7013 ATS-08-537

677

OCD-HOBBS

Form 3160-3
(February 2005)

SECRETARY'S POTASH

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. **NM-90538**
	6 If Indian, Allotee or Tribe Name
1b Type of Well ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	7 If Unit or CA Agreement, Name and No
2 Name of Operator **Marbob Energy Corporation** <14049>	8. Lease Name and Well No. <28264> **Tres Elo Federal Com #2**
3a Address **P.O. Box 227, Artesia, NM 88211-0228**	3b Phone No. *(include area code)* **505-748-3303**
	9 API Well No. **30-025-30771**
	10 Field and Pool, or Exploratory **Greenwood; Morrow, Southeast**
4. Location of Well *(Report location clearly and in accordance with any State requirements *)* At surface **1650' FNL & 1650' FWL** At proposed prod zone **BHL: 1980' FNL & 1980' FWL** Capitan Controlled Water Basin	11 Sec., T R M. or Blk. and Survey or Area **Section 31, T19S - R32E**
14 Distance in miles and direction from nearest town or post office* **About 20 miles from Maljamar, NM**	12 County or Parish **Lea County** / 13. State **NM**

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) **660'**	16 No of acres in lease **40**	17 Spacing Unit dedicated to this well **320.00**
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth **13,000'**	20 BLM/BIA Bond No. on file **NMB000412**
21 Elevations (Show whether DF, KDB, RT, GL, etc.) **3523' GL**	22. Approximate date work will start* **05/01/2008**	23. Estimated duration **25 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 Nancy T. Agnew	Name *(Printed/Typed)* **Nancy T. Agnew**	Date **03/31/2008**
Title **Land Department**		

Approved by *(Signature)* /S/ William Merhege	Name *(Printed/Typed)* /S/ William M Merhege	Date **JUL 2 1 2008**
Title Acting **STATE DIRECTOR**	Office **NM STATE 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 USC Section 1001 and Title 43 USC 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)

RECEIVED
AUG - 4 2008
HOBBS OCD

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: March 31, 2008

Lease #: NM-90538
Tres Elo Federal Com #2

Legal Description: Sec. 31-T19S-R32E
Lea County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Nancy J Agnew

Nancy Agnew
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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-30771	97224	GREENWOOD; MORROW SOUTHEAST

[4] Property Code	[5] Property Name	[6] Well Number
28264	Tres Elo Federal Com	2

[7] OGRID No.	[8] Operator Name	[9] Elevation
14049	Marbob Energy Corporation	3523'

[10] Surface Location

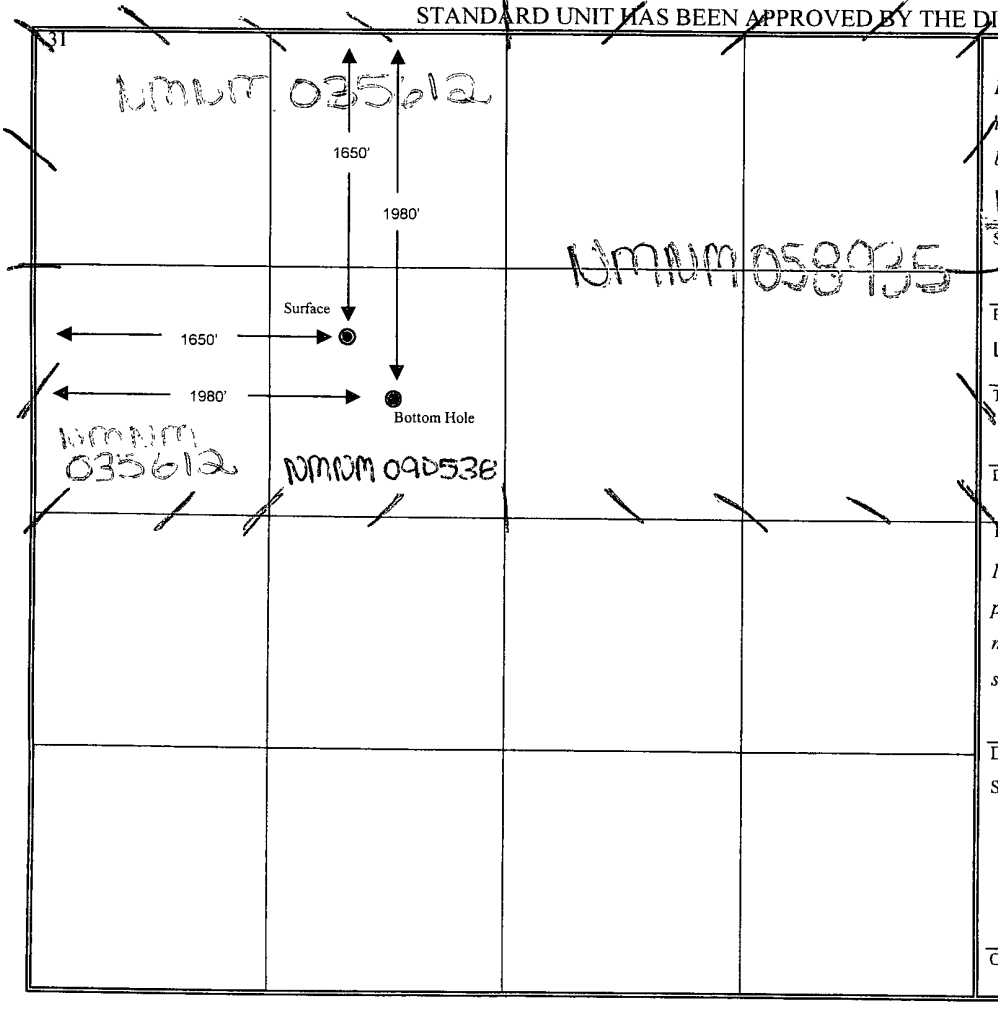
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	31	19S	32E		1650	North	1650	West	Lea

[11] 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
F	31	19S	32E		1980	North	1980	West	Lea

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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



[17] OPERATOR CERTIFICATION

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

Nancy T. Agnew
Signature

Nancy T. Agnew
Printed Name

Land Department
Title and E-mail Address

3/18/08
Date

[18] 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

Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 1-1-89

Original Plat
Pit well

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator		Lease		Well No.
Hopper & Barnett		Federal "D"		1
Unit Letter	**Section**	**Township**	**Range**	**County**
F	31	19 South	32 East NMPM	Lea

Actual Footage Location of Well:
1650 feet from the North line and 1650 feet from the West line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3523.5	Delaware (SJS)	W. Lusk	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

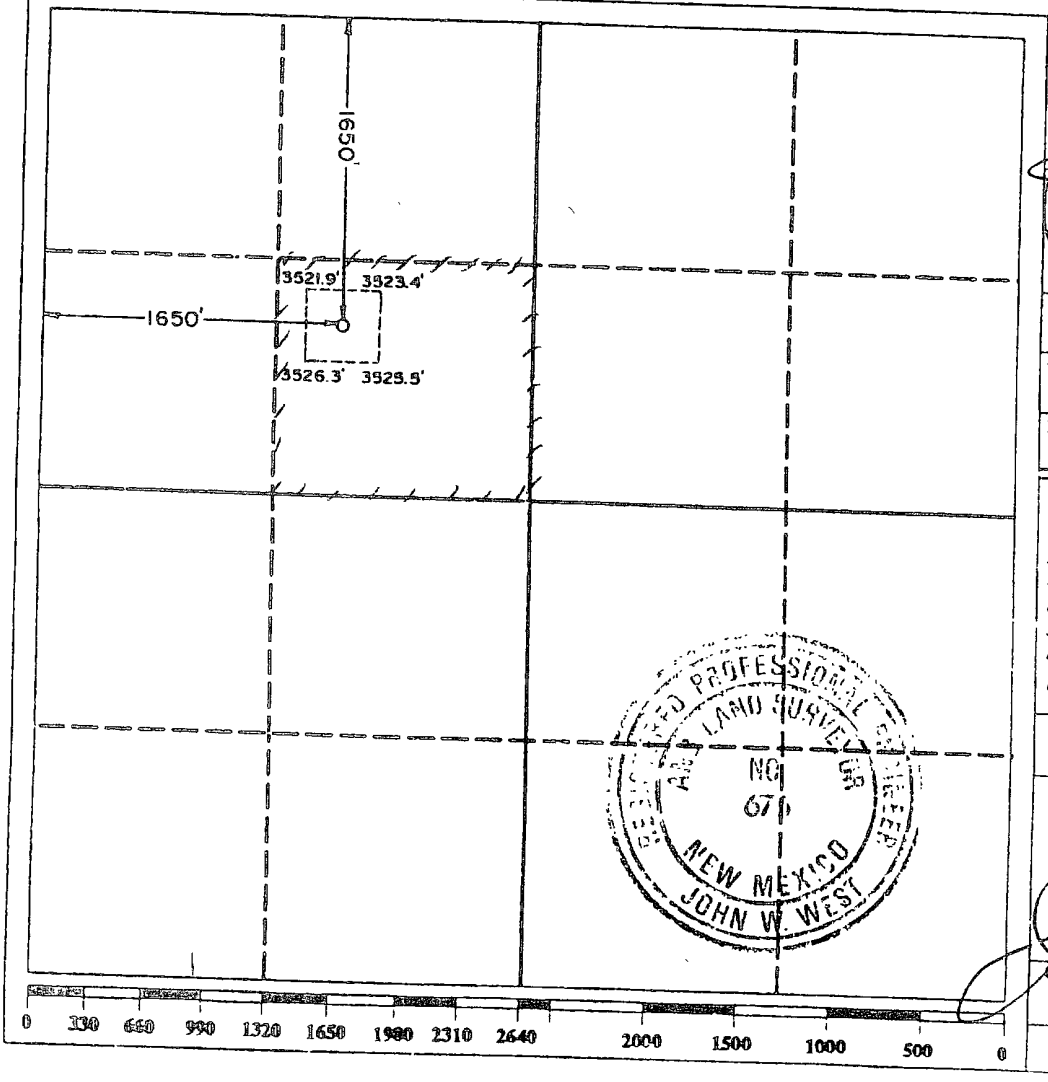
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature: Raymond J. Shaw

Printed Name: for: Roy Hopper

Position:

Company: Hopper-Barnett, Inc.

Date: 12/21/89

SURVEYOR CERTIFICATION

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

Date Surveyed: November 10, 1989

Signature & Seal of Professional Surveyor

Certificate No. JOHN W WEST, 676
RONALD J. EIDSON, 3239

125830

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Re-Entry
Tres Elo Federal Com #2
1650' FNL & 1650' FWL, Unit F
Section 31, T19S, R32E
Lea 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 are as follows:

Rustler	800'	Bone Spring	7300'
Top of Salt	940'	Wolfcamp	10650'
Base of Salt	2400'	Strawn	11300'
Yates	2500'	Atoka	11700'
Capitan	2850'	Morrow	12300'
Delaware	4450'	TD	13000'

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

Capitan	2850'	Water
Delaware	4450'	Oil
Wolfcamp	10650'	
Strawn	11300'	Gas
Atoka	11700'	
Morrow	12300'	

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 200' into the 8 5/8" casing.

4. **Existing Casing Program:**

Hole Size	Interval	OD Casing	New or Used	Wt	Collar	Grade
17 ½"	0' – 687'	13 3/8"	Existing	48#	STC	H-40
12 ¼"	687' – 3801'	8 5/8"	Existing	32#	STC	J-55
7 7/8"	3801' – 13000'	5 1/2"	New	17#	LTC	P110

Collapse Design Factor	Burst Design Factor	Safety Design Factor
1.125	1.125	1.125

5. Proposed Cement Program:

a. 5 1/2" Production Casing: Stage 1 250 sk "H" Light wt 12.7 Yield 1.91 Tail in with 250 sk "H" wt 13.0 yield 1.67
Stage 2 500 sk "H" Light wt 12.7 yield 1.91 Tail in 100 sk "H" Wt 13.0 yield 1.67 DV @ 9000 TOC 3600'

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 8 5/8" casing shoe. **All casing is new and API approved.**

6. Minimum Specifications for Pressure Control:

Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 8 5/8" casing with a 5M system, tested to 5000# before drilling out.

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 5000 psi WP rating.

7. Estimated BHP: 5408 psi

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

Depth	Type System	Mud Weight	Viscosity (sec)	Waterloss (cc)
3801' – 13000'	Cut Brine	8.4 – ~~8.6~~ 8.9 per operator 5-5-08	28 - 32	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 before drilling out. Breathing equipment will be on location before drilling out until total depth is reached.

10. Testing, Logging and Coring Program:

No testing, logging or coring planned

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: 5408 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 25 days.

Pressure Test Report

COMPANY INFORMATION

Company Name	MARBOB ENERGY
Representative	BRIAN COLLINS
Phone	
Fax	
Address	
E-Mail Address	
Service Company	KELTIC SERVICES

WELL INFORMATION

Well Name	TRES ELOS FED COM #1
Well Location	
Field and Pool	
Status (Oil, Gas, Water, Injection)	GAS
Perforated Intervals	12048 THRU 12253 FT.
Mid-point of Perforated Intervals (MPP)	12150 FT
Drilling Rig Number	
Elevations	
Kelly Bushing (KB)	
Casing Flange (CF)	
KB-CF	
Ground Level	
Plug Back Total Depth	
Total Depth	
Production Casing	
Production Tubing	

TEST INFORMATION

Type of Test	STATIC GRAIDENT
Date(s) of Test	07-15-02
Dead-weight Gauge Tubing Pressure	4080#
Dead-weight Gauge Casing Pressure	
Shut-in Date (Duration)	
Date / Time on Bottom	07-15-02
Date / Time off Bottom	
Probe Serial Number	R24
Probe Offset from End of Tool String	
Run Depth at Probe Pressure Port	11950 FT.

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	5506.9 psig
Maximum Recorded Probe Temperature	176.0 deg F
Final Buildup Pressure	
Gradient Survey Information	
Extrapolated Pressure to MPP	
Final Gradient at Depth	
Job Number	

Marbob

Tres Elo Federal Com #2
Tres Elo Federal Com #2
Tres Elo Federal Com #2
Original Hole

Plan: Plan #1

Pathfinder Survey Report

25 April, 2008

marbob
energy corporation
Artesia, N.M.

Azimuths to Grid North
True North: -0.22°
Magnetic North: 7.91°

Magnetic Field
Strength: 49107.4snT
Dip Angle: 60.47°
Date: 4/25/2008
Model: IGRF200510

PATHFINDER
ENERGY SERVICES

Project: Tres Elo Federal Com #2
Site: Tres Elo Federal Com #2
Well: Tres Elo Federal Com #2
Wellbore: Original Hole
Plan: Plan #1 (Tres Elo Federal Com #2/Original Hole)

WELL DETAILS Tres Elo Federal Com #2

Ground Elevation:: 0.00
RKB Elevation: EST RKB @ 0 00ft
Rig Name:

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0 00	545863 730	628459.120	32° 30' 0 000 N	103° 55' 0.000 W	

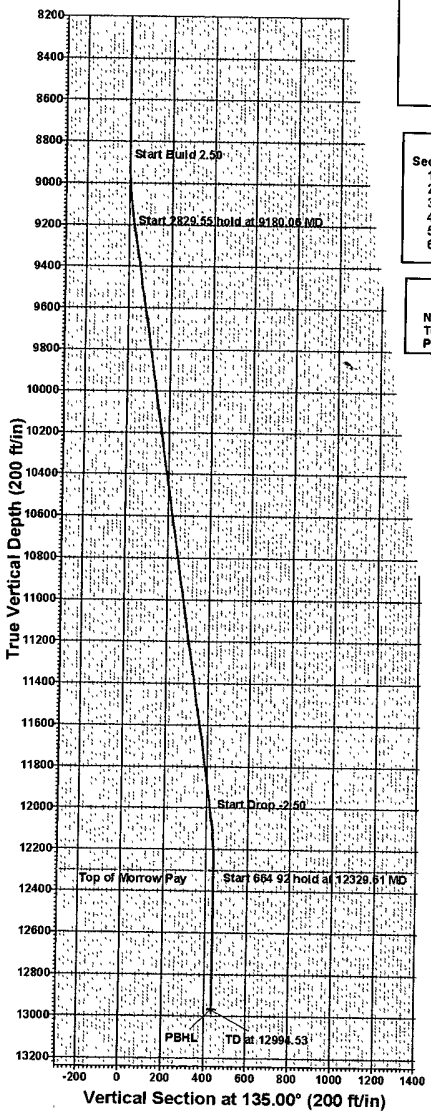
SECTION DETAILS

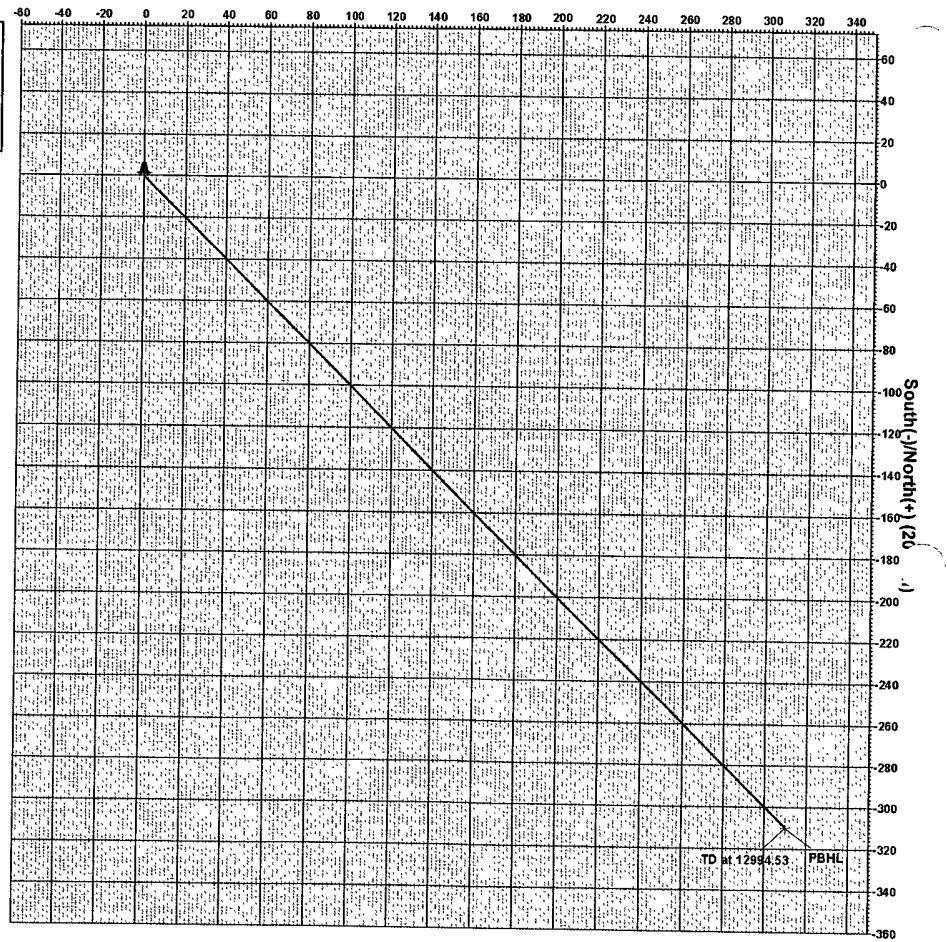
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	
2	8860.06	0.00	0.00	8860.06	0.00	0.00	0.00	0.00	0.00	
3	9180.06	8.00	135.00	9179.02	-15.77	15 77	2.50	135.00	22.30	
4	12009.61	8.00	135.00	11981.03	-294.23	294 23	0.00	0.00	416.10	
5	12329.61	0.00	0.00	12300.00	-310.00	310.00	2.50	180.00	438.41	
6	12994.53	0.00	0.00	12964.92	-310.00	310.00	0.00	0.00	438.41	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Top of Morrow Pay	12300.00	-310 00	310.00	545553.730	628769.120	Point
PBHL	12964.92	-310.00	310 00	545553.730	628769 120	Point

PROJECT DETAILS: Tres Elo Federal Com #2
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





Plan Plan #1 (Tres Elo Federal Com #2/Original Hole)	
Created By Mark Freeman	Date 13 31, April 25 2008
Checked _____	Date _____

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well Tres Elo Federal Com #2
Project:	Tres Elo Federal Com #2	**TVD Reference:**	EST RKB @ 0.00ft
Site:	Tres Elo Federal Com #2	**MD Reference:**	EST RKB @ 0.00ft
Well:	Tres Elo Federal Com #2	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003 16 Single User Db

Project Tres Elo Federal Com #2

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 Tres Elo Federal Com #2

Site Position:		**Northing:**	545,863.730 ft	**Latitude:**	32° 30' 0.000 N
From:	Map	**Easting:**	628,459.120 ft	**Longitude:**	103° 55' 0.000 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.22 °

Well Tres Elo Federal Com #2

Well Position	**+N/-S**	0.00 ft	**Northing:**	545,863.730 ft	**Latitude:**	32° 30' 0.000 N
	+E/-W	0.00 ft	**Easting:**	628,459.120 ft	**Longitude:**	103° 55' 0.000 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0 00 ft

Wellbore Original Hole

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	4/25/2008	8.13	60.47	49,107

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	135.00

Survey Tool Program **Date** 4/25/2008

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	12,994.53	Plan #1 (Original Hole)	MWD	MWD - Standard

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
400 00	0.00	0.00	400.00	0 00	0.00	0.00	0 00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00
600 00	0 00	0 00	600 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
800.00	0 00	0.00	800.00	0 00	0.00	0.00	0 00
900.00	0 00	0.00	900.00	0 00	0 00	0.00	0.00
1,000.00	0.00	0.00	1,000 00	0.00	0 00	0 00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0 00	0.00	0.00

Company:	Marbob	**Local Co-ordinate Reference:**	Well Tres Elo Federal Com #2
Project:	Tres Elo Federal Com #2	**TVD Reference:**	EST RKB @ 0 00ft
Site:	Tres Elo Federal Com #2	**MD Reference:**	EST RKB @ 0.00ft
Well:	Tres Elo Federal Com #2	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
1,200.00	0.00	0.00	1,200.00	0.00	0 00	0 00	0 00
1,300.00	0 00	0.00	1,300 00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400 00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500 00	0.00	0.00	0.00	0 00
1,600.00	0 00	0.00	1,600.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700 00	0.00	0.00	0.00	0.00
1,800 00	0.00	0.00	1,800.00	0 00	0.00	0 00	0 00
1,900.00	0.00	0.00	1,900 00	0.00	0 00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00
2,100.00	0 00	0 00	2,100.00	0.00	0.00	0.00	0.00
2,200 00	0.00	0.00	2,200.00	0 00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300 00	0.00	0.00	0.00	0.00
2,400 00	0.00	0 00	2,400.00	0 00	0.00	0.00	0.00
2,500.00	0.00	0 00	2,500.00	0.00	0 00	0 00	0.00
2,600 00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00
2,700 00	0.00	0.00	2,700.00	0.00	0 00	0.00	0.00
2,800.00	0.00	0 00	2,800.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0 00	0.00	0.00	0 00
3,000 00	0 00	0.00	3,000 00	0.00	0.00	0.00	0.00
3,100 00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00
3,200.00	0 00	0.00	3,200 00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0 00	0.00	0 00	0.00
3,400 00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0 00	0.00	0.00
3,600 00	0 00	0.00	3,600 00	0.00	0.00	0.00	0.00
3,700 00	0.00	0.00	3,700.00	0.00	0 00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0 00	0.00	0.00	0.00
3,900.00	0.00	0 00	3,900 00	0.00	0.00	0.00	0.00
4,000 00	0 00	0.00	4,000 00	0 00	0.00	0.00	0 00
4,100.00	0 00	0.00	4,100 00	0.00	0.00	0.00	0 00
4,200.00	0.00	0.00	4,200.00	0.00	0 00	0 00	0.00
4,300 00	0 00	0.00	4,300 00	0.00	0.00	0 00	0 00
4,400.00	0 00	0.00	4,400 00	0 00	0 00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0 00	0.00	0.00	0 00
4,600 00	0.00	0 00	4,600.00	0 00	0.00	0 00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0 00
4,800 00	0.00	0.00	4,800.00	0 00	0.00	0 00	0.00
4,900.00	0.00	0.00	4,900 00	0.00	0.00	0.00	0 00
5,000.00	0.00	0.00	5,000 00	0.00	0.00	0.00	0.00
5,100.00	0 00	0 00	5,100.00	0 00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0 00	5,300.00	0 00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0 00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0 00	0 00	0.00

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well Tres Elo Federal Com #2
Project:	Tres Elo Federal Com #2	**TVD Reference:**	EST RKB @ 0.00ft
Site:	Tres Elo Federal Com #2	**MD Reference:**	EST RKB @ 0.00ft
Well:	Tres Elo Federal Com #2	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
5,600.00	0 00	0.00	5,600.00	0 00	0.00	0.00	0.00
5,700.00	0.00	0 00	5,700.00	0.00	0.00	0.00	0 00
5,800.00	0 00	0.00	5,800.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900 00	0 00	0.00	0.00	0.00
6,000.00	0.00	0 00	6,000.00	0.00	0 00	0.00	0 00
6,100.00	0.00	0.00	6,100 00	0.00	0.00	0.00	0.00
6,200.00	0 00	0 00	6,200.00	0.00	0 00	0 00	0.00
6,300.00	0.00	0.00	6,300.00	0 00	0.00	0 00	0.00
6,400.00	0 00	0.00	6,400 00	0.00	0.00	0 00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0 00	0.00	0.00
6,600 00	0.00	0.00	6,600.00	0 00	0.00	0 00	0.00
6,700.00	0.00	0 00	6,700.00	0 00	0 00	0.00	0 00
6,800.00	0.00	0 00	6,800.00	0 00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00
7,000.00	0 00	0.00	7,000.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100 00	0.00	0 00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0 00	0.00	0 00	0 00
7,300 00	0.00	0.00	7,300 00	0.00	0 00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0 00	0.00	0 00	0 00
7,500.00	0 00	0 00	7,500 00	0.00	0.00	0.00	0 00
7,600.00	0.00	0.00	7,600.00	0.00	0 00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0 00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0 00	0.00	0 00	0.00
7,900.00	0.00	0 00	7,900.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000 00	0.00	0.00	0.00	0.00
8,100 00	0.00	0.00	8,100.00	0.00	0.00	0 00	0.00
8,200.00	0.00	0 00	8,200.00	0.00	0 00	0.00	0.00
8,300 00	0.00	0 00	8,300.00	0 00	0.00	0.00	0.00
8,400 00	0.00	0.00	8,400 00	0.00	0 00	0.00	0.00
8,500 00	0.00	0.00	8,500.00	0.00	0.00	0.00	0 00
8,600.00	0 00	0.00	8,600 00	0.00	0.00	0.00	0.00
8,700 00	0.00	0.00	8,700.00	0.00	0 00	0 00	0 00
8,800.00	0.00	0.00	8,800.00	0 00	0.00	0.00	0.00
8,860.06	0.00	0.00	8,860 06	0.00	0.00	0.00	0 00
8,900.00	1 00	135.00	8,900 00	-0.25	0 25	0.35	2 50
9,000.00	3.50	135.00	8,999 91	-3 02	3.02	4 27	2.50
9,100.00	6.00	135.00	9,099.56	-8.87	8.87	12.55	2 50
9,180.06	8.00	135.00	9,179.02	-15 77	15.77	22.30	2.50
9,200.00	8.00	135 00	9,198 77	-17.73	17.73	25.08	0.00
9,300 00	8 00	135.00	9,297 79	-27.57	27.57	39.00	0.00
9,400 00	8 00	135.00	9,396.82	-37.42	37 42	52.91	0.00
9,500.00	8.00	135.00	9,495.85	-47.26	47.26	66.83	0.00
9,600 00	8 00	135.00	9,594.87	-57.10	57 10	80.75	0.00
9,700 00	8.00	135.00	9,693.90	-66.94	66.94	94 67	0.00

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well Tres Elo Federal Com #2
Project:	Tres Elo Federal Com #2	**TVD Reference:**	EST RKB @ 0.00ft
Site:	Tres Elo Federal Com #2	**MD Reference:**	EST RKB @ 0.00ft
Well:	Tres Elo Federal Com #2	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
9,800.00	8.00	135.00	9,792 93	-76 78	76 78	108.58	0.00
9,900.00	8.00	135.00	9,891.95	-86.62	86.62	122.50	0.00
10,000.00	8 00	135.00	9,990.98	-96.46	96 46	136.42	0.00
10,100.00	8.00	135 00	10,090 01	-106.30	106 30	150 33	0.00
10,200.00	8.00	135.00	10,189.04	-116.14	116.14	164.25	0.00
10,300 00	8.00	135.00	10,288.06	-125.98	125.98	178 17	0.00
10,400.00	8.00	135.00	10,387.09	-135 83	135.83	192.09	0 00
10,500.00	8.00	135.00	10,486.12	-145.67	145.67	206.00	0 00
10,600.00	8.00	135.00	10,585 14	-155 51	155.51	219.92	0.00
10,700.00	8.00	135.00	10,684.17	-165 35	165.35	233.84	0.00
10,800 00	8.00	135 00	10,783.20	-175.19	175.19	247.76	0.00
10,900.00	8.00	135.00	10,882.22	-185.03	185.03	261.67	0.00
11,000.00	8 00	135.00	10,981 25	-194 87	194.87	275.59	0.00
11,100.00	8 00	135 00	11,080.28	-204.71	204.71	289.51	0.00
11,200.00	8.00	135.00	11,179 30	-214.55	214.55	303.43	0.00
11,300 00	8.00	135.00	11,278.33	-224.40	224.40	317 34	0.00
11,400.00	8.00	135.00	11,377.36	-234.24	234 24	331.26	0.00
11,500 00	8.00	135.00	11,476.38	-244.08	244.08	345.18	0.00
11,600 00	8 00	135 00	11,575 41	-253.92	253 92	359.09	0.00
11,700.00	8.00	135 00	11,674 44	-263.76	263.76	373 01	0.00
11,800.00	8.00	135.00	11,773.46	-273.60	273 60	386 93	0.00
11,900.00	8.00	135.00	11,872.49	-283 44	283.44	400.85	0 00
12,009 61	8 00	135.00	11,981 03	-294.23	294 23	416 10	0.00
12,100 00	5.74	135.00	12,070.77	-301.87	301.87	426.91	2.50
12,200.00	3 24	135.00	12,170.45	-307.41	307.41	434.74	2.50
12,300.00	0.74	135 00	12,270 39	-309.86	309.86	438.21	2.50
12,329 61	0.00	0.00	12,300.00	-310.00	310.00	438.41	2.50
12,400 00	0 00	0 00	12,370.39	-310.00	310.00	438 41	0.00
12,500.00	0.00	0.00	12,470.39	-310 00	310.00	438.41	0.00
12,600.00	0 00	0.00	12,570.39	-310.00	310.00	438 41	0 00
12,700.00	0.00	0.00	12,670.39	-310.00	310.00	438.41	0.00
12,800 00	0.00	0 00	12,770 39	-310 00	310.00	438.41	0.00
12,900.00	0.00	0.00	12,870.39	-310.00	310.00	438.41	0 00
12,994.53	0.00	0.00	12,964 92	-310 00	310 00	438.41	0.00

Company:	Marbob	**Local Co-ordinate Reference:**	Well Tres Elo Federal Com #2
Project:	Tres Elo Federal Com #2	**TVD Reference:**	EST RKB @ 0.00ft
Site:	Tres Elo Federal Com #2	**MD Reference:**	EST RKB @ 0.00ft
Well:	Tres Elo Federal Com #2	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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 - plan hits target - Point	0.00	0.00	12,964 92	-310.00	310.00	545,553.730	628,769 120	32° 29' 56 920 N	103° 54' 56 394 W
Top of Morrow Pay - plan hits target - Point	0 00	0.00	12,300.00	-310 00	310 00	545,553 730	628,769 120	32° 29' 56.920 N	103° 54' 56.394 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
12,329.61	12,300.00	Top of Morrow Pay		0.00	

Checked By: _____ Approved By: _____ Date: _____

FINDER ENERGY SERVICES

PathFinder Energy Service
Planning Report

Company:	Marbob Energy	**Date:** 10/12/2004	**Time:** 13:51:19	**Page:**	1
Field:	Tres Elo Federal COM #2	**Co-ordinate(NE) Reference:**	Site: Tres Elo Federal COM #2, True Nort		
Site:	Tres Elo Federal COM #2	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Tres Elo Federal COM #2	**Section (VS) Reference:**	Well (0.00N,0.00E,135.00Azi)		
Wellpath:	Reentry Plan	**Plan:**	Plan #1 10/12/04		

Field: Tres Elo Federal COM #2
Lea County, New Mexico

Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	NAD27 (Clarke 1866)	**Coordinate System:**	Site Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	igrf2000

Site: Tres Elo Federal COM #2
T19S & R32E
Section 31, 1650 FNL & 1650 FWL

Site Position:		**Northing:**	ft	**Latitude:**	
From:	Lease Line	**Easting:**	ft	**Longitude:**	
Position Uncertainty:	0.00 ft			**North Reference:**	True
Ground Level:	0.00 ft			**Grid Convergence:**	0.22 deg

Well: Tres Elo Federal COM #2 **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	545863 73 ft	**Latitude:**	32 29 59.999 N
	+E/-W	0.00 ft	**Easting :**	628459.12 ft	**Longitude:**	103 55 0.000 W
Position Uncertainty:		0.00 ft				

Wellpath: Reentry Plan **Drilled From:** Surface
Tie-on Depth: 0.00 ft

Current Datum:	SITE	**Height**	0.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	10/11/2004			**Declination:**	8.76 deg
Field Strength:	49592 nT			**Mag Dip Angle:**	60.63 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	135.00

Plan: Plan #1 10/12/04 **Date Composed:** 10/12/2004
Version: 1
Principal: Yes **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	135.00	0 00	0:00	0.00	0 00	0.00	0.00	0.00	
7150 00	0 00	135.00	7150.00	0.00	0.00	0.00	0.00	0.00	135.00	
8860.06	0 00	135.00	8860.06	0.00	0.00	0.00	0 00	0 00	0 00	
9180.06	8 00	135.00	9179.02	-15 77	15.77	2 50	2.50	0.00	135 00	
12009 61	8.00	135.00	11981 04	-294.23	294.23	0.00	0.00	0.00	0.00	
12329.61	0 00	135.00	12300 00	-310.00	310.00	2.50	-2.50	0.00	180.00	Top of Morrow Pay
12994 53	0.00	135.00	12964 92	-310.00	310.00	0.00	0 00	0 00	135.00	

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec	<--- Longitude ---> Deg Min Sec
Top of Morrow Pay -Plan hit target			12300.00	-310.00	310.00	545554.95	628770.33	32 29 56 932 N	103 54 56 380 W

Marbob Energy Corporation
Tres Elo Federal COM #2
Lea County, New Mexico
Section 31, T19S & R32E
Surface Location: 1650' FNL & 1650 FWL
Plan #1 (Re-Entry 10/12/04)

PATHFINDER ENERGY SERVICES

T

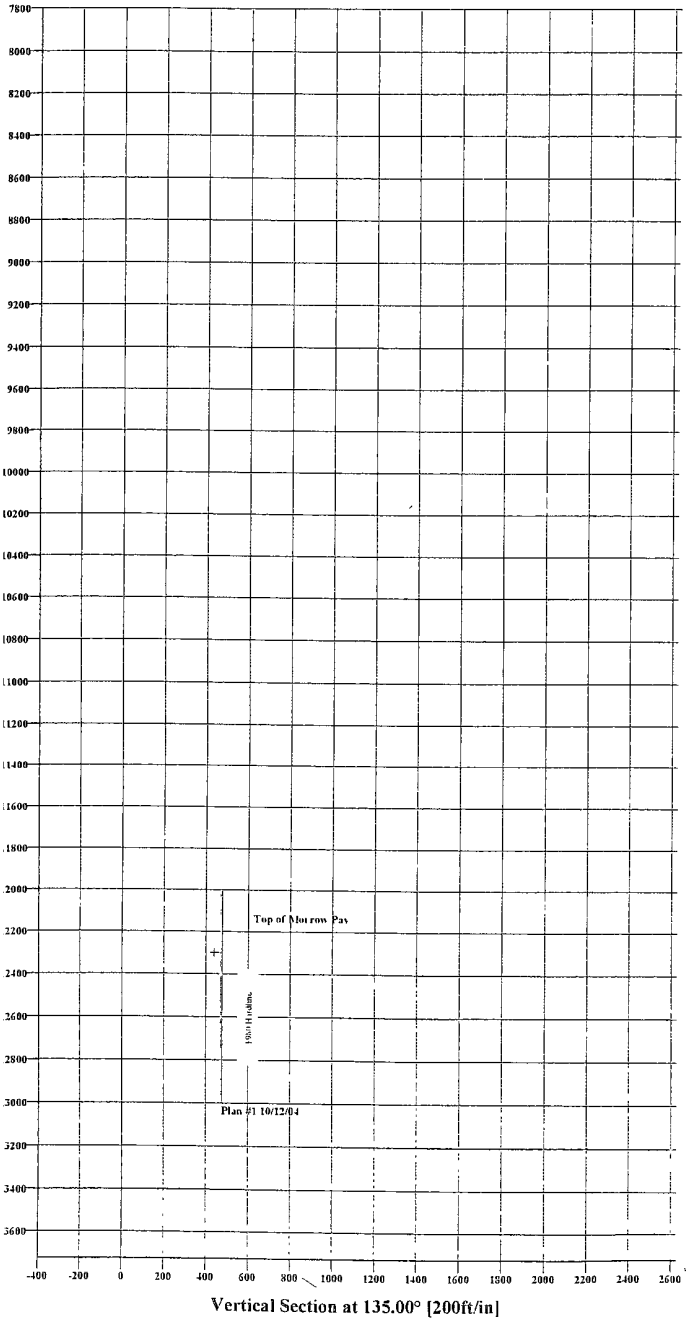
M Azimuths to True North
Magnetic North 8 76°

Magnetic Field
Strength 49592nT
Dip Angle 60 63°
Date 10/11/2004
Model igrf2000

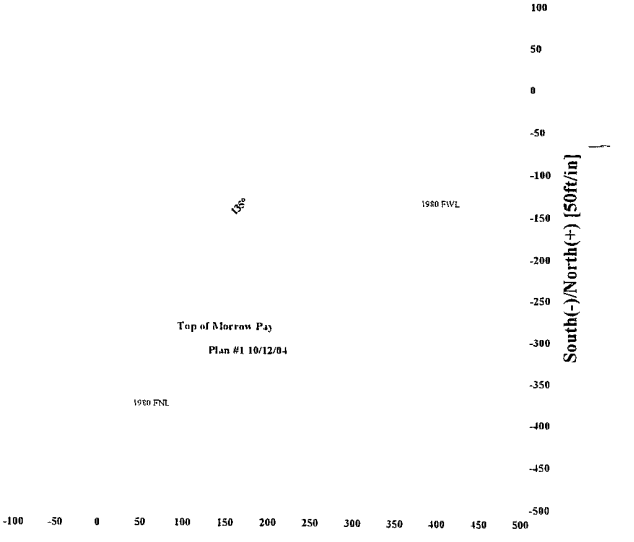
Field Tres Elo Federal COM #2
Site Tres Elo Federal COM #2
Well Tres Elo Federal COM #2
Wellpath Reentry Plan
Plan Plan #1 10/12/04

SECTION DETAILS

ec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
	0 00	0 00	135 00	0 00	0 00	0 00	0 00	0 00	0 00	
	7150 00	0 00	135 00	7150 00	0 00	0 00	0 00	135 00	0 00	
	8860 06	0 00	135 00	8860 06	0 00	0 00	0 00	0 00	0 00	
	9180 06	8 00	135 00	9179 02	-15 77	15 77	2 50	135 00	22 30	
	12009 61	8 00	135 00	11981 04	-294 23	294 23	0 00	0 00	416 10	
	12329 61	0 00	135 00	12300 00	-310 00	310 00	2 50	180 00	438 41	Top of Morrow Pay
	12994 53	0 00	135 00	12964 92	-310 00	310 00	0 00	135 00	438 41	



Vertical Section at 135.00° [200ft/in]



Plan Plan #1 (DAD State #42/Original Hole)

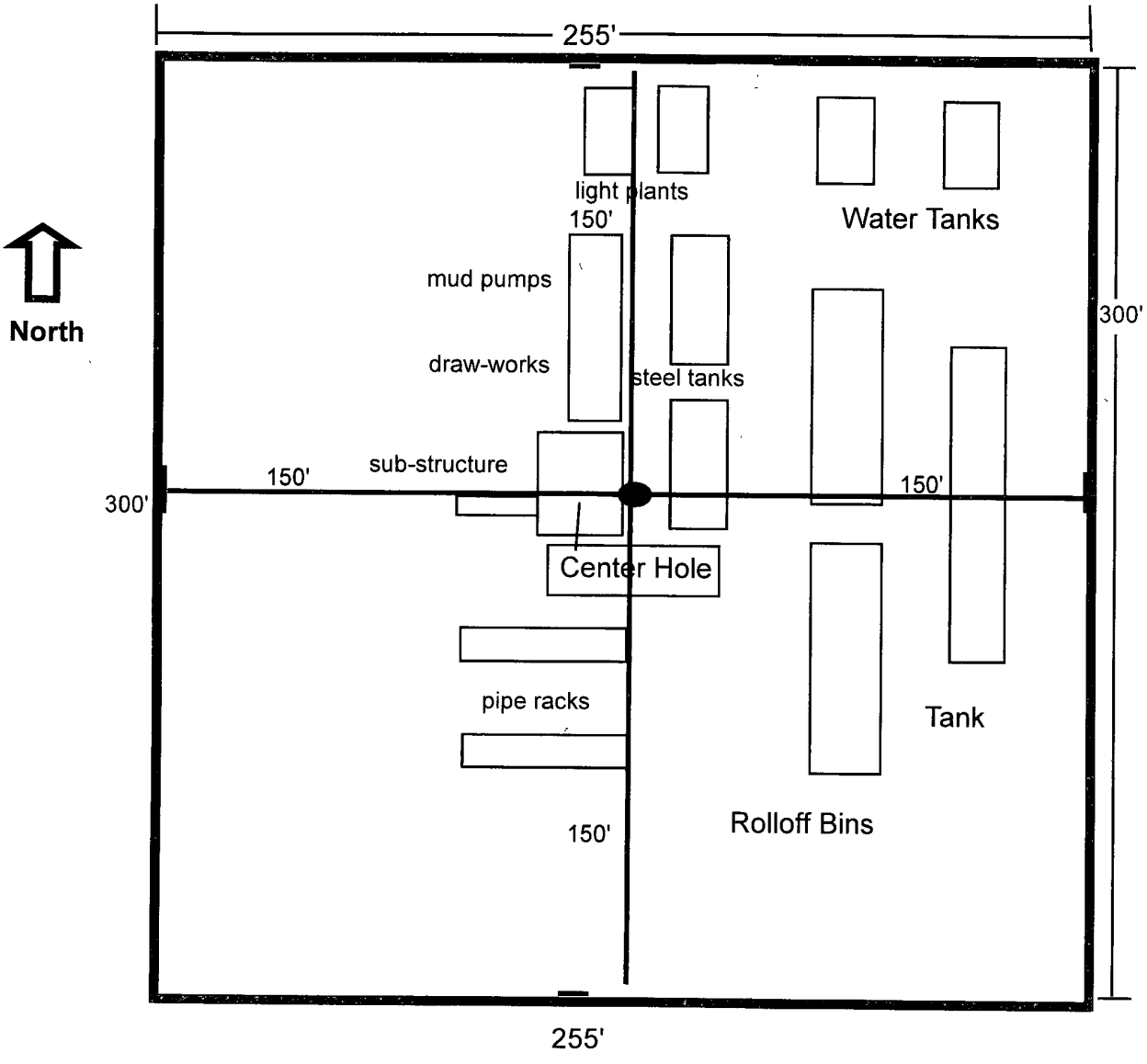
Created By Ron McIntyre Date 7/26/2004

Checked _____ Date _____

Reviewed _____ Date _____

Approved _____ Date _____

Well Site Lay-Out Plat



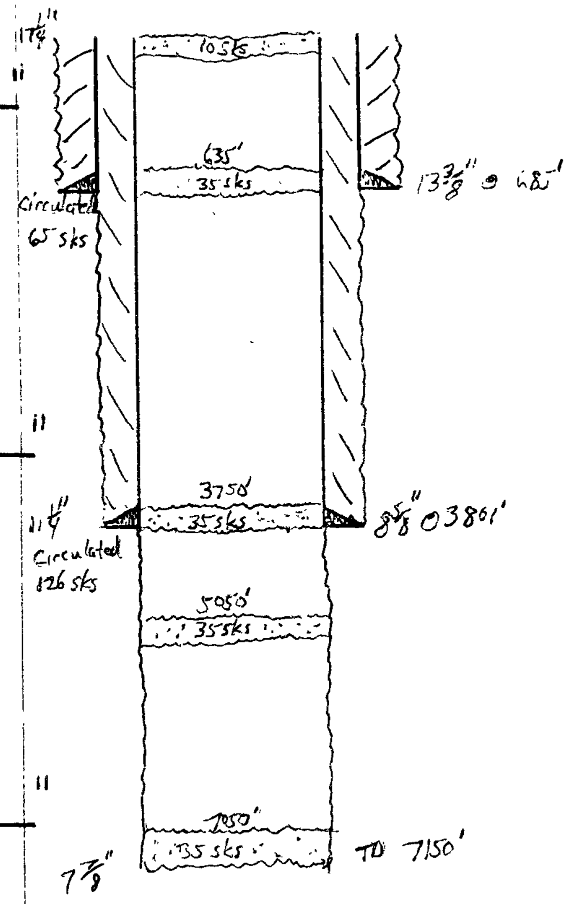
Re-Entry
Tres Elo Federal Com #2
1650' FNL & 1650' FWL, Unit F
Section 31, T19S, R32E
Lea County, New Mexico

EXHIBIT THREE

Well: Tres Elo Fed. Com. #2

Location: 1650 FNL & 1650 FWL
31-19S-32E
Lea Co., NM

Zero:
KB: 3543.8
GL:



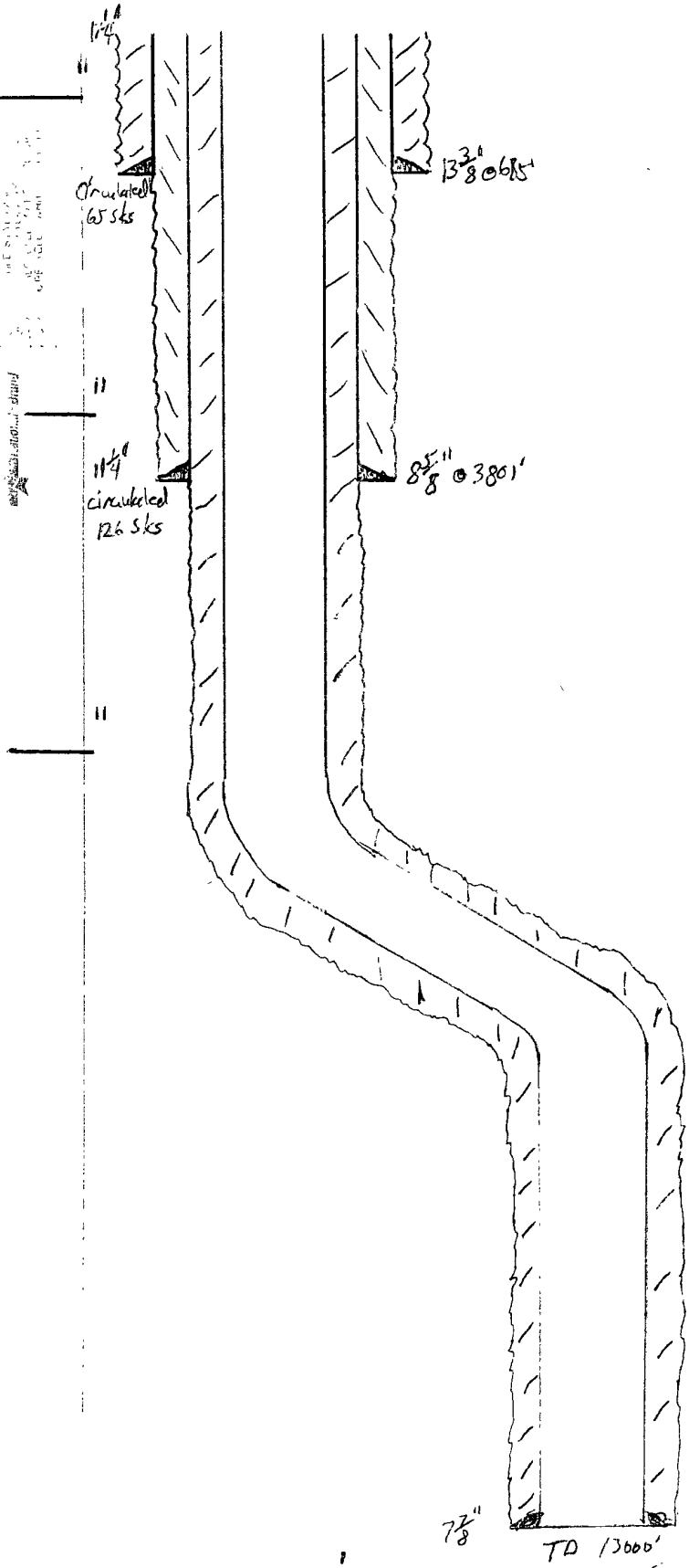
"Before"

Sketch Not To Scale

Well: Tres Elo Fed. Com. #2

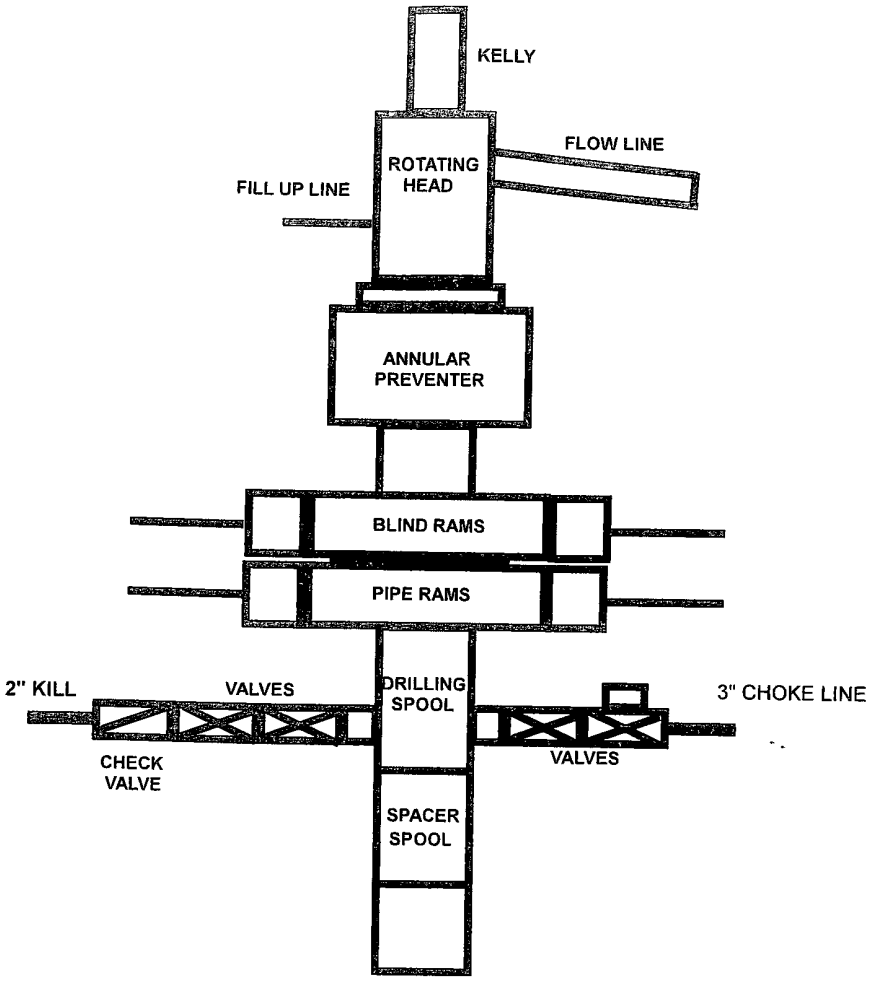
Location: 1650 FNL & 1650 FWL (Surf.)
1980 FNL & 1980 FWL BHL
31-19S-32E Lea Co., NM

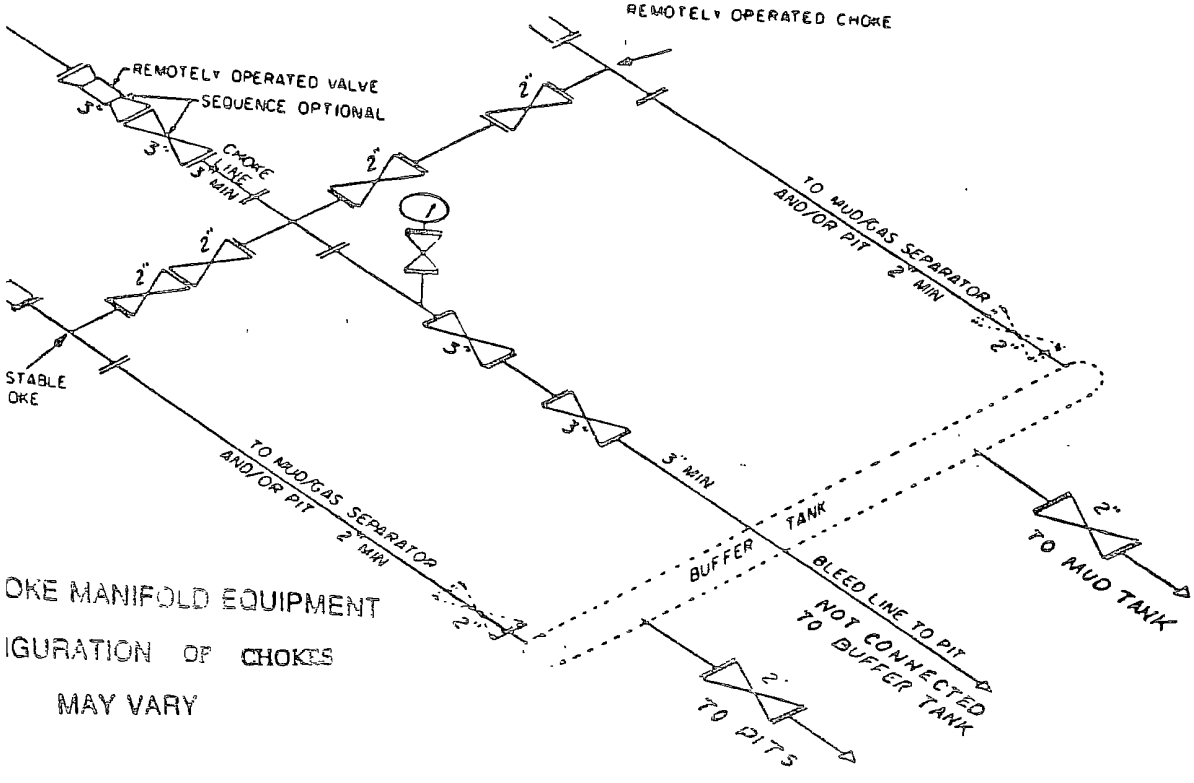
Zero:
KB: 3543.8
GL:



"After"

5M SYSTEM





OKE MANIFOLD EQUIPMENT

IGURATION OF CHOKES

MAY VARY

Exhibit One

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE (H_2S) CONTINGENCY PLAN
FOR DRILLING/COMPLETING/WORKOVER/FACILITY
WITH THE EXPECTATION OF H_2S IN EXCESS OF 100 PPM

Tres Elo Federal Com #2
REENTER
Surf: 1650' FNL & 1650' FWL
BHL: 1980' FNL & 1980' FWL
SECTION 31-T19S-R32E
LEA COUNTY, NEW MEXICO

This well/facility is not expected to have H_2S, but due to the sensitive location, the following is submitted as requested.

TABLE OF CONTENTS

GENERAL H_2S EMERGENCY ACTIONS

In the event of an H_2S emergency, the following plan will be initiated:

1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".

2) If for any reason a person must enter the hazardous area, they must wear a SCBA (self contained breathing apparatus).

3) Always us the "buddy system".

4) Isolate the well/problem if possible.

5) Account for all personnel.

6) Display the proper colors warning all unsuspecting personnel of the danger at hand.

7) Contact the company representative as soon as possible if not at the location (use the enclosed call list as instructed).

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H_2S

1) All personnel will don the self contained breathing apparatus.

2) Remove all personnel to the "safe area" (always use the "buddy system").

3) Contact company representative if not on location.

4) Set in motion the steps to protect and/or remove the general public to any upwind "safe area". Maintain strict security and safety procedures while dealing with the source.

5) No entry to any unauthorized personnel.

6) Notify the appropriate agencies:
   City Police – City streets
   State Police – State Roads
   County Sheriff – County Roads

7) Call the NMOCD.

If at this time the supervising person determines the release of H_2S cannot be contained to the site location and the general public is in harms way, he will immediately notify public safety personnel.

EMERGENCY CALL LIST

	Office	Mobile	Home
Marbob Energy Corp.	505-748-3303		
Sheryl Baker	505-748-3303	505-748-5489	505-748-2396
Johnny C. Gray	505-748-3303	505-748-5983	505-885-3879
Raye Miller	505-748-3303	505-513-0176	505-746-9577
Dean Chumbley	505-748-3303	505-748-5988	505-748-2426

EMERGENCY RESPONSE NUMBERS
Eddy County, New Mexico

State Police	505-748-9718
Eddy County Sheriff	505-746-2701
Emergency Medical Services (Ambulance)	911 or 505-746-2701
Eddy County Emergency Management (Harry Burgess)	505-887-9511
State Emergency Response Center (SERC)	505-476-9620
Carlsbad Police Department	505-885-2111
Carlsbad Fire Department	505-885-3125
New Mexico Oil Conservation Division	505-748-1283
Indian Fire & Safety	800-530-8693
Halliburton Services	800-844-8451

PROTECTION OF THE GENERAL PUBLIC/ROE

In the event greater than 100 ppg H_2S is present, the ROE (Radius of Exposure) calculations will be done to determine if the following is warranted:

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of 3000' will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H_2S could be present in concentrations greater than 100 ppm in the gas mixture.

Calculation for the 100 ppm ROE:

$X = [(1.589)(concentration)(Q)]^{(0.6258)}$

Calculation for the 500 ppm ROE:

$X = [(0.4546)(concentration)(Q)]^{(.06258)}$

(H_2S concentrations in decimal form)
10,000 ppm + = .01
1,000 ppm + = .001
100 ppm + = .0001
10 ppm + = .00001

EXAMPLE: If a well/facility has been determined to have 150 ppm H_2S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFD then:

ROE for 100 ppm $X=[(1.589)(.00010)(200,000)]^{(0.6258)}$
$X=8.8'$

ROE for 500 ppm $X=[(.4546)(.00050)(200,000)]^{(0.6258)}$
$X=10.9'$

These calculations will be forwarded to the appropriate NMOCD district office when applicable.

PUBLIC EVACUATION PLAN

When the supervisor has determined that the general public will be involved, the following plan will be implemented.

1) Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.

2) A trained person in H_2S safety shall monitor with detection equipment the H_2S concentration, wind and area of exposure. This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. All monitoring equipment shall be UL approved for use in Class I Groups A, B, C & D, Division I hazardous locations. All monitors will have a minimum capability of measuring H_2S, oxygen, and flammable values.

3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

4) The company representative shall stay in communication with all agencies throughout the duration of the situation and inform such agencies when the situation has been contained and the effected area is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION

The decision to ignite a well should be a last resort and one, if not both, of the following pertain:

1) Human life and/or property are in danger.

2) There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTIONS FOR IGNITION

1) Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.

2) One of the people will be a qualified safety person who will test the atmosphere for H_2S, oxygen and LFL. The other person will be the company representative.

3) Ignite up-wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a +-500' range to ignite the gas.

4) Prior to ignition, make a final check for combustible gases.

5) Following ignition, continue with the emergency actions and procedures as before.

REQUIRED EMERGENCY EQUIPMENT

1) Breathing Apparatus

- Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- Work/Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2) Signage and Flagging

- One Color Code Condition Sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- A Colored Condition flag will be on display reflecting the condition at the site at that time.

3) Briefing Area

- Two perpendicular areas will be designated by signs and readily accessible.

4) Wind Socks

- Two windsocks will be placed in strategic locations, visible from all angles.

5) H_2S Detectors and Alarm

- The stationary detector with three (3) sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible alarm @ 15 ppm. Calibrate a minimum of every 30 days or as needed. The three sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)

  - Rig floor
  - Bell nipple
  - End of flow line or where well bore fluid is being discharged

6) Auxiliary Rescue Equipment

- Stretcher
- Two OSHA full body harnesses
- 100' of 5/8" OSHA approved rope
- One 20 lb. Class ABC fire extinguisher
- Communication via cell phones on location and vehicles on location

USING SELF-CONTAINED BREATHING AIR EQUIPMENT (SCBA)

1) SCBA should be worn when any of the following are performed:

- Working near the top or on top of a tank.
- Disconnecting any line where H_2S can reasonably be expected.
- Sampling air in the area to determine if toxic concentrations of H_2S exist.
- Working in areas where over 10 ppm of H_2S has been detected.
- At any time there is a doubt of the level of H_2S in the area.

2) All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.

3) Facial hair and standard eyeglasses are not allowed with SCBA.

4) Contact lenses are never allowed with SCBA.

5) Air quality shall be continuously checked during the entire operation.

6) After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.

7) All SCBA shall be inspected monthly.

RESCUE & FIRST AID FOR VICTIMS OF H_2S POISONING

- Do not panic.
- Remain calm & think.
- Get on the breathing apparatus.
- Remove the victim to the safe breathing area as quickly as possible, upwind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and/or CPR as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

H_2S TOXIC EFFECTS

H_2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H_2S is approximately 20% heavier than air (Sp.Gr=1.19 / Air=1) and colorless. It forms an explosive mixture with air between 4.3% and 46.0%. By volume hydrogen sulfide (H_2S) is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

Various Gases

Common Name	Chemical Abbrev.	Sp. Gr.	Threshold Limits	Hazardous Limits	Lethal Concentration
Hydrogen Sulfide	H_2S	1.19	10 ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO_2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL_2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO_2	1.52	5000 ppm	5%	10%
Methane	CH_4	0.55	90,000	Combustible @ 5%	N/A

1 Threshold limit – Concentrations at which it is believed that all workers may be repeatedly exposed, day after day, without adverse effects
2 Hazardous limit – Concentration that may cause death
3 Lethal concentration – Concentration that will cause death with short-term exposure
4 Threshold limit – 10 ppm – NIOSH guide to chemical hazards
5 Short-term threshold limit

PHYSICAL EFFECTS OF HYDROGEN SULFIDE (H_2S)

CONCENTRATIONS		PHYSICAL EFFECTS
.001%	10 ppm	Obvious and unpleasant odor. Safe for 8 hr. exposure
.005%	50 ppm	Can cause some flu-like symptoms and can cause pneumonia
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate eyes and throat
.02%	200 ppm	Kills the sense of smell rapidly. Severely irritates eyes and throat. Severe flu-like symptoms after 4 or more hrs. May cause lung damage and/or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

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.

We plan to complete this well in the Morrow which is sweet and we don't anticipate cutting any formations that contain H2S gas during the drilling of the above referenced well. Therefore, we do not believe that an H2S contingency plan is necessary.

WARNING

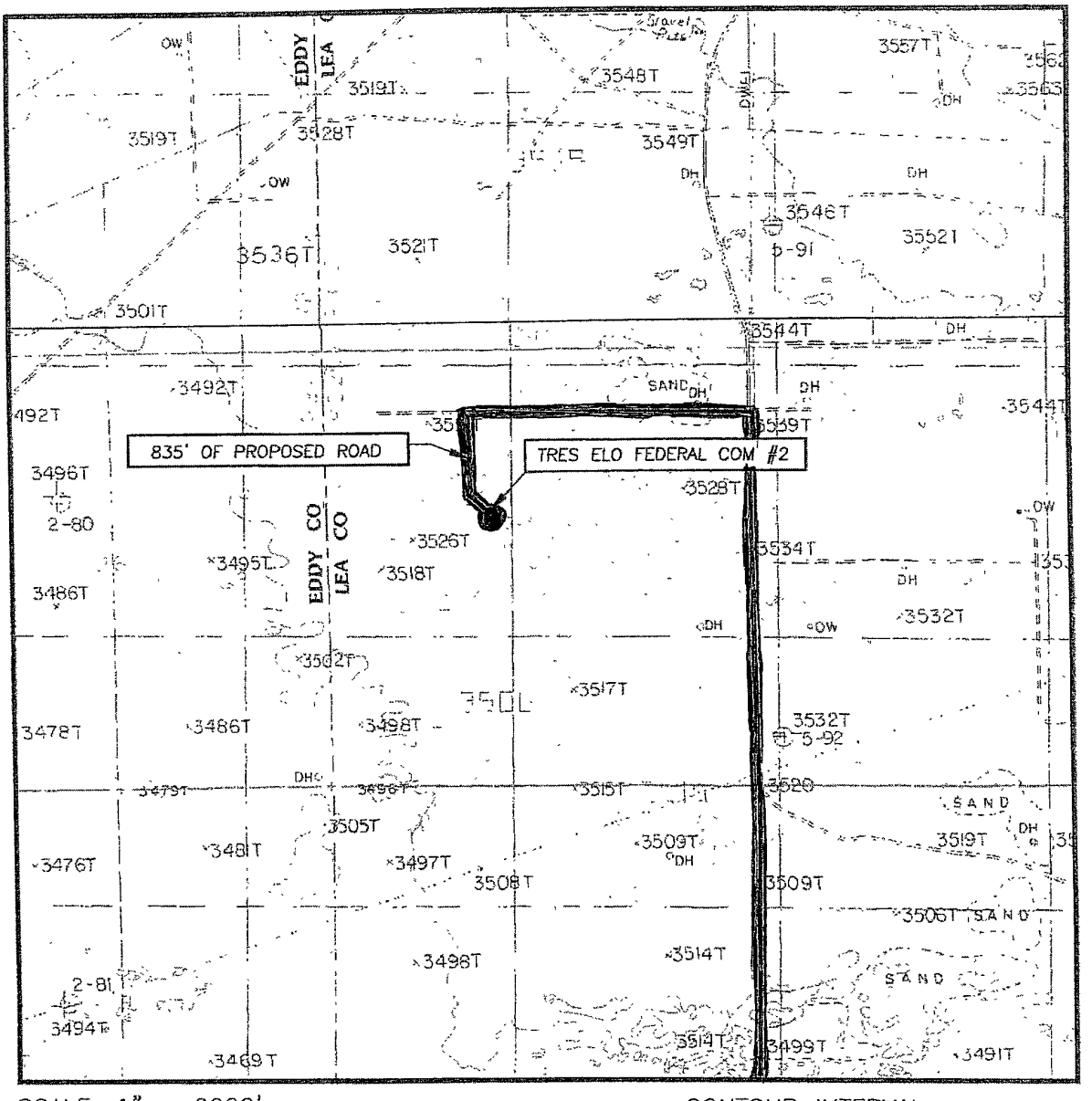
YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

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

1-505-748-3303

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
WILLIAMS SINK, N.M. – 10'

SEC. 31 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1980' FNL & 1980' FWL

ELEVATION 3523'

OPERATOR MARBOB ENERGY CORPORATION

LEASE TRES ELO FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP
WILLIAMS SINK, N.M.

Existing Roads

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Exhibit Two

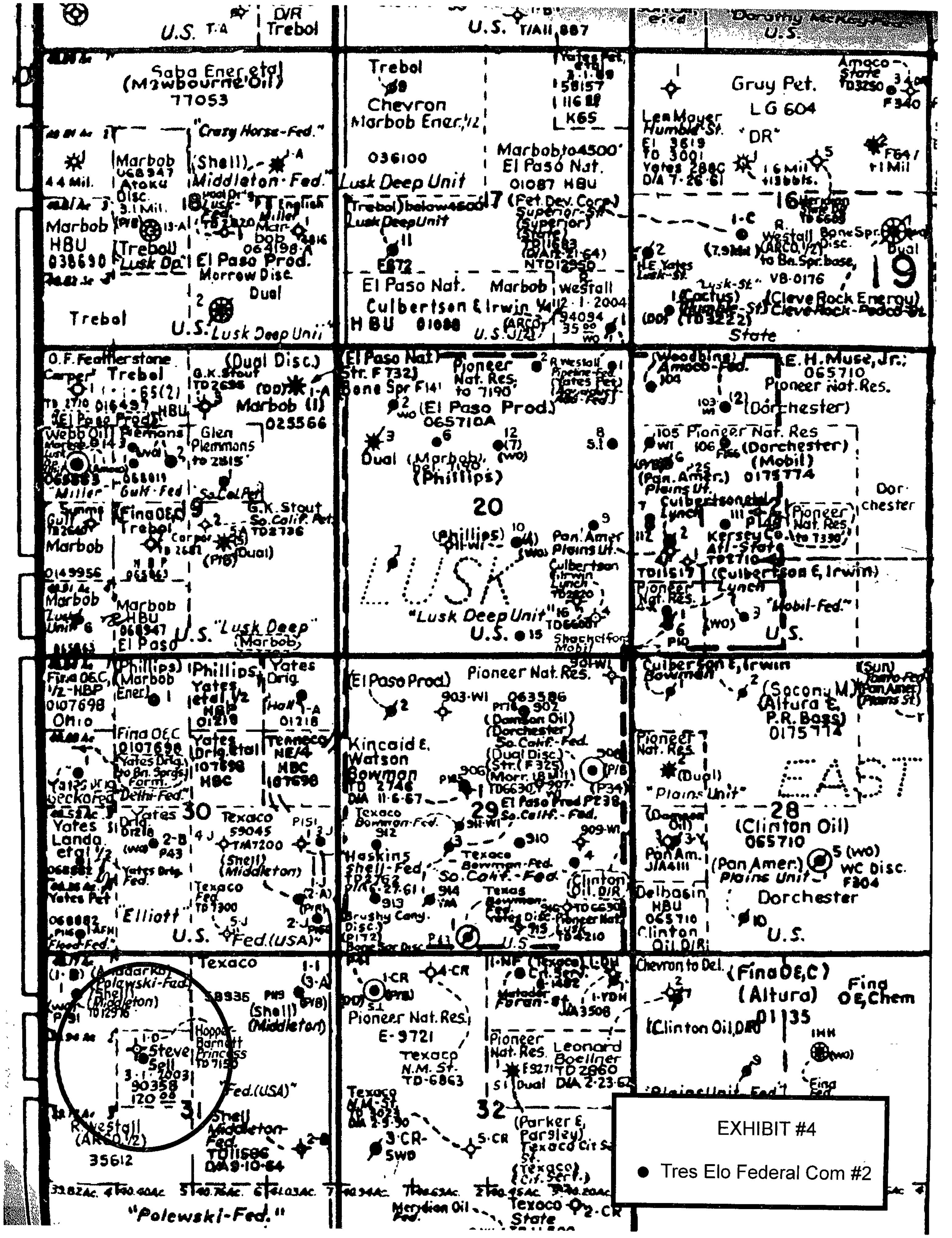


EXHIBIT #4
Tres Elo Federal Com #2
Saba Ener etal
(Mawbourne Oil)
77053
"Crazy Horse-Fed."
Middleton-Fed.
Marbob
HBU
Trebol
El Paso Prod.
Morrow Disc.
Dual
U.S.
Lusk Deep Unit
Chevron
Marbob Ener. 1/2
036100
El Paso Nat.
01087 HBU
Culbertson & Irwin
HBU
Gruy Pet.
LG 604
Westall
Cleve Rock Energy
State
16
17
18
19
20
28
29
30
31
32
LUSK
EAST
"Lusk Deep Unit"
(El Paso Prod.)
065710A
(Phillips)
E.H. Muse, Jr.
065710
Pioneer Nat. Res.
(Dorchester)
(Mobil)
0175774
Dorchester
"Mobil-Fed."
Pioneer Nat. Res.
063586
Kincaid &
Watson
Bowmon
(Clinton Oil)
065710
Plains Unit
Delbasin
HBU
Texaco
"Elliott"
Fed. (USA)
Steve
Sell
3-1-2003
90358
Pioneer Nat. Res.
E-9721
Leonard
Boellner
(Fina OEC)
(Altura)
01135
"Polewski-Fed."
Texaco
State

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy Corp
LEASE NO.:	NM-90538
WELL NAME & NO.:	2-Tres Elo Federal Com
SURFACE HOLE FOOTAGE:	1650' FNL & 1650' FWL
BOTTOM HOLE FOOTAGE	1980' FNL & 1980' FWL
LOCATION:	Section 31, T. 19 S., R 32 E., NMPM
COUNTY:	Lea County

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)

V-DOOR NORTH

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1 through June 15 annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

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 (505) 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

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

C. RESERVE PITS

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 (505) 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.

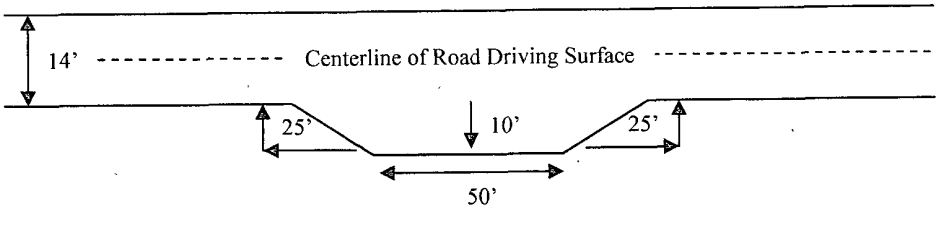
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

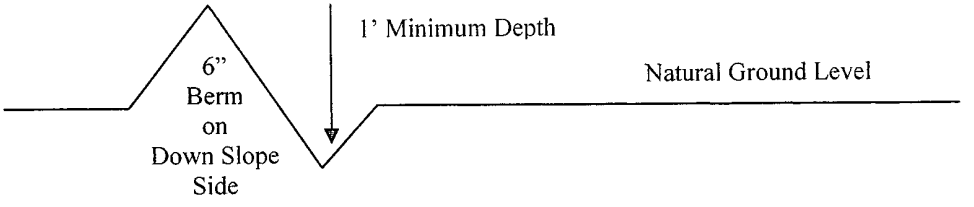
Standard Turnout – Plan View



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.

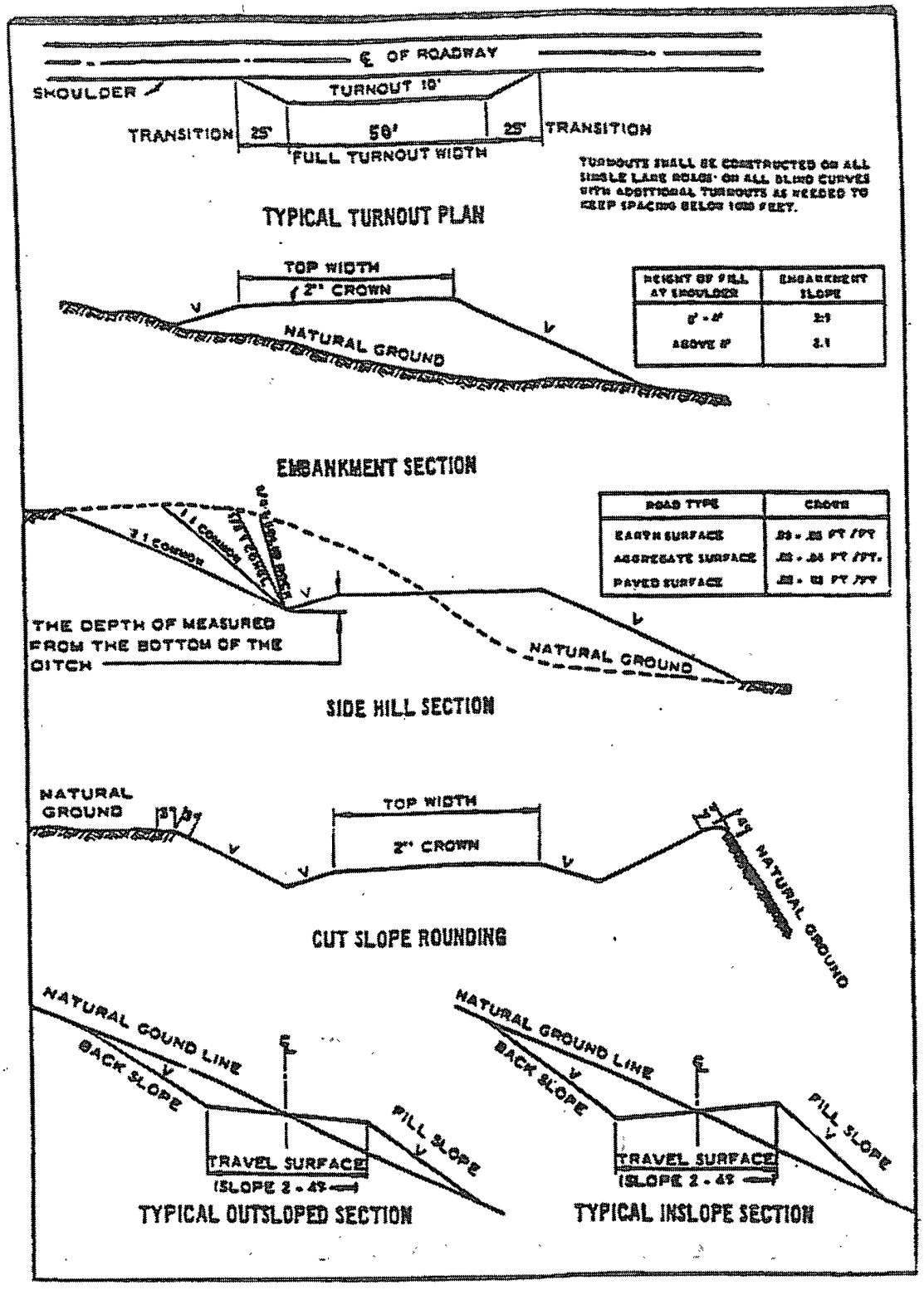
Fence Requirement

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

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Delaware** formation. **Hydrogen Sulfide has been reported within a mile radius from the Delaware formation measuring 200-3000 ppm in the gas stream and 100-3000 ppm in STVs. 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.

B. CASING – RE-ENTRY

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.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string.

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

A CIT is to be performed on the 8-5/8" casing per Onshore Oil and Gas Order 2.III.B.1.h prior to drilling the shoe plug – to be witnessed by BLM.

Possible lost circulation and water flows in the Artesia Group.
Possible over pressure in the Wolfcamp formation and the Pennsylvanian section.

1. **The surface casing exists and is set at 687' and cemented to the surface.**

2. **The 8-5/8" intermediate casing exists and is set at 3801' and cemented to surface.**

Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. This will require setting a 100' cement plug a maximum of 20' below the drilled cement at the 8-5/8" shoe. If the formation fails this test, an additional casing string will be required to protect the bottom part of the Capitan Reef from hydrocarbon zones. Test to be witnessed by BLM.

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. **Additional cement may be required.**

   b. Second stage above DV tool, cement shall:

   ☒ Cement should tie-back at least **200** feet into previous casing string. **Operator shall provide method of verification. Additional cement may be required.**

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. 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. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

f. A variance to test the surface casing and BOP/BOPE **(entire system)** to the reduced pressure of **1000** psi with the rig pumps is approved.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

Mud weighting materials must be on site in preparation for a kick from the Wolfcamp and below to prevent hydrocarbons from being introduced into the Capitan Reef.

E. DRILL STEM TEST

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

WWI 061908

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 & RESERVE PIT CLOSURE

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.

The 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.

Seed Mixture for LPC Sand/Shinnery 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
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

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

(Insert Seed Mixture Here)

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.