

Results of Directional Survey

API number:	30-025-40616		
OGRID:		Operator:	COG OPERATING LLC
		Property:	STRATOJET 31 STATE COM # 1H

surface	ULSTR:	P	31	T	20S	R	35E
				330	FSL	660	FEL

BH Loc	ULSTR:	A	31	T	20S	R	35E
15315	MD	10823.7	TVD	332	FNL	760	FEL
				4948	FSL		

Top Perf/OH	ULSTR:	P	31	T	20S	R	35E
10980	MD	10792.1	TVD	621	FSL	569	FEL

Bot Perf/OH	ULSTR:	A	31	T	20S	R	35E
15210	MD	10825.3	TVD	437	FNL	756	FEL
				4843	FSL		

	MD	N/S	E/W	VD
	10949	262.00	91.30	10782.5
TOP PERFS/OH	10980	291.40	90.90	10792.10
	10980	291.40	90.90	10792.10
	15134	4437.30	-93.10	10826.00
BOT PERFS/OH	15210	4513.22	-95.91	10825.26
	15226	4529.20	-96.50	10825.10

NEXT TO LAST	15258	4561.20	-97.70	10824.70
LAST READING	15315	4618.20	-99.70	10823.70
TD	15315	4618.20	-99.70	10823.70

Surface Location	330	FS	660	FE
Projected BHL	4948	FS	760	FE
Location of				
Top Perfs/OH	621	FS	569	FE
Bottom Perfs/OH	4843	FS	756	FE

SUMMARY of Subsurface Locations

Surface Location	P-31-20S-35E	330	FS	660	FE	Vert. Depth
Top Perfs/OH	P-31-20S-35E	621	FS	569	FE	10792.10
Bottom Perfs/OH	A-31-20S-35E	4843	FS	756	FE	10825.26
Projected TD	A-31-20S-35E	4948	FS	760	FE	10823.70

MAR 14 2013

**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

HOBBS OCD

Well Name and Num: Statojet 31 State Com 1H
Location: Sec. 31, T20S, R35E
Operator: COG
Drilling Contractor: McVay Drilling Company

FEB 12 2013**RECEIVED**

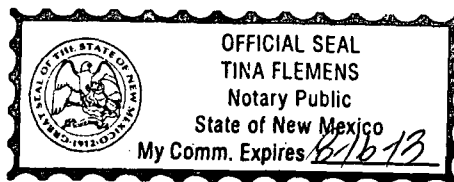
The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.10	263	0.30	6209	88.30	11131		
1.20	1650	0.80	6709	92.07	11225		
0.70	1815	2.00	7193	90.92	11509		
0.62	2110	1.20	7414	88.64	11794		
0.44	2617	0.70	7889	88.20	11982		
4.22	3648	0.50	8367	88.20	12539		
2.55	3775	0.30	8840	88.30	12723		
1.50	4157	1.70	9294	90.90	13155		
2.20	4311	0.40	9794	91.80	13560		
2.90	4582	2.64	10217	89.69	13662		
3.20	4660	23.65	10372	88.55	14022		
3.60	4851	34.56	10503	89.16	14301		
3.30	4945	40.27	10663	88.72	14393		
2.70	5295	42.03	10693	91.36	14949		
2.10	5388	51.80	10823	91.01	15258		
1.90	5534	59.70	10885				
1.30	5735	87.90	11068				

By: *Harold Crane*

Subscribed and sworn to before me this 11th day of December, 2012

Tina Flemens
Notary Public, Lea County, New Mexico





A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

December 3, 2012

HOBBS OCD

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

FEB 12 2013

RECEIVED

Attn: Kanica Castillo

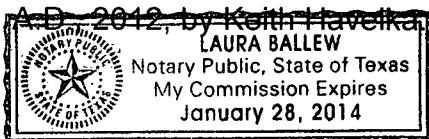
RE: **Stratojet 31 State Com No. 001H**

Please find enclosed a copy of the survey from 0.00' to 10170.00' ran on the above referenced well.

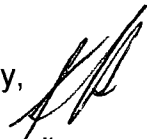
If I can be of any further service please do not hesitate to call me at 800-606-4976.

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 6th day of December



Laura Ballew
Laura Ballew
Notary Public, State of Texas

Sincerely, 

Keith Havelka
Operations

Company: COG Operating LLC (Concho)
Lease/Well: Stratojet 31 State Com / No. 001H



Rig Name: McVay 7
State/County: New Mexico / Lea
Latitude: 32.52, Longitude: -103.49
GRID North is 0.45 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 12/3/2012 / 15:42

Vaughn Energy Services
Gardendale, Texas
(432) 563-5444

Surveyor: Colby Ware

Stratojet 31 State Com No. 001H / API 30-025-40616

HOBBS OCD

FEB 12 2013

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.29	112.17	100.00	-0.10	0.24	0.25	112.17	0.29
200.00	0.18	129.18	200.00	-0.29	0.59	0.66	116.18	0.13
300.00	0.22	130.82	300.00	-0.52	0.86	1.00	120.97	0.04
400.00	0.26	150.46	400.00	-0.84	1.12	1.39	126.87	0.09
500.00	0.37	170.48	500.00	-1.35	1.28	1.86	136.61	0.16
600.00	0.49	190.50	599.99	-2.10	1.26	2.45	149.10	0.19
700.00	0.68	207.55	699.99	-3.05	0.90	3.18	163.54	0.26
800.00	0.88	224.60	799.98	-4.12	0.09	4.13	178.78	0.30
900.00	0.81	229.78	899.97	-5.13	-0.99	5.22	190.95	0.10
1000.00	0.77	234.96	999.96	-5.97	-2.09	6.33	199.24	0.08
1100.00	0.79	236.43	1099.95	-6.74	-3.21	7.46	205.45	0.02
1200.00	0.82	237.91	1199.94	-7.50	-4.38	8.68	210.31	0.04
1300.00	0.78	231.45	1299.93	-8.30	-5.52	9.97	213.63	0.10
1400.00	0.77	224.99	1399.92	-9.20	-6.53	11.28	215.36	0.09
1500.00	0.79	225.05	1499.91	-10.16	-7.49	12.62	216.40	0.03
1600.00	0.80	225.11	1599.90	-11.14	-8.47	14.00	217.26	0.01
1700.00	0.91	228.42	1699.89	-12.16	-9.56	15.47	218.18	0.12
1800.00	1.01	231.72	1799.88	-13.23	-10.85	17.11	219.34	0.11

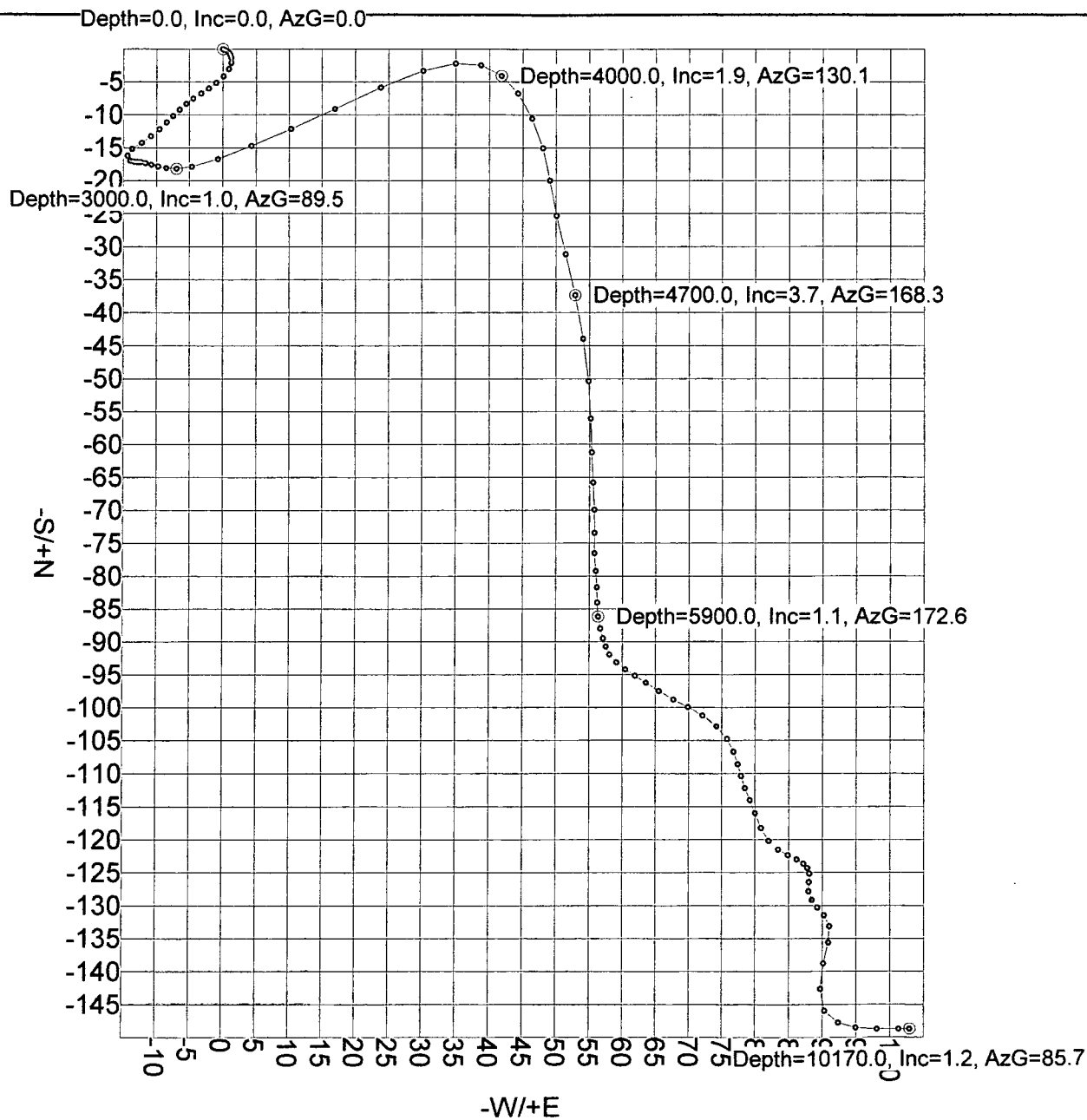
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.98	235.94	1899.86	-14.26	-12.25	18.79	220.66	0.08
2000.00	0.99	240.15	1999.85	-15.16	-13.70	20.44	222.10	0.07
2100.00	0.71	175.35	2099.84	-16.21	-14.40	21.69	221.62	0.94
2200.00	0.43	110.54	2199.83	-16.96	-14.00	21.99	219.55	0.65
2300.00	0.32	98.40	2299.83	-17.13	-13.38	21.74	218.00	0.13
2400.00	0.21	86.25	2399.83	-17.16	-12.93	21.49	217.01	0.12
2500.00	0.36	95.25	2499.83	-17.17	-12.44	21.21	215.92	0.16
2600.00	0.52	104.26	2599.83	-17.31	-11.69	20.89	214.02	0.17
2700.00	0.57	105.02	2699.82	-17.55	-10.77	20.60	211.53	0.05
2800.00	0.64	105.79	2799.82	-17.84	-9.75	20.33	208.67	0.07
2900.00	0.80	97.66	2899.81	-18.08	-8.53	19.99	205.24	0.19
3000.00	0.95	89.53	2999.80	-18.17	-7.01	19.47	201.09	0.20
3100.00	1.86	79.06	3099.77	-17.85	-4.58	18.43	194.39	0.94
3200.00	2.77	69.60	3199.68	-16.70	-0.72	16.71	182.46	0.99
3300.00	3.42	67.34	3299.54	-14.71	4.30	15.32	163.70	0.65
3400.00	4.08	66.08	3399.32	-12.12	10.30	15.90	139.63	0.67
3500.00	4.27	65.09	3499.06	-9.11	16.93	19.22	118.28	0.20
3600.00	4.46	64.10	3598.77	-5.84	23.80	24.51	103.79	0.21
3700.00	3.39	73.50	3698.53	-3.30	30.14	30.32	96.25	1.24
3800.00	2.33	82.89	3798.41	-2.21	35.00	35.07	93.61	1.16
3900.00	2.11	106.48	3898.33	-2.48	38.78	38.86	93.66	0.93
4000.00	1.90	130.07	3998.27	-4.07	41.82	42.02	95.56	0.85
4100.00	2.30	143.48	4098.21	-6.75	44.28	44.79	98.66	0.63
4200.00	2.69	156.89	4198.11	-10.52	46.39	47.57	102.77	0.70
4300.00	2.83	163.91	4298.00	-15.05	48.00	50.30	107.41	0.36
4400.00	2.96	170.94	4397.87	-19.97	49.09	53.00	112.14	0.38
4500.00	3.26	168.39	4497.72	-25.31	50.07	56.10	116.82	0.33
4600.00	3.56	165.84	4597.54	-31.11	51.40	60.08	121.19	0.34
4700.00	3.75	168.28	4697.34	-37.33	52.83	64.68	125.24	0.24
4800.00	3.93	170.72	4797.12	-43.91	54.04	69.63	129.09	0.25
4900.00	3.51	174.85	4896.91	-50.34	54.87	74.46	132.53	0.50
5000.00	3.08	178.98	4996.74	-56.07	55.19	78.68	135.45	0.48
5100.00	2.80	177.74	5096.61	-61.20	55.34	82.51	137.88	0.30
5200.00	2.51	176.50	5196.50	-65.82	55.57	86.14	139.83	0.29
5300.00	2.18	178.72	5296.42	-69.90	55.74	89.41	141.43	0.34
5400.00	1.87	180.94	5396.35	-73.44	55.76	92.21	142.79	0.32
5500.00	1.66	177.71	5496.31	-76.52	55.79	94.70	143.91	0.23
5600.00	1.46	174.48	5596.27	-79.24	55.97	97.01	144.77	0.22
5700.00	1.38	177.26	5696.24	-81.71	56.15	99.14	145.50	0.11

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	1.30	180.04	5796.21	-84.04	56.20	101.10	146.23	0.10
5900.00	1.14	172.62	5896.19	-86.15	56.33	102.94	146.82	0.22
6000.00	0.98	165.20	5996.17	-87.96	56.68	104.64	147.20	0.21
6100.00	0.82	164.16	6096.16	-89.47	57.09	106.13	147.46	0.16
6200.00	0.68	163.13	6196.15	-90.73	57.46	107.39	147.66	0.14
6300.00	0.85	146.90	6296.14	-91.92	58.03	108.71	147.73	0.27
6400.00	1.01	130.67	6396.13	-93.12	59.11	110.29	147.59	0.31
6500.00	0.98	125.78	6496.11	-94.20	60.48	111.94	147.30	0.09
6600.00	0.99	122.90	6596.10	-95.17	61.90	113.53	146.96	0.05
6700.00	1.23	122.76	6696.08	-96.22	63.53	115.30	146.57	0.23
6800.00	1.46	122.61	6796.05	-97.48	65.50	117.45	146.10	0.23
6900.00	1.43	119.04	6896.02	-98.78	67.66	119.73	145.59	0.10
7000.00	1.42	115.46	6995.99	-99.91	69.87	121.92	145.03	0.09
7100.00	1.49	123.96	7095.96	-101.17	72.07	124.22	144.54	0.23
7200.00	1.56	132.45	7195.92	-102.81	74.15	126.76	144.20	0.24
7300.00	1.36	146.85	7295.89	-104.73	75.80	129.28	144.10	0.41
7400.00	1.17	161.24	7395.87	-106.68	76.78	131.44	144.26	0.37
7500.00	1.12	163.12	7495.85	-108.58	77.39	133.34	144.52	0.06
7600.00	1.05	165.00	7595.83	-110.40	77.91	135.12	144.79	0.08
7700.00	1.12	160.86	7695.81	-112.20	78.46	136.92	145.03	0.10
7800.00	1.16	156.71	7795.79	-114.05	79.18	138.85	145.23	0.09
7900.00	1.29	157.81	7895.77	-116.03	80.01	140.94	145.41	0.13
8000.00	1.43	158.91	7995.74	-118.23	80.88	143.25	145.62	0.15
8100.00	1.22	140.26	8095.71	-120.22	82.01	145.53	145.70	0.48
8200.00	1.01	121.61	8195.70	-121.49	83.44	147.39	145.52	0.42
8300.00	0.89	118.89	8295.68	-122.33	84.87	148.88	145.25	0.13
8400.00	0.78	116.17	8395.67	-123.00	86.16	150.18	144.99	0.11
8500.00	0.61	131.68	8495.66	-123.66	87.17	151.29	144.82	0.26
8600.00	0.43	147.20	8595.66	-124.32	87.77	152.18	144.78	0.22
8700.00	0.63	170.52	8695.66	-125.18	88.06	153.05	144.88	0.29
8800.00	0.84	193.84	8795.65	-126.44	87.98	154.03	145.17	0.36
8900.00	0.81	170.56	8895.64	-127.85	87.92	155.16	145.48	0.33
9000.00	0.79	147.28	8995.63	-129.13	88.41	156.49	145.60	0.32
9100.00	0.85	142.10	9095.62	-130.30	89.24	157.92	145.59	0.09
9200.00	0.91	136.93	9195.61	-131.46	90.23	159.44	145.53	0.10
9300.00	1.29	166.97	9295.59	-133.13	91.02	161.27	145.64	0.68
9400.00	1.67	197.01	9395.56	-135.61	90.85	163.23	146.18	0.85
9500.00	2.05	190.21	9495.50	-138.76	90.11	165.45	147.00	0.44
9600.00	2.43	183.40	9595.43	-142.63	89.67	168.48	147.84	0.46

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9700.00	1.66	148.23	9695.37	-145.98	90.30	171.65	148.26	1.44
9800.00	1.59	113.07	9795.33	-147.75	92.34	174.24	148.00	0.98
9900.00	1.51	100.61	9895.29	-148.54	94.92	176.28	147.42	0.35
10000.00	2.14	88.16	9995.24	-148.72	98.07	178.15	146.60	0.73
10100.00	1.55	92.34	10095.19	-148.72	101.29	179.94	145.74	0.60
10170.00	1.18	85.73	10165.17	-148.70	102.96	180.87	145.30	0.58



Vaughn Energy Services
Gardendale, Texas
(432) 563-5444
Surveyor: Colby Ware
Stratojet 31 State Com No. 001H / API 30-025-40616



VES Survey Date: 11/25/2012



A Schlumberger Company

COG Operating LLC

Lea County(NAD27)

Stratojet 31 State

#1H

OH

HOBBS OCD

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Design: OH

Pathfinder X&Y Report

10 December, 2012





A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: COG Operating LLC
Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
MD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Lea County(NAD27)
Map System:	US State Plane 1927 (Exact solution)
Geo Datum:	NAD 1927 (NADCON CONUS)
Map Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

Site		Stratojet 31 State					
Site Position:		Northing:		555,053.500 usft	Latitude:	32.523122	
From:	Map	Easting:		760,035.600 usft	Longitude:	-103.489682	
Position Uncertainty:		0.0 usft	Slot Radius:		13-3/16 "	Grid Convergence:	0.45 °

Well	#1H					
Well Position	+N/-S	0.0 usft	Northing:	555,053.500 usft	Latitude:	32.523122
	+E/-W	0.0 usft	Easting:	760,035.600 usft	Longitude:	-103.489682
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,732.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/1/2012	7.39	60.47	48,706

Design	OH			
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	359.51



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: COG Operating LLC
Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
MD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey Program Date 12/10/2012

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	10,170.0	Gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
10,200.0	15,315.0	MWD #2 (OH)	MWD	MWD - Standard

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,749.0	0.0	0.0	0.0	0.00	555,053.50	760,035.60
100.0	0.29	112.17	100.0	-3,649.0	-0.1	0.2	-0.1	0.29	555,053.40	760,035.83
200.0	0.18	129.18	200.0	-3,549.0	-0.3	0.6	-0.3	0.13	555,053.21	760,036.19
300.0	0.22	130.82	300.0	-3,449.0	-0.5	0.9	-0.5	0.04	555,052.99	760,036.46
400.0	0.26	150.46	400.0	-3,349.0	-0.8	1.1	-0.8	0.09	555,052.66	760,036.71
500.0	0.37	170.48	500.0	-3,249.0	-1.4	1.3	-1.4	0.15	555,052.15	760,036.88
600.0	0.49	190.50	600.0	-3,149.0	-2.1	1.3	-2.1	0.19	555,051.41	760,036.86
700.0	0.68	207.55	700.0	-3,049.0	-3.0	0.9	-3.0	0.26	555,050.46	760,036.50
800.0	0.88	224.60	800.0	-2,949.0	-4.1	0.1	-4.1	0.30	555,049.39	760,035.69
900.0	0.81	229.78	900.0	-2,849.0	-5.1	-1.0	-5.1	0.10	555,048.38	760,034.61
1,000.0	0.77	234.96	1,000.0	-2,749.0	-6.0	-2.1	-5.9	0.08	555,047.54	760,033.52
1,100.0	0.79	236.43	1,099.9	-2,649.1	-6.7	-3.2	-6.7	0.03	555,046.78	760,032.40
1,200.0	0.82	237.91	1,199.9	-2,549.1	-7.5	-4.4	-7.4	0.04	555,046.01	760,031.22
1,300.0	0.78	231.45	1,299.9	-2,449.1	-8.3	-5.5	-8.2	0.10	555,045.21	760,030.08
1,400.0	0.77	224.99	1,399.9	-2,349.1	-9.2	-6.5	-9.1	0.09	555,044.31	760,029.07
1,500.0	0.79	225.05	1,499.9	-2,249.1	-10.2	-7.5	-10.1	0.02	555,043.35	760,028.11
1,600.0	0.80	225.11	1,599.9	-2,149.1	-11.1	-8.5	-11.1	0.01	555,042.37	760,027.12
1,700.0	0.91	228.42	1,699.9	-2,049.1	-12.2	-9.6	-12.1	0.12	555,041.35	760,026.04
1,800.0	1.01	231.72	1,799.9	-1,949.1	-13.2	-10.9	-13.1	0.11	555,040.28	760,024.75
1,900.0	0.98	235.94	1,899.9	-1,849.1	-14.2	-12.3	-14.1	0.08	555,039.25	760,023.35
2,000.0	0.99	240.15	1,999.8	-1,749.2	-15.2	-13.7	-15.0	0.07	555,038.34	760,021.89



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: COG Operating LLC
Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
MD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,100.0	0.71	175.35	2,099.8	-1,649.2	-16.2	-14.4	-16.1	0.94	555,037.29	760,021.19	
2,200.0	0.43	110.54	2,199.8	-1,549.2	-17.0	-14.0	-16.8	0.66	555,036.55	760,021.59	
2,300.0	0.32	98.40	2,299.8	-1,449.2	-17.1	-13.4	-17.0	0.14	555,036.37	760,022.22	
2,400.0	0.21	86.25	2,399.8	-1,349.2	-17.2	-12.9	-17.0	0.12	555,036.34	760,022.68	
2,500.0	0.36	95.25	2,499.8	-1,249.2	-17.2	-12.4	-17.1	0.16	555,036.33	760,023.18	
2,600.0	0.52	104.26	2,599.8	-1,149.2	-17.3	-11.7	-17.2	0.17	555,036.19	760,023.93	
2,700.0	0.57	105.02	2,699.8	-1,049.2	-17.6	-10.8	-17.5	0.05	555,035.95	760,024.85	
2,800.0	0.64	105.79	2,799.8	-949.2	-17.8	-9.7	-17.8	0.07	555,035.67	760,025.87	
2,900.0	0.80	97.66	2,899.8	-849.2	-18.1	-8.5	-18.0	0.19	555,035.42	760,027.10	
3,000.0	0.95	89.53	2,999.8	-749.2	-18.2	-7.0	-18.1	0.19	555,035.33	760,028.62	
3,100.0	1.86	79.06	3,099.8	-649.2	-17.9	-4.6	-17.8	0.94	555,035.65	760,031.04	
3,200.0	2.77	69.60	3,199.7	-549.3	-16.7	-0.7	-16.7	0.98	555,036.80	760,034.90	
3,300.0	3.42	67.34	3,299.5	-449.5	-14.7	4.3	-14.7	0.66	555,038.79	760,039.92	
3,400.0	4.08	66.08	3,399.3	-349.7	-12.1	10.3	-12.2	0.67	555,041.38	760,045.92	
3,500.0	4.27	65.09	3,499.1	-249.9	-9.1	16.9	-9.3	0.20	555,044.39	760,052.55	
3,600.0	4.46	64.10	3,598.8	-150.2	-5.8	23.8	-6.0	0.20	555,047.66	760,059.42	
3,700.0	3.39	73.50	3,698.5	-50.5	-3.3	30.2	-3.6	1.25	555,050.20	760,065.76	
3,800.0	2.33	82.89	3,798.4	49.4	-2.2	35.0	-2.5	1.16	555,051.29	760,070.61	
3,900.0	2.11	106.48	3,898.3	149.3	-2.5	38.8	-2.8	0.93	555,051.02	760,074.39	
4,000.0	1.90	130.07	3,998.3	249.3	-4.1	41.8	-4.4	0.84	555,049.43	760,077.42	
4,100.0	2.30	143.48	4,098.2	349.2	-6.8	44.3	-7.1	0.63	555,046.75	760,079.89	
4,200.0	2.69	156.89	4,198.1	449.1	-10.5	46.4	-10.9	0.70	555,042.98	760,082.00	
4,300.0	2.83	163.91	4,298.0	549.0	-15.1	48.0	-15.5	0.37	555,038.45	760,083.61	
4,400.0	2.96	170.94	4,397.9	648.9	-20.0	49.1	-20.4	0.38	555,033.53	760,084.70	
4,500.0	3.26	168.39	4,497.7	748.7	-25.3	50.1	-25.7	0.33	555,028.19	760,085.68	
4,600.0	3.56	165.84	4,597.5	848.5	-31.1	51.4	-31.5	0.34	555,022.40	760,087.01	
4,700.0	3.75	168.28	4,697.3	948.3	-37.3	52.8	-37.8	0.25	555,016.18	760,088.43	



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4,800.0	3.93	170.72	4,797.1	1,048.1	-43.9	54.0	-44.4	0.24	555,009.60	760,089.65
4,900.0	3.51	174.85	4,896.9	1,147.9	-50.3	54.9	-50.8	0.50	555,003.17	760,090.48
5,000.0	3.08	178.98	4,996.7	1,247.7	-56.1	55.2	-56.5	0.49	554,997.43	760,090.80
5,100.0	2.80	177.74	5,096.6	1,347.6	-61.2	55.3	-61.7	0.29	554,992.31	760,090.94
5,200.0	2.51	176.50	5,196.5	1,447.5	-65.8	55.6	-66.3	0.30	554,987.68	760,091.17
5,300.0	2.18	178.72	5,296.4	1,547.4	-69.9	55.7	-70.4	0.34	554,983.59	760,091.35
5,400.0	1.87	180.94	5,396.4	1,647.4	-73.4	55.8	-73.9	0.32	554,980.06	760,091.36
5,500.0	1.66	177.71	5,496.3	1,747.3	-76.5	55.8	-77.0	0.23	554,976.98	760,091.40
5,600.0	1.46	174.48	5,596.3	1,847.3	-79.2	56.0	-79.7	0.22	554,974.27	760,091.58
5,700.0	1.38	177.26	5,696.2	1,947.2	-81.7	56.2	-82.2	0.11	554,971.80	760,091.76
5,800.0	1.30	180.04	5,796.2	2,047.2	-84.0	56.2	-84.5	0.10	554,969.46	760,091.81
5,900.0	1.14	172.62	5,896.2	2,147.2	-86.2	56.3	-86.6	0.22	554,967.34	760,091.94
6,000.0	0.98	165.20	5,996.2	2,247.2	-88.0	56.7	-88.5	0.21	554,965.52	760,092.29
6,100.0	0.82	164.16	6,096.2	2,347.2	-89.5	57.1	-90.0	0.16	554,964.01	760,092.70
6,200.0	0.68	163.13	6,196.2	2,447.2	-90.7	57.5	-91.2	0.14	554,962.75	760,093.07
6,300.0	0.85	146.90	6,296.1	2,547.1	-91.9	58.0	-92.4	0.27	554,961.56	760,093.65
6,400.0	1.01	130.67	6,396.1	2,647.1	-93.1	59.1	-93.6	0.31	554,960.37	760,094.72
6,500.0	0.98	125.78	6,496.1	2,747.1	-94.2	60.5	-94.7	0.09	554,959.29	760,096.08
6,600.0	0.99	122.90	6,596.1	2,847.1	-95.2	61.9	-95.7	0.05	554,958.32	760,097.50
6,700.0	1.23	122.76	6,696.1	2,947.1	-96.2	63.5	-96.8	0.24	554,957.27	760,099.13
6,800.0	1.46	122.61	6,796.1	3,047.1	-97.5	65.5	-98.0	0.23	554,956.01	760,101.10
6,900.0	1.43	119.04	6,896.0	3,147.0	-98.8	67.7	-99.4	0.09	554,954.71	760,103.27
7,000.0	1.42	115.46	6,996.0	3,247.0	-99.9	69.9	-100.5	0.09	554,953.58	760,105.48
7,100.0	1.49	123.96	7,096.0	3,347.0	-101.2	72.1	-101.8	0.23	554,952.32	760,107.67
7,200.0	1.56	132.45	7,195.9	3,446.9	-102.8	74.2	-103.5	0.24	554,950.67	760,109.76
7,300.0	1.36	146.85	7,295.9	3,546.9	-104.7	75.8	-105.4	0.42	554,948.76	760,111.41
7,400.0	1.17	161.24	7,395.9	3,646.9	-106.7	76.8	-107.3	0.37	554,946.80	760,112.39



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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,500.0	1.12	163.12	7,495.8	3,746.8	-108.6	77.4	-109.3	0.06	554,944.90	760,113.00	
7,600.0	1.05	165.00	7,595.8	3,846.8	-110.4	77.9	-111.1	0.08	554,943.08	760,113.52	
7,700.0	1.12	160.86	7,695.8	3,946.8	-112.2	78.5	-112.9	0.11	554,941.27	760,114.08	
7,800.0	1.16	156.71	7,795.8	4,046.8	-114.1	79.2	-114.8	0.09	554,939.42	760,114.80	
7,900.0	1.29	157.81	7,895.8	4,146.8	-116.1	80.0	-116.7	0.13	554,937.44	760,115.62	
8,000.0	1.43	158.91	7,995.7	4,246.7	-118.3	80.9	-118.9	0.14	554,935.24	760,116.50	
8,100.0	1.22	140.26	8,095.7	4,346.7	-120.2	82.0	-120.9	0.48	554,933.25	760,117.63	
8,200.0	1.01	121.61	8,195.7	4,446.7	-121.5	83.5	-122.2	0.42	554,931.97	760,119.06	
8,300.0	0.89	118.89	8,295.7	4,546.7	-122.4	84.9	-123.1	0.13	554,931.14	760,120.49	
8,400.0	0.78	116.17	8,395.7	4,646.7	-123.0	86.2	-123.8	0.12	554,930.46	760,121.78	
8,500.0	0.61	131.68	8,495.7	4,746.7	-123.7	87.2	-124.4	0.25	554,929.81	760,122.79	
8,600.0	0.43	147.20	8,595.7	4,846.7	-124.4	87.8	-125.1	0.23	554,929.14	760,123.39	
8,700.0	0.63	170.52	8,695.7	4,946.7	-125.2	88.1	-126.0	0.29	554,928.28	760,123.68	
8,800.0	0.84	193.84	8,795.6	5,046.6	-126.5	88.0	-127.2	0.36	554,927.03	760,123.60	
8,900.0	0.81	170.56	8,895.6	5,146.6	-127.9	87.9	-128.6	0.33	554,925.62	760,123.54	
9,000.0	0.79	147.28	8,995.6	5,246.6	-129.2	88.4	-129.9	0.32	554,924.34	760,124.03	
9,100.0	0.85	142.10	9,095.6	5,346.6	-130.3	89.3	-131.1	0.10	554,923.17	760,124.86	
9,200.0	0.91	136.93	9,195.6	5,446.6	-131.5	90.3	-132.3	0.10	554,922.01	760,125.85	
9,300.0	1.29	166.97	9,295.6	5,546.6	-133.2	91.1	-133.9	0.68	554,920.33	760,126.65	
9,400.0	1.67	197.01	9,395.6	5,646.6	-135.7	90.9	-136.4	0.85	554,917.84	760,126.48	
9,500.0	2.05	190.21	9,495.5	5,746.5	-138.8	90.1	-139.6	0.44	554,914.69	760,125.73	
9,600.0	2.43	183.40	9,595.4	5,846.4	-142.7	89.7	-143.4	0.46	554,910.81	760,125.29	
9,700.0	1.66	148.23	9,695.4	5,946.4	-146.0	90.3	-146.8	1.44	554,907.46	760,125.93	
9,800.0	1.59	113.07	9,795.3	6,046.3	-147.8	92.4	-148.6	0.98	554,905.69	760,127.97	
9,900.0	1.51	100.61	9,895.3	6,146.3	-148.6	94.9	-149.4	0.35	554,904.90	760,130.54	
10,000.0	2.14	88.16	9,995.2	6,246.2	-148.8	98.1	-149.6	0.74	554,904.72	760,133.70	
10,100.0	1.55	92.34	10,095.2	6,346.2	-148.8	101.3	-149.6	0.60	554,904.73	760,136.92	



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
10,170.0	1.18	85.73	10,165.2	6,416.2	-148.8	103.0	-149.6	0.57	554,904.74	760,138.58
10,217.0	2.64	329.76	10,212.2	6,463.2	-147.8	102.9	-148.7	7.09	554,905.71	760,138.52
KOP - 10217.0 'MD, 10212.2 'TVD, -147.8 'N, 102.9 'E										
10,249.0	4.84	345.14	10,244.1	6,495.1	-145.8	102.2	-146.7	7.50	554,907.65	760,137.80
10,281.0	9.23	346.81	10,275.8	6,526.8	-142.0	101.3	-142.9	13.73	554,911.46	760,136.87
10,313.0	13.89	352.17	10,307.2	6,558.2	-135.7	100.2	-136.6	14.93	554,917.77	760,135.76
10,344.0	19.43	353.05	10,336.9	6,587.9	-126.9	99.0	-127.8	17.89	554,926.58	760,134.63
10,377.0	23.65	355.08	10,367.6	6,618.6	-114.9	97.8	-115.7	12.98	554,938.63	760,133.40
10,408.0	27.70	356.30	10,395.5	6,646.5	-101.5	96.8	-102.3	13.17	554,952.02	760,132.40
10,440.0	30.86	356.30	10,423.4	6,674.4	-85.9	95.8	-86.7	9.87	554,967.63	760,131.39
10,472.0	31.92	356.48	10,450.7	6,701.7	-69.2	94.7	-70.0	3.33	554,984.27	760,130.34
10,504.0	33.68	359.29	10,477.6	6,728.6	-51.9	94.1	-52.7	7.27	555,001.59	760,129.71
10,535.0	34.56	1.05	10,503.3	6,754.3	-34.5	94.2	-35.3	4.27	555,018.97	760,129.76
10,568.0	33.33	1.67	10,530.6	6,781.6	-16.1	94.6	-16.9	3.87	555,037.39	760,130.20
10,599.0	35.00	359.21	10,556.3	6,807.3	1.3	94.7	0.5	6.99	555,054.80	760,130.33
10,632.0	38.16	357.10	10,582.8	6,833.8	20.9	94.1	20.2	10.30	555,074.45	760,129.68
10,663.0	40.27	357.54	10,606.8	6,857.8	40.5	93.2	39.7	6.87	555,094.03	760,128.76
10,695.0	42.03	359.38	10,630.9	6,881.9	61.6	92.6	60.8	6.68	555,115.07	760,128.20
10,727.0	43.09	0.00	10,654.5	6,905.5	83.2	92.5	82.4	3.56	555,136.72	760,128.09
10,759.0	44.67	1.40	10,677.5	6,928.5	105.4	92.8	104.6	5.79	555,158.89	760,128.36
10,791.0	48.10	0.61	10,699.6	6,950.6	128.6	93.2	127.8	10.87	555,182.05	760,128.77
10,823.0	51.88	359.47	10,720.2	6,971.2	153.1	93.2	152.3	12.12	555,206.56	760,128.78
10,855.0	55.84	358.68	10,739.1	6,990.1	178.9	92.8	178.1	12.53	555,232.39	760,128.35
10,917.0	64.37	359.03	10,769.9	7,020.9	232.6	91.7	231.8	13.77	555,286.08	760,127.29
10,949.0	69.38	359.29	10,782.5	7,033.5	262.0	91.3	261.2	15.67	555,315.50	760,126.86
10,980.0	74.39	359.47	10,792.1	7,043.1	291.4	90.9	290.7	16.17	555,344.95	760,126.54
11,012.0	80.55	359.12	10,799.1	7,050.1	322.7	90.6	321.9	19.28	555,376.17	760,126.15



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Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,068.0	87.93	358.42		10,804.7	7,055.7	378.3		89.4	377.6	13.24	555,431.84	760,124.96
11,099.0	88.11	358.50		10,805.8	7,056.8	409.3		88.5	408.5	0.64	555,462.81	760,124.12
11,131.0	88.37	358.24		10,806.7	7,057.7	441.3		87.6	440.5	1.15	555,494.78	760,123.21
11,225.0	92.07	358.59		10,806.4	7,057.4	535.2		85.0	534.5	3.95	555,588.72	760,120.62
LP - 11225.0 'MD, 10806.4 'TVD, 535.2 'N, 85.0 'E												
11,322.0	93.47	358.42		10,801.7	7,052.7	632.1		82.5	631.4	1.45	555,685.58	760,118.09
11,414.0	91.80	358.15		10,797.5	7,048.5	723.9		79.7	723.2	1.84	555,777.43	760,115.34
11,509.0	90.92	357.98		10,795.2	7,046.2	818.9		76.5	818.2	0.94	555,872.35	760,112.13
11,605.0	90.92	357.98		10,793.7	7,044.7	914.8		73.1	914.1	0.00	555,968.28	760,108.75
11,701.0	88.72	357.80		10,794.0	7,045.0	1,010.7		69.6	1,010.1	2.30	556,064.21	760,105.21
11,794.0	88.64	357.89		10,796.1	7,047.1	1,103.6		66.1	1,103.0	0.13	556,157.12	760,101.72
11,889.0	89.87	357.71		10,797.3	7,048.3	1,198.5		62.5	1,198.0	1.31	556,252.04	760,098.07
11,982.0	88.20	358.68		10,798.9	7,049.9	1,291.5		59.5	1,290.9	2.08	556,344.97	760,095.14
12,075.0	86.00	357.98		10,803.6	7,054.6	1,384.3		56.8	1,383.8	2.48	556,437.81	760,092.44
12,166.0	85.82	357.45		10,810.1	7,061.1	1,475.0		53.2	1,474.5	0.61	556,528.51	760,088.82
12,259.0	86.44	357.36		10,816.4	7,067.4	1,567.7		49.0	1,567.2	0.67	556,621.20	760,084.62
12,353.0	86.26	356.48		10,822.4	7,073.4	1,661.4		44.0	1,660.9	0.95	556,714.87	760,079.57
12,446.0	86.53	356.63		10,828.2	7,079.2	1,754.0		38.4	1,753.6	0.33	556,807.52	760,074.00
12,539.0	88.20	357.10		10,832.5	7,083.5	1,846.8		33.3	1,846.4	1.87	556,900.28	760,068.92
12,631.0	88.20	355.95		10,835.4	7,086.4	1,938.6		27.7	1,938.3	1.25	556,992.06	760,063.34
12,723.0	88.37	354.64		10,838.1	7,089.1	2,030.2		20.2	2,030.0	1.44	557,083.71	760,055.80
12,815.0	89.25	354.46		10,840.0	7,091.0	2,121.8		11.5	2,121.6	0.98	557,175.27	760,047.06
12,909.0	88.90	354.11		10,841.6	7,092.6	2,215.3		2.1	2,215.2	0.53	557,268.79	760,037.71
13,001.0	89.08	355.16		10,843.2	7,094.2	2,306.9		-6.5	2,306.8	1.16	557,360.37	760,029.11
13,093.0	90.31	355.60		10,843.7	7,094.7	2,398.6		-13.9	2,398.6	1.42	557,452.07	760,021.70
13,185.0	90.92	358.15		10,842.7	7,093.7	2,490.4		-18.9	2,490.5	2.85	557,543.92	760,016.68
13,280.0	91.45	358.24		10,840.7	7,091.7	2,585.4		-21.9	2,585.4	0.57	557,638.85	760,013.69



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Pathfinder Pathfinder X&Y Report



Company: COG Operating LLC
Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
MD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
13,373.0	92.15	359.47	10,837.8	7,088.8	2,678.3	-23.8	2,678.4	1.52	557,731.79	760,011.83
13,465.0	92.33	359.65	10,834.2	7,085.2	2,770.2	-24.5	2,770.3	0.28	557,823.71	760,011.13
13,560.0	91.89	358.06	10,830.7	7,081.7	2,865.1	-26.4	2,865.2	1.74	557,918.63	760,009.23
13,652.0	89.69	358.06	10,829.4	7,080.4	2,957.1	-29.5	2,957.2	2.39	558,010.56	760,006.11
13,745.0	90.48	357.98	10,829.3	7,080.3	3,050.0	-32.7	3,050.2	0.85	558,103.50	760,002.90
13,838.0	89.34	357.36	10,829.4	7,080.4	3,142.9	-36.5	3,143.1	1.40	558,196.42	759,999.12
13,930.0	89.52	355.87	10,830.4	7,081.4	3,234.8	-41.9	3,235.0	1.63	558,288.26	759,993.69
14,022.0	88.55	356.30	10,831.9	7,082.9	3,326.5	-48.2	3,326.8	1.15	558,380.03	759,987.41
14,115.0	90.13	356.74	10,833.0	7,084.0	3,419.3	-53.8	3,419.7	1.76	558,472.85	759,981.76
14,207.0	89.16	359.21	10,833.5	7,084.5	3,511.3	-57.1	3,511.6	2.88	558,564.78	759,978.51
14,301.0	89.16	359.21	10,834.9	7,085.9	3,605.3	-58.4	3,605.6	0.00	558,658.76	759,977.22
14,393.0	88.72	358.33	10,836.6	7,087.6	3,697.2	-60.4	3,697.6	1.07	558,750.72	759,975.24
14,486.0	90.04	358.24	10,837.6	7,088.6	3,790.2	-63.1	3,790.6	1.42	558,843.67	759,972.46
14,578.0	90.66	357.80	10,837.1	7,088.1	3,882.1	-66.3	3,882.5	0.83	558,935.62	759,969.28
14,671.0	91.36	356.83	10,835.4	7,086.4	3,975.0	-70.7	3,975.5	1.29	559,028.50	759,964.92
14,763.0	91.01	356.57	10,833.5	7,084.5	4,066.8	-76.0	4,067.3	0.47	559,120.33	759,959.63
14,855.0	91.89	357.18	10,831.2	7,082.2	4,158.7	-81.0	4,159.2	1.16	559,212.16	759,954.62
14,949.0	91.36	356.30	10,828.5	7,079.5	4,252.5	-86.3	4,253.0	1.09	559,305.97	759,949.27
15,041.0	90.48	358.59	10,827.1	7,078.1	4,344.4	-90.4	4,345.0	2.67	559,397.86	759,945.17
15,134.0	90.84	358.15	10,826.0	7,077.0	4,437.3	-93.1	4,437.9	0.61	559,490.81	759,942.53
15,226.0	90.31	357.62	10,825.1	7,076.1	4,529.2	-96.5	4,529.9	0.81	559,582.74	759,939.13
15,258.0	91.01	357.98	10,824.7	7,075.7	4,561.2	-97.7	4,561.9	2.46	559,614.72	759,937.90
15,315.0	91.01	357.98	10,823.7	7,074.7	4,618.2	-99.7	4,618.9	0.00	559,671.67	759,935.90

PROJECTED BHL - 15315.0 'MD, 10823.7 'TVD, 4618.2 'N, -99.7 'E - PBHL (Stratojet 31 #1H)



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Pathfinder
Pathfinder X&Y Report



Company: COG Operating LLC
Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
MD Reference: KB = 17' @ 3749.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,217.0	10,212.2	-147.8	102.9	KOP - 10217.0 'MD, 10212.2 'TVD, -147.8 'N, 102.9 'E
11,225.0	10,806.4	535.2	85.0	LP - 11225.0 'MD, 10806.4 'TVD, 535.2 'N, 85.0 'E
15,315.0	10,823.7	4,618.2	-99.7	PROJECTED BHL - 15315.0 'MD, 10823.7 'TVD, 4618.2 'N, -99.7 'E

Checked By: _____ Approved By: _____ Date: _____



Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.94°

Magnetic Field
Strength: 48705.5nT
Dip Angle: 60.47°
Date: 11/1/2012
Model: IGRF200510

Project: Lea County(NAD27)
Site: Stratojet 31 State
Well: #1H
Wellbore: OH
Plan: Post Gyro Plan #4 (#1H/OH)

PATHFINDER

A Schlumberger Company

PROJECT DETAILS: Lea County(NAD27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

WELL DETAILS: #1H

Ground Elevation: 3732.0
RKB Elevation: KB = 17' @ 3749.0usft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.0	0.0	555053.500	760035.600	32.523122	-103.469682	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
12723.0	88.37	354.64	10838.1	2030.2	20.2	0.00	0.00	2030.0	
12780.0	88.37	354.64	10839.8	2086.9	14.9	0.00	0.00	2086.7	
13017.8	90.31	358.98	10842.5	2324.3	1.7	2.00	65.94	2324.2	
15316.9	90.31	358.98	10830.0	4623.0	-39.2	0.00	0.00	4623.2	PBHL (Stratojet 31 #1H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (Stratojet 31 #1H)	10830.0	4623.0	-39.2	559676.500	759996.400	Point

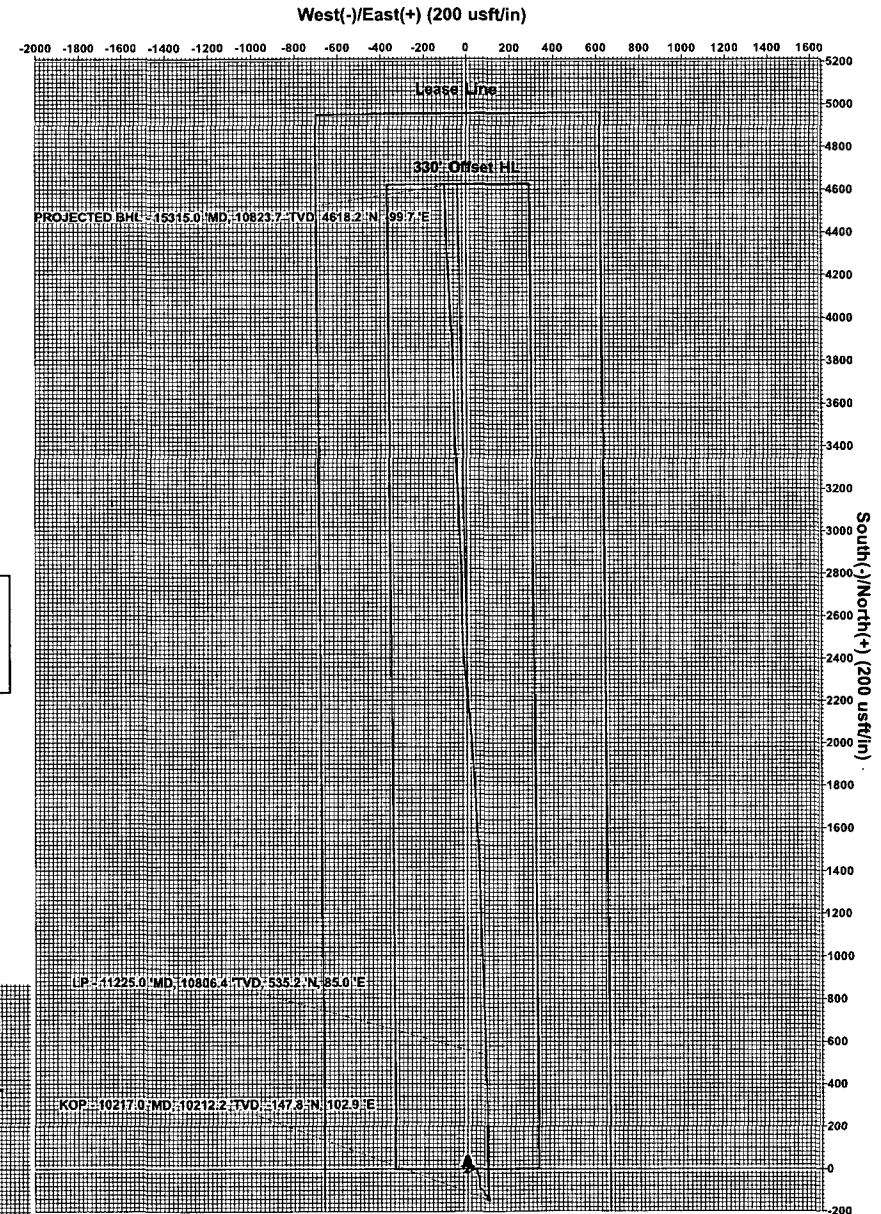
KOP: 10217.0 'MD, 10212.2 'TVD, -147.8 'N, 102.9 'E

EOW

LP: 11225.0 'MD, 10806.4 'TVD, 535.2 'N, 85.0 'E

PROJECTED BHL: 15315.0 'MD, 10823.7 'TVD, 4618.2 'N, -99.7 'E

KOP: 10217.0 'MD, 10212.2 'TVD, -147.8 'N, 102.9 'E



Vertical Section at 359.51° (200 usft/in)

Plan: Post Gyro Plan #4 (#1H/OH)

Created By: Michael Trout Date: 9/30, December 10 2012

Checked: _____ Date: _____