JUN 15 2009

RECEIVED

Form 3160-4
(August 2007)

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires. July 31, 2010

JUN 11 2009

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM102033

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

BY:

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
CHESAPEAKE OPERATING, INC.
Contact: LINDA GOOD
E-Mail: linda.good@chk.com

8. Lease Name and Well No.
PLU ROSS RANCH 31 FEDERAL 1H

3. Address
OKLAHOMA CITY, OK 73154-0496

3a. Phone No. (include area code)
Ph: 405-935-4275

9. API Well No.
30-015-36775-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface SWSE 350FSL 2290FEL
At top prod interval reported below
Sec 31 T25S R30E Mer NMP
At total depth NWNE 354FNL 2307FEL
Sec 31 T25S R30E Mer NMP

10. Field and Pool, or Exploratory
~~POKER LAKE~~ Corral Canyon; Bone Spring

11. Sec., T., R., M., or Block and Survey or Area Sec 31 T25S R30E Mer NMP

12. County or Parish EDDY

13. State NM

14. Date Spudded 12/02/2008

15. Date T.D. Reached 01/20/2009

16. Date Completed ☐ D & A ☒ Ready to Prod. 03/27/2009

17. Elevations (DF, KB, RT, GL)* 3113 GL

18. Total Depth: MD 12115 TVD 7689

19. Plug Back T.D.: MD 12111 TVD 7681

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
ZDLCNLGR DLLMLL ULTRASONICIMAGE CCL

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	990		582		0	
12.250	9.625 J-55	40.0	0	3476		1140		0	
8.750	5.500 L-80	20.0	0	12120		2400		5430	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	7063							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	BONE SPRING	7836	12052	7836 TO 12052		500	OPEN
B)							
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7836 TO 12052	FRAC W/86,207 BBL, 3,533,409# SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
04/28/2009	05/19/2009	24	→	78.0	539.0	232.0			FLOWS FROM WELL

Choke Size	Tbg Press. Flwg. SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
35/64	400		→	78	539	232		POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

ACCEPTED FOR RECORD

JUN 7 2009

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #70388 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

See Attached Interim Reclamation Guidelines / Procedures

28b Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg Press Flwg SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
RUSTLER	1002	3477			
BASE OF SALT	3478	3520	SALT/ANHYDRITE		
BONE SPRING	7288	12120	LIMESTONE		

32. Additional remarks (include plugging procedure):
PLEASE HOLD CONFIDENTIAL.

LOGS BEING SENT VIA UPS OVERNIGHT TO JERRY FANT.

(CHK PN 624838)

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions).

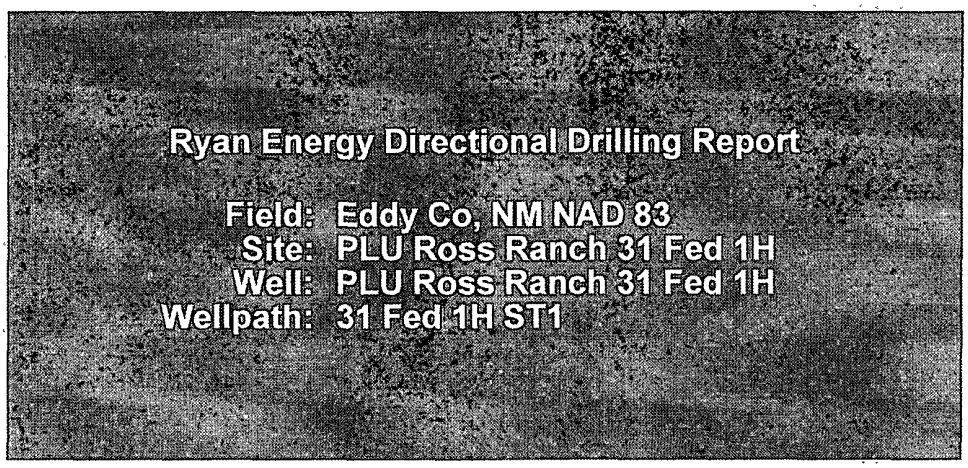
Electronic Submission #70388 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 06/02/2009 (09KMS1506SE)

Name *(please print)* LINDA GOOD Title SR. REGULATORY COMPLIANCE SPEC

Signature (Electronic Submission) Date 06/01/2009

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 fradulent statements or representations as to any matter within its jurisdiction.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****



Prepared For:

Chesapeake Operating, Inc.

Ryan Energy Technology
19510 Oil Center Blvd
Houston, TX 77073
Ph: 281-443-1414
Fx: 281-443-1676
www.ryanenergy.com

Chesapeake Operating, Inc.

Field: Eddy Co, NM NAD 83
Site: PLU Ross Ranch 31 Fed 1H
Well: PLU Ross Ranch 31 Fed 1H
Wellpath: 31 Fed 1H ST1

SITE DETAILS

PLU Ross Ranch 31 Fed 1H
Eddy Co, NM

Site Centre Northing: 393079.13
Easting: 669525.66

Ground Level: 3115.00
Positional Uncertainty: 0.00
Convergence: 0.22

FIELD DETAILS

Eddy Co, NM NAD 83
USA

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: Grid North

WELLPATH DETAILS

31 Fed 1H ST1

Rig: Capstar # 32
Ref. Datum: SITE 3133.00ft

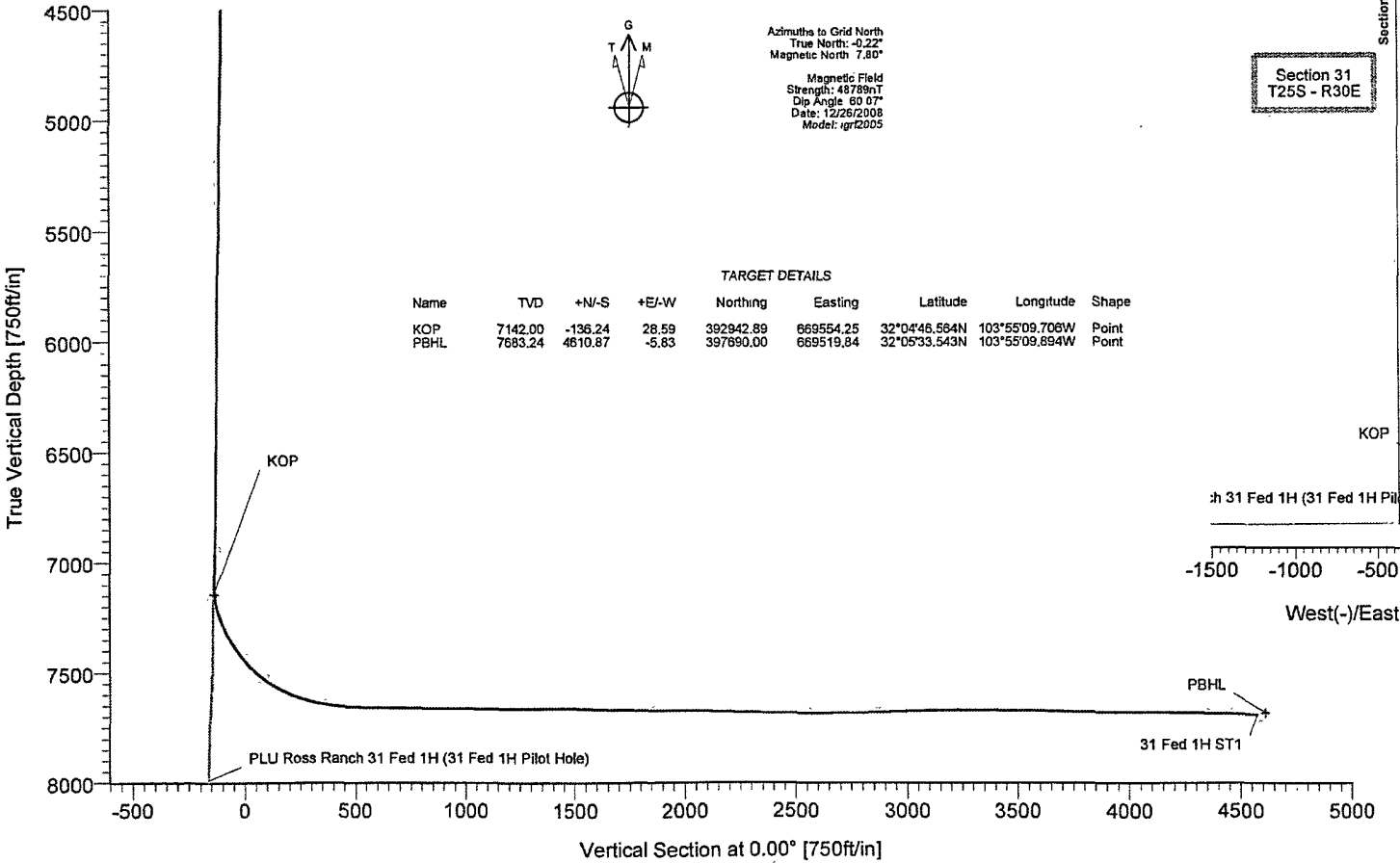
V.Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
0.00°	0.00	0.00	0.00

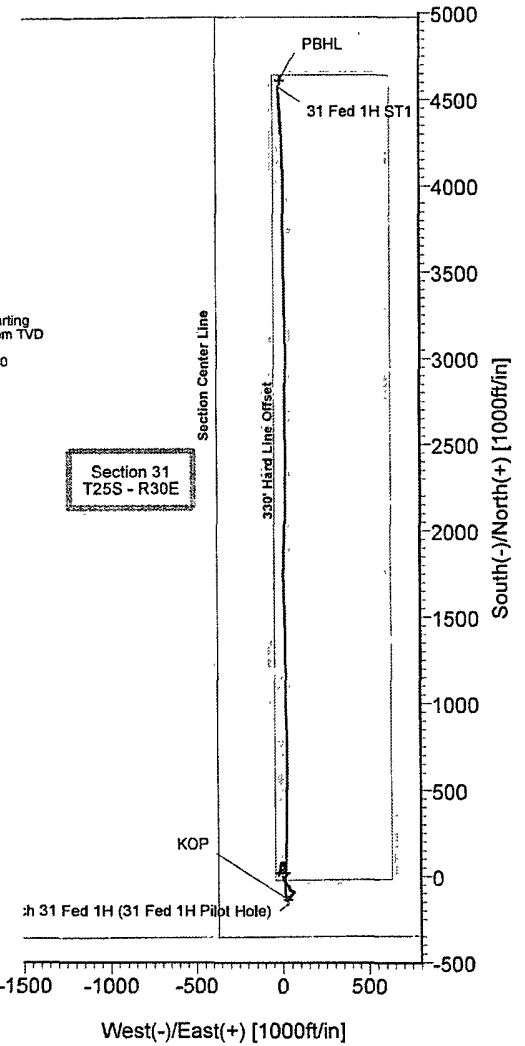
Azimuths to Grid North
True North: -0.22°
Magnetic North: 7.80°

Magnetic Field
Strength: 48789nT
Dip Angle: 60.07°
Date: 12/26/2008
Model: igrf2005

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
KOP	7142.00	-136.24	28.59	392942.89	669554.25	32°04'46.564N	103°55'09.706W	Point
PBHL	7683.24	4610.87	-5.83	397690.00	669519.84	32°05'33.543N	103°55'09.894W	Point





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

Ryan Energy Technologies
Survey Report

Company:	Chesapeake Operating, Inc.	**Date:**	1/20/2009	**Time:** 09:32:18	**Page:** 1
Field:	Eddy Co, NM NAD 83	**Co-ordinate(NE) Reference:**	Site: PLU Ross Ranch 31 Fed 1H		
Site:	PLU Ross Ranch 31 Fed 1H	**Vertical (TVD) Reference:**	SITE 3133.0		
Well:	PLU Ross Ranch 31 Fed 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,0.00Azi)		
Wellpath:	31 Fed 1H ST1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Field: Eddy Co, NM NAD 83

USA

Map System:	US State Plane Coordinate System 1983	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	GRS 1980	**Coordinate System:**	Site Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	igrf2005

Site: PLU Ross Ranch 31 Fed 1H

Eddy Co. NM

Site Position:		**Northing:**	393079.13 ft	**Latitude:**	32 4 47.914	N
From:	Map	**Easting:**	669525.66 ft	**Longitude:**	103 55 10.032	W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid	
Ground Level:	3115.00 ft			**Grid Convergence:**	0.22 deg	

Well: PLU Ross Ranch 31 Fed 1H **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	393079.13 ft	**Latitude:**	32 4 47.914	N
	+E/-W	0.00 ft	**Easting :**	669525.66 ft	**Longitude:**	103 55 10.032	W
Position Uncertainty:		0.00 ft					

Wellpath: 31 Fed 1H ST1

				Drilled From:	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	3133.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	12/26/2008			**Declination:**	8.02 deg
Field Strength:	48789 nT			**Mag Dip Angle:**	60.07 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	0.00

Survey Program for Definitive Wellpath

Date: 1/20/2009 **Validated:** No **Version:** 0

Actual From ft	**To** ft	**Survey**	**Toolcode**	**Tool Name**
200.00	7000.00	Survey #1 (200.00-7000.00)	Gyro	Gyro MS
7055.00	12063.00	Survey #2 (7055.00-12063.00)	Ryan MWD	Ryan MWD
12120.00	12120.00	Survey #3 (12120.00-12120.00)	Project	

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
200.00	0.75	188.03	199.99	-1.30	-0.18	-1.30	0.37	0.37	0.00	Gyro
400.00	1.75	162.83	399.95	-5.51	0.54	-5.51	0.56	0.50	-12.60	Gyro
600.00	2.00	160.63	599.84	-11.72	2.59	-11.72	0.13	0.12	-1.10	Gyro
800.00	2.25	149.43	799.70	-18.39	5.75	-18.39	0.24	0.12	-5.60	Gyro
1000.00	3.00	144.24	999.49	-26.02	10.80	-26.02	0.39	0.37	-2.59	Gyro
1200.00	2.25	150.02	1199.28	-33.67	15.82	-33.67	0.40	-0.37	2.89	Gyro
1400.00	2.75	144.82	1399.09	-40.99	20.55	-40.99	0.27	0.25	-2.60	Gyro
1600.00	3.00	144.62	1598.84	-49.18	26.35	-49.18	0.13	0.12	-0.10	Gyro
1800.00	1.50	140.38	1798.68	-55.46	31.05	-55.46	0.75	-0.75	-2.12	Gyro
2000.00	2.00	158.18	1998.58	-60.72	34.01	-60.72	0.37	0.25	8.90	Gyro
2200.00	2.50	168.97	2198.43	-68.24	36.14	-68.24	0.33	0.25	5.39	Gyro
2400.00	3.25	140.80	2398.19	-76.92	40.56	-76.92	0.79	0.37	-14.08	Gyro
2600.00	3.25	123.07	2597.87	-84.40	48.90	-84.40	0.50	0.00	-8.86	Gyro
2800.00	1.25	135.83	2797.71	-89.06	55.17	-89.06	1.02	-1.00	6.38	Gyro
3000.00	1.50	110.62	2997.65	-91.55	59.14	-91.55	0.32	0.12	-12.60	Gyro
3200.00	0.50	141.41	3197.62	-93.15	62.13	-93.15	0.55	-0.50	15.39	Gyro
3400.00	0.25	131.09	3397.62	-94.12	63.00	-94.12	0.13	-0.12	-5.16	Gyro
3600.00	0.50	250.78	3597.61	-94.70	62.51	-94.70	0.33	0.12	59.84	Gyro
3800.00	0.25	182.58	3797.61	-95.42	61.67	-95.42	0.23	-0.12	-34.10	Gyro
4000.00	0.75	245.37	3997.60	-96.40	60.46	-96.40	0.34	0.25	31.39	Gyro

Ryan Energy Technologies
Survey Report

Company:	Chesapeake Operating, Inc.	**Date:**	1/20/2009	**Time:**	09:32:18 **Page:** 2
Field:	Eddy Co, NM NAD 83	**Co-ordinate(NE) Reference:**	Site: PLU Ross Ranch 31 Fed 1H		
Site:	PLU Ross Ranch 31 Fed 1H	**Vertical (TVD) Reference:**	SITE 3133.0		
Well:	PLU Ross Ranch 31 Fed 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,0.00Azi)		
Wellpath:	31 Fed 1H ST1	**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
4200.00	0.75	249.16	4197.58	-97.41	58.04	-97.41	0.02	0.00	1.89	Gyro
4400.00	1.00	216.95	4397.56	-99.27	55.77	-99.27	0.27	0.12	-16.10	Gyro
4600.00	0.75	199.75	4597.54	-101.90	54.28	-101.90	0.18	-0.12	-8.60	Gyro
4800.00	1.00	229.91	4797.52	-104.25	52.50	-104.25	0.26	0.12	15.08	Gyro
5000.00	1.00	224.71	4997.49	-106.62	49.94	-106.62	0.05	0.00	-2.60	Gyro
5200.00	1.00	235.50	5197.46	-108.85	47.27	-108.85	0.09	0.00	5.39	Gyro
5400.00	1.50	236.29	5397.41	-111.29	43.66	-111.29	0.25	0.25	0.39	Gyro
5600.00	1.00	215.09	5597.36	-114.17	40.48	-114.17	0.34	-0.25	-10.60	Gyro
5800.00	1.00	219.88	5797.33	-116.94	38.35	-116.94	0.04	0.00	2.39	Gyro
6000.00	1.00	206.67	5997.30	-119.84	36.45	-119.84	0.12	0.00	-6.60	Gyro
6200.00	0.75	216.47	6197.28	-122.45	34.89	-122.45	0.15	-0.12	4.90	Gyro
6400.00	1.00	220.26	6397.25	-124.83	32.98	-124.83	0.13	0.12	1.89	Gyro
6600.00	1.25	220.05	6597.21	-127.83	30.45	-127.83	0.13	0.12	-0.10	Gyro
6800.00	1.25	219.84	6797.17	-131.18	27.65	-131.18	0.00	0.00	-0.10	Gyro
7000.00	1.25	198.02	6997.12	-134.93	25.58	-134.93	0.24	0.00	-10.91	Gyro
7055.00	0.90	218.10	7052.11	-135.84	25.13	-135.84	0.93	-0.64	36.51	Ryan MWD
7096.00	0.80	290.30	7093.11	-135.99	24.66	-135.99	2.45	-0.24	176.10	Ryan MWD
7138.00	4.60	342.10	7135.06	-134.29	23.87	-134.29	9.89	9.05	123.33	Ryan MWD
7181.00	10.20	346.60	7177.68	-128.94	22.45	-128.94	13.08	13.02	10.47	Ryan MWD
7223.00	15.50	345.60	7218.61	-119.88	20.19	-119.88	12.63	12.62	-2.38	Ryan MWD
7264.00	20.00	347.30	7257.65	-107.73	17.29	-107.73	11.05	10.98	4.15	Ryan MWD
7306.00	24.30	350.90	7296.55	-92.18	14.34	-92.18	10.73	10.24	8.57	Ryan MWD
7348.00	27.80	356.10	7334.28	-73.87	12.31	-73.87	9.94	8.33	12.38	Ryan MWD
7390.00	31.30	1.20	7370.82	-53.18	11.87	-53.18	10.26	8.33	12.14	Ryan MWD
7432.00	34.90	2.70	7405.99	-30.26	12.66	-30.26	8.79	8.57	3.57	Ryan MWD
7474.00	38.90	3.40	7439.57	-5.08	14.01	-5.08	9.58	9.52	1.67	Ryan MWD
7516.00	43.60	3.60	7471.14	22.55	15.71	22.55	11.19	11.19	0.48	Ryan MWD
7558.00	47.50	3.20	7500.55	52.47	17.48	52.47	9.31	9.29	-0.95	Ryan MWD
7600.00	52.30	2.00	7527.60	84.56	18.92	84.56	11.64	11.43	-2.86	Ryan MWD
7642.00	57.10	1.20	7551.86	118.81	19.87	118.81	11.53	11.43	-1.90	Ryan MWD
7684.00	61.50	1.20	7573.30	154.91	20.63	154.91	10.48	10.48	0.00	Ryan MWD
7726.00	65.30	1.70	7592.10	192.44	21.58	192.44	9.11	9.05	1.19	Ryan MWD
7767.00	69.10	1.30	7607.98	230.22	22.57	230.22	9.31	9.27	-0.98	Ryan MWD
7809.00	73.30	0.60	7621.52	269.96	23.23	269.96	10.12	10.00	-1.67	Ryan MWD
7851.00	76.70	0.60	7632.39	310.52	23.65	310.52	8.10	8.10	0.00	Ryan MWD
7893.00	79.90	0.60	7640.90	351.64	24.08	351.64	7.62	7.62	0.00	Ryan MWD
7935.00	82.10	0.10	7647.47	393.12	24.34	393.12	5.37	5.24	-1.19	Ryan MWD
7977.00	85.10	0.40	7652.15	434.86	24.52	434.86	7.18	7.14	0.71	Ryan MWD
8019.00	87.60	0.20	7654.83	476.77	24.74	476.77	5.97	5.95	-0.48	Ryan MWD
8061.00	88.80	1.10	7656.14	518.74	25.21	518.74	3.57	2.86	2.14	Ryan MWD
8103.00	89.40	1.50	7656.80	560.73	26.17	560.73	1.72	1.43	0.95	Ryan MWD
8145.00	89.60	1.30	7657.17	602.71	27.19	602.71	0.67	0.48	-0.48	Ryan MWD
8229.00	89.90	0.10	7657.54	686.70	28.22	686.70	1.47	0.36	-1.43	Ryan MWD
8313.00	89.00	358.90	7658.34	770.69	27.49	770.69	1.79	-1.07	-1.43	Ryan MWD
8397.00	89.80	357.60	7659.22	854.65	24.92	854.65	1.82	0.95	-1.55	Ryan MWD
8480.00	89.40	359.10	7659.80	937.61	22.53	937.61	1.87	-0.48	1.81	Ryan MWD
8564.00	88.90	359.10	7661.05	1021.59	21.21	1021.59	0.60	-0.60	0.00	Ryan MWD
8648.00	89.80	359.10	7662.00	1105.57	19.89	1105.57	1.07	1.07	0.00	Ryan MWD
8731.00	90.40	359.10	7661.86	1188.56	18.59	1188.56	0.72	0.72	0.00	Ryan MWD
8815.00	89.70	359.10	7661.78	1272.55	17.27	1272.55	0.83	-0.83	0.00	Ryan MWD
8898.00	89.80	359.40	7662.15	1355.54	16.18	1355.54	0.38	0.12	0.36	Ryan MWD
8982.00	89.80	359.20	7662.44	1439.54	15.16	1439.54	0.24	0.00	-0.24	Ryan MWD
9066.00	87.70	358.30	7664.27	1523.49	13.32	1523.49	2.72	-2.50	-1.07	Ryan MWD
9150.00	88.10	358.60	7667.35	1607.40	11.05	1607.40	0.60	0.48	0.36	Ryan MWD

Ryan Energy Technologies
Survey Report

Company:	Chesapeake Operating, Inc.	**Date:**	1/20/2009	**Time:** 09:32:18	**Page:** 3
Field:	Eddy Co, NM NAD 83	**Co-ordinate(NE) Reference:**	Site: PLU Ross Ranch 31 Fed 1H		
Site:	PLU Ross Ranch 31 Fed 1H	**Vertical (TVD) Reference:**	SITE 3133.0		
Well:	PLU Ross Ranch 31 Fed 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,0.00Azi)		
Wellpath:	31 Fed 1H ST1	**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
9233.00	88.70	358.40	7669.67	1690.34	8.88	1690.34	0.76	0.72	-0.24	Ryan MWD
9317.00	88.90	0.90	7671.43	1774.32	8.37	1774.32	2.99	0.24	2.98	Ryan MWD
9401.00	89.40	1.50	7672.67	1858.29	10.13	1858.29	0.93	0.60	0.71	Ryan MWD
9485.00	90.60	1.50	7672.67	1942.26	12.33	1942.26	1.43	1.43	0.00	Ryan MWD
9569.00	89.80	1.30	7672.38	2026.23	14.38	2026.23	0.98	-0.95	-0.24	Ryan MWD
9653.00	88.60	0.40	7673.55	2110.21	15.63	2110.21	1.79	-1.43	-1.07	Ryan MWD
9736.00	88.40	0.70	7675.73	2193.18	16.42	2193.18	0.43	-0.24	0.36	Ryan MWD
9820.00	88.90	0.90	7677.70	2277.15	17.59	2277.15	0.64	0.60	0.24	Ryan MWD
9904.00	89.20	0.90	7679.10	2361.12	18.91	2361.12	0.36	0.36	0.00	Ryan MWD
9988.00	89.20	359.50	7680.27	2445.11	19.21	2445.11	1.67	0.00	-1.67	Ryan MWD
10071.00	89.40	359.40	7681.28	2528.10	18.41	2528.10	0.27	0.24	-0.12	Ryan MWD
10155.00	90.20	359.80	7681.58	2612.10	17.82	2612.10	1.06	0.95	0.48	Ryan MWD
10239.00	90.50	0.00	7681.06	2696.10	17.68	2696.10	0.43	0.36	0.24	Ryan MWD
10323.00	91.10	0.30	7679.89	2780.09	17.90	2780.09	0.80	0.71	0.36	Ryan MWD
10407.00	91.60	0.40	7677.91	2864.06	18.41	2864.06	0.61	0.60	0.12	Ryan MWD
10490.00	92.00	0.60	7675.31	2947.02	19.13	2947.02	0.54	0.48	0.24	Ryan MWD
10574.00	91.80	359.50	7672.52	3030.97	19.21	3030.97	1.33	-0.24	-1.31	Ryan MWD
10658.00	91.20	358.70	7670.32	3114.93	17.89	3114.93	1.19	-0.71	-0.95	Ryan MWD
10741.00	90.70	358.70	7668.94	3197.90	16.01	3197.90	0.60	-0.60	0.00	Ryan MWD
10825.00	88.90	358.90	7669.24	3281.88	14.25	3281.88	2.16	-2.14	0.24	Ryan MWD
10909.00	89.10	359.10	7670.70	3365.85	12.78	3365.85	0.34	0.24	0.24	Ryan MWD
10992.00	89.90	359.60	7671.43	3448.84	11.84	3448.84	1.14	0.96	0.60	Ryan MWD
11076.00	89.40	359.40	7671.94	3532.84	11.11	3532.84	0.64	-0.60	-0.24	Ryan MWD
11160.00	88.50	359.30	7673.48	3616.82	10.15	3616.82	1.08	-1.07	-0.12	Ryan MWD
11244.00	88.70	359.20	7675.53	3700.78	9.05	3700.78	0.27	0.24	-0.12	Ryan MWD
11327.00	88.70	359.20	7677.42	3783.75	7.90	3783.75	0.00	0.00	0.00	Ryan MWD
11410.00	89.00	359.80	7679.08	3866.73	7.17	3866.73	0.81	0.36	0.72	Ryan MWD
11494.00	89.80	359.80	7679.96	3950.73	6.88	3950.73	0.95	0.95	0.00	Ryan MWD
11578.00	89.60	359.10	7680.40	4034.72	6.07	4034.72	0.87	-0.24	-0.83	Ryan MWD
11661.00	89.90	359.00	7680.76	4117.71	4.70	4117.71	0.38	0.36	-0.12	Ryan MWD
11745.00	89.00	357.70	7681.57	4201.67	2.28	4201.67	1.88	-1.07	-1.55	Ryan MWD
11829.00	89.20	357.80	7682.89	4285.59	-1.02	4285.59	0.27	0.24	0.12	Ryan MWD
11913.00	89.00	357.20	7684.21	4369.50	-4.68	4369.50	0.75	-0.24	-0.71	Ryan MWD
11997.00	88.30	356.50	7686.19	4453.35	-9.30	4453.35	1.18	-0.83	-0.83	Ryan MWD
12063.00	88.30	356.40	7688.15	4519.20	-13.38	4519.20	0.15	0.00	-0.15	Ryan MWD
12120.00	88.30	356.40	7689.84	4576.06	-16.96	4576.06	0.00	0.00	0.00	PROJECTED to TD

MULTI-SHOT
Guidance Services

Job Number: 0811175052530
Company: Chesapeake Operating, Inc.
Lease/Well: Plu Ross Ranch 31, Well #1H
Location: Eddy County, New Mexico
Rig Name: Capstar #32
RKB:
G.L. or M.S.L.:

State/Country: New Mexico/USA
Declination: 7.80°
Grid: East To Grid
File name: F:\SURVEY\2008SU~1\CHESAP~1\PLUROS1H.SVY
Date/Time: 29-Dec-08 / 11:55
Curve Name: Surface - 8200' M.D. (gyroscopic)

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 90.00
Vertical Section Referenced to offset from Wellhead: EW =.00 Ft , NS=.00 Ft
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TRUE Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
0	0	0	0	0	0	0	0	0	0
200	0.75	188.03	199.99	-1.3	-0.18	-0.18	1.31	188.03	0.38
400	1.75	162.83	399.95	-5.51	0.54	0.54	5.54	174.45	0.56
600	2	160.63	599.84	-11.72	2.59	2.59	12	167.52	0.13
800	2.25	149.43	799.7	-18.39	5.75	5.75	19.27	162.64	0.24
1000	3	144.24	999.49	-26.02	10.8	10.8	28.17	157.45	0.39
1200	2.25	150.02	1199.28	-33.67	15.82	15.82	37.2	154.83	0.4
1400	2.75	144.82	1399.09	-40.99	20.55	20.55	45.85	153.37	0.27
1600	3	144.62	1598.84	-49.18	26.35	26.35	55.79	151.82	0.13
1800	1.5	140.38	1798.68	-55.46	31.05	31.05	63.56	150.76	0.75
2000	2	158.18	1998.58	-60.72	34.01	34.01	69.6	150.74	0.37
2200	2.5	168.97	2198.43	-68.24	36.14	36.14	77.22	152.09	0.33
2400	3.25	140.8	2398.19	-76.92	40.56	40.56	86.96	152.2	0.79
2600	3.25	123.07	2597.87	-84.4	48.9	48.9	97.54	149.92	0.5
2800	1.25	135.83	2797.71	-89.06	55.17	55.17	104.76	148.22	1.02
3000	1.5	110.62	2997.65	-91.55	59.14	59.14	108.99	147.14	0.32
3200	0.5	141.41	3197.62	-93.15	62.13	62.13	111.97	146.3	0.55
3400	0.25	131.09	3397.62	-94.12	63	63	113.26	146.2	0.13
3600	0.5	250.78	3597.61	-94.7	62.51	62.51	113.47	146.57	0.33
3800	0.25	182.58	3797.61	-95.42	61.67	61.67	113.61	147.13	0.23
4000	0.75	245.37	3997.6	-96.4	60.46	60.46	113.79	147.91	0.34
4200	0.75	249.16	4197.58	-97.41	58.04	58.04	113.39	149.21	0.02
4400	1	216.95	4397.56	-99.27	55.77	55.77	113.86	150.67	0.27
4600	0.75	199.75	4597.54	-101.9	54.28	54.28	115.45	151.96	0.18
4800	1	229.91	4797.52	-104.25	52.5	52.5	116.73	153.27	0.26

5000	1	224.71	4997.49	-106.62	49.94	49.94	117.73	154.9	0.05
5200	1	235.5	5197.46	-108.85	47.27	47.27	118.67	156.52	0.09
5400	1.5	236.29	5397.41	-111.29	43.66	43.66	119.55	158.58	0.25
5600	1	215.09	5597.36	-114.17	40.48	40.48	121.13	160.48	0.34
5800	1	219.88	5797.33	-116.94	38.35	38.35	123.07	161.84	0.04
6000	1	206.67	5997.3	-119.84	36.45	36.45	125.26	163.08	0.12
6200	0.75	216.47	6197.28	-122.45	34.89	34.89	127.32	164.1	0.15
6400	1	220.26	6397.25	-124.83	32.98	32.98	129.12	165.2	0.13
6600	1.25	220.05	6597.21	-127.83	30.45	30.45	131.41	166.6	0.13
6800	1.25	219.84	6797.17	-131.18	27.65	27.65	134.06	168.1	0
7000	1.25	198.02	6997.12	-134.93	25.58	25.58	137.33	169.27	0.24
7200	1.25	186.81	7197.07	-139.17	24.65	24.65	141.33	169.96	0.12
7400	1.25	150.61	7397.03	-143.24	25.46	25.46	145.48	169.92	0.39
7600	2.25	166.41	7596.93	-148.95	27.45	27.45	151.46	169.56	0.55
7800	2.5	175.19	7796.76	-157.12	28.74	28.74	159.72	169.63	0.22
8000	1.5	190.98	7996.64	-164.03	28.61	28.61	166.51	170.11	0.57
8200	2.25	254.67	8196.55	-167.64	24.32	24.32	169.39	171.75	1.04

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 E Greene St.
Carlsbad, New Mexico 88220-6292
www.blm.gov/nm

TAKE PRIDE IN AMERICA

In Reply Refer To: 1310

Interim Reclamation Procedures

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses.

Interim reclamation consists of minimizing the footprint of disturbance by reclaiming all portions of the well site not needed for production operations. The portions of the cleared well site not needed for operational and safety purposes are recontoured to a final or intermediate contour that blends with the surrounding topography as much as possible. Sufficient level area remains for setup of a workover rig and to park equipment. Topsoil is respread over areas not needed for all-weather operations. Production facilities should be clustered to maximize the opportunity for interim reclamation. In order to inspect and operate the well or complete workover operations, it may be necessary to drive, park, and operate on restored, interim vegetation within the previously disturbed area. This is generally acceptable provided damage is repaired and reclaimed following use.

To reduce final reclamation costs; maintain healthy, biologically active topsoil; and to minimize habitat, visual, and forage loss during the life of the well, all salvaged topsoil should be spread over the area of interim reclamation, rather than stockpiled.

1. The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations must include adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.

2. For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). Interim reclamation is to be completed within 6 months of well completion.

3. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with interim reclamation as per approved APD or Sundry Notice. If you have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.

4. The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.

5. It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos
Supervisory Environmental Protection Specialist
575-234-5909, 575-361-2648 (Cell)

Terry Gregston
Environmental Protection Specialist
575-234-5958

Bobby Ballard
Environmental Protection Specialist
575-234-2230

Randy Rust
Environmental Protection Specialist
575-234-5943

Linda Denniston
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