Form 3160-4
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Month - Year APR 13 2007 OCD ARTESIA, NM

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. **NMNM31636**

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

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. **NMNM117963**

2. Name of Operator **Marbob Energy Corporation**

8. Lease Name and Well No. **Mule 24 Federal Com #2**

3. Address **PO Box 227, Artesia, NM 88211-0227**

3a. Phone No. *(include area code)* **505-748-3303**

9. AFI Well No. **30-015-21203**

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**

At surface **1980 FNL 1656 FEL, Unit G**

At top prod. interval reported below

At total depth **1923 FNL 669 FEL, Unit H**

10. Field and Pool, or Exploratory

11. Sec., T., R., M., on Block and Survey or Area **Sec. 24-T24S-R25E**

12. County or Parish **Eddy**

13. State **NM**

14. Date Spudded **11/02/2006**

15. Date T.D. Reached **12/03/2006**

16. Date Completed **03/13/2007** ☐ D & A ☑ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)* **3863' GL**

18. Total Depth: MD **12700'** TVD **12598'**

19. Plug Back T.D.: MD **11665'** TVD **11582'**

20. Depth Bridge Plug Set: MD **11700'** TVD **11616'**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
DLL, Csng

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

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
15"	**10 3/4"**	**51#**	**0**	**2668'**		**1900 sx**		**280'**	**None**
9 1/2"	**7"**	**23#**	**0**	**6989'**		**1400 sx**		**550'**	**None**
6 1/8"	**4 1/2"**	**11.6#**	**0**	**12648'**		**485 sx**		**5500'**	**None**

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 3/8"	**10867'**							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) **Atoka**	**11309'**	**11458'**	**11309' - 11458'**		**17**	**Open**
B)			**11732' - 12007'**		**100**	**CIBP set @ 11700'**
C)						
D)						

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

Depth Interval	Amount and Type of Material
11732' - 12007'	**Acdz w/ 2000 gal 7 1/2% Morrow acid. Frac w/ 24845 gal fluid & 41168# versaprop.**
11309' - 11458'	**Acdz w/ 2500 gal NE Fe 15% HCl.**

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
03/14/2007	**03/16/2007**	**24**		**0**	**168**	**0**			**Flowing**
Choke Size	**Tbg. Press. Flwg.**	**Csg. Press.**	**24 Hr. Rate →**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas/Oil Ratio**	**Well Status**	
8/64"	**SI 650**							**Producing**	

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**	

(See instructions and spaces for additional data on page 2)

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
				Capitan	**352'**
				Delaware	**2457'**
				Bone Spring	**5550'**
				Wolfcamp	**8736'**
				Strawn	**10795'**
				Atoka	**11181'**
				Morrow Clastics	**11719'**
				Lower Morrow	**11986'**
				Mississippian Limestone	**12560'**

32. Additional remarks (include plugging procedure):

33. Indicate which itmes have been attached by placing a check in the appropriate boxes:

☑ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☑ Directional Survey

☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

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

Name *(please print)* **Diana J. Briggs** Title **Production Analyst**

Signature Date **04/17/2007**

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.

30-015-21203-00-00 **MULE 24 FEDERAL No. 002**

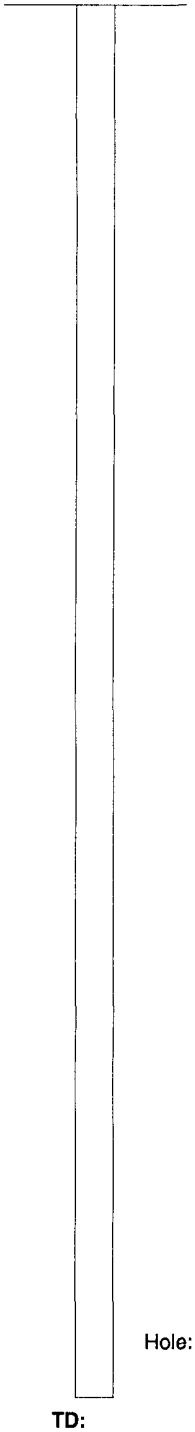
Company Name: MARBOB ENERGY CORP

Location: Sec: 24 T: 24S R: 25E Spot:

Lat: 32.2044448829821 Long: -104.346256089468

Property Name: MULE 24 FEDERAL

County Name: Eddy



Hole: Unknown

TD: **TVD:** 0 **PBTD:**

String Information

S

Cement Information

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Sqz
0	0			

Formation Information

St Code	Formation	Depth
Preef	Capitan Reef	352
Pdel	Delaware	2475
Pbs	Bone Spring	5550
Pbs3sd	3rd Bone Spring Sand	8358
Pwc	Wolfcamp	8736
PPst	Strawn	10158
Ppat	Atoka	10532
Ppmor	Morrow	11070
Ppmorc	Morrow Clastics	11320
Misls	Mississippi Limestone	12560

Scientific Drilling

MARBOB ENERGY

Field: Carlsbad
Site: Eddy County, NM
Well: Mule 24 Fed #2
Wellpath: VH - Job #32K1106914
Survey: 11/09/06

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

.....Company Representative

Notorized this date 11th of January, 2007.

Notary Signature
County of Midland
State of Texas

DEBORAH SUE BYNUM
Notary Public, State of Texas
My Commission Expires
5/9/08

Scientific Drilling

Scientific Drilling International
Survey Report

Company:	MARBOB ENERGY	**Date:** 01/08/2007	**Time:** 19:45:38	**Page:**	1
Field:	Carlsbad	**Co-ordinate(NE) Reference:**	Site: Eddy County, NM, Grid North		
Site:	Eddy County, NM	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Mule 24 Fed #2	**Section (VS) Reference:**	Well (0.00N,0.00E,0.00Azi)		
Wellpath:	VH - Job #32K1106914	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey:	11/09/06 KSRG 0'-7021'	**Start Date:**	11/09/2006
Company:	Scientific Drilling Internatio	**Engineer:**	Rehders w/GeoGyro
Tool:	Keeper;Keeper Gyro	**Tied-to:**	From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	2.42	234.33	99.97	-1.23	-1.23	-1.72	2.42	2.11	234.33
200.00	2.66	235.96	199.87	-3.76	-3.76	-5.35	0.25	6.54	234.91
300.00	2.44	242.99	299.77	-6.03	-6.03	-9.17	0.38	10.98	236.69
400.00	2.27	246.41	399.69	-7.79	-7.79	-12.88	0.22	15.05	238.85
500.00	2.07	262.65	499.62	-8.81	-8.81	-16.49	0.64	18.70	241.89
600.00	1.68	269.79	599.56	-9.05	-9.05	-19.75	0.45	21.72	245.39
700.00	1.60	275.39	699.52	-8.92	-8.92	-22.60	0.18	24.30	248.46
800.00	1.48	279.83	799.49	-8.57	-8.57	-25.27	0.17	26.68	251.27
900.00	1.39	289.04	899.46	-7.95	-7.95	-27.68	0.25	28.80	253.97
1000.00	1.38	299.88	999.43	-6.96	-6.96	-29.88	0.26	30.67	256.89
1100.00	1.28	299.16	1099.40	-5.81	-5.81	-31.89	0.10	32.42	259.67
1200.00	1.26	304.44	1199.38	-4.65	-4.65	-33.78	0.12	34.09	262.17
1300.00	0.94	308.10	1299.36	-3.52	-3.52	-35.33	0.33	35.50	264.31
1400.00	0.77	316.05	1399.35	-2.53	-2.53	-36.44	0.21	36.53	266.03
1500.00	0.34	311.63	1499.34	-1.85	-1.85	-37.13	0.43	37.17	267.15
1600.00	0.34	314.17	1599.34	-1.44	-1.44	-37.56	0.02	37.59	267.80
1700.00	0.37	265.36	1699.34	-1.26	-1.26	-38.10	0.29	38.12	268.10
1800.00	0.35	220.87	1799.34	-1.52	-1.52	-38.62	0.27	38.65	267.74
1900.00	0.44	199.14	1899.33	-2.11	-2.11	-38.95	0.17	39.00	266.89
2000.00	0.56	195.10	1999.33	-2.95	-2.95	-39.20	0.12	39.31	265.70
2100.00	0.59	180.46	2099.32	-3.94	-3.94	-39.33	0.15	39.53	264.29
2200.00	0.70	171.91	2199.32	-5.06	-5.06	-39.25	0.15	39.57	262.66
2300.00	0.73	161.94	2299.31	-6.27	-6.27	-38.96	0.13	39.47	260.86
2400.00	0.54	152.01	2399.30	-7.29	-7.29	-38.55	0.22	39.23	259.29
2500.00	0.57	159.04	2499.30	-8.17	-8.17	-38.15	0.07	39.01	257.91
2600.00	0.51	151.69	2599.30	-9.02	-9.02	-37.76	0.09	38.82	256.56
2700.00	0.37	145.82	2699.29	-9.68	-9.68	-37.37	0.15	38.60	255.47
2800.00	0.40	133.98	2799.29	-10.19	-10.19	-36.93	0.08	38.31	254.57
2900.00	0.35	140.45	2899.29	-10.67	-10.67	-36.49	0.07	38.02	253.70
3000.00	0.34	130.09	2999.29	-11.10	-11.10	-36.07	0.06	37.73	252.90
3100.00	0.37	148.16	3099.28	-11.56	-11.56	-35.67	0.12	37.50	252.04
3200.00	0.39	149.52	3199.28	-12.13	-12.13	-35.33	0.02	37.35	251.05
3300.00	0.44	126.24	3299.28	-12.65	-12.65	-34.84	0.17	37.07	250.05
3400.00	0.28	132.15	3399.28	-13.04	-13.04	-34.35	0.16	36.74	249.21
3500.00	0.36	129.48	3499.28	-13.41	-13.41	-33.93	0.08	36.48	248.44
3600.00	0.37	131.93	3599.27	-13.82	-13.82	-33.45	0.02	36.19	247.55
3700.00	0.21	191.46	3699.27	-14.22	-14.22	-33.24	0.32	36.15	246.85
3800.00	0.15	133.48	3799.27	-14.49	-14.49	-33.18	0.18	36.21	246.42
3900.00	0.13	190.27	3899.27	-14.69	-14.69	-33.11	0.13	36.22	246.08
4000.00	0.17	149.44	3999.27	-14.93	-14.93	-33.05	0.11	36.27	245.70
4100.00	0.10	261.55	4099.27	-15.07	-15.07	-33.06	0.23	36.34	245.50
4200.00	0.25	208.14	4199.27	-15.27	-15.27	-33.25	0.21	36.59	245.33
4300.00	0.06	232.90	4299.27	-15.50	-15.50	-33.40	0.20	36.82	245.11
4400.00	0.21	184.13	4399.27	-15.71	-15.71	-33.45	0.18	36.96	244.84
4500.00	0.07	193.00	4499.27	-15.95	-15.95	-33.48	0.14	37.09	244.52
4600.00	0.13	145.38	4599.27	-16.11	-16.11	-33.43	0.10	37.11	244.28
4700.00	0.38	180.62	4699.27	-16.53	-16.53	-33.37	0.28	37.24	243.65
4800.00	0.33	196.42	4799.27	-17.14	-17.14	-33.45	0.11	37.59	242.87

Scientific Drilling

Scientific Drilling International
Survey Report

Company: MARBOB ENERGY
Field: Carlsbad
Site: Eddy County, NM
Well: Mule 24 Fed #2
Wellpath: VH - Job #32K1106914

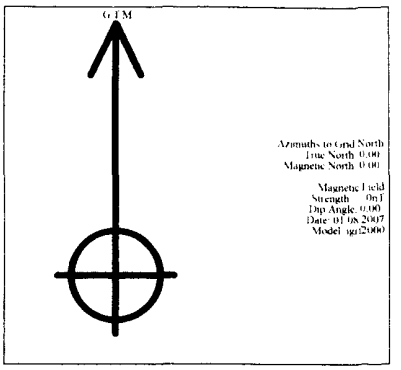
Date: 01/08/2007 **Time:** 19:45:38 **Page:** 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

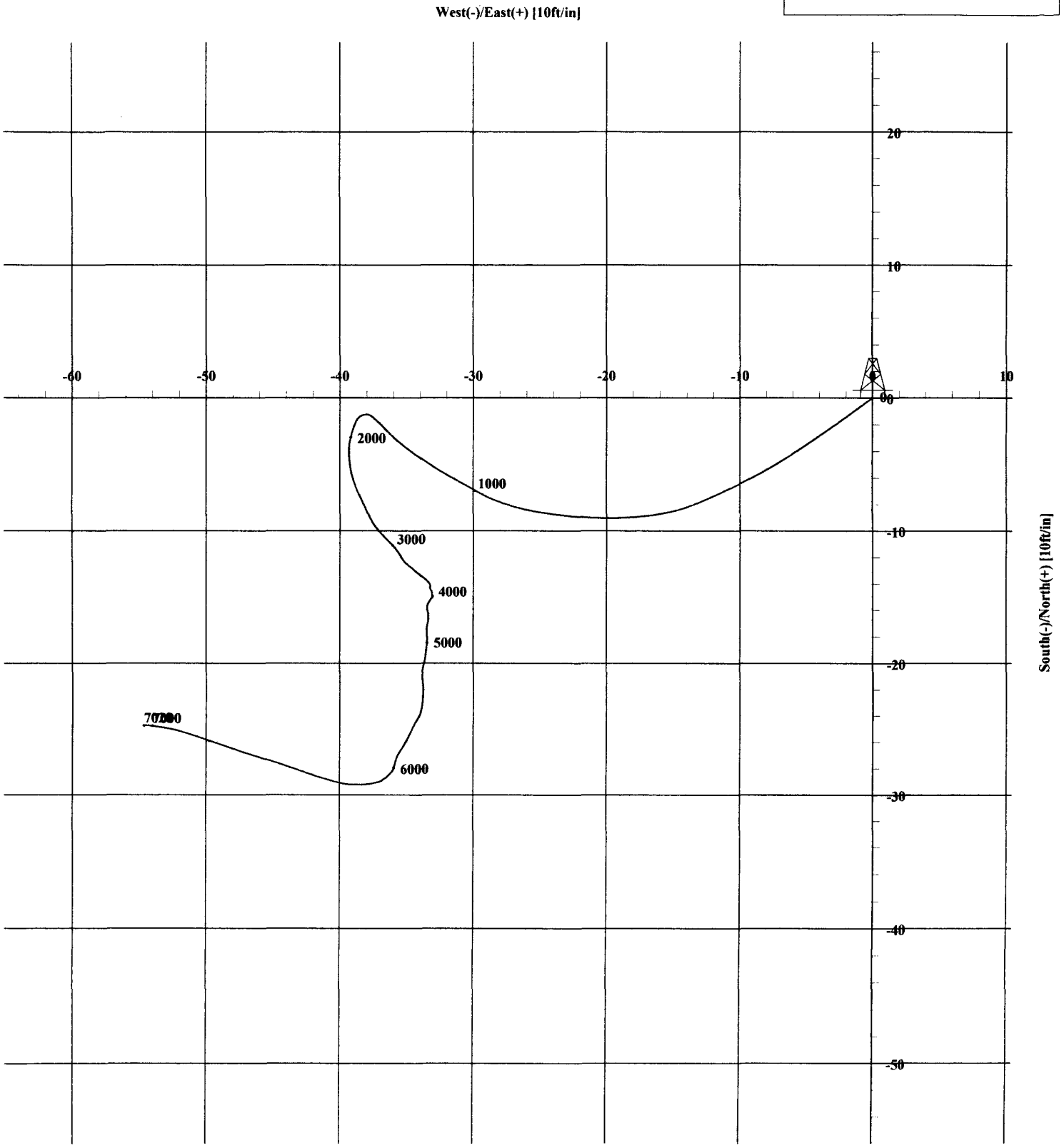
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.39	172.19	4899.27	-17.75	-17.75	-33.49	0.16	37.90	242.07
5000.00	0.44	185.32	4999.26	-18.47	-18.47	-33.48	0.11	38.24	241.11
5100.00	0.47	185.59	5099.26	-19.26	-19.26	-33.55	0.03	38.69	240.14
5200.00	0.66	194.92	5199.25	-20.23	-20.23	-33.74	0.21	39.34	239.06
5300.00	0.51	170.88	5299.25	-21.22	-21.22	-33.82	0.28	39.93	237.89
5400.00	0.57	181.93	5399.24	-22.16	-22.16	-33.77	0.12	40.39	236.72
5500.00	0.67	186.33	5499.24	-23.24	-23.24	-33.85	0.11	41.06	235.53
5600.00	0.58	212.30	5599.23	-24.25	-24.25	-34.18	0.29	41.91	234.65
5700.00	0.75	202.82	5699.23	-25.28	-25.28	-34.71	0.20	42.94	233.93
5800.00	0.76	213.86	5799.22	-26.43	-26.43	-35.33	0.15	44.12	233.20
5900.00	0.44	193.44	5899.21	-27.36	-27.36	-35.79	0.38	45.05	232.61
6000.00	0.27	197.64	5999.21	-27.95	-27.95	-35.95	0.17	45.54	232.13
6100.00	0.42	222.44	6099.21	-28.45	-28.45	-36.27	0.21	46.09	231.89
6200.00	0.46	240.62	6199.21	-28.92	-28.92	-36.87	0.14	46.85	231.89
6300.00	1.12	263.94	6299.20	-29.22	-29.22	-38.19	0.72	48.08	232.58
6400.00	1.48	285.08	6399.17	-28.98	-28.98	-40.41	0.59	49.73	234.35
6500.00	1.42	290.01	6499.14	-28.22	-28.22	-42.82	0.14	51.28	236.61
6600.00	1.29	287.85	6599.11	-27.45	-27.45	-45.05	0.14	52.76	238.64
6700.00	1.26	287.64	6699.09	-26.78	-26.78	-47.17	0.03	54.24	240.42
6800.00	1.40	289.54	6799.06	-26.03	-26.03	-49.37	0.15	55.81	242.20
6900.00	1.24	287.78	6899.03	-25.30	-25.30	-51.55	0.17	57.42	243.86
7000.00	1.68	277.49	6999.00	-24.77	-24.77	-54.04	0.51	59.44	245.37
7021.00	1.78	270.43	7019.99	-24.73	-24.73	-54.67	1.12	60.00	245.66

Scientific Drilling

Field: Carlsbad
Site: Eddy County, NM
Well: Mule 24 Fed #2
Wellpath: VH - Job #32K1106914
Survey: 11/09/06





Pathfinder Energy
Survey Report

Company:	Marbob Energy	**Date:** 12/7/2006 **Time:** 10:12:54	**Page:** 1
Field:	Mule	**Co-ordinate(NE) Reference:**	Site: Mule 24 #2, True North
Site:	Mule 24 #2	**Vertical (TVD) Reference:**	System: Mean Sea Level
Well:	Mule 24 #2	**Section (VS) Reference:**	Well (0.00N,0.00E,90.00Azi)
Wellpath:	Original Hole	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Field: Mule
Eddy County, New Mexico

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:**	igrf2005

Site: Mule 24 #2
Eddy County, New Mexico
Section 24; T24S; R25E

Site Position:		**Northing:**	438068.45 ft	**Latitude:**	32 12 15.720 N
From:	Geographic	**Easting:**	496169.77 ft	**Longitude:**	104 20 44.580 W
Position Uncertainty:	0.00 ft			**North Reference:**	True
Ground Level:	0.00 ft			**Grid Convergence:**	-0.01 deg

Well: Mule 24 #2
Slant Well

Well Position:	+N/-S	0.00 ft	**Northing:**	438068.45 ft	**Latitude:**	32 12 15.720 N
	+E/-W	0.00 ft	**Easting :**	496169.77 ft	**Longitude:**	104 20 44.580 W
Position Uncertainty:		0.00 ft				

Slot Name:

Wellpath: Original Hole
Slant well

Current Datum:	Mean Sea Level	**Height** 0.00 ft	**Drilled From:** Surface
Magnetic Data:	11/9/2006		**Tie-on Depth:** 0.00 ft
Field Strength:	49017 nT		**Above System Datum:** Mean Sea Level
			Declination: 8.47 deg
			Mag Dip Angle: 60.15 deg

Vertical Section: Depth From (TVD) ft	+N/-S ft	+E/-W ft	**Direction** deg
0.00	0.00	0.00	90.00

Survey:	Pathfinder MWD Surveys	**Start Date:**	11/13/2006
Company:	Pathfinder Energy	**Engineer:**	Midwellplan
Tool:		**Tied-to:**	From: Definitive Path

Survey: Pathfinder MWD Surveys

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
7000.00	1.68	277.48	6999.00	-24.78	-54.03	-54.03	0.00	0.00	0.00	Tie In to Gyro
7055.00	0.35	335.87	7053.99	-24.52	-54.90	-54.90	2.77	-2.42	106.16	Begin PathFinder MWD Surv
7116.00	4.48	83.54	7114.93	-24.08	-52.61	-52.61	7.54	6.77	176.51	
7147.00	4.75	84.33	7145.83	-23.82	-50.13	-50.13	0.89	0.87	2.55	
7178.00	4.57	85.91	7176.73	-23.61	-47.62	-47.62	0.71	-0.58	5.10	
7210.00	4.31	86.18	7208.63	-23.44	-45.15	-45.15	0.82	-0.81	0.84	
7241.00	4.13	84.15	7239.55	-23.24	-42.88	-42.88	0.75	-0.58	-6.55	
7271.00	4.31	87.58	7269.47	-23.09	-40.67	-40.67	1.03	0.60	11.43	
7302.00	4.48	88.72	7300.37	-23.01	-38.30	-38.30	0.62	0.55	3.68	
7333.00	5.36	88.37	7331.26	-22.94	-35.64	-35.64	2.84	2.84	-1.13	
7364.00	5.63	89.34	7362.12	-22.88	-32.67	-32.67	0.92	0.87	3.13	
7394.00	5.28	89.25	7391.98	-22.85	-29.82	-29.82	1.17	-1.17	-0.30	
7426.00	5.19	91.62	7423.85	-22.87	-26.90	-26.90	0.73	-0.28	7.41	
7458.00	6.51	89.34	7455.68	-22.89	-23.64	-23.64	4.19	4.12	-7.12	
7489.00	7.74	87.67	7486.44	-22.78	-19.80	-19.80	4.02	3.97	-5.39	
7520.00	8.79	85.91	7517.12	-22.53	-15.35	-15.35	3.48	3.39	-5.68	
7549.00	10.11	85.30	7545.72	-22.16	-10.60	-10.60	4.56	4.55	-2.10	
7581.00	11.70	85.21	7577.15	-21.66	-4.57	-4.57	4.97	4.97	-0.28	
7613.00	11.70	84.77	7608.48	-21.10	1.89	1.89	0.28	0.00	-1.37	
7644.00	10.99	85.21	7638.87	-20.56	7.97	7.97	2.31	-2.29	1.42	
7675.00	11.43	85.30	7669.28	-20.06	13.97	13.97	1.42	1.42	0.29	
7706.00	12.05	83.01	7699.63	-19.42	20.25	20.25	2.50	2.00	-7.39	
7737.00	12.57	80.81	7729.92	-18.49	26.79	26.79	2.26	1.68	-7.10	
7768.00	11.96	80.02	7760.21	-17.39	33.28	33.28	2.04	-1.97	-2.55	

Pathfinder Energy
Survey Report

Company: Marbob Energy
Field: Mule
Site: Mule 24 #2
Well: Mule 24 #2
Wellpath: Original Hole

Date: 12/7/2006 **Time:** 10:12:54 **Page:** 2
Co-ordinate(NE) Reference: Site: Mule 24 #2, True North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,90.00Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: Pathfinder MWD Surveys

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
7799.00	11.61	79.67	7790.56	-16.27	39.51	39.51	1.15	-1.13	-1.13	
7832.00	11.52	80.55	7822.89	-15.14	46.03	46.03	0.60	-0.27	2.67	
7863.00	11.34	79.76	7853.28	-14.09	52.08	52.08	0.77	-0.58	-2.55	
7894.00	10.99	80.73	7883.69	-13.07	58.00	58.00	1.28	-1.13	3.13	
7925.00	10.64	81.43	7914.14	-12.17	63.75	63.75	1.21	-1.13	2.26	
7955.00	11.08	82.22	7943.60	-11.37	69.34	69.34	1.55	1.47	2.63	
7987.00	11.78	83.63	7974.97	-10.59	75.63	75.63	2.36	2.19	4.41	
8017.00	11.78	83.10	8004.33	-9.88	81.72	81.72	0.36	0.00	-1.77	
8049.00	12.22	84.86	8035.64	-9.18	88.33	88.33	1.79	1.37	5.50	
8080.00	11.87	85.91	8065.95	-8.66	94.78	94.78	1.33	-1.13	3.39	
8111.00	11.78	85.91	8096.29	-8.21	101.12	101.12	0.29	-0.29	0.00	
8142.00	12.22	86.26	8126.62	-7.77	107.55	107.55	1.44	1.42	1.13	
8173.00	11.87	85.47	8156.93	-7.30	114.00	114.00	1.25	-1.13	-2.55	
8204.00	11.43	86.53	8187.30	-6.87	120.24	120.24	1.58	-1.42	3.42	
8235.00	10.90	85.91	8217.71	-6.47	126.23	126.23	1.75	-1.71	-2.00	
8266.00	11.43	85.65	8248.12	-6.03	132.22	132.22	1.72	1.71	-0.84	
8298.00	11.17	84.94	8279.50	-5.51	138.47	138.47	0.92	-0.81	-2.22	
8329.00	11.70	85.03	8309.89	-4.98	144.59	144.59	1.71	1.71	0.29	
8360.00	11.70	85.38	8340.24	-4.45	150.86	150.86	0.23	0.00	1.13	
8391.00	11.52	85.74	8370.61	-3.97	157.08	157.08	0.63	-0.58	1.16	
8422.00	11.17	84.68	8401.00	-3.46	163.15	163.15	1.31	-1.13	-3.42	
8453.00	11.17	85.21	8431.42	-2.93	169.13	169.13	0.33	0.00	1.71	
8484.00	11.08	84.15	8461.83	-2.38	175.09	175.09	0.72	-0.29	-3.42	
8515.00	10.82	84.59	8492.27	-1.80	180.95	180.95	0.88	-0.84	1.42	
8546.00	10.55	85.12	8522.73	-1.28	186.67	186.67	0.93	-0.87	1.71	
8577.00	11.34	83.98	8553.17	-0.72	192.53	192.53	2.64	2.55	-3.68	
8607.00	11.61	84.59	8582.57	-0.13	198.47	198.47	0.99	0.90	2.03	
8638.00	11.52	85.56	8612.94	0.41	204.66	204.66	0.69	-0.29	3.13	
8670.00	11.17	85.38	8644.31	0.90	210.94	210.94	1.10	-1.09	-0.56	
8701.00	10.82	86.09	8674.74	1.34	216.83	216.83	1.21	-1.13	2.29	
8732.00	11.26	85.38	8705.17	1.78	222.75	222.75	1.49	1.42	-2.29	
8762.00	10.99	85.47	8734.61	2.25	228.52	228.52	0.90	-0.90	0.30	
8793.00	10.90	84.86	8765.04	2.74	234.39	234.39	0.47	-0.29	-1.97	
8824.00	11.43	84.15	8795.46	3.32	240.36	240.36	1.77	1.71	-2.29	
8856.00	11.43	83.54	8826.82	4.00	246.67	246.67	0.38	0.00	-1.91	
8887.00	11.08	84.07	8857.22	4.65	252.68	252.68	1.18	-1.13	1.71	
8917.00	10.64	83.36	8886.69	5.27	258.30	258.30	1.53	-1.47	-2.37	
8980.00	10.90	85.12	8948.58	6.45	270.01	270.01	0.67	0.41	2.79	
9041.00	11.87	84.07	9008.38	7.59	282.00	282.00	1.63	1.59	-1.72	
9105.00	9.85	86.00	9071.23	8.65	294.01	294.01	3.21	-3.16	3.02	
9167.00	9.15	85.91	9132.38	9.37	304.22	304.22	1.13	-1.13	-0.15	
9230.00	12.22	75.89	9194.28	11.35	315.68	315.68	5.68	4.87	-15.90	
9294.00	11.70	72.20	9256.89	14.99	328.43	328.43	1.44	-0.81	-5.77	
9357.00	10.29	74.13	9318.74	18.48	339.93	339.93	2.31	-2.24	3.06	
9420.00	10.11	87.58	9380.75	20.25	350.87	350.87	3.78	-0.29	21.35	
9483.00	13.28	87.76	9442.43	20.77	363.62	363.62	5.03	5.03	0.29	
9547.00	11.26	88.55	9504.97	21.22	377.22	377.22	3.17	-3.16	1.23	
9610.00	11.26	99.18	9566.76	20.39	389.44	389.44	3.29	0.00	16.87	
9673.00	11.78	98.83	9628.49	18.42	401.86	401.86	0.83	0.83	-0.56	
9736.00	11.52	92.89	9690.20	17.12	414.50	414.50	1.95	-0.41	-9.43	
9799.00	10.38	95.40	9752.05	16.27	426.44	426.44	1.96	-1.81	3.98	
9863.00	11.61	93.65	9814.87	15.31	438.60	438.60	1.99	1.92	-2.73	
9926.00	12.31	93.56	9876.51	14.49	451.63	451.63	1.11	1.11	-0.14	

Pathfinder Energy
Survey Report

Company:	Marbob Energy	**Date:** 12/7/2006 **Time:** 10:12:54	**Page:** 3
Field:	Mule	**Co-ordinate(NE) Reference:**	Site: Mule 24 #2, True North
Site:	Mule 24 #2	**Vertical (TVD) Reference:**	System: Mean Sea Level
Well:	Mule 24 #2	**Section (VS) Reference:**	Well (0.00N,0.00E,90.00Azi)
Wellpath:	Original Hole	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey: Pathfinder MWD Surveys

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
9990.00	12.57	90.22	9939.00	14.04	465.41	465.41	1.20	0.41	-5.22	
10053.00	11.70	91.89	10000.60	13.81	478.65	478.65	1.49	-1.38	2.65	
10117.00	13.19	85.74	10063.09	14.13	492.42	492.42	3.11	2.33	-9.61	
10180.00	13.01	83.98	10124.45	15.41	506.64	506.64	0.69	-0.29	-2.79	
10244.00	11.34	85.12	10187.01	16.70	520.07	520.07	2.64	-2.61	1.78	
10307.00	10.90	87.14	10248.83	17.53	532.19	532.19	0.93	-0.70	3.21	
10370.00	11.26	88.37	10310.65	18.00	544.29	544.29	0.68	0.57	1.95	
10408.00	11.17	89.34	10347.93	18.15	551.68	551.68	0.55	-0.24	2.55	
10471.00	12.84	85.65	10409.55	18.75	564.76	564.76	2.92	2.65	-5.86	
10535.00	12.57	84.24	10471.98	19.99	578.78	578.78	0.64	-0.42	-2.20	
10598.00	11.52	81.69	10533.60	21.58	591.83	591.83	1.87	-1.67	-4.05	
10661.00	10.20	80.89	10595.47	23.38	603.56	603.56	2.11	-2.10	-1.27	
10725.00	10.64	82.22	10658.41	25.07	615.01	615.01	0.78	0.69	2.08	
10788.00	9.23	89.85	10720.47	25.87	625.83	625.82	3.06	-2.24	12.11	
10852.00	11.26	82.22	10783.45	26.73	637.15	637.15	3.81	3.17	-11.92	
10915.00	11.08	81.87	10845.25	28.42	649.24	649.24	0.31	-0.29	-0.56	
10979.00	11.52	80.99	10908.01	30.29	661.64	661.64	0.74	0.69	-1.37	
11042.00	10.90	83.54	10969.81	31.95	673.77	673.77	1.26	-0.98	4.05	
11105.00	10.20	86.18	11031.75	32.99	685.25	685.25	1.35	-1.11	4.19	
11168.00	10.99	77.03	11093.68	34.71	696.67	696.67	2.95	1.25	-14.52	
11232.00	10.38	75.45	11156.57	37.53	708.20	708.20	1.06	-0.95	-2.47	
11295.00	9.94	77.30	11218.58	40.15	719.00	719.00	0.87	-0.70	2.94	
11357.00	10.55	78.70	11279.59	42.44	729.78	729.78	1.06	0.98	2.26	
11420.00	10.73	83.98	11341.51	44.18	741.27	741.27	1.57	0.29	8.38	
11483.00	11.52	86.18	11403.32	45.22	753.38	753.38	1.42	1.25	3.49	
11547.00	11.70	85.65	11466.01	46.13	766.23	766.23	0.33	0.28	-0.83	
11610.00	10.82	85.12	11527.80	47.12	778.49	778.49	1.41	-1.40	-0.84	
11674.00	10.38	83.19	11590.71	48.32	790.20	790.20	0.88	-0.69	-3.02	
11737.00	10.90	83.01	11652.62	49.71	801.75	801.75	0.83	0.83	-0.29	
11800.00	10.46	86.44	11714.53	50.79	813.37	813.37	1.23	-0.70	5.44	
11864.00	11.34	80.11	11777.38	52.24	825.36	825.36	2.32	1.37	-9.89	
11927.00	10.46	83.63	11839.24	53.93	837.15	837.15	1.75	-1.40	5.59	
11990.00	11.34	88.64	11901.11	54.72	849.03	849.03	2.05	1.40	7.95	
12054.00	9.67	90.13	11964.03	54.85	860.69	860.69	2.64	-2.61	2.33	
12117.00	11.17	82.48	12026.00	55.64	872.04	872.03	3.23	2.38	-12.14	
12180.00	11.61	83.80	12087.76	57.12	884.39	884.39	0.81	0.70	2.10	
12244.00	11.34	90.13	12150.48	57.80	897.08	897.08	2.01	-0.42	9.89	
12307.00	11.96	90.22	12212.18	57.76	909.80	909.80	0.98	0.98	0.14	
12371.00	9.85	89.16	12275.02	57.82	921.91	921.91	3.31	-3.30	-1.66	
12434.00	11.43	86.70	12336.94	58.26	933.53	933.53	2.61	2.51	-3.90	
12497.00	11.87	92.15	12398.64	58.37	946.24	946.24	1.88	0.70	8.65	
12561.00	11.78	91.27	12461.28	57.98	959.35	959.35	0.31	-0.14	-1.37	
12624.00	11.26	92.50	12523.01	57.57	971.92	971.92	0.91	-0.83	1.95	
12648.00	11.17	94.61	12546.55	57.28	976.58	976.58	1.75	-0.37	8.79	Last PathFinder MWD Surve
12700.00	11.17	94.61	12597.57	56.47	986.62	986.62	0.00	0.00	0.00	Projection to Bit

Annotation

MD ft	TVD ft	
7000.00	6999.00	Tie In to Gyro
7055.00	7053.99	Begin PathFinder MWD Surveys
12648.00	12546.55	Last PathFinder MWD Survey
12700.00	12597.57	Projection to Bit

MARBOB ENERGY

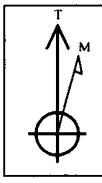
PATHFINDER ENERGY SERVICES

Field: Mule
Site: Mule 24 #2
Well: Mule 24 #2
Wellpath: Original Hole
Survey: Pathfinder MWD Surveys

COMPANY DETAILS

Marbob Energy
2208 W. Main St.
Artesia, New Mexico

Calculation Method: Minimum Curvature
Error System: Systematic Ellipse
Scan Method: Closest Approach 3D
Error Surface: Elliptical Conic
Warning Method: Error Ratio



Azimuths to True North
Magnetic North: 8.47°

Magnetic Field
Strength: 49017nT
Dip Angle: 60.15°
Date: 11/9/2006
Model: igrf2005

FIELD DETAILS

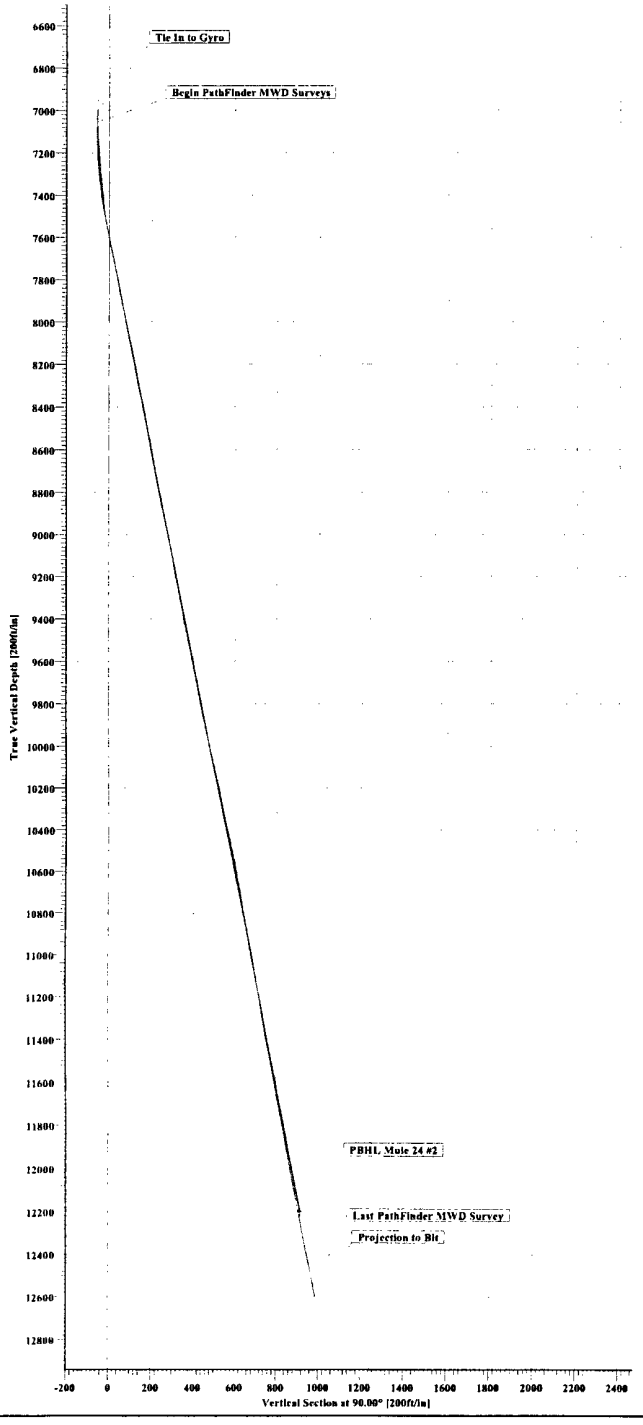
Mule
Eddy County, New Mexico

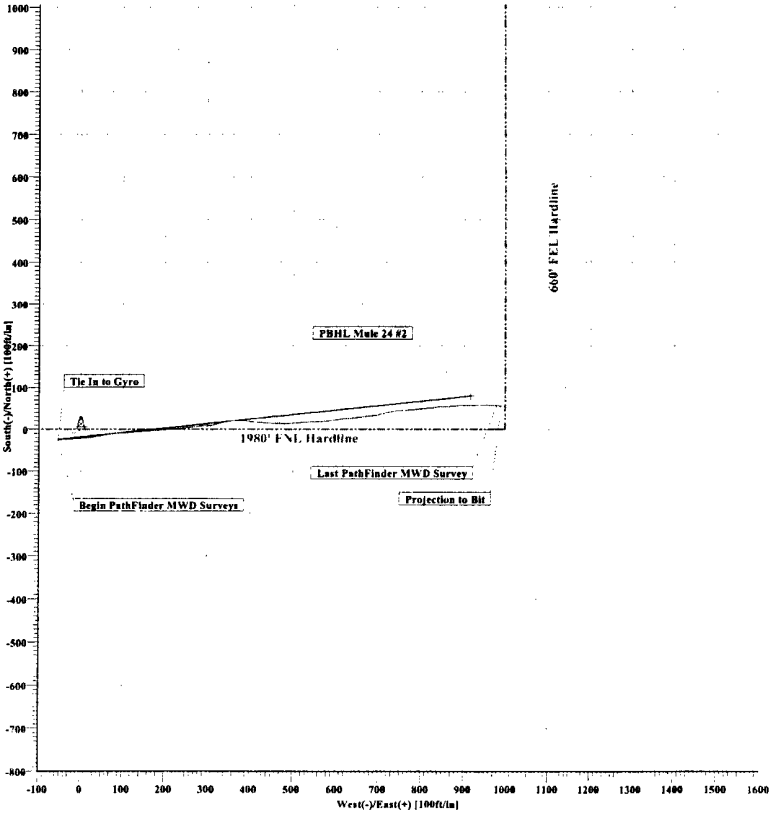
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: True North

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Mule 24 #2	0.00	0.00	438068.45	496169.77	32°12'15.720N	104°20'44.580W	N/A





LEGEND

Mule 24 #2,Original Hole,Plan #1 3-21-06
Original Hole
Pathfinder MWD Surveys

Arrant, Bryan, EMNRD

From: Arrant, Bryan, EMNRD
Sent: Tuesday, April 24, 2007 8:14 AM
To: 'Nancy Bratcher'
Subject: Mule 24 Federal Com. # 2

rptWellboreDiagram
.snp (10 KB)...

i Nancy--can you cycle this over to Diana??
Thanks.

Hi Diana,
I have placed this well in the following pools.

Carlsbad; Morrow, South Gas Pool Code # 73960 for perforated depths of 11,309-11,458'.
Goar Corral; Atoka Gas Pool Code # 97606 for perforated depths of 10,952-11,100'.
Please submit C-102's that reflect the changes.
In picking geological tops for this well, I worked on an offset well directly to the east. This well is the Gulf Energy & Minerals Co. U.S., Estill 'AD' Federal # 1. Located in 19-24-26.
The tops for this well are:

Penn	9905
Strawn	10082
Atoka	10430
Morrow ls	10985
Morrow cl	11245
Barnett	11540

If Brent or Martin have any questions or comments, please advise.
Our phones do not work at this time.
I'll be happy to come over and show them what I have come up with.
See ya,
Bryan

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

Month - Year
APR 16 2007
OCD - ARTESIA, NM

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Marbob Energy Corporation PO Box 227 Artesia, NM 88211-0227	14049
	[3] Reason for Filing Code/ Effective Date NW

[4] API Number	[5] Pool Name	[6] Pool Code
30 – 015-21203	Carls bad; Morrow, South	73960
[7] Property Code	[8] Property Name	[9] Well Number
73960	Mule 24 Federal Com	2

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	24	24S	25E		1980	North	1656	East	Eddy

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	24	24S	25E		1923	North	669	East	Eddy

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
F	F	3/14/07			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
209700	BP America Production Co. 501 Westlake Park Blvd, Suite 4.550 Houston, TX 77079	O-4010495
147831	Agave Energy Company 105 S. 4th Street Artesia, NM 88210	G-4010494

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
11/2/06	3/13/07	12700'	11665'	11309' – 11458'	DHC-3868

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
15"	10 ¾"	2668'	1900 sx
9 ½"	7"	6989'	1400 sx
6 1/8"	4 ½"	12648'	485 sx
	2 3/8"	10867'	

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
3/14/07	3/14/07	3/16/07	24 hrs	650#	
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
8/64"	0	0	168		F

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Diana J. Briggs

Printed name: Diana J. Briggs

Title: Production Analyst

E-mail Address: production@marbob.com

Date: 4/17/07

Phone: (505) 748-3303

OIL CONSERVATION DIVISION

Approved by: BRYAN G. ARRANT

Title: DISTRICT II GEOLOGIST

Approval Date: APR 2 3 2007

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised Feb. 26, 2007

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

Month - Year APR 19 2007 RECEIVED ARTESIA, NM

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Marbob Energy Corporation PO Box 227 Artesia, NM 88211-0227	14049
	[3] Reason for Filing Code/ Effective Date NW

[4] API Number	[5] Pool Name	[6] Pool Code
30 – 015-21203	Goar Cerral; Atoka	97666
[7] Property Code	[8] Property Name	[9] Well Number
73960	Mule 24 Federal Com	2

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	24	24S	25E		1980	North	1656	East	Eddy

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	24	24S	25E		1923	North	669	East	Eddy

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
F	F	3/14/07			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
209700	BP America Production Co. 501 Westlake Park Blvd, Suite 4.550 Houston, TX 77079	O-4010495
147831	Agave Energy Company 105 S. 4th Street Artesia, NM 88210	G-4010494

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
11/2/06	3/13/07	12700'	11665'	10952' – 11100'	DHC-3868

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
15"	10 ¾"	2668'	1900 sx
9 ½"	7"	6989'	1400 sx
6 1/8"	4 ½"	12648'	485 sx
	2 3/8"	10867'	

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
3/14/07	3/14/07	3/16/07	24 hrs	650#	
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
8/64"	0	9	197		F

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Diana J. Briggs

Printed name: Diana J. Briggs

Title: Production Analyst

E-mail Address: production@marbob.com

Date: 4/17/07

Phone: (505) 748-3303

OIL CONSERVATION DIVISION

Approved by: BRYAN G. ARRANT

Title: DISTRICT II GEOLOGIST

Approval Date: APR 23 2007