District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144
July 21, 2008

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

2580

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

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

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

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

1.
Operator: McElvain Oil & Gas Properties, Inc. OGRID #: 22044
Address: 1050 17th St., Ste. 1800, Denver, CO 80265-1801
Facility or well name: Foster No. 2R
API Number: 30-039-30578 OCD Permit Number:
U/L or Qtr/Qtr K Section 17 Township 26N Range 7W County: Rio Arriba
Center of Proposed Design: Latitude 36.48461° N Longitude 107.59990° W NAD: ☐1927 X 1983
Surface Owner: X Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
X **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: X Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
X Lined ☐ Unlined Liner type: Thickness 20 mil X LLDPE ☐ HDPE ☐ PVC ☐ Other
X String-Reinforced
Liner Seams: X Welded X Factory ☐ Other Volume: 2850 bbl Dimensions: L 80' x W 25' x D 8'

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

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 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

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

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

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

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

X Alternate. Please specify Four foot high hogwire

7.

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

☐ Screen ☐ Netting ☐ Other_____

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

8.

Signs: Subsection C of 19.15.17.11 NMAC

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

X Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

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

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

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

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

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

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

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

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
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: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

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

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: X Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative
Proposed Closure Method: ☐ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
X On-site Closure Method (Only for temporary pits and closed-loop systems)
X In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

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

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

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

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

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

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

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

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

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes X No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes X 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	X Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes X 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 X No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes X 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 X No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes X No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes X No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes X No
Within a 100-year floodplain. - FEMA map	☐ Yes X No

18.

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

X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

X Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

X 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

X Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

X Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

X Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

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

X Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

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

Name (Print): Robert E. Fielder Title: Agent

Signature: Robert E. Fielder Date: November 12, 2008

e-mail address: pmci@advantas.net Telephone: 505.320.1435

20.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: [signature] **Approval Date:** 12-11-08

Title: Enviro Spec **OCD Permit Number:**

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

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

☐ **Closure Completion Date:**

22.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

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

Disposal Facility Name: Disposal Facility Permit Number:

Disposal Facility Name: Disposal Facility Permit Number:

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

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

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

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude Longitude NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

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

Name (Print): Title:

Signature: Date:

e-mail address: Telephone:

Temporary Pit

Operating and Maintenance Procedures

McElvain Oil & Gas Properties, Inc. (MOG)

Foster No. 2R

I. Design and Construction Specifications

a. Prior to construction of the pit, zero to three inches of topsoil will be stripped from the location area and stockpiled as a berm above the cut slope around the perimeter of the location with cut slopes for future reclamation during final reclamation.

b. In lieu of a pit sign, MOG will install and maintain a sign on the wellsite in accordance with the provisions of Rule 103.

c. Upon completion of construction and liner installation, four sides of the pit will be fenced with a four foot hogwire fence installed on steel tee posts since this location is over 1000 feet from the nearest residential building. This fence will be maintained to insure no access by livestock or wildlife as long as there is fluid in the pit.

d. The temporary pit will be constructed to the size shown on the attached Wellsite layout(s). Approximate volume is 0.37 ac-ft. It is anticipated the top foot will be alluvial material associated with this valley bottom. The bottom seven feet is unknown but is likely also alluvium. The soil removed will be stockpiled in the northwest corner of the pad. The pit walls will be constructed on 2:1 slopes on the ends and 1:1 to vertical on the sidewalls. Any benches of rock encountered will be scraped to a depth to allow cover by soil material if possible. The end slopes will be walked down by the tractor to insure a smooth bottom for liner installation. No run on preventative measures will be installed around the pit since they will be installed on the location perimeter.

e. The temporary pit will be lined with one section of 20 mil string reinforced LLDPE liner material with factory welded seams if needed. We anticipate this pit will be covered with one pre-cut section. If a seam is necessary, the factory welded seam will be aligned running from the rig side to the outside wall. The liner will be installed in the anchor trench on one end and then pulled into the pit. In the event a smooth bottom or wall slope cannot be attained on construction this liner will be underlain with a geotextile liner. The edges of the liner on the level part of the pad will be anchored in a ditch around the perimeter at least eighteen inches deep and filled with dirt.

II. Operational Plan

a. MOG will operate and maintain the pit to contain the liquids and solids associated with the drilling phase of this operation, prevent contamination of the fresh water supply and protect the public health and the environment.

b. MOG will not dispose of or store any hazardous material in this pit. All workover and completion fluids associated with flow back or circulation during these operations will be stored in a flow back tank on location.
c. MOG will monitor the condition of the installed liner from the date it is installed until the pit is closed and will take the appropriate measures to repair and report any breach of the liner integrity in accordance with applicable regulations and procedures. The inspection will be daily during the drilling phase and the results will be recorded in the daily drillers log. The inspection will be weekly after the drilling rig is removed until the pit is closed. The results of this inspection will be maintained in a log book at MOG's Farmington office.
d. Two feet of freeboard will be maintained in the pit at all times until closure.
e. MOG will remove all free liquid from the pit and haul it to the Key Four Corners facility, permit # 9 within 30 days of cessation of the drilling operation. All fluids associated with drilling or workover operations that are accumulated and stored in the flow back tank will be removed within 30 days of cessation of these operations and hauled to the Key Four Corners facility.
f. The pit will be maintained free of any solid refuse. This will be stored in a trash basket on the location.
g. A header system or hoses without ends or unions will be used for loading liquid into the pit or removing liquid from the pit.
h. The pit will be maintained free of any oil accumulation. MOG keeps an oil absorbent boom at their warehouse that can be dispatched to any site within two hours.

III. Closure Plan

a. MOG will close this pit within six months of the completion date of the wells.
b. MOG has notified the landowner (BLM) by email of its plan to proceed with in place burial if possible. A copy is attached. MOG will send a similar notice to the BLM and the OCD prior to initiating in place burial.
c. MOG will initiate sampling and testing of the residue left in the pit after the completion of the liquid hauling operation in accordance with the applicable sampling and testing requirements outlined for in place burial. MOG will inspect the section of the liner exposed by liquid removal for tears.
    i. If the testing of the residue meets the quality standards below, MOG will proceed with in place burial as outlined in d. below.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	1000/~~500~~

    ii. If test results of the residue do not meet the quality standards for on site burial, MOG will dispatch a vacuum truck as soon as practical in the contractors

schedule. They will remove the residue and haul it to the JFJ Landfarm facility, permit # 10. After the residue is removed the pit liner will be removed and hauled to an approved waste facility in Rio Arriba County. MOG will then initiate testing and sampling of the pit area as outlined in the Waste Evacuation and Haul section of the regulations. Results of these tests will be reported to the Aztec district office and the applicable closure method initiated.

d. MOG will mix stockpiled pit dirt with residue at a 3:1 ratio to stabilize the residue.
e. MOG will cut and remove section of liner above the stabilized residue line. This will be disposed of at an approved Rio Arriba Co. waste facility.
f. MOG will use the remaining pit dirt stockpile to provide a compacted fill over the stabilized residue to a depth within two feet of the graded location level. The remaining pit dirt will be spread over the pit side area, outside of the anchor pattern, to re-contour the pit area. Topsoil stockpiled in the buffer outside the pit slopes will then be pushed over the re-contoured pit area and seeded with a seed mix specified by the BLM in the next applicable seeding season. 70% coverage maintained through two successive growing seasons unless an alternative is specified by the BLM in their conditions of approval of the permit to drill.
g. MOG will file the applicable closure report with attachments within 60 days of completion of closure.
h. MOG will install a 4" X 4' steel marker at the center of the buried pit during interim reclamation.

IV. Siting Requirements substantiation and hydrogeologic data

a. Hydrogeologic data –
    i. Surface formation – San Jose Formation
    ii. Geographic setting – Located on one of the sandstone benches that form the top of Smouse Mesa.
    iii. Soils – NCSS # 103 – Orlie fine sandy loam- a non saline to very slightly saline sandy loam formed by the erosion of the sands and shales of the San Jose formation deposited as a fan alluvium over the subject area. Typical distribution is 0 – 3 inches: fine sandy loam; 3 – 18 inches: Clay loam; 18 – 60 inches: sandy clay loam. Laid down on 6-7% slopes across location area. Also identified in the soil research but present only in the western buffer area along the base of the indicated sandstone outcrops and in the large drainage to the south – NCSS # 110 – Vessilla/Menefee/Orlie complex – a mixture of Vessilla (45%), Menefee (25%) and Orlie (20%) – a non saline sandy loam formed by the erosion of the sands and shales of the San Jose formation deposited as a fan alluvium along the base of the surface exposure of the sandstones and in the major drainages. Typical distribution is 0-15 inches: sandy loam; below 15 inches is typically bedrock.
    iv. Drainage – Generally to the east and northeast. There are three identified drainages in the area of the subject location shown on the attached wellsite diagram. There are two identified as main drainage because they gather run off

from approximately 40 acres of the sandstone bluff to the west. Neither is considered a significant watercourse because of the small drainage area and field inspection revealed they are 1-3 feet deep and less than 3 feet across on the northernmost while the southernmost is a broad (10-12 foot wide) fan drainage with no visible banks. The drainage that runs through the northwest quadrant of the location is a very small meandering drainage off the sandstone face that likely runs only when there are heavy rains. Since these drainages are part of the runoff supply to the pond east of the location, each will be diverted around the location to maintain this supply source. The northern drainage will be diverted by construction of a diversion trench during location leveling. The southern drainage will be allowed to divert itself around the toe of the fill. The smaller drainage will be routed into a drainage berm/ditch that will be constructed above the cut slope. This will allow this water to flow around the location to one of the main drainages.

b. Siting requirements substantiation
    i. A search of the iWaters database covering all of the sections surrounding the section where this well is located was conducted. There are no wells identified on the iWaters data base. The closest water well from a review of the topo map is the Kaime Ranch well located in section 5, T26N, R7W, approximately 1.8 miles northwest of the proposed location. This is believed to be water well SJ02402 identified in the iWaters database. This well is likely producing from Qal strata identified from the well list of "Hydrologic Report 6" prepared by the New Mexico Bureau of Mines and Mineral Resources in 1983. This would put this ground water resource at 666 feet below the proposed bottom of the pit on this well. There is also the Hooch Spring identified on the topo map at 1.7 miles southeast of the proposed location. The spring was visited to confirm it is still active(pictures attached). There is no information on this spring in iWaters or the Bureau of Mines report. The spring pool is in a mudstone formation at the base of a sandstone bench that forms the canyon rim. There is evidence of water along this interface up to 20 feet north of the pool. The pool appears to be fed by water seepage from the overlying sandstone due to the steady dripping of water. However, there is no evidence of high water saturation in the sandstone because there are no visible seeps anywhere on the exposed face. Field check of the interface on the west side of the rim, overlooking Big Rincon Canyon, did not reveal any sign of water. This interface is also exposed in the road cut in the SE/SE of section 17 and also does not show any signs of water. No inference is made as to the source of this water. At an approximate elevation of 6888 feet it is 192 feet above the proposed location and there is no sign of down dip migration.
    ii. There are no flowing watercourses within 300 feet of the proposed pit. The two main drainages identified on the Wellsite Layout are not considered significant because they are not named and are second order drainages to Largo. The pond

east of the location was considered as a significant watercourse because it is identified in the wetlands research. This pond is a surface runoff collector and is currently dry (pictures attached). The pond border was measured by pacing from the two reference stakes at corners 2 and 3 and the midpoint between these corners. This puts the closest point of the pond at 280 feet from the center of the proposed pit.

iii. The closest residence, as scaled from the topo map, is the ranch house of Kaime Ranch at 1.8 miles.

iv. The proposed pit is 1.8 miles from the closest water well and 1.7 miles from the closest spring.

v. This is a rural area location.

vi. The pond east of the location is identified on the attached map which was prepared from a review of the USFWS wetlands site. This is a surface runoff collection pond and due to the drought conditions we have been experiencing it is currently dry and has been dry for the entire one year period from the first time we started working with this site.

vii. This location is not identified as part of the FEMA 100 year flood plain as illustrated on the attached FIRM.

viii. There were no unstable areas noted during the field inspection nor evidence of underground mining activity. There are no identified mining operations in this area on the Bureau of Mines website.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	72439	So. Blanco Pictured Cliffs

4 Property Code	5 Property Name	6 Well Number
301787	FOSTER	2R

7 OGRID No.	8 Operator Name	9 Elevation
22044	McELVAIN OIL & GAS PROPERTIES	6696

10 Surface Location

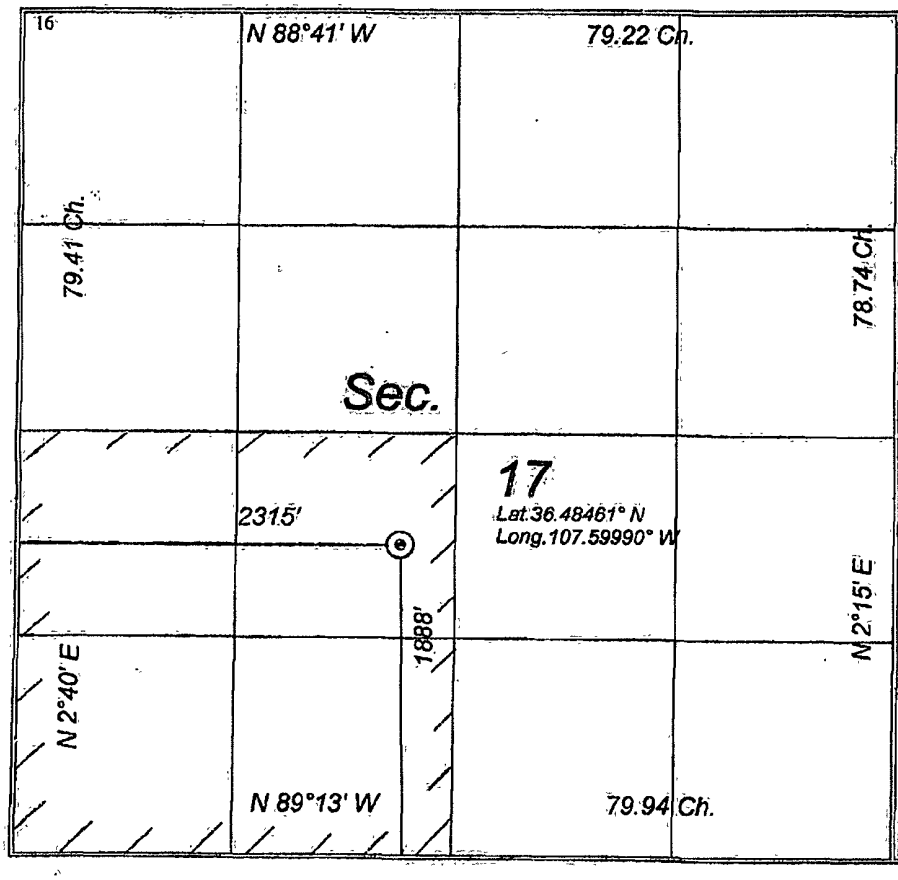
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	17	26N	7W		1888	South	2315	West	Rio Arriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

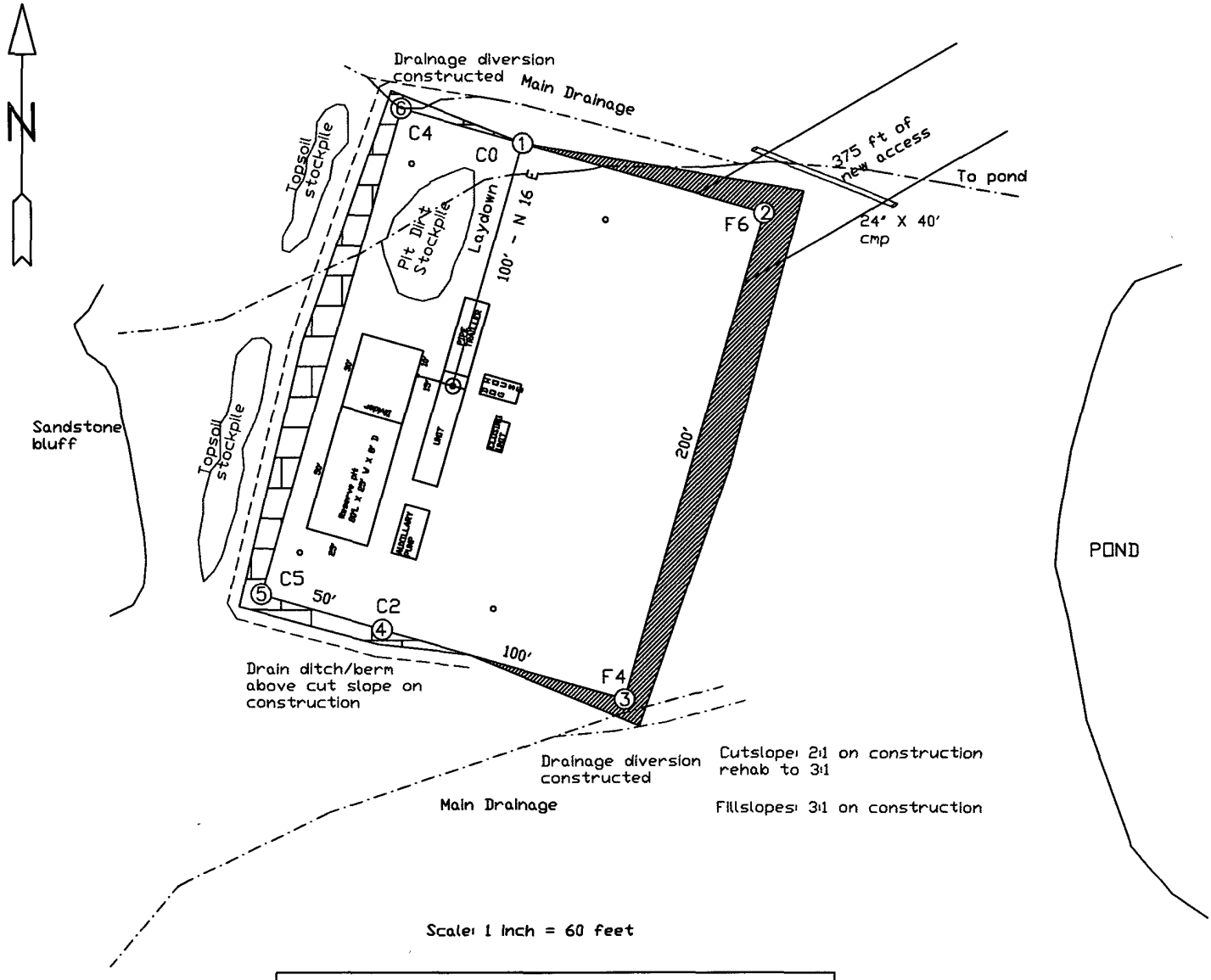
02 Nov 2007

Date of Survey

Signature and Seal of Professional Surveyor:

William E. Mahnke II

Certificate Number 8466



McElvain Oil & Gas Properties, Inc.

Wellsite Layout

Foster No. 2R
1888' FSL & 2315' FWL
Section 17, T26N, R7W, NMPM
Rio Arriba Co., New Mexico

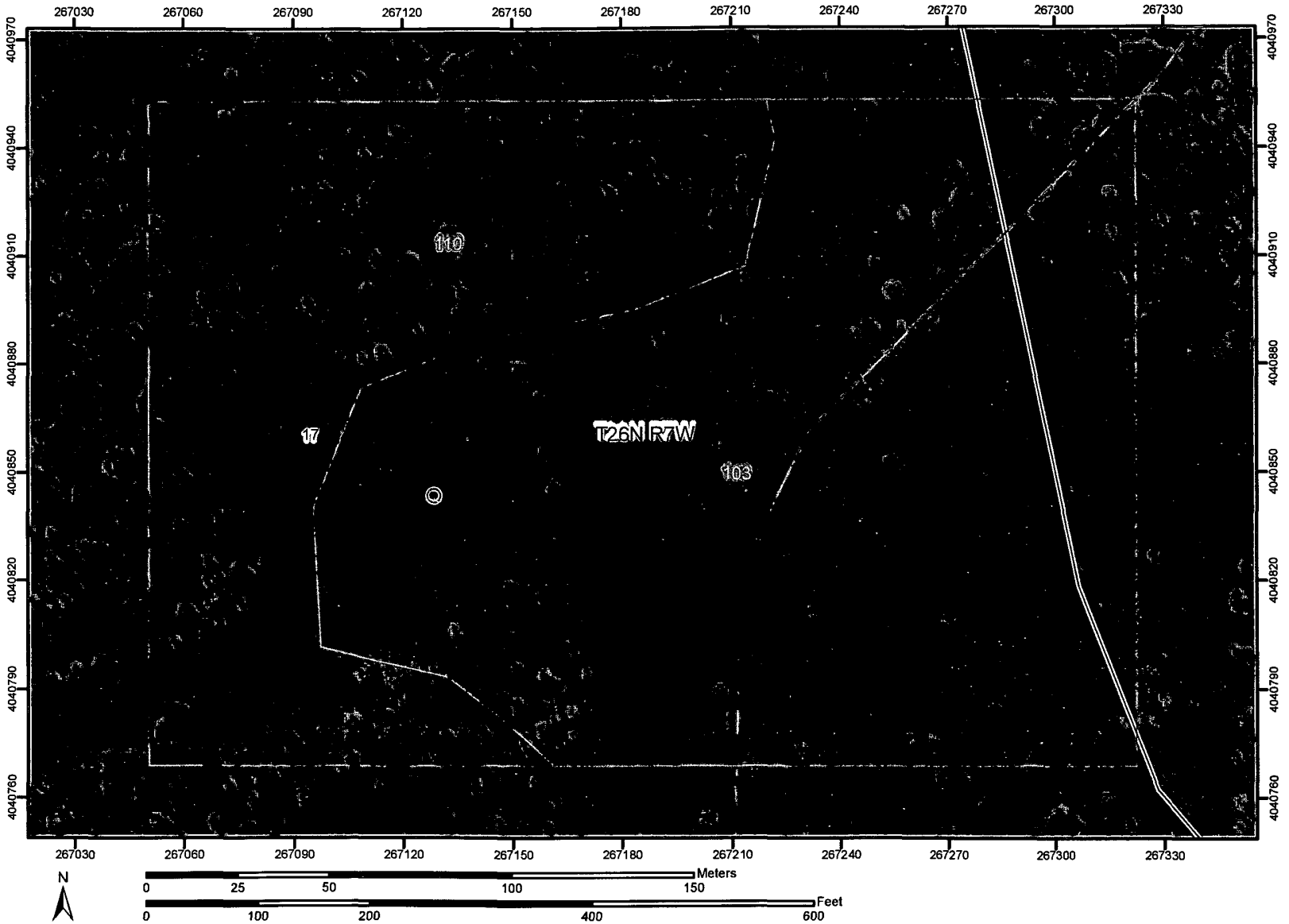

Kaime waterwell
GLE~ 6035'
Kaime windmill
GLE~ 6038'
Kaime waterwell
GLE~ 6069'
DGW=NA(Tn)
AREA MAP
McElvain Oil & Gas Properties,
Foster No. 2R
NE/SW of Section 17, T26N, R7
Foster Foster No. 1
Foster Foster No. 2
Foster No. 4
Foster 2R
Foster No. 1
Foster No. 3
Foster No. 2
Existing Access
Salazar No. 1
Grevey No. 1
Warren No. 1
Turner No. 4
Big Rincon
Rincon
Mesa
LARGO
SAN JUAN CO

Bob Fielder

From: Bob Fielder [pmci@advantas.net]
Sent: Thursday, November 20, 2008 8:10 AM
To: Mark Kelly (mark_kelly@nm.blm.gov)
Subject: McElvain Oil & Gas Properties, Foster 2R

Mark:
We are notifying you that McElvain Oil & Gas Properties, Inc. intends to use a lined reserve pit on this well and use the onsite/in place burial method of closure if the residue testing meets NMOCD standards. If these standards cannot be met then we will use the waste evacuation and removal method.
McElvain Oil & Gas Properties, Inc.
Foster No. 2R
1888' FSL – 2315' FWL
Section 17, T26N, R7W, NMPM
Rio Arriba Co., New Mexico

Soil Map–Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties
(Foster 2R Soil Map)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- *Short Steep Slope*
- Other

Political Features

Public Land Survey
- Township and Range
- Section

Municipalities
- Cities
- Urban Areas

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails

Roads
- Interstate Highways
- US Routes
- State Highways
- Local Roads
- Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties
Survey Area Data: Version 7, Oct 1, 2008

Date(s) aerial images were photographed: 10/13/1997

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties (NM650)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
103	Orlie fine sandy loam, 1 to 8 percent slopes	8.0	64.4%
110	Vessilla-Menefee-Orlie complex, 1 to 30 percent slopes	4.4	35.6%
Totals for Area of Interest (AOI)		12.4	100.0%

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 7

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

								(Depth Water in Feet) Min	Max	Avg
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells			

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 8

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 9

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 16

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 17

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 18

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 19

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 20

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 26N Range: 07W Sections: 21

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/09/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
Point of Diversion Summary

Back

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

UTM Zone 13
266831 E
4043786 N

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
SJ 02402	26N	07W	05	3	3	2			

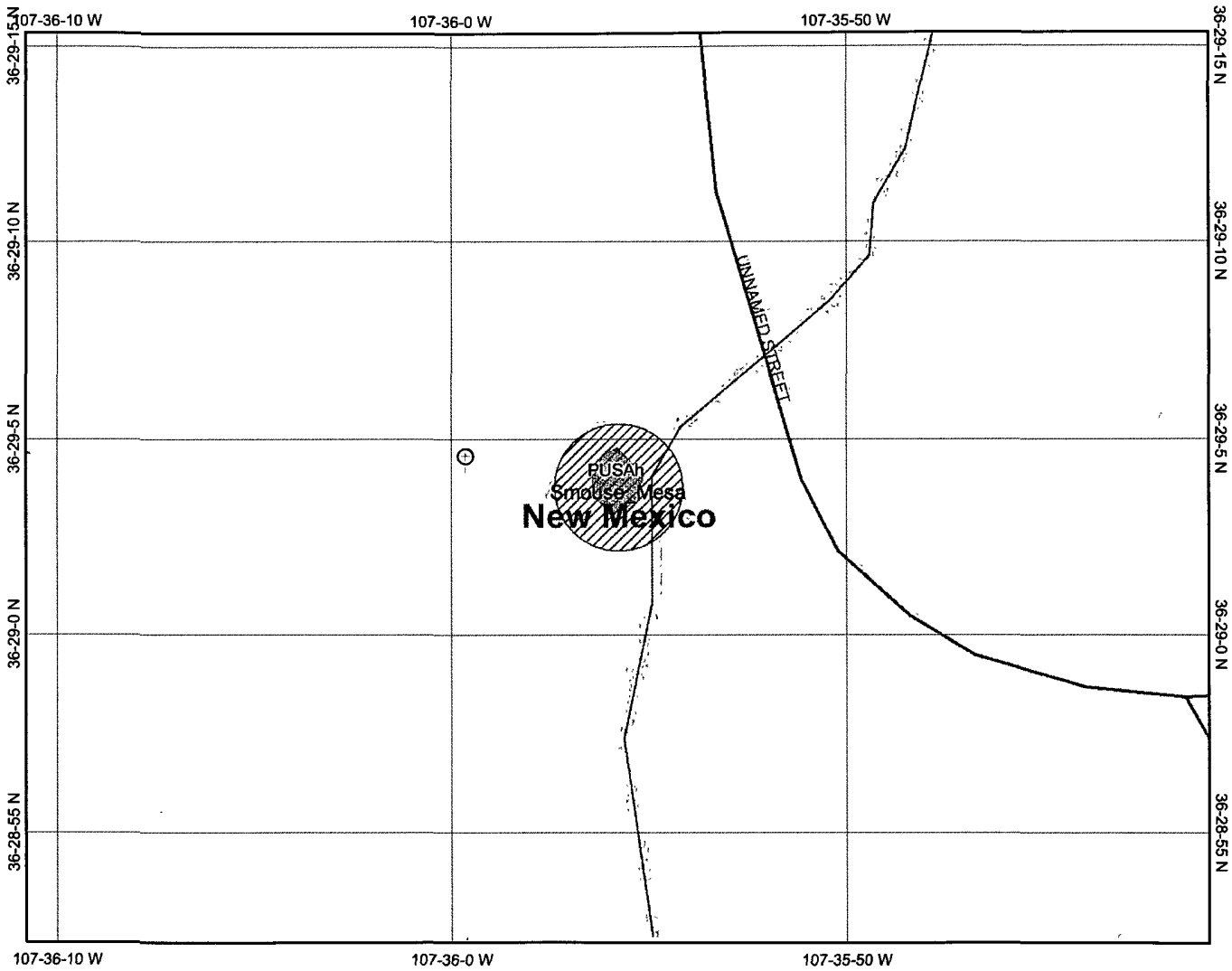
Driller Licence:
Driller Name: KAIME, JOE
Drill Start Date:
Log File Date:
Pump Type: WINDML
Casing Size:
Depth Well: 36
Source: Shallow
Drill Finish Date: 12/31/1945
PCW Received Date:
Pipe Discharge Size:
Estimated Yield:
Depth Water: 18

			[illegible]		11	6,190	8.2	02-07-77	-	
26.06.35.4441	362614	1072542	Williams Ranch Spring	-		6,348	-	-	-	Tsj
26.07.05	-	-		350	Q	-	-	09-01-51	250-350	Tsj
26.07.05.331	363039	1073617	Kaime	920		6,035	F	02-07-77	520-920	Tn
26.07.05.3324	363037	1073610	Kaime, dug well	-		6,040	14	02-07-77	-	Qal
26.07.05.3313	363036	1073620	Joe Kaime	900		6,069	-	-	-	Tn
26.07.06.23	363110	1073645	Kearns	600-700		6,020	F	11- -57	-	Tn
26.07.13.343	362846	1073146	Largo Baptist Church	-		6,140	-	-	-	Qal(?)
26.07.13.344	362840	1073140	Largo Canyon School	637	M	6,160	F	02-07-77	-	Tn
26.07.15.412	362906	1073329	EPNG Largo #1	365		6,118	26	-	-	Tsj
26.07.15.423	362859	1073323	EPNG Largo #2	335		6,150	22	-	-	Tsj(?)
26.07.15.4231	362901	1073325	EPNG Largo Station	230		6,150	-	-	100-120	Tsj(?)

550240Z? plotted by WTM from Water

	2,500	07-11-78						Ice in tank (02-07-77).
Tsj	775	07-11-78	-	-	-	-	-	-
Tsj	1,890 *	09-01-51	-	-	-	-	-	Oil well; water from "several sands".
Tn	1,485	09-14-72	-	s	-	128F	-	-
	1,250 **	12-06-73						
	1,310	02-07-77						
Qal	220	02-07-77	-	-	-	-	-	SPC affected by ice.
Tn	1,500	07-11-78	-	-	-	-	-	Artesian well.
Tn	1,010 *	11- -57	TOP	-	-	-	-	WBF reported as TKa from 300-1,500 feet, well deepened(?).
Qal(?)	3,200	07-11-78	-	-	-	-	-	-
Tn	950	02-07-77	-	-	-	-	-	Flowing "many" gal/min.
Tsj	-	-	-	j	-	50	-	-
Tsj(?)	-	-	-	j	-	60	-	-
Tsj(?)	820	07-11-78	-	-	-	-	-	-

wetlands map



Map center: 36° 29' 3.7" N, 107° 35' 55.7" W

Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:5,000

Wetlands and Deepwater Habitats Classification
National Wetlands Inventory Mapping Code Description

Wetlands Mapper / Download Wetlands Data / NWI Homepage

Enter Code here: PUSAh

(case sensitive; ex. E2AB)

Length of descriptions: short ◉ long ○ none ○ Submit

List plant species? Yes ◉ No ○

(NWI Map Codes Legend)

Error opening file

: No such file or directory
PUSAh: P_US____A___h_____
[P] Palustrine, [US] Unconsolidated Shore, [A] Temporarily Flooded, [h] Diked/Impoun

[P] Palustrine - The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics:

1. are less than 8 hectares (20 acres);
2. do not have an active wave-formed or bedrock shoreline feature;
3. have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin;
4. have a salinity due to ocean-derived salts of less than 0.5 ppt.

[US] Unconsolidated Shore - Includes all wetland habitats having three characteristics:

(1) unconsolidated substrates with less than 75% areal cover of stones, boulders, or bedrock;
(2) less than 30% areal cover of vegetation other than pioneering plants; and
(3) any of the following water regimes: irregularly exposed, regularly flooded, irregularly flooded, seasonally flooded, temporarily flooded, intermittently flooded, saturated, seasonal-tidal, temporary-tidal, or artificially flooded.

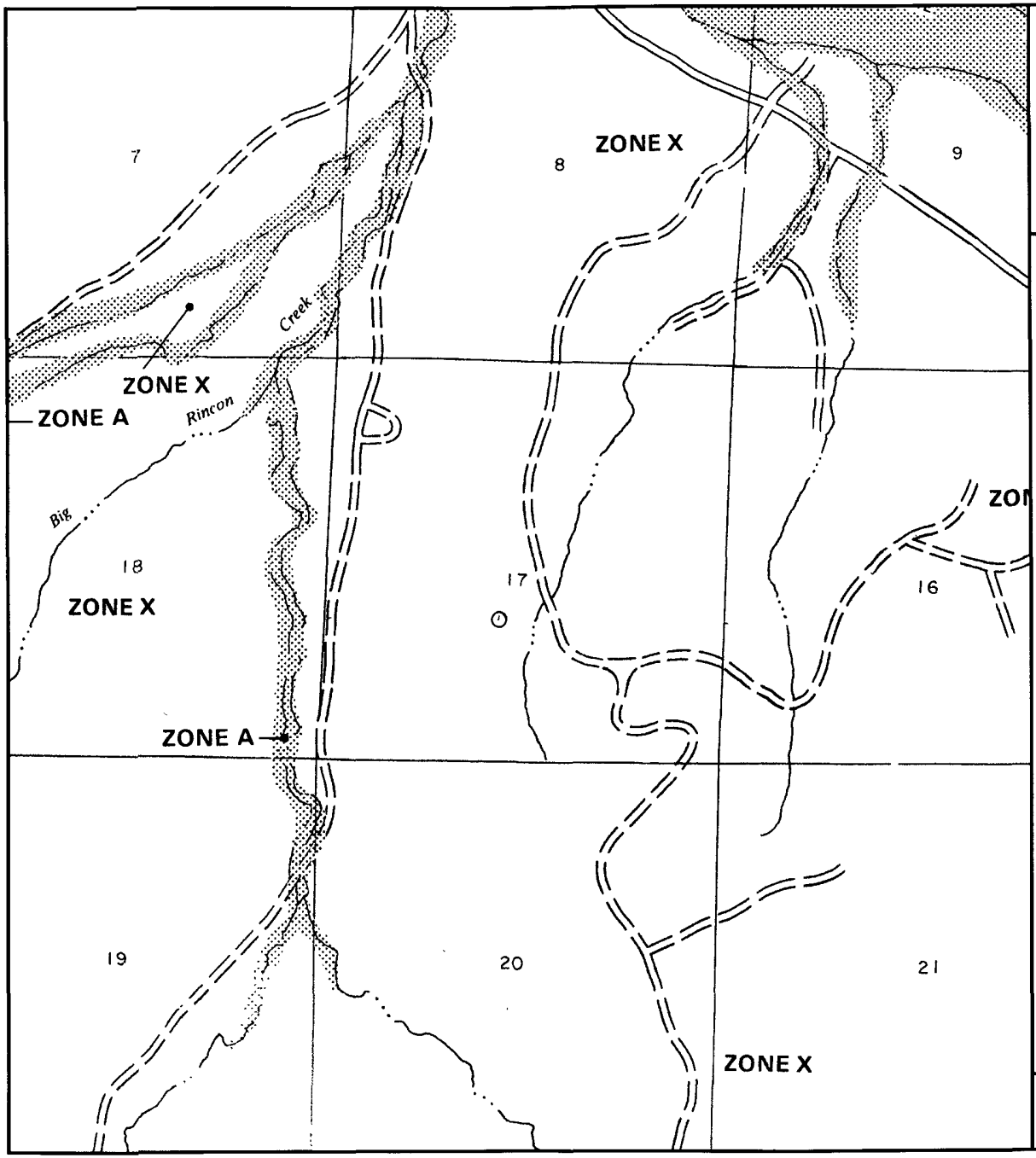
Intermittent or intertidal channels of the Riverine System or intertidal channels of the Estuarine System are classified as Streambed. Landforms such as beaches, bars, and flats are included in the Unconsolidated Shore class.

[A] Temporarily Flooded - Surface water is present for brief periods during growing season, but the water table usually lies well below the soil surface. Plants that grow both in uplands and wetlands may be characteristic of this water regime.

[h] Diked / Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water. Originally, Diked and Impounded are described as

separate modifiers (Cowardin et al. 1979). They have been combined here due to photointerpretation limitations. For clarification of the extent of impoundment see discussion of Lacustrine System limits.

File: images.dat



N

APPROXIMATE SCALE

2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

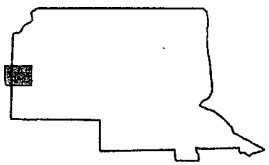
FLOOD INSURANCE RATE MAP

RIO ARRIBA COUNTY, NEW MEXICO

UNINCORPORATED AREAS

PANEL 525 OF 1325

(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER

350049 0525 B

EFFECTIVE DATE:

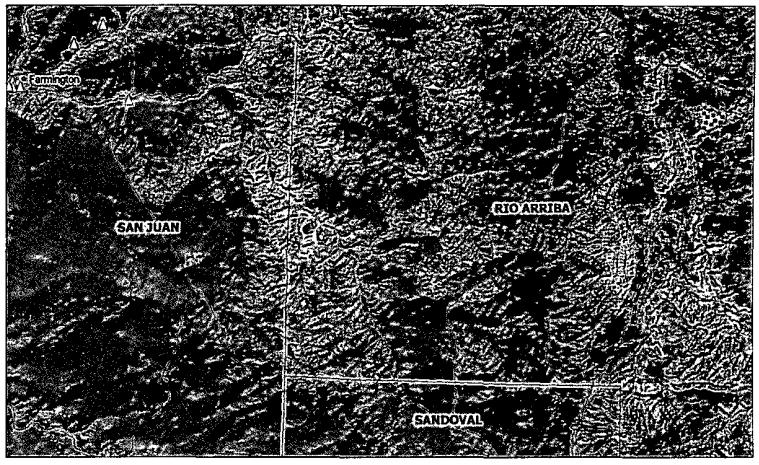
JANUARY 5, 1989

Federal Emergency Management Agency

MMQonline Public Version

Mines, Mills & Quarries Commodity Groups

- △ **Aggregate & Stone Mines**
- ◆ **Coal Mines**
- ★ **Industrial Minerals Mines**
- ▼ **Industrial Minerals Mills**
- ◪ **Metal Mines and Mill Concentrate**
- ■ **Potash Mines & Refineries**
- **Smelters & Refinery Ops.**
- **Uranium Mines**



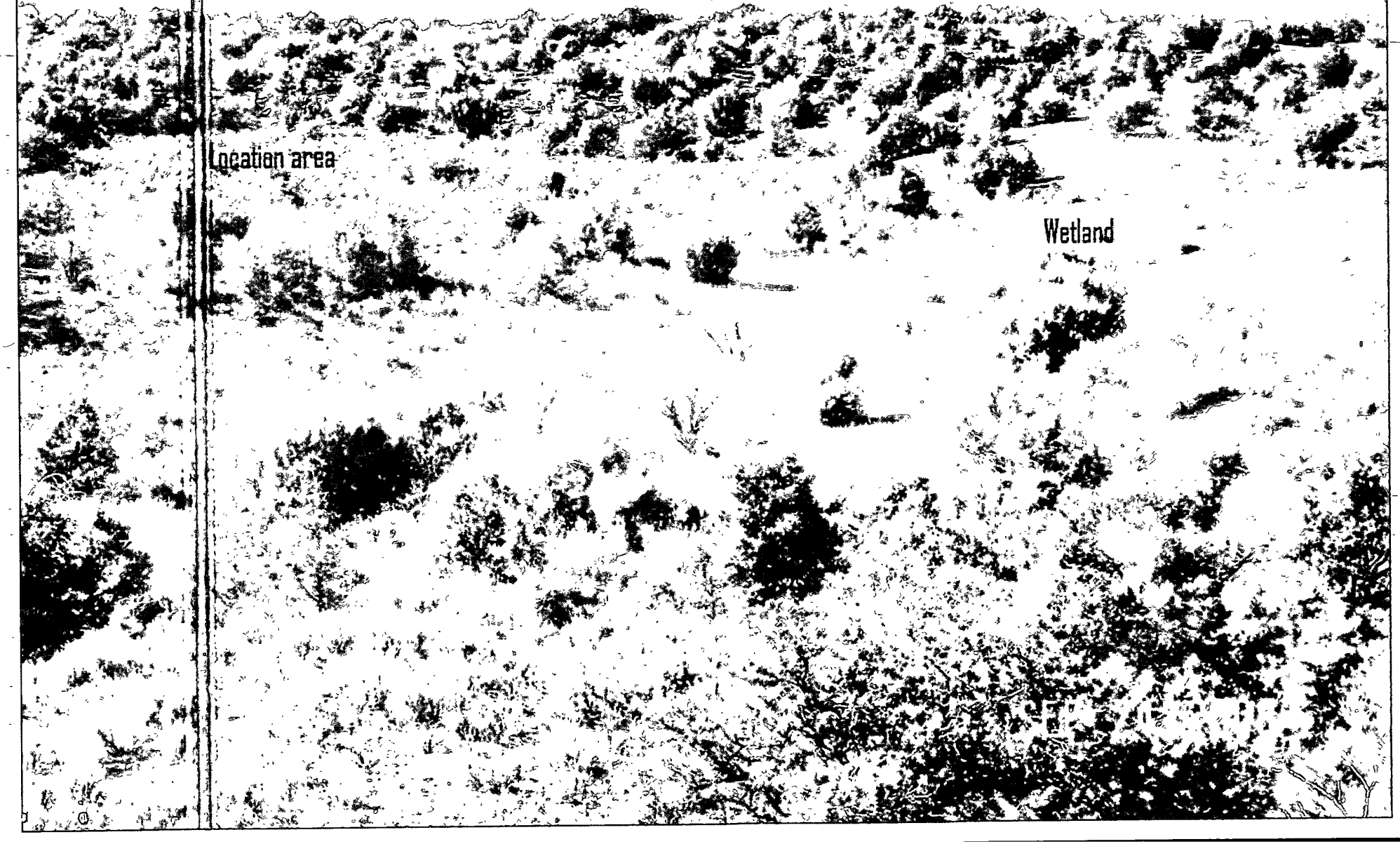
SCALE 1 : 1,444,220

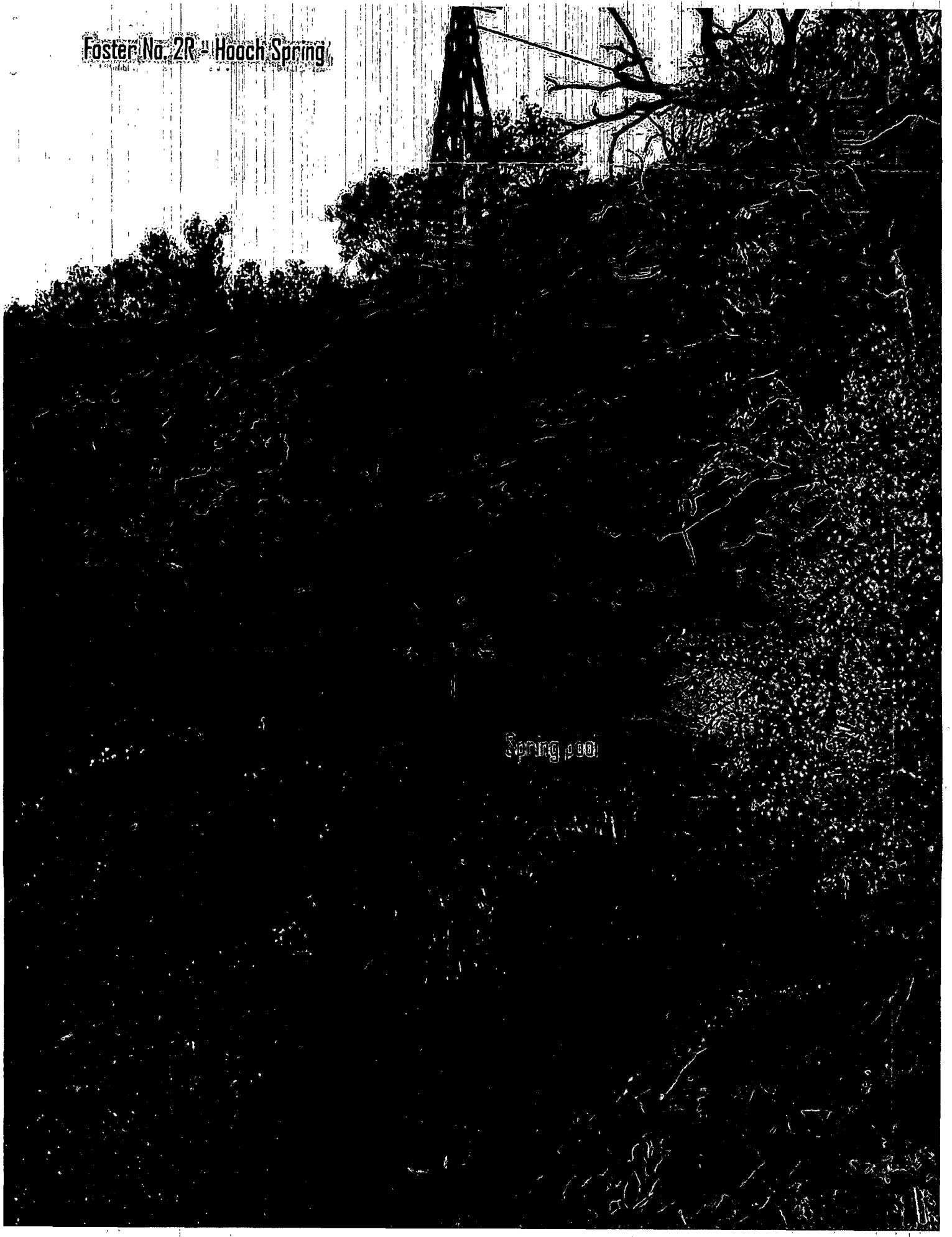
20 0 20 40 60

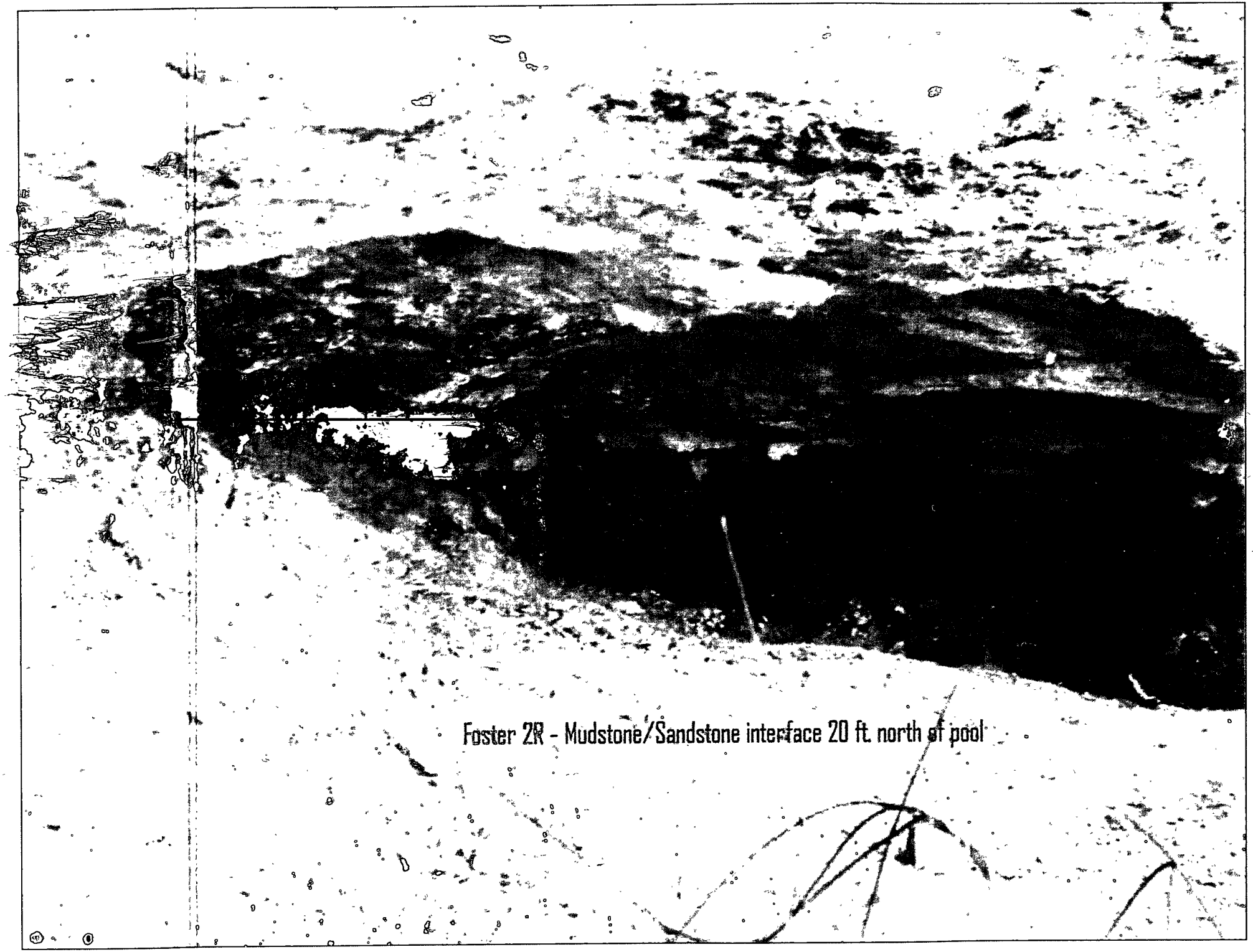
MILES

N

Foster No. 2R




Foster No. 2R - Hooch Spring
Spring pool



Foster 2R - Mudstone/Sandstone interface 20 ft. north of pool