



October 1, 2019

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Eric Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of August 26, 2019, through September 10, 2019 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 1,123feet to a depth of 16,373feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Gazelle 22 B3NC Federal Com #1H well, API # 30-025-43398 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

A handwritten signature in black ink, appearing to read "Eric Estes", is written over a horizontal line.

Eric Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163

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DISTRICT/ARTESIA/O.C.D.



Mewbourne Oil Company

Lea County N. M. Nad (83)
Section 22-23S-34E Gazelle
Gazelle 22 B3NC Fed Com #1H

Original Hole

Design: Original Hole

Standard Survey Report

11 September, 2019





Stryker Energy Directional Services

Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Gazelle 22 B3NC Fed Com #1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3471 + 27 @ 3498.0usft (Patterson 560)
Site:	Section 22-23S-34E Gazelle	MD Reference:	3471 + 27 @ 3498.0usft (Patterson 560)
Well:	Gazelle 22 B3NC Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Section 22-23S-34E Gazelle			
Site Position:		Northing:	467,929.50 usft	Latitude:	32° 17' 0.232 N
From:	Map	Easting:	810,978.60 usft	Longitude:	103° 27' 38.916 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.47 °

Well	Gazelle 22 B3NC Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	467,929.00 usft	Latitude:	32° 17' 0.231 N
	+E/-W	0.0 usft	Easting:	810,928.60 usft	Longitude:	103° 27' 39.498 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	27.0 usft	Ground Level:	3,471.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/03/19	6.69	60.11	47,782.59709939

Design	Original Hole				
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	359.81	

Survey Program	Date 09/11/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,123.0	16,389.0	Stryker Surveys (Original Hole)	MWD	MWD v3:standard declination

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)
1,035.0	2.71	92.50	1,034.6	-6.3	20.2	-6.3	0.00	0.00	0.00
1,123.0	2.50	85.00	1,122.6	-6.2	24.2	-6.3	0.45	-0.24	-8.52
1,312.0	1.40	339.00	1,311.5	-3.7	27.5	-3.8	1.68	-0.58	-56.08
1,501.0	2.50	288.00	1,500.4	-0.3	22.8	-0.3	1.03	0.58	-26.98
1,691.0	2.90	282.00	1,690.2	2.0	14.1	2.0	0.26	0.21	-3.16
1,880.0	2.70	293.00	1,879.0	4.8	5.3	4.7	0.30	-0.11	5.82
2,070.0	2.80	279.00	2,068.7	7.2	-3.4	7.2	0.36	0.05	-7.37
2,259.0	2.90	260.00	2,257.5	7.1	-12.6	7.2	0.50	0.05	-10.05
2,448.0	2.70	273.00	2,446.3	6.5	-21.8	6.6	0.35	-0.11	6.88
2,638.0	1.50	274.00	2,636.2	6.9	-28.7	7.0	0.63	-0.63	0.53



Stryker Energy Directional Services

Survey Report



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Site:	Section 22-23S-34E Gazelle	MD Reference:	3471 + 27 @ 3498.0usft (Patterson 560)
Well:	Gazelle 22 B3NC Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
2,827.0	0.40	298.00	2,825.1	7.4	-31.8	7.5	0.61	-0.58	12.70
3,016.0	0.60	33.00	3,014.1	8.6	-31.8	8.7	0.40	0.11	50.26
3,205.0	1.00	59.00	3,203.1	10.2	-29.9	10.3	0.28	0.21	13.76
3,396.0	1.10	57.00	3,394.1	12.1	-26.9	12.2	0.06	0.05	-1.05
3,584.0	0.50	71.00	3,582.1	13.3	-24.6	13.4	0.33	-0.32	7.45
3,773.0	1.70	93.00	3,771.0	13.5	-21.0	13.5	0.66	0.63	11.64
3,963.0	2.50	102.00	3,960.9	12.5	-14.2	12.5	0.45	0.42	4.74
4,152.0	3.40	112.00	4,149.6	9.5	-4.9	9.5	0.55	0.48	5.29
4,341.0	3.00	89.00	4,338.3	7.5	5.2	7.5	0.71	-0.21	-12.17
4,530.0	1.90	100.00	4,527.2	7.0	13.2	7.0	0.63	-0.58	5.82
4,719.0	2.10	118.00	4,716.1	4.9	19.4	4.8	0.35	0.11	9.52
4,908.0	1.70	104.00	4,905.0	2.6	25.1	2.5	0.32	-0.21	-7.41
4,995.0	1.10	109.00	4,991.9	2.0	27.2	1.9	0.70	-0.69	5.75
5,128.0	2.90	157.80	5,124.8	-1.6	29.7	-1.7	1.75	1.35	36.69
5,317.0	3.60	202.10	5,313.6	-11.5	29.2	-11.6	1.34	0.37	23.44
5,506.0	3.70	202.00	5,502.2	-22.6	24.7	-22.7	0.05	0.05	-0.05
5,695.0	3.60	199.30	5,690.8	-33.9	20.5	-34.0	0.11	-0.05	-1.43
5,884.0	3.30	195.60	5,879.5	-44.7	17.1	-44.8	0.20	-0.16	-1.96
6,073.0	3.10	195.20	6,068.2	-54.9	14.2	-55.0	0.11	-0.11	-0.21
6,263.0	3.00	201.70	6,257.9	-64.5	11.1	-64.5	0.19	-0.05	3.42
6,452.0	2.90	201.30	6,446.6	-73.5	7.5	-73.6	0.05	-0.05	-0.21
6,641.0	2.10	174.30	6,635.5	-81.4	6.1	-81.5	0.74	-0.42	-14.29
6,830.0	2.20	162.40	6,824.3	-88.3	7.5	-88.4	0.24	0.05	-6.30
7,019.0	2.30	164.00	7,013.2	-95.4	9.7	-95.5	0.06	0.05	0.85
7,209.0	1.90	217.80	7,203.1	-101.6	8.8	-101.6	1.02	-0.21	28.32
7,398.0	0.30	161.30	7,392.0	-104.5	7.0	-104.6	0.93	-0.85	-29.89
7,587.0	2.10	176.90	7,581.0	-108.5	7.4	-108.5	0.96	0.95	8.25
7,776.0	2.20	178.10	7,769.9	-115.6	7.7	-115.6	0.06	0.05	0.63
7,965.0	2.00	184.10	7,958.7	-122.5	7.6	-122.5	0.16	-0.11	3.17
8,154.0	1.50	184.60	8,147.6	-128.2	7.2	-128.2	0.26	-0.26	0.26
8,343.0	2.30	178.60	8,336.5	-134.5	7.0	-134.5	0.44	0.42	-3.17
8,532.0	1.90	180.30	8,525.4	-141.4	7.1	-141.4	0.21	-0.21	0.90
8,721.0	2.10	171.70	8,714.3	-148.0	7.6	-148.0	0.19	0.11	-4.55
8,911.0	2.60	169.50	8,904.1	-155.6	8.9	-155.7	0.27	0.26	-1.16
9,102.0	1.50	186.40	9,095.0	-162.4	9.4	-162.4	0.65	-0.58	8.85
9,291.0	1.40	183.60	9,284.0	-167.2	9.0	-167.2	0.06	-0.05	-1.48
9,480.0	2.20	207.10	9,472.9	-172.7	7.2	-172.7	0.57	0.42	12.43
9,669.0	1.00	304.50	9,661.8	-175.0	4.2	-175.0	1.34	-0.63	51.53
9,858.0	1.10	273.90	9,850.8	-173.9	1.0	-173.9	0.30	0.05	-16.19
10,047.0	0.70	237.00	10,039.8	-174.4	-1.8	-174.4	0.36	-0.21	-19.52
10,237.0	1.20	187.60	10,229.7	-177.0	-3.0	-177.0	0.48	0.26	-26.00
10,426.0	1.40	178.80	10,418.7	-181.3	-3.2	-181.3	0.15	0.11	-4.66
10,616.0	2.20	155.20	10,608.6	-186.9	-1.6	-186.9	0.57	0.42	-12.42
10,806.0	0.50	325.30	10,798.6	-189.6	-0.6	-189.6	1.42	-0.89	89.53



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
10,878.0	0.30	322.20	10,870.6	-189.2	-0.9	-189.2	0.28	-0.28	-4.31
10,923.0	1.10	326.60	10,915.6	-188.7	-1.2	-188.7	1.78	1.78	9.78
10,970.0	6.60	353.40	10,962.4	-185.6	-1.8	-185.6	12.00	11.70	57.02
11,018.0	11.90	1.00	11,009.8	-177.9	-2.0	-177.9	11.31	11.04	15.83
11,065.0	17.20	359.60	11,055.3	-166.1	-1.9	-166.1	11.30	11.28	-2.98
11,113.0	22.20	356.10	11,100.4	-150.0	-2.6	-150.0	10.70	10.42	-7.29
11,160.0	28.60	354.10	11,142.9	-129.9	-4.4	-129.9	13.74	13.62	-4.26
11,208.0	34.60	354.50	11,183.7	-104.9	-6.9	-104.9	12.51	12.50	0.83
11,255.0	40.10	354.40	11,221.1	-76.5	-9.6	-76.5	11.70	11.70	-0.21
11,303.0	46.10	356.40	11,256.1	-43.9	-12.2	-43.8	12.82	12.50	4.17
11,350.0	51.70	0.40	11,287.0	-8.5	-13.2	-8.4	13.53	11.91	8.51
11,397.0	55.10	3.00	11,315.0	29.2	-12.0	29.3	8.49	7.23	5.53
11,444.0	60.40	3.10	11,340.1	68.9	-9.9	68.9	11.28	11.28	0.21
11,492.0	64.60	0.50	11,362.3	111.4	-8.6	111.5	9.98	8.75	-5.42
11,539.0	68.20	358.50	11,381.1	154.5	-9.0	154.5	8.59	7.66	-4.26
11,587.0	71.70	357.60	11,397.5	199.6	-10.5	199.6	7.50	7.29	-1.88
11,634.0	75.30	356.90	11,410.9	244.6	-12.7	244.6	7.79	7.66	-1.49
11,682.0	80.00	356.20	11,421.1	291.4	-15.5	291.4	9.89	9.79	-1.46
11,732.0	84.50	358.10	11,427.9	340.8	-18.0	340.9	9.76	9.00	3.80
11,834.0	90.60	359.90	11,432.2	442.7	-19.7	442.7	6.23	5.98	1.76
11,928.0	93.00	359.50	11,429.3	536.6	-20.2	536.7	2.59	2.55	-0.43
12,023.0	94.80	359.40	11,422.8	631.4	-21.1	631.4	1.90	1.89	-0.11
12,117.0	92.40	359.50	11,416.9	725.2	-22.0	725.2	2.56	-2.55	0.11
12,212.0	89.30	2.10	11,415.5	820.1	-20.7	820.2	4.26	-3.26	2.74
12,306.0	89.30	3.40	11,416.7	914.0	-16.2	914.1	1.38	0.00	1.38
12,401.0	89.30	1.90	11,417.8	1,008.9	-11.8	1,008.9	1.58	0.00	-1.58
12,496.0	89.40	1.40	11,418.9	1,103.9	-9.1	1,103.9	0.54	0.11	-0.53
12,591.0	89.10	2.60	11,420.2	1,198.8	-5.8	1,198.8	1.30	-0.32	1.26
12,685.0	89.40	0.60	11,421.4	1,292.7	-3.1	1,292.8	2.15	0.32	-2.13
12,780.0	90.10	359.40	11,421.8	1,387.7	-3.1	1,387.7	1.46	0.74	-1.26
12,874.0	89.70	359.20	11,422.0	1,481.7	-4.3	1,481.7	0.48	-0.43	-0.21
12,969.0	89.80	359.20	11,422.4	1,576.7	-5.6	1,576.7	0.11	0.11	0.00
13,064.0	89.70	358.90	11,422.8	1,671.7	-7.2	1,671.7	0.33	-0.11	-0.32
13,158.0	89.80	359.30	11,423.2	1,765.7	-8.7	1,765.7	0.44	0.11	0.43
13,253.0	89.70	0.10	11,423.6	1,860.7	-9.2	1,860.7	0.85	-0.11	0.84
13,348.0	90.10	359.60	11,423.8	1,955.7	-9.4	1,955.7	0.67	0.42	-0.53
13,443.0	89.90	358.50	11,423.8	2,050.7	-11.0	2,050.7	1.18	-0.21	-1.16
13,537.0	89.60	358.90	11,424.2	2,144.7	-13.1	2,144.7	0.53	-0.32	0.43
13,632.0	89.70	358.80	11,424.8	2,239.6	-15.0	2,239.7	0.15	0.11	-0.11
13,726.0	89.80	357.60	11,425.2	2,333.6	-18.0	2,333.6	1.28	0.11	-1.28
13,821.0	89.70	356.70	11,425.6	2,428.5	-22.7	2,428.5	0.95	-0.11	-0.95
13,916.0	89.90	356.90	11,425.9	2,523.3	-28.0	2,523.4	0.30	0.21	0.21
14,010.0	89.60	357.50	11,426.3	2,617.2	-32.6	2,617.3	0.71	-0.32	0.64



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM5000

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)
14,105.0	89.60	358.70	11,427.0	2,712.1	-35.7	2,712.3	1.26	0.00	1.26
14,200.0	89.70	359.40	11,427.6	2,807.1	-37.3	2,807.2	0.74	0.11	0.74
14,294.0	89.60	0.30	11,428.2	2,901.1	-37.6	2,901.2	0.96	-0.11	0.96
14,389.0	90.20	1.70	11,428.3	2,996.1	-35.9	2,996.2	1.60	0.63	1.47
14,483.0	90.50	2.10	11,427.7	3,090.1	-32.8	3,090.2	0.53	0.32	0.43
14,578.0	90.20	2.10	11,427.2	3,185.0	-29.3	3,185.1	0.32	-0.32	0.00
14,673.0	90.20	2.00	11,426.8	3,279.9	-25.9	3,280.0	0.11	0.00	-0.11
14,767.0	90.20	2.20	11,426.5	3,373.9	-22.5	3,373.9	0.21	0.00	0.21
14,862.0	90.50	2.00	11,425.9	3,468.8	-19.0	3,468.8	0.38	0.32	-0.21
14,957.0	90.80	1.40	11,424.9	3,563.8	-16.2	3,563.8	0.71	0.32	-0.63
15,052.0	90.40	0.60	11,423.9	3,658.7	-14.5	3,658.8	0.94	-0.42	-0.84
15,147.0	90.10	359.70	11,423.4	3,753.7	-14.3	3,753.8	1.00	-0.32	-0.95
15,242.0	90.40	359.60	11,423.0	3,848.7	-14.8	3,848.8	0.33	0.32	-0.11
15,336.0	90.20	359.00	11,422.5	3,942.7	-16.0	3,942.8	0.67	-0.21	-0.64
15,431.0	90.40	358.10	11,422.0	4,037.7	-18.4	4,037.7	0.97	0.21	-0.95
15,525.0	90.50	358.00	11,421.3	4,131.6	-21.6	4,131.7	0.15	0.11	-0.11
15,620.0	90.40	357.70	11,420.6	4,226.6	-25.1	4,226.6	0.33	-0.11	-0.32
15,714.0	90.30	357.70	11,420.0	4,320.5	-28.9	4,320.6	0.11	-0.11	0.00
15,809.0	90.50	357.40	11,419.3	4,415.4	-33.0	4,415.5	0.38	0.21	-0.32
15,904.0	90.20	358.20	11,418.7	4,510.3	-36.6	4,510.4	0.90	-0.32	0.84
15,998.0	89.80	0.20	11,418.7	4,604.3	-37.9	4,604.4	2.17	-0.43	2.13
16,093.0	90.30	2.00	11,418.7	4,699.3	-36.1	4,699.4	1.97	0.53	1.89
16,188.0	90.10	3.50	11,418.3	4,794.2	-31.6	4,794.2	1.59	-0.21	1.58
16,283.0	90.50	4.50	11,417.8	4,888.9	-24.9	4,889.0	1.13	0.42	1.05
16,357.0	90.60	4.60	11,417.1	4,962.7	-19.1	4,962.7	0.19	0.14	0.14
16,389.0	90.60	4.60	11,416.8	4,994.6	-16.5	4,994.6	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,389.0	11,416.8	4,994.6	-16.5	16389.0' Projected to bit

Checked By: _____ Approved By: _____ Date: _____



Stryker Energy Directional Services
Survey Report Landscape



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 22-23S-34E Gazelle
Well: Gazelle 22 B3NC Fed Com #1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Gazelle 22 B3NC Fed Com #1H
TVD Reference: 3471 + 27 @ 3498.0usft (Patterson 560)
MD Reference: 3471 + 27 @ 3498.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Section 22-23S-34E Gazelle		
Site Position:		Northing:	467,929.50 usft
From:	Map	Easting:	810,978.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 0.232 N
		Longitude:	103° 27' 38.916 W
		Grid Convergence:	0.47 °

Well	Gazelle 22 B3NC Fed Com #1H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 17' 0.231 N
		Longitude:	103° 27' 39.498 W
		Ground Level:	3,471.0 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	08/03/19	6.69
			60.11
			47,782.59709939

Design	Original Hole		
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
			359.81

Survey Program	Date	09/11/19		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
1,123.0	16,389.0	Stryker Surveys (Original Hole)	MWD	MWD v3:standard declination



Stryker Energy Directional Services

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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
1,035.0	2.71	92.50	1,034.7	-8.3	20.2	21.2	107.25	0.00	467,922.72	810,948.83
Curry State #002 - Curry Fed #002										
1,123.0	2.50	85.00	1,122.6	-6.2	24.2	25.0	104.37	0.45	467,922.80	810,952.82
1,312.0	1.40	339.00	1,311.5	-3.7	27.5	27.7	97.84	1.68	467,925.31	810,958.10
1,501.0	2.50	288.00	1,500.4	-0.3	22.8	22.8	90.85	1.03	467,928.74	810,951.35
1,691.0	2.90	282.00	1,690.2	2.0	14.1	14.3	81.85	0.26	467,931.02	810,942.71
1,880.0	2.70	293.00	1,879.0	4.8	5.3	7.1	48.29	0.30	467,933.75	810,933.94
2,070.0	2.80	279.00	2,068.7	7.2	-3.4	8.0	335.02	0.36	467,938.23	810,925.23
2,259.0	2.90	260.00	2,257.5	7.1	-12.6	14.6	299.40	0.50	467,936.12	810,915.96
2,448.0	2.70	273.00	2,446.3	6.5	-21.8	22.7	286.67	0.35	467,935.52	810,908.81
2,638.0	1.50	274.00	2,636.2	6.9	-28.7	29.6	283.56	0.63	467,935.93	810,899.88
2,827.0	0.40	298.00	2,825.1	7.4	-31.8	32.6	283.13	0.61	467,936.41	810,896.81
3,016.0	0.80	33.00	3,014.1	8.6	-31.8	33.0	285.04	0.40	467,937.55	810,896.77
3,205.0	1.00	59.00	3,203.1	10.2	-29.9	31.8	288.90	0.28	467,939.23	810,898.72
3,396.0	1.10	57.00	3,394.1	12.1	-28.9	29.5	294.19	0.06	467,941.09	810,801.69
3,584.0	0.50	71.00	3,582.1	13.3	-24.6	28.0	298.44	0.33	467,942.34	810,903.97
3,773.0	1.70	93.00	3,771.0	13.5	-21.0	25.0	302.60	0.66	467,942.46	810,907.55
3,963.0	2.50	102.00	3,960.9	12.5	-14.2	18.9	311.29	0.45	467,941.45	810,914.42
4,152.0	3.40	112.00	4,149.6	9.5	-4.9	10.7	332.47	0.55	467,938.50	810,923.65
4,341.0	3.00	89.00	4,338.3	7.5	5.2	9.1	34.76	0.71	467,936.48	810,933.79
4,530.0	1.90	100.00	4,527.2	7.0	13.2	15.0	62.02	0.63	467,936.03	810,941.82
4,719.0	2.10	118.00	4,716.1	4.9	19.4	20.0	75.93	0.35	467,933.86	810,947.97
4,908.0	1.70	104.00	4,905.0	2.6	25.1	25.3	84.21	0.32	467,931.55	810,953.74
4,995.0	1.10	109.00	4,991.9	2.0	27.2	27.3	85.86	0.70	467,930.97	810,955.79
5,128.0	2.90	157.80	5,124.8	-1.6	29.7	29.7	93.02	1.75	467,927.44	810,958.26
5,317.0	3.60	202.10	5,313.6	-11.5	29.2	31.4	111.45	1.34	467,917.51	810,957.84
5,506.0	3.70	202.00	5,502.2	-22.6	24.7	33.5	132.49	0.05	467,906.36	810,953.32



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5,695.0	3.60	199.30	5,690.8	-33.9	20.5	39.8	148.87	0.11	487,895.10	810,949.08	
5,884.0	3.30	195.60	5,879.5	-44.7	17.1	47.9	159.14	0.20	487,884.26	810,945.65	
6,073.0	3.10	195.20	6,068.2	-54.9	14.2	56.7	165.45	0.11	487,874.09	810,942.85	
6,263.0	3.00	201.70	6,257.9	-64.5	11.1	65.4	170.26	0.19	487,864.52	810,939.68	
6,452.0	2.90	201.30	6,446.6	-73.5	7.5	73.9	174.18	0.05	487,855.47	810,938.10	
6,641.0	2.10	174.30	6,635.5	-81.4	6.1	81.7	175.71	0.74	487,847.57	810,934.71	
6,830.0	2.20	162.40	6,824.3	-88.3	7.5	88.7	175.12	0.24	487,840.66	810,936.15	
7,019.0	2.30	164.00	7,013.2	-95.4	9.7	95.9	174.20	0.06	487,833.58	810,938.29	
7,209.0	1.90	217.80	7,203.1	-101.6	8.8	102.0	175.04	1.02	487,827.40	810,937.41	
7,398.0	0.30	161.30	7,392.0	-104.5	7.0	104.8	176.14	0.93	487,824.46	810,935.65	
7,587.0	2.10	176.90	7,581.0	-108.5	7.4	108.7	176.10	0.98	487,820.53	810,935.99	
7,776.0	2.20	178.10	7,769.9	-115.6	7.7	115.8	176.19	0.06	487,813.45	810,936.30	
7,965.0	2.00	184.10	7,958.7	-122.5	7.6	122.7	176.46	0.16	487,806.53	810,936.18	
8,154.0	1.50	184.60	8,147.6	-128.2	7.2	128.4	176.81	0.26	487,800.78	810,935.75	
8,343.0	2.30	178.60	8,336.5	-134.5	7.0	134.7	177.00	0.44	487,794.52	810,935.64	
8,532.0	1.90	180.30	8,525.4	-141.4	7.1	141.6	177.12	0.21	487,787.60	810,935.72	
8,721.0	2.10	171.70	8,714.3	-148.0	7.6	148.2	177.06	0.19	487,781.04	810,936.20	
8,911.0	2.60	189.50	8,904.1	-155.6	8.9	155.9	176.73	0.27	487,773.38	810,937.49	
9,102.0	1.50	186.40	9,095.0	-162.4	9.4	162.7	176.69	0.65	487,766.61	810,938.00	
9,291.0	1.40	183.60	9,284.0	-167.2	9.0	167.4	176.92	0.06	487,761.85	810,937.58	
9,480.0	2.20	207.10	9,472.9	-172.7	7.2	172.8	177.62	0.57	487,756.31	810,935.78	
9,669.0	1.00	304.50	9,661.8	-175.0	4.2	175.0	178.63	1.34	487,754.02	810,932.77	
9,858.0	1.10	273.90	9,850.8	-173.9	1.0	173.9	179.67	0.30	487,755.08	810,929.60	
10,047.0	0.70	237.00	10,039.8	-174.4	-1.8	174.4	180.58	0.36	487,754.57	810,926.83	
10,237.0	1.20	187.60	10,229.7	-177.0	-3.0	177.1	180.97	0.48	487,751.97	810,925.59	
10,426.0	1.40	178.60	10,418.7	-181.3	-3.2	181.3	181.02	0.15	487,747.70	810,925.38	
10,616.0	2.20	155.20	10,608.6	-186.9	-1.6	186.9	180.50	0.57	487,742.07	810,926.95	



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLog (°/100usft)	Northing (usft)	Easting (usft)
10,806.0	0.50	325.30	10,798.6	-189.6	-0.6	189.6	180.18	1.42	487,739.44	810,928.01
10,857.4	0.36	323.44	10,850.0	-189.3	-0.8	189.3	180.25	0.28	487,739.75	810,927.79
B.B. Gazelle 22 B3NC Fed Com 1H										
10,878.0	0.30	322.20	10,870.6	-189.2	-0.9	189.2	180.27	0.28	487,739.84	810,927.72
10,923.0	1.10	326.60	10,915.6	-188.7	-1.2	188.7	180.36	1.78	487,740.30	810,927.41
10,970.0	6.60	353.40	10,962.4	-185.6	-1.8	185.6	180.54	12.00	487,743.36	810,928.85
11,018.0	11.90	1.00	11,009.8	-177.9	-2.0	178.0	180.64	11.31	487,751.05	810,928.62
11,065.0	17.20	359.60	11,055.3	-166.1	-1.9	166.2	180.67	11.30	487,762.86	810,928.65
11,113.0	22.20	356.10	11,100.4	-150.0	-2.6	150.0	181.00	10.70	487,779.01	810,925.99
11,160.0	28.60	354.10	11,142.9	-129.9	-4.4	130.0	181.93	13.74	487,799.08	810,924.22
11,208.0	34.60	354.50	11,183.7	-104.9	-6.9	105.1	183.74	12.51	487,824.10	810,921.73
11,255.0	40.10	354.40	11,221.1	-76.5	-9.6	77.1	187.17	11.70	487,852.47	810,918.98
11,303.0	46.10	356.40	11,256.1	-43.9	-12.2	45.5	195.57	12.82	487,885.14	810,916.38
11,350.0	51.70	0.40	11,287.0	-8.5	-13.2	15.7	237.19	13.53	487,920.52	810,915.44
11,397.0	55.10	3.00	11,315.0	29.2	-12.0	31.6	337.65	8.49	487,958.22	810,916.58
11,444.0	60.40	3.10	11,340.1	68.9	-9.9	69.6	351.82	11.28	487,997.90	810,918.70
11,492.0	64.60	0.50	11,362.3	111.4	-8.6	111.8	355.60	9.98	488,040.44	810,920.02
11,539.0	68.20	358.50	11,381.1	154.5	-9.0	154.8	356.68	8.59	488,083.50	810,919.63
11,587.0	71.70	357.60	11,397.5	199.6	-10.5	199.8	356.99	7.50	488,128.56	810,918.09
11,634.0	75.30	358.90	11,410.9	244.6	-12.7	244.9	357.03	7.79	488,173.56	810,915.93
11,682.0	80.00	358.20	11,421.1	291.4	-15.5	291.8	356.98	9.89	488,220.35	810,913.10
11,732.0	84.50	358.10	11,427.9	340.8	-18.0	341.3	356.98	9.76	488,268.82	810,910.65
11,834.0	90.60	359.90	11,432.2	442.7	-19.7	443.1	357.45	6.23	488,371.66	810,908.87
11,928.0	93.00	359.50	11,429.3	536.6	-20.2	537.0	357.84	2.59	488,465.80	810,908.38
12,023.0	94.80	359.40	11,422.8	631.4	-21.1	631.7	358.08	1.90	488,560.38	810,907.47
12,117.0	92.40	359.50	11,416.9	725.2	-22.0	725.5	358.26	2.56	488,654.18	810,906.57
12,212.0	89.30	2.10	11,415.5	820.1	-20.7	820.4	358.55	4.26	488,749.14	810,907.90



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12,306.0	89.30	3.40	11,416.7	914.0	-16.2	914.2	358.99	1.38	468,843.02	810,912.41	
12,401.0	89.30	1.90	11,417.8	1,008.9	-11.8	1,009.0	359.33	1.58	468,937.91	810,916.80	
12,496.0	89.40	1.40	11,418.9	1,103.9	-9.1	1,103.9	359.53	0.54	469,032.87	810,919.53	
12,591.0	89.10	2.60	11,420.2	1,198.8	-5.8	1,198.8	359.73	1.30	469,127.80	810,922.85	
12,685.0	89.40	0.60	11,421.4	1,292.7	-3.1	1,292.8	359.88	2.15	469,221.75	810,925.47	
12,780.0	90.10	359.40	11,421.8	1,387.7	-3.1	1,387.7	359.87	1.48	469,316.75	810,925.47	
12,874.0	89.70	359.20	11,422.0	1,481.7	-4.3	1,481.7	359.83	0.48	469,410.74	810,924.32	
12,969.0	89.80	359.20	11,422.4	1,576.7	-5.6	1,576.7	359.80	0.11	469,505.73	810,923.00	
13,064.0	89.70	358.90	11,422.8	1,671.7	-7.2	1,671.7	359.75	0.33	469,600.71	810,921.42	
13,158.0	89.80	359.30	11,423.2	1,765.7	-8.7	1,765.7	359.72	0.44	469,694.70	810,919.95	
13,253.0	89.70	0.10	11,423.6	1,860.7	-9.2	1,860.7	359.72	0.85	469,789.70	810,919.45	
13,348.0	90.10	359.60	11,423.8	1,955.7	-9.4	1,955.7	359.72	0.67	469,884.70	810,919.20	
13,443.0	89.90	358.50	11,423.8	2,050.7	-11.0	2,050.7	359.69	1.18	469,979.68	810,917.63	
13,537.0	89.60	358.90	11,424.2	2,144.7	-13.1	2,144.7	359.65	0.53	470,073.66	810,915.49	
13,632.0	89.70	358.80	11,424.8	2,239.6	-15.0	2,239.7	359.62	0.15	470,168.64	810,913.59	
13,726.0	89.80	357.60	11,425.2	2,333.6	-18.0	2,333.7	359.56	1.28	470,262.59	810,910.63	
13,821.0	89.70	356.70	11,425.6	2,428.5	-22.7	2,428.6	359.46	0.95	470,357.47	810,905.91	
13,916.0	89.90	356.90	11,425.9	2,523.3	-28.0	2,523.5	359.36	0.30	470,452.32	810,900.61	
14,010.0	89.80	357.50	11,426.3	2,617.2	-32.6	2,617.4	359.29	0.71	470,548.21	810,898.02	
14,105.0	89.60	358.70	11,427.0	2,712.1	-35.7	2,712.4	359.25	1.26	470,641.15	810,892.87	
14,200.0	89.70	359.40	11,427.6	2,807.1	-37.3	2,807.4	359.24	0.74	470,736.13	810,891.29	
14,294.0	89.60	0.30	11,428.2	2,901.1	-37.6	2,901.4	359.26	0.96	470,830.13	810,891.04	
14,389.0	90.20	1.70	11,428.3	2,996.1	-35.9	2,996.3	359.31	1.60	470,925.11	810,892.70	
14,483.0	90.50	2.10	11,427.8	3,090.1	-32.8	3,090.2	359.39	0.53	471,019.06	810,895.82	
14,578.0	90.20	2.10	11,427.2	3,185.0	-29.3	3,185.1	359.47	0.32	471,113.99	810,899.30	
14,673.0	90.20	2.00	11,426.8	3,279.9	-25.9	3,280.0	359.55	0.11	471,208.93	810,902.70	
14,767.0	90.20	2.20	11,426.5	3,373.9	-22.5	3,373.9	359.62	0.21	471,302.87	810,908.14	



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14,862.0	90.50	2.00	11,425.9	3,468.8	-19.0	3,468.9	359.89	0.38	471,397.80	810,909.62
14,957.0	90.80	1.40	11,424.9	3,563.8	-16.2	3,563.8	359.74	0.71	471,492.75	810,912.44
16,052.0	90.40	0.60	11,423.9	3,658.7	-14.5	3,658.8	359.77	0.94	471,587.73	810,914.10
16,147.0	90.10	359.70	11,423.4	3,753.7	-14.3	3,753.8	359.78	1.00	471,682.73	810,914.35
15,242.0	90.40	359.60	11,423.0	3,848.7	-14.8	3,848.8	359.78	0.33	471,777.73	810,913.77
15,336.0	90.20	359.00	11,422.5	3,942.7	-16.0	3,942.8	359.77	0.67	471,871.72	810,912.62
15,431.0	90.40	358.10	11,422.0	4,037.7	-18.4	4,037.7	359.74	0.97	471,966.69	810,910.22
15,525.0	90.50	358.00	11,421.3	4,131.6	-21.6	4,131.7	359.70	0.15	472,060.63	810,907.02
15,620.0	90.40	357.70	11,420.6	4,226.6	-25.1	4,226.6	359.66	0.33	472,155.56	810,903.45
15,714.0	90.30	357.70	11,420.0	4,320.5	-28.9	4,320.6	359.62	0.11	472,249.48	810,899.68
15,809.0	90.50	357.40	11,419.3	4,415.4	-33.0	4,415.5	359.57	0.38	472,344.39	810,895.62
15,904.0	90.20	358.20	11,418.7	4,510.3	-36.6	4,510.5	359.53	0.90	472,439.32	810,891.97
15,998.0	89.80	0.20	11,418.7	4,604.3	-37.9	4,604.5	359.53	2.17	472,533.31	810,890.66
16,093.0	90.30	2.00	11,418.7	4,699.3	-36.1	4,699.4	359.56	1.97	472,628.28	810,892.49
16,188.0	90.10	3.60	11,418.3	4,794.2	-31.6	4,794.3	359.62	1.59	472,723.17	810,897.04
16,283.0	90.50	4.50	11,417.8	4,888.9	-24.9	4,889.0	359.71	1.13	472,817.94	810,903.67
16,357.0	90.60	4.60	11,417.1	4,962.7	-19.1	4,962.7	359.78	0.19	472,891.70	810,909.54
16,373.8	90.60	4.60	11,416.9	4,979.4	-17.7	4,979.5	359.80	0.00	472,908.44	810,910.89
PBHL Gazelle 22 B3NC Fed Com 1H										
16,389.0	90.60	4.60	11,416.8	4,994.6	-16.5	4,994.6	359.81	0.00	472,923.80	810,912.11

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,389.0	11,416.8	4,994.6	-16.5	16389.0' Projected to bit



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COMPANY: Newbourn Oil Company
WELL: Gazelle 22 B3NC Fed Com #1H
COUNTY: Lea County N. M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 560

STRYKER
DIRECTIONAL
OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.23°

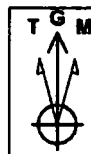
GEODETIC ZONE: New Mexico Eastern Zone
3471 + 27 @ 3458.0ush (Patterson 560)
GROUND ELEVATION: 3471.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.0	0.0	467829.00	810928.60	32° 17' 0.231 N	103° 27' 39.488 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSecl	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5100.0	0.00	0.00	5100.0	0.0	0.0	0.00	0.00	0.0	
3	5229.0	1.93	179.41	5229.0	-2.2	0.0	1.50	179.41	-2.2	
4	10724.2	1.93	179.41	10721.0	-187.7	1.9	0.00	0.00	-187.7	
5	10853.2	0.00	0.00	10850.0	-189.9	2.0	1.50	180.00	-189.9	B.B. Gazelle 22 B3NC Fed Com 1H
6	10983.7	0.00	0.00	10980.5	-189.9	2.0	0.00	0.00	-189.9	
7	11715.7	90.24	359.49	11438.0	289.6	-2.3	12.00	359.49	289.6	
8	16408.0	90.24	359.49	11418.0	4981.6	-44.4	0.00	0.00	4981.6	PBHL Gazelle 22 B3NC Fed Com 1H

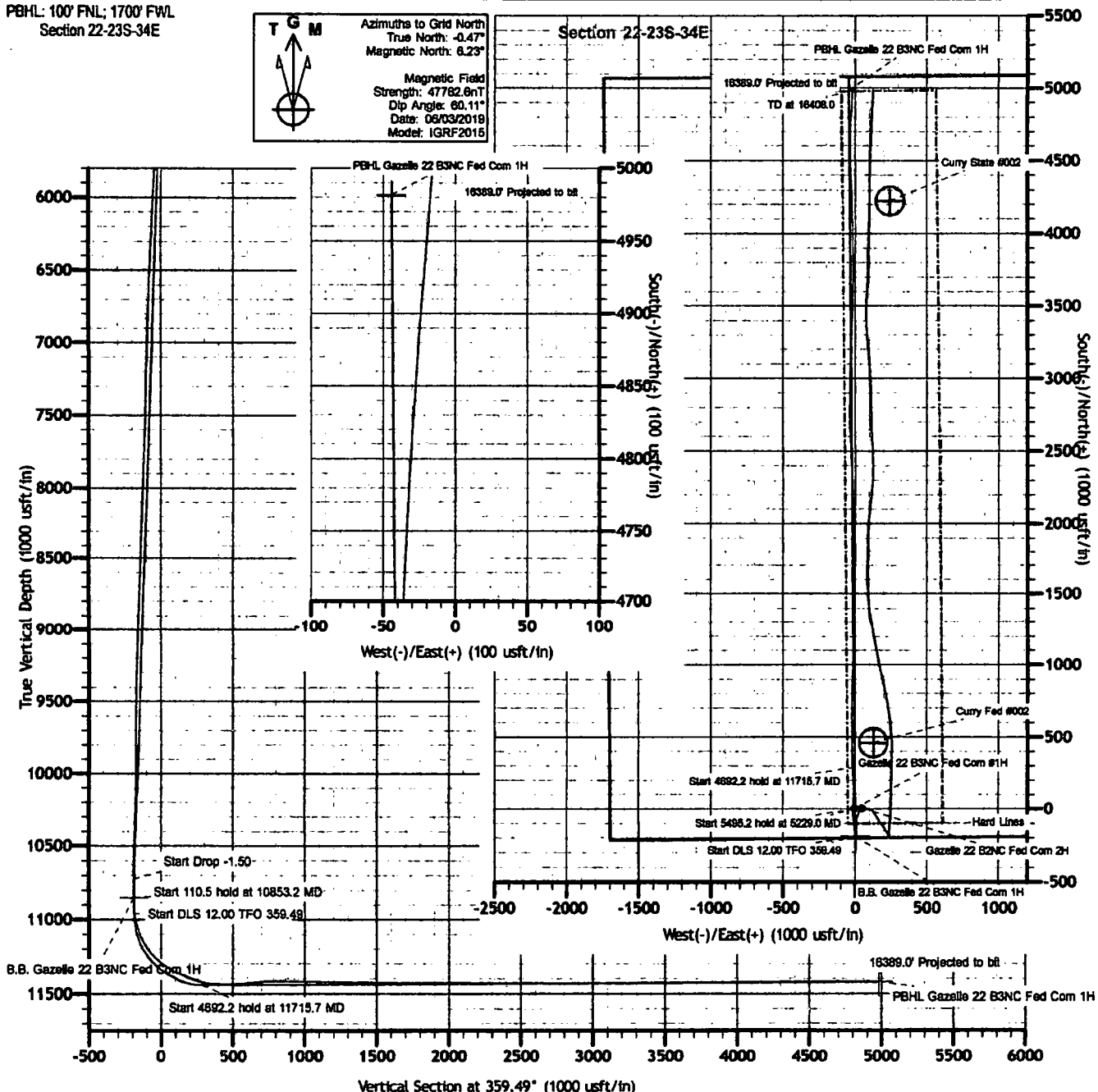
SHL: 200' FSL; 1700' FWL
Section 22-23S-34E
PBHL: 100' FNL; 1700' FWL
Section 22-23S-34E



Azimuths to Grid North
True North: -0.47°
Magnetic North: 6.23°

Magnetic Field
Strength: 47762.6nT
Dip Angle: 60.11°
Date: 06/03/2019
Model: IGRF2015

Section 22-23S-34E





COMPANY: Mewbourne Oil Company
 WELL: Gazelle 22 B3NC Fed Com #1H
 COUNTY: Lea County N. M. Nad (83)
 DATUM: North American Datum 1983
 RIG: Patterson 560

STRYKER
 DIRECTIONAL
 OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.23°

GEODETIC ZONE: New Mexico Eastern Zone											Slot
3471 + 27 @ 3498.0usft (Patterson 560)											
GROUND ELEVATION: 3471.0											
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude						
0.0	0.0	467628.00	810928.60	32° 17' 0.231 N	103° 27' 39.498 W						
PLAN SECTIONS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	5100.0	0.00	0.00	5100.0	0.0	0.0	0.00	0.00	0.0		
3	5228.0	1.93	179.41	5228.0	-2.2	0.0	1.50	179.41	-2.2		
4	10724.2	1.93	179.41	10721.0	-187.7	1.9	0.00	0.00	-187.7		
5	10853.2	0.00	0.00	10850.0	-189.9	2.0	1.50	180.00	-189.9	B.B. Gazelle 22 B3NC Fed Com 1H	
6	10983.7	0.00	0.00	10980.5	-189.9	2.0	0.00	0.00	-189.9		
7	11715.7	90.24	359.49	11438.0	289.6	-2.3	12.00	359.49	289.6		
8	16408.0	90.24	359.49	11418.0	4981.6	-44.4	0.00	0.00	4981.6	PBHL Gazelle 22 B3NC Fed Com 1H	

SHL: 200' FSL; 1700' FWL
 Section 22-23S-34E
 PBHL: 100' FNL; 1700' FWL
 Section 22-23S-34E

