

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No 1004-0137  
Expires: March 31, 2007**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 reverse side.**1 Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other2 Name of Operator **Marbob Energy Corporation**3a Address  
**PO Box 227, Carlsbad, NM 88211-0227**3b. Phone No. (include area code)  
**575-748-3303**4 Location of Well (Footage, Sec, T., R., M., or Survey Description)  
**660 FNL 2100 FWL, Sec. 6-T20S-R32E, Lot 3**

5 Lease Serial No.

**NMNM107392**

6 If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
**Cap Federal #1**9. API Well No.  
**30-025-36469**10. Field and Pool, or Exploratory Area  
**Lusk; Atoka, SE (Gas)**11. County or Parish, State  
**Lea Co., NM****12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Water Disposal
			<input type="checkbox"/> Water Shut-Off
			<input type="checkbox"/> Well Integrity
			<input type="checkbox"/> Other

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 recompleat 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall 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 requests approval for disposal of water production.**

Attached, please find the water production &amp; disposal information sheet, a current water analysis and a copy of the state issued permit.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

RECEIVED

OCT 07 2010  
HOBBSOCD

ACCEPTED FOR RECORD

OCT 5 2010  
/s/ JD Whitlock JrBUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE14 I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)**Jeannie Sillas**Title **Production Analyst**

Signature

*Jeannie Sillas*

Date

**9-24-10****THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

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.

PETROLEUM ENGINEER

Title

Date

**OCT 08 2010**

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)

The following information is needed before your disposal of produced water can be approved, per Onshore Oil & Gas Order #7.


You may attach this information to your Sundry Notice (3160-5). Submit all required information as per this attachment, submit a Sundry Notice(3160-5),one original and five copies to this office within the required time.

1. Name(s) of all formation(s) producing water on the lease. Atoka
2. Amount of water produced from all formations in barrels per day. Less than 1 bbl per day
3. A CURRENT water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.
4. How water is stored on the lease. 300 bbl tank
5. How water is moved to the disposal facility. Trucked by OK Hot Oil
6. Identify the Disposal Facility by:
  - A. Operators' Name Loco Hills Water Disposal Company
  - B. Well Name Loco Hills Water Disposal
  - C. Well type and well number WDW
  - D. Location by quarter/quarter, section, township, and range Sec. 16-T17S-R30E
7. A copy of the Underground Injection Control Permit - issued for the injection well by the Environmental Protection Agency or New Mexico Oil Conservation Division where the State has achieved primacy.

**Brian Collins**

From: <Bill\_Polk@bjsservices.com>  
 To: <BCollins@marbob.com>  
 Sent: Friday, September 24, 2010 8:37 AM  
 Subject: water analysis

Forwarded by Bill Polk/BJSSERVICES on 09/24/2010 08:38 AM --

Analytical Laboratory Report for:	 BJ Chemical Services
Marbob Energy	Account Representative: Willis Mossman

## Partial Water Analysis

Listed below please find water analysis report from: Cap Fed., #1

Lab Test No: 2010145369      Sample Date: 09/21/2010

Cations:	mg/L	as:
Calcium	1084.00	(Ca <sup>++</sup> )
Magnesium	173.00	(Mg <sup>++</sup> )
Sodium	13000	(Na <sup>+</sup> )
Iron	23.00	(Fe <sup>++</sup> )
Potassium	2886.0	(K <sup>+</sup> )
Barium	0.87	(Ba <sup>++</sup> )
Strontium	97.00	(Sr <sup>++</sup> )
Manganese	1.86	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Sulfate	28	(SO <sub>4</sub> <sup>=</sup> )
Chloride	29200	(Cl <sup>-</sup> )
Gases:		
Carbon Dioxide		(CO <sub>2</sub> )
Hydrogen Sulfide		(H <sub>2</sub> S)



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7720  
Order No. R-6811-B

APPLICATION OF LOCO HILLS WATER  
DISPOSAL COMPANY FOR AN AMENDMENT  
TO DIVISION ORDER No. R-6811-A,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 29, 1982, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 30th day of December, 1982, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Loco Hills Water Disposal Company, seeks an order amending Division Order No. R-6811-A to remove the present maximum disposal limit of 2,500 barrels per acre per month imposed upon the salt water disposal facility authorized, therein, in Section 16, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.

(3) That said Order No. R-6811-A was issued by the Commission following the hearing of Case No. 7329 De Novo on July 14, 1982.

(4) That in said Order No. R-6811-A, the Commission made, among others, the following findings:

"(6) That Order (3) of Division Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced

-2-

Case No. 7720

Order No. R-6811-B

in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(7) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(8) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(9) That the applicant seeks an exception to the provisions of the aforesaid Order (3) of Division Order No. R-3221, as amended, to permit the commercial disposal of produced salt water into the aforesaid pits at the site described above.

(10) That the applicant proposes to install and operate an effective system, composed of holding and separating tanks, and a skimming pit, for the removal of oily and solid wastes from the waters to be disposed of into said system.

(11) That there is no fresh water in the immediate vicinity of said disposal system, but there are wells producing fresh water some nine miles south of the proposed disposal pits.

(12) That the native soils underlying said pits will permit the vertical percolation of some of the waters disposed of in said system.

(13) That the vertical percolation of waters from said system should not endanger any fresh waters.

(14) That to ensure that waters percolating from said pits move only vertically, monitor wells should be

-3-

Case No. 7720

Order No. R-6811-B

drilled in a pattern as shown on Exhibit "A" designed to detect horizontal movement of water from said disposal area.

(15) That in the event salt water is detected in any monitor well, Case No. 7329 should be reopened within 90 days to permit applicant to appear and show cause why the authority to use said pits for water disposal should not be rescinded.

(16) That the maximum volume of produced water to be disposed of through said system should not exceed 2500 barrels per acre per month.

(17) That a freeboard of a minimum of three feet should be maintained at all times."

(5) That said Order No. R-6811-A did contain provisions limiting the maximum disposal volume to 2500 barrels per acre per month, requiring maintenance of a minimum three foot freeboard in all pits and the drilling and equipping of monitor wells.

(6) That the applicant now seeks the amendment of said Order No. R-6811-A to remove only the 2500 barrels per acre per month disposal volume limitation.

(7) That the application was opposed by a surface and ground water interest owner in the area which might be affected by the disposal operation.

(8) That the applicant presented evidence designed to demonstrate that the change in disposal volume would not significantly alter the hydrologic regime established by institution of the disposal operation nor threaten contamination of any fresh water supplies.

(9) That the protestant presented new evidence which tended to show that there were both southeast and southwest trending slopes on the interface between the Santa Rosa formation and the Rustler formation under the disposal pits.

(10) That the protestant further presented testimony tending to show that an impermeable clay barrier exists at the base of the Santa Rosa formation which would effectively stop the vertical infiltration of the disposed waters into the Rustler formation.

-4-

Case No. 7720

Order No. R-6811-B

(11) That if the disposed water which percolates through the Santa Rosa formation from said pits cannot move into the Rustler formation, it may move laterally through the Santa Rosa formation where it may endanger fresh water supplies.

(12) That in order to verify that any water percolating from said pits ultimately enters the Rustler formation and does not move laterally within the Santa Rosa formation, the well monitoring system provided for in said Order No. R-6811-A should be expanded.

X (13) That the additional monitor wells should be drilled to the Rustler formation and should be located at points approximately 250 feet north of the present monitor well No. 9 located to the east of the disposal facility, approximately 150 feet from monitor well No. 2 along a line connecting monitor well 2 and monitor well 3, and at a third location approximately midway between the present monitor holes No. 4 and 5 all as depicted on Exhibit "A" to said Order No. R-6811-A.

(14) That provided that these additional monitor wells are drilled and utilized in the same manner as the original monitor wells, no increased threat to fresh water supplies should result from lifting the 2500 barrels-per-acre disposal limitation contained in Order No. R-6811-A.

(15) That the application should be approved and the additional monitor wells should be required.

(16) That the granting of this application restricted in the manner set forth above will not cause waste, or impair correlative rights, or endanger designated fresh water supplies.

IT IS THEREFORE ORDERED:

(1) That the application of Loco Hills Water Disposal Company for an amendment of Division Order No. R-6811-A to remove the 2500 barrel per acre per month disposal limitation included in Order No. (1), thereof, is hereby approved.

PROVIDED HOWEVER, that this order shall not become effective until the applicant has drilled and completed three additional monitor wells located approximately (1) 250 feet to the North of present monitor hole No. 9, (2) 150 feet from present monitor well No. 2 along a line connecting monitor well No. 2 and 3 and (3) midway between the present monitor holes Nos. 4 and 5.

PROVIDED FURTHER, that each of said monitor wells shall be drilled to the top of the Rustler formation and that such wells

1 of 1  
Ver

Loco Hills

-5-

Case No. 7720

Order No. R-6811-B

shall be cased and operated in the same manner as those monitor wells required by Order No. R-6811-A.

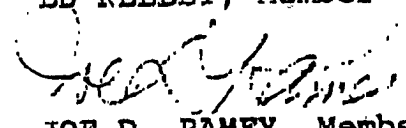
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

OIL CONSERVATION COMMISSION

ALEX J. ARMIJO, Member

  
ED KELLEY, Member

  
JOE D. RAMEY, Member & Secretary



**BUREAU OF LAND MANAGEMENT  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972**

**Disposal of Produced Water From Federal Wells  
Conditions of Approval**

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency shall be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
9. Disposal at any other site will require prior approval.
10. Subject to like approval by NMOCD.

9/30/2010