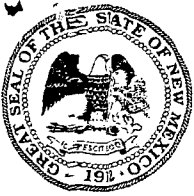


3R - 406

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

2007-2006



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

January 24, 2007

Mr. Kevin Hansford  
Mr. Don Brooks  
BP America Production Company  
BP San Juan Operations Center  
200 Energy Court  
Farmington, NM 87401

**RE: REMEDIATION PLANS FOR THREE BP GROUND WATER IMPACT SITES  
BP AMERICA PRODUCTION COMPANY - JAQUEZ GC C1 (3R0404)  
BP AMERICA PRODUCTION COMPANY - CHAVEZ GC A1 (3R0405)  
BP AMERICA PRODUCTION COMPANY - MUDGE LS 9A (3R0406)  
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Hansford and Mr. Brooks:

The New Mexico Oil Conservation Division (OCD) has reviewed its the three "Notice of Potential Groundwater Impact" letters submitted on January 11, 2006 (Jaquez GC C1 release), on February 14, 2006 (Chavez GC A1 release), and on February 21, 2006 (Mudge LS 9A release) by Blagg Engineering Inc. on behalf of BP America Production Company (BP). On May 8, 2006, I sent an email to Mr. Blagg requiring BP to submit Remediation Plans for each of these three sites. Mr. Blagg responded with three separate "Abatement Plans" on June 2, 2006.

OCD staff were involved in the Surface Waste Management Facility rulemaking process and were not able to review these submittals until now. Based on all available information, these sites should be investigated and remediated in accordance with a remediation plan, pursuant to Rule 116D, rather than a stage 1 abatement plan, pursuant to Rule 19. The most significant difference between these two options is that BP will need to continue its proactive investigation and remediation, but will not be required to provide public notice at this time. Rule 19D(1)(g) provides that responsible persons may proceed without submitting a formal stage 1 abatement plan if it is proceeding "in a manner that will likely result in compliance with the standards and requirements ...." Based on the scope of the releases and the proactive stance that BP has demonstrated, OCD has determined that it is appropriate for BP to address these releases in

accordance with three separate remediation plans, submitted pursuant to Rule 116. However, based on its review, OCD has determined that the submitted workplans must be revised before OCD can approve them. BP must make the following revisions and resubmit the three separate workplans by March 14, 2007. BP should revise the workplans to address the following in detail:

1. BP must submit a form C-141 for each release.
2. BP must submit a detailed description of each release site (including site maps), release site histories (including the nature of the releases), and a summary of previous investigations. BP should include volumes of excavated soil, concentrations of TPH and/or BTEX, *etc.* in the excavated soil, and the disposition of the excavated soil.
3. BP should submit three detailed site investigation workplans. The workplans should specify as much of the site geology and hydrogeology, the vertical and horizontal extent and magnitude of vadose zone and ground water contamination, subsurface hydraulic conductivity, transmissivity, storativity, and the estimated rate and direction of ground water contaminant migration, as practicable.
4. BP must submit an inventory of water wells within one (1) mile of each release site.
5. BP should specify as much of the surface-water hydrology, seasonal stream flow characteristics, ground water/surface water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments as practicable.
6. BP must propose a ground water monitoring program for the duration of the investigation and remediation, including sampling stations and frequencies.
7. BP must propose a sampling and analysis plan, including a quality assurance plan.
- 8) BP must specify that it will submit quarterly progress reports and will submit a detailed final site investigation report containing the results of all site investigation activities to the OCD Santa Fe office by no later than 45 days after the implementation of the Stage 1 work plan with a copy provided to the OCD Aztec District Office. The final site investigation report must contain:
  - a. A comprehensive description and summary of the results of all past and present soil and ground water investigation and monitoring activities.
  - b. An inventory and map of water wells within one mile of the site.
  - c. Geologic/lithologic logs and well construction diagrams for all site monitor wells.
  - d. Geologic cross-sections of the site created using the geologic/lithologic logs from all site monitor wells and soil borings.
  - e. Water table contour maps showing the location of pipelines, excavations, spills, monitoring wells, recovery wells, and any other pertinent site features, as well as, the direction and magnitude of the hydraulic gradient.

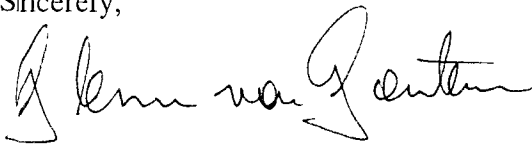
Mr. Kevin Hansford and Mr. Don Brooks  
January 24, 2007  
Page 3

- f. Isopleth maps for contaminants of concern.
- g. Summary tables of all past and present ground water quality monitoring results including copies of newly generated laboratory analytical data and associated QA/QC data.
- h. The disposition of all wastes generated.
- i. A discussion of recommended remediation options that will enable BP to clean up any remaining contamination.

BP must submit two paper copies and an electronic copy of its revised workplans to OCD's Santa Fe office by March 22, 2006, with a copy provided to the OCD Aztec District Office.

If you have any questions, please contact me at 505-476-3488.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn von Gonten". The signature is fluid and cursive, with the first name "Glenn" being more prominent.

Glenn von Gonten  
Senior Hydrologist

cc: Mr. Charlie Perrin, OCD Aztec District Office

***BLAGG ENGINEERING INC.***

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

2006 JUN 6 PM 12 25

June 2, 2006

Mr. Glenn von Gonten, Hydrologist  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: BP America Production Company  
Transmittal of Abatement Plan  
Mudge LS 9A: (O) Sec. 3 – T31N – R11W, San Juan County, NM

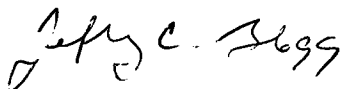
Dear Mr. VonGonten:

On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) is submitting the attached Abatement Plan for the Mudge LS 9A, (O) Sec. 3 – T31N – R11W, San Juan County, New Mexico pursuant to your e-mail request dated May 8, 2006. The plan has been prepared to meet the requirements stipulated in NMAC 19.15.1.19 (NMOCD Rule 19).

If you have questions or need additional information, please contact either myself at (505)632-1199 or Mr. Kevin Hansford of BP at (505)326-9200.

Respectfully:

***Blagg Engineering, Inc.***



Jeffrey C. Blagg, P.E.  
President

cc: Denny Foust - NMOCD Aztec  
Don Brooks - BP SJ Op. Ctr.  
Kevin Hansford – BP SJ Op. Ctr.

File: jaquez.gwplan.xmt

# **BP America Production Company**

## **ABATEMENT PLAN**

**Mudge LS 9A  
(O) Sec. 3 – T31N – R11W  
San Juan County, New Mexico**

### **I. Introduction**

A release of hydrocarbons that could affect groundwater was discovered at the Mudge LS 9A on February 20, 2006 during closure of an un-lined earthen production pit. The impact appeared to be from historical well operations. Groundwater was encountered at a depth of approximately 13 feet below surface grade at the pit site. The location is in a remote area with no immediate down-gradient surface waters or water wells that could be influenced. BP elected to report a potential of groundwater impact and directly proceed with abatement.

Following discovery of impacts, an immediate response began by excavation of soils with obvious impacts using a trackhoe. This initial work has been extensive and is presently complete. Follow-up installation and sampling of groundwater monitor wells is pending drill rig availability and scheduling.

Outlined below is an abatement plan designed to meet the requirements of the New Mexico Oil Conservation Division (NMOCD) Rule 19 (19.15.1.19 NMAC). The abatement proposal is intended to meet the requirements of 19.15.1.19 B (3) Stage 1 (investigation plan) and 19.15.1.19 B (4) Stage 2 (abatement plan).

### **II. Site Investigation/Abatement**

Site investigation and abatement is proposed to be conducted concurrently using excavation equipment to remove all identified impacted soils known to exceed NMOCD standards, beginning from the ground surface and extending to below the water table found at approximately 13 feet below grade. During this work, soil type, groundwater depth and the extent of impacts will be investigated.

Water wells in the immediate area and down-gradient from the source area will be identified. Any wells that may be impacted by the release will be sampled and tested for impacts, pending well owner authorization.

Following remedial actions, a minimum of three (3) groundwater monitoring wells will be

installed for testing water quality and identifying gradient. Additional wells may be installed to insure that adequate monitoring points are placed up-gradient, in the original source area and down-gradient from the source area.

Initial well testing will be for volatile organics (BTEX) by an appropriate laboratory analytical procedure (U.S. EPA 8021 or 8260) and for cation/anion analysis. If a product sheen is identified during the initial sample event, polynuclear aromatic hydrocarbons (PAH's) will be included in the laboratory testing.

If initial testing indicates an absence of contaminants in all wells, site closure with no further sampling will be requested. However, if contaminants are detected in any well, additional testing will be conducted until 4 consecutive tests indicate residual contaminants are below standards for any given monitoring point.

Quality assurance/quality control (QA/QC) will include following standard SW 846 procedures for well development, sample collection, storage and delivery to the laboratory. Chain-of-custody documentation will be included with each sample. Only qualified laboratories with adequate QA/QC processes that follow U.S. EPA protocol will be selected for sample analysis.

Initial response by removal of impacted soils has been completed. A current schedule for future monitoring activities is as follows:

By July 31, 2006:	Monitor well installation
By August 31, 2006:	Initial well development and sampling
By September 30, 2006	First Quarterly Report

If this schedule cannot be followed, an extension of time will be requested.

Included with the first quarterly report will be the results of the Stage 1 Investigation. Subsequent groundwater sampling will be scheduled on a quarterly basis following the initial event, and subsequent groundwater reports will be on an annual basis following the initial report. Included with each report will be well logs for any new wells installed in the monitoring program, maps indicating the estimated groundwater gradient with each sample event and tables summarizing the historical results of pertinent groundwater analyses.

### III. Summary

Primary remedial actions at the Mudge LS 9A have been initiated by BP on a proactive basis to minimize potential impacts to the environment. If subsequent monitoring and testing indicates that these actions will not adequately address remediation of groundwater impacts, a revised abatement plan pursuant to 19.15.1.19 NMAC will be submitted for NMOCD approval.

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199DATE: 9.3.98

## FIELD REPORT: PIT INVENTORY &amp; SITE MAP

PAGE No: 1 of 1LOCATION NAME: MUDGE LS 9ADATE  
DRILLED: 11.30.78UNIT: 0 SEC. 3 TWP. 31N RNG. 11W CTY. 55 P.M. NMENVIRONMENTAL  
SPECIALIST: EPPREVIOUS OPERATOR(S): TENN OIL CO

	DEHYDRATOR SEP	SEPARATOR	BLOW		
Type of containment	E / F / ST	E / F / ST	E / F / ST	E / F / ST	E / F / ST
Pit fenced	Y / N	Y / N	Y / N	Y / N	Y / N
Pit netted	Y / N	Y / N	Y / N	Y / N	Y / N
Bermed adequately	Y / N	Y / N	Y / N	Y / N	Y / N
Weeds in pit area	Y / N	Y / N	Y / N	Y / N	Y / N
Lined	Y / N	Y / N	Y / N	Y / N	Y / N
Type of liner					
Spills or leaks	Y / N	Y / N	Y / N	Y / N	Y / N
Piping leaks	Y / N	Y / N	Y / N	Y / N	Y / N
Fluid present in pit	Y / N	Y / N	Y / N	Y / N	Y / N
Daily volume (< 5 bbl/day)	Y / N	Y / N	Y / N	Y / N	Y / N
Leak detection present	Y / N	Y / N	Y / N	Y / N	Y / N
Waste Non-exempt	Y / N	Y / N	Y / N	Y / N	Y / N
Utilized by one operator	Y / N	Y / N	Y / N	Y / N	Y / N
Other operator(s) name					
Dimension (L x W x D) ft.	15x15x3		12x6		
Distance (ft) - Bearing from well head.	84' 326°		108' 4°		

## INSPECTION CHECKLIST

Storage tank(s) on-site	Y / N
1) # of tanks	1
2) bermed adequately	Y / N
3) tank overflow observed	Y / N
4) piping leaks observed	Y / N
Automation observed	Y / N
cathodic protection leaking	Y / N
Well head leaking	Y / N
Surface equipment leaking	Y / N
1) Unit type	
Well pad level	Y / N
Chemical drums	Y / N
1) labeled	Y / N
2) leaking	Y / N

NOTE: Type of containment symbols:

E = Earthen Pit  
F = Fiberglass tank Pit  
ST = Steel tank Pit

COMMENTS:

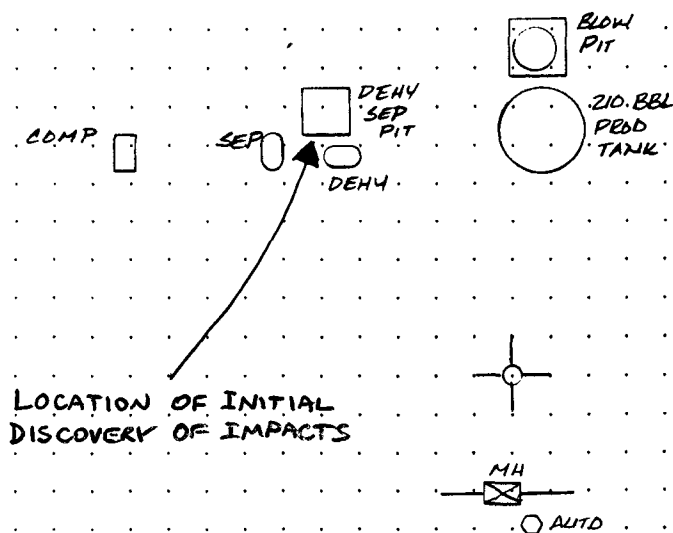
GRID INTERVAL = 0.2 INCHES

## SITE DIAGRAM

1 INCH = FT.

0

FT.

WEATHER/SITE CONDITIONS: SUNNY / PARTLY SUNNY / CLOUDY / FOG / COLD / WARM / HOT /  
RAINING / SNOWING / DRY / WET / MUDDY / VERY MUDDY / SNOW PACKED / ROUGH / SMOOTH.



**VonGonten, Glenn, EMNRD**

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**From:** VonGonten, Glenn, EMNRD  
**Sent:** Monday, May 08, 2006 3:37 PM  
**To:** 'Jeffcblagg@aol.com'  
**Cc:** Price, Wayne, EMNRD  
**Subject:** RE: BP Jaquez GC C1; Chavez GC A1; Mudge LS 9A

Jeff,

I'm sorry that I haven't been able to discuss these sites with you sooner. I, and several other OCD staff have been tied up with the new Rule 53.

BP needs to submit remediation plans for all three of these sites within 30 days. The RPs are required pursuant to OCD Rule 19 (19.15.1.19 NMAC). If BP is unable to remediate these sites within one year, OCD may require it to submit an Abatement Plan pursuant to Rule 19.

If you have any questions, please call me at 505-476-3488. I will be out of the office from May 15 through 31. If you have any questions during that time, please call Wayne Price at 505-476-3490.

Glenn von Gonten

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**From:** Jeffcblagg@aol.com [mailto:Jeffcblagg@aol.com]  
**Sent:** Wednesday, January 11, 2006 9:25 AM  
**To:** VonGonten, Glenn, EMNRD  
**Cc:** Foust, Denny, EMNRD; brooksd2@bp.com  
**Subject:** BP Jaquez GC C1

Mr. von Gonten:

Please see attached correspondence concerning the BP - America Production Co. Jaquez GC C1.

Jeff Blagg,  
Blagg Engineering

[jeffcblagg@aol.com](mailto:jeffcblagg@aol.com)

Office: (505)632-1199

**BLAGG ENGINEERING INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

3R0406

36 FEB 23 PM 1 43

February 21, 2006

Mr. Glenn von Gonten, Hydrologist  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: BP America Production Company  
Notice of Potential Groundwater Impact  
Mudge LS 9A  
(O)Sec. 3 - T31N - R11W, San Juan County, NM

30-045-23062

Dear Mr. von Gonten:

On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) has identified potential groundwater impacts at the subject location. During closure of an unlined earthen production pit on February 20, 2006 soils impacted with produced hydrocarbon were found to be in contact with groundwater at a depth of approximately 13 feet below ground surface. This site is located in a rural area of San Juan County and there are no surface waters or domestic water wells that could be at risk.

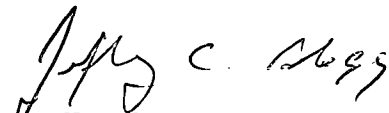
BP intends to address the impact by excavating contaminated soils and transporting them to the BP Crouch Mesa landfarm/compost facility. Following this remedial effort, the site will be placed on BP's groundwater monitoring program to quantify residual water quality.

Mr. Denny Foust of the NMOCD Aztec District office was notified via voice mail of this potential impact on February 20, 2006.

If you have questions or need additional information, please contact either myself at (505)632-1199 or Mr. Don Brooks of BP at (505)326-9200.

Respectfully:

**Blagg Engineering, Inc.**

  
Jeffrey C. Blagg, P.E.

President

cc: Denny Foust - NMOCD Aztec  
Don Brooks - BP SJ Op. Ctr.