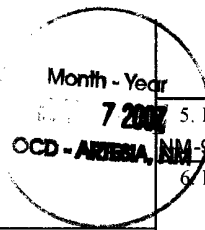




UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

E#-660
OCD-ARTESIA



ATS-07-371

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. High Net Federal 1 34482
2. Name of Operator Marbob Energy Corporation 14049		9. API Well No. 30-015-35602
3a. Address P.O. Box 227, Artesia, NM 88211-0227	3b. Phone No. (include area code) 505-748-3303	10. Field and Pool, or Exploratory Willow State, Delaware
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 100' FNL & 2140' FEL At proposed prod. zone 2500' FNL & 2140' FEL CARLSBAD CONTROLLED WATER BASIN		11. Sec., T., R., M., or Blk. and Survey or Area Section 2, T25S - R28E
14. Distance in miles and direction from nearest town or post office*		12. County or Parish Eddy County
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		13. State NM
16. No. of Acres in lease	17. Spacing Unit dedicated to this well 80	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 6800'	20. BLM/BIA Bond No. on file NM-2056-1215000412 15A
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2960'	22. Approximate date work will start* April 19, 2007	23. Estimated duration 21 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed Typed) William Miller	Date 3/19/07
Title Land Department		
Approved by (Signature) /s/ James Stovall	Name (Printed Typed)	Date MAY 03 2007
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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.

*(Instructions on reverse)

NSL-5604

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED**

If earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.

State of New Mexico

DISTRICT I

1026 N. FRENCH DR., HOUSTON, NM 88240

Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

100 - 5604

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name HIGH NET FEDERAL	Well Number 1
OGRID No.	Operator Name MARBOB ENERGY CORPORATION	Elevation 2960

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	2	25-S	28-E		100	NORTH	2140	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	2	25-S	28-E		2500	NORTH	2140	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
80			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>LOT 4 DETAIL 2964.4' 2957.7' 600' 2962.0' 2956.5'</p>	<p>LOT 3 LOT 2 LOT 1 2140' 100' FNL & 2140' FEL PROJECT AREA PRODUCING AREA B.H. 2140'</p>	<p>OPERATOR CERTIFICATION <i>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> Signature _____ Date _____ Printed Name _____</p>
<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=424262.7 N X=585880.4 E LAT.=32.166111° N LONG.=104.055794° W</p>	<p>BOTTOM HOLE LOCATION Y=421863.3 N X=585872.9 E</p>	<p>SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> JANUARY 1, 2007 Date Surveyed REVISION DATE: 3/15/07 Signature & Seal of Professional Surveyor _____ GARY EIDSON 3/15/07 07.13.0335 Certificate No. GARY EIDSON 12841 RONALD J. EIDSON 3239</p>

Pathfinder Energy Planning Report

Company: Marbob Energy				Date: 3/20/2007		Time: 12:39:55		Page: 1	
Field: High Net Federal #1				Co-ordinate(NE) Reference Site: High Net Federal #1, Grid North					
Site: High Net Federal #1				Vertical (TVD) Reference SITE: 0.0					
Well: High Net Federal #1				Section (VS) Reference: Well (0.00N,0.00E,180.18Azi)					
Wellpath: OH				Plan:		Plan #1 3-20-07			

Field: High Net Federal #1			
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: High Net Federal #1			
Site Position:	Northing: 424262.70 ft	Latitude: 32 9 57.998 N	
From: Map	Easting: 585880.40 ft	Longitude: 104 3 20.858 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 2960.00 ft		Grid Convergence: 0.15 deg	

Well: High Net Federal #1				Slot Name:			
Well Position: +N/-S 0.00 ft	Northing: 424262.70 ft	Latitude: 32 9 57.998 N		+E/-W 0.00 ft	Easting : 585880.40 ft	Longitude: 104 3 20.858 W	
Position Uncertainty: 0.00 ft							

Wellpath: OH				Drilled From: Surface			
Current Datum: SITE		Height 0.00 ft	Tie-on Depth: 0.00 ft	Above System Datum: Mean Sea Level			
Magnetic Data: 3/20/2007			Declination: 8.29 deg				
Field Strength: 48994 nT			Mag Dip Angle: 60.16 deg				
Vertical Section: Depth From (TVD)		+N/-S	+E/-W	Direction			
ft		ft	ft	deg			
5000.00		0.00	0.00	180.18			

Plan: Plan #1 3-20-07				Date Composed: 3/20/2007			
				Version: 1			
Principal: No				Tied-to: From Surface			

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4522.54	0.00	0.00	4522.54	0.00	0.00	0.00	0.00	0.00	0.00	
5272.54	90.00	180.18	5000.00	-477.46	-1.49	12.00	12.00	-23.98	180.18	
7194.49	90.00	180.18	5000.00	-2399.40	-7.50	0.00	0.00	0.00	0.00	PBHL

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	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1400										

Pathfinder Energy

Planning Report

Company: Marbob Energy
Field: High Net Federal #1
Site: High Net Federal #1
Well: High Net Federal #1
Wellpath: OH

Date: 3/20/2007 **Time:** 12:39:55 **Page:** 2
Co-ordinate(NE) Reference: High Net Federal #1, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,180.18Azi)
Plan: Plan #1 3-20-07

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
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4522.54	0.00	0.00	4522.54	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 4522' MD/TVD
4600.00	9.30	180.18	4599.66	-6.27	-0.02	6.27	12.00	12.00	0.00	
4700.00	21.30	180.18	4695.94	-32.60	-0.10	32.60	12.00	12.00	0.00	
4800.00	33.30	180.18	4784.65	-78.37	-0.24	78.37	12.00	12.00	0.00	
4900.00	45.30	180.18	4861.89	-141.59	-0.44	141.59	12.00	12.00	0.00	
5000.00	57.30	180.18	4924.31	-219.48	-0.69	219.49	12.00	12.00	0.00	
5100.00	69.30	180.18	4969.17	-308.65	-0.96	308.66	12.00	12.00	0.00	
5200.00	81.30	180.18	4994.51	-405.20	-1.27	405.20	12.00	12.00	0.00	
5272.54	90.00	180.18	5000.00	-477.46	-1.49	477.47	12.00	12.00	0.00	EOC @ 5272' MD, 5000' TVD
5300.00	90.00	180.18	5000.00	-504.92	-1.58	504.92	0.00	0.00	0.00	
5400.00	90.00	180.18	5000.00	-604.92	-1.89	604.92	0.00	0.00	0.00	
5500.00	90.00	180.18	5000.00	-704.92	-2.20	704.92	0.00	0.00	0.00	
5600.00	90.00	180.18	5000.00	-804.92	-2.52	804.92	0.00	0.00	0.00	
5700.00	90.00	180.18	5000.00	-904.92	-2.83	904.92	0.00	0.00	0.00	
5800.00	90.00	180.18	5000.00	-1004.92	-3.14	1004.92	0.00	0.00	0.00	
5900.00	90.00	180.18	5000.00	-1104.92	-3.45	1104.92	0.00	0.00	0.00	
6000.00	90.00	180.18	5000.00	-1204.92	-3.77	1204.92	0.00	0.00	0.00	
6100.00	90.00	180.18	5000.00	-1304.92	-4.08	1304.92	0.00	0.00	0.00	
6200.00	90.00	180.18	5000.00	-1404.92	-4.39	1404.92	0.00	0.00	0.00	
6300.00	90.00	180.18	5000.00	-1504.92	-4.70	1504.92	0.00	0.00	0.00	
6400.00	90.00	180.18	5000.00	-1604.92	-5.02	1604.92	0.00	0.00	0.00	
6500.00	90.00	180.18	5000.00	-1704.92	-5.33	1704.92	0.00	0.00	0.00	
6600.00	90.00	180.18	5000.00	-1804.92	-5.64	1804.92	0.00	0.00	0.00	
6700.00	90.00	180.18	5000.00	-1904.92	-5.95	1904.92	0.00	0.00	0.00	

Pathfinder Energy

Planning Report

Company: Marbob Energy
Field: High Net Federal #1
Site: High Net Federal #1
Well: High Net Federal #1
Wellpath: OH

Date: 3/20/2007 **Time:** 12:39:55 **Page:** 3
Co-ordinate(NE) Reference: High Net Federal #1, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,180.18Azi)
Plan: Plan #1 3-20-07

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
6800.00	90.00	180.18	5000.00	-2004.92	-6.27	2004.92	0.00	0.00	0.00	
6900.00	90.00	180.18	5000.00	-2104.91	-6.58	2104.92	0.00	0.00	0.00	
7000.00	90.00	180.18	5000.00	-2204.91	-6.89	2204.92	0.00	0.00	0.00	
7100.00	90.00	180.18	5000.00	-2304.91	-7.20	2304.92	0.00	0.00	0.00	
7194.49	90.00	180.18	5000.00	-2399.40	-7.50	2399.41	0.00	0.00	0.00	PBHL

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
PBHL		5000.00	-2399.40	-7.50	421863.30	585872.90	32	9	34.253 N	104	3	21.018 W

Annotation

MD ft	TVD ft	
4522.54	4522.54	KOP @ 4522' MD/TVD
5272.54	5000.00	EOC @ 5272' MD, 5000' TVD

MARBOB

Field: High Net Federal #1
 Site: High Net Federal #1
 Well: High Net Federal #1
 Wellpath: OH
 Plan: Plan #1 3-20-07

PATHFINDER

SITE DETAILS

High Net Federal #1

Site Centre Northing: 424262.70
 Easting: 585880.40

Ground Level: 2960.00
 Positional Uncertainty: 0.00
 Convergence: 0.15

ANNOTATIONS

No.	TVD	MD	Annotation
1	4522.54	4522.54	KOP @ 4522' MD/TVD
2	5000.00	5272.54	EOC @ 5272' MD, 5000' TVD

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL	5000.00	-2399.40	-7.50	Point

SECTION DETAILS

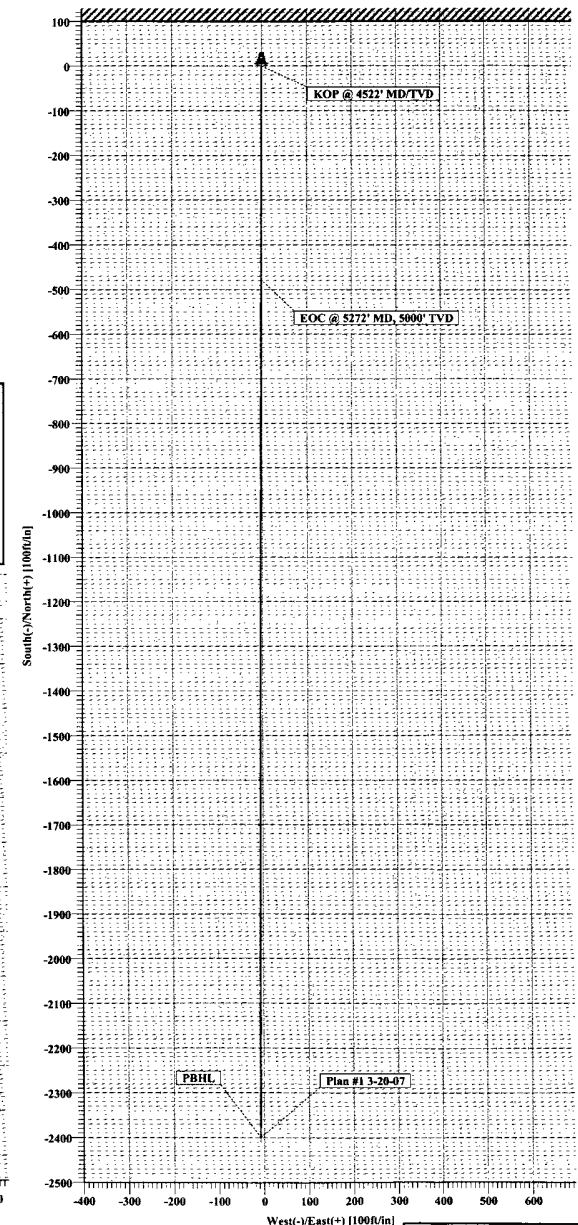
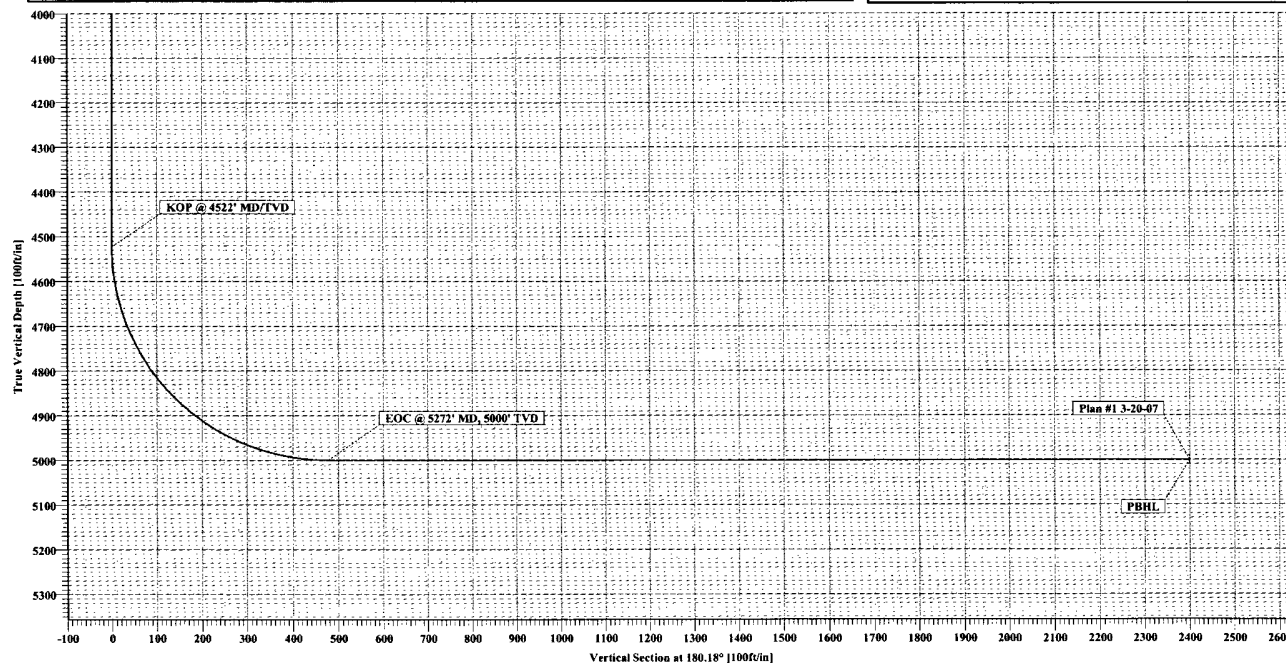
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4522.54	0.00	0.00	4522.54	0.00	0.00	0.00	0.00	0.00	
3	5272.54	90.00	180.18	5000.00	-477.46	-1.49	12.00	180.18	477.47	
4	7194.49	90.00	180.18	5000.00	-2399.40	-7.50	0.00	0.00	2399.41	PBHL

WELLPATH DETAILS

OH

Rig:
 Ref. Datum: SITE 0.00ft

V.Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
180.18°	0.00	0.00	5000.00



MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

High Net Federal #1
SHL: 100' FNL & 2140' FEL
BHL: 2500' FNL & 2140' FEL
Section 2, T25S, R28E
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

1. The geological surface formation is Permian.
2. The estimated tops of geologic markers are as follows:

Rustler	1100'
Top Salt	1300'
Bottom Salt	2400'
Delaware	2600'
Bone Springs	6100'

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Delaware	2600'	Oil
----------	-------	-----

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 600' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons 200' above.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade
12 1/4"	0-600'	9 5/8"	36#	J-55
8 3/4"	600-6800'	5 1/2"	17#	J-55

Proposed Cement Program:

9 5/8" Surface Casing: Cement w/ 500 sx. Circulate to surface.

5 1/2" Production Casing: Cement w/ 1500 sx. Tie into surface.

5. Pressure Control Equipment:

See Exhibit #1. Marbob proposes to nipple up on the 9 5/8" casing with a 2M system, testing it to 1000# with rig pumps.

6. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 – 600'	Fresh Water	8.5	28	N.C.
600 – 6800'	Brine	9.8-10.2	40-45	N.C.

7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.

8. Testing, Logging and Coring Program:

No drillstem tests are anticipated.

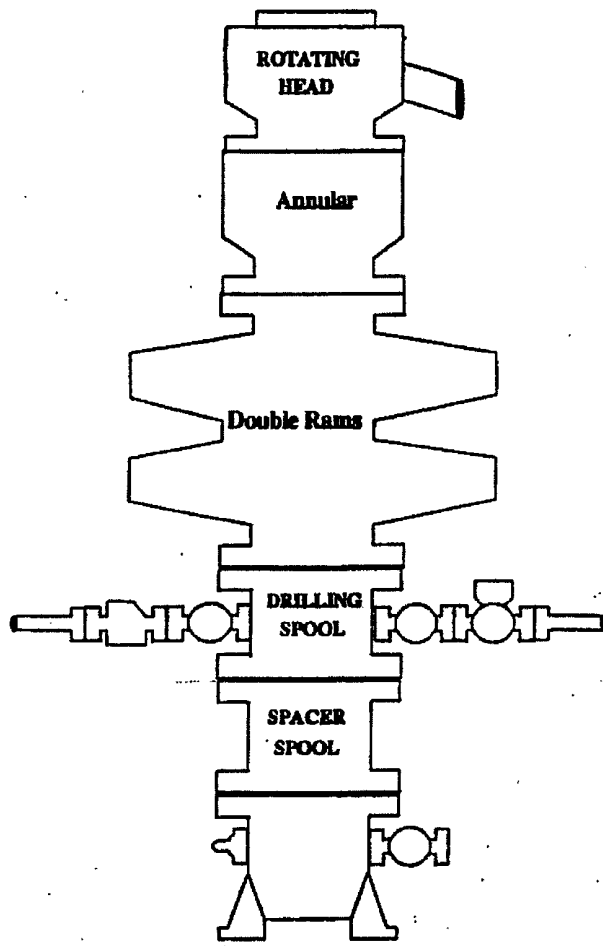
The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csg Log, and Depth Control Log.

No conventional coring is anticipated.

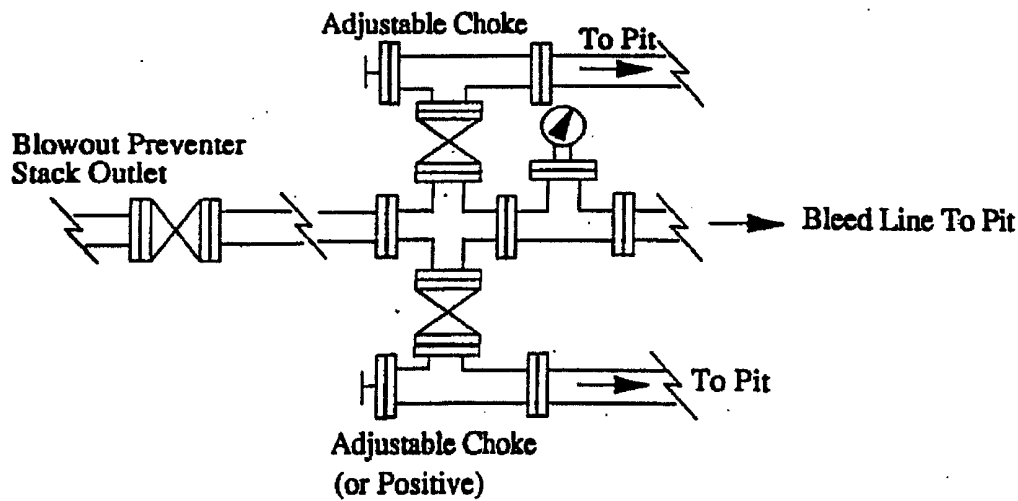
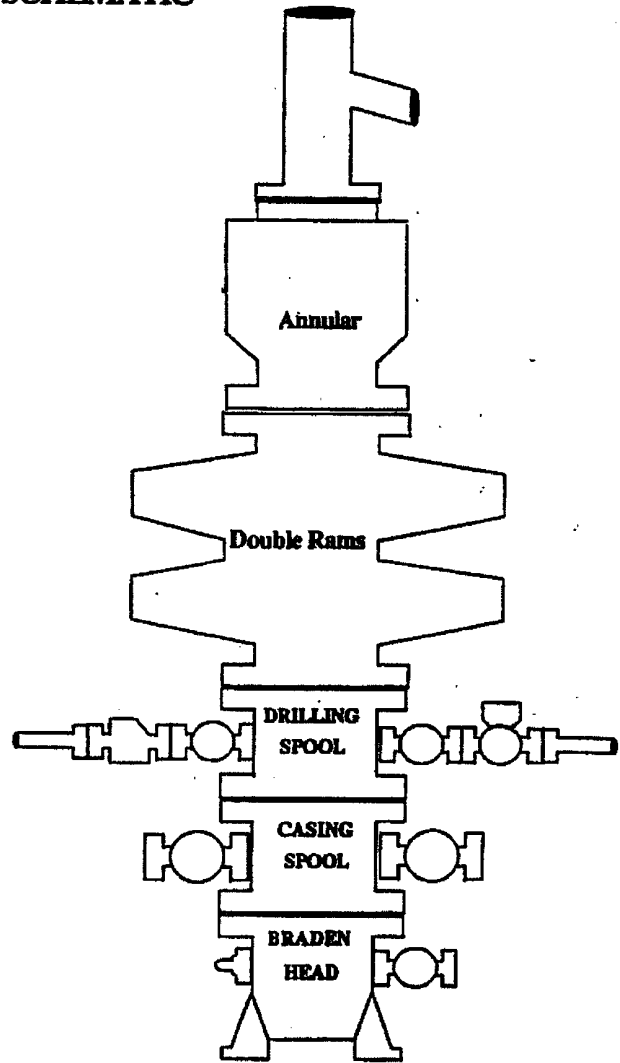
9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval.

BOPE SCHEMATIC



Choke Manifold



MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H₂S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H₂S detection and monitoring equipment:

2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

E. Mud Program:

The mud program has been designed to minimize the volume of H₂S circulated to the surface.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE**

MARBOB ENERGY CORPORATION

1-505-748-3303

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

High Net Federal #1
SHL: 100' FNL & 2140' FEL
BHL: 2500' FNL & 2140' FEL
Section 2, T25S, R28E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.

DIRECTIONS:

From the intersection of U.S. Highway # 285 and Eddy County Rd. #720, go south on U.S. Hwy #285 for approx. 4.1 mile. Turn left and go east approx. 0.8 miles. This location is approx. 25 feet south.

2. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Marbob Energy Corporation proposes a collection facility, if well is productive, to be located on High Net Federal #1 well pad.

3. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the lined pit.
- B. Drilling fluids will be allowed to evaporate in the lined pit until the pit is dry.
- C. Water produced during completion may be disposed into the lined reserve pit.
- D. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained to prevent scattering by the wind.

4. WELLSITE LAYOUT:

- A. Exhibit 3 shows the relative location and dimensions of the well pad, the pit.

Conditions of Approval Cave and Karst

EA#: NM 520-07-660

Lease #: NM-98813

**Marbob Energy Corporation
High Net Federal # 1, and High Net Federal # 2**

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone as identified in the geologic report.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater than 75 percent occur simultaneously while drilling in any cave-

bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Delayed Blasting:

Any blasting will be a phased and time delayed.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: MARBOB ENERGY CORPORATION
Well Name & No. 1 – HIGH NET FEDERAL
Location: 100' FNL & 2140' FEL – SEC 2 – T25S – R28E – EDDY – SHL
2500' FNL & 2140' FEL – SEC 2 – T25S – R28E – EDDY - BHL
Lease: NM-98813

I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Chaves and Roosevelt Counties call the Roswell Field Office, 2909 West Second St., Roswell NM 88201. During office hours call (505) 627-0258. After office hours call (505) 200-7902
 - Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
 - Lea County call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612
 - Engineers can be reached at (505) 706-2779 for any variances that might be necessary
- B. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the Delaware Formation at approximately 2600 feet.
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

II. CASING:

- A. The 9-5/8 inch surface casing shall be set at 600 feet and cemented to the surface.
1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 4. If cement falls back, remedial action will be done prior to drilling out that string.
- B. The minimum required fill of cement behind the 5-1/2 inch production casing is tie back 200 feet into the 9-5/8 inch casing.

- C. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53.
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** PSI.
- C. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
1. The tests shall be done by an independent service company.
 2. The results of the test shall be reported to the appropriate BLM office.
 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 5. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

LBabyak 4/3/07

DISTRICT IV
1220 S. ST. FRANCES DR., SANTA FE, NM 87505

Energy, Minerals and Natural Resources Department

S

CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised June 10, 2003
Submitting Appropriate District Office
State Lease 4 Copies
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DEC 2003

AMENDED REPORT

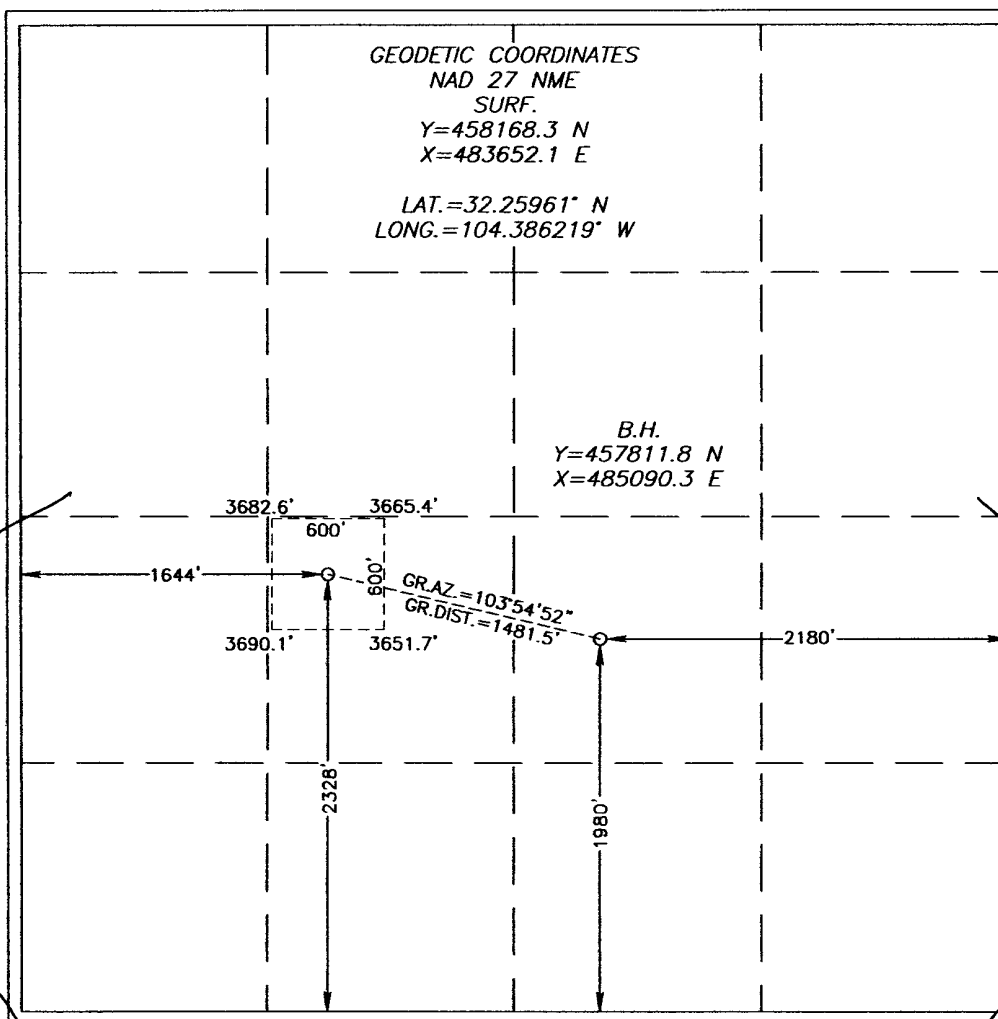
AMENDED REPORT

API Number 30-015-21656		Pool Code 68680	Pool Name Undesignated Horseshoe Bend; Morrow (Gas)
Property Code 35934	Property Name GARDNER 34 FEDERAL		Well Number 1
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING, INC.		Elevation 3677'

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	34	23-S	25-E		2328	SOUTH	1644	WEST	EDDY

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	34	23-S	25-E		1980	SOUTH	2180	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			



I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

Brenda Coffman

Signature

Brenda Coffman

Printed Name _____

Regulatory Analyst

Title

December 6, 2006

Date _____

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

NOVEMBER 7, 2005

Date Surveyed: _____

JR

Signature & Seal of Professional Surveyor

NEW JERSEY
05.11.1884

Certificate No. GARY EIDSON

12641