District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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, NM 87505

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

2853

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit
- ☒ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

1.
Operator **HALLADOR PETROLEUM LLP** OGRID #: **12672**
Address: **1660 LINCOLN ST., SUITE 2700, DENVER, CO 80264**
Facility or well name: **HORTON 1D**
API Number **30-045-33065** OCD Permit Number: _____
U/L or Qtr/Qtr **I** Section **7** Township **31 N** Range **11 W** County: **SAN JUAN**
Center of Proposed Design: Latitude **36.90970° N** Longitude **108.02627° W** NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions L _____' x W _____' x D _____'

RCVD DEC 15 '08
OIL CONS. DIV.
DIST. 3

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume **109** bbl Type of fluid: **produced water**
Tank Construction material: **steel with single side wall**
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☒ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

6.

Fencing: Subsection D of 19 15 17 11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☒ Alternate Please specify **48" high (= 36" hog wire + re-bar top)**

7.

Netting: Subsection E of 19 15 17 11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☒ Other **expanded metal**

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19 15 17 11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19 15 3 103 NMAC

9

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required Please refer to 19.15 17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s). Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17 10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark) - Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo, Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo, Satellite image	☐ Yes ☒ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain - FEMA map	☐ Yes ☒ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19 15 17 9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19 15 17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15 17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number. _____

☐ Previously Approved Operating and Maintenance Plan API Number _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19 15 17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19 15 17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19 15.17 11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17 11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15.17 12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19 15.17 9 NMAC and 19 15 17 13 NMAC

14.
Proposed Closure: 19 15.17 13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method. ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19 15 17 13 D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name _____ Disposal Facility Permit Number _____

Disposal Facility Name _____ Disposal Facility Permit Number _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

17

Siting Criteria (regarding on-site closure methods only): 19 15 17 10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search, USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database, Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

18

On-Site Closure Plan Checklist: (19 15 17 13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19 15 17 11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19 15 17 11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15.17 13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

19

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief

Name (Print) **BRIAN WOOD** Title **CONSULTANT**

Signature _____ Date **12-8-08**

e-mail address **brian@permitswest.com** Telephone **(505) 466-8120**

20.

OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: _____ **Approval Date:** 4/05/2012

Title: Compliance Officer **OCD Permit Number:** _____

21.

Closure Report (required within 60 days of closure completion): Subsection K of 19 15 17 13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

22.

Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number. _____

Disposal Facility Name: _____ Disposal Facility Permit Number. _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

24.

Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)

☐ Proof of Deed Notice (required for on-site closure)

☐ Plot Plan (for on-site closures and temporary pits)

☐ Confirmation Sampling Analytical Results (if applicable)

☐ Waste Material Sampling Analytical Results (required for on-site closure)

☐ Disposal Facility Name and Permit Number

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

☐ Site Reclamation (Photo Documentation)

On-site Closure Location Latitude _____ Longitude _____ NAD: ☐ 1927 ☐ 1983

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print) _____ Title: _____

Signature _____ Date _____

e-mail address: _____ Telephone _____

Hallador Petroleum LLP
Horton 1D below grade tank proposed closure
1418' FSL & 1267' FEL Sec. 7, T. 31 N., R. 11 W.
San Juan County, New Mexico
API # 30-045-33065

Current Situation

There is a 109 barrel Enertech single wall steel tank. Tank is surrounded by hog wire fence topped with re-bar. There is no secondary containment. The tank has an expanded metal top. After removal of the existing tank, water will be piped to a planned below grade tank. Application for it will be made once the design is completed.

Time Line

Will close after approval of this application and before June 16, 2013. Will close earlier if OCD determines there is an imminent danger to fresh water, public health, or the environment.

Siting Criteria

1. Closest reported water depth is the Jones water well which is 1-1/4 miles northwest in 1-31n-12w. Office of the State Engineer records are attached as Exhibit A.

≈6,457' Jones water well ground elevation
- 161' depth to water
≈6,296' water level elevation

Water level elevation at the Jones water well is 66' higher than the ground level elevation (6,230') at this gas well. Ground water is believed to be more than 100' below the bottom the tank based on depth (1,040') to the Ojo Alamo sandstone in this well.

2. Tank is not within 300' of a continuously flowing watercourse. Tank is not within 200' of any other significant watercourse as defined by OCD. Closest first order tributary of Estes Arroyo is >500' west (Exhibit B).

3. Tank is not within 300' of any building (Exhibits B & C). There are no buildings within one mile.

4. Tank is not within 1,000' of any fresh water well or spring (Exhibits A & B).

5. Tank is not within municipal boundaries or within a municipal fresh water well field (Exhibits A & B).

6. Tank is not within 500' of a wetland (Exhibit D).

7. Tank does not overly a mine (Exhibit E).

8. Tank is not in an unstable area. No evidence of earth movement was found during a November 13, 2008 field inspection.

9. Tank is not within a 100 year flood plain (Exhibit F).

10. C-102 is attached as Exhibit G.

11. Closure notice to the surface owner (BLM) is attached as Exhibit H.

Hydrogeology

Surface formation is the Nacimiento. According to Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico, the Nacimiento is mainly a mudstone. There are also medium to coarse grained sandstone layers in the Nacimiento. Transmissivities of 100 feet^2 per day can be found in the coarser continuous sandstones. Water in the more extensive sandstones has a specific conductance of 1,500 μmhos. Specific conductance is >2,000 μmhos in the finer grained sandstones.

Closure Plan

Surface owner has been notified via certified return receipt requested mail of the proposed closure.

Will verbally notify OCD at least 72 hours and no more than 1 week before closure. Notice to OCD will include operator name, location (quarter-quarter, section, township, & range), well name & number, and API number.

Will pump out any remaining water and haul to Basin Disposal (NM-01-005)

Will haul sludge to J F J Land Farm (NM-01-010).

Will truck waste qualifying under OCD Rule 19.15.9.712 to the San Juan County landfill.

Will remove tank, pipes, and associated equipment and store at company yard for future reuse.

Will test soil under tank to determine if a release has occurred, even if there is no visible contamination. Will collect, at a minimum, a five point composite sample. Will collect individual grab samples from any area that is wet, discolored, or showing other evidence of a release. Will analyze all samples for:

Component	Test Method	Not to Exceed (mg/kg)
benzene	EPA SW-846 8021B or 8260B	0.2
total BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA 418.1	100
chlorides	EPA 300.1	250 or background

If the operator or OCD determines that a release has occurred, then the operator will comply with OCD rules 19.15.3.116 NMAC and 19.15.1.19 NMAC,

as appropriate. A major (>25 barrels) release requires immediate verbal notice and timely written notice to OCD. A minor release (more than 5 barrels and less than 25 barrels) requires timely written notice to OCD. Timely is defined as 15 days. Written notice will include Form C-141. OCD may require additional sampling delineation upon its review of the results.

If the sampling program demonstrates that a release has not occurred, or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC (table on preceding page); then the operator will back fill the excavation with compacted waste free earthen material, construct an OCD prescribed soil cover, recontour, and revegetate the site. The soil cover, recontouring and re-vegetation requirements will comply with Subsections G, H and I of 19.15.17.13 NMAC. Specific steps are:

___ back fill to within 12" of grade
___ bring to grade with 12" topsoil or background thickness, whichever is more
___ contour to prevent ponding or erosion
___ seed first growing season after closure
___ seed with at least 3 native species, at least 1 of which must be a grass (recommend grass species only for safety & keep seed bag tag)
___ seed mix will exclude noxious weeds
___ cover seed

Will file closure report on Form C-144 within 60 days of closure completion with necessary attachments to document all closure activities including:
___ proof of notice to surface owner
___ proof of notice to OCD
___ plot plan
___ chemical sampling analysis results
___ disposal facility name and permit number
___ back filling & cover details
___ seeding rate per species
___ how seeded
___ photograph of seeded area

Successful revegetation will be accomplished if:

___ plant cover equals 70% of adjacent impact free native perennial vegetation (noxious weeds are not counted toward 70% goal)

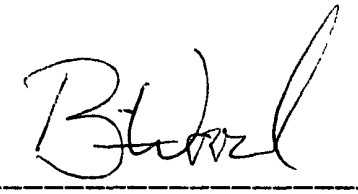
___ 70% goal maintained for 2 consecutive growing seasons without irrigation if unsuccessful, repeat until goals is achieved

___ notify OCD when 70% goal has been met for 2 consecutive growing seasons

___ file Form C-144

___ include photograph of revegetated area

Executed this 8th day of December, 2008.



Brian Wood, Consultant
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682 Cellular: (505) 699-2276

The operator's representative is:

Tim Lovseth
Hallador Petroleum LLP
1660 Lincoln St., Suite 2700
Denver, CO 80264
(303) 839-5504, Extension 317

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 31N Range: 11W Sections: 7

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name. (First) (Last) ONon-Domestic ODomestic ⊙All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

POD / SURFACE DATA REPORT 12/07/2008

DB File Nbr	Use	(acre ft per annum) Diversion	Owner	POD Number	Source	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest Tws	Rng	Sec	q	q	q	X Y are in Feet Zone	X	Y	UTM

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 31N Range: 12W Sections: 1

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ONon-Domestic ODomestic ⊙All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

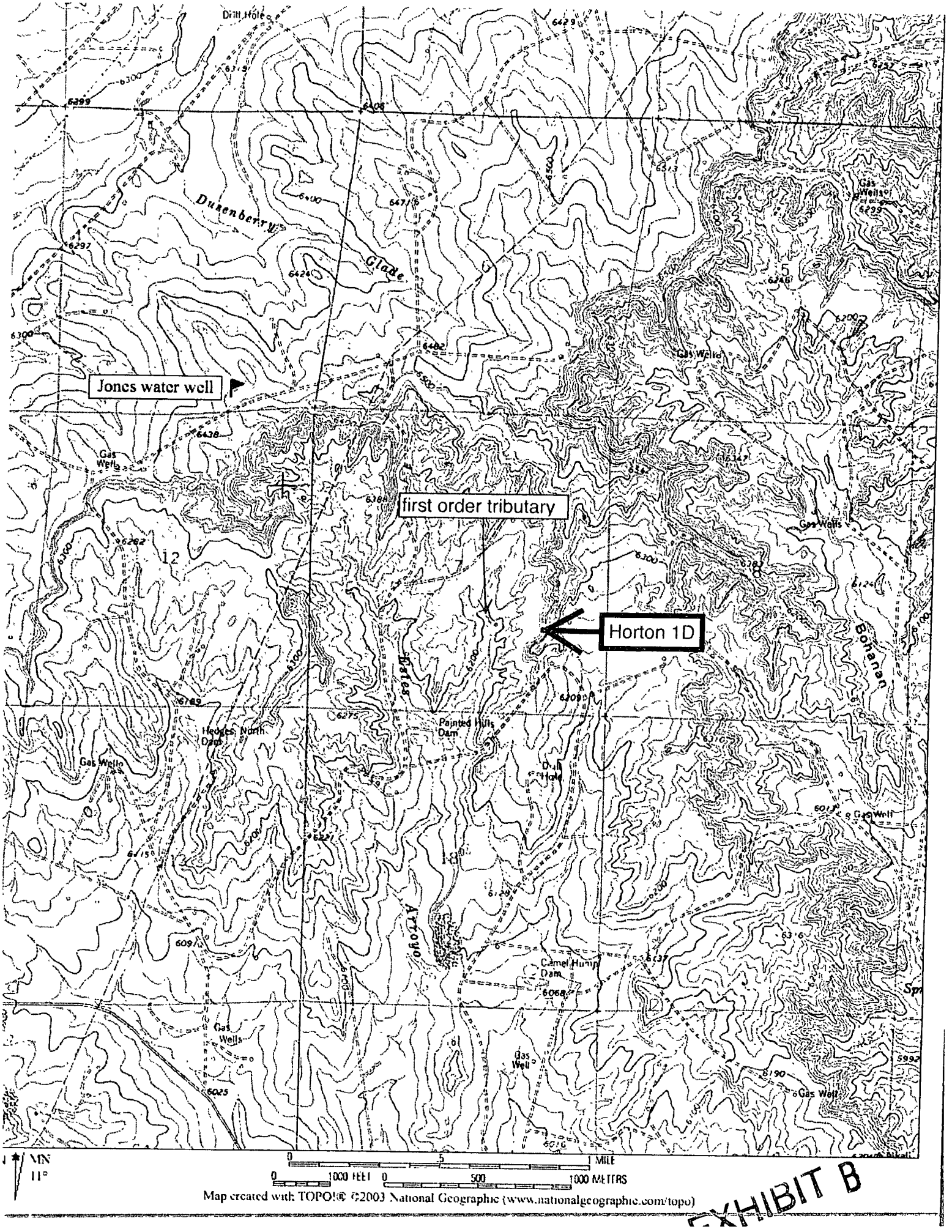
WATER COLUMN REPORT 12/07/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column (in feet)
SJ 03488	31N	12W	01	3	3	2				150		
SJ 03738 POD1	31N	12W	01	4	1	3				115	50	65
SJ 02034	31N	12W	01	4	3					85	55	30
SJ 03134	31N	12W	01	4	3	2				80	20	60
SJ 03022	31N	12W	01	4	3	2				490	250	240
SJ 01660	31N	12W	01	4	3	3				320	275	45
SJ 01649	31N	12W	01	4	3	4				220	161	59
SJ 03660	31N	12W	01	4	3	4				70	42	28
SJ 02099	31N	12W	01	4	4					95		

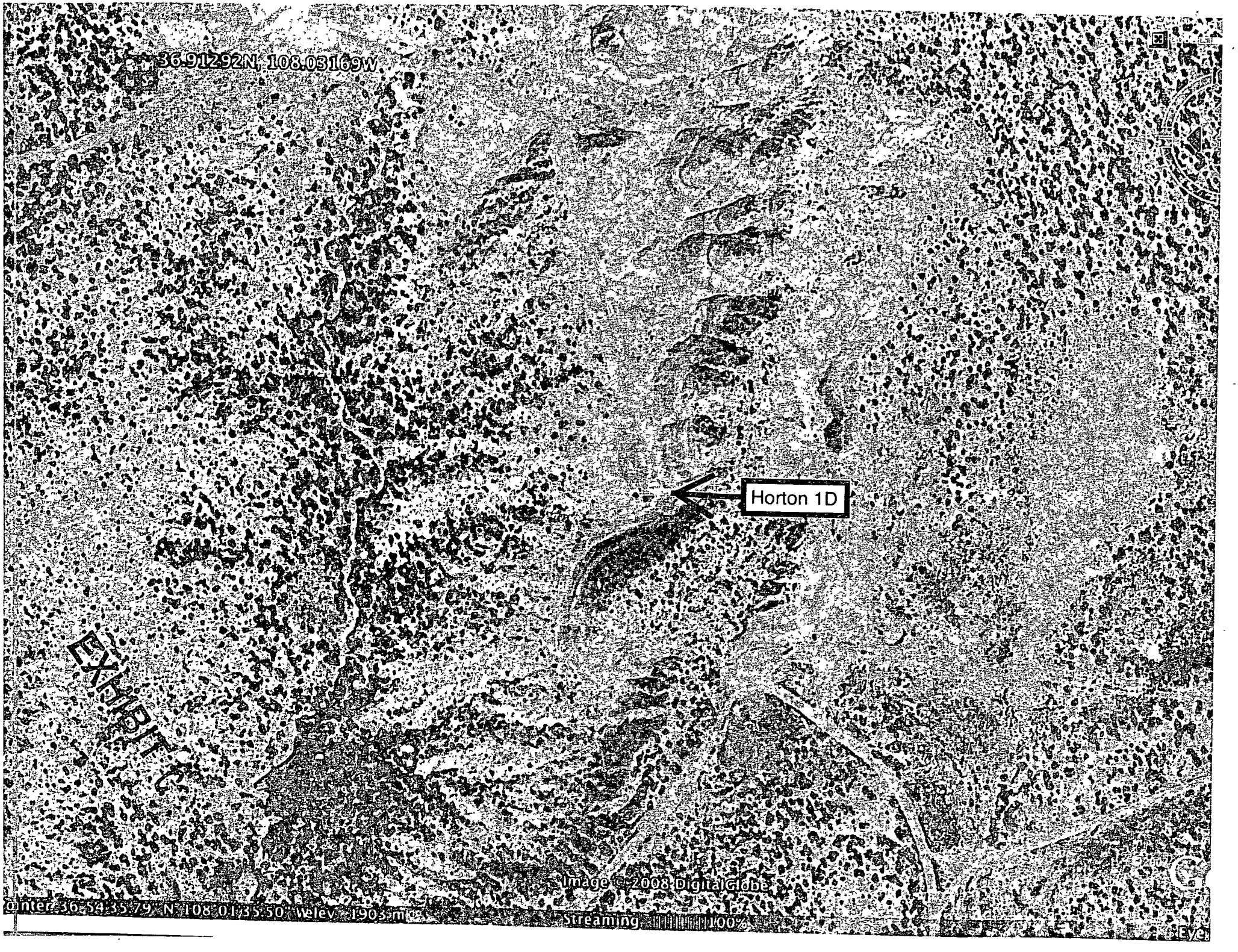
Record Count: 9

EXHIBIT A

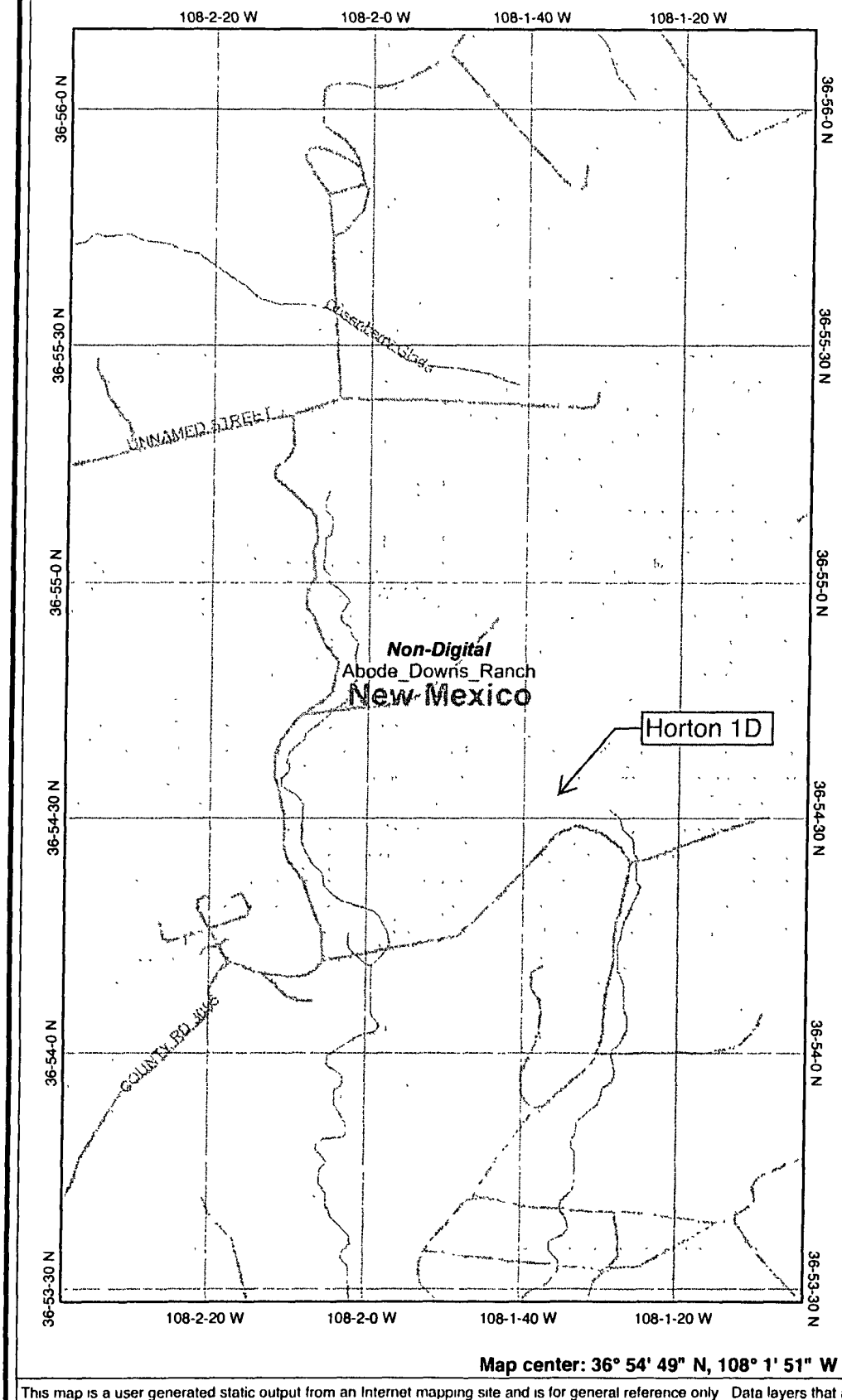


Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

EXHIBIT B


36.91292N 108.03169W
Horton 1D
EXPLORATORY
Image © 2008 DigitalGlobe
Streaming 100%

7-31n-11w wetland map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

EXHIBIT D

Scale: 1:24,000

Map center: 36° 54' 49" N, 108° 1' 51" W

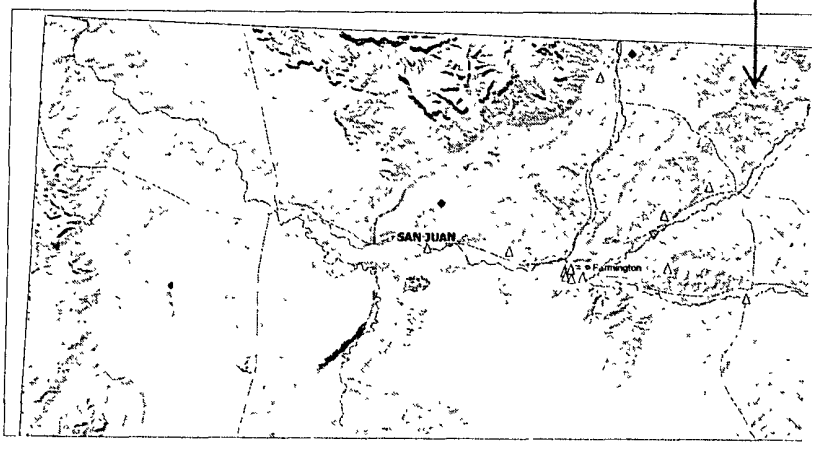
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION

MMQonline Public Version

Horton 1D

Mines, Mills & Quarries Commodity Groups

- Aggregate & Stone Mines
- Coal Mines
- Industrial Minerals Mines
- Industrial Minerals Mills
- Metal Mines and Mill Concentrate
- Potash Mines & Refineries
- Smelters & Refinery Ops.
- Uranium Mines



SCALE 1 : 974,401

10 0 10 20 30

MILES

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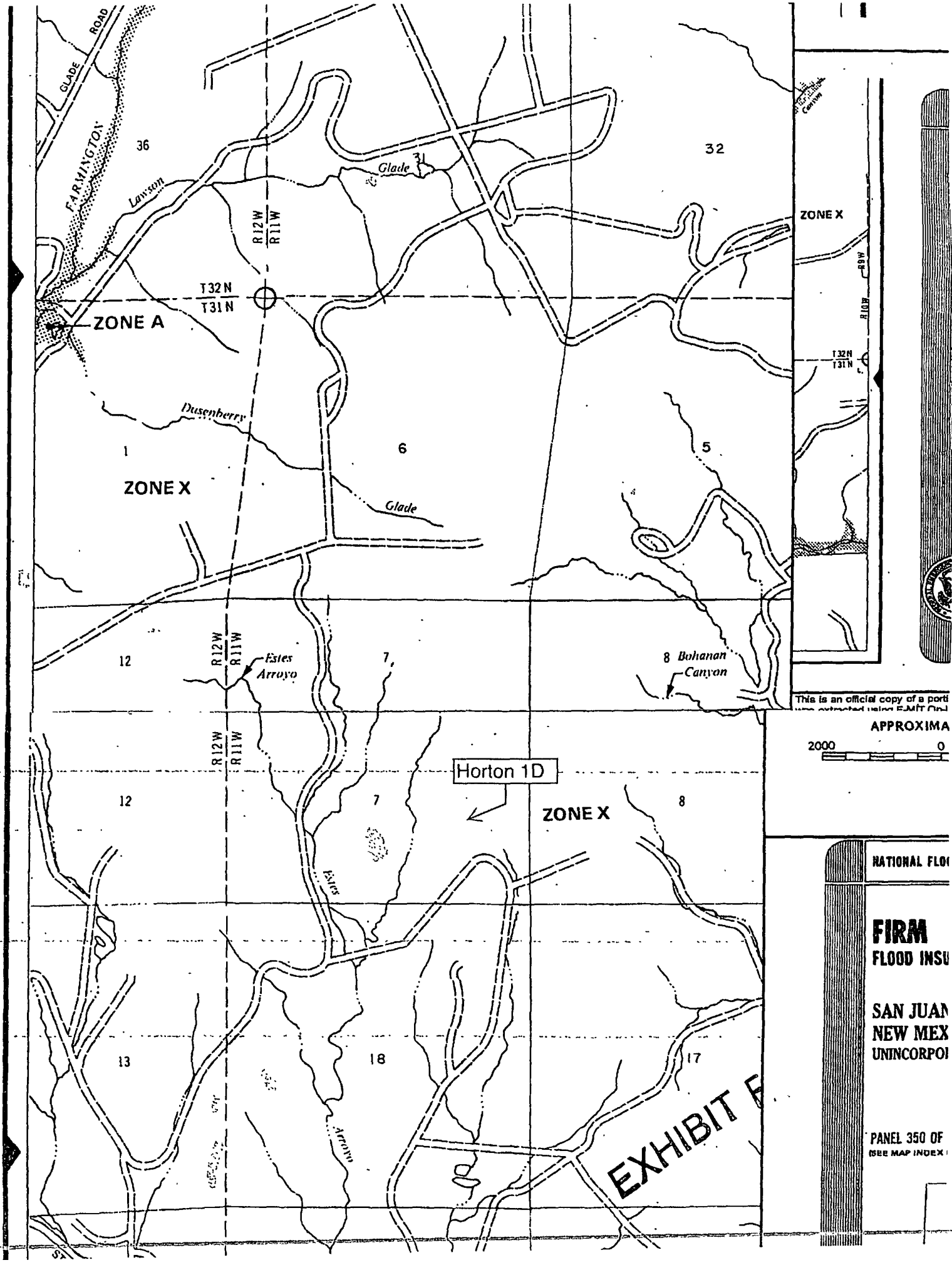
EXHIBIT E


GLADE ROAD
FARMINGTON
Lawson
Glade
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32
R12W
R11W
T32N
T31N
ZONE A
ZONE X
Dusenberry
1
6
5
Glade
12
Estes
Arroyo
7
8 Bohanan
Canyon
Horton 1D
ZONE X
Estes
13
18
17
Arroyo
EXHIBIT
ZONE X
T32N
T31N
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SAN JUAN
NEW MEX
UNINCORPO
PANEL 350 OF
(SEE MAP INDEX

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☑ AMENDED REPORT
WELL MOVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-045-33065	72319 & 71599	BLANCO MESA VERDE & BASIN DAKA

Property Code	Property Name	Well Number
~~5619~~ 32167	HORTON	1 D

OGRID No.	Operator Name	Elevation
23846	QUESTAR EXPLORATION & PRODUCTION	6230'

Surface Location

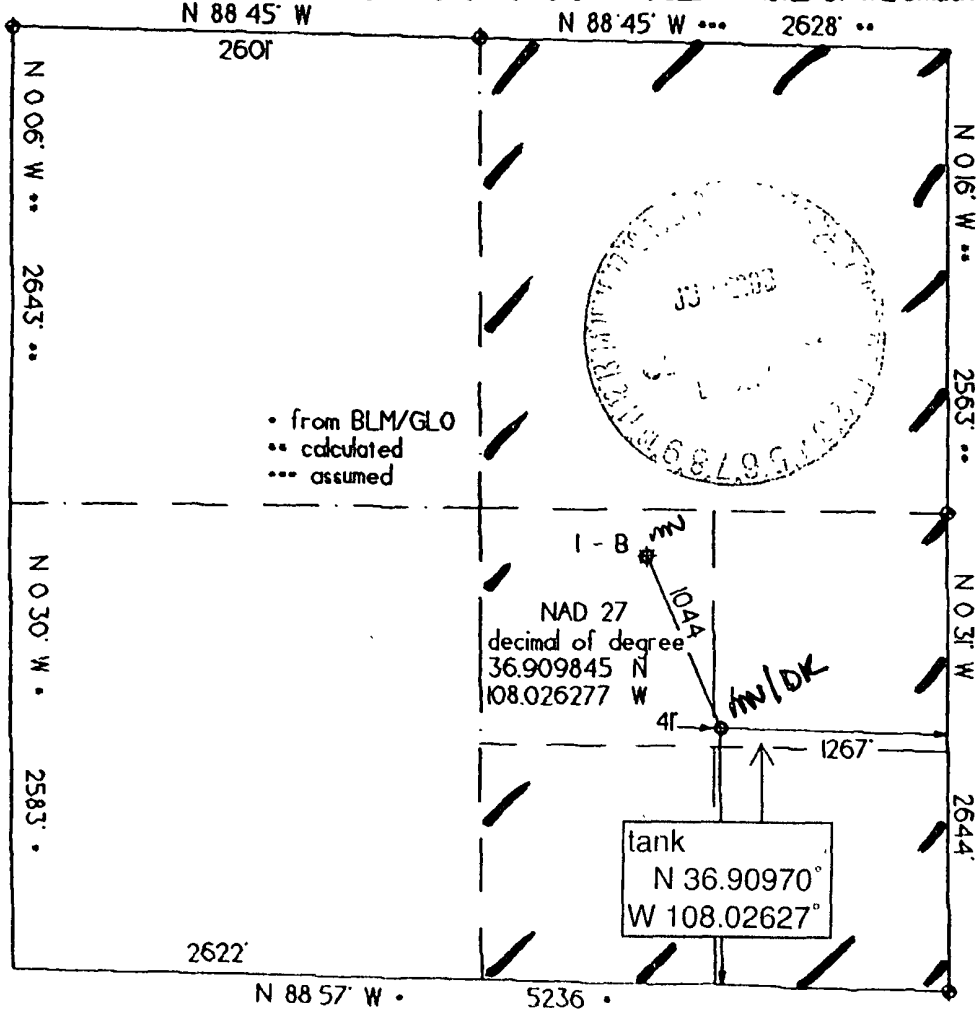
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet From>	North/South	Feet From>	East/West	County
I	7	31 N	11 W		1418'	SOUTH	1267'	EAST	

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet From>	North/South	Feet From>	East/West	County
									SAN JUAN

Dedication	Joint ?	Consolidation	Order No.
320			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: BW Wood

Printed Name: BRIAN WOOD

Title: CONSULTANT

Date: JUNE 11, 2005

SURVEYOR CERTIFICATION

I hereby certify that the well location 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.

Date of Survey

REV: 05/31/05

Signature and Seal of Professional Surveyor

GERALD G. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

EXHIBIT G

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 8, 2008

BLM
1235 LaPlata Highway
Farmington, NM 87401

As required by NMOCD rule Subsection J of 19.15.17.13 NMAC, I am notifying BLM that Hallador Petroleum LLP plans to close the following below grade tanks on BLM surface in San Juan County, NM:

Well	API Number	Lease	Location
Horton 1A	30-045-21955	NMSF-078095-A	SWNE 7-31n-11w
Horton 1B	30-045-30165	NMSF-078095-A	NWSE 7-31n-11w
Horton 1C	30-045-33061	NMSF-078095-A	NENE 7-31n-11w
Horton 1D	30-045-33065	NMSF-078095-A	NESE 7-31n-11w
Horton 2	30-045-11371	NMSF-078039	NENE 22-32n-11w
Horton 2A	30-045-23392	NMSF-078039-B	SESE 22-32n-11w
Horton 3B	30-045-31703	NMSF-078147-A	NENE 13-32n-12w
Horton 5	30-045-22933	NMSF-078095-A	SWNE 7-31n-11w
Horton 7	30-045-21362	NMSF-078039	SWSE 22-32n-11w
Storey 1A	30-045-21957	NMSF-078051-A	SESE 34-32n-11w
Storey 1B	30-045-30164	NMSF-078051-A	SESW 34-32n-11w
Storey 1C	30-045-31704	NMSF-078051-A	NWSE 34-32n-11w

I have attached a copy of this letter for each of the 12 well files. Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	$ 1.17
Certified Fee	2.70
Return Receipt Fee (Endorsement Required)	2.20
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.07

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Postmark Here
DEC 09 2008
USPS

Sent To BLM
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

EXHIBIT H

Power of Attorney

Know All Men By These Presents:

That I, Victor P. Stabio, Chief Executive Officer and President of Hallador Petroleum Company, with offices at 1660 Lincoln Street, Suite 2700, Denver, Colorado 80264, have made, constituted, and appointed, and by these presents do make, constitute and appoint Brian Wood of Permits West, Inc., whose address is 37 Verano Loop, Santa Fe, New Mexico 87505, my true and lawful attorney, for me, and in my name, place and stead, and to my use to sign any and all forms submitted on behalf of Hallador Petroleum Company to the New Mexico Oil Conservation Division.

This Power of Attorney is execute this 8th day of December, 2008, but shall be effective for all intents and purposes as of June 16, 2008.

By: _____
Victor P. Stabio
Chief Executive Officer and President of
Hallador Petroleum Company

Corporate Acknowledgment

STATE OF COLORADO }
CITY AND } §
COUNTY OF DENVER }

Before me, a Notary Public in and for said County and State, on this 8th day of December, 2008, personally appeared Victor P. Stabio, Chief Executive Officer and President of Hallador Petroleum Corporation, a Colorado corporation, on behalf of said corporation.

JANE SANDERS NOTARY PUBLIC STATE OF COLORADO

My Commission Expires 06/07/2011

_____
Jane Sanders, Notary Public
1660 Lincoln Street, Suite 2700
Denver, Colorado 80264

My commission expires:
June 7, 2011