

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

PORK PIE PROJECT

PORK PIE STATE COM #704H

OWB

Design: AWP

Standard Survey Report

13 December, 2019

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Project	LEA COUNTY, NM		
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	PORK PIE PROJECT				
Site Position:		Northing:	442,049.80 usft	Latitude:	32° 12' 41.450 N
From:	Map	Easting:	803,079.50 usft	Longitude:	103° 21' 12.259 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.52 °

Well	PORK PIE STATE COM #704H					
Well Position	+N/-S	0.0 usft	Northing:	442,049.80 usft	Latitude:	32° 12' 41.450 N
	+E/-W	0.0 usft	Easting:	803,079.50 usft	Longitude:	103° 21' 12.259 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,337.0 usft

Wellbore	OWB				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM2015	1/28/2019	6.70	60.04	47,771.76517551

Design	AWP				
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.76

Survey Program		Date	12/13/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	11,466.0	GYRO (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
11,520.0	22,235.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.16	233.58	100.0	-0.1	-0.1	-0.1	0.16	0.16	0.00
125.0	0.30	235.30	125.0	-0.1	-0.2	-0.1	0.56	0.56	6.88
150.0	0.44	228.62	150.0	-0.2	-0.3	-0.2	0.59	0.56	-26.72
175.0	0.56	230.09	175.0	-0.4	-0.5	-0.4	0.48	0.48	5.88
200.0	0.61	232.51	200.0	-0.5	-0.7	-0.5	0.22	0.20	9.68
225.0	0.66	235.02	225.0	-0.7	-0.9	-0.7	0.23	0.20	10.04
250.0	0.81	231.94	250.0	-0.9	-1.2	-0.9	0.62	0.60	-12.32
275.0	1.19	231.27	275.0	-1.2	-1.5	-1.1	1.52	1.52	-2.68
300.0	1.02	231.37	300.0	-1.5	-1.9	-1.4	0.68	-0.68	0.40

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Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
325.0	1.16	231.90	325.0	-1.8	-2.3	-1.7	0.56	0.56	2.12
350.0	1.38	232.20	350.0	-2.1	-2.7	-2.0	0.88	0.88	1.20
375.0	1.72	232.29	375.0	-2.5	-3.2	-2.4	1.36	1.36	0.36
400.0	2.01	232.72	400.0	-3.0	-3.9	-2.9	1.16	1.16	1.72
425.0	2.24	233.46	424.9	-3.6	-4.6	-3.5	0.93	0.92	2.96
450.0	2.53	233.53	449.9	-4.2	-5.5	-4.1	1.16	1.16	0.28
475.0	2.83	233.23	474.9	-4.9	-6.4	-4.7	1.20	1.20	-1.20
500.0	3.17	232.36	499.9	-5.7	-7.4	-5.5	1.37	1.36	-3.48
525.0	3.14	232.18	524.8	-6.5	-8.5	-6.3	0.13	-0.12	-0.72
550.0	3.19	232.38	549.8	-7.4	-9.6	-7.2	0.20	0.20	0.80
575.0	3.20	232.04	574.7	-8.2	-10.7	-8.0	0.09	0.04	-1.36
600.0	3.20	233.02	599.7	-9.1	-11.8	-8.8	0.22	0.00	3.92
625.0	3.20	232.60	624.7	-9.9	-12.9	-9.6	0.09	0.00	-1.68
650.0	3.18	233.68	649.6	-10.7	-14.0	-10.4	0.25	-0.08	4.32
675.0	3.29	232.72	674.6	-11.6	-15.2	-11.3	0.49	0.44	-3.84
700.0	3.02	232.94	699.5	-12.4	-16.3	-12.1	1.08	-1.08	0.88
725.0	3.18	232.11	724.5	-13.2	-17.3	-12.9	0.66	0.64	-3.32
750.0	3.03	232.47	749.5	-14.1	-18.4	-13.7	0.61	-0.60	1.44
775.0	2.84	232.39	774.4	-14.9	-19.4	-14.4	0.76	-0.76	-0.32
800.0	2.74	232.48	799.4	-15.6	-20.4	-15.2	0.40	-0.40	0.36
825.0	2.51	232.21	824.4	-16.3	-21.3	-15.8	0.92	-0.92	-1.08
850.0	2.41	231.99	849.4	-17.0	-22.1	-16.5	0.40	-0.40	-0.88
875.0	2.32	232.74	874.3	-17.6	-23.0	-17.1	0.38	-0.36	3.00
900.0	2.24	232.10	899.3	-18.2	-23.8	-17.7	0.34	-0.32	-2.56
925.0	2.25	232.39	924.3	-18.8	-24.5	-18.3	0.06	0.04	1.16
950.0	2.34	233.59	949.3	-19.4	-25.3	-18.8	0.41	0.36	4.80
975.0	2.35	234.32	974.3	-20.0	-26.2	-19.4	0.13	0.04	2.92
1,000.0	2.35	232.92	999.2	-20.6	-27.0	-20.0	0.23	0.00	-5.60
1,025.0	2.33	233.01	1,024.2	-21.2	-27.8	-20.6	0.08	-0.08	0.36
1,050.0	2.29	234.25	1,049.2	-21.8	-28.6	-21.2	0.26	-0.16	4.96
1,075.0	2.35	232.92	1,074.2	-22.4	-29.4	-21.8	0.32	0.24	-5.32
1,100.0	2.38	232.83	1,099.2	-23.0	-30.2	-22.4	0.12	0.12	-0.36
1,125.0	2.14	234.80	1,124.1	-23.6	-31.0	-22.9	1.01	-0.96	7.88
1,150.0	2.06	234.26	1,149.1	-24.2	-31.8	-23.5	0.33	-0.32	-2.16
1,175.0	2.01	236.10	1,174.1	-24.7	-32.5	-24.0	0.33	-0.20	7.36
1,200.0	2.16	236.10	1,199.1	-25.2	-33.3	-24.4	0.60	0.60	0.00
1,225.0	2.19	239.01	1,224.1	-25.7	-34.1	-24.9	0.46	0.12	11.64
1,250.0	2.14	240.46	1,249.0	-26.2	-34.9	-25.4	0.30	-0.20	5.80
1,275.0	2.08	243.70	1,274.0	-26.6	-35.7	-25.8	0.53	-0.24	12.96
1,300.0	2.03	246.43	1,299.0	-27.0	-36.5	-26.2	0.44	-0.20	10.92
1,325.0	2.14	245.40	1,324.0	-27.3	-37.3	-26.5	0.46	0.44	-4.12
1,350.0	2.16	243.30	1,349.0	-27.7	-38.2	-26.9	0.33	0.08	-8.40
1,375.0	2.21	238.02	1,374.0	-28.2	-39.0	-27.4	0.83	0.20	-21.12

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
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Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,400.0	2.06	237.06	1,398.9	-28.7	-39.8	-27.8	0.62	-0.60	-3.84	
1,425.0	2.07	234.71	1,423.9	-29.2	-40.5	-28.3	0.34	0.04	-9.40	
1,450.0	2.42	231.88	1,448.9	-29.8	-41.3	-28.9	1.47	1.40	-11.32	
1,475.0	2.46	236.74	1,473.9	-30.4	-42.2	-29.5	0.84	0.16	19.44	
1,500.0	2.63	236.75	1,498.9	-31.0	-43.1	-30.1	0.68	0.68	0.04	
1,525.0	2.64	236.88	1,523.8	-31.7	-44.1	-30.7	0.05	0.04	0.52	
1,550.0	2.65	235.88	1,548.8	-32.3	-45.0	-31.3	0.19	0.04	-4.00	
1,575.0	2.58	235.47	1,573.8	-32.9	-46.0	-31.9	0.29	-0.28	-1.64	
1,600.0	2.67	235.18	1,598.8	-33.6	-46.9	-32.6	0.36	0.36	-1.16	
1,625.0	2.64	236.33	1,623.7	-34.2	-47.9	-33.2	0.24	-0.12	4.60	
1,650.0	2.49	236.44	1,648.7	-34.9	-48.8	-33.8	0.60	-0.60	0.44	
1,675.0	2.49	236.43	1,673.7	-35.5	-49.7	-34.4	0.00	0.00	-0.04	
1,700.0	2.54	235.75	1,698.7	-36.1	-50.6	-35.0	0.23	0.20	-2.72	
1,725.0	2.73	239.10	1,723.6	-36.7	-51.6	-35.6	0.98	0.76	13.40	
1,750.0	2.76	240.92	1,748.6	-37.3	-52.6	-36.1	0.37	0.12	7.28	
1,775.0	2.87	244.18	1,773.6	-37.9	-53.7	-36.7	0.78	0.44	13.04	
1,800.0	3.07	247.33	1,798.5	-38.4	-54.9	-37.2	1.03	0.80	12.60	
1,825.0	3.30	247.08	1,823.5	-38.9	-56.2	-37.7	0.92	0.92	-1.00	
1,850.0	3.22	246.26	1,848.5	-39.5	-57.5	-38.2	0.37	-0.32	-3.28	
1,875.0	3.35	244.86	1,873.4	-40.1	-58.8	-38.8	0.61	0.52	-5.60	
1,900.0	3.29	245.37	1,898.4	-40.7	-60.1	-39.4	0.27	-0.24	2.04	
1,925.0	3.34	246.80	1,923.3	-41.3	-61.4	-39.9	0.39	0.20	5.72	
1,950.0	3.35	247.71	1,948.3	-41.8	-62.8	-40.5	0.22	0.04	3.64	
1,975.0	3.34	248.41	1,973.2	-42.4	-64.1	-41.0	0.17	-0.04	2.80	
2,000.0	3.26	249.07	1,998.2	-42.9	-65.5	-41.5	0.35	-0.32	2.64	
2,025.0	3.34	248.62	2,023.2	-43.4	-66.8	-42.0	0.34	0.32	-1.80	
2,050.0	3.53	248.37	2,048.1	-44.0	-68.2	-42.5	0.76	0.76	-1.00	
2,075.0	3.49	248.73	2,073.1	-44.5	-69.6	-43.0	0.18	-0.16	1.44	
2,100.0	3.14	252.24	2,098.0	-45.0	-71.0	-43.5	1.62	-1.40	14.04	
2,125.0	2.88	255.06	2,123.0	-45.4	-72.3	-43.8	1.20	-1.04	11.28	
2,150.0	2.90	253.64	2,148.0	-45.7	-73.5	-44.1	0.30	0.08	-5.68	
2,175.0	3.08	246.95	2,172.9	-46.2	-74.7	-44.5	1.57	0.72	-26.76	
2,200.0	3.09	246.59	2,197.9	-46.7	-75.9	-45.0	0.09	0.04	-1.44	
2,225.0	3.09	249.16	2,222.9	-47.2	-77.2	-45.5	0.55	0.00	10.28	
2,250.0	3.13	250.43	2,247.8	-47.7	-78.4	-46.0	0.32	0.16	5.08	
2,275.0	3.13	250.43	2,272.8	-48.1	-79.7	-46.4	0.00	0.00	0.00	
2,300.0	2.91	250.92	2,297.8	-48.6	-81.0	-46.8	0.89	-0.88	1.96	
2,325.0	2.38	249.29	2,322.7	-49.0	-82.1	-47.2	2.14	-2.12	-6.52	
2,350.0	2.31	244.67	2,347.7	-49.4	-83.0	-47.6	0.81	-0.28	-18.48	
2,375.0	2.16	240.08	2,372.7	-49.8	-83.9	-48.0	0.93	-0.60	-18.36	
2,400.0	1.91	233.19	2,397.7	-50.3	-84.6	-48.5	1.40	-1.00	-27.56	
2,425.0	1.85	230.85	2,422.7	-50.8	-85.3	-48.9	0.39	-0.24	-9.36	
2,450.0	1.63	237.08	2,447.6	-51.2	-85.9	-49.4	1.16	-0.88	24.92	

Survey Report

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Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,475.0	1.29	240.55	2,472.6	-51.6	-86.4	-49.7	1.40	-1.36	13.88
2,500.0	0.82	230.37	2,497.6	-51.8	-86.8	-49.9	2.02	-1.88	-40.72
2,525.0	0.51	207.90	2,522.6	-52.0	-87.0	-50.2	1.60	-1.24	-89.88
2,550.0	0.56	202.85	2,547.6	-52.3	-87.1	-50.4	0.27	0.20	-20.20
2,575.0	0.84	139.48	2,572.6	-52.5	-87.0	-50.6	3.09	1.12	-253.48
2,600.0	1.20	125.35	2,597.6	-52.8	-86.7	-50.9	1.75	1.44	-56.52
2,625.0	1.23	122.38	2,622.6	-53.1	-86.2	-51.2	0.28	0.12	-11.88
2,650.0	1.22	117.35	2,647.6	-53.4	-85.8	-51.5	0.43	-0.04	-20.12
2,675.0	1.36	105.63	2,672.6	-53.6	-85.3	-51.7	1.19	0.56	-46.88
2,700.0	1.64	100.16	2,697.6	-53.7	-84.6	-51.9	1.26	1.12	-21.88
2,725.0	1.97	93.33	2,722.6	-53.8	-83.8	-52.0	1.57	1.32	-27.32
2,750.0	2.27	89.02	2,747.6	-53.8	-82.9	-52.0	1.36	1.20	-17.24
2,775.0	2.37	86.69	2,772.5	-53.8	-81.9	-52.0	0.55	0.40	-9.32
2,800.0	2.63	85.31	2,797.5	-53.7	-80.8	-51.9	1.07	1.04	-5.52
2,825.0	3.01	84.00	2,822.5	-53.6	-79.6	-51.8	1.54	1.52	-5.24
2,850.0	3.16	82.33	2,847.5	-53.4	-78.3	-51.7	0.70	0.60	-6.68
2,875.0	3.26	81.63	2,872.4	-53.2	-76.9	-51.5	0.43	0.40	-2.80
2,900.0	3.46	78.85	2,897.4	-53.0	-75.4	-51.3	1.03	0.80	-11.12
2,925.0	3.70	79.71	2,922.3	-52.7	-73.9	-51.1	0.98	0.96	3.44
2,950.0	4.05	78.59	2,947.3	-52.4	-72.2	-50.8	1.43	1.40	-4.48
2,975.0	4.26	78.20	2,972.2	-52.0	-70.5	-50.5	0.85	0.84	-1.56
3,000.0	4.38	76.97	2,997.1	-51.6	-68.6	-50.1	0.61	0.48	-4.92
3,025.0	4.63	76.55	3,022.1	-51.1	-66.7	-49.7	1.01	1.00	-1.68
3,050.0	4.73	76.20	3,047.0	-50.7	-64.7	-49.3	0.42	0.40	-1.40
3,075.0	4.79	76.25	3,071.9	-50.2	-62.7	-48.8	0.24	0.24	0.20
3,100.0	4.76	76.65	3,096.8	-49.7	-60.7	-48.4	0.18	-0.12	1.60
3,125.0	4.84	76.66	3,121.7	-49.2	-58.6	-47.9	0.32	0.32	0.04
3,150.0	4.85	76.39	3,146.6	-48.7	-56.6	-47.5	0.10	0.04	-1.08
3,175.0	4.68	77.83	3,171.5	-48.2	-54.6	-47.1	0.83	-0.68	5.76
3,200.0	4.63	78.20	3,196.5	-47.8	-52.6	-46.7	0.23	-0.20	1.48
3,225.0	4.51	80.47	3,221.4	-47.5	-50.6	-46.3	0.87	-0.48	9.08
3,250.0	4.57	80.75	3,246.3	-47.1	-48.7	-46.1	0.26	0.24	1.12
3,275.0	4.55	83.22	3,271.2	-46.9	-46.7	-45.8	0.79	-0.08	9.88
3,300.0	4.66	87.37	3,296.1	-46.7	-44.7	-45.7	1.40	0.44	16.60
3,325.0	4.59	88.80	3,321.1	-46.6	-42.7	-45.7	0.54	-0.28	5.72
3,350.0	4.58	88.95	3,346.0	-46.6	-40.7	-45.7	0.06	-0.04	0.60
3,375.0	4.73	87.93	3,370.9	-46.5	-38.7	-45.7	0.69	0.60	-4.08
3,400.0	4.69	87.88	3,395.8	-46.5	-36.6	-45.6	0.16	-0.16	-0.20
3,425.0	4.81	87.98	3,420.7	-46.4	-34.5	-45.6	0.48	0.48	0.40
3,450.0	4.99	88.16	3,445.6	-46.3	-32.4	-45.6	0.72	0.72	0.72
3,475.0	5.11	88.76	3,470.5	-46.2	-30.2	-45.6	0.52	0.48	2.40
3,500.0	5.12	88.40	3,495.4	-46.2	-28.0	-45.6	0.13	0.04	-1.44
3,525.0	5.09	88.82	3,520.3	-46.1	-25.8	-45.6	0.19	-0.12	1.68
3,550.0	5.18	88.18	3,545.2	-46.1	-23.5	-45.6	0.43	0.36	-2.56

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,575.0	5.11	88.98	3,570.1	-46.0	-21.3	-45.6	0.40	-0.28	3.20
3,600.0	5.18	89.22	3,595.0	-46.0	-19.0	-45.6	0.29	0.28	0.96
3,625.0	5.03	88.43	3,619.9	-45.9	-16.8	-45.6	0.66	-0.60	-3.16
3,650.0	4.48	84.83	3,644.8	-45.8	-14.8	-45.5	2.50	-2.20	-14.40
3,675.0	4.22	84.23	3,669.8	-45.6	-12.9	-45.4	1.06	-1.04	-2.40
3,700.0	3.79	84.91	3,694.7	-45.5	-11.1	-45.2	1.73	-1.72	2.72
3,725.0	3.68	82.57	3,719.7	-45.3	-9.5	-45.1	0.75	-0.44	-9.36
3,750.0	3.45	85.00	3,744.6	-45.1	-8.0	-44.9	1.10	-0.92	9.72
3,775.0	3.24	85.29	3,769.6	-45.0	-6.5	-44.9	0.84	-0.84	1.16
3,800.0	3.13	82.91	3,794.5	-44.9	-5.1	-44.7	0.69	-0.44	-9.52
3,825.0	3.13	81.88	3,819.5	-44.7	-3.8	-44.6	0.22	0.00	-4.12
3,850.0	2.98	82.72	3,844.5	-44.5	-2.5	-44.4	0.63	-0.60	3.36
3,875.0	2.95	81.50	3,869.4	-44.3	-1.2	-44.3	0.28	-0.12	-4.88
3,900.0	2.95	80.34	3,894.4	-44.1	0.1	-44.1	0.24	0.00	-4.64
3,925.0	2.98	80.11	3,919.4	-43.9	1.4	-43.9	0.13	0.12	-0.92
3,950.0	2.84	82.35	3,944.3	-43.7	2.6	-43.8	0.72	-0.56	8.96
3,975.0	2.85	81.45	3,969.3	-43.5	3.9	-43.6	0.18	0.04	-3.60
4,000.0	2.86	80.77	3,994.3	-43.3	5.1	-43.4	0.14	0.04	-2.72
4,025.0	3.31	77.66	4,019.2	-43.1	6.4	-43.2	1.92	1.80	-12.44
4,050.0	3.91	75.61	4,044.2	-42.7	7.9	-42.9	2.45	2.40	-8.20
4,075.0	4.51	74.77	4,069.1	-42.3	9.7	-42.5	2.41	2.40	-3.36
4,100.0	4.86	74.01	4,094.0	-41.7	11.7	-41.9	1.42	1.40	-3.04
4,125.0	5.04	74.42	4,118.9	-41.1	13.8	-41.4	0.73	0.72	1.64
4,150.0	5.49	71.62	4,143.8	-40.4	15.9	-40.8	2.07	1.80	-11.20
4,175.0	5.47	72.98	4,168.7	-39.7	18.2	-40.1	0.53	-0.08	5.44
4,200.0	5.63	71.56	4,193.6	-39.0	20.5	-39.4	0.84	0.64	-5.68
4,225.0	5.64	71.93	4,218.5	-38.2	22.9	-38.7	0.15	0.04	1.48
4,250.0	5.79	71.54	4,243.4	-37.4	25.2	-38.0	0.62	0.60	-1.56
4,275.0	5.83	71.00	4,268.2	-36.6	27.6	-37.2	0.27	0.16	-2.16
4,300.0	5.77	71.08	4,293.1	-35.8	30.0	-36.4	0.24	-0.24	0.32
4,325.0	5.78	70.85	4,318.0	-35.0	32.4	-35.7	0.10	0.04	-0.92
4,350.0	5.74	70.93	4,342.8	-34.2	34.8	-34.9	0.16	-0.16	0.32
4,375.0	5.49	70.85	4,367.7	-33.4	37.1	-34.2	1.00	-1.00	-0.32
4,400.0	5.38	69.80	4,392.6	-32.6	39.3	-33.4	0.59	-0.44	-4.20
4,425.0	5.31	70.03	4,417.5	-31.8	41.5	-32.6	0.29	-0.28	0.92
4,450.0	5.31	70.19	4,442.4	-31.0	43.7	-31.9	0.06	0.00	0.64
4,475.0	5.13	71.00	4,467.3	-30.2	45.8	-31.2	0.78	-0.72	3.24
4,500.0	5.00	70.52	4,492.2	-29.5	47.9	-30.5	0.55	-0.52	-1.92
4,525.0	4.98	71.44	4,517.1	-28.8	49.9	-29.9	0.33	-0.08	3.68
4,550.0	5.00	70.78	4,542.0	-28.1	52.0	-29.2	0.24	0.08	-2.64
4,575.0	4.89	71.66	4,566.9	-27.4	54.0	-28.5	0.53	-0.44	3.52
4,600.0	4.93	72.29	4,591.8	-26.7	56.1	-27.9	0.27	0.16	2.52
4,625.0	4.88	73.76	4,616.7	-26.1	58.1	-27.3	0.54	-0.20	5.88

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,650.0	4.85	74.95	4,641.6	-25.5	60.2	-26.8	0.42	-0.12	4.76
4,675.0	4.90	75.71	4,666.5	-25.0	62.2	-26.3	0.33	0.20	3.04
4,700.0	4.73	77.10	4,691.5	-24.5	64.3	-25.9	0.82	-0.68	5.56
4,725.0	4.85	76.67	4,716.4	-24.0	66.3	-25.4	0.50	0.48	-1.72
4,750.0	4.86	76.89	4,741.3	-23.5	68.3	-25.0	0.08	0.04	0.88
4,775.0	4.83	77.39	4,766.2	-23.1	70.4	-24.6	0.21	-0.12	2.00
4,800.0	4.94	77.23	4,791.1	-22.6	72.5	-24.2	0.44	0.44	-0.64
4,825.0	4.83	77.57	4,816.0	-22.1	74.6	-23.7	0.45	-0.44	1.36
4,850.0	4.85	77.57	4,840.9	-21.7	76.6	-23.3	0.08	0.08	0.00
4,875.0	4.87	78.13	4,865.8	-21.2	78.7	-22.9	0.21	0.08	2.24
4,900.0	4.91	77.49	4,890.7	-20.8	80.8	-22.5	0.27	0.16	-2.56
4,925.0	4.98	77.14	4,915.6	-20.3	82.9	-22.1	0.30	0.28	-1.40
4,950.0	4.96	77.30	4,940.6	-19.8	85.0	-21.7	0.10	-0.08	0.64
4,975.0	4.92	78.30	4,965.5	-19.4	87.1	-21.3	0.38	-0.16	4.00
5,000.0	4.99	77.42	4,990.4	-18.9	89.2	-20.8	0.41	0.28	-3.52
5,025.0	5.02	77.61	5,015.3	-18.5	91.3	-20.4	0.14	0.12	0.76
5,050.0	5.08	77.34	5,040.2	-18.0	93.5	-20.0	0.26	0.24	-1.08
5,075.0	5.15	77.57	5,065.1	-17.5	95.7	-19.6	0.29	0.28	0.92
5,100.0	5.23	77.53	5,090.0	-17.0	97.9	-19.1	0.32	0.32	-0.16
5,125.0	5.29	77.27	5,114.9	-16.5	100.1	-18.7	0.26	0.24	-1.04
5,150.0	5.38	76.81	5,139.8	-16.0	102.4	-18.2	0.40	0.36	-1.84
5,175.0	5.30	77.38	5,164.6	-15.5	104.6	-17.7	0.38	-0.32	2.28
5,200.0	5.38	77.05	5,189.5	-14.9	106.9	-17.3	0.34	0.32	-1.32
5,225.0	5.40	77.70	5,214.4	-14.4	109.2	-16.8	0.26	0.08	2.60
5,250.0	5.43	77.64	5,239.3	-13.9	111.5	-16.3	0.12	0.12	-0.24
5,275.0	5.46	77.58	5,264.2	-13.4	113.8	-15.9	0.12	0.12	-0.24
5,300.0	5.46	77.62	5,289.1	-12.9	116.1	-15.4	0.02	0.00	0.16
5,325.0	5.39	77.66	5,314.0	-12.4	118.4	-15.0	0.28	-0.28	0.16
5,350.0	5.45	79.38	5,338.9	-11.9	120.8	-14.5	0.69	0.24	6.88
5,375.0	5.03	92.87	5,363.8	-11.8	123.0	-14.4	5.19	-1.68	53.96
5,400.0	4.71	105.84	5,388.7	-12.1	125.1	-14.8	4.58	-1.28	51.88
5,425.0	4.68	112.99	5,413.6	-12.8	127.0	-15.5	2.34	-0.12	28.60
5,450.0	4.67	114.21	5,438.5	-13.6	128.9	-16.4	0.40	-0.04	4.88
5,475.0	4.48	117.79	5,463.4	-14.5	130.7	-17.3	1.37	-0.76	14.32
5,500.0	4.40	118.09	5,488.4	-15.4	132.4	-18.2	0.33	-0.32	1.20
5,525.0	4.39	118.79	5,513.3	-16.3	134.1	-19.2	0.22	-0.04	2.80
5,550.0	4.34	120.75	5,538.2	-17.2	135.7	-20.2	0.63	-0.20	7.84
5,575.0	4.12	124.60	5,563.1	-18.2	137.3	-21.2	1.44	-0.88	15.40
5,600.0	4.01	127.96	5,588.1	-19.3	138.7	-22.3	1.05	-0.44	13.44
5,625.0	3.96	128.57	5,613.0	-20.4	140.1	-23.4	0.26	-0.20	2.44
5,650.0	3.78	136.13	5,638.0	-21.5	141.3	-24.5	2.16	-0.72	30.24
5,675.0	3.55	149.20	5,662.9	-22.7	142.3	-25.8	3.46	-0.92	52.28
5,700.0	3.23	156.72	5,687.9	-24.1	143.0	-27.1	2.19	-1.28	30.08

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,725.0	3.07	159.36	5,712.8	-25.3	143.5	-28.4	0.86	-0.64	10.56	
5,750.0	3.28	165.06	5,737.8	-26.6	143.9	-29.7	1.52	0.84	22.80	
5,775.0	3.49	194.75	5,762.7	-28.1	143.9	-31.2	6.98	0.84	118.76	
5,800.0	3.78	216.66	5,787.7	-29.5	143.2	-32.6	5.64	1.16	87.64	
5,825.0	3.88	218.78	5,812.6	-30.8	142.2	-33.9	0.69	0.40	8.48	
5,850.0	3.99	219.60	5,837.6	-32.1	141.1	-35.2	0.49	0.44	3.28	
5,875.0	4.01	220.55	5,862.5	-33.5	140.0	-36.5	0.28	0.08	3.80	
5,900.0	4.05	221.27	5,887.5	-34.8	138.8	-37.8	0.26	0.16	2.88	
5,925.0	3.93	219.76	5,912.4	-36.1	137.7	-39.1	0.64	-0.48	-6.04	
5,950.0	3.84	221.61	5,937.3	-37.4	136.6	-40.3	0.62	-0.36	7.40	
5,975.0	3.82	220.39	5,962.3	-38.6	135.5	-41.6	0.34	-0.08	-4.88	
6,000.0	3.84	219.48	5,987.2	-39.9	134.4	-42.8	0.26	0.08	-3.64	
6,025.0	3.86	219.19	6,012.2	-41.2	133.4	-44.1	0.11	0.08	-1.16	
6,050.0	4.10	219.82	6,037.1	-42.6	132.3	-45.4	0.98	0.96	2.52	
6,075.0	3.86	219.98	6,062.1	-43.9	131.1	-46.7	0.96	-0.96	0.64	
6,100.0	3.79	221.06	6,087.0	-45.2	130.1	-48.0	0.40	-0.28	4.32	
6,125.0	3.71	220.33	6,111.9	-46.4	129.0	-49.2	0.37	-0.32	-2.92	
6,150.0	3.65	220.61	6,136.9	-47.6	128.0	-50.4	0.25	-0.24	1.12	
6,175.0	3.69	219.37	6,161.8	-48.9	126.9	-51.6	0.36	0.16	-4.96	
6,200.0	3.67	219.02	6,186.8	-50.1	125.9	-52.8	0.12	-0.08	-1.40	
6,225.0	3.69	222.50	6,211.7	-51.3	124.9	-54.0	0.90	0.08	13.92	
6,250.0	3.73	220.89	6,236.7	-52.5	123.8	-55.2	0.45	0.16	-6.44	
6,275.0	3.74	219.73	6,261.6	-53.8	122.7	-56.4	0.30	0.04	-4.64	
6,300.0	3.76	221.04	6,286.6	-55.0	121.7	-57.6	0.35	0.08	5.24	
6,325.0	3.67	221.11	6,311.5	-56.2	120.6	-58.8	0.36	-0.36	0.28	
6,350.0	3.66	221.22	6,336.5	-57.4	119.6	-60.0	0.05	-0.04	0.44	
6,375.0	3.71	220.69	6,361.4	-58.6	118.5	-61.2	0.24	0.20	-2.12	
6,400.0	3.79	220.67	6,386.4	-59.9	117.4	-62.4	0.32	0.32	-0.08	
6,425.0	4.11	222.45	6,411.3	-61.2	116.3	-63.7	1.37	1.28	7.12	
6,450.0	4.63	224.17	6,436.2	-62.6	115.0	-65.0	2.14	2.08	6.88	
6,475.0	4.73	223.96	6,461.2	-64.0	113.6	-66.5	0.41	0.40	-0.84	
6,500.0	4.73	225.18	6,486.1	-65.5	112.1	-67.9	0.40	0.00	4.88	
6,525.0	4.79	224.06	6,511.0	-67.0	110.7	-69.3	0.44	0.24	-4.48	
6,550.0	4.78	223.85	6,535.9	-68.5	109.2	-70.8	0.08	-0.04	-0.84	
6,575.0	4.86	224.07	6,560.8	-70.0	107.8	-72.3	0.33	0.32	0.88	
6,600.0	4.88	226.94	6,585.7	-71.5	106.3	-73.7	0.98	0.08	11.48	
6,625.0	4.79	226.93	6,610.6	-72.9	104.7	-75.2	0.36	-0.36	-0.04	
6,650.0	4.77	228.64	6,635.5	-74.3	103.2	-76.5	0.58	-0.08	6.84	
6,675.0	4.64	230.84	6,660.5	-75.6	101.6	-77.8	0.89	-0.52	8.80	
6,700.0	4.49	235.23	6,685.4	-76.8	100.0	-79.0	1.52	-0.60	17.56	
6,725.0	4.42	237.64	6,710.3	-77.9	98.4	-80.0	0.80	-0.28	9.64	
6,750.0	4.34	238.19	6,735.2	-78.9	96.8	-81.0	0.36	-0.32	2.20	
6,775.0	4.47	238.61	6,760.2	-79.9	95.1	-82.0	0.54	0.52	1.68	
6,800.0	4.55	240.21	6,785.1	-80.9	93.5	-82.9	0.60	0.32	6.40	

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,825.0	4.66	240.64	6,810.0	-81.9	91.7	-83.9	0.46	0.44	1.72
6,850.0	4.73	240.32	6,834.9	-82.9	89.9	-84.8	0.30	0.28	-1.28
6,875.0	4.57	239.90	6,859.8	-83.9	88.2	-85.8	0.65	-0.64	-1.68
6,900.0	4.61	240.68	6,884.8	-84.9	86.4	-86.8	0.30	0.16	3.12
6,925.0	4.56	240.56	6,909.7	-85.9	84.7	-87.7	0.20	-0.20	-0.48
6,950.0	4.59	241.40	6,934.6	-86.9	82.9	-88.6	0.29	0.12	3.36
6,975.0	4.55	242.12	6,959.5	-87.8	81.2	-89.5	0.28	-0.16	2.88
7,000.0	4.29	241.43	6,984.4	-88.7	79.5	-90.4	1.06	-1.04	-2.76
7,025.0	4.28	241.53	7,009.4	-89.6	77.9	-91.3	0.05	-0.04	0.40
7,050.0	4.33	242.72	7,034.3	-90.5	76.2	-92.1	0.41	0.20	4.76
7,075.0	4.14	243.93	7,059.2	-91.3	74.5	-92.9	0.84	-0.76	4.84
7,100.0	3.98	242.23	7,084.2	-92.1	73.0	-93.7	0.80	-0.64	-6.80
7,125.0	3.90	242.85	7,109.1	-92.9	71.4	-94.4	0.36	-0.32	2.48
7,150.0	3.86	241.55	7,134.1	-93.7	69.9	-95.2	0.39	-0.16	-5.20
7,175.0	3.87	242.22	7,159.0	-94.5	68.5	-96.0	0.19	0.04	2.68
7,200.0	3.92	242.99	7,183.9	-95.3	67.0	-96.7	0.29	0.20	3.08
7,225.0	3.75	242.48	7,208.9	-96.0	65.5	-97.4	0.69	-0.68	-2.04
7,250.0	3.74	242.66	7,233.8	-96.8	64.0	-98.2	0.06	-0.04	0.72
7,275.0	3.67	242.96	7,258.8	-97.5	62.6	-98.9	0.29	-0.28	1.20
7,300.0	3.56	242.94	7,283.7	-98.3	61.2	-99.6	0.44	-0.44	-0.08
7,325.0	3.54	243.03	7,308.7	-99.0	59.8	-100.2	0.08	-0.08	0.36
7,350.0	3.37	243.32	7,333.6	-99.6	58.5	-100.9	0.68	-0.68	1.16
7,375.0	3.33	241.81	7,358.6	-100.3	57.2	-101.5	0.39	-0.16	-6.04
7,400.0	3.38	241.81	7,383.5	-101.0	55.9	-102.2	0.20	0.20	0.00
7,425.0	3.33	241.55	7,408.5	-101.7	54.6	-102.8	0.21	-0.20	-1.04
7,450.0	3.31	242.14	7,433.5	-102.4	53.3	-103.5	0.16	-0.08	2.36
7,475.0	3.23	241.05	7,458.4	-103.1	52.0	-104.2	0.41	-0.32	-4.36
7,500.0	3.13	241.79	7,483.4	-103.7	50.8	-104.8	0.43	-0.40	2.96
7,525.0	3.15	242.05	7,508.3	-104.4	49.6	-105.4	0.10	0.08	1.04
7,550.0	3.13	241.12	7,533.3	-105.0	48.4	-106.0	0.22	-0.08	-3.72
7,575.0	3.02	240.69	7,558.3	-105.7	47.2	-106.7	0.45	-0.44	-1.72
7,600.0	2.99	239.20	7,583.2	-106.3	46.1	-107.3	0.33	-0.12	-5.96
7,625.0	3.01	238.15	7,608.2	-107.0	45.0	-107.9	0.23	0.08	-4.20
7,650.0	3.30	235.06	7,633.2	-107.8	43.8	-108.7	1.34	1.16	-12.36
7,675.0	4.07	233.65	7,658.1	-108.7	42.5	-109.6	3.10	3.08	-5.64
7,700.0	4.24	232.88	7,683.0	-109.8	41.1	-110.6	0.72	0.68	-3.08
7,725.0	4.26	233.47	7,708.0	-110.9	39.6	-111.7	0.19	0.08	2.36
7,750.0	4.26	234.16	7,732.9	-112.0	38.1	-112.8	0.21	0.00	2.76
7,775.0	4.20	233.10	7,757.8	-113.1	36.6	-113.8	0.39	-0.24	-4.24
7,800.0	4.25	232.68	7,782.8	-114.2	35.2	-114.9	0.24	0.20	-1.68
7,825.0	4.06	231.19	7,807.7	-115.3	33.7	-116.0	0.87	-0.76	-5.96
7,850.0	3.90	230.56	7,832.6	-116.4	32.4	-117.1	0.66	-0.64	-2.52
7,875.0	3.90	230.53	7,857.6	-117.5	31.1	-118.1	0.01	0.00	-0.12

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.0	3.87	229.42	7,882.5	-118.6	29.8	-119.2	0.32	-0.12	-4.44
7,925.0	3.69	229.54	7,907.5	-119.6	28.5	-120.2	0.72	-0.72	0.48
7,950.0	3.55	227.43	7,932.4	-120.7	27.3	-121.3	0.77	-0.56	-8.44
7,975.0	3.50	227.02	7,957.4	-121.7	26.2	-122.3	0.22	-0.20	-1.64
8,000.0	3.37	226.60	7,982.3	-122.8	25.1	-123.3	0.53	-0.52	-1.68
8,025.0	3.37	227.14	8,007.3	-123.8	24.0	-124.3	0.13	0.00	2.16
8,050.0	3.31	226.76	8,032.2	-124.8	23.0	-125.2	0.26	-0.24	-1.52
8,075.0	3.24	225.59	8,057.2	-125.7	21.9	-126.2	0.39	-0.28	-4.68
8,100.0	3.25	223.05	8,082.2	-126.8	21.0	-127.2	0.58	0.04	-10.16
8,125.0	3.17	217.08	8,107.1	-127.8	20.1	-128.2	1.37	-0.32	-23.88
8,150.0	3.25	215.86	8,132.1	-129.0	19.2	-129.3	0.42	0.32	-4.88
8,175.0	3.24	215.67	8,157.0	-130.1	18.4	-130.5	0.06	-0.04	-0.76
8,200.0	3.20	214.68	8,182.0	-131.3	17.6	-131.6	0.27	-0.16	-3.96
8,225.0	3.05	214.70	8,207.0	-132.4	16.8	-132.7	0.60	-0.60	0.08
8,250.0	2.96	211.06	8,231.9	-133.5	16.1	-133.8	0.84	-0.36	-14.56
8,275.0	2.93	211.71	8,256.9	-134.6	15.4	-134.9	0.18	-0.12	2.60
8,300.0	2.91	210.02	8,281.9	-135.7	14.8	-135.9	0.35	-0.08	-6.76
8,325.0	2.84	210.28	8,306.8	-136.7	14.2	-137.0	0.28	-0.28	1.04
8,350.0	2.87	209.99	8,331.8	-137.8	13.5	-138.1	0.13	0.12	-1.16
8,375.0	2.94	210.89	8,356.8	-138.9	12.9	-139.2	0.33	0.28	3.60
8,400.0	3.76	216.63	8,381.7	-140.1	12.1	-140.4	3.54	3.28	22.96
8,425.0	4.30	219.45	8,406.7	-141.5	11.0	-141.7	2.30	2.16	11.28
8,450.0	4.27	218.87	8,431.6	-143.0	9.8	-143.1	0.21	-0.12	-2.32
8,475.0	4.38	219.15	8,456.5	-144.4	8.6	-144.6	0.45	0.44	1.12
8,500.0	4.36	218.68	8,481.5	-145.9	7.4	-146.0	0.16	-0.08	-1.88
8,525.0	4.43	217.97	8,506.4	-147.4	6.2	-147.5	0.35	0.28	-2.84
8,550.0	4.32	218.64	8,531.3	-148.9	5.1	-149.0	0.49	-0.44	2.68
8,575.0	4.28	218.64	8,556.2	-150.4	3.9	-150.4	0.16	-0.16	0.00
8,600.0	4.18	218.57	8,581.2	-151.8	2.7	-151.8	0.40	-0.40	-0.28
8,625.0	4.18	218.62	8,606.1	-153.2	1.6	-153.2	0.01	0.00	0.20
8,650.0	4.00	217.28	8,631.0	-154.6	0.5	-154.6	0.82	-0.72	-5.36
8,675.0	3.81	217.39	8,656.0	-156.0	-0.5	-155.9	0.76	-0.76	0.44
8,700.0	3.57	215.53	8,680.9	-157.3	-1.5	-157.2	1.07	-0.96	-7.44
8,725.0	3.43	215.22	8,705.9	-158.5	-2.4	-158.4	0.57	-0.56	-1.24
8,750.0	3.44	216.18	8,730.8	-159.7	-3.3	-159.6	0.23	0.04	3.84
8,775.0	3.39	215.16	8,755.8	-161.0	-4.1	-160.8	0.31	-0.20	-4.08
8,800.0	3.28	215.37	8,780.8	-162.1	-5.0	-162.0	0.44	-0.44	0.84
8,825.0	3.10	215.77	8,805.7	-163.3	-5.8	-163.1	0.73	-0.72	1.60
8,850.0	2.96	214.34	8,830.7	-164.4	-6.5	-164.2	0.64	-0.56	-5.72
8,875.0	2.93	211.73	8,855.7	-165.4	-7.2	-165.2	0.55	-0.12	-10.44
8,900.0	2.77	212.28	8,880.6	-166.5	-7.9	-166.3	0.65	-0.64	2.20
8,925.0	2.60	208.93	8,905.6	-167.5	-8.5	-167.3	0.93	-0.68	-13.40
8,950.0	2.62	209.60	8,930.6	-168.5	-9.0	-168.2	0.15	0.08	2.68

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,975.0	3.15	207.78	8,955.5	-169.6	-9.6	-169.3	2.15	2.12	-7.28	
9,000.0	3.41	206.89	8,980.5	-170.9	-10.3	-170.6	1.06	1.04	-3.56	
9,025.0	3.54	206.87	9,005.4	-172.2	-11.0	-171.9	0.52	0.52	-0.08	
9,050.0	4.03	206.05	9,030.4	-173.7	-11.7	-173.4	1.97	1.96	-3.28	
9,075.0	4.74	205.00	9,055.3	-175.4	-12.5	-175.1	2.86	2.84	-4.20	
9,100.0	4.85	205.06	9,080.2	-177.3	-13.4	-177.0	0.44	0.44	0.24	
9,125.0	4.80	204.86	9,105.1	-179.2	-14.3	-178.9	0.21	-0.20	-0.80	
9,150.0	4.67	204.98	9,130.1	-181.1	-15.2	-180.7	0.52	-0.52	0.48	
9,175.0	4.42	204.25	9,155.0	-182.9	-16.0	-182.5	1.03	-1.00	-2.92	
9,200.0	4.10	204.09	9,179.9	-184.6	-16.8	-184.2	1.28	-1.28	-0.64	
9,225.0	3.97	203.07	9,204.8	-186.2	-17.5	-185.8	0.59	-0.52	-4.08	
9,250.0	3.93	203.60	9,229.8	-187.8	-18.2	-187.3	0.22	-0.16	2.12	
9,275.0	3.82	202.43	9,254.7	-189.3	-18.8	-188.9	0.54	-0.44	-4.68	
9,300.0	3.61	202.35	9,279.7	-190.8	-19.4	-190.4	0.84	-0.84	-0.32	
9,325.0	3.46	203.44	9,304.6	-192.2	-20.0	-191.8	0.66	-0.60	4.36	
9,350.0	3.30	202.68	9,329.6	-193.6	-20.6	-193.1	0.66	-0.64	-3.04	
9,375.0	3.16	204.10	9,354.5	-194.9	-21.2	-194.4	0.64	-0.56	5.68	
9,400.0	2.98	202.48	9,379.5	-196.1	-21.7	-195.6	0.80	-0.72	-6.48	
9,425.0	2.82	202.33	9,404.5	-197.3	-22.2	-196.8	0.64	-0.64	-0.60	
9,450.0	2.76	202.46	9,429.5	-198.4	-22.6	-197.9	0.24	-0.24	0.52	
9,475.0	2.75	202.11	9,454.4	-199.5	-23.1	-199.0	0.08	-0.04	-1.40	
9,500.0	2.80	202.10	9,479.4	-200.7	-23.6	-200.1	0.20	0.20	-0.04	
9,525.0	2.81	203.17	9,504.4	-201.8	-24.0	-201.2	0.21	0.04	4.28	
9,550.0	2.78	202.14	9,529.3	-202.9	-24.5	-202.3	0.23	-0.12	-4.12	
9,575.0	2.85	203.36	9,554.3	-204.0	-25.0	-203.5	0.37	0.28	4.88	
9,600.0	2.87	203.72	9,579.3	-205.2	-25.5	-204.6	0.11	0.08	1.44	
9,625.0	2.83	201.18	9,604.2	-206.3	-25.9	-205.7	0.53	-0.16	-10.16	
9,650.0	2.93	199.93	9,629.2	-207.5	-26.4	-206.9	0.47	0.40	-5.00	
9,675.0	2.94	198.43	9,654.2	-208.7	-26.8	-208.1	0.31	0.04	-6.00	
9,700.0	2.88	195.42	9,679.1	-209.9	-27.2	-209.3	0.66	-0.24	-12.04	
9,725.0	3.07	193.73	9,704.1	-211.2	-27.5	-210.5	0.84	0.76	-6.76	
9,750.0	3.16	192.15	9,729.1	-212.5	-27.8	-211.9	0.50	0.36	-6.32	
9,775.0	3.15	191.57	9,754.0	-213.9	-28.1	-213.2	0.13	-0.04	-2.32	
9,800.0	3.15	192.73	9,779.0	-215.2	-28.4	-214.5	0.25	0.00	4.64	
9,825.0	3.25	192.11	9,804.0	-216.6	-28.7	-215.9	0.42	0.40	-2.48	
9,850.0	3.24	192.31	9,828.9	-217.9	-29.0	-217.3	0.06	-0.04	0.80	
9,875.0	3.28	193.02	9,853.9	-219.3	-29.3	-218.6	0.23	0.16	2.84	
9,900.0	3.29	194.12	9,878.8	-220.7	-29.6	-220.0	0.26	0.04	4.40	
9,925.0	3.35	194.63	9,903.8	-222.1	-30.0	-221.4	0.27	0.24	2.04	
9,950.0	3.31	195.05	9,928.8	-223.5	-30.4	-222.8	0.19	-0.16	1.68	
9,975.0	3.35	195.14	9,953.7	-224.9	-30.7	-224.2	0.16	0.16	0.36	
10,000.0	3.38	194.61	9,978.7	-226.4	-31.1	-225.6	0.17	0.12	-2.12	
10,025.0	3.27	195.30	10,003.6	-227.8	-31.5	-227.0	0.47	-0.44	2.76	
10,050.0	3.25	193.83	10,028.6	-229.1	-31.8	-228.4	0.34	-0.08	-5.88	

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,075.0	3.11	195.79	10,053.5	-230.5	-32.2	-229.7	0.71	-0.56	7.84
10,100.0	3.13	193.60	10,078.5	-231.8	-32.5	-231.0	0.48	0.08	-8.76
10,125.0	3.11	193.65	10,103.5	-233.1	-32.9	-232.3	0.08	-0.08	0.20
10,150.0	3.08	193.28	10,128.4	-234.4	-33.2	-233.6	0.14	-0.12	-1.48
10,175.0	2.82	194.96	10,153.4	-235.7	-33.5	-234.9	1.10	-1.04	6.72
10,200.0	2.69	196.69	10,178.4	-236.8	-33.8	-236.0	0.62	-0.52	6.92
10,225.0	2.55	198.25	10,203.3	-237.9	-34.2	-237.1	0.63	-0.56	6.24
10,250.0	2.55	200.10	10,228.3	-239.0	-34.5	-238.2	0.33	0.00	7.40
10,275.0	2.52	197.19	10,253.3	-240.0	-34.9	-239.2	0.53	-0.12	-11.64
10,300.0	2.26	201.36	10,278.3	-241.0	-35.2	-240.2	1.25	-1.04	16.68
10,325.0	2.26	201.05	10,303.3	-241.9	-35.6	-241.1	0.05	0.00	-1.24
10,350.0	2.19	200.51	10,328.2	-242.8	-35.9	-242.0	0.29	-0.28	-2.16
10,375.0	2.20	200.61	10,353.2	-243.7	-36.3	-242.9	0.04	0.04	0.40
10,400.0	2.21	200.98	10,378.2	-244.6	-36.6	-243.8	0.07	0.04	1.48
10,425.0	2.20	197.82	10,403.2	-245.5	-36.9	-244.7	0.49	-0.04	-12.64
10,450.0	2.24	195.23	10,428.2	-246.5	-37.2	-245.6	0.43	0.16	-10.36
10,475.0	2.20	192.38	10,453.1	-247.4	-37.4	-246.5	0.47	-0.16	-11.40
10,500.0	2.27	188.83	10,478.1	-248.4	-37.6	-247.5	0.62	0.28	-14.20
10,525.0	2.38	187.42	10,503.1	-249.4	-37.7	-248.5	0.50	0.44	-5.64
10,550.0	2.39	187.28	10,528.1	-250.4	-37.9	-249.5	0.05	0.04	-0.56
10,575.0	2.39	186.90	10,553.1	-251.4	-38.0	-250.5	0.06	0.00	-1.52
10,600.0	2.33	187.59	10,578.0	-252.4	-38.1	-251.6	0.27	-0.24	2.76
10,625.0	2.39	186.17	10,603.0	-253.5	-38.3	-252.6	0.34	0.24	-5.68
10,650.0	2.44	188.73	10,628.0	-254.5	-38.4	-253.6	0.48	0.20	10.24
10,675.0	2.51	187.16	10,653.0	-255.6	-38.5	-254.7	0.39	0.28	-6.28
10,700.0	2.54	193.22	10,678.0	-256.7	-38.7	-255.8	1.07	0.12	24.24
10,725.0	2.68	197.71	10,702.9	-257.8	-39.0	-256.9	0.99	0.56	17.96
10,750.0	2.78	198.82	10,727.9	-258.9	-39.4	-258.0	0.45	0.40	4.44
10,775.0	2.74	198.59	10,752.9	-260.0	-39.8	-259.1	0.17	-0.16	-0.92
10,800.0	2.94	202.82	10,777.8	-261.2	-40.2	-260.3	1.16	0.80	16.92
10,825.0	2.91	200.43	10,802.8	-262.4	-40.7	-261.4	0.50	-0.12	-9.56
10,850.0	2.82	204.60	10,827.8	-263.5	-41.2	-262.6	0.91	-0.36	16.68
10,875.0	3.07	202.18	10,852.7	-264.7	-41.7	-263.7	1.12	1.00	-9.68
10,900.0	3.24	201.78	10,877.7	-266.0	-42.2	-265.0	0.69	0.68	-1.60
10,925.0	3.50	199.65	10,902.7	-267.4	-42.7	-266.4	1.15	1.04	-8.52
10,950.0	3.86	199.00	10,927.6	-268.9	-43.3	-267.9	1.45	1.44	-2.60
10,975.0	4.27	195.30	10,952.5	-270.6	-43.8	-269.6	1.95	1.64	-14.80
11,000.0	4.57	193.92	10,977.5	-272.4	-44.3	-271.4	1.27	1.20	-5.52
11,025.0	4.86	192.74	11,002.4	-274.4	-44.7	-273.4	1.22	1.16	-4.72
11,050.0	5.08	190.48	11,027.3	-276.5	-45.2	-275.5	1.18	0.88	-9.04
11,075.0	5.32	188.56	11,052.2	-278.8	-45.5	-277.7	1.19	0.96	-7.68
11,100.0	5.42	188.13	11,077.1	-281.1	-45.9	-280.0	0.43	0.40	-1.72
11,125.0	5.35	186.98	11,102.0	-283.4	-46.2	-282.4	0.51	-0.28	-4.60

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,150.0	4.26	184.26	11,126.9	-285.5	-46.4	-284.4	4.45	-4.36	-10.88
11,175.0	3.10	181.42	11,151.8	-287.1	-46.5	-286.0	4.70	-4.64	-11.36
11,200.0	2.62	180.30	11,176.8	-288.4	-46.5	-287.3	1.93	-1.92	-4.48
11,225.0	2.12	178.66	11,201.8	-289.4	-46.5	-288.3	2.02	-2.00	-6.56
11,250.0	1.39	183.19	11,226.8	-290.2	-46.5	-289.1	2.97	-2.92	18.12
11,275.0	1.02	174.73	11,251.8	-290.7	-46.5	-289.6	1.64	-1.48	-33.84
11,300.0	0.95	174.40	11,276.8	-291.1	-46.5	-290.0	0.28	-0.28	-1.32
11,325.0	0.90	168.98	11,301.8	-291.5	-46.4	-290.4	0.40	-0.20	-21.68
11,350.0	0.97	161.51	11,326.7	-291.9	-46.3	-290.8	0.56	0.28	-29.88
11,375.0	0.87	168.95	11,351.7	-292.3	-46.2	-291.2	0.62	-0.40	29.76
11,400.0	0.88	156.96	11,376.7	-292.6	-46.1	-291.6	0.73	0.04	-47.96
11,425.0	0.90	148.81	11,401.7	-293.0	-45.9	-291.9	0.51	0.08	-32.60
11,450.0	0.88	130.03	11,426.7	-293.3	-45.7	-292.2	1.16	-0.08	-75.12
11,466.0	0.64	143.75	11,442.7	-293.4	-45.5	-292.4	1.87	-1.50	85.75
11,520.0	0.74	141.96	11,496.7	-294.0	-45.1	-292.9	0.19	0.19	-3.31
11,627.0	0.44	114.76	11,603.7	-294.7	-44.3	-293.6	0.38	-0.28	-25.42
11,675.0	3.56	350.11	11,651.7	-293.3	-44.4	-292.2	7.97	6.50	-259.69
11,721.0	7.87	350.04	11,697.5	-288.8	-45.2	-287.7	9.37	9.37	-0.15
11,769.0	16.42	351.42	11,744.3	-278.8	-46.8	-277.7	17.82	17.81	2.88
11,815.0	24.25	354.52	11,787.4	-262.9	-48.7	-261.8	17.18	17.02	6.74
11,863.0	34.34	355.07	11,829.2	-239.6	-50.8	-238.4	21.03	21.02	1.15
11,910.0	40.51	353.63	11,866.6	-211.2	-53.6	-210.0	13.26	13.13	-3.06
11,957.0	43.11	352.21	11,901.6	-180.1	-57.5	-178.8	5.89	5.53	-3.02
12,004.0	45.16	352.10	11,935.3	-147.7	-61.9	-146.3	4.36	4.36	-0.23
12,051.0	46.93	352.04	11,967.9	-114.2	-66.6	-112.7	3.77	3.77	-0.13
12,098.0	51.82	351.56	11,998.5	-78.9	-71.7	-77.3	10.43	10.40	-1.02
12,145.0	57.65	350.42	12,025.7	-41.0	-77.7	-39.3	12.56	12.40	-2.43
12,193.0	61.41	350.32	12,050.0	-0.2	-84.6	1.6	7.84	7.83	-0.21
12,240.0	62.96	352.30	12,071.9	40.9	-90.9	42.8	4.98	3.30	4.21
12,288.0	65.75	353.09	12,092.7	83.8	-96.4	85.9	6.00	5.81	1.65
12,336.0	69.43	352.42	12,111.0	127.8	-102.0	130.0	7.77	7.67	-1.40
12,382.0	72.50	352.18	12,126.0	170.9	-107.8	173.2	6.69	6.67	-0.52
12,430.0	77.09	352.64	12,138.6	216.8	-114.0	219.2	9.61	9.56	0.96
12,477.0	82.17	352.45	12,147.0	262.6	-120.0	265.2	10.82	10.81	-0.40
12,525.0	85.17	352.89	12,152.3	309.9	-126.0	312.6	6.32	6.25	0.92
12,572.0	90.63	354.28	12,154.0	356.6	-131.3	359.4	11.99	11.62	2.96
12,667.0	90.07	359.51	12,153.5	451.4	-136.4	454.3	5.54	-0.59	5.51
12,762.0	91.36	0.53	12,152.3	546.4	-136.4	549.2	1.73	1.36	1.07
12,856.0	90.95	359.71	12,150.4	640.4	-136.2	643.2	0.98	-0.44	-0.87
12,951.0	91.04	359.10	12,148.7	735.4	-137.2	738.2	0.65	0.09	-0.64
13,046.0	91.56	358.90	12,146.6	830.3	-138.8	833.1	0.59	0.55	-0.21
13,141.0	94.62	359.78	12,141.5	925.2	-139.9	928.0	3.35	3.22	0.93
13,236.0	92.75	1.28	12,135.4	1,020.0	-139.1	1,022.7	2.52	-1.97	1.58

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,331.0	90.50	0.45	12,132.7	1,114.9	-137.6	1,117.6	2.52	-2.37	-0.87
13,426.0	86.79	0.09	12,134.9	1,209.9	-137.2	1,212.6	3.92	-3.91	-0.38
13,521.0	86.72	359.85	12,140.3	1,304.7	-137.2	1,307.4	0.26	-0.07	-0.25
13,615.0	87.49	0.08	12,145.0	1,398.6	-137.3	1,401.2	0.85	0.82	0.24
13,710.0	88.83	0.05	12,148.1	1,493.5	-137.2	1,496.2	1.41	1.41	-0.03
13,804.0	89.68	359.25	12,149.3	1,587.5	-137.8	1,590.1	1.24	0.90	-0.85
13,899.0	91.50	359.70	12,148.3	1,682.5	-138.6	1,685.1	1.97	1.92	0.47
13,993.0	91.83	359.71	12,145.6	1,776.5	-139.1	1,779.1	0.35	0.35	0.01
14,087.0	91.62	0.10	12,142.8	1,870.4	-139.3	1,873.0	0.47	-0.22	0.41
14,182.0	92.09	359.91	12,139.7	1,965.4	-139.3	1,967.9	0.53	0.49	-0.20
14,277.0	92.82	359.91	12,135.6	2,060.3	-139.4	2,062.8	0.77	0.77	0.00
14,371.0	93.70	0.13	12,130.3	2,154.1	-139.4	2,156.7	0.96	0.94	0.23
14,466.0	94.68	0.06	12,123.3	2,248.9	-139.2	2,251.4	1.03	1.03	-0.07
14,560.0	95.28	0.10	12,115.2	2,342.5	-139.1	2,345.0	0.64	0.64	0.04
14,654.0	92.42	358.36	12,108.9	2,436.3	-140.3	2,438.8	3.56	-3.04	-1.85
14,746.0	90.06	357.93	12,106.9	2,528.2	-143.3	2,530.7	2.61	-2.57	-0.47
14,841.0	90.48	357.87	12,106.4	2,623.2	-146.8	2,625.7	0.45	0.44	-0.06
14,935.0	94.12	359.07	12,102.7	2,717.0	-149.3	2,719.6	4.08	3.87	1.28
15,029.0	96.47	359.24	12,094.0	2,810.6	-150.7	2,813.2	2.51	2.50	0.18
15,123.0	93.85	358.86	12,085.5	2,904.2	-152.2	2,906.8	2.82	-2.79	-0.40
15,218.0	91.80	359.46	12,080.8	2,999.1	-153.6	3,001.7	2.25	-2.16	0.63
15,312.0	89.92	359.02	12,079.4	3,093.1	-154.9	3,095.7	2.05	-2.00	-0.47
15,408.0	92.61	358.43	12,077.3	3,189.0	-157.0	3,191.7	2.87	2.80	-0.61
15,502.0	91.20	356.82	12,074.2	3,282.9	-160.9	3,285.6	2.28	-1.50	-1.71
15,596.0	92.63	357.51	12,071.0	3,376.7	-165.6	3,379.5	1.69	1.52	0.73
15,690.0	94.77	359.58	12,065.0	3,470.5	-167.9	3,473.3	3.16	2.28	2.20
15,785.0	95.48	359.71	12,056.5	3,565.1	-168.5	3,567.9	0.76	0.75	0.14
15,879.0	95.43	0.57	12,047.6	3,658.6	-168.3	3,661.4	0.91	-0.05	0.91
15,973.0	93.47	359.03	12,040.3	3,752.4	-168.6	3,755.1	2.65	-2.09	-1.64
16,068.0	93.60	359.67	12,034.4	3,847.2	-169.7	3,849.9	0.69	0.14	0.67
16,163.0	92.89	0.18	12,029.0	3,942.0	-169.8	3,944.8	0.92	-0.75	0.54
16,258.0	92.22	359.70	12,024.8	4,036.9	-169.9	4,039.7	0.87	-0.71	-0.51
16,353.0	92.44	2.49	12,020.9	4,131.8	-168.1	4,134.5	2.94	0.23	2.94
16,448.0	91.83	2.22	12,017.4	4,226.7	-164.2	4,229.2	0.70	-0.64	-0.28
16,542.0	94.02	1.24	12,012.6	4,320.5	-161.4	4,323.0	2.55	2.33	-1.04
16,637.0	92.67	1.34	12,007.1	4,415.3	-159.2	4,417.7	1.42	-1.42	0.11
16,731.0	90.00	2.15	12,004.9	4,509.2	-156.4	4,511.6	2.97	-2.84	0.86
16,826.0	88.04	1.12	12,006.5	4,604.2	-153.7	4,606.4	2.33	-2.06	-1.08
16,922.0	88.38	0.14	12,009.5	4,700.1	-152.6	4,702.3	1.08	0.35	-1.02
17,016.0	90.12	359.67	12,010.7	4,794.1	-152.8	4,796.3	1.92	1.85	-0.50
17,111.0	90.90	358.75	12,009.9	4,889.1	-154.1	4,891.3	1.27	0.82	-0.97
17,205.0	94.75	358.77	12,005.2	4,982.9	-156.1	4,985.1	4.10	4.10	0.02
17,300.0	94.10	358.00	11,997.9	5,077.6	-158.8	5,079.9	1.06	-0.68	-0.81
17,395.0	95.95	357.11	11,989.6	5,172.2	-162.8	5,174.5	2.16	1.95	-0.94

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,490.0	93.17	359.55	11,982.0	5,266.8	-165.6	5,269.2	3.89	-2.93	2.57
17,584.0	95.53	0.06	11,974.9	5,360.5	-165.9	5,362.9	2.57	2.51	0.54
17,678.0	97.79	358.89	11,964.0	5,453.9	-166.7	5,456.2	2.70	2.40	-1.24
17,774.0	95.22	358.59	11,953.1	5,549.2	-168.8	5,551.6	2.70	-2.68	-0.31
17,868.0	92.67	357.17	11,946.7	5,642.9	-172.3	5,645.3	3.10	-2.71	-1.51
17,963.0	90.62	358.99	11,943.9	5,737.8	-175.5	5,740.3	2.89	-2.16	1.92
18,058.0	90.54	0.19	11,943.0	5,832.8	-176.2	5,835.3	1.27	-0.08	1.26
18,153.0	91.49	0.84	11,941.3	5,927.8	-175.3	5,930.2	1.21	1.00	0.68
18,247.0	92.19	0.36	11,938.3	6,021.7	-174.3	6,024.1	0.90	0.74	-0.51
18,341.0	89.92	359.79	11,936.5	6,115.7	-174.2	6,118.1	2.49	-2.41	-0.61
18,436.0	89.92	358.92	11,936.7	6,210.7	-175.3	6,213.1	0.92	0.00	-0.92
18,531.0	91.71	358.45	11,935.3	6,305.7	-177.5	6,308.0	1.95	1.88	-0.49
18,625.0	88.77	358.70	11,934.9	6,399.6	-179.8	6,402.0	3.14	-3.13	0.27
18,719.0	88.18	359.59	11,937.4	6,493.6	-181.2	6,496.0	1.14	-0.63	0.95
18,814.0	91.55	0.44	11,937.7	6,588.6	-181.2	6,591.0	3.66	3.55	0.89
18,909.0	90.59	357.09	11,935.9	6,683.5	-183.2	6,685.9	3.67	-1.01	-3.53
19,003.0	89.58	357.86	11,935.7	6,777.4	-187.4	6,779.9	1.35	-1.07	0.82
19,098.0	88.30	359.35	11,937.5	6,872.4	-189.7	6,874.9	2.07	-1.35	1.57
19,192.0	87.68	0.64	11,940.8	6,966.3	-189.7	6,968.8	1.52	-0.66	1.37
19,286.0	88.60	3.19	11,943.8	7,060.2	-186.5	7,062.6	2.88	0.98	2.71
19,381.0	87.96	2.44	11,946.7	7,155.1	-181.9	7,157.3	1.04	-0.67	-0.79
19,475.0	88.97	2.19	11,949.2	7,248.9	-178.1	7,251.1	1.11	1.07	-0.27
19,570.0	91.69	2.16	11,948.7	7,343.9	-174.5	7,345.9	2.86	2.86	-0.03
19,664.0	92.81	0.76	11,945.0	7,437.8	-172.1	7,439.7	1.91	1.19	-1.49
19,759.0	92.92	0.31	11,940.2	7,532.6	-171.2	7,534.6	0.49	0.12	-0.47
19,853.0	93.06	359.91	11,935.3	7,626.5	-171.0	7,628.4	0.45	0.15	-0.43
19,948.0	93.40	359.21	11,930.0	7,721.3	-171.8	7,723.3	0.82	0.36	-0.74
20,042.0	92.50	358.68	11,925.1	7,815.2	-173.5	7,817.1	1.11	-0.96	-0.56
20,143.0	90.36	358.05	11,922.6	7,916.1	-176.4	7,918.1	2.21	-2.12	-0.62
20,237.0	89.34	357.82	11,922.9	8,010.1	-179.8	8,012.1	1.11	-1.09	-0.24
20,332.0	89.92	357.75	11,923.5	8,105.0	-183.4	8,107.1	0.61	0.61	-0.07
20,426.0	89.64	356.59	11,923.8	8,198.9	-188.1	8,201.0	1.27	-0.30	-1.23
20,521.0	87.62	357.12	11,926.1	8,293.7	-193.3	8,295.9	2.20	-2.13	0.56
20,617.0	84.80	356.89	11,932.5	8,389.3	-198.3	8,391.7	2.95	-2.94	-0.24
20,711.0	84.98	358.32	11,940.8	8,482.9	-202.2	8,485.3	1.53	0.19	1.52
20,805.0	85.07	359.09	11,949.0	8,576.5	-204.3	8,578.9	0.82	0.10	0.82
20,900.0	88.41	359.27	11,954.4	8,671.3	-205.7	8,673.8	3.52	3.52	0.19
20,995.0	89.51	0.35	11,956.1	8,766.3	-206.0	8,768.7	1.62	1.16	1.14
21,090.0	91.00	1.65	11,955.7	8,861.3	-204.3	8,863.6	2.08	1.57	1.37
21,184.0	90.19	2.03	11,954.7	8,955.2	-201.3	8,957.5	0.95	-0.86	0.40
21,279.0	91.33	3.42	11,953.4	9,050.1	-196.8	9,052.3	1.89	1.20	1.46
21,373.0	92.07	2.87	11,950.7	9,143.9	-191.6	9,145.9	0.98	0.79	-0.59
21,467.0	88.53	0.12	11,950.2	9,237.9	-189.2	9,239.8	4.77	-3.77	-2.93

Survey Report

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well PORK PIE STATE COM#704H
Project:	LEA COUNTY, NM	TVD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Site:	PORK PIE PROJECT	MD Reference:	KB=26 @ 3363.0usft (MCVAY 8)
Well:	PORK PIE STATE COM #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	EDM_Users

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,562.0	87.53	359.71	11,953.4	9,332.8	-189.3	9,334.7	1.14	-1.05	-0.43
21,656.0	85.45	0.02	11,959.2	9,426.6	-189.5	9,428.5	2.24	-2.21	0.33
21,751.0	87.99	359.09	11,964.6	9,521.5	-190.3	9,523.4	2.85	2.67	-0.98
21,846.0	89.26	358.08	11,966.9	9,616.4	-192.6	9,618.3	1.71	1.34	-1.06
21,940.0	88.92	358.62	11,968.4	9,710.4	-195.3	9,712.3	0.68	-0.36	0.57
22,035.0	89.26	359.31	11,969.9	9,805.3	-197.0	9,807.3	0.81	0.36	0.73
22,130.0	89.60	359.79	11,970.8	9,900.3	-197.8	9,902.3	0.62	0.36	0.51
22,173.0	88.94	0.02	11,971.4	9,943.3	-197.9	9,945.3	1.63	-1.53	0.53
Final MWD Svy @ 22173'MD									
22,189.6	88.94	0.02	11,971.7	9,959.9	-197.9	9,961.9	0.00	0.00	0.00
LTP @ 22189.6'MD / 11971.7'TVD									
22,235.0	88.94	0.02	11,972.5	10,005.3	-197.8	10,007.3	0.00	0.00	0.00
PTD @ 22235'MD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
22,173.0	11,971.4	9,943.3	-197.9	Final MWD Svy @ 22173'MD
22,189.6	11,971.7	9,959.9	-197.9	LTP @ 22189.6'MD / 11971.7'TVD
22,235.0	11,972.5	10,005.3	-197.8	PTD @ 22235'MD

Checked By: _____ Approved By: _____ Date: _____