ATS-09-600 RM

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NMOCD ARTESIA

OCD-ARTESIA

Form 3160-3
(February 2005)

10-086

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work. ☑ DRILL ☐ REENTER	5 Lease Serial No. **SHL NM-055929, BHL NM-117121**
1b. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6 If Indian, Allotee or Tribe Name **N/A**
2 Name of Operator **Marbob Energy Corporation**	7 If Unit or CA Agreement, Name and No. **N/A**
3a Address **P.O. Box 227, Artesia, NM 88211-0228**	8. Lease Name and Well No. **Showstopper 19 Federal #4**
3b Phone No. *(include area code)* **575-748-3303**	9 API Well No. 30-015-37378
4. Location of Well *(Report location clearly and in accordance with any State requirements *)* At surface **660'FSL & 2310'FEL** At proposed prod zone 330FNL + 1980 FEL	10 Field and Pool, or Exploratory **Willow Lake, Bone Spring SE**
	11 Sec., T R. M. or Blk. and Survey or Area **Section 19, T25S-R29E**
14 Distance in miles and direction from nearest town or post office* **About 10 Miles South East of Malaga**	12 County or Parish **Eddy County** / 13 State **NM**

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) **330'**	16 No of acres in lease **SHL 639.330**	17 Spacing Unit dedicated to this well **160**
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft **N/A**	19 Proposed Depth 6250 **6750' TVD** (10347 MD Pilot hole 8200	20 BLM/BIA Bond No. on file **NMB000412**
21 Elevations (Show whether DF, KDB, RT, GL, etc.) **2909' GL**	22 Approximate date work will start* **10/18/2009**	23 Estimated duration **30 days**

24. Attachments

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

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

25 Signature Marissa Villa	Name *(Printed/Typed)* **Marissa Villa**	Date **09/18/2009**
Title **Land Department**		
Approved by *(Signature)* Owen Loftin for	Name *(Printed/Typed)* OWEN LOFTON	Date OCT 30 2009
Title Supervisor Multi-Resources	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 TWO YEARS

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 page 2)

Carlsbad Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Date: September 15, 2009

Lease #: SHL NM-055929, BHL NM-117121
Showstopper 19 Federal #4

Legal Description: Sec. 19-T25S-R29E
Eddy County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Marbob Energy Corporation

Marissa Villa
Land Department

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 and Natural Resources Department

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 EDDYse – 4 Copies
Fee EDDYse – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-37374	96217	WILLOW LAKE, BONE SPRING SE

Property Code	Property Name	Well Number
37899	SHOWSTOPPER 19 FEDERAL	4

OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	2909'

Surface Location

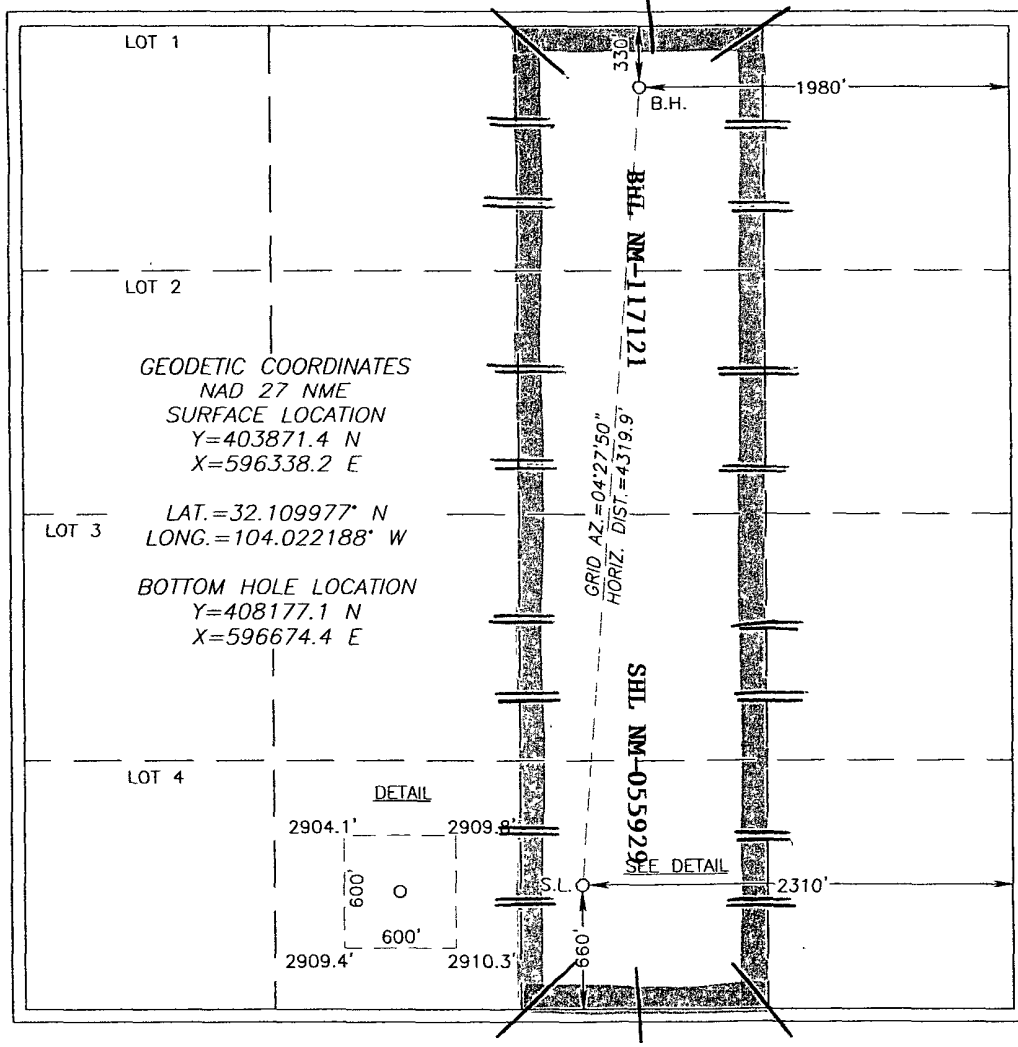
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	19	25-S	29-E		660	SOUTH	2310	EAST	EDDY

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
B	19	25-S	29-E		330	NORTH	1980	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



OPERATOR CERTIFICATION

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.

Signature 9/18/09 Date

MARISSA VILLA
Printed Name

SURVEYOR CERTIFICATION

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.

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

AUGUST 19, 2009

Date Surveyed LA REV 9/14/09

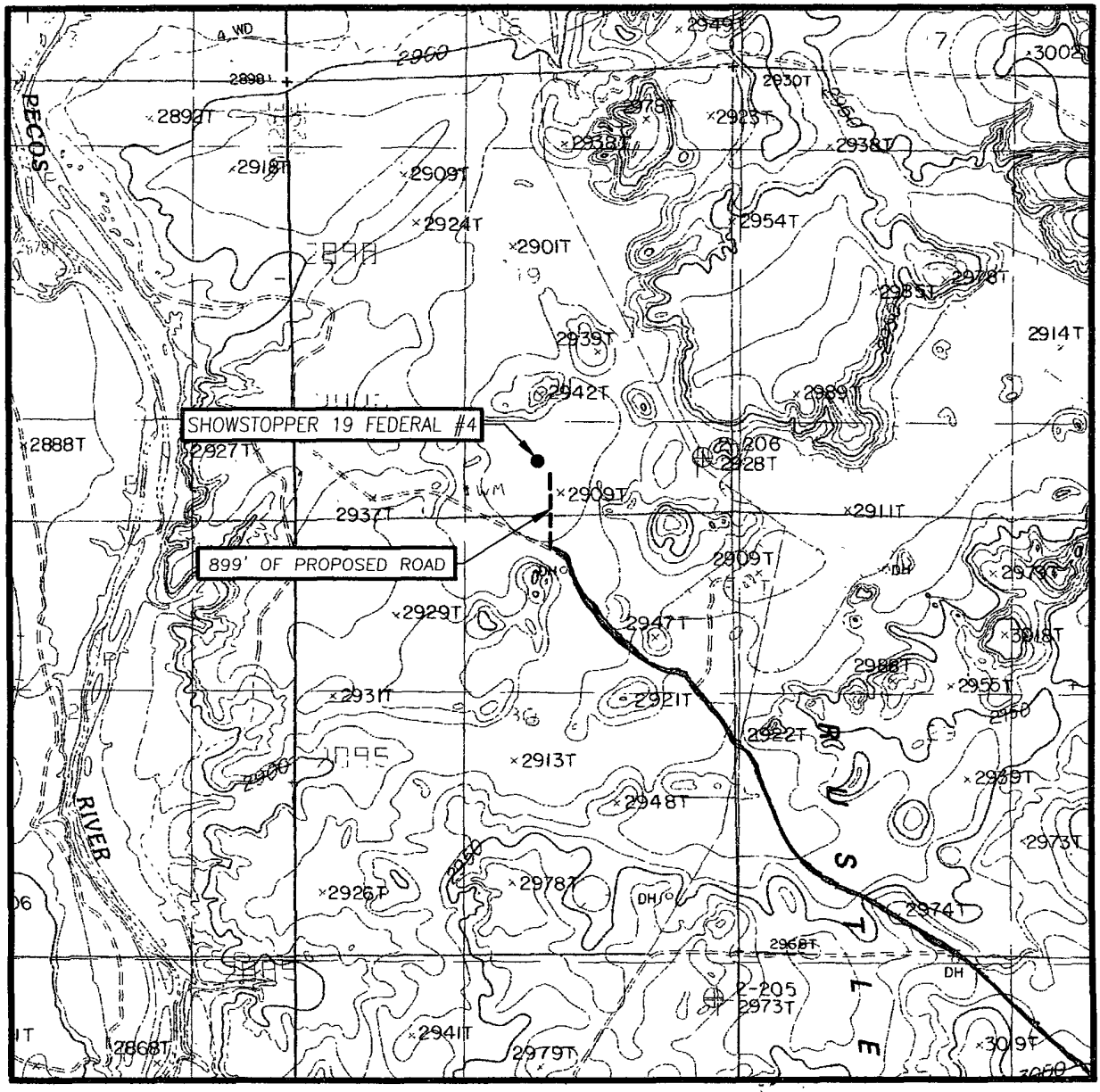
Signature & Seal of Professional Surveyor

Ronald J. Eidson 9.15.09

09.11.0734

Certificate No. GARY G. EIDSON 12641
RONALD J. EIDSON 3239

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
RED BLUFF, NM

SEC. 19 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 2310' FEL

ELEVATION 2909'

OPERATOR MARBOB ENERGY CORPORATION

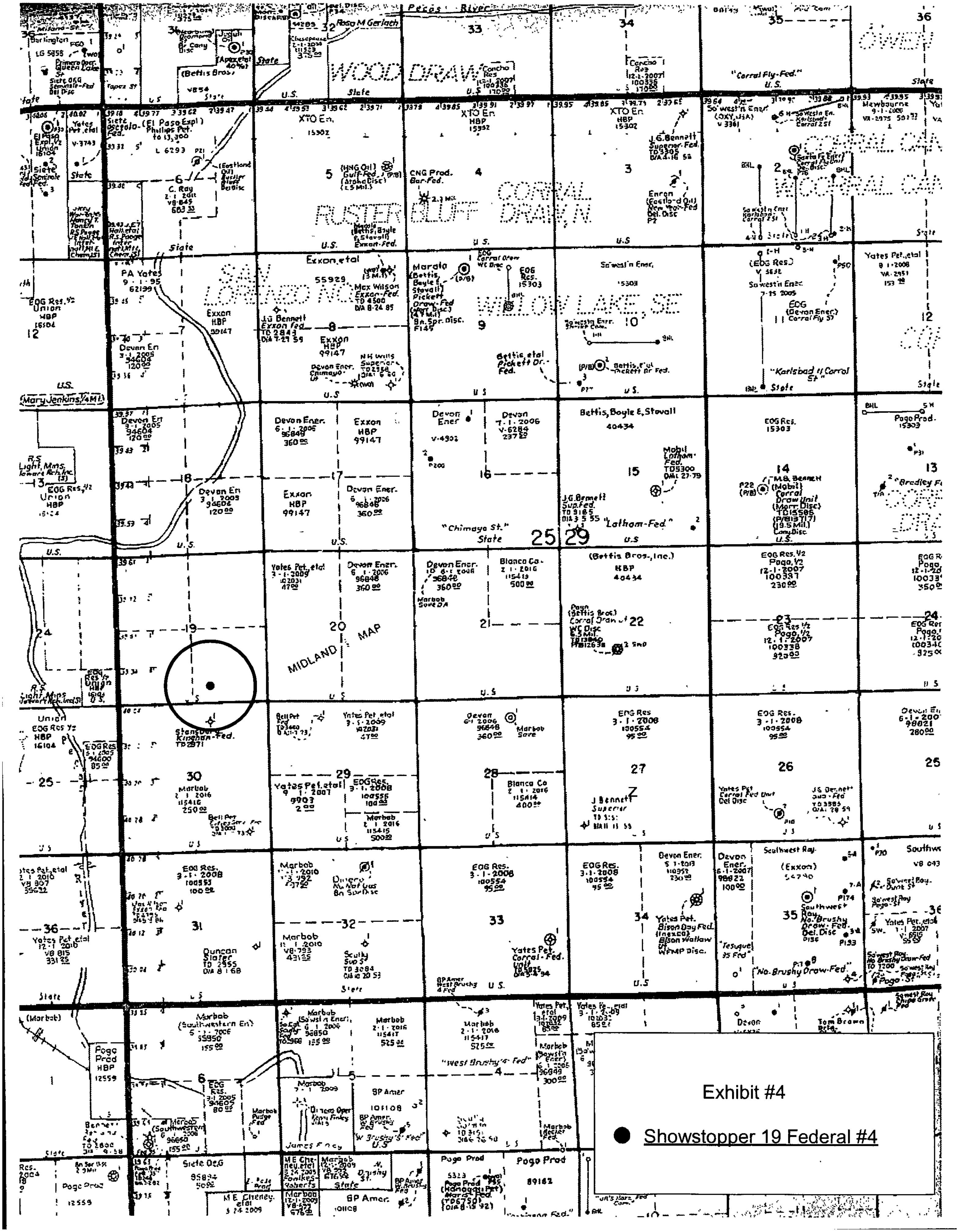
LEASE SHOWSTOPPER 19 FEDERAL

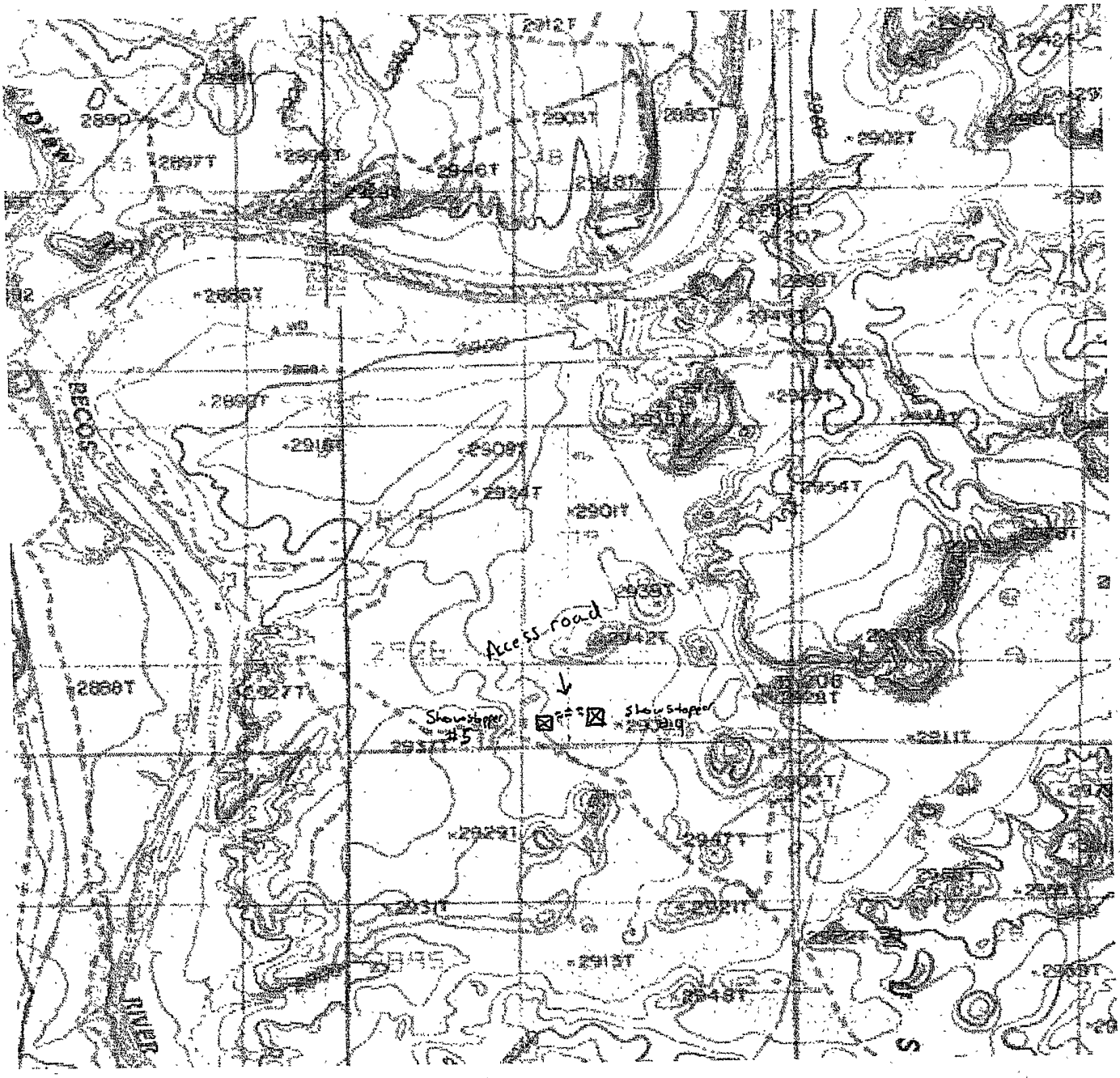
U.S.G.S. TOPOGRAPHIC MAP
RED BLUFF, NM

— Existing Proposed Roads

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

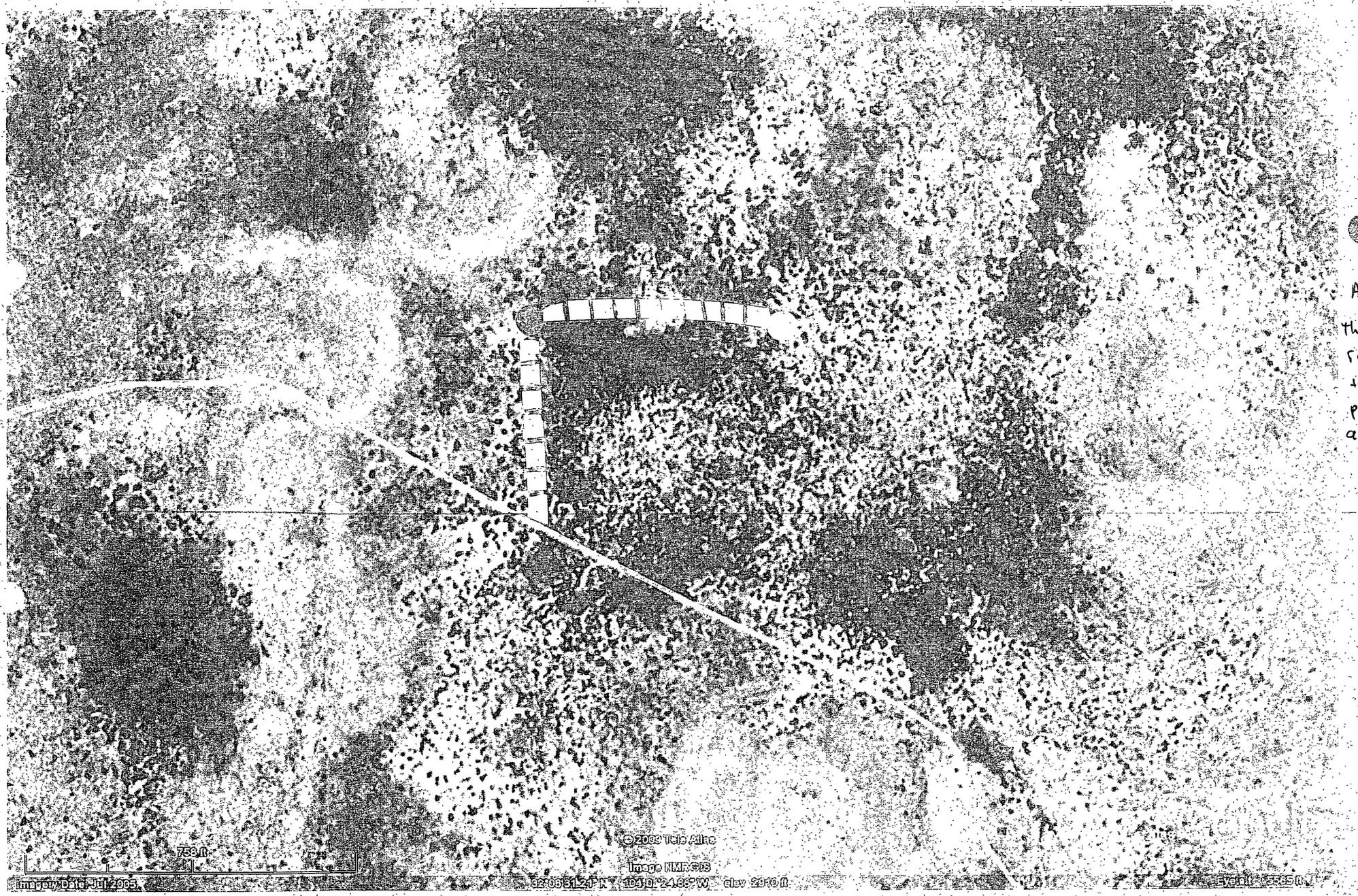
Exhibit #2


Pecos River
WOOD DRAW
RUSTER BLUFF
CORRAL DRAW, N.
WILLOW LAKE, SE
MIDLAND MAP
"Chimayo St."
"Latham-Fed."
"West Brushy's" Fed"
Exhibit #4
Showstopper 19 Federal #4



9\25\2009

No warranty is made by the BLM for the use of the data for purposes not intended by the BLM.



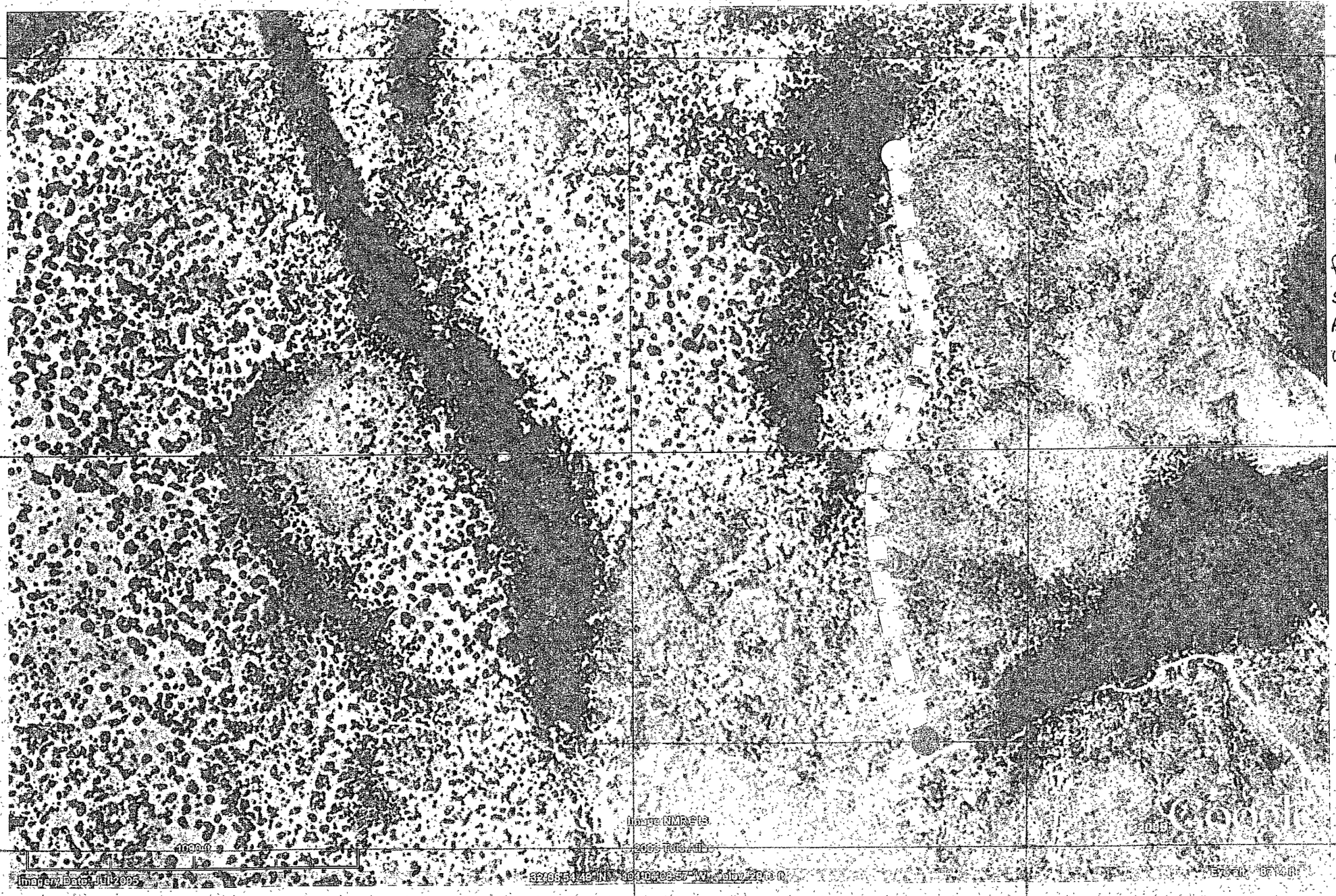
Showstopper 19 Fed # 4

Showstopper Fed # 5

Access road shown

There will be a new road built from #5 east to #4. Flowlines and power-lines will follow access road.

N



Showstopper Fed #1

Showstopper Fed #2

Access road will be from the Showstopper # South to the Showstopper #1 All pipelines, powerlines will follow access road.

Sec. 7 T25S R29E

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Showstopper 19 Federal #4
Surf: 660' FSL & 2310' FEL
BHL: 330' FNL & 1980' FEL
Section 19, T25S, R29E
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. Geological surface formation: Permian

2. The estimated tops of geologic markers & estimated depths at which anticipated water, oil or gas formations are expected to be encountered are as follows:

Top of Salt	600'	
Base of Salt	2575'	
Delaware	2775'	Oil
Bone Spring	6500'	Oil
TD(Pilot)	8200'	
TVD	6800'	
THD	~~11100'~~ 10,347	

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 250' and circulating cement back to surface. All intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing.

3. **Proposed Casing Program:**

Hole Size	Interval	OD Casing	New or Used	Wt	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17 ½"	0' – 250'	13 3/8"	New	48#	STC	H-40	1.125	1.125	1.6
12 ¼"	250' – 2700'	9 5/8"	New	36#	BUTT	J-55	1.125	1.125	1.6
8 3/4"	2700'– 8200'	5 1/2"	New	17#	LTC	N-80	1.125	1.125	1.6
7 7/8"	7000' – ~~11100'~~ 10,347	5 ½"	New	17#	LTC	N-80	1.125	1.125	1.6

Plan to drill 8 ¾" hole to a TD of 8200', log well then plug back to kick off and drill to new BHL @ TVD of 6800'

5. **Proposed Cement Program:** See COA

a. 13 3/8" Surf	Cement to surface with 275 sk "C" wt 14.8 yield 1.34.
b. 9 5/8" Int	Cement to surface with 450 sk "C" Light wt 12.7 yield 1.91 Tail in with 200 sk "C" wt 14.8 yield 1.34
c. 5 1/2" Prod	Cement 1st stage with 350 sk acid soluble "H" wt 15.0 yield 2.6 2nd stage with 700 sk "H" light wt 12.7 yield 1.91 Tail in with 100 sk "H" wt 13.0 yield 1.64 DV @ 6300' TOC 2000'

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 200' above the 9 5/8" casing shoe. **All casing is new and API approved.**

6. **Minimum Specifications for Pressure Control:**

See COA

Nipple up on 13 3/8" surface with a 2M system tested ~~to 1000#~~ with rig pumps. Nipple up on 9 5/8 with 3M system and tested to 3000# with independent tester.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2"kill line and a 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

7. **Estimated BHP:** 2828.8 psi

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

Depth	Type System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0' – 250'	Fresh Water	8.4 – 8.5	29	N.C.
250' – 2700'	Brine	9.9 – 10.0	29	N.C.
2700' – ~~11100'~~ 10,347	Cut Brine	8.9 - 9.0	29	N.C.

The necessary mud products for weight addition and fluid loss control will be on location at all times.

9. Auxiliary Well Control and Monitoring Equipment:

a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 ½" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

10. Testing, Logging and Coring Program: See COA

a. Drill stem tests will be based on geological sample shows.
b. The open hole electrical logging program will be:
   i. Total Depth to Intermediate Casing: Dual Laterolog-Micro Laterolog and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
   ii. Total Depth to Surface: Compensated Neutron with Gamma Ray
   iii. No coring program is planned
   iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

11. Potential Hazards:

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 2828.8 psi. No H2S is anticipated to be encountered.

12. Anticipated starting date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

marbob
energy corporation
Artesia, N.M.

Marbob

Eddy County
Showstopper 19 Fed
#4H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

11 September, 2009

PATHFINDER

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931 00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Eddy County

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Showstopper 19 Fed

Site Position:		**Northing:**	403,667.400 ft	**Latitude:**	32° 6' 33.842 N
From:	Map	**Easting:**	598,219.300 ft	**Longitude:**	104° 0' 58.014 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.17 °

Well #4H

Well Position	**+N/-S**	0.00 ft	**Northing:**	403,871 400 ft	**Latitude:**	32° 6' 35.915 N
	+E/-W	0.00 ft	**Easting:**	596,338.200 ft	**Longitude:**	104° 1' 19.878 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	2,909.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	09/11/2009	7.98	60 06	48,705

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0 00	0.00	0.00	1.41

Survey Tool Program Date 09/11/2009

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,347.05	Plan #1 (OH)	MWD	MWD - Standard

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-2,931.00	0 00	0.00	0 00	0 00	403,871.40	596,338.20
100.00	0.00	0.00	100.00	-2,831.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
200.00	0.00	0.00	200.00	-2,731.00	0 00	0.00	0 00	0 00	403,871.40	596,338.20
300.00	0.00	0.00	300.00	-2,631.00	0.00	0.00	0.00	0 00	403,871 40	596,338 20
400.00	0 00	0.00	400.00	-2,531.00	0.00	0 00	0.00	0.00	403,871.40	596,338.20
500.00	0 00	0.00	500.00	-2,431.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
600.00	0.00	0 00	600.00	-2,331.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
700.00	0.00	0.00	700.00	-2,231 00	0.00	0 00	0.00	0.00	403,871 40	596,338.20
800.00	0 00	0.00	800.00	-2,131.00	0.00	0.00	0.00	0 00	403,871.40	596,338.20
900.00	0.00	0.00	900.00	-2,031.00	0.00	0.00	0.00	0.00	403,871 40	596,338.20
1,000.00	0.00	0.00	1,000 00	-1,931.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
1,100.00	0 00	0.00	1,100.00	-1,831.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
1,200.00	0.00	0.00	1,200 00	-1,731.00	0.00	0.00	0.00	0 00	403,871.40	596,338 20
1,300.00	0.00	0.00	1,300.00	-1,631.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
1,400.00	0.00	0.00	1,400.00	-1,531.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
1,500.00	0.00	0 00	1,500.00	-1,431.00	0 00	0.00	0.00	0.00	403,871.40	596,338.20
1,600.00	0.00	0.00	1,600.00	-1,331.00	0.00	0.00	0 00	0.00	403,871.40	596,338.20
1,700.00	0 00	0.00	1,700.00	-1,231.00	0 00	0.00	0.00	0.00	403,871.40	596,338 20
1,800.00	0.00	0.00	1,800.00	-1,131.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
1,900.00	0.00	0 00	1,900.00	-1,031.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
2,000.00	0.00	0.00	2,000.00	-931 00	0 00	0.00	0.00	0.00	403,871.40	596,338.20
2,100.00	0.00	0.00	2,100.00	-831.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
2,200.00	0 00	0 00	2,200.00	-731.00	0.00	0.00	0 00	0.00	403,871.40	596,338 20
2,300 00	0.00	0.00	2,300.00	-631 00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
2,400.00	0.00	0.00	2,400.00	-531.00	0.00	0.00	0.00	0.00	403,871 40	596,338.20
2,500.00	0.00	0.00	2,500.00	-431.00	0.00	0 00	0 00	0.00	403,871.40	596,338.20
2,600.00	0.00	0.00	2,600.00	-331.00	0.00	0 00	0.00	0.00	403,871.40	596,338.20

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-231.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
2,800.00	0.00	0.00	2,800.00	-131.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
2,900.00	0.00	0.00	2,900.00	-31.00	0.00	0.00	0 00	0.00	403,871.40	596,338.20
3,000.00	0.00	0.00	3,000.00	69.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
3,100 00	0.00	0 00	3,100 00	169.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
3,200.00	0.00	0.00	3,200.00	269.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
3,300.00	0.00	0 00	3,300.00	369.00	0.00	0.00	0 00	0.00	403,871.40	596,338.20
3,400.00	0.00	0.00	3,400.00	469.00	0.00	0.00	0 00	0.00	403,871.40	596,338.20
3,500.00	0.00	0 00	3,500.00	569 00	0 00	0 00	0.00	0 00	403,871.40	596,338.20
3,600.00	0.00	0.00	3,600.00	669.00	0.00	0.00	0.00	0.00	403,871.40	596,338 20
3,700 00	0.00	0.00	3,700.00	769.00	0.00	0.00	0.00	0.00	403,871.40	596,338 20
3,800.00	0.00	0.00	3,800.00	869.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
3,900 00	0.00	0.00	3,900.00	969.00	0.00	0 00	0.00	0.00	403,871.40	596,338.20
4,000.00	0 00	0.00	4,000.00	1,069.00	0.00	0.00	0.00	0 00	403,871.40	596,338.20
4,100.00	0.00	0.00	4,100.00	1,169.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
4,200.00	0.00	0.00	4,200.00	1,269 00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
4,300 00	0.00	0.00	4,300.00	1,369.00	0.00	0 00	0.00	0.00	403,871.40	596,338.20
4,400.00	0.00	0.00	4,400.00	1,469 00	0 00	0.00	0.00	0.00	403,871.40	596,338.20
4,500.00	0.00	0 00	4,500.00	1,569.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
4,600.00	0 00	0.00	4,600.00	1,669 00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
4,700.00	0.00	0.00	4,700.00	1,769.00	0.00	0.00	0.00	0.00	403,871 40	596,338.20
4,800.00	0.00	0.00	4,800.00	1,869.00	0 00	0.00	0.00	0.00	403,871.40	596,338.20
4,900 00	0.00	0.00	4,900.00	1,969 00	0.00	0 00	0.00	0 00	403,871.40	596,338.20
5,000 00	0.00	0.00	5,000.00	2,069.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
5,100.00	0.00	0.00	5,100.00	2,169 00	0.00	0.00	0.00	0 00	403,871 40	596,338.20
5,200.00	0.00	0.00	5,200.00	2,269.00	0.00	0.00	0.00	0.00	403,871.40	596,338 20
5,300.00	0 00	0.00	5,300.00	2,369.00	0.00	0.00	0.00	0 00	403,871 40	596,338.20

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	2,469 00	0.00	0.00	0 00	0.00	403,871.40	596,338 20
5,500.00	0.00	0.00	5,500.00	2,569.00	0 00	0.00	0.00	0.00	403,871 40	596,338 20
5,600.00	0 00	0.00	5,600.00	2,669.00	0.00	0.00	0.00	0.00	403,871.40	596,338.20
5,700.00	0 00	0.00	5,700 00	2,769.00	0.00	0.00	0.00	0.00	403,871 40	596,338.20
5,772.54	0.00	0.00	5,772 54	2,841.54	0.00	0.00	0.00	0.00	403,871 40	596,338 20
5,775.00	0.30	1 41	5,775.00	2,844.00	0.01	0.00	0.01	12.00	403,871.41	596,338.20
5,800.00	3.30	1.41	5,799.98	2,868 98	0.79	0.02	0.79	12.00	403,872.19	596,338.22
5,825.00	6.30	1.41	5,824.89	2,893 89	2 88	0.07	2.88	12 00	403,874 28	596,338.27
5,850.00	9.30	1 41	5,849.66	2,918.66	6 27	0.15	6.27	12 00	403,877.67	596,338.35
5,875.00	12.30	1.41	5,874.22	2,943.22	10.95	0 27	10.95	12.00	403,882.35	596,338.47
5,900.00	15.30	1.41	5,898 49	2,967.49	16.91	0.42	16.91	12.00	403,888.31	596,338.62
5,925.00	18.30	1.41	5,922.42	2,991.42	24.13	0.60	24.13	12 00	403,895.53	596,338.80
5,950 00	21.30	1.41	5,945.94	3,014.94	32.59	0.80	32.60	12.00	403,903.99	596,339.00
5,975.00	24.30	1.41	5,968.99	3,037.99	42.27	1 04	42.29	12.00	403,913 67	596,339 24
6,000.00	27.30	1.41	5,991.49	3,060.49	53.15	1.31	53.16	12.00	403,924.55	596,339.51
6,025.00	30.30	1.41	6,013.40	3,082.40	65 18	1.61	65.20	12.00	403,936.58	596,339.81
6,050 00	33.30	1.41	6,034.65	3,103.65	78.35	1 93	78.37	12.00	403,949.75	596,340 13
6,075 00	36.30	1.41	6,055.17	3,124.17	92.61	2 29	92.64	12.00	403,964.01	596,340.49
6,100 00	39.30	1.41	6,074.93	3,143.93	107 93	2 67	107.96	12.00	403,979.33	596,340.87
6,125 00	42.30	1.41	6,093.85	3,162.85	124.25	3.07	124.29	12.00	403,995 65	596,341 27
6,150.00	45 30	1.41	6,111.89	3,180.89	141 55	3.50	141.59	12.00	404,012.95	596,341 70
6,175 00	48.30	1.41	6,129.01	3,198.01	159.76	3 95	159 81	12.00	404,031.16	596,342 15
6,200.00	51.30	1.41	6,145.14	3,214.14	178.85	4 42	178 90	12 00	404,050.25	596,342.62
6,225.00	54.30	1.41	6,160.26	3,229.26	198.75	4.91	198.81	12.00	404,070.15	596,343 11
6,250.00	57.30	1.41	6,174.31	3,243.31	219.42	5.42	219.49	12.00	404,090.82	596,343.62
6,275.00	60.30	1.41	6,187.26	3,256.26	240.79	5 95	240.87	12 00	404,112.19	596,344 15
6,300.00	63.30	1 41	6,199.08	3,268 08	262 81	6.49	262 90	12.00	404,134.21	596,344.69

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
6,325.00	66.30	1.41	6,209.72	3,278.72	285.43	7.05	285.51	12.00	404,156.83	596,345.25
6,350.00	69.30	1.41	6,219 17	3,288.17	308 56	7.62	308.66	12 00	404,179.96	596,345.82
6,375.00	72 30	1.41	6,227 39	3,296.39	332 16	8.20	332 26	12 00	404,203.56	596,346.40
6,400.00	75 30	1.41	6,234.37	3,303.37	356.16	8 79	356.27	12.00	404,227.56	596,346.99
6,425.00	78.30	1.41	6,240.08	3,309.08	380.49	9.40	380.60	12.00	404,251 89	596,347.60
6,450.00	81.30	1.41	6,244.51	3,313 51	405.08	10.00	405.20	12.00	404,276.48	596,348.20
6,475.00	84.30	1.41	6,247.64	3,316.64	429.87	10.62	430.00	12.00	404,301.27	596,348.82
6,500.00	87.30	1.41	6,249.47	3,318.47	454.79	11.23	454.93	12 00	404,326.19	596,349.43
6,522.54	90.00	1.41	6,250.00	3,319.00	477.32	11.79	477.46	12.00	404,348 72	596,349.99
6,600.00	90.00	1.41	6,250.00	3,319.00	554.76	13.70	554.92	0.00	404,426 16	596,351.90
6,700.00	90.00	1.41	6,250.00	3,319.00	654.73	16 17	654.92	0.00	404,526.13	596,354.37
6,800.00	90.00	1 41	6,250.00	3,319.00	754 69	18.64	754 92	0.00	404,626.09	596,356.84
6,900.00	90.00	1.41	6,250.00	3,319.00	854.66	21.10	854.92	0.00	404,726 06	596,359.30
7,000 00	90.00	1 41	6,250.00	3,319.00	954.63	23.57	954.92	0.00	404,826.03	596,361.77
7,100.00	90.00	1 41	6,250.00	3,319.00	1,054.60	26 04	1,054.92	0.00	404,926.00	596,364 24
7,200.00	90 00	1.41	6,250.00	3,319.00	1,154.57	28.51	1,154.92	0.00	405,025 97	596,366 71
7,300.00	90.00	1 41	6,250.00	3,319 00	1,254 54	30.98	1,254.92	0.00	405,125.94	596,369.18
7,400.00	90.00	1 41	6,250.00	3,319.00	1,354.51	33 45	1,354.92	0.00	405,225.91	596,371 65
7,500.00	90.00	1.41	6,250.00	3,319.00	1,454 48	35.92	1,454 92	0.00	405,325.88	596,374 12
7,600.00	90.00	1.41	6,250.00	3,319.00	1,554.45	38.39	1,554.92	0.00	405,425.85	596,376.59
7,700 00	90.00	1 41	6,250.00	3,319.00	1,654.42	40.85	1,654.92	0.00	405,525.82	596,379 05
7,800.00	90.00	1 41	6,250.00	3,319.00	1,754.39	43.32	1,754.92	0.00	405,625.79	596,381 52
7,900.00	90.00	1.41	6,250.00	3,319.00	1,854.36	45.79	1,854.92	0.00	405,725 76	596,383.99
8,000.00	90.00	1.41	6,250 00	3,319.00	1,954.33	48.26	1,954.92	0.00	405,825.73	596,386.46
8,100.00	90.00	1 41	6,250.00	3,319 00	2,054.30	50.73	2,054 92	0.00	405,925 70	596,388 93
8,200.00	90 00	1 41	6,250.00	3,319.00	2,154.27	53.20	2,154.92	0.00	406,025.67	596,391.40
8,300 00	90.00	1 41	6,250.00	3,319.00	2,254.24	55 67	2,254.92	0.00	406,125.64	596,393 87

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931 00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,400.00	90.00	1.41	6,250.00	3,319.00	2,354.21	58.13	2,354.92	0.00	406,225.61	596,396.33
8,500.00	90.00	1.41	6,250.00	3,319.00	2,454.18	60.60	2,454.92	0.00	406,325.58	596,398.80
8,600.00	90.00	1.41	6,250.00	3,319 00	2,554.15	63.07	2,554.92	0.00	406,425.55	596,401.27
8,700.00	90.00	1.41	6,250.00	3,319.00	2,654.12	65 54	2,654.92	0.00	406,525 52	596,403.74
8,800.00	90.00	1.41	6,250.00	3,319.00	2,754.09	68.01	2,754.92	0.00	406,625.49	596,406.21
8,900.00	90.00	1.41	6,250.00	3,319.00	2,854.05	70.48	2,854.92	0 00	406,725 45	596,408 68
9,000.00	90.00	1 41	6,250 00	3,319.00	2,954.02	72.95	2,954.92	0.00	406,825.42	596,411.15
9,100.00	90.00	1.41	6,250.00	3,319.00	3,053.99	75.41	3,054.92	0 00	406,925 39	596,413.61
9,200.00	90.00	1 41	6,250.00	3,319.00	3,153.96	77 88	3,154.92	0.00	407,025.36	596,416.08
9,300.00	90.00	1.41	6,250.00	3,319.00	3,253 93	80.35	3,254.92	0.00	407,125.33	596,418.55
9,400.00	90.00	1.41	6,250.00	3,319.00	3,353.90	82.82	3,354.92	0 00	407,225.30	596,421.02
9,500.00	90 00	1.41	6,250.00	3,319.00	3,453 87	85.29	3,454.92	0.00	407,325.27	596,423.49
9,600.00	90.00	1 41	6,250.00	3,319.00	3,553.84	87.76	3,554.92	0.00	407,425.24	596,425 96
9,700.00	90.00	1.41	6,250.00	3,319.00	3,653.81	90.23	3,654 92	0.00	407,525.21	596,428.43
9,800.00	90.00	1.41	6,250.00	3,319.00	3,753 78	92.69	3,754.92	0.00	407,625.18	596,430.89
9,900.00	90.00	1.41	6,250.00	3,319.00	3,853.75	95.16	3,854.92	0.00	407,725.15	596,433.36
10,000.00	90.00	1.41	6,250.00	3,319.00	3,953 72	97.63	3,954.92	0.00	407,825.12	596,435.83
10,100.00	90.00	1 41	6,250.00	3,319.00	4,053.69	100.10	4,054.92	0.00	407,925.09	596,438.30
10,200.00	90.00	1.41	6,250.00	3,319.00	4,153 66	102.57	4,154.92	0.00	408,025.06	596,440.77
10,300.00	90.00	1.41	6,250.00	3,319.00	4,253.63	105.04	4,254.92	0 00	408,125 03	596,443.24
10,347 09	90.00	1.41	6,250.00	3,319.00	4,300 70	106.20	4,302.01	0.00	408,172.10	596,444 40
PBHL(#ST19#4H)										

Company:	Marbob	**Local Co-ordinate Reference:**	Well #4H
Project:	Eddy County	**TVD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Site:	Showstopper 19 Fed	**MD Reference:**	WELL @ 2931.00ft (22'KB Correction)
Well:	#4H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(#ST19#4H) - plan hits target - Point	0.00	0.00	6,250.00	4,300 70	106.20	408,172.100	596,444.400	32° 7' 18.474 N	104° 1' 18.499 W

Checked By: _____ Approved By: _____ Date: _____

marbob energy corporation
Artesia, N.M.

PATHFINDER

Project: Eddy County
Site: Showstopper 19 Fe
Well: #4H
Wellbore: OH
Plan: Plan #1 (#4H/OH)

Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.82°

Magnetic Field
Strength: 48704.8snT
Dip Angle: 60.06°
Date: 09/11/2009
Model: IGRF200510

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

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	5772.54	0.00	0.00	5772.54	0.00	0.00	0.00	0.00	0.00	
3	6522.54	90.00	1.41	6250.00	477.32	11.79	12.00	1.41	477.46	PBHL(#ST19#4H)
4	10347.09	90.00	1.41	6250.00	4300.70	106.20	0.00	0.00	4302.01	PBHL(#ST19#4H)

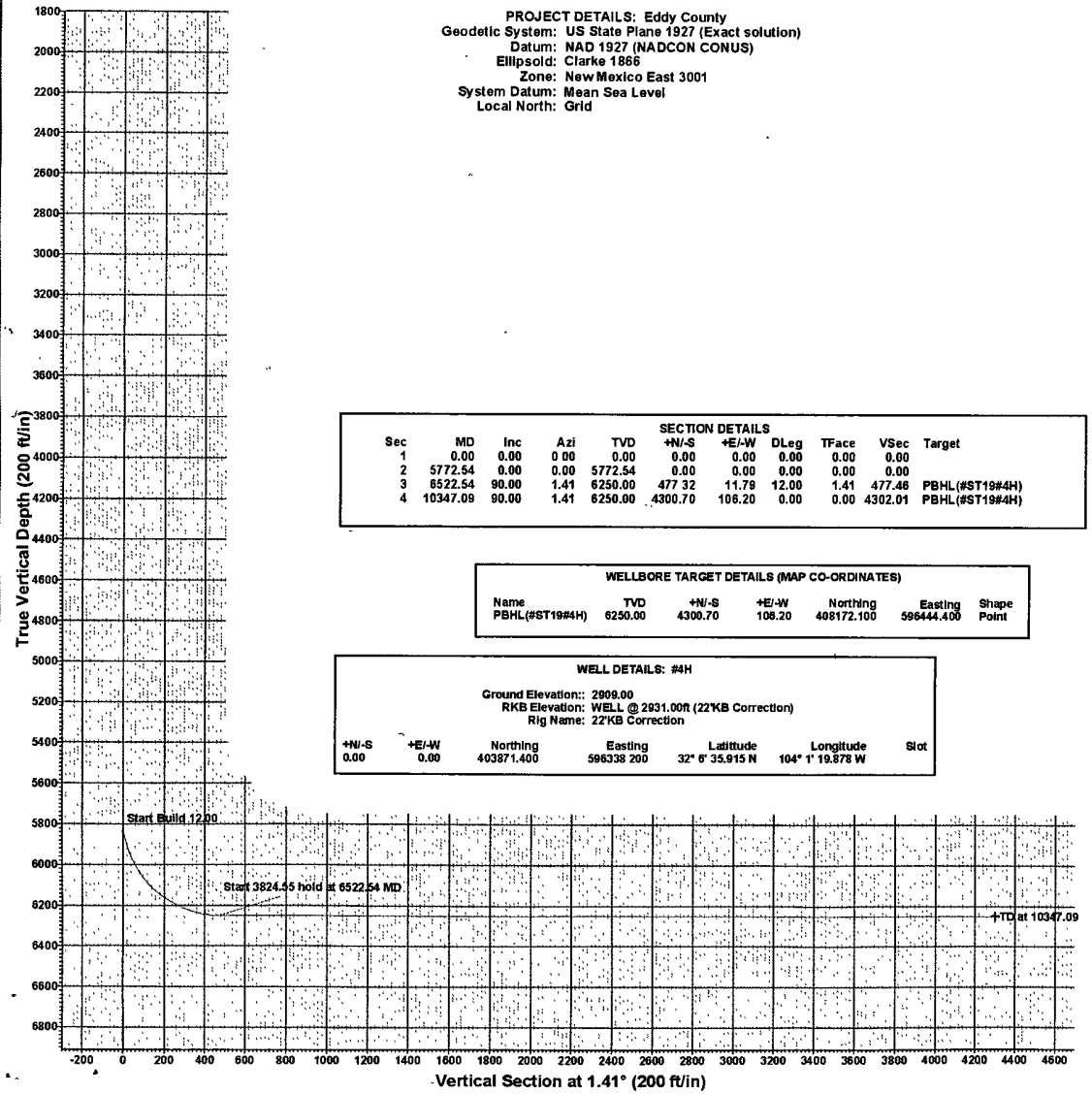
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

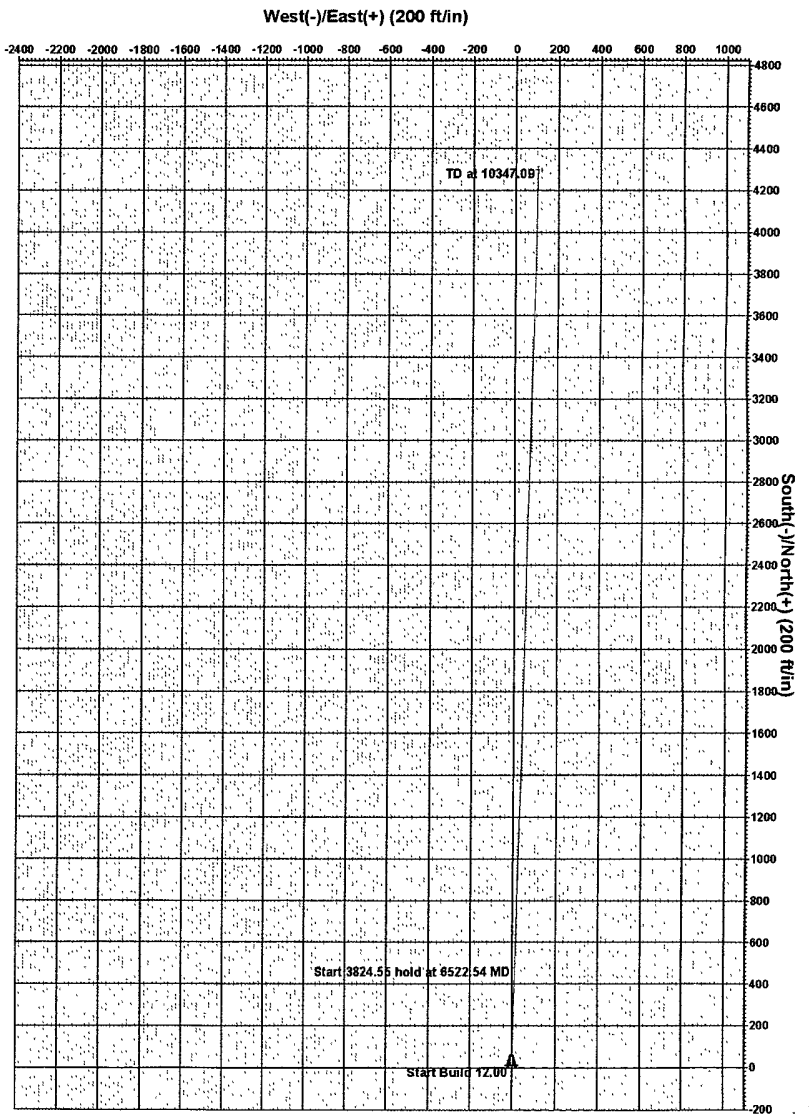
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(#ST19#4H)	6250.00	4300.70	106.20	408172.100	596444.400	Point

WELL DETAILS: #4H

Ground Elevation:: 2909.00
RKB Elevation: WELL @ 2931.00ft (22'KB Correction)
Rig Name: 22'KB Correction

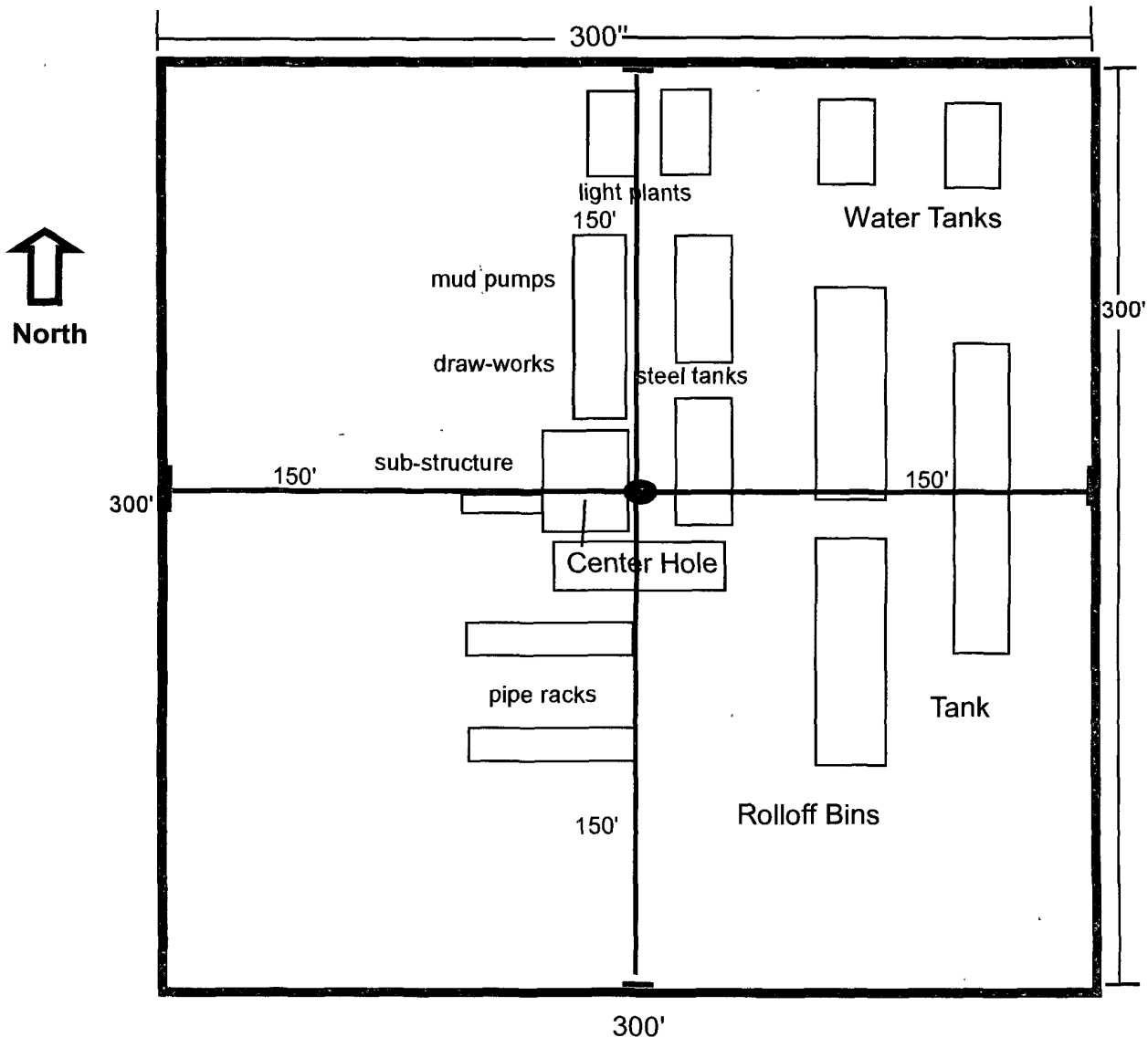
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	403871.400	596338.200	32° 6' 35.915 N	104° 1' 19.878 W	





Plan Plan #1 (#4H/OH)
Created By Nate Bingham Date 10:54, September 11 2009
Checked _____ Date _____

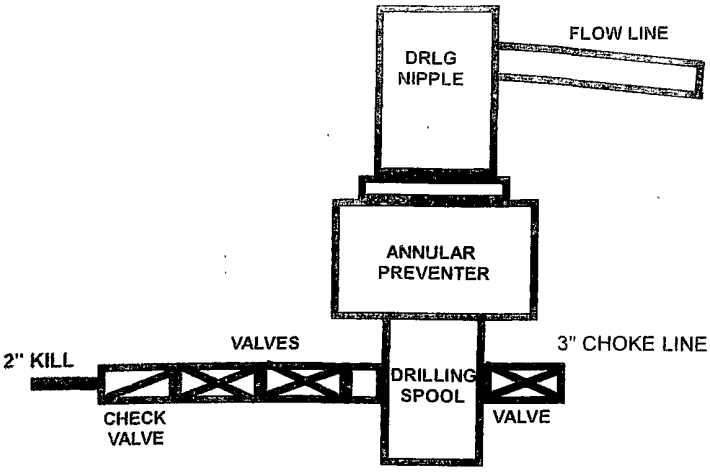
Well Site Lay-Out Plat

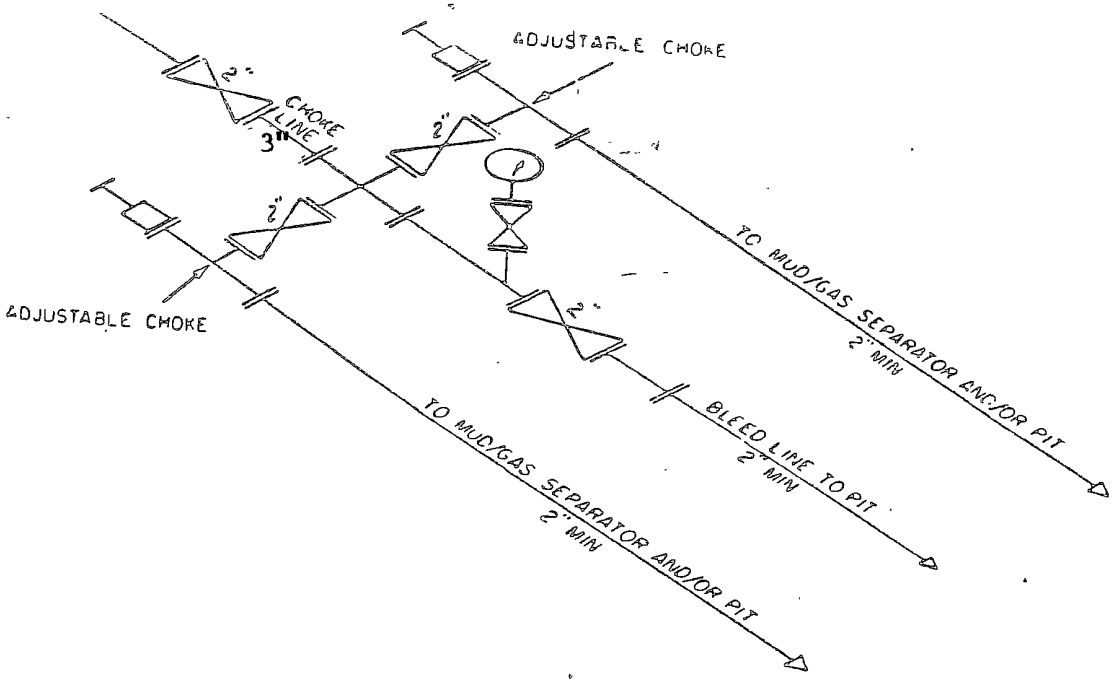


Showstopper 19 Federal #4
Surf: 660' FSL & 2310' FEL
BHL: 330' FNL & 1980' FEL
Section 19, T25S - R29E
Eddy County, New Mexico

EXHIBIT THREE

2M SYSTEM

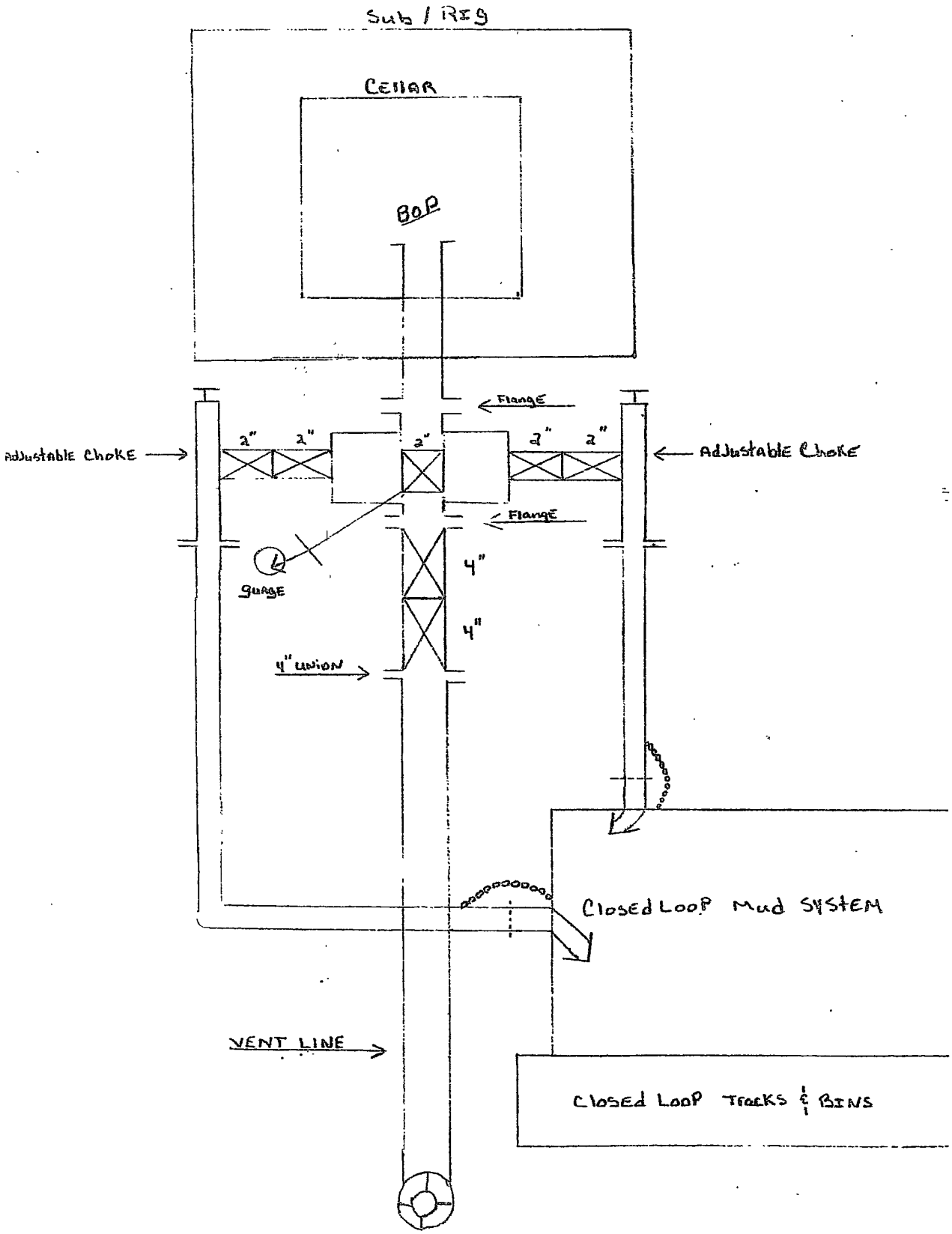




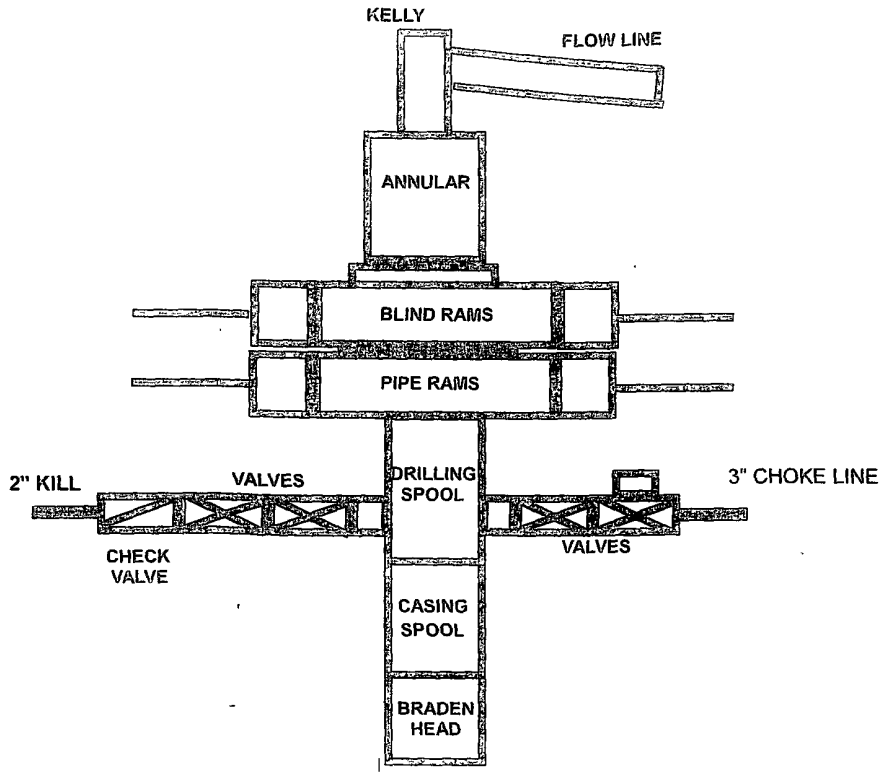
2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

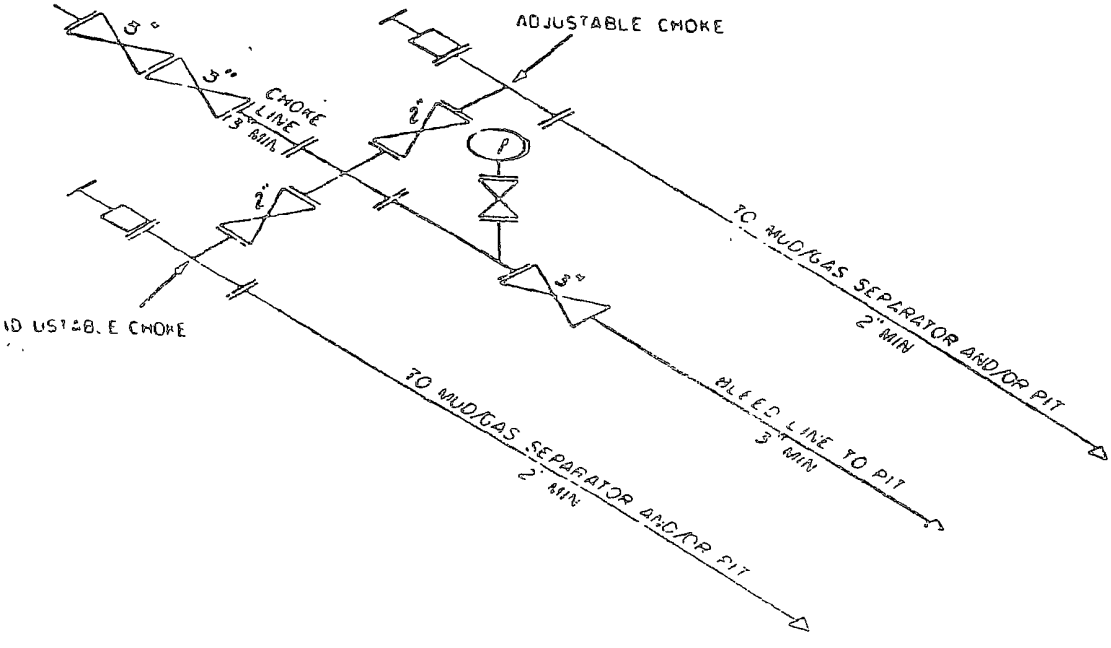
EXHIBIT #1

2M Choke Manifold Equipment



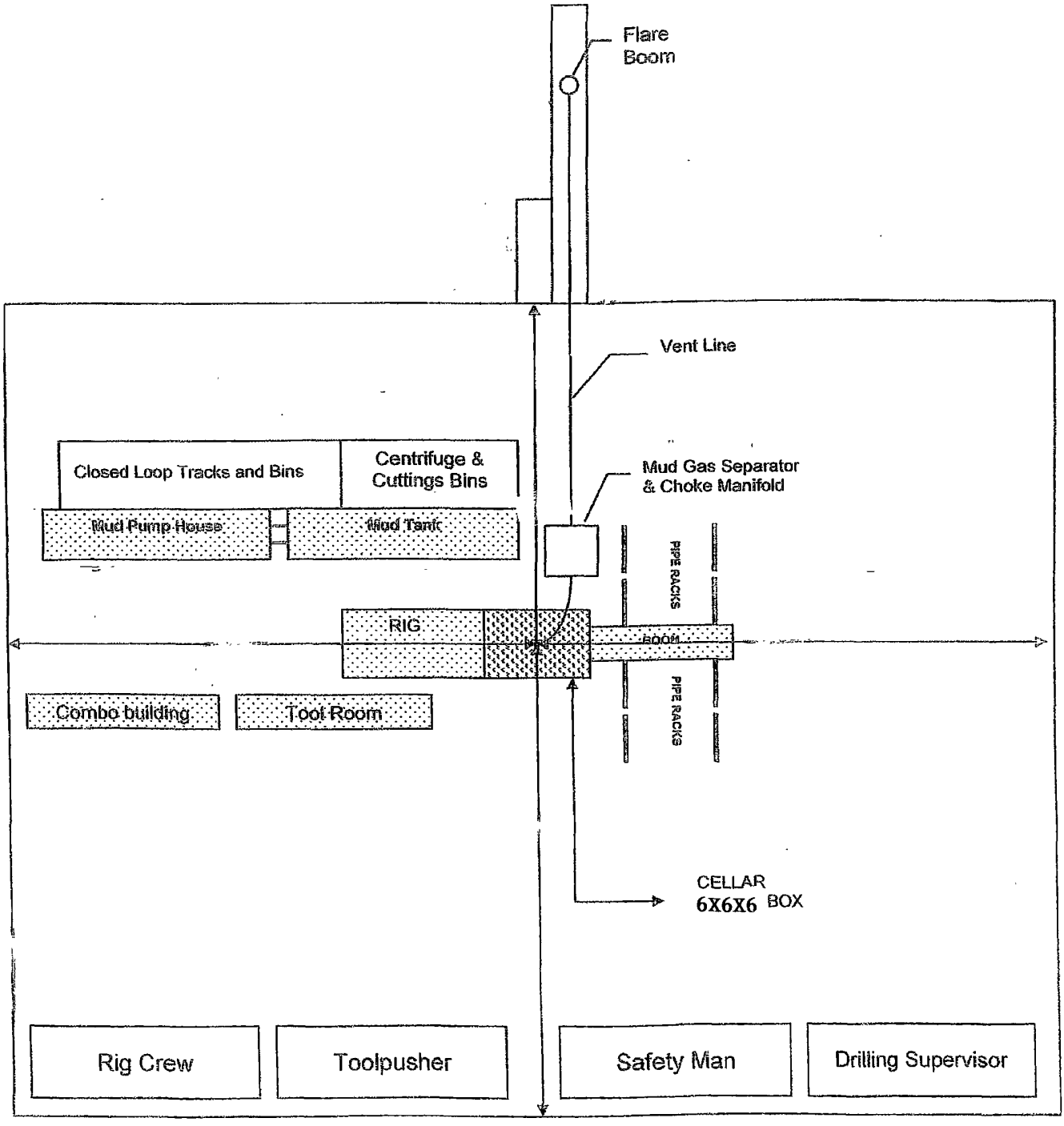
3M SYSTEM





3M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

3M Choke Manifold Equipment



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 (H_2S).

B. The proper use and maintenance of personal protective equipment and life support systems.

C. The proper use of H_2S 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 H_2S 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 H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S 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. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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 H_2S.

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. H_2S detection and monitoring equipment:

2 - portable H_2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S 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 H_2S 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 H_2S service.

G. Communication:

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

Marbob Energy has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H2S Contingency Plan would be necessary.

WARNING

YOU ARE ENTERING AN H_2S 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

1-575-748-3303

EMERGENCY CALL LIST

	Office	Mobile	Home
Marbob Energy Corp.	575-748-3303		
Sheryl Baker	575-748-3303	575-748-5489	575-748-2396
Johnny C. Gray	575-748-3303	575-748-5983	575-885-3879
Raye Miller	575-748-3303	575-513-0176	575-746-9577
Dean Chumbley	575-748-3303	575-748-5988	575-748-2426

EMERGENCY RESPONSE NUMBERS
Eddy County, New Mexico

State Police	575-748-9718
Eddy County Sheriff	575-746-2701
Emergency Medical Services (Ambulance)	911 or 575-746-2701
Eddy County Emergency Management (Harry Burgess)	575-887-9511
State Emergency Response Center (SERC)	575-476-9620
Carlsbad Police Department	575-885-2111
Carlsbad Fire Department	575-885-3125
New Mexico Oil Conservation Division	575-748-1283
Indian Fire & Safety	800-530-8693
Halliburton Services	800-844-8451

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Showstopper 19 Federal #4
Surf: 660' FSL & 2310' FEL
BHL: 330' FNL & 1980' FEL
Section 19, T25S, R29E
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:

a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by John West Surveying Company.
b. 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. Right of way using this proposed route is being requested if necessary.
c. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

DIRECTIONS:

From the intersection of U.S highway 285 and county Rd 725 (White horn Rd), go east on white horn Rd approx. 5.8 miles. Turn left and go north approx. 0.2 miles. Turn left at OGX recourses sign and go west –northwest approx. 2.5 miles to a trail Rd. Follow trail Rd approx 0.9 miles to a proposed Rd survey. Follow Rd survey approx. 899 feet north to this location.

2. PLANNED ACCESS ROAD:

Marbob will be using a proposed access Rd 899' coming in on the south east side of the well pad. See directions above.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. In the event the well is found productive, the Showstopper 19 Federal #4 tank battery would be utilized and the necessary production equipment will be installed at the well site. A Site Facilities Diagram will be

submitted upon completion of facility.All flowlines will adhere to API standards

B. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
C. If the well is productive, rehabilitation plans are as follows:
    i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

4. LOCATION AND TYPES OF WATER SUPPLY:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #2.. On occasion, water will be obtained form a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, the existing and proposed road shown in Exhibit "2" will be utilized.

5. CONSTRUCTION MATERIALS:

All Caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM-approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

6. METHODS OF HANDLING WASTE MATERIAL:

a. All trash, junk and other waste material will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.

b. The supplier, including broken sacks, will pick up slats remaining after completion of well.

c. A porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

d. Disposal of fluids to be transported by an approved disposal company.

7. ANCILLARY FACILITIES:

No campsite or other facilities will be constructed as a result of this well.

8. WELLSITE LAYOUT:

a. Exhibit 3 shows the proposed well site layout with dimensions of the pad layout.
b. This exhibit indicates proposed location of fresh water sump pits if utilized and living facilities.

c. Mud pits in the active circulating system will be steel pits and a closed loop system will be utilized.

9. PLANS FOR SURFACE RECLAMATION:

a. After finishing drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original state.

b. The location and road will be rehabilitated as recommended by the BLM.

c. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

10. SURFACE OWNERSHIP:

The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The proposed road routes and the surface location will be restored as directed by the BLM.

11. OTHER INFORMATION:

a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, some mesquite bushes and shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

b. There is no permanent or live water in the general proximity of the location.

c. There are no dwellings within 2 miles of location.

d. A Cultural Resources Examination will be completed by Boone Archeological and forwarded to the BLM office in Carlsbad, New Mexico.

12. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:
Dean Chumbley, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (575)748-3303
Cell (575) 748-5988

B. Through Drilling Operations
Sheryl Baker, Drilling Supervisor
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (575)748-3303
Cell (575)748-5489

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Marbob Energy Corporation

9/21/09
Date

William Miller
Land Department

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy Corp
LEASE NO.:	NM117121
WELL NAME & NO.:	4-Showstopper 19 Federal
SURFACE HOLE FOOTAGE:	660' FSL & 2310' FEL
BOTTOM HOLE FOOTAGE	330' FNL & 1980' FEL
LOCATION:	Section 19, T. 25 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. Operator to supply NMOCD order, which details the vertical and horizontal extent of pool to verify that requested communitization is within an approved and established pool. NMOCD form C-123 – pool designation request.

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

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

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides will be bermed.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 6 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Although this is a closed loop system and no reserve pits will be utilized, the v-door will be on the east side of the location.

Tanks are required for drilling operations. No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the
Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

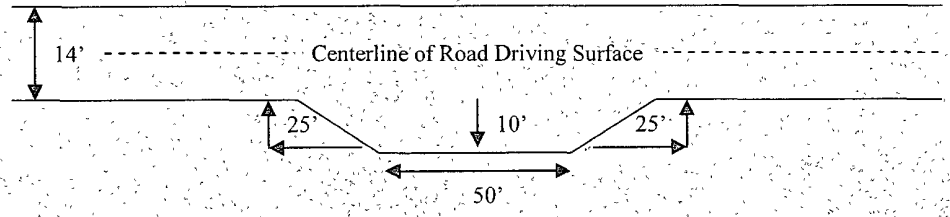
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

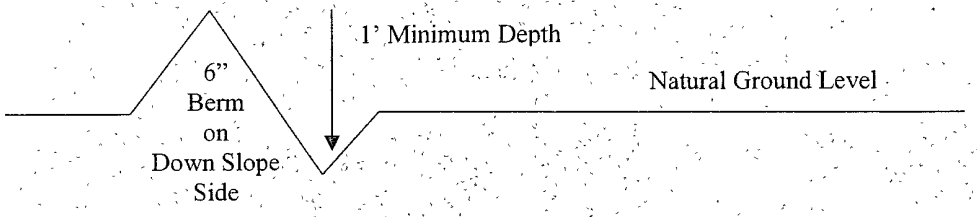
Standard Turnout – Plan View



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

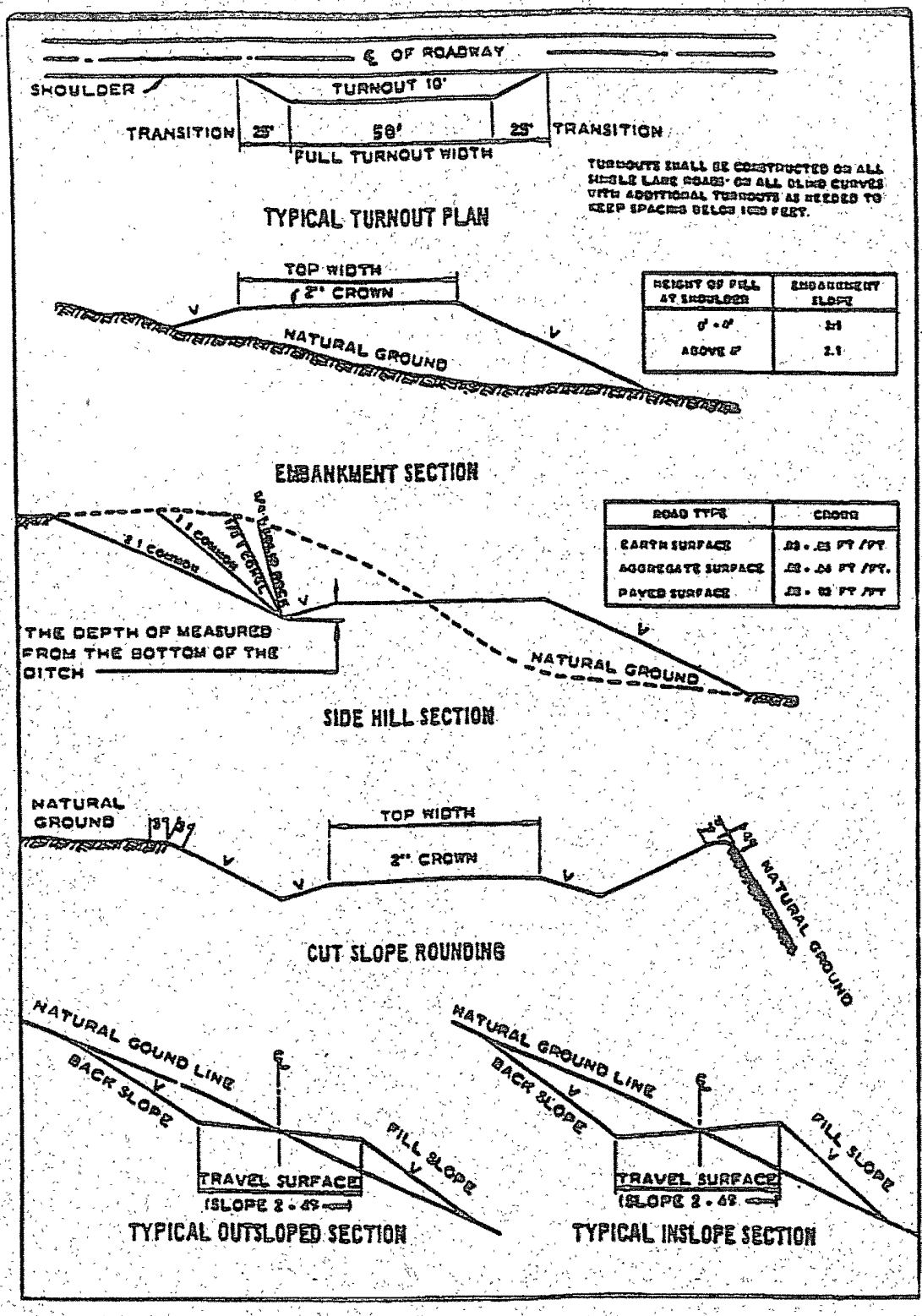
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in the Township to the east. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**

2. 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.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium cave/karst
Possible water and brine flows in the Salado and Delaware Mountain Groups.
Possible lost circulation in the Delaware mountain Group.

1. The **13-3/8** inch surface casing shall be set at **approximately 250 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.

    a. 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.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
    This casing is to be set in the Lamar Limestone. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

Pilot hole is required to have a plug at the bottom of the hole. If two plugs are set, the BLM is to be contacted (575-361-2822) prior to tag of bottom plug, which must be a minimum of 200' in length. Operator can set one plug from bottom of pilot hole to kick-off point and save the WOC time for tagging the first plug.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   a. First stage to DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool, cement shall:

   ☒ Cement should tie-back at least 700 feet into previous casing string. Operator shall provide method of verification.

4. 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 joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. 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 Sec. 17.

2. 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.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. 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.**

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. 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.

e. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 101409

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESEEDING PROCEDURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

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.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to 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. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. RESEEDING PROCEDURE

Once the well has been drilled, all completion procedures have been accomplished, and all trash removed, reseed the location and all surrounding disturbed areas as follows:

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.