

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOCD: Jackson
FORM APPROVED
OMB NO 1004-0135
Expires July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No
NMLC028784B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.7. If Unit or CA/Agreement, Name and/or No.
NMNM88525X1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No
BURCH KEELY UNIT 6092. Name of Operator
COG OPERATING LLCContact: CHASITY JACKSON
E-Mail: cjackson@concho.com9. API Well No.
30-015-38645-00-X13a. Address
550 WEST TEXAS AVENUE SUITE 100
MIDLAND, TX 797013b. Phone No. (include area code)
Ph: 432-686-308710. Field and Pool, or Exploratory
GRAYBURG JACKSON

4. Location of Well (Footage, Sec, T., R., M, or Survey Description)

Sec 23 T17S R29E SESW Lot N 1215FSL 2375FWL

11. County or Parish, and State

EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Drilling Operations
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

9/7/11 Test 5-1/2 csg 3500psi, ok.

9/8/11 Perf Upper Blinbry @ 4400-4708 w/ 1 SPF, 29 holes.

9/11/11 Acidize w/2,500 gals acid. Frac w/177,422 gals gel, 103,650# 16/30 brady sand, 18,417#

16/30 siberprop. Set comp-plug @ 4360. Perf Paddock @ 4080-4330 w/1 SPF, 26 holes. Acidize w/2,500 gals acid. Frac w/118,501 gals gel, 133,974# 16/30 brady sand, 16,477# 16/30 siberprop.

9/13/11 Drill out plugs. Clean out to PBTD 4775.

9/14/11 RIH w/143jts 2-7/8" J55 6.5# tbq, SN @ 4578.

9/15/11 RIH w/2-1/2"x2"x20' pump. Hang on well.

14. Thereby certify that the foregoing is true and correct.

Electronic Submission #120930 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 10/25/2011 (12KMS0148SE)

Name (Printed/Typed) CHASITY JACKSON

Title PREPARER

Signature (Electronic Submission)

Date 10/20/2011

ACCEPTED FOR RECORD

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

OCT 27 2011

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

DEC 14 2011

BUREAU OF LAND MANAGEMENT

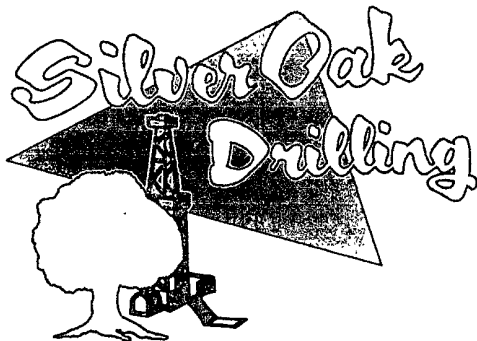
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED

Accepted for record

NMOCD

JOS



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

August 22, 2011

COG, LLC
Fasken Center, Tower II
550 West Texas Ave, Suite 1300
Midland, TX 79701

30-015-38645

RE: Burch Keely Unit #609
1215' ~~1275'~~ FSL & 2375' FWL
Sec. 23, T17S, R29E
Eddy County, New Mexico

ULN

Dear Sir,

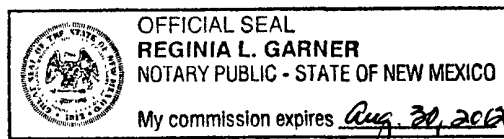
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 22nd day of August, 2011.

Notary Public

Burch Keely Unit #609

Date	Depth	Dev/Inc	Dir/AZ	TVD
8/14/2011	371	0.70		
8/14/2011	639	1.30		
8/15/2011	946	1.40	46.80	
8/15/2011	1104	1.70	56.40	
8/16/2011	1295	1.00	344.20	
8/16/2011	1390	1.50	30.90	
8/16/2011	1486	2.30	57.30	
8/16/2011	1581	3.10	69.90	
8/16/2011	1644	3.40	74.10	
8/16/2011	1708	4.50	80.40	
8/16/2011	1856	6.20	77.80	
8/16/2011	2155	5.80	68.80	
8/17/2011	2250	5.90	74.90	
8/17/2011	2345	6.40	77.90	
8/17/2011	2440	6.90	78.90	
8/17/2011	2536	7.20	75.20	
8/17/2011	2631	7.40	69.10	
8/17/2011	2822	6.20	62.00	
8/17/2011	2982	5.40	59.30	
8/17/2011	3046	5.30	70.00	
8/18/2011	3237	5.50	77.80	
8/18/2011	3301	5.70	80.30	
8/18/2011	3364	5.70	71.10	
8/18/2011	2460	5.50	64.90	
8/18/2011	3524	5.70	65.20	
8/18/2011	3587	4.90	60.00	
8/18/2011	3714	3.20	62.30	
8/18/2011	3776	2.90	69.20	
8/19/2011	3642	2.70	86.90	
8/19/2011	3938	2.80	89.10	
8/19/2011	4002	2.10	94.40	
8/19/2011	4065	1.10	94.00	
8/19/2011	4352	0.60	70.40	
8/19/2011	4543	0.50	84.80	
8/19/2011	4703	0.48	76.76	
8/20/2011	4778	0.50	100.10	



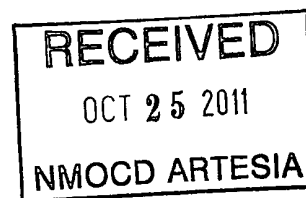
30-015-38645

Ryan Energy Directional Drilling Report

Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH

Prepared For:

COG Operating LLC



Ryan Energy Technology

19510 Oil Center Blvd
Houston, TX 77073
Ph. 281-443-1414
Fx: 281-443-1676

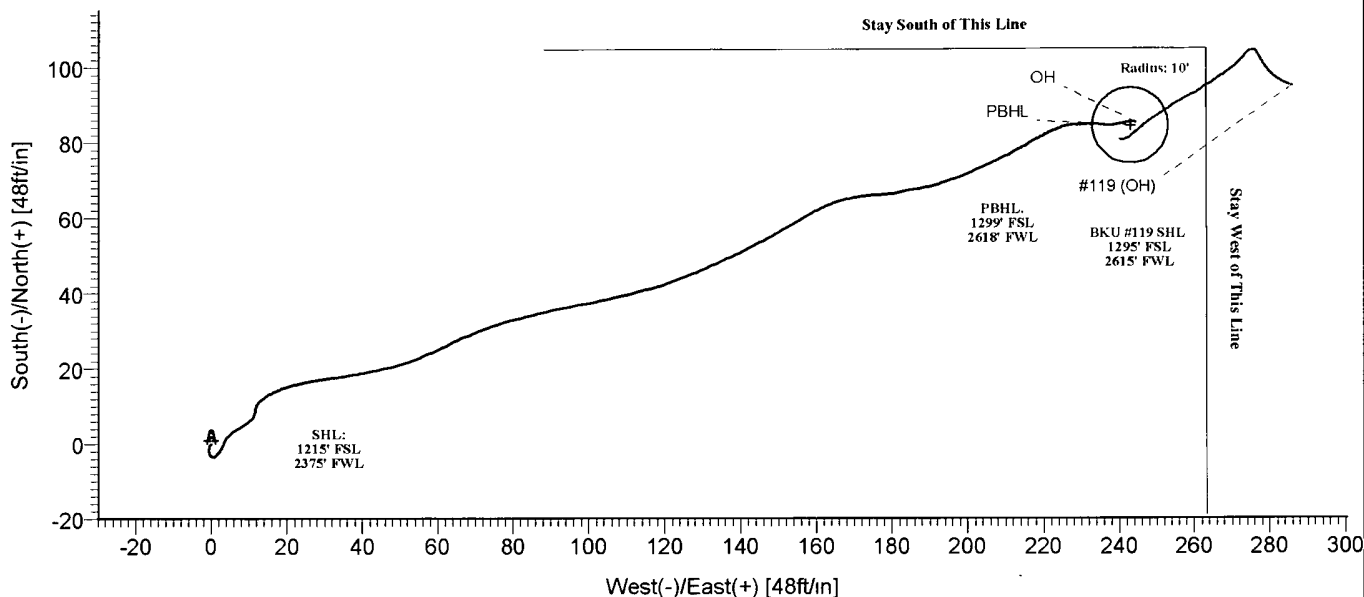
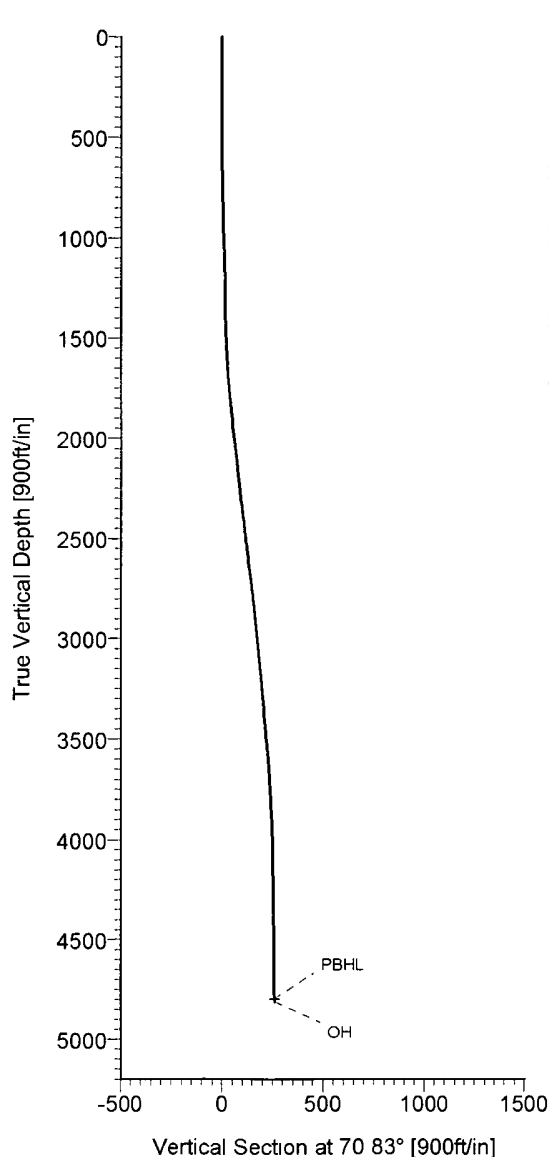
www.ryanenergy.com



COG Operating LLC
Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH



Azimuths to Grid North
 True North -0.16°
 Magnetic North 7.68°
 Magnetic Field
 Strength 48934nT
 Dip Angle 60.85°
 Date 7/28/2011
 Model IGRF2010



SITE DETAILS
 Burch Keely Unit #609
 Eddy Co., NM
 Site Centre Northing 660699.40
 Easting 588334.90
 Ground Level 3582.00
 Positional Uncertainty 2.00
 Convergence 0.16

FIELD DETAILS
 Eddy Co. NM
 New Mexico
 U.S.A.
 Geodetic System US State Plane Coordinate System 1927
 Ellipsoid NAD27 (Clarke 1866)
 Zone New Mexico, Eastern Zone
 Magnetic Model IGRF2010
 System Datum Mean Sea Level
 Local North Grid North

WELLPATH DETAILS
 OH
 Rig Ref Datum SITE 3582.00ft
 V Section Angle 70.83°
 Origin +N-S 0.00
 Origin +E-W 0.00
 Starting From TVD 0.00

TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	4800.00	84.40	242.80	660783.80	588577.70	32°48'58.502N	104°02'42.040W	Circle (Radius 10)

Ryan Energy Technologies
 19510 Oil Center Blvd
 Houston, TX 77073
 Ph: 281-443-1414
 Fx: 281-443-1676



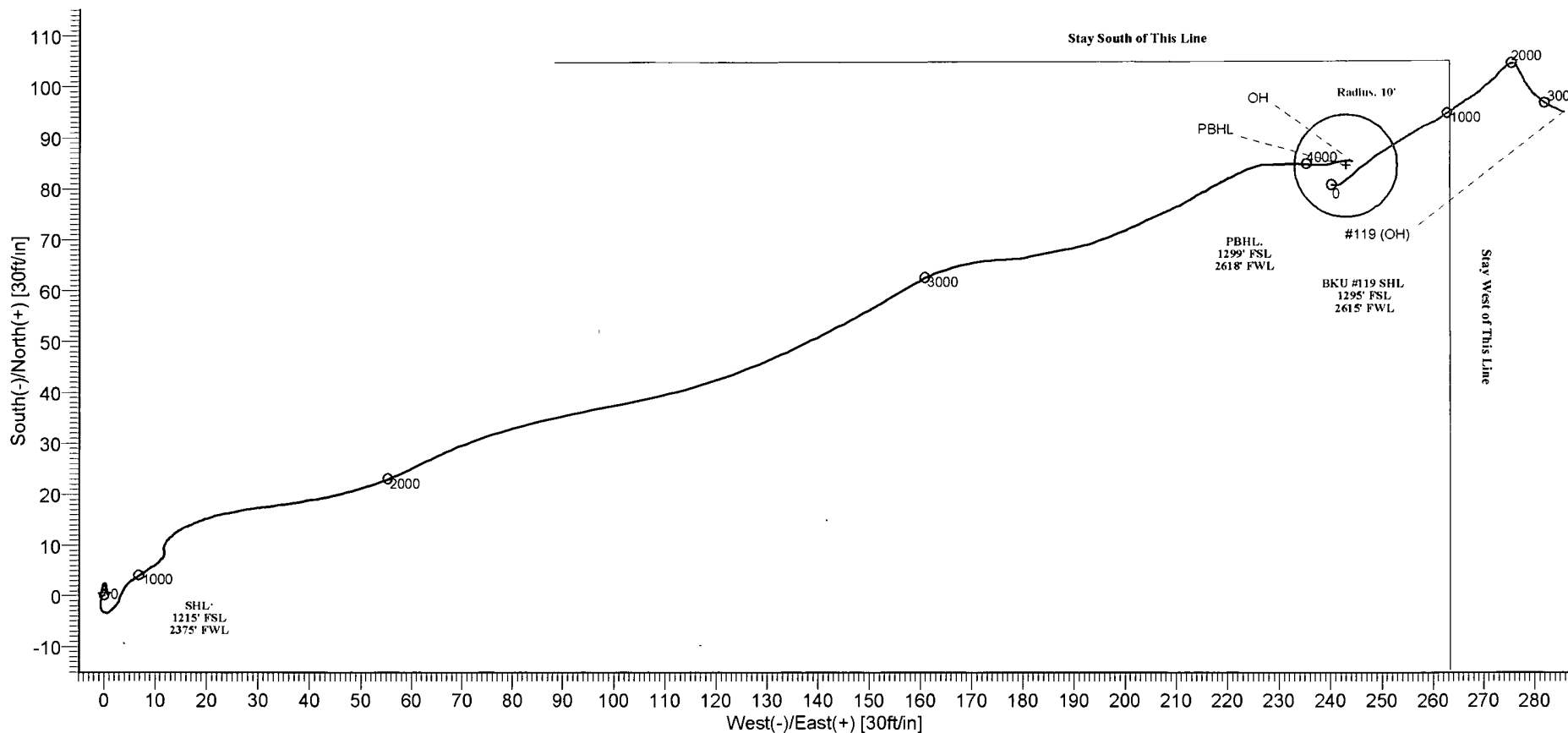
Wellpath: #609/OH
 Created By: Enk De La Fe Date: 8/23/2011
 Checked: _____ Date: _____
 Reviewed: _____ Date: _____
 Approved: _____ Date: _____



COG Operating LLC
Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH



Azimuths to Gnd North
 True North -0.16°
 Magnetic North 7.68°
 Magnetic Field
 Strength 48934nT
 Dip Angle 60.65°
 Date 17/2/2011
 Model IGRF2010



SITE DETAILS

Burch Keely Unit #609
 Eddy Co., NM
 Site Centre Northing 660699.40
 Easting 588334.90
 Ground Level 3582.00
 Positional Uncertainty 2.00
 Convergence 0.16

FIELD DETAILS

Eddy Co, NM
 New Mexico
 U.S.A.
 Geodetic System US State Plane Coordinate System 1927
 Ellipsoid NAD27 (Clarke 1866)
 Zone New Mexico, Eastern Zone
 Magnetic Model IGRF2010
 System Datum Mean Sea Level
 Local North Gnd North

WELLPATH DETAILS

OH
 Rig Ref Datum SITE 3582.00ft
 V Section Angle Origin +N/-S Origin +E/-W Starting From TVD
 70.83° 0.00 0.00 0.00

Ryan Energy Technologies
 19510 Oil Center Blvd
 Houston, TX 77073
 Ph 281-443-1414
 Fx 281-443-1676



Wellpath (#609/OH)

Created By Erik De La Fe Date 8/23/2011
 Checked _____ Date _____
 Reviewed _____ Date _____
 Approved _____ Date _____



Ryan Energy Technologies Survey Report



Company: COG Operating LLC	Date: 8/23/2011	Time: 11 54 38	Page: 1
Field: Eddy Co, NM	Co-ordinate(NE) Reference: Site. Burch Keely Unit #609, Grid North		
Site: Burch Keely Unit #609	Vertical (TVD) Reference: SITE 3582 0		
Well: #609	Section (VS) Reference: Well (0.00N,0 00E,70.83Azi)		
Wellpath: OH	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Eddy Co, NM New Mexico U.S.A.	Map Zone: New Mexico, Eastern Zone
Map System: US State Plane Coordinate System 1927	Coordinate System: Site Centre
Geo Datum: NAD27 (Clarke 1866)	Geomagnetic Model: IGRF2010
Sys Datum: Mean Sea Level	

Site: Burch Keely Unit #609

Eddy Co., NM

Site Position:	Northing: 660699.40 ft	Latitude: 32 48 57.673 N
From: Map	Easting: 588334.90 ft	Longitude: 104 2 44.888 W
Position Uncertainty: 2.00 ft		North Reference: Grid
Ground Level: 3582.00 ft		Grid Convergence: 0.16 deg

Well: #609

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 660699.40 ft	Latitude: 32 48 57.673 N
+E/-W 0.00 ft	Easting: 588334.90 ft	Longitude: 104 2 44.888 W
Position Uncertainty: 0.00 ft		

Wellpath: OH

Current Datum: SITE	Height 3582 00 ft	Drilled From: Surface
Magnetic Data: 7/28/2011		Tie-on Depth: 0.00 ft
Field Strength: 48934 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: 7.84 deg
ft	ft	Mag Dip Angle: 60 65 deg
		+E/-W Direction
		deg
0 00	0.00	0.00 70.83

Survey Program for Definitive Wellpath

Date: 8/20/2011	Validated: No	Version: 0
Actual From To	Survey	Toolcode Tool Name
ft ft		
100 00 809 00	Survey #1 (100.00-809 00)	Gyro Gyro
944 00 4778.00	Survey #2 (944 00-4778 00)	Ryan MWD Ryan MWD
4823 00 4823 00	Survey #3 (4823.00-4823 00)	Projection Projection

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0 00	0.00	0.00	0 00	0 00	0 00	0.00	0.00	0 00	0.00	TIE LINE
100 00	0 15	288 36	100 00	0 04	-0 12	-0.10	0.15	0 15	0 00	Gyro
200 00	0 17	221.86	200 00	-0 03	-0.35	-0.34	0.18	0.02	-66 50	Gyro
300.00	0 54	194 27	300.00	-0.60	-0 56	-0.73	0.40	0 37	-27 59	Gyro
400.00	0 91	181.30	399 99	-1 85	-0.70	-1.26	0 40	0.37	-12 97	Gyro
500.00	0 74	148 19	499.98	-3 19	-0 37	-1.40	0 50	-0 17	-33 11	Gyro
600.00	0 71	66 45	599.97	-3 49	0.53	-0.64	0.95	-0.03	-81 74	Gyro
700.00	1 38	42 16	699.96	-2 35	1.91	1.03	0.79	0 67	-24 29	Gyro
809 00	1 75	19 68	808.92	0 19	3.35	3.23	0.65	0 34	-20 62	Gyro
944 00	1.50	56 80	943.87	3.10	5.52	6.24	0.79	-0 19	27.50	Ryan MWD
1103.00	1 70	56.50	1102.80	5 54	9 23	10.54	0 13	0 13	-0.19	Ryan MWD
1199.00	1.30	43 70	1198.77	7 11	11.17	12.89	0 54	-0 42	-13.33	Ryan MWD
1295.00	1.00	344.20	1294.76	8.71	11.70	13.91	1.22	-0.31	-61 98	Ryan MWD
1390 00	1.50	30.97	1389.73	10 57	12.11	14.91	1 15	0.53	49 23	Ryan MWD
1486.00	2.40	57 34	1485.68	12.73	14.45	17.83	1 30	0 94	27.47	Ryan MWD
1582.00	3.10	69.90	1581.57	14.71	18.58	22.38	0.96	0.73	13 08	Ryan MWD
1596 00	3 25	71 04	1595.55	14 97	19 31	23.16	1.16	1.07	8.14	Ryan MWD
1645 00	3 80	74.30	1644.46	15 86	22 19	26.16	1 19	1.12	6 65	Ryan MWD
1709.00	4 60	80 40	1708.28	16 86	26 76	30 81	1 43	1 25	9 53	Ryan MWD
1772.00	5 00	83.70	1771.06	17 58	31 98	35.98	0 77	0.63	5 24	Ryan MWD
1836.00	5.40	80 37	1834.80	18.39	37.72	41.67	0.78	0.62	-5.20	Ryan MWD



Ryan Energy Technologies Survey Report



Company: COG Operating LLC
Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH

Date: 8/23/2011 Time: 11:54:38 Page: 2
Co-ordinate(NE) Reference: Site: Burch Keely Unit #609, Grid North
Vertical (TVD) Reference: SITE 3582.0
Section (VS) Reference: Well (0 00N,0.00E,70 83Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1900 00	6 30	77.82	1898 47	19.64	44.12	48 12	1 46	1.41	-3.98	Ryan MWD
1963 00	6 60	72.72	1961 07	21.44	50.96	55 17	1 03	0.48	-8.10	Ryan MWD
2059.00	6.80	63.31	2056 41	25 64	61.30	66.32	1 16	0 21	-9 80	Ryan MWD
2155 00	5.80	68.80	2151.83	29 94	70.90	76 81	1 21	-1.04	5.72	Ryan MWD
2250 00	5.90	74 92	2246.34	32.95	80.09	86 47	0.66	0 11	6 44	Ryan MWD
2346.00	6 40	77.99	2341 79	35 35	90.09	96 70	0 62	0 52	3 20	Ryan MWD
2441 00	6 90	78.96	2436.15	37 54	100.87	107 61	0 54	0 53	1 02	Ryan MWD
2537 00	7 30	75 71	2531.41	40 15	112.44	119.39	0 59	0 42	-3.39	Ryan MWD
2632 00	7 50	69 12	2625 62	43 85	124.08	131 60	0 92	0 21	-6.94	Ryan MWD
2728.00	7 00	64 81	2720.86	48 57	135.23	143 68	0 77	-0 52	-4 49	Ryan MWD
2824 00	6 20	62.08	2816 22	53 49	145.11	154 62	0 89	-0.83	-2 84	Ryan MWD
2919.00	5 40	59 18	2910 73	58 18	153.48	164.07	0 90	-0.84	-3.05	Ryan MWD
2983.00	5 40	59.36	2974.45	61 26	158.65	169 97	0 03	0 00	0 28	Ryan MWD
3047.00	5 30	70.08	3038 17	63 80	164.03	175 88	1 57	-0.16	16.75	Ryan MWD
3110.00	5.20	79.93	3100 91	65 29	169.57	181 61	1 44	-0 16	15.63	Ryan MWD
3174.00	5 50	87 31	3164 63	65.94	175.49	187 41	1 17	0 47	11 53	Ryan MWD
3238.00	5 50	77 82	3228 34	66 73	181.55	193 40	1 42	0 00	-14.83	Ryan MWD
3302 00	5.80	80 37	3292 03	67 92	187.74	199 63	0 61	0 47	3 98	Ryan MWD
3365 00	5.70	71 14	3354.71	69.47	193 84	205 90	1.47	-0 16	-14 65	Ryan MWD
3461 00	5 50	64.90	3450 25	72.96	202 52	215 24	0 67	-0 21	-6 50	Ryan MWD
3525 00	5.70	65.25	3513 95	75 59	208 18	221.46	0 32	0 31	0 55	Ryan MWD
3588.00	5.00	60 06	3576 67	78 27	213.40	227 27	1 35	-1.11	-8 24	Ryan MWD
3652 00	4 00	62 00	3640 47	80.71	217 79	232 21	1 58	-1.56	3 03	Ryan MWD
3715.00	3.20	62 35	3703 35	82 56	221.29	236 12	1 27	-1.27	0 56	Ryan MWD
3726 10	3.16	63.49	3714 43	82 84	221 83	236 73	0 67	-0 36	10.27	Ryan MWD
3779 00	3.00	69 29	3767 26	83 98	224.43	239 56	0 66	-0.30	10.96	Ryan MWD
3844.00	2 70	86 96	3832 18	84.66	227 55	242 74	1 42	-0 46	27.18	Ryan MWD
3939.00	2 80	89 15	3927 07	84 81	232 11	247 09	0 15	0 11	2 31	Ryan MWD
4003.00	2 10	94 43	3991.01	84 75	234.84	249.65	1 15	-1 09	8.25	Ryan MWD
4012 40	1.95	94 40	4000 40	84.72	235.17	249 95	1 60	-1 60	-0 32	Ryan MWD
4066 00	1.10	94 08	4053 98	84 61	236 59	251 26	1 59	-1.59	-0.60	Ryan MWD
4162 00	0 40	95.04	4149 97	84 52	237.85	252 41	0 73	-0 73	1 00	Ryan MWD
4353.00	0 60	70.43	4340.97	84 80	239.45	254.02	0 15	0 10	-12.88	Ryan MWD
4544 00	0 60	84.85	4531 96	85 22	241.39	255 99	0 08	0 00	7.55	Ryan MWD
4703 00	0 50	76.76	4690 95	85 45	242.90	257 49	0 08	-0 06	-5 09	Ryan MWD
4778 00	0 60	100.14	4765 95	85.46	243.60	258.16	0 32	0 13	31.17	Ryan MWD
4823 00	0 60	100.14	4810 94	85.38	244.06	258 57	0 00	0 00	0 00	Projection



Ryan Energy Technologies COMPLETION REPORT



Company: COG Operating LLC
Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH

Date: 8/23/2011
Co-ordinate(NE) Reference: Site, Burch Keely Unit #609, Grid North
Vertical (TVD) Reference: SITE 3582.0
Section (VS) Reference: Well (0.00N,0.00E,70.83Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Page: 1

Field: Eddy Co, NM
 New Mexico
 U S A
Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: IGRF2010

Site: Burch Keely Unit #609

Eddy Co, NM

Site Position:
From: Map
Position Uncertainty: 2 00 ft
Ground Level: 3582.00 ft

Northing: 660699 40 ft
Easting: 588334.90 ft

Latitude: 32 48 57.673 N
Longitude: 104 2 44.888 W
North Reference: Grid
Grid Convergence: 0.16 deg

Well: #609

Slot Name:

Well Position: +N/-S 0.00 ft
 +E/-W 0.00 ft
Position Uncertainty: 0 00 ft

Northing: 660699 40 ft
Easting: 588334 90 ft

Latitude: 32 48 57.673 N
Longitude: 104 2 44.888 W

Wellpath: OH

Current Datum: SITE
Magnetic Data: 7/28/2011
Field Strength: 48934 nT
Vertical Section: Depth From (TVD) ft

Height 3582 00 ft

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.84 deg
Mag Dip Angle: 60.65 deg
Direction: deg

0.00 0.00 0 00 70.83

Survey

MD ft	Incl deg	TVD ft	VS ft	Azim deg	N/S ft	E/W ft	Clsr Dist. ft	Clsr Azi. deg	DLS deg/100ft	Tool
0 00	0.00	0.00	0.00	0 00	0 00	0.00	0 00	0 00	0 00	TIE LINE
100 00	0.15	100.00	-0.10	288.36	0.04	-0 12	0.13	288 36	0 15	Gyro
200 00	0 17	200.00	-0.34	221.86	-0.03	-0 35	0.35	265 39	0 18	Gyro
300 00	0 54	300.00	-0.73	194.27	-0.60	-0 56	0.82	223.39	0 40	Gyro
400 00	0 91	399.99	-1.26	181.30	-1 85	-0 70	1.97	200.68	0.40	Gyro
500 00	0 74	499.98	-1.40	148.19	-3 19	-0 37	3.21	186.70	0 50	Gyro
600.00	0.71	599.97	-0.64	66.45	-3 49	0.53	3 53	171.30	0 95	Gyro
700.00	1.38	699.96	1.03	42.16	-2.35	1.91	3.03	140.89	0 79	Gyro
809.00	1.75	808.92	3 23	19 68	0.19	3.35	3.36	86.74	0 65	Gyro
944.00	1.50	943.87	6.24	56 80	3 10	5 52	6.33	60.71	0.79	Ryan MWD
1103 00	1.70	1102 80	10.54	56 50	5 54	9.23	10.77	59 03	0 13	Ryan MWD
1199.00	1.30	1198 77	12 89	43 70	7 11	11.17	13 24	57 51	0 54	Ryan MWD
1295.00	1.00	1294 76	13 91	344 20	8 71	11.70	14 58	53 34	1 22	Ryan MWD
1390 00	1 50	1389 73	14 91	30 97	10 57	12.11	16 08	48.88	1.15	Ryan MWD
1486 00	2.40	1485 68	17 83	57 34	12 73	14.45	19 26	48 61	1 30	Ryan MWD
1582 00	3 10	1581 57	22.38	69.90	14 71	18 58	23.70	51 63	0 96	Ryan MWD
1596.00	3.25	1595.55	23 16	71 04	14 97	19.31	24.43	52 22	1 16	Ryan MWD
1645.00	3.80	1644.46	26 16	74 30	15 86	22.19	27.27	54 44	1.19	Ryan MWD
1709 00	4.60	1708 28	30.81	80 40	16.86	26 76	31.63	57.78	1 43	Ryan MWD
1772.00	5.00	1771.06	35 98	83 70	17 58	31.98	36.49	61 20	0 77	Ryan MWD
1836.00	5 40	1834.80	41 67	80 37	18 39	37.72	41.97	64 00	0.78	Ryan MWD
1900.00	6 30	1898.47	48 12	77 82	19 64	44.12	48.30	66.01	1.46	Ryan MWD
1963 00	6 60	1961 07	55 17	72 72	21 44	50.96	55.29	67 18	1.03	Ryan MWD
2059 00	6 80	2056 41	66 32	63 31	25 64	61.30	66.45	67.31	1.16	Ryan MWD
2155.00	5 80	2151 83	76 81	68.80	29.94	70.90	76 97	67.11	1.21	Ryan MWD
2250.00	5 90	2246 34	86 47	74.92	32.95	80 09	86.61	67 64	0.66	Ryan MWD
2346.00	6.40	2341.79	96.70	77 99	35.35	90.09	96.78	68.58	0.62	Ryan MWD
2441.00	6.90	2436.15	107 61	78 96	37.54	100.87	107.63	69.59	0 54	Ryan MWD



Ryan Energy Technologies COMPLETION REPORT



Company: COG Operating LLC
Field: Eddy Co, NM
Site: Burch Keely Unit #609
Well: #609
Wellpath: OH

Date: 8/23/2011 Time: 11:56:19 Page: 2
Co-ordinate(NE) Reference: Site. Burch Keely Unit #609, Grid North
Vertical (TVD) Reference: SITE 3582.0
Section (VS) Reference: Well (0 00N,0.00E,70.83Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	TVD ft	VS ft	Azim deg	N/S ft	E/W ft	Clsr Dist. ft	Clsr Azi. deg	DLS deg/100ft	Tool
2537.00	7.30	2531.41	119.39	75.71	40.15	112.44	119.40	70.35	0.59	Ryan MWD
2632.00	7.50	2625.62	131.60	69.12	43.85	124.08	131.60	70.54	0.92	Ryan MWD
2728.00	7.00	2720.86	143.68	64.81	48.57	135.23	143.69	70.24	0.77	Ryan MWD
2824.00	6.20	2816.22	154.62	62.08	53.49	145.11	154.65	69.76	0.89	Ryan MWD
2919.00	5.40	2910.73	164.07	59.18	58.18	153.48	164.14	69.24	0.90	Ryan MWD
2983.00	5.40	2974.45	169.97	59.36	61.26	158.65	170.07	68.89	0.03	Ryan MWD
3047.00	5.30	3038.17	175.88	70.08	63.80	164.03	176.00	68.75	1.57	Ryan MWD
3110.00	5.20	3100.91	181.61	79.93	65.29	169.57	181.71	68.94	1.44	Ryan MWD
3174.00	5.50	3164.63	187.41	87.31	65.94	175.49	187.47	69.41	1.17	Ryan MWD
3238.00	5.50	3228.34	193.40	77.82	66.73	181.55	193.43	69.82	1.42	Ryan MWD
3302.00	5.80	3292.03	199.63	80.37	67.92	187.74	199.65	70.11	0.61	Ryan MWD
3365.00	5.70	3354.71	205.90	71.14	69.47	193.84	205.91	70.28	1.47	Ryan MWD
3461.00	5.50	3450.25	215.24	64.90	72.96	202.52	215.26	70.19	0.67	Ryan MWD
3525.00	5.70	3513.95	221.46	65.25	75.59	208.18	221.48	70.04	0.32	Ryan MWD
3588.00	5.00	3576.67	227.27	60.06	78.27	213.40	227.30	69.86	1.35	Ryan MWD
3652.00	4.00	3640.47	232.21	62.00	80.71	217.79	232.26	69.67	1.58	Ryan MWD
3715.00	3.20	3703.35	236.12	62.35	82.56	221.29	236.18	69.54	1.27	Ryan MWD
3726.10	3.16	3714.43	236.73	63.49	82.84	221.83	236.80	69.52	0.67	Ryan MWD
3779.00	3.00	3767.26	239.56	69.29	83.98	224.43	239.63	69.49	0.66	Ryan MWD
3844.00	2.70	3832.18	242.74	86.96	84.66	227.55	242.79	69.59	1.42	Ryan MWD
3939.00	2.80	3927.07	247.09	89.15	84.81	232.11	247.12	69.93	0.15	Ryan MWD
4003.00	2.10	3991.01	249.65	94.43	84.75	234.84	249.66	70.16	1.15	Ryan MWD
4012.40	1.95	4000.40	249.95	94.40	84.72	235.17	249.97	70.19	1.60	Ryan MWD
4066.00	1.10	4053.98	251.26	94.08	84.61	236.59	251.27	70.32	1.59	Ryan MWD
4162.00	0.40	4149.97	252.41	95.04	84.52	237.85	252.42	70.44	0.73	Ryan MWD
4353.00	0.60	4340.97	254.02	70.43	84.80	239.45	254.02	70.50	0.15	Ryan MWD
4544.00	0.60	4531.96	255.99	84.85	85.22	241.39	255.99	70.55	0.08	Ryan MWD
4703.00	0.50	4690.95	257.49	76.76	85.45	242.90	257.49	70.62	0.08	Ryan MWD
4778.00	0.60	4765.95	258.16	100.14	85.46	243.60	258.16	70.67	0.32	Ryan MWD
4823.00	0.60	4810.94	258.57	100.14	85.38	244.06	258.57	70.72	0.00	Projection