

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOCD-Rosen
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.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC028784B
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
Contact: CHASITY JACKSON E-Mail: cjackson@concho.com		7. If Unit or CA/Agreement, Name and/or No NMNM88525X
3a. Address 550 WEST TEXAS AVENUE SUITE 100 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-686-3087	8. Well Name and No BURCH KEELY UNIT 609
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 23 T17S R29E SESW Lot N 1215FSL 2375FWL		9. API Well No. 30-015-38645-00-X1
		10. Field and Pool, or Exploratory GRAYBURG JACKSON
		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
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By	Title
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
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' ~~1205'~~ FSL & 2375' FWL
Sec. 23, T17S, R29E
Eddy County, New Mexico

uL N

Dear Sir,

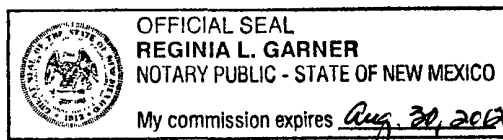
The attached is the Deviation Survey for the above captioned well.

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	



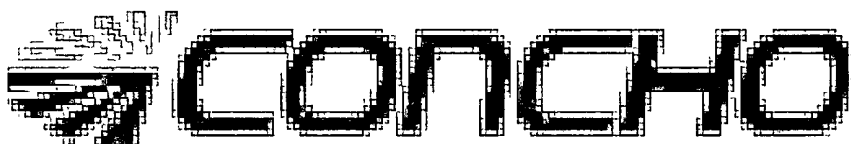
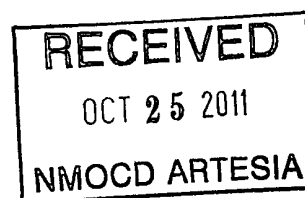
30-015-38645

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

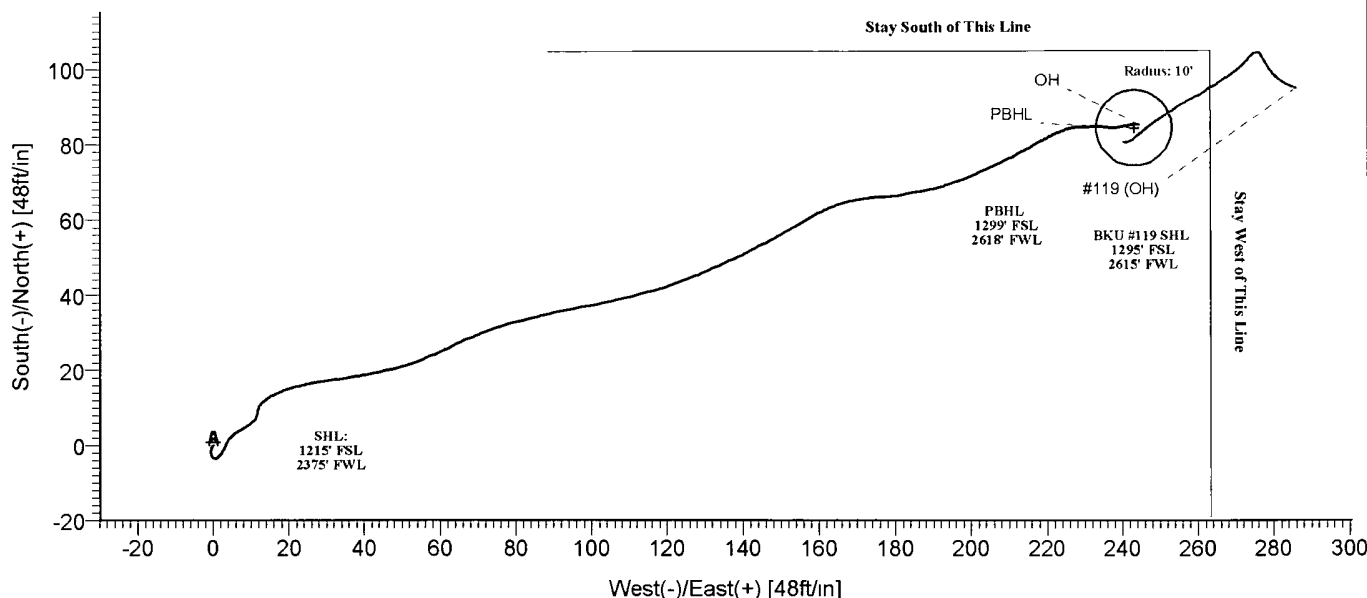
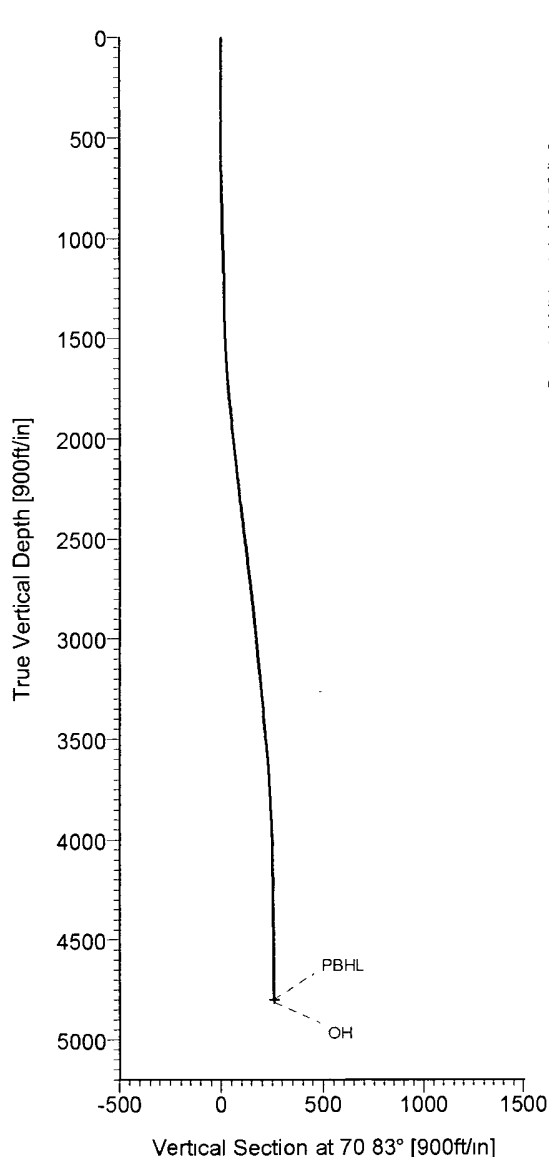
www.ryanenergy.com



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



Azimuths to Gnd North
 True North -0 16°
 Magnetic North 7 68°
 Magnetic Field
 Strength 48934nT
 Dip Angle 60 55°
 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 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

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



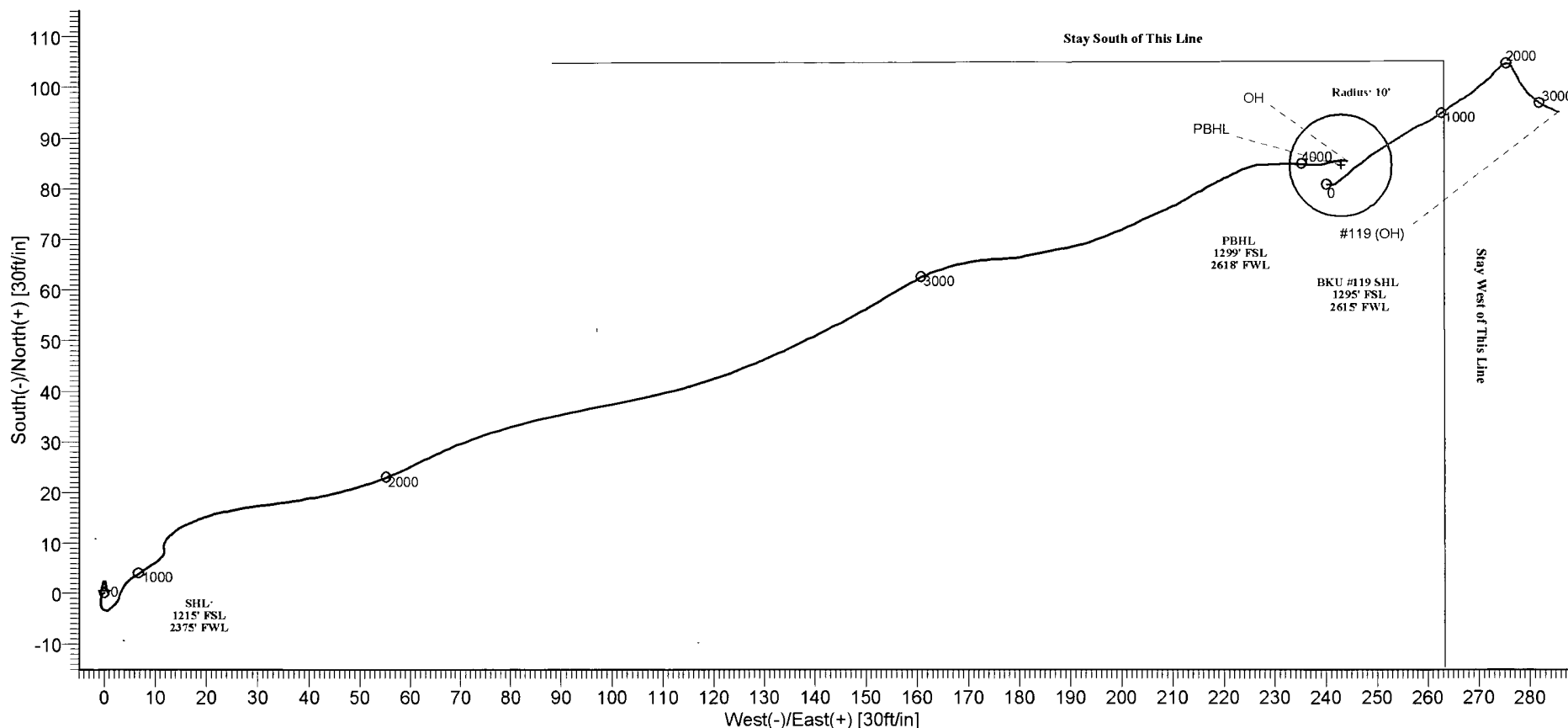
Wellpath (#609 OH)
 Created By Erik De La Fe Date 5/23/2011
 Checked _____ Date _____
 Reviewed _____ Date _____
 Approved _____ User _____



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



Azimuths to Grd North
 True North -0 16°
 Magnetic North -7 68°
 Magnetic Field
 Strength 48934nT
 Dip Angle 60 65°
 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 Grd 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: #609OH
 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
		ft
		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	Toolcode
ft	ft	Tool Name
100 00	809 00	Survey #1 (100.00-809 00)
944.00	4778.00	Survey #2 (944 00-4778.00)
4823.00	4823 00	Survey #3 (4823.00-4823 00)
		Gyro
		Ryan MWD
		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	Date: 8/23/2011	Time: 11:56:19	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 System: US State Plane Coordinate System 1927	Map Zone: New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Site Centre	
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010	

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:	Northing: 660699 40 ft	Latitude: 32 48 57.673 N
+N/-S 0.00 ft	Easting: 588334.90 ft	Longitude: 104 2 44.888 W
+E/-W 0.00 ft		
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
		ft
		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