Dirt Work . On-Site Remediation . Soil Testing . Excavation . Consultation

May 10, 2006

Mr. Larry Johnson Environmental Engineer Specialist NM Oil Conservation Division 1625 N. French Dr. Hobbs, NM 88240

## Reference:

Site Delineation Plan-BP America Production Company State Flounder No. 1-Unit Letter C Section 30, T17S-R35E API No.: 30-025-36623

Lea County, NM

Mr. Johnson:

We propose the following delineation plan to determine the vertical extent of possible Cl impact in the original reserve pit, and to determine the directional groundwater gradient:

- 1. Drill 4 soil borings within the original reserve pit (see attached "Site Map-Proposed Delineation Sampling Plan").
- 2. Conduct split spoon sampling every 5'.
- 3. Use field analytical techniques for chloride (HACH Field Test Kit) and evaluate the chloride concentration in each split spoon sample.
- 4. Evaluate the lithology of the samples.
- 5. Cease drilling/sampling when chloride concentration is <250ppm (plus 1 confirmation sample).
- 6. Collect 3 representative samples for laboratory analysis.
- 7. If field chloride testing indicates that chloride levels exceed the MCL within 10' of groundwater, drilling will continue 10' into the saturated zone.
- 8. Groundwater samples will be collected and bore holes filled with bentonite to surface.
- 9. Samples will be transported to the Lab for chloride analysis.
- 10. Upon completion of reserve pit delineation, temporary MW #1 will be plugged and removed
- 11. The excavated pit bottom will be capped with a 20 ml liner
- 12. Stockpiled material will be blended to < 1000 ppm Cl
- 13. Original reserve pit area will be backfilled to within 3' of surface with blended material

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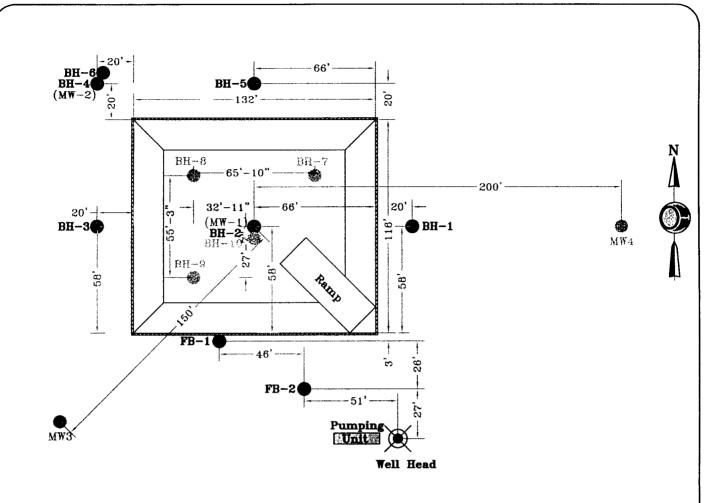
- 14. Additional 20 ml liner will be installed to cap blended material
- 15. Pit will be backfilled to grade with clean caliche
- 16. Excess impacted material will be hauled off and disposed
- 17. Install two additional Groundwater Monitoring Wells (MW) to determine groundwater gradient. MW # 3 will be drilled 150' Southwest of MW #1, and MW # 4 will be drilled 200' due East of MW #1. Monitor Wells # 3 and # 4 will consist of 4-inch glued and coupled PVC with 15 feet of well screen. Ten feet will be completed within the uppermost portion of the saturated zone, and 5 feet above.
- 18. Groundwater samples will be collected and sent to the lab to test for possible Cl impact (Std. Methods 4500-Cl B).
- 19. Groundwater level data and slug test information will be obtained to determine gradient and hydraulic conductivity
- 20. Future remedial actions will be determined after proper evaluation of the analytical results obtained from the site delineation.

If you need additional information regarding the delineation plan, please contact me by telephone at (505) 393-6371, or by e-mail at jbrian@valornet.com.

Sincerely,

Jerry R. Brian, REM

Geologist



## LEGEND:

June 2004 Site Sampling Points: FB-1, and FB-2. Site Sampling Points: BH-1, BH-2, BH-3, BH-4, BH-5 and BH-6.

Monitor Well Sampling Points: MW-1 and MW-2.

New Site Sampling Points: BH-7, BH-8, BH-9, and BH-10 New Monitor Well Sampling Points: MW-3 and MW-4.



Project: BP-05-003
Location:
State Flounder No. 1
Lea County, New Mexico
Drilling Pit Closure
Site Map - Delineation
Monitoring Wells
Date: 5/05/06 Scale:1"= 50'





100'