UIC - I - __005__

PERMITS, RENEWALS, & MODS

2012

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 7476 dated 10/12/12

or cash received on ________ in the amount of $ 4500.00

from Aqua Moss LLC

for UICI-005

Submitted by: Lawrence Romero Date: 10/12/12

Submitted to ASD by: [signature] Date: 10/12/12

Received in ASD by: ____________ Date: ________

Filing Fee ______ New Facility ______ Renewal ______

Modification ______ Other ________________

Organization Code 521.07 Applicable FY ______

To be deposited in the Water Quality Management Fund.

Full Payment ______ or Annual Increment ______

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

OCTOBER 11, 2012

CERTIFIED MAIL
RETURN RECEIPT NO: 0919 5921

Mr. Jeff Davis
Manager/Owner
Agua Moss, LLC
P.O. Box 600
Farmington, New Mexico 87499

RE: OCD RESPONSE TO COMMENTS ON DRAFT DISCHARGE PERMIT AND APPROVAL OF FINAL DISCHARGE PERMIT RENEWAL FOR THE CLASS I NON-HAZARDOUS WASTE INJECTION WELL (SUNCO DISPOSAL WELL NO. 1 - API NO. 30-045-28653), LOCATED 1595 FNL AND 1005 FWL (SW/4 NW/4) IN SECTION 2, TOWNSHIP 29 NORTH, RANGE 12 WEST, NMPM, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Davis:

On August 17, 2012, the Oil Conservation Division (OCD) provided Agua Moss, LLC (Permittee) with a revised draft renewal discharge permit that added a new permit condition (see Permit Condition 3.E. – Fall-Off Test) and made several minor corrections. Agua Moss was given an additional 30 days to review the additional permit condition and provide OCD with any comments. On September 7, 2012, OCD sent Agua Moss a slightly revised draft permit. The revisions (Permit Condition 3E) addressed Fall-Off Test requirements. On September 14, 2012, Ms. Philana Thompson provided OCD with two comments on the revised draft permit. Ms. Thompson indicated that Agua Moss agreed with the revisions to Permit Condition 3E and also requested that Permit Conditions 2A and 2I be changed by changing the reporting frequency from quarterly to annual.

OCD has slightly revised the language of Permit Condition 3E to refer to the use of OCD's 2007 Fall-Off Test Guidance. OCD has also corrected some internal formatting inconsistencies and typos.

OCD has not changed Permit Conditions 2A and 2I as requested because 20.6.2.5207B and 20.6.2.5207A(2) NMAC require that permittees submit quarterly reports. OCD revised Permit Condition 2I by adding a section for Quarterly Reporting in addition to the section for an Annual Report. OCD also revised Permit Condition 5A (Schedule of Compliance) to specify that the Permittee shall submit both quarterly and annual reports.

The discharge permit renewal (UICI-005) for the Agua Moss Class I Non-Hazardous Waste Injection Well (Sunco Disposal Well No. 1 - API No. 30-045-28653), located 1595 FNL And 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, **is hereby approved** under the terms and conditions specified in the enclosed Discharge Permit.

OCD approves this discharge permit renewal pursuant to 20.6.2.3109A NMAC. Please note 20.6.2.3109G NMAC, which provides for possible future amendment of the permit. Please be advised that approval of this discharge permit does not relieve Agua Moss of liability if operations result in pollution of surface water, ground water, or the environment.

Please note that 20.6.2.3104 NMAC specifies "*When a permit has been issued, discharges must be consistent with the terms and conditions of the permit.*" Pursuant to 20.6.2.3107C NMAC, Agua Moss is required to notify the Director of any increase in the injection volume or injection pressure, or process modification that would result in any change in the water quality or volume of the discharge.

This discharge permit will expire on **June 1, 2017**, and Agua Moss should submit a discharge permit renewal application in ample time before this date. Note that under 20.6.2.3106F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved discharge permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit renewal application for the Agua Moss Class I Non-Hazardous Waste Injection Well is subject to 20.6.2.3114 NMAC. Every billable facility submitting a discharge permit renewal application is assessed a non-refundable filing fee of $100.00. OCD has already received the required $100.00 filing fee and the $4,500.00 permit fee for a Class I non-hazardous waste injection well.

If you have any questions, please contact Glenn von Gonten of my staff at (505-476-3488) or email: Glenn.vonGonten@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Jami Bailey
Director

JB/gvg

DISCHARGE PERMIT UICI-005

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-005 (Discharge Permit) to Agua Moss, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico at its Commercial Disposal Facility (Facility). The Facility is located approximately 6 miles southwest of Aztec near the intersection of CR-3500 and CR-3773. The Permittee also operates a Surface Waste Management Facility (NM1-009) separately permitted by OCD pursuant to 19.15.2.36 NMAC at the same location.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluids into its Class I non-hazardous waste injection well. The Permittee may dispose a maximum of 4,000 bbls/day of oil-field waste fluids. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 40 feet below ground surface and has a total dissolved solids concentration of approximately 450 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells (see Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (see 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil-field waste, other than non-hazardous oil-field waste fluids into its Class I non-hazardous waste injection well, including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, washdown water, and cooling tower blowdown water. The Permittee may not dispose of any industrial waste fluid that is not generated in the oil-field. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all field industrial fluids that are not generated in the oil-field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

1. The injection of fluids into a motor vehicle waste disposal well is prohibited.

2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified in 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified in 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject non-hazardous fluids into ground water having 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (see Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT RENEWAL: This Discharge Permit is a permit renewal that replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of that prior permit while that permit was in effect.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee and the $4,500.00 permit fee for a Class I non-hazardous waste injection well.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit becomes effective 30 days from the date that the Permittee receives this discharge permit or until the permit is terminated or expires. This Discharge Permit will expire on **June 1, 2017.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (see Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2, or process modification that would result in any significant modification in the discharge of water contaminants (see 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

a. Noncompliance by Permittee with any condition of this Discharge Permit; or,

b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,

c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (see Section 75-6-6 NMSA 1978; 20.6.2.5101I NMAC; and, 20.6.2.3109E NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

b. Violation of any applicable state or federal effluent regulations or limitations; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (see Section 75-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

a. The OCD Director receives written notice 30 days prior to the transfer date; and,

b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgment that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility;

b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

c. Include information relating to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (see Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (see Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (see Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS: Pursuant to 20.6.2.5207B, the Permittee shall provide analysis of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee also conducts waste management operations at its facility in accordance with an OCD surface waste management facility permit (NM1-009). That permit authorizes the Permittee to accept only oil-field wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material regulated pursuant to 20.3.1.1403 (NORM) and non-hazardous, non-exempt oil-field wastes that do not contain NORM. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes on a case-by-case basis only after a hazardous waste determination is made by the generator. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes only if those wastes are accompanied by an approved form C-138 (Request for Approval to Accept Solid Waste) and a "Generator Certificate of Waste Status," signed by the generator. OCD Permit NM1-009 requires the Permittee to determine by analyzing the non-hazardous, non-exempt fluids that the waste fluids are non-hazardous before accepting the waste fluids for disposal at the facility; therefore, OCD will not require the Permittee to re-analyze the waste fluids to determine whether it is hazardous before injecting the waste fluid in its Class I non-hazardous waste injection well.

The Permittee shall analyze the injected fluids quarterly for the following characteristics:

- pH;
- Eh;
- Specific conductance;
- Specific gravity;
- Temperature; and,
- General ground water quality parameters (general chemistry/cations and anions) including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate,

chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified in 40 CFR 136.3.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its Permit Renewal Application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: Prior to closure of the facility, the Permittee shall submit for OCD's approval, a closure plan including a completed form C-103 for plugging and abandonment of the waste injection well. The Permittee shall plug and abandon its Class I non-hazardous waste injection well pursuant to 20.6.2.5209 NMAC and as specified in Permit Condition 2.D.

1. Pre-Closure Notification: Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of its Class I non-hazardous waste injection well. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before the Permittee may implement its proposed closure plan.

2. Required Information: The Permittee shall provide OCD's Environmental Bureau with the following information:

- Name of facility;
- Address of facility;
- Name of Permittee (and owner or operator, if appropriate);
- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.*, sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, other);
- Proposed date of well closure;
- Name of Preparer; and,
- Date.

2.D. PLUGGING AND ABANDONMENT PLAN: Pursuant to 20.6.2.5209A NMAC, when the Permittee proposes to plug and abandon its Class I non-hazardous waste injection well, it shall submit to OCD a plugging and abandonment plan that meets the requirements of 20.6.2.3109C NMAC, 20.6.2.5101C NMAC, and 20.6.2.5005 NMAC for protection of ground water. If requested by OCD, Permittee shall submit for approval prior to closure, a revised or

updated plugging and abandonment plan. The obligation to implement the plugging and abandonment plan as well as the requirements of the plan survives the termination or expiration of this Discharge Permit. The Permittee shall comply with 20.6.2.5209 NMAC.

2.E. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.F. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified in 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. Oral Notification: As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;
- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and,
- Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. Written Notification: Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use form C-141 with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Environmental Bureau.

2.G. OTHER REQUIREMENTS:

1. Inspection and Entry: Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;
- Inspect and copy records required by this Discharge Permit;
- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and,
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. **Advance Notice:** The Permittee shall provide OCD's Environmental Bureau and Aztec District Office with at least five (5) working days advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or decommissioning of any equipment associated with its Class I non-hazardous waste injection well.

3. **Environmental Monitoring:** The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and laboratory QA/QC.

2.H. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee shall maintain at a minimum, a single well plugging bond in the amount that it shall determine, in accordance with Permit Condition 5.B, to cover potential costs associated with plugging and abandonment of the Class I non-hazardous waste injection well, surface restoration, and post-operational monitoring, as may be needed. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective actions.

Methods by which the Permittee shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the OCD Director, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary; (3) a non-renewable letter of credit made out to the State of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance. If an adequate bond is posted by the Permittee to a federal or another state agency, and this bond covers all of the measures specified above, the OCD Director shall consider this bond as satisfying the bonding requirements of Sections 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the Permittee will fully perform the measures required herein above.

2.I. REPORTING:

1. **QUARTERLY REPORTS:** The Permittee shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD's Environmental Bureau by September 1st, December 1st, and March 1st, of each year. The quarterly reports shall include the following:

a. The physical, chemical and other relevant characteristics of injection fluids;

b. Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and

c. The results of monitoring prescribed under Section 20.6.2.5207B NMAC.

2. **ANNUAL REPORT:** The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by **June 1st** of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well , Name of Permittee, Discharge Permit Number, API number of well(s), date of report, and person submitting report;
- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103;
- Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- A copy of the quarterly chemical analyses shall be included with data summary and all QA/QC information;
- Copy of any mechanical integrity test chart, including the type of test, *i.e.,* duration, gauge pressure, *etc.;*
- Copy of fall-of test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluids samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report;
- The Permittee shall include copies of the most recent year's environmental analytical laboratory data sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports;
- An Area of Review (AOR) update summary;
- A summary with interpretation of MITs, Fall-Off Tests, *etc.*, with conclusion(s) and recommendation(s);
- Records of the expansion tank monitoring pressure, fluid removals and/or additions indicating the well MIT condition;
- A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,

- The Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that its Class I non-hazardous waste injection well is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1., then the Permittee shall within 24 hours notify OCD's Environmental Bureau and Aztec District Office of the circumstances and action(s) taken. The Permittee shall cease operations until proper repairs are made and it has received approval from OCD to re-start injection operations.

3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone.

4. The annulus between the tubing and the long string of casing shall be filled with a fluid approved by the OCD Director and a pressure, also approved by the OCD Director shall be maintained on the annulus.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval, and Waste Fluids: The Permittee shall inject only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluid into the Point Lookout Formation from 4,350 feet to 4,460 feet in its Class I non-hazardous waste injection well. The surface casing is set at 209 feet, the production casing is set at 4760 feet, the tubing is set at approximately 4,300 feet, and the packer is set at 4,282 feet. The Permittee shall ensure that the injected waste fluid enters only the above specified injection interval and is not permitted to escape to other formations or onto the surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum wellhead or surface injection pressure on its Class I non-hazardous waste injection well shall not exceed 2,400 psig and that the injection flow rate shall not exceed 4,000 bbls/day.

3. Pressure Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a Murphy switch pressure limiting device, or

equivalent, in workable condition, which shall, at all times, limit surface injection pressure to the maximum allowable pressure for its Class I non-hazardous waste injection well.

The Permittee shall monitor the pressure-limiting device daily and shall report all pressure exceedances within 24 hours of detecting an exceedance to OCD's Environmental Bureau. The Permittee shall take all steps necessary to ensure that the injected waste fluids enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize an increase in injection pressure if the Permittee demonstrates that higher pressure will not result in migration of the injected fluid from the designated injection zone using a valid Step-Rate test run in coordination with a Fall-Off Test (FOT). If approvable, the Permittee must obtain a modification to this Discharge Permit pursuant to 20.6.2.3109 NMAC.

3.C. CONTINUOUS MONITORING DEVICES: The Permittee shall use continuous monitoring devices to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. The Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well every time it performs a well workover, including when it pulls the tubing or reseats the packer. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure; and no detectable conduit for fluid movement out of the injection zone through the well bore or vertical channels adjacent to the well bore which the OCD Director considers to be significant. The Permittee shall conduct a casing-tubing annulus Mechanical Integrity Test (MIT) from the surface to the approved injection depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface.

The Permittee shall notify OCD's Environmental Bureau 5 days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

2. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. Passes MIT if zero bleed-off during the test;

b. Passes MIT if final test pressure is within ± 10% of starting pressure, if approved by OCD;

c. Fails MIT if any final test pressure is greater than ± 10% of starting pressure. Permittee shall investigate for leaks and demonstrate the mechanical integrity of the well by ensuring there are no leaks in the tubing, casing, or packer, and that injected are confined within the piping and/or injection zones. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall notify OCD within 24 hours of the failure of the MIT.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use by the Permittee of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry. When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts a MIT.

3.E. FALL-OFF TEST: The Permittee shall conduct a Fall-Off Test (FOT) to monitor the pressure buildup in the injection zone at least every other year, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve. The Permittee shall follow OCD's 2007 *New Mexico Oil Conservation Division UIC Class I Well Fall-Off Test Guidance* when conducting a FOT. The Permittee shall submit the results of its Fall-Off Test to OCD's Environmental Bureau and Aztec District Office within 30 days.

3.F. WELL WORKOVER OPERATIONS: Pursuant to 20.6.2.5205A(5) NMAC, the Permittee shall provide notice to and shall obtain approval from OCD's Environmental Bureau prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office. After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run a Fall-Off Test to determine what changes have occurred in the injection zone.

3.G. EXTERNAL EXPANSION TANK: The Permittee shall equip its Class I non-hazardous waste injection well with an external expansion tank (tank) system under constant 100 psig pressure connected to the casing-annulus. The Permittee shall fill the external expansion

tank half-full (250 gallon expansion tank) with an OCD-approved liquid to establish an equilibrium volume and liquid level. The Permittee shall monitor the liquid levels in the external expansion tank at least weekly and shall record all additions or removals of liquids into or out of the external expansion tank. The Permittee shall record any loss or gain of fluids in the external expansion tank, and if significant, report the loss or gain to OCD's Environmental Bureau. The Permittee shall provide the weekly expansion tank volume fluid volumes readings and the fluid volume additions or removals from the expansion tank on a quarterly basis.

3.H. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers. The Permittee shall record the minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD's Environmental Bureau on a quarterly basis.

The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch, as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.I. AREA OF REVIEW (AOR): The Permittee shall report within 72 hours of discovery any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.,* septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. QUARTERLY AND ANNUAL REPORTS: The Permittee shall submit its quarterly and annual reports to OCD as specified in Permit Condition 2I.

5.B. BONDING OR FINANCIAL ASSURANCE: The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class I non-hazardous waste injection well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (see 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person

estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 14, 2012 10:55 AM
To: 'Philana Thompson'
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Bailey, Jami, EMNRD
Subject: RE: UICI-005 DP Agua Moss, LLC

Philana:

The New Mexico Oil Conservation Division (OCD) is in receipt of Agua Moss, LLC comments on the above subject draft discharge permit.

Based on the comments, and OCD final review of the draft permit, the OCD may incorporate any final changes and issue the final discharge permit to Agua Moss, LLC for the facility.

Please contact me if you have questions. Thank you for your cooperation throughout the permit review process.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
Office: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Website: http://www.emnrd.state.nm.us/ocd/
"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Philana Thompson [mailto:pthompson@merrion.bz]
Sent: Friday, September 14, 2012 10:10 AM
To: Chavez, Carl J, EMNRD
Subject: UICI-005 DP Agua Moss, LLC

Section 3E

This is to acknowledge my telephone conversation yesterday (9/13/12) with Carl Chavez in regards to the final DP Section 3E Falloff Test Second Paragraph last sentence will indicate that the FOT shall comply with the OCD approved FOT Plan. The rest of the items, i.e., 1 – 7 will be removed because they refer to the MIT and not FOT.

Agua Moss, LLC agrees with your adjustment of the section, after review it appears the last FOT was performed by Key in 2010. Based on when the last FOT was performed Agua Moss, LLC would be required to perform one for 2012, we would like to request an extension until Spring of 2013 to perform the FOT when weather conditions would be more optimal.

Section 2A and 2I

In regards to item 2.A. It states that Agua Moss, LLC is to provide the quarterly reports to the NMOCD. Agua Moss, LLC would like to have the sentence in 2.A. Pursuant to 20.6.2.5207B, **the Permittee shall provide analysis of the injected fluids at least quarterly,** changed to annual to reflect item 2.I requirement. *Page 8, 2.I. Annual Report, quarterly reports are to be provided in the annual report.*

Thank you for your time,
Philana

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 07, 2012 4:55 PM
To: pthompson@merrion.bz
Cc: Bailey, Jami, EMNRD; Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD
Subject: Agua Moss, LLC Discharge Permit Renewal (UICI-005) Revised Discharge Permit
Attachments: UICI-5 DP Final 9-7-2012.pdf

Ms. Thompson:

Good afternoon. The New Mexico Oil Conservation Division (OCD) recently mailed Agua Moss, LLC a draft discharge permit (permit) for your final review on August 17, 2012. The OCD allowed Agua Moss, LLC 30 days to reply with comments.

Please find attached a new revised draft permit version for your review and comment. Please replace the previous draft permit with the attached version and send the OCD any final comments Agua Moss LLC may have on it via e-mail either in response to this e-mail message and/or letter by COB on September 17th. This draft version seeks to reduce the burden of Falloff Test redundancy in the previous permit sent to you.

The OCD expects to finalize the permit after receipt of your comments/recommendations and send you two copies (one for signature and remittance back to the OCD) of the final discharge permit. The OCD notices that all permit related fees have been paid.

Thank you for your cooperation in this matter. The OCD looks forward to finalizing Agua Moss, LLC's permit. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
Office: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Website: http://www.emnrd.state.nm.us/ocd/
"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

DISCHARGE PERMIT UICI-005

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-005 (Discharge Permit) to Agua Moss, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico at its Commercial Disposal Facility (Facility). The Facility is located approximately 6 miles southwest of Aztec near the intersection of CR-3500 and CR-3773. The Permittee also operates a Surface Waste Management Facility (NM1-009) separately permitted by OCD pursuant to 19.15.2.36 NMAC at the same location.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluids into its Class I non-hazardous waste injection well. The Permittee may dispose of approximately 4,000 bbls/day of oil-field waste fluids. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 40 feet below ground surface and has a total dissolved solids concentration of approximately 450 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells. See Section 74-6-4, 74-6-5 NMSA 1978.

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (See 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil-field waste, other than non-hazardous oil-field waste fluids into its Class I non-hazardous waste injection well, including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, washdown water, and cooling tower blowdown water. The Permittee may not dispose of any industrial waste fluid that is not generated in the oil-field. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all field industrial fluids that are not generated in the oil-field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

1. The injection of fluids into a motor vehicle waste disposal well is prohibited.

2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health, (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified in 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified at 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject non-hazardous waste fluids into ground water having 10,000 mg/l or less total dissolved solids (TDS), pursuant to 20.6.2.5101A NMAC.

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (See Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT RENEWAL: This Discharge Permit is a permit renewal that replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of that prior permit while that permit was in effect.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee and the $4,500.00 permit fee for a Class I non-hazardous waste injection well.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit becomes effective 30 days from the date that the Permittee receives this discharge permit or until the permit is terminated or expires. This Discharge Permit will expire on **June 1, 2017.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (See Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2 , or process modification that would result in any significant modification in the discharge of wastewater contaminants (See 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

(a) Noncompliance by Permittee with any condition of this Discharge Permit; or,

(b) The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,

(c) A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (See Section 75-6-6 NMSA 1978; 20.6.2.5101I NMAC; 20.6.2.3109E NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

(a) Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

(b) Violation of any applicable state or federal effluent regulations or limitations; or

(c) Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (See Section 75-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

(a) The OCD Director receives written notice 30 days prior to the transfer date; and,

(b) The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2a shall:

(a) Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgement that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility; and

(b) Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

(c) Include information relating to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (See Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (See Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (See Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS: Pursuant to 20.6.2.5207B, the Permittee shall provide analysis of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee also conducts waste management operations at its facility in accordance with an OCD surface waste management facility permit (NM1-009). That permit authorizes the Permittee to accept only oil-field wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material regulated pursuant to 20.3.1.1403 (NORM) and non-hazardous, non-exempt oil-field wastes that do not contain NORM. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes on a case-by-case basis only after a hazardous waste determination is made by the generator. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes only if those wastes are accompanied by an approved form C-138 (Request for Approval to Accept Solid Waste) and a "Generator Certificate of Waste Status," signed by the generator. OCD Permit NM1-009 requires the Permittee to determine by analyzing the non-hazardous, non-exempt fluids that the waste fluids are non-hazardous before accepting the waste fluids for disposal at the facility; therefore, OCD will not require the Permittee to re-analyze the waste fluids to determine whether it is hazardous before injecting the waste fluid in its Class I non-hazardous waste injection well.

The Permittee shall analyze the injected fluids quarterly for the following characteristics:

- pH;
- Eh;
- Specific conductance;
- Specific gravity;
- Temperature; and,
- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate,

chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified in 40 CFR 136.3.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its Permit Renewal Application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: Prior to closure of the facility, the Permittee shall submit for OCD's approval, a closure plan including a completed form C-103 for plugging and abandonment of the disposal well. The Permittee shall plug and abandon its Class I non-hazardous waste injection well pursuant to 20.6.2.5209 NMAC and as specified in Permit Condition 2.D.

1. Pre-Closure Notification: Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of its Class I non-hazardous waste injection well. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before the Permittee may implement its proposed closure plan.

2. Required Information: The Permittee shall provide OCD's Environmental Bureau with the following information:

- Name of facility;
- Address of facility;
- Name of Permittee;
- Address of Permittee;
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.,* sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation; other);
- Proposed date of well closure;
- Name of Preparer; and,
- Date.

2.D. PLUGGING AND ABANDONMENT PLAN: Pursuant to 20.6.2.5209A NMAC, when the Permittee proposes to plug and abandon its Class I non-hazardous waste injection well, it shall submit to OCD a plugging and abandonment plan that meets the requirements of 20.6.2.3109C NMAC, 20.6.2.5101C NMAC, and 20.6.2.5005 NMAC for protection of ground water. If requested by OCD, Permittee shall submit for approval prior to closure, a revised or

updated plugging and abandonment plan. The obligation to implement the plugging and abandonment plan as well as the requirements of the plan survives the termination or expiration of this Discharge Permit. The Permittee shall comply with 20.6.2.5209 NMAC.

2.E. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.F. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. **Oral Notification:** As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;
- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and,
- Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. **Written Notification:** Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use a form C-141 with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Environmental Bureau.

2.G. OTHER REQUIREMENTS:

1. **Inspection and Entry:** Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;

- Inspect and copy records required by this Discharge Permit;
- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and,
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. **Advance Notice:** The Permittee shall provide OCD's Environmental Bureau and Aztec District Office with at least five (5) working days advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or decommissioning of any equipment associated with its Class I non-hazardous waste injection well.

3. **Environmental Monitoring:** The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and laboratory QA/QC.

2.H. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee shall maintain at a minimum, a single well plugging bond in the amount that it shall determine, in accordance with Permit Condition 5.B, to cover potential costs associated with plugging and abandonment of the Class I non-hazardous waste injection well, surface restoration, and post-operational monitoring, as may be needed. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective actions.

Methods by which the Permittee shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the OCD Director, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary; (3) a non-renewable letter of credit made out to the State of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance. If an adequate bond is posted by the Permittee to a federal or another state agency, and this bond covers all of the measures specified above, the OCD Director shall consider this bond as satisfying the bonding requirements of Sections 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the Permittee will fully perform the measures required herein above.

2.I. ANNUAL REPORT: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by **June 1st** of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well , Name of Permittee, Discharge Permit Number, API number of well(s), date of report, and person submitting report;

- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103;
- Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- A copy of the quarterly chemical analyses shall be included with data summary with all QA/QC information;
- Copy of any mechanical integrity test chart, including the type of test, *i.e.,* duration, gauge pressure, *etc.;*
- Copy of falloff test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluid samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. The Permittee shall include copies of the most recent year's environmental analytical laboratory data sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports;
- An Area of Review (AOR) update summary;
- A summary with interpretation of MITs, Falloff Tests, *etc.,* with conclusion(s) and recommendation(s);
- Records of the expansion tank monitoring pressure, fluid removals and/or additions indicating the well MIT condition.
- A summary of all major facility activities or events, which occurred during the year with any conclusions and recommendations;
- A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken;
- A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and
- The Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A et seq. NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water containing 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that its Class I non-

hazardous waste injection well is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1., then the Permittee shall within 24 hours notify OCD's Environmental Bureau and Aztec District Office of the circumstances and action(s) taken. The Permittee shall cease operations until proper repairs are made and it has received approval from OCD to re-start injection operations.

3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone;

4. The annulus between the tubing and the long string of casing shall be filled with a fluid approved by the OCD Director and a pressure, also approved by the OCD Director shall be maintained on the annulus.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval, and Wastewater: The Permittee shall inject only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluid into the Point Lookout Formation from 4,350 feet to 4,460 feet in its Class I non-hazardous waste injection well. The surface casing is set at 209 feet, the production casing is set at 4760 feet, the tubing is set at approximately 4,300 feet, and the packer is set at 4,282 feet. The Permittee shall ensure that the injected waste fluid enters only the above specified injection interval and is not permitted to escape to other formations or onto the surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum wellhead or surface injection pressure on its Class I non-hazardous waste injection well shall not exceed 2,400 psig and that the injection flow rate shall not exceed 4,000 bbls/day.

3. Pressure Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a Murphy switch pressure limiting device, or equivalent, in workable condition, which shall, at all times, limit surface injection pressure to the maximum allowable pressure for its Class I non-hazardous waste injection well.

The Permittee shall monitor the pressure-limiting device daily and shall report all pressure exceedances within 24 hours of detecting an exceedance to OCD's Environmental Bureau. The Permittee shall take all steps necessary to ensure that the injected waste fluid enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize a proposed increase in surface injection pressure if the Permittee performs a valid Step-Rate Test (SRT), which demonstrates that the proposed injection pressure is below the injection zone fracture pressure with an acceptable factor of safety. If approvable, the Permittee must obtain a modification to this Discharge Permit pursuant to 20.6.2.3109 NMAC.

3.C. CONTINUOUS MONITORING DEVICES: The Permittee shall use continuous monitoring devices to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall conduct a mechanical integrity test (MIT) for its Class I non-hazardous waste injection well at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. An MIT shall also be conducted after well workovers , i.e., when tubing is pulled and/or after packer reseating. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which exceeds OCD Underground Injection Control Program Mechanical Integrity Test (MIT) "Pass/Fail" criteria. The Permittee shall conduct a casing-tubing annulus MIT from the surface to the approved injection depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface.

The Permittee shall notify OCD's Environmental Bureau 5 days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

2. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. Passes MIT if zero bleed-off during the test;

b. Passes MIT if final test pressure is within ± 10% of starting pressure, if approved by OCD;

c. Fails MIT if any final test pressure is greater than ± 10% of starting pressure. Permittee shall investigate for leaks and demonstrate the mechanical integrity of the well by ensuring there are no leaks in the tubing, casing, or packer, and that injected are confined within the piping and/or injection zones. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall notify OCD within 24 hours of the failure of the MIT.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use by the Permittee of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry. When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts a MIT.

3.E. FALLOFF TEST: The Permittee shall conduct a Falloff Test (FOT) to monitor the injection zone formation characteristics and pressure buildup over time in the injection zone at least every other year. The Permittee shall request FOT approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office.

The Permittee shall run a FOT to determine what changes have occurred in the injection zone. The Permittee shall submit the results of its Fall-Off Test to OCD's Environmental Bureau and Aztec District Office within 30 days. The Permittee shall comply with the following requirements when conducting a FOT:

1. If the FOT requires that the casing-tubing annulus contain liquid (typically corrosion inhibitor liquid such as diesel) the Permittee shall ensure that the temperature of the liquid is allowed equilibrate in the annulus at least 24 hours prior to testing;

2. The Permittee shall have all necessary equipment available for conducting the FOT. The wellhead shall be prepared for the FOT and all valves and gauges should be in good working order;

3. The Permittee shall disconnect and/or isolate all pumps, tanks, external lines, *etc.* from the annulus to the wellhead for the FOT;

4. The Permittee shall install and use a continuous recording pressure device with a maximum 4-hour clock on the casing-tubing annulus with a pressure range of 350 - 500 psig. The Permittee shall provide documentation or proof that the pressure-recording device has been calibrated within 6 months of the test.

5. The Permittee shall ensure that at least one pressure gauge has been installed on the casing/tubing annulus.

6. The Permittee shall ensure that OCD has the opportunity to witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test, the Permittee may be required to bleed-off well pressure to demonstrate recorder and gauge response.

7. The Permittee shall supply the following information on the pressure chart:
   - Company Name, Well Name, API Number, Legal Location;
   - Test Procedure with "Pass/Fail" designation;
   - Testing Media: Water, Gas, Oil, *etc.*;
   - Date, time started and ending; and
   - Name (printed) and signature of company representative and OCD Inspector.

3.F. WELL WORKOVER OPERATIONS: Pursuant to 20.6.2.5205A(5) NMAC, the Permittee shall provide notice to and shall obtain approval from OCD's Environmental Bureau

prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office.

3.G. EXTERNAL EXPANSION TANK: The Permittee shall equip its Class I non-hazardous waste injection well with an external expansion tank (tank) system under constant 100 psig pressure connected to the casing-annulus. The Permittee shall fill the external expansion tank half-full (250 gallon expansion tank) with an OCD-approved liquid to establish an equilibrium volume and liquid level. The Permittee shall monitor the liquid levels in the external expansion tank at least weekly and shall record all additions or removals of liquids into or out of the external expansion tank. The Permittee shall record any loss or gain of fluids in the external expansion tank, and if significant, report the loss or gain to OCD's Environmental Bureau. The Permittee shall provide the weekly expansion tank volume fluid volumes readings and the fluid volume additions or removals from the expansion tank on a quarterly basis.

3.H. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers. The Permittee shall record the minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD on a quarterly basis. The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch, as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.I. AREA OF REVIEW (AOR): The Permittee shall report within 72 hours of discovery any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. ANNUAL REPORT: The Permittee shall submit its annual report to OCD by June 1st of each year.

5.B. BONDING OR FINANCIAL ASSURANCE: The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class I non-hazardous waste injection well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

AUGUST 17, 2012

CERTIFIED MAIL
RETURN RECEIPT NO: 0919 5914

Mr. Jeff Davis
Manager/Owner
Agua Moss, LLC
P.O. Box 600
Farmington, New Mexico 87499

RE: Discharge Permit Renewal Application for Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico

Dear Mr. Davis:

On June 25, 2012, the Oil Conservation Division (OCD) provided Agua Moss, LLC (Permittee) with a draft renewal discharge permit that OCD proposed to approve. OCD received no comments from Agua Moss nor from any other person. Upon final review before issuing the discharge permit renewal, OCD discovered that it had not included a permit condition requiring Agua Moss to conduct a Falloff Test at least every other year as was committed to in the permit application. Therefore, OCD has added a new permit condition (see new Permit Condition 3.E. - Falloff Test) and made several minor corrections shown in redline/strikeout in the final draft discharge permit. Agua Moss has an additional 30 days from the date that it receives this letter to review the additional permit condition and provide OCD with any comments.

If you have any questions, please contact Carl Chavez of my staff at (505-476-3490) or email: CarlJ.Chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Jami Bailey
Director

JB/gvg

DISCHARGE PERMIT UICI-005

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-005 (Discharge Permit) to Agua Moss, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico at its Commercial Disposal Facility (Facility). The Facility is located approximately 6 miles southwest of Aztec near the intersection of CR-3500 and CR-3773. The Permittee also operates a Surface Waste Management Facility (NM1-009) separately permitted by OCD pursuant to 19.15.2.36 NMAC at the same location.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluids into its Class I non-hazardous waste injection well. The Permittee may dispose a maximum of 4,000 bbls/day of oil-field waste fluids. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 40 feet below ground surface and has a total dissolved solids concentration of approximately 450 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells (See Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (See 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil-field waste, other than non-hazardous oil-field waste fluids into its Class I non-hazardous waste injection well, including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, washdown water, and cooling tower blowdown water. The Permittee may not dispose any industrial waste fluid that is not generated in the oil-field. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all field industrial fluids that is not generated in the oil-field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

1. The injection of fluids into a motor vehicle waste disposal well is prohibited.

2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health, (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified of 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified at 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject non-hazardous fluids into ground water having 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (See Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT RENEWAL: This Discharge Permit is a permit renewal that replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of that prior permit while that permit was in effect.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee and the $4,500.00 permit fee for a Class I non-hazardous waste injection well.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit becomes effective 30 days from the date that the Permittee receives this discharge permit or until the permit is terminated or expires. This Discharge Permit will expire on **June 1, 2017.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (See Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2, or process modification that would result in any significant modification in the discharge of water contaminants (See 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

a. Noncompliance by Permittee with any condition of this Discharge Permit; or,

b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,

c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (See Section 75-6-6 NMSA 1978; 20.6.2.5101I NMAC; and, 20.6.2.3109E NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

b. Violation of any applicable state or federal effluent regulations or limitations; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (See Section 75-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

a. The OCD Director receives written notice 30 days prior to the transfer date; and,

b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgement that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility; and

b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

c. Include information relating to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (See Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (See Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (See Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS: Pursuant to 20.6.2.5207B, the Permittee shall provide analysis of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee also conducts waste management operations at its facility in accordance with an OCD surface waste management facility permit (NM1-009). That permit authorizes the Permittee to accept only oil-field wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material regulated pursuant to 20.3.1.1403 (NORM) and non-hazardous, non-exempt oil-field wastes that do not contain NORM. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes on a case-by-case basis only after a hazardous waste determination is made by the generator. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes only if those wastes are accompanied by an approved form C-138 (Request for Approval to Accept Solid Waste) and a "Generator Certificate of Waste Status," signed by the generator. OCD Permit NM1-009 requires the Permittee to determine by analyzing the non-hazardous, non-exempt fluids that the waste fluids are non-hazardous before accepting the waste fluids for disposal at the facility; therefore, OCD will not require the Permittee to re-analyze the waste fluids to determine whether it is hazardous before injecting the waste fluid in its Class I non-hazardous waste injection well.

The Permittee shall analyze the injected fluids quarterly for the following characteristics:

- pH;
- Eh;
- Specific conductance;
- Specific gravity;
- Temperature; and,
- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate,

chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified at 40 CFR 136.3.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its Permit Renewal Application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: Prior to closure of the facility, the Permittee shall submit for OCD's approval, a closure plan including a completed form C-103 for plugging and abandonment of the disposal well. The Permittee shall plug and abandon its Class I non-hazardous waste injection well pursuant to 20.6.2.5209 NMAC and as specified in Permit Condition 2.D.

1. **Pre-Closure Notification:** Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of its Class I non-hazardous waste injection well. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before Permittee may implement its proposed closure plan.

2. **Required Information:** The Permittee shall provide OCD's Environmental Bureau with the following information:

- Name of facility;
- Address of facility;
- Name of Permittee (and owner or operator, if appropriate);
- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.*, sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, other);
- Proposed date of well closure;
- Name of Preparer; and,
- Date.

2.D. PLUGGING AND ABANDONMENT PLAN: Pursuant to 20.6.2.5209A NMAC, when the Permittee proposes to plug and abandon its Class I non-hazardous waste injection well, it shall submit to OCD a plugging and abandonment plan that meets the requirements of 20.6.2.3109C NMAC, 20.6.2.5101C NMAC, and 20.6.2.5005 NMAC for protection of ground water. If requested by OCD, Permittee shall submit for approval prior to closure, a revised or updated plugging and abandonment plan. The obligation to implement the plugging and

abandonment plan as well as the requirements of the plan survives the termination or expiration of this Discharge Permit. The Permittee shall comply with 20.6.2.5209 NMAC.

2.E. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.F. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. **Oral Notification:** As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;
- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and,
- Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. **Written Notification:** Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use form C-141 with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Environmental Bureau.

2.G. OTHER REQUIREMENTS:

1. **Inspection and Entry:** Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;
- Inspect and copy records required by this Discharge Permit;

- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and,
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. **Advance Notice:** The Permittee shall provide OCD's Environmental Bureau and Aztec District Office with at least five (5) working days advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or decommissioning of any equipment associated with its Class I non-hazardous waste injection well.

3. **Environmental Monitoring:** The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and laboratory QA/QC.

2.H. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee shall maintain at a minimum, a single well plugging bond in the amount that it shall determine, in accordance with Permit Condition 5.B, to cover potential costs associated with plugging and abandonment of the Class I non-hazardous waste injection well, surface restoration, and post-operational monitoring, as may be needed. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective actions.

Methods by which the Permittee shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the OCD Director, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary; (3) a non-renewable letter of credit made out to the State of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance. If an adequate bond is posted by the Permittee to a federal or another state agency, and this bond covers all of the measures specified above, the OCD Director shall consider this bond as satisfying the bonding requirements of Sections 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the Permittee will fully perform the measures required hereinabove.

2.I. ANNUAL REPORT: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by **June 1st** of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well , Name of Permittee, Discharge Permit Number, API number of well(s), date of report, and person submitting report;

- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103;
- Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- A copy of the quarterly chemical analyses shall be included with data summary and all QA/QC information;
- Copy of any mechanical integrity test chart, including the type of test, *i.e.,* duration, gauge pressure, *etc.;*
- Copy of fall-of test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluids samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. The Permittee shall include copies of the most recent year's environmental analytical laboratory data sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports;
- An Area of Review (AOR) update summary;
- A summary with interpretation of MITs, Fall-Off Tests, *etc.*, with conclusion(s) and recommendation(s);
- Records of the expansion tank monitoring pressure, fluid removals and/or additions indicating the well MIT condition.
- A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
- The Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206A NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that its Class I non-hazardous waste injection well is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1., then the

Permittee shall within 24 hours notify OCD's Environmental Bureau and Aztec District Office of the circumstances and action(s) taken. The Permittee shall cease operations until proper repairs are made and it has received approval from OCD to re-start injection operations.

3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone;

4. The annulus between the tubing and the long string of casing shall be filled with a fluid approved by the OCD Director and a pressure, also approved by the OCD Director shall be maintained on the annulus.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval, and Waste Fluids: The Permittee shall inject only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluid into the Point Lookout Formation from 4,350 feet to 4,460 feet in its Class I non-hazardous waste injection well. The surface casing is set at 209 feet, the production casing is set at 4760 feet, the tubing is set at approximately 4,300 feet, and the packer is set at 4,282 feet. The Permittee shall ensure that the injected waste fluid enters only the above specified injection interval and is not permitted to escape to other formations or onto the surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum wellhead or surface injection pressure on its Class I non-hazardous waste injection well shall not exceed 2,400 psig and that the injection flow rate shall not exceed 4,000 bbls/day.

3. Pressure Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a Murphy switch pressure limiting device, or equivalent, in workable condition, which shall, at all times, limit surface injection pressure to the maximum allowable pressure for its Class I non-hazardous waste injection well.

The Permittee shall monitor the pressure-limiting device daily and shall report all pressure exceedances within 24 hours of detecting an exceedance to OCD's Environmental Bureau. The Permittee shall take all steps necessary to ensure that the injected waste fluids enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize an increase in injection pressure if the Permittee demonstrates that higher pressure will not result in migration of the injected fluid from the designated injection zone using a valid Step-Rate test run in coordination with a ~~Fall-Off~~Falloff Test (FOT). If approvable, the Permittee must obtain a modification to this Discharge Permit pursuant to 20.6.2.3109 NMAC.

3.C. CONTINUOUS MONITORING DEVICES: The Permittee shall use continuous monitoring devices to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. The Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well every time it performs a well workover, including when it pulls the tubing or reseats the packer. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure; and no detectable conduit for fluid movement out of the injection zone through the well bore or vertical channels adjacent to the well bore which the OCD Director considers to be significant. The Permittee shall conduct a casing-tubing annulus Mechanical Integrity Test (MIT) from the surface to the approved injection depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface.

The Permittee shall notify OCD's Environmental Bureau 5 days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

2. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. Passes MIT if zero bleed-off during the test;

b. Passes MIT if final test pressure is within ± 10% of starting pressure, if approved by OCD;

c. Fails MIT if any final test pressure is greater than ± 10% of starting pressure. Permittee shall investigate for leaks and demonstrate the mechanical integrity of the well by ensuring there are no leaks in the tubing, casing, or packer, and that injected are confined within the piping and/or injection zones. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall notify OCD within 24 hours of the failure of the MIT.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use by the Permittee of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry.

When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts a MIT.

3.E. FALLOFF TEST: The Permittee shall conduct a Falloff Test (FOT) to monitor the pressure buildup in the injection zone at least every other year, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve.

3.F.~~3.E.~~ WELL WORKOVER OPERATIONS: Pursuant to 20.6.2.5205A(5) NMAC, the Permittee shall provide notice to and shall obtain approval from OCD's Environmental Bureau prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office. After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run a Falloff ~~Fall-Off~~ Test to determine what changes have occurred in the injection zone. The Permittee shall submit the results of its Fall-Off Test to OCD's Environmental Bureau and Aztec District Office within 30 days. The Permittee shall comply with the following requirements when conducting a FOT:

1. If the FOT requires that the casing-tubing annulus contain liquid (typically corrosion inhibitor liquid such as diesel) the Permittee shall ensure that the temperature of the liquid is allowed equilibrate in the annulus at least 24 hours prior to testing;

2. The Permittee shall have all necessary equipment available for conducting the FOT. The wellhead shall be prepared for the FOT and all valves and gauges should be in good working order;

3. The Permittee shall disconnect and/or isolate all pumps, tanks, external lines, *etc.* from the annulus to the wellhead for the FOT;

4. The Permittee shall install and use a continuous recording pressure device with a maximum 4-hour clock on the casing-tubing annulus with a pressure range of 350 - 500 psig. The Permittee shall provide documentation or proof that the pressure-recording device has been calibrated within 6 months of the test.

5. The Permittee shall ensure that at least one pressure gauge has been installed on the casing/tubing annulus.

6. The Permittee shall ensure that OCD has the opportunity to witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test, the Permittee may be required to bleed-off well pressure to demonstrate recorder and gauge response.

7. The Permittee shall supply the following information on the pressure chart:

- Company Name, Well Name, API Number, Legal Location;
- Test Procedure with "Pass/Fail" designation;
- Testing Media: water, waste fluids, gas, oil, *etc.*;
- Date, time started and ending; and,.
- Name (printed) and signature of company representative and OCD Inspector.

3.~~G~~J. EXTERNAL EXPANSION TANK: The Permittee shall equip its Class I non-hazardous waste injection well with an external expansion tank (tank) system under constant 100 psig pressure connected to the casing-annulus. The Permittee shall fill the external expansion tank half-full (250 gallon expansion tank) with an OCD-approved liquid to establish an equilibrium volume and liquid level. The Permittee shall monitor the liquid levels in the external expansion tank at least weekly and shall record all additions or removals of liquids into or out of the external expansion tank. The Permittee shall record any loss or gain of fluids in the external expansion tank, and if significant, report the loss or gain to OCD's Environmental Bureau. The Permittee shall provide the weekly expansion tank volume fluid volumes readings and the fluid volume additions or removals from the expansion tank on a quarterly basis.

3.~~H~~K. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers . The Permittee shall record the minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD's Environmental Bureau on a quarterly basis.
The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch; as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.~~I~~L. AREA OF REVIEW (AOR): The Permittee shall report within 72 hours of discovery any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. ANNUAL REPORT: The Permittee shall submit its annual report to OCD by June 1st of each year.

5.B. BONDING OR FINANCIAL ASSURANCE: The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class I non-hazardous waste injection well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.

Chavez, Carl J, EMNRD

From: Philana Thompson <pthompson@merrion.bz>
Sent: Tuesday, August 07, 2012 2:37 PM
To: Chavez, Carl J, EMNRD
Subject: Merrion Oil & Gas Affidavits
Attachments: NMDA20120716A003.pdf; NMDA20120716A006.pdf; SFNM Affidavit.pdf; daily times affidavit.pdf; MerrionNMWaterQuality7-13-12.PDF

Carl,
attached is the notices and affidavits from the Daily Times & Santa Fe New Mexican that was run. Please let me know if you require anything further.

Philana

-

Governors weigh options in health care overhaul

By Josh Lederman
The Associated Press

WILLIAMSBURG, Va. — Millions of uninsured people may have to wait until after Election Day to find out if and how they can get coverage through President Barack Obama's health care law.

More than two weeks after the Supreme Court gave the green light to Obama's signature legislative achievement, many governors from both parties said they haven't decided how their states will proceed on two parts under their control: an expansion of Medicaid, expected to extend coverage to roughly 15 million low-income people, and new insurance exchanges, projected to help an additional 15 million or so purchase private insurance.

In some states, such as Colorado, Oklahoma and Wyoming, governors said they're crunching the numbers to determine what's best for their residents. But in other states, including Virginia, Nebraska and Wisconsin, Republican governors said not to expect a decision before Obama and Republican challenger Mitt Romney square off in November.

If Romney wins, the argument goes, he'll work to throw out the health care overhaul, and the issue will be moot.

> “To say, 'I'm going to criticize the plan, but I won't tell you whether I'm taking the loot until after the election,' that's what breeds cynicism in the American people.”
>
> **Gov. Peter Shumlin**, D-Vermont

"I don't think I can look the taxpayers of Virginia in the eye and say I'm going to spend a lot of your money building exchanges that four months from now I may not need," Gov. Bob McDonnell, R-Va., said on the sidelines of the National Governors Association meeting.

Although the high court upheld the requirement that individuals either have insurance or pay a fine, the justices undercut Obama's plan to get almost all Americans insured, ruling that states can opt out of the expansion of Medicaid, the government-run insurance plan. People earning up to 138 percent of the federal poverty level qualify for Medicaid under the health care law, except in states that reject the expansion.

The Obama administration said last week that people won't be fined for not having insurance in states that turn down the expansion, meaning Obama's hard-fought overhaul could fall far short of the 30 million or more uninsured he had hoped would get coverage.

Also left to the governors is what to do about the exchanges — Internet-based markets designed to offer one-stop shopping for insurance — that are also part of law. States are supposed to set up their own exchanges, but if they don't, the federal government will run them instead.

About a half-dozen states have announced plans to forgo the Medicaid expansion and relinquish the massive infusion of federal dollars that would come along with it. All have Republican governors, many of whom argued Medicaid is an underfunded entitlement already weighing down their cash-strapped budgets.

Others faulted the Obama administration for failing to provide the specifics that states need to make an informed decision. That sentiment was echoed in a list of 30 questions about the law that the Republican Governors Association sent Obama last week.

The law picks up the entire cost of covering more people for the first three years, and then drops to 90 percent, with states covering the remaining 10 percent. It's a great deal, proponents argue, especially compared to the current Medicaid rates, wherein Washington pays as little as half of the cost in some states.

But a handful of GOP governors attending the NGA meeting said they suspected a bait-and-switch in which states would agree to the expansion only to see Congress cut some or all of the funds, leaving governors on the hook and potentially bankrupting state budgets.

"At any whim they could just pull the money," Arizona Gov. Jan Brewer told The Associated Press. "So yeah, I'm a little gun-shy."

Wisconsin Gov. Scott Walker, who survived a recall election in June, said in an interview that governors were grumbling among themselves about the federal government's track record on special education. Congress in 1975 pledged to fund 40 percent of the cost of special education, but routinely has fallen far short of that commitment.

The politics are tricky for governors weighing how to proceed. Just one-third of Americans supported the health care overhaul in an Associated Press-GfK poll conducted in mid-June. But because federal tax dollars are covering the Medicaid expansion, states that opt out are essentially consigning their residents to subsidize coverage for those in other states.

Also, Alabama, Pennsylvania, Utah and other states that are still weighing their options were among those that sued the federal government in an attempt to have the law overturned. If they were so opposed then, the law's supporters ask, why are they leaving the door open to implementing it now?

Both the Medicaid expansion and the exchanges don't kick in until 2014, meaning states technically have some breathing room before they need to make a final decision. But governors who've agreed to take the expansion accused their more taciturn colleagues of playing election-year politics at the expense of taxpayers.

"It's not only irresponsible, it's disingenuous," Vermont Gov. Peter Shumlin said at a news conference organized by Democratic governors.

"To say 'I'm going to criticize the plan, but I won't tell you whether I'm taking the loot until after the election,' that's what breeds cynicism in the American people."

Shumlin didn't back down even when reminded that some Democrats too are taking the wait-and-see approach, including Colorado Gov. John Hickenlooper.

"I believe my comments should apply to every governor in the nation, on a bipartisan basis," Shumlin said.

Obama campaign to Romney: Stop whining

By Michele Salcedo
The Associated Press

WASHINGTON — President Barack Obama says he will not apologize to likely Republican presidential nominee Mitt Romney for an aide's comment last week that false filings to a government regulator could bring a felony charge.

"No. We will not apologize," Obama said in an interview taped Saturday with WAVY-TV in Portsmouth, Va., and posted on the station's website Sunday. "Mr. Romney claims he's Mr. Fix-it for the economy because of his business experience, so I think voters entirely legitimately want to know what is exactly his business experience."

Obama spent two days campaigning in tightly contested Virginia last week, reminding voters of the discrepancies between Securities and Exchange Commission filings and Romney's recollection of his role at Bain Capital. Obama's deputy campaign manager, Stephanie Cutter, suggested Thursday that Romney might be guilty of a felony for misrepresenting his position at Bain to the SEC.

Romney's stand-ins say the attacks were undignified.

"We now know that this president will say or do anything to keep the highest office in the land even if it means demeaning the highest office in the land," Ed Gillespie, Mitt Romney's campaign adviser, said on CNN's *State of the Union*.

Cutter, appearing on CBS's *Face the Nation*, said Romney should heed the advice he gave his opponents in the GOP primary and "stop whining."

The Obama campaign is questioning whether Romney was at the helm of the Boston-based private equity firm when it sent jobs overseas, allegations that "independent fact checkers have said are not true, they're indeed a lie," Gillespie said.

Documents place Romney in charge of Bain from 1999 to 2001, a period in which the company outsourced jobs and ran companies that fell into bankruptcy. Romney has tried to distance himself from this period in Bain's history, saying on financial disclosure forms he had no active role in Bain as of February 1999.

But at least three times since then, Bain listed Romney as the company's "controlling person," as well as its "sole shareholder, sole director, chief executive officer and president." And one document as late as February 2001 lists Romney's "principal occupation" as managing director.

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial oil field disposal well injects oilfield exempt and non-exempt, non-hazardous oil field into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls and a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground. Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

LA VOZ de Nuevo México

Mande comentarios a rgrillo@sfnewmexican.com

Grama Cuca 'prepara' for Grampo's birthday

Larry Torres
Growing up Spanglish

Canutito was lying on his *pancita guachando* TV *una tardecita* shortly before dinner. He loved to *mirar el* 'Romper Room' *porque la* TV *maestra, la* Mrs. Simms, would try to teach *lecciones* to the kids and Canutito liked to *hacer* pretend *de que* he too was *jugando en el* Romper Room. He started to sing along with the kids on TV *con que*: "I always do what's right; I never do anything wrong: I'm a Romper Room Do-Bee, a Do-Bee all day long." *Entonces* he would buzz around *todo el cuarto como una* Do-Bee *cantando*: "Do-Bee a car sitter; Don't-Bee a car stander," and he would *sentarse y llevantarse* just like on TV. He flew *para afuera* pretending to be *una* Do-Bee and ran all the way to the outhouse.

Once he got there, to the *común, he started escribiendo tic-tac-toes en las* walls *del común*. He was so *ocupado escribiendo en el común que* he didn't notice *que había un panal de avispas* toward the top of the outhouse. *Él continuó* writing on the walls *cuando de repente* some real bees came out of the hive and they stung Canutito twice *en el brazo y* once *en el* neck.

He ran back *para la casa llorando* and told Grama Cuca about *las* nasty Do-Bees *del común* that had stung him. She took a little mud and to this *zoquete* she added *una poquita de sal* and smeared it on Canutito's stings. And to make Canutito stop crying *le dio un cuadrito de* homemade grape popsicle *que* she had made *con* Kool-aid *helada en un* ice tray. Then Grama Cuca set about the business *de hacer un* 'Happy Day Cake' *porque era el* birthday *de grampo*.

Canutito watched as she first sifted *la harina* and baking powder together *con una poca de sal*. After the flour, the *espauda* and the pinch of salt were all *mezcladas*, she added *dos copas de azúcar* and *dos huevos*.

"*Pídome yo lamber los* beaters!" Canutito exclaimed as he saw the cake batter being made. And sure enough. *Tan pronto como* Grama Cuca poured *la* batter into *las bandejitas redondas* that had already been floured, Canutito was given *los* beaters to lick. In the meantime Grama Cuca stuck the round filled cake pans into *el horno* to bake.

Soon *el olor de* 'Happy Day Cake' filled *toda la cocina*. Grama Cuca had washed *los* beaters now that Canutito had his whole *cara* all *embijada* with batter. She then took *los* beaters and put them into a *charola* that had *un poco de leche condensada*, some sugar *y vainilla*. She took the bowl and stuck the whole thing into *el* freezer to chill *para poder hacer* homemade whipped cream.

Grama Cuca removed *el queque* from the oven as soon as it was done *y metió* some *costillas de borreguito* to roast for dinner *porque las* lamb ribs were *grampo's comida favorita*. She also roasted some *papas* and carrots to go *con las costillas*.

As soon as everything as ready, *puso los trastes* on the table and waited for Grampo Caralampio to come inside. When *grama* and Canutito heard him scraping *sus botas de regar* outside on the porch they hid behind *la puerta*. As soon as he walked in, they both yelled, "Surprise!" *Pero* since *grampo* wasn't expecting it, he got all *escamão*.

"*¡Ay! ¡Jesús mil veces!*" he exclaimed, trying to recover from his *susto*. "You almost made me pee *en mis calzones*! What are you two *gritando* about?"

"*¡Feliz cumpleaños, grampo!*" Canutito yelled again. Then he asked, "How old are you *hoy*?"

"I think I am *más viejo que la luna*," Grampo replied, sitting down to *comer* some of his birthday *queque*. Canutito sat next to him trying to *calcular* just how old "older than the moon" might be ...

Envíele un correo electrónico a Larry a lartor@unm.edu.

To make Canutito stop crying 'le dio un cuadrito de' homemade grape popsicle 'que' she had made 'con' Kool-aid 'helada en un' ice tray.

Flujo centroamericano a EU por México

By Olga R. Rodríguez
La Prensa Asociada

Tultitlán, México — Deportado de Estados Unidos después de años trabajando en construcción en Nueva Jersey, Héctor Augusto López decidió reiniciar su vida en el este de Honduras.

Encontró un trabajo fijo en una zapatería en Catacamas. Luego, en marzo, fue testigo de la muerte de tres clientes a mano de delincuentes. Al poco tiempo, decidió tomar la difícil y riesgosa decisión de emprender su viaje de nuevo hacia el norte.

Mientras el número de mexicanos emigrando al norte se ha reducido dramáticamente, una oleada de emigrantes de Centro América hace su viaje de 1,000 millas cada año, en gran parte debido al aumento de violencia consecuencia de los carteles de droga en México. Otros factores, de acuerdo a expertos, son la falta de una medida rigurosa en migración por parte de autoridades mexicanas y la falsa percepción de que los grupos criminales en México no están persiguiendo como antes a los emigrantes.

Honduras, con una población de 8.3 millones, tuvo la tasa más alta de homicidios a nivel mundial en 2010, con 6,200 asesinatos, 82.1 muertes por cada 100,000 habitantes. Esa cifra se elevó de 57 muertes por cada 100,000 en el 2008. El Salvador, su país vecino, tuvo 66 homicidios por cada 100,000 habitantes en el 2010. Estados Unidos en comparación tuvo 5 homicidios por cada 100,000 personas.

Cerca de 56,637 emigrantes, la mayoría de ellos centroamericanos, fueron detenidos por la Policía de la Frontera de Estados Unidos en su frontera con México entre octubre y mayo. Comparado con 27,561 en el mismo periodo hace un año. Mientras tanto, el número de emigrantes mexicanos capturados en la frontera sur del Estados Unidos tuvo un decremento de 7% en este año fiscal, a 188,467.

Aunque las autoridades mexicanas han sido más flexibles en su ejecución de leyes migratorias, ellos también han aprendido a más emigrantes centroamericanos antes de llegar a Estados Unidos, con 29,619 arrestos entre enero y abril, con un porcentaje de incremento del 42% respecto al 2011, de acuerdo a cifras del Instituto Mexicano de Migración.

La mayoría sube a trenes de carga con dirección a Texas, punto más cercano en Estados Unidos desde la frontera sur con México y la ruta más peligrosa.

En su camino al norte en una jornada de sol abrasador, los emigrantes pagan a ladrones, oficiales de migración, policía y empleados de ferrocarriles. Además de cruzar el territorio controlado por la mafia de los Zetas, que han tomado a los emigrantes como foco de secuestros o como fuerza de trabajo. Los Zetas masacraron a 72 emigrantes en el verano del 2010 en el norte del estado de Tamaulipas, al otro lado de la frontera con Texas. Nueve meses después las autoridades de Tamaulipas desenterraron 193 cuerpos de tumbas clandestinas después de que fuerzas de seguridad informaron que miembros de los Zetas confesaron el secuestro y asesinato de pasajeros en un autobús, muchos de ellos emigrantes.

El año pasado, activistas de derechos humanos reportaron que los Zetas secuestraron hasta 50 emigrantes en una sola redada, a menudo en complicidad con agentes de migración.

En la última masacre los Zetas decapitaron 49 cuerpos y cortaron sus manos y pies para después despojarlos en una carretera estatal en Nuevo León en mayo, 75 millas al sur de la frontera con Texas. Las autoridades no descartan que las víctimas estén asociadas con emigrantes hacia Estados Unidos.

Manuel de Jesús Chávez, de 16 años y originario de Copan, Honduras, estaba en camino a Texas para reunirse con su hermano mayor que cruzo ilegalmente el año pasado y ha trabajado en un rancho cerca de Houston.

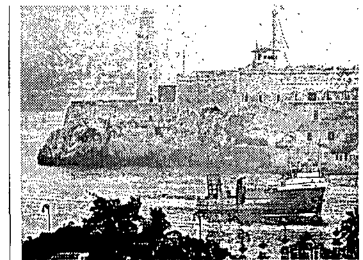
"Él me dice que no pagan tan bien como creía pero si hay trabajo", dijo Chávez recientemente mientras esperaba por su comida en el albergue de San Juan Diego en Tultitlán.

Construido para 60 personas, el albergue de un cuarto repleto de literas ha recibido hasta 300 emigrantes por día, dice el reverendo Christian Rojas.

"No hemos visto tal cantidad de personas en los últimos cuatro años", dijo la hermana Leticia Gutiérrez, directora de un Ministerio Católico que coordina 54 albergues para emigrantes en México donde los centroamericanos ocupan la mayoría de sus usuarios. "Los emigrantes fueron de una situación de vulnerabilidad, a una situación más grave", añadió.

Traducido por Randall J. Grillo.

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petroleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanometro 87505, telefono 505-476-3440.
Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su deposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial yacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l). La concentración de TDS del agua nativo con el intervalo de inyeccion y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterranea mas que pueda verse afectado por la descarga accidental esta a una profundidad de 75-170 metros y tiene un TDS de aproximadamente 450 mg / l. El plan de la descarga trata la construccion, la operacion y la supervision del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.
Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, telefono 505-476-3440 del nanometro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Las solicitudes de una vista pública depondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobara o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.



El buque Ana Cecilia, que efectúa el primer transporte de carga desde Miami, ingresó el viernes por la mañana en el puerto de La Habana. FRANKLIN REYES/LA PRENSA ASOCIADA

En breve

¡Viva México! en Las Golondrinas

Disfrute de música, arte y más en una celebración de la cultura, cocina y artesanías de nuestro país vecino. Este es un evento cultural único fuera de México. El evento es organizado por Rancho de las Golondrinas en colaboración con el Consulado de México en Albuquerque.

Lugar: Rancho de las Golondrinas, Santa Fe.

Día: Sábado y Domingo 21 y 22 de julio, 2012

Horario: 10 a.m. a 5 p.m.

Costo: $8 adultos, $ 5 jóvenes (13-18) y adultos mayores, niños menores de 12 gratis

Cambio en acera

El Concejo del Distrito Histórico aprobó el martes pasado una excepción en la altura de una pared de retención que permitirá la construcción de una acera en el lado norte de Paseo de Peralta junto a la entrada de la Cruz de los Mártires.

Actualmente, no existe una acera de Hillside Avenue a la puerta de la Cruz de los Mártires — monumento a los sacerdotes asesinados en la Rebelión del Pueblo de 1680 y el final de la procesión de las Fiestas de Santa Fe cada septiembre.

Erick Martínez, director de caminos y senderos del Departamento de Obras Públicas de la ciudad, dijo que algunos peatones ponen en riesgo su seguridad tratando de cruzar del sur al norte de Paseo de Peralta. Pero construir una nueva acera en el lado norte, dijo, requiere una pared de contención para prevenir la erosión de la pendiente inclinada.

El concejo aprobó de manera unánime la excepción de altura para la construcción de una pared con 6 pies de alto en un área donde la altura máxima es de 4 pies y medio.

Envíos de carga de Miami a Cuba

LA HABANA — Los envíos marítimos de carga directos de Miami a Cuba se reanudaron el viernes por primera vez en medio siglo.

La carga incluye artículos que donaron agrupaciones religiosas y de beneficencia que tienen la autorización correspondiente, así como paquetes que envían personas a parientes y amigos en la isla.

Los embarques zarpan de una terminal en el río Miami, tendrán una frecuencia semanal y están a cargo de la firma International Port Corp., que cuenta con los permisos de la Oficina para el Control de Activos Extranjeros del Departamento del Tesoro así como del Departamento de Comercio.

La Voz y La Prensa Asociada

THE SANTA FE
NEW MEXICAN
Founded 1849

AFFIDAVIT OF PUBLICATION

Ad No. 899666 - English
Ad No. 899665 - Spanish

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, **R. Newlin**, being first duly sworn declare and say that I am National Accounts Manager of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe, Rio Arriba, and Los Alamos, in the State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the ad was published in said newspaper 1 day(s) between 07/16/2012 and 07/16/2012 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 16th day of JULY, 2012 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Robert R Newlin
NATIONALS ACCOUNT MANAGER

Subscribed and sworn to before me on this 7th day of August, 2012.

Notary Cynthia Turner

Commission Expires: 5-3-16

OFFICIAL SEAL
Cynthia Turner
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-3-16

AFFIDAVIT OF PUBLICATION

Ad No. 702481

STATE OF NEW MEXICO
County of San Juan:

Mike Kellogg, being duly sworn says: That he is the ADVERTISING DIRECTOR of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Notice was published **in a regular** and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication and appeared in The Daily Times on the following

Date: July 13, 2012

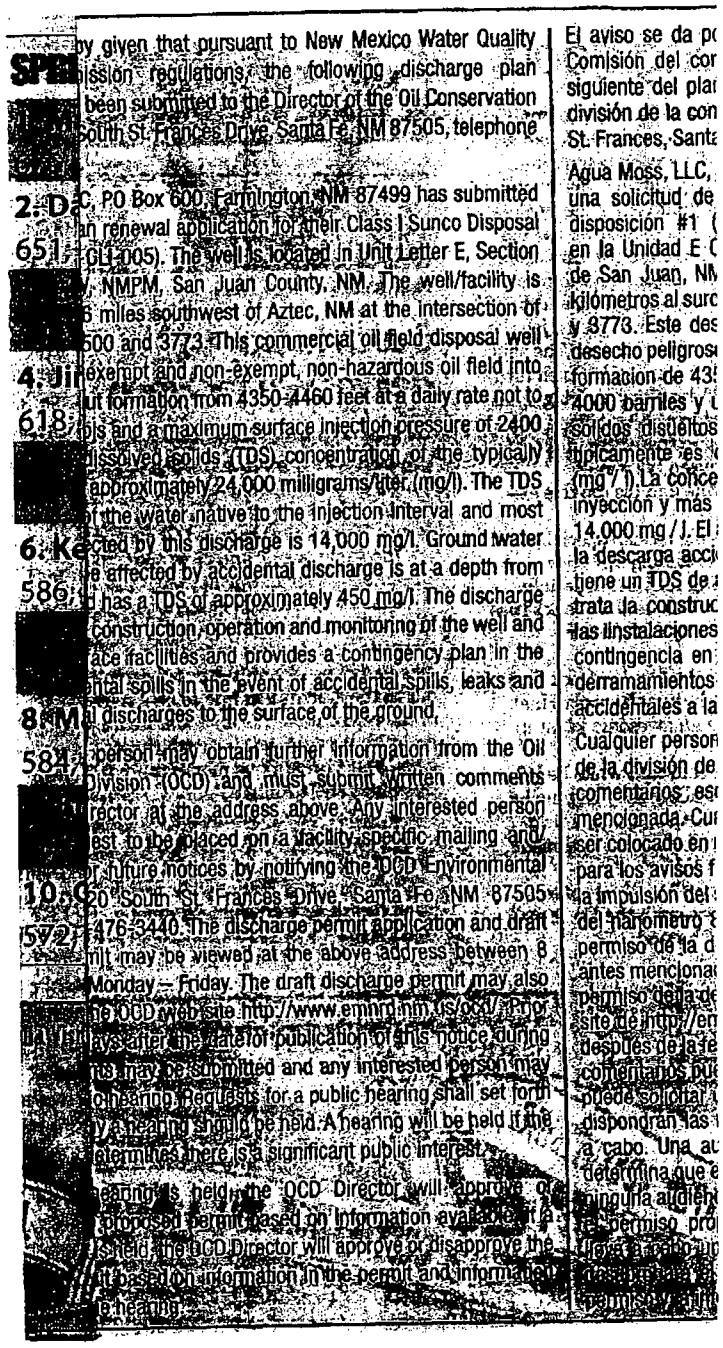
And the cost of the publication is $ 633.11

ON 07/16/12 Mike Kellogg, appeared before me, whom I know personally to be the person who signed the above document.

My Commission Expires 11/05/15

OFFICIAL SEAL
CHRISTINE SELLERS
Notary Public
State of New Mexico
My Comm. Expires 11/05/15

COPY OF PUBLICATION



by given that pursuant to New Mexico Water Quality
ission regulations, the following discharge plan
been submitted to the Director of the Oil Conservation
outh St. Frances Drive, Santa Fe, NM 87505, telephone

C, PO Box 600, Farmington, NM 87499 has submitted
an renewal application for their Class I Sunco Disposal
CL1005). The well is located in Unit Letter E, Section
, NMPM, San Juan County, NM. The well/facility is
6 miles southwest of Aztec, NM at the intersection of
500 and 3773. This commercial oil field disposal well
exempt and non-exempt, non-hazardous oil field into
ut formation from 4350-4460 feet at a daily rate not to
bls and a maximum surface injection pressure of 2400
issolved solids (TDS) concentration of the typically
approximately 24,000 milligrams/liter (mg/l). The TDS
f the water native to the injection interval and most
cted by this discharge is 14,000 mg/l. Ground water
e affected by accidental discharge is at a depth from
has a TDS of approximately 450 mg/l. The discharge
construction, operation and monitoring of the well and
ace facilities and provides a contingency plan in the
ntal spills in the event of accidental spills, leaks and
l discharges to the surface of the ground.

person may obtain further information from the Oil
Division (OCD) and must submit written comments
rector at the address above. Any interested person
est to be placed on a facility specific mailing and/
r future notices by notifying the OCD Environmental
20 South St. Frances Drive, Santa Fe, NM 87505
476-3440. The discharge permit application and draft
mit may be viewed at the above address between 8
Monday – Friday. The draft discharge permit may also
the OCD web site http://www.emnrd.nm.us/ocd/. For
ays after the date of publication of this notice during
ns may be submitted and any interested person may
hearing. Requests for a public hearing shall set forth
e hearing should be held. A hearing will be held if the
determines there is a significant public interest.
earing is held, the OCD Director will approve or
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El aviso se da p
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Penn State probe accuses Paterno of cover-up

By Genaro C. Armas and Mark Scolforo
The Associated Press

PHILADELPHIA — Joe Paterno and other top Penn State officials buried child sexual abuse allegations against Jerry Sandusky more than a decade ago to avoid bad publicity, according to a scathing report Thursday that exposed a powerful "culture of reverence" for the football program and portrayed the Hall of Fame coach as more deeply involved in the scandal than previously thought.

The alleged cover-up by Paterno, then-university President Graham Spanier and two other Penn State administrators allowed Sandusky to prey on other boys for years, said the report by former FBI Director Louis Freeh, who was hired by the university's trustees to investigate.

He called the officials' behavior "callous and shocking."

"Our most saddening and sobering finding is the total disregard for the safety and welfare of Sandusky's child victims by the most senior leaders at Penn State," Freeh said at a news conference in Philadelphia upon the release of the 267-page report. "The most powerful men at Penn State failed to take any steps for 14 years to protect the children who Sandusky victimized."

The findings of the eight-month investigation into one of the biggest scandals in the history of college sports could further stain Paterno's reputation. The revered coach who emphasized integrity both on and off the field and ran what was considered one of the cleanest programs in sports died of lung cancer in January at age 85, months after he was summarily fired by the trustees.

Freeh said that while he regretted the damage the findings would do to Paterno's "terrific legacy," the coach "was an integral part of this active decision to conceal" and his firing was justified.

Asked whether the actions of the four officials amounted to a crime such as conspiracy or obstruction, Freeh said that would be up to a grand jury.

In a statement, Paterno's family vehemently denied he protected Sandusky for fear of bad publicity.

"The idea that any sane, responsible adult would knowingly cover up for a child predator is impossible to accept. The far more realistic conclusion is that many people didn't fully understand what was happening and underestimated or misinterpreted events," the family said. "Sandusky was a great deceiver. He fooled everyone."

The report could have consequences for the criminal case against Penn State athletic director Tim Curley and retired senior vice president Gary Schultz, who are awaiting trial on charges of lying to a grand jury and failing to report abuse.

Paul Vathis/*The Associated Press*

In this Aug. 6, 1999, file photo, Penn State football coach Joe Paterno, right, poses with his defensive coordinator, Jerry Sandusky, during the college football team's media day in State College, Pa.

Freeh and his team, which included lawyers and former law enforcement officials, interviewed more than 430 people and reviewed more than 3.5 million emails, handwritten notes and other documents. Paterno died before he could be interviewed but testified before a grand jury.

Sandusky is awaiting sentencing after being convicted last month of sexually abusing 10 boys over 15 years.

The investigation focused largely on the university officials' decision not to go to child-welfare authorities in 2001 after a graduate coaching assistant told Paterno that he had seen Sandusky — a former assistant coach himself — sexually abusing a boy in the locker room showers.

Paterno and the others gave various explanations for their decision, saying among other things that they misunderstood the allegations, that they did the best they could and that this was the "humane" way to handle the matter.

> "Our most saddening and sobering finding is the total disregard for the safety and welfare of Sandusky's child victims by the most senior leaders at Penn State."
>
> LOUIS FREEH
> *Former FBI Director*

But the Freeh report said: "It is more reasonable to conclude that, in order to avoid the consequences of bad publicity, the most powerful leaders at the university — Spanier, Schultz, Paterno and Curley — repeatedly concealed critical facts relating to Sandusky's child abuse from authorities, the university's board of trustees, the Penn State community and the public at large."

A number of other factors contributed to the decision to keep quiet, the report found, including "a culture of reverence for the football program that is ingrained at all levels of the campus community."

Spreading the blame around, the report also said the trustees failed to exercise oversight and didn't inquire deeply into the matter when they finally learned of it.

Spanier's lawyers Thursday denied Spanier took part in a cover-up and said Freeh's conclusion "is simply not supported by the facts." Spanier was ousted along with Paterno four days after Sandusky's arrest last November.

An attorney for Curley had no immediate comment, and a lawyer for Schultz did not return messages.

Freeh said officials had opportunities in 1998 and 2001 to step in.

In 1998, police investigated after a woman complained that her son had showered with Sandusky. The investigation did not result in charges. But the emails show Paterno closely followed the 1998 case, Freeh said. University officials took no action at the time to limit Sandusky's access to campus.

Then, after the 2001 report of Sandusky sexually abusing a boy in the showers, university officials barred him from bringing children to campus but decided not to report him to child-welfare authorities.

Some of the most damning evidence against Paterno consists of handwritten notes and emails that portray him as deeply involved in that decision. According to the report, Spanier, Schultz and Curley drew up an "action plan" that called for reporting Sandusky to the state Department of Public Welfare. But Curley later said in an email that he changed his mind about the plan "after giving it more thought and talking it over with Joe." Instead, Curley proposed to offer Sandusky "professional help."

In an email, Spanier agreed with that course of action but noted "the only downside for us is if the message isn't (heard) and acted upon and we then become vulnerable for not having reported it."

Freeh suggested it was Paterno's intervention that kept administrators from going to authorities. "Based on the evidence, the only known intervening factor ... was Mr. Paterno's Feb. 26 conversation with Mr. Curley," Freeh said.

Michael Boni, a lawyer for a boy known as Victim 1, called the report a "serious indictment against Penn State's culture and environment of protecting at all costs the football program." He added: "Nothing is shocking anymore in this case ... but the fact that the highest levels of the school made a conscious decision to cover up what Sandusky had done, it comes close. It is shocking."

Karen Peetz, chairwoman of the trustees, said the board "accepts full responsibility for the failures that occurred." She said the panel believes Paterno's "61 years of excellent service to the university is now marred" by the scandal.

The report chronicled a culture of silence that extended from the president down to the janitors in the football building. Even before 1998, football staff members and coaches regularly saw Sandusky showering with boys but never told their superiors about it. In 2000, after a janitor saw Sandusky performing oral sex on a boy in the team shower, he told his co-workers. None of them went to police for fear of losing their jobs.

Reporting the assault "would have been like going against the president of the United States in my eyes," a janitor told Freeh's investigators. "I know Paterno has so much power, if he wanted to get rid of someone, I would have been gone." He went on to assert that "football runs this university."

According to the report, Sandusky was permitted to retire from the university in 1999 "not as a suspected child predator but as a valued member of the Penn State football legacy" — thus ensuring his access to football events and campus facilities. That, in turn, "provided Sandusky with the very currency that enabled him to attract his victims."

Sandusky received what Freeh called an unprecedented lump sum of $168,000 when he retired. But the former FBI chief said there was no evidence it was an attempt by the university to buy Sandusky's silence.

The report could influence investigations under way at the NCAA and at the U.S. Education Department, which is examining whether the university violated the Clery Act, a federal law that requires reporting of certain crimes on campus. The Freeh report said the Penn State apparently failed to comply with the law. Neither the Education Department nor the NCAA would comment directly on the report.

George Enteen, 79, a retired professor of Russian history, called the Freeh report a "terrible mark" on the character of Paterno, a man he otherwise respected as someone who raised a lot money for Penn State and elevated the school's reputation and academic quality.

"The worst suspicions were borne out," Enteen said. Paterno, he added, "was the key figure. If he had said, 'Report it,' they would have." But he said: "It doesn't negate all the good things he did."

Christian Beveridge, a masonry worker who grew up near Penn State, said the findings will damage Paterno's legacy.

"He built this town," Beveridge said. "All of his victories, he'll be remembered by everyone in town for a long time, but there will be that hesitation."

sportsbrief

Jordan: Dream Team better than 2012 squad

CHARLOTTE, N.C. — Michael Jordan says there's no way Kobe Bryant and this year's USA Olympic basketball team could've beaten the 1992 Dream Team.

Jordan told The Associated Press on Thursday that he laughed, "I absolutely laughed" when hearing Bryant's comments that the squad training in Las Vegas could take Jordan and company.

Jordan says there was "no comparison" which team was better, adding that Byrant comparing the two teams "is not one of the smarter things he ever could have done."

Jordan spoke prior to a celebrity golf tournament in Charlotte.

He says the 1992 team, which included 11 future Hall of Famers and won its six games by an average of more than 43 points en route to capturing the gold medal, may not have been as athletic but was definitely smarter.

The Associated Press

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial oil field disposal well injects oil field exempt and non-exempt, non-hazardous oil field into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls and a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial yacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido Inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l).La concentración de TDS del agua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / l. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to Water Quality Control Commission Regulations (20.6.2.3106 NMAC) the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division (OCD), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, and Telephone (505) 476-3440:

(UICI-005) Agua Moss, LLC Mr. Jeff Davis, P.O. Box 600, Farmington, New Mexico 87499, has submitted a renewal application for operation of a previously approved commercial Underground Injection Control (UIC) Class I (Non-Hazardous) Injection Well Discharge Permit (UICI-005) for the SUNCO Disposal Well #1 located 1595 FNL and 1005 FWL (SW/4, NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico.

LEGALS

ground surface at a daily rate not to exceed 4,000 barrels per day and at a maximum surface injection pressure of 2400 psig. The injection fluid contains approximately 15,700 ppm TDS. Ground water most likely to be affected by a spill, leak or accidental discharge is at a depth of about 40 ft. below ground surface, with a total dissolved solids concentration of approximately 450 ppm. The discharge plan addresses well construction, operation, monitoring of the well, associated surface facilities, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges in order to protect fresh water.

Any interested person may obtain further information from the OCD and may submit written comments to the Division Director at the address given above. The application and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD's web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact OCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on available information, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the application along with information submitted at the hearing.

Para obtener más información sobre esta

LEGALS

Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461).

DONE at Santa Fe, New Mexico, on this 27th day of June 2012.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION
Jami Bailey, Director
Legal # 93379
Pub. July 2, 2012

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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Any interested person may obtain further information from the OCD and may submit written comments to the Division Director at the address given above. The application and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m. Monday through Friday, or may also be viewed at the OCD's web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact OCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

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Para obtener más información sobre esta solicitud en espan ol, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, July 20, 2012 9:25 AM
To: Chavez, Carl J, EMNRD
Subject: UICI-005 Agua Moss, L.L.C. Discharge Permit Crdits Note to File

This note is written to document the credits for the overall changes to the newly issued discharge permit and associated documents. The changes were made by Glenn von Gonten (Acting Environmental Bureau Supervisor) and Sonny Swazo (Assistant to the General Counsel).

********** END **********

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive, Santa Fe, New Mexico 87505
Office: (505) 476-3490
E-mail: CarlJ.Chavez@State.NM.US
Website: http://www.emnrd.state.nm.us/ocd/
"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

AFFIDAVIT OF PUBLICATION

RECEIVED OCD

2012 JUL 2 12: 53

Ad No. 67798

STATE OF NEW MEXICO
County of San Juan:

MIKE KELLOGG, being duly sworn says: That HE is the ADVERTISING DIRECTOR of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Sunday, July 01, 2012

And the cost of the publication is $128.52

ON 7/11/12 MIKE KELLOGG appeared before me, whom I know personally to be the person who signed the above document.

Christine Sellers

My Commission Expires – 11/05/15

OFFICIAL SEAL
CHRISTINE SELLERS
Notary Public
State of New Mexico
My Comm. Expires 11/05/15

COPY OF PUBLICATION

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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Para obtener más información sobre esta solicitud en espan?ol, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461).

DONE at Santa Fe, New Mexico, on this 27th day of June 2012.

Dorothy Phillips, 505-476-3460.

DONE at Santa Fe, New Mexico, on this 27th day of June 2012.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
Jami Bailey, Director

Legal No. 67798 published in The Daily Times on July 1, 2012.

THE SANTA FE
NEW MEXICAN
Founded 1849

NM EMNRD OIL CONSERV
1220 S ST FRANCIS DR
Leonard Lowe
SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00373177 ACCOUNT: 00002212
LEGAL NO: 93379 P.O. #: 52100-00000313

181 LINES 1 TIME(S)	187.03
AFFIDAVIT:	0.00
TAX:	15.31
TOTAL:	202.34

OK to pay
EOC
7/10/12

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, V. Wright, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 93379 a copy of which is hereto attached was published in said newspaper 1 day(s) between 07/02/2012 and 07/02/2012 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 2nd day of July, 2012 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ V Wright
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 2nd day of July, 2012

Notary Mary Margaret Vigil-Weideman

Commission Expires: 11-13-2012

OFFICIAL SEAL
Mary Margaret Vigil-Weideman
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 11-13-12

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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DONE at Santa Fe, New Mexico, on this 27th day of June 2012.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

Jami Bailey, Director

Legal #93379

Pub: July 2, 2012

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

JUNE 25, 2012

Mr. Jeff Davis
Manager/Owner
Agua Moss, LLC
P.O. Box 600
Farmington, New Mexico 87499

Re: Discharge Permit Renewal Application for Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico

Dear Mr. Davis:

The Oil Conservation Division (OCD) is in receipt of Agua Moss LLC's (Agua Moss) discharge permit renewal application for its UIC Class I non-hazardous waste injection well. After review, OCD has determined that your application is "*administratively complete*" pursuant to New Mexico Water Quality Control Commission regulations (20.6.2.3108 NMAC).

Agua Moss must now provide public notice and demonstrate that it has done so to OCD in a timely manner. OCD will also provide notice to various governmental groups. Depending upon the level of public interest, a hearing may be scheduled on this matter. Regardless, OCD will continue our review of the application and may request additional information.

If you have any questions, please do not hesitate to contact me by phone at (505) 476-3490, mail at the address below, or email at CarlJ.Chavez@state.nm.us. On behalf of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review process.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc
cc: OCD Aztec Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

JUNE 25, 2012

CERTIFIED MAIL
RETURN RECEIPT NO: 0919 5907

Mr. Jeff Davis
Manager/Owner
Agua Moss, LLC
P.O. Box 600
Farmington, New Mexico 87499

Re: Discharge Permit Renewal Application for Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico

Dear Mr. Davis:

Pursuant to the Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby proposes to approve the renewal of the Agua Moss, LLC (Permittee) discharge permit for the above referenced Facility contingent upon the conditions specified in the attached draft Discharge Permit. Please review and provide comments to OCD on the draft Discharge Permit within 30 days of receipt of this letter.

If you have any questions, please contact Carl Chavez of my staff at (505-476-3490) or E-mail: CarlJ.Chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Jami Bailey
Director

JB/gvg

DISCHARGE PERMIT UICI-005

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-005 (Discharge Permit) to Agua Moss, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well (SUNCO Disposal Well No. 1 - API No. 30-045-28653) located 1595 FNL and 1005 FWL (SW/4 NW/4) in Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico at its Commercial Disposal Facility (Facility). The Facility is located approximately 6 miles southwest of Aztec near the intersection of CR-3500 and CR-3773. The Permittee also operates a Surface Waste Management Facility (NM1-009) separately permitted by OCD pursuant to 19.15.2.36 NMAC at the same location.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluids into its Class I non-hazardous waste injection well. The Permittee may dispose a maximum of 4,000 bbls/day of oil-field waste fluids. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 40 feet below ground surface and has a total dissolved solids concentration of approximately 450 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells (See Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (See 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil-field waste, other than non-hazardous oil-field waste fluids into its Class I non-hazardous waste injection well, including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, washdown water, and cooling tower blowdown water. The Permittee may not dispose any industrial waste fluid that is not generated in the oil-field. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all field industrial fluids that is not generated in the oil-field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

1. The injection of fluids into a motor vehicle waste disposal well is prohibited.

2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health, (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified of 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified at 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject non-hazardous fluids into ground water having 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (See Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT RENEWAL: This Discharge Permit is a permit renewal that replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of that prior permit while that permit was in effect.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee and the $4,500.00 permit fee for a Class I non-hazardous waste injection well.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit becomes effective 30 days from the date that the Permittee receives this discharge permit or until the permit is terminated or expires. This Discharge Permit will expire on **June 1, 2017.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (See Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2, or process modification that would result in any significant modification in the discharge of water contaminants (See 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

a. Noncompliance by Permittee with any condition of this Discharge Permit; or,

b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,

c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (See Section 75-6-6 NMSA 1978; 20.6.2.5101I NMAC; and, 20.6.2.3109E NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

b. Violation of any applicable state or federal effluent regulations or limitations; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (See Section 75-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

a. The OCD Director receives written notice 30 days prior to the transfer date; and,

b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgement that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility; and

b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

c. Include information relating to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (See Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (See Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (See Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS: Pursuant to 20.6.2.5207B, the Permittee shall provide analysis of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee also conducts waste management operations at its facility in accordance with an OCD surface waste management facility permit (NM1-009). That permit authorizes the Permittee to accept only oil-field wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material regulated pursuant to 20.3.1.1403 (NORM) and non-hazardous, non-exempt oil-field wastes that do not contain NORM. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes on a case-by-case basis only after a hazardous waste determination is made by the generator. The Permittee is authorized to accept non-hazardous, non-exempt oil-field wastes only if those wastes are accompanied by an approved form C-138 (Request for Approval to Accept Solid Waste) and a "Generator Certificate of Waste Status," signed by the generator. OCD Permit NM1-009 requires the Permittee to determine by analyzing the non-hazardous, non-exempt fluids that the waste fluids are non-hazardous before accepting the waste fluids for disposal at the facility; therefore, OCD will not require the Permittee to re-analyze the waste fluids to determine whether it is hazardous before injecting the waste fluid in its Class I non-hazardous waste injection well.

The Permittee shall analyze the injected fluids quarterly for the following characteristics:

- pH;
- Eh;
- Specific conductance;
- Specific gravity;
- Temperature; and,
- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate,

chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified at 40 CFR 136.3.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its Permit Renewal Application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: Prior to closure of the facility, the Permittee shall submit for OCD's approval, a closure plan including a completed form C-103 for plugging and abandonment of the disposal well. The Permittee shall plug and abandon its Class I non-hazardous waste injection well pursuant to 20.6.2.5209 NMAC and as specified in Permit Condition 2.D.

1. Pre-Closure Notification: Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of its Class I non-hazardous waste injection well. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before Permittee may implement its proposed closure plan.

2. Required Information: The Permittee shall provide OCD's Environmental Bureau with the following information:

- Name of facility;
- Address of facility;
- Name of Permittee (and owner or operator, if appropriate);
- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.,* sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, other);
- Proposed date of well closure;
- Name of Preparer; and,
- Date.

2.D. PLUGGING AND ABANDONMENT PLAN: Pursuant to 20.6.2.5209A NMAC, when the Permittee proposes to plug and abandon its Class I non-hazardous waste injection well, it shall submit to OCD a plugging and abandonment plan that meets the requirements of 20.6.2.3109C NMAC, 20.6.2.5101C NMAC, and 20.6.2.5005 NMAC for protection of ground water. If requested by OCD, Permittee shall submit for approval prior to closure, a revised or updated plugging and abandonment plan. The obligation to implement the plugging and

abandonment plan as well as the requirements of the plan survives the termination or expiration of this Discharge Permit. The Permittee shall comply with 20.6.2.5209 NMAC.

2.E. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.F. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. **Oral Notification:** As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;
- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and,
- Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. **Written Notification:** Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use form C-141 with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Environmental Bureau.

2.G. OTHER REQUIREMENTS:

1. **Inspection and Entry:** Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;
- Inspect and copy records required by this Discharge Permit;

- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and,
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. **Advance Notice:** The Permittee shall provide OCD's Environmental Bureau and Aztec District Office with at least five (5) working days advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or decommissioning of any equipment associated with its Class I non-hazardous waste injection well.

3. **Environmental Monitoring:** The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and laboratory QA/QC.

2.H. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee shall maintain at a minimum, a single well plugging bond in the amount that it shall determine, in accordance with Permit Condition 5.B, to cover potential costs associated with plugging and abandonment of the Class I non-hazardous waste injection well, surface restoration, and post-operational monitoring, as may be needed. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective actions.

Methods by which the Permittee shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the OCD Director, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary; (3) a non-renewable letter of credit made out to the State of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance. If an adequate bond is posted by the Permittee to a federal or another state agency, and this bond covers all of the measures specified above, the OCD Director shall consider this bond as satisfying the bonding requirements of Sections 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the Permittee will fully perform the measures required hereinabove.

2.I. ANNUAL REPORT: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by **June 1st** of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well , Name of Permittee, Discharge Permit Number, API number of well(s), date of report, and person submitting report;

- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103;
- Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- A copy of the quarterly chemical analyses shall be included with data summary and all QA/QC information;
- Copy of any mechanical integrity test chart, including the type of test, *i.e.,* duration, gauge pressure, *etc.;*
- Copy of fall-of test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluids samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. The Permittee shall include copies of the most recent year's environmental analytical laboratory data sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports;
- An Area of Review (AOR) update summary;
- A summary with interpretation of MITs, Fall-Off Tests, *etc.*, with conclusion(s) and recommendation(s);
- Records of the expansion tank monitoring pressure, fluid removals and/or additions indicating the well MIT condition.
- A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
- The Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206A NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that its Class I non-hazardous waste injection well is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1., then the

Permittee shall within 24 hours notify OCD's Environmental Bureau and Aztec District Office of the circumstances and action(s) taken. The Permittee shall cease operations until proper repairs are made and it has received approval from OCD to re-start injection operations.

3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone;

4. The annulus between the tubing and the long string of casing shall be filled with a fluid approved by the OCD Director and a pressure, also approved by the OCD Director shall be maintained on the annulus.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval, and Waste Fluids: The Permittee shall inject only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil-field waste fluid into the Point Lookout Formation from 4,350 feet to 4,460 feet in its Class I non-hazardous waste injection well. The surface casing is set at 209 feet, the production casing is set at 4760 feet, the tubing is set at approximately 4,300 feet, and the packer is set at 4,282 feet. The Permittee shall ensure that the injected waste fluid enters only the above specified injection interval and is not permitted to escape to other formations or onto the surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum wellhead or surface injection pressure on its Class I non-hazardous waste injection well shall not exceed 2,400 psig and that the injection flow rate shall not exceed 4,000 bbls/day.

3. Pressure Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a Murphy switch pressure limiting device, or equivalent, in workable condition, which shall, at all times, limit surface injection pressure to the maximum allowable pressure for its Class I non-hazardous waste injection well.

The Permittee shall monitor the pressure-limiting device daily and shall report all pressure exceedances within 24 hours of detecting an exceedance to OCD's Environmental Bureau. The Permittee shall take all steps necessary to ensure that the injected waste fluids enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize an increase in injection pressure if the Permittee demonstrates that higher pressure will not result in migration of the injected fluid from the designated injection zone using a valid Step-Rate test run in coordination with a Fall-Off Test (FOT). If approvable, the Permittee must obtain a modification to this Discharge Permit pursuant to 20.6.2.3109 NMAC.

3.C. CONTINUOUS MONITORING DEVICES: The Permittee shall use continuous monitoring devices to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. The Permittee shall demonstrate mechanical integrity for its Class I non-hazardous waste injection well every time it performs a well workover, including when it pulls the tubing or reseats the packer. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure; and no detectable conduit for fluid movement out of the injection zone through the well bore or vertical channels adjacent to the well bore which the OCD Director considers to be significant. The Permittee shall conduct a casing-tubing annulus Mechanical Integrity Test (MIT) from the surface to the approved injection depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface.

The Permittee shall notify OCD's Environmental Bureau 5 days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

2. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. Passes MIT if zero bleed-off during the test;

b. Passes MIT if final test pressure is within ± 10% of starting pressure, if approved by OCD;

c. Fails MIT if any final test pressure is greater than ± 10% of starting pressure. Permittee shall investigate for leaks and demonstrate the mechanical integrity of the well by ensuring there are no leaks in the tubing, casing, or packer, and that injected are confined within the piping and/or injection zones. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall notify OCD within 24 hours of the failure of the MIT.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use by the Permittee of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry.

When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts a MIT.

3.E. WELL WORKOVER OPERATIONS: Pursuant to 20.6.2.5205A(5) NMAC, the Permittee shall provide notice to and shall obtain approval from OCD's Environmental Bureau prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office. After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run a Fall-Off Test to determine what changes have occurred in the injection zone. The Permittee shall submit the results of its Fall-Off Test to OCD's Environmental Bureau and Aztec District Office within 30 days. The Permittee shall comply with the following requirements when conducting a FOT:

1. If the FOT requires that the casing-tubing annulus contain liquid (typically corrosion inhibitor liquid such as diesel) the Permittee shall ensure that the temperature of the liquid is allowed equilibrate in the annulus at least 24 hours prior to testing;

2. The Permittee shall have all necessary equipment available for conducting the FOT. The wellhead shall be prepared for the FOT and all valves and gauges should be in good working order;

3. The Permittee shall disconnect and/or isolate all pumps, tanks, external lines, *etc.* from the annulus to the wellhead for the FOT;,

4. The Permittee shall install and use a continuous recording pressure device with a maximum 4-hour clock on the casing-tubing annulus with a pressure range of 350 - 500 psig. The Permittee shall provide documentation or proof that the pressure-recording device has been calibrated within 6 months of the test.

5. The Permittee shall ensure that at least one pressure gauge has been installed on the casing/tubing annulus.

6. The Permittee shall ensure that OCD has the opportunity to witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test, the Permittee may be required to bleed-off well pressure to demonstrate recorder and gauge response.

7. The Permittee shall supply the following information on the pressure chart:

- Company Name, Well Name, API Number, Legal Location;
- Test Procedure with "Pass/Fail" designation;
- Testing Media: water, waste fluids, gas, oil, *etc.*;
- Date, time started and ending; and,.
- Name (printed) and signature of company representative and OCD Inspector.

3.J. EXTERNAL EXPANSION TANK: The Permittee shall equip its Class I non-hazardous waste injection well with an external expansion tank (tank) system under constant 100 psig pressure connected to the casing-annulus. The Permittee shall fill the external expansion tank half-full (250 gallon expansion tank) with an OCD-approved liquid to establish an equilibrium volume and liquid level. The Permittee shall monitor the liquid levels in the external expansion tank at least weekly and shall record all additions or removals of liquids into or out of the external expansion tank. The Permittee shall record any loss or gain of fluids in the external expansion tank, and if significant, report the loss or gain to OCD's Environmental Bureau. The Permittee shall provide the weekly expansion tank volume fluid volumes readings and the fluid volume additions or removals from the expansion tank on a quarterly basis.

3.K. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers . The Permittee shall record the minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD's Environmental Bureau on a quarterly basis.
The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch, as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.L. AREA OF REVIEW (AOR): The Permittee shall report within 72 hours of discovery any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. ANNUAL REPORT: The Permittee shall submit its annual report to OCD by June 1st of each year.

5.B. BONDING OR FINANCIAL ASSURANCE: The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its Class I non-hazardous waste injection well, conduct ground water restoration if applicable, and any post-operational

monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC). The Permittee's cost estimate shall be based on third person estimates. After review, OCD will require the Permittee to submit a single well plugging bond based on the third person cost estimate.

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 30, 2012 11:39 AM
To: Chavez, Carl J, EMNRD
Subject: Documentation in regards to surface injection psi
Attachments: 03302012_0001.pdf

Thanks Philana

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, January 22, 2009 9:14 AM
To: 'Gibson, Dan'
Cc: Perrin, Charlie, EMNRD; Kuehling, Monica, EMNRD; Price, Wayne, EMNRD; Jones, William V., EMNRD
Subject: FW: Key-Sunco disposal well
Attachments: Carl.tif

Dan:

Please note that on January 17, 2008 (see "Minor Modification" below), the OCD approved a "Minor Modification" to the permit allowing an injection pressure of 2,400 psig (see attachment). You may resume operations. The OCD is expecting a response from Key to recent comments on the Fall-Off Test performed during the Summer of 2008. The OCD expects that Key will have an opportunity to evaluate the maturity of this injection well and may need to consider options such as drilling a replacement well, etc.?

---Original Message----
From: Chavez, Carl J, EMNRD [mailto: CarlJ .Chavez©state. nm. us]
Sent: Thursday, January 17, 2008 1:48 PM
To: Patterson, Bob
Cc: Philliber, Mark; EverQuest@nts-online.net; Jones, William V., EMNRD; Price, Wayne, EMNRD; Perrin, Charlie, EMNRD
Subject: Minor Modification to UIC-CLI-005 (1-005) Discharge Plan

Dear Mr. Patterson:

Re: Class I Injection Well Discharge Permit SUNCO Disposal Well #1 UIC-CLI-005 (1-005)
Class I Non-Hazardous Oil Field Waste Disposal Well
SUNCO Disposal Well #1, API No. 30-045-28653
1595 FNL and 1005 FWL UL: E Section 2, T 29 N, R 12 W
San Juan County, New Mexico

The New Mexico Oil Conservation Division (NMOCD) hereby approves this 'Minor Modification" to Key Energy Services, LLC.'s current Discharge Plan with the following conditions:

1) The additional corrective actions under Section 20(B) is hereby changed from February 15, 2008 to June 21, 2008.

2) The daily rate of injection volume under Section 22(C) shall not exceed 4,000 bbl. per day of injected wastes into the Point Lookout Formation, which is considered to be in a "fractured flow" condition. The operator shall not increase growth in the existing Fracture(s).

3) The maximum injection pressure under Section 22(D) is hereby increased from 1580 psig to 2,400 psig.

The NMOCD will attach this "Minor Modification" to the current Discharge Plan. Thank you for your cooperation in this matter. Please contact me if you have questions.

Note: Please be advised that NMOCD approval of this plan does not relieve Key Energy Services, LLC. of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, and human health

or the environment. In addition, NMOCD approval does not relieve Key Energy Services, LLC. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Kuehling, Monica, EMNRD
Sent: Thursday, January 22, 2009 7:48 AM
To: Chavez, Carl J, EMNRD
Subject: Key-Sunco disposal well

Good morning Carl,

This is just to show that an e-mail was sent in January of last year giving Key the ability to inject up to 2400 lbs.

Have a great day

Monica

Chavez, Carl J, EMNRD

From: Terry Duffey [tduffey@everquestenergy.com]
Sent: Tuesday, July 14, 2009 9:27 AM
To: Chavez, Carl J, EMNRD
Cc: Loren Molleur
Subject: Key Energy-Sunco SWD-2008 Fall-Off Test
Attachments: Sunco Rate History.pdf

In reference to EPA R6 Comments in their PowerPoint presentation dated September 8, 2008:
NOTE: All of the information referenced in this response was sent to the EPA several weeks ago (the OCD already had all these documents from previous submittals)

Page 2, item a): No rate history or reservoir parameters were included in the falloff test data file, however...
Response: the rate history in the relevant months leading up to the 2007 and 2008 tests is attached. Once the log-log plot matching is done the correct days of injection and the average injection rate during that time are needed in order to calculate the average reservoir pressure, permeability, skin and fracture half-length values. The 2007 FOT was done July 16-19. The only significant injection shutdown period prior to the test was a 2-day period in early June. Following the SD approximately 105,000 bbls was injected before the FOT at an average rate of 3360 bpd. This was mentioned in the Pro Well Testing and Wireline – 2007 FOT report that was previously submitted to the OCD. The 2008 FOT was done July 15-18. During the months of June and July leading up to the FOT the injection was very erratic with relatively low volumes injected on a daily basis. The well was shut down for 17 consecutive days prior to the commencement of the testing. Therefore, the 4-day injection conditioning period from July 11-15 where the cumulative injection of 16, 565 bbls at an average injection rate of 4057 bpd was used by Pro Well Testing and Wireline to calculate the reservoir values referenced in their 2008 FOT report that was previously submitted to the OCD.
Response: the known reservoir parameters (such as porosity, thickness, rock type, etc.) were included with the Pre-Test Planning document submitted to the OCD prior to the FOT. Some reservoir parameters that are necessary for pressure transient analysis were not available (rock and water compressibility, water viscosity, etc.). This is not uncommon in PTA situations. The analyst typically can assume some reasonable values based on experience.

Page 2, item b): The log-log plots show a half slope (fractured well) behavior, representative of linear flow, on both the pressure and derivative trends...
Response: the rate history is attached.

Page 3, item a): A log-log plot should be prepared...
Response: Pro Well Testing and Wireline reports for 2007 and 2008 include log-log plots

Page3, item b): A semilog plot should then be evaluated...
Response: Pro Well Testing and Wireline reports for 2007 and 2008 include semilog plots

Page 3, item c): A comparison of annual falloffs and a plot of...
Response: Our previous comparison of the 2007 and 2008 FOT results showed an excellent match. Our interpretations show the year-to-year static pressures to be essentially the same. Thus we concluded that the injection volumes were not causing any unusual pressure buildup in the reservoir. As a result, via email to you on August 8, 2008 we "respectfully requested" that the OCD consider allow a deferment of the next test for 24-months, or into July 2010.

Page 4, item a): Was the well fractured when it was a Class II disposal well...
Response: the Pre-Test documents state the well was stimulated with a fracture treatment during the initial completion stage

Page 4, item a): ...is the well operating above fracture pressure...

Response: the July 2007 Step-Rate Test shows that we are not operating above the fracture pressure. The OCD has the entire results of that test.

Page 4, item c): The maximum allowable injection pressure in the permit should ensure the well is not being fractured...
Response: see above.

Page 4, item d): The permit application referenced a 1993 step-rate test. Has this been submitted or has a more recent test been performed...
Response: see above.

Page 5, first item:
Response: annual injection data was provided to the OCD, we submitted the same data to the EPA several weeks ago .

Page 5, second items a-e):
Response: injection history provided
Response: net thickness and porosity can be derived from the open hole log that was submitted to the OCD with the Pre-Test documentation. We use 110 feet for the net thickness and 13% for the porosity.
Response: viscosity of water – assume 1 cp, there are no other fluids in the formation we are injecting into.

Terry M. Duffey
10 Desta Drive, Suite 300-East
Midland, Texas 79705
432-686-9790 ofc
432-682-3821 fax

Dominating World Oil ... One Well at a Time

Perrin, Charlie, EMNRD

From: Price, Wayne, EMNRD
API # 30-045-28653
Sent: Wednesday, October 17, 2007 10:07 AM
To: EverQuest@nts-online.net
Cc: Patterson, Bob; Perrin, Charlie, EMNRD; Chavez, Carl J, EMNRD; Jones, William V., EMNRD
Subject: Key Sunoco Class I well (I-005)

Dear Mr. Terry Duffey:

Pursuant to **20.6.2.5206 OPERATING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS AND CLASS III WELLS:**

A. General Operating Requirements Applicable to Class I non-hazardous waste injection wells and Class III wells.

(1) The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

During the re-permitting process the OCD questioned the previously approved maximum operating pressure of 2850 psig. The permit was re-issued with an operating pressure of 1550 psig. During the permitting process Key Energy requested a technical meeting and provided written and verbal objections to the permit pressure decrease. The permit was issued with the lower injection pressure. Key Energy has continued to present technical evidence in good faith.

Pursuant to WQCC 20.6.2.3106.F If the holder of a discharge permit submits an application for discharge permit renewal at least 120 days before the discharge permit expires, and the discharger is not in violation of the discharge permit on the date of its expiration, then the existing discharge permit for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge permit continued under this provision remains fully effective and enforceable. An application for discharge permit renewal must include and adequately address all of the information necessary for evaluation of a new discharge permit. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved.

OCD has checked the records and it appears that Key meets this qualification. Therefore, Key may continue to operate at its normal pressure of 2150 psig or less on a temporary basis in order to provide time for OCD and Key to adequately resolve this technical issue. This temporary approval will expire on Jan 17, 2008.

Please be advised that OCD approval does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Environmental Bureau Chief
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3490
Fax: 505-476-3462

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 30, 2012 11:35 AM
To: Chavez, Carl J, EMNRD
Subject: revised documents
Attachments: Proposed Notice of Publication revised.pdf; Aviso de publicación revised.pdf; Proposed discharge plan amended 3_2012.pdf

Thank you

Philana

Attachment 13

Notice of Publication

Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial oil field disposal well injects oilfield exempt and non-exempt, non-hazardous oil field into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls and a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

Proposed Newspapers of publication:

1. The Daily Times- Farmington, NM
2. The Santa Fe New Mexican – Santa Fe, NM
3. Will be published in English and Spanish is a display ad at least 2 x 3 inches NOT in the classified or legal notice section of the newspaper for 1-day duration.

Aviso de publicación
Propuesta

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial yacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l).La concentración de TDS del agua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / l. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.

Prensa propuesta de publicación:
1. The Daily Times-Farmington, NM
2. El Santa Fe de Nuevo México - Santa Fe
3. Será publicada en Inglés y Español es un anuncio de pantalla de al menos 2 NO x 3 pulgadas en la sección de aviso clasificado o jurídica del periódico de la duración de 1 día.

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

Renewal Application for the Sunco Disposal Well #1
Data obtained from original permits 1996, 2002, 2007

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-324-5336

January 30, 2012
Amended March 26th, 2012

Amended 3/26/2012

Discharge Permit Application for UIC-CLI005

Sunco Disposal Well #1

30-045-28653

5. **Facility Description: Attached is a description of the facility with a diagram depicting pertinent features.**
   a) See attachments 5a1-2, amended site facility diagrams with 7.5 min quad topo
   b) Disposal Process:
      a. **South End of Facility:**
         i. Truck arrives at facility and proceeds to south end and checks in at the trailer office
      b. **North End of Facility:**
         i. Truck then proceeds to north end of facility
         ii. Truck unloads into settle tanks. Approximately every two days the tank contents are transferred.
         iii. Tank contents transferred to pump house #1 through two filter pots. (Pump house #2 is a back up)
         iv. From pump house contents are then injected into well house

6. **Proposed discharge plan (20.6.2.3106C NMAC): Specify the methods or techniques that the owner/operator will use to ensure compliance with the regulations. At minimum include the following information:**
   a) Quantity, quality and flow characteristics of the discharge:
      - Flow rate and volume of fluid injected at a daily rate of 2000 to 4000 bbls per day.
      - This disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation. The total dissolved solids conentration of the injection water is approximately 24,000 mg/l. The total dissolved solids concentration of the formation fluids is approximately 14,000 mg/l.
      - Injected oil field exempt/non-exempt non-hazardous wastes shall be injected into the Point Lookout formation. The formation interval is from 4380' to 4480', the injection interval is perforated from 4350' to 4460' with 2 spf and 220 holes.
      - The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.
   b) Location of discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring:
      - No groundwater discharge sites have been drilled since the original permit that are within one mile of the existing location. Only one water well within 1 mile of this facility was drilled in Section 34, T30N, R12W in 1977 and was capped with a steel plate welded over the casing. It is not producing.

c) Depth to and TDS concentration of the ground water most likely to be affected by the discharge:
   - See attached DTGW map 6c
   - Ground water most likely to be affected by any accidental discharge is at a depth from 78 to 90 feet and has a total dissolved solids concentration of approximatley 450 mg/l.

d) Flooding potential of the site:
   - See attached FEMA map 6d
   - The location is in Zone X; Areas of of 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas proteced by levees from 1% annual chance of flooding.

e) Location and design of site and methods available for sampling, and for measurement or calculation of flow
   - The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.
   - Analysis of injected RCRA (non-hazardous) waste water will be conducted quartly and reported annually. Exceedances of the RCRA Characteristically Hazardous Criteria, listed below, will be reported to the NMOCD within 24 hours after having knowledge of any such exceedence. All testing shall be in accordance with the current discharge permit and with compliance criterion for hazardous waste concentrations.
     i. RCRA Characteristically Hazardous Waste Criterion or Parameters:
        1. Ignitability (defined by 40 CFR, Subpart C, Section 261.21)
        2. Corrosivity (defined by 40 CFR, Subpart C, Section 261.22)
        3. Reactivity (defined by 40 CFR, Subpart C, Section 261.23)

f) The injection zone is the Point Lookout Sandstone of the mesa verde group. The Point Lookout is a light to medium gray, angular to subangular very fine grained, well cemented sandstone with laminations of light to dark gray carbonaceous shale. Well logs reviewed at the time of the original permit indicated a maximum porosity of 13 to 14% with an average of 10%. The average thickness of the injection interval is 100' and is at a depth of 4380' to 4480'. Underground water sources are the Nacimiento which is exposed at the surface and the Ojo Alamo which occurs from 500' to 700'. There are no known water sources immediately underlying the injection zone.

7. **Information for Class I nonhazardous waste injection wells:**
   a) Area of Review: see attached maps 7a1 – 7a8
   b) Data Tabulation: see attached spreadsheet 7b1-7b7
   c) Corrective actions: none identified
   d) Maps and cross sections: see attached maps 7d1-7d3
   e) Geology: see attached maps 7e1-7e4
   f) Current operating data:

- Average and Maximum daily flow rate and volume of fluid injected is 2000-4000 bbls per day
- Maximum injection pressure 2400 (modification approval 1/17/2008)
- Water sources include oil & gas produced Class I non-hazardous RCRA exempt (attachment 7f1)

g) Formation testing program: See attached 2010 Fall off test (7g)

h) Fluids and Pressures:
- Agua Moss will track on a quartlery basis its disposal, operation and well workovers. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt non-hazardous waste) injected will be recorded monthly and submitted to the NMOCD Santa Fe office on a annual basis.
- The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.

i) Stimulation Program: No stimulation needed at this time- the skin is still highly negative stemming from the frac job during the initial completion with no apparent plugging after injecting almost 14 million barrels since 1994 (7/22/2010)

j) Injection procedure:
- This well is used to dispose of produced water from the Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin
- This is an open system
- The injection formation is the Point Lookout which does not produce oil or gas in this area, the formation is from 4380' – 4480'. The injection interval is from 4350' – 4460'
- The volume of fluid injected is from 2000 – 4000 bbls per day
- The maximum injection pressure is 2400 psi.
- Disposal Process:
  - **i. South End of Facility:**
    1. Truck arrives at facility and proceeds to south end and checks in at the trailer office
  - **ii. North End of Facility:**
    1. Truck then proceeds to north end of facility
    2. Truck unloads into settle tanks. Approximately every two days the tank contents are transferred.
    3. Tank contents transferred to pump house #1 through two filter pots. (Pump house #2 is a back up)
    4. From pump house contents are then injected into well house
- Attached is the current analysis data of injection fluid (attachment 7j)

k) Drawings:
- Well Bore Diagram attached (7k1)
- Surface facility diagram attached (5a1) see amended surface facility diagrams

l) Construction:
- Attached is the documentation of the construction of the well (7l 1-10)

m) Contingency plans: See amended contingency plan for SI or failures
- All spills will be reported pursuant to NMOCD Rule 19 Chapter 15 part 29.
- Agua Moss will maintain spill cleanup equipment on site that will allow for swift response to any spills or leaks that could occur at the facility.
- Key in 2010 added additional valves on the wellhead.

n) MIT monitoring plans:
- Mechanical Integrity Test (MIT) will be performed annually before September 30th.
- Agua Moss will pump up the annulus to 350 psig, put on a chart with 1000# range, with a one hour clock.
- The chart recorder will be calibrated before test.
- The pump cut-off switch will be checked
- Bradenhead test will be performed
- The NMOCD will be notified of the date of the test

o) Additional Fluid monitoring plans:
- Analysis of injected fluids will be submitted quarterly to the NMOCD
- Continuous monitoring devices are utilized to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

p) Not Applicable

q) Financial Assurance:
- Attached copies of financial assurance (7q1-6)

r) Logging and testing data: NA already on file with the NMOCD

s) Mechanical Integrity data
- Attached is the MIT test data that was conducted 10/31/11 (7s1-4)

t) Maximum Pressure and flow rate:
- The maximum pressure will be 2400 psi
- The maximum flow rate will be no more than 4000 bbls per day

u) Formation testing program:
- Attached is the results of the last Fall Off test that Key performed in 2010 (7g)

v) Compatibility:
- This well is used to dispose of produced water from Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin.
- Injection formation is the point lookout, which does not produce oil or gas in this area. The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.
- In 1984 a drill stem test was conducted on this zone in the McGrath #4 well (UB, S 34, T30N, R12W) which is less than 1-1/2 miles from this location. The DST recovered 400' of slightly gas cut mud, 90' of slightly gas cut water and 2000 cc of water in the sample chamber. An analysis of the water recovered is attached (Attachment 7v1-2). The water from the sample chamber is closest to the actual formation water. The

calculated total dissolved solids for this water is 17,180 mgl. This is the closest test or water analysis for the Point lookout formation and should be representative of what this well will encounter.

w) Area of review corrective actions:

- None identified at the time of this submittal

8. Modifications: Agua Moss would like to modify the Annual Fall Off Test requirements. See attached (8)
9. Inspection/Maintenance and reporting:
    - The entire system is visually inspected at least six times each day. This inspection includes the unloading area, evaporation pond, holding tank, injection pump, well and all interconnecting piping. All piping is above ground. Pump and wellhead pressures and injection volumes are recorded and stored at the facility.
10. Contingency plans: see amended contingency plan for surface spills
    - All spills and cleanup events are reported pursuant to OCD Rules and regulations. Agua Moss maintains spill clean-up equipment on site to facilitate quick response and action.
11. Other Information:
    - Agua Moss does not foresee in the present or reasonable foreseeable future that the discharge permit will result in concentrations in excess of the standards of Section 20.6.2.3103 NMOAC or the presence of any toxic pollutant at any place of withdrawal of water.
12. Filing Fee(s): Attached is the $100.00 filing fee made payable to Water Quality Management Fund. Also attached is the $4500.00 permit fee for this Class I well.
13. Draft Public Notice: Attached proposed draft public notice (13) amended notices English/spanish

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Wednesday, March 28, 2012 3:19 PM
To: Chavez, Carl J, EMNRD
Subject: amendments to permit UIC1-5
Attachments: amended notice of publication english and spanish.pdf; Spill and Release procedures item 10.pdf; Amended permit.pdf

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

Renewal Application for the Sunco Disposal Well #1
Data obtained from original permits 1996, 2002, 2007

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-324-5336

January 30, 2012
Amended March 26th, 2012

Amended 3/26/2012
Discharge Permit Application for UIC-CLI005
Sunco Disposal Well #1
30-045-28653

5. **Facility Description: Attached is a description of the facility with a diagram depicting pertinent features.**
   a) See attachments 5a1-2, amended site facility diagrams with 7.5 min quad topo
   b) Disposal Process:
      a. **South End of Facility:**
         i. Truck arrives at facility and proceeds to south end and checks in at the trailer office
      b. **North End of Facility:**
         i. Truck then proceeds to north end of facility
         ii. Truck unloads into settle tanks. Approximately every two days the tank contents are transferred.
         iii. Tank contents transferred to pump house #1 through two filter pots. (Pump house #2 is a back up)
         iv. From pump house contents are then injected into well house

6. **Proposed discharge plan (20.6.2.3106C NMAC): Specify the methods or techniques that the owner/operator will use to ensure compliance with the regulations. At minimum include the following information:**
   a) Quantity, quality and flow characteristics of the discharge:
      - Flow rate and volume of fluid injected at a daily rate of 2000 to 4000 bbls per day.
      - This disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation. The total dissolved solids conentration of the injection water is approximately 24,000 mg/l. The total dissolved solids concentration of the formation fluids is approximately 14,000 mg/l.
      - Injected oil field exempt/non-exempt non-hazardous wastes shall be injected into the Point Lookout formation. The formation interval is from 4380' to 4480', the injection interval is perforated from 4350' to 4460' with 2 spf and 220 holes.
      - The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.
   b) Location of discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring:
      - No groundwater discharge sites have been drilled since the original permit that are within one mile of the existing location. Only one water well within 1 mile of this facility was drilled in Section 34, T30N, R12W in 1977 and was capped with a steel plate welded over the casing. It is not producing.

c) Depth to and TDS concentration of the ground water most likely to be affected by the discharge:
   - See attached DTGW map 6c
   - Ground water most likely to be affected by any accidental discharge is at a depth from 78 to 90 feet and has a total dissolved solids concentration of approximatley 450 mg/l.

d) Flooding potential of the site:
   - See attached FEMA map 6d
   - The location is in Zone X; Areas of of 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas proteced by levees from 1% annual chance of flooding.

e) Location and design of site and methods available for sampling, and for measurement or calculation of flow
   - The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.
   - Analysis of injected RCRA (non-hazardous) waste water will be conducted quartly and reported annually. Exceedances of the RCRA Characteristically Hazardous Criteria, listed below, will be reported to the NMOCD within 24 hours after having knowledge of any such exceedence. All testing shall be in accordance with the current discharge permit and with compliance criterion for hazardous waste concentrations.
     i. RCRA Characteristically Hazardous Waste Criterion or Parameters:
        1. Ignitability (defined by 40 CFR, Subpart C, Section 261.21)
        2. Corrosivity (defined by 40 CFR, Subpart C, Section 261.22)
        3. Reactivity (defined by 40 CFR, Subpart C, Section 261.23)

f) The injection zone is the Point Lookout Sandstone of the mesa verde group. The Point Lookout is a light to medium gray, angular to subangular very fine grained, well cemented sandstone with laminations of light to dark gray carbonaceous shale. Well logs reviewed at the time of the original permit indicated a maximum porosity of 13 to 14% with an average of 10%. The average thickness of the injection interval is 100' and is at a depth of 4380' to 4480'. Underground water sources are the Nacimiento which is exposed at the surface and the Ojo Alamo which occurs from 500' to 700'. There are no known water sources immediately underlying the injection zone.

7. **Information for Class I nonhazardous waste injection wells:**
   a) Area of Review: see attached maps 7a1 – 7a8
   b) Data Tabulation: see attached spreadsheet 7b1-7b7
   c) Corrective actions: none identified
   d) Maps and cross sections: see attached maps 7d1-7d3
   e) Geology: see attached maps 7e1-7e4
   f) Current operating data:

- Average and Maximum daily flow rate and volume of fluid injected is 2000-4000 bbls per day
- Maximum injection pressure 2850 (modification approval 1/17/2008)
- Water sources include oil & gas produced Class I non-hazardous RCRA exempt (attachment 7f1)

g) Formation testing program: See attached 2010 Fall off test (7g)

h) Fluids and Pressures:
- Agua Moss will track on a quartlery basis its disposal, operation and well workovers. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt non-hazardous waste) injected will be recorded monthly and submitted to the NMOCD Santa Fe office on a annual basis.
- The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.

i) Stimulation Program: No stimulation needed at this time- the skin is still highly negative stemming from the frac job during the initial completion with no apparent plugging after injecting almost 14 million barrels since 1994 (7/22/2010)

j) Injection procedure:
- This well is used to dispose of produced water from the Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin
- This is an open system
- The injection formation is the Point Lookout which does not produce oil or gas in this area, the formation is from 4380' – 4480'. The injection interval is from 4350' – 4460'
- The volume of fluid injected is from 2000 – 4000 bbls per day
- The maximum injection pressure is 2850 psi.
- Disposal Process:
  i. **South End of Facility:**
     1. Truck arrives at facility and proceeds to south end and checks in at the trailer office
  ii. **North End of Facility:**
     1. Truck then proceeds to north end of facility
     2. Truck unloads into settle tanks. Approximately every two days the tank contents are transferred.
     3. Tank contents transferred to pump house #1 through two filter pots. (Pump house #2 is a back up)
     4. From pump house contents are then injected into well house
- Attached is the current analysis data of injection fluid (attachment 7j)

k) Drawings:
- Well Bore Diagram attached (7k1)
- Surface facility diagram attached (5a1) see amended surface facility diagrams

l) Construction:
- Attached is the documentation of the construction of the well (7l 1-10)

m) Contingency plans: See amended contingency plan for SI or failures
- All spills will be reported pursuant to NMOCD Rule 19 Chapter 15 part 29.
- Agua Moss will maintain spill cleanup equipment on site that will allow for swift response to any spills or leaks that could occur at the facility.
- Key in 2010 added additional valves on the wellhead.

n) MIT monitoring plans:
- Mechanical Integrity Test (MIT) will be performed annually before September 30th.
- Agua Moss will pump up the annulus to 350 psig, put on a chart with 1000# range, with a one hour clock.
- The chart recorder will be calibrated before test.
- The pump cut-off switch will be checked
- Bradenhead test will be performed
- The NMOCD will be notified of the date of the test

o) Additional Fluid monitoring plans:
- Analysis of injected fluids will be submitted quarterly to the NMOCD
- Continuous monitoring devices are utilized to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

p) Not Applicable

q) Financial Assurance:
- Attached copies of financial assurance (7q1-6)

r) Logging and testing data: NA already on file with the NMOCD

s) Mechanical Integrity data
- Attached is the MIT test data that was conducted 10/31/11 (7s1-4)

t) Maximum Pressure and flow rate:
- The maximum pressure will be 2850 psi
- The maximum flow rate will be 4000 bbls per day

u) Formation testing program:
- Attached is the results of the last Fall Off test that Key performed in 2010 (7g)

v) Compatibility:
- This well is used to dispose of produced water from Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin.
- Injection formation is the point lookout, which does not produce oil or gas in this area. The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.
- In 1984 a drill stem test was conducted on this zone in the McGrath #4 well (UB, S 34, T30N, R12W) which is less than 1-1/2 miles from this location. The DST recovered 400' of slightly gas cut mud, 90' of slightly gas cut water and 2000 cc of water in the sample chamber. An analysis of the water recovered is attached (Attachment 7v1-2). The water from the sample chamber is closest to the actual formation water. The

calculated total dissolved solids for this water is 17,180 mgl. This is the closest test or water analysis for the Point lookout formation and should be representative of what this well will encounter.

w) Area of review corrective actions:

- None identified at the time of this submittal

8. Modifications: Agua Moss would like to modify the Annual Fall Off Test requirements. See attached (8)
9. Inspection/Maintenance and reporting:
    - The entire system is visually inspected at least six times each day. This inspection includes the unloading area, evaporation pond, holding tank, injection pump, well and all interconnecting piping. All piping is above ground. Pump and wellhead pressures and injection volumes are recorded and stored at the facility.
10. Contingency plans: see amended contingency plan for surface spills
    - All spills and cleanup events are reported pursuant to OCD Rules and regulations. Agua Moss maintains spill clean-up equipment on site to facilitate quick response and action.
11. Other Information:
    - Agua Moss does not foresee in the present or reasonable foreseeable future that the discharge permit will result in concentrations in excess of the standards of Section 20.6.2.3103 NMOAC or the presence of any toxic pollutant at any place of withdrawal of water.
12. Filing Fee(s): Attached is the $100.00 filing fee made payable to Water Quality Management Fund. Also attached is the $4500.00 permit fee for this Class I well.
13. Draft Public Notice: Attached proposed draft public notice (13) amended notices English/spanish

Spill and Release Procedures

Sunco Disposal #1

30-045-28653

Amendment to Discharge Permit Application for UIC Class I Item #10 Contingency Plans for spills and/or releases.

If a spill and/or release should occur at the Sunco Disposal #1 facility, the Yard Manager, Facility Manager, or designated supervisor will notify the Regulatory Compliance Specialist and coordinate with the facility employees to implement the following spill and/or release procedures:

1. Evacuate the area if necessary
2. Call emergency response personnel, if necessary
3. Stop operation of equipment that is the source of the release or spill, including closing valves, stopping pumps, etc.
4. Contain the spill using absorbent booms, a trench dug in the soil surrounding the spill, etc.
5. Deploy absorbent materials to soak up spilled material.
6. Once spill is contained and area where spill or release occurred has been secured, the yard manager or facility manager will gather information required for notifications and reports as required by the New Mexico OCD:
    a. 19.15.29.8 Release Notification
        i. Agua Moss shall notify the division of any unauthorized releases occurring during operations in accordance with the requirements of 19.15.29 NMAC
        ii. Agua Moss shall notify the division in accordance with the 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminants, in such quantity as may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC.
    b. 19.15.29.9 Reporting Requirements
        i. Agua Moss shall report a major release (defined as unauthorized release of a volume, excluding gases, in excess of 25 barrels. An unauthorized release of volume that results in fire, will reach a water course, endanger public health or damage property or the environment. Unauthorized release of gases in excess of 500 MCF or a release of volume that may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC) by giving both immediate verbal notice and timely written notice pursuant to Subsections A and B of 19.15.29.10 NMAC
        ii. Agua Moss shall report a minor release (defined as an unauthorized release of volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gasses) by giving timely written notice pursuant to Subsections B of 19.15.29.10 NMAC.

c. 19.15.29.10 Contents of Notification
    i. Agua Moss shall provide immediate verbal notification within 24 hours of discovery to the Aztec NMOCD. In addition, Agua Moss shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.
    ii. Agua Moss shall provide written timely notification within 15 days to the Aztec NMOCD by completing and filing form C-141. In addition, Agua Moss shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsection A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

7. The regulatory Compliance Specialist will submit an appropriate remediation plan as required per rule 19.15.29.11 Corrective Action, for approval before remediation is started. Remediation plans will be written in accordance with the NMOCD Rule 19.15.30.8 -19.15.30.21.

Emergency Contact List

Facility Spill Response Coordinator: Philana Thompson	Office (505) 324-5336	Cell (505) 486-1171
Facility Spill Response Team Leader: Jeff Davis	Office (505) 632-3640	Cell (505) 330-1617
National Response Center	(800) 424-8802	
Police	911	
New Mexico State Police	(505) 827-9300	After Hours (24 hr Emergency) (505) 827-3476
Fire	911	
Hospital	911	
State Emergency Response Center	Normal Business Hours (505) 476-9600	After Normal Business Hours (505) 476-9635

AREA	CONTAINER	CAPACITY	CONSTRUCTION MATERIAL	MATERIAL STORED	SECONDARY CONTAINMENT
South End of Facility: See South End Diagram	Pit #1	498 bbls	Steel	Produced water & oil	Facility no longer in use. Plans are being implemented to remove and remediate the location
	Pit #2	636 bbls	Steel	Produced water & oil	
	Pit #3	463 bbls	Steel	Produced water & oil	
	Lined Skimmer Pond	750 bbls	Lined- dirt	Produced water & oil	
	Lined Evaporation Pond (Leak detection)		Lined-dirt	Produced water & oil	
	Oil Storage Tanks	(2) 300 bbls (2) 400 bbls	Steel Steel	Recovered oil	
	Sludge Pit	460 bbls	Steel	Oily solids	
	Chlorine Storage Tanks	3100 gallons	Plastic	Sodium Hypochlorite	
	Separator	168 bbls	Steel	Oil & water	

AREA	CONTAINER	CAPACITY	CONSTRUCTION MATERIAL	MATERIAL STORED	Secondary Containment
North End of Facility: See North End Diagram	Settling Tanks	(4) 400 bbls	Steel	Produced water & oil	Bermed. As soon as practical the tanks will be lined
	Pump House #1 & #2 Corrosion Inhibitor Drum Motor Oil Drum	 55 gallons 30 gallons	 Steel Steel	 Corrosion Inhibitor Motor Oil	Bermed
	Steel Suction Tank Pit	400 bbls	Steel	Oily water	Bermed
	Injection Well House: Injection pump sump	10 bbls	Steel	Oil Water	Bermed
West End of Facility: See West End Diagram	Saddle Tank	400 bbls	Steel	Oily Water	Not in Use. Bermed. As soon as practical this part of the facility will be removed and remediated
	Cement Stabilization Slabs		Cement		Not in Use. Bermed. As soon as practical this part of the facility will be removed and remediated
	Sludge Tanks	(2) 400 bbls	Steel	Sludge	Not in Use. Bermed. As soon as practical this part of the facility will be removed and remediated

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name	Facility Type

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name:	Approved by Environmental Specialist:	
Title:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached ☐
Date: Phone:		

* Attach Additional Sheets If Necessary

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 29 RELEASE NOTIFICATION

19.15.29.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation Division.
[19.15.29.1 NMAC - N, 12/1/08]

19.15.29.2 SCOPE: 19.15.29 NMAC applies to persons engaged in oil and gas development and production within New Mexico.
[19.15.29.2 NMAC - N, 12/1/08]

19.15.29.3 STATUTORY AUTHORITY: 19.15.29 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Section 70-2-6, Section 70-2-11 and Section 70-2-12.
[19.15.29.3 NMAC - N, 12/1/08]

19.15.29.4 DURATION: Permanent.
[19.15.29.4 NMAC - N, 12/1/08]

19.15.29.5 EFFECTIVE DATE: December 1, 2008, unless a later date is cited at the end of a section.
[19.15.29.5 NMAC - N, 12/1/08]

19.15.29.6 OBJECTIVE: To require persons who operate or control the release or the location of the release to report the unauthorized release of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixtures of those chemicals or contaminants that occur during drilling, producing, storing, disposing, injecting, transporting, servicing or processing and to establish reporting procedures.
[19.15.29.6 NMAC - N, 12/1/08]

19.15.29.7 DEFINITIONS:

A. "Major release" means:

(1) an unauthorized release of a volume, excluding gases, in excess of 25 barrels;

(2) an unauthorized release of a volume that:

(a) results in a fire;

(b) will reach a watercourse;

(c) may with reasonable probability endanger public health; or

(d) results in substantial damage to property or the environment;

(3) an unauthorized release of gases in excess of 500 MCF; or

(4) a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC.

B. "Minor release" means an unauthorized release of a volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gases.
[19.15.29.7 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.8 RELEASE NOTIFICATION:

A. The person operating or controlling either the release or the location of the release shall notify the division of unauthorized release occurring during the drilling, producing, storing, disposing, injecting, transporting, servicing or processing of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixture of the chemicals or contaminants, in accordance with the requirements of 19.15.29 NMAC.

B. The person operating or controlling either the release or the location of the release shall notify the division in accordance with 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminant, in such quantity as may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC.
[19.15.29.8 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.9 REPORTING REQUIREMENTS: The person operating or controlling either the release or the location of the release shall provide notification of releases in 19.15.29.8 NMAC as follows.

A. The person shall report a major release by giving both immediate verbal notice and timely written notice pursuant to Subsections A and B of 19.15.29.10 NMAC.

B. The person shall report a minor release by giving timely written notice pursuant to Subsection B of 19.15.29.10 NMAC.
[19.15.29.9 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.10 CONTENTS OF NOTIFICATION:

A. The person operating or controlling either the release or the location of the release shall provide immediate verbal notification

within 24 hours of discovery to the division district office for the area within which the release takes place. In addition, the person shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.

B. The person operating or controlling either the release or the location of the release shall provide timely written notification within 15 days to the division district office for the area within which the release occurs by completing and filing form C-141. In addition, the person shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

[19.15.29.10 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

19.15.29.11 CORRECTIVE ACTION: The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.

[19.15.29.11 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

HISTORY of 19.15.29 NMAC:

History of Repealed Material: 19.15.3 NMAC, Drilling (filed 10/29/2001) repealed 12/1/08.

NMAC History:

That applicable portion of 19.15.3 NMAC, Drilling (Section 116) (filed 10/29/2001) was replaced by 19.15.29 NMAC, Release Notification, effective 12/1/08.

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 15 OIL AND GAS
PART 30 REMEDIATION

19.15.30.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation Division.
[19.15.30.1 NMAC - N, 12/1/08]

19.15.30.2 SCOPE: 19.15.30 NMAC applies to persons engaged in oil and gas development and production within New Mexico.
[19.15.30.2 NMAC - N, 12/1/08]

19.15.30.3 STATUTORY AUTHORITY: 19.15.30 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11 and 70-2-12.
[19.15.30.3 NMAC - N, 12/1/08]

19.15.30.4 DURATION: Permanent.
[19.15.30.4 NMAC - N, 12/1/08]

19.15.30.5 EFFECTIVE DATE: December 1, 2008, unless a later date is cited at the end of a section.
[19.15.30.5 NMAC - N, 12/1/08]

19.15.30.6 OBJECTIVE: To abate pollution of subsurface water so that ground water of the state that has a background concentration of 10,000 mg/l or less TDS is either remediated or protected for use as domestic, industrial and agricultural water supply, and to remediate or protect those segments of surface waters that are gaining because of subsurface-water inflow for uses designated in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC; and abate surface-water pollution so that surface waters of the state are remediated or protected for designated or attainable uses as defined in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.
[19.15.30.6 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.7 DEFINITIONS: [RESERVED]
[See 19.15.2.7 NMAC for definitions.]

19.15.30.8 PREVENTION AND ABATEMENT OF WATER POLLUTION:

A. If the background concentration of a water contaminant exceeds the standard or requirement of Subsections A, B or C of 19.15.30.9 NMAC, the responsible person shall abate the pollution to the background concentration.

B. The standards and requirements set forth in of Subsections A, B or C of 19.15.30.9 NMAC are not intended as maximum ranges and concentrations for use, and nothing contained in 19.15.30.9 NMAC limits the use of waters containing higher ranges and concentrations.
[19.15.30.8 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.9 ABATEMENT STANDARDS AND REQUIREMENTS:

A. The responsible person shall abate the vadose zone so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water, in excess of the standards in Subsections B and C of 19.15.30.9 NMAC, through leaching, percolation or other transport mechanisms, or as the water table elevation fluctuates.

B. The responsible person shall abate ground-water pollution at a place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/l or less, to conform to the following standards:

(1) toxic pollutants as defined in 20.6.2.7 NMAC shall not be present; and

(2) the standards of 20.6.2.3103 NMAC shall be met.

C. The responsible person shall abate surface-water pollution to conform to the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.

D. The division shall not consider subsurface-water and surface-water abatement complete until eight consecutive quarterly samples, or an alternate lesser number of samples the director approves, from the compliance sampling stations the director approved meet the abatement standards in Subsections A, B and C of 19.15.30.9 NMAC. The division shall consider abatement of water contaminants measured in solid-matrix samples of the vadose zone complete after one-time sampling from compliance stations the director approves.

E. Technical infeasibility.

(1) If a responsible person is unable to meet the abatement standards set forth in Subsections A and B of 19.15.30.9 NMAC using commercially accepted abatement technology pursuant to an approved abatement plan, the responsible person may propose that abatement standards compliance is technically infeasible.

(a) The director may consider technical infeasibility proposals involving the use of experimental abatement technology.

(b) The responsible person may demonstrate technical infeasibility by a statistically valid extrapolation of the decrease in concentrations of a water contaminant over the remainder of a 20 year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time the responsible person proposes technical infeasibility. A statistically valid decrease cannot be

demonstrated by fewer than eight consecutive quarters.

(c) The technical infeasibility proposal shall include a substitute abatement standard for those contaminants that is technically feasible. The responsible person shall meet abatement standards for other water contaminants not demonstrated to be technically infeasible.

(2) The director shall not approve a proposed technical infeasibility demonstration for a water contaminant if its concentration is greater than 200 percent of the abatement standard for the contaminant.

(3) If the director cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration is greater than 300 percent of the abatement standard for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the division seeking approval of alternate abatement standards pursuant to Subsection F of 19.15.30.9 NMAC.

F. Alternative abatement standards.

(1) At any time during or after the stage 2 abatement plan's submission, the responsible person may file a petition seeking approval of alternative abatement standards for the standards set forth in Subsections A and B of 19.15.30.9 NMAC. The division may approve alternative abatement standards if the petitioner demonstrates that:

(a) either compliance with the abatement standards is not feasible, by the maximum use of technology within the responsible person's economic capability; or there is no reasonable relationship between the economic and social costs and benefits, including attainment of the standards set forth in 19.15.30.9 NMAC to be obtained;

(b) the proposed alternative abatement standards are technically achievable and cost-benefit justifiable; and

(c) compliance with the proposed alternative abatement standard will not create a present or future hazard to public health or undue damage to property.

(2) The responsible person shall file a written petition with the division's environmental bureau chief. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition. The petition shall:

(a) state the petitioner's name and address;

(b) state the date of the petition;

(c) describe the facility or activity for which the petitioner seeks the alternate abatement standards;

(d) state the address or description of the property upon which the facility is located;

(e) describe the water body or watercourse the release affected;

(f) identify the abatement standard from which petitioner wishes to vary;

(g) state why the petitioner believes that compliance with 19.15.30 NMAC will impose an unreasonable burden upon the petitioner's activity;

(h) identify the water contaminant for which the petitioner proposes the alternative standard;

(i) state the alternative standard the petitioner proposes;

(j) identify the three-dimensional body of water pollution for which the petitioner seeks approval; and

(k) state the extent to which the abatement standards set forth in 19.15.30.9 NMAC are now, and will in the future be, violated.

(3) The division's environmental bureau chief shall review the petition and, within 60 days after receiving the petition, submit a written recommendation to the director to approve, approve subject to conditions or disapprove any or all of the proposed alternative abatement standards. The recommendation shall include the reasons for the division's environmental bureau chief's recommendation. The division's environmental bureau chief shall submit a copy of the recommendation to the petitioner by certified mail.

(4) If the division's environmental bureau chief recommends approval, or approval subject to conditions, of any or all of the proposed alternative abatement standards, the division shall hold a public hearing on those standards. If the division's environmental bureau chief recommends disapproval of any or all of the proposed alternative abatement standards, the petitioner may submit a request to the director, within 15 days after the recommendation's receipt, for a public hearing on those standards. If the petitioner does not submit a timely request for hearing, the recommended disapproval shall become a final decision of the director and shall not be subject to review.

(5) If the director grants a public hearing, the division shall conduct the hearing in accordance with division hearing procedures.

(6) Based on the record of the public hearing, the division shall approve, approve subject to condition or disapprove any or all of the proposed alternative abatement standards. The division shall notify the petitioner by certified mail of its decision and the reasons for the decision.

[19.15.30.9 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.10 MODIFICATION OF ABATEMENT STANDARDS: If applicable abatement standards are modified after the division approves the abatement measures, the abatement standards that are in effect at the time that the division approved the abatement measures shall be the abatement standards for the duration of the abatement action, unless the director determines that compliance with those standards may with reasonable probability create a present or future hazard to public health or the environment. In an appeal of the director's determination that additional actions are necessary, the director shall have the burden of proof.

[19.15.30.10 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.11 ABATEMENT PLAN REQUIRED:

A. Unless otherwise provided by 19.15.30 NMAC responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC shall do so pursuant to an abatement plan the director approves. When the director has approved an abatement plan, the responsible person's actions leading to and including abatement shall be consistent with the abatement plan's terms and conditions.

B. In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the abatement plan's duration, and may jointly share the responsibility to conduct the actions 19.15.30 NMAC requires with other responsible persons.

(1) The transferor shall notify the transferee in writing at least 30 days prior to the transfer that the division has required or approved an abatement plan for the facility, and shall deliver or send by certified mail to the director a copy of the notification together with a certificate or other proof that the transferee has received the notification.

(2) The transferor and transferee may agree to a designated responsible person who shall assume the responsibility to conduct the actions 19.15.30 NMAC requires. The responsible persons shall notify the director in writing if a designated responsible person is agreed upon.

(3) If the director determines that the designated responsible person has failed to conduct the actions 19.15.30 NMAC requires, the director shall notify all responsible persons of this failure in writing and allow them 30 days, or longer for good cause shown, to conduct the required actions before setting a show cause hearing requiring those responsible persons to appear and show cause why they should not be ordered to comply, a penalty should not be assessed, a civil action should not be commenced in district court or the division should not take other appropriate action.

C. If the source of the water pollution to be abated is a facility that operated under a discharge plan, the director may require the responsible person to submit a financial assurance plan that covers the estimated costs to conduct the actions the abatement plan requires. Such a financial assurance plan shall be consistent with financial assurance requirements the division adopts.

[19.15.30.11 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.12 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT:

A. Except as provided in Subsection B of 19.15.30.12 NMAC, 19.15.30.11 NMAC and 19.15.30.13 NMAC do not apply to a person who is abating water pollution:

(1) from an underground storage tank, under the authority of the New Mexico environmental improvement board's underground storage tank rules, 20.5 NMAC, or in accordance with the Ground Water Protection Act, NMSA 1978, Section 74-6B-1 *et seq.*;

(2) under the EPA's authority pursuant to either the Federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or RCRA;

(3) pursuant to the New Mexico environmental improvement board's hazardous waste management rule, 20.4.1 NMAC;

(4) under the authority of the United States nuclear regulatory commission or the United States department of energy pursuant to the Atomic Energy Act;

(5) under the authority of a ground-water discharge plan the director approved, provided that such abatement is consistent with the requirements and provisions of 19.15.30.8 NMAC, 19.15.30.9 NMAC, Subsections C and D of 19.15.30.13 NMAC, 19.15.30.14 NMAC and 19.15.30.19 NMAC;

(6) under the authority of a letter of understanding, settlement agreement or administrative order on consent or other agreement signed by the director or director's designee prior to March 15, 1997, provided that abatement is being performed in compliance with the terms of the letter of understanding, settlement agreement or administrative order or other agreement on consent; and

(7) on an emergency basis, or while abatement plan approval is pending, or in a manner that will likely result in compliance with the standards and requirements set forth in 19.15.30.9 NMAC within one year after notice is required to be given pursuant to 19.15.29.9 NMAC provided that the division does not object to the abatement action.

B. If the director determines that abatement of water pollution subject to Subsection A of 19.15.30.12 NMAC will not met the standards of Subsections B and C of 19.15.30.9 NMAC, or that additional action is necessary to protect health, welfare, environment or property, the director may notify a responsible person, by certified mail, to submit an abatement plan pursuant to 19.15.30.11 NMAC and Subsection A of 19.15.30.14 NMAC. The notification shall state the reasons for the director's determination. In an appeal of the director's determination under Subsection B of 19.15.30.12 NMAC, the director shall have the burden of proof.

[19.15.30.12 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.13 ABATEMENT PLAN PROPOSAL:

A. Except as provided for in 19.15.30.12 NMAC a responsible person shall, within 60 days of receipt of the director's written notice that the division requires an abatement plan, submit an abatement plan proposal to the director for approval. The responsible person may submit stage 1 and stage 2 abatement plan proposals together. For good cause shown, the director may allow for a total of 120 days to prepare and submit the abatement plan proposal.

B. Voluntary abatement.

(1) A person wishing to abate water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC may submit a stage 1 abatement plan proposal to the director for approval. Following the director's approval of a final site investigation report prepared pursuant to stage 1 of an abatement plan, a person may submit a stage 2 abatement plan proposal to the director for approval.

(2) Following approval of a stage 1 or stage 2 abatement plan proposal under Paragraph (1) of Subsection B of 19.15.30.13 NMAC the person submitting the approved plan shall be a responsible person under 19.15.30 NMAC for the purpose of performing the approved stage 1 or stage 2 abatement plan. Nothing in 19.15.30 NMAC precludes the director from applying 19.15.29.11 NMAC to a responsible person if applicable.

C. Stage 1 abatement plan. The stage 1 of the abatement plan's purpose is to design and conduct a site investigation that adequately defines site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include the following information depending on the media affected, and as needed to select and implement an expeditious abatement option:

(1) descriptions of the site, including a site map, and of site history including the nature of the release that caused the water pollution, and a summary of previous investigations;

(2) site investigation work plan that defines:

(a) site geology and hydrogeology; the vertical and horizontal extent and magnitude of vadose-zone and ground-water contamination; subsurface hydraulic conductivity; transmissivity, storativity and rate and direction of contaminant migration; inventory of water wells inside and within one mile from the perimeter of the three-dimensional body where the standards set forth in Subsection C of 19.15.30.9 NMAC are exceeded; and location and number of wells the pollution actually or potentially affects; and

(b) 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; the magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macro invertebrates and other wildlife populations; seasonal variations should be accounted for when conducting these assessments;

(3) monitoring program, including sampling stations and frequencies, for the abatement plan's duration that may be modified, after the director's approval, as the responsible person creates additional sampling stations;

(4) quality assurance plan, consistent with the sampling and analytical techniques listed in Subsection B of 20.6.2.3107 NMAC and with 20.6.4.14 NMAC of the water quality standards for interstate and intrastate surface waters in New Mexico, for all work to be conducted pursuant to the abatement plan;

(5) a schedule for stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for the director's approval, of a detailed final site investigation report; and

(6) additional information that may be required to design and perform an adequate site investigation.

D. Stage 2 abatement plan.

(1) A responsible person shall submit a stage 2 abatement plan proposal to the director for approval within 60 days, or up to 120 days for good cause shown, after the director's approval of the final site investigation report prepared pursuant to stage 1 of the abatement plan. The responsible person may submit a stage 1 and 2 abatement plan proposal together. Stage 2 of the abatement plan's purpose is to select and design, if necessary, an abatement option that, when implemented, results in attainment of the abatement standards and requirements set forth in 19.15.30.9 NMAC, including post-closure maintenance activities.

(2) Stage 2 of the abatement plan should include, at a minimum, the following information:

(a) a brief description of the current situation at the site;

(b) development and assessment of abatement options;

(c) a description, justification and design, if necessary, of the preferred abatement option;

(d) modification, if necessary, of the monitoring program the director approved pursuant to stage 1 of the abatement plan, including the designation of pre- and post-abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in 19.15.30.9 NMAC;

(e) site maintenance activities, if needed, the responsible person proposes to perform after abatement activities terminate;

(f) a schedule for the duration of abatement activities, including the submission of summary quarterly progress reports;

(g) a public notification proposal designed to satisfy the requirements of Subsections B and C of 19.15.30.15 NMAC; and

(h) additional information that may be reasonably required to select, describe, justify and design an effective abatement option.

[19.15.30.13 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.14 OTHER REQUIREMENTS:

A. A responsible person shall allow the director's authorized representative upon presentation of proper credentials and with reasonable prior notice to:

(1) enter the facility at reasonable times;

(2) inspect and copy records an abatement plan requires;

(3) inspect treatment works, monitoring and analytical equipment;

(4) sample wastes, ground water, surface water, stream sediment, plants, animals or vadose-zone material including vadose-zone vapor;

(5) use monitoring systems and wells under the responsible person's control in order to collect samples of media listed in Paragraph (4) of Subsection A of 19.15.30.14 NMAC; and

(6) gain access to off-site property the responsible person does not own or control, but is accessible to the responsible person through a third-party access agreement, provided that the agreement allows it.

B. A responsible person shall provide the director, or director's representative, with at least four working days advance notice of sampling to be performed pursuant to an abatement plan, or a well plugging, abandonment or destruction at a facility where the division has required an abatement plan.

C. A responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the three-dimensional body where the standards set forth in Subsection B of 19.15.30.9 NMAC are exceeded, at a facility where the division has required an abatement plan, shall propose such action by certified mail to the director for approval, unless the state engineer's approval is required. The responsible person shall design the proposed action to prevent water pollution that could result from water contaminants migrating through the well or bore hole. The proposed action shall not take place without the director's written approval, unless the responsible person does not receive written approval or disapproval within 30 days after the date the director receives the proposal.

[19.15.30.14 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.15 PUBLIC NOTICE AND PARTICIPATION:

A. Prior to public notice, the applicant shall give written notice, as approved by the division, of stage 1 and stage 2 abatement plans to the following persons:

(1) surface owners of record within one mile of the perimeter of the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded;

(2) the county commission where the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located;

(3) the appropriate city officials if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within city limits or within one mile of the city limits;

(4) those persons, the director identifies, who have requested notification, who shall be notified by mail;

(5) the New Mexico trustee for natural resources, and other local, state or federal governmental agencies affected, as the director identifies, which shall be notified by certified mail;

(6) the governor or president of a tribe, pueblo or nation if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within tribal boundaries or within one mile of the tribal boundaries, who shall be notified by certified mail;

(7) the director may extend the distance requirements for notice if the director determines the proposed abatement plan has the potential to adversely impact public health or the environment at a distance greater than one mile. The director may require additional notice as needed. The applicant shall furnish a copy and proof of the notice to the division.

B. Within 15 days after the division determines that a stage 1 abatement plan or a stage 2 abatement plan is administratively complete, the responsible person shall issue public notice in a division-approved form in a newspaper of general circulation in the county in which the release occurred, and in a newspaper of general circulation in the state. For the purposes of Subsection B of 19.15.30.15 NMAC, an administratively complete stage 1 abatement plan is a document that satisfies the requirements of Subsection C of 19.15.30.13 NMAC and an administratively complete stage 2 abatement plan is a document that satisfies the requirements of Paragraph (2) of Subsection D of 19.15.30.13 NMAC. The public notice shall include, as approved in advance by the director:

(1) the responsible person's name and address;

(2) the location of the proposed abatement;

(3) a brief description of the source, extent and estimated volume of release; whether the release occurred into the vadose zone, ground water or surface water; and a description of the proposed stage 1 or stage 2 abatement plan;

(4) a brief description of the procedures the director followed in making a final determination;

(5) a statement that the public may view a copy of the abatement plan at the division's Santa Fe office or at the division's district office for the area in which the release occurred, and a statement describing how the public can access the abatement plan electronically from a division-maintained site if such access is available;

(6) a statement that the division will accept the following comments and requests for consideration if the director receives them within 30 days after the date of publication of the public notice:

(a) written comments on the abatement plan; and

(b) for a stage 2 abatement plan, written requests for a public hearing that include reasons why a hearing should be held; and

(7) an address and phone number at which interested persons may obtain further information.

C. A person seeking to comment on a stage 1 abatement plan, or to comment or request a public hearing on a stage 2 abatement plan, shall file written comments or hearing requests with the division within 30 days after the date of public notice, or within 30 days after the director receives a proposed significant modification of a stage 2 abatement plan. Requests for a public hearing shall set forth the reasons why a hearing should be held. The division shall hold a public hearing if the director determines that there is significant public interest or that the request has technical merit.

D. The division shall distribute notice of an abatement plan's filing with the next division and commission hearing docket following the plan's receipt.

[19.15.30.15 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.16 DIRECTOR APPROVAL OR NOTICE OF DEFICIENCY OF SUBMITTALS:

A. The director shall, within 60 days after receiving an administratively complete stage 1 abatement plan, a site investigation report, a technical infeasibility demonstration or an abatement completion report approve the document, or notify the responsible person of the document's deficiency, based upon the information available.

B. If the division does not hold a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 90 days after receiving a stage 2 abatement plan proposal, approve the plan, or notify the responsible person of the plan's deficiency, based upon the information available.

C. If the division holds a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 60 days after receiving the required information, approve stage 2 of the abatement plan proposal, or notify the responsible person of the plan's deficiency, based upon the information contained in the plan and the information submitted at the hearing.

D. If the director notifies a responsible person of a deficiency in a site investigation report, or in a stage 1 or stage 2 abatement plan proposal, the responsible person shall submit a modified document to cure the deficiencies the director specifies within 30 days after receiving the notice of deficiency. The responsible person is in violation of 19.15.30 NMAC if the responsible person fails to submit a modified document

within the required time, or if the responsible person does not in the modified document make a good faith effort to cure the deficiencies the director specified.

E. Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided further that stage 2 of the abatement plan, if implemented, shall result in the standards and requirements set forth in 19.15.30.9 NMAC being met within a schedule that is reasonable given the site's particular circumstances, the director shall approve the plan.

[19.15.30.16 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.17 INVESTIGATION AND ABATEMENT: A responsible person who receives the division's approval for stage 1 or stage 2 of an abatement plan shall conduct investigation, abatement, monitoring and reporting activities in compliance with 19.15.30 NMAC and according to the terms and schedules contained in the approved abatement plans.

[19.15.30.17 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.18 ABATEMENT PLAN MODIFICATION:

A. The division may modify an approved abatement plan at the responsible person's written request in accordance with 19.15.30 NMAC with the director's written approval.

B. If data the responsible person submitted pursuant to monitoring requirements specified in the approved abatement plan or other information available to the director indicates that the abatement action is ineffective, or is creating unreasonable injury to or interference with health, welfare, environment or property, the director may require a responsible person to modify an abatement plan within the shortest reasonable time so as to effectively abate water pollution that exceeds the standards and requirements set forth in 19.15.30.9 NMAC, and to abate and prevent unreasonable injury to or interference with health, welfare, environment or property.

[19.15.30.18 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.19 COMPLETION AND TERMINATION:

A. The division shall consider abatement complete when the responsible person meets the standards and requirements set forth in 19.15.30.9 NMAC. At that time, the responsible person shall submit an abatement completion report, documenting compliance with the standards and requirements set forth in 19.15.30.9 NMAC, to the director for approval. The abatement completion report also shall propose changes to long-term monitoring and site maintenance activities, if needed, to be performed after the abatement plan's termination.

B. Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided further that the responsible person has met the standards and requirements set forth in 19.15.30.9 NMAC, the director shall approve the abatement completion report. When the director approves the abatement completion report, the director shall also notify the responsible person in writing that the abatement plan is terminated.

[19.15.30.19 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.20 DISPUTE RESOLUTION: In the event of a technical dispute regarding the requirements of 19.15.29 NMAC, 19.15.30.9 NMAC, 19.15.30.12 NMAC, 19.15.30.13 NMAC, 19.15.30.18 NMAC or 19.15.30.19 NMAC, including notices of deficiency, the responsible person may notify the director by certified mail that a dispute has arisen, and the responsible person desires to invoke the dispute resolution provisions of 19.15.30.20 NMAC provided that the responsible person shall send the notification within 30 days after the responsible person receives the director's decision that causes the dispute. Upon the notification, the deadlines affected by the technical dispute shall be extended for a 30 day negotiation period, or for a maximum of 60 days if approved by the director for good cause shown. During this negotiation period, the director or the director's designee and the responsible person shall meet at least once. A mutually agreed upon third part may facilitate the meeting, but the third party shall assume no power or authority granted or delegated to the director by the Oil and Gas Act or by the division or commission. If the dispute remains unresolved after the negotiation period, the director's decision shall be final.

[19.15.30.20 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

19.15.30.21 APPEALS FROM DIRECTOR'S AND DIVISION'S DECISIONS:

A. If the director

(1) determines that an abatement plan is required pursuant to 19.15.29.11 NMAC;

(2) approves or provides notice of deficiency of a proposed abatement plan, technical infeasibility demonstration or abatement completion report; or

(3) modifies or terminates an approved abatement plan

the director shall provide written notice of the action by certified mail to the responsible person and other persons who participated in the action.

B. A person who participated in the action before the director and that the action listed in Subsection A of 19.15.30.21 NMAC adversely affects may file a petition requesting a hearing before a division examiner.

C. The person shall make the petition in writing and file it with the division within 30 days after receiving notice of the director's action. The petition shall specify the portions of the action to which the petitioner objects, certify that the person has mailed or hand-delivered a copy of the petition to the director and to the applicant or permittee if the petitioner is not the applicant or permittee and have attached a copy of the action for which the person seeks review. Unless a person makes a timely petition for hearing, the director's action is final.

D. The hearing before the division shall be conducted in the same manner as other division hearings.

E. The petitioner shall pay the cost of the court reporter for the hearing.

F. A party adversely affected by a division order pursuant to a hearing held by a division examiner, shall have a right to have the

matter heard de novo before the commission.

G. The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with federal or state laws including regulations or rules.

[19.15.30.21 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

HISTORY of 19.15.30 NMAC:

History of Repealed Material: 19.15.1 NMAC, General Provisions and Definitions (filed 04/27/2001) repealed 12/1/08.

NMAC History:

That applicable portion of 19.15.1 NMAC, General Provisions and Definitions (Section 19) (filed 04/27/2001) was replaced by 19.15.30 NMAC, Remediation, effective 12/1/08.

Spill Prevention, Control, and Countermeasure Provisions

Amendment Item #7 (m)

1. Potential discharge volumes: See attached for Inventory of exposed materials
    a. The site is generally flat with drainage to the west from the south end of the facility, and from the north end of the facility drainage would drain north.
    b. The inventory list will be maintained and updated whenever the materials handled change.
2. Containment and diversionary structures: The facility is configured to minimize the likelihood of a discharge reaching navigable waters.
    a. Prevention:
        i. Good Housekeeping: all exposed areas of the facility are kept in a clean, orderly manner where such exposed areas could contribute pollutants.
        ii. Minimizing exposure: all areas of the facility are bermed.
        iii. Preventive maintenance: periodic inspections and maintenance of facility equipment and containment systems so as to minimize breakdowns or failures that may result in discharges of pollutants to surface waters.
        iv. Spill prevention and response procedures: Agua Moss has implemented a spill response procedure that is kept in the facility trailer house in the event of a spill or discharge.
        v. Employee training will be conducted on an annual basis or when training new employees. It will include:
            1. Inspection requirements
            2. Preventive maintenance
            3. Spill prevention
            4. Location of spill response equipment
            5. Spill response procedures
            6. Good housekeeping measures.
        vi. Inspections: inspections of tanks, pumps, pipes, pipe fittings, secondary containment structures, catch basins and storage areas for leaks, releases and proper operation will be done on a quarterly basis.
    b. Facility Drainage: Drainage at the site is primarily by sheet flow to the north.
    c. Secondary Containment for bulk storage containers: In order to further minimize the potential for a discharge to navigable waters, bulk storage containers such as all tanks, separation, and treating equipment are placed inside a 2.5-ft tall earthen berm (fire wall). It provides secondary containment sufficient for the size of the largest tank, plus at least 1 ft of freeboard to contain precipitation.

d. Overflow Prevention:
    i. The tanks are designed with a fail-safe system to prevent discharge as follows:
        1. The capacity of the settling tanks is sufficient to ensure that fluids that are to be injected is adequate in the event where facility personnel are unable to perform the required visit to unload the tanks or the pumper is delayed in stopping production.
e. Transfer operations and disposal system: All aboveground valves and piping associated with transfer operations are inspected daily by the pumper and/or tank truck driver. The inspection procedure includes observing flange joints, valve glands and bodies, drip pans, and pipe supports. The conditions of the pumping well polish rod stuffing boxes, and bleeder and gauge valves, are inspected monthly. Components of the produced water disposal system are inspected on a monthly basis by field operation. This includes the pumps and motors for working condition and leaks, hoses, valves, flowlines, and the injection wellhead. Maintenance and operation of the well itself and the downhole injection comply with EPA's and the state's Underground Injection Control (UIC) rules and regulations.
f. Inspections, Tests, and Records: This Plan outlines procedures for inspecting the facility equipment. Records of inspections performed as described in this Plan and signed by the appropriate supervisor are a part of this Plan, and are maintained with this Plan at the Sunco Disposal field office for a minimum of three years. The reports include a description of the inspection procedure, the date of inspection, whether drainage of accumulated rainwater was required, and the inspector's signature.
    i. Table 1 for daily examinations
    ii. Table 2 for monthly examinations
    iii. monthly inspection checklist

INVENTORY OF EXPOSED MATERIALS- North End of Facility

Area	Material	Pollutant	Volume	Activity Exposing Material	Best Management Practice
Settling Tanks	Produced water	Petroleum Hydrocarbons	(4) 400 bbl	Tank leak, Leak	Bermed. As soon as practical the tanks will be lined
Pump House #1 & #2 Corrosion inhibitor drum Motor Oil Drum	Corrosion inhibitor & motor oil	Petroleum Hydrocarbons	55 gallons 30 gallons	Leak	None
Steel Suction Tank Pit	Oil water	Petroleum Hydrocarbons	400 bbl	Tank Failure, Leak	Bermed
Injection Well House: Injection pump sump	Oily water	Petroleum Hydrocarbons	10 bbls	Overflow, leak	Bermed

INVENTORY OF EXPOSED MATERJALS- South End of Facility

Area	Material	Pollutant	Volume	Activity Exposing Material	Best Management Practice
Saddle Tank	Oily Water	Petroleum Hydrocarbons	400 bbl	Tank leak, Leak	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated
Cement Stabilization Slabs	Produced water	Petroleum Hydrocarbons	130 bbls	Spilling during unloading	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated
Sludge Tanks	Sludge	Petroleum Hydrocarbons	(2) 400 bbl	Tank Failure, Leak	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated

INVENTORY OF EXPOSED MATERJALS- West End of Facility

Area	Material	Pollutant	Volume	Activity Exposing Material	Best Management Practice
Saddle Tank	Oily Water	Petroleum Hydrocarbons	400 bbl	Tank leak, Leak	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated
Cement Stabilization Slabs	Produced water	Petroleum Hydrocarbons	130 bbls	Spilling during unloading	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated
Sludge Tanks	Sludge	Petroleum Hydrocarbons	(2) 400 bbl	Tank Failure, Leak	Bermed Not in use, as soon as practical this part of the facility will be removed & remediated

Table 1: Scope of daily examinations

Facility Area	Item	Observations
Storage Tanks (Oil and Produced water)	Leaks	Tank liquid level gauged
		Drip marks, leaks from weld seams, base of tank
		Puddles containing spilled or leak material
		Corrosion, especially at base (pitting, flaking)
		Cracks in metal
		Excessive soil or vegetation buildup against base
	Foundation problems	Cracks
		Puddles containing spilled or leaked material
		Settling
		Gaps at base
	Flowlines problems	Evidence of leaks, especially at connections/collars
		Corrosion (pitting, flaking)
		Settling
		Evidence of stored material seepage from valves or seals
Well	Leak	Evidence of oil seepage from pumping rod stuffing boxes, wellhead and wellhead flowlines, valves, gauges
Pumps	Leaks	Leaks at seals, flowlines, valves, hoses
		Puddles containing spilled or leaked material
		Corrosion

Table 2: Scope of monthly inspections

Facility Area	Equipment	Inspection Item
Tanks	Storage tanks	Leakage, gaskets, hatches Tank liquid level checked Tank welds in good condition Vacuum vents Overflow lines Piping, valves, and bull plugs Corrosion, paint condition Pressure / level safety devices* Emergency shut-down system(s)* Pressure relief valves*
	Area	Berm and curbing Presence of contaminated/stained soil Excessive vegetation Equipment protectors and signs Engine drip pans and sumps General housekeeping
Truck Loading	Offload lines, drip pans, valves, catchment berm	Valve closed and in good condition Cap or bull plug at end of offload line/connection Sign of oil or standing water in drip pan(s) Sign of oil or standing water in catchment berm Sign of oil in surrounding area
	Production equipment	Gauges (pressure, temperature, and liquid level) Pressure / level safety devices* Emergency shut-down system(s)* Pressure relief valves*
Well	Area	Spills and leaks (e.g., stuffing box) Equipment protectors and signs General housekeeping
Leasehold area between wells and Tank Battery	Flowlines	Flowline between the well and tank battery/gun barrel Exposed line of buried piping Valves (condition of, whether locked or sealed) Evidence of leaks and/or damage, especially at connections/collars Corrosion (pitting, flaking) Pipe supports
	Road and Field Ditches	Evidence/puddles of crude oil and/or produced water
Other	Chemicals, Fuels and Lube Oils	Storage conditions
Response staging areas	Area	Road practicable by field vehicle Area clear of excessive vegetation
* Tested quarterly by third party inspection company.		

Monthly Inspection Checklist

Further description and comments, if needed, should be provided on a separate sheet of paper and attached to this sheet. Any item answered "YES" needs to be promptly reported, repaired, or replaced, as it may result in non-compliance with regulatory requirements. Records are maintained with the SPCC Plan at the Ridgeview field office.

Date: _____ Signature: _____

	Yes	No	Description & Comments (Note tank/equipment ID)
Storage tanks and Separation Equipment			
Tank surfaces show signs of leakage			
Tanks show signs of damage, rust, or deterioration			
Bolts, rivets or seams are damaged			
Aboveground tank supports are deteriorated or buckled			
Aboveground tank foundations have eroded or settled			
Gaskets are leaking			
Level gauges or alarms are inoperative			
Vents are obstructed			
Thief hatch and vent valve does not seal air tight			
Containment berm shows discoloration or stains			
Berm is breached or eroded or has vegetation			
Berm drainage valves are open/broken			
Tank area clear of trash and vegetation			
Equipment protectors, labels, or signs are missing			
Piping/Flowlines and Related Equipment			
Valve seals or gaskets are leaking.			
Pipelines or supports are damaged or deteriorated.			
Buried pipelines are exposed.			
Transfer equipment			
Loading/unloading lines are damaged or deteriorated.			
Connections are not capped or blank-flanged			
Secondary containment is damaged or stained			
Response Kit Inventory			
Discharge response material is missing or damaged or needs replacement			

Additional Remarks (attach sheet as needed):

Attachment 13

Notice of Publication

Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This industrial disposal well injects non-exempt, non-hazardous ~~oil field~~ waste into the Point Lookout formation from 4350-4460 feet at a daily rate of 2000-4000 bbls and a maximum injection pressure of ~~2850~~ psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

Proposed Newspapers of publication:

1. The Daily Times- Farmington, NM
2. The Santa Fe New Mexican – Santa Fe, NM
3. Will be published in English and Spanish is a display ad at least 2 x 3 inches NOT in the classified or legal notice section of the newspaper for 1-day duration.

Aviso de publicación
Propuesta

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho industrial, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria de 2000-4000 barriles y una presión de inyección máxima de 2850 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l).La concentración de TDS del agua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / l. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.

Prensa propuesta de publicación:

1. The Daily Times-Farmington, NM
2. El Santa Fe de Nuevo México - Santa Fe
3. Será publicada en Inglés y Español es un anuncio de pantalla de al menos 2 NO x 3 pulgadas en la sección de aviso clasificado o jurídica del periódico de la duración de 1 día.

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:57 AM
To: Chavez, Carl J, EMNRD
Subject: TOPO 7.5
Attachments: Amended Facility diagrams and topo0000.pdf

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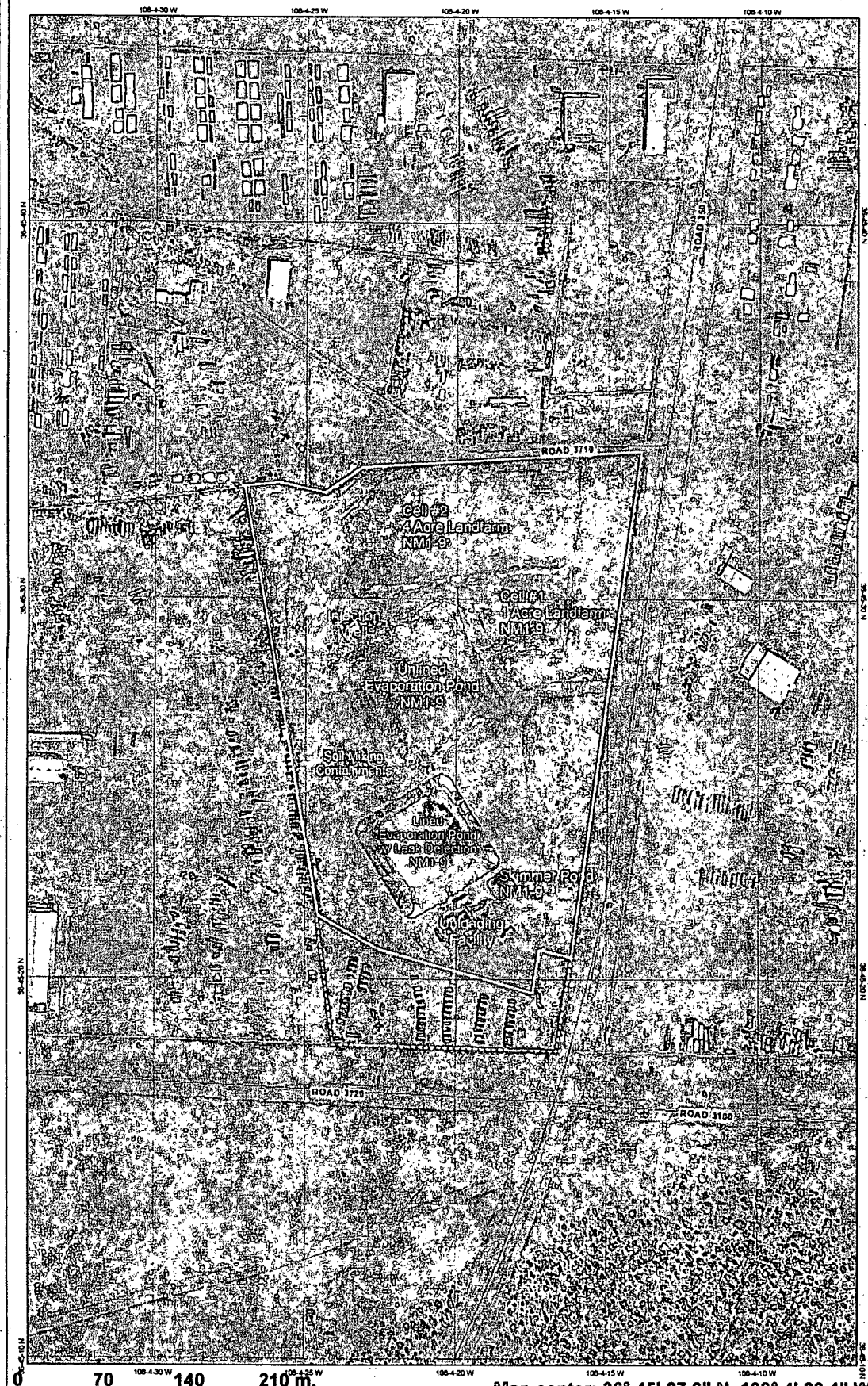
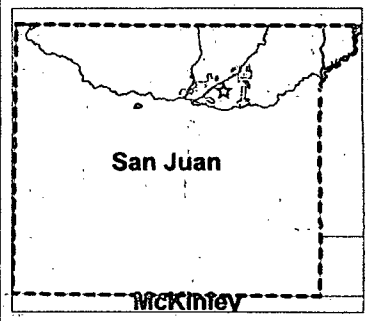
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Sunco Facility & Yard





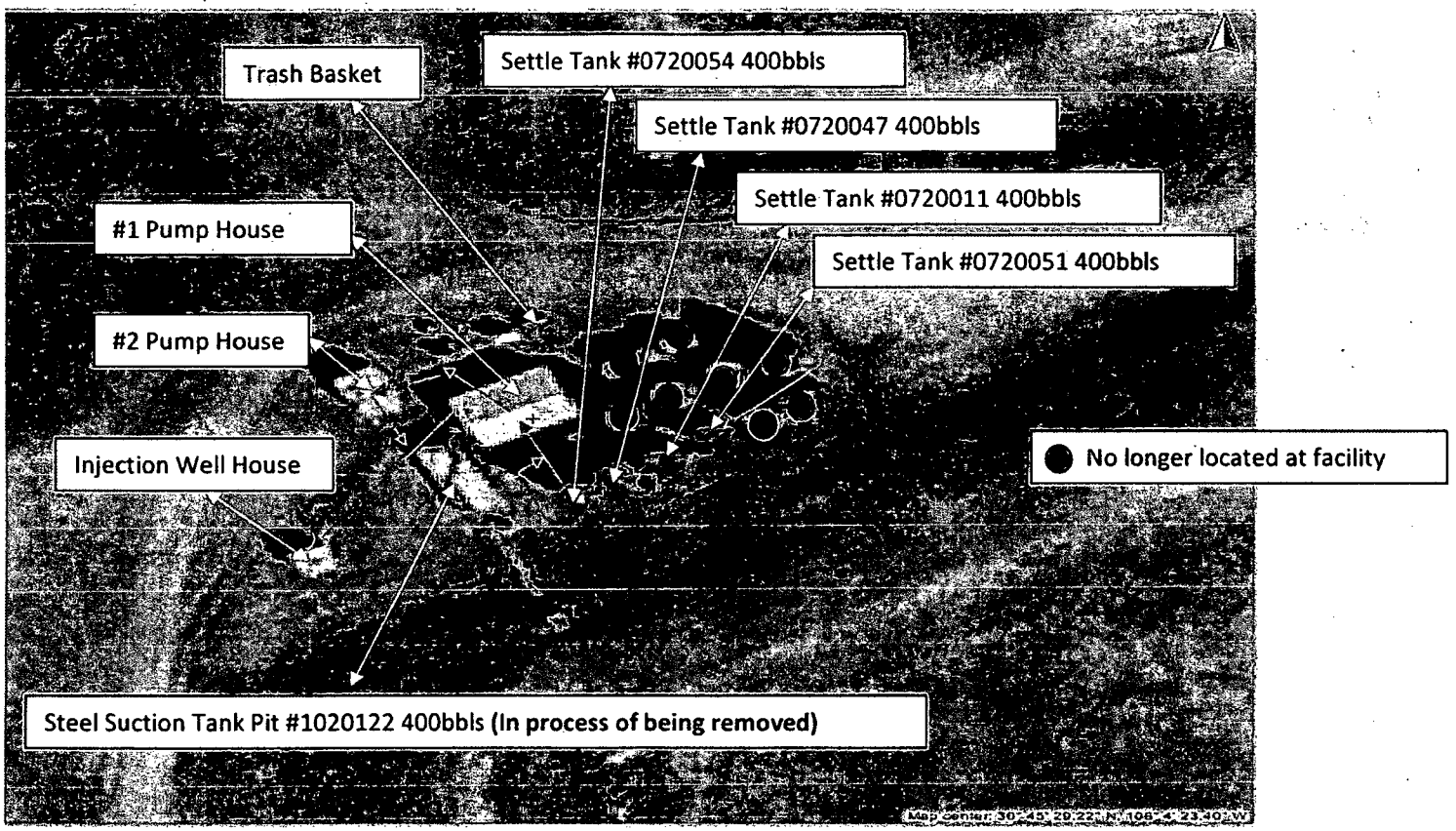
Legend

- RIVERS
- LAKES
- SJC Road Status
- Major Roads
- Private
- County Maintained
- Limited County Maintained
- City
- Oil and Gas roads
- ROADS
- SAN JUAN COUNTY
- NAVAJO RESERVATION
- PARCELS
- 2009 aerials

Scale: 1:2,400

Map center: 36° 45' 27.6" N, 108° 4' 20.4" W

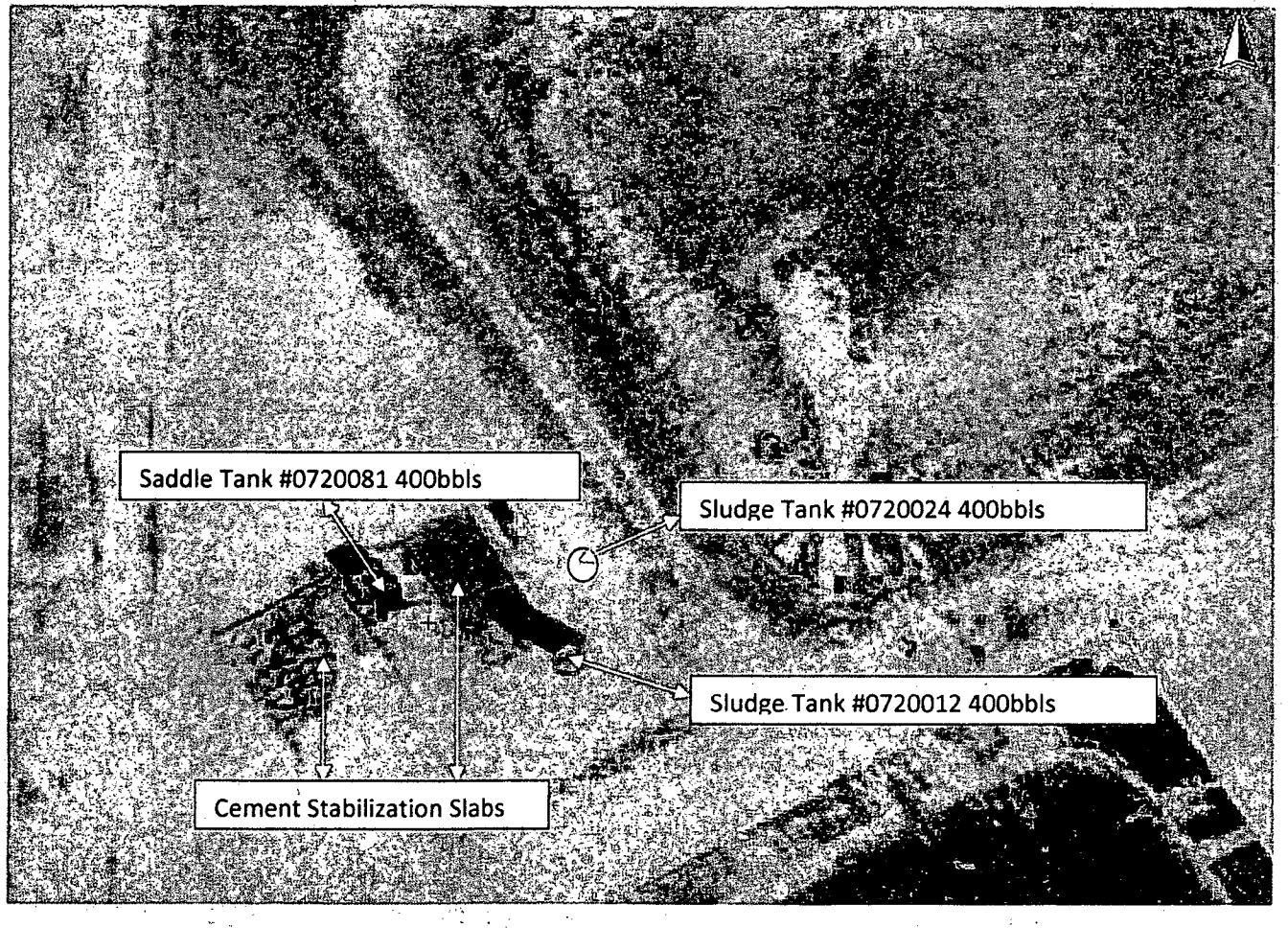
North End of Location: Detailed diagram & Process description



Process:

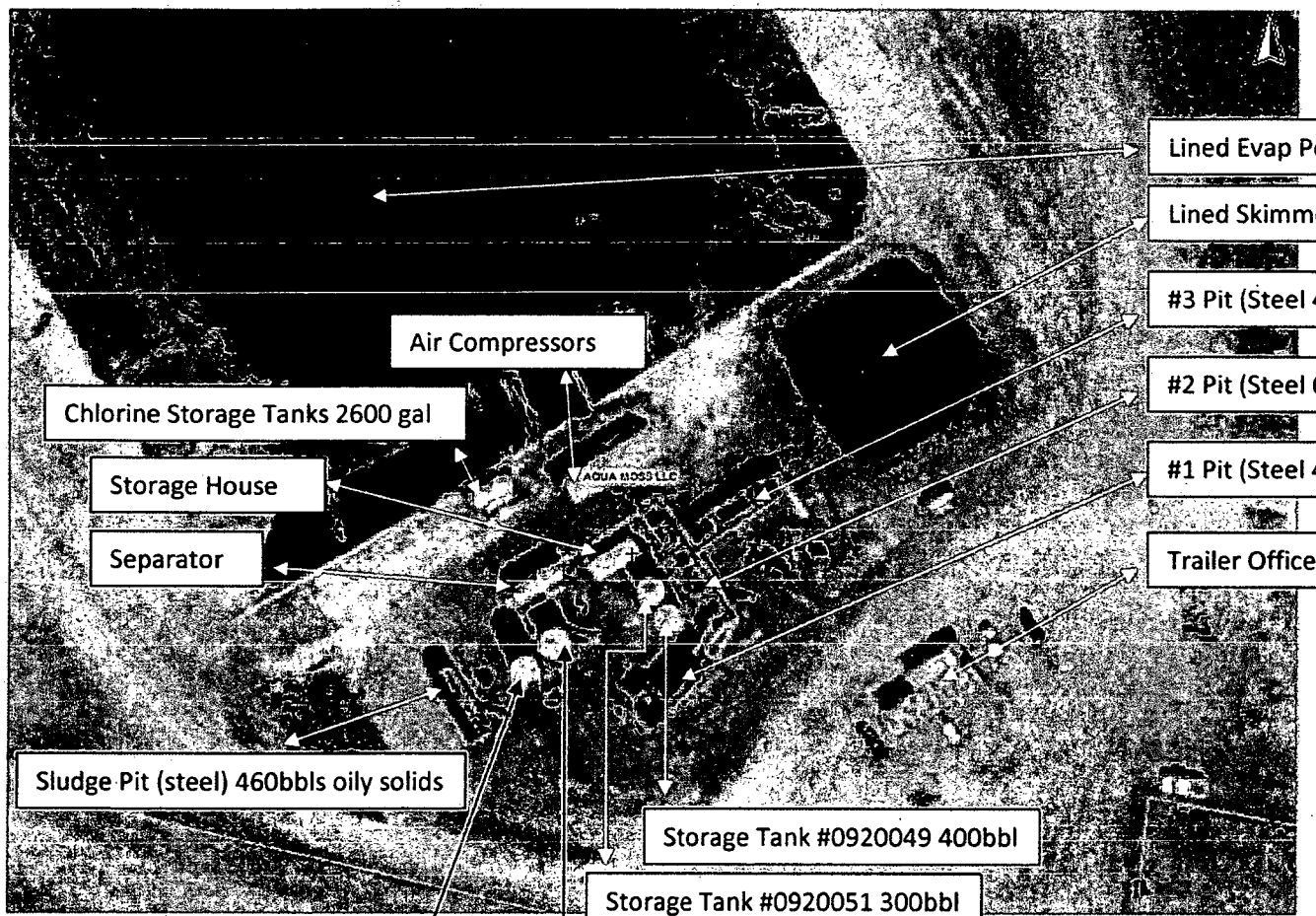
Truck arrives on location, unloads into settle tanks. Approximately every two days the tank contents are transferred to pump house #1 through two filter pots (Pump House #2 is back up) and then injected down well head located in the injection well house.

West End of Location: Detailed Diagram of soil Mixing Containments

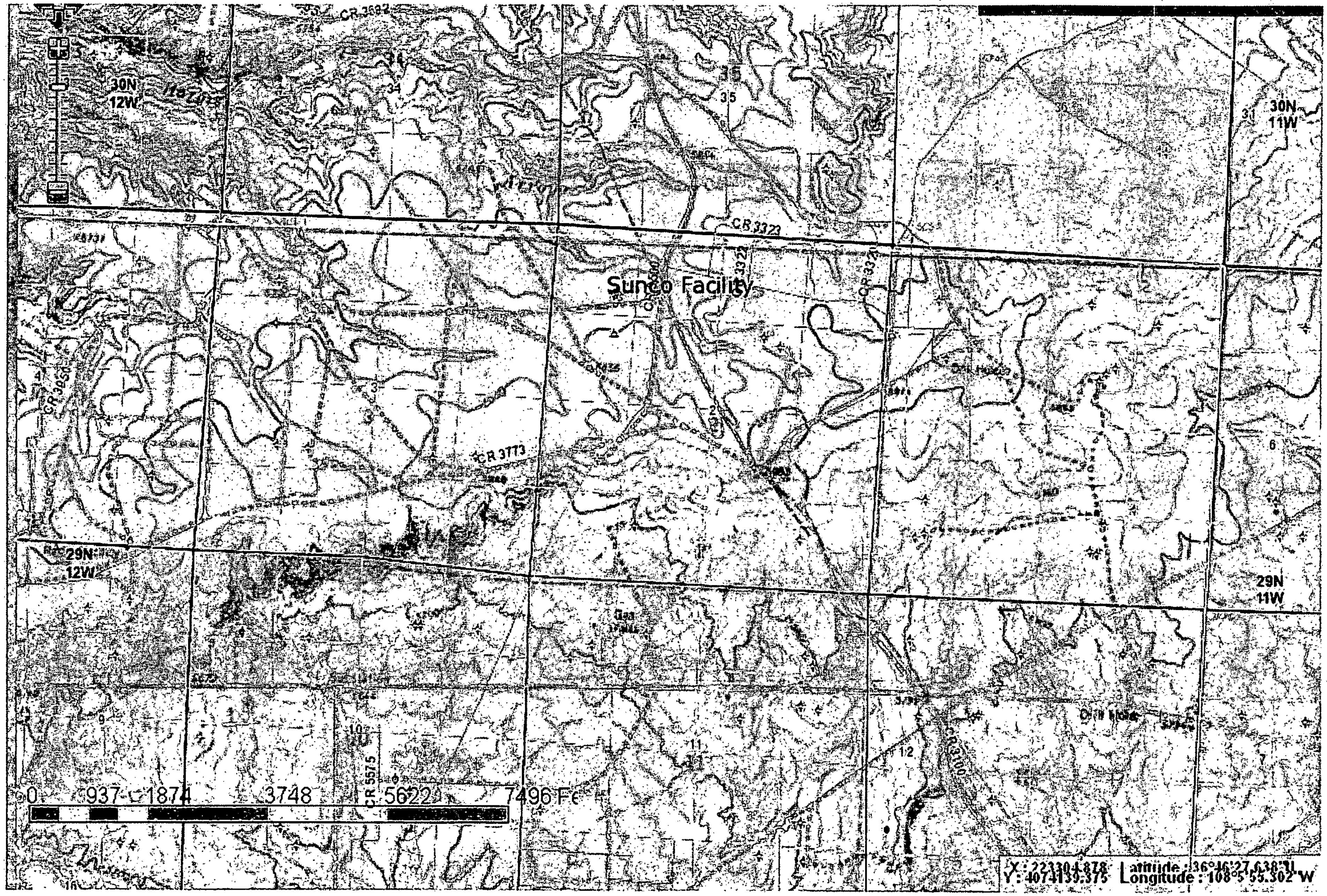


This part of the facility is not in use. Plans are currently being implemented to remove equipment.

South End of Location: Detailed diagram



The South End of the facility is no longer being utilized by Agua Moss. Plans are currently being implemented to remove the equipment.



30N
12W
30N
11W
29N
12W
29N
11W
CR 3323
CR 3773
CR 3100
CR 5575
Sunco Facility
0 937 1874 3748 5622 7496 Fe
X : 223304.878 Y: 4074139.375 Latitude : 36°46'27.638"N Longitude : 108°5'55.302" W

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:54 AM
To: Chavez, Carl J, EMNRD
Subject: Facility layout diagrams
Attachments: West End of Location.pdf; amended diagram north end.pdf; amended diagram south end.pdf

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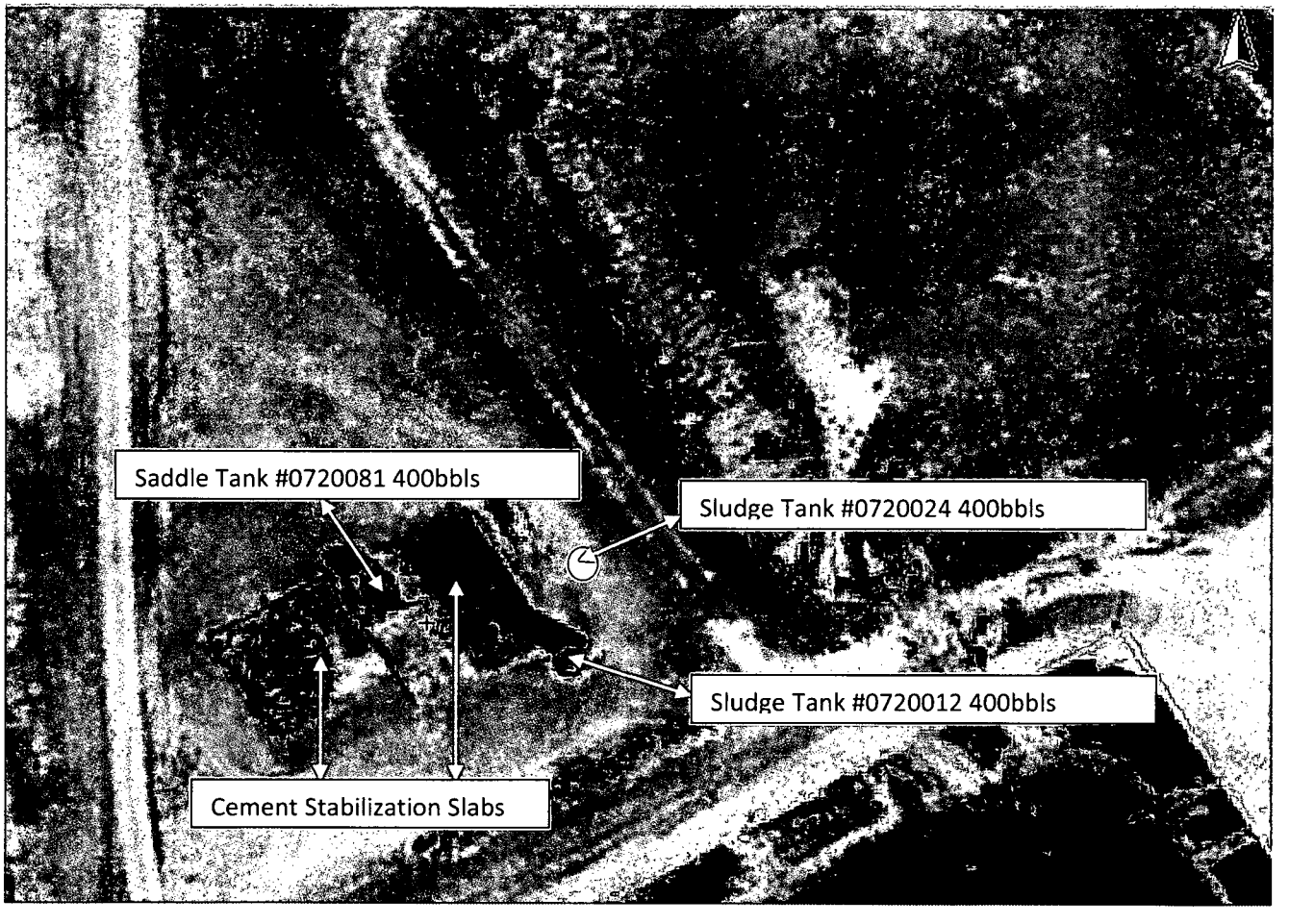
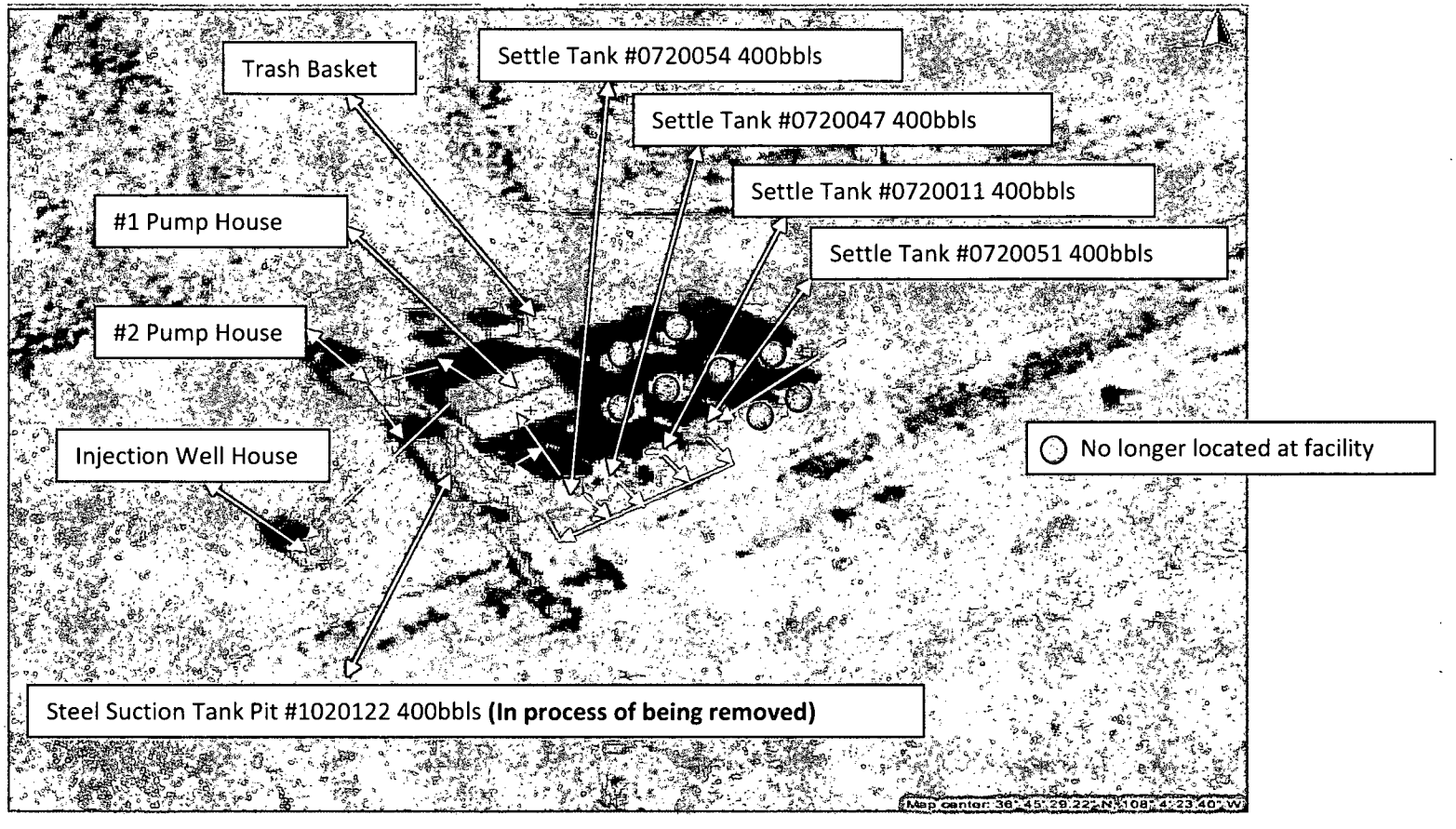
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

West End of Location: Detailed Diagram of soil Mixing Containments



This part of the facility is not in use. Plans are currently being implemented to remove equipment.

North End of Location: Detailed diagram & Process description



Process:

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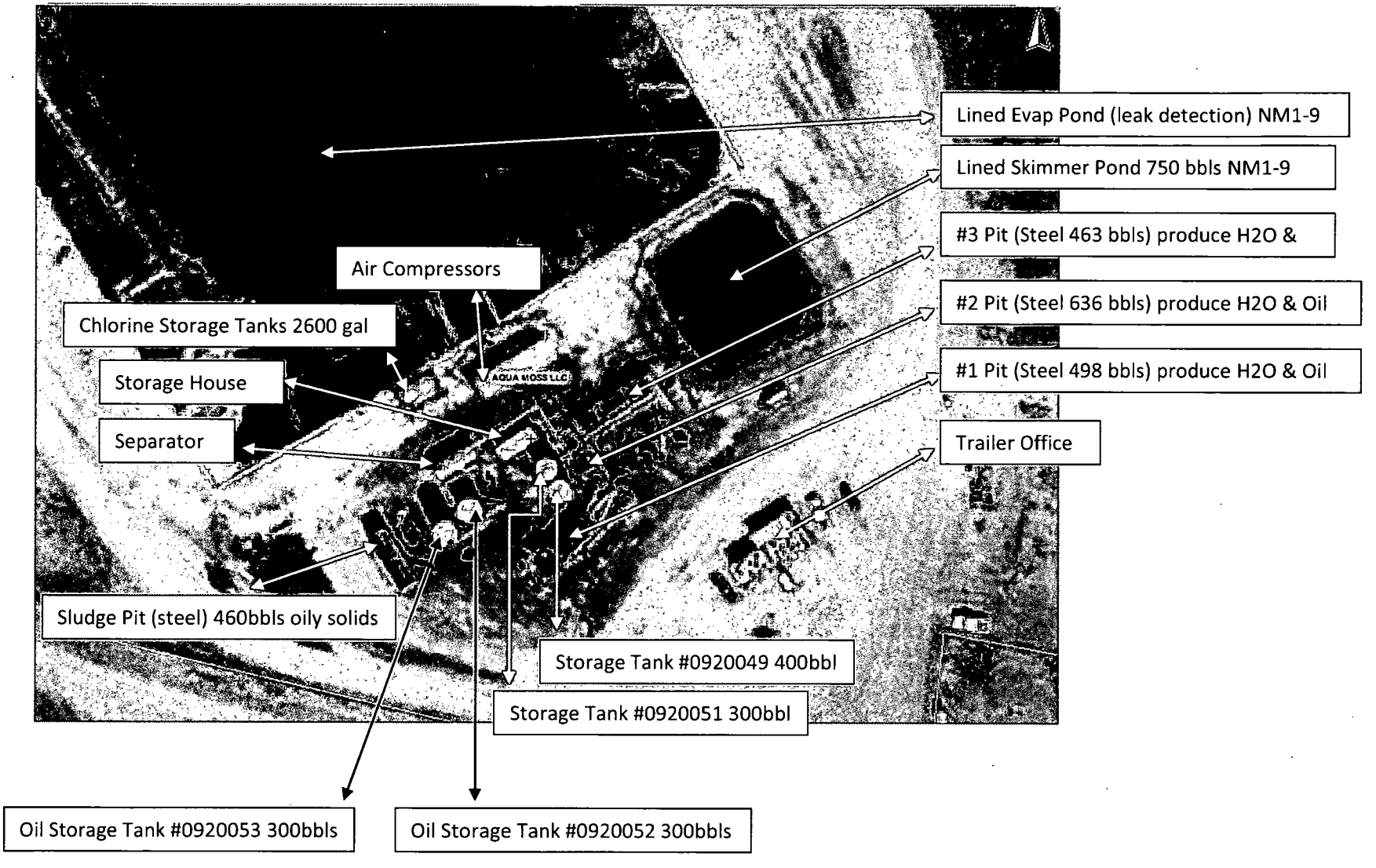
South End of Location: Detailed diagram



The South End of the facility is no longer being utilized by Agua Moss. Plans are currently being implemented to remove the equipment.

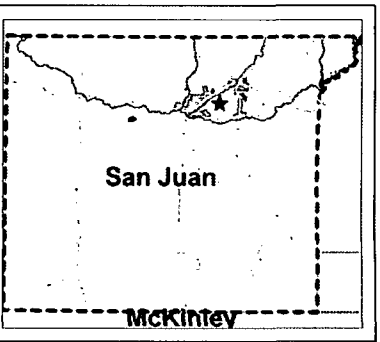
Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:55 AM
To: Chavez, Carl J, EMNRD
Subject: facility diagram
Attachments: 2012-02-14 Sunco Facility.pdf

--

Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Sunco Facility & Yard



Legend

- RIVERS
- LAKES
- SJC Road Status
- Major Roads
- Private
- County Maintained
- Limited County Maintained
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- roads
- ROADS
- SAN JUAN COUNTY
- NAVAJO RESERVATION
- PARCELS
- 2009 aerials

0 70 140 210 m.

Map center: 36° 45' 27.6" N, 108° 4' 20.4" W

Scale: 1:2,400

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, February 28, 2012 1:21 PM
To: 'Philana Thompson'
Cc: VonGonten, Glenn, EMNRD; Perrin, Charlie, EMNRD
Subject: RE: Agua Moss bonds for Sunco Disposal #1 & Landfarm
Attachments: Renewal WQCC Notice Regs.pdf; PN Flow Chart.20.6.2renewal.pdf

Philana:

Good afternoon. Today the OCD Environmental Bureau has approved the transfers of the UIC Class I (NH) Disposal Well and Discharge Permit (UICI-005) to Agua Moss LLC. The OCD is still deliberating on whether to keep the "UICI-005" WQCC discharge permit under the same permit number vs. issuing a new UICI permit number. The OCD will keep you posted.

Consequently, today marks the beginning of the OCD review of Agua Moss LLC's Discharge Permit Renewal process. OCD received both fees (filing and permit fee), but should have only received the filing fee because until the OCD renews the discharge permit, and sends the final discharge permit for remittance with the new operator signature, the OCD cannot cash the permit fee check. OCD proposes to cash the $100 filing fee this week and hold onto the final permit fee. The operator can also request cancellation of the $4,500 permit fee and/or allow the OCD to hold onto the check?

Please find attached Acrobat Reader Files (Regulations and Flow Chart) for the WQCC Public Notice Process (20.6.2.3108 NMAC). From the date the OCD deems Agua Moss LLC's discharge permit renewal application to be administratively complete (typically 15 days after the submittal date with the filing fee and assuming the application is complete), this marks the beginning of the public notice process associated with the attached files. I am providing a link (click here) to the OCD Website where the OCD posts its correspondence including the draft permit typically by the date of administrative completeness for future reference. Please review the attached files and contact me if you have questions and/or to go over the OCD permitting process, etc.

Thank you for your cooperation in this matter. Please contact me if you have questions.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/
"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Philana Thompson [mailto:pthompson@merrion.bz]
Sent: Tuesday, January 31, 2012 4:11 PM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Jones, Brad A., EMNRD; Phillips, Dorothy, EMNRD
Subject: Agua Moss bonds for Sunco Disposal #1 & Landfarm

Attached is the revised bond to reflect the Manager/Owner signature. I will be sending the original overnight tomorrow , so you should have it by Thursday. Please let me know if you should have any questions or concerns.

Thanks Philana

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Notice Requirements For Discharge Permit Renewals

20.6.2.3108 PUBLIC NOTICE AND PARTICIPATION:

A. Within 15 days of receipt of an application for a discharge permit, modification or renewal, the department shall review the application for administrative completeness. To be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC. The department shall notify the applicant in writing when the application is deemed administratively complete. If the department determines that the application is not administratively complete, the department shall notify the applicant of the deficiencies in writing within 15 days of receipt of the application and state what additional information is necessary.

B. Within 30 days of the department deeming an application for discharge permit or discharge permit modification administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

(2) providing written notice of the discharge by mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

(3) providing notice by certified mail, return receipt requested, to the owner of the discharge site if the applicant is not the owner; and

(4) publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

C. Within 30 days of the department deeming an application for discharge permit renewal administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) providing notice by certified mail to the owner of the discharge site if the applicant is not the owner; and

(2) publishing a synopsis of the notice, in English and in Spanish, in a display ad at least two inches by three inches, not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the discharge.

D. Within 15 days of completion of the public notice requirements in Subsections B or C of 20.6.2.3108 NMAC, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

E. Within 30 days of determining an application for a discharge permit, modification or renewal is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or e-mail notice to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. The notice shall include the information listed in Subsection F of 20.6.2.3108 NMAC.

F. The notice provided under Subsection B, C and E of 20.6.2.3108 NMAC shall include:

(1) the name and address of the proposed discharger;

(2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;

(3) a brief description of the activities that produce the discharge described in the application;

(4) a brief description of the expected quality and volume of the discharge;

(5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge;

(6) the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and

(7) a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

G. All persons who submit comments or statements of interest to the department or previously participated in a public hearing and who provide a mail or e-mail address shall be placed on a facility-specific mailing list and the department shall send those persons the public notice issued pursuant to Subsection H of 20.6.2.3108 NMAC, and notice of any public meeting or hearing scheduled on the application. All persons who contact the department to inquire about a specific facility shall be informed of the opportunity to be placed on the facility-specific mailing list.

H. Within 60 days after the department makes its administrative completeness determination and all required technical information is available, the department shall make available a proposed approval or disapproval of the application for a discharge permit, modification or renewal, including conditions for approval proposed by the department or the reasons for disapproval. The department shall mail by certified mail a copy of the proposed approval or disapproval to the applicant, and shall provide notice of the proposed approval or disapproval of the application for a discharge permit, modification or renewal by:

(1) posting on the department's website;

(2) publishing notice in a newspaper of general circulation in this state and a newspaper of general circulation in the location of the facility;

(3) mailing or e-mailing to those persons on a facility-specific mailing list;

(4) mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department; and

(5) mailing to the governor, chairperson, or president of each Indian tribe, pueblo or nation within the state of New Mexico, as identified by the department.

I. The public notice issued under Subsection H shall include the information in Subsection F of 20.6.2.3108 NMAC and the following information:

(1) a brief description of the procedures to be followed by the secretary in making a final determination;

(2) a statement of the comment period and description of the procedures for a person to request a hearing on the application; and

(3) the address and telephone number at which interested persons may obtain a copy of the proposed approval or disapproval of an application for a discharge permit, modification or renewal.

J. In the event that the proposed approval or disapproval of an application for a discharge permit, modification or renewal is available for review within 30 days of deeming the application administratively complete, the department may combine the public notice procedures of Subsections E and H of 20.6.2.3108 NMAC.

K. Following the public notice of the proposed approval or disapproval of an application for a discharge permit, modification or renewal, and prior to a final decision by the secretary, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. All comments will be considered by the department. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

L. If a hearing is held, pursuant to Subsection K of 20.6.2.3108 NMAC, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection H of 20.6.2.3108 NMAC. The notice shall include the information identified in Subsection F of 20.6.2.3108 NMAC in addition to the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

20.6.2 NMAC 17

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3108 NMAC - Rn, 20 NMAC 6.2.III.3108, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06]

WQCC PUBLIC NOTICE AND PERMITTING FLOWCHART:

20.6.2.3108 – Applications for discharge permits renewals

Applicant flow path

OCD flow path

Process Begins

Applicant submits application, proposal for notice, and filing $fee to OCD

Within 15 days of submittal

Admin. Compl. Review completed

OCD notifies applicant of admin compl determination

Administratively incomplete

Returned to applicant

Administratively complete

Within 30 Days of deeming an application complete

Applicant shall provide notice in accordance of Subsection F of 20.6.2.3108 NMAC

Applicant provides notice by certified mail to the owner of the discharge site, if not the owner

Applicant must publish a synopsis of notice in English and Spanish display ad at least 2 x 3 inches not in the classified or legal section, in a newspaper of general circulation in the location of the proposed discharge

Within 15 days after completion of notice requirements

Applicant submits proof of notice (affidavit of mailings and list of property owners, proof of publication, an affidavit of posting) to OCD

Inadequate notice

OCD will require additional notice

Adequate notice

OCD Notice Process

30 days

Public Notice/ Technical Review (OCD may combine this process)

OCD posts notice on web site and mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations, and land grants, as identified by the department

OCD mail or email notice to those persons of record who have requested notice

60 days

Provide notice in accordance with Subsection F of 20.6.2.3108 NMAC

OCD shall make available a proposed approval or disapproval of the application, with conditions or reasons, on OCD's web site. Publish notice in a newspaper of general circulation in the state and location of the facility. Provide notice by certified mail to the owner of the discharge site. Mail or email notice to those persons of record who have requested notice, and mails notice to any affected governmental agency, ditch associations, and land grants. Mail notice to the governor, chairperson, or president of each Indian tribe, pueblo, or nation within the State of New Mexico.

Hold open 30 days for public comment. The 30 day period shall begin on the date of publication of the notice in the newspaper.

Request for Hearing?

Yes

No

Provide notice of hearing 30 days prior to hearing in accordance with Subsections F and H of 20.6.2.3108

Hearing shall be held pursuant to 20.6.2.3110 NMAC

Approval

30 days

OCD provides copy of approved permit to permittee and interested parties

Applicant required to sign-off on permit and submit Fees

Not an official OCD document-for guidance only

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 7477 dated 2/7/12

or cash received on _____ in the amount of $ 100 00

from Agua Moss LLC

for VICI-5

Submitted by: Lawrence Romero Date: 2/29/12

Submitted to ASD by: [signature] Date: 2/29/12

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2010

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, March 15, 2012 4:57 PM
To: 'Philana Thompson'
Subject: UICI-005 Application for DP Renewal Communication

Philana:

Good afternoon.

The OCD needs the following to complete its application review process:

1) USGS 7.5 Minute Quadrangle Map of Faility with Disposal Well (Scale: 1:24,000)

2) Facility Description w/ Revised Facility Diagram

3) Public Notice Draft Update (in Spanish and English): Note the notice should clarify the injection interval, max. surface injection pressure, etc. and address the acrobat reader files sent to you with the regulations that need to be satisfied in the notice.

4 Contingency Plans for Well and Facility (web search for "environmental contingency plan" may bring up a good example of the elements for your facility plan?)

Thank you for your time this afternoon. Please contact me if you have questions. Thank you.

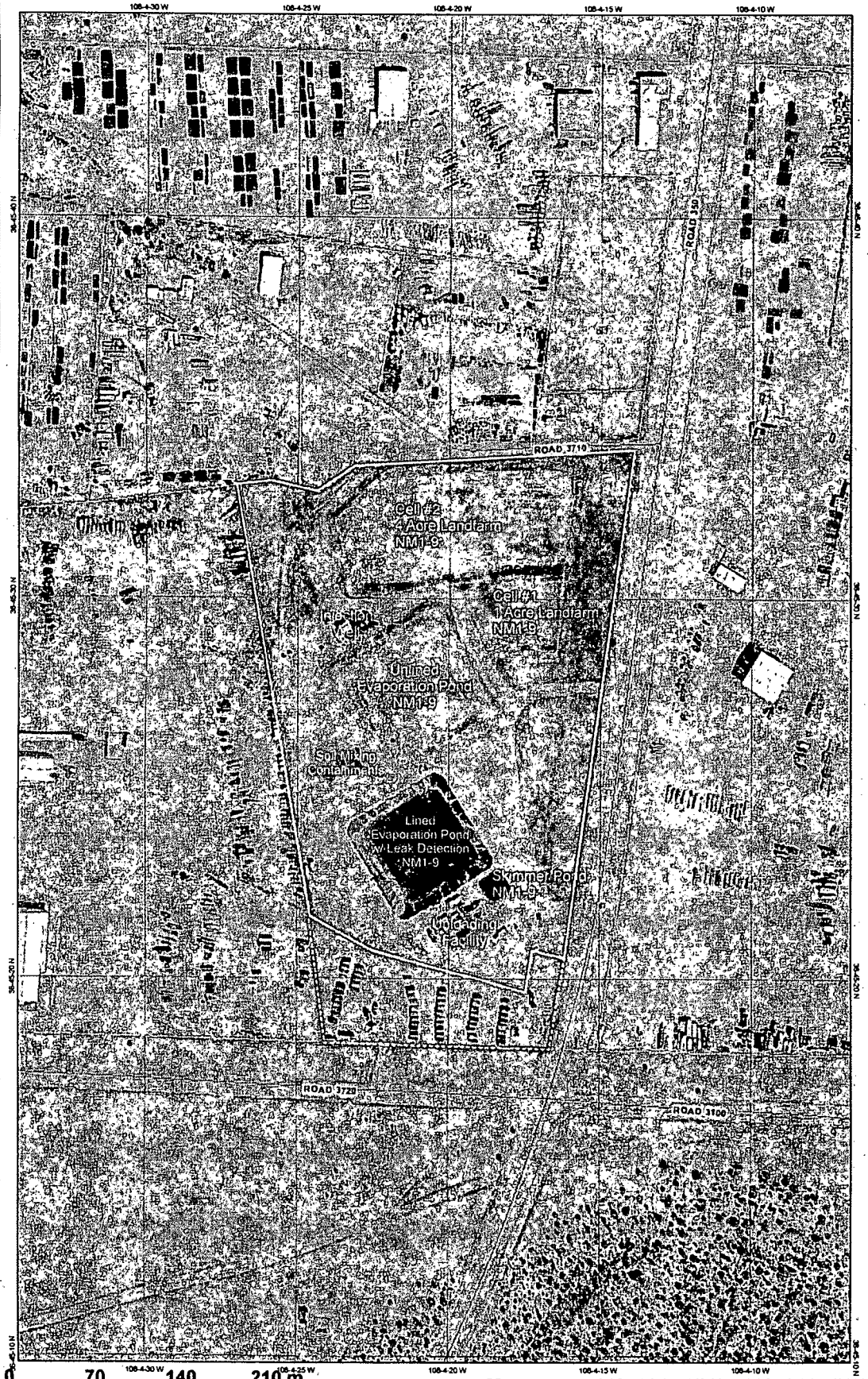
Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/
"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

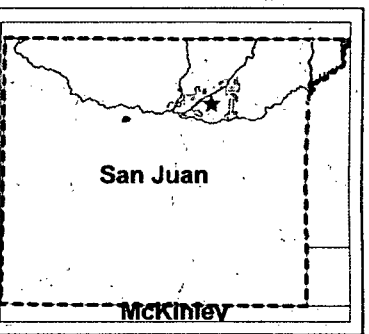
Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:57 AM
To: Chavez, Carl J, EMNRD
Subject: TOPO 7.5
Attachments: Amended Facility diagrams and topo0000.pdf

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Sunco Facility & Yard





Legend

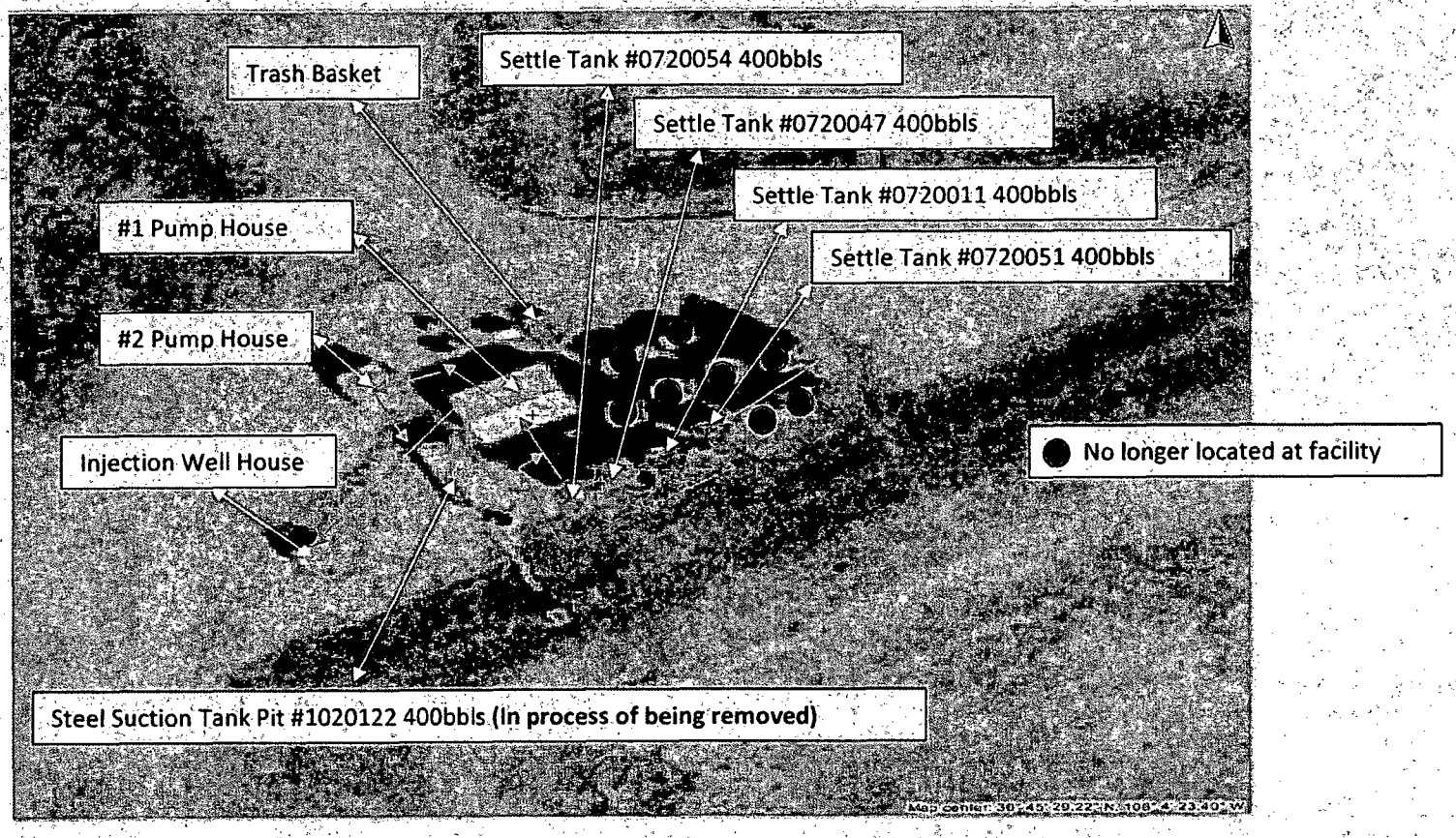
- RIVERS
- LAKES
- SJC Road Status
- Major Roads
- Private
- County Maintained
- Limited County Maintained
- City
- Oil and Gas roads
- ROADS
- SAN JUAN COUNTY
- NAVAJO RESERVATION
- PARCELS
- 2009 aerials

Map center: 36° 45' 27.6" N, 108° 4' 20.4" W

Scale: 1:2,400

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.

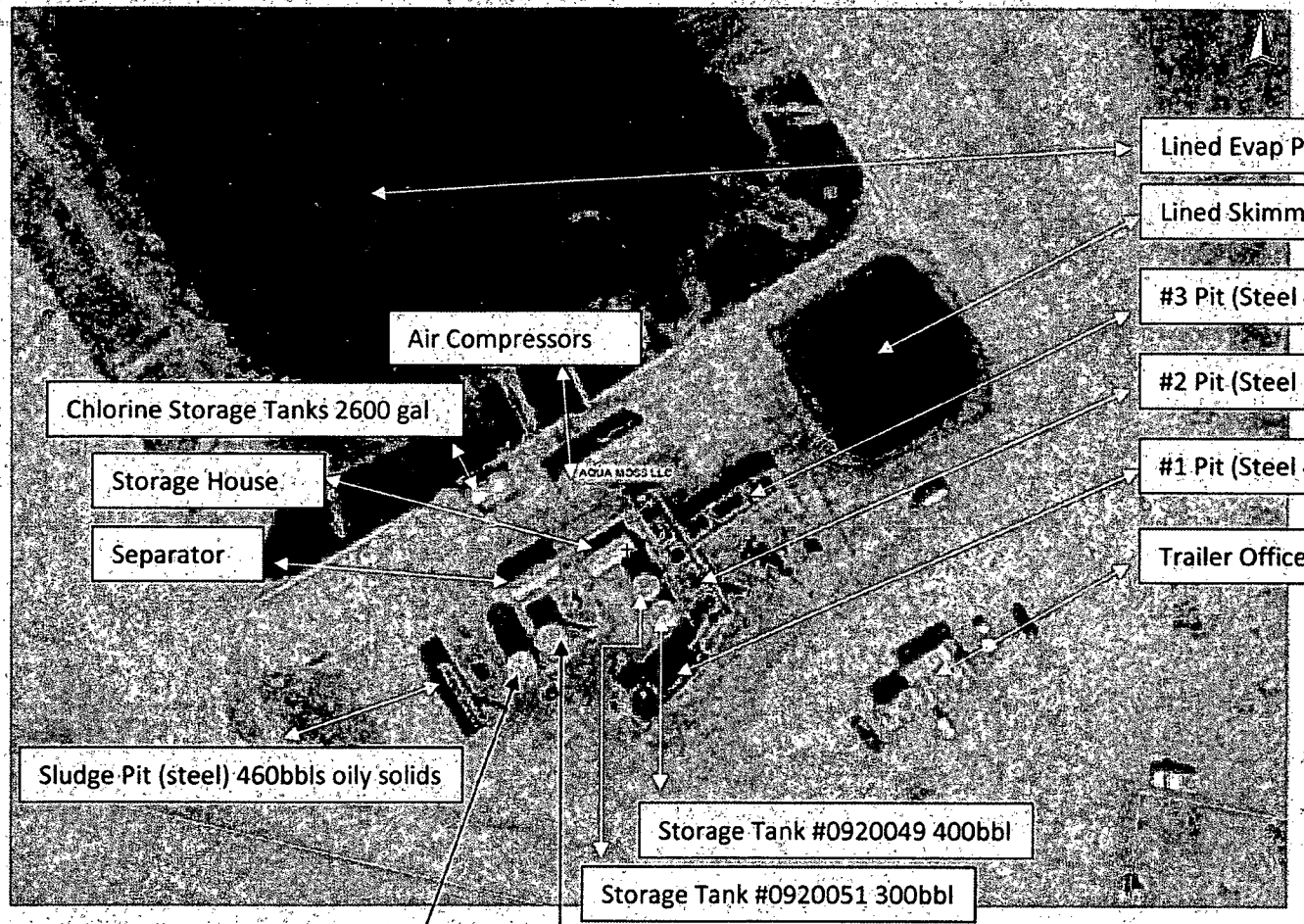
North End of Location: Detailed diagram & Process description



Process:

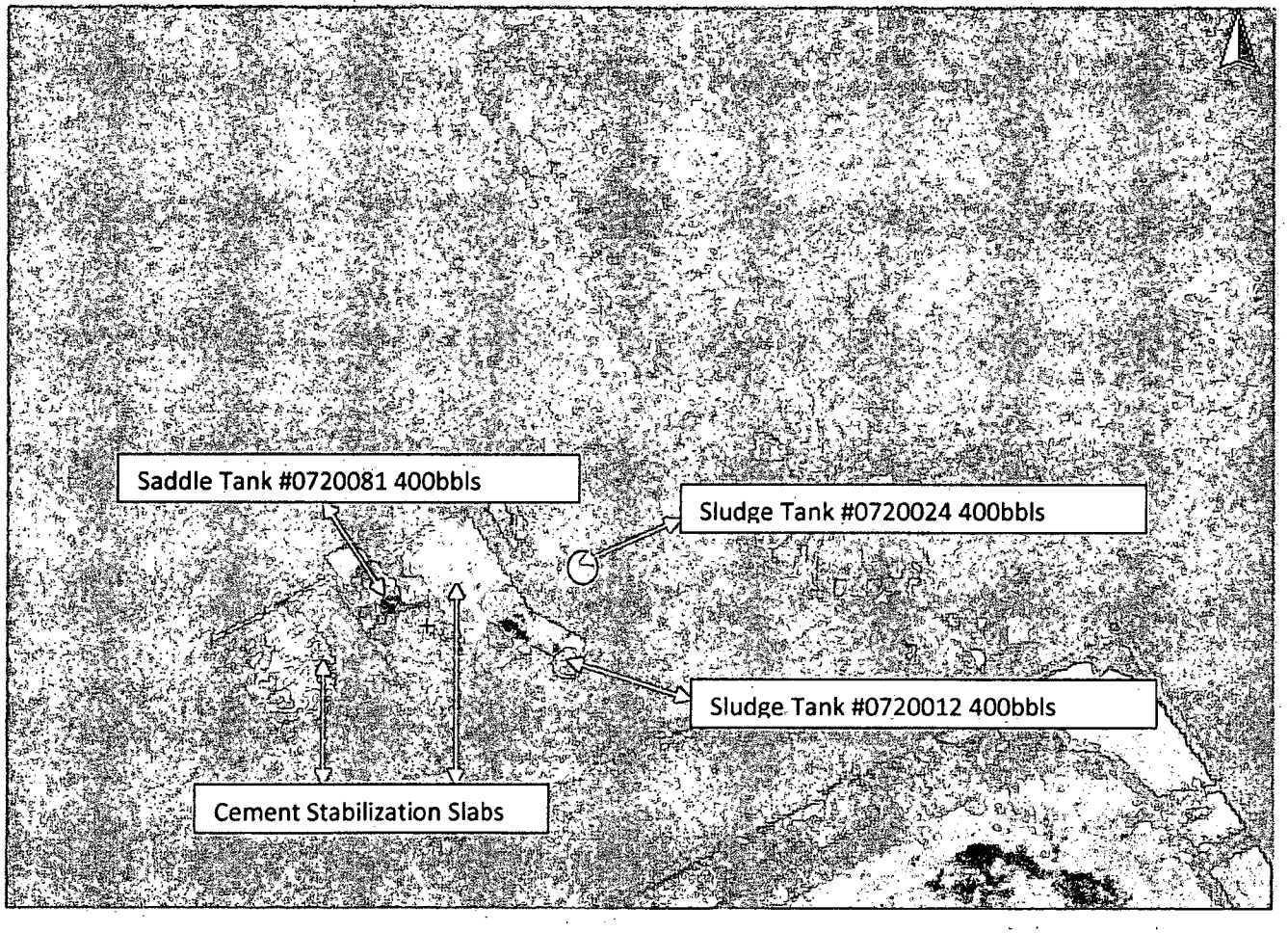
Truck arrives on location, unloads into settle tanks. Approximately every two days the tank contents are transferred to pump house #1 through two filter pots (Pump House #2 is back up) and then injected down well head located in the injection well house.

South End of Location: Detailed diagram

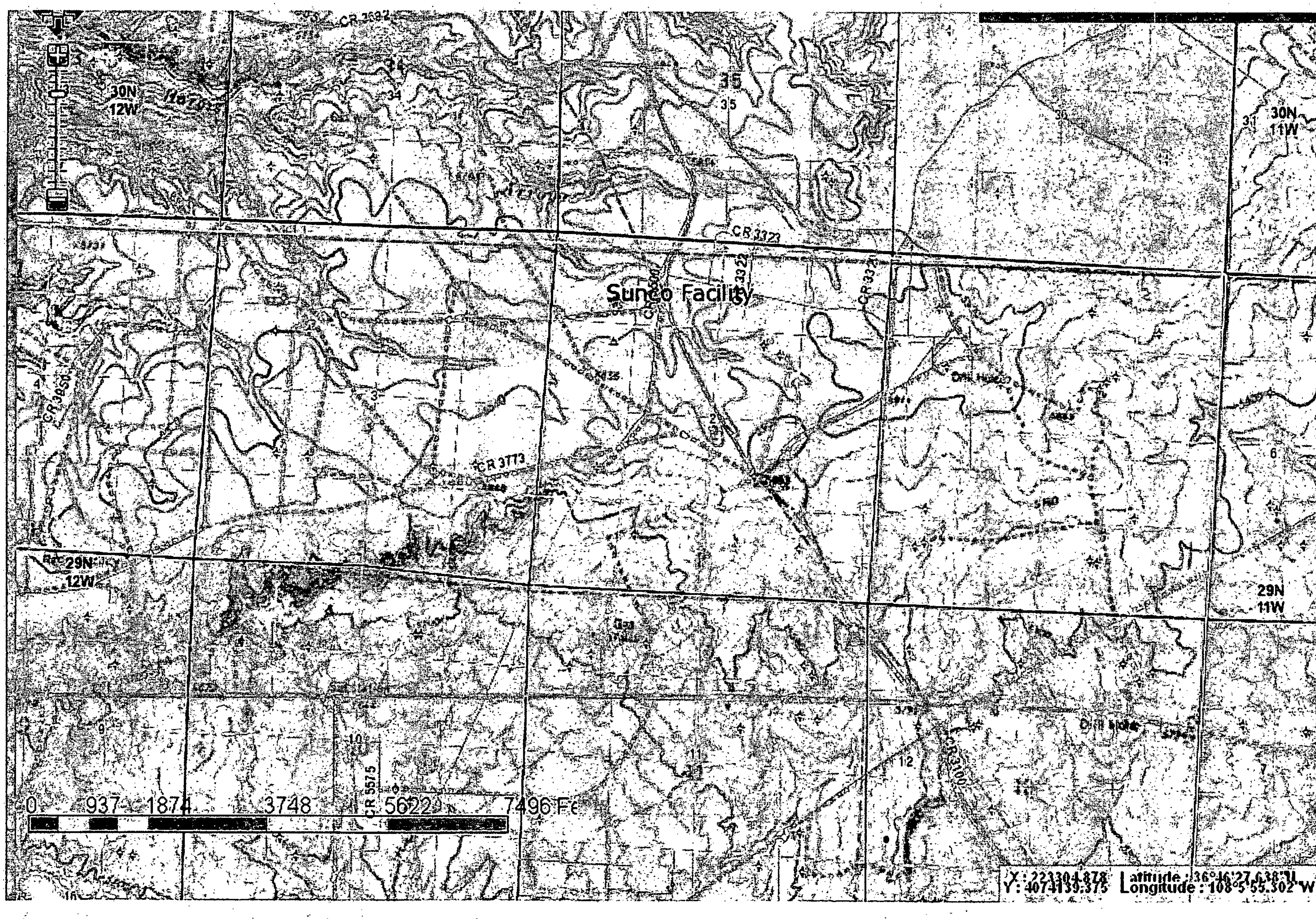


The South End of the facility is no longer being utilized by Agua Moss. Plans are currently being implemented to remove the equipment.

West End of Location: Detailed Diagram of soil Mixing Containments



This part of the facility is not in use. Plans are currently being implemented to remove equipment.


30N
12W
CR 3692
34
35
36
31
30N
11W
CR 3323
Sunco Facility
CR 3322
CR 3321
CR 3850
4
3
2
CR 3773
6
29N
12W
29N
11W
9
10
11
12
7
CR 5575
CR 3100
0 937 1874 3748 5622 7496 Fe
X: 223304.878 Latitude: 36°46'27.638"N
Y: 4074139.375 Longitude: 108°5'55.302"W

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:54 AM
To: Chavez, Carl J, EMNRD
Subject: Facility layout diagrams
Attachments: West End of Location.pdf; amended diagram north end.pdf; amended diagram south end.pdf

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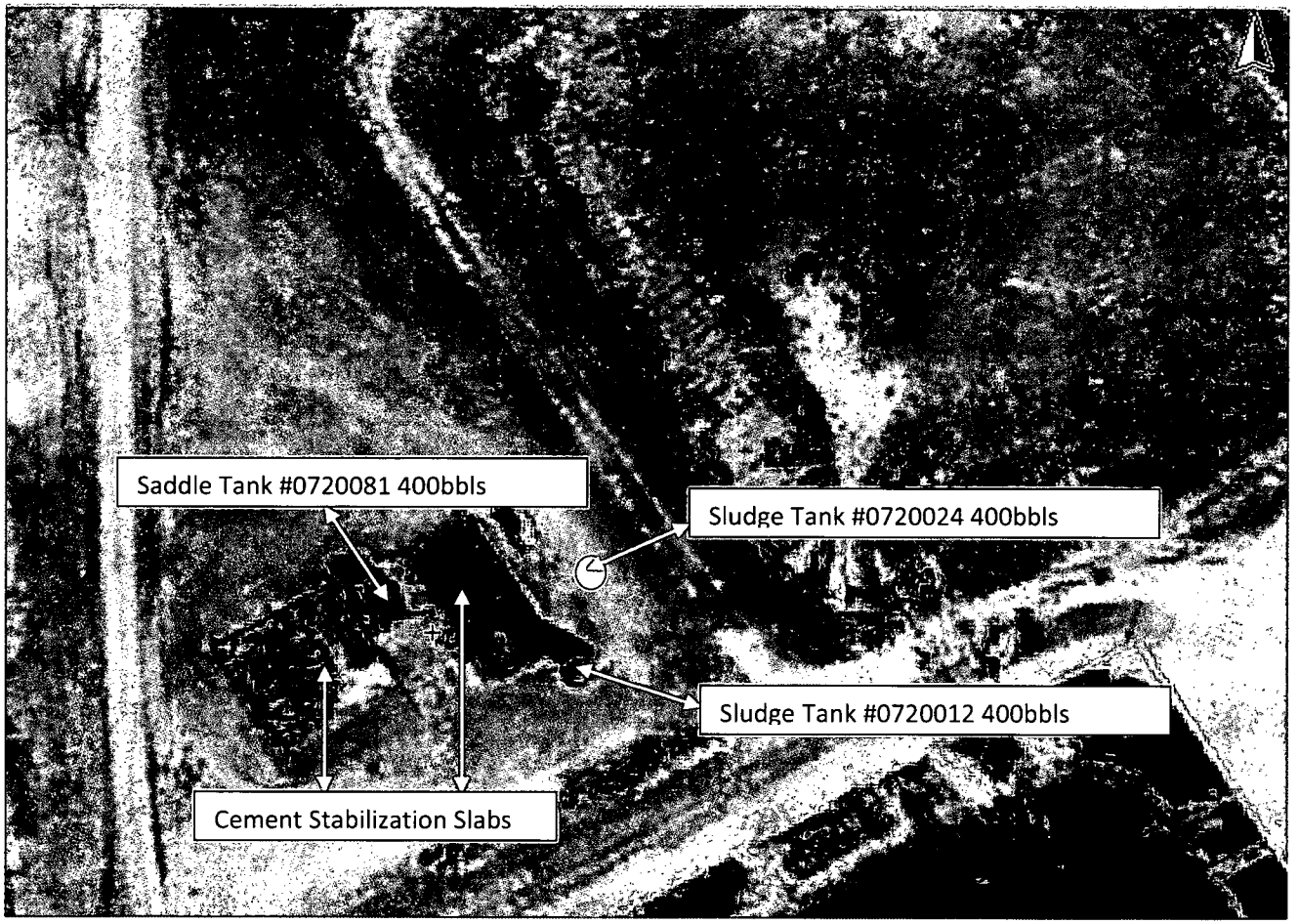
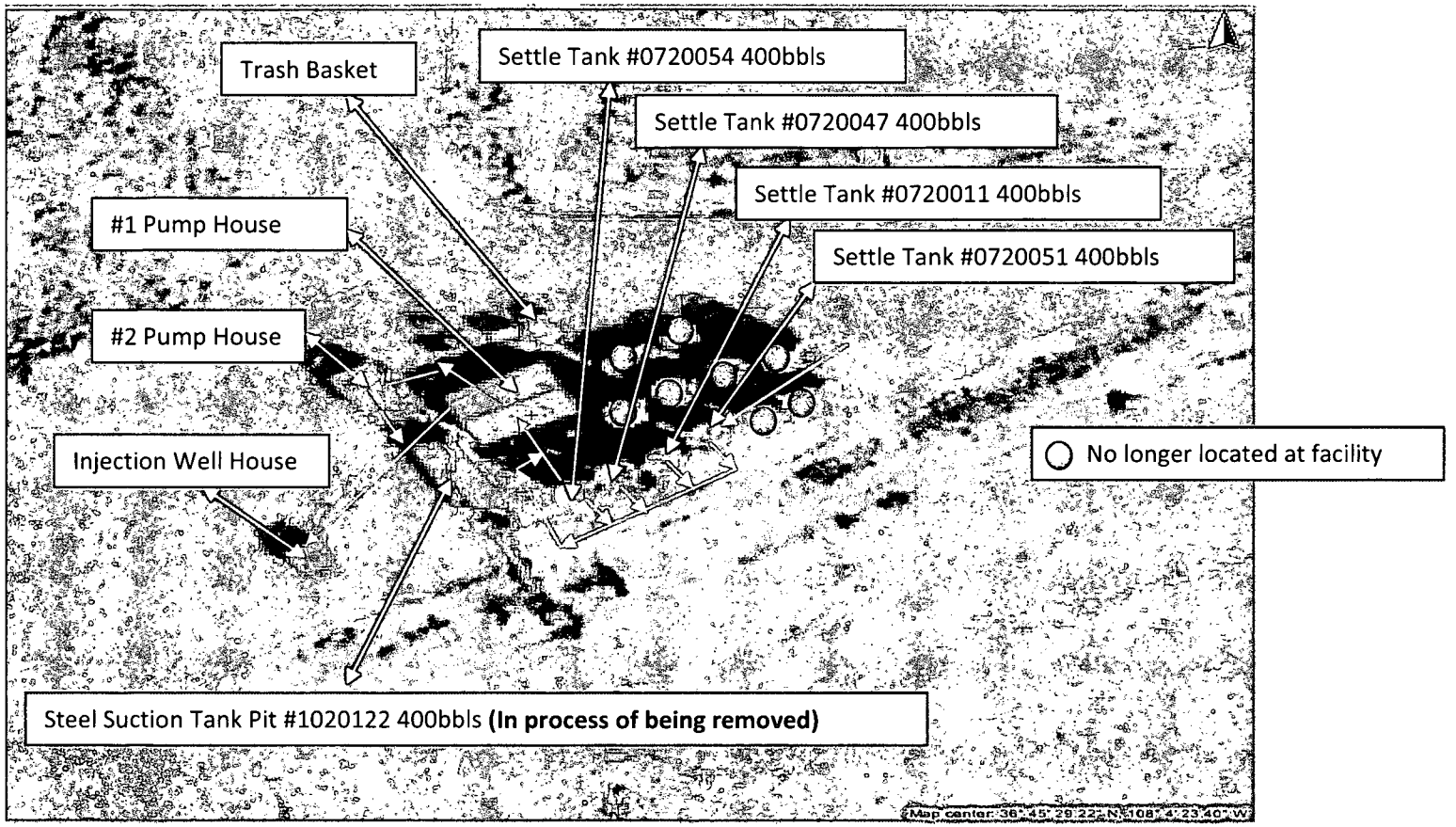
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

West End of Location: Detailed Diagram of soil Mixing Containments



This part of the facility is not in use. Plans are currently being implemented to remove equipment.

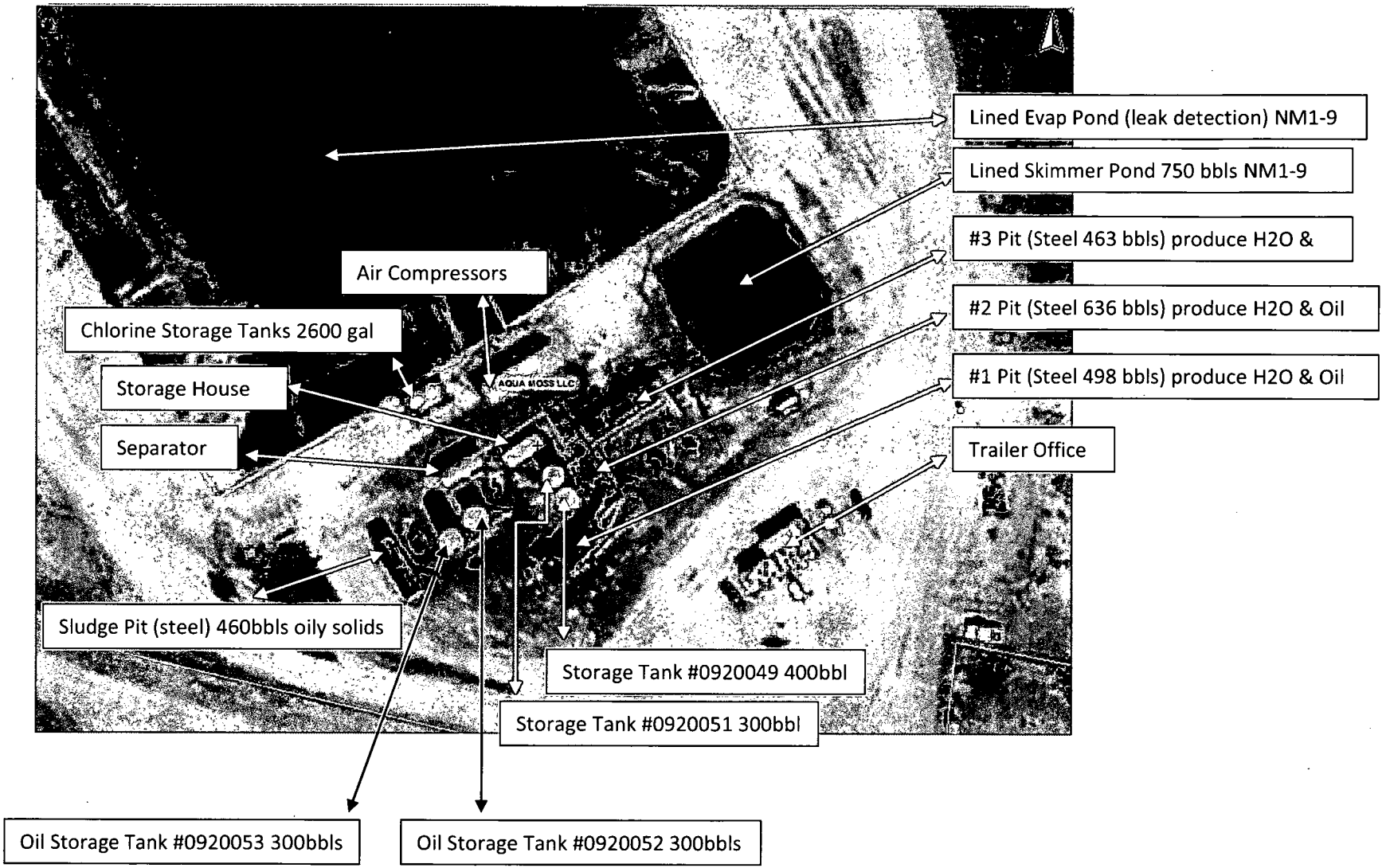
North End of Location: Detailed diagram & Process description



Process:

Truck arrives on location, unloads into settle tanks. Approximately every two days the tank contents are transferred to pump house #1 through two filter pots (Pump House #2 is back up) and then injected down well head located in the injection well house.

South End of Location: Detailed diagram



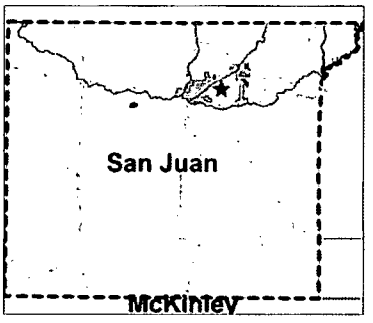
The South End of the facility is no longer being utilized by Agua Moss. Plans are currently being implemented to remove the equipment.

Chavez, Carl J, EMNRD

From: Philana Thompson [pthompson@merrion.bz]
Sent: Friday, March 23, 2012 10:55 AM
To: Chavez, Carl J, EMNRD
Subject: facility diagram
Attachments: 2012-02-14 Sunco Facility.pdf

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Sunco Facility & Yard



Legend

- RIVERS
- LAKES
- SJC Road Status
  - Major Roads
  - Private
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- ROADS
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- PARCELS
- 2009 aerials

0 70 140 210 m.

Map center: 36° 45' 27.6" N, 108° 4' 20.4" W

Scale: 1:2,400

District I
1625 N. French Dr., Hobbs, NM 88240
(575) 393-6161
District II
811 S. 1st St., Artesia, NM 88210
(575) 748-1283
District III
1000 Rio Brazos Road, Aztec, NM 87410
(505) 334-6178
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
(505) 476-3470

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505
(505) 476-3440

Revised January 10, 2012

Submit Original
Plus 1 Copy
to Environmental
Bureau
1 Copy to Appropriate
District Office

DISCHARGE PERMIT APPLICATION FOR UNDERGROUND INJECTION CONTROL (UIC) CLASS I (NON-HAZARDOUS), CLASS III SOLUTION MINING, AND CLASS V WELLS

(Refer to WQCC Regulations (20.6.2.5000 through 20.6.2.5299 NMAC)
for assistance in completing this application)

☐ New ☒ Renewal ☐ Modification

The information in items 1 through 6 and items 8 through 14 is required for all Class I, Class III, and Class V Underground Injection Control Wells. The additional information in item 9 is required for Class I and Class III Underground Injection Control Wells (see 20.6.2.5006 and 20.6.2.5101 NMAC).

1. **Underground Injection Control Well Class:**
☒ Class I (NH) ☐ Class III - Brine Well
☐ Class V - Geothermal ☐ Class V - Ground Water Management ☐ Class V - Other

2. **Operator:** Agua Moss, LLC
Address: PO Box 600 Farmington, NM 87499
Contact Person: Philana Thompson Phone: 505-324-5336 E-mail: pthompson@merrion.bz

3. **Location:** SW /4 NW /4 Section 2 Township 29N Range 12W
Latitude: 36.75737 Longitude: -108.07279 NAD: ☐ 1927 ☒ 1983
Submit 7.5 Minute U.S.G.S. Quadrangle Topographic Map showing exact location of the facility.

4. **Landowner(s):** Attach the name, address, and telephone number of the landowner of the facility site.
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

5. **Facility Description:** Attach a description of the facility with a diagram depicting pertinent features, *i.e.*, facility/property boundaries, buildings, roads, fences, process areas, areas of discharge, aboveground piping, underground piping, wells (all types), pits, ponds, dikes, sumps, above and below-grade tanks, landfarms, landfills, surface and/or ground water contamination abatement devices, *etc.*

6. **Proposed discharge plan (see 20.6.2.3106C NMAC):** Specify the methods or techniques that the owner/operator will use to ensure compliance with the regulations. At a minimum include the following information::
(a) Quantity, quality and flow characteristics of the discharge;
(b) Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring;
(c) Depth to and TDS concentration of the ground water most likely to be affected by the discharge;
(d) Flooding potential of the site;
(e) Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow;
(f) Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available; and,
(g) Any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of Section 20.6.2.3103 NMAC or the presence of any toxic pollutant at

any place of withdrawal of water for present or reasonably foreseeable future use. OCD may require additional detailed information on site geologic and hydrologic conditions.

7. **INFORMATION FOR CLASS I NONHAZARDOUS WASTE INJECTION WELLS AND CLASS III BRINE WELLS (20.6.2.5210 NMAC):** For Class I and III injection wells, attach the information required in Subsection B of Section 20.6.2.5210 NMAC. Include sources and an appropriate analysis of injection fluid and compatibility with the receiving formation produced water and if injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, *etc.*).

(a) Area of Review: A map showing the Class I non-hazardous waste injection well, or Class III well or well fields and the applicable area of review. Within the AOR, the map must show the number, name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features, including residences and roads;

(b) Data Tabulation: A tabulation of data on all wells within the AOR which may penetrate into the proposed injection zone. Such data shall include a description of each well's type, the distance and direction to the injection well or well field, construction, date drilled, location, depth, record of plugging and/or completion information;

(c) Corrective Action: For wells within the area of review which penetrate the injection zone, but are not properly completed or plugged, the corrective action proposed to be taken under Section 20.6.2.5203 NMAC;

(d) Maps and Cross-Sections: Maps and cross-sections indicating the general vertical and lateral limits of all ground water having 10,000 mg/l or less TDS within the AOR, the position of such ground water within the AOR relative to the injection formation, and the direction of water movement in each zone of ground water which may be affected by the proposed injection;

(e) **Geology:** Maps and cross-sections detailing the geology and geologic structure of the local area, including faults and the regional geologic setting;

(f) Proposed Operating Data: including;

- Average and maximum daily flow rate and volume of the fluid to be injected;
- Average and maximum injection pressure;
- Source of injection fluids and an analysis or description of their chemical, physical, radiological and biological characteristics;

(g) Formation Testing Program: Results of the formation testing program to obtain an analysis or description of the chemical, physical, and radiological characteristics of the receiving formation;

(h) Fluids and Pressure: Expected pressure changes, native fluid displacement, and direction of movement of the injected fluid;

(i) Stimulation Program: Proposed stimulation program;

(j) Injection Procedure: Proposed or actual injection procedure;

(k) Drawings: Schematic or other appropriate drawings of the surface and subsurface construction details of the well;

(l) Construction: Pursuant to 20.6.2.5205 NMAC, the owner/operator must demonstrate that the construction and operation of Class I non-hazardous waste injection wells and Class III brine wells will not cause or allow movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103NMAC. The owner/operator must provide the following information:

- Depth to the injection zone;
- Injection pressure, external pressure, annular pressure, axial loading, and other stresses that may cause well failure;
- Hole size;
- Size and grade of all casing strings, including wall thickness, diameter, nominal weight, length, joint specification, and construction material;
- Type and grade of cement;
- Rate, temperature, and volume of injected fluid;
- Chemical and physical characteristics of the injected fluid, including corrosiveness, density, and temperature;
- Chemical and physical characteristics of the formation fluids including pressure and temperature;
- Chemical and physical characteristics of the receiving formation and confining zones including lithology and stratigraphy, and fracture pressure; and
- Depth, thickness and chemical characteristics of penetrated formations which may contain ground water.

Include a cementing and casing program (provide details on liners, tubing, packers, size, setting depth, sacks of cement used, hole size, top of cement, and how top was determined, etc.), logging procedures, deviation checks, and a drilling, testing, and coring program for new wells.

Include the name of the injection formation and, if applicable, the field or pool name; the injection interval and whether it is perforated or open-hole; state if the well was drilled for injection or, if not, the original purpose of the well; give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations; and give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

(m) Contingency plans: Contingency plans to cope with all shut-ins or well failures so as to prevent movement of fluids into ground water having 10,000 mg/l or less TDS;
(n) MIT Monitoring Plans: MIT Monitoring Plans, including maps, for meeting the monitoring requirements of Section 20.6.2.5207 NMAC; and
(o) Additional Fluid Monitoring Plans For Class I Non-Hazardous Waste Injection Wells: Provide a fluid monitoring plan for the analysis of the injected fluids for Class I Wells at least quarterly to determine their characteristics. (See 20.6.2.5207B NMAC).
(p) Additional Fluid Monitoring Plans For Class III Wells: Provide a quarterly fluid monitoring plan for Class III wells that meets 20.6.2.5207C NMAC.
(q) Financial Assurance: Provide an instrument that documents the ability of the owner/operator to undertake measures necessary to prevent contamination of ground water after the cessation of operation, including the proper closing, plugging and abandonment of a well, ground water restoration if applicable, and any post-operational monitoring as may be needed. The Owner/Operator shall submit one of the following:

- A surety bond;
- A trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary;
- A non-renewable letter of credit made out to the State of New Mexico;
- Liability insurance specifically covering the contingencies listed in this paragraph; or
- A performance bond, generally in conjunction with another type of financial assurance.

(r) Logging and testing data: Provide all available logging and testing program data on the well (if well logs have been filed with the Division, they need not be resubmitted).;
(s) Mechanical Integrity Data: Provide mechanical integrity data (see 20.6.2.5204 NMAC);
(t) Maximum Pressure and Flow Rate: Specify the anticipated maximum pressure and flow rates;
(u) Formation Testing Program Data: Provide the results of the formation testing program;
(v) Compatibility: Discuss the physical, chemical, and biological interactions between the injected fluids and fluids in the injection zone, and minerals in both the injection zone and the confining zone; and
(w) Area of review corrective actions: Discuss the status of corrective action(s) on defective wells in the area of review.

8. **Modification(s):** Attach a description of proposed modifications to existing discharge processes.

9. **Inspection/Maintenance and Reporting:** Attach a routine inspection, operation, and maintenance plan to ensure permit compliance.

10. **Contingency plans:** Attach a contingency plan for reporting and taking corrective action(s) to address any spills and/or releases.

11. **Other information:** Attach any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of Section 20.6.2.3103 NMAC or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use.

12. **Filing Fee:** Attach application filing fee of $100.00. The check or money order must be made payable to Water Quality Management Fund. The permit fee will be required prior to permit issuance.

13. **Draft Public Notice:** Attach a draft of your public notice as specified in Subsection F of 20.6.2.3108 NMAC. All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the

owner of the surface of the land on which the injection well is to be located and to each leasehold operator within one-third mile of the well location. Proof of public notice must be submitted in accordance with 20.6.2.3108 NMAC for new and renewal applications for discharge permits.

14. CERTIFICATION:

I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Philana Thompson

Title: Regulatory Compliance Specialist

Signature:

Date: February 7, 2012

E-mail Address: pthompson@merrion.bz

Disclaimer: Note that some of the above information may include non-WQCC or OCD Regulated items, i.e., pits, ponds, below-grade tanks, sumps, etc. that may require a separate application and/or permit process than WQCC regulated items through the OCD.

AGUA MOSS, LLC

7477

Agua Moss

7477

VENDOR ID	NAME	PAYMENT NUMBER	CHECK DATE
WQMF100	WATER QUALITY MANAGEMENT FUND	00000000000002737	2/7/2012

OUR VOUCHER NUMBER	YOUR VOUCHER NUMBER	DATE	AMOUNT	AMOUNT PAID	DISCOUNT	WRITE-OFF	NET
00000000000005124	20712	2/7/2012	$100.00	$100.00	$0.00	$0.00	$100.00
			$100.00	$100.00	$0.00	$0.00	$100.00

COMMENT

7477

AGUA MOSS, LLC
PO BOX 600
FARMINGTON, NM 87499
(505) 334-5541

FOUR CORNERS
COMMUNITY BANK
FARMINGTON, NM 87402
95-672-1022

DATE 2/7/2012

AMOUNT $100.00

PAY One Hundred Dollars And 00 Cents

TO THE ORDER OF WATER QUALITY MANAGEMENT FUND

AUTHORIZED SIGNATURE

Security features. Details on back.

[redacted]

AGUA MOSS, LLC

7477

Agua Moss

7477

VENDOR ID	NAME	PAYMENT NUMBER	CHECK DATE
WQMF100	WATER QUALITY MANAGEMENT FUND	00000000000002737	2/7/2012

OUR VOUCHER NUMBER	YOUR VOUCHER NUMBER	DATE	AMOUNT	AMOUNT PAID	DISCOUNT	WRITE-OFF	NET
00000000000005124	20712	2/7/2012	$100.00	$100.00	$0.00	$0.00	$100.00
			$100.00	$100.00	$0.00	$0.00	$100.00

COMMENT

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

Renewal Application for the Sunco Disposal Well #1
Data obtained from original permits 1996, 2002, 2007

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-324-5336

January 30, 2012

Discharge Permit Application for UIC-CLI005
Sunco Disposal Well #1
30-045-28653

5. Facility Description: Attached is a description of the facility with a diagram depicting pertinent features.

a) See attachments 5a1-2

6. Proposed discharge plan (20.6.2.3106C NMAC): Specify the methods or techniques that the owner/operator will use to ensure compliance with the regulations. At minimum include the following information:

a) Quantity, quality and flow characteristics of the discharge:

- Wastewater is pumped from the evaporation pond through an above ground pipeline which fills a tank located at the injection pump area. The wastewater is then pulled from the tank and filtered and injected under pressure into the well.
- Flow rate and volume of fluid injected is from 2000 to 4000 bbls
- This disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation. The total dissolved solids conentration of the injection water is approximately 24,000 mg/l. The total dissolved solids concentration of the formation fluids is approximately 14,000 mg/l.

b) Location of discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring:

- Injected oil field exempt/non-exempt non-hazardous wastes shall be injected into the Point Lookout formation from the interval 4380' to 4480'
- No groundwater discharge sites have been drilled since the original permit that are within one mile of the existing location. Only one water well within 1 mile of this facility was drilled in Section 34, T30N, R12W in 1977 and was capped with a steel plate welded over the casing. It is not producing.

c) Depth to and TDS concentration of the ground water most likely to be affected by the discharge:

- See attached DTGW map 6c
- Ground water most likely to be affected by any accidental discharge is at a depth from 78 to 90 feet and has a total dissolved solids concentration of approximatley 450 mg/l.

d) Flooding potential of the site:

- See attached FEMA map 6d
- The location is in Zone X; Areas of of 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas proteced by levees from 1% annual chance of flooding.

e) Location and design of site and methods available for sampling, and for measurement or calculation of flow
   - The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.
   - Analysis of injected RCRA (non-hazardous) waste water will be conducted quartly and reported annually. Exceedances of the RCRA Characteristically Hazardous Criteria, listed below, will be reported to the NMOCD within 24 hours after having knowledge of any such exceedence. All testing shall be in accordance with the current discharge permit and with compliance criterion for hazardous waste concentrations.
      i. RCRA Characteristically Hazardous Waste Criterion or Parameters:
         1. Ignitability (defined by 40 CFR, Subpart C, Section 261.21)
         2. Corrosivity (defined by 40 CFR, Subpart C, Section 261.22)
         3. Reactivity (defined by 40 CFR, Subpart C, Section 261.23)

f) The injection zone is the Point Lookout Sandstone of the mesa verde group. The Point Lookout is a light to medium gray, angular to subangular very fine grained, well cemented sandstone with laminations of light to dark gray carbonaceous shale. Well logs reviewed at the time of the original permit indicated a maximum porosity of 13 to 14% with an average of 10%. The average thickness of the injection interval is 100' and is at a depth of 4380' to 4480'. Underground water sources are the Nacimiento which is exposed at the surface and the Ojo Alamo which occurs from 500' to 700'. There are no known water sources immediately underlying the injection zone.

7. **Information for Class I nonhazardous waste injection wells:**
   a) Area of Review: see attached maps 7a1 – 7a8
   b) Data Tabulation: see attached spreadsheet 7b1-7b7
   c) Corrective actions: none identified
   d) Maps and cross sections: see attached maps 7d1-7d3
   e) Geology: see attached maps 7e1-7e4
   f) Current operating data:
      - Average and Maximum daily flow rate and volume of fluid injected is 2000-4000 bbls
      - Maximum injection pressure 2400 (modification approval 1/17/2008)
      - Water sources include oil & gas produced Class I non-hazardous RCRA exempt (attachment 7f1)
   g) Formation testing program: See attached 2010 Fall off test (7g)
   h) Fluids and Pressures:
      - Agua Moss will track on a quartlery basis its disposal, operation and well workovers. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt non-hazardous waste) injected will be recorded monthly and submitted to the NMOCD Santa Fe office on a annual basis.

- The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.
- The expansion tank shall initially be filled ½ full (250 gallon expansion tank) with an approved fluid to establish an equilibrium volume and fluid level. Weekly monitoring of fluid leverls in the expansion tank coupled with documented additions/removals of fluids in or out of the expansion tank is required to maintain the equilibrium volume. Any loss or gain of fluid levels in the expansion tank shall be recorded and reported to the OCD within 24 hours of discovery.
- Weekly expansion tank volume readings with date and time shall be provided in a table in each annual report.

i) Stimulation Program: No stimulation needed at this time- the skin is still highly negative stemming from the frac job during the initial completion with no apparent plugging after injecting almost 14 million barrels since 1994 (7/22/2010)

j) Injection procedure:
- This well is used to dispose of produced water from the Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin
- This is an open system
- The injection zone is the Point Lookout formation which does not produce oil or gas in this area. The injection zone is from 4380' – 4480'
- The volume of fluid injected is from 2000 – 4000 bbls.
- The maximum injection pressure is 2400 psi.
- Attached is the current analysis data of injection fluid (attachment 7j)

k) Drawings:
- Well Bore Diagram attached (7k1)
- Surface facility diagram attached (5a1)

l) Construction:
- Attached is the documentation of the construction of the well (7l 1-10)

m) Contingency plans:
- All spills will be reported pursuant to NMOCD Rule 19 Chapter 15 part 29.
- Agua Moss will maintain spill cleanup equipment on site that will allow for swift response to any spills or leaks that could occur at the facility.
- Key in 2010 added additional valves on the wellhead.

n) MIT monitoring plans:
- Mechanical Integrity Test (MIT) will be performed annually before September 30th.
- Agua Moss will pump up the annulus to 350 psig, put on a chart with 1000# range, with a one hour clock.
- The chart recorder will be calibrated before test.
- The pump cut-off switch will be checked
- Bradenhead test will be performed
- The NMOCD will be notified of the date of the test

o) Additional Fluid monitoring plans:
   - Analysis of injected fluids will be submitted quarterly to the NMOCD
   - Continuous monitoring devices are utilized to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

p) Not Applicable

q) Financial Assurance:
   - Attached copies of financial assurance (7q1-6)

r) Logging and testing data: NA already on file with the NMOCD

s) Mechanical Integrity data
   - Attached is the MIT test data that was conducted 10/31/11 (7s1-4)

t) Maximum Pressure and flow rate:
   - The maximum pressure will be 2400 psi
   - The maximum flow rate will be 4000 bbls

u) Formation testing program:
   - Attached is the results of the last Fall Off test that Key performed in 2010 (7g)

v) Compatibility:
   - This well is used to dispose of produced water from Fruitland Coal-Gas wells and from conventional wells in the San Juan Basin.
   - Injection zone is the point lookout formation which does not produce oil or gas in this area.
   - In 1984 a drill stem test was conducted on this zone in the McGrath #4 well (UB, S 34, T30N, R12W) which is less than 1-1/2 miles from this location. The DST recovered 400' of slightly gas cut mud, 90' of slightly gas cut water and 2000 cc of water in the sample chamber. An analysis of the water recovered is attached (Attachment 7v1-2). The water from the sample chamber is closest to the actual formation water. The calculated total dissolved solids for this water is 17,180 mgl. This is the closest test or water analysis for the Point lookout formation and should be representative of what this well will encounter.

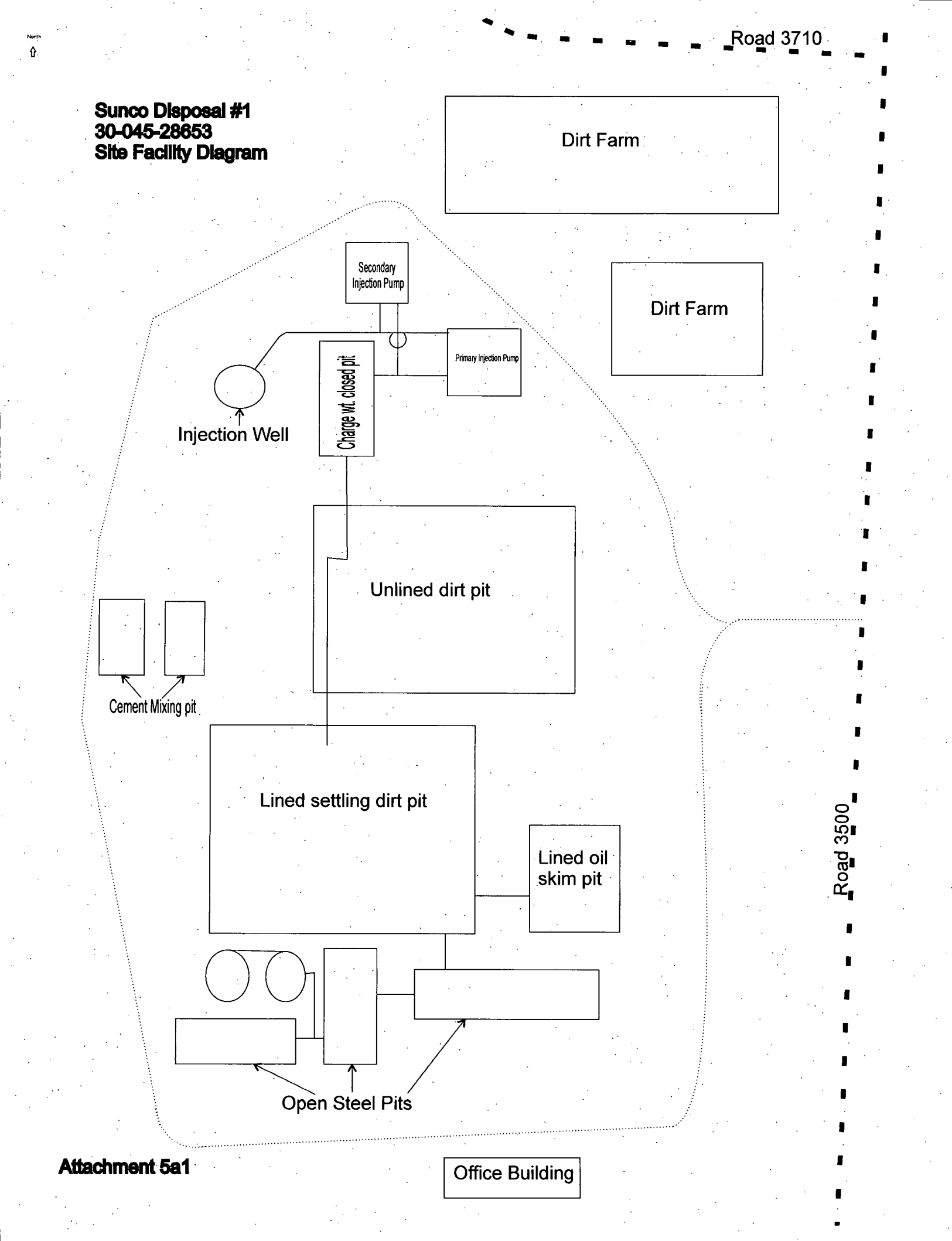
w) Area of review corrective actions:
   - None identified at the time of this submittal

8. Modifications: Agua Moss would like to modify the Annual Fall Off Test requirements. See attached (8)

9. Inspection/Maintenance and reporting:
   - The entire system is visually inspected at least six times each day. This inspection includes the unloading area, evaporation pond, holding tank, injection pump, well and all interconnecting piping. All piping is above ground. Pump and wellhead pressures and injection volumes are recorded and stored at the facility.

10. Contingency plans:
   - All spills and cleanup events are reported pursuant to OCD Rules and regulations. Agua Moss maintains spill clean-up equipment on site to facilitate quick response and action.

11. Other Information:
    - Agua Moss does not foresee in the present or reasonable foreseeable future that the discharge permit will result in concentrations in excess of the standards of Section 20.6.2.3103 NMOAC or the presence of any toxic pollutant at any place of withdrawal of water.
12. Filing Fee(s): Attached is the $100.00 filing fee made payable to Water Quality Management Fund. Also attached is the $4500.00 permit fee for this Class I well.
13. Draft Public Notice: Attached proposed draft public notice (13)



Attachment 5a1

Crouch Mesa Facility

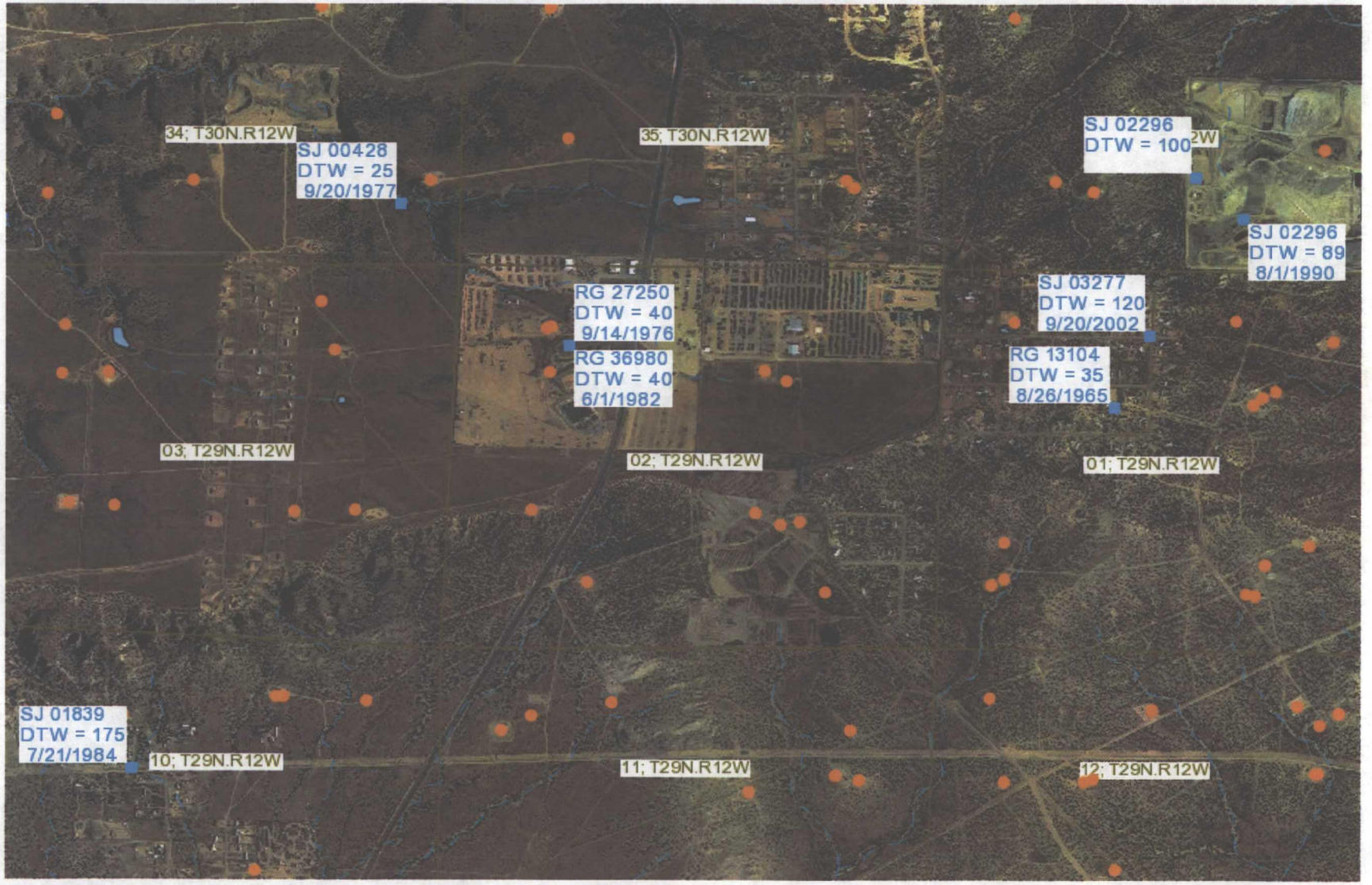
Attachment 5a2

Map center: 36° 45' 27.3" N, 108° 4' 20.6" W

Legend

- RIVERS
- LAKES
- SJC Road Status
- Major Roads
- Private
- County Maintained
- Limited County Maintained
- City
- Oil and Gas roads
- ROADS
- SAN JUAN COUNTY
- NAVAJO RESERVATION
- PARCELS
- 2009 aerials

Scale: 1:2,400



Petroleum Recovery Research Center	Depth to Ground Water	Figure: 6c
	Sunco Disposal #1	Jan 24, 2012

FEMA

Save your FIRMette

Back

Item 6d

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0715F

FIRM

FLOOD INSURANCE RATE MAP

SAN JUAN COUNTY, NEW MEXICO AND INCORPORATED AREAS

PANEL 715 OF 2750

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FARMINGTON, CITY OF	350067	0715	F
SAN JUAN COUNTY	350064	0715	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 35045C0715F

EFFECTIVE DATE AUGUST 5, 2010

Federal Emergency Management Agency

2012 AREA OF REVIEW
UNIT LETTERS ENCOMPASSED BY THE 1-MILE AOR

Item 7b1

Sec	TWN	RNG	UL	
1	29N	12W	DELM	
2	29N	12W	ALL	
3	29N	12W	ABCFGHIJKOP	
10	29N	12W	AB	
11	29N	12W	ABCDEF	
34	30N	12W	AGHIJKNOP	
35	30N	12W	DEFGHIJKLMNOP	
36	30N	12W	LM	

All tracts within the AOR were reviewed for activity that had ensued since the permit was renewed in 2007. One new well was drilled, but was not drilled deep enough to penetrate the injection interval from 4380-4480 feet. This new well was drilled to exploit the Basin Fruitland Coal formation at a depth of 2132'. Completion report attached Item 7b3.

Since the last previous permit renewal four wells were plugged and abandoned. P&A reports are attached 7b4-7b7.

#7a1-a8

www.source3.com

Petroleum Recovery Research Center	S2 T29N R12W	Figure: A1
	Sunco Disposal #1 AOR	Jan 25, 2012

Petroleum Recovery Research Center	S1 T29N R12W	Figure: A2
	Sunco Disposal #1 AOR	Jan 25, 2012

Petroleum Recovery Research Center	S3 T29N R12W	Figure: A3
	Sunco Disposal #1 AOR	Jan 25, 2012

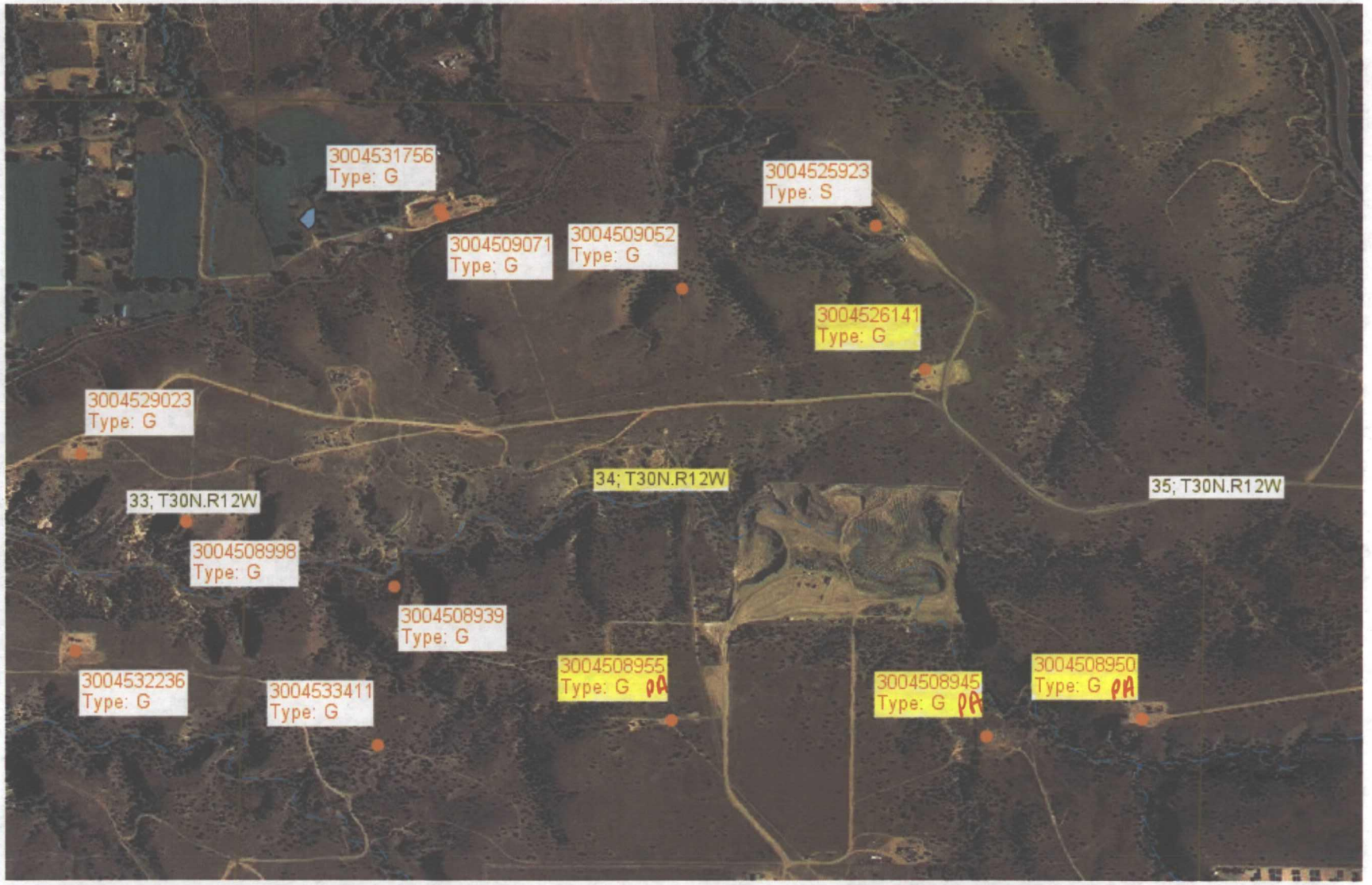
Petroleum Recovery Research Center	S10 T29N R12W	Figure: A4
	Sunco Disposal #1 AOR	Jan 25, 2012

Distance (ft): 200 300 500 1000

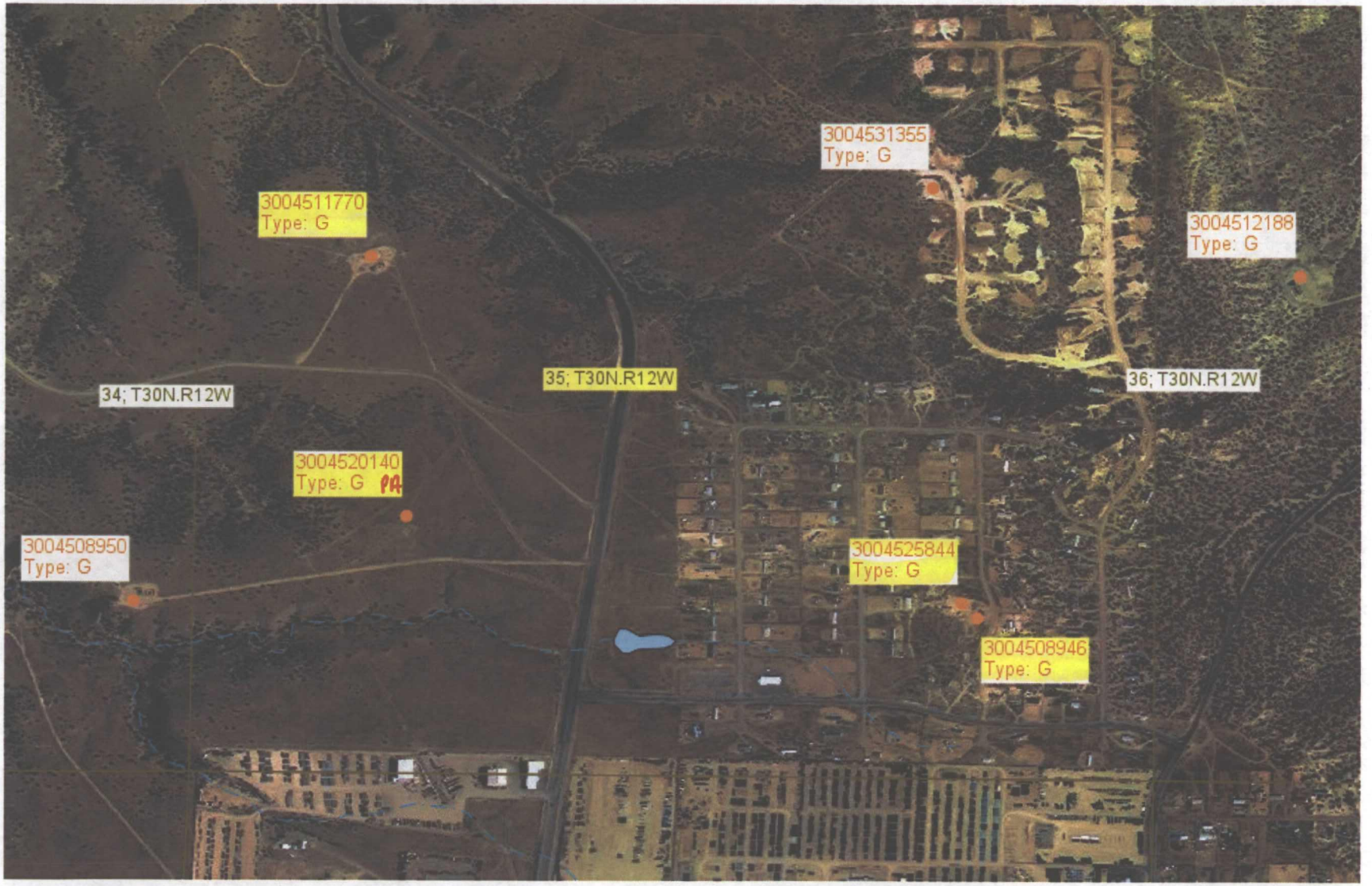
0 200 400ft

N W E S

Petroleum Recovery Research Center	S11 T29N R12W	Figure: A5
	Sunco Disposal #1 AOR	Jan 25, 2012



Petroleum Recovery Research Center	S34 T30N R12W	Figure: A6
	Sunco Disposal #1 AOR	Jan 25, 2012



Distance (ft): 200 300 500 1000

0 500 1000ft

N W E S

Petroleum Recovery Research Center	S35 T30N R12W	Figure: A7
	Sunco Disposal #1 AOR	Jan 25, 2012

Petroleum Recovery Research Center	S36 T30N R12W	Figure: A 8
	Sunco Disposal #1 AOR	Jan 25, 2012

Item 7b2													Surface Casing			INT Casing			Production Casing					
API	Well Name	Well #	Current Operator	Type	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Active	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		
30-045-26214	ALLEN A	#001E	BP America	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-32346	CORNELL	#002R	Energen Resources	Gas	Federal	Active	1	29N	12W	M	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-32241	BECK	#001R	Burlington	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-33811	BECK	#001S	Burlington	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		
30-045-31580	CORNELL COM	#500	Burlington	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126		4.5	2126	258 surf	1658-1878		
30-045-33573	CORNELL COM	#500S	Burlington	Gas	Private	Active	2	29N	12W	P	3/18/2006	2210	7	132	34 surf	6.25	2210		4.5	2198	279 surf	1754-1939 1743-1924		
30-045-08714	CORNELL SRC	#007	Burlington	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978		3.5	2106	250 surf	1976-2010		
30-045-08844	KATTLER	#001	Burlington	Gas	Private	Active	2	29N	12W	C	1/26/1945	2069	10	846	surf	5.5	1960		3.5	2050	205 surf	1961-2007		
30-045-08704	MCGRATH B	#001	Burlington	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf				4.5	1865	1065 surf	6489-6596		
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-08839	YOUNG	#001	Burlington	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf				4.5	6739	700 surf	6446-6644		
30-045-08709	MCGRATH	#003	Burlington	Gas	Private	Active	3	29N	12W	J	3/4/1945	2040	13.375	675	2 surf	8.625 INT 1 5.5 INT 2	1460 1928	4 surf 58 surf	3.5	2011	110 surf	1872-1912 1922-1937	1871-1876	
30-045-33580	MCGRATH	#003S	Burlington	Gas	Private	Active	3	29N	12W	B	7/13/2007	2132	7	218	150 surf				4.5	2112	289 surf	1692-1904		
30-045-08712	MCGRATH A	#001	Burlington	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf				4.5	6688	500 surf	6432-6524		
30-045-32931	WALKER	#100S	Burlington	Gas	Private	Active	3	29N	12W	F	8/14/2005	2120	7	144	61 surf				4.5	2117	238 surf	1621-1885		
30-045-23889	BECK A	#001E	Burlington	Gas	Federal	Active	10	29N	12W	B	1/5/1981	6514	8.625	240	150 surf				4.5	6514	765 surf	6277-6454		
30-045-30381	CORNELL	#100	Burlington	Gas	Federal	Active	10	29N	12W	B	1/7/2003	1968	7	147	55 surf				4.5	1959	229 surf	1543-1704 1744-1800		
30-045-08615	CORNELL	#006	Burlington	Gas	Federal	Active	11	29N	12W	C	11/7/1955	1839	8.625	106	70 surf	5.5	1811		3.5	2022	181 surf	1811-1839		
30-045-31581	CORNELL	#101	Burlington	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf				4.5	2000	270 surf	1726-1764		
30-045-13092	CORNELL C	#001	BP America	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf				4.5	6604	300 surf	6298-6483		
30-045-26141	DUFF GAS COM	#001E	Burlington	Gas	Federal	Active	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf				4.5	6608	1000 surf	6396-6576 04'RC to FC 1492-1870		
30-045-08946	CARNAHAN COM	#001	Holcomb Oil & Gas	Gas	Private	Active	35	30N	12W	P	12/19/1960	6778	8.625	301	200 surf				4.5	6760	445 surf	6521-6708 94 RC to FC 1824-2037		

30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	P	6/15/1984	6780	8.625	230	170 surf				4.5	6777	1425 surf	6529-6714		
30-045-11770	HUDSON J	#003	Burlington	Gas	Federal	Active	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf				4.5	6750	750 surf	6460-6680 01' RC to FC 1784-1994		
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Active	36	30N	12W	M	10/9/1990	6608	8.625	316	250 surf				4.5	6609	6000 surf	1492-1870		DK ZA 9/2002 6396-6576
30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	p	2/7/1963	6637	8.625	323	225 surf				4.5	6637	925 surf	6367-6576		4/29/2009
30-045-08713	McGrath SRC	#001	Burlington	Gas	Private	Plugged	2	29n	12w	j	7/7/1973	2136	13 & 10.75	550 & 864	2 sx mud 4 sx mud	8.625	1526	5 sx mud	5.50 & 3.50	2020 2136	12 sx mud 140 surf	2020-2136 2012-2078		1998
30-045-08797	Pre-Ongard		Southland	Gas	Private	Plugged	2	29n	12w	g	4/14/1948	2125												2/23/1984
30-045-30486	MCGRATH SRC	#001R	Burlington	Gas	Private	Plugged, Not Released	2	29N	12W	J	3/23/2001	2235	8.625	53	12 surf				2.875	2228	425 surf	2010-2157		6/25/2010
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125												3/16/1948
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	M	10/2/1955	1996	8.625	97	75 surf				5.5	1950	100 surf	1711-1936		9/15/2005
30-045-08823	Walker SRC	1	Burlington	Gas	Private	Plugged	3	29N	12W	G	2/25/1943	2050	16	21	20 surf	5.5	1930		3.5	2050	175 surf	1938-1974		10/12/2009
30-045-08711	Pre-Ongard		Union Texas	Gas	Private	Plugged	3	29N	12W	K	6/25/1955	1940												11/10/1964
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	A	12/19/1980	1870												2/10/1984
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	30N	12W	P	7/17/1946	2137	15.5	38	20 surf	10 & 8.625	1217 1618	99 surf	5.5	1961	40 surf	1728-1938 1962-2008	2128	9/26/2008
30-045-08955	Pre-Ongard		Aztec O&G	Gas	Private	Plugged	34	30N	12W	N	11/1/1944	1965												10/29/1977
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH												6/9/1982

Item 763

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
March 4, 2004

WELL API NO.	30-045-33580
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well X☐ Other	7. Lease Name or Unit Agreement Name: McGrath
	8. Well Number: 3S
2. Name of Operator: **Burlington Resources**	9. OGRID Number: 14538
3. Address of Operator: **P.O. Box 4289, Farmington, NM 87499-4289**	10. Pool name or Wildcat: Basin Fruitland Coal

4. Well Location

Unit Letter B : 165' feet from the North line and 1505' feet from the East line

Section 3 Township 29N Range 12W NMPM San Juan County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 5839' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPLETION ☐	CASING TEST AND CEMENT JOB ☐	
OTHER ☐		OTHER: ☒ Completion Report	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

RCVD DEC 17 '07
OIL CONS. DIV.
DIST. 3

7/17/07 RU WL run GR/CCL from 2066' to surface. PBTD 2066'.

8/13/07 NU frac valve & test to 4000#/30 mins – ok.

8/13/07 RU Blue Jet & Perf **Lower FC** .32" holes, 1904' – 1884', 20' @ 2 SPF = 40 holes; 1880' – 1874', 6' @ 1 SPF = 7 holes. Total = 47 holes. Pumped 500 gals Formic Acid. Pumped 7888 gals 75 Q N2 25# linear foamed pad. Pumped 70,000#20/40 Arizona Sand. RIH w/CFP @ 1840'.

Cont on next page.....

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.**

SIGNATURE Rhonda Rogers TITLE Regulatory Technician DATE 12/13/2007

Type or print name: Rhonda Rogers E-mail address: rogerrs@conocophillips.com Telephone No.: 505-599-4018

(This space for State use)

APPPROVED BY H. Villanueva TITLE Deputy Oil & Gas Inspector, District #3 DATE DEC 17 2007

Conditions of approval, if any:

McGrath 3S
API 30-045-33580

8/13/07 RU Blue Jet & Perf **Upper FC** 1812' – 1806, 6' @ 2 SPF = 12 holes; 1798' 1792', 6' @ 2 SPF = 12 holes; 1760' – 1752', 8' @ 2 SPF = 16 holes; 1699' – 1692', 7' @ 2 SPF = 14 holes. Total 54 holes. Pumped 500 gals Formic Acid. Pumped 5240 gals 75 Q N2 25# linear Foamed pad. Pumped 60,000# 20/40 Arizona Sand. Release Blue Jet.

Flow back well for 24 hrs.

8/18/07 RIH w/CBP & set @ 1570'

11/29/07 RU mill & M/O CBP @ 1570' & CFP @ 1840'. Circ & C.O fill.

12/5/07 FC tested.

12/5/07 RIH w/60 jts tbg, 2 3/8", 4.7#, J-55 tbg & set @ 1893'. ND BOP NU WH. RD & release rig @ 1700 hrs 12/5/07.

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P. O. Box 2089
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO.
30-045-33580

5. Indicate Type of Lease
STATE [ ] FEE [X]

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a TYPE OF WELL:
OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER

b TYPE OF COMPLETION:
NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF RESVR [ ] OTHER

7. Lease Name or Unit Agreement Name
RCVD DEC 17 '07
OIL CONS. DIV.
DIST. 3
McGrath

2 Name of Operator
Burlington Resources

8. Well No.
3S

3. Address of Operator
PO BOX 4289, Farmington, NM 87499

9. Pool name or Wildcat
Basin Fruitland Coal

4 Well Location
Unit Letter **B** **165** Feet From The **North** Line and **1505** Feet From The **East** Line
Section **3** Township **29N** Range **12W** NMPM **San Juan** County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (*Ready to Prod.*)	13. Elevations (*DF&RKB, RT, GR, etc.*)	14. Elev. Casinghead
7/13/07	7/15/07	12/5/07	5839' GR	

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
2132'	2066'	1		X	

19. Producing Interval(s), of this completion - Top, Bottom, Name
Basin Fruitland Coal 1692' - 1904'

20. Was Directional Survey Made
No

21. Type Electric and Other Logs Run
GR/CCL

22. Was Well Cored
No

23. **CASING RECORD (Report all strings set in well)**

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"	20# J-55	218'	8 3/4"	Surf 150 sx (192 cf)	10 bbls
4 1/2"	11.6# J-55	2112'	6 1/4"	TOC surface 289 sx (543 cf)	30 bbls

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8" 4.7# J-55	1893'	

26. Perforation record (interval, size, and number)
.32"
@ 2 SPF 1884' - 1904' = 40 holes
@ 1 SPF 1874' - 1880' = 7 holes
@ 2 SPF
1806' - 1812' = 12 holes
1792 - 1798' = 12 holes
1752' - 1760' = 16 holes
1692' - 1699' = 14 holes

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
1874' - 1904'	500 gals Formic Acid. 7888 gals 75 Q N2 25# linear foam pad. 70,000# 20/40 Arizona Sand.
1692' - 1812'	500 gals Formic Acid. 5240 gals 75 Q N2 25# linear foam pad. 60,000# 20/40 Arizona Sand.

28. **PRODUCTION**

Date First Production	Production Method (*Flowing, gas lift, pumping - Size and type pump*)	Well Status (*Prod. or Shut-in*)
		SI

Date of Test	Hours Tested	Choke Size	Prod'n for Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
12/5/07	1	1/2"		0	TSTM mcf	1.5 bwph	

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl	Gas - MCF	Water - Bbl	Oil Gravity - API - (*Corr.*)
SI- 80#	SI - 80#		0	TSTM mcf/d	36 bwpd	

29. Disposition of Gas (*Sold, used for fuel, vented, etc.*)
To be sold

Test Witnessed By

30. List Attachments
This will be a stand alone Basin Fruitland Coal well. Will report a better production test once well 1st delivers.

31. *I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief*

Signature Rhonda Rogers Printed Name **Rhonda Rogers** Title **Regulatory Technician** Date **12/13/07**

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo 527'	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland 610' 1637'	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs 1920'	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta	T McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo	T.	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____ No. 3, from _____ to _____

No. 2, from _____ to _____ No. 4, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet _____

No. 2, from _____ to _____ feet _____

No. 3, from _____ to _____ feet _____

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology

Item 764

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
AUG 08 2009
Bureau of Land Management
Farmington Field Office

Sundry Notices and Reports on Wells

1. **Type of Well**
GAS

Lease Number
SF-077922

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**

2. **Name of Operator**
BURLINGTON RESOURCES OIL & GAS COMPANY LP

8. **Well Name & Number**
McGrath C #1

3. **Address & Phone No. of Operator**
P.O. Box 4289, Farmington, NM 87499

9. **API Well No.**
30-045-08945

4. **Location of Well, Footage, Sec., T, R, M**
Unit P (SESE), 870' FSL & 1190' FEL, Section 34, T30N, R12W, NMPM

10. **Field and Pool**
Basin Fruitland Coal,
Fulcher Kutz PC

11. **County and State**
San Juan Co., NM

XE

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission	Type of Action			
___ Notice of Intent	_X_ Abandonment	_____ Change of Plans	___Other_	
Recompletion	_____ New Construction			
_X_ Subsequent Report	_____ Plugging	_____ Non-Routine Fracturing		
	_____ Casing Repair	_____ Water Shut off		
_____ Final Abandonment	_____ Altering Casing	_____ Conversion to Injection		

RCVD AUG 6 '09
OIL CONS. DIV.
DIST. 3

13. Describe Proposed or Completed Operations

Attached is a summery of the work performed to P&A the subject well. 4/29/09

14. I hereby certify that the foregoing is true and correct.

Signed _____ Rhonda Rogers Title Staff Regulatory Technician Date 7/30/09

(This space for Federal or State Office use)
APPROVED BY _____ Title _____ Date _____
CONDITION OF APPROVAL, if any:

Title 18 U S C Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ACCEPTED FOR RECORD
AUG 04 2009
FARMINGTON FIELD OFFICE
BY _____

NMOCD

JV

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

Burlington Resources
McGrath C #1

April 30, 2009

870' FSL & 1190' FEL, Section 34, T-30-N, R-12-W
San Juan Country, NM
Lease Number: SF-077922
API #30-045-08945

Plug & Abandon Report

Plugging Summary:

Notified NMOCD and BLM on 4/28/09

01/12/09 RU cementing equipment. Drake Rig #28 on well. TIH and tag cement at 1550'. Note CR is at 1560'. Load well with 10 bbls water and circulate well clean with an additional 15 bbls.
Pressure test 4.5" casing to 500 PSI, held OK.
Plug #1 with 12 sxs Class B cement (14.2 cf) inside the casing from 1550' up to 1395' to isolate the Fruitland perforation and top.
TOH and LD all tubing.

4/29/09 Move cementing equipment on location and rig up. No pressure on well. Pressure test 4.5" casing to 600 PSI, held OK. Perforate 3 HSC holes at 635'. Establish circulation out the bradenhead valve with 22 bbls water.

Plug #2 with 231 sxs Class B cement (237.1 cf) down the 4.5" casing from 635' to surface, circulate good cement out bradenhead. Shut in well.
Open up well. Dig out wellhead. Issue Hot Work Permit. Monitor well. Cut off wellhead. Found cement down 3' in casing and annulus.
Mix 12 sxs cement and install P&A marker.
RD cementing equipment. Road equipment to A-Plus Yard.

Jimmy Morris, MVCI representative, was on location.
Lester Jaramillo, BLM representative, was on location.

Item 765

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
June 19, 2008

WELL API NO.	**30-045-30486**
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	**McGrath SRC**
8. Well Number	**1R**
9. OGRID Number	**14538**
10. Pool name or Wildcat	**Fulcher Kutz PC**

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other
2. Name of Operator: **BURLINGTON RESOURCES OIL & GAS COMPANY LP**
3. Address of Operator: **PO Box 4298, Farmington, NM 87499**
4. Well Location
   Unit Letter **J** : **1705** feet from the **South** line and **1450** feet from the **East** line
   Section **2** Township **29N** Range **12W** NMPM **San Juan**
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **5891'GL**

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Well P&A'd 6/2/10 per attached A+ report.

Approved for plugging of wellbore only.
Liability under bond is retained pending
Receipt of C-103 (Subsequent Report of Well
Plugging) which may be found @ OCD web page
under forms.
www.emnrd.state.us/ocd

RCVD JUN 22 '10
OIL CONS. DIV.
DIST. 3

SPUD DATE: **3/23/2001** RIG RELEASE DATE:

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

SIGNATURE [signature] TITLE **Staff Regulatory Technician** DATE **6/18/2010**

Type or print name **Rhonda Rogers** E-mail address: rrogers@conocophillips.com PHONE: **505-599-4018**

For State Use Only

APPPROVED BY [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE JUN 25 2010

Conditions of Approval (if any): PNR ONLY

AV

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

Burlington Resources
McGrath SRC #1R

June 7, 2010

1705' FSL & 1450' FEL, Section 2, T-29-N, R-12-W
San Juan Country, NM
Lease Number: Fee
API #30-045-30486

Plug and Abandonment Report

Notified BLM and NMOCD on 6/1/10

06/02/10 Road cement equipment to location and RU. Check well pressures: casing, 160 PSI; bradenhead, 0 PSI. No tubing in well. Lay out relief lines to pit. Blow well down. Pump 20 bbls of water down the casing 3.5 bpm at 0 PSI. Drop 6 frac balls. Pump 11 bbls of water down casing 3.5 bpm at 0 PSI. Pressure increased to 200 PSI. Pump an additional 6 bbls of water 2 bpm at 200 PSI with no blow or circulation out bradenhead valve. Pump .5 bbl water down bradenhead. Pressured up to 300 PSI and held. TOC at surface in bradenhead.

Plug #1 mix and pump 80 sxs Class B cement (94.4 cf) with 2% $CaCl_2$ down 2.875" casing from 2207' to surface.

SI well and WOC. RIH and tag cement at 1836'. Dig out wellhead. Issue Hot Work Permit. Monitor well. Cut off wellhead. Top off 2.875" casing and install P&A marker with 69 sxs cement. RD cement equipment and MOL.

Jimmy Morris, MVCI representative, was on location.

No NMOCD or BLM representatives were on location.

Item 766

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised Form C-103
June 19, 2008

WELL API NO.	30-045-08823
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name	Walker SRC
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	8. Well Number 1
2. Name of Operator	BURLINGTON RESOURCES OIL & GAS COMPANY LP
	9. OGRID Number 14538
3. Address of Operator	PO Box 4298, Farmington, NM 87499
	10. Pool name or Wildcat Fulcher Kutz PC

4. Well Location
Unit Letter G : 1320 feet from the North line and 1320 feet from the East line
Section 3 Township 29N Range 12W NMPM San Juan

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 5843'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

10/6/09 revised procedures and wellbore schematic were submitted for P&A.
10/7/09 Burlington was given permission from Kelly Roberts and Charlie Perrin (OCD) to set 1st 3 plugs with rig on. The rig would move off and then they will continue to dig out the surf csg.
10/7/09 set CR @ 1934' & stung in 25 sx cmt, went on vacumn & then pumped 7 sx on top of CR. 10/08/9 Tagged on retainer @ 1934'. Called Charlie and Kelly (OCD) & it was decided to sting in CR & pump another 25 sx cmt if it would go & put another 7 sx on top of CR.

Attached is the P&A report from A+.

Approved for plugging of wellbore only. Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms. www.emnrd state.us/ocd

RCVD NOV 5 '09
OIL CONS. DIV.
DIST. 3

SPUD DATE: 2/25/1943 RIG RELEASE DATE:

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

SIGNATURE Rhonda Rogers TITLE Staff Regulatory Technician DATE 11/3/2009

Type or print name Rhonda Rogers E-mail address: rrogers@conocophillips.com PHONE: 505-599-4018

For State Use Only

APPPROVED BY Kelly G. Roberts TITLE Deputy Oil & Gas Inspector, District #3 DATE NOV 05 2009

Conditions of Approval (if any): PNR ONLY

BS

pc

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

Burlington Resources October 15, 2009
Walker SRC #1

1320' FNL & 1320' FEL, Section 3, T-29-N, R-12-W
San Juan Country, NM
Lease Number: Fee
API#30-045-08823

Plug and Abandonment Report

Notified NMOCD and BLM on 10/6/09

Plugging Summary:

10/06/09 MOL and RU. LO/TO equipment on location. Check well pressures: tubing and 3.5" casing, 20 PSI; no outlet on 5.5" casing; unable to find 8.625" casing due to cement in cellar. Will bring buster out in the morning and bust out cement. SDFD.

10/07/09 Use buster and bust out cement in cellar down approximately 4'. Found old clamp on 5.5" casing. Unable to find 8.625" casing. Wait on orders. Charlie Perrin, NMOCD representative, approved procedure change to set bottom plugs and dig out surface to approximately 15' before doing surface plug. ND wellhead. NU BOP and test. PU on tubing and remove donut. Tally and TOH with 62 joints 2.063" IJ 3.2# tubing. Total tally: 1998'. Round trip 2.80" gauge ring to 1941'. Kelly Roberts, NMOCD representative, required procedure change to set cement retainer at 1934'. TIH and set 3.5" PlugWell wireline set cement retainer at 1934'. TIH with tubing and tag cement retainer at 1934'. Sting into cement retainer. Load the casing with 18 bbls of water. Attempt to pressure test casing 1-1/4 bpm at 300 PSI. Establish rate below retainer 2 bpm at 0 PSI.
Plug #1 with CR at 1934', mix and pump 32 sxs Class B cement (37.7 cf), squeeze 25 sxs below cement retainer and leave 7 sxs inside casing above CR up to 1773' to isolate the Pictured Cliffs perforations.
TOH with tubing. SI well. SDFD.

10/08/09 Open up well, no pressure. TIH with tubing and tag retainer at 1934', no cement. TIH with tubing and stinger to 1547'. Sting into retainer at 1934'. Load casing with 23 bbls of water. Attempt to pressure test casing pumping into holes 2 bpm at 500 PSI. Establish rate below retainer 2 bpm at 0 PSI.
Plug #1a with CR at 1934', mix and pump 57 sxs Class B cement (67.2 cf) with 2% $CaCl_2$, displace cement with 2 bbls and well locked up at 1200 PSI, sting out of retainer, squeeze 39 sxs below cement retainer and leave 18 sxs inside casing above cement retainer up to 1521' to isolate the Pictured Cliffs perforations.
TOH with tubing. RU hot tap machine with welder. Monitor well. Weld 2" collar on 5.5" casing. Hot tap 5.5" casing. Close valve. Remove hot tap machine. Open valve, light puff. WOC. Load hole with 2-1/2 bbls of water. Pressure test casing to 500 PSI, held OK for 10 minutes. TIH and tag cement at 1680'. POH. Attempt to perforate at 1630', gun did not fire. Break down gun and find broken firing rod. Fix gun. Perforate 2 bi-wire holes at 1630'. Load the hole with 1 bbl of water. Establish rate into squeeze holes 1 bpm at 1100 PSI. RIH with 3.5" PlugWell wireline set cement retainer and set at 1577'. Sting into cement retainer. Establish rate below retainer 1 bpm at 1200 PSI.
Plug #2 with CR at 1577', mix and pump 38 sxs Class B cement (44.8 cf), squeeze 33 sxs below cement retainer and leave 5 sxs inside casing above cement retainer up to 1462' to cover the Fruitland top.
TOH with tubing. SI well. SDFD.

Item 767

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 29 2008
Bureau of Land Management
Farmington Field Office

Sundry Notices and Reports on Wells

1. **Type of Well**
GAS

2. **Name of Operator**
BURLINGTON RESOURCES OIL & GAS COMPANY LP

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. **Location of Well, Footage, Sec., T, R, M**
Unit P (SESE), 990' FSL & 330' FEL, Section 34, T30N, R12W, NMPM

5. **Lease Number**
SF-077922

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**

8. **Well Name & Number**
Hudson 2

9. **API Well No.**
30-045-08950

10. **Field and Pool**
Basin Fruitland Coal
Fulcher Kutz PC

11. **County and State**
San Juan Co., NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission	Type of Action			
____ Notice of Intent	__X__ Abandonment	_____ Change of Plans	Other -
	_____ Recompletion	_____ New Construction	
__X__ Subsequent Report	__X__ Plugging	_____ Non-Routine Fracturing	
	_____ Casing Repair	_____ Water Shut off	
_____ Final Abandonment	_____ Altering Casing	_____ Conversion to Injection	

13. Describe Proposed or Completed Operations

See attached for PA details 9/26/08

RCVD OCT 1 '08
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct.

Signed Tracey N. Monroe Tracey N. Monroe Title Staff Regulatory Technician Date 9/29/2008

(This space for Federal or State Office use)
APPROVED BY _____ Title _____ Date _____
CONDITION OF APPROVAL, if any:

Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

ACCEPTED FOR RECORD
SEP 30 2008
FARMINGTON FIELD OFFICE

NMOCD

Hudson 2
API # 30-045-08950

9/18/08 MIRU A-Plus 10.

9/19/08 CK PSI on well no BH. 5.5" csg & 3.5" csg 4#, bleed psi. ND 5.5" WH. RU W/L. TIH w/3.5" CIBP & stacked out @ 582' GL. POOH RD W/L. Dig around 5.5" csg w/L & R backhoe, found 15.5" csg 8' below GL, w/clamp holding 5.5" csg on top of 15.5" csg. Install 17" ring over 15.5" csg. Cement 7" csg w/10 yards Ready Mix Cement. Install 5.5" csg head on 5.5".

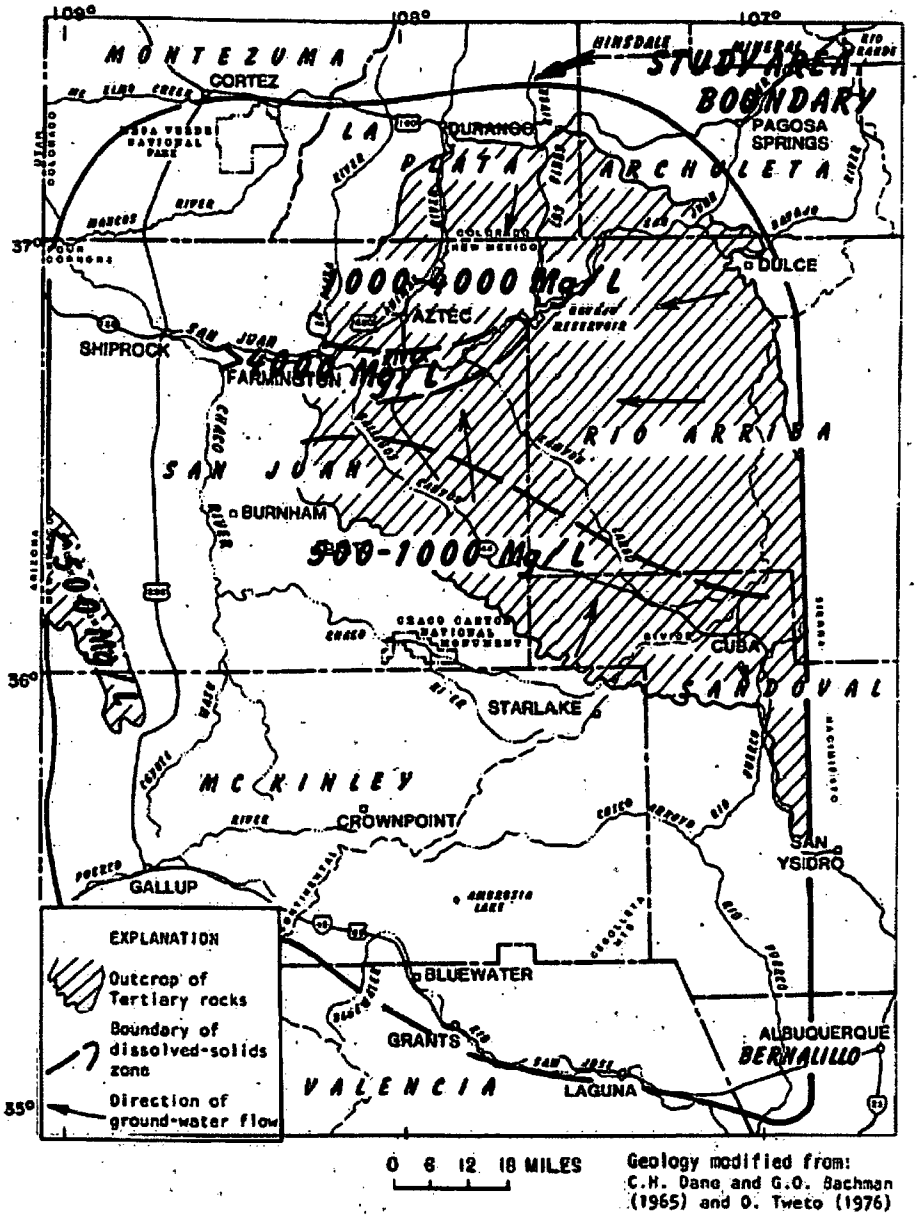
9/22/08 ND WH. NU BOP. RU rig floor & tbg equip. Tally & PU 1.25" IJ tbg & 2.875" blade bit, tag @ 582' & fell thru to 1726'. POOH w/tag & bit. RU W/L. TIH & set PW/CIBP @ 1688'. POOH RD W/L. RD tbg equip & rig floor. ND BOP. Monitor well & Weld washer 5.5"csg & 7" csg, cut 5.5: csg & 3.5" csg. Weld 2" on 5.5" csg. weld 3.5" collar on 3.5" csg. NU swedges & 5.5" csg head & bop on 3.5" csg.

9/23/08. TIH w/tbg & tag CIBP @ 1688'. Load hole & circ clean w/16 bbls H2O. Test csg to 1000# - held 5 min. **Plug #1**- Spot 10 sx B Cement 1888' – 1458'. LD tbg. RU W/L & TIH perf 3 each 2.125" holes @ 700'. POOH & RD W/L. Load hole, est rate. No blow Out 5.5" csg. **Steve Mason (BLM) requested to run tbg to 750' & set inside plug verbal approval from Steve Hayden OCD.** PU 1.25" tbg to 750'. **Plug #2**- load hole w/1 bbl H2O. Spot 6 sx B Cement from 750' – 612'. LD to 587' & circ clean w/10 bbls water. POOH w/tbg. WOC. RU W/L TIH to 800'. POOH & RD W/L. Load hole & est rate in perf @ 700'. **Plug #2A** – pump 110 sx B Cement placing 105 sx outside 3.5" csg & 5 sx in 3.5" csg.

9/24/08 Load hole w/water & est injection rate into perf @ 700". **Plug 2B**- Pump 69 sx B Cement locked up @ 1700#. TIH to 586' & circ cement out of csg approx. 7 sx. LD all tbg. WOC. **Notified Steve Mason (BLM) Steve Hayden (OCD) of need to place 150' Plug & re-perf @ 560'. Verbal approval from both agencies.** RU W/L & tag TOC @ 560'. POOH. Test csg to 1000# psi. OK. Perf @ 560'. POOH & RD W/L. Est rate into perf @ 560'. **Plug #3**- mix and pump 121 sx B Cement from 560' to TOC @ 193'. 105 sx out 3.5" csg & 16 sx in 3.5" csg.

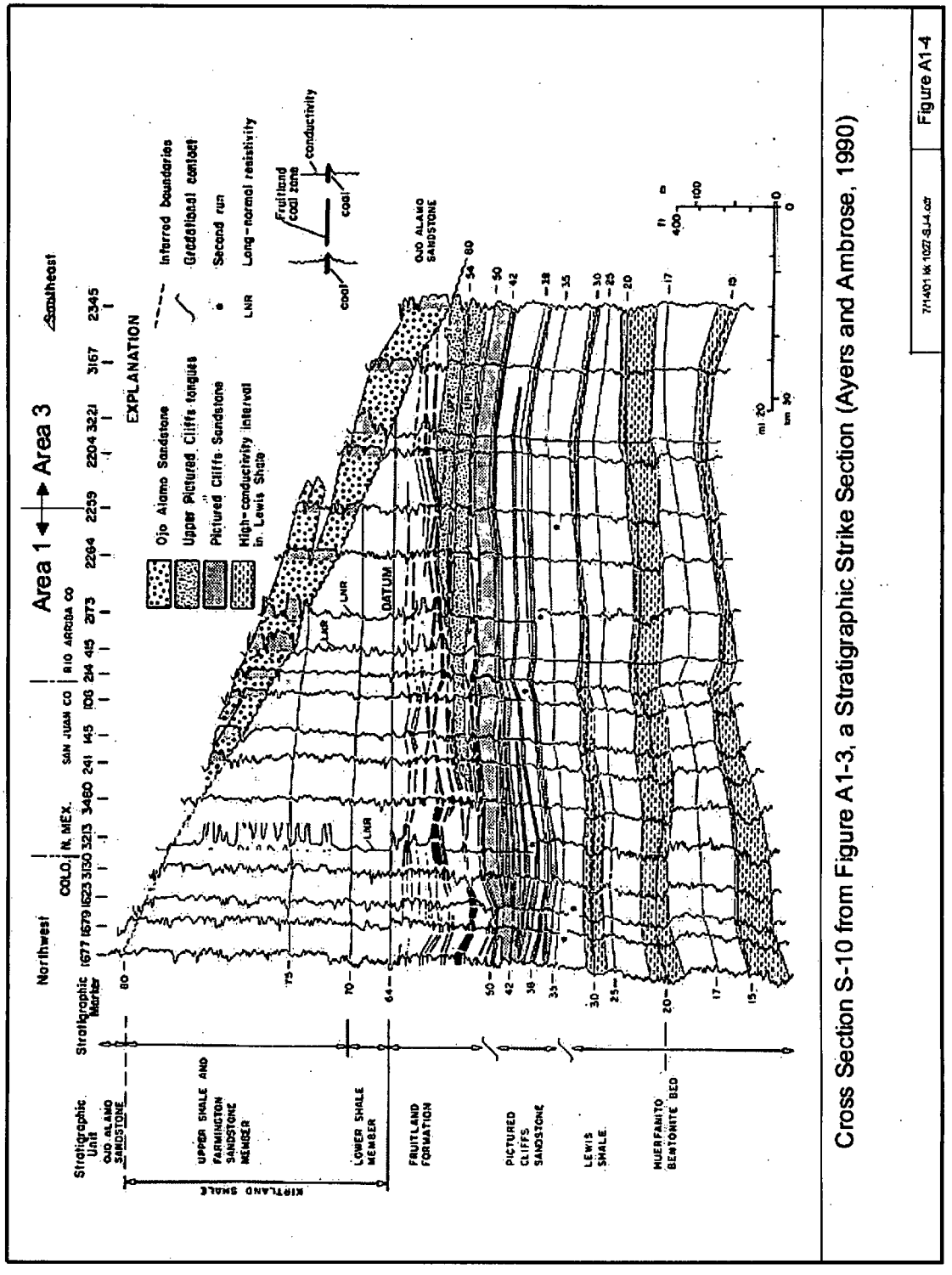
9/25/08 RU W/L. TIH & tag TOC @ 207'. POOH. Test csg to 1000# - good test. TIH & perf @ 100' 2spf. POOH & RD W/L. Load hole & break circ out 5.5" csg. SI 5.5" csg & leaking @ weld. Wait on welder. Weld leak. Pump 20 bbls H2O down 15.5" csg. No blow out 3.5' csg. **Plug #4** – pump 73 sx B Cement. When good cement out 5.5" csg pump rest of cement 68 sx in annulus 5.5" csg X 12.5" hole. (**Plug #4 requested by Steve Mason BLM OK with Steve Hayden OCD**). WOC. RU W/L & perf @ 50'. RD W/L. Pump water down 3.5" csg & break circ in clellar and around matted pads. RD rig. **Plug 4A** –Mix 69 sx B Cement from perf @ 50' & circ good cement out of ground. WOC.

9/26/08 ND BOP & flange. D/O WL. Cut wellhead. Install PA marker w/15 sx cement. 3.5" csg down 6', top off w/cement. All other csgs cement @ surface. RD cement equip, cut anchors. RR.



Direction of Ground Water Flow and Dissolved Solids Concentration in Tertiary Rocks (Lyford, 1979)

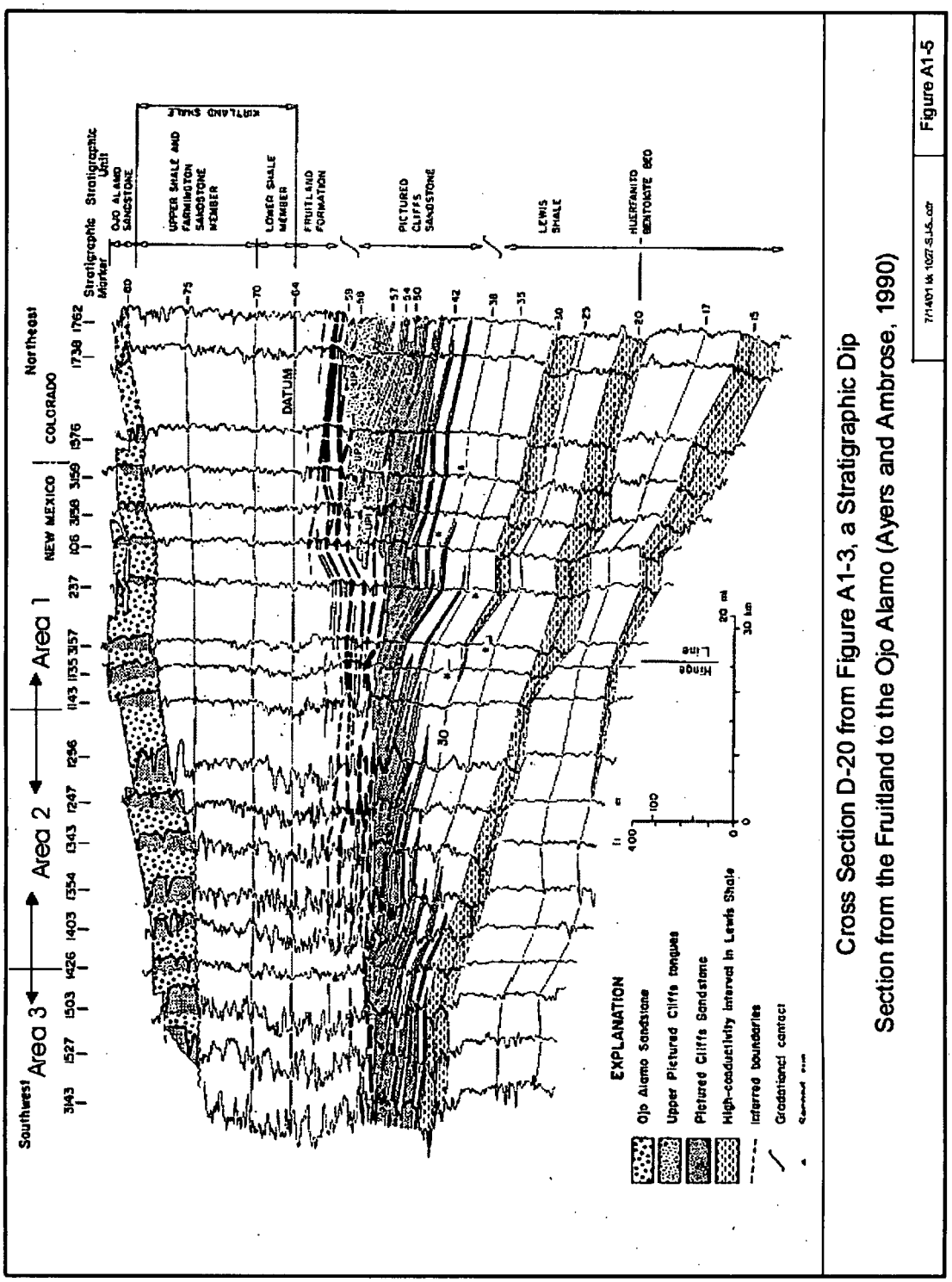
7/14/01 kk 1027-SJ-14.cdr | Figure A1-14



Cross Section S-10 from Figure A1-3, a Stratigraphic Strike Section (Ayers and Ambrose, 1990)

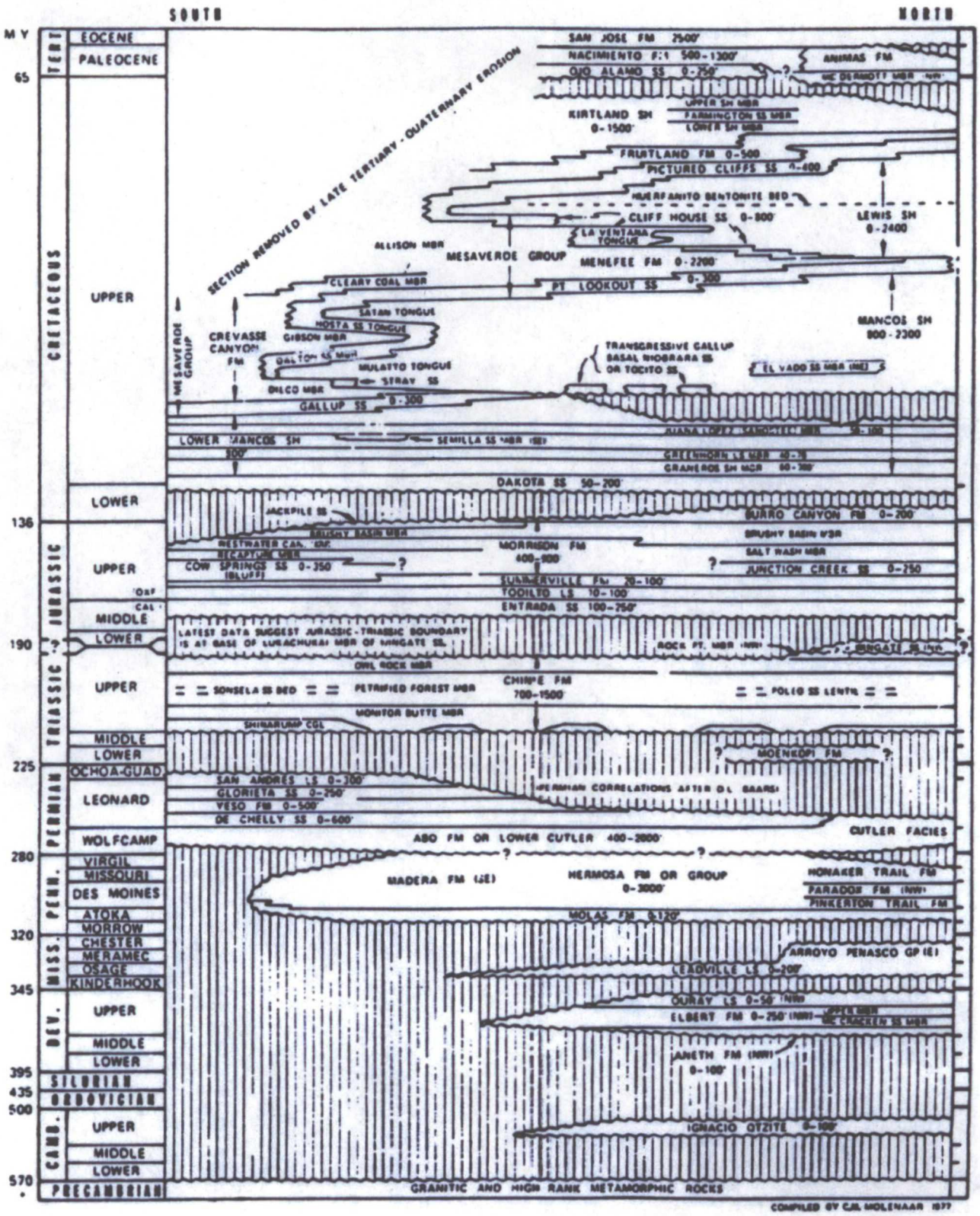
7/14/01 kk 1027-S-14.cdr

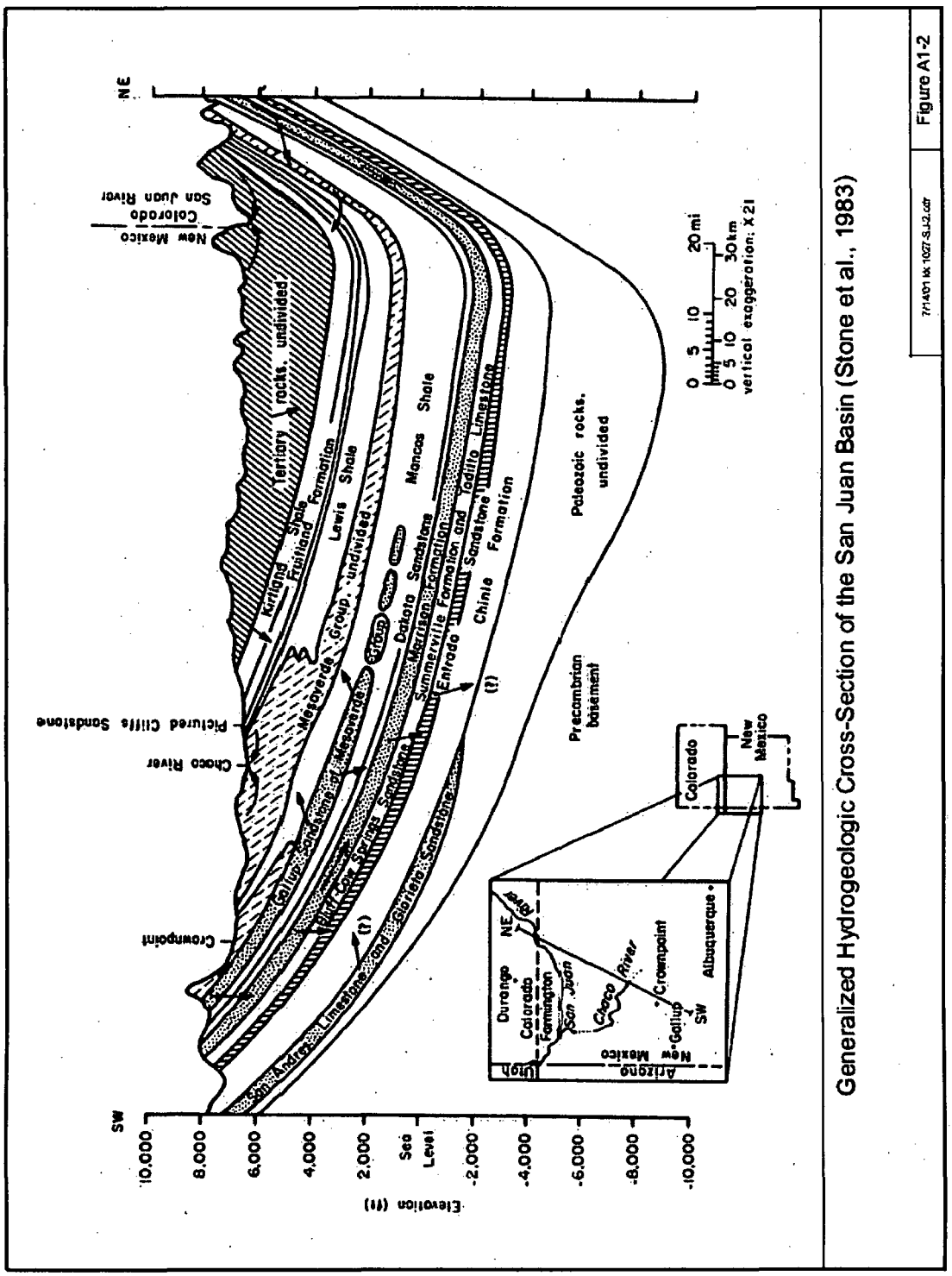
Figure A1-4


Cross Section D-20 from Figure A1-3, a Stratigraphic Dip
Section from the Fruitland to the Ojo Alamo (Ayers and Ambrose, 1990)
Figure A1-5
Southwest
Area 3
Area 2
Area 1
Northeast
NEW MEXICO
COLORADO
Stratigraphic Marker
Stratigraphic Unit
OJO ALAMO SANDSTONE
KIRTLAND SHALE
UPPER SHALE AND FARMINGTON SANDSTONE MEMBER
LOWER SHALE MEMBER
FRUITLAND FORMATION
PICTURED CLIFFS SANDSTONE
LEWIS SHALE
HUERFANITO BENTONITE BED
DATUM
Hinge Line
EXPLANATION
Ojo Alamo Sandstone
Upper Pictured Cliffs tongues
Pictured Cliffs Sandstone
High-conductivity interval in Lewis Shale
Inferred boundaries
Gradational contact

7e1

TIME-STRATIGRAPHIC NOMENCLATURE CHART (SAN JUAN BASIN)




Generalized Hydrogeologic Cross-Section of the San Juan Basin (Stone et al., 1983)
Figure A1-2
NE
SW
New Mexico
Colorado
San Juan River
Tertiary rocks, undivided
Kirtland Shale
Fruitland Formation
Lewis Shale
Pictured Cliffs Sandstone
Chacra Sandstone
Cliff House Sandstone
Menefee Formation
Point Lookout Sandstone
Mancos Shale
Dakota Sandstone
Morrison Formation
Summerville Formation
Entrada Sandstone
Todilto Limestone
Chinle Formation
Paleozoic rocks, undivided
Precambrian basement
Crownpoint
Gallup Sandstone
Gallup
Mesaverde Group, undivided
Mesaverde Group
Point Lookout Sandstone
Mancos Shale
Dakota Sandstone
Morrison Formation
Summerville Formation
Entrado Sandstone
Todilto Limestone and Stanley Sandstone
San Andres Limestone
(?)
0 5 10 20 mi
0 5 10 20 30 km
vertical exaggeration: X 21
Elevation (ft)
10,000
8,000
6,000
4,000
2,000
Sea Level
-2,000
-4,000
-6,000
-8,000
-10,000
Durango
Colorado
Farmington
San Juan
Chaco River
Crownpoint
Gallup
Albuquerque
SW
NE
Utah
Arizona
New Mexico

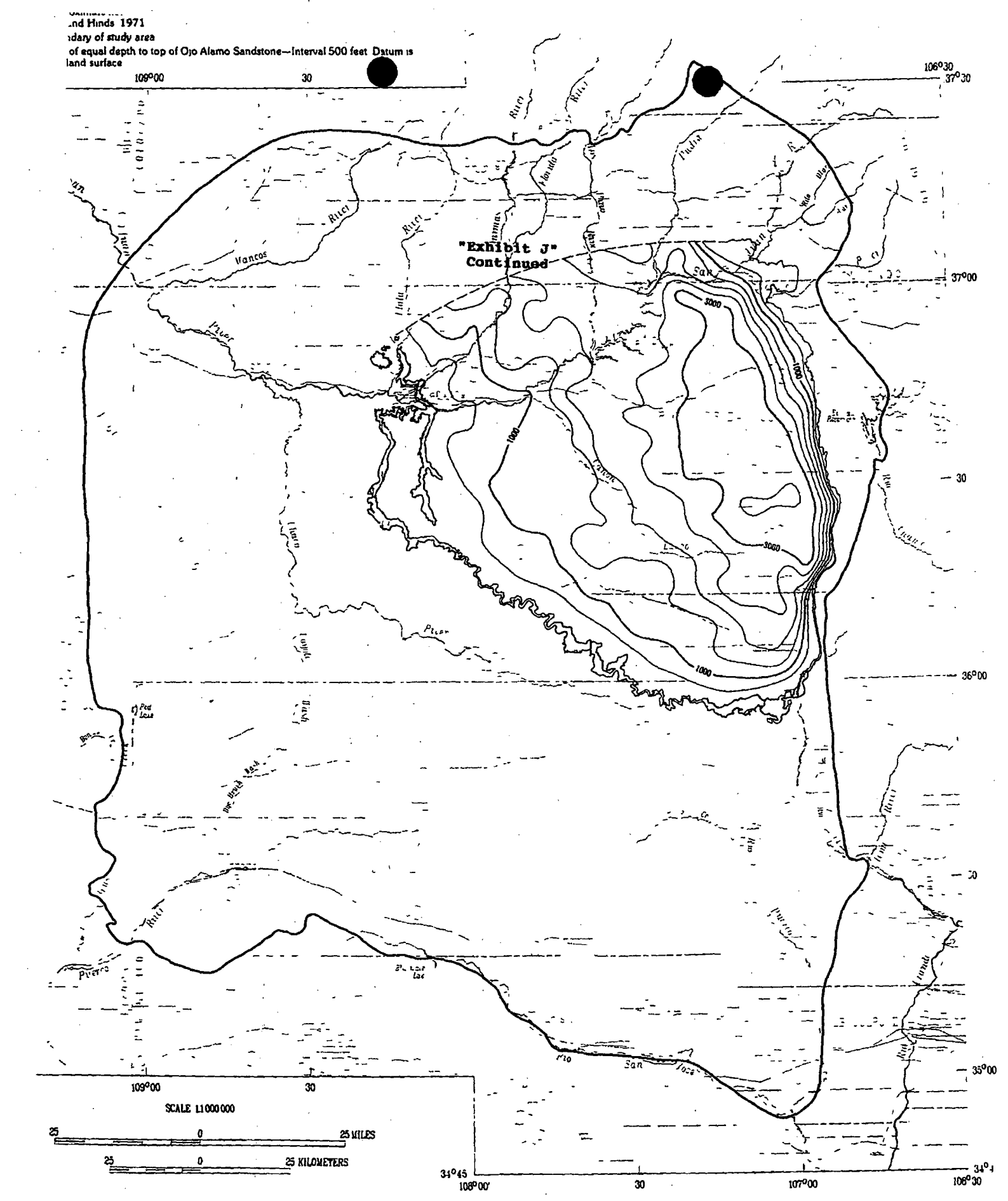


Figure 5 Approximate depth to the top of the Ojo Alamo Sandstone.

EXPLANATION

Outcrop of Ojo Alamo Sandstone—From Dane and Bachman 1965 and Fassett

Te 3

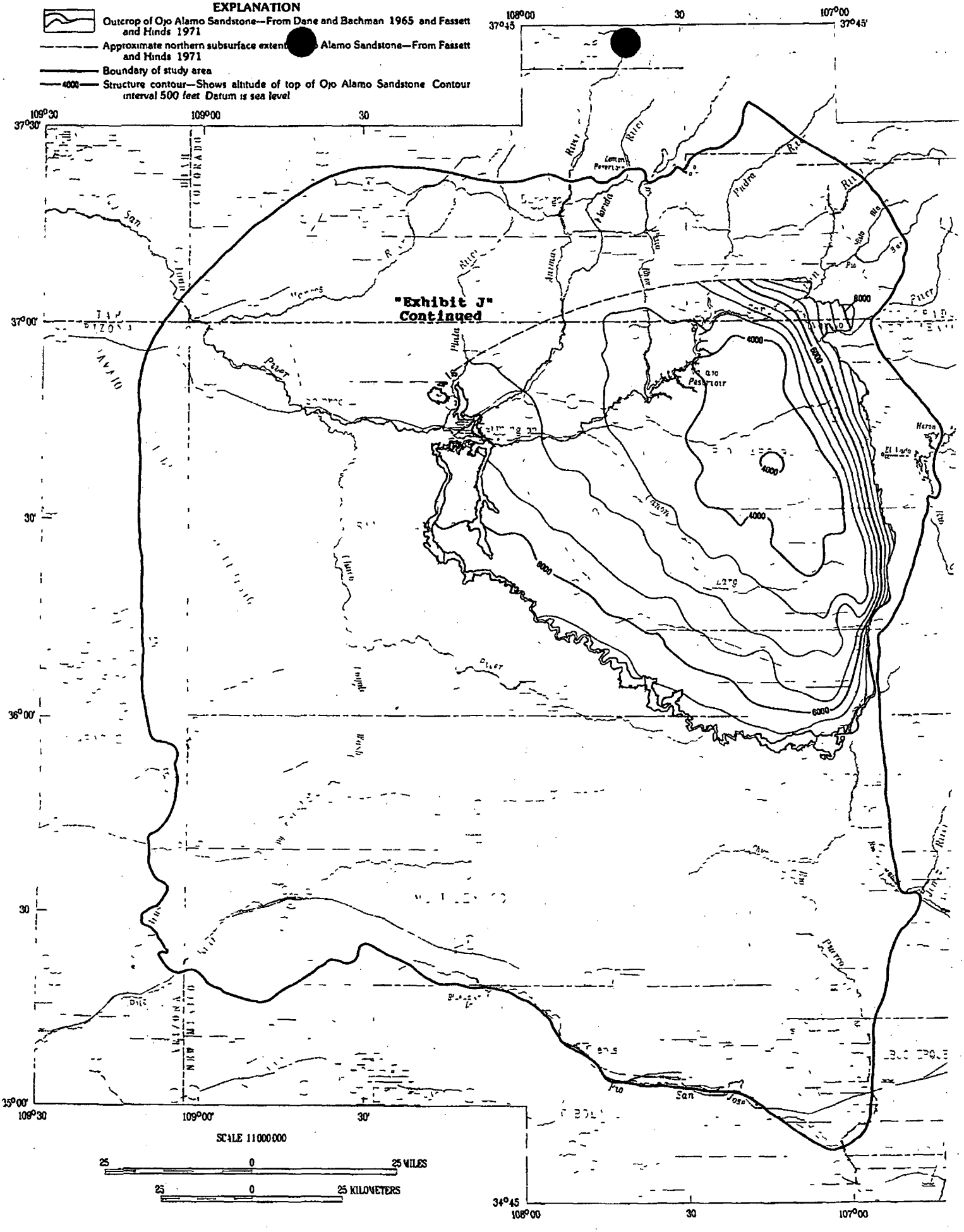


Figure 6 Approximate altitude and configuration of the top of the Ojo Alamo Sandstone

Tc4

"Exhibit H"

ANALYSIS NO. S1-76-

FIELD RECEIPT NO. ____

API FORM 45-1

API WATER ANALYSIS REPORT FORM

Company		Sample No.	Date Sampled
Coleman Oil & Gas		2	02-25-92
Field	**Legal Description**	**County or Parish**	**State**
	Sec 2 T29N R8W	San Juan	NM
Lease or Unit	**Well**	**Depth**	**Formation**	**Water, B/D**
Sunco Disposal	#1	4	M.V. (Pt. Lookout)	
Type of Water (Produced, Supply, etc.)	**Sampling Point**		**Sampled By**
Produced	Pit		

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	7451	323.94
Calcium, Ca	168	8.40
Magnesium, Mg	39	3.20
Barium, Ba	—	—
Potassium, K	720	18.41

ANIONS		
Chloride, Cl	11879	335.10
Sulfate, SO_4	185	3.85
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	915	15.00
Hydroxide, OH	0	0

Total Dissolved Solids (calc.) 21357

Iron, Fe (total) 25 ppm

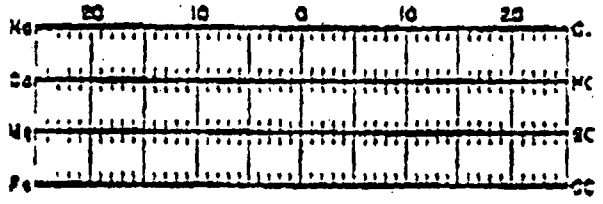
Sulfide, as H_2S neg

OTHER PROPERTIES

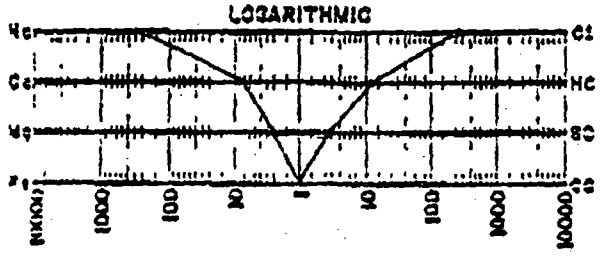
pH	7.01
Specific Gravity, 60/60 F.	1.013
Resistivity (ohm-meters) 78 F.	.35
Total Hardness	580

WATER PATTERNS — me/l

STANDARD



LOGARITHMIC



REMARKS & RECOMMENDATIONS:

ANALYST: Lee

PLEASE REFER ANY QUESTIONS TO:

THE WESTERN CO. OF NORTH AMERICA
FARMINGTON, N.M.
BRIAN AULT-District Engineer
(505) 327-6222

Attachment 7g

Chavez, Carl J, EMNRD

From:	Terry Duffey [tduffey@everquestenergy.com]
Sent:	Thursday, July 22, 2010 3:09 PM
To:	Chavez, Carl J, EMNRD; Jones, William V., EMNRD
Cc:	wayne price; lmolleur@keyenergy.com; 'HC Putman'; Neil Allen; 'Dan Gibson'
Subject:	Sunco FOT
Attachments:	Sunco 2010 FOT.pdf; 2010 FOT - Raw Data File.xls; Data File for Pro Wireline.xls; Daily Downhole Injection Report.xls; BH Injection Pressure Chart.xls

Enclosed is the required FOT data and analysis.

The **Key Energy** personnel operating this injection facility did an excellent job performing all the requirements for another successful test this year.
They planned and executed flawlessly.
I thank them for their vigilance and positive attitude.

The well continues to demonstrate excellent reservoir parameters and should remain a great ***Class I*** well into the foreseeable future.
No stimulation is needed at this time - the skin is still highly negative stemming from the frac job during the initial completion with no apparent plugging after injecting almost 14 million barrels since 1994.

EverQuest Energy Corporation
Dominating World Oil...One Well at a Time

Terry M. Duffey
10 Desta Drive, Suite 300-East
Midland, Texas 79705
432-686-9790 ofc
432-682-3821 fax

2010 Fall-Off Test

Key Energy Services, LLC
Sunco SWD #1
San Juan County, NM
API# 30-045-28653

Prior to Fall-Off Test Period	There was essentially no injection into the well between June 24 and June 29 (6 days) During the period from June 30 to July 13 there was a total of 26,047 bbls injected intermittently over a 141-hour period, for an average injection rate of 185 bbl/hour (the equivalent of 4440 bbl/day for a continuous 24-hour day)
Pre-Test Conditioning Period:	102-hours of continuous injection Began injection at 7 AM, July 9, 2010 End injection at 1 PM, July 13, 2010 19,185 bbls injected over a 102-hour period Average stabilized injection rate 4515 bbl/day
Fall-Off Test Period:	72-hours shut-in Began test at 1 PM, July 13, 2010 Conclude test at 1 PM, July 16, 2010
Bomb positioned at mid-perf	4405'
BH Injection Temperature	88.1 degrees F
BH Shut-in Temperature	85.0 degrees F
Surface Shut-in Temp	93.7 degrees F
Perforated Interval	4350-4460'
Average porosity	13%

The well was fracture stimulated w/ 100,000 lbs of 20/40 sand during the initial completion in 1993
No workover or stimulation since 2007 Fall-Off test
The facility only operates during day light hours (no injection between 6 PM and 7 AM) - an average day entails 6-9 hours of injection.

Key Energy - Sunco SWD
2010 Fall-Off Test

Event Log

Time *Minutes*	BHP *psig*	BHT *degree F*	Remarks
0.00	0.0	123.7	Rigging up lubricator and wireline assembly
19.25	289.5	106.0	Open master valve - equalize with tubing pressure
19.50	2279.9	105.6	Lubricator pressure equalized
19.75	2278.4	105.1	Record wellhead injection pressure
23.00	2309.8	97.7	Begin trip downhole with pressure bombs
			NOTE: Did NOT interrupt constant 96+ hour period of pre-conditioning injection
39.00	4011.3	85.8	Suspended bombs at mid-perfs (4405')
			Begin recording BH Injection Pressure for 24-hours...
1473.00	4011.5	88.1	Final BH Injection Pressure reading
1474.00	4004.6	88.1	Shut down injection - begin 72-hr falloff period
5797.00	3573.7	85.0	End 72-hour fall-off period
5797.25			Begin to POOH to 4000' to record hydrostatic pressure
5807.75	3454.9	112.8	Final hydrostatic pressure at 4000'
5808.00			Begin to POOH to 3000' to record hydrostatic pressure
5820.00	3015.5	103.2	Final hydrostatic pressure at 3000'
5820.25			Begin to POOH to 2000' to record hydrostatic pressure
5832.00	2576.4	88.5	Final hydrostatic pressure at 2000'
5833.00			Begin to POOH to 1000' to record hydrostatic pressure
5844.00	2138.2	71.6	Final hydrostatic pressure at 1000'
5844.25			Begin to POOH to surface to record hydrostatic pressure
5858.50	1708.1	88.3	Final hydrostatic pressure at surface
5866.00	0.0	93.6	Close master valve-bleed pressure to atmospheric in lubricator
5866.25	0.0	93.7	Retrieve pressure bombs, rig down, move off well

July 2010
Fall-off Test (FOT) Results and Report

Key Energy Services, LLC
Sunco SWD #1 – Class I Non-Hazardous Oil Waste Disposal Well – Permit# UIC-CLI-005
API# 30-045-28653
1595 FNL and 1005 FWL
Unit Letter E, Section 2, T29N, R12W
San Juan County, NM

A fall-off test was successfully completed on this well in accordance with the approved test plan on-file with the OCD Environmental Bureau. The well injection rate was kept virtually constant at 4515 bbl/day for a 102-hour period leading up to the time of shut-in on July 13, 2010. The fall-off pressures were measured with downhole gauges set at mid-perfs (4405') for 72-hours.

*All of the following references are relative to the **NMOCD UIC Class I Well Fall-Off Test Guidance** document dated 12/3/2007*

Section VIII – Evaluation of Test Results

1-7. A professional engineer with ***Pro Well Testing & Wireline*** in Midland, Texas interpreted the results of the test using ***Kappa*** PTA software. The results of his interpretation are attached. The various attachments to the report address Section VIII.1-7 of the Guidance Document.

8. The **Tefteller, Inc.** tabular listing of Time, Pressure and Temperature shows that the bottom hole temperature during the fall-off time decreased by only 3 degrees during the 72-hour test. This temperature variation has only a minimal impact on the pressure analysis results.

9. The log-log plot of the derivative data indicates two parallel boundaries were seen between 10-20 hours into the test period at 648 and 1520 feet from the wellbore. We do not have sufficient subsurface geological data to determine the extent or shape of the injection zone surrounding the well. More than likely, the radial flow is limited in some particular direction. It is also possible that the boundaries could be due to the geometry of the induced fracture performed when the well was initially completed. The derivate curve shape indicates that this "boundary" is not restricting injection into the remainder of the formation volume affected by this well. A similar boundary was seen in previous tests.

Section IX – Report Components

1. See above
2. See above
3. Wellbore sketch attached to previous reports is unchanged
4. Copy of electric well log – previously submitted
5. Copy of porosity well log – previously submitted
6. No PVT data necessary, injected fluid is fresh–to-slightly saline water. No significant hydrocarbons present that would alter the density, compressibility and/or viscosity of the fluid.
7. The Key Energy internal *Daily Injection Reports* were used to determine the appropriate injection history to use for the analysis. A summary of those reports since the 2009 FOT is attached. There was essentially no injection into the well between June 24-29. Beginning on June 30 to July 13 there was a total of 26,047 bbls injected intermittently over a 141-hour period, for an average injection rate of 185 bbl/hour (the equivalent of 4440 bbl/day for a continuous 24-hour day). A CONSTANT injection rate of 4515 bbl/day for 102 continuous hours took place

before the well was shut-in for the FOT on July 13th. For PTA purposes, this injection rate/volume was significantly long to justify using the average injection rate from the pre-conditioning period (4515 bpd) to calculate the reservoir parameters.

8. The Sunco SWD #1 has injected approximately 13.88 million barrels into the Point Lookout formation from 1994 through June 2010. The Conoco Phillips McGrath #4 SWD, located approximately 1 mile north, is also actively injecting into the same formation. Cumulative injection at this location is 15.4 million barrels through May 2009.
9. Micro-Smart Systems Model SP2000 gauges, SN 281, pressure range 0-5000 psig, last date of calibration 11/21/2009, recommended annual calibration frequency, certificate of calibration and accuracy verification is available upon request.
10. Refer to the Discharge Permit renewal documentation submitted to the OCD in 2007. A copy of the *Area of Review* table included with that submission is attached.
11. Geological information should have accompanied the original permit application in 1994 by the original well operator. No geological data was transferred to successive owners since that time. Key Energy has not made a geological analysis of the Point Lookout formation in the vicinity of this disposal well.
12. The Conoco Phillips McGrath #4 SWD, located approximately 1 mile north, is also actively injecting into the Point Lookout formation. This is a private facility. As far as we know this well was active during our test period. Although both wells are disposing into the same interval we have no reason to believe any interference between the two wells exists. In the future, if the OCD wishes this well to be monitored during our annual FOT they should initiate the request with Conoco Phillips under their regulatory authority.
13. a-c. Injection Preconditioning; 7:00 AM, July 9th to 1:00 PM July 13, 2010 – injection fluid is mixture of waters trucked into facility from various locations. No change in water analysis that have been previously submitted to OCD.
    Begin Fall-off period: 1:00 PM, July 13, 2010
    End Fall-off period: 1:00 PM, July 16, 2010
    d. Final bottomhole injection pressure: T=1473.00 minutes elapsed was 4011.5 psig, 88.1 degrees F
    e. Total shut-in time 72-hours: T=1473.00 to T=5797.00
    f. Final static bottomhole pressure and temperature at end of fall-off period: T=5797.00 minutes elapsed 3574 psig, 85 degrees F
14. A wing valve located on the on the well's Christmas tree was closed to begin the FOT
15. The key to PTA interpretation is to correctly model the reservoir in the first place. The reservoir model that best fit the test data is a *Homogeneous Reservoir with a Finite Conductivity Fracture and Two Parallel Boundaries*. The log-log derivative pressure match using this model is excellent. Furthermore, the calculated reservoir parameters are quite reasonable considering that the well was initially hydraulically fractured and has exhibited very good injectivity since injection began in 1994. The PTA software internally calculates the results automatically.

July 2010
Fall-off Test (FOT) Results and Report

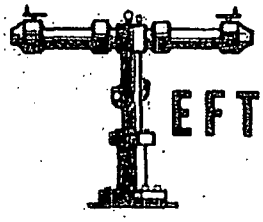
Key Energy Services, LLC
Sunco SWD #1 – Class I Non-Hazardous Oil Waste Disposal Well – Permit# UIC-CLI-005
API# 30-045-28653
1595 FNL and 1005 FWL
Unit Letter E, Section 2, T29N, R12W
San Juan County, NM

All equations are imbedded in the software and are congruent with professional reservoir engineering pressure transient analysis principals.

16. The log-log plot of the derivative data indicates two parallel boundaries were seen between 10-20 hours into the test period at 648 and 1520 feet from the wellbore. We do not have sufficient subsurface geological data to determine the extent or shape of the injection zone surrounding the well. More than likely, the radial flow is limited in some particular direction. The derivate curve shape indicates that "boundary" is not restricting injection into the remainder of the formation volume affected by this well.
17. As seen in the log-log derivative plot, the test was dominated by radial flow. The reservoir appears to be quite homogeneous as there are no anomalous pressure diversions seen in the pressure data – other than the increase in slope seen in the derivative data seen between 10-20 hours after shut-in (see #16 above).
18. See ***Pro Well Testing & Wireline*** report for graphs
19. The ***Pro*** test results for 2007, 2008 and 2009 are also attached. The reservoir pressure derived from the pressure transient analysis of these successive FOT are amazingly close; showing essentially NO building of reservoir pressure during this 3-4 year period. This reservoir has ideal properties for continued injection into the foreseeable future. The table below compares various reservoir parameters derived from each test. These tests exhibit very good consistency and the interpretive model used in each analysis honors the hydraulic fracture completion of the well. The negative skin values illustrate that the original fracture is still open. The half-length of 600-700 feet is realistic for a 100,000 lb sand frac in a sand zone 110 feet thick.

Parameter	2010 Results	2009 Results	2008 Results	2007 Results
Reservoir pressure	3231psig	3242 psig	3176 psig	3258 psig
Permeability	13.6 md	10.2 md	20.7 md	17.5 md
Skin	-7.18	-7.23	-6.79	-6.93
Fracture half-length	893 ft	926 ft	596 ft	688 ft
Boundary	648 and 1520 ft	755 ft	987 ft	None seen
Radius of Investigation	1450 ft	1250 ft	1760 ft	1620 ft

20. The raw test data will be kept on file for a period of 3-years and will be made available to the OCD upon written request.



EFTELLER, INC.

reservoir engineering

FARMINGTON, NEW MEXICO/
GRAND JUNCTION, COLORADO

P. O. Box 1198
Farmington, New Mexico 87499
(505) 325-1731
Fax (505) 325-1148

2332 Interstate Ave.
Grand Junction, CO 81505
(970) 241-0403
Fax (970) 241-7634

KEY ENERGY SERVICES, LLC

SUNCO 'SWD' NO. 1

JULY 13 -16, 2010

Serving the Rocky Mountains and the Western Slope

Company: KEY ENERGY SERVICE, LLC
Well: SUNCO 'SWD' NO. 1
Field: MESA VERDE FORMATION
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000
Gauge Depth: 4405 ft
Serial No.: 281

County: SAN JUAN
State: NEW MEXICO
Date: 07/16/2010
Well Type: SALT WATER DISP.
Test Type: GRADIENT
Status: SHUT IN
File Name: 62080

Tubing: 2-7/8" TO 4282'
Tubing: TO
Casing: TO
Perfs.: 4350' - 4460'

Packer Depth 4284 ft
Oil Level
H2O Level

Shut-in BHP 3634 @ 4405 ft
Shut-in WHP 1708

Shut-in BHT 0 F @ 0 ft
Shut-in WHT 0 F

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1708.00	
2	1000	1000	2138.00	0.430
3	2000	2000	2576.00	0.438
4	3000	3000	3016.00	0.440
5	4000	4000	3455.00	0.439
6	4405	4405	3634.00	0.442

72 HOURS FALL-OFF

Company: KEY ENERGY SERVICE, LLC
Well: SUNCO 'SWD' NO. 1
Field: MESA VERDE FORMATION
Engineer: NEIL TEFTELLER
Gauge Type: ELECTRONIC MEMORY
Gauge Range: 0 - 5000
Gauge Depth: 4405 ft
Serial No.: 281

County: SAN JUAN
State: NEW MEXICO
Date: 07/16/2010
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5	4000	4000	3455.00	0.439
6	4405	4405	3634.00	0.442

72 HOURS FALL-OFF

File Reference F281716.RED

Customer	KEY ENERGY SERVICES, LLC
Street	C/O 10 DESTA DRIVE, SUITE 300-EAST
City/State	MIDLAND, TX 79705
Country	USA
Service Company	TEFTELLER, INC.
Well Name	SUNCO 'SWD' NO. 1
Well Location	SAN JUAN COUNTY, NM
Field / Pool	MESA VERDE FORMATION
Status (Oil, Gas, Other)	SALT WATER DISPOSAL
Test Type	INJECTION @ PRESSURE FALL-OFF TEST
Date of Test	7-13-10
Producing Interval	4350' - 4460'
Recorder Depth	4405'
Recorder Position	4405'
Shut In Date Start:	7-13-2010
Stop:	7-16-2010
Duration:	98 HRS. TANDEM ELEC. MEMORY INST. TIME
Bottom Hole Temperature	

Gauge Identification

Gauge Manufacturer	MICRO-SMART SYSTEMS
Serial Number	281
Model Number	SP2000
Pressure Range	
Battery Type	
Calibration I.D.	
Last Calibration	11/21/ 9

Gauge Setup Parameters

Probe Set Up Time	7/13/10 12:25: 0
Time Delay to First Reading	
Test Type Selection	INJECTION & PRESSURE FALL-OFF TEST
Test Duration Selection	98 HRS. TANDEM ELEC. MEMORY INST. TIME

EVENT SUMMARY

COMPANY : KEY ENERGY SERVICES, LLC

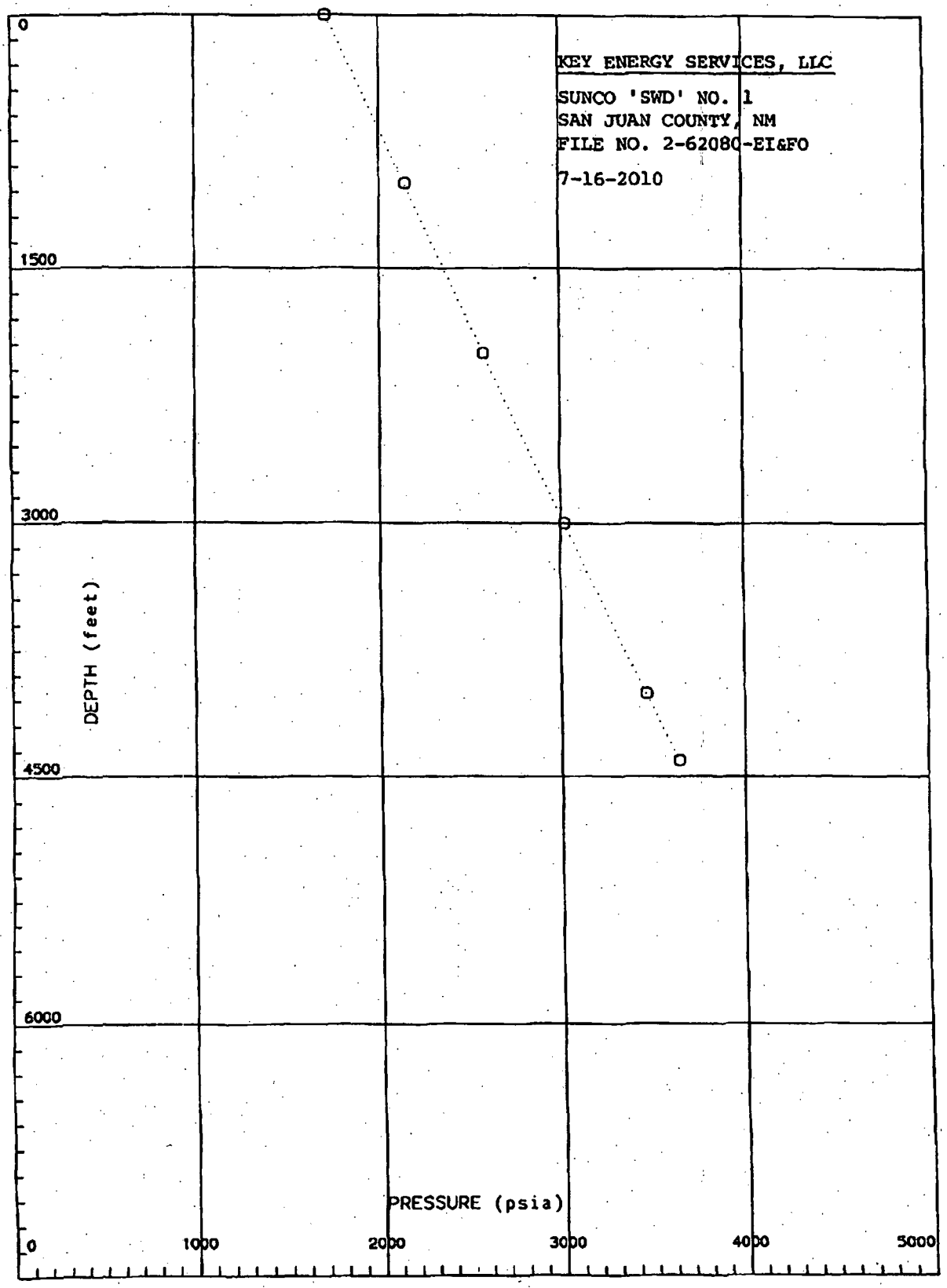
WELL NAME : SUNCO 'SWD' NO. 1

WELL LOCATION : SAN JUAN COUNTY, NM

DATE : 07/19/10

FILE RSP: F281716.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmm.mmm	Key Event	Pressure Psig	Temp Deg F
07/13	12:44:00	19.0000	PRESSURED UP LUBRICATOR	.01	106.21
07/13	12:47:45	22.7500	R.I.H. W/TANDEM ELECTRONIC MEMORY INST.	2294.91	98.54
07/13	13:16:00	51.0000	TANDEM ELECTRONIC MEMORY INST. @ 4405'	4012.35	86.67
07/13	13:28:00	63.0000	BEGAN INJECTING WATER	4012.19	86.79
07/14	13:04:00	1479.0000	STOPPED INJECTING WATER	3992.83	87.78
07/17	13:02:00	5797.0000	TANDEM ELEC. MEMORY INST. OFF BOTTOM	3573.73	85.01
07/17	13:13:00	5808.0000	STOP @ 4000'	3438.82	112.75
07/17	13:25:00	5820.0000	STOP @ 3000'	3015.52	103.17
07/17	13:37:00	5832.0000	STOP @ 2000'	2576.35	88.53
07/17	13:49:15	5844.2500	STOP @ 1000'	2127.52	71.55
07/17	14:04:45	5859.7500	SURFACE STOP	1706.35	89.53


KEY ENERGY SERVICES, LLC
SUNCO 'SWD' NO. 1
SAN JUAN COUNTY, NM
FILE NO. 2-62080-EI&FO
7-16-2010
0
1500
3000
4500
6000
DEPTH (feet)
PRESSURE (psia)
0
1000
2000
3000
4000
5000

4028.5 psig } ΔP ≈ 394 psig

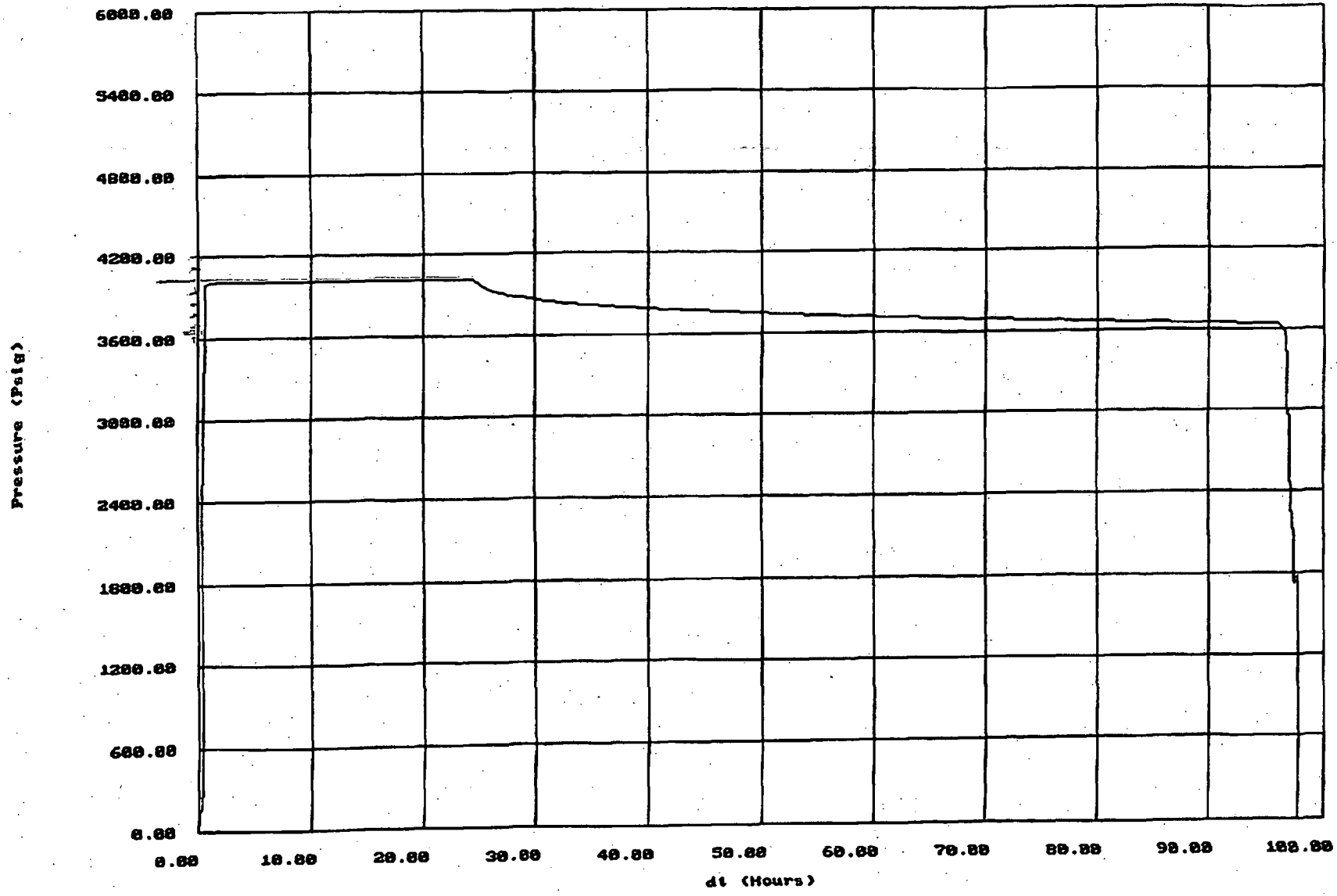
↓ 3634.3 psig

KEY ENERGY SERVICES, LLC

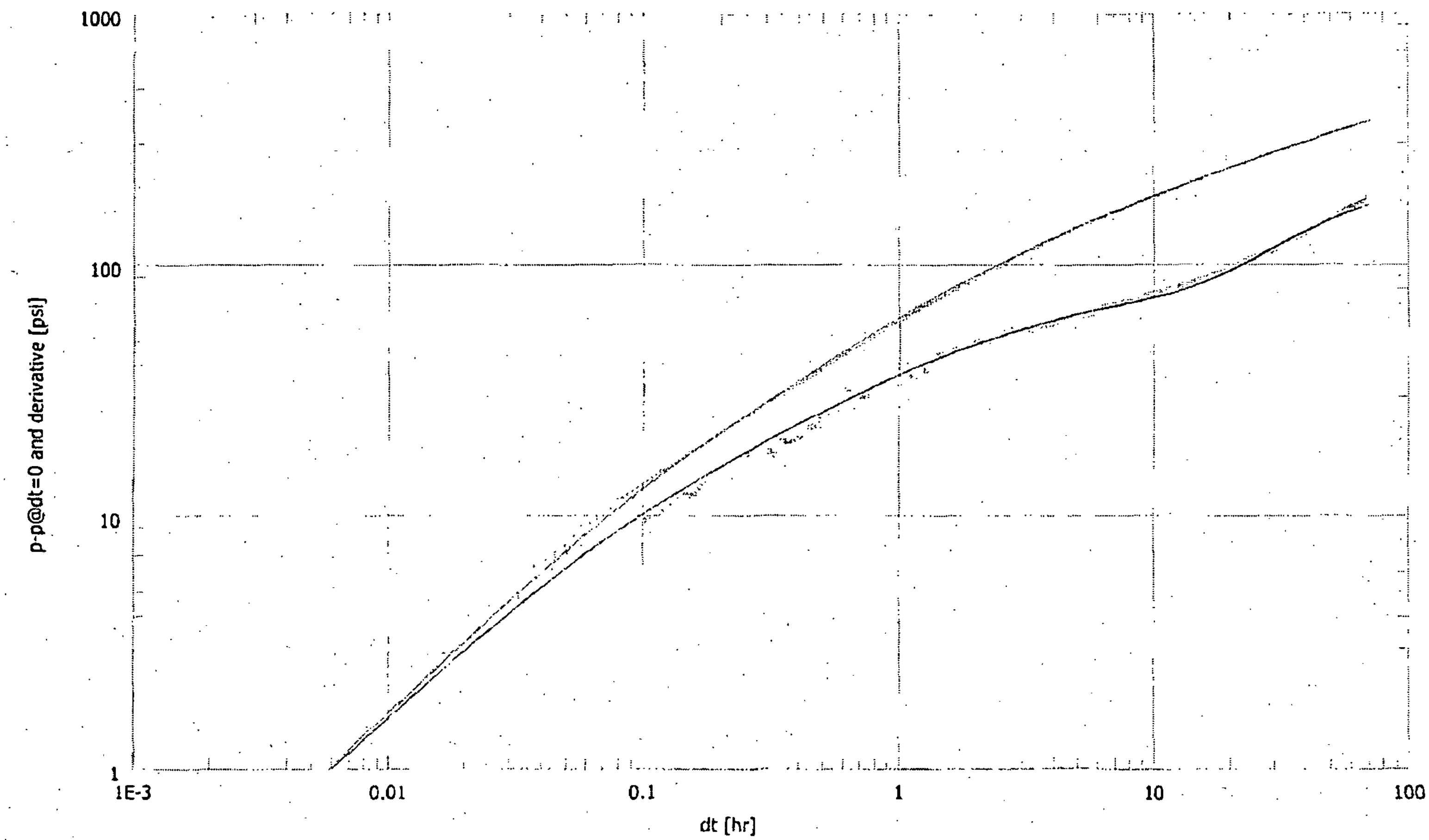
Pressure vs dt

SUNCO 'SWD' NO. 1
SAN JUAN COUNTY, NM
F281716.RED

TEFTELLER, INC.
7-13-18
INJECTION & PRESSURE FALL-OFF TEST

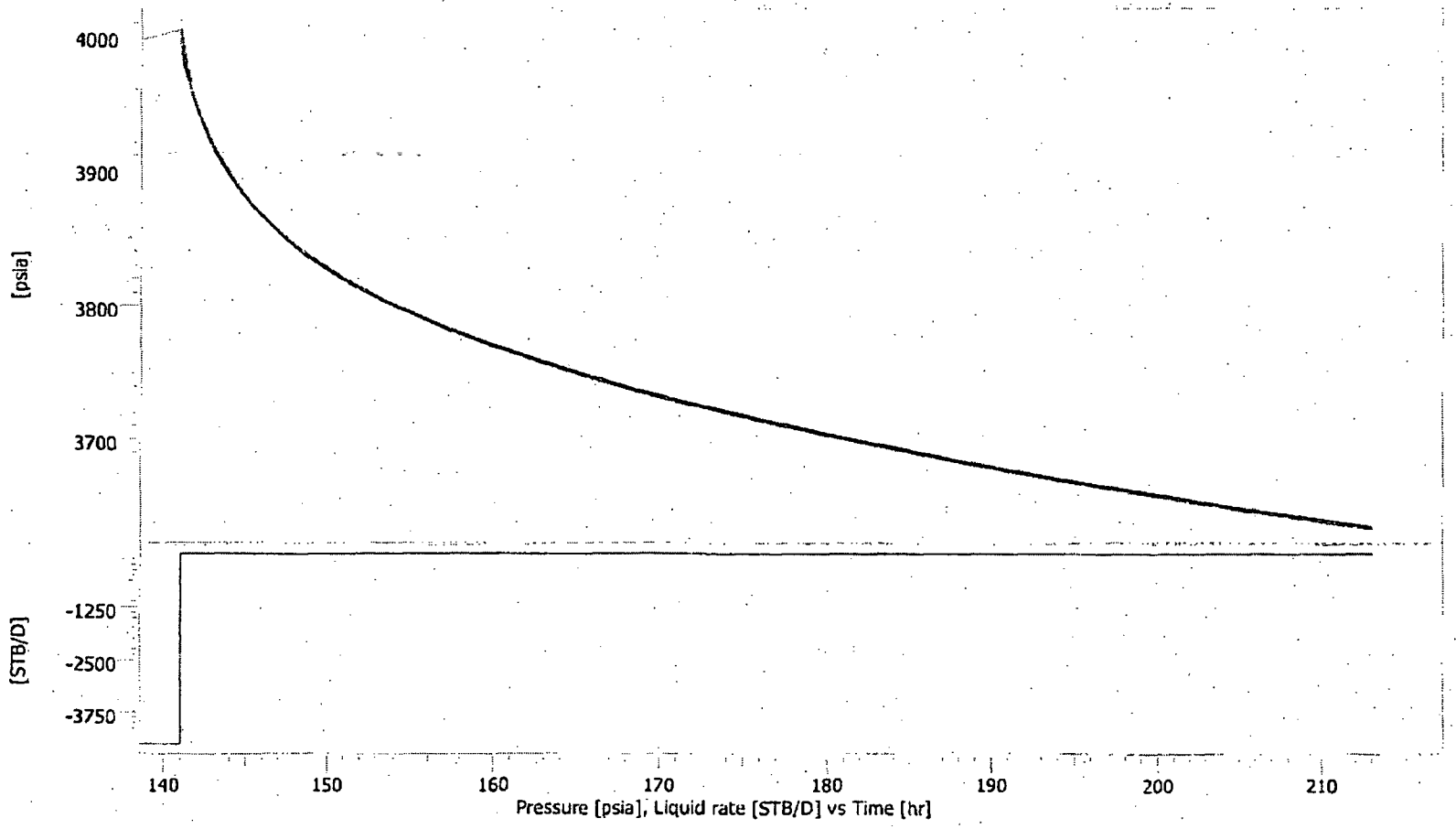


PRO WELL TESTING & WIRELINE	Log-Log plot	Analysis 1	PRO WELL TESTING & WIRELINE
	Company Key Energy Services Well Sunco SWD #1	Field Test Name / #	



Company Key Energy Services
Well Sunco SWD #1

Field
Test Name / #



Company Key Energy Services — Field
Well Sunco SWD #1 — Test Name / #

Test date / time	
Formation interval	
Perforated interval	4350-4460
Gauge type / #	
Gauge depth	
Analyzed by	
Analysis date / time	
TEST TYPE	Standard
Porosity Phi (%)	13
Well Radius rw	0.33 ft
Pay Zone h	110 ft
Form. compr.	3E-6 psi-1
Fluid type	Water
Volume Factor B	1 B/STB
Viscosity	1 cp
Total Compr. ct	3E-6 psi-1

Default values are used!

Selected Model

Model Option	Standard Model
Well	Fracture - Infinite conductivity
Reservoir	Homogeneous
Boundary	Parallel faults — boundaries ?

Main Model Parameters

TMatch	0.0115 [hr]-1
PMatch	0.00234 [psia]-1
C	1.04 bbl/psi
Total Skin	-7.18
k.h, total	1490 md.ft
k, average	13.6 md
Pi	3230.8 psia

Model Parameters

Well & Wellbore parameters (Sunco SWD #1)

C	1.04 bbl/psi
Skin	0.0247
Geometrical Skin	-7.2
Xf	893 ft
Theta	90 °

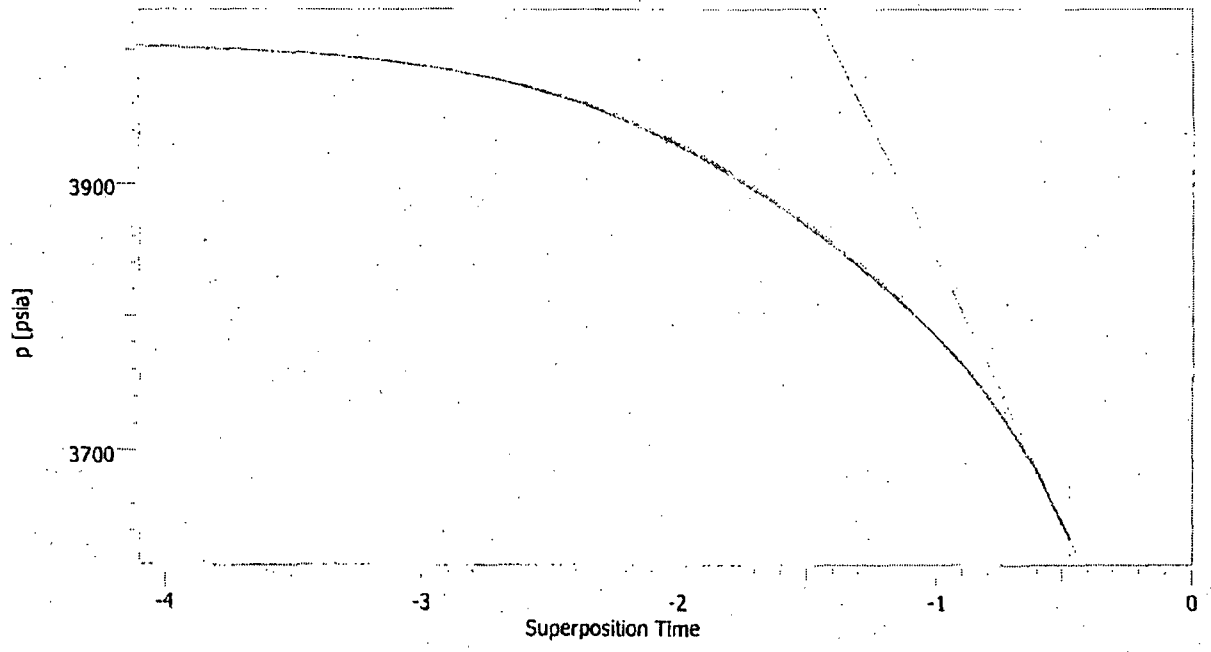
Reservoir & Boundary parameters

Pi	3230.8 psia
k.h	1490 md.ft
k	13.6 md
S - No flow	648 ft
N - No flow	1520 ft

Derived & Secondary Parameters

Rinv	1450 ft
Test. Vol.	16.789 MMB
Delta P (Total Skin)	-3064.11 psi
Delta P Ratio (Total Skin)	-8.30197 Fraction

PRO WELL TESTING & WIRELINE	Semi-Log plot	Analysis 1	PRO WELL TESTING & WIRELINE
	Company Key Energy Services Well Sunco SWD #1	Field Test Name / #	



Copy of Data File for Pro Wireline-1 fall-off #1

Rate	0 STB/D
Rate change	4515 STB/D
P@dt=0	4004.59 psia
Pi	3230.8 psia
Smoothing	0.05

Default values are used!

Selected Model

Model Option	Standard Model
Well	Fracture - Infinite conductivity
Reservoir	Homogeneous
Boundary	Parallel faults

Main Model Parameters

TMatch	0.0115 [hr]-1
PMatch	0.00234 [psia]-1
C	1.04 bbl/psi
Total Skin	-7.18
k.h, total	1490 md.ft
k, average	13.6 md
Pi	3230.8 psia

Model Parameters

Well & Wellbore parameters (Sunco SWD #1)

C	1.04 bbl/psi
Skin	0.0247
Geometrical Skin	-7.2
Xf	893 ft
Theta	90 °

Reservoir & Boundary parameters

Pi	3230.8 psia
k.h	1490 md.ft
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Test. Vol.	16.789 MMB
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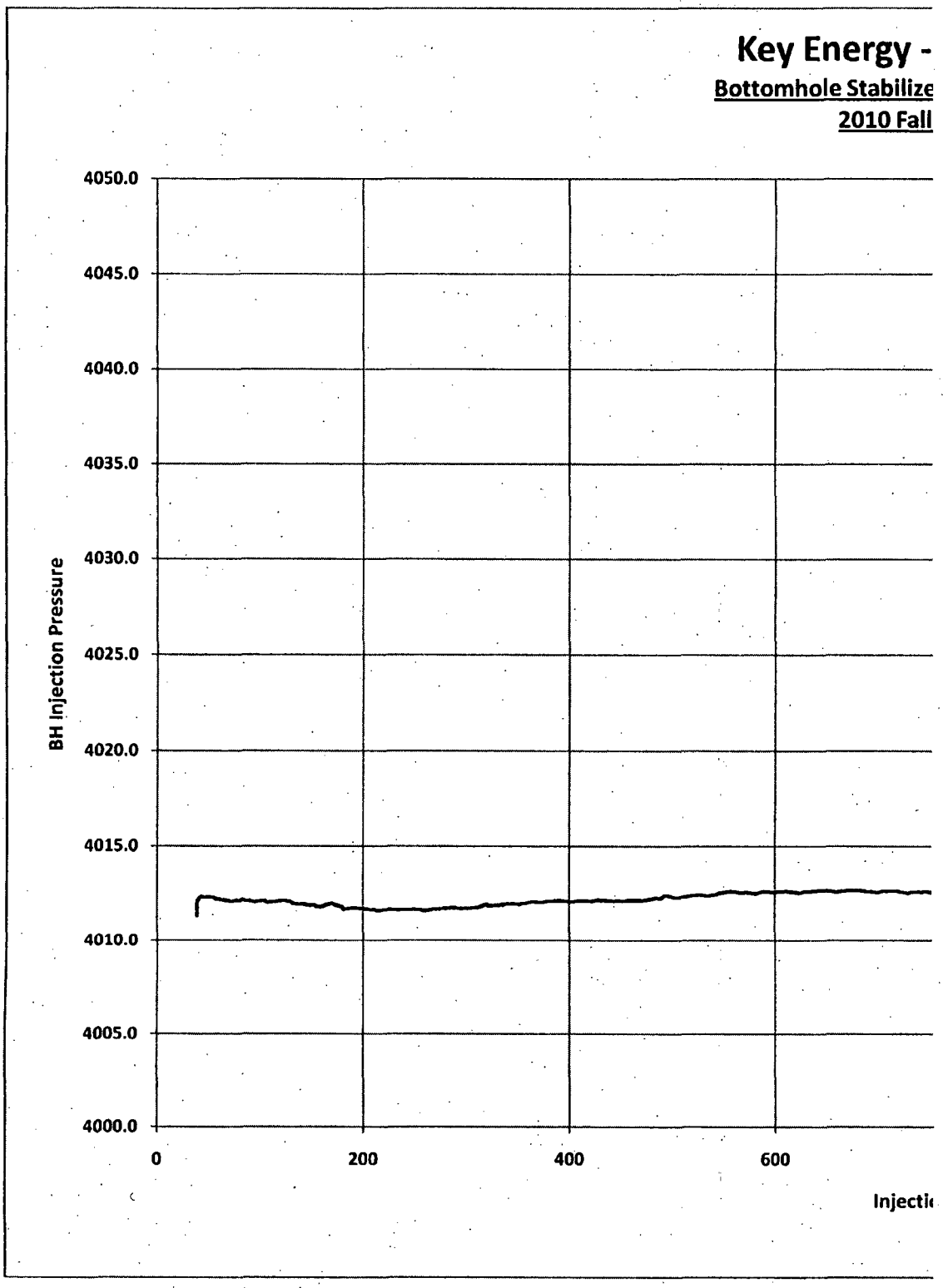
Delta P Ratio (Total Skin)	-8.30197 Fraction

Company Key Energy Services — Field
Well Sunco SWD #1 — Test Name / #

Semilog Line (Copy of Data File for Pro Wireline-1 fall-off #1)

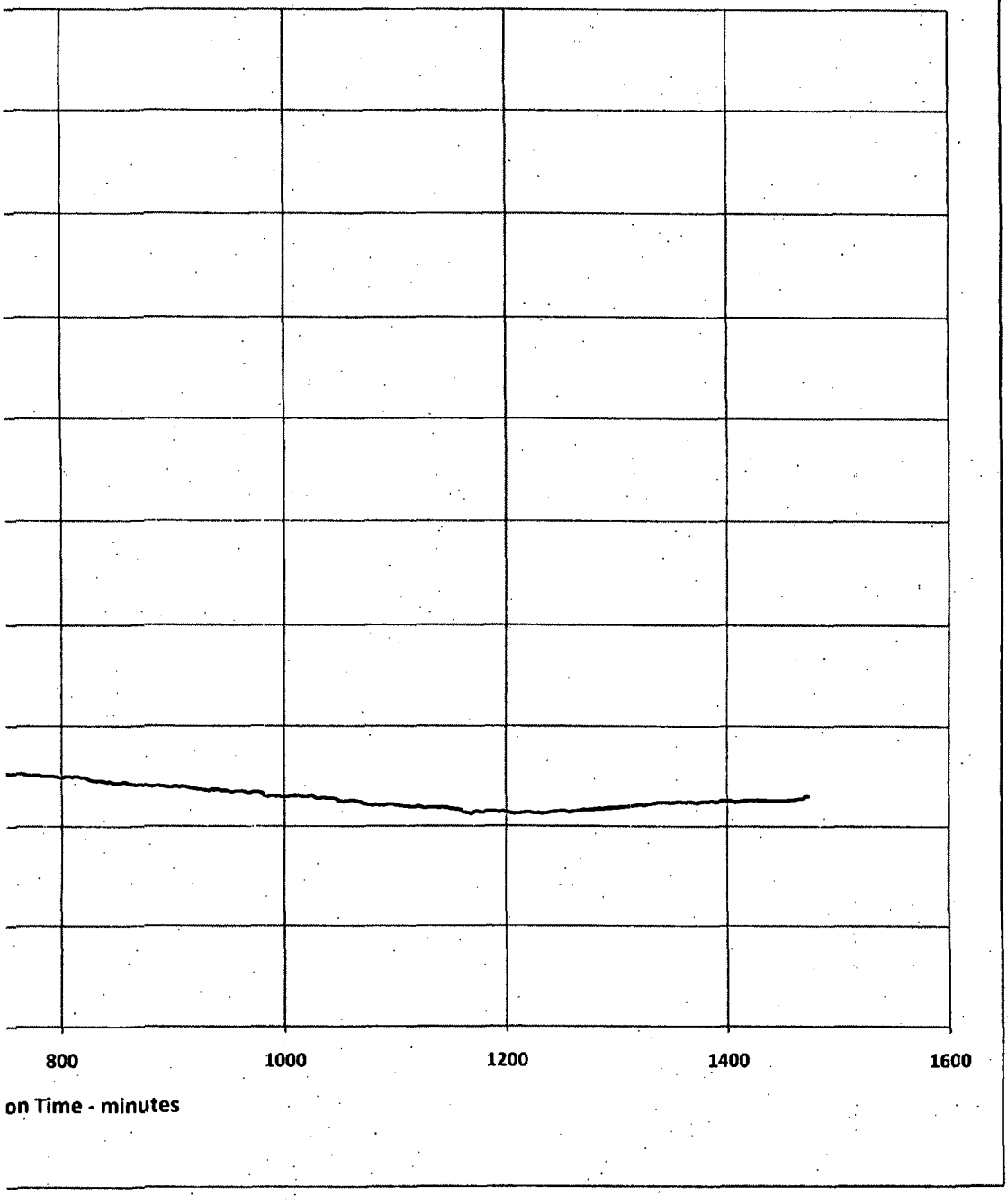
From	196.717 hr
To	212.683 hr
Slope	395.354 psi
Intercept	3448.26 psia
P@1hr	4299.19 psia
PMatch	0.00291 [psia]-1
k.h	1860 md.ft
k	16.9 md
p*	3448.26 psia
Skin	-7.04
Delta P Skin	-2417.85 psi


Key Energy -
Bottomhole Stabilize
2010 Fall
4050.0
4045.0
4040.0
4035.0
4030.0
4025.0
4020.0
4015.0
4010.0
4005.0
4000.0
BH Injection Pressure
0
200
400
600
Injecti

Sunco SWD

ed Injection Pressure

l-Off Test



SP-2000

Downhole Memory Pressure Gauge

The SP-2000 is tough, dependable, simple, and intelligent. If your job requires gauges that are reliable yet rugged and simple to use, the SP-2000 memory gauge, with its Hybrid-Quartz sensor is the one for you.
It is so simple that a paper clip can be used to program it by changing the switch settings for the Type and Duration of test.

Our most versatile Pressure/Temperature gauge, the SP-2000 is user friendly. Capabilities range from programming with a computer to simply *dialing* in the test type and duration.

The internal SMART algorithms capable of detecting the correct pressure and temperature and adjust the sampling rate automatically (once programmed for the test application).

With the use of our simple, menu driven software, you can retrieve and report the gauge data (using a compatible computer and printer) from the tool once it is removed from the well (using a compatible computer and printer).

Advanced reporting features are available such as data printouts, gradient reports, gradient plots and most of the standard time vs. pressure/temperature plot formats.

Micro-Smart Systems is the *SMART* choice for cutting-edge technology and superior customer support. We can save you time, money, and help you keep your customers satisfied.

Advantages:

- Can be programmed with a paper clip.
- Very easy to dump data with few key strokes
- Micro-Smart provides superior service

SMART Features:

The technological features of the SP-2000 are:

- Dual EEPROM Memory
- Tool performs internal tests and delivers audible signal to confirm operation
- Multiple-run data storage capability
- User friendly Windows-base software
- Convert from memory to SRO gauge with simple module change
- Compatible with Micro-Smart's production logging tools
- Standard ASCII data storage format
- Switch selectable programming without the use of a computer
- Selectable switches for duration in *DAYS* and *TYPE* of *TEST*
- Custom computer programming
  - up to 15 time periods
  - specify time interval, sampling rate, and D P switching.

SPECIFICATIONS:

Memory Capacity: 48,000 data sets (main memory)
2,000 data sets (backup memory)
(time, pressure, temp.)
Sampling Intervals: 1.875 seconds to 64 minutes
(in binary multiples)
Diameter: 1.25 inch (31.2 mm)
Resolution: Pressure .01 psi
Temp. .04° F
Accuracy: Pressure ± .05 % Full Scale
Temp. ±1 or ±.01 °F
Time ± .05%

Pressure Ranges: 2,500 psi (17,000 kPa)
5,000 psi (34,000 kPa)
10,000 psi (68,000 kPa)
15,000 psi (102,000 kPa)
20,000 psi (136,000 kPa)
Weight: 13 lbs. (5.9 Kg)
Operating Temp.: 32° F to 325° F
(0° C to 160° C)
Power: 13.5V (9 'C' cell Alkaline)
14.4V (4 'C' cell Lithium)
Length: 53 in. (1.3 m) plus battery pack
- 24 in. (.6 m) for 9 cell pack
- 16 in. (.4 m) for 4 cell pack

Micro-Smart Systems, Inc. 5355 Anderson Road Houston, Texas 77053 (713) 433-2277 Fax: (713) 433-2443

Key Energy Services, LLC
Sunco #1 SWD

Daily Downhole Injection Report

Date	Barrels
4/1/2009	880
4/2/2009	1040
4/3/2009	720
4/4/2009	240
4/5/2009	480
4/6/2009	560
4/7/2009	1000
4/8/2009	400
4/9/2009	1280
4/10/2009	360
4/11/2009	400
4/12/2009	0
4/13/2009	1480
4/14/2009	480
4/15/2009	320
4/16/2009	600
4/17/2009	560
4/18/2009	1280
4/19/2009	480
4/20/2009	640
4/21/2009	683
4/22/2009	440
4/23/2009	800
4/24/2009	600
4/25/2009	480
4/26/2009	320
4/27/2009	400
4/28/2009	400
4/29/2009	560
4/30/2009	400
Total	18484
12-hr Avg*	616
24-hr Avg	1232

Date	Barrels
5/1/2009	640
5/2/2009	480
5/3/2009	320
5/4/2009	560
5/5/2009	760
5/6/2009	320
5/7/2009	480
5/8/2009	320
5/9/2009	720
5/10/2009	400
5/11/2009	720
5/12/2009	960
5/13/2009	640
5/14/2009	800
5/15/2009	720
5/16/2009	480
5/17/2009	400
5/18/2009	320
5/19/2009	800
5/20/2009	880
5/21/2009	400
5/22/2009	240
5/23/2009	320
5/24/2009	240
5/25/2009	640
5/26/2009	640
5/27/2009	240
5/28/2009	480
5/29/2009	1040
5/30/2009	720
5/31/2009	160
Total	16640
12-hr Avg*	537
24-hr Avg	1074

Date	Barrels
6/1/2009	160
6/2/2009	640
6/3/2009	560
6/4/2009	1120
6/5/2009	760
6/6/2009	240
6/7/2009	400
6/8/2009	920
6/9/2009	560
6/10/2009	240
6/11/2009	240
6/12/2009	560
6/13/2009	400
6/14/2009	160
6/15/2009	240
6/16/2009	480
6/17/2009	560
6/18/2009	400
6/19/2009	720
6/20/2009	320
6/21/2009	400
6/22/2009	240
6/23/2009	0
6/24/2009	960
6/25/2009	320
6/26/2009	600
6/27/2009	560
6/28/2009	160
6/29/2009	80
6/30/2009	560
Total	13360
12-hr Avg*	452
24-hr Avg	904

Date	Barrels
7/1/2009	240
7/2/2009	560
7/3/2009	430
7/4/2009	480
7/5/2009	0
7/6/2009	240
7/7/2009	480
7/8/2009	835
7/9/2009	160
7/10/2009	480
7/11/2009	400
7/12/2009	880
7/13/2009	480
7/14/2009	1440
7/15/2009	1000
7/16/2009	1400
7/17/2009	1200
7/18/2009	880
7/19/2009	1160
7/20/2009	960
7/21/2009	2200
7/22/2009	1160
7/23/2009	1140
7/24/2009	1680
7/25/2009	1200
7/26/2009	1280
7/27/2009	1620
7/28/2009	1620
7/29/2009	750
7/30/2009	2210
7/31/2009	1280
Total	29665
12-hr Avg*	957
24-hr Avg	1913

Date	Barrels
8/1/2009	760
8/2/2009	1382
8/3/2009	641
8/4/2009	1482
8/5/2009	1690
8/6/2009	1571
8/7/2009	879
8/8/2009	1670
8/9/2009	895
8/10/2009	754
8/11/2009	1317
8/12/2009	1276
8/13/2009	1199
8/14/2009	1464
8/15/2009	0
8/16/2009	1176
8/17/2009	1625
8/18/2009	933
8/19/2009	0
8/20/2009	1516
8/21/2009	1448
8/22/2009	0
8/23/2009	644
8/24/2009	0
8/25/2009	792
8/26/2009	880
8/27/2009	542
8/28/2009	0
8/29/2009	1280
8/30/2009	0
8/31/2009	432
Total	28217
12-hr Avg*	910
24-hr Avg	1820

Date	Barrels
9/1/2009	0
9/2/2009	0
9/3/2009	0
9/4/2009	0
9/5/2009	0
9/6/2009	0
9/7/2009	0
9/8/2009	1497
9/9/2009	0
9/10/2009	0
9/11/2009	0
9/12/2009	0
9/13/2009	0
9/14/2009	345
9/15/2009	743
9/16/2009	0
9/17/2009	0
9/18/2009	3141
9/19/2009	4540
9/20/2009	4554
9/21/2009	4548
9/22/2009	1915
9/23/2009	0
9/24/2009	0
9/25/2009	583
9/26/2009	1526
9/27/2009	1748
9/28/2009	824
9/29/2009	1530
9/30/2009	1251
Total	28740
12-hr Avg*	958
24-hr Avg	1917

Date	Barrels
10/1/2009	1689
10/2/2009	1280
10/3/2009	
10/4/2009	1450
10/5/2009	1511
10/6/2009	2014
10/7/2009	653
10/8/2009	2121
10/9/2009	1967
10/10/2009	1481
10/11/2009	1508
10/12/2009	2058
10/13/2009	1720
10/14/2009	2309
10/15/2009	2148
10/16/2009	1957
10/17/2009	1271
10/18/2009	1515
10/19/2009	815
10/20/2009	700
10/21/2009	838
10/22/2009	1159
10/23/2009	1418
10/24/2009	1422
10/25/2009	728
10/26/2009	462
10/27/2009	534
10/28/2009	824
10/29/2009	1010
10/30/2009	649
10/31/2009	1536
Total	40963
12-hr Avg*	1365
24-hr Avg	2730

Date	Barrels
11/1/2009	868
11/2/2009	796
11/3/2009	835
11/4/2009	1296
11/5/2009	1450
11/6/2009	947
11/7/2009	843
11/8/2009	814
11/9/2009	1072
11/10/2009	1448
11/11/2009	834
11/12/2009	1397
11/13/2009	784
11/14/2009	826
11/15/2009	0
11/16/2009	1136
11/17/2009	1303
11/18/2009	1290
11/19/2009	1526
11/20/2009	1498
11/21/2009	1323
11/22/2009	797
11/23/2009	1680
11/24/2009	2174
11/25/2009	2953
11/26/2009	1558
11/27/2009	2516
11/28/2009	1423
11/29/2009	1116
11/30/2009	1633
Total	39243
12-hr Avg*	1308
24-hr Avg	2616

Date	Barrels
12/1/2009	1816
12/2/2009	3274
12/3/2009	3736
12/4/2009	1608
12/5/2009	0
12/6/2009	1158
12/7/2009	1680
12/8/2009	0
12/9/2009	1152
12/10/2009	901
12/11/2009	1286
12/12/2009	1123
12/13/2009	929
12/14/2009	0
12/15/2009	1273
12/16/2009	0
12/17/2009	1197
12/18/2009	826
12/19/2009	3142
12/20/2009	0
12/21/2009	1122
12/22/2009	1406
12/23/2009	957
12/24/2009	1326
12/25/2009	0
12/26/2009	0
12/27/2009	1043
12/28/2009	705
12/29/2009	1240
12/30/2009	828
12/31/2009	825
Total	32850
12-hr Avg*	1060
24-hr Avg	2119

Date	Barrels
1/1/2010	848
1/2/2010	1115
1/3/2010	0
1/4/2010	0
1/5/2010	494
1/6/2010	820
1/7/2010	1107
1/8/2010	1244
1/9/2010	634
1/10/2010	778
1/11/2010	0
1/12/2010	829
1/13/2010	0
1/14/2010	865
1/15/2010	861
1/16/2010	286
1/17/2010	162
1/18/2010	660
1/19/2010	820
1/20/2010	635
1/21/2010	0
1/22/2010	0
1/23/2010	1270
1/24/2010	0
1/25/2010	0
1/26/2010	785
1/27/2010	805
1/28/2010	0
1/29/2010	1230
1/30/2010	0
1/31/2010	1187
Total	17571
12-hr Avg*	567
24-hr Avg	1134

Date	Barrels
2/1/2010	818
2/2/2010	1168
2/3/2010	982
2/4/2010	0
2/5/2010	1300
2/6/2010	534
2/7/2010	1046
2/8/2010	0
2/9/2010	0
2/10/2010	1707
2/11/2010	1133
2/12/2010	1707
2/13/2010	1888
2/14/2010	941
2/15/2010	0
2/16/2010	1681
2/17/2010	750
2/18/2010	1613
2/19/2010	1786
2/20/2010	1553
2/21/2010	1108
2/22/2010	0
2/23/2010	1306
2/24/2010	2183
2/25/2010	2286
2/26/2010	1848
2/27/2010	2086
2/28/2010	440
Total	32022
12-hr Avg*	1144
24-hr Avg	2287

Date	Barrels
3/1/2010	1159
3/2/2010	1760
3/3/2010	2038
3/4/2010	3197
3/5/2010	2274
3/6/2010	1500
3/7/2010	1593
3/8/2010	833
3/9/2010	1662
3/10/2010	1195
3/11/2010	1353
3/12/2010	1120
3/13/2010	1496
3/14/2010	920
3/15/2010	738
3/16/2010	911
3/17/2010	910
3/18/2010	1065
3/19/2010	1957
3/20/2010	1431
3/21/2010	1231
3/22/2010	1717
3/23/2010	1780
3/24/2010	2107
3/25/2010	1886
3/26/2010	1744
3/27/2010	1595
3/28/2010	949
3/29/2010	856
3/30/2010	864
3/31/2010	1495
Total	46223
12-hr Avg*	1458
24-hr Avg	2918

Date	Barrels
4/1/2010	0
4/2/2010	1812
4/3/2010	1282
4/4/2010	1094
4/5/2010	576
4/6/2010	1762
4/7/2010	1226
4/8/2010	1060
4/9/2010	1295
4/10/2010	1417
4/11/2010	1290
4/12/2010	1289
4/13/2010	0
4/14/2010	2025
4/15/2010	548
4/16/2010	0
4/17/2010	1445
4/18/2010	725
4/19/2010	0
4/20/2010	1660
4/21/2010	1432
4/22/2010	935
4/23/2010	1160
4/24/2010	1371
4/25/2010	1323
4/26/2010	1459
4/27/2010	1242
4/28/2010	1365
4/29/2010	1505
4/30/2010	1536
Total	33900
12-hr Avg*	1130
24-hr Avg	2260

Date	Barrels
5/1/2010	1616
5/2/2010	798
5/3/2010	1386
5/4/2010	1796
5/5/2010	1210
5/6/2010	887
5/7/2010	1190
5/8/2010	1738
5/9/2010	1792
5/10/2010	1182
5/11/2010	1591
5/12/2010	1783
5/13/2010	1782
5/14/2010	1568
5/15/2010	1358
5/16/2010	1176
5/17/2010	787
5/18/2010	863
5/19/2010	871
5/20/2010	1155
5/21/2010	1362
5/22/2010	1164
5/23/2010	1164
5/24/2010	866
5/25/2010	1153
5/26/2010	1550
5/27/2010	1174
5/28/2010	1370
5/29/2010	1388
5/30/2010	799
5/31/2010	862
Total	39294
12-hr Avg*	1266
24-hr Avg	2533

Date	Barrels
6/1/2010	1172
6/2/2010	0
6/3/2010	0
6/4/2010	739
6/5/2010	0
6/6/2010	1112
6/7/2010	1030
6/8/2010	417
6/9/2010	530
6/10/2010	1207
6/11/2010	0
6/12/2010	854
6/13/2010	862
6/14/2010	0
6/15/2010	0
6/16/2010	518
6/17/2010	0
6/18/2010	0
6/19/2010	1424
6/20/2010	0
6/21/2010	1187
6/22/2010	800
6/23/2010	529
6/24/2010	0
6/25/2010	0
6/26/2010	340
6/27/2010	0
6/28/2010	0
6/29/2010	0
6/30/2010	993
Total	13764
12-hr Avg*	457
24-hr Avg	914

Date	Barrels
7/1/2010	0
7/2/2010	1300
7/3/2010	898
7/4/2010	0
7/5/2010	1067
7/6/2010	794
7/7/2010	1706
7/8/2010	0
7/9/2010	3192
7/10/2010	4606
7/11/2010	4654
7/12/2010	4107
7/13/2010	2630
7/14/2010	FOT
7/15/2010	FOT
7/16/2010	FOT
7/17/2010	0
7/18/2010	0
7/19/2010	0
7/20/2010	0
7/21/2010	0
7/22/2010	0
7/23/2010	0
7/24/2010	0
7/25/2010	0
7/26/2010	0
7/27/2010	0
7/28/2010	0
7/29/2010	0
7/30/2010	0
7/31/2010	0
Total	25054
12-hr Avg*	895
24-hr Avg	1790

** Facility only operates during daylight hours - 24-hour volume is calculated as if the facility was injecting continuously (2X the 12-hour rate)*

Attachment 1j

envirotech
Analytical Laboratory

EPA Method 8260B
Volatile Organic Compounds by GC/MS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-16-12
Chain of Custody:	13165	Date Sampled:	01-10-12
Laboratory Number:	60768	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Analyzed:	01-13-12
Preservative:		Analysis Requested:	8260 VOC
Condition:	Cool and Intact		

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
Benzene	834	(ug/L)	1.0	1
Toluene	6,750	(ug/L)	1.0	1
Ethylbenzene	273	(ug/L)	1.0	1
Xylenes, Total	4,190	(ug/L)	1.0	1
Methyl tert-butyl ether (MTBE)	ND	(ug/L)	1.0	1
1,2,4-Trimethylbenzene	490	(ug/L)	1.0	1
1,3,5-Trimethylbenzene	862	(ug/L)	1.0	1
1,2-Dichloroethane (EDC)	ND	(ug/L)	1.0	1
1,2-Dibromoethane (EDB)	ND	(ug/L)	1.0	1
Naphthalene	159	(ug/L)	1.0	1
1-Methylnaphthalene	2590	(ug/L)	2.0	1
2-Methylnaphthalene	2020	(ug/L)	2.0	1
Bromobenzene	ND	(ug/L)	1.0	1
Bromochloromethane	ND	(ug/L)	1.0	1
Bromodichloromethane	ND	(ug/L)	1.0	1
Bromoform	ND	(ug/L)	1.0	1
Bromomethane	ND	(ug/L)	1.0	1
Carbon Tetrachloride	ND	(ug/L)	1.0	1
Chlorobenzene	ND	(ug/L)	1.0	1
Chloroethane	ND	(ug/L)	2.0	1
Chloroform	ND	(ug/L)	1.0	1
Chloromethane	ND	(ug/L)	1.0	1
2-Chlorotoluene	ND	(ug/L)	1.0	1
4-Chlorotoluene	ND	(ug/L)	1.0	1
cis-1,2-Dichloroethene	ND	(ug/L)	1.0	1
cis-1,3-Dichloropropene	ND	(ug/L)	1.0	1
1,2-Dibromo-3-chloropropane	ND	(ug/L)	2.0	1
Dibromochloromethane	ND	(ug/L)	1.0	1
Dibromoethane	ND	(ug/L)	2.0	1
1,2-Dichlorobenzene	ND	(ug/L)	1.0	1
1,3-Dichlorobenzene	ND	(ug/L)	1.0	1
1,4-Dichlorobenzene	ND	(ug/L)	1.0	1
Dichlorodifluoromethane	ND	(ug/L)	1.0	1
1,1-Dichloroethane	ND	(ug/L)	1.0	1
1,1-Dichloroethene	ND	(ug/L)	1.0	1
1,2-Dichloropropane	ND	(ug/L)	1.0	1
1,3-Dichloropropane	ND	(ug/L)	1.0	1
2,2-Dichloropropane	ND	(ug/L)	1.0	1

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EPA Method 8260B
Volatile Organic Compounds by GC/MS

Client: Key Energy
Sample ID: INJ Water
Laboratory Number: 60768

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
1,1-Dichloropropene	ND	(ug/L)	1.0	1
Hexachlorobutadiene	ND	(ug/L)	1.0	1
Isopropylbenzene	51.6	(ug/L)	1.0	1
4-Isopropyltoluene	48.1	(ug/L)	1.0	1
Methylene Chloride	ND	(ug/L)	3.0	1
n-Butylbenzene	ND	(ug/L)	1.0	1
n-Propylbenzene	ND	(ug/L)	1.0	1
sec-Butylbenzene	ND	(ug/L)	1.0	1
Styrene	ND	(ug/L)	1.0	1
tert-Butylbenzene	ND	(ug/L)	1.0	1
Tetrachloroethene (PCE)	ND	(ug/L)	1.0	1
1,1,1,2-Tetrachloroethane	ND	(ug/L)	1.0	1
1,1,2,2-Tetrachloroethane	ND	(ug/L)	1.0	1
trans-1,2-Dichloroethene	ND	(ug/L)	1.0	1
trans-1,3-Dichloropropene	ND	(ug/L)	1.0	1
Trichloroethene (TCE)	ND	(ug/L)	1.0	1
Trichlorofluoromethane	ND	(ug/L)	1.0	1
1,2,3-Trichlorobenzene	ND	(ug/L)	1.0	1
1,2,4-Trichlorobenzene	ND	(ug/L)	1.0	1
1,1,1-Trichloroethane	ND	(ug/L)	1.0	1
1,1,2-Trichloroethane	ND	(ug/L)	1.0	1
1,2,3-Trichloropropane	ND	(ug/L)	2.0	1
Vinyl Chloride	ND	(ug/L)	2.0	1

Surrogates:			Rec. Limits	
Dibromofluoromethane	84.4	% Recovery	78.6-115	1
1,2-Dichloroethane-d4	75.8	% Recovery	74.6-123	1
Toluene-d8	89.6	% Recovery	84.2-115	1
4-Bromofluorobenzene	96.7	% Recovery	78.6-115	1

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8260,Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry,Test Methods for Evaluating Solid Waste,SW-846, USEPA, July 1992

Comments: **Key Farmington UIC-5 INJ Water**

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QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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EPA Method 8260B
Volatile Organic Compounds by GC/MS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	8260 Blank 01-11 011	Date Reported:	01-16-12
Laboratory Number:	0113BK82	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-13-12
Condition:	N/A	Analysis Requested:	8260 VOC

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
Benzene	ND	(ug/L)	1.0	1
Toluene	ND	(ug/L)	1.0	1
Ethylbenzene	ND	(ug/L)	1.0	1
Xylenes, Total	ND	(ug/L)	1.0	1
Methyl tert-butyl ether (MTBE)	ND	(ug/L)	1.0	1
1,2,4-Trimethylbenzene	ND	(ug/L)	1.0	1
1,3,5-Trimethylbenzene	ND	(ug/L)	1.0	1
1,2-Dichloroethane (EDC)	ND	(ug/L)	1.0	1
1,2-Dibromoethane (EDB)	ND	(ug/L)	1.0	1
Naphthalene	ND	(ug/L)	1.0	1
1-Methylnaphthalene	ND	(ug/L)	2.0	1
2-Methylnaphthalene	ND	(ug/L)	2.0	1
Bromobenzene	ND	(ug/L)	1.0	1
Bromochloromethane	ND	(ug/L)	1.0	1
Bromodichloromethane	ND	(ug/L)	1.0	1
Bromoform	ND	(ug/L)	1.0	1
Bromomethane	ND	(ug/L)	1.0	1
Carbon Tetrachloride	ND	(ug/L)	1.0	1
Chlorobenzene	ND	(ug/L)	1.0	1
Chloroethane	ND	(ug/L)	2.0	1
Chloroform	ND	(ug/L)	1.0	1
Chloromethane	ND	(ug/L)	1.0	1
2-Chlorotoluene	ND	(ug/L)	1.0	1
4-Chlorotoluene	ND	(ug/L)	1.0	1
cis-1,2-Dichloroethene	ND	(ug/L)	1.0	1
cis-1,3-Dichloropropene	ND	(ug/L)	1.0	1
1,2-Dibromo-3-chloropropane	ND	(ug/L)	2.0	1
Dibromochloromethane	ND	(ug/L)	1.0	1
Dibromoethane	ND	(ug/L)	2.0	1
1,2-Dichlorobenzene	ND	(ug/L)	1.0	1
1,3-Dichlorobenzene	ND	(ug/L)	1.0	1
1,4-Dichlorobenzene	ND	(ug/L)	1.0	1
Dichlorodifluoromethane	ND	(ug/L)	1.0	1
1,1-Dichloroethane	ND	(ug/L)	1.0	1
1,1-Dichloroethene	ND	(ug/L)	1.0	1
1,2-Dichloropropane	ND	(ug/L)	1.0	1
1,3-Dichloropropane	ND	(ug/L)	1.0	1
2,2-Dichloropropane	ND	(ug/L)	1.0	1

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Client: QA/QC
Sample ID: 8260 Blank 01-11 011
Laboratory Number: 0113BK82

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
1,1-Dichloropropene	ND	(ug/L)	1.0	1
Hexachlorobutadiene	ND	(ug/L)	1.0	1
Isopropylbenzene	ND	(ug/L)	1.0	1
4-Isopropyltoluene	ND	(ug/L)	1.0	1
Methylene Chloride	ND	(ug/L)	1.0	1
n-Butylbenzene	ND	(ug/L)	1.0	1
n-Propylbenzene	ND	(ug/L)	1.0	1
sec-Butylbenzene	ND	(ug/L)	1.0	1
Styrene	ND	(ug/L)	1.0	1
tert-Butylbenzene	ND	(ug/L)	1.0	1
Tetrachloroethene (PCE)	ND	(ug/L)	1.0	1
1,1,1,2-Tetrachloroethane	ND	(ug/L)	1.0	1
1,1,2,2-Tetrachloroethane	ND	(ug/L)	1.0	1
trans-1,2-Dichloroethene	ND	(ug/L)	1.0	1
trans-1,3-Dichloropropene	ND	(ug/L)	1.0	1
Trichloroethene (TCE)	ND	(ug/L)	1.0	1
Trichlorofluoromethane	ND	(ug/L)	1.0	1
1,2,3-Trichlorobenzene	ND	(ug/L)	1.0	1
1,2,4-Trichlorobenzene	ND	(ug/L)	1.0	1
1,1,1-Trichloroethane	ND	(ug/L)	1.0	1
1,1,2-Trichloroethane	ND	(ug/L)	1.0	1
1,2,3-Trichloropropane	ND	(ug/L)	2.0	1
Vinyl Chloride	ND	(ug/L)	2.0	1

Surrogates:			Rec. Limits	
Dibromofluoromethane	105	% Recovery	78.6-115	1
1,2-Dichloroethane-d4	96.7	% Recovery	74.6-123	1
Toluene-d8	104	% Recovery	84.2-115	1
4-Bromofluorobenzene	107	% Recovery	78.6-115	1

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8260,Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry,Test Methods for Evaluating Solid Waste,SW-846, USEPA, July 1992

Comments: **QA/QC for Sample 60768.**

Analyst

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EPA Method 8260B
Volatile Organic Compounds by GC/MS
Daily Calibration Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Daily Calibration	Date Reported:	01-16-12
Laboratory Number:	0113CA82	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-13-12
Condition:	N/A	Analysis Requested:	8260 VOC

Parameter	Concentration (ug/L)	Result	% Recovered	% Recovery Limits
Benzene	100	101	101	80 - 120
Toluene	100	100	100	80 - 120
Ethylbenzene	100	100	100	80 - 120
Xylenes, Total	100	100	100	80 - 120
Methyl tert-butyl ether (MTBE)	100	100	100	80 - 120
1,2,4-Trimethylbenzene	100	100	100	80 - 120
1,3,5-Trimethylbenzene	100	100	100	80 - 120
1,2-Dichloroethane (EDC)	100	98.9	98.9	80 - 120
1,2-Dibromoethane (EDB)	100	100	100	80 - 120
Naphthalene	100	100	100	80 - 120
1-Methylnaphthalene	100	100	100	80 - 120
2-Methylnaphthalene	100	100	100	80 - 120
Bromobenzene	100	100	100	80 - 120
Bromochloromethane	100	100	100	80 - 120
Bromodichloromethane	100	100	100	80 - 120
Bromoform	100	100	100	80 - 120
Bromomethane	100	200	100	80 - 120
Carbon Tetrachloride	100	100	100	80 - 120
Chlorobenzene	100	100	100	80 - 120
Chloroethane	100	100	100	80 - 120
Chloroform	100	100	100	80 - 120
Chloromethane	100	100	100	80 - 120
2-Chlorotoluene	100	100	100	80 - 120
4-Chlorotoluene	100	100	100	80 - 120
cis-1,2-Dichloroethene	100	100	100	80 - 120
cis-1,3-Dichloropropene	100	100	100	80 - 120
1,2-Dibromo-3-chloropropane	100	100	100	80 - 120
Dibromochloromethane	100	100	100	80 - 120
Dibromoethane	100	101	101	80 - 120
1,2-Dichlorobenzene	100	100	100	80 - 120
1,3-Dichlorobenzene	100	100	100	80 - 120
1,4-Dichlorobenzene	100	100	100	80 - 120
Dichlorodifluoromethane	100	100	100	80 - 120
1,1-Dichloroethane	100	100	100	80 - 120
1,1-Dichloroethene	100	99.1	99.1	80 - 120
1,2-Dichloropropane	100	100	100	80 - 120
1,3-Dichloropropane	100	100	100	80 - 120
2,2-Dichloropropane	100	100	100	80 - 120

EPA Method 8260B
Volatile Organic Compounds by GC/MS
Quality Assurance Report

Client: QA/QC
Sample ID: Daily Calibration
Laboratory Number: 0113CA82

Parameter	Concentration (ug/L)	Result	% Recovered	% Recovery Limits
1,1-Dichloropropene	100	100	100	80 - 120
Hexachlorobutadiene	100	100	100	80 - 120
Isopropylbenzene	100	100	100	80 - 120
4-Isopropyltoluene	100	100	100	80 - 120
Methylene Chloride	100	100	100	80 - 120
n-Butylbenzene	100	100	100	80 - 120
n-Propylbenzene	100	100	100	80 - 120
sec-Butylbenzene	100	98.9	98.9	80 - 120
Styrene	100	100	100	80 - 120
tert-Butylbenzene	100	100	100	80 - 120
Tetrachloroethene (PCE)	100	99.1	99.1	80 - 120
1,1,1,2-Tetrachloroethane	100	100	100	80 - 120
1,1,2,2-Tetrachloroethane	100	100	100	80 - 120
trans-1,2-Dichloroethene	100	101	101	80 - 120
trans-1,3-Dichloropropene	100	100	100	80 - 120
Trichloroethene (TCE)	100	100	100	80 - 120
Trichlorofluoromethane	100	100	100	80 - 120
1,2,3-Trichlorobenzene	100	100	100	80 - 120
1,2,4-Trichlorobenzene	100	100	100	80 - 120
1,1,1-Trichloroethane	100	99.7	99.7	80 - 120
1,1,2-Trichloroethane	100	100	100	80 - 120
1,2,3-Trichloropropane	100	100	100	80 - 120
Vinyl Chloride	100	100	100	80 - 120

Surrogates:			Rec. Limits
Dibromofluoromethane	84.4	% Recovery	78.6-115
1,2-Dichloroethane-d4	100	% Recovery	74.6-123
Toluene-d8	100	% Recovery	84.2-115
4-Bromofluorobenzene	100	% Recovery	78.6-115

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8260,Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry,Test Methods for Evaluating Solid Waste,SW-846, USEPA, July 1992

Comments: **QA/QC for Sample 60768.**

Analyst

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EPA Method 8260B
Volatile Organic Compounds by GC/MS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spikes	Date Reported:	01-16-12
Laboratory Number:	01-13 VOA - 60768	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-13-12
Condition:	N/A	Analysis Requested:	8260 VOC

Spike	Units: ug/L				Recovery	Det.
Analyte	Sample	Added	Result	%Recovery	Limits	Limit
Benzene	834	100	927	99.2%	85.3 - 120	1.0
Toluene	6,750	100	6,640	96.9%	73 - 123	1.0
Chlorobenzene	ND	100	96.3	96.3%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100	91.9	91.9%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100	97.1	97.1%	76.1 - 126	1.0

Spike Duplicate	Units: ug/L				Recovery	Det.
Analyte	Sample	Added	Result	%Recovery	Limits	Limit
Benzene	834	100	941	101%	85.3 - 120	1.0
Toluene	6,750	100	6,700	97.8%	73 - 123	1.0
Chlorobenzene	ND	100	103	103%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100	97.5	97.5%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100	102	102%	76.1 - 126	1.0

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8260,Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry,Test Methods for Evaluating Solid Waste,SW-846, USEPA, July 1992

Comments: **QA/QC for Sample 60768.**

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TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01/12/12
Laboratory Number:	60768	Date Sampled:	01/10/12
Chain of Custody:	13165	Date Received:	01/10/12
Sample Matrix:	Aqueous	Date Analyzed:	01/11/12
Preservative:	Cool	Date Digested:	01/11/12
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Arsenic	**0.005**	**0.001**
Aluminum	**0.056**	**0.001**
Barium	**4.26**	**0.001**
Boron	**0.954**	**0.001**
Cadmium	**ND**	**0.001**
Chromium	**0.008**	**0.001**
Cobalt	**ND**	**0.001**
Copper	**0.006**	**0.001**
Iron	**9.38**	**0.001**
Lead	**0.037**	**0.001**
Manganese	**0.384**	**0.001**
Molybdenum	**0.130**	**0.001**
Mercury	**ND**	**0.001**
Nickel	**0.050**	**0.001**
Selenium	**ND**	**0.001**
Silver	**ND**	**0.001**
Zinc	**0.095**	**0.001**

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils. SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emmision Spectorscopy, SW-846, USEPA, December 1996.

Comments: **Key Farmington UIC-5 INJ Water**

Analyst

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TRACE METAL ANALYSIS
Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-11-TM QA/QC	Date Reported:	01/12/12
Laboratory Number:	60768	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Analysis Requested:	Dissolved Metals	Date Analyzed:	01/11/12
Condition:	N/A	Date Digested:	01/11/12

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Dif.	Acceptance Range
Arsenic	ND	ND	0.001	0.005	0.004	15.4%	0% - 30%
Aluminum	ND	ND	0.001	0.056	0.060	6.57%	0% - 30%
Barium	ND	ND	0.001	4.26	4.25	0.31%	0% - 30%
Boron	ND	ND	0.001	0.954	0.952	0.20%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Chromium	ND	ND	0.001	0.008	0.010	23.8%	0% - 30%
Cobalt	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Copper	ND	ND	0.001	0.006	0.005	5.45%	0% - 30%
Iron	ND	ND	0.001	9.38	9.44	0.62%	0% - 30%
Lead	ND	ND	0.001	0.037	0.038	1.08%	0% - 30%
Manganese	ND	ND	0.001	0.384	0.387	0.86%	0% - 30%
Molybdenum	ND	ND	0.001	0.130	0.122	6.32%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Nickel	ND	ND	0.001	0.050	0.050	0.00%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Zinc	ND	ND	0.001	0.095	0.095	0.00%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.250	0.005	0.243	95.2%	80% - 120%
Aluminum	0.250	0.056	0.321	105%	80% - 120%
Barium	0.500	4.26	4.46	93.7%	80% - 120%
Boron	0.500	0.954	1.40	96.1%	80% - 120%
Cadmium	0.250	ND	0.213	85.0%	80% - 120%
Chromium	0.500	0.008	0.470	92.4%	80% - 120%
Cobalt	0.250	ND	0.225	89.9%	80% - 120%
Copper	0.500	0.006	0.426	84.2%	80% - 120%
Iron	0.500	9.38	9.33	94.4%	80% - 120%
Lead	0.500	0.037	0.462	86.1%	80% - 120%
Manganese	0.250	0.384	0.589	92.9%	80% - 120%
Molybdenum	0.100	0.130	0.192	83.7%	80% - 120%
Mercury	0.100	ND	0.080	80.4%	80% - 120%
Nickel	0.500	0.050	0.468	85.1%	80% - 120%
Selenium	0.100	ND	0.083	83.3%	80% - 120%
Silver	0.100	ND	0.094	94.4%	80% - 120%
Zinc	0.500	0.095	0.546	91.7%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils. SW-846, USEPA, December 1996.
Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emmision Spectorscopy, SW-846, USEPA, December 1996.

Comments: **QA/QC for Sample 60768.**

Analyst

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CATION / ANION ANALYSIS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-12-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Chain of Custody:	13165	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Analyzed:	01-10-12
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	**7.91**	s.u.		
Conductivity @ 25° C	**8,110**	umhos/cm		
Total Dissolved Solids @ 180C	**4,920**	mg/L		
Total Dissolved Solids (Calc)	**4,910**	mg/L		
SAR	**21.7**	ratio		
Total Alkalinity as CaCO3	**970**	mg/L		
Total Hardness as CaCO3	**879**	mg/L		
Bicarbonate as CaCO3	**970**	mg/L	15.9	meq/L
Carbonate as CaCO3	**< 0.01**	mg/L	0.000	meq/L
Hydroxide as CaCO3	**< 0.01**	mg/L	0.001	meq/L
Nitrate Nitrogen	**4.30**	mg/L	0.069	meq/L
Nitrite Nitrogen	**0.016**	mg/L	0.000	meq/L
Chloride	**2,300**	mg/L	65	meq/L
Fluoride	**1.17**	mg/L	0.062	meq/L
Phosphate	**0.160**	mg/L	0.005	meq/L
Sulfate	**135**	mg/L	2.81	meq/L
Iron	**4.35**	mg/L	0.156	meq/L
Calcium	**311**	mg/L	16	meq/L
Magnesium	**24.7**	mg/L	2	meq/L
Potassium	**74.8**	mg/L	1.9	meq/L
Sodium	**1,480**	mg/L	64	meq/L
Cations			84	meq/L
Anions			84	meq/L
Cation/Anion Difference			**0.16%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Key Farmington UIC-5 INJ Water**

Analyst

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SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-11-12
Lab ID#:	60768	Date Sampled:	01-10-12
Sample Matrix:	Aqueous	Date Received:	01-10-12
Preservative:	Cool	Date Analyzed:	01-11-12
Condition:	Intact	Chain of Custody:	13165

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.88**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Key Farmington UIC- 5 INJ Water**

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EPA METHOD 8260
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Chain of Custody:	13165	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-18-12
Condition:	Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.001	0.2
2-Butanone (MEK)	ND	0.001	200
1,1-Dichloroethene	ND	0.001	0.7
Chloroform	ND	0.001	6.0
Carbon Tetrachloride	ND	0.001	0.5
Benzene	1.10	0.001	0.5
1,2-Dichloroethane	ND	0.001	0.5
Trichloroethene	ND	0.003	0.5
Tetrachloroethene	ND	0.005	0.7
Chlorobenzene	ND	0.003	100
1,4-Dichlorobenzene	ND	0.002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Fluorobenzene	130%
	1,4-difluorobenzene	42.2%
	4-bromochlorobenzene	127%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8260B, Determination of Volatile Organics using GC/MS

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: **Key Farmington UIC-5 INJ Water**

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EPA METHOD 8260
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0118TVCA QA/QC	Date Reported:	08-25-11
Laboratory Number:	60719	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-23-11
Condition:	N/A	Analysis Requested:	TCLP

Blanks & Duplicate Concentration (mg/L)	Detection Limit	Laboratory Blank	Method Blank	Sample Conc.	Duplicate Conc.	Percent Difference
Vinyl Chloride	0.001	ND	ND	ND	ND	0.0%
2-Butanone (MEK)	0.001	ND	ND	ND	ND	0.0%
1,1-Dichloroethene	0.001	ND	ND	ND	ND	0.0%
Chloroform	0.001	ND	ND	ND	ND	0.0%
Carbon Tetrachloride	0.001	ND	ND	ND	ND	0.0%
Benzene	0.001	ND	ND	ND	ND	0.0%
1,2-Dichloroethane	0.001	ND	ND	ND	ND	0.0%
Trichloroethene	0.003	ND	ND	ND	ND	0.0%
Tetrachloroethene	0.005	ND	ND	ND	ND	0.0%
Chlorobenzene	0.003	ND	ND	ND	ND	0.0%
1,4-Dichlorobenzene	0.002	ND	ND	ND	ND	0.0%

Matrix Spike Concentration (mg/L)	Amount Spiked	Sample Result	Spike Result	Percent Recovery	Acceptable Range
Vinyl Chloride	0.100	ND	0.085	84.6%	26-163
2-Butanone (MEK)	0.100	ND	0.104	104%	43-143
1,1-Dichloroethene	0.100	ND	0.094	93.7%	47-132
Chloroform	0.100	ND	0.099	98.6%	49-133
Carbon Tetrachloride	0.100	ND	0.097	97.2%	43-143
Benzene	0.100	ND	0.099	98.5%	39-150
1,2-Dichloroethane	0.100	ND	0.103	103%	51-147
Trichloroethene	0.100	ND	0.103	103%	35-146
Tetrachloroethene	0.100	ND	0.095	94.9%	26-162
Chlorobenzene	0.100	ND	0.098	97.8%	38-150
1,4-Dichlorobenzene	0.100	ND	0.102	102%	42-143

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8260B, Determination of Volatile Organics using GC/MS

Comments: **QA/QC for Sample 60719, 60768.**

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EPA METHOD 8041
TCLP PHENOLS

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-17-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Chain of Custody:	13165	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Extracted:	01-12-12
Preservative:	Cool	Date Analyzed:	01-16-12
Condition:	Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	0.059	0.004	200
p,m-Cresol	0.118	0.004	200
2,4,6-Trichlorophenol	ND	0.004	2.0
2,4,5-Trichlorophenol	ND	0.004	400
Pentachlorophenol	ND	0.004	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	65.2%
	2,4,6-Tribromophenol	113%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Key Farmington UIC-5 INJ Water**

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EPA METHOD 8041
TCLP PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0116BK41 QA/QC	Date Reported:	01-17-12
Laboratory Number:	60768	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-16-12
Condition:	N/A	Analysis Requested:	TCLP

Blanks & Duplicate Conc (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	Percent Diff.
o-Cresol	ND	ND	0.004	ND	ND	0.0%
p,m-Cresol	ND	ND	0.004	ND	ND	0.0%
2,4,6-Trichlorophenol	ND	ND	0.004	ND	ND	0.0%
2,4,5-Trichlorophenol	ND	ND	0.004	ND	ND	0.0%
Pentachlorophenol	ND	ND	0.004	ND	ND	0.0%

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8041, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Comments: **QA/QC for Sample 60768**

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EPA METHOD 8091
Nitroaromatics and Cyclic Ketones

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Chain of Custody:	13165	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Extracted:	01-12-12
Preservative:	Cool	Date Analyzed:	01-17-12
Condition:	Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.004**	**5.0**
Hexachloroethane	**ND**	**0.004**	**3.0**
Nitrobenzene	**ND**	**0.004**	**2.0**
Hexachlorobutadiene	**ND**	**0.004**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.004**	**0.13**
HexachloroBenzene	**ND**	**0.004**	**0.13**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorobiphenyl	**42.5%**

References: Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8270, Determination of Semi-Volatile Organics by Capillary Column GC/MS

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **Key Farmington UIC-5 INJ Water**

Analyst

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EPA METHOD 8091
Nitroaromatics and Cyclic Ketones
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0117BK91 QA/QC	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-17-12
Condition:	N/A	Analysis Requested:	TCLP

Blanks & Duplicate Conc (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	Percent Diff.
Pyridine	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**
Hexachloroethane	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**
Nitrobenzene	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**
Hexachlorobutadiene	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**
2,4-Dinitrotoluene	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**
HexachloroBenzene	**ND**	**ND**	**0.004**	**ND**	**ND**	**0.0%**

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8270, Determination of Semi-Volatile Organics by Capillary Column GC/MS

Comments: **QA/QC for Sample 60768**

Analyst

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EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Chain of custody:	13165	Date Received:	01-10-12
Sample Matrix:	Aqueous	Date Analyzed:	01-18-12
Preservative:	Cool	Date Concentrated:	01-17-12
Condition:	Intact	Analysis Requested:	8100

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Naphthalene	34.2	0.001
Acenaphthylene	ND	0.001
Acenaphthene	ND	0.001
Fluorene	ND	0.001
Phenanthrene	ND	0.001
Anthracene	ND	0.001
Fluoranthene	ND	0.001
Pyrene	ND	0.001
Benzo[a]anthracene	ND	0.001
Chrysene	ND	0.001
Benzo(b)fluoranthene	ND	0.001
Benzo[k]fluoranthene	ND	0.001
Benzo(a)pyrene	ND	0.001
Indeno[1,2,3]pyrene	ND	0.001
Dibenzo[a,h]anthracene	ND	0.001
Benzo(g,h,i)perylene	ND	0.001

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY	Parameter	Percent Recovery
	1-fluoronaphthalene	49.0

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS
SW-846, USEPA, September 1986.

Comments: **Key Farmington UIC-5 INJ Water**

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QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Laboratory Blank	Date Reported:	01-18-12
Laboratory Number:	QA/QC	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-18-12
Condition:	N/A	Analysis Requested:	8100

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Naphthalene	ND	0.00
Acenaphthylene	ND	0.00
Acenaphthene	ND	0.00
Fluorene	ND	0.00
Phenanthrene	ND	0.00
Anthracene	ND	0.00
Fluoranthene	ND	0.00
Pyrene	ND	0.00
Benzo[a]anthracene	ND	0.00
Chrysene	ND	0.00
Benzo(b)fluoranthene	ND	0.00
Benzo[k]fluoranthene	ND	0.00
Benzo(a)pyrene	ND	0.00
Indeno[1,2,3]pyrene	ND	0.00
Dibenzo[a,h]anthracene	ND	0.00
Benzo(g,h,i)perylene	ND	0.00

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY:	Parameter	Percent Recovery
	1-fluoronaphthalene	93.0

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS
SW-846, USEPA, September 1986.

Comments: **QA/QC for Samples 60768**

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EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Daily Calibration Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Calibration Standard	Date Reported:	01-18-12
Laboratory Number:	0117CA81 QA/QC	Date Sampled:	N/A
Chain of custody:	N/A	Date Received:	N/A
Sample Matrix:	Aqueous	Date Analyzed:	01-18-12
Preservative:	N/A	Date Concentrated:	N/A
Condition:	N/A	Analysis Requested:	8100

Parameter	Concentration (mg/L)	Result	% Recovered	% Recovery Limits
Naphthalene	200	194	96.8	80 - 120
Acenaphthylene	200	200	100	80 - 120
Acenaphthene	200	200	100	80 - 120
Fluorene	200	200	100	80 - 120
Phenanthrene	200	200	100	80 - 120
Anthracene	200	200	100	80 - 120
Fluoranthene	200	200	100	80 - 120
Pyrene	200	200	100	80 - 120
Benzo[a]anthracene	200	200	100	80 - 120
Chrysene	200	200	100	80 - 120
Benzo(b)fluoranthene	200	200	100	80 - 120
Benzo[k]fluoranthene	200	200	100	80 - 120
Benzo(a)pyrene	200	200	100	80 - 120
Indeno[1,2,3]pyrene	200	200	100	80 - 120
Dibenzo[a,h]anthracene	200	200	100	80 - 120
Benzo(g,h,i)perylene	200	200	100	80 - 120

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY	Parameter	Percent Recovery
	1-fluoronapthalene	100

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS
SW-846, USEPA, September 1986.

Comments: **QA/QC for Samples 60768**

Analyst

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EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Sample Duplicate	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	01-18-12
Condition:	N/A		

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Det. Limit (mg/L)	Percent Difference
Naphthalene	34.2	40.9	0.001	19.6%
Acenaphthylene	ND	ND	0.001	0.0%
Acenaphthene	ND	ND	0.001	0.0%
Fluorene	ND	ND	0.001	0.0%
Phenanthrene	ND	ND	0.001	0.0%
Anthracene	ND	ND	0.001	0.0%
Fluoranthene	ND	ND	0.001	0.0%
Pyrene	ND	ND	0.001	0.0%
Benzo[a]anthracene	ND	ND	0.001	0.0%
Chrysene	ND	ND	0.001	0.0%
Benzo(b)fluoranthene	ND	ND	0.001	0.0%
Benzo[k]fluoranthene	ND	ND	0.001	0.0%
Benzo(a)pyrene	ND	ND	0.001	0.0%
Indeno[1,2,3]pyrene	ND	ND	0.001	0.0%
Dibenzo[a,h]anthracene	ND	ND	0.001	0.0%
Benzo(g,h,i)perylene	ND	ND	0.001	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS
SW-846, USEPA, September 1986.

Comments: **QA/QC for Samples 60768**

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EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Matrix Spike	Date Reported:	01-18-12
Laboratory Number:	60768	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	01-18-12
Condition:	N/A		

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Naphthalene	34.2	100	95.9	0.001	71.5%	10-122
Acenaphthylene	ND	100	64.3	0.001	64.3%	10-139
Acenaphthene	ND	100	56.4	0.001	56.4%	10-124
Fluorene	ND	100	63.6	0.001	63.6%	10-142
Phenanthrene	ND	100	78.4	0.001	78.4%	10-155
Anthracene	ND	100	78.4	0.001	78.4%	10-126
Fluoranthene	ND	100	79.7	0.001	79.7%	14-123
Pyrene	ND	100	67.3	0.001	67.3%	10-140
Benzo[a]anthracene	ND	100	69.2	0.001	69.2%	10-116
Chrysene	ND	100	69.2	0.001	69.2%	12-135
Benzo(b)fluoranthene	ND	100	29.5	0.001	29.5%	10-199
Benzo[k]fluoranthene	ND	100	31.8	0.001	31.8%	10-150
Benzo(a)pyrene	ND	100	31.5	0.001	31.5%	10-159
Indeno[1,2,3]pyrene	ND	100	37.1	0.001	37.1%	10-128
Dibenzo[a,h]anthracene	ND	100	28.4	0.001	28.4%	10-110
Benzo(g,h,i)perylene	ND	100	29.6	0.001	29.6%	10-116

ND - Parameter not detected at the stated detection limit.

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS
SW-846, USEPA, September 1986.

Comments: **QA/QC for Samples 60768**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Water Analysis

Client:	Key Energy	Project #:	98065-0013
Sample ID:	INJ Water	Date Reported:	01-12-12
Laboratory Number:	60768	Date Sampled:	01-10-12
Sample Matrix:	Aqueous	Date Received:	01-10-12
Preservative:	Cool	Date Analyzed:	01-12-12
Condition:	Intact	Chain of Custody:	13165

Parameter	Analytical Result	Units
Cyanide (total)	**0.041**	mg/L

Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Key Farmington UIC-5 INJ Water**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

13165

CHAIN OF CUSTODY RECORD

Client:	Project Name / Location:
KEY Energy	KEY FARMINGTON UIC-5 INJ WATER
Email results to:	Sampler Name: Price LLC Laston Wayne Price Jr.
Client Phone No.: 505-715-2809	Client No.: KEY Energy 98065-0013

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	Preservative: ICE	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	Dissolved + WQCC RCRA 8 Metals	PAH (8100)	H&P	CN	Sample Cool	Sample Intact
INJ WATER	1/10/12	12:45PM	60768	2-40 ml			X			X	B, Mg, Ni				X	X
" "	"	12:45PM	60769	2-40 ml			X									
" "	"	12:45PM	60770	2-1L Amber			X				Mg, Al, Ca,					
" "	"	12:45PM	60771	2-1L Amber			X					X				
" "	"	12:45PM	60772	2-1L Amber			X				Zn, Mn,		X			
" "	"	12:45PM	60773	1-500 ml			X				Cu, Fe	X				
" "	"	12:45PM	60774	1-250 ml			X				X					
" "	"	12:45PM	60775	1-125 ml			X							X		
			TL 1/12/12													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Laston Wayne Price Jr.	1/10/12	1:50PM	Ariana Stanmar	1/10/12	1:50
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix: Soil ☐ Solid ☐ Sludge ☐ Aqueous ☒ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

RUSH

envirotech Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

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Fax: (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Lynn Berry
EnviroTech- NM
5796 US. Highway 64
Farmington, NM 87401

Report Summary

Friday January 20, 2012

Report Number: L555653
Samples Received: 01/13/12
Client Project: 98065-0013

Description: Key Energy

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

Lynn Berry
EnviroTech- NM
5796 US. Highway 64
Farmington, NM 87401

January 20,2012

ESC Sample # : L555653-01

Site ID :

Project # : 98065-0013

Date Received : January 13, 2012
Description : Key Farmington UIC-SINJ Water

Sample ID : 60768-INJ WATER

Collected By : Price
Collection Date : 01/10/12 12:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Herbicides						
2,4-D	0.041	0.040	mg/l	8151	01/19/12	20
Dalapon	BDL	4.0	mg/l	8151	01/19/12	20
2,4-DB	BDL	0.040	mg/l	8151	01/19/12	20
Dicamba	BDL	0.040	mg/l	8151	01/19/12	20
Dichloroprop	BDL	0.040	mg/l	8151	01/19/12	20
Dinoseb	BDL	0.040	mg/l	8151	01/19/12	20
MCPA	BDL	2.0	mg/l	8151	01/19/12	20
MCPP	BDL	2.0	mg/l	8151	01/19/12	20
2,4,5-T	BDL	0.040	mg/l	8151	01/19/12	20
2,4,5-TP (Silvex)	BDL	0.040	mg/l	8151	01/19/12	20
Surrogate Recovery						
2,4-Dichlorophenyl Acetic Acid	0.00		% Rec.	8151	01/19/12	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 01/20/12 10:41 Printed: 01/20/12 10:42

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REPORT OF ANALYSIS

Lynn Berry
EnviroTech- NM
5796 US. Highway 64
Farmington, NM 87401

January 20,2012

ESC Sample # : L555653-02

Site ID :

Project : 98065-0013

Date Received : January 13, 2012
Description : Key Farmington UIC-SINJ Water

Sample ID : 60768-INJ WATER

Collected By : Price
Collection Date : 01/10/12 12:45

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	01/14/12 0000	AJN	1
TCLP Pesticides								
Chlordane	BDL	0.0050	mg/l	0.030	8081A	01/16/12 1423	ADF	1
Endrin	BDL	0.0050	mg/l	0.020	8081A	01/16/12 1423	ADF	1
Heptachlor	BDL	0.0050	mg/l	0.0080	8081A	01/16/12 1423	ADF	1
Lindane	BDL	0.0050	mg/l	0.40	8081A	01/16/12 1423	ADF	1
Methoxychlor	BDL	0.0050	mg/l	10.	8081A	01/16/12 1423	ADF	1
Toxaphene	BDL	0.010	mg/l	0.50	8081A	01/16/12 1423	ADF	1
Surrogate Recovery								
Decachlorobiphenyl	50.3		% Rec.	123.	8081A	01/16/12 1423	ADF	1
Tetrachloro-m-xylene	64.5		% Rec.	114.	8081A	01/16/12 1423	ADF	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)
Limit - Maximum Contaminant Level as established by the US EPA
Note:
The reported analytical results relate only to the sample submitted.

Reported: 01/20/12 10:41 Printed: 01/20/12 10:42

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L555653-01	WG574242	SAMP	Dichloroprop	R2006492	J3
	WG574242	SAMP	2,4-Dichlorophenyl Acetic Acid	R2006492	J7

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
01/20/12 at 10:42:07

TSR Signing Reports: 288
RX - Priority Rush

Auto QC on all reports Full TCLP also requires RCI Dry wt

Sample: L555653-01 Account: ENVIROFNM Received: 01/13/12 09:00 Due Date: 01/20/12 00:00 RPT Date: 01/20/12 10:41

Sample: L555653-02 Account: ENVIROFNM Received: 01/13/12 09:00 Due Date: 01/20/12 00:00 RPT Date: 01/20/12 10:41

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Lynn Berry
5796 US. Highway 64

Farmington, NM 87401

Quality Assurance Report
Level II

L555653

January 20, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chlordane	< .0005	mg/l			WG574119	01/16/12 08:51
Endrin	< .00005	mg/l			WG574119	01/16/12 08:51
Lindane	< .00005	mg/l			WG574119	01/16/12 08:51
Heptachlor	< .00005	mg/l			WG574119	01/16/12 08:51
Methoxychlor	< .00005	mg/l			WG574119	01/16/12 08:51
Toxaphene	< .0005	mg/l			WG574119	01/16/12 08:51
Decachlorobiphenyl		% Rec.	91.70	10-122.6	WG574119	01/16/12 08:51
Tetrachloro-m-xylene		% Rec.	83.50	15.3-114.2	WG574119	01/16/12 08:51
2,4,5-T	< .002	mg/l			WG574242	01/19/12 14:14
2,4,5-TP (Silvex)	< .002	mg/l			WG574242	01/19/12 14:14
2,4-D	< .002	mg/l			WG574242	01/19/12 14:14
2,4-DB	< .002	mg/l			WG574242	01/19/12 14:14
Dalapon	< .002	mg/l			WG574242	01/19/12 14:14
Dicamba	< .002	mg/l			WG574242	01/19/12 14:14
Dichloroprop	< .002	mg/l			WG574242	01/19/12 14:14
Dinoseb	< .002	mg/l			WG574242	01/19/12 14:14
MCPA	< .1	mg/l			WG574242	01/19/12 14:14
MCPP	< .1	mg/l			WG574242	01/19/12 14:14
2,4-Dichlorophenyl Acetic Acid		%	87.80	42-112	WG574242	01/19/12 14:14

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Endrin	mg/l	.0002	0.000183	91.5	60-123	WG574119
Lindane	mg/l	.0002	0.000197	98.4	59-116	WG574119
Heptachlor	mg/l	.0002	0.000176	87.8	10-131	WG574119
Methoxychlor	mg/l	.0002	0.000199	99.7	66-122	WG574119
Decachlorobiphenyl				88.29	10-122.6	WG574119
Tetrachloro-m-xylene				72.16	15.3-114.2	WG574119
2,4,5-T	mg/l	.005	0.00410	82.0	47-120	WG574242
2,4,5-TP (Silvex)	mg/l	.005	0.00475	95.1	46-125	WG574242
2,4-D	mg/l	.005	0.00545	109.	39-112	WG574242
2,4-DB	mg/l	.005	0.00499	99.8	29-133	WG574242
Dalapon	mg/l	.005	0.00342	68.4	34-97	WG574242
Dicamba	mg/l	.005	0.00454	90.8	47-119	WG574242
Dichloroprop	mg/l	.005	0.00544	109.	35-110	WG574242
Dinoseb	mg/l	.005	0.00291	58.1	29-111	WG574242
MCPA	mg/l	.5	0.321	64.2	16-189	WG574242
MCPP	mg/l	.5	0.504	101.	16-189	WG574242
2,4-Dichlorophenyl Acetic Acid				83.41	42-112	WG574242

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Endrin	mg/l	0.000189	0.000183	94.0	60-123	3.25	20	WG574119
Lindane	mg/l	0.000207	0.000197	103.	59-116	4.93	20	WG574119
Heptachlor	mg/l	0.000182	0.000176	91.0	10-131	3.86	28	WG574119
Methoxychlor	mg/l	0.000203	0.000199	101.	66-122	1.72	20	WG574119
Decachlorobiphenyl				88.82	10-122.6			WG574119
Tetrachloro-m-xylene				74.31	15.3-114.2			WG574119
2,4,5-T	mg/l	0.00402	0.00410	80.0	47-120	2.02	22	WG574242
2,4,5-TP (Silvex)	mg/l	0.00443	0.00475	88.0	46-125	7.11	25	WG574242
2,4-D	mg/l	0.00503	0.00545	100.	39-112	8.14	23	WG574242

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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EnviroTech- NM
Lynn Berry
5796 US. Highway 64

Farmington, NM 87401

Quality Assurance Report
Level II

L555653

January 20, 2012

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
2,4-DB	mg/l	0.00396	0.00499	79.0	29-133	22.9	34	WG574242
Dalapon	mg/l	0.00312	0.00342	62.0	34-97	9.28	35	WG574242
Dicamba	mg/l	0.00415	0.00454	83.0	47-119	9.01	22	WG574242
Dichloroprop	mg/l	0.00422	0.00544	84.0	35-110	25.2*	23	WG574242
Dinoseb	mg/l	0.00315	0.00291	63.0	29-111	8.14	27	WG574242
MCPA	mg/l	0.377	0.321	75.0	16-189	16.2	31	WG574242
MCPP	mg/l	0.525	0.504	105.	16-189	4.13	31	WG574242
2,4-Dichlorophenyl Acetic Acid				85.03	42-112			WG574242

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Endrin	mg/l	0.00133	0	.002	66.5	36-135	L555653-02	WG574119
Lindane	mg/l	0.00145	0	.002	72.7	43-105	L555653-02	WG574119
Heptachlor	mg/l	0.00113	0	.002	56.4	10-165	L555653-02	WG574119
Methoxychlor	mg/l	0.00128	0	.002	63.8	10-147	L555653-02	WG574119
Decachlorobiphenyl					48.20	10-122.6		WG574119
Tetrachloro-m-xylene					52.40	15.3-114.2		WG574119

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Endrin	mg/l	0.00122	0.00133	61.2	36-135	8.41	26	L555653-02	WG574119
Lindane	mg/l	0.00142	0.00145	71.2	43-105	2.07	24	L555653-02	WG574119
Heptachlor	mg/l	0.00114	0.00113	56.8	10-165	0.743	39	L555653-02	WG574119
Methoxychlor	mg/l	0.00119	0.00128	59.5	10-147	7.10	40	L555653-02	WG574119
Decachlorobiphenyl				42.50	10-122.6				WG574119
Tetrachloro-m-xylene				53.60	15.3-114.2				WG574119

Batch number /Run number / Sample number cross reference

WG573981: R2000252: L555653-02
WG574119: R2001334: L555653-02
WG574242: R2006492: L555653-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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EnviroTech- NM
Lynn Berry
5796 US. Highway 64

Farmington, NM 87401

Quality Assurance Report
Level II

L555653

January 20, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

D112

Company Name/Address:
EnviroTech- NM

5796 US. Highway 64
Farmington.NM 87401

Billing Information:
Doris Moore
5796 US. Highway 64
Farmington,NM 87401

Report to: Lynn Berry
Email to: lberry@envirotech-inc.com

Project Description: KeyFarmington UIC- SI NJ Water
City/State Collected:

Phone: (505) 632-0615
FAX:

Client Project #: 98065-0013

ESC Key:

Collected by: (print) Price

Site/Facility ID#:

P.O.#: 190460

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day..... 200%
X Next Day..... 100%
___ Two Day..... 50%
___ Three Day..... 25%

Date Results Needed:

Email? ___No X Yes
FAX? X No ___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Analysis/Container/Preservative: X Herbicides & Pesticides - TCLP (8151) (8081)	Remarks/Contaminant	Sample # (lab only)
60768- INJ Water	Grab	OT		1-10-12	12:45	2	X	L555653-01	

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other: Aq

Remarks:

pH ___ Temp ___

Flow ___ Other ___

4341 8823 0477

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

CoCode: ENVIROFNM (lab use only)
Template/Prelogin:
Shipped Via:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Relinquished by: (Signature) — Date: 1-12-12 — Time: 11:00am

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 3.6 — Bottles Received: 2

Date: 1/13/12 — Time: 0:30

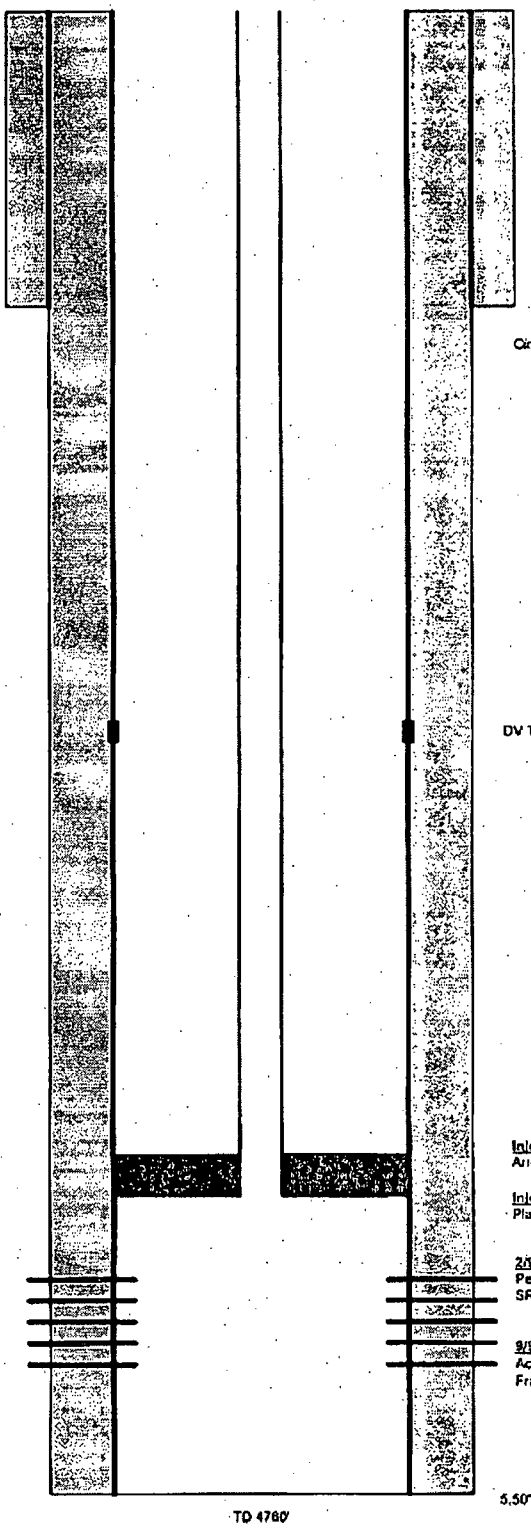
Condition: OK (lab use only) TD

CoC Seals Intact: ___Y ___N ✓ NA

pH Checked: ___ NCF: ___

Key Energy Services, LLC
Sunco Disposal #1
Class I SWD
Current Configuration Jun'08

API# 30-045-28653
Sect 2, T29N, R12W
Drilled 1/92



12-1/4" Hole
8-5/8" 24# K55 csg at 209'
Cmt w/ 150 sx
Circ to surf w/ 100 sx thru 1" OD tbg

DV Tool at 2244'

Injection Packer:
Arrow XL-W retrievable seal bore at 4202'

Injection Tubing:
Plastic coated 2.875" 6.5# J55 EUE 8RD

2/92:
Perfs: 4350-4460', 2 spf
SRT: BHFP 2707 psi (WHFP 1044 psi)

9/93:
Acdz w/ 2000 gal 15% HCl
Frac w/ 100,000# 20/40 sand

7-7/8" Hole
5.50" 15.5# K55 csg at 4760'
DV Tool at 2244'
Stage 1: 230 sx
Stage 2: 515 sx
Circ 25 sx to surf

TD 4760'
PBTD 4706'

7K1

Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: SUNCO DISPOSAL

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER DISPOSAL X

2. Name of Operator: COLEMAN OIL & GAS COMPANY

8. Well No.: #1

3. Address of Operator: 708 S. TUCKER, FARMINGTON, NM 87401

9. Pool name or Wildcat: FLORA VISTA MESA VERDE

4. Well Location
Unit Letter E : 1595 Feet From The NORTH Line and 1005 Feet From The WEST Line
Section 2 Township 29N Range 12W NMPM SAN JUAN County

10. Elevation (Show whether DF, RKB, RT, GR, etc.): 5859 GR.

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐		CASING TEST AND CEMENT JOB ☐	
OTHER: SPUD - SET SURFACE ☒		OTHER: ☐	

12. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

1. We propose to drill, log, and set casing through the point lookout section of the Mesa Verde and upon examination of the logs a portion of the point lookout will be selectively perforated and stimulated as needed.

2-7-92 Drilled to 210 feet & set 8-5/8" casing @ 209.00. Cemented w/150 sx class "B" w/2% calcium chloride. Circulated to surface w/100 sx thru 1" tubing.

RECEIVED
FEB 28 1992
OIL CON. DIV
DIST. 3

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

SIGNATURE Ron Mahan TITLE CONTRACTS MANAGER DATE 02-28-92

TYPE OR PRINT NAME RON MAHAN TELEPHONE NO. 327-4961

(This space for State Use)

APPROVED BY Frank T. Chavez TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE MAR 05 1992

CONDITIONS OF APPROVAL, IF ANY:

TL

Submit 3 Copies to Appropriate District Office

Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: SUNCO DISPOSAL

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER DISPOSAL X

2. Name of Operator: COLEMAN OIL & GAS COMPANY

8. Well No.: #1

3. Address of Operator: 708 SOUTH TUCKER, FARMINGTON, NM 87401

9. Pool name or Wildcat: FLORA VISTA MESA VERDE

4. Well Location
Unit Letter F : 1595 Feet From The NORTH Line and 1005 Feet From The WEST Line

Section 2 Township 29N Range 12W NMPM SAN JUAN County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 5859 GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐		CASING TEST AND CEMENT JOB ☐	
OTHER: ☐		OTHER: RUN PRODUCTION CASING ☒	

RECEIVED
MAR 3 1992
OIL CON. DIV.
DIST. 3

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

WITNESSED BY DENNY FOUST

02-02-92 Ran 138 jts 15.5# K-55 ST&C and LT&C casing measuring 4768.40' and landed at 4762'KB. Ran centralizers mid first joint, top of 3rd, 5th, 7th, 9th, 11th, 67th, and 69th joints. DV tool was run in top of 68th joint and is at 2244.17' KB. Ran cement basket above and below DV tool. Rig up Western Company and cemented 1st stage with 230 sx 65/35 Pozmix, 6% gel, 5 #/sx gilsonite, and 1/4#/sx celoflake and tailed in with 265 sx Class "B" with 5 #/sx gilsonite and 1/4#/sx celoflake. Preceded job with 20 bbls mud flush. Full returns throughout job. Bumped plug with 1500 psi at 4:00 p.m. Dropped bomb and opened Baker DV tool with 500 psi. Circulated out good amount of cement from above DV tool. Waited 4 hrs and cemented 2nd stage with 465 sx 65/35 Pozmix, 6% gel and tailed in with 50 sx Class "B" neat cement with 2% calcium chloride. Preceded job with 20 bbls mud flush. Full returns through job, circulated 25 bbls good cement to surface. Tool closed with 2500 psi and held good. Plug down 9:05 pm. Set slips and cut off casing.

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

SIGNATURE Ron Mahan TITLE CONTRACTS MANAGER DATE 02-28-92

TYPE OR PRINT NAME RON MAHAN TELEPHONE NO. 327-4961

(This space for State Use)

APPROVED BY Ernie Busch TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE MAR 05 1992

CONDITIONS OF APPROVAL, IF ANY:

7L2

Submit to Appropriate
District Office
State Lease – 6 copies
Fee Lease – 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL API NO. 30-045-28653

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER DISPOSAL

b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER

7. Lease Name or Unit Agreement Name: SUNCO DISPOSAL

2. Name of Operator: COLEMAN OIL & GAS COMPANY

8. Well No.: #1

3. Address of Operator: 708 SOUTH TUCKER, FARMINGTON, NM 87401

9. Pool name or Wildcat: FLORA VISTA MESA VERDE

4. Well Location
Unit Letter E : 1595 Feet From The NORTH Line and 1005 Feet From The WEST Line

Section 2 Township 29N Range 12W NMPM SAN JUAN County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF& RKB, RT, GR, etc.)	14. Elev. Casinghead
01-28-92		2-24-92	5859 GR.	5864

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
4760		1		X	

19. Producing Interval(s), of this completion - Top, Bottom, Name

20. Was Directional Survey Made: YES

21. Type Electric and Other Logs Run: DUEL INDUCTION & FORMATION DENSITY

22. Was Well Cored: NO

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8	24.0	209	12-1/4	250 sc Class B	0
5-1/2	15.50	4760	7-7/8	1st stage 230sx 65/35 & 265 Class B Tail.	0
				2nd stage 465sx 65/35 & 50sx "B" Tail.	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8	4300	4300

26. Perforation record (interval, size, and number)

4350-4460 2spf .46 220

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
02-24-92	SWABBING	SHUT-IN

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
02-24-92	24	2"		TR.	3.2	164.99	19. CU/FT/BBL

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)
0	315		0		164.99	NOT MEASURED

29. Disposition of Gas (Sold, used for fuel, vented, etc.): VENTED

Test Witnessed By: HAROLD ELLEDGE

30. List Attachments: PRODUCTION TEST

RECEIVED
FEB 28 1992
OIL CON. DIV.
DIST. 3

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Ron Maher Printed Name RON MAHAN Title CONTRACTS MGR Date 02-28-92

7L3

I. Purpose

This discharge plan proposes to reclassify the existing Coleman Oil and Gas disposal well from a Class II to a Class I facility. This will allow additional sources of Oil & Gas produced wastes at this commercial facility however shall still be RCRA exempt.

II. Operator

Coleman Oil & Gas
P.O. Box 443
Farmington NM 87499
Attn: Chuck Badsgard
Phone: 505-327-0416

III. Well Data

A. Description

1.) Lease name; Sunco Disposal Well#1
Location; Section 2, T29N, R12W
Drawing; See attached"Exhibit A"

2.) Casing and Cementing; surface casing is 8 5/8" 24# K-55 set at 209' in 12-1/2" hole with 150 sacks of B cement 2% $CACL_2$ and 1/4# flocel circulated back to surface taking 180 cubic feet, long string 5-1/2" 15.5# K-55 set at 4762' with DV tool at 2244.17' cementing; first stage with 230 sx 65/35 Pozmix, 6% gel 5# sx Gilsonite, 1/4# sx Celoflake, and tailed with 265 sx class"B" with 5# sx Gilsonite and 1/4# Celoflake; second stage was cemented with 465 sx 65/35 Pozmix 6% gel and tailed with 50 sx class "B" neat cement with 2% Calcium Chloride. See attached "Exhibit B #1

3.) Tubing Size and Depth; 2-7/8" J-55 8rd plastic lined set at 4281'; See attached "Exhibit B #2"

4.) Packer Information; 5-1/2' Arrow model XL-W retrievable seal bore with plastic coated bottom 2.688" seal bore set at 4282'

B. Formation

1.) Point Lookout 4380' to 4480'

2.) Interval perforated at 4350' to 4460' with 2 SPF and 220 holes; See attached"Exhibit C"

3.) Well was drilled for injection only.

4.) No other perforations.

5.) The depth of the next higher oil and gas producing zone is Pictured Cliffs at 2285' and the next lower is the top of the Dakota at 6550'.

IV. Expansion of Existing Well

A. Currently operating under order #SWD-457

V. Map Identifying Leases

A. 1/2 Mile radius; See attached "Exhibit D"
B. One mile radius; See attached "Exhibit D"

VI. Area of Review Well Data

A. Chart; See attached "Exhibit E"
B. Hydrogeological Calculation; See attached "Exhibit F"

VII. Proposed Operation

1.) Injection rate; 2000-2800 BPD
2.) System; open
3.) Injection pressure; 2850 PSI; See attached "Exhibit G"
4.) Water sources shall include Oil & Gas produced Class I non-hazardous RCRA exempt; See attached "Exhibit H"
5.) Injection zone does not produce oil and gas and has an estimated TDS of 17,180 MG/L based on an analysis taken from the McGrath #4 well located in Unit B, Section 34, T30N, R12W; See attached "Exhibit I"

VIII. Injection Zone Data

The injection zone is the Point Lookout Sandstone of the Mesa Verde formation. It is a light to medium

"EXHIBIT B #1 CINTINUED"

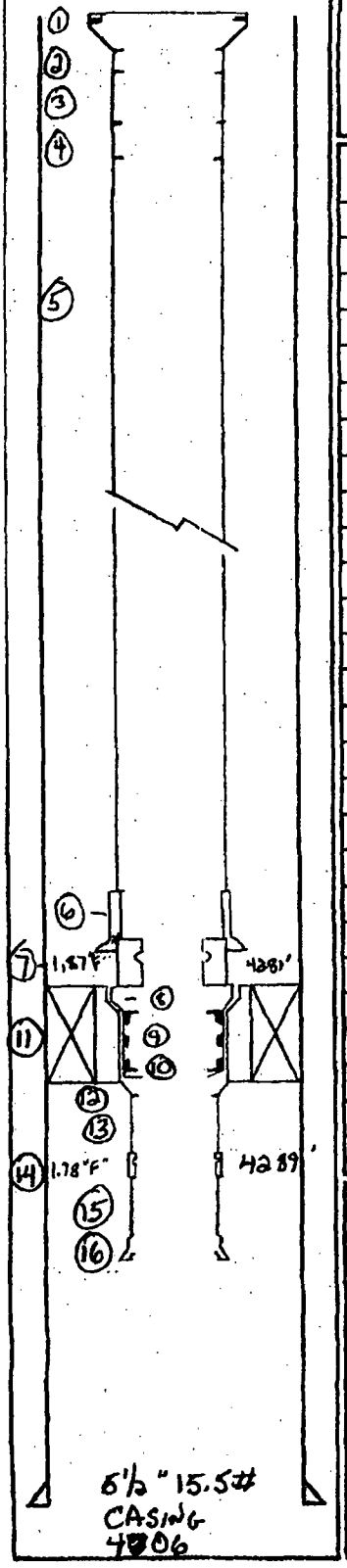
Pipe Tally Sunco Well #1
Coleman Oil & Gas 5 1/2" 15.5# LT&C & ST&C Casing 2/2/92

Jt.	Length	CUM	Jt.	Length	CUM	Jt.	Length	CUM	Jt.	Length	CUM	Jt.	Length	CUM	Jt.	Length	CUM
1	42.55	42.55	51	41.76	1926.50	101	1.79	2517.83	151	32.40	2550.23	201	28.96	4143.22	251	32.72	4801.12
2	40.46	83.01	52	41.52	1968.02	102		2517.83	152	32.29	2582.52	202	31.41	4174.63	252	41.78	4842.90
3	42.02	125.03	53	41.75	2009.77	103	B	2517.83	153	27.91	2610.43	203	30.39	4205.02	253	21.00	4863.90
4	35.46	160.49	54	41.72	2051.49	104	a	2517.83	154	30.44	2640.87	204	31.37	4236.39	254		4863.90
5	34.50	194.99	55	41.76	2093.25	105	k	2517.83	155	30.73	2671.60	205	29.44	4265.83	255	l	4863.90
6	39.58	234.57	56	41.72	2134.97	106	e	2517.83	156	31.25	2702.85	206	28.08	4293.91	256	e	4863.90
7	43.50	278.07	57	33.45	2168.42	107	r	2517.83	157	33.18	2736.03	207	32.38	4326.29	257	f	4863.90
8	32.94	311.01	58	28.68	2197.10	108		2517.83	158	31.37	2767.40	208	32.42	4358.71	258	t	4863.90
9	35.59	346.60	59	30.30	2227.40	109	D	2517.83	159	29.84	2797.24	209	39.88	4398.59	259		4863.90
10	30.55	377.15	60	31.63	2259.03	110	V	2517.83	160	28.36	2825.60	210	33.12	4431.71	260		4863.90
11	21.40	398.55	61	33.77	2292.80	111		2517.83	161	32.45	2858.05	211	32.18	4463.89	261	o	4863.90
12	34.96	433.51	62	31.26	2324.06	112	T	2517.83	162	30.56	2888.61	212	30.70	4494.59	262	u	4863.90
13	36.24	469.75	63	31.03	2355.09	113	o	2517.83	163	31.35	2919.96	213	30.55	4525.14	263	t	4863.90
14	35.51	505.26	64	42.88	2397.97	114	o	2517.83	164	31.73	2951.69	214	32.28	4557.42	264		4863.90
15	35.69	540.95	65	29.33	2427.30	115	l	2517.83	165	30.30	2981.99	215	32.22	4589.64	265		4863.90
16	21.45	562.40	66	27.75	2455.05	116		2517.83	166	32.06	3014.05	216	32.33	4621.97	266		4863.90
17	36.15	598.55	67	28.62	2483.67	117		2517.83	167	30.28	3044.33	217	40.85	4662.82	267		4863.90
18	41.58	640.13	68	29.68	2513.35	118		2517.83	168	30.84	3075.17	218	33.03	4695.85	268		4863.90
19	41.78	681.91	69		2513.35	119		2517.83	169	32.65	3107.82	219	39.85	4735.70	269		4863.90
20	21.91	703.82	70		2513.35	120		2517.83	170	30.70	3138.52	220	32.70	4768.40	270		4863.90
21	33.94	737.76	71	2.69	2516.04	121		2517.83	171	29.34	3167.86	221		4768.40	271		4863.90
22	25.13	762.89	72		2516.04	122		2517.83	172	31.20	3199.06	222		4768.40	272		4863.90
23	41.77	804.66	73	s	2516.04	123		2517.83	173	32.76	3231.82	223		4768.40	273		4863.90
24	36.15	840.81	74	h	2516.04	124		2517.83	174	32.69	3264.51	224		4768.40	274		4863.90
25	41.80	882.61	75	o	2516.04	125		2517.83	175	32.55	3297.06	225		4768.40	275		4863.90
26	41.62	924.23	76	e	2516.04	126		2517.83	176	29.66	3326.72	226		4768.40	276		4863.90
27	41.78	966.01	77	&	2516.04	127		2517.83	177	28.36	3355.08	227		4768.40	277		4863.90
28	41.84	1007.85	78	f	2516.04	128		2517.83	178	32.14	3387.22	228		4768.40	278		4863.90
29	41.74	1049.59	79	l	2516.04	129		2517.83	179	31.67	3418.89	229		4768.40	279		4863.90
30	40.92	1090.51	80	o	2516.04	130		2517.83	180	32.30	3451.19	230		4768.40	280		4863.90
31	33.86	1124.37	81	a	2516.04	131		2517.83	181	30.59	3481.78	231		4768.40	281		4863.90
32	41.89	1166.26	82	t	2516.04	132		2517.83	182	31.92	3513.70	232		4768.40	282		4863.90
33	41.72	1207.98	83	c	2516.04	133		2517.83	183	33.01	3546.71	233		4768.40	283		4863.90
34	41.48	1249.46	84	o	2516.04	134		2517.83	184	29.61	3576.32	234		4768.40	284		4863.90
35	41.74	1291.20	85	l	2516.04	135		2517.83	185	29.13	3605.45	235		4768.40	285		4863.90
36	41.84	1333.04	86	l	2516.04	136		2517.83	186	28.61	3634.06	236		4768.40	286		4863.90
37	41.82	1374.86	87	a	2516.04	137		2517.83	187	34.11	3668.17	237		4768.40	287		4863.90
38	41.08	1415.94	88	r	2516.04	138		2517.83	188	41.18	3709.35	238		4768.40	288		4863.90
39	41.84	1457.78	89		2516.04	139		2517.83	189	41.16	3750.51	239		4768.40	289		4863.90
40	41.84	1499.62	90		2516.04	140		2517.83	190	32.97	3783.48	240		4768.40	290		4863.90
41	41.88	1541.50	91		2516.04	141		2517.83	191	28.73	3812.21	241		4768.40	291		4863.90
42	42.58	1584.08	92		2516.04	142		2517.83	192	28.54	3840.75	242		4768.40	292		4863.90
43	41.45	1625.53	93		2516.04	143		2517.83	193	29.39	3870.14	243		4768.40	293		4863.90
44	30.73	1656.26	94		2516.04	144		2517.83	194	28.25	3898.39	244		4768.40	294		4863.90
45	36.15	1692.41	95		2516.04	145		2517.83	195	29.56	3927.95	245		4768.40	295		4863.90
46	32.62	1725.03	96		2516.04	146		2517.83	196	40.28	3968.23	246		4768.40	296		4863.90
47	41.81	1766.84	97		2516.04	147		2517.83	197	41.18	4009.41	247		4768.40	297		4863.90
48	34.45	1801.29	98		2516.04	148		2517.83	198	41.16	4050.57	248		4768.40	298		4863.90
49	41.75	1843.04	99		2516.04	149		2517.83	199	30.64	4081.21	249		4768.40	299		4863.90
50	41.70	1884.74	100		2516.04	150		2517.83	200	33.05	4114.26	250		4768.40	300		4863.90
col	1884.74			631.30			1.79			1596.43			654.14			95.50	
cum	1884.74			2516.04			2517.83			4114.26			4768.40			4863.90	

float & shoe 2.69 Joints #1 thru #56 are LT&C, the rest are ST&C
68 jts 2513.35
dv tool 1.79 DV tool at 2244.17' KB
CIRC CEMENT 70 jts 2250.57' Anticipated PBTD 4717' KB

"EXHIBIT B #2"

WELL PROFILE



OPERATOR Coleman Oil & Gas Co.
WELL # Sungo WDW #1
FIELD Crouch Mesa
COUNTY San Juan
STATE New Mexico
DATE 7/27/94
☐ NEW COMPLETION ☒ WORKOVER

	Casing	Liner		Tubing
SIZE	5½			2⅞
WEIGHT	15.5			6.5
GRADE				
THREAD				EUE
DEPTH	4306			4265

ITEM NO.	EQUIPMENT AND SERVICES	LENGTH	DEPTH
	KB	13.00	
1	DONUT TYPE TUBING HANGER	.76	
2	2⅞ EU PIN X PIN NIPPLE	.46	
3	2⅞ PLASTIC LINED PUP JOINT	10.15	
4	2⅞ PLASTIC LINED PUP JOINT	6.22	
5	135 JTS 2⅞ PLASTIC LINED TUBING	4248.28	
6	2⅞ x 5½" ARROW 'T-2' PLASTIC COATED	1.66	
	ON-OFF TOOL (MEAS W/ S.NIPPLE)		
7	2⅞ x 1.87 STAINLESS STEEL NIPPLE		4281
	W/ 1.87" 'F' PROFILE		
8	2.688 x 5½" ARROW J-LATCH	.90	
9	3 EA 2.688 BONDED SEAL UNITS 357		
10	2.688 ½ MULESHOE BOTTOM	1.42	
11	5½ x 2.688 ARROW 'X1-W" RETRIEVABLE	4.68	4287
	SEAL BORE PACKER		
12	5½ x 2.688 TUBING ADAPTER BOTTOM	1.19	
13	2⅜ PLASTIC COATED PUP JOINT	5.69	
14	2⅜ x 1.78 STAINLESS STEEL NIPPLE	.87	4289
	W/ 1.78" 'F' PROFILE		
15	2⅜ PLASTIC COATED PUP JOINT	6.10	
16	2⅜ x 5½ W/L ENTRY GUIDE COLLAR	.55	4296

COMMENTS:
SEAL ASSY & TUBING WERE LANDED W/ 4000# TENSION
T-2 ON-OFF TOOL IS LEFT HAND RELEASE
J-LATCH SEAL ASSY IS RIGHT HAND RELEASE

PREPARED BY	OFFICE	PHONE
B. J. WARBURTON	FARMINGTON, NM	(505) 326-5141

MOUNTAIN STATES OIL TOOL

Aurora, CO · Grand Junction, CO · Sterling, CO · Farmington, NM · Vernal, UT

PIPE RECORD

~~FIELD~~ Coleman Oil & Gas LEASE Sunco Disposal WELL NO. 1 7/28 1994

PIPE TALLY - Show every piece of equipment going into the hole in the order run.

COLUMN 1		COLUMN 2		COLUMN 3		COLUMN 4		COLUMN 5		COLUMN 6		COLUMN 7		COLUMN 8	
GRADE WT.		GRADE WT.		GRADE WT.		GRADE WT.		GRADE WT.		GRADE WT.		GRADE WT.		GRADE WT.	
JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET
	.55		6.10		.87		5.69		1.10		4.68		.90		1.66
	2 3/8" x 5 1/2" w/4 Entry Guide		2 3/8" PLASTIC LINED PUP JOINT		2 3/8" x 1.78" SS "F" NIPPLE		2 3/8" PLASTIC LINED PUP JOINT		5 1/2" x 2.688" TUBING ADAPTOR BOTTOM		5 1/2" x 2.688" ARROW "XL-6" RET. SEAL BORE PACKER		2.688" x 5 1/2" ARROW J-LATCH		2 7/8" x 5 1/2" ARROW T-2 ON-OFF TOOL w/1.87" F NIPPLE
	.55		6.10		.87		5.69		1.10		4.68		.90		1.66

Jts. on rack before running | Jts. left on rack after running | No. Jts. run

COLUMN NO.	ITEM	JTS.	O.D.	WEIGHT	GRADE	THREAD	MAKE	FEET
1	WIRELINE ENTRY GUIDE	-	2 3/8	—	—	—	MTN STATES	.55
2	PLASTIC LINED PUP JOINT	1	2 3/8	—	—	—	MTN STATES	6.10
3	1.78" STAINLESS "F" NIPPLE	-	2 3/8	—	—	—	MTN STATES	.87
4	PLASTIC LINED PUP JOINT	1	2 3/8	-	—	—	MTN STATES	5.69
5	TUBING ADAPTOR BOTTOM	-	2 11/16"	—	—	—	MTN STATES	1.10
6	ARROW XL-6 RETRIEVABLE PACKER	-	5 1/2"				ARROW	4.68
7	ARROW J-LATCH	-	2 11/16"				ARROW	.90
8	ARROW T-2 ON/OFF TOOL		2 7/8"				ARROW	1.66

REMARKS *ASTERISK DESIGNATES CENTRALIZER ON JOINT

TOP PACKER @ 4280.93' KB - BOTTOM @ 4299.92' KB
PUP JOINTS USED TO SPACE WITH ARE A.B. MODIFIED W/ TEFLON RINGS

TOTAL	21	55
JOINTS NOT RUN		
TOTAL		
TOP ROTARY DRIVE BUSHING TO TOP OF CASING HEAD FLANGE (+)		
SET AT		
CO. REP.		

"EXIBIT B #2 CONTINUED"

PIPE RECORD

~~OPERATOR~~ Coleman Oil & Gas LEASE Sunco Disposal WELL NO. 1 7/28 1994

PIPE TALLY - Show every piece of equipment going into the hole in the order run.

COLUMN 1 GRADE WT.		COLUMN 2 GRADE WT.		COLUMN 3 GRADE WT.		COLUMN 4 GRADE WT.		COLUMN 5 GRADE WT.		COLUMN 6 GRADE WT.		COLUMN 7 GRADE WT.		COLUMN 8 GRADE WT.	
JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET	JOINT NO.	FEET
	29 55		64 30		61 30		62 25	TAKEN OUT			6 22		46		76
	58 05		64 05		63 20		63 65		31 —		10 15				
	65 10		63 30		63 90		61 65		31 12						
	62 45		62 95		62 85		63 85		31 02						
	63 40		61 95		62 90		65 10		31 48						
	62 78		60 80		63 50		65 10		32 58						
	65 28		64 55		60 30		61 55		31 33						
	63 20		62 60		64 60		62 65		188 53						
	62 63		64 —		62 35		505 80								
	62 75		63 60		63 55										
	62 55		61 70		63 63	New Pipe									
	59 62		57 95		64 35		29 97	in							
	61 90		61 25		62 50		32 52	in							
	63 60		65 15		61 15		32 53	in							
	62 05		63 45		63 75		29 98	out							
	65 10		61 15		62 65		31 54	out							
	63 80		63 70		61 90		62 45	in							
	65 25		65 05		63 90		31 50	in							
	65 —		63 30		61 75		188 97	in							
	62 75		61 10		65 —										
	1226 81		1255 70		1259 03						16 37		46		76

27/8" AB Modified Pup Joints

27/8" Pin x Pin Nipple

Donut Type Tubing Hanger

Jts. on rack before running | Jts. left on rack after running | No. Jts. run

COLUMN NO.	ITEM	JTS.	O.D.	WEIGHT	GRADE	THREAD	MAKE	FEET
1	Tubing	39	2 7/8	6.5	J-55	8 RD	Salta	1226 81
2	Tubing	40	"	"	"	"	Salta	1255 70
3	Tubing	40	"	"	"	"	Salta	1259 03
4	Tubing	16	"	"	"	"	Salta	505 80
5	Pup Joint	2	"	"	"	"	Salta	16 37
6	Blue Pin x Pin Nipple	1	"				Mt. States	46
7	Donut Hanger	1					A-1	76
8								

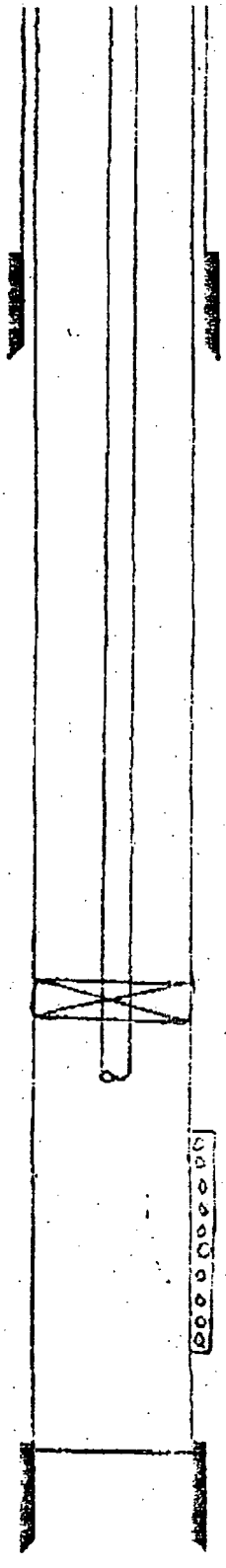
REMARKS *ASTERISK DESIGNATES CENTRALIZER ON JOINT

TOTAL	Page 1 & Page 2	4286 48
JOINTS NOT RUN	Trade out	44
	Bad Joints w/ new	..
TOTAL		4286 92
TOP ROTARY DRIVE BUSHING TO TOP OF CASING HEAD FLANGE (+)		13 00
~~OPERATOR~~	Bottom Packer Assm.	4299 92
CO. REP.		

7L9

"EXHIBIT C"

WALSH ENGINEERING & PRODUCTION CORP.
Petroleum Engineering Consulting
Lease Management
Contract Pumping
204 N. Auburn
Farmington, New Mexico 8740
(505) 327-4892



COLEMAN OIL & GAS
SUNCO DISPOSAL WELL #1

8 5/8", 24.0#, K-55
SET AT 209'

MOUNTAIN STATES ARROW SET 1 PACKER AT 4266'

136 JTS. 2 7/8, 6.5#, J55, PLASTIC COATED TBG SET AT 4295'. (ONE JOINT BELOW PACKER)

PERFS 4350 - 4460
2 SPF 220 TOTAL HOLES.

TOTD - 4704'

5 1/2", 15.5#, K-55
SET AT 4760

Paul Thompson 10/12/03

7L10

Form WQCC-1
Adopted 5-24-2011

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION (OCD)
WATER QUALITY CONTROL COMMISSION (WQCC) OCD DISCHARGE PERMIT BOND

BOND NO. RLB0014211
OCD PERMIT 247130
AMOUNT OF BOND $95,000.00
COUNTY San Juan

File with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505

KNOW ALL MEN BY THESE PRESENTS:

That Agua Moss, LLC, (an individual – if dba must read – Example: John Doe dba ABC Services) (a general partnership) (a corporation), (limited liability company) (limited partnership) organized in the State of New Mexico, and authorized to do business in the State of New Mexico, as PRINCIPAL, and RLI Insurance Company, a corporation organized and existing under the laws of the State of Illinois and authorized to do business in the State of New Mexico, as SURETY, are firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of the Energy, Minerals and Natural Resources Department (or successor agency) (the DIVISION), pursuant to 20.6.2.5210.B(17) NMAC, 20.6.2.5006 NMAC, and 20.6.2.3107.A(11) NMAC, in the sum of $95,000.00--------, for the payment of which the PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, the PRINCIPAL does or may own or operate a "Facility" (identified by location only below) and/or one or more wells (identified by location(s) below) for the injection of fresh and non-fresh water, remediation fluids (i.e., Class I (NH) Disposal Well or Class V Pump & Treat Injection Well), oilfield exempt, non-exempt and/or geothermal produced fluid waste(s) into the subsurface for use in connection with oil, gas and/or geothermal activities, which well is classified as a Division Underground Injection Control Class I, III or V Injection Well pursuant to the 20.6.2.5002 et seq. NMAC, the identification and location(s) of said well(s) being:

Sunco Disposal #1 (Name of Well) API No. 30-045-28653, located 1595 feet from the North (North/South) line and 1005 feet from the West (East/West) line of Section 2 Township 29N (North) (South), Range 12W (East) (West) NMPM, and Latitude 36.75737 Longitude -108.07279 County San Juan, New Mexico.

NOW, THEREFORE, if the PRINCIPAL and SURETY or either of them, or their successors or assigns or any of them, shall: (a) cause said well(s) to be properly plugged and abandoned when no longer productive or useful for other beneficial purpose in accordance with the WQCC rules and/or orders of the DIVISION; and (b) take all measures necessary, as required by the DIVISION by OCD Permit No. UIC-CLI-005 pursuant to 20.6.2 and 20.6.4 NMAC, as such rules now exist or may hereafter be amended, to prevent contamination of ground water having 10,000 milligrams per liter (mg/l) or less concentration of total dissolved solids (TDS), including, but not limited to, surface and ground water restoration if applicable, and post-operational monitoring.

THEN AND IN THAT EVENT, this obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

Agua Moss, LLC
PRINCIPAL

PO Box 600 Farmington, NM 87499
Address

By: _____
Signature

Manager/Owner
Title

If PRINCIPAL is a corporation, affix Corporate seal here

RLI Insurance Company
SURETY

8 Greenway Plaza, #400, Houston, TX 77046
Address

_____
Attorney-in-Fact

Jason T. Kilpatrick

Corporate surety affix Corporate seal here

7 of 4

ACKNOWLEDGMENT FORM FOR INDIVIDUAL

(If dba, must read – Example: John Doe dba Well Services)

STATE OF _____)
ss.
COUNTY OF_____)

This instrument was acknowledged before me on this _____ day of _____ 20____

by_____.
(Name of Individual)

_____
Notary Public

SEAL

_____
My Commission Expires

ACKNOWLEDGMENT FORM FOR PARTNERSHIP, CORPORATION, OR LIMITED LIABILITY COMPANY

STATE OF New Mexico)
ss.
COUNTY OF San Juan)

This instrument was acknowledged before me on 26th day of January 2012 by Jeff Davis
(Name of Person Signing Instrument)

as Manager/Owner of Agua Moss, LLC
(Capacity, e.g., partner, president, manager, member) (Name of partnership, corporation or limited liability company)

Notary Public

SEAL

4-5-2013
My Commission Expires

ACKNOWLEDGMENT FORM FOR CORPORATE SURETY

STATE OF _____)
ss.
COUNTY OF_____)

This instrument was acknowledged before me on this _____ day of _____, 20___,

by_____, as Attorney-in-Fact for _____
(Name of Attorney-in-Fact) (Name of Corporate Surety)

_____
Notary Public

SEAL

_____
My Commission Expires

Corporate Surety attach Power of Attorney

APPROVED BY:

OIL CONSERVATION DIVISION OF NEW MEXICO

By_____

Date_____

RLI

RLI Surety
A division of RLI Insurance Company

RLB0014211

POWER OF ATTORNEY

RLI Insurance Company

Know All Men by These Presents:

That the RLI INSURANCE COMPANY, a corporation organized and existing under the laws of the State of Illinois, and authorized and licensed to do business in all states and the District of Columbia does hereby make, constitute and appoint: JASON T. KILPATRICK in the City of HOUSTON , State of TEXAS , as Attorney-in-Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of documents to-wit:

$95,000.00

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity, policies indemnifying employers against loss or damage caused by the misconduct of their employees, official, bail and surety and fidelity bonds. Indemnity in all cases where indemnity may be lawfully given, and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company, and to compromise and settle any and all claims or demands made or existing against said Company.

The RLI INSURANCE COMPANY further certifies that the following is a true and exact copy of a Resolution adopted by the Board of Directors of RLI Insurance Company, and now in force to-wit:

"All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys-in-Fact or Agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

(Blue shaded areas above indicate authenticity)

IN WITNESS WHEREOF, the RLI Insurance Company has caused these presents to be executed by its PRESIDENT with its corporate seal affixed this

ATTEST:

Jean M. Stephenson

CORPORATE SECRETARY

RLI INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI INSURANCE COMPANY

M J Stone

PRESIDENT

State of Illinois)
) SS
County of Peoria)

On this 26th day of Jan. 2012 before me, a Notary Public, personally appeared Michael J. Stone and Jean M. Stephenson, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as President and Corporate Secretary, respectively, of the said RLI INSURANCE COMPANY, and acknowledged said instrument to be the voluntary act and deed of said corporation.

Jacqueline M. Bockler

Notary Public

NOTARY PUBLIC STATE OF ILLINOIS "OFFICIAL SEAL" JACQUELINE M. BOCKLER COMMISSION EXPIRES 03/01/14

SPA028 (03/11)

7 of 6

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

MECHANICAL INTEGRITY TEST REPORT

(TA OR UIC)

Date of Test 10-31-11 Operator Key Energy API # 30-045-28653

Property Name Sunco Disposal Well # 1 Location: Unit ___ Sec 2 Twn 29 Rge 12

Land Type:

- State ___
- Federal ___
- Private X
- Indian ___

Well Type:

- Water Injection ___
- Salt Water Disposal ✓
- Gas Injection ___
- Producing Oil/Gas ___
- Pressure obervation ___

Temporarily Abandoned Well (Y/N) N ___ TA Expires: ___

Casing Pres. 0 Tbg. SI Pres. ___ Max. Inj. Pres. ___

Bradenhead Pres. 0 Tbg. Inj. Pres. ___

Tubing Pres. 1800

Int. Casing Pres. N/A

DIST. 3

Pressured annulus up to 340 psi. for 30 mins. Test passed/failed

OIL CONS. DIV.

REMARKS:

Perfs 4350-4460

PKR. 4282

RCVD OCT 31 '11

By [signature] (Operator Representative)

Witness Monica Kuehling (NMOCD)

KEY - Asst Agent

(Position)

Revised 02-11-02

Oil Conservation Division * 1000 Rio Brazos Road * Aztec, New Mexico 87410
Phone: (505) 334-6178 * Fax (505) 334-6170 * http://www.emnrd.state.nm.us

SJ MEASUREMENT LLC
STANDARDS FACILITY

SJ MEASUREMENT LLC

CERTIFICATION OF PHYSICAL MEASURING INSTRUMENTS
0.005% I.V. MASTER ACCURACY LEVEL GUARANTEED

DATE :	10-28-11	CUSTOMER :	SJ MEASUREMENT RENTAL
TYPE :	BARTON 242E	DISTRICT :	SAN JUAN BASIN
PRESSURE RANGE:	0-1000 PSIG	TEMP. RANGE	NA
SERIAL NUMBER:	43400	P.O. NO. :	
TEST REF TEMP.	20 DEG. C	RECAL DATE :	4-28-12

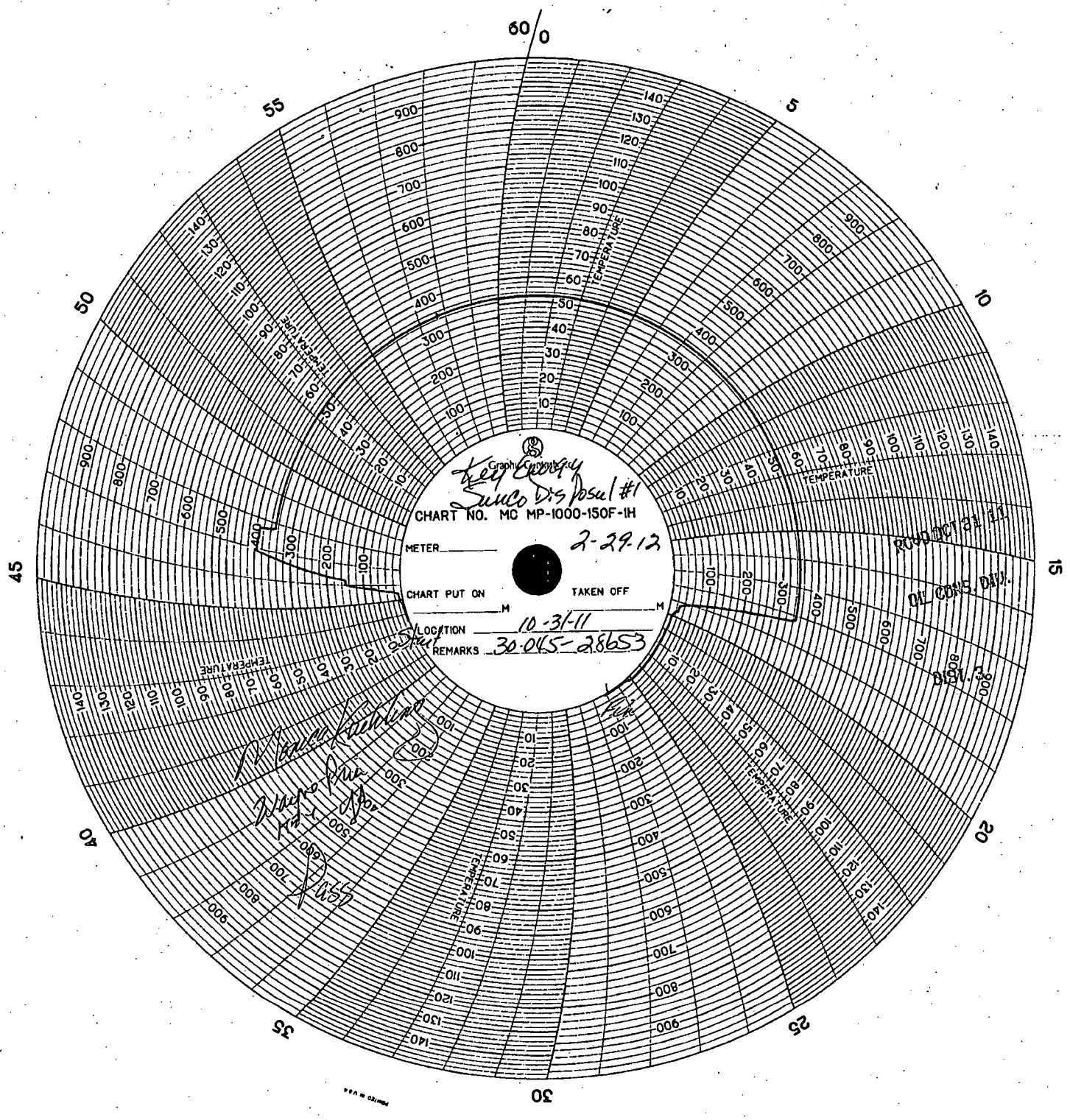
PRESSURE STANDARDS REFERENCED TO N.I.S.T. (PC-20) (WS-16)
N.I.S.T. MASS REPORT REF. NO.(106354 106354A 106354B)
PRESSURE REFERENCED @ 980.665 cm/sec. Gravity
TEMPERATURE REFERENCED TO NIST NO. 227121

PRESSURE APPLIED	STATIC READING	JOFFRA READING	TEMPERATURE READING
100.0	100.0	15.0	NA
200.0	200.0	30.0	NA
300.0	300.0	45.0	NA
400.00	400.00	60.0	NA
500.00	500.00	75.0	NA
600.00	600.00	90.0	NA
700.00	700.00	105.00	NA
800.00	800.00	120.00	NA
900.00	900.00	135.00	NA
1000.00	1000.00	150.00	NA

ATTESTED BY : _____
TECHNICIAN

#63 Rd 5295, Farmington, NM 87401 * Box 2472, Bloomfield, NM 87413 * Phone(505)632-8864 * Fax(505)632-0602

7 5 2


Key Energy
Sunco Disposal #1
CHART NO. MC MP-1000-150F-1H
METER
2-29-12
CHART PUT ON
TAKEN OFF
LOCATION
10-31-11
REMARKS
30-045-28653
TEMPERATURE
PRESSURE
OIL CONS. DIV.
DIST. 3

SJ MEASUREMENT LLC
STANDARDS FACILITY

SAN JUAN MEASUREMENT

CERTIFICATION OF PHYSICAL MEASURING INSTRUMENTS
0.005% I.V. MASTER ACCURACY LEVEL GUARANTEED

DATE :	10-31-11	CUSTOMER :	WEATHERFORD WELLHEAD
TYPE :	WIKA	DISTRICT :	SAN JUAN BASIN
PRESSURE RANGE	0-100 PSIG	PURCHASE # :	
SERIAL NUMBER:	# WFG100	ACTUAL ACCURACY:	(0.095%FS)or (0.40%IV)
TEST REF TEMP.	20 DEG. C	RECAL DATE :	1-30-12

PRESSURE STANDARDS REFERENCED TO N.I.S.T. (PC-67, WS-13 and WS-105.)
Ruska transfer standards are maintained according to calibration procedure CS-125 requirements of ANSI/NCSL Z540-1-1994, ISO 9001 and MIL-STD-45662A

DIST. 3

OIL CONS. DIV.

RCVD OCT 31 '11

INDICATED P.S.I.	MODULE P.S.I.	GAUGE READING	PRESSURE CORRECTION	PERCENT ERROR
10.00000	10.00050	10.00	0.00050	-0.00500%
20.00000	20.00100	20.00	0.00100	-0.00500%
30.00000	30.00150	29.90	0.10150	-0.33832%
40.00000	40.00200	39.50	0.50200	-1.25494%
50.00000	50.00230	48.75	1.25230	-2.50448%
60.00000	60.00270	58.50	1.50270	-2.50439%
70.00000	70.00320	68.00	2.00320	-2.86158%
80.00000	80.00360	78.50	1.50360	-1.87942%
90.00000	90.00410	89.50	0.50410	-0.56009%
100.00000	100.00460	99.50	0.50460	-0.50458%

PRECISION ERROR	+/-	0.0015%	ATTESTED BY:
REPEATABILITY	+/-	0.0035%	
BIAS ERROR	+/-	0.3950%	
ACTUAL ACCURACY	+/-	0.4000%	Lab Technician

#63 Rd 5295, Farmington, NM 87401 * Box 2472, Bloomfield, NM 87413 * Phone(505)632-8864 * Fax(505)632-0804

754

Attachment 5A

Water Analysis - Produced Waters Item VII #4:

Location:	NA	CA	Mg	K	Cl	SO4	CO3	HCO3	OH	Total Dissolved Solids
Fruitland Coal-Gas Wells										
SW/4 Sec 3, T29N, R14W	9,365	110	49	153	13,256	0	0	2,847	0	25,780
NE/4 Sec 7, T31N, R9W	5,794	42	36	27	1.194	0	0	13,664	0	20,757
SW/4 Sec 12, T32N, R8W	3,814	93	--	No Test	3,315	0	0	4,891	0	12,152
SW/4 Sec 15, T32N, R11W	3,739	96	17	233	4,748	0	0	2,489	0	11,322
NE/4 Sec 36, T32N, R11W	4,318	108	24	150	2,956	0	0	7,052	0	14,608
Pictured Cliffs Wells										
SE/4 Sec 1, T23N, R6W	11,590	625	154	84	18,748	0	0	1,287	-	32,488
SE/4 Sec 2, T23N, R4W	770	60	12	18	639	300	0	832	-	2,631
NW/4 Sec 6, T31N, R10W	530	92	21	2	177	0	0	1,491	-	2,313
Dakota Wells										
NW/4 Sec 18, T26N, R7W	772	76	16	30	861	535	0	244	0	2,534
NE/4 Sec 8, T27N, R9W	1,173	0	24	26	1,404	25	0	830	-	3,481
SE/4 Sec 5, T27N, R10W	553	56	96	6	856	25	0	573	-	2,146
SW/4 Sec 28, T27N, R10W	2,001	16	0	60	1,592	750	0	1,760	-	6,179
SW/4 Sec 26, T31N, R6W	5,830	120	49	90	5,874	3,838	0	1,230	0	17,031

FARMINGTON DIV. Attachment 7 v 2

LABORATORY WATER

To Southland Royalty

Attn: Doug Harris

Box 570

Farmington, N.M. 87499

Date 9/12/84

 4255-4377

Submitted by Doug Harris Date Rec.

Well No. McGrath #4 Depth 4255' - 4377' Formation Point Lookout

County Field Source DST #2 4255' - 4377'

	Top Recovery	Bottom Recovery	Sample Chambers	
Resistivity	3.16@ 65°F	.97@ 71°F	.68 @ 68°F	
Specific Gravity				
pH	8.47	7.53	7.86	
Calcium (Ca)	55	210	210	*MPL
Magnesium (Mg)	NT	NT	35	
Chlorides (Cl)	2900	6950	9900	
Sulfates (SO_4)				
Bicarbonates (HCO_3)	320	705	670	
Soluble Iron (Fe)	NT	NT	NT	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst:

HALLIBURTON COMPANY

cc:

By

NOTICE

Attachment 8

Agua Moss, LLC
PO Box 600
Farmington, NM 87499

RE: Minor Modification to Discharge plan required annual fall off test

Sunco Disposal #1
30-045-28653 E-02-29N-12W 1595 FNL & 1005 FWL

In 2008 Key Energy was granted a 24 month reprieve from conducting the required annual fall off test on the above mentioned Class 1 disposal well. In 2011 Key was then granted a 1 year reprieve.

Agua Moss, LLC would like to conduct the required annual Fall-off test in March for 2012 and will be submitting the necessary notice of intent prior to conducting the test.

After the testing has been done and data compared to the 2007,2008 and 2010 data, Agua Moss, LLC would like to request that the annual fall off test requirement be changed to a bi-annual requirement.

Attachment 13

Notice of Publication

Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This industrial disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation from 4380-4480 feet at a daily rate of 2000-4000 bbls and a maximum injection pressure of 2300 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

Proposed Newspapers of publication:

1. The Daily Times- Farmington, NM
2. The Santa Fe New Mexican – Santa Fe, NM
3. Will be published in English and Spanish is a display ad at least 2 x 3 inches NOT in the classified or legal notice section of the newspaper for 1-day duration.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, February 28, 2012 1:21 PM
To: 'Philana Thompson'
Cc: VonGonten, Glenn, EMNRD; Perrin, Charlie, EMNRD
Subject: RE: Agua Moss bonds for Sunco Disposal #1 & Landfarm
Attachments: Renewal WQCC Notice Regs.pdf; PN Flow Chart.20.6.2renewal.pdf

Philana:

Good afternoon. Today the OCD Environmental Bureau has approved the transfers of the UIC Class I (NH) Disposal Well and Discharge Permit (UICI-005) to Agua Moss LLC. The OCD is still deliberating on whether to keep the "UICI-005" WQCC discharge permit under the same permit number vs. issuing a new UICI permit number. The OCD will keep you posted.

Consequently, today marks the beginning of the OCD review of Agua Moss LLC's Discharge Permit Renewal process. OCD received both fees (filing and permit fee), but should have only received the filing fee because until the OCD renews the discharge permit, and sends the final discharge permit for remittance with the new operator signature, the OCD cannot cash the permit fee check. OCD proposes to cash the $100 filing fee this week and hold onto the final permit fee. The operator can also request cancellation of the $4,500 permit fee and/or allow the OCD to hold onto the check?

Please find attached Acrobat Reader Files (Regulations and Flow Chart) for the WQCC Public Notice Process (20.6.2.3108 NMAC). From the date the OCD deems Agua Moss LLC's discharge permit renewal application to be administratively complete (typically 15 days after the submittal date with the filing fee and assuming the application is complete), this marks the beginning of the public notice process associated with the attached files. I am providing a link (click here) to the OCD Website where the OCD posts its correspondence including the draft permit typically by the date of administrative completeness for future reference. Please review the attached files and contact me if you have questions and/or to go over the OCD permitting process, etc.

Thank you for your cooperation in this matter. Please contact me if you have questions.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
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"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Philana Thompson [mailto:pthompson@merrion.bz]
Sent: Tuesday, January 31, 2012 4:11 PM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Jones, Brad A., EMNRD; Phillips, Dorothy, EMNRD
Subject: Agua Moss bonds for Sunco Disposal #1 & Landfarm

Attached is the revised bond to reflect the Manager/Owner signature. I will be sending the original overnight tomorrow , so you should have it by Thursday. Please let me know if you should have any questions or concerns.

Thanks Philana

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Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171
office 505-324-5336

Notice Requirements For Discharge Permit Renewals

20.6.2.3108 PUBLIC NOTICE AND PARTICIPATION:

A. Within 15 days of receipt of an application for a discharge permit, modification or renewal, the department shall review the application for administrative completeness. To be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC. The department shall notify the applicant in writing when the application is deemed administratively complete. If the department determines that the application is not administratively complete, the department shall notify the applicant of the deficiencies in writing within 15 days of receipt of the application and state what additional information is necessary.

B. Within 30 days of the department deeming an application for discharge permit or discharge permit modification administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

(2) providing written notice of the discharge by mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

(3) providing notice by certified mail, return receipt requested, to the owner of the discharge site if the applicant is not the owner; and

(4) publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

C. Within 30 days of the department deeming an application for discharge permit renewal administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) providing notice by certified mail to the owner of the discharge site if the applicant is not the owner; and

(2) publishing a synopsis of the notice, in English and in Spanish, in a display ad at least two inches by three inches, not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the discharge.

D. Within 15 days of completion of the public notice requirements in Subsections B or C of 20.6.2.3108 NMAC, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

E. Within 30 days of determining an application for a discharge permit, modification or renewal is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or e-mail notice to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. The notice shall include the information listed in Subsection F of 20.6.2.3108 NMAC.

F. The notice provided under Subsection B, C and E of 20.6.2.3108 NMAC shall include:

(1) the name and address of the proposed discharger;

(2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;

(3) a brief description of the activities that produce the discharge described in the application;

(4) a brief description of the expected quality and volume of the discharge;

(5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge;

(6) the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and

(7) a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

G. All persons who submit comments or statements of interest to the department or previously participated in a public hearing and who provide a mail or e-mail address shall be placed on a facility-specific mailing list and the department shall send those persons the public notice issued pursuant to Subsection H of 20.6.2.3108 NMAC, and notice of any public meeting or hearing scheduled on the application. All persons who contact the department to inquire about a specific facility shall be informed of the opportunity to be placed on the facility-specific mailing list.

H. Within 60 days after the department makes its administrative completeness determination and all required technical information is available, the department shall make available a proposed approval or disapproval of the application for a discharge permit, modification or renewal, including conditions for approval proposed by the department or the reasons for disapproval. The department shall mail by certified mail a copy of the proposed approval or disapproval to the applicant, and shall provide notice of the proposed approval or disapproval of the application for a discharge permit, modification or renewal by:

(1) posting on the department's website;

(2) publishing notice in a newspaper of general circulation in this state and a newspaper of general circulation in the location of the facility;

(3) mailing or e-mailing to those persons on a facility-specific mailing list;

(4) mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department; and

(5) mailing to the governor, chairperson, or president of each Indian tribe, pueblo or nation within the state of New Mexico, as identified by the department.

I. The public notice issued under Subsection H shall include the information in Subsection F of 20.6.2.3108 NMAC and the following information:

(1) a brief description of the procedures to be followed by the secretary in making a final determination;

(2) a statement of the comment period and description of the procedures for a person to request a hearing on the application; and

(3) the address and telephone number at which interested persons may obtain a copy of the proposed approval or disapproval of an application for a discharge permit, modification or renewal.

J. In the event that the proposed approval or disapproval of an application for a discharge permit, modification or renewal is available for review within 30 days of deeming the application administratively complete, the department may combine the public notice procedures of Subsections E and H of 20.6.2.3108 NMAC.

K. Following the public notice of the proposed approval or disapproval of an application for a discharge permit, modification or renewal, and prior to a final decision by the secretary, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. All comments will be considered by the department. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

L. If a hearing is held, pursuant to Subsection K of 20.6.2.3108 NMAC, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection H of 20.6.2.3108 NMAC. The notice shall include the information identified in Subsection F of 20.6.2.3108 NMAC in addition to the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

20.6.2 NMAC 17

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3108 NMAC - Rn, 20 NMAC 6.2.III.3108, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06]

WQCC PUBLIC NOTICE AND PERMITTING FLOWCHART

20.6.2.3108 – *Applications for discharge permits renewals*

Applicant flow path

OCD flow path

Process Begins

Applicant submits application, proposal for notice, and filing $fee to OCD

Within 15 days of submittal

Admin. Compl. Review completed

OCD notifies applicant of admin compl determination

Administratively incomplete

Returned to applicant

Administratively complete

Within 30 Days of deeming an application complete

Applicant shall provide notice in accordance of Subsection F of 20.6.2.3108 NMAC

Applicant provides notice by certified mail to the owner of the discharge site, if not the owner.

Applicant must publish a synopsis of notice in English and Spanish display ad at least 2 x 3 inches not in the classified or legal section, in a newspaper of general circulation in the location of the proposed discharge

Within 15 days after completion of notice requirements

Applicant submits proof of notice (affidavit of mailings and list of property owners, proof of publication, an affidavit of posting) to OCD

Inadequate notice

OCD will require additional notice.

Adequate notice

OCD Notice Process

30 days

Public Notice/ Technical Review (OCD may combine this process)

OCD posts notice on web site and mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations, and land grants, as identified by the department

OCD mail or email notice to those persons of record who have requested notice

60 days

Provide notice in accordance with Subsection F of 20.6.2.3108 NMAC

OCD shall make available a proposed approval or disapproval of the application, with conditions or reasons, on OCD's web site. Publish notice in a newspaper of general circulation in the state and location of the facility. Provide notice by certified mail to the owner of the discharge site. Mail or email notice to those persons of record who have requested notice, and mails notice to any affected governmental agency, ditch associations, and land grants. Mail notice to the governor, chairperson, or president of each Indian tribe, pueblo, or nation within the State of New Mexico.

Hold open 30 days for public comment. The 30 day period shall begin on the date of publication of the notice in the newspaper.

Request for Hearing?

Yes

No

Provide notice of hearing 30 days prior to hearing in accordance with Subsections F and H of 20.6.2.3108

Hearing shall be held pursuant to 20.6.2.3110 NMAC

Approval

30 days

OCD provides copy of approved permit to permittee and interested parties

Applicant required to sign-off on permit and submit Fees

Not an official OCD document-for guidance only

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 7477 dated 2/7/12

or cash received on _____ in the amount of $ 100.00

from Agua Mas, LLC

for VICI-5

Submitted by: Lawrence Romero Date: 2/29/12

Submitted to ASD by: [signature] Date: 2/29/12

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2012

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____