

OPERATOR: COG Operating, LLC.
WELL/LEASE: Jameson 26 Federal # 4H
COUNTY: Eddy Co., New Mexico
Sec. 26, T22S, R28E

**PATRIOT DRILLING, LLC STATE OF NEW MEXICO
DEVIATION REPORT**

30-015-39366

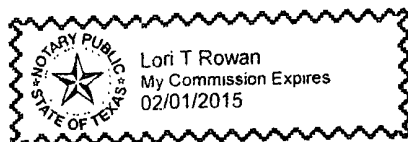
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
311	1/4	3,731	1
355	1/2	4,038	1 1/2
564	3/4	4,478	1
811	1	4,828	3/4
1,005	1 1/4	5,082	1 1/4
1,132	1	5,337	3/4
1,309	1/2	5,713	1/2
1,498	1 1/2	6,093	1
1,643	1 1/2	6,475	3/4
1,830	1/2	6,800	1 1/2
1,990	1 3/4	7,146	1 1/2
2,118	2	7,493	1 1/2
2,307	3	7,867	3/4
2,476	2 3/4	8,148	1 3/4
2,484	2 1/2	8,541	2 1/4
2,549	2	9,062	2 3/4
2,759	2	9,086	2 1/2
2,949	1 1/2	9,398	1 1/2
3,338	1 1/4	9,716	1 1/4

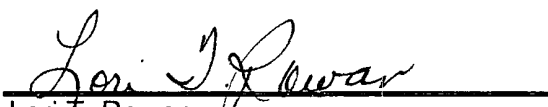
Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 21st day of
November, 2011 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015




Lori T. Rowan
Notary Public for Ector Co., Texas

COG OPERATING

Culebra Bluff
Eddy County, NM
Jameson "26" Federal #4H
VH - Job #32K11111080

Survey: Gyro

SDI Standard Survey Report

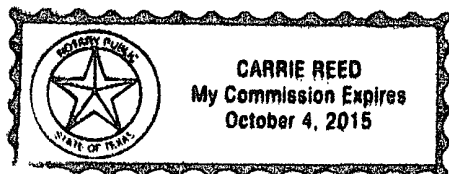
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 12th of December, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling
Directional Drilling Operations

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG OPERATING	Local Co-ordinate Reference:	Well Jameson "26" Federal #4H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Jameson "26" Federal #4H	North Reference:	Grid
Wellbore:	VH - Job #32K11111080	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K11111080	Database:	EDM-Regulatory

Project:	Culebra Bluff		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Eddy County, NM				
Site Position:		Northing:	486,501 49 usft	Latitude:	32° 20' 13 338 N
From:	Lat/Long	Easting:	642,576 22 usft	Longitude:	104° 0' 19 945 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 18 °

Well:	Jameson "26" Federal #4H, Directional (Pathfinder)					
Well Position	+N/-S	0 0 usft	Northing:	498,147 59 usft	Latitude:	32° 22' 9 049 N
	+E/-W	0 0 usft	Easting:	625,872 16 usft	Longitude:	104° 3' 34 301 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	0 0 usft

Wellbore						VH - Job #32K11111080					
Magnetics		Model Name		Sample Date		Declination		Dip Angle		Field Strength	
						(°)		(°)		(nT)	
		IGRF2010		11/6/2011		7 77		60 23		48,636	

Design:	VH - Job #32K11111080			
Audit Notes:				
Version:	1 0	Phase:	ACTUAL	Tie On Depth: 0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0 0	0 0	0 0	180 00

Survey Program		Date 12/27/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100 0	8,000 0	Gyro (VH - Job #32K11111080)	Keeper	Keeper Gyro

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0
100 0	0 24	184 06	100 0	-0 2	0 0	184 06	0 2
200 0	0 17	181 71	200 0	-0 6	0 0	183 45	0 6
300 0	0 12	168 78	300 0	-0 8	0 0	181 27	0 8
400 0	0 19	105 63	400 0	-1 0	0 2	170 47	1 0
500 0	0 22	98 68	500 0	-1 0	0 5	153 78	1 2
600 0	0 19	127 95	600 0	-1 2	0 8	144 56	1 4
700 0	0 31	196 60	700 0	-1 5	0 9	149 95	1 8
800 0	0 45	228 58	800 0	-2 0	0 5	165 93	2 1
900 0	0 52	235 30	900 0	-2 6	-0 2	183 43	2 6
1,000 0	0 63	240 67	1,000 0	-3 1	-1 0	198 01	3 3
1,100 0	0 74	245 12	1,100 0	-3 6	-2 1	209 67	4 2

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG OPERATING	Local Co-ordinate Reference:	Well Jameson "26" Federal #4H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Jameson "26" Federal #4H	North Reference:	Grid
Wellbore:	VH - Job #32K11111080	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K11111080	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,200 0	0 73	244 64	1,200 0	-4 2	-3 2	217 71	5 3	
1,300 0	0 89	250 58	1,300 0	-4 7	-4 5	223 94	6 5	
1,400 0	0 88	241 53	1,399 9	-5 3	-5 9	228 11	8 0	
1,500 0	1 00	240 87	1,499 9	-6 1	-7 4	230 32	9 6	
1,600 0	0 87	241 64	1,599 9	-6 9	-8 8	231 90	11 2	
1,700 0	0 79	242 69	1,699 9	-7 6	-10 1	233 07	12 6	
1,800 0	0 25	257 05	1,799 9	-8 0	-10 9	233 93	13 5	
1,900 0	0 97	122 27	1,899 9	-8 5	-10 4	230 94	13 4	
2,000 0	1 93	116 96	1,999 9	-9 7	-8 2	220 30	12 7	
2,100 0	1 67	114 57	2,099 8	-11 0	-5 4	205 96	12 3	
2,200 0	2 17	119 42	2,199 8	-12 6	-2 4	190 81	12 8	
2,300 0	2 61	113 26	2,299 7	-14 4	1 3	174 69	14 5	
2,400 0	2 71	114 68	2,399 6	-16 3	5 6	161 10	17 2	
2,500 0	2 58	112 03	2,499 5	-18 1	9 8	151 56	20 6	
2,600 0	2 09	105 39	2,599 4	-19 5	13 7	144 92	23 8	
2,700 0	1 47	114 34	2,699 3	-20 5	16 6	140 98	26 3	
2,800 0	1 37	113 18	2,799 3	-21 5	18 9	138 70	28 6	
2,900 0	1 29	115 56	2,899 3	-22 4	21 0	136 92	30 7	
3,000 0	1 44	110 55	2,999 2	-23 3	23 2	135 23	32 9	
3,100 0	1 20	113 18	3,099 2	-24 2	25 3	133 73	35 0	
3,200 0	0 98	121 52	3,199 2	-25 1	27 0	132 87	36 8	
3,300 0	0 80	118 65	3,299 2	-25 8	28 3	132 37	38 3	
3,400 0	0 76	110 45	3,399 2	-26 4	29 6	131 77	39 6	
3,500 0	0 63	124 72	3,499 2	-27 0	30 6	131 34	40 8	
3,600 0	0 45	155 03	3,599 2	-27 6	31 3	131 47	41 7	
3,700 0	0 38	181 35	3,699 2	-28 3	31 4	132 02	42 3	
3,800 0	0 28	199 22	3,799 2	-28 9	31 3	132 66	42 6	
3,900 0	0 27	187 87	3,899 2	-29 3	31 2	133 22	42 8	
4,000 0	0 24	200 07	3,999 2	-29 8	31 1	133 73	43 1	
4,100 0	0 35	222 53	4,099 2	-30 2	30 8	134 39	43 1	
4,200 0	0 43	228 75	4,199 2	-30 7	30 3	135 30	43 1	
4,300 0	0 57	226 52	4,299 2	-31 2	29 7	136 46	43 1	
4,400 0	0 65	217 15	4,399 1	-32 0	29 0	137 86	43 2	
4,500 0	0 74	210 41	4,499 1	-33 1	28 3	139 40	43 5	
4,600 0	0 70	210 31	4,599 1	-34 1	27 7	140 95	44 0	
4,700 0	0 62	225 18	4,699 1	-35 0	27 0	142 39	44 2	
4,800 0	0 72	231 82	4,799 1	-35 8	26 1	143 89	44 3	
4,900 0	0 72	235 22	4,899 1	-36 6	25 1	145 52	44 4	
5,000 0	0 91	250 43	4,999 1	-37 2	23 8	147 33	44 2	
5,100 0	1 12	255 37	5,099 1	-37 7	22 2	149 56	43 7	
5,200 0	1 12	258 18	5,199 1	-38 1	20 3	152 04	43 2	
5,300 0	0 88	259 36	5,299 1	-38 5	18 5	154 28	42 7	
5,400 0	0 75	271 44	5,399 0	-38 6	17 1	156 08	42 2	
5,500 0	0 68	266 17	5,499 0	-38 6	15 9	157 65	41 8	

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	COG OPERATING	Local Co-ordinate Reference:	Well Jameson "26" Federal #4H
Project:	Culebra Bluff	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Jameson "26" Federal #4H	North Reference:	Grid
Wellbore:	VH - Job #32K11111080	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K11111080	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,600 0	0 43	257 86	5,599 0	-38 8	14 9	158 94	41 5
5,700 0	0 11	226 29	5,699 0	-38 9	14 5	159 57	41 5
5,800 0	0 15	210 84	5,799 0	-39 1	14 4	159 83	41 6
5,900 0	0 25	181 45	5,899 0	-39 4	14 3	160 08	41 9
6,000 0	0 22	195 45	5,999 0	-39 8	14 2	160 34	42 3
6,100 0	0 39	216 78	6,099 0	-40 3	14 0	160 87	42 6
6,200 0	0 69	221 63	6,199 0	-41 0	13 4	161 94	43 1
6,300 0	1 12	241 68	6,299 0	-41 9	12 1	163 89	43 6
6,400 0	1 20	251 59	6,399 0	-42 7	10 3	166 50	43 9
6,500 0	1 26	258 33	6,499 0	-43 3	8 2	169 29	44 0
6,600 0	1 48	273 43	6,598 9	-43 4	5 8	172 37	43 8
6,700 0	1 44	274 74	6,698 9	-43 2	3 3	175 67	43 3
6,800 0	1 75	321 68	6,798 9	-41 9	1 1	178 53	41 9
6,900 0	2 39	334 53	6,898 8	-38 8	-0 8	181 13	38 8
7,000 0	2 34	314 36	6,998 7	-35 5	-3 1	185 03	35 7
7,100 0	1 26	294 87	7,098 7	-33 6	-5 6	189 42	34 1
7,200 0	0 98	292 06	7,198 6	-32 9	-7 4	192 65	33 7
7,300 0	0 90	232 72	7,298 6	-33 0	-8 8	194 91	34 2
7,400 0	1 07	234 34	7,398 6	-34 0	-10 2	196 65	35 5
7,500 0	0 91	237 91	7,498 6	-35 0	-11 6	198 35	36 9
7,600 0	0 81	264 26	7,598 6	-35 5	-13 0	200 09	37 8
7,700 0	0 61	302 07	7,698 6	-35 3	-14 1	201 84	38 0
7,800 0	0 71	301 87	7,798 6	-34 7	-15 1	203 56	37 8
7,900 0	0 22	15 91	7,898 6	-34 2	-15 6	204 53	37 5
8,000 0	0 25	48 14	7,998 6	-33 8	-15 4	204 44	37 2



Scientific Drilling
Directional Drilling Operations

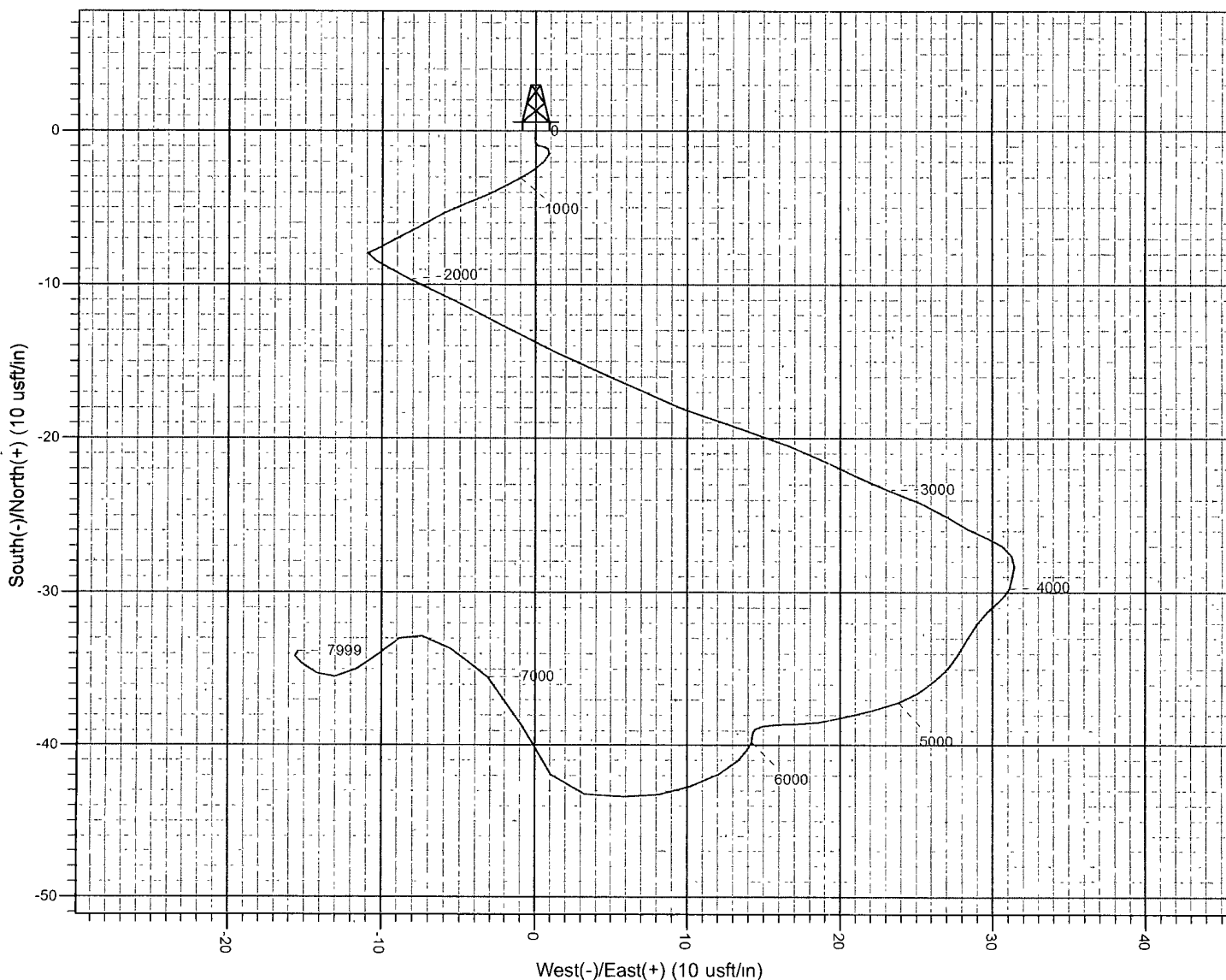
Project: Culebra Bluff
Eddy County, NM
Well: Jameson "26" Federal #4H
Wellbore: VH - Job #32K11111080
Design: VH - Job #32K11111080



Azimuths to Grid North
True North -0 15°
Magnetic North 7 63°
Magnetic Field
Strength 48635 7nT
Dip Angle 60 23°
Date 11/6/2011
Model IGRF2010

WELL DETAILS: Jameson "26" Federal #4H
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0 0	498147.59	625872.16	32° 22' 9 049 N	104° 3' 34.301 W	



PROJECT DETAILS Culebra Bluff
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SITE DETAILS Eddy County, NM
Site Centre Latitude: 32° 20' 13.338 N
Longitude: 104° 0' 19.945 W
Positional Uncertainty: 0.0
Convergence: 0.18
Local North: Grid

PathFinder Energy Services, Inc.

Survey Report

COG OPERATING, LLC.
JAMESON 26 FEDERAL #4H
EDDY COUNTY, NEW MEXICO
Rig:Patriot #6
PathFinder Office Supervisor: STEVE BIBB
PathFinder Field Engineers: P.DAS
K.THURMAN

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.22.9.0518 N LON:104.3.34.3040 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 625871.9000 Y: 498147.8700
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.63°EAST TO GRID
Vertical Section Plane: 180.00
Survey Vert. Reference: 17.50' Kelly Bushing To Ground
Altitude:3143.50' Ground To MSL

Survey Calculations by RX5 V6.03E using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
TIED INTO SCIENTIFIC DRILLING GYRO SURVEY @ 7800'MD.										
7800.00	0.71	301.87	7798.58	0.00	34.68	34.68 S	15.16 W	37.85@	203.61	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
7927.00	7.39	186.22	7925.24	127.00	42.40	42.40 S	16.72 W	45.57@	201.52	6.08
7958.00	11.78	185.70	7955.80	31.00	47.53	47.53 S	17.25 W	50.56@	199.94	14.16
7990.00	15.39	183.50	7986.90	32.00	55.02	55.02 S	17.83 W	57.84@	197.96	11.39
8022.00	18.73	180.86	8017.49	32.00	64.40	64.40 S	18.17 W	66.91@	195.75	10.71
8054.00	22.42	179.98	8047.44	32.00	75.64	75.64 S	18.24 W	77.81@	193.56	11.57
8086.00	26.03	180.69	8076.62	32.00	88.77	88.77 S	18.32 W	90.64@	191.66	11.32
8118.00	29.81	181.92	8104.89	32.00	103.75	103.75 S	18.68 W	105.41@	190.20	11.95
8149.00	33.59	182.97	8131.26	31.00	120.02	120.02 S	19.38 W	121.57@	189.17	12.32
8180.00	37.72	183.50	8156.44	31.00	138.05	138.05 S	20.40 W	139.55@	188.41	13.36
8213.00	41.33	183.24	8181.89	33.00	159.01	159.01 S	21.63 W	160.48@	187.75	10.95
8245.00	43.26	182.53	8205.56	32.00	180.52	180.52 S	22.72 W	181.94@	187.17	6.21
8277.00	45.64	182.00	8228.40	32.00	202.91	202.91 S	23.60 W	204.28@	186.63	7.53
8309.00	48.72	182.00	8250.15	32.00	226.37	226.37 S	24.42 W	227.68@	186.16	9.62
8340.00	52.14	181.65	8269.90	31.00	250.25	250.25 S	25.18 W	251.51@	185.75	11.07
8372.00	56.01	181.74	8288.67	32.00	276.14	276.14 S	25.94 W	277.36@	185.37	12.10
8404.00	60.23	182.18	8305.57	32.00	303.29	303.29 S	26.88 W	304.48@	185.06	13.24
8436.00	64.28	182.00	8320.46	32.00	331.59	331.59 S	27.91 W	332.76@	184.81	12.67
8468.00	67.80	181.92	8333.45	32.00	360.81	360.81 S	28.91 W	361.97@	184.58	11.00
8499.00	71.75	182.18	8344.17	31.00	389.87	389.87 S	29.95 W	391.02@	184.39	12.77
8531.00	74.57	182.27	8353.44	32.00	420.48	420.48 S	31.14 W	421.63@	184.24	8.82
8563.00	77.03	182.18	8361.29	32.00	451.47	451.47 S	32.34 W	452.63@	184.10	7.69
8595.00	80.81	182.00	8367.43	32.00	482.85	482.85 S	33.49 W	484.01@	183.97	11.83
8627.00	82.22	181.74	8372.16	32.00	514.48	514.48 S	34.52 W	515.64@	183.84	4.48

PathFinder Energy Services, Inc.

Survey Report

COG OPERATING, LLC.
JAMESON 26 FEDERAL #4H
EDDY COUNTY, NEW MEXICO
RIG:Patriot #6

Page 02/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8656.00	85.12	181.57	8375.35	29.00	543.29	543.29 S	35.35 W	544.44@	183.72	10.02
8688.00	88.29	181.04	8377.19	32.00	575.22	575.22 S	36.08 W	576.35@	183.59	10.04
8751.00	89.16	181.04	8378.59	63.00	638.20	638.20 S	37.22 W	639.28@	183.34	1.38
8846.00	88.90	180.34	8380.20	95.00	733.18	733.18 S	38.37 W	734.18@	183.00	0.79
8941.00	89.08	181.04	8381.88	95.00	828.15	828.15 S	39.51 W	829.10@	182.73	0.76
9037.00	88.90	180.07	8383.57	96.00	924.13	924.13 S	40.44 W	925.02@	182.51	1.03
9133.00	88.99	180.16	8385.34	96.00	1020.12	1020.12 S	40.63 W	1020.93@	182.28	0.13
9228.00	88.99	179.63	8387.01	95.00	1115.10	1115.10 S	40.46 W	1115.84@	182.08	0.56
9323.00	90.13	179.90	8387.74	95.00	1210.10	1210.10 S	40.07 W	1210.76@	181.90	1.23
9419.00	90.31	179.81	8387.37	96.00	1306.10	1306.10 S	39.82 W	1306.70@	181.75	0.21
9514.00	90.13	179.11	8387.01	95.00	1401.09	1401.09 S	38.93 W	1401.63@	181.59	0.76
9610.00	89.60	178.80	8387.23	96.00	1497.07	1497.07 S	37.18 W	1497.54@	181.42	0.64
9705.00	88.72	180.42	8388.63	95.00	1592.06	1592.06 S	36.53 W	1592.48@	181.31	1.94
9801.00	89.43	181.61	8390.18	96.00	1688.03	1688.03 S	38.23 W	1688.46@	181.30	1.44
9896.00	89.43	181.64	8391.12	95.00	1782.98	1782.98 S	40.93 W	1783.45@	181.31	0.03
9991.00	90.84	183.43	8390.90	95.00	1877.89	1877.89 S	45.13 W	1878.43@	181.38	2.40
10087.00	90.75	182.76	8389.57	96.00	1973.74	1973.74 S	50.31 W	1974.38@	181.46	0.70
10182.00	91.10	182.86	8388.03	95.00	2068.61	2068.61 S	54.97 W	2069.34@	181.52	0.38
10278.00	91.19	182.41	8386.11	96.00	2164.49	2164.49 S	59.38 W	2165.30@	181.57	0.48
10373.00	88.81	182.71	8386.11	95.00	2259.39	2259.39 S	63.62 W	2260.28@	181.61	2.53
10468.00	88.81	182.62	8388.09	95.00	2354.26	2354.26 S	68.04 W	2355.25@	181.66	0.09
10563.00	89.08	182.59	8389.84	95.00	2449.15	2449.15 S	72.36 W	2450.22@	181.69	0.29
10659.00	89.25	182.37	8391.23	96.00	2545.05	2545.05 S	76.51 W	2546.20@	181.72	0.29
10754.00	89.34	182.21	8392.40	95.00	2639.96	2639.96 S	80.30 W	2641.19@	181.74	0.19
10849.00	89.60	181.65	8393.28	95.00	2734.91	2734.91 S	83.50 W	2736.18@	181.75	0.65
10945.00	90.13	181.44	8393.51	96.00	2830.87	2830.87 S	86.09 W	2832.18@	181.74	0.59
11040.00	87.85	181.47	8395.18	95.00	2925.82	2925.82 S	88.50 W	2927.16@	181.73	2.40
11136.00	88.81	181.19	8397.98	96.00	3021.75	3021.75 S	90.73 W	3023.11@	181.72	1.04

PathFinder Energy Services, Inc.

Survey Report

COG OPERATING, LLC.
JAMESON 26 FEDERAL #4H
EDDY COUNTY, NEW MEXICO
RIG:Patriot #6

Page 03/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
11231.00	88.46	180.91	8400.24	95.00	3116.71	3116.71 S	92.47 W	3118.08@	181.70	0.47
11327.00	89.87	181.20	8401.64	96.00	3212.68	3212.68 S	94.24 W	3214.06@	181.68	1.50
11421.00	90.75	181.30	8401.13	94.00	3306.65	3306.65 S	96.29 W	3308.06@	181.67	0.94
11517.00	89.43	181.33	8400.98	96.00	3402.63	3402.63 S	98.49 W	3404.05@	181.66	1.38
11612.00	89.78	181.57	8401.64	95.00	3497.59	3497.59 S	100.90 W	3499.05@	181.65	0.45
11707.00	90.13	181.20	8401.71	95.00	3592.57	3592.57 S	103.19 W	3594.05@	181.65	0.54
11803.00	88.72	180.67	8402.68	96.00	3688.55	3688.55 S	104.76 W	3690.03@	181.63	1.57
11898.00	88.99	180.50	8404.57	95.00	3783.52	3783.52 S	105.73 W	3785.00@	181.60	0.34
11993.00	89.16	179.83	8406.11	95.00	3878.51	3878.51 S	106.00 W	3879.96@	181.57	0.73
12089.00	89.43	179.32	8407.29	96.00	3974.50	3974.50 S	105.29 W	3975.89@	181.52	0.60
12184.00	89.52	179.04	8408.16	95.00	4069.48	4069.48 S	103.93 W	4070.81@	181.46	0.31
12279.00	89.52	178.36	8408.96	95.00	4164.46	4164.46 S	101.78 W	4165.70@	181.40	0.72
STRAIGHT-LINE PROJECTION TO BIT @ 12390' MD.										
12390.00	89.52	178.36	8409.89	111.00	4275.41	4275.41 S	98.60 W	4276.54@	181.32	0.00