

7038

ATS-08-635

OCD-ARTESIA

Form 3160-3
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires March 31, 20075 Lease Serial No.
NMNM 0454018

6 If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No.

8 Lease Name and Well No. **37042**
Skittles Federal #29 API Well No.
30-015-3646210 Field and Pool, or Exploratory
Esperanza; Delaware11 Sec, T R. M. or Blk and Survey or Area
Section 10, T22S - R27E1a. Type of work ☒ DRILL ☐ REENTER1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone2 Name of Operator
Marbob Energy Corporation3a Address **P.O. Box 227, Artesia, NM 88211-0228**3b Phone No. (include area code)
505-748-3303

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

At surface **1850' FNL & 330' FEL**

At proposed prod zone

Split Estate14 Distance in miles and direction from nearest town or post office*
About 3 miles from Carlsbad, NM12 County or Parish
Eddy County13 State
NM15 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
400.1617 Spacing Unit dedicated to this well
4018 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft19 Proposed Depth
6000'20 BLM/BIA Bond No. on file
NMB00041221 Elevations (Show whether DF, KDB, RT, GL, etc)
3107' GL22 Approximate date work will start*
05/23/200823 Estimated duration
14 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature **Nancy T. Agnew**
Title **Land Department**Name (Printed/Typed)
Nancy T. AgnewDate
04/23/2008Approved by (Signature) **James A. Ames**
Title **FIELD MANAGER**Name (Printed/Typed) **James A. Ames**
Office **CARLSBAD FIELD OFFICE**Date
JUL 28 2008Application 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)

Carlsbad Controlled Water Basin**SEE ATTACHED FOR
CONDITIONS OF APPROVAL****Approval Subject to General Requirements
& 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: April 23, 2008

Lease #: NMNM 0454018
Skittles Federal #2

Legal Description: Sec. 10-T22S-R27E
Eddy County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Nancy Agnew
Nancy Agnew
Land Department

DISTRICT I
1325 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 22640	Pool Name Esperanza; Delaware
Property Code	Property Name SKITTLES FEDERAL	Well Number 2
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3107'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	22-S	27-E		1850	NORTH	330	EAST	EDDY

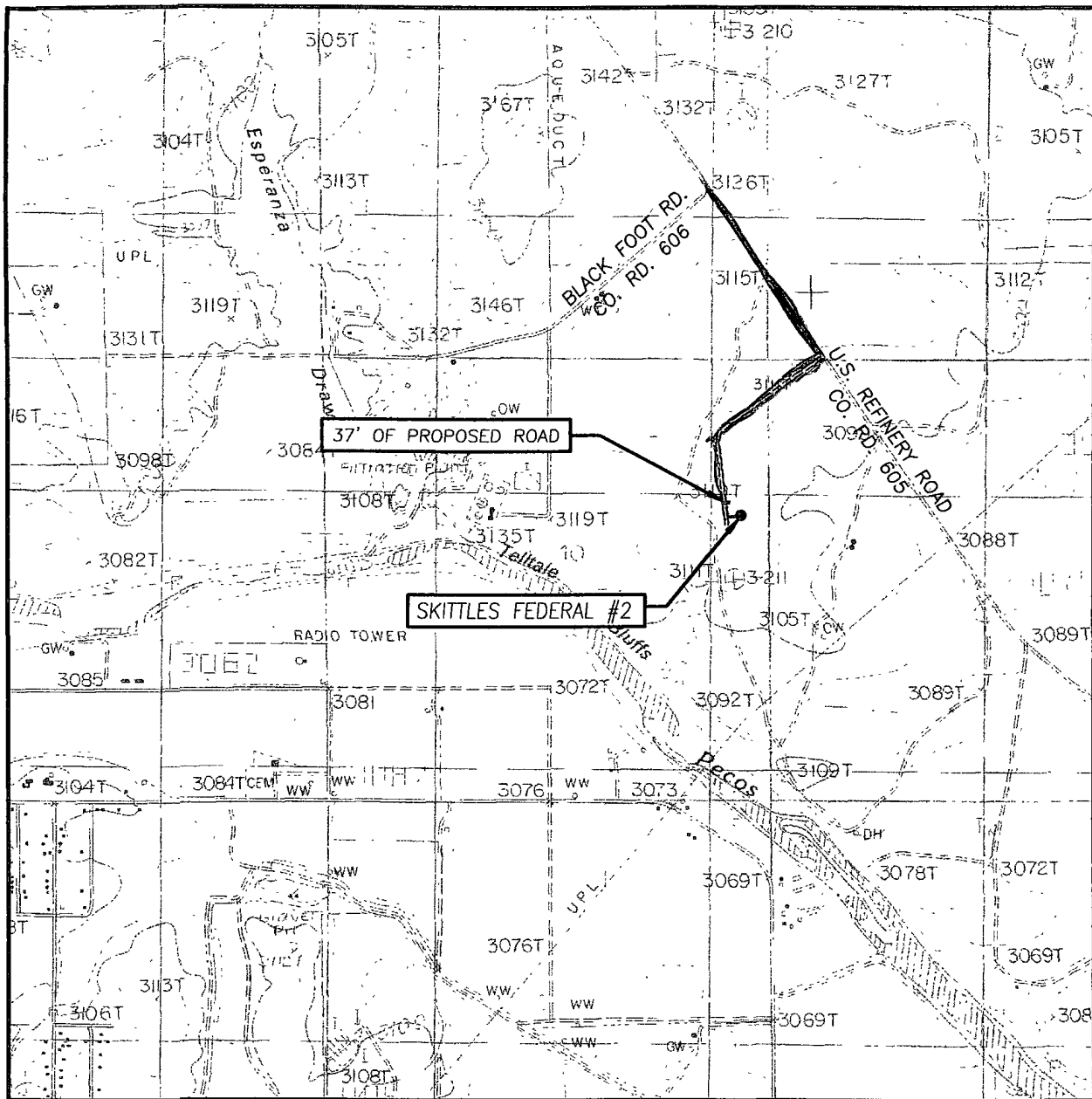
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

<p>GEODETIC COORDINATES NAD 27 NME Y=512697.5 N X=550594.5 E LAT.=32.409413° N LONG.=104.169390° W</p> <p>3107.4' 3105.1' 600' 600' 3111.1' 3108.7' DETAIL</p>	<p>1850'</p> <p>330'</p> <p>SEE DETAIL</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p><u>Nancy Agnew</u> 4/23/08 Signature Date Nancy Agnew Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>MARCH 11, 2008 Date Surveyed Signature & Seal of Professional Surveyor RONALD J. EIDSON 08.11.0266</p> <p>Certificate No. GARY G. EIDSON 12641 RONALD J. EIDSON 3239</p>
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LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
CARLSBAD EAST, N.M. - 10'

SEC. 10 TWP. 22-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1850' FNL & 330' FEL

ELEVATION 3107'

OPERATOR MARBOB ENERGY CORPORATION

LEASE SKITTLES FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
CARLSBAD EAST, N.M.

Existing Roads

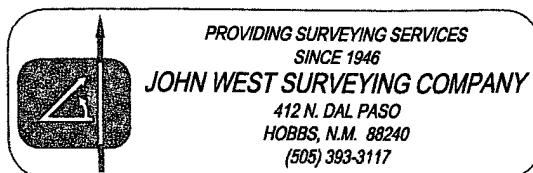
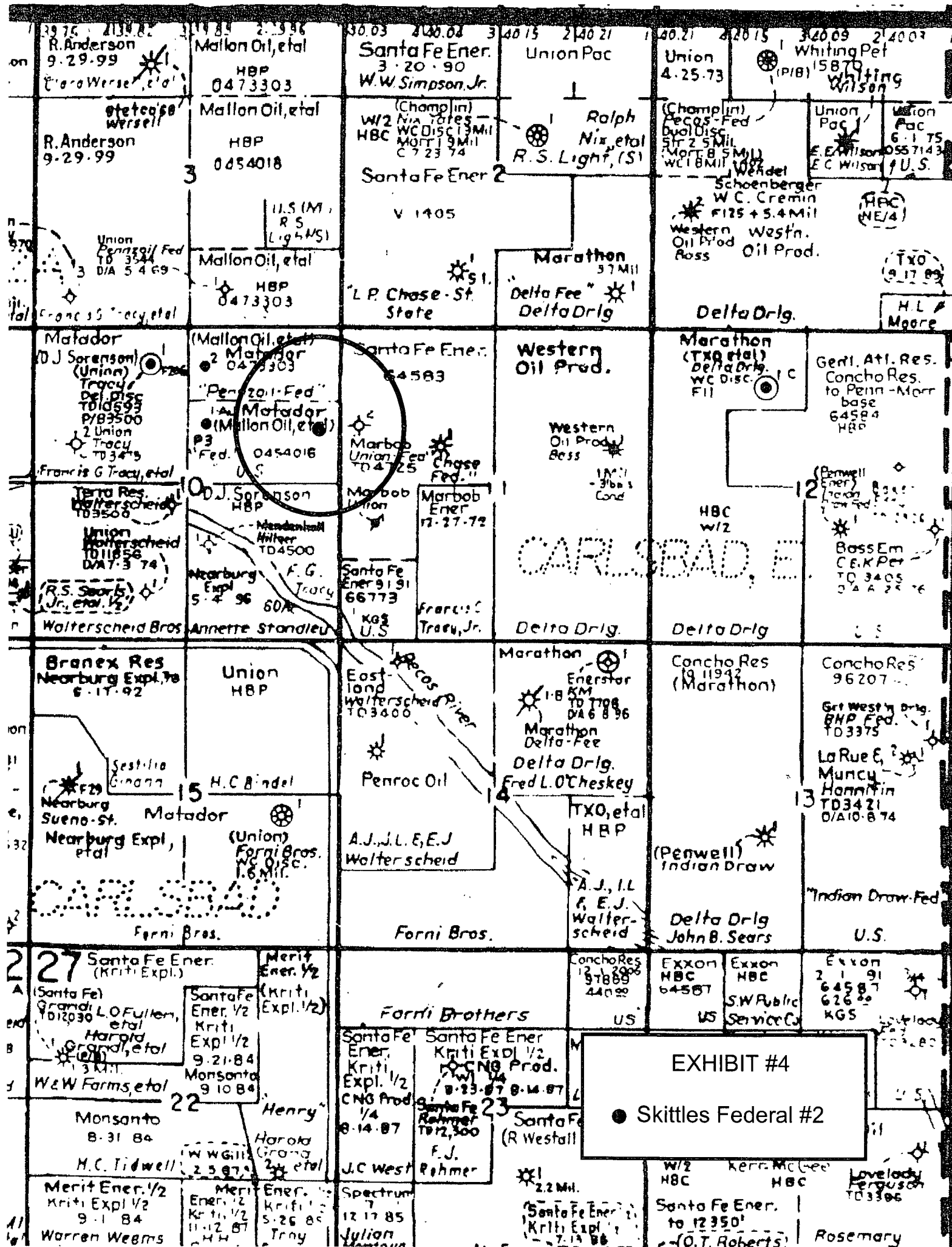


Exhibit #2



MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Skittles Federal #2
1850' FNL & 330' FEL
Section 10, T22S – R27E
Eddy County, New Mexico

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

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

Top Salt	400'
Base of Salt	1600'
Delaware	1900'
Bone Spring	5350'
TD	6000'

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

Delaware	1900'	Oil
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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 8 5/8" casing at 350' and circulating cement back to surface. All intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 8 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
12 1/4"	0' – 350'	8 5/8"	New	24#	STC	J-55	1.125	1.125	1.6
7 7/8"	350'– 6000'	5 1/2"	New	17#	LTC	J-55	1.125	1.125	1.6

5. Proposed Cement Program:

- b. 8 5/8" Surf Cement to surface with 300 sk "C" wt 14.8 ppg yield 1.34.
- c. 5 1/2" Prod 1st stage 400 sk "H" Wt 13.0 ppg yield 1.64 2nd stage with 300 sk "H" Light wt 12.7 ppg yield 1.91 Tail in with 100 "H" wt 13.0 yield 1.64 DV @ 3000' TOC Surface

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.** *TOC = SURFACE*

See CD

6. Minimum Specifications for Pressure Control:

Nipple up on 8 5/8" surface casing with a 2M system and test to 2000# with independent tester.

BOP will be operationally checked each 24 hour period. BOP 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 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 2000 psi WP rating.

7. Estimated BHP: 2496 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' - 350'	Fresh Water	8.4	29	N.C.
350' - 6000'	Brine	10.0	29	N.C.

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

9. Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 8 5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 8 5/8" 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 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

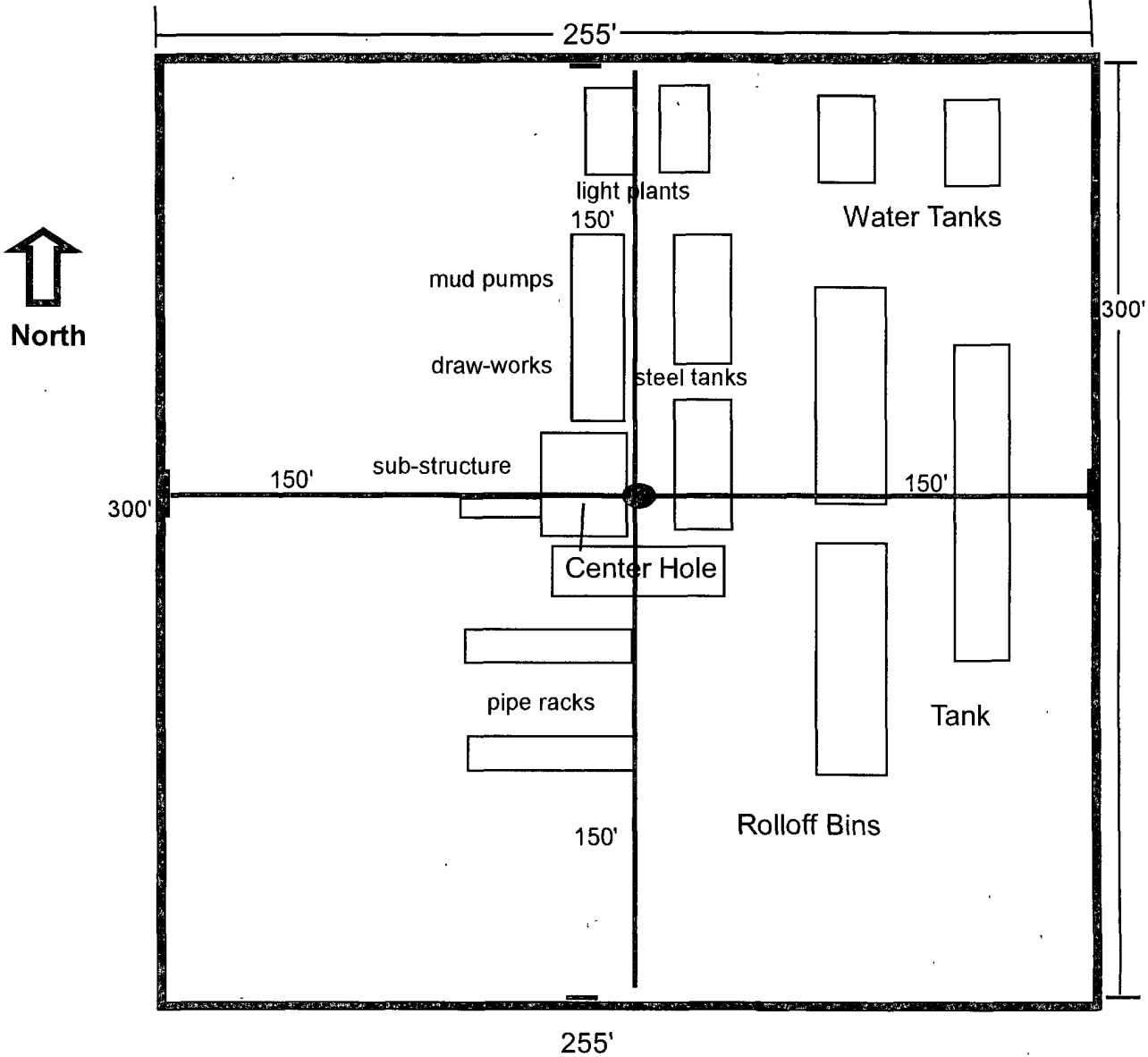
11. Potential Hazards:

- 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: 2496 psi. No H₂S is anticipated to be encountered.

12. Anticipated starting date and Duration of Operations:

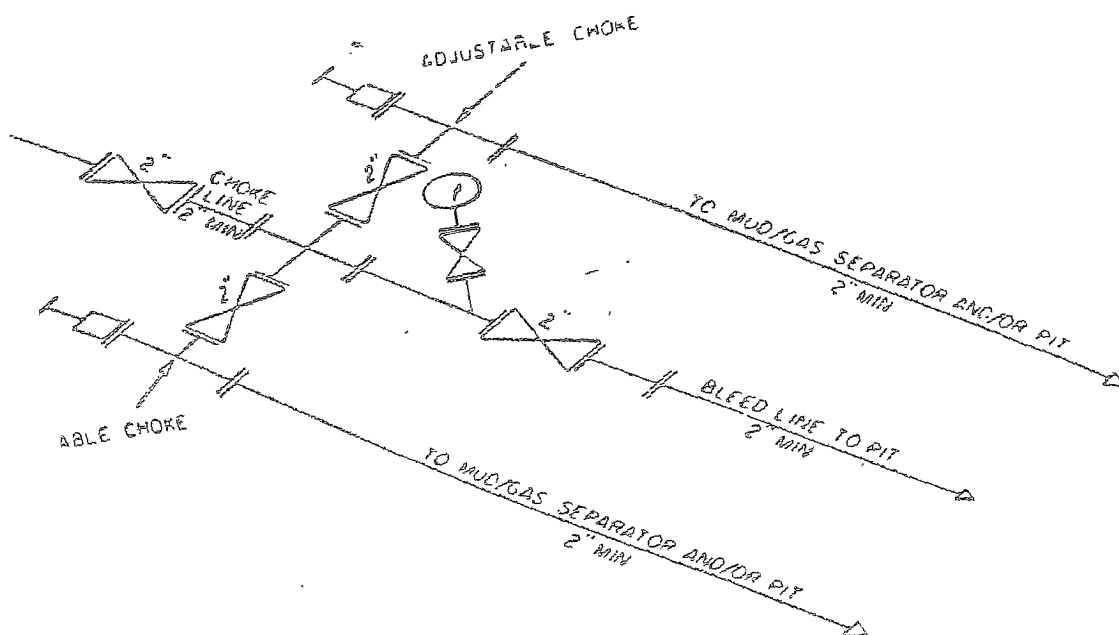
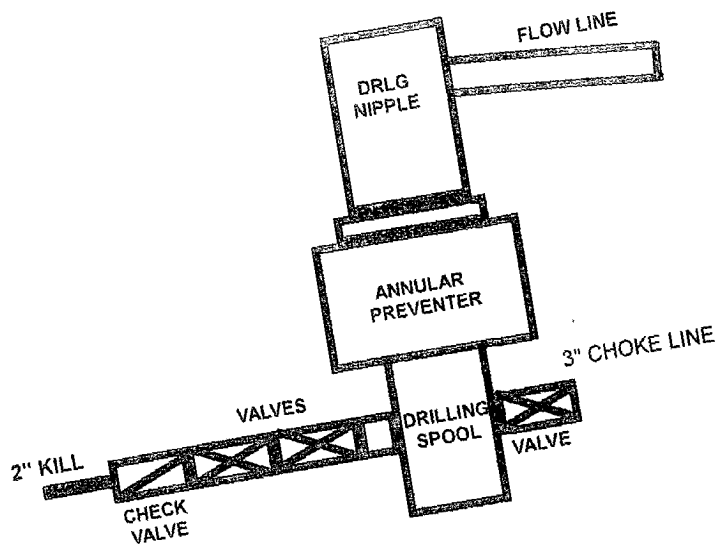
- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 14 days.

Well Site Lay-Out Plat



Skittles Federal #2
1850' FNL & 330' FEL
Section 10, T22S – R27E
Eddy County, New Mexico

2M SYSTEM



2M CHOKES MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES
MAY VARY

Part 1011 One

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

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

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

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

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

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

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

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

A. Well Control Equipment:

Flare line.

Choke manifold.

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

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

B. Protective equipment for essential personnel:

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

C. H₂S detection and monitoring equipment:

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

D. Visual warning systems:

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

E. Mud Program:

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

F. Metallurgy:

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

G. Communication:

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

W A R N I N G

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

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

MARBOB ENERGY CORPORATION

1-505-748-3303

EMERGENCY CALL LIST

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

EMERGENCY RESPONSE NUMBERS **Eddy County, New Mexico**

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

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Skittles Federal #2
1850' FNL & 330' FEL
Section 10, T22S – R27E
Eddy County, New Mexico

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

1. EXISTING ROADS:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by John West Surveying Company.
- b. Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2. Right of way using this proposed route is being requested if necessary.
- c. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

DIRECTIONS:

From the intersection of Co. Rd. #605 (U.S. Refinery Rd.) and Co. Rd. #606 (Black Foot Rd.) go southeast on Co. Rd. #605 approx. 0.5 miles. Turn right and go southeast approx. 0.3 miles. Bend left and go south approx. 0.2 miles. This location is approximately 165 feet East.

2. PLANNED ACCESS ROAD:

There is a proposed 37' access road ending on the northwestern side of the well pad.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. In the event the well is found productive, the Skittle Federal #2 tank battery would be utilized and the necessary production equipment will be installed at the well site. A Site Facilities Diagram will be submitted upon completion of facility.
- B. All flowlines will adhere to API standards
- C. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
- D. If the well is productive, rehabilitation plans are as follows:
 - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

4. LOCATION AND TYPES OF WATER SUPPLY:

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

5. CONSTRUCTION MATERIALS:

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

6. METHODS OF HANDLING WASTE MATERIAL:

- a. All trash, junk and other waste material will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.
- b. The supplier, including broken sacks, will pick up slats remaining after completion of well.
- c. A porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- d. Disposal of fluids and cuttings below the fresh water zone will be transported by an approved disposal company.

7. ANCILLARY FACILITIES:

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

8. WELLSITE LAYOUT:

- a. Exhibit 3 shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicates proposed location of reserve and sump pits if utilized and living facilities.
- c. Mud pits in the active circulating system will be steel pits and a closed loop system will be utilized.

9. PLANS FOR SURFACE RECLAMATION:

- a. After finishing drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original state.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

10. SURFACE OWNERSHIP:

The surface is owned by the City of Carlsbad, agreement is being requested.

11. OTHER INFORMATION:

- a. The area surrounding the well site is grassland. The vegetation is moderately sparse with native prairie grass, some mesquite bushes and shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. A Cultural Resources Examination will be completed by Boone Archeological and forwarded to the BLM office in Carlsbad, New Mexico.

12. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Dean Chumbley, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505) 748-5988

B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5489

NEW PAGE

CERTIFICATION:

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

4.22.2008

Date

Marbob Energy Corporation

Dean Chumbley
Dean Chumbley
Land Department

Bureau of Land Management
RECEIVED

JUL 23 2008

Carlsbad Field Office
Carlsbad, NM



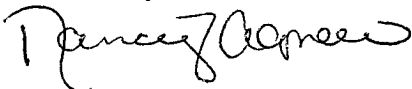
Memo

To: Cheryl Ryan, Bureau of Land Management
Address: 620 East Greene Street, Carlsbad, NM 88220
From: Nancy Agnew - Marbob Energy Corporation
Date: 7/22/2008
Re: Skittles Federal #2

Hello Cheryl,

Enclosed is the Surface Use Agreement between Marbob and the City of Carlsbad for the above referenced well. Please let me know if there is anything else needed for this APD to get processed or if you have any questions. Thank you!

Sincerely,



Nancy Agnew
Land Department

The attached is being sent to you without benefit of a formal cover letter in the hope that promptness is more important than formality.

**SELF-CERTIFICATION STATEMENT
FROM LESSEE/OPERATOR**

SURFACE OWNER IDENTIFICATION

Federal or Indian Lease No. NMNM 0454018

I hereby certify to the Authorized Officer of the Bureau of Land Management that I have reached one of the following agreements with the Surface Owner; or after failure of my good-faith effort to come to an agreement of any kind with the Surface Owner, have provided a bond and will provide evidence of service of such bond to the Surface Owner:

- 1) * I have a signed access agreement to enter the leased lands;
- 2) _____ I have a signed waiver from the surface owner;
- 3) * I have entered into an agreement regarding compensation to the surface owner for damages for loss of crops and tangible improvements.
- 4) _____ Because I have been unable to reach either 1), 2), or 3) with the surface owner, I have obtained a bond to cover loss of crops and damages to tangible improvements and serves the surface owner with a copy of the bond.

Surface owner information: (if available after diligent effort)

Surface Owner Name: City of Carlsbad

Surface Owner Address: P.O. Box 1569, Carlsbad, NM 88221-1569

Surface Owner Phone Number: _____

Signed this 22nd day of July, 2008.

Marbob Energy Corporation

(Name of lessee/operator)

I (Surface Owner) accept * do not accept _____ the lessee or operator's Surface Owner Agreement under 1, 2, or 3 above.

Signed this 15th day of July, 2008.

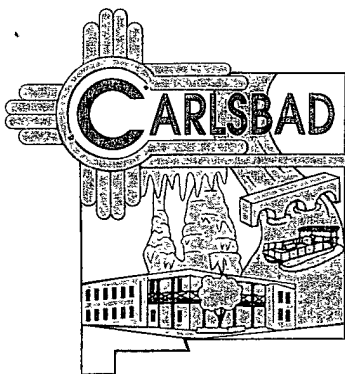
(See attached Signature)

(Signature of Surface Owner if an agreement has been reached)

Bureau of Land Management
RECEIVED

JUL 23 2008

Carlsbad Field Office
Carlsbad, NM



BOB FORREST

MAYOR

Post Office Box 1569
Carlsbad, NM 88221-1569
(575) 887-1191
1-800-658-2713
www.cityofcarlsbadnm.com

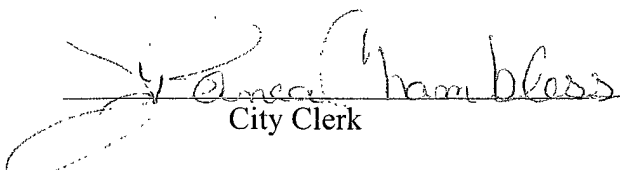
HARRY BURGESS

CITY ADMINISTRATOR

July 15, 2008

JUL 18 2008

I, Ranea Chambless, City Clerk for the City of Carlsbad do this 15th day of July, 2008 certify that the attached are true and correct copies of the General Surface Use Agreement for Oil and Gas Related Matters with Marbob Energy Corporation for Skittles Federal No. 2 located at 1850 FNL & 330 FEL Sec. 10: T22s-R27e.


City Clerk

SEAL.

COUNCILORS

Ward 1

PAUL C. AGUILAR
NICK G. SALCIDO

Ward 2

JEFF DIAMOND
LILA KING

Ward 3

WESLEY A. CARTER
NED Z. ELKINS

Ward 4

BRAD DAY
NATHAN A. McDONALD

GENERAL SURFACE USE AGREEMENT FOR OIL AND GAS RELATED MATTERS

This Agreement is entered into on this 10 day of June, 2008, between the City of Carlsbad (hereinafter "City"), a New Mexico Municipal Corporation and Marbob Energy Corporation (hereinafter "Grantee), a New Mexico corporation, collectively the "Parties."

Whereas, the City of Carlsbad is the owner of the surface estate of certain real property, more particularly described herein; and

Whereas, Grantee is the lessee and/or owner of certain mineral leases near or appurtenant to said City-owned real property; and

Whereas, Grantee requires the use of portions of the City-owned surface estate in order to develop its mineral interests; and

Whereas, the City is willing to allow Grantee the use of certain portions of its surface estate subject to the terms and conditions of this agreement.

Now, therefore, the Parties in consideration of the mutual covenants and agreements herein contained agree as follows:

1. Property Description.

The Parties agree that the City is the owner of the surface estate of the real property more particularly described herein in Exhibit A, "Property Description".

2. Permit.

The Parties agree that Grantee has lawful authorization to develop, transport, or facilitate the transportation of a mineral interest, with such lawful authorization, permit, or other evidence attached hereto and incorporated by reference as Exhibit B, "Permit."

3. Survey.

Grantee has provided the City an acceptable survey conducted by a New Mexico Registered Surveyor, suitable for filing at the office of the Eddy County Clerk, attached hereto as Exhibit C, "Survey" and incorporated by reference. It is agreed that said survey reflects the dimensions, extent and limits of all intended surface uses by Grantee.

4. Definitions.

When Used in this Agreement, the following terms shall be defined as:

- a. "Double Ditching Method" shall mean the removal of the topsoil in one operation and keeping it separate from the underlying caliche, rock, gravel or clay and then first refilling the excavation with the underlying caliche, rock, gravel or clay followed by replacement of the topsoil with such compacting as to ensure that the easement is not at a lower level than the surrounding surface of the ground.
- b. "Wellhead and Water Facilities Protection Ordinance" shall mean City of Carlsbad Ordinance No. 2000-13, as it may be amended from time to time.

5. Specific Surface Uses Contained in Addenda.

The specific terms and conditions of the surface use or uses of City-owned property desired or required by Grantee shall be contained in one or more of the five Standard Addenda to this Agreement. Each Addendum, as applicable, shall be duly executed by the Parties and shall be attached hereto and incorporated by reference. Addenda may be added or deleted from time to time as circumstances warrant. Any Addenda not applicable shall be marked "Not Applicable." Grantee shall not engage in any use which is not directly related to an expressly authorized use without obtaining the prior written approval of the City Administrator. Such additional authorized uses shall be subject to such terms and conditions as may be set forth in the written approval.

6. General Surface Use - Non-Waiver.

Any approval given or supervision exercised by the City, or failure of the City to object to any design, work performed, material used, or method of construction or maintenance, shall not be construed as an admission of responsibility by the City or as a waiver of any obligation of Grantee.

7. General Surface Use - Non Contamination.

In consideration of the surface use approved herein by the City, Grantee agrees:

- a. Neither Grantee nor its agents, employees, contractors, subcontractors or service providers shall contaminate the surface or subsurface in any manner.
- b. No trash or debris shall be burned on the surface nor buried below the surface.
- c. All trash, debris, surplus items, scraps, equipment, vehicles and miscellaneous items not in use shall be removed on a regular basis and in any event within 14 days from the completion of the job or construction site on which the items were used and/or stored.
- d. Any of the items described in Paragraph 7c, above, not removed in accordance with the requirement of this section may be removed by the City and disposed of at Grantee's expense.
- e. No hydrocarbons, chemicals, brine, produced water, solids or liquids shall be discharged onto the surface of the ground.

- f. Notwithstanding any approval from the Bureau of Land Management or the Oil Conservation Division to the contrary, no hydrocarbons, chemicals, brine, produced water, solids or liquids shall be discharged, injected or reinjected below the surface of the ground without the prior written permission of the City.
- g. All surface and subsurface use in the City's Wellhead Protection area shall comply in all respects with the Wellhead and Water Facilities Protection Ordinance.
- h. In the event there is a leak, discharge, spill, deposit of contaminated fluids or materials, fire or any other damage to the surface, Grantee shall immediately after the discovery of the occurrence notify the City Administrator at (505) 887-1191 or by fax at (505) 885-1101.

8. General Surface Use - Response to Contamination.

In consideration of the surface uses approved herein by the City, Grantee agrees to the following terms and conditions regarding environmental assessment of all surface or subsurface contamination and remediation thereof:

- a. Grantee shall, not later than 24 hours after learning of or discovering the occurrence of any surface or subsurface contamination, have the site assessed by a qualified person or company who shall provide the City with a written report not later than 7 days after the assessment with such written report to contain the following information, at a minimum:
 - i. Exact location of the contamination;
 - ii. Detailed surface survey map;
 - iii. Description of the type, amount, source, and cause of contamination;
 - iv. Photographs of the contaminated site;
 - v. A detailed written recommendation for the remediation of the contaminated site, the reclamation of the affected surface area, and the prevention of contamination in the future; and
 - vi. Remediation and reclamation start date and completion date.
- b. Grantee shall, if requested to do so by the City, conduct additional response activities and/or site assessments subsequent to the environmental assessment with the scope of such requirements to be specified by the City.
- c. If required by the City, Grantee shall provide a report of the additional response activities and/or site assessments to the City within 14 days after the completion of such activities or assessments.
- d. Grantee shall, immediately upon learning of contamination of the surface or subsurface, remove all free-standing liquid and other contaminating materials to prevent the spread of such contamination.
- e. Grantee shall, within 14 days after notice by City to do so, implement the remediation work plan approved by the City; all mitigation and remediation of a contaminated surface or subsurface shall be conducted by qualified personnel in accordance with the recommendations of the work plan and in accordance with applicable laws, ordinances and regulations.

9. General Surface Use - Remediation of Damage.

In consideration of the surface uses approved herein by the City, Grantee shall, upon abandonment of any road, flow line, power line, pipe line, well pad, cathodic unit site, compressor site, pit, or any other surface use, implement the following reclamation procedures:

- a. Any pits, if permitted, shall be filled with clean, uncontaminated soil utilizing the Double Ditching Method.
- b. All abandoned pipelines shall be removed within 90 days after abandonment unless the Grantee has received written authorization from the City to leave the pipeline(s) in place.
- c. The trenches for abandoned pipelines shall be excavated and refilled in accordance with the Double Ditching Method.
- d. Upon the completion of drilling activities, well pads shall be reduced to the minimum size necessary for a producing well or in the event of "dry hole" the well shall be plugged and capped in accordance with all applicable laws and regulations and the well pad reclaimed by removal of all caliche and clay and replacement thereof by suitable top soil.
- e. Abandoned roadways shall, unless the City waives the requirement in writing, be reclaimed by removal of all caliche and clay and replacement thereof by suitable top soil.
- f. All reclaimed disturbed areas of the surface shall be reseeded with a native grass/plant seed mixture approved by the City; reseeding shall be done at a date and time approved by the City.

10. General Surface Use - Liability Insurance and Indemnification.

In consideration of the surface use approvals granted herein by the City, Grantee shall comply with the following insurance and indemnification requirements:

- a. General Liability
 - i. During all times for which surface use of City property is required by Grantee or permitted by the City, Grantee shall maintain General Liability Insurance in an amount not less than \$2,000,000 for combined single limits for bodily injury, death or property damage for any one occurrence; and
 - ii. Grantee shall maintain Excess Liability coverage with a limit of not less than \$4,000,000 for bodily injury, death or property damage.
 - iii. Prior to any surface use and annually thereafter, Grantee shall provide the City with a Certificate of Insurance affirming the coverages specified above.
- b. Auto Liability
 - i. At all times during which surface use is required by Grantee or permitted by the City, Grantee shall maintain Automobile Liability in an amount not less than \$1,000,000; and

- ii. Grantee shall further ensure that all its contractors, subcontractors, service providers and any other persons or entities operating motor vehicles on City property in connection with the surface use comply with the requirements of the above paragraph.
 - iii. Prior to any surface use and annually thereafter, Grantee shall provide to the City Certificates of Insurance reflecting the above coverages and showing the City as Additional Insured and Loss Payee.
 - c. Workers' Compensation Insurance
 - i. At all times during which surface use is required by Grantee or permitted by the City, Grantee shall maintain Workers' Compensation Insurance as required by applicable New Mexico law.
 - ii. Prior to any surface use and annually thereafter, Grantee shall provide the City with evidence that Grantee, its contractors, subcontractors, agents and service providers are in compliance with applicable New Mexico law regarding Workers' Compensation.
 - d. Assumption of Liability
 - i. At all times during which surface use is required by Grantee or permitted by the City, Grantee shall agree to assume all liabilities for damages arising from its operations directly or indirectly associated with the surface use on City property with such assumption of liability to include Grantee's agreement to defend, indemnify and hold the City harmless from and against any and all costs, expenses, liabilities and obligations of any kind arising in any manner in connection with Grantee's use of the surface.
 - ii. Grantee shall be responsible for all costs, fees, and/or expenses incurred by the City to enforce the provisions of this surface use agreement, including but not limited to reasonable Attorney's fees.
11. Term.

The provisions of this agreement shall remain in full force and effect during such period of time that Grantee, to any extent whatsoever, requires surface use of any portion of the City property described herein, provided that:

 - a. In the event Grantee shall fail to comply with the terms and conditions of this agreement and shall be deemed in default pursuant to Paragraph 12 below, the City may terminate this agreement by providing written notice to Grantee by Certified Mail with a return receipt requested.
 - b. In the event the City terminates this agreement as noted above, the effective date of termination shall be deemed to be 10 days after the Certified letter with return receipt was deposited in the U. S. Mail for delivery.
 - c. Upon the effective termination date as specified above, Grantee, its agents, employees, contractors, subcontractors and service providers shall immediately cease all surface use of the City property described herein.

12. Default or Breach.

Each of the following events shall constitute a default of this Agreement:

- a. Bankruptcy Filing. If Grantee, during the term of this Agreement, shall file a petition in Bankruptcy or insolvency or for reorganization under any bankruptcy act, or shall voluntarily take advantage of any such act by answer or otherwise, or shall make an assignment for the benefit of creditors.
- b. Involuntary Proceedings. If involuntary proceedings under any bankruptcy law or insolvency act shall be instituted against Grantee or if a receiver or trustee shall be appointed for all or substantially all of the property of Grantee and such proceedings shall not be dismissed or the receivership or trusteeship vacated within 60 days after the institution or appointment.
- c. Failure to Comply. If Grantee fails to perform or comply with any of the conditions of this Agreement and if the nonperformance or noncompliance shall continue for a period of 30 days after notice thereof or if the performance or compliance cannot be reasonably had within the 30 day period and Grantee shall not in good faith have commenced performance within the 30 day period and then diligently proceeded to completion of performance.
- d. Transfer of Agreement. If this Agreement shall be transferred to or shall pass to or devolve to any other person or party except in the manner specified herein.
- e. Vacation of Surface Use. If Grantee shall vacate or abandon the surface use permitted herein without having first complied with applicable provisions of this Agreement. Events constituting vacation or abandonment shall include, but not be limited to, the following:
 - i. A declaration by Grantee that it will vacate or abandon the use;
 - ii. Failure of Grantee to respond in writing within 14 days of a written request from the City for a declaration that Grantee does not intend to vacate or abandon the use;
 - iii. The plugging of a well, in the event the surface use includes a well;
 - iv. The capping of a pipeline, in the event the surface use includes a pipeline;
 - v. Failure to provide surface use inspection reports as may be required by this Agreement or any Addendum hereto; and
 - vi. When the condition of the use clearly indicates vacation or abandonment.

13. Effect of Default.

In the event of default herein under as set forth in this Agreement, the right of the City shall be as follows:

- a. Termination. The City shall have the right to cancel and terminate this Agreement. On the effective date of such termination, this Agreement and all rights, title and interest of Grantee herein under shall terminate.
- b. Lien. Failure by Grantee to comply with any term or condition or failure to perform any duty required herein shall constitute a lien against Grantee's

equipment, property, improvements, property rights, working interests, leasehold estates, and mineral interests. Such lien shall be in the amount of all costs, fees, and expenses incurred by or on behalf of the City and shall be enforced as provided by law.

- c. Other remedies. The City may pursue any other remedy available at law or equity. No right or remedy is exclusive of any other provided herein or permitted by law or equity. All such rights and remedies shall be cumulative and may be enforced concurrently or individually.

14. Nonwaiver.

Waiver by the City of any default in the performance by Grantee of any of the terms or conditions contained in this Agreement shall not be deemed a continuing waiver of the default or any subsequent default.

15. Survival.

All covenants, agreements, warranties, representations and remedies provided herein shall survive the termination of this Agreement.

16. Assignment of Agreement.

Grantee shall not sublease, assign, transfer or permit the assignment or transfer of this agreement or any interest in or right hereinunder without the prior written approval of the City. In the event of such assignment or transfer, the Assignee shall assume the liability of the Assignor but such assumption of liability shall not relieve the Assignor of its obligations and liabilities under this Agreement.

17. Successors and Assigns.

This Agreement shall enure to the benefit of and be binding upon the successors and permitted assigns of the Parties hereto.

18. Notices.

All notices or other communications permitted that are required by the terms of this Agreement shall be writing and be deemed to have been duly given and delivered if sent by certified U. S. mail with return receipt requested with postage prepaid:

If to the City:

Harry Burgess
City Administrator
City of Carlsbad
P. O. Box 1569
Carlsbad, NM 88221-1569

If to Grantee:

Dean Chumbley
Land Manager
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227

Change of address by any party shall be by notice given to the other Parties in the same manner as specified for giving notices.

19. New Mexico Law and Venue.

The Parties agree this Agreement shall be construed and controlled by the laws of the State of New Mexico. The Parties further agree that any legal actions arising out of this Agreement shall be brought in the District Court of Eddy County, New Mexico, for the 5th Judicial District. The Parties expressly consent to both *in personam* and subject matter jurisdiction of the Eddy County District Court and agree that venue shall properly lie in the Eddy County, New Mexico District Court.

20. Modification to this Agreement.

This Agreement may not be changed or modified except in writing, executed with the same formality as with this Agreement.

21. Arbitration.

Should any dispute arise between the Parties in connection with this Agreement and if such dispute cannot be resolved by discussion between the Parties, the Parties agree to submit the unresolved dispute to binding arbitration in lieu of litigation.

22. Waiver of Jury Trial.

The Parties hereby waive the right to a jury trial on any issue arising out of or relating directly or indirectly to this Agreement or the transactions contemplated hereby.

23. Savings Clause.

If any term, clause or provision of this Agreement or the application thereof to any persons or circumstances shall to any extent be illegal, invalid or unenforceable under present or future laws effective during the terms of this Agreement, then it is the intention of the Parties hereto that the remainder of this Agreement or the application of such term, clause or provision to persons or circumstances other than those to which it is held illegal, invalid or unenforceable shall not be effected thereby and its applicability to persons or circumstances other than those to which it is held illegal, invalid or unenforceable shall not be effected thereby. It is also the intention of the Parties hereto that in lieu of such term, clause or provision that is illegal, invalid or unenforceable there be added as a part of this Agreement a term, clause or provision as similar in terms to such illegal, invalid or unenforceable term, clause or provision as may be possible so that said provision be legal, valid and enforceable.

24. Captions.

The captions of any articles, paragraphs or sections hereof are made for convenience only and shall not control or effect the meaning or construction of any of the provisions thereof.

25. Exhibits.

Any instrument or document made and attached to this Agreement shall constitute a part hereof as those set forth in full in the body of this Agreement whether made a part hereof by reference or whether made a part hereof by attachment.

26. As is Condition.

Prior to any surface use permitted herein, Grantee has fully examined and inspected the property and accepts such property in its existing condition. Grantee agrees that no representations, statements or warranties expressed or implied, have been made by or on behalf of the City in respect thereto, including but not limited to the suitability of the property for any purpose and the City shall in no event be liable for any defects.

27. Compliance with Laws.

Grantee shall comply with applicable local, state and federal laws, rules, regulations and policies whether currently in effect or adopted hereafter including but not limited to New Mexico Environment Department rules and regulations, Rules and Regulations of the U. S. Bureau of Land Management and/or New Mexico Oil Conservation Division, motor vehicle laws and public nuisance laws. Grantee shall obtain and maintain any and all permits, licenses or certifications that may be necessary to the surface use as contemplated by this Agreement. In the event Grantee should cease to be properly permitted, licensed or certified, Grantee shall immediately notify the City in the manner specified in this Agreement. Grantee shall further require that its employees, officers, agents, contractors, subcontractors and service providers comply with all applicable local, state and federal laws, rules, regulations and policies.

28. Entirety of Agreement.

This instrument as written shall constitute the entire surface use agreement by and between the Parties hereto.

29. Limitations on Use.

Nothing in this Agreement shall be construed, either implicitly or explicitly, to allow Grantee to use any surface areas or to engage in any activities other than those explicitly set forth in this Agreement. Grantee's use of any surface area not explicitly approved by this Agreement shall constitute a default. Additionally, Grantee's use of any surface area, approved or otherwise, for any activity other than explicitly approved in this Agreement shall constitute default.

30. Favored Nations Clause.


The compensation for any surface use or surface use activity permitted by this Agreement shall not be less than the amount agreed to be paid or actually paid, whichever is greater, to any person or entity during the period of 5 years before and after the effective date of this Agreement for similar surface uses and surface activities on similar land type within Eddy County. Any payments owing pursuant to this section shall be paid without demand to the City not later than 48 hours after payment to such other person or entity, or, if previously paid to others, paid to the City when payments are due under this Agreement.

Marbob Energy Corporation
(Date of Agreement)

Skittles Federal No. 2
1850 FNL & 330 FEL Sec. 10: T22s - R27e

Signed this 10th day of July, 2008.

CITY OF CARLSBAD

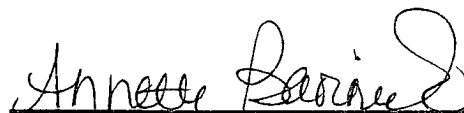

Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 10th day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires: Jan 22, 2009


NOTARY PUBLIC

GRANTEE:


Raye Miller, Secretary/Treasurer

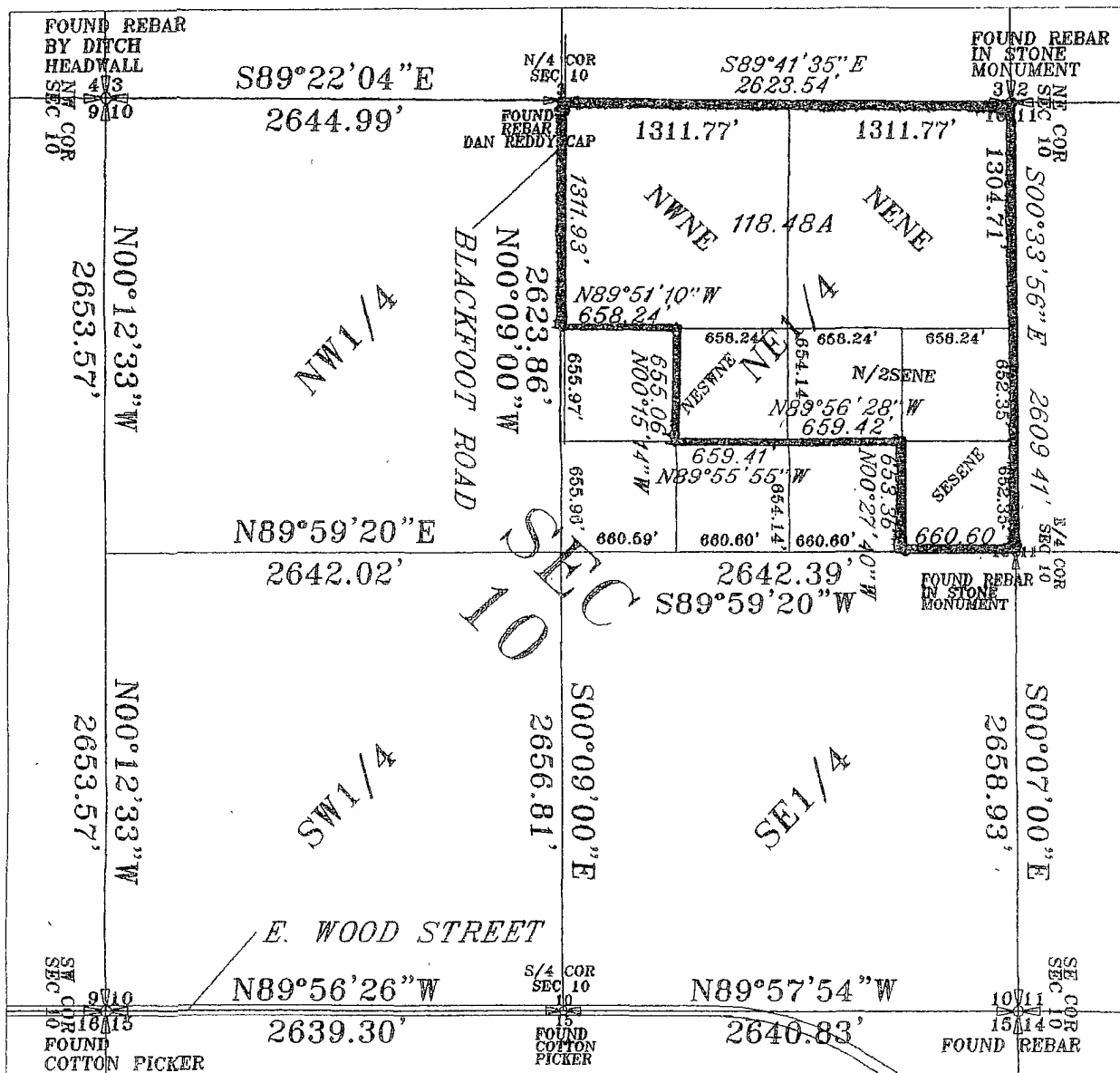
STATE OF NEW MEXICO)
COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 24th day of April, 2008 by Raye Miller as Sec/Tres of Marbob Energy Corporation.

My commission expires: 3-19-11


NOTARY PUBLIC

A TRACT OF LAND LYING IN THE NE/4 OF SEC 10, T22S, R27E, N.M.P.M., EDDY COUNTY, NEW MEXICO, WHOSE PERIMETER IS MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE NE CORNER OF SEC 10, T22S, R27E, N.M.P.M., EDDY COUNTY, NEW MEXICO; THEN S00°33'56"E, ALONG THE EAST LINE OF SEC 10, FOR 2609.41' TO THE E¼ CORNER OF SEC 10, THEN S89°59'20"W, ALONG THE SOUTH LINE OF THE NE¼, FOR 660.60' TO THE SW CORNER OF THE SESENE OF SEC 10; THEN N00°27'40"W, ALONG THE WEST LINE OF THE SESENE, FOR 653.36' TO THE SOUTH LINE OF THE N/2SENE; THEN N89°56'28"W, ALONG THE SOUTH LINE OF THE N/2SENE, FOR 659.42' TO THE SW CORNER OF THE N/2SENE OF SEC 10, WHICH CORNER IS ALSO THE SE CORNER OF THE NESWE OF SEC 10; THEN N89°55'55"W, ALONG THE SOUTH LINE OF THE NESWE, FOR 659.42' TO THE SW CORNER OF THE NESWE OF SEC 10; THEN N00°15'14"W, ALONG THE WEST LINE OF THE NESWE, FOR 655.06' TO THE SOUTH LINE OF THE NWNE OF SEC 10; THEN N89°51'10"W, ALONG THE SOUTH LINE OF THE NWNE, FOR 658.24' TO THE WEST LINE OF THE NE¼, WHICH CORNER IS THE SW CORNER OF THE NWNE OF SEC 10; THEN N00°09'00"W, ALONG THE WEST LINE OF THE NE¼, FOR 1311.93' TO THE N¼ CORNER OF SEC 10; THEN S89°41'35"E, ALONG THE NORTH LINE OF SEC 10, FOR 2623.54' TO THE POINT OF BEGINNING. CONTAINING 118.48 ACRES MORE OR LESS AND IS SUBJECT TO ALL PERTAINING EASEMENTS.



OVERVIEW (NO SCALE)

STANDARD ADDENDUM #1

APPROVAL FOR USE OF EXISTING CITY-OWNED OR CITY-MAINTAINED ROAD(S)

- A. ☒ The parties agree that **Standard Addendum #1 is NOT APPLICABLE** to this Agreement in that Grantee will not use any existing City-owned or City-maintained road(s) in connection with any surface activity conducted on City-owned surfaces pursuant to this Agreement.
- B. ☐ The parties agree that **Standard Addendum #1 is APPLICABLE** to this Agreement in that Grantee does intend to use existing City-owned or City-maintained road(s) in connection with the surface activities contemplated under this Agreement.
- C. The City hereby approves the use by Grantee of the existing City-owned or City-maintained road(s) as shown in the "Survey" subject to all terms and conditions contained in the General Surface Use Agreement and the additional terms and conditions enumerated below:
1. Grantee shall, prior to any use of existing City-owned or City-maintained road(s), pay the City \$_____ (\$5.00 per rod times _____ rods).
 2. Grantee shall maintain the road(s) in a condition equal to or better than the existing conditions reflected in the representative photographs attached hereto and incorporated by reference as "Existing Roadway Condition Photographs."
 3. Grantee agrees that all motor vehicles operated on such City-owned or City-maintained road(s); whether owned by Grantee or its agents, employees, contractors, subcontractors or service providers, will be operated in a safe and prudent manner consistent with existing traffic conditions, roadway conditions, weather, and in conformance with all applicable laws, rules and regulations regarding motor vehicle operations.
 4. Grantee shall ensure at all times that the operators of its vehicles and those of its employees, agents, contractors, subcontractors and service providers are properly licensed, trained and qualified to operate their respective vehicles.
 5. Grantee shall, if requested to do so by the City, implement such measures as may be necessary for reasonable dust control.
 6. Grantee shall immediately report or cause to be reported any motor vehicle accident occurring on or proximate to any City-owned or City-maintained road(s) involving the operation of a motor vehicle by Grantee, its agents, employees, contractors, subcontractors or service providers. Such report shall be made to the appropriate law enforcement authority with subsequent notification to the City Administrator in the manner provided herein not later than 24 hours after such occurrence.

Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY)ss.
)

The foregoing instrument was signed and acknowledged before me this 10th day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires:

NOTARY PUBLIC

GRANTEE:

Raye Miller Secretary/Tresurer

STATE OF NEW MEXICO)
)ss.
COUNTY OF EDDY)

The foregoing instrument was signed and acknowledged before me this 24th day of April, 2008 by Raye Miller Sec./Tres. of Marbob Energy Corporation.

My commission expires:

NOTARY PUBLIC

STANDARD ADDENDUM #2

APPROVAL FOR USE OF EXISTING CITY-OWNED SURFACE ESTATE FOR DEVELOPMENT, CONSTRUCTION, OPERATION AND MAINTENANCE OF WELL PADS, COMPRESSOR STATION SITES, CATHODIC UNIT SITES, TANK BATTERIES AND SIMILAR SURFACE ACTIVITIES

- A. ☐ The parties agree that **Standard Addendum #2 is NOT APPLICABLE** to this Agreement in that Grantee will not use the surface of any existing City-owned real property for development, construction, operation and maintenance of well pads, compressor station sites, cathodic unit sites, tank batteries or similar surface activities, hereinafter referred to as "well pad(s) and similar surface site(s)".
- B. ☒ The parties agree that **Standard Addendum #2 is APPLICABLE** to this Agreement in that Grantee does intend to use the surface of City-owned real property for development, construction, operation and maintenance of well pads, compressor station sites, cathodic unit sites, tank batteries or similar surface activities, hereinafter referred to as "well pad(s) and similar surface site(s)".
- C. The City hereby approves the use(s) by Grantee of the surface of City-owned real property as reflected in the "Survey" for the purposes listed below subject to all terms and conditions contained in the General Surface Use Agreement and to the additional terms and conditions enumerated below:
1. Grantee may use the site(s) described below for the specified purpose(s):
 - a. Site(A): SE/4NE/4 Sec. 10 T22s - R27e
Purpose: Skittles Federal No. 2 Wellpad
 - b. Site(B): _____
Purpose: _____
 - c. Site(C): _____
Purpose: _____
 2. For each such site, Grantee shall, prior to any use of the City-owned surface estate, pay the City the following amounts:
 - a. Site(A): \$10,000.00
 - b. Site(B): \$
 - c. Site(C): \$
 3. On the 10th anniversary of this Agreement and annually thereafter, so long as such site(s) shall continue to be used, Grantee shall pay the City the following amounts:
 - a. Site(A): \$ 1,000.00
 - b. Site(B): \$
 - c. Site(C): \$

4. The dimensions of well pads and similar surface sites shall be the minimum necessary for efficient and safe operation; unless specifically approved herein, no well pad or similar surface site shall exceed 300 feet by 300 feet.
5. Well pads and similar surface sites permitted herein shall be constructed in accordance with applicable laws, rules and regulations and Grantee shall utilize construction methods to minimize the disturbance of adjacent areas and preserve top soil for reclamation.
6. In constructing well pads and similar surface site(s), Grantee shall not utilize any rock, caliche, clay or similar materials removed from locations on any City-owned property, other than the permitted site(s) without the prior written authorization of the City.
7. Grantee shall not park or store any vehicles or install any equipment, permanent or temporary, on any City-owned surface other than as expressly allowed on well pad(s) and similar surface site(s) permitted herein or on new roads constructed by Grantee if permitted.
8. Grantee shall, if requested to do so by the City, implement such measures as may be necessary for reasonable dust control during the development, construction, operation and maintenance of well pad(s) and similar surface site(s) permitted by this Agreement.

Signed this 10th day of July, 2008.

CITY OF CARLSBAD

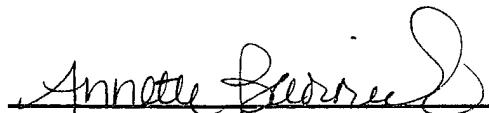

Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 10th day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires: Jan 22, 2009


NOTARY PUBLIC

Marbob Energy Corporation
(Date of Agreement)

Skittles Federal No. 2
1850 FNL & 330 FEL Sec. 10: T22s-R27e

GRANTEE:

Raye Miller
Raye Miller Secretary/Tresurer

STATE OF NEW MEXICO)
)ss.
COUNTY OF EDDY)

The foregoing instrument was signed and acknowledged before me this 24th day
of April, 2008 by Raye Miller Sec/Tres of Marbob Energy Corporation.

My commission expires: 3-19-11

Misti McLurg
NOTARY PUBLIC

STANDARD ADDENDUM #3

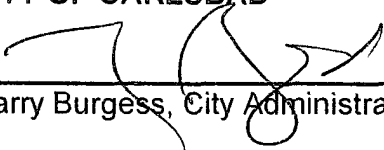
APPROVAL OF EASEMENT AND RIGHT-OF-WAY FOR CONSTRUCTION AND USE OF NEW ROAD(S)

- A. ☐ The parties agree that **Standard Addendum #3 is NOT APPLICABLE** to this Agreement in that Grantee will not construct any new road(s) in connection with any surface activity conducted on City-owned surfaces pursuant to this Agreement.
- B. ☒ The parties agree that **Standard Addendum #3 is APPLICABLE** to this Agreement in that Grantee does intend to construct and use a new road(s) in connection with the surface activities contemplated under this Agreement.
- C. The City hereby grants right-of-way and easement to Grantee for the construction and use of the new road(s) reflected in the "Survey" subject to all terms and conditions contained in the General Surface Use Agreement and the additional terms and conditions enumerated below:
1. Grantee shall, prior to construction of the new road(s), pay the City \$56.00 (\$25.00 per rod times 2.24 rods).
 2. Grantee shall be solely responsible for the design, construction, maintenance, inspection, and improvement of the road(s) which shall be of all-weather construction. The road(s) be kept in compliance with all applicable laws, rules, and regulations. Grantee shall be solely responsible for the proper maintenance of the road(s) including, but not limited to the removal of weeds, trash, debris, and any other fire, health, safety, or sanitation hazard, nuisance, or unsanitary or unsightly condition.
 3. The road(s) shall be used solely for access to the surface activities contemplated under this Agreement. Neither the road(s) nor the easement(s) shall be used by Grantee for any other purpose. Such other prohibited purposes include, but are not limited to, the placement of one or more pipelines or the placement or storage of materials or equipment.
 4. Grantee agrees that all motor vehicles operated on such road(s), whether such vehicles are owned by Grantee or its agents, employees, contractors, subcontractors or service providers, shall be operated in a safe and prudent manner consistent with existing traffic conditions, roadway conditions, weather, and in conformance with all applicable laws, rules and regulations regarding motor vehicle operations.
 5. Grantee shall ensure at all times that the operators of its vehicles and those of its employees, agents, contractors, subcontractors and service providers are properly licensed, trained and qualified to operate their respective vehicles.
 6. Grantee shall, if requested to do so by the City, implement such measures as may be necessary for reasonable dust control.

7. Grantee shall immediately report or cause to be reported any motor vehicle accident occurring on or proximate to the road(s) involving the operation of a motor vehicle by Grantee, its agents, employees, contractors, subcontractors or service providers. Such report shall be made to the appropriate law enforcement authority with subsequent notification to the City Administrator in the manner provided herein not later than 24 hours after such occurrence.

Signed this 10th day of July, 2008.

CITY OF CARLSBAD


Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 21st day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires: Jan 22, 2009


NOTARY PUBLIC

GRANTEE:


Raye Miller Secretary/Treasurer

STATE OF NEW MEXICO)
COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 24th day of April, 2008 by Raye Miller as Sec./Tres. of Marbob Energy Corporation.

My commission expires: 3-19-11


NOTARY PUBLIC

STANDARD ADDENDUM #4


APPROVAL GRANTING RIGHT-OF-WAY AND EASEMENT FOR THE INSTALLATION OF FLOW LINES, GATHERING LINES OR POWER LINES

- A. ☐ The parties agree that **Standard Addendum #4 is NOT APPLICABLE** to this Agreement in that Grantee does not intend install and operate flow lines, gathering lines or power lines.
- B. ☒ The parties agree that **Standard Addendum #4 is APPLICABLE** to this Agreement in that Grantee does intend to construct and operate flow lines, gathering lines or power lines as reflected on the "Survey."
- C. The City hereby grants right-of-way and easement to Grantee for the construction and operation of flow lines, gathering lines and/or power lines as reflected in the "Survey" for the purposes specified below and subject to all terms and conditions contained in the General Surface Use Agreement and the additional terms and conditions enumerated below:
1. Grantee may use the site(s) described below for the specified purpose(s):
 - a. Site(A): SE/4NE/4 Sec. 10: T22s - R27e
Purpose: Skittles Federal No. 2 Powerline
 - b. Site(B): _____
Purpose: _____
 - c. Site(C): _____
Purpose: _____
 2. The each site shall be used solely for the purpose designated above for that site. The site(s) shall not be used for any other purpose. Such other prohibited purposes include, but are not limited to, the placement of a road or the placement or storage of materials or equipment.
 3. Grantee shall, prior to the use of the surface of any City-owned real property, pay the City the following amounts:
 - a. Site(A): \$ 265.80 (\$10.00 per rod for 26.58 rods)
 - b. Site(B): \$ (\$ per rod for rods)
 - c. Site(C): \$ (\$ per rod for rods)
 4. On the 10th anniversary of this agreement and annually thereafter, so long as such surface use shall continue, Grantee shall pay City the following amounts:
 - a. Site(A): \$26.58 (\$1.00 per rod for 26.58 rods)
 - b. Site(B): \$ (\$ per rod for rods)
 - c. Site(C): \$ (\$ per rod for rods)
 5. The top of all flow lines and gathering lines shall be buried not less than 24 inches below the surface.

6. In all pipeline installations, Grantee shall utilize the "Double Ditching Method" specified in Paragraph 4a of the General Surface Use Agreement.
7. Grantee shall construct all flow lines and gathering lines to industry standards specifications. Copies of the standards for each flow line and gathering line shall be attached to this Addendum as exhibits and are incorporated herein.
8. Pipeline markers shall be placed so that all flow lines and gathering lines are well marked.
9. Grantee shall provide such inspection and maintenance services as are reasonably necessary to minimize the potential for malfunctions and leaks. Such inspections and maintenance services shall be provided on no less than an annual basis. Copies of all inspection and maintenance service reports shall be provided to the City no later than 14 days after such work is performed.

Signed this 10th day of July, 2008.

CITY OF CARLSBAD



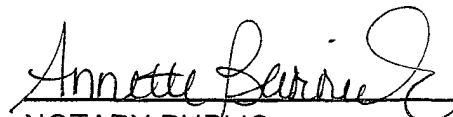
Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 10th day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires: Jan 22, 2009



NOTARY PUBLIC

GRANTEE:

Raye Miller
Raye Miller Secretary / Treasurer

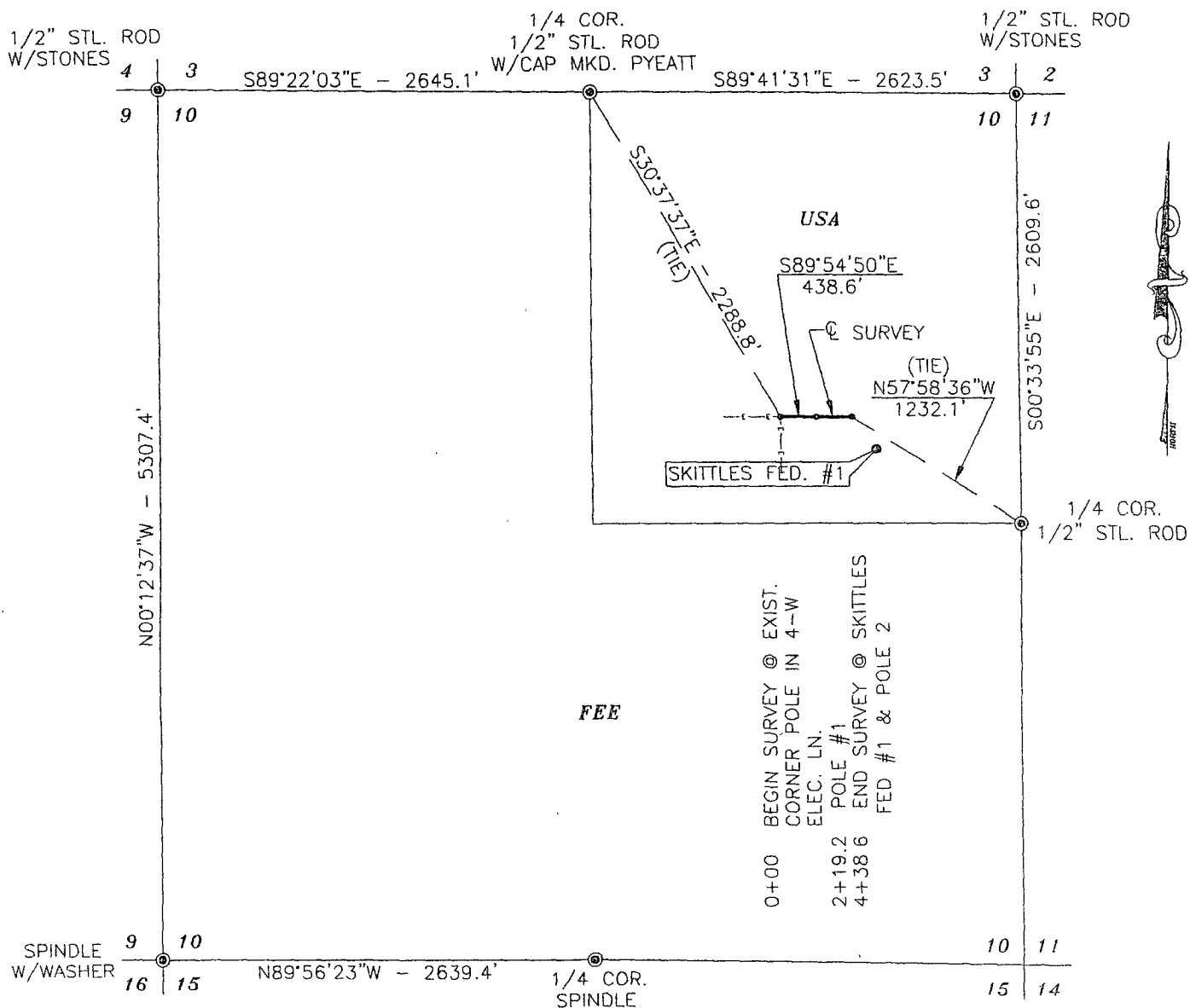
STATE OF NEW MEXICO)
)ss.
COUNTY OF EDDY)

The foregoing instrument was signed and acknowledged before me this 24th day
of April, 2008 by Raye Miller as Sec./Tres. of Marbob Energy Corporation.

My commission expires: 3-19-11

Misti Mlung
NOTARY PUBLIC

SECTION 10, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE AND 438.6 FEET OR 0.083 MILES IN LENGTH CROSSING USA LAND IN SECTION 10, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE: BEARINGS SHOWN HEREON ARE
MERCATOR GRID AND CONFORM TO THE
NEW MEXICO COORDINATE SYSTEM "NEW
MEXICO EAST ZONE" NORTH AMERICAN
DATUM 1983 DISTANCES ARE SURFACE
VALUES

**STANDARD ADDENDUM #5
APPROVAL GRANTING RIGHT-OF-WAY AND
EASEMENT FOR THE INSTALLATION OF
MAIN PIPELINES**

- A. ☐ The parties agree that **Standard Addendum #5 is NOT APPLICABLE** to this Agreement in that Grantee does not intend install and operate main pipelines.
- B. ☒ The parties agree that **Standard Addendum #5 is APPLICABLE** to this Agreement in that Grantee does intend to construct and operate main pipelines as reflected on the "Survey."
- C. The City hereby grants right-of-way and easement to Grantee for the construction and operation of main pipelines as reflected in the "Survey" subject to all terms and conditions contained in the General Surface Use Agreement and the additional terms and conditions enumerated below:
1. Grantee may use the site(s) described below for the specified main pipeline(s):
 - a. Site(A): SE/4NE/4 Sec. 10: T22s - R27e
Description: Skittles Federal No. 2 Pipeline
 - b. Site(B): _____
Description: _____
 - c. Site(C): _____
Description: _____
 2. The each site shall be used solely for the main pipeline described above for that site. The site(s) shall not be used for any other purpose. Such other prohibited purposes include, but are not limited to, the placement of additional pipelines, placement of a road or the placement or storage of materials or equipment.
 3. Grantee shall, prior to the use of the surface of any City-owned real property, pay the City the following amounts:
 - a. Site(A): \$1383.00 (\$75.00 per rod for 18.44 rods)
 - b. Site(B): \$ (\$ per rod for rods)
 - c. Site(C): \$ (\$ per rod for rods)
 4. On the 10th anniversary of this agreement and annually thereafter, so long as such surface use shall continue, Grantee shall pay City the following amounts:
 - a. Site(A): \$46.10 (\$2.50 per rod for 18.44 rods)
 - b. Site(B): \$ (\$ per rod for rods)
 - c. Site(C): \$ (\$ per rod for rods)
 5. The top of all main pipelines shall be buried not less than 36 inches below the surface.
 6. In all pipeline installations, Grantee shall utilize the "Double Ditching Method" specified in Paragraph 4a of the General Surface Use Agreement.

7. Grantee shall construct all main pipelines to industry standards specifications. Copies of the standards for each pipeline shall be attached to this Addendum as exhibits and are incorporated herein.
8. Pipeline markers shall be placed so that all main pipelines are well marked.
9. Grantee shall provide such inspection and maintenance services as are reasonably necessary to minimize the potential for malfunctions and leaks. Such inspections and maintenance services shall provided be on no less than an annual basis. Copies of all inspection and maintenance service reports shall be provided to the City no later than 14 days after such work is performed.

Signed this 10th day of July, 2008.

CITY OF CARLSBAD



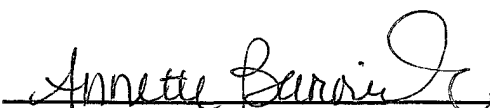
Harry Burgess, City Administrator

STATE OF NEW MEXICO)

COUNTY OF EDDY) ss.
)

The foregoing instrument was signed and acknowledged before me this 10th day of July, 2008 by Harry Burgess, City Administrator of the City of Carlsbad, New Mexico.

My commission expires: Jun 22, 2009



NOTARY PUBLIC

GRANTEE:

Raye Miller
Raye Miller Secretary / Treasurer

STATE OF NEW MEXICO)
)ss.
COUNTY OF EDDY)

The foregoing instrument was signed and acknowledged before me this 24th day
of April, 2008 by Raye Miller as Sec./Tres. of Marbob Energy Corporation.

My commission expires: 3-19-11

Misti McQuinn
NOTARY PUBLIC

NEW MEXICO.



A STRIP OF LAND 50.0 FEET WIDE AND 304.2 FEET OR 0.058 MILES IN LENGTH CROSSING USA LAND IN SECTION 10, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE. BEARINGS SHOWN HEREON ARE
MERCATOR GRID AND CONFORM TO THE
NEW MEXICO COORDINATE SYSTEM "NEW
MEXICO EAST ZONE" NORTH AMERICAN
DATUM 1983. DISTANCES ARE SURFACE
VALUES

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy
LEASE NO.:	NMNM0454018
WELL NAME & NO.:	Skittles Federal No 2
SURFACE HOLE FOOTAGE:	1850' FNL & 330' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 10, T. 22 S., R 27 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Pad size restriction & Berm
- ☐ **Construction**
 - Notification
 - Topsoil
 - Reserve Pit
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

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)

PAD SIZE RESTRICTED TO 100 FT. TO THE NORTH DUE TO PLAYA.

CONSTRUCT A 3 FT. EARTHEN BERM OFF OF THE NORTH EDGE OF THE PAD TO PREVENT ANY SPILLAGE TO ENTER THE PLAYA.

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 reserve pit and will be used for interim and final reclamation.

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.

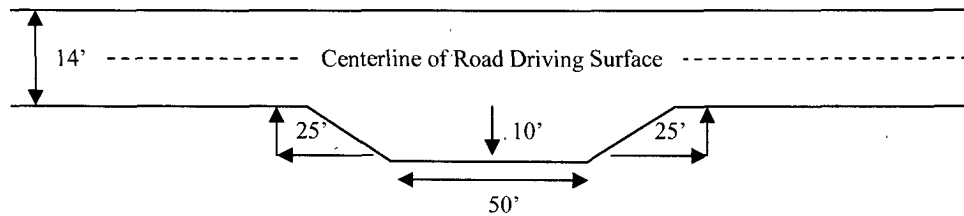
Ditching

Ditching shall be required on the uphill side 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

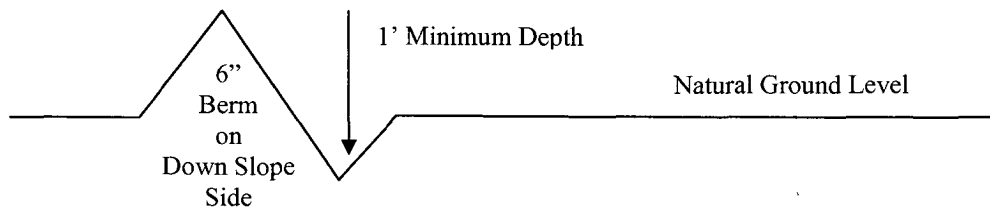


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing 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:

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

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

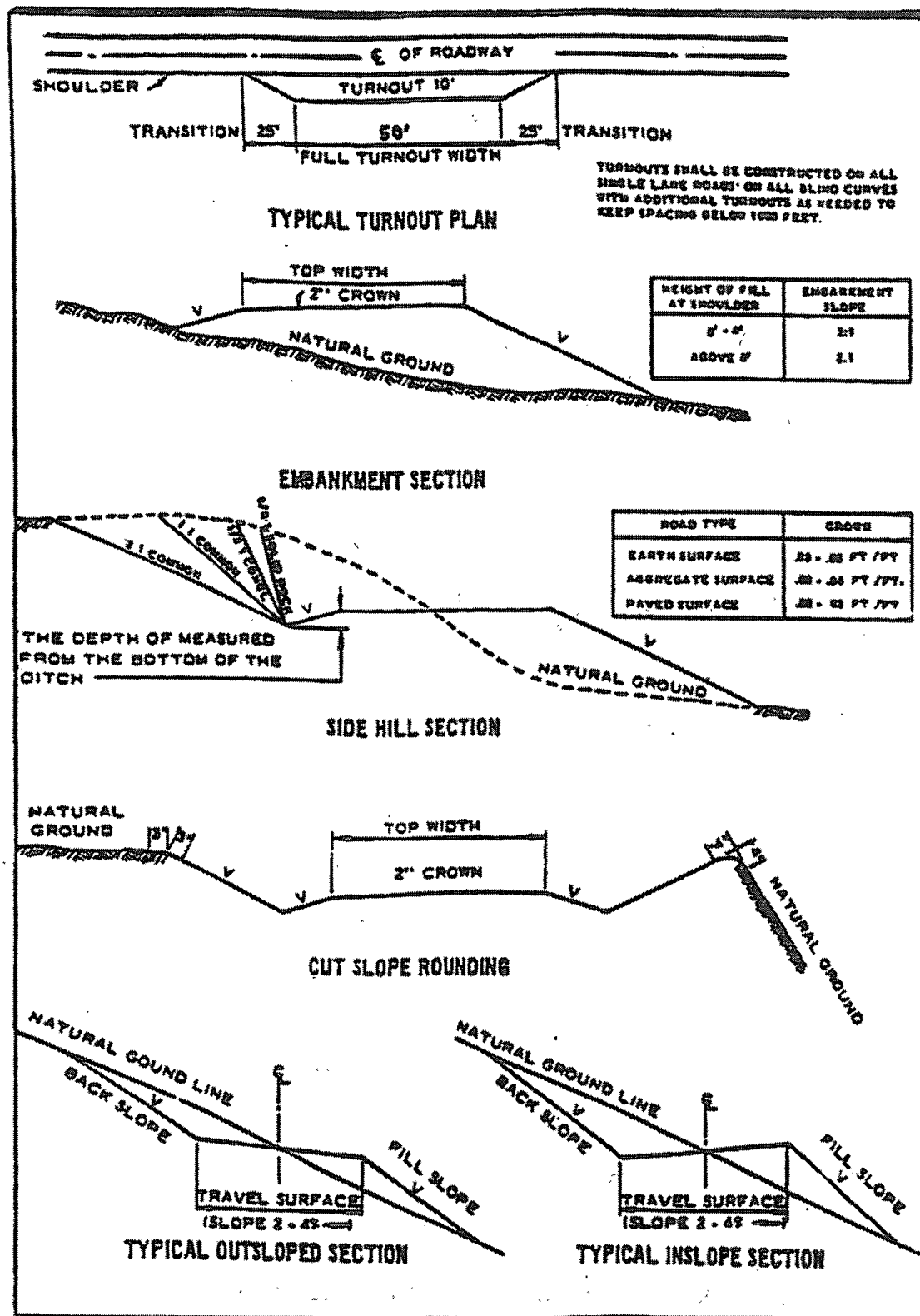
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. BOP/BOPE tests

☒ **Eddy County**

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

1. **A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the Delaware Formation. H₂S has been reported at 5000-39000 ppm in the gas stream and 4500-5000 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.

B. CASING

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

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

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

Medium cave/karst

Possible lost circulation in Delaware

Possible high pressure brine flows in salt section

1. The 8-5/8 inch surface casing shall be set at approximately 350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with 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).
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. **First stage to DV tool, cement shall:**
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.
 - b. **Second stage above DV tool, cement shall:**
 - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. 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.

D. DRILL STEM TEST

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

LB 6/11/08

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 1, for Loamy 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 regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/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:

<u>Specie</u>	<u>lb/acre</u>
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

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

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