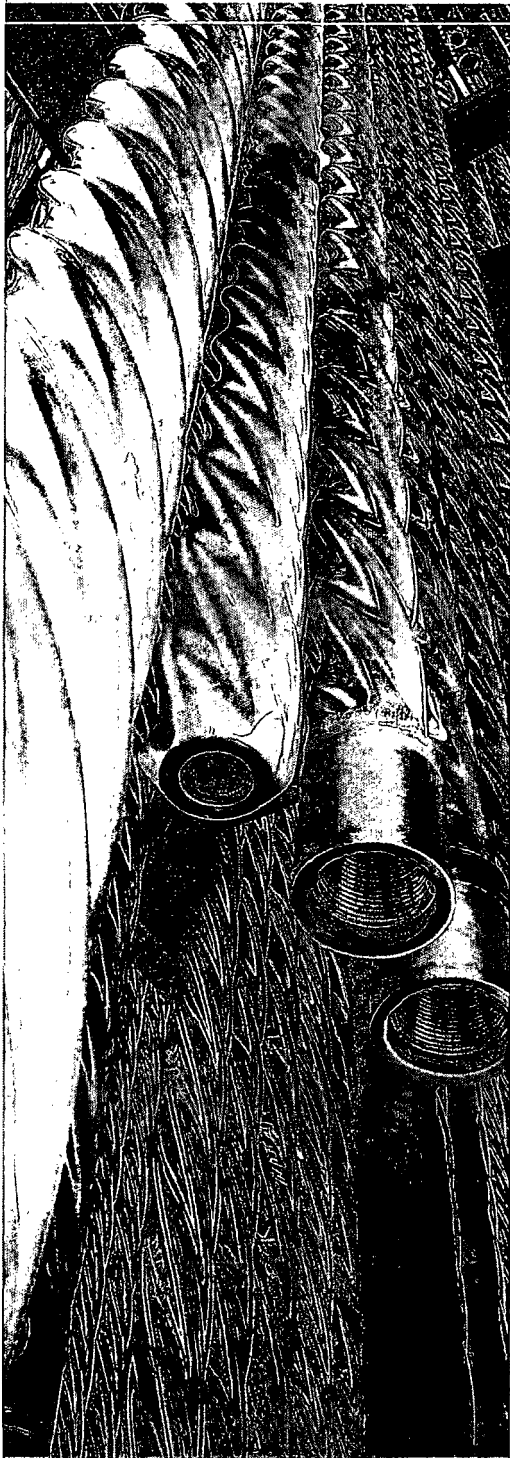




HOBBS OCD
DEC 12 2018
RECEIVED



Seawolf 1-12 Fed No. 95H

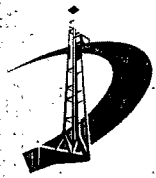
Lea County, NM

May 02, 2018

Job No. LNM5156617

 **ORIGINAL**

Survey Completion Report



PRODIRECTIONAL

Survey Certification Letter

May 02, 2018



Operator Name: Devon Energy Corp.
Well Name: Seawolf 1-12 Fed No. 95H
County/Parish: Lea County,
State: NM
Rig Name: ICD 209
Job Number: LNM5156617

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

<u>Surveyor</u>	<u>Surveyed Depths</u>	<u>Projection to Bit</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
ProDirectional	13,012' MD – 22,907' MD	22,963' MD	03/18/17 – 04/02/18	MWD

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com

The Standard of Excellence in Directional Supervision



Devon Energy Corp.

**Lea County, NM
Seawolf 1-12 Fed
No. 95H
OH**

Survey: ProDirectional

Survey Report

02 May, 2018





ProDirectional
Survey Report



Company:	Devon Energy Corp.	Local Co-ordinate Reference:	Well 95H.
Project:	Lea County, NM (NAD83)	TVD Reference:	GL 3325'+KB 27' @ 3352.00usft (ICD 209)
Site:	Seawolf 1-12 Fed	MD Reference:	GL 3325'+KB 27' @ 3352.00usft (ICD 209)
Well:	95H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys 100-22963 MD	Database:	WellPlanner1

Project:	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Seawolf 1-12 Fed		
Site Position:		Northing:	393,524.42 usft
From:	Map	Easting:	793,262.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 45.362937 N
		Longitude:	103° 31' 11.830246 W
		Grid Convergence:	0.43 °

Well	95H					
Well Position	+N/-S	0.00 usft	Northing:	393,524.42 usft	Latitude:	32° 4' 45.362937 N
	+E/-W	0.00 usft	Easting:	793,262.30 usft	Longitude:	103° 31' 11.830246 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,325.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	10/30/2017	6.78	59.80	47,914.00

Design:	Surveys 100-22963 MD			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	179.57



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey Program Date 4/3/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	12,952.00	Survey #3 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
13,012.00	22,963.00	Survey #4 (OH)	MWD+HDGM	OWSG MWD + HDGM

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (")	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	393,524.42	793,262.30
100.00	0.33	70.56	100.00	-0.09	0.10	0.27	0.29	70.56	393,524.52	793,262.57
200.00	0.37	76.22	200.00	-0.26	0.27	0.86	0.90	72.59	393,524.69	793,263.16
300.00	0.35	79.74	300.00	-0.39	0.40	1.47	1.52	74.79	393,524.82	793,263.77
400.00	0.25	89.30	399.99	-0.44	0.46	1.99	2.04	77.06	393,524.88	793,264.29
500.00	0.25	93.51	499.99	-0.43	0.45	2.43	2.47	79.57	393,524.87	793,264.73
600.00	0.24	96.24	599.99	-0.39	0.41	2.85	2.88	81.81	393,524.83	793,265.15
700.00	0.27	118.81	699.99	-0.25	0.27	3.27	3.28	85.21	393,524.69	793,265.57
800.00	0.35	129.10	799.99	0.06	-0.03	3.71	3.71	90.50	393,524.39	793,266.01
900.00	0.39	138.95	899.99	0.51	-0.48	4.17	4.20	96.59	393,523.94	793,266.47
1,000.00	0.35	163.75	999.99	1.07	-1.03	4.48	4.60	102.97	393,523.39	793,266.78
1,100.00	0.36	187.16	1,099.98	1.67	-1.64	4.53	4.81	109.88	393,522.78	793,266.83
1,200.00	0.42	185.51	1,199.98	2.35	-2.31	4.45	5.02	117.46	393,522.11	793,266.75
1,300.00	0.39	177.24	1,299.98	3.05	-3.02	4.43	5.36	124.25	393,521.40	793,266.73
1,400.00	0.41	179.66	1,399.98	3.75	-3.72	4.45	5.80	129.86	393,520.70	793,266.75
1,500.00	0.36	175.52	1,499.97	4.42	-4.39	4.48	6.27	134.41	393,520.03	793,266.78
1,600.00	0.20	180.92	1,599.97	4.91	-4.87	4.50	6.63	137.29	393,519.55	793,266.80
1,700.00	0.20	187.18	1,699.97	5.26	-5.22	4.47	6.88	139.41	393,519.20	793,266.77
1,800.00	0.19	178.66	1,799.97	5.59	-5.56	4.46	7.13	141.29	393,518.86	793,266.76
1,900.00	0.15	194.88	1,899.97	5.89	-5.85	4.43	7.34	142.90	393,518.57	793,266.73
2,000.00	0.19	196.00	1,999.97	6.17	-6.14	4.35	7.52	144.69	393,518.28	793,266.65



ProDirectional Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
2,100.00	0.19	185.49	2,099.97	6.50	-6.46	4.29	7.76	146.45	393,517.96	793,266.59	
2,200.00	0.16	194.36	2,199.97	6.80	-6.76	4.24	7.98	147.94	393,517.66	793,266.54	
2,300.00	0.19	200.43	2,299.97	7.09	-7.05	4.14	8.18	149.57	393,517.37	793,266.44	
2,400.00	0.20	209.38	2,399.97	7.39	-7.36	4.00	8.38	151.49	393,517.06	793,266.30	
2,500.00	0.42	267.38	2,499.97	7.56	-7.53	3.55	8.32	154.77	393,516.89	793,265.85	
2,600.00	1.06	281.58	2,599.96	7.38	-7.36	2.28	7.71	162.82	393,517.06	793,264.58	
2,700.00	2.17	283.25	2,699.92	6.74	-6.74	-0.47	6.76	184.02	393,517.68	793,261.83	
2,800.00	3.44	282.05	2,799.80	5.64	-5.68	-5.25	7.74	222.74	393,518.74	793,257.05	
2,900.00	4.14	282.10	2,899.58	4.21	-4.30	-11.71	12.48	249.85	393,520.12	793,250.59	
3,000.00	4.81	281.03	2,999.27	2.59	-2.74	-19.36	19.55	261.94	393,521.68	793,242.94	
3,100.00	5.59	279.49	3,098.86	0.92	-1.13	-28.28	28.30	267.70	393,523.29	793,234.02	
3,200.00	5.94	281.11	3,198.35	-0.95	0.67	-38.16	38.17	271.00	393,525.09	793,224.14	
3,300.00	6.16	280.28	3,297.80	-2.98	2.62	-48.52	48.59	273.09	393,527.04	793,213.78	
3,400.00	6.84	280.27	3,397.15	-5.09	4.64	-59.65	59.83	274.45	393,529.06	793,202.65	
3,500.00	7.50	282.56	3,496.37	-7.66	7.12	-71.88	72.24	275.66	393,531.54	793,190.42	
3,600.00	7.73	282.63	3,595.49	-10.65	10.01	-84.82	85.41	276.73	393,534.43	793,177.48	
3,700.00	7.69	282.62	3,694.58	-13.68	12.94	-97.91	98.76	277.53	393,537.36	793,164.39	
3,800.00	7.45	282.97	3,793.71	-16.69	15.86	-110.76	111.88	278.15	393,540.28	793,151.54	
3,900.00	7.22	282.83	3,892.89	-19.63	18.71	-123.20	124.61	278.64	393,543.13	793,139.10	
4,000.00	7.28	281.76	3,992.09	-22.41	21.40	-135.53	137.21	278.97	393,545.82	793,126.77	
4,100.00	7.67	279.09	4,091.25	-24.85	23.74	-148.32	150.21	279.09	393,548.16	793,113.98	
4,200.00	7.38	278.56	4,190.38	-26.96	25.75	-161.26	163.31	279.07	393,550.17	793,101.04	
4,300.00	7.21	278.91	4,289.57	-28.98	27.68	-173.81	176.00	279.05	393,552.10	793,088.49	
4,400.00	7.67	276.46	4,388.73	-30.80	29.40	-186.64	188.95	278.95	393,553.82	793,075.66	
4,500.00	7.41	274.54	4,487.87	-32.16	30.66	-199.70	202.04	278.73	393,555.08	793,062.60	
4,600.00	7.50	272.90	4,587.02	-33.10	31.50	-212.65	214.97	278.43	393,555.92	793,049.65	
4,700.00	7.63	271.02	4,686.15	-33.65	31.95	-225.81	228.06	278.05	393,556.37	793,036.49	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (%)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,800.00	7.80	271.32	4,785.25	-34.02	32.23	-239.23	241.39	277.67	393,556.65	793,023.07	
4,900.00	7.97	270.99	4,884.30	-34.40	32.50	-252.94	255.02	277.32	393,556.92	793,009.36	
5,000.00	8.13	271.27	4,983.32	-34.78	32.78	-266.94	268.95	277.00	393,557.20	792,995.36	
5,100.00	8.32	271.64	5,082.29	-35.25	33.14	-281.25	283.19	276.72	393,557.56	792,981.05	
5,200.00	7.83	272.80	5,181.30	-35.90	33.68	-295.28	297.20	276.51	393,558.10	792,967.02	
5,300.00	8.18	273.53	5,280.32	-36.77	34.45	-309.19	311.10	276.36	393,558.87	792,953.11	
5,400.00	8.37	273.37	5,379.28	-37.75	35.32	-323.55	325.47	276.23	393,559.74	792,938.75	
5,500.00	8.34	273.90	5,478.22	-38.78	36.24	-338.05	339.99	276.12	393,560.66	792,924.25	
5,600.00	8.08	273.34	5,577.19	-39.79	37.14	-352.30	354.26	276.02	393,561.56	792,910.00	
5,700.00	7.74	273.63	5,676.24	-40.73	37.98	-366.04	368.01	275.92	393,562.40	792,896.26	
5,800.00	7.98	271.25	5,775.30	-41.41	38.56	-379.70	381.65	275.80	393,562.98	792,882.60	
5,900.00	8.09	270.61	5,874.32	-41.74	38.78	-393.68	395.58	275.63	393,563.20	792,868.62	
6,000.00	8.02	270.37	5,973.33	-41.96	38.90	-407.69	409.54	275.45	393,563.32	792,854.61	
6,100.00	7.64	271.26	6,072.40	-42.26	39.10	-421.31	423.12	275.30	393,563.52	792,840.99	
6,200.00	8.05	275.38	6,171.47	-43.16	39.90	-434.93	436.75	275.24	393,564.32	792,827.37	
6,300.00	8.04	275.41	6,270.48	-44.58	41.21	-448.86	450.75	275.25	393,565.63	792,813.44	
6,400.00	7.98	275.38	6,369.51	-46.00	42.52	-462.73	464.68	275.25	393,566.94	792,799.57	
6,500.00	8.53	276.46	6,468.47	-47.59	44.01	-477.01	479.04	275.27	393,568.43	792,785.29	
6,600.00	8.54	276.22	6,567.36	-49.34	45.65	-491.76	493.88	275.30	393,570.07	792,770.54	
6,700.00	8.35	276.25	6,666.28	-51.04	47.24	-506.36	508.56	275.33	393,571.66	792,755.94	
6,800.00	8.34	278.78	6,765.22	-53.05	49.14	-520.75	523.06	275.39	393,573.56	792,741.55	
6,900.00	8.35	279.93	6,864.16	-55.51	51.50	-535.07	537.54	275.50	393,575.92	792,727.23	
7,000.00	7.95	279.50	6,963.15	-58.01	53.89	-549.04	551.68	275.61	393,578.31	792,713.26	
7,100.00	7.57	279.02	7,062.24	-60.29	56.07	-562.37	565.15	275.69	393,580.49	792,699.93	
7,200.00	8.07	283.45	7,161.31	-63.05	58.73	-575.70	578.69	275.83	393,583.15	792,686.60	
7,300.00	8.02	284.57	7,260.32	-66.54	62.12	-589.28	592.54	276.02	393,586.54	792,673.02	
7,400.00	8.48	285.17	7,359.29	-70.33	65.80	-603.14	606.72	276.23	393,590.22	792,659.16	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
7,500.00	8.22	285.07	7,458.23	-74.22	69.59	-617.16	621.08	276.43	393,594.01	792,645.14	
7,600.00	7.59	285.30	7,557.28	-77.92	73.19	-630.44	634.67	276.62	393,597.61	792,631.86	
7,700.00	7.25	284.70	7,656.44	-81.36	76.54	-642.91	647.45	276.79	393,600.96	792,619.39	
7,800.00	6.73	284.42	7,755.70	-84.51	79.60	-654.69	659.51	276.93	393,604.02	792,607.61	
7,900.00	6.63	281.43	7,855.02	-87.20	82.20	-666.02	671.08	277.04	393,606.62	792,596.28	
8,000.00	7.24	274.55	7,954.29	-88.93	83.85	-677.96	683.13	277.05	393,608.27	792,584.34	
8,100.00	7.02	272.00	8,053.51	-89.74	84.56	-690.35	695.51	276.98	393,608.98	792,571.95	
8,200.00	7.10	273.59	8,152.75	-90.43	85.16	-702.63	707.77	276.91	393,609.58	792,559.67	
8,300.00	7.22	274.45	8,251.98	-91.40	86.03	-715.06	720.22	276.86	393,610.45	792,547.24	
8,400.00	7.77	273.96	8,351.12	-92.45	86.99	-728.07	733.25	276.81	393,611.41	792,534.23	
8,500.00	7.98	273.64	8,450.18	-93.46	87.90	-741.74	746.93	276.76	393,612.32	792,520.56	
8,600.00	7.74	273.45	8,549.24	-94.41	88.74	-755.39	760.58	276.70	393,613.16	792,506.91	
8,700.00	7.26	272.39	8,648.38	-95.17	89.41	-768.42	773.61	276.64	393,613.83	792,493.88	
8,800.00	7.07	272.03	8,747.60	-95.75	89.89	-780.89	786.04	276.57	393,614.31	792,481.41	
8,900.00	7.41	272.89	8,846.80	-96.39	90.43	-793.48	798.61	276.50	393,614.85	792,468.82	
9,000.00	7.20	270.71	8,945.99	-96.88	90.84	-806.18	811.28	276.43	393,615.26	792,456.12	
9,100.00	6.94	268.87	9,045.23	-96.94	90.80	-818.49	823.51	276.33	393,615.22	792,443.81	
9,200.00	6.70	266.87	9,144.52	-96.59	90.36	-830.36	835.26	276.21	393,614.78	792,431.94	
9,300.00	6.38	267.21	9,243.87	-96.08	89.77	-841.73	846.50	276.09	393,614.19	792,420.57	
9,400.00	6.02	267.61	9,343.29	-95.68	89.28	-852.52	857.18	275.98	393,613.70	792,409.78	
9,500.00	5.24	268.79	9,442.81	-95.43	88.96	-862.32	866.90	275.89	393,613.38	792,399.98	
9,600.00	4.38	271.39	9,542.45	-95.49	88.96	-870.71	875.24	275.83	393,613.38	792,391.59	
9,700.00	3.50	275.68	9,642.22	-95.94	89.36	-877.56	882.10	275.81	393,613.78	792,384.74	
9,800.00	2.23	270.78	9,742.09	-96.31	89.68	-882.54	887.09	275.80	393,614.10	792,379.76	
9,900.00	1.63	272.80	9,842.03	-96.43	89.78	-885.91	890.45	275.79	393,614.20	792,376.39	
10,000.00	1.31	266.34	9,942.00	-96.44	89.78	-888.47	893.00	275.77	393,614.20	792,373.83	
10,100.00	1.66	266.38	10,041.96	-96.30	89.61	-891.06	895.55	275.74	393,614.03	792,371.24	



ProDirectional
Survey Report



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Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
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Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
10,200.00	1.49	262.84	10,141.93	-96.06	89.36	-893.79	898.25	275.71	393,613.78	792,368.51	
10,300.00	1.32	252.44	10,241.90	-95.57	88.85	-896.18	900.57	275.66	393,613.27	792,366.12	
10,400.00	1.11	255.50	10,341.87	-95.00	88.26	-898.22	902.54	275.61	393,612.68	792,364.08	
10,500.00	1.05	260.36	10,441.86	-94.62	87.86	-900.06	904.34	275.58	393,612.28	792,362.24	
10,600.00	1.26	299.26	10,541.84	-95.01	88.25	-901.92	906.23	275.59	393,612.67	792,360.38	
10,700.00	1.16	299.16	10,641.82	-96.06	89.28	-903.76	908.16	275.64	393,613.70	792,358.54	
10,800.00	0.88	313.54	10,741.80	-97.09	90.30	-905.20	909.70	275.70	393,614.72	792,357.10	
10,900.00	0.83	299.46	10,841.79	-97.99	91.19	-906.39	910.97	275.74	393,615.61	792,355.91	
11,000.00	0.98	285.57	10,941.78	-98.58	91.77	-907.85	912.47	275.77	393,616.19	792,354.45	
11,100.00	0.68	248.43	11,041.77	-98.60	91.78	-909.22	913.84	275.76	393,616.20	792,353.08	
11,200.00	1.10	262.13	11,141.75	-98.27	91.43	-910.72	915.30	275.73	393,615.85	792,351.58	
11,300.00	2.29	283.93	11,241.71	-98.64	91.78	-913.61	918.21	275.74	393,616.20	792,348.69	
11,400.00	2.72	276.69	11,341.61	-99.43	92.54	-917.91	922.56	275.76	393,616.96	792,344.39	
11,500.00	2.66	276.48	11,441.50	-100.00	93.08	-922.57	927.26	275.76	393,617.50	792,339.73	
11,600.00	2.36	289.36	11,541.41	-100.98	94.02	-926.82	931.58	275.79	393,618.44	792,335.48	
11,700.00	2.57	294.84	11,641.32	-102.63	95.65	-930.80	935.70	275.87	393,620.07	792,331.50	
11,800.00	2.76	309.74	11,741.21	-105.14	98.13	-934.68	939.82	275.99	393,622.55	792,327.62	
11,900.00	2.05	307.72	11,841.12	-107.80	100.76	-937.95	943.35	276.13	393,625.18	792,324.35	
12,000.00	1.84	316.02	11,941.06	-110.07	103.01	-940.48	946.10	276.25	393,627.43	792,321.82	
12,100.00	1.37	322.39	12,041.02	-112.18	105.11	-942.32	948.17	276.36	393,629.53	792,319.98	
12,200.00	1.08	320.92	12,141.00	-113.87	106.79	-943.65	949.67	276.46	393,631.21	792,318.65	
12,300.00	0.90	149.43	12,241.00	-113.93	106.85	-943.84	949.87	276.46	393,631.27	792,318.46	
12,400.00	11.01	173.15	12,340.33	-103.73	96.66	-942.30	947.24	275.86	393,621.08	792,320.00	
12,500.00	19.95	164.04	12,436.62	-77.75	70.72	-936.46	939.12	274.32	393,595.14	792,325.84	
12,600.00	29.35	168.57	12,527.41	-37.16	30.21	-926.89	927.38	271.87	393,554.63	792,335.41	
12,700.00	38.79	167.13	12,610.15	17.61	-24.48	-915.03	915.35	268.47	393,499.94	792,347.27	
12,800.00	53.50	165.67	12,679.25	87.60	-94.34	-898.01	902.95	264.00	393,430.08	792,364.29	



ProDirectional
Survey Report



Company:	Devon Energy Corp.	Local Co-ordinate Reference:	Well 95H
Project:	Lea County, NM (NAD83)	TVD Reference:	GL 3325'+KB 27' @ 3352.00usft (ICD 209)
Site:	Seawolf 1-12 Fed	MD Reference:	GL 3325'+KB 27' @ 3352.00usft (ICD 209)
Well:	95H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys 100-22963 MD	Database:	WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
12,900.00	66.75	169.28	12,728.96	172.21	-178.82	-879.43	897.42	258.51	393,345.60	792,382.87	
12,952.00	68.88	170.44	12,748.60	219.67	-226.21	-870.95	899.85	255.44	393,298.21	792,391.35	
13,012.00	71.70	173.30	12,768.83	275.64	-282.12	-862.98	907.92	251.90	393,242.30	792,399.32	
First ProD Survey: 13012' MD											
13,079.00	75.50	175.70	12,787.75	339.64	-346.08	-856.83	924.09	248.01	393,178.34	792,405.47	
13,124.00	83.10	179.90	12,796.10	383.80	-390.23	-855.16	939.99	245.47	393,134.19	792,407.14	
13,173.00	90.10	179.60	12,799.01	432.68	-439.11	-854.95	961.12	242.81	393,085.31	792,407.35	
13,268.00	94.10	177.80	12,795.53	527.58	-534.00	-852.79	1,006.19	237.95	392,990.42	792,409.51	
13,362.00	92.70	178.70	12,789.95	621.39	-627.78	-849.93	1,056.64	233.55	392,896.64	792,412.37	
13,457.00	91.30	178.10	12,786.64	716.31	-722.69	-847.28	1,113.62	229.54	392,801.73	792,415.02	
13,551.00	93.80	178.40	12,782.45	810.18	-816.54	-844.41	1,174.64	225.96	392,707.88	792,417.89	
13,646.00	93.00	179.60	12,776.82	905.01	-911.36	-842.76	1,241.29	222.76	392,613.06	792,419.54	
13,740.00	88.60	182.00	12,775.51	998.95	-1,005.31	-844.07	1,312.67	220.02	392,519.11	792,418.23	
13,835.00	79.30	182.90	12,785.51	1,093.19	-1,099.59	-848.10	1,388.66	217.64	392,424.83	792,414.20	
13,929.00	83.80	180.90	12,799.32	1,186.07	-1,192.49	-851.17	1,465.10	215.52	392,331.93	792,411.13	
14,022.00	87.90	181.10	12,806.05	1,278.78	-1,285.21	-852.79	1,542.41	213.57	392,239.21	792,409.51	
14,117.00	88.80	180.00	12,808.78	1,373.72	-1,380.17	-853.70	1,622.86	211.74	392,144.25	792,408.60	
14,211.00	93.80	181.70	12,806.65	1,467.64	-1,474.10	-855.09	1,704.16	210.12	392,050.32	792,407.21	
14,305.00	89.90	182.00	12,803.62	1,561.50	-1,567.98	-858.12	1,787.44	208.69	391,956.44	792,404.18	
14,400.00	86.30	182.20	12,806.77	1,656.34	-1,662.85	-861.60	1,872.81	207.39	391,861.57	792,400.70	
14,495.00	95.10	182.20	12,805.61	1,751.14	-1,757.68	-865.25	1,959.10	206.21	391,766.74	792,397.05	
14,589.00	94.70	183.10	12,797.58	1,844.66	-1,851.24	-869.58	2,045.30	205.16	391,673.18	792,392.72	
14,683.00	88.00	183.60	12,795.37	1,938.37	-1,944.99	-875.06	2,132.78	204.22	391,579.43	792,387.24	
14,809.00	91.70	183.50	12,795.70	2,064.05	-2,070.73	-882.87	2,251.08	203.09	391,453.69	792,379.43	
14,903.00	89.90	182.00	12,794.38	2,157.89	-2,164.61	-887.37	2,339.43	202.29	391,359.81	792,374.93	
14,998.00	89.70	180.50	12,794.71	2,252.84	-2,259.58	-889.45	2,428.34	201.49	391,264.84	792,372.85	
15,093.00	90.00	180.60	12,794.96	2,347.83	-2,354.58	-890.36	2,517.29	200.71	391,169.84	792,371.94	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
15,187.00	86.40	180.50	12,797.92	2,441.75	-2,448.51	-891.26	2,605.68	200.00	391,075.91	792,371.04	
15,281.00	86.60	181.80	12,803.65	2,535.54	-2,542.31	-893.14	2,694.64	199.36	390,982.11	792,369.16	
15,376.00	91.20	181.70	12,805.48	2,630.43	-2,637.23	-896.04	2,785.29	198.77	390,887.19	792,366.26	
15,470.00	87.70	180.70	12,806.38	2,724.37	-2,731.19	-898.01	2,875.03	198.20	390,793.23	792,364.29	
15,564.00	90.90	182.80	12,807.53	2,818.28	-2,825.12	-900.88	2,965.28	197.69	390,699.30	792,361.42	
15,659.00	84.80	181.20	12,811.09	2,913.08	-2,919.94	-904.20	3,056.74	197.21	390,604.48	792,358.10	
15,753.00	84.80	181.00	12,819.61	3,006.66	-3,013.54	-905.99	3,146.78	196.73	390,510.88	792,356.31	
15,847.00	89.40	181.00	12,824.36	3,100.48	-3,107.38	-907.63	3,237.22	196.28	390,417.04	792,354.67	
15,942.00	89.50	180.30	12,825.28	3,195.46	-3,202.37	-908.71	3,328.80	195.84	390,322.05	792,353.59	
16,036.00	89.50	180.90	12,826.10	3,289.44	-3,296.36	-909.69	3,419.58	195.43	390,228.06	792,352.61	
16,131.00	89.10	181.60	12,827.26	3,384.39	-3,391.33	-911.77	3,511.76	195.05	390,133.09	792,350.53	
16,226.00	88.10	181.10	12,829.58	3,479.32	-3,486.27	-914.00	3,604.10	194.69	390,038.15	792,348.30	
16,321.00	87.90	179.90	12,832.89	3,574.24	-3,581.21	-914.83	3,696.21	194.33	389,943.21	792,347.47	
16,416.00	87.90	178.60	12,836.38	3,669.18	-3,676.14	-913.59	3,787.96	193.96	389,848.28	792,348.71	
16,511.00	89.90	179.10	12,838.20	3,764.15	-3,771.09	-911.68	3,879.73	193.59	389,753.33	792,350.62	
16,606.00	88.80	178.60	12,839.28	3,859.13	-3,866.07	-909.78	3,971.67	193.24	389,658.35	792,352.52	
16,700.00	89.40	179.40	12,840.75	3,953.11	-3,960.04	-908.14	4,062.84	192.92	389,564.38	792,354.16	
16,795.00	89.10	180.10	12,842.00	4,048.10	-4,055.03	-907.72	4,155.39	192.62	389,469.39	792,354.58	
16,890.00	90.20	180.40	12,842.58	4,143.09	-4,150.03	-908.14	4,248.23	192.34	389,374.39	792,354.16	
16,985.00	89.10	180.50	12,843.16	4,238.08	-4,245.02	-908.88	4,341.23	192.08	389,279.40	792,353.42	
17,080.00	88.70	180.60	12,844.98	4,333.05	-4,340.00	-909.79	4,434.33	191.84	389,184.42	792,352.51	
17,174.00	90.20	179.70	12,845.88	4,427.03	-4,433.99	-910.04	4,526.42	191.60	389,090.43	792,352.26	
17,268.00	89.00	179.60	12,846.54	4,521.03	-4,527.98	-909.47	4,618.42	191.36	388,996.44	792,352.83	
17,363.00	89.40	179.10	12,847.87	4,616.02	-4,622.97	-908.39	4,711.37	191.12	388,901.45	792,353.91	
17,457.00	87.90	178.60	12,850.08	4,709.98	-4,716.92	-906.50	4,803.24	190.88	388,807.50	792,355.80	
17,552.00	88.30	179.50	12,853.23	4,804.93	-4,811.85	-904.93	4,896.21	190.65	388,712.57	792,357.37	
17,647.00	88.30	180.40	12,856.05	4,899.88	-4,906.81	-904.85	4,989.54	190.45	388,617.61	792,357.45	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
17,741.00	87.20	179.70	12,859.74	4,993.80	-5,000.74	-904.93	5,081.95	190.26	388,523.68	792,357.37	
17,835.00	89.90	179.00	12,862.12	5,087.76	-5,094.69	-903.86	5,174.25	190.06	388,429.73	792,358.44	
17,930.00	88.10	177.20	12,863.78	5,182.71	-5,189.62	-900.71	5,267.20	189.85	388,334.80	792,361.59	
18,024.00	90.10	177.40	12,865.25	5,276.62	-5,283.50	-896.29	5,358.98	189.63	388,240.92	792,366.01	
18,118.00	89.40	176.10	12,865.66	5,370.50	-5,377.34	-890.96	5,450.65	189.41	388,147.08	792,371.34	
18,214.00	89.60	176.50	12,866.50	5,466.34	-5,473.14	-884.76	5,544.19	189.18	388,051.28	792,377.54	
18,309.00	90.10	177.40	12,866.75	5,561.24	-5,568.00	-879.71	5,637.07	188.98	387,956.42	792,382.59	
18,404.00	89.40	179.10	12,867.16	5,656.21	-5,662.95	-876.81	5,730.43	188.80	387,861.47	792,385.49	
18,499.00	89.50	175.90	12,868.08	5,751.13	-5,757.84	-872.66	5,823.60	188.62	387,766.58	792,389.64	
18,595.00	89.60	174.80	12,868.83	5,846.87	-5,853.52	-864.88	5,917.07	188.40	387,670.90	792,397.42	
18,690.00	93.40	174.80	12,866.34	5,941.49	-5,948.08	-856.27	6,009.40	188.19	387,576.34	792,406.03	
18,785.00	95.70	173.50	12,858.81	6,035.76	-6,042.28	-846.63	6,101.31	187.98	387,482.14	792,415.67	
18,880.00	94.90	176.80	12,850.03	6,130.06	-6,136.52	-838.63	6,193.56	187.78	387,387.90	792,423.67	
18,976.00	93.70	177.20	12,842.83	6,225.69	-6,232.12	-833.62	6,287.63	187.62	387,292.30	792,428.68	
19,071.00	93.40	179.10	12,836.95	6,320.47	-6,326.88	-830.56	6,381.17	187.48	387,197.54	792,431.74	
19,166.00	92.10	182.40	12,832.39	6,415.33	-6,421.75	-831.80	6,475.40	187.38	387,102.67	792,430.50	
19,261.00	89.10	183.40	12,831.39	6,510.15	-6,516.61	-836.61	6,570.10	187.32	387,007.81	792,425.69	
19,354.00	87.60	184.10	12,834.07	6,602.86	-6,609.37	-842.69	6,662.88	187.27	386,915.05	792,419.61	
19,449.00	88.70	185.50	12,837.14	6,697.41	-6,703.99	-850.63	6,757.74	187.23	386,820.43	792,411.67	
19,543.00	89.90	183.60	12,838.29	6,791.04	-6,797.68	-858.09	6,851.62	187.19	386,726.74	792,404.21	
19,637.00	88.60	181.00	12,839.52	6,884.92	-6,891.58	-861.86	6,945.27	187.13	386,632.84	792,400.44	
19,732.00	88.90	182.00	12,841.59	6,979.84	-6,986.53	-864.35	7,039.79	187.05	386,537.89	792,397.95	
19,827.00	88.40	181.70	12,843.83	7,074.74	-7,081.45	-867.41	7,134.38	186.98	386,442.97	792,394.89	
19,922.00	89.70	182.60	12,845.40	7,169.63	-7,176.37	-870.98	7,229.03	186.92	386,348.05	792,391.32	
20,016.00	90.10	181.10	12,845.57	7,263.55	-7,270.31	-874.01	7,322.66	186.86	386,254.11	792,388.29	
20,110.00	89.70	181.20	12,845.73	7,357.51	-7,364.30	-875.90	7,416.20	186.78	386,160.12	792,386.40	
20,204.00	89.90	181.80	12,846.06	7,451.46	-7,458.26	-878.36	7,509.81	186.72	386,066.16	792,383.94	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
20,299.00	89.90	180.00	12,846.23	7,546.43	-7,553.25	-879.85	7,604.32	186.64	385,971.17	792,382.45	
20,393.00	91.60	180.50	12,845.00	7,640.41	-7,647.23	-880.26	7,697.73	186.57	385,877.19	792,382.04	
20,488.00	91.10	179.70	12,842.76	7,735.38	-7,742.21	-880.43	7,792.11	186.49	385,782.21	792,381.87	
20,582.00	91.10	179.50	12,840.95	7,829.36	-7,836.19	-879.77	7,885.42	186.41	385,688.23	792,382.53	
20,676.00	89.70	179.50	12,840.30	7,923.36	-7,930.18	-878.95	7,978.74	186.32	385,594.24	792,383.35	
20,770.00	90.00	179.20	12,840.54	8,017.36	-8,024.17	-877.88	8,072.05	186.24	385,500.25	792,384.42	
20,865.00	91.20	179.30	12,839.55	8,112.35	-8,119.16	-876.64	8,166.35	186.16	385,405.26	792,385.66	
20,959.00	89.50	179.20	12,838.97	8,206.34	-8,213.14	-875.41	8,259.66	186.08	385,311.28	792,386.89	
21,053.00	89.60	179.10	12,839.71	8,300.34	-8,307.13	-874.02	8,352.98	186.01	385,217.29	792,388.28	
21,148.00	89.40	179.10	12,840.54	8,395.33	-8,402.11	-872.52	8,447.30	185.93	385,122.31	792,389.78	
21,242.00	89.80	179.20	12,841.20	8,489.32	-8,496.10	-871.13	8,540.64	185.85	385,028.32	792,391.17	
21,337.00	90.90	178.70	12,840.62	8,584.32	-8,591.08	-869.39	8,634.96	185.78	384,933.34	792,392.91	
21,431.00	90.20	179.70	12,839.72	8,678.31	-8,685.07	-868.08	8,728.34	185.71	384,839.35	792,394.22	
21,526.00	90.90	180.50	12,838.80	8,773.30	-8,780.06	-868.24	8,822.89	185.65	384,744.36	792,394.06	
21,620.00	90.90	178.80	12,837.33	8,867.28	-8,874.04	-867.67	8,916.36	185.58	384,650.38	792,394.63	
21,715.00	92.30	180.60	12,834.67	8,962.24	-8,969.00	-867.17	9,010.82	185.52	384,555.42	792,395.13	
21,810.00	87.90	180.40	12,834.51	9,057.20	-9,063.97	-868.00	9,105.44	185.47	384,460.45	792,394.30	
21,905.00	91.50	183.60	12,835.01	9,152.09	-9,158.89	-871.31	9,200.24	185.43	384,365.53	792,390.99	
21,999.00	92.20	185.60	12,831.97	9,245.67	-9,252.53	-878.85	9,294.17	185.43	384,271.89	792,383.45	
22,094.00	92.30	187.80	12,828.24	9,339.86	-9,346.80	-889.92	9,389.07	185.44	384,177.62	792,372.38	
22,188.00	90.80	190.90	12,825.70	9,432.44	-9,439.50	-905.19	9,482.81	185.48	384,084.92	792,357.11	
22,283.00	90.70	190.70	12,824.45	9,525.62	-9,532.81	-922.99	9,577.39	185.53	383,991.61	792,339.31	
22,377.00	88.10	185.60	12,825.44	9,618.52	-9,625.82	-936.31	9,671.25	185.56	383,898.60	792,325.99	
22,472.00	84.70	180.80	12,831.41	9,713.10	-9,720.44	-941.61	9,765.94	185.53	383,803.98	792,320.69	
22,567.00	84.80	180.50	12,840.10	9,807.69	-9,815.04	-942.68	9,860.20	185.49	383,709.38	792,319.62	
22,662.00	85.00	180.70	12,848.54	9,902.30	-9,909.66	-943.67	9,954.49	185.44	383,614.76	792,318.63	
22,756.00	85.50	181.30	12,856.33	9,995.94	-10,003.32	-945.30	10,047.88	185.40	383,521.10	792,317.00	



ProDirectional
Survey Report



Company: Devon Energy Corp.
Project: Lea County, NM (NAD83)
Site: Seawolf 1-12 Fed
Well: 95H
Wellbore: OH
Design: Surveys 100-22963 MD

Local Co-ordinate Reference: Well 95H
TVD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
MD Reference: GL 3325'+KB 27' @ 3352.00usft (ICD 209)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
22,850.00	86.60	181.60	12,862.80	10,089.67	-10,097.06	-947.68	10,141.44	185.36	383,427.36	792,314.62	
22,907.00	86.30	181.60	12,866.33	10,146.52	-10,153.93	-949.27	10,198.21	185.34	383,370.49	792,313.03	
Final Survey: 22907' MD											
22,963.00	86.30	181.60	12,869.95	10,202.37	-10,209.79	-950.83	10,253.97	185.32	383,314.63	792,311.47	
Final TD: 22963' MD											

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
13,012.00	12,768.83	-282.12	-862.98	First ProD Survey: 13012' MD	
22,907.00	12,866.33	-10,153.93	-949.27	Final Survey: 22907' MD	
22,963.00	12,869.95	-10,209.79	-950.83	Final TD: 22963' MD	