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

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

Form C-144
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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

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

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

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

1.
Operator: Caza Operating, LLC OGRID #: 249099
Address: 200 North Loraine, Suite 1550, Midland, Texas 79701
Facility or well name: Gateway "2" State Well No. 2
API Number: 30-025-41096 OCD Permit Number: P1-06009
U/L or Qtr/Qtr: D Section: 2 Township: 19S Range: 35E County: Lea
Center of Proposed Design: Latitude: N 32°41'42.97" Longitude: W -103°26'03.93" NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC - FOR DRYING PAD NOT PIT JRL 7/17/13
Temporary: ☒ Drilling ☐ Workover - FOR TRENCH BURIAL NOT PIT JRL 7/17/13
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☐ LLDPE ☒ HDPE ☐ PVC ☒ Other Drying pad
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: 2,824 bbl Dimensions: L 110' x W 18' x D 12'

3.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify _____

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☒ Other N/A

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

7.

Signs: Subsection C of 19.15.17.11 NMAC

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

☒ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

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

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

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

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: ***The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below.*** **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank: - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☒ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter) FOR TRENCH BURIAL NOT PIT JJRL 7/17/13 Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. FOR BURIAL TRENCH NOT PIT JJRL 7/17/13

- [X] Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- [X] Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- [X] Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- [X] Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- [X] Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- [X] Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

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

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☒ On-site Trench Burial
☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☒ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☒ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

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

Name (Print): Steven A. Dowdy AUTHORIZED AGENT FOR CAZA JSRL 7/17/13 Title: Consulting Engineer for Caza Operating, LLC

Signature: Steven A. Dowdy Date: 7/16/2013

e-mail address: trimanres@sbcglobal.net Telephone: (405) 692-1555 Office / (405) 590-9555 Cell

18.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Geoffrey R. Leking Approval Date: 7/17/13

Title: Environmental Specialist OCD Permit Number: P1-06009

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

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

☐ Closure Completion Date:

20.
Closure Method:

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

☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☐ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☐ Soil Backfilling and Cover Installation
- ☐ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)

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

22.

Operator Closure Certification:

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

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Caza Petroleum

Caza Operating, LLC
200 N. Loraine Suite 1550
Midland, Texas 79701

July 17, 2013

Mr. Geoffrey Leking
State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

RE: Letter of Authorization

Dear Sir,

Please Consider this letter as notice of authorization for Steven A. Dowdy with Triman, Inc. to act on behalf of Caza Operating, LLC. Please allow him to represent and secure permits and subsequent filings, amendments , onsite inspections and notices.

Sincerely,

Richard L. Wright

Richard Wright
Operations Manager
432 682 7424 Ext 1006.

PROCESS DESIGN AND DESCRIPTION

Prepared by:
TRIMAN, INC.
P.O. Box 891323
Oklahoma City, OK 73189

Process

The process of cleaning water-base cuttings on an active drilling rig utilizes a proprietary and patented system hereinafter referenced as "the cuttings cleaner". The cuttings cleaner is designed to remove salt and hydrocarbons from drill cuttings as they are expressed back to the surface. The drill cuttings are also dewatered in the final stage ready for onsite trench burial.

Diagram 1 shows how the cuttings cleaner can be dove-tailed into an active drilling rig. The cuttings can be treated at an average rate of 250 gpm. A temperature varied environment circulated through the system yields a final aggregate of collected cuttings which are placed in an above-ground steel container, ready to be sampled and analyzed. At this point, the cuttings cleaner acts as part of a closed loop system on the rig. Once the "cleaned" and dried cuttings are sampled and tested to meet NMOCD onsite disposal standards, the waste is conveyed to the burial trench. The cleaned and dewatered cuttings will only be placed in the subject burial trench once they have been tested and meet NMOCD guidelines for trench burial.

Since the processed cuttings are "cleaned" to onsite burial standards, there is no expansion of the waste volume by needing to dilute a concentration with the addition of a non-waste volume.* Protection of the environment and ground water quality are maintained as the dewatered and "cleaned" cuttings are placed in an encapsulated burial trench free from hydraulic conductivity because there is no volume of water buried with the cuttings.

* CARLA ALSO STATED THAT CUTTINGS AFTER CLEANING & DRYING ARE ADEQUATELY LOAD BEARING.

Components JRL 7/17/13

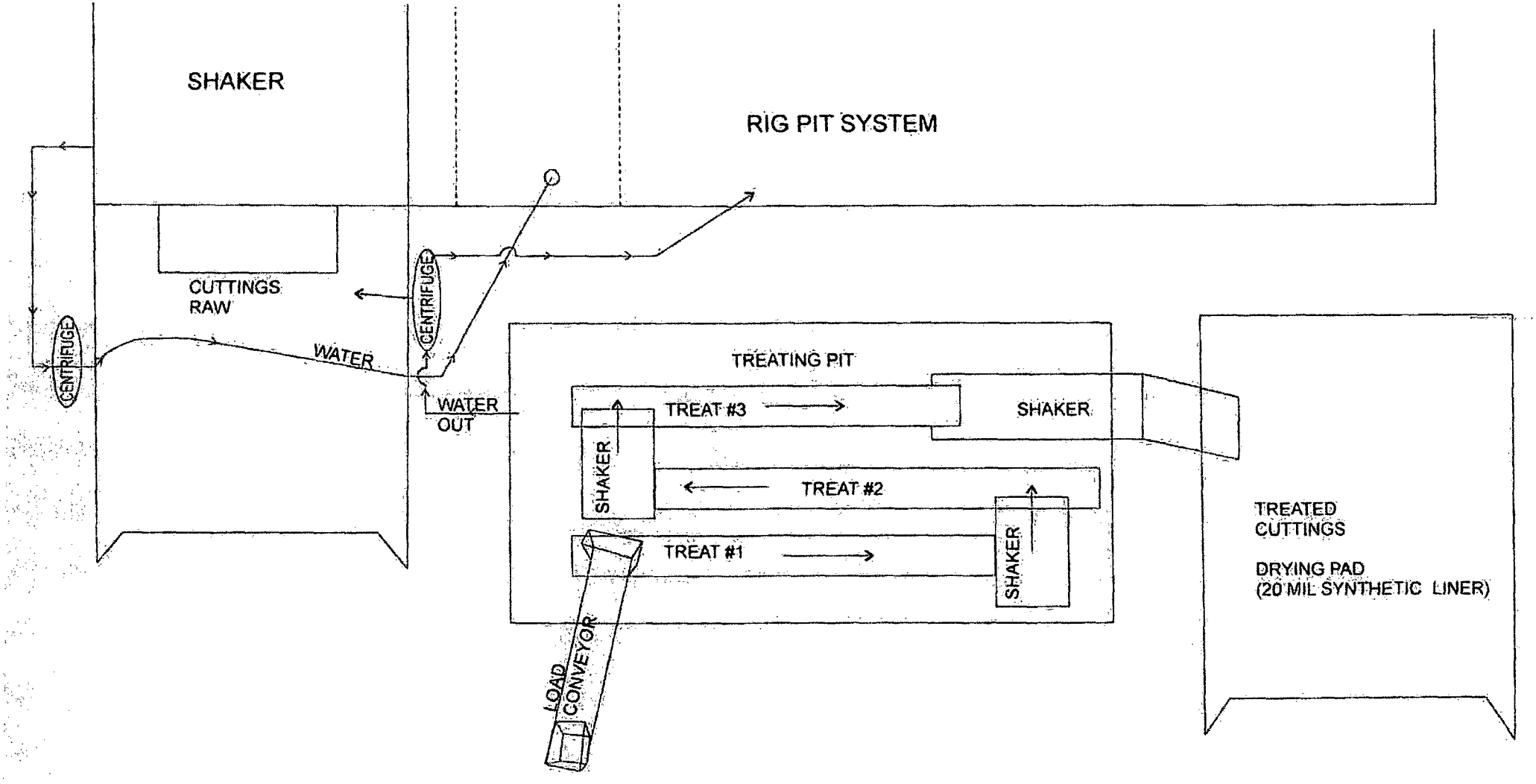
Water serves as both a propagate and salt removing agent in the cuttings cleaner. Onsite storage of fresh water is kept to a minimum supplying the cuttings cleaner. The same volume of water can be used over and over again until it is displaced in the active drilling fluid system for make-up of additional drilling mud. Significant Levels of salt are removed from the cuttings over the course of drilling the subject well, yielding a waste which no longer poses a threat to the environment.

Staging of Cleaned Cuttings

As the subject well's cuttings are processed through the cuttings cleaner, the cleaned cuttings will be placed on a drying pad. The drying pad will exhibit a surface area large enough to contain the subject processed cuttings. The drying pad will consist of placing a continuous 20 mil thickness synthetic liner on the finish grade of the subject drill site; the liner perimeter will be incorporated into 18" high soil berms to prevent surface contamination. The entire volume of cleaned cuttings for the subject well will be stored on the drying pad until the subject well reaches total depth. No cuttings will be placed in the burial trench until the subject well reaches total depth and the cleaned cuttings meet NMOCD criteria for onsite trench burial.

Once the cleaned cuttings have met NMOCD standards for trench burial, the cleaned cuttings will be placed into the onsite trench. The 20 mil synthetic liner used as the drying pad will be taken up for future use, and the surface soil area under the liner will be sampled utilizing a 5-

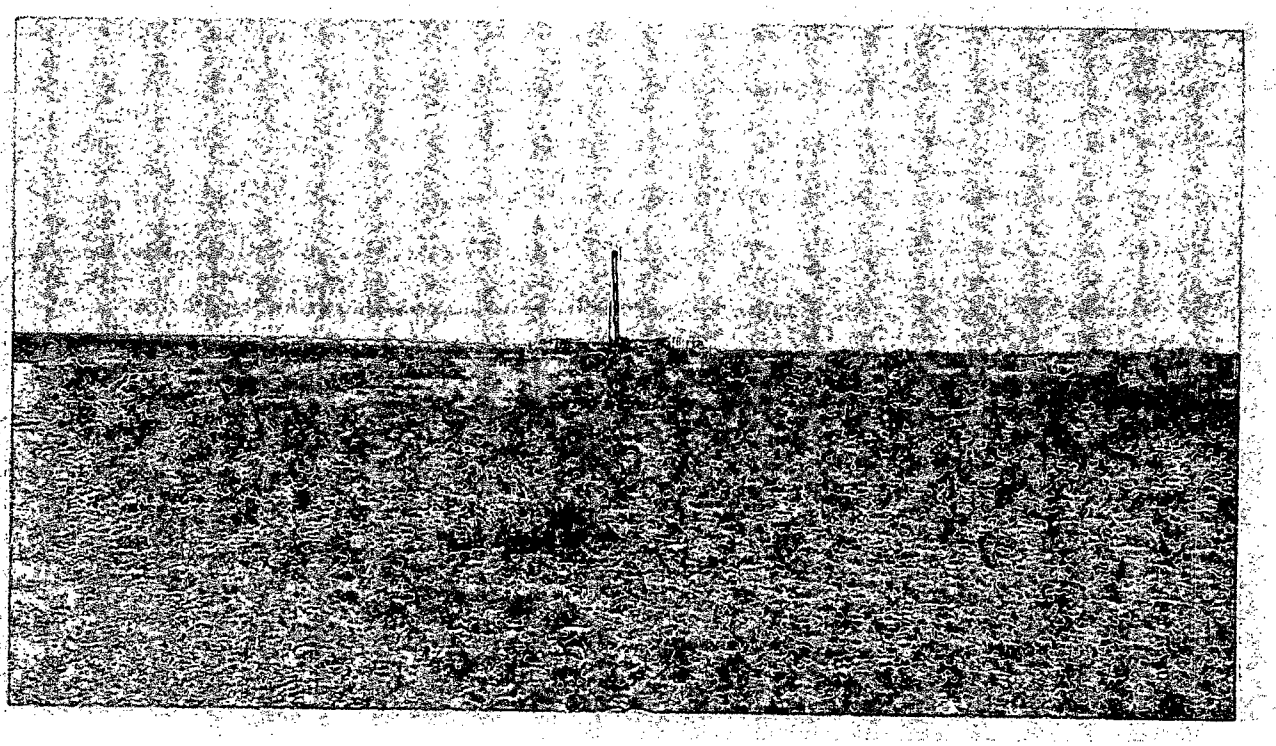
point grab of 0-6" depth. The composite soil sample will be tested to meet NMOCD quality standards, and copies of the analytical data will be provided to OCD.


SHAKER
RIG PIT SYSTEM
CUTTINGS
RAW
CENTRIFUGE
CENTRIFUGE
WATER
WATER
OUT
TREATING PIT
TREAT #3
SHAKER
SHAKER
TREAT #2
TREAT #1
SHAKER
LOAD
CONVEYOR
TREATED
CUTTINGS
DRYING PAD
(20 MIL SYNTHETIC LINER)

FLOW

JULY 2013

C-144 Permit & Supporting Documents for GATEWAY "2" STATE WELL NO. 2 BURIAL TRENCH NW/4 of Section 2-T19S-R35E, Lea County, NM



Prepared for: Caza Operating, LLC
Midland, Texas

Prepared by:
TRIMAN, INC.
P.O. Box 891323
Oklahoma City, OK 73189

C-144 AND SITE SPECIFIC INFORMATION FOR BURIAL TRENCH

Prepared by:
TRIMAN, INC.
P.O. Box 891323, Oklahoma City, OK 73189

Distance to Groundwater

Figure 1, Figure 2, and the discussion below demonstrates that groundwater (fresh water as defined by NMOCD Rules) at the location is less than 50 feet beneath the subject burial trench.

Figure 1 is an area geologic and topographic map that demonstrates:

1. The location of the burial trench as identified by a black square.
2. Water wells from the OSE database are shown as black triangles.
3. There are no water wells from the USGS database identified within 500 feet of the burial trench.
4. No other water wells were identified by field inspection, which were not documented in the public databases or published documents previously identified.

Figure 2 is a Groundwater Gradient Map from Ground-Water Report 6 (GWR6) *Geology and Ground-Water Conditions in Southern Lea County, New Mexico*, by Alexander Nicholson and Alfred Clebsch (1961) that demonstrates:

1. The location of the burial trench as a black square.
2. The groundwater gradient of the Tertiary Ogallala aquifer as solids lines located along the east side of the map.
3. The groundwater gradient of the deeper Triassic aquifer as dashed lines located in the central and west portions of the map.
4. Water wells from the report identified with open (Ogallala) or closed (Triassic) circles and labeled with groundwater depth and well total depth.
5. Water wells from the OSE database that are nearest to the site and are considered important to the determination of the groundwater depth are represented in Figure 1, as referenced above. The groundwater elevation and depth to groundwater is represented in Figure 2. Water wells identified in GWR6, referenced above, are listed in the attached table. Figure 1, Figure 2 and the GWR6 table attached provide data regarding the groundwater elevations for the Ogallala aquifer.

Geology and Hydrogeology

The subject burial trench is located on an outcrop of the Tertiary Ogallala Formation ("To" on Figure 1). It consists primarily of well sorted and undiffentiated deposits of sand, clay, silt and gravel capped with caliche. The Ogallala Formation in the surrounding area is partially covered by Quaternary age eolian piedmont deposits (Qe/Qp), lacustrine and playa deposits (Qpl), and older alluvial deposits (Qoa). Topographically, the site is on a moderately thin (2,000-foot wide) northeast to southwest placed ridge that separates low valleys to the northeast and southwest. The ridge and valleys characteristic of the San Simon area are generally reflective of the underlying Triassic red-beds and deeper rocks. Approximately 20 feet of topographic relief is present from the site location on the ride to the valleys on either side.

Based on the information from the cable-tool drilling rig used to install the initial well at the Gateway "2" State Well No. 2 location, the Ogallala Formation is 90 feet thick and overlies a hard red-bed layer of the upper Triassic Formation. Groundwater is consistent in the Ogallala Formation for approximately 3 miles to the east of the site and within the Triassic Formation at a much greater depth. Relative shallow groundwater is also present in the valleys adjacent to the site where the sands and gravels rest on red-beds which are below the Ogallala/Alluvium groundwater depth. These aquifers are useful for domestic and livestock supplies locally, but are isolated from one another by the subsurface structure of the red-beds along the topographic ridges.

Water Table Elevation
Five water wells were identified in the area surrounding the Gateway "2" State Well No. 2 site to determine the water table elevation below the burial trench. All five identified wells are from the New Mexico Office of the State Engineer (OSE) database, and there were no water wells identified by field inspection within a 500 foot radius of the planned Gateway "2" State Well No. 2.

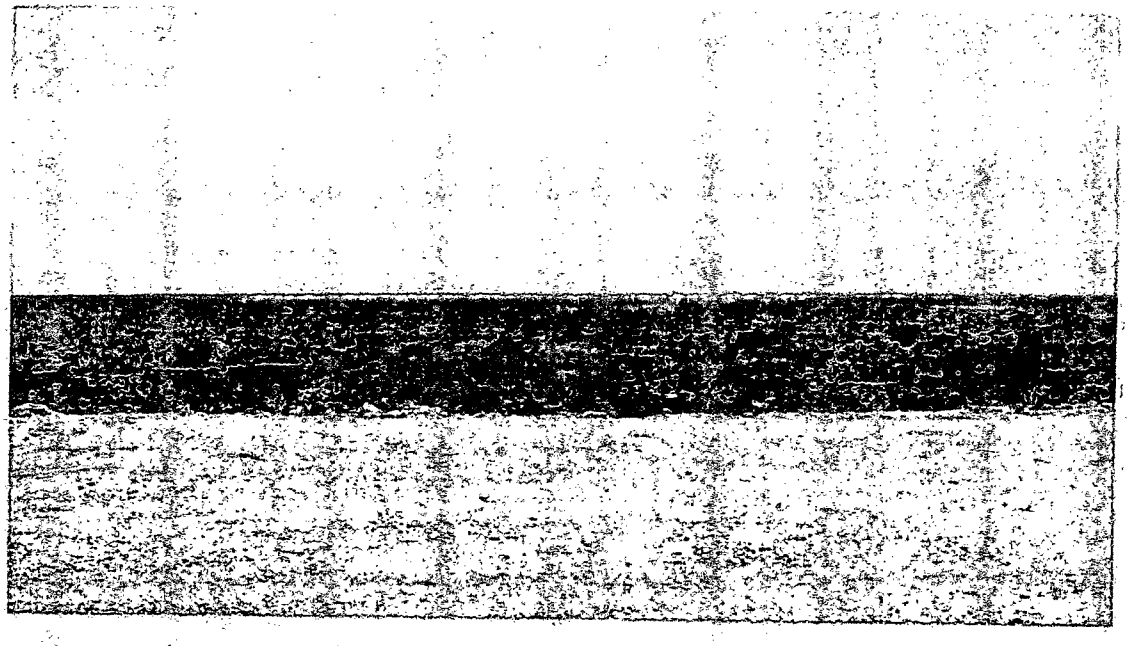
Visual inspections of data collected wells were performed to verify the information provided by the public records and published reports. Initially, an attempt was made to identify each well using USGS topographic maps. The surface elevations of wells identified on the maps were compared to the published surface elevation. Wells that could not be verified using maps were searched for using current and past satellite photographs in an effort to identify associated landmarks. Locations that could not be verified by maps or photographs were verified in the field. Attempts were also made to confirm static fluid levels during the field investigation when access was permitted. The results of the field inspections are summarized as follows:

Onsite Observations:
A cable tool drilling rig was contracted by the Operator to drill and set the conductor interval of the subject Gateway "2" State Well No. 2. The surface elevation at the proposed location of the burial trench is 3,849 feet. Depth to ground water was established by the rig at 48.35 feet. This onsite measurement was also witnessed by R.T. Hicks Consultants, Ltd. personnel.

Distance to Surface Water

Figure 3 and the site visit demonstrates that the location is not within 300 feet of a figure continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Data from the USDA's National Hydraulic Dataset indicates a "lake or a pond" (shown in blue on Figure 3) approximately 1,500 feet north/northeast of the proposed burial trench.
- The nearest topographic low area is 1,200 feet to the southwest, but it does not contain a USGS identified drainage feature (see photograph below).
- No other watercourses, as defined by NMOCD Rules, or bodies of water exist within 300 feet of the location.



Distance to Permanent Residence or Structures

Figure 4 and the site visit demonstrates that the location is not within 300 feet from a permanent residence, school, hospital, institution, church, or other structure in existence at the time of the initial application.

Distance to Non-Public Water Supply

Figures 1 and 2 demonstrates that the location is not within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

Figure 1 shows the locations of all area water; the nearest water well, domestic or otherwise, is located approximately .8 miles to the North (O.R. Musselwhite Water Well).

- No springs were identified within the mapping area.

Distance to Municipal Boundaries and Fresh Water Fields

Figure 5 demonstrates that the location is not within incorporated municipal boundaries or defined municipal fresh water well fields covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- The closest municipality is Hobbs, NM, approximately 18 miles to the East.
- The closest public well field is located approximately 40 miles to the northwest.

Distance to Wetlands

Figure 6 demonstrates that the location is not within 500 feet of wetlands.

- There are no designated wetlands located within one square mile of the subject burial trench.
- Several areas to the North and Northeast are shown as surface water on Figure 2, but are not designated as wetlands by the US Fish and Wildlife Service.

Distance to Subsurface Mines

Figure 7 and our general reconnaissance of the area demonstrate that the nearest subsurface mines are caliche pits.

- The nearest caliche pit is located approximately 3.5 miles to the East.

Distance to High or Critical Karst Areas

Figure 8 shows the location of the burial trench with respect to BLM Karst areas

- The proposed burial trench is located within a "low" potential karst area.
- The nearest "high" or "critical" potential karst area is located approximately 30 miles west of the site.

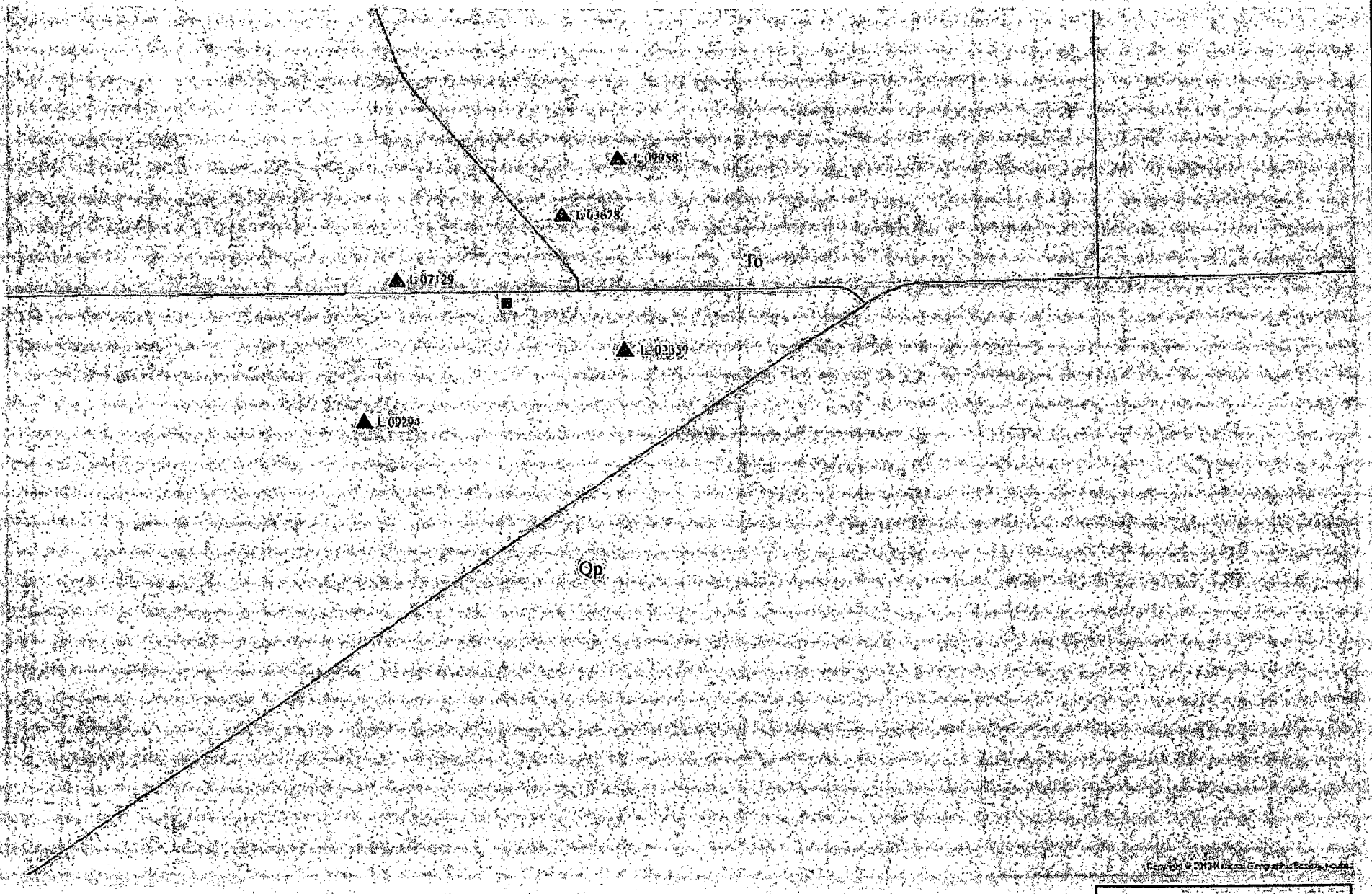
Distance to 100-Year Floodplain

As verified by the Federal Emergency Management Agency, the subject burial trench is located within an area that has not yet been mapped by the Federal Emergency Management Agency with respect to the Flood Insurance Rate 100-Year Floodplain.

SITE SPECIFIC INFORMATION FIGURES OF BURIAL TRENCH FOR ONSITE GENERATED CUTTINGS

(Caza Operating, LLC – Gateway "2" State Well No. 2)

Prepared by:
TRIMAN, INC.
P.O. Box 891323, Oklahoma City, OK 73189



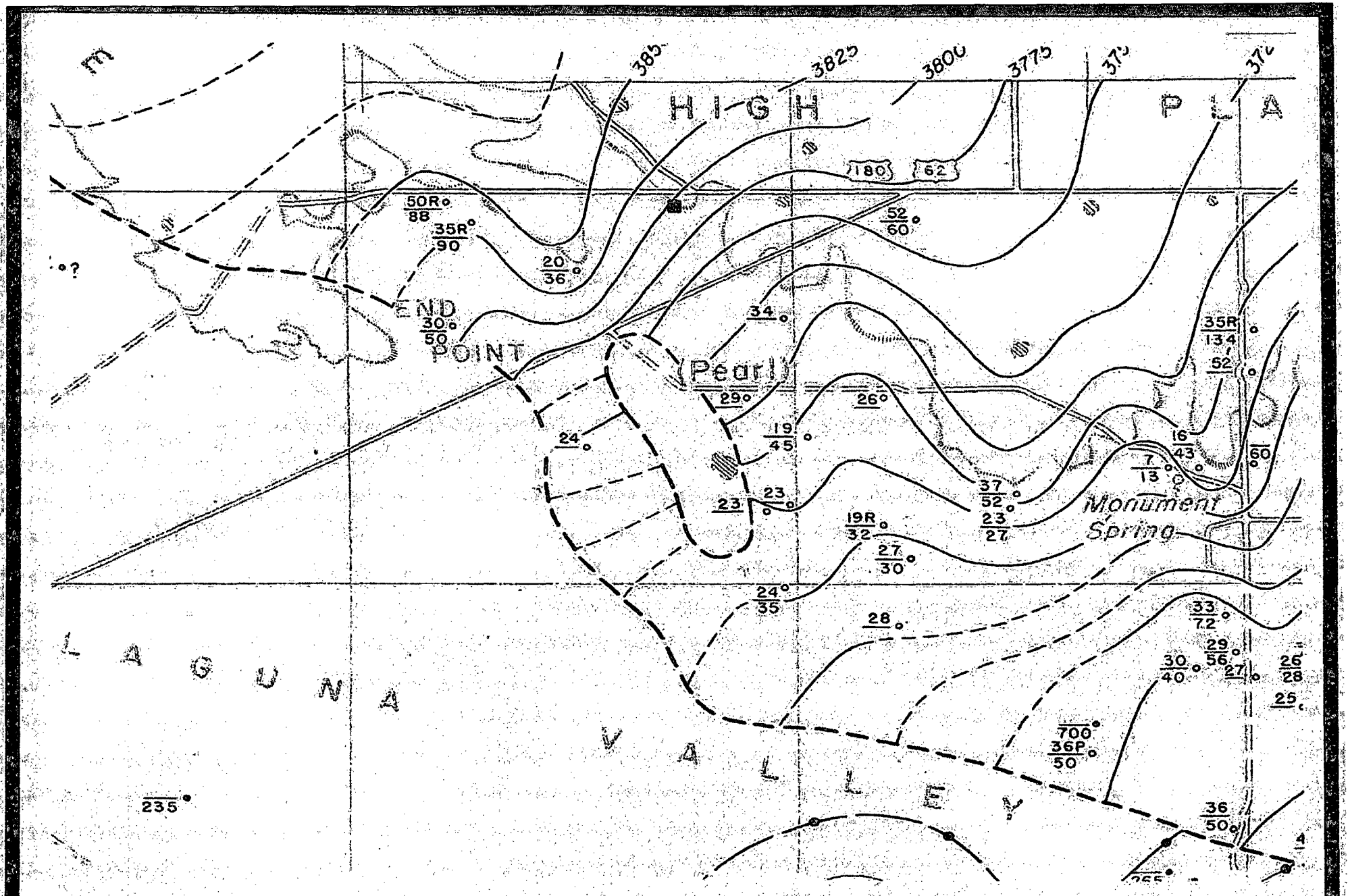
TRIMAN, INC. 1530 SW 89th, Suite A-2 OKLAHOMA CITY, OKLAHOMA 405-692-1555	OSE, USGS, and Observed Water Wells	Figure 1
	Caza Operating: Gateway "2" State Well #2	June 2013

Legend

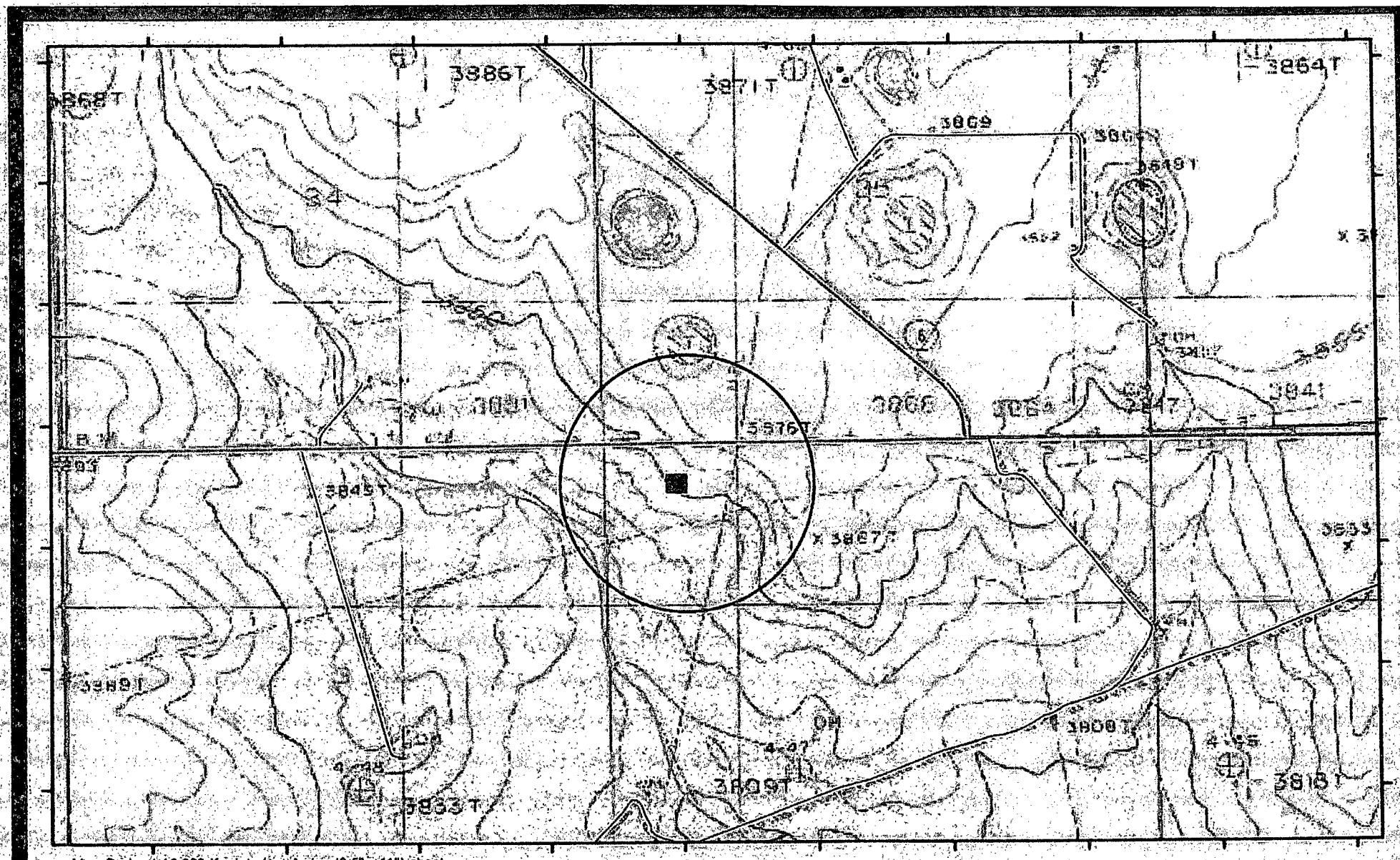
■ Location

OSE Water Wells
Well Depth (ft)

▲ <200



TRIMAN, INC. 1530 SW 89th, Suite A-2 OKLAHOMA CITY, OKLAHOMA 405-692-1555	Groundwater Elevation Map	Figure 2	Legend ■ Location
	Caza Operating: Gateway "2" State Well #2	June 2013	



Map Scale: 1:18,800 if printed on A size (8.5" x 11") sheet.

Meters
0 250 500 1,000 1,500

Feet
0 1,000 2,000 4,000 6,000

Legend
- Location
- Distance Ring 1000 feet

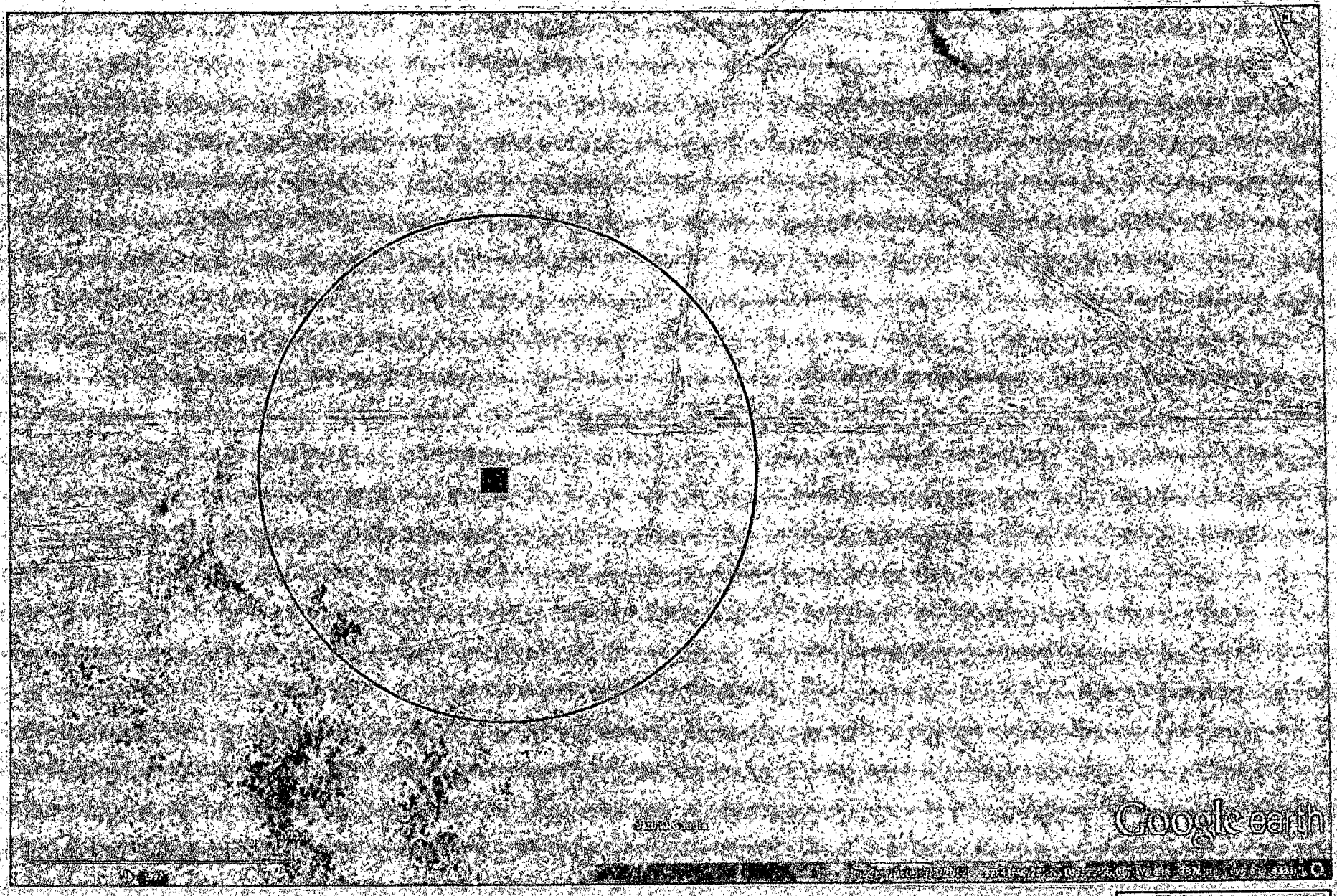
TRIMAN, INC.
1530 SW 89th, Suite A-2
OKLAHOMA CITY, OKLAHOMA
405-692-1555

Surface Water Map

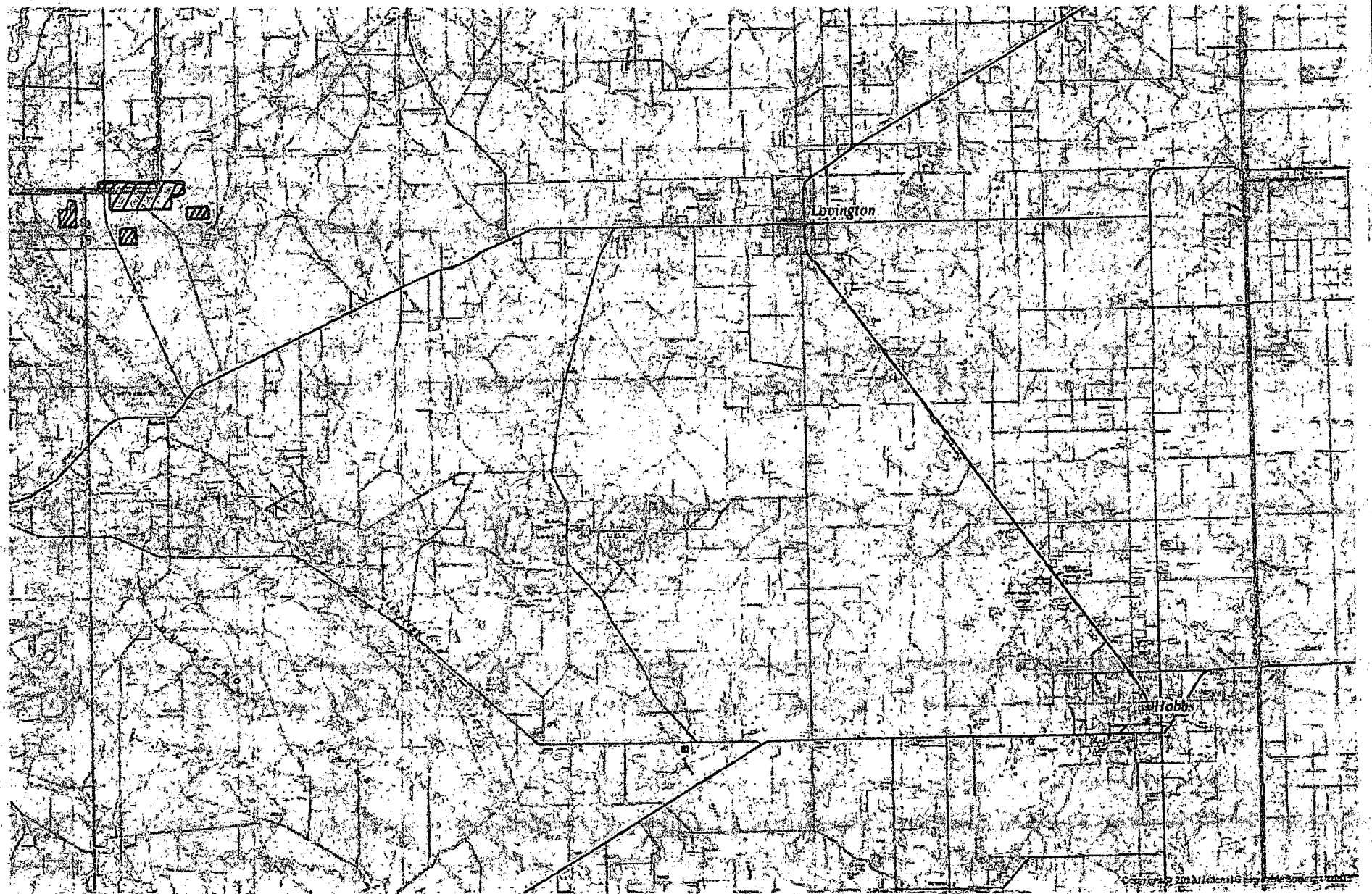
Figure 3

Caza Operating:
Gateway "2" State Well #2

June 2013



TRIMAN, INC. 1530 SW 89th, Suite A-2 OKLAHOMA CITY, OKLAHOMA 405-692-1555	Residential Structures and Facilities	Figure 4	Legend Location Distance Ring 1000 feet
	Caza Operating: Gateway "2" State Well #2	June 2013	



Legend

- Location
- Well head protection area
- Counties

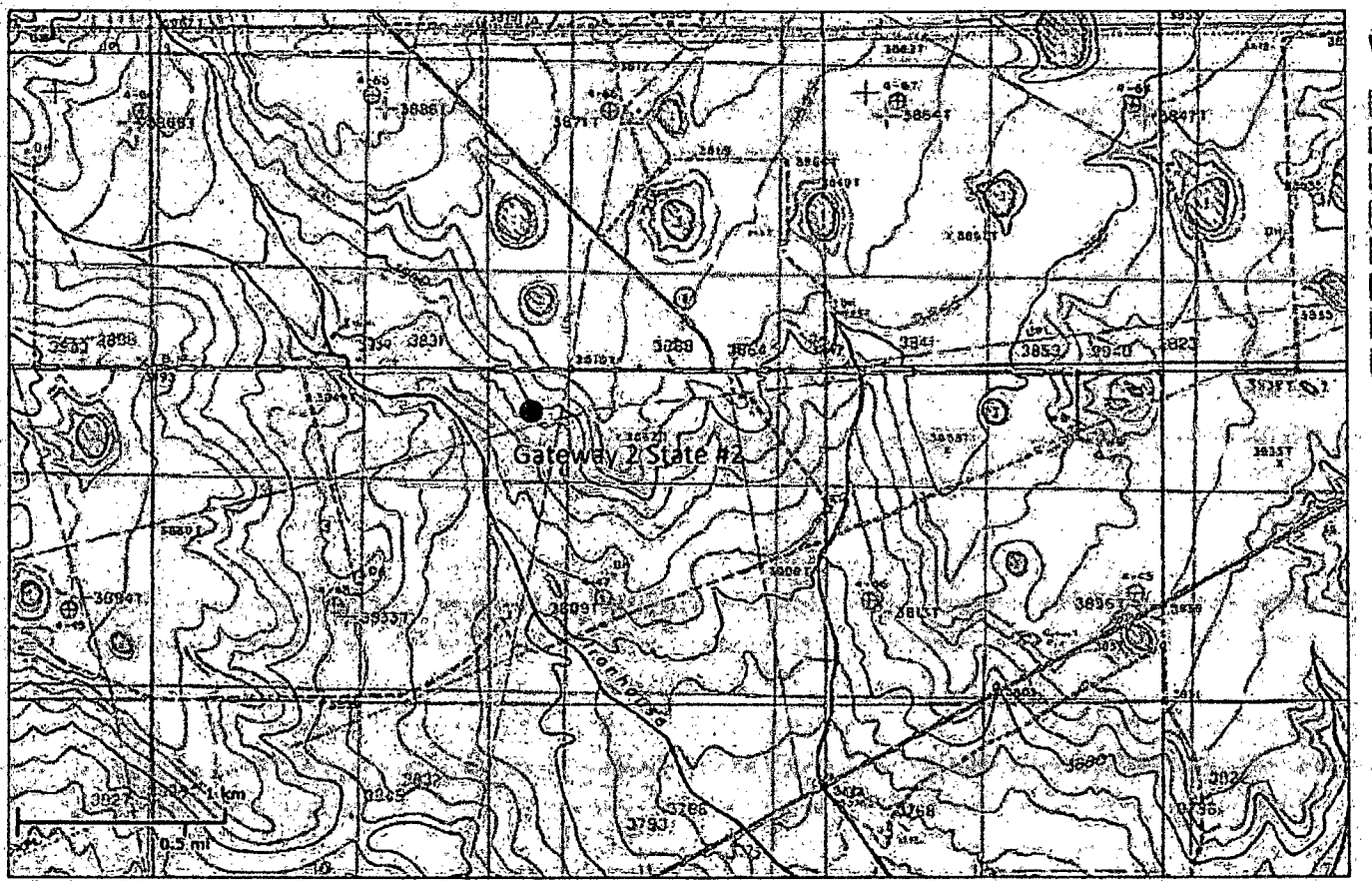
TRIMAN, INC. 1530 SW 89th, Suite A-2 OKLAHOMA CITY, OKLAHOMA 405-692-1555	Municipal Boundaries and Well Fields	Figure 5
	Caza Operating: Gateway "2" State Well #2	June 2013

U.S. Fish and Wildlife Service

National Wetlands Inventory

Figure 6

Jun 26, 2013



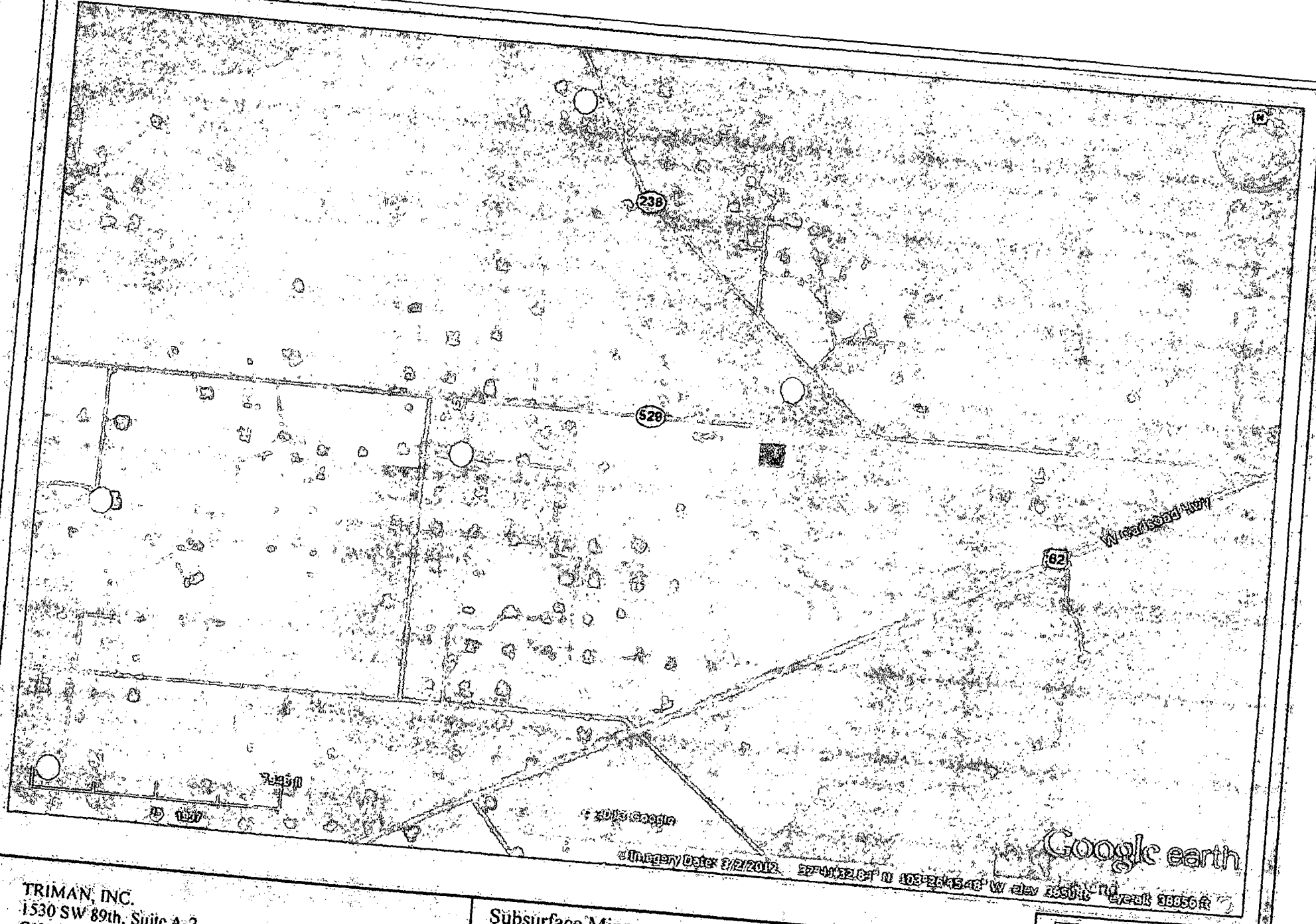
Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

Casa Operating

Gateway "2" State Well #2



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OKLAHOMA CITY, OKLAHOMA
405-692-1555

Subsurface Mines

Figure 7

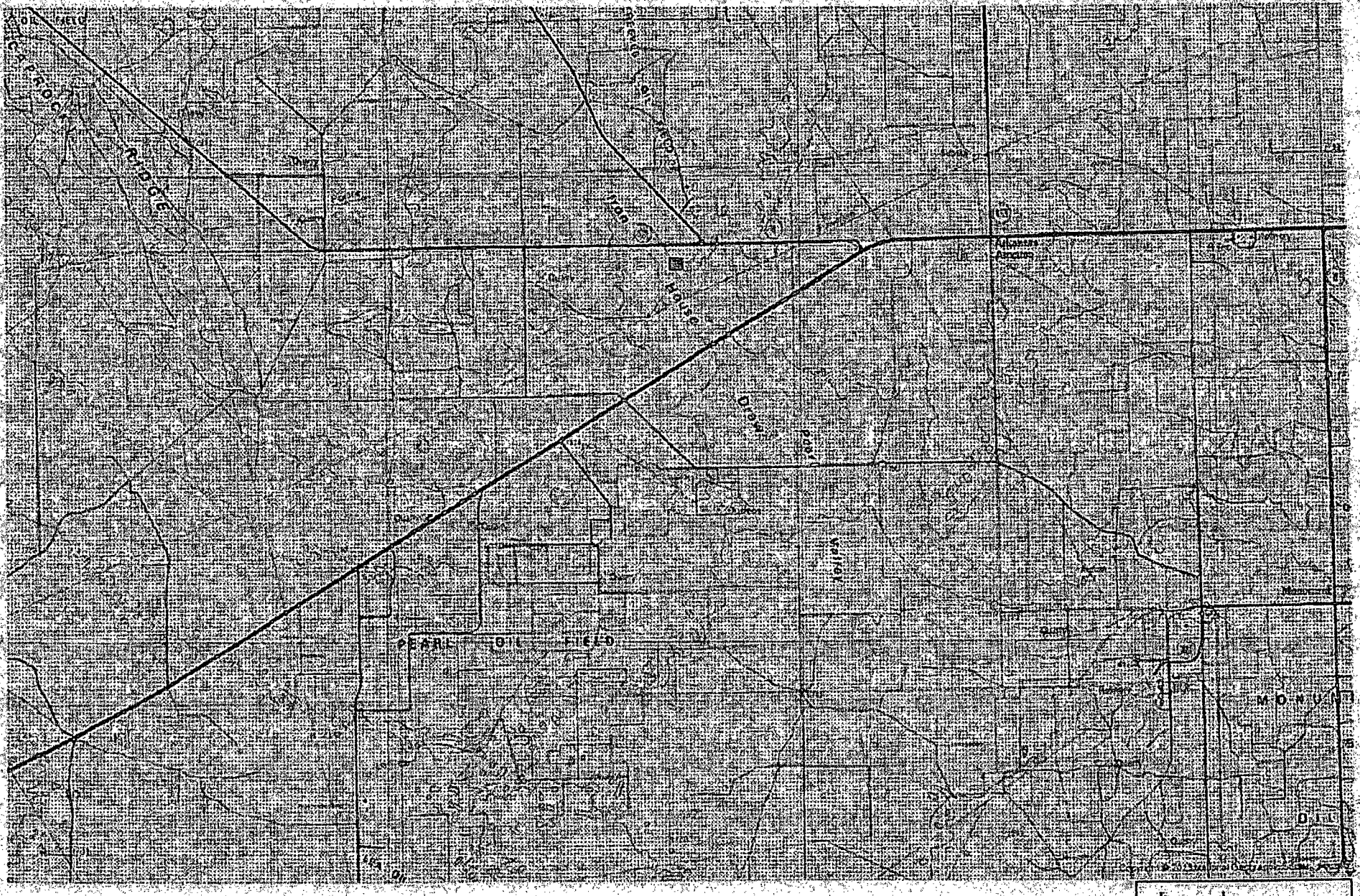
Caza Operating:
Gateway "2" State Well #2

June 2013

Location

MLS
MLS Database

Surface



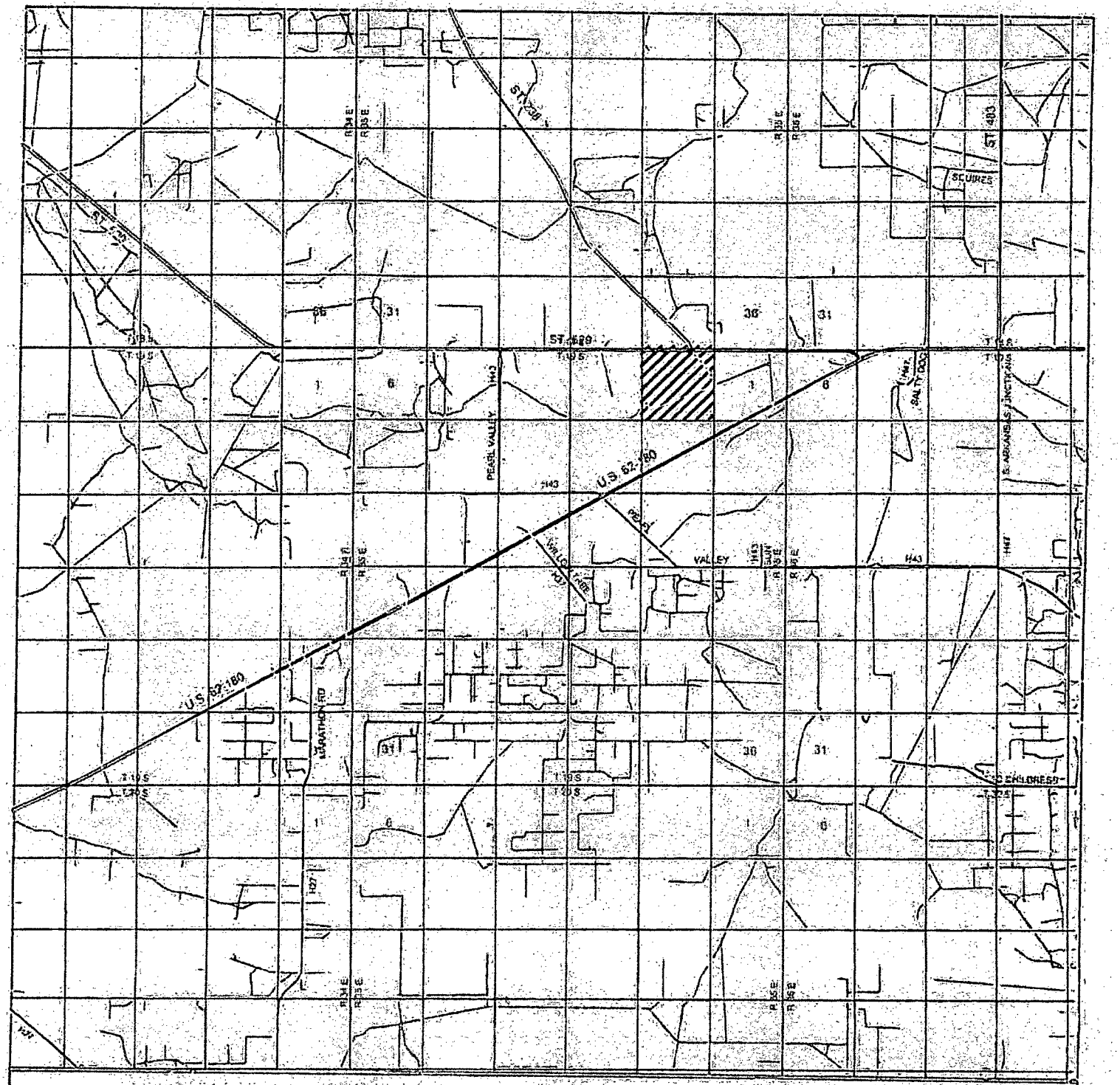
TRIMAN, INC. 1530 SW 89th, Suite A-2 OKLAHOMA CITY, OKLAHOMA 405-692-1555	Karst Potential Areas	Figure 8	Legend Location Karst Potential Low
	Caza Operating: Gateway "2" State Well #2	June 2013	

APPENDIX A

Survey Information & Additional Data

(Caza Operating, LLC – Gateway "2" State Well No. 2)

Prepared by:
TRIMAN, INC.
P.O. Box 891323, Oklahoma City, OK 73189



GATEWAY 2 STATE #2
Located 525' FNL and 660' FWL
Section 2, Township 19 South, Range 35 East,
N.M.P.M., Eddy County, New Mexico.

Basin Surveys
focused on excellence in the oilfield

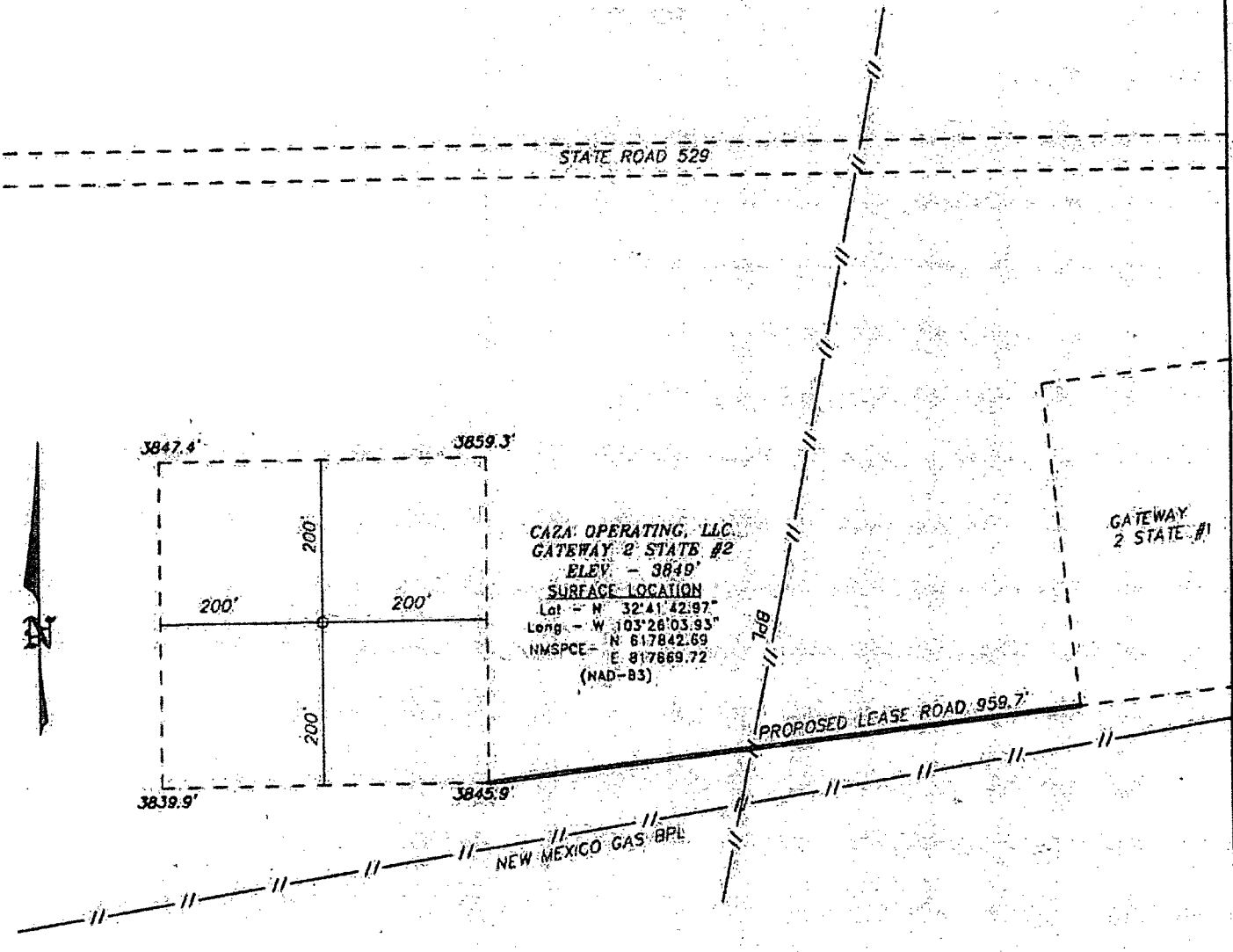
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: DAJ 28405
Survey Date: 03-25-2013
Scale: 1" = 2 Miles
Date: 02-21-2012

N

CAZA OPERATING, LLC.

SECTION 2, TOWNSHIP 19 SOUTH, RANGE 35 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

FROM THE JUNCTION OF HWY 529 AND HWY 238; TO WEST 0.3 MILES TO PROPOSED LEASE ROAD.

CAZA OPERATING, LLC.

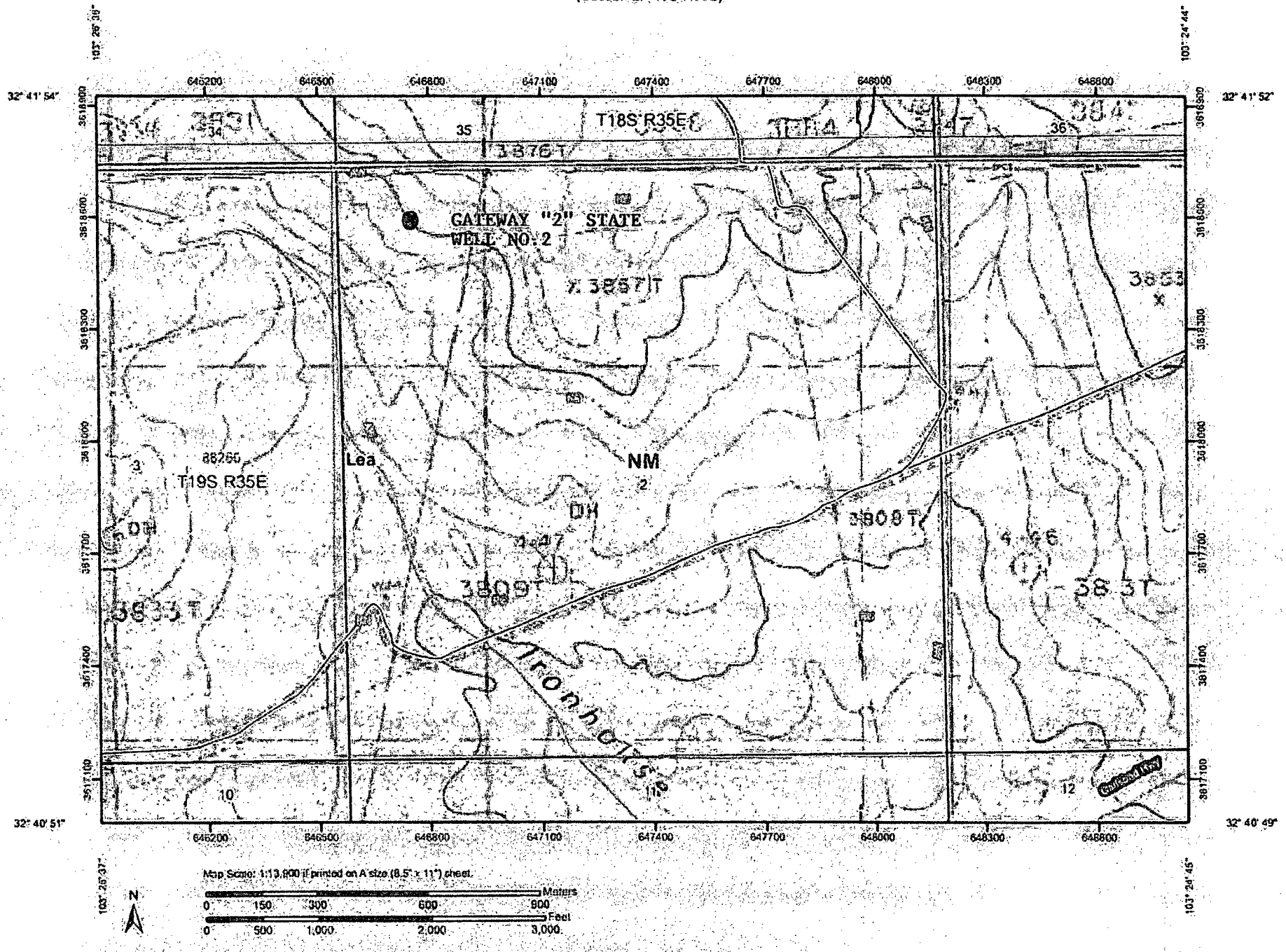
REF: GATEWAY 2 STATE #2 / WELL PAD TOPO

THE GATEWAY 2 STATE #2 LOCATED 525 FEET FROM THE NORTH LINE AND 660 FEET FROM THE WEST LINE OF SECTION 2, TOWNSHIP 19 SOUTH, RANGE 35 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 28405	Drawn By: D. JONES		
Date: 04-01-2013	Disk: DAJ 28405	Survey Date: 03-25-2013	Sheet 1 of 1 Sheets

Soil Map—Lea County, New Mexico
(Section 2-T19S-R35E)



USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

SITE SPECIFIC PLAN FOR INSTALLATION AND USE OF BURIAL TRENCH

(Caza Operating, LLC – Gateway "2" State Well No. 2)

Prepared by:
TRIMAN, INC.
P.O. Box 891323, Oklahoma City, OK 73189

ONSITE BURIAL TRENCH

The burial trench design for the subject well is offered herein as Plate 1. Its design and use is specifically to place onsite generated water-base cuttings, which have been treated and dried to meet NMOCD rules and guidelines for onsite disposal. The fluid fraction of the drilling mud system used by the Operator to drill the subject well will not be placed or allowed to flow in the onsite burial trench.

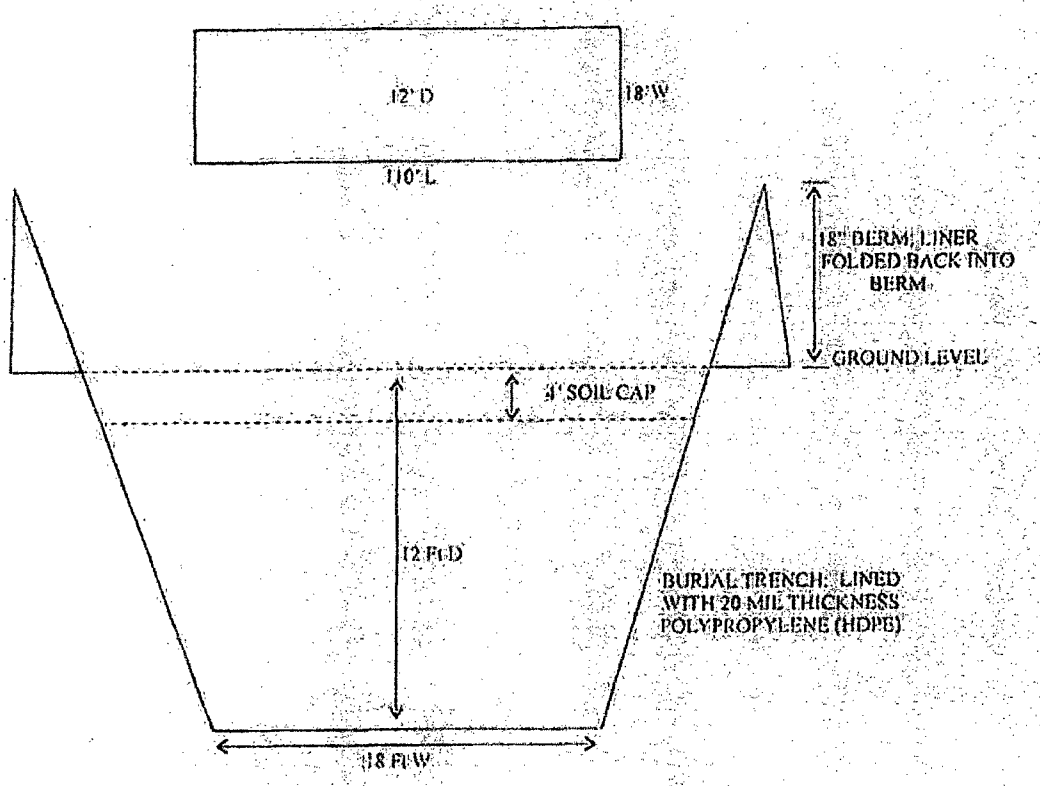
The subject burial trench will be constructed within the bounds of the subject drill pad. It will be constructed to the dimensions referenced in Plate 1, and a 20 mil thickness liner (HDPE) will be installed. The liner will be folded back over an 18 inch perimeter soil-berm at the surface as to anchor the impervious facility – refer to Plate 1. Because the burial trench employs a perimeter berm, no surface fluids/runoff will be allowed to enter the subject trench.

Topsoil stripped from the planned onsite burial trench will be stacked adjacent to the drill site for use as the final cover and/or fill at the time of closure --- refer to Closure Plan herein. The Operator will comply with 19.15.17 NMAC by posting a sign by the subject burial trench detailing Operator's name, legal location of the subject site, and emergency telephone numbers. The Operator will also fence the perimeter the subject burial trench with the exceptions of use and while drilling practices are underway.

The liner will be seam welded to ASTM specification to prevent stretch/tear failure according to manufacturing specification.

CAZA OPERATING, LLC
GATE WAY "2" STATEWELL #2
SECTION 2-19S-35E
LEA COUNTY, NEW MEXICO

BURIAL TRENCH DESIGN



USEABLE PIT VOLUME CAPACITY
= 8'D X 18 FT W X 110 FT L = 2,823.53 BBLS

DTW = 48.35'

HOLE VOLUME
17 ½" TO 1,825' = 542.94 BBLS
12 1/4" TO 3,950' = 316.20 BBLS
8 3/4" TO 10,300' = 472.44 BBLS
1,331.58 BBLS
+ 20% w/o 266.32 BBLS
1,597.90 BBLS

NOTE: ONLY CUTTINGS WHICH HAVE BEEN TESTED AND ARE IN COMPLIANCE WITH 19.15.17 NMAC WILL BE PLACED IN THE BURIAL TRENCH.

PREPARED BY:
TRIMAN, INC.
OKLAHOMA CITY, OKLAHOMA
DRAWING NOT TO SCALE

PLATE 1

6/28/2013

Caza Operating, LLC
Gateway "2" State Well No. 2

BURIAL TRENCH CLOSURE PLAN

Protocols and Procedures

The operator will use the following procedures and protocols to implement the closure:

- Upon the subject well reaching total depth and the sampling and testing protocol confirms the cleaned cuttings are in compliance with NMOCD guidelines for trench burial. The cleaned cuttings will be placed in the burial trench.
- The Operator will notify the surface owner by certified mail, return receipt requested, prior to closure, that the operator plans to close the burial trench.
- The Operator of the burial trench will notify the applicable division district office verbally or by email at least 72 hours, but not more than one week, prior to any closure operation. The notice will include the operator's name and the location be closed by unit letter, section, township and range, well's name, number, the API number.
- The Operator of the burial trench will verify the following prior to closure:
  - The installed liner is intact and void of a breach.
  - Confirm the impoundment is free of fluids.
  - Confirm the cuttings fill volume will allow a 4-foot soil cap to be set in place over the subject trench.
  - Confirm all dry cuttings placed in the burial trench meet the closure criteria in 19.15.17 NMAC Table 2 (attached) for depth to groundwater, 25-50 feet.
  - Provide NMOCD with analytical data confirming results of testing dry cuttings from subject well meet 19.15.17 NMAC closure criteria.
- A 20 mil thickness synthetic liner is placed under and prior to setting the steel tank used to contain the dry cuttings. After the subject well is drilled, and there is no longer a need for the steel pit, it will be removed by the Operator. The synthetic liner will also be removed, and a 5 point soil sampling program of the subject area will be performed. The composite soil will be tested according to NMOCD guidelines, and the subject surface area will meet established quality standards. NMOCD will be provided confirming analytical data.

Additional Protocols and Procedures for On-Site Closure

- The Operator has provided the surface owner notice of the Operator's proposal of an on-site closure (see transmittal letter for proof of notice to the landowner) as required in 19.15.17.13.F(1)(b).
- Upon receipt of NMOCD approval for on-site closure (in-place burial), the Operator will notify the surface owner by certified mail, return receipt requested, that the Operator plans to close the pit and where the operator has approval for

on-site closure. Evidence of mailing of the notice will demonstrate compliance with this requirement.

- Within 60 days of closure completion, the Operator will submit a closure report on form C-144, with necessary attachments to document all closure activities including test results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where applicable.
- In compliance with NMAC 19.15.17.13D(8) Operator will fold over initial 20 mil thickness synthetic liner that represents free board area of burial trench; and top cap consisting of 20 mil thickness synthetic liner will be installed to cover entire top surface area of folded-in liner of burial trench.
- In the closure report, the Operator will certify that all information in the report and attachments is correct and that the Operator has complied with all applicable closure requirements and conditions specified in the approved closure plan.
- The Operator will provide a plat of the trench location on form C-105 with the closure report within 60 days of the closing of the burial trench.
- The Operator will place a steel marker at the center of an on-site burial (unless the surface owner requires an alternative marker that is acceptable to the appropriate division district office). The steel marker will be not less than four inches in diameter and will be cemented in a three-foot deep hole at a minimum. The steel marker will extend at least four feet above the mean ground level and at least three feet below ground level. The Operator name, lease name and well number and location, including unit letter, section, township and range, and that the marker designates an on-site burial location will be welded, stamped or otherwise permanently engraved into the metal of the steel marker.
- The Operator will report the exact location of the on-site burial on form C-105 filed with the division.
- If the State of New Mexico or the Federal government owns the land surface, no deed exists, the land is held in trust. Therefore, the operator cannot file a deed notice identifying the exact location of the on-site burial with the county clerk in the county. The exact location of the on-site burial will the transmitted to the surface owner by copy of the form C-105 discussed above.
- If the surface is not in the public domain, the Operator will file a deed notice identifying the exact location of the on-site burial with the county clerk in the county. The exact location of the on-site burial will be transmitted to the surface owner by copy of the form C-105 discussed above.

Site Reclamation Plan

After the Operator has closed the burial trench, the operator will reclaim the trench location and all areas associated with the trench, including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. The Operator will substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surround topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

Soil Cover Design Plan
The soil cover for the in-place burial will consist of a minimum of four feet of compacted, non-waste containing, earthen material. The soil cover will include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

The Operator will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

Re-vegetation Plan
Since the reclaimed burial trench surface area falls within the scope of operations necessary to maintain the subject well and production facility, the Operator will initiate a re-vegetation plan when the subject well is plugged.

In-place Closure Plan
In the event the sampling and testing of the processed drill cuttings meet NMOCD criteria for in-place closure, the Operator will proceed with placing the processed cuttings into the onsite burial trench.

Siting Criteria Compliance Demonstration for In-place Burial
The Siting Criteria Compliance Demonstration for the burial trench show that the requirements of 19.15.17.10 NMAC are met for in-place closure.

Waste Material Sampling and Testing Plan for In-place Burial
The Operator will collect at a minimum, a five-point, composite sample of the cleaned cuttings from the drying pad to be placed in the burial trench after the subject well reaches total depth.

The purpose of the sampling after the drill cuttings are processed is to demonstrate that:

- Benzene, as determined by EPA SW-846 method 8021B or 8260B, does not exceed the concentration limit for in-place burial;
- Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed the concentration limit for in-place burial;
- The GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed the concentration limit for in-place burial;
- TPH, as determined by EPA method 418.1 does not exceed the concentration limit for in-place burial.
- Chloride, as determined by EPA method 300.1, does not exceed the concentration limit for in-place burial or the background concentration, whichever is greater;
- The stabilized waste passes the paint filter liquids test (EPA SW-846, method 9095).

Table I
Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed

Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M,	10 mg/kg

*Or other test methods approved by the division
**Numerical limits or natural background level, whichever is greater

Table II
Closure Criteria for Burial Trenches and Waste Left in Place in Temporary Pits

Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
25-50 feet	Chloride	EPA Method 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
	Chloride	EPA Method 300.0	40,000 mg/kg