W
Position Uncertainty:	3.30 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31 °

Well No. 507

Well Position	+N/-S	0.00 usft	Northing:	661,093.40 usft	Latitude:	32° 48' 57.899 N
	+E/-W	0.00 usft	Easting:	678,650.10 usft	Longitude:	103° 45' 6.580 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,994.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/10/2013	7.41	60.64	48,699

Design OH

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Survey Program Date 12/10/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
935.00	4,225.00	Survey #1 (OH)	MWD	MWD - Standard



Professional Directional Survey Report with Dleg



Company: Conoco Phillips
Project: Lea County, N.M.
Site: MCA Unit
Well: No. 507
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 507
TVD Reference: WELL @ 4007.00usft (Original Well Elev)
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Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	V. Sec (usft)	Build (°/100usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
935.00	0.30	287.50	935.00	0.74	0.03	0.74	-2.33	2.45	287.50	0.03	
ProDirectional Surveys											
1,411.00	0.30	322.80	1,410.99	2.10	0.00	2.10	-4.28	4.77	296.19	0.04	
1,888.00	1.50	53.30	1,887.93	6.83	0.25	6.83	-0.03	6.83	359.79	0.32	
1,983.00	1.90	59.80	1,982.89	8.36	0.42	8.36	2.33	8.68	15.58	0.47	
2,363.00	0.60	17.20	2,362.80	13.43	-0.34	13.43	8.37	15.83	31.91	0.40	
2,838.00	0.80	317.00	2,837.77	18.24	0.04	18.24	6.84	19.48	20.56	0.15	
3,313.00	1.80	304.10	3,312.64	24.84	0.21	24.84	-1.60	24.89	356.32	0.22	
3,440.00	1.50	297.70	3,439.59	26.73	-0.24	26.73	-4.72	27.15	349.98	0.28	
3,788.00	1.60	289.10	3,787.46	30.44	0.03	30.44	-13.35	33.24	336.33	0.07	
4,168.00	2.00	290.10	4,167.27	34.46	0.11	34.46	-24.59	42.33	324.49	0.11	
4,172.00	2.00	290.10	4,171.27	34.50	0.00	34.50	-24.72	42.44	324.38	0.00	
4,225.00	2.00	290.10	4,224.24	35.14	0.00	35.14	-26.45	43.98	323.03	0.00	
PTB @ 4,225' MD											

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
935.00	935.00	0.74	-2.33	ProDirectional Surveys
4,225.00	4,224.24	35.14	-26.45	PTB @ 4,225' MD