

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB NO. 1004-0135
Expires January 31, 2004

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 ☐ Other

2. Name of Operator

BP America Production Company

3a. Address

P.O. Box 1089 Eunice NM 88231

3b. Phone No. (include area code)

505.394.1600

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

SESE, Section 10, T18S, R27E
710' FSL & 660' FWL

RECEIVED

JAN 01 2004

OCD-ARTESIA

5. Lease Serial No.

NM-29271

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Horsetail Gas Com 1

9. API Well No.

30.015.32556

10. Field and Pool, or Exploratory Area

Empire Morrow South

11. County or Parish, State

Eddy NM

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

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other _____ |
| <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 | |

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 final site is ready for final inspection.)

BP America Production Company requests permission to dispose of water from the following well:

Horsetail Gas Com Federal #1 BWPD: 600

The following information is furnished to handle, store or dispose of water produced from the above described gas well on said federal lease as follows:

This well will dispose of water to:

SWD System: Empire Abo Unit C-49 Battery

Operator: BP America Production Company

Location of Disposal Site: UL: L, 2310' FSL & 330' FWL, Section 29, T17S, R29E

Water is transferred to Empire abo Unit C-49 and injected.

via truck

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

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

Robert L. Manthei

Title

Operations Supervisor

Date 12.19.03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) ALEXIS C. SANCODA

Title

PETROLEUM ENGINEER

Date

DEC 29 2003

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.

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

WATER ANALYSIS REPORT

Company : BP America	Date : 9 Dec 03
Address : Artesia, NM	Date Sampled : 9 Dec 03
Lease : Horsetail Gas Com Fe	Analysis No. :
Well : #1	
Sample Pt. : Water Tank Outlet	

ANALYSIS	mg/L	* meq/L
1. pH	7.6	
2. H2S	1.0	
3. Specific Gravity	1.027	
4. Total Dissolved Solids	42540.6	
5. Suspended Solids	N/R	
6. Dissolved Oxygen	N/R	
7. Dissolved CO2	145	
8. Oil In Water	N/R	
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)		
11. Bicarbonate	HCO3 352.6	HCO3 5.8
12. Chloride	Cl 25176.6	Cl 710.2
13. Sulfate	SO4 625.0	SO4 13.0
14. Calcium	Ca 916.0	Ca 45.7
15. Magnesium	Mg 269.3	Mg 22.2
16. Sodium (calculated)	Na 15199.3	Na 661.1
17. Iron	Fe 0.3	
18. Barium	Ba 1.5	
19. Strontium	Sr N/R	
20. Total Hardness (CaCO3)	3396.4	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
46 *Ca <----- *HCO3	Ca (HCO3) 2	81.0	468
/----->	CaSO4	68.1	886
22 *Mg -----> *SO4	CaCl2	55.5	1493
<-----/	Mg (HCO3) 2	73.2	
661 *Na -----> *Cl	MgSO4	60.2	
	MgCl2	47.6	1055
Saturation Values Dist. Water 20 C	NaHCO3	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	38636
BaSO4 2.4 mg/L			

REMARKS:

Baker Petrolite

Respectfully submitted,
W.C. Peterson

SCALE TENDENCY REPORT

Company : BP America Date : 9 Dec 03
Address : Artesia, NM Date Sampled : 9 Dec 03
Lease : Horsetail Gas Com Fe Analysis No. :
Well : #1 Analyst : W.C. Peterson
Sample Pt. : Water Tank Outlet

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO₃ Scaling Tendency

S.I. = 0.8 at 70 deg. F or 21 deg. C
S.I. = 0.9 at 90 deg. F or 32 deg. C
S.I. = 1.0 at 110 deg. F or 43 deg. C
S.I. = 1.0 at 130 deg. F or 54 deg. C
S.I. = 1.1 at 150 deg. F or 66 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S = 4206 at 70 deg. F or 21 deg C
S = 4350 at 90 deg. F or 32 deg C
S = 4435 at 110 deg. F or 43 deg C
S = 4446 at 130 deg. F or 54 deg C
S = 4415 at 150 deg. F or 66 deg C

Baker Petrolite

Respectfully submitted,
W.C. Peterson