ATS-08-178

Form 3160-3
(September 2001)

OCD-HOBBS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No
NM-92771

6. If Indian, Allottee or Tribe Name

1a. Type of Work ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No

1b Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8 Lease Name and Well No
King Air Federal #1 (37155)

2. Name of Operator
Marbob Energy Corporation (14049)

9. API Well No.
30-025-38897

3a Address
P O. Box 227, Artesia, NM 88211-0227

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

10 Field and Pool, or Exploratory
Lusk; Bone Spring North (41450)

4 Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface 330' FNL & ~~330'~~ 2310' FEL Unit B Changes per attached SN dated 1-30-08. BP
At proposed prod zone BHL: 2310'N & 2310'E Unit G

11 Sec , T , R., M , or Blk and Survey or Area
Section 8, T19S - R32E

14 Distance in miles and direction from nearest town or post office*
About 15 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) 330'	16 No of Acres in lease 680	17 Spacing Unit dedicated to this well 40 80
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth 10,220'	20 BLM/BIA Bond No on file NMB000412
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3646' GL	22 Approximate date work will start* December 15, 2007	23 Estimated duration 30 Days

24. Attachments

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

1. Well plat certified by a registered surveyor
2. A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
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 authorized officer

25 Signature	Name *(Printed/Typed)*	Date
Nancy T. Agnew	Nancy T Agnew	11/15/07

Title
Land Department

Approved by *(Signature)* /s/ James Stovall	Name *(Printed/Typed)* /s/ James Stovall	Date APR 30 2008
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon
Conditions of approval, if any, are attached **APPROVAL FOR 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 reverse)*

RECEIVED
MAY 05 2008
HOBBS OCD

CAPITAN CONTROLLED WATER BASIN

KZ

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: November 15, 2007

Lease #: NM-92771
King Air Federal #1H

Legal Description: Section 8, T19S, R32E
Lea County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Marbob Energy Corporation

Nancy T. Agnew

Nancy T. Agnew
Land Department

OCD-HOBBS

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2*

5 Lease Serial No
NM-92771

6 If Indian, Allottee or Tribe Name

7 If Unit of CA/Agreement, Name and/or No

1 Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8 Well Name and No
King Air Federal #1H

2 Name of Operator
Marbob Energy Corporation

9 API Well No

3a Address
P O Box 227, Artesia NM 88211-0227

3b Phone No *(include area code)*
575-748-3303

10 Field and Pool or Exploratory Area
Lusk; Bone Spring

4 Location of Well *(Footage, Sec , T ,R ,M , or Survey Description)*
330' FNL & 330' FEL
Section 8, T19S - R32E

11 Country or Parish, State
Lea County, New Mexico

12 CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Location, Well Name, Production Cement & Casing & TD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection)

Marbob Energy respectfully requests the above referenced location to be changed as follows.

From. Surf - 330' FNL & 330' FEL
BHL - 330' FNL & 330' FEL
Section 8, T19S - R32E
Lea County, New Mexico

To Surf - 330' FNL & 2310' FEL
BHL - 2310' FNL & 2310' FEL
Section 8, T19S - R32E
Lea County, New Mexico

Marbob Energy requests the following name change:

From. King Air Federal #1 To: King Air Federal #1H

ok TAS 2/26/08

Marbob Energy requests production casing be changed to: Hole Size - 7 7/8", Inter - 3500'-11300', OD - 5 1/2", Wt - 17#, Collar - LTC, Grade - N80

Marbob Energy requests production Cement to be changed to: 1st Stage with 225 sk Acid Soluble "H" Wt 15.4 ppg yield 2.6 TOC @ 8600'
2nd Stage with 600 sk Lite "H" wt 12.6 ppg yield 1.92 Tail in with 100 sk "H" yield 1.67 wt 13 0
DV Tool @ 8600' TOC 3200

Marbob Energy requests the TD be changed to: 11300'

14 I hereby certify that the foregoing is true and correct Name *(Printed/Typed)*
Nancy T. Agnew

Title Land Department

Signature Nancy T. Agnew

Date 01/30/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
/s/ James Stovall

Title FIELD MANAGER

Date APR 30 2008

Conditions of approval, if any, are attached Approval of this notice 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

Office CARLSBAD FIELD OFFICE

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)

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

RECEIVED
MAY 07 2008
HOBBS OCD

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38897	~~41440~~ 41450	LUSK; BONE SPRING North

Property Code	Property Name	Well Number
37151	KING AIR FEDERAL	1 ~~H~~

OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	3641'

Surface Location

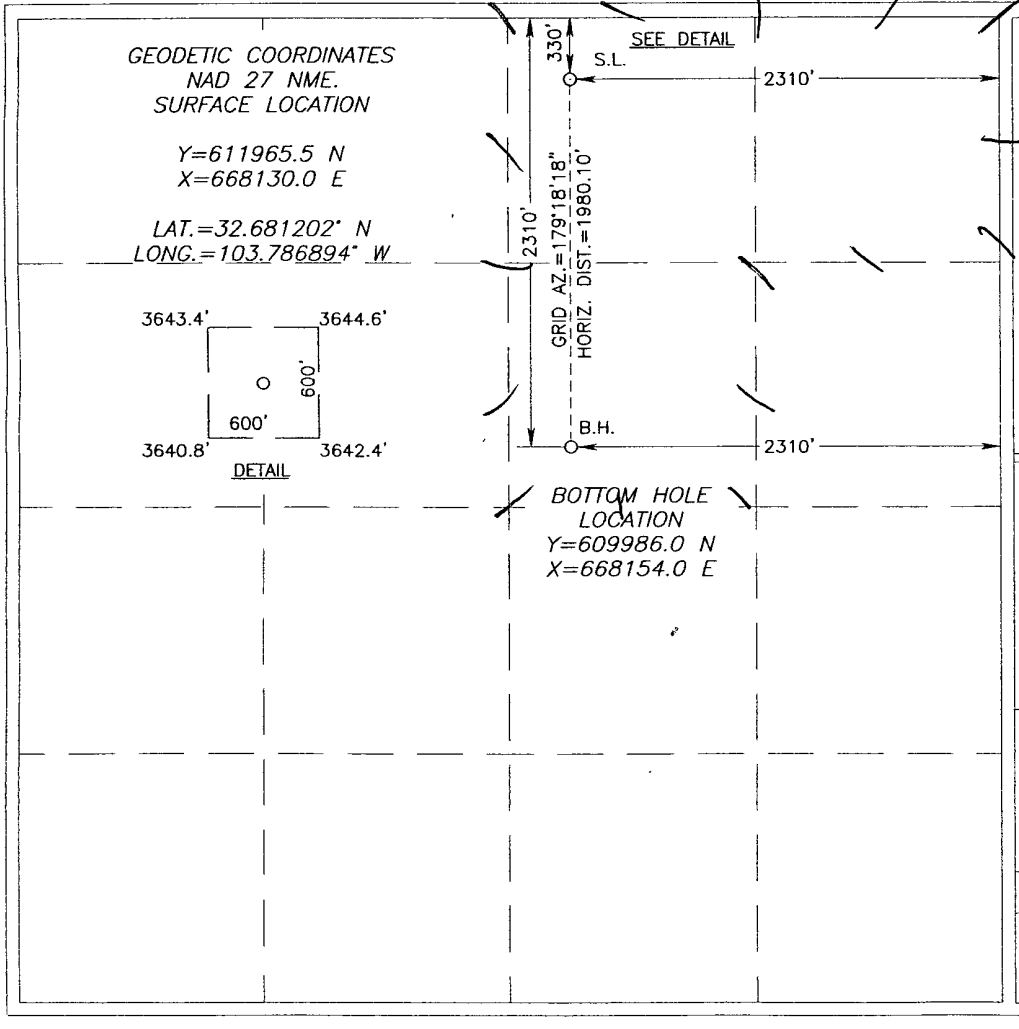
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	19-S	32-E		330	NORTH	2310	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	19-S	32-E		2310	NORTH	2310	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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.

Nancy T. Agnew 5/5/08
Signature Date

Nancy T. Agnew
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.

JANUARY 12, 2008
Date Surveyed DSS

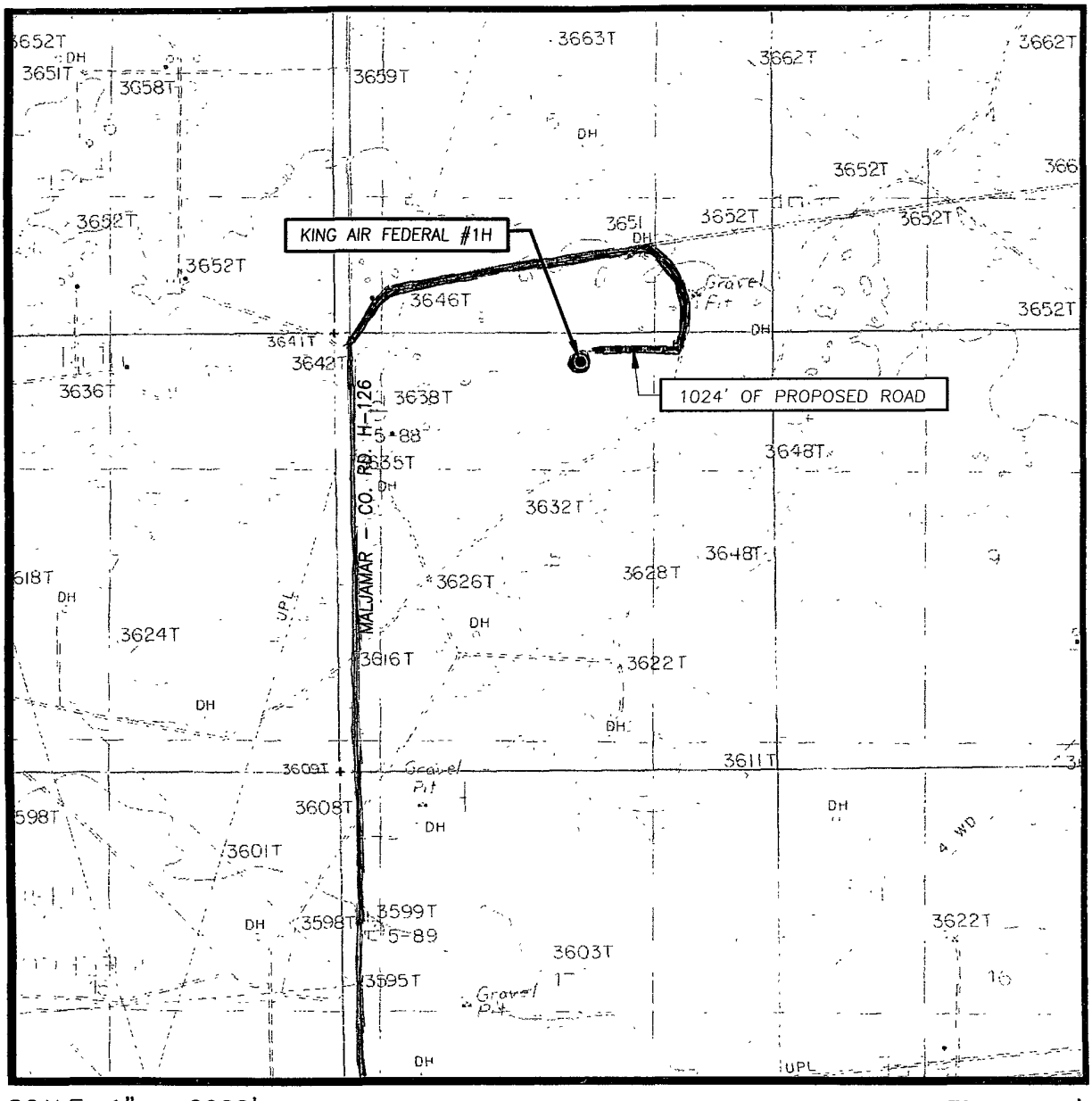
Signature & Seal of Professional Surveyor

Ronald J. Eidson 01/17/08

07.11.1926

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
GREENWOOD LAKE, NM

SEC. 8 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 330' FNL & 2310 FEL

ELEVATION 3641'

OPERATOR MARBOB ENERGY CORPORATION

LEASE KING AIR FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
GREENWOOD LAKE, NM

Existing Roads

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

EXHIBIT #2

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

King Air Federal #1H
Surf: 330' FNL & 2310' FEL
BHL: 2310' FNL & 2310' FEL
Section 8, 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	950	Delaware	5580
TOS	1035	Bone Springs	7130
BOS	2705	1st Sand	8970
Yates	2920	2nd Sand	9170
Queen	3770	3rd Sand	9970
San Andres	4780	TD	11300

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

Yates	2920'	Oil
Delaware	5580'	Oil
BSPGS	7130'	Oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 975' and circulating cement back to surface. Potash / fresh water sands will be protected by setting 9 5/8" casing at 3500' and circulating cement back to surface. The Bone Spring intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing.

4. **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' – 975'	13 3/8"	New	54.5#	STC	J-55	1.125	1.125	1.6
12 ¼"	975' – 3500'	9 5/8"	New	36#	Buttress	J-55	1.125	1.125	1.6
7 7/8"	3500' – 11300'	5 1/2"	New	17#	LTC	N-80	1.125	1.125	1.6

5. Proposed Cement Program:

a. 13 3/8" Surface	Cement to surface with 500 sk, class "C" Lite, 12.7# gal yield 1.99, tail in with 200 sk "C" wt 14.8 yield 1.34
b. 9 5/8" Int	Cement to surface with **1st Stage**, with 300 sk "C" Lite wt 12.7 ppg yield 1.99 Tail in with 100 sk "C" wt 14.8 ppg yield 1.34. **2nd stage**, with 350 sk "C" Lite wt 12.7 yield 1.99, Tail in with 100 sk "c" wt 14.8 ppg yield 1.34 DV Tool @ 2000'
d. 5 ½" Prod	Cement **1st Stage** with 225 sk Acid Soluble "H" Wt 15.4 ppg yield 2.6 TOC @ 8600' **2nd stage** with 600 sk "H" Lite Wt 12.6 ppg yield 1.92 Tail in with 100 sk "H" wt 13.0 ppg yield 1.67 DV Tool @ 8600' TOC 3200'

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:

Plan to nipple up on 13 3/8 with a 2M system and test to 1000# with rig pumps. Nipple up on 9 5/8 with a 3m system and test 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: 4251.52 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' – 975'	Fresh Water	8.4 – 8.5	29	N.C.
975' – 3500'	Brine	9.9 – 10.0	29	N.C.
3500' – 11300'	Cut Brine	8.9 – 9.0	29-31	N.C./10 c.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:

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: 4251.52 psi. Estimated BHT: 165°. 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.

G
T M

Azimuths to Grid North
True North: -0.29°
Magnetic North: 7.82°

Magnetic Field
Strength: 49227.3snT
Dip Angle: 60.67°
Date: 1/30/2008
Model: IGRF200510

Project: Lea County
Site: King Air Federal #1H
Well: King Air Federal #1H
Wellbore: Original Hole
Plan: Plan #1 (King Air Federal #1H/Original Hole)

PATHFINDER
ENERGY SERVICES

WELL DETAILS: King Air Federal #1H

Ground Elevation : 3641.00
RKB Elevation: EST RKB @ 3641.00ft
Rig Name:

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	611965.500	668130.000	32° 40' 52.329 N	103° 47' 12.819 W	

SECTION DETAILS

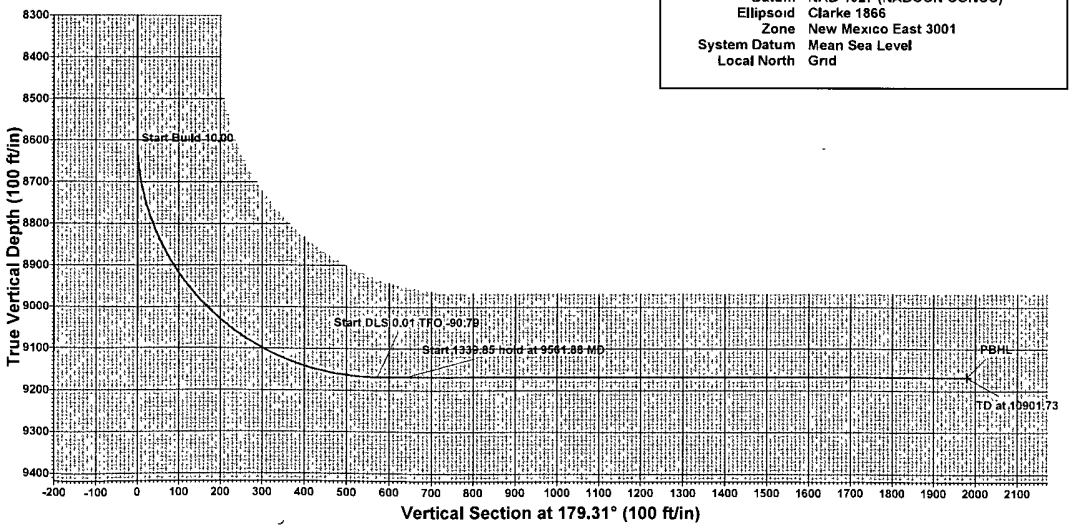
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8595.04	0.00	0.00	8595.04	0.00	0.00	0.00	0.00	0.00	
3	9495.04	90.00	179.31	9168.00	-572.92	6.90	10.00	179.31	572.96	
4	9561.88	90.00	179.30	9168.00	-639.75	7.71	0.01	-90.79	639.79	
5	10901.73	90.00	179.30	9168.00	-1979.50	24.00	0.00	0.00	1979.65	PBHL

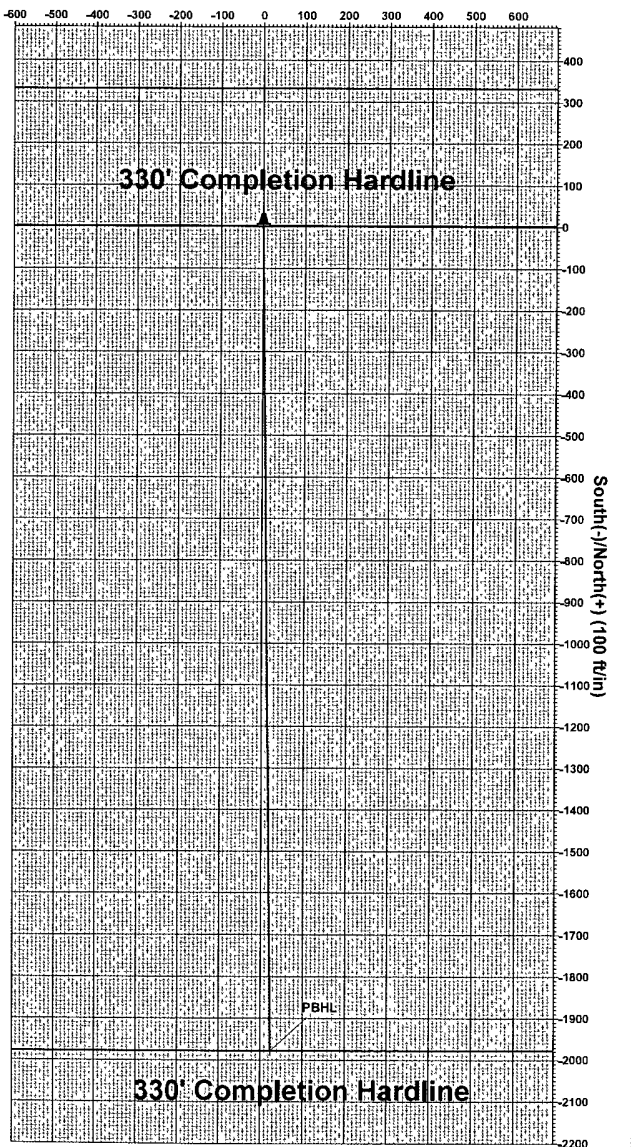
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	9168.00	-1979.50	24.00	609986.000	668154.000	Point

PROJECT DETAILS: Lea 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





Plan Plan #1 (King Air Federal #1H/Original Hole)
Created By Mark Freeman Date 12 48, January 30 2008
Checked _____ Date _____

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**North Reference:**	Grid
Wellbore:	Original Hole	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Project Lea County, New Mexico

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 King Air Federal #1H

Site Position:		**Northing:**	611,965.500 ft	**Latitude:**	32° 40' 52.329 N
From:	Map	**Easting:**	668,130.000 ft	**Longitude:**	103° 47' 12.819 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.30 °

Well King Air Federal #1H

Well Position	**+N/-S**	0.00 ft	**Northing:**	611,965.500 ft	**Latitude:**	32° 40' 52.329 N
	+E/-W	0.00 ft	**Easting:**	668,130.000 ft	**Longitude:**	103° 47' 12.819 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,641.00 ft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/30/2008	8.11	60.67	49,227

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	179.31

Survey Tool Program **Date** 1/30/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,901.73	Plan #1 (Original Hole)	MWD	MWD - Standard

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**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)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	TFace (°)
0.00	0.00	0.00	0.00	-3,641.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	-3,541.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	-3,441.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	-3,341.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	-3,241.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	-3,141.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	-3,041.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	-2,941.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	-2,841.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	-2,741.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	-2,641.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	-2,541.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	-2,441.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	-2,341.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	-2,241.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	-2,141.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	-2,041.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	-1,941.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	-1,841.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	-1,741.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	-1,641.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	-1,541.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	-1,441.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	-1,341.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	-1,241.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	-1,141.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	-1,041.00	0.00	0.00	0.00	0.00	0.00

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**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)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	TFace (°)
2,700.00	0.00	0.00	2,700.00	-941.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	-841.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	-741.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	-641.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	-541.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	-441.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	-341.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	-241.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	-141.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	-41.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	59.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	159.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	259.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	359.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	459.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	559.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	659.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	759.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	859.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	959.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	1,059.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	1,159.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	1,259.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	1,359.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	1,459.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	1,559.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	1,659.00	0.00	0.00	0.00	0.00	0.00

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**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)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	TFace (°)
5,400.00	0.00	0.00	5,400.00	1,759.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	1,859.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	1,959.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	2,059.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	2,159.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	2,259.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	2,359.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	2,459.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	2,559.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	2,659.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	2,759.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	2,859.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	2,959.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	3,059.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	3,159.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	3,259.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	3,359.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	3,459.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	3,559.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	3,659.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	3,759.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	3,859.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	3,959.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	4,059.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	4,159.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	4,259.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	4,359.00	0.00	0.00	0.00	0.00	0.00

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**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)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	TFace (°)
8,100.00	0.00	0.00	8,100.00	4,459.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	4,559.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	4,659.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	4,759.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	4,859.00	0.00	0.00	0.00	0.00	0.00
8,595.04	0.00	0.00	8,595.04	4,954.04	0.00	0.00	0.00	0.00	0.00
8,600.00	0.50	179.31	8,600.00	4,959.00	-0.02	0.00	0.02	10.00	179.31
8,650.00	5.50	179.31	8,649.92	5,008.92	-2.63	0.03	2.63	10.00	0.00
8,700.00	10.50	179.31	8,699.41	5,058.41	-9.59	0.12	9.59	10.00	0.00
8,750.00	15.50	179.31	8,748.12	5,107.12	-20.83	0.25	20.83	10.00	0.00
8,800.00	20.50	179.31	8,795.66	5,154.66	-36.27	0.44	36.27	10.00	0.00
8,850.00	25.50	179.31	8,841.67	5,200.67	-55.79	0.67	55.80	10.00	0.00
8,900.00	30.50	179.31	8,885.80	5,244.80	-79.25	0.95	79.26	10.00	0.00
8,950.00	35.50	179.31	8,927.73	5,286.73	-106.47	1.28	106.48	10.00	0.00
9,000.00	40.50	179.31	8,967.12	5,326.12	-137.24	1.65	137.25	10.00	0.00
9,050.00	45.50	179.31	9,003.67	5,362.67	-171.33	2.06	171.34	10.00	0.00
9,100.00	50.50	179.31	9,037.12	5,396.12	-208.47	2.51	208.48	10.00	0.00
9,150.00	55.50	179.31	9,067.21	5,426.21	-248.38	2.99	248.40	10.00	0.00
9,200.00	60.50	179.31	9,093.70	5,452.70	-290.76	3.50	290.79	10.00	0.00
9,250.00	65.50	179.31	9,116.39	5,475.39	-335.30	4.04	335.32	10.00	0.00
9,300.00	70.50	179.31	9,135.12	5,494.12	-381.64	4.60	381.66	10.00	0.00
9,350.00	75.50	179.31	9,149.74	5,508.74	-429.43	5.17	429.46	10.00	0.00
9,400.00	80.50	179.31	9,160.13	5,519.13	-478.32	5.76	478.35	10.00	0.00
9,450.00	85.50	179.31	9,166.23	5,525.23	-527.93	6.36	527.96	10.00	0.00
9,495.04	90.00	179.31	9,168.00	5,527.00	-572.92	6.90	572.96	10.00	0.00
9,500.00	90.00	179.31	9,168.00	5,527.00	-577.88	6.96	577.92	0.01	-90.79
9,561.88	90.00	179.30	9,168.00	5,527.00	-639.75	7.71	639.79	0.01	-90.79

WHS

Pathfinder Survey Report

Company:	Marbob	**Local Co-ordinate Reference:**	Well King Air Federal #1H
Project:	Lea County	**TVD Reference:**	EST RKB @ 3641.00ft
Site:	King Air Federal #1H	**MD Reference:**	EST RKB @ 3641.00ft
Well:	King Air Federal #1H	**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)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	TFace (°)
9,600.00	90.00	179.30	9,168.00	5,527.00	-677.87	8.17	677.92	0.00	0.00
9,700.00	90.00	179.30	9,168.00	5,527.00	-777.86	9.39	777.92	0.00	0.00
9,800.00	90.00	179.30	9,168.00	5,527.00	-877.85	10.60	877.92	0.00	0.00
9,900.00	90.00	179.30	9,168.00	5,527.00	-977.85	11.82	977.92	0.00	0.00
10,000.00	90.00	179.30	9,168.00	5,527.00	-1,077.84	13.04	1,077.92	0.00	0.00
10,100.00	90.00	179.30	9,168.00	5,527.00	-1,177.83	14.25	1,177.92	0.00	0.00
10,200.00	90.00	179.30	9,168.00	5,527.00	-1,277.82	15.47	1,277.92	0.00	0.00
10,300.00	90.00	179.30	9,168.00	5,527.00	-1,377.82	16.68	1,377.92	0.00	0.00
10,400.00	90.00	179.30	9,168.00	5,527.00	-1,477.81	17.90	1,477.92	0.00	0.00
10,500.00	90.00	179.30	9,168.00	5,527.00	-1,577.80	19.12	1,577.92	0.00	0.00
10,600.00	90.00	179.30	9,168.00	5,527.00	-1,677.79	20.33	1,677.92	0.00	0.00
10,700.00	90.00	179.30	9,168.00	5,527.00	-1,777.79	21.55	1,777.92	0.00	0.00
10,800.00	90.00	179.30	9,168.00	5,527.00	-1,877.78	22.76	1,877.92	0.00	0.00
10,901.73	90.00	179.30	9,168.00	5,527.00	-1,979.50	24.00	1,979.65	0.00	0.00
PBHL									

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	9,168.00	-1,979.50	24.00	609,986.000	668,154.000	32° 40' 32.741 N	103° 47' 12.658 W

Checked By: _____ Approved By: _____ Date: _____

Marbob

Lea County
King Air Federal #1H
King Air Federal #1H
Original Hole

Plan: Plan #1

Pathfinder Survey Report

30 January, 2008

CFC

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
See Attached

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other SEE ATTACHED

8. Well Name and No.
See Attached

2. Name of Operator
Marbob Energy Corporation

9. API Well No.
See Attached

3a. Address
P.O. Box 227, Artesia, NM 88211-0227

3b. Phone No. *(include area code)*
575-748-3303

10. Field and Pool or Exploratory Area
See Attached

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
See Attached

11. Country or Parish, State
See Attached

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Fresh Water/Cement Pit
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Marbob Energy Corporation respectfully requests approval for Marbob to use a fresh water/cement pit on the pad. It will be closed at the end of the drilling operations.

14 I hereby certify that the foregoing is true and correct Name *(Printed/Typed)*

Nancy T. Agnew — Title Land Department

Signature Nancy T. Agnew — Date 01/16/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by — Title AFM — Date 1/23/08

Conditions of approval, if any, are attached Approval of this notice 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 — Office CFO

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)

Attachment for Marbob's Fresh Water/Cement Pit Sundry Dated 1/16/2008

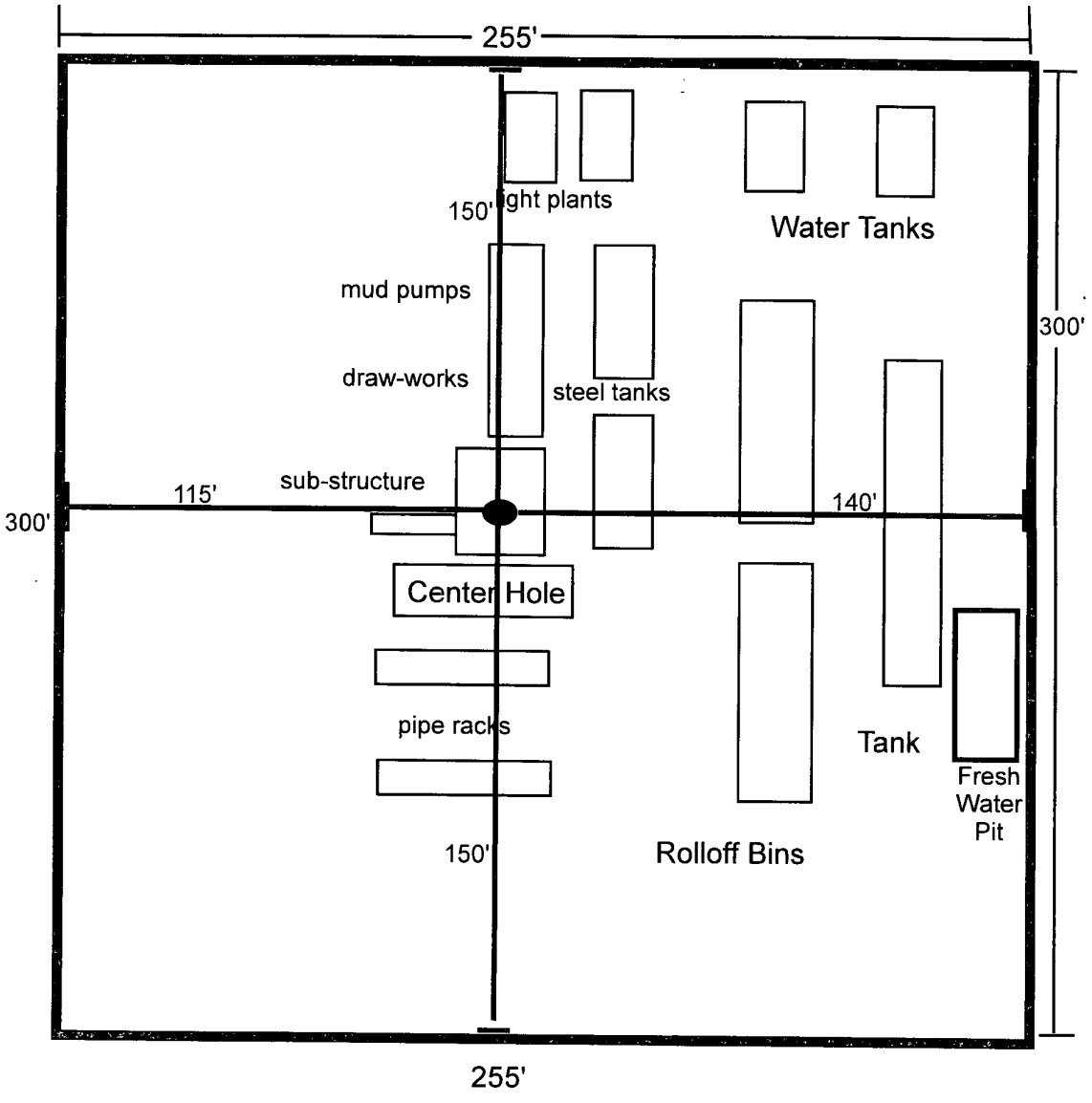
Well Name & No.	Lease #	API #	Pool Name	Location	County, State
Hot Seat Federal Com #2	NM-97113	30-015-35776	Chosa Draw, Morrow (Gas)	990' FNL & 660' FEL, Section 35, T24S-R25E	Eddy County, New Mexico
Piper Federal #3	NM-23002	30-015-36005	Lusk Bone Spring	1650' FSL & 1650' FEL, Section 12, T19S - R31E	Eddy County, New Mexico
Dodd Federal Unit #119	NMNM11789X	30-015-35854	GRBG Jackson SR Q GRBG SA	990' FNL & 990' FEL, Section 15, T17S - R29E	Eddy County, New Mexico
Dale H. Parke B Tr. C #20	NM-0467933		Loco Hills; Glorieta -Yeso	1650' FNL & 2310' FEL, Section 15, T17S - R30E	Eddy County, New Mexico
Dale H. Parke B Tr. C #21	NM-0467933	30-015-36037	Loco Hills; Glorieta -Yeso	1650' FNL & 940' FEL, Section 15, T17S - R30E	Eddy County, New Mexico
Dale H. Parke B Tr. C #22	NM-0467933	30-015-36026	Loco Hills; Glorieta -Yeso	2310' FNL & 380' FEL, Section 15, T17S - R30E	Eddy County, New Mexico
Dale H. Parke B Tr. C #23	NM-0467933		Loco Hills; Glorieta -Yeso	990' FNL & 1650' FEL, Section 15, T17S - R30E	Eddy County, New Mexico
King Air Federal #1	NM-092771		Lusk; Bone Spring	330' FNL & 330' FEL, Section 8, T19S - R32E	Lea County, New Mexico
Beechcraft Federal #1	NMNM013422B		Lusk; Bone Spring	2235' FSL & 660' FEL, Section 8, T19S - R32E	Lea County, New Mexico
White Federal #1H	NM-115413		Willow Lake; Bone Spring, SE	Surf: 480' FNL & 380' FEL, BHL: 2310' FNL & 330' FEL, Section 21, T25S - R29E	Eddy County, New Mexico
Spruce Goose Federal #2	NMNM099041		Lusk; Bone Spring, South	2310' FNL & 2310' FEL, Section 7, T19S - R32E	Lea County, New Mexico
Birdie Federal #9	NMNM0074936		Loco Hills; Glorieta -Yeso	1650' FNL & 990' FEL, Section 17, T17S - R30E	Eddy County, New Mexico
Birdie Federal #12	NMNM086025		Loco Hills; Glorieta -Yeso	2310' FSL & 1650' FWL, Section 17, T17S - R30E	Eddy County, New Mexico
Loco Federal #6	NMNM106231		Loco Hills; Glorieta -Yeso	1750' FNL & 2310' FEL, Section 21, T17S - R30E	Eddy County, New Mexico
Randy Federal #5	NMLC029020E		Loco Hills; Glorieta -Yeso	2310' FNL & 1650' FEL, Section 22, T17S - R30E	Eddy County, New Mexico
Red Federal #5	NMLC060527		Loco Hills; Glorieta -Yeso	1650' FSL & 330' FEL, Section 17, T17S - R30E	Eddy County, New Mexico
Tyler Federal #3	NMLC029342C		Loco Hills; Glorieta -Yeso	690' FNL & 330' FWL, Section 21, T17S - R30E	Eddy County, New Mexico
E L Federal #9	NMNM0467932		Loco Hills; Glorieta -Yeso	330' FNL & 790' FEL, Section 21, T17S - R30E	Eddy County, New Mexico
Dodd Federal Unit #536	NMNM11789X	LC028731B	GRBG Jackson SR Q GRBG SA	330' FSL & 990' FEL, Section 10, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #537	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	330' FSL & 1650' FWL, Section 10, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #540	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	2310' FSL & 2310' FWL, Section 10, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #541	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	1650' FSL & 2310' FEL, Section 10, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #543	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	1650' FSL & 990' FEL, Section 10, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #545	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	2310' FSL & 990' FWL, Section 11, T17S - R29E,	Eddy County, New Mexico
Dodd Federal Unit #546	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	1650' FSL & 2310' FEL, Section 11, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #547	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	2310' FSL & 330' FEL, Section 11, T17S - R29E	Eddy County, New Mexico
Dodd Federal Unit #548	NMNM11789X	"	GRBG Jackson SR Q GRBG SA	2310' FSL & 1690' FEL, Section 15, T17S - R29E	Eddy County, New Mexico

CONDITIONS OF APPROVAL
Fresh Water/Cement Pit
Notice of Intent (January 16, 2008)

1. Future fresh water/cement pits are to be addressed in the APD, under the Multi-Point Surface Use Operations Plan, 6.) Methods of Handling Waste Material, 8.) Well site Layout (with dimensions), and 9.) Plans for Surface Reclamation.
2. Fresh water/cement pit is to be built and reclaimed under the same BLM guidelines as reserve pits (lined, fenced, capped with 3' of clean material and kept free of trash).

James A. Amos
Supv. Env. Prot. Spec.
505-234-5909.

Well Site Lay-Out Plat

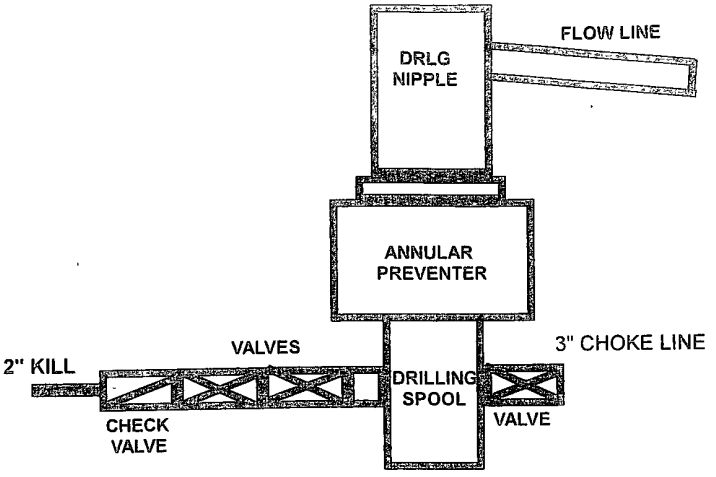


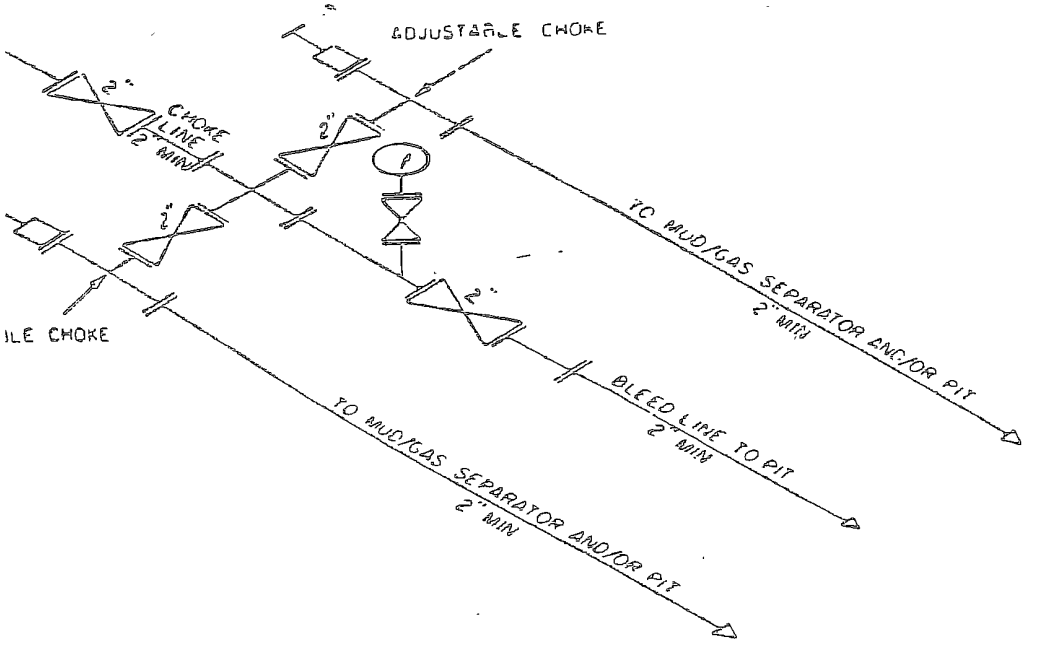
SEE ATTACHED FOR CONDITIONS OF APPROVAL

King Air Federal #1
330' FNL & 330' FEL
Section 8, T19S, R32E
Lea County, New Mexico

EXHIBIT THREE

2M SYSTEM

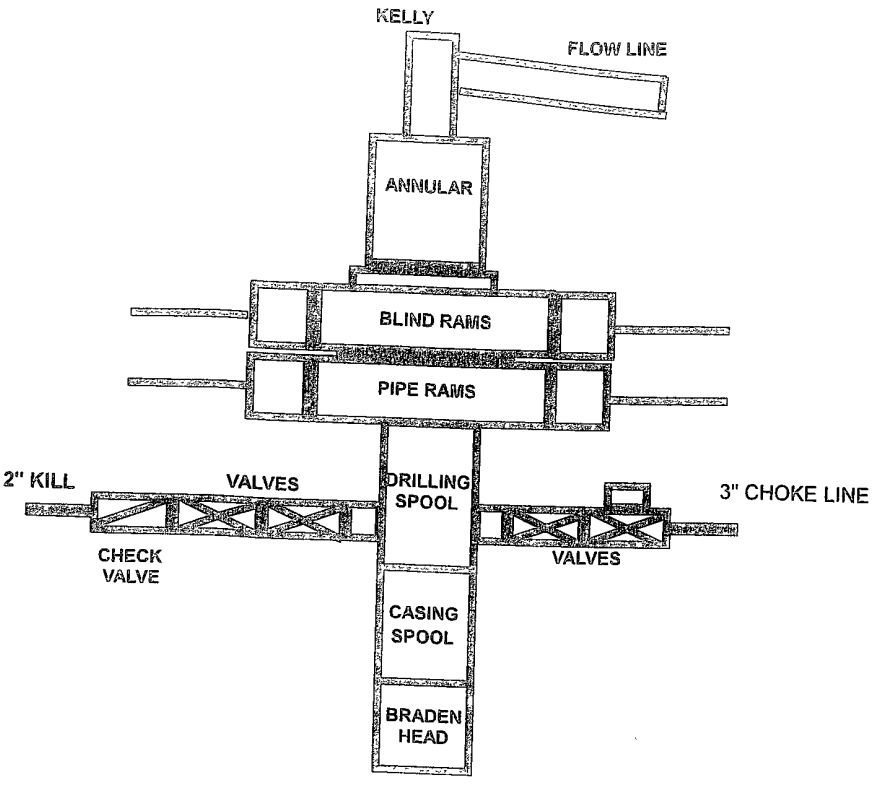


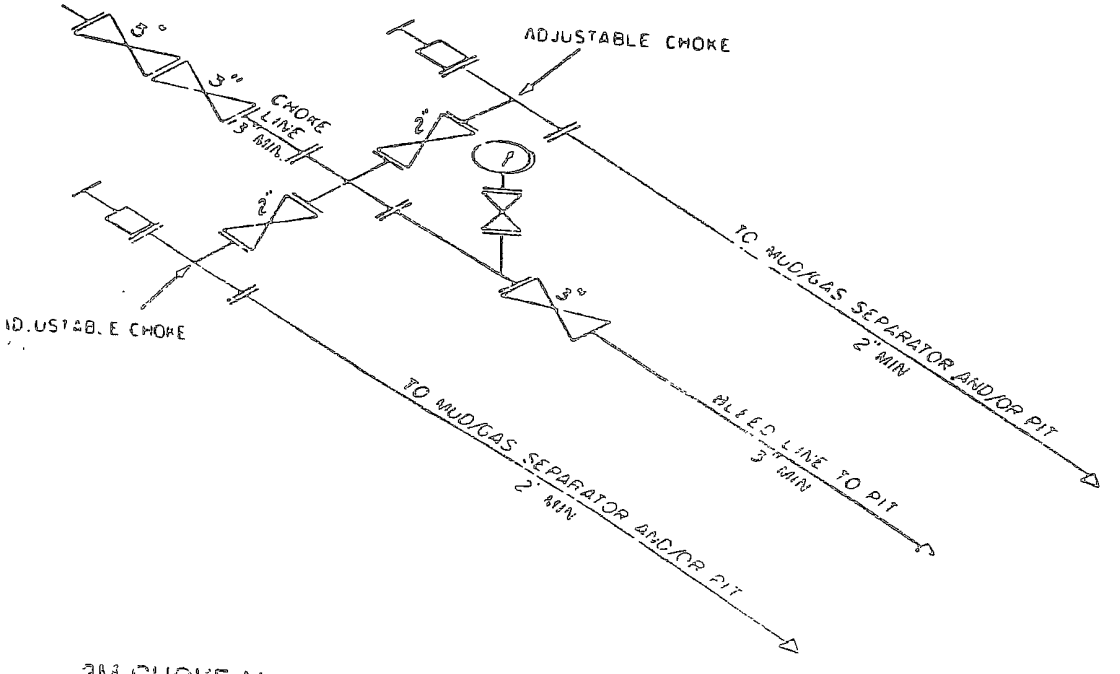


2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

Exhibit One

3M SYSTEM





3M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES

MAY VARY

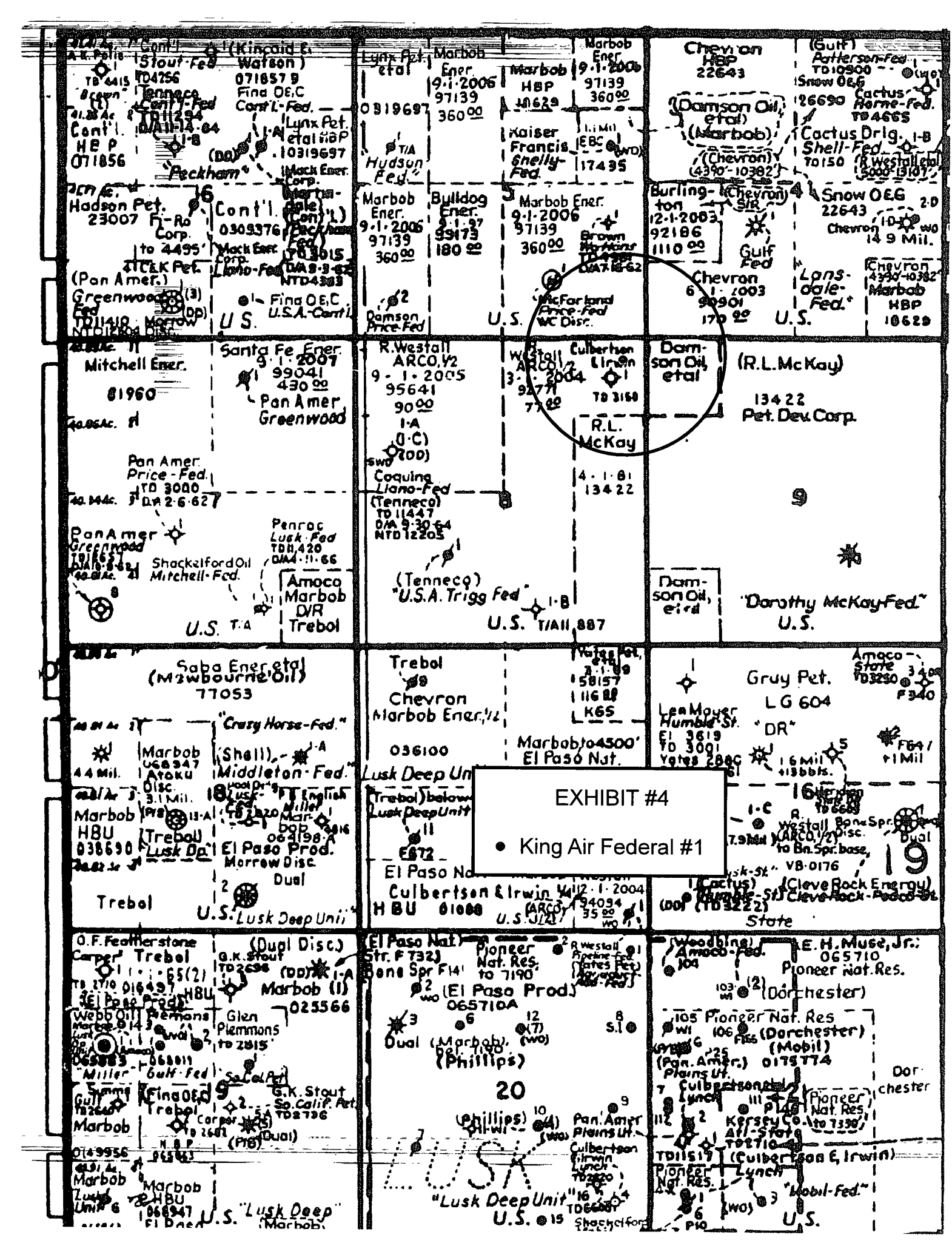


EXHIBIT #4
• King Air Federal #1

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy Corporation
LEASE NO.:	NM92771
WELL NAME & NO.:	King Air Federal No. 1
SURFACE HOLE FOOTAGE:	330' FNL & 2310' FEL
BOTTOM HOLE FOOTAGE	2310' FNL & 2310' FEL
LOCATION:	Section 8, T. 19 S., R 32 E., NMPM
COUNTY:	Lea 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)

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 15 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

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 fresh water pit and will be used for interim and final reclamation.

C. FRESH WATER PITS

The fresh water pit shall be constructed and closed in accordance with the NMOCD rules.

The fresh water pit shall be constructed 100' X 150' X 6' on the North side of the well pad.

The fresh water pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The fresh water pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

Tanks are required for drilling operations: No Reserve 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.

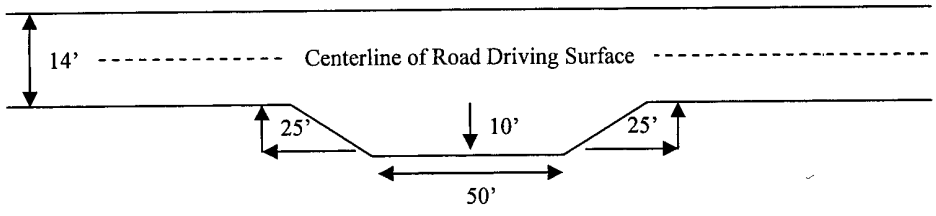
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

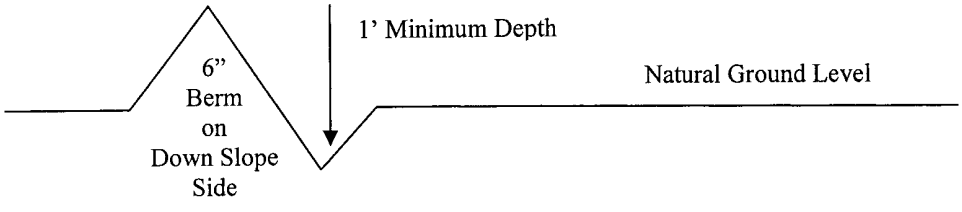
Standard Turnout – Plan View



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:

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

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.

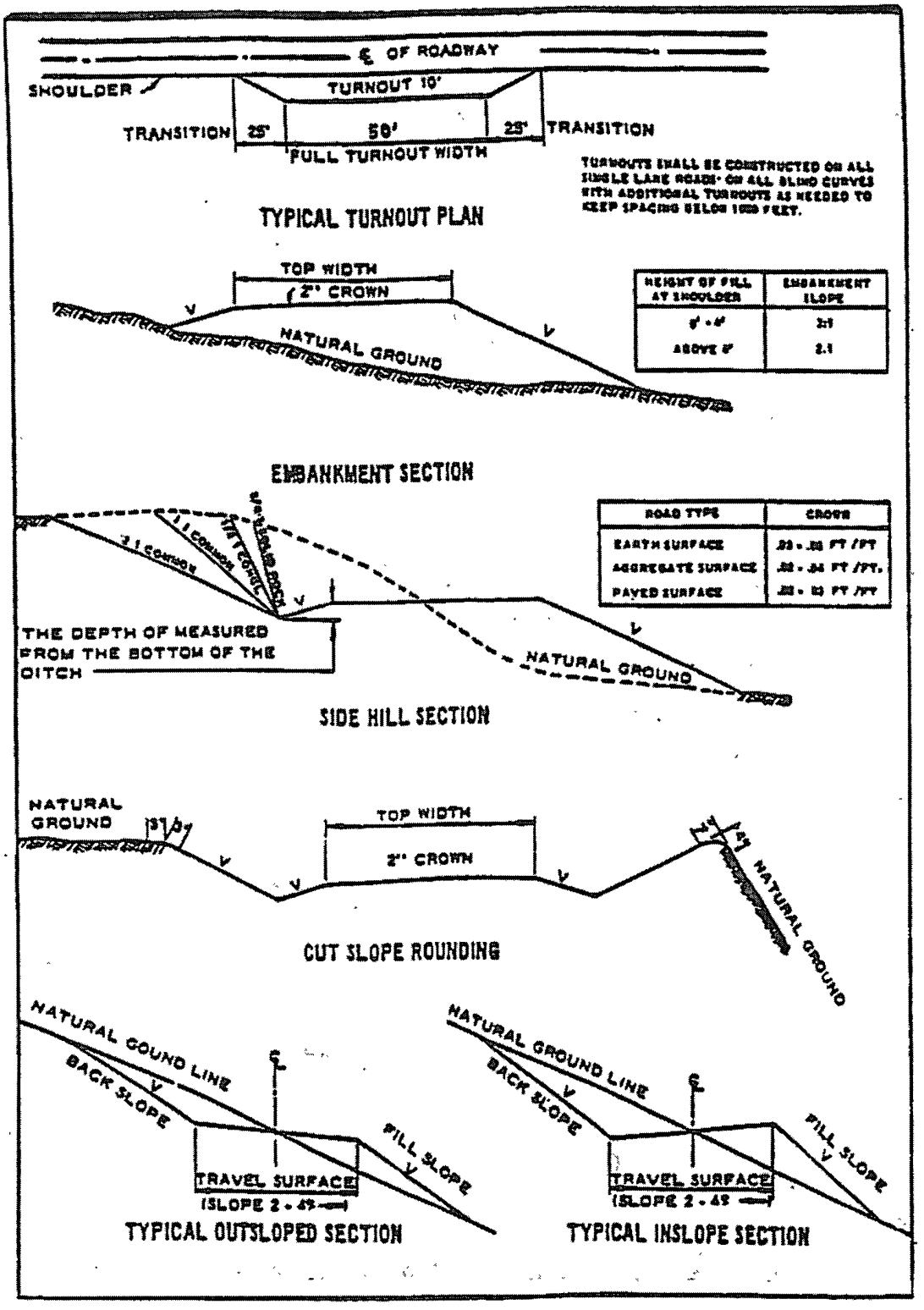
A gate shall be constructed and fastened securely to H-braces.

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 **Yates** formation. **Hydrogen Sulfide has been measured from 200-3000 ppm in the gas streams and 200-3000 ppm in STVs.**

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

1. The **13-3/8** inch surface casing shall be set **at approximately 975 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** feet 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 will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

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 action will be done prior to drilling out that string.

Possible lost circulation in the Artesia Group and the Capitan Reef if it is encountered.
Possible water flows in the Artesia and Salado Groups.

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-d above.
   Please provide WOC times to inspector for cement slurries.
   Both stages to circulate.

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

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **First stage to circulate.**

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

D. DRILL STEM TEST

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

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 020608

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.

At the time the fresh water pit are to be reclaimed, 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. FRESH WATER PIT CLOSURE

The fresh water pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

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:

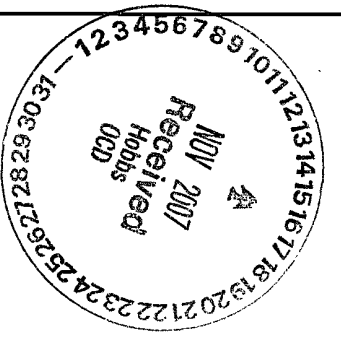
Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

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.

marbob
energy corporation



November 15, 2007

Oil Conservation Division
1625 N. French Drive
Hobbs, N.M. 88240

Attention: Donna Mull

RE: King Air Federal #1
330' FNL & 330' FEL
Section 8, T19S, R32E
Lea County, New Mexico

Dear Donna:

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.

Please advise us if you feel differently or need further information.

Sincerely,

Nancy Agnew

Nancy Agnew
Landman

/na

P.O. Box 227 • Artesia, New Mexico 88211-0227 • (505) 748-3303 • Fax (505) 746-2523