



P.O. Box 750 | Conroe, TX 77305 | Phone: 936-441-7266
www.prodirectional.com



SEMU No. 247
Lea County, NM

October 10, 2014

Job No. LNM 5113514

Survey Completion Report

NOV 24 2015



PRODIRECTIONAL

Professional Directional Ltd.

P.O. Box 750 | Conroe, TX 77305 | (936) 441-7266

October 10, 2014



ConocoPhillips

SEMU No. 247

Lea County, NM

Job No. LNM 5114014

Survey Certification Form:

This is to certify surveys from **1,497'MD** to a depth of **4,304'MD** are true and correct MWD Surveys.
These surveys were taken from **10/01/2014** through **10/03/2014**.

Sincerely,

John Jordan | Well Planning

PRODIRECTIONAL



Conoco Phillips

Lea County, N.M.

SEMU

No. 247

OH

Survey: ProDirectional

Wellpath Report

10 October, 2014





Professional Directional
Wellpath Report



Company:	Conoco Phillips	Local Co-ordinate Reference:	Well No. 247
Project:	Lea County, N.M.	TVD Reference:	WELL @ 3552.00usft (Original Well Elev)
Site:	SEMU	MD Reference:	WELL @ 3552.00usft (Original Well Elev)
Well:	No. 247	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Well_Planner1

Project	Lea County, N.M.		
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	SEMU				
Site Position:		Northing:	569,250.22 usft	Latitude:	32° 33' 35.417 N
From:	Map	Easting:	850,159.22 usft	Longitude:	103° 11' 48.625 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.61 "

Well	No. 247					
Well Position	+N/-S	0.00 usft	Northing:	569,250.22 usft	Latitude:	32° 33' 35.417 N
	+E/-W	0.00 usft	Easting:	850,159.22 usft	Longitude:	103° 11' 48.625 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,539.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	8/4/2014	7.21	60.48	48,566

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	150.40

Survey Program	Date 10/10/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,497.00	4,304.00	Survey #1 (OH)	MWD	MWD - Standard



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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	569,250.22	850,159.22	0.00
1,497.00	0.30	152.40	1,496.99	-3.47	1.82	3.92	0.02	569,246.75	850,161.04	152.40
ProDirectional First Survey: 1,497' MD										
1,676.00	2.60	146.90	1,675.92	-7.29	4.25	8.44	1.29	569,242.93	850,163.47	-6.22
1,855.00	6.50	149.30	1,854.33	-19.41	11.64	22.63	2.18	569,230.81	850,170.86	3.99
2,034.00	10.00	148.50	2,031.45	-41.38	24.94	48.30	1.96	569,208.84	850,184.16	-2.27
2,212.00	14.40	149.10	2,205.38	-73.56	44.39	85.89	2.47	569,176.66	850,203.61	1.94
2,391.00	18.50	150.60	2,377.02	-117.42	69.77	136.56	2.30	569,132.80	850,228.99	6.64
2,570.00	18.10	150.30	2,546.97	-166.32	97.49	192.77	0.23	569,083.90	850,256.71	-166.89
2,749.00	15.10	147.30	2,718.49	-210.10	123.87	243.86	1.74	569,040.12	850,283.09	-165.49
2,927.00	16.30	148.50	2,889.85	-250.91	149.45	291.98	0.70	568,999.31	850,308.67	15.72
3,105.00	16.50	151.30	3,060.61	-294.38	174.64	342.22	0.46	568,955.84	850,333.86	77.15
3,285.00	19.00	149.60	3,232.03	-342.08	201.75	397.09	1.42	568,908.14	850,360.97	-12.52
3,374.00	18.50	149.70	3,316.30	-366.77	216.20	425.70	0.56	568,883.45	850,375.42	176.37
3,464.00	17.90	149.50	3,401.80	-391.02	230.43	453.80	0.67	568,859.20	850,389.65	-174.15
3,553.00	19.20	152.20	3,486.18	-415.75	244.19	482.11	1.75	568,834.47	850,403.41	34.74
3,643.00	19.20	156.00	3,571.17	-442.36	257.12	511.63	1.39	568,807.86	850,416.34	91.79
3,732.00	21.40	152.30	3,654.64	-470.11	270.62	542.43	2.86	568,780.11	850,429.84	-32.01
3,821.00	21.10	152.20	3,737.59	-498.66	285.64	574.67	0.34	568,751.56	850,444.86	-173.16
3,910.00	21.10	152.10	3,820.62	-526.98	300.60	606.69	0.04	568,723.24	850,459.82	-90.05
4,000.00	21.30	152.10	3,904.53	-555.75	315.83	639.22	0.22	568,694.47	850,475.05	0.00
4,089.00	21.30	152.20	3,987.45	-584.33	330.94	671.54	0.04	568,665.89	850,490.16	90.05
4,179.00	21.20	151.70	4,071.34	-613.12	346.28	704.14	0.23	568,637.10	850,505.50	-119.12
4,240.00	21.30	151.50	4,128.19	-632.57	356.79	726.25	0.20	568,617.65	850,516.01	-36.03
Last Survey: 4,240' MD, 4,128.19' TVD										
4,304.00	21.30	151.50	4,187.82	-653.00	367.88	749.49	0.00	568,597.22	850,527.10	0.00
PTB: 4,304' MD										



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Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,497.00	1,496.99	-3.47	1.82	ProDirectional First Survey: 1,497' MD
4,240.00	4,128.19	-632.57	356.79	Last Survey: 4,240' MD, 4,128.19' TVD
4,304.00	4,187.82	-653.00	367.88	PTB: 4,304' MD