HIP - __118__

GENERAL CORRESPONDENCE

YEAR(S): 2012 to Present

Jones, Brad A., EMNRD

From: Marcelle Fiedler <Marcelle.Fiedler@nmgco.com>
Sent: Thursday, May 17, 2012 1:50 PM
To: Jones, Brad A., EMNRD
Cc: Earl Morse; Rebecca Sandoval
Subject: Taos Questa hydrostatic test request

Brad
On March 21, 2012 NMGC submitted a Notice of Intent for a hydrostatic test on the Taos Questa mainline. NMGC has chosen another alternative to hydrostatic testing the line and is herby notifying OCD that we no longer need the hydrostatic test permit and we are canceling our application. If you have any further questions please let me know.
Marcelle

Marcelle Fiedler
NMGC, Senior Environmental Scientist
7120 Wyoming Blvd. NE Ste 20
Albuquerque, NM 87109

Mailing address:
PO Box 97500
Albuquerque, NM 87199-7500

w-505-697-3516
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f-505-697-4497
marcelle.fiedler@nmgco.com

New Mexico
GAS COMPANY

RECEIVED OCD
2012 MAR 22 A 11:03

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

March 21, 2012

Mr. Brad Jones
State of New Mexico - Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: NMGC test of Questa Mainline
Notice of Intent to Hydrostatically Test and Discharge

Dear Mr. Jones,

New Mexico Gas Company (NMGC) is submitting this notice of intent to hydrostatically test and discharge water from the Questa Mainline, Taos County New Mexico. This work is being performed on a natural gas transmission pipeline and all waste generated during this project is considered RCRA non-exempt. Following the Oil Conservation Division Guidelines for Hydrostatic Test Dewatering, NMGC has provided the following information.

Summary of Activities
NMGC will hydrostatically test 26.13 miles of 6-5/8 inch existing pipe on the Questa Mainline. Approximately 116,426 gallons of water from the Taos County public works department, a municipal source, will be used for the test. The pipeline will be chemically cleaned prior to testing to remove accumulated materials in the line. The pipeline will then be tested with fresh water in two sections with the collection point located at the Arroyo Hondo block value (north of Taos, NM). When testing of the first section is completed, the water will be transferred to the next test section for subsequent tests. All chemical cleaning fluids and test water will be containerized and held for characterization and waste determination purposes. Chemical fluids will be disposed at an appropriate facility. Hydrostatic test water, upon receiving OCD approval, will be discharged on the NMGC right-of-way (ROW).

Name and Address of Discharger
NMGC
Marcelle Fiedler
BC 22
PO Box 97500
Albuquerque, NM 87109

Location and Legal Description of Discharge

Collection Point: The test water will be collected at the Arroyo Hondo block valve which is in the middle of the 26.13 miles of pipeline being tested and is within Section 34, Township 27N,

and Range 12E. The location can be found by driving from Taos on US64 about 3.3 miles to State Road 150. Turn right onto State Road 150 and drive 2.7 miles to State Road 230. Veer left onto State Road 230 and drive north for 1.9 miles. Turn left onto Hondo Seco Road (B143) for 2.8 miles to a gate that enters a private drive located on the right (north) side of the road. Take the gravel access road located east of the private gate for 1,000 feet to the Arroyo Hondo block valve. Enclosed are maps showing the location and site design layout where the water will be collected.

Discharge Point: Once collected, the hydrostatic test water will be analyzed by an accredited analytical laboratory. If approved by OCD, test waters will be discharged within the 50-foot right-of-way (ROW) in Sections 11, 14, 23, and 35 of T27N and R12E. The discharge areas for this test are divided into a three-segment southern area and a northern area with one discharge segment. The large discharge area is proposed to prevent excess water to be discharged on any single portion of the NMGC ROW. A moving water truck with a spray attachment will be utilized to discharge water to the NMGC ROW. The discharge area will be on Forest Service property starting approximately 1.8 miles to the north of the Arroyo Hondo block valve. Enclosed is a map showing the locations along the ROW where water will be sprayed. Areas where water will not be sprayed, because they do not meet the siting criteria, are also shown.

Maps

The following maps are included with this permit application.

- Overview of project area (topo map)
- Site Layout Map-Collection Area
- Water collection site (topo and aerial map)
- Wells
- Geology of area
- Soils
- Land Ownership map
- Overview of locations where water will be sprayed on the ROW
- Discharge maps where water will be sprayed on the ROW

Demonstration of Compliance with Siting Criteria

See attached Maps and Certification of Compliance with Siting Criteria completed by the NMGC Project Engineer for demonstration of compliance with Siting Criteria for the water collection area and proposed discharge areas. Areas along the discharge route which do not conform to the siting criteria (e.g.waterways) will be avoided. This will be accomplished through contractor training and flagging/signs along the ROW

Compliance with the siting criteria for the Collection Area is met for three of the five siting criteria because:

1. Hydrostatic test water collected in tanks will not be within 200 feet of any watercourse (see Collection Location Topo map)
2. The nearest verified private well is 360 ft from the Arroyo Hondo Block Valve There are up to six other residences within a 1,000 ft radius of the Collection Site that likely have private wells. Records from the State Engineers Office (SEO) do not show any wells within a 1,000 ft radius. (see Well location map).
3. There are no wetlands within 500 ft

4. NMGC contacted the NM Bureau of Mines and Minerals about subsurface mines and email verification was submitted to NMGC that there are no mines in the area. (see attached email from Bureau of Mines)
5. NMGC water collection area is within 500 feet of four permanent residences. The proposed location of the water and chemical storage tanks are down topographic slope of the properties and/or separated by a topographic divide that will prevent flooding should a catastrophic failure of holding tanks occur (See Site Layout Map).

Compliance with the siting criteria for the Discharge Area is met because:

1. Discharge along the ROW will not be within 200 feet of any watercourse (see Discharge area maps)
2. There are no private or municipal wells located within a 1000 foot radius of the ROW discharge areas. (see Discharge area maps)
3. There are no wetlands within 500 ft
4. NMGC contacted the NM Bureau of Mines and Minerals about subsurface mines. NMGC has email verification that there are no abandoned mines in the area of discharge. (see attached email from Bureau of Mines)
5. There are no permanent residence, schools, hospitals, institutions or churches within 500 feet of the area NMGC plans to collect water. (see Discharge area maps)

Description of Activities

The natural gas transmission pipeline will be hydrostatically tested in two sections using approximately 103,387 gallons of water from Taos County Public Works for the first section and an additional 13,039 gallons for the second section. A total of 116,426 gallons of water will be used for the test. Each section will be tested for a minimum of 8 hours.

Prior to testing, the pipeline will be chemically cleaned. The MSDS for the proposed cleaning agents are attached. Two chemical cleaning runs and two water flushes are anticipated in order to achieve desired pipe conditions. Each cleaning run will use 825 gallons of water and chemical agent combined. Each flush will include 1000 gallons of fresh water. The total fluid volume will be approximately 3650 gallons. Temporary storage of the chemical cleaning fluids and hydrostatic test waters will be in tanks located on private land adjacent to the NMGC ROW at the Rio Hondo Block Valve.

NMGC anticipates starting the hydrostatic test in July 2012. Once hydrostatic testing starts, the test will last 3-4 days and then the water will be stored in holding tanks for an additional 14 days while the water analysis is completed. When the results of the water analysis are received, and with OCD permission, the water will be sprayed onto NMGC ROW approximately 5-6 weeks after hydrostatic testing starts. NMGC anticipates that the water will be off site by approximately mid-late August.

Method & Location for Collection and Retention of Fluids & Solids

Hydrostatic Test

Seven 18,000 gallon double-walled mobile tanks will be used to contain the test water after the test is complete. The double-walled tanks will be used in lieu of secondary containment.

Specification sheets for the tanks to be utilized are provided in the attachments of this document. The tanks will be placed end-to-end along the NMGC access road located to the north and down slope of the private property. The test water from the pipeline will be transferred into the tanks by pumping it with a hose connected directly from the pipe to the tank. When filling, the tanks will be interconnected. When a tank has been filled, valves will be closed/disconnected to isolate the filled tank. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring water. NMGC will conduct daily inspections of each tank containing test water.

Chemical Cleaning
The fluids from each cleaning run will be collected in a 60-barrel tanker truck and transferred to two 3,000 gallon tanks that are not interconnected (the tank dimensions are 8 feet in diameter by 8 feet tall). The 3,000 gallon tanks will be located next to the Rio Hondo Block Valve and down slope of the nearby resident. Hay bales and a plastic liner will be installed around the tanks for secondary containment that will be sufficient to hold one and a third the tanks capacity. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring wastes.

BMPs to Contain Discharge On Site & Control Erosion
Plastic liner and drip trays will be placed under hoses and valves to collect drips and leaks when transferring water. Water will be sprayed onto the ROW in a controlled rate so that erosion does not occur. Water will not be sprayed on days when wind will carry the water off the ROW.

Request for Alternate Treatment/Disposal
If the hydrostatic test water does not meet OCD conditions for discharge to the ROW and is not a characteristic hazardous waste, NMGC will dispose of it at the Agua Moss LLC facility near Farmington, NM. Transportation of such water will only be performed by an OCD authorized C-133 water hauler. If the water is tested as a characteristic hazardous waste, test water will be shipped by a licensed transporter to a RCRA permitted TSDF for disposal.

Hydrostatic Test Water Sampling Plan
A sample of the hydrostatic test water will be collected from a storage tank after all hydrostatic tests have been completed. The test water will be analyzed for the constituents identified in NMAC 20.6.2.3103 (A)(B)(C). Upon receipt of the analytical results, NMGC will submit them to the OCD for review and approval to discharge. NMGC will expedite the laboratory analyses to minimize the storage time of the test water.

Disposal of Fluids & Solids

Chemical Cleaning

A representative sample of the chemical cleaning fluids will be taken from the storage tank after all cleaning has been completed. The chemical cleaning fluids will be analyzed for the following:

- TCLP (RCRA 8)
- TCLP Volatile Organics
- PCB (8082)
- Reactivity

- Corrosivity
- Ignitability

The sample will be analyzed to determine if the fluid is a characteristic hazardous waste. If this is not the case disposal will be performed at Agua Moss LLC in Farmington, NM. If the waste is determined to be hazardous by characteristics (RCRA regulated), a qualified vendor permitted to transport hazardous waste will be utilized to transport and dispose the liquid at a RCRA permitted TSDF for disposal.

Expected Quality & Volume of Discharge

The expected volume of the hydrostatic test discharge is approximately 116,426 gallons. Given the extensive pipeline cleaning that will occur prior to introduction of hydrostatic test water to the pipeline, it is anticipated that water quality will meet WQCC standards for discharge.

Geological Characteristics of Subsurface at Discharge Site

General Geology: The geology of the Taos region consists of a diverse mix of structural, volcanic and depositional terrains associated with Laramide-age uplift and Teritary-age extensional tectonics. The major features in the region include the northern extension of the Rio Grande rift in which the town of Taos is situated. To the east are the Sangre de Cristo and Picuris Mountains that act as the eastern boundary of the Rio Grande rift.

The San Luis Basin is one of the major structural elements of the Rio Grande rift. It is approximately 240 km long, and is bordered by the Sangre de Cristo Mountains on the east, and the Tusas and San Juan Mountains on the west. The southern part of the basin is a physiographically and geologically unique terrain known as the Taos Plateau. The plateau is composed mostly of 3-5 million-year-old basalts that were erupted locally. The basin fill is comprised of a wide variety of alluvial, fluvial and eolian deposits of Tertiary and Quaternary age.

Collection and Discharge Areas: The geology of the collection and discharge areas are similar. The NMGC Rio Hondo block valve is located along the southern escarpment of the Rio Hondo drainage and rests on Quaternary-age pediment deposits which are predominately sand-cobble sized material at the block valve. The discharge areas are all within the pediment deposits also, but are associated with finer-grained sand, silt and clay sediments.

Geologic Reference:

1) New Mexico Bureau of Mines and Mineral Resources, 2003, Geologic Map of New Mexico, Peter A. Scholle, State Geologist, Published in coorperation with the US Geological Survey. Electronic access to the map may be found: http://geoinfo.nmt.edu/publications/maps/geologic/state/home.html

Soils

Collection Point (Rio Hondo Block Valve): The collection area consists of two soil types: 1) The Sedillo-Orthents association and 2) the Fernando silt loam. The Sedillo-Orthents association consists of gravelly, cobbly to sandy loam often associated with drainageways and ridges. It is typically well drained and has low available water capacity. The Fernando silt loam consists of alluvial fan deposits of silt loam and silty clay loam. The unit is well drained and has high available water capacity.

Discharge Areas: Discharge in the southern region of Forest Service property consists of a complex series of soil types. The soils include the Orthents-Calciorthids association, the Orejas stony loam, the Lama loam and Fluvents mappable units. Detailed soil descriptions are provided in the attachments. The Northern Region for fluid discharge consists of soils of the Lama loam and the Orthents-Calciorthids association found on stream terraces/plains and alluvial flats/drainageways respectively.

Depth & TDS Concentration of Ground Water Most Likely to be Affected by Discharge

Collection Area: According to State Engineer well records, the nearest well is 1,270 feet from the collection location. The depth to water at that well is 660 feet. Other wells in the area have a depth to water from between 270 to 325 feet. Total dissolved solids values from the primary aquifer in the Taos area ranges from 112 to 436 mg/l. (Source: Glorieta Geosciences in Taos, NM).

Discharge Area: NMGC was not able to locate any TDS data for the undeveloped Forest Service property in the proposed discharge area. Based on the remote locations, geology and soils in the region, TDS values of less than 1000 mg/l would be anticipated.

ID of Landowners at and Adjacent to Discharge Site and Collection/Retention Site
A map is provided showing the landownership of the underlying and adjacent property owners from the water collection location and the area where water will be sprayed if approved by OCD. The collection location is on private land and the discharge location is entirely on Forest Service property.

Closing
In the event of a release associated with project activities, NMGC will comply with OCD's Release Notification and Corrective Action regulation NMAC 19.15.29 to remediate the spill as soon as possible.

Once OCD rules this application as administratively complete, and if required, NMGC will provide notice of the permit application in the Taos News following requirements in NMAC 20.6.2.3108. In addition, a sign will be placed at the location of the discharge site and at the Arroyo Seco post office on State Road 150 providing a synopsis of the public notice.

A check for $100 is enclosed for the filing fee.

Thank you for your assistance. If additional information is required please notify me in writing. Please call me at (505) 697-3516 if you have any questions.

Sincerely,

Marcelle Fiedler
Senior Environmental Scientist
Attachment: Location maps

Certification of Compliance with Siting Criteria

I, Rebecca Sandoval, Project Engineer with NMGC visited the project site in the field on February 20, 2012 and verified that the location where NMGC will collect and discharge hydrostatic test water from the pipe meets the following siting criteria:

150 gpm flow

A) Collection Area

- Is within 1,000 ft of a wellhead protection area that supplies public or private water system.
- There are no watercourses within 200 ft
- There are no wetlands within 500 ft
- There are no schools, hospitals, institutions, or churches are within 500 ft
- There are four private residences within 500 ft. NMGC will mitigate the potential for flooding by placing collection tank down topographic slope of the nearest property. The remaining three properties are separated from the collection area by a topographic divide (drainage system and paved road).

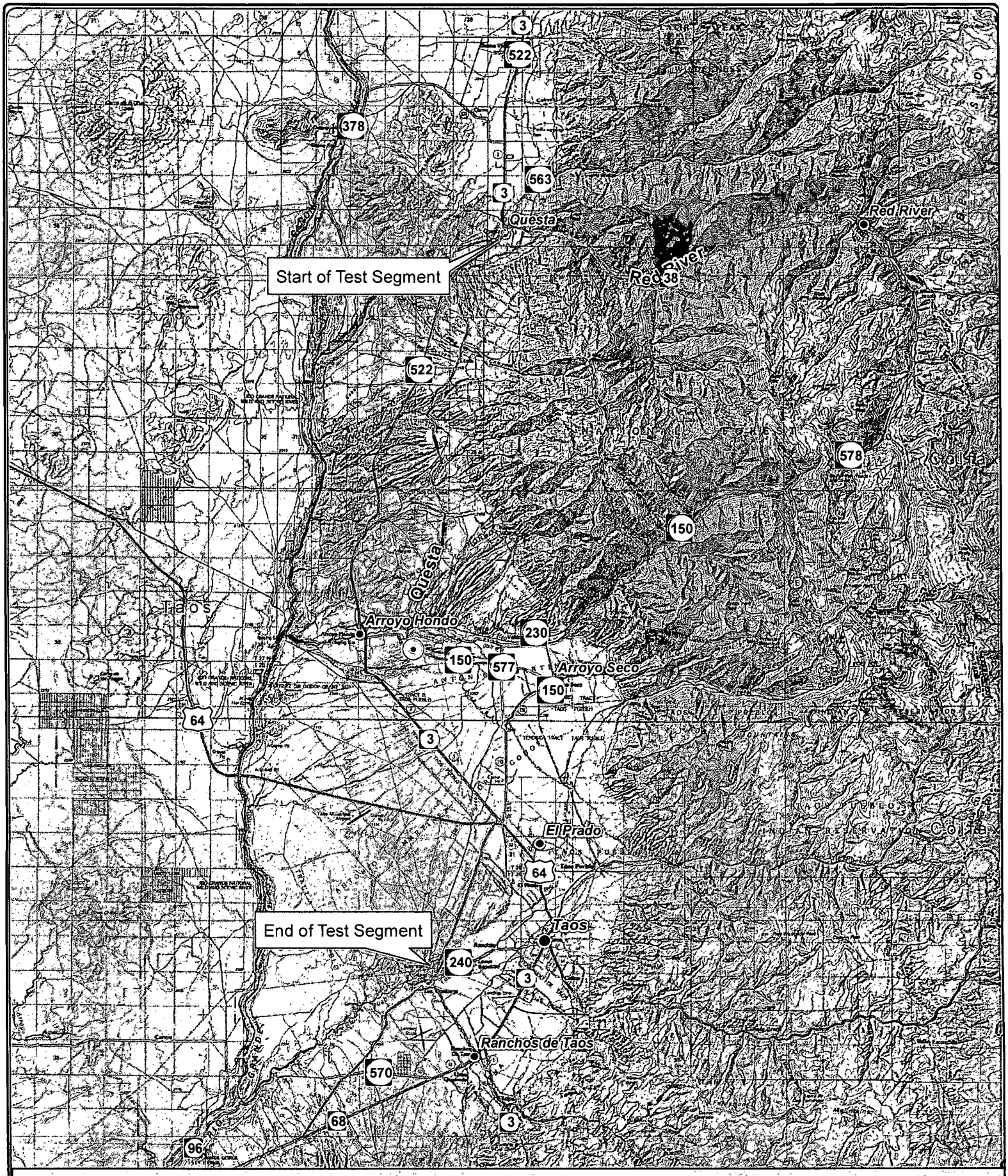
B) Discharge Area

- Is not within 1,000 ft of a wellhead protection area that supplies public or private water system.
- There are no watercourses within 200 ft
- There are no wetlands within 500 ft
- There are no permanent residence, schools, hospitals, institutions, or churches are within 500 ft

My observations in the field match the enclosed map showing where NMGC plans to collect the water.

Rebecca Sandoval	Engineer	3-20-12
Signature	Title	Date

Attachments



Taos-Questa Mainline Hydrostatic Test
Project Overview

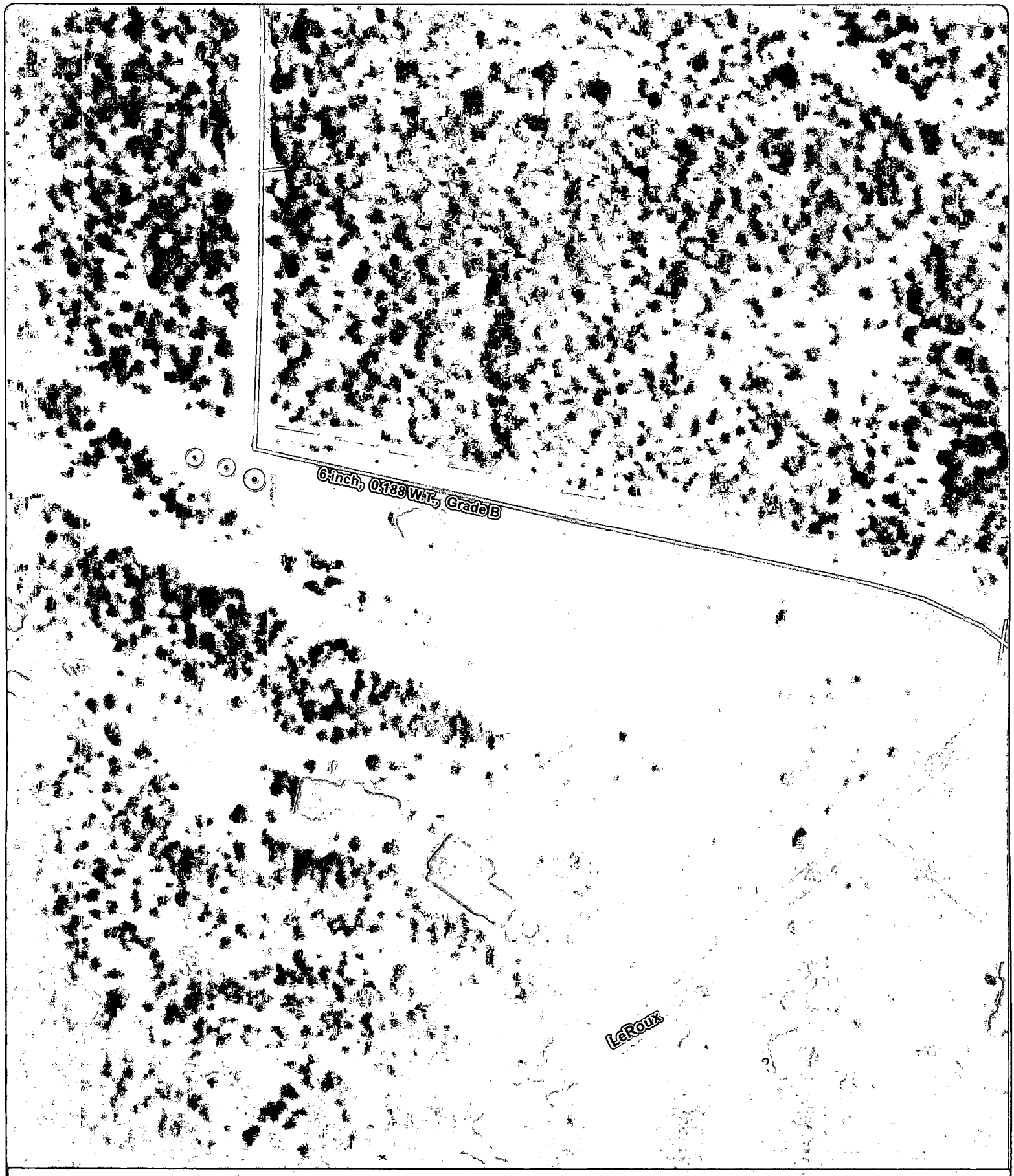
Collection Location

Discharge Area

Transmission Mains by System

1 in = 18,904 ft

0 6,000 12,000 24,000 36,000 48,000 Feet

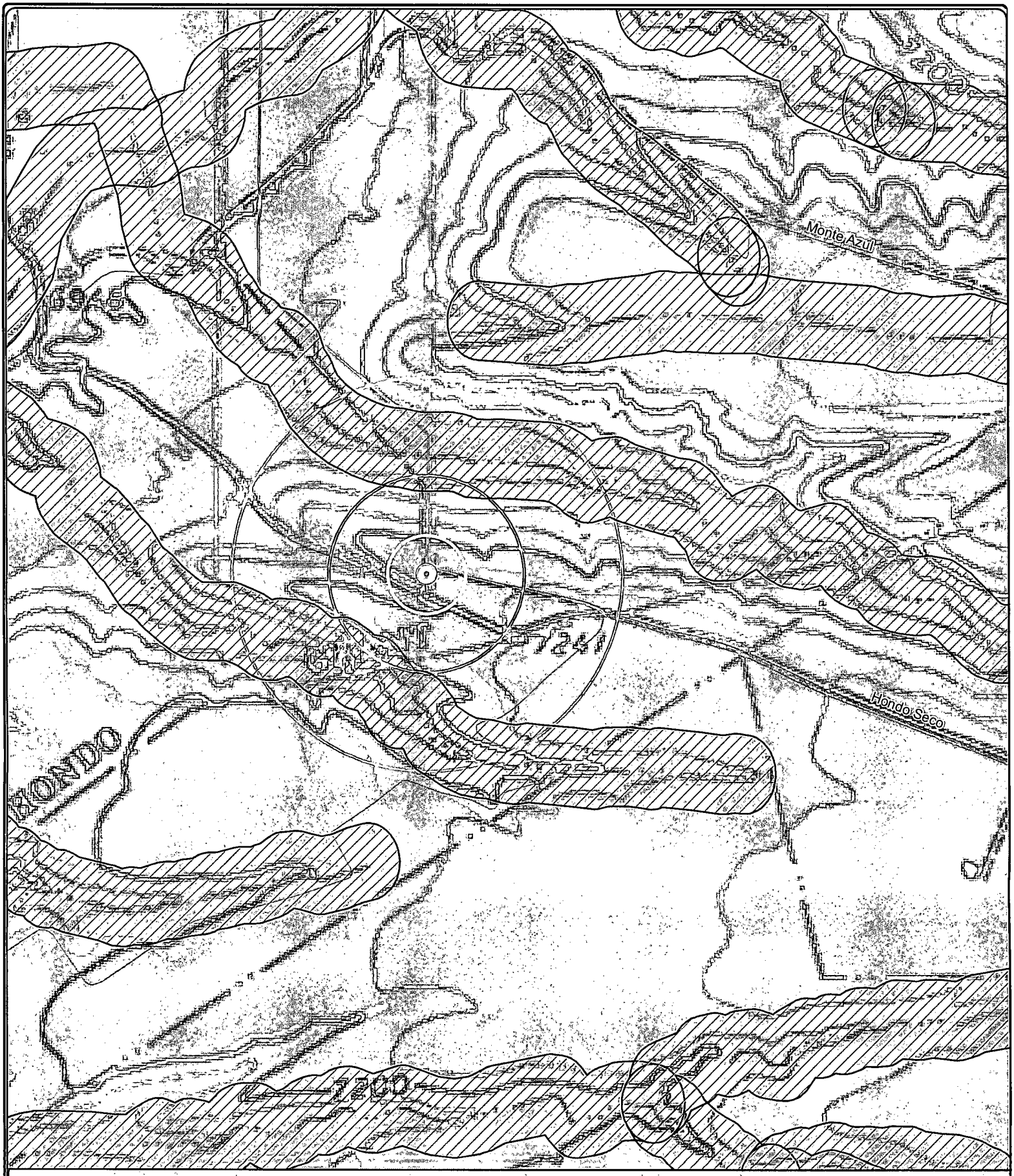


Taos-Questa Mainline Hydrostatic Test
Site Layout Map

Chemical cleaning tanks
Water tanks
Collection Location
Transmission Mains by Size

1 in = 151 ft

0 45 90 180 270 360 Feet



200 foot buffer hydrology

Collection Location

1000ft buffer

500ft buffer

200ft buffer

Transmission Mains by Size

Taos-Questa Mainline Hydrostatic Test

Collection Location Map Topo

1 in = 636 ft

0 195 390 780 1,170 1,560

Feet

Collection Location

Transmission Mains by Size

1000ft buffer

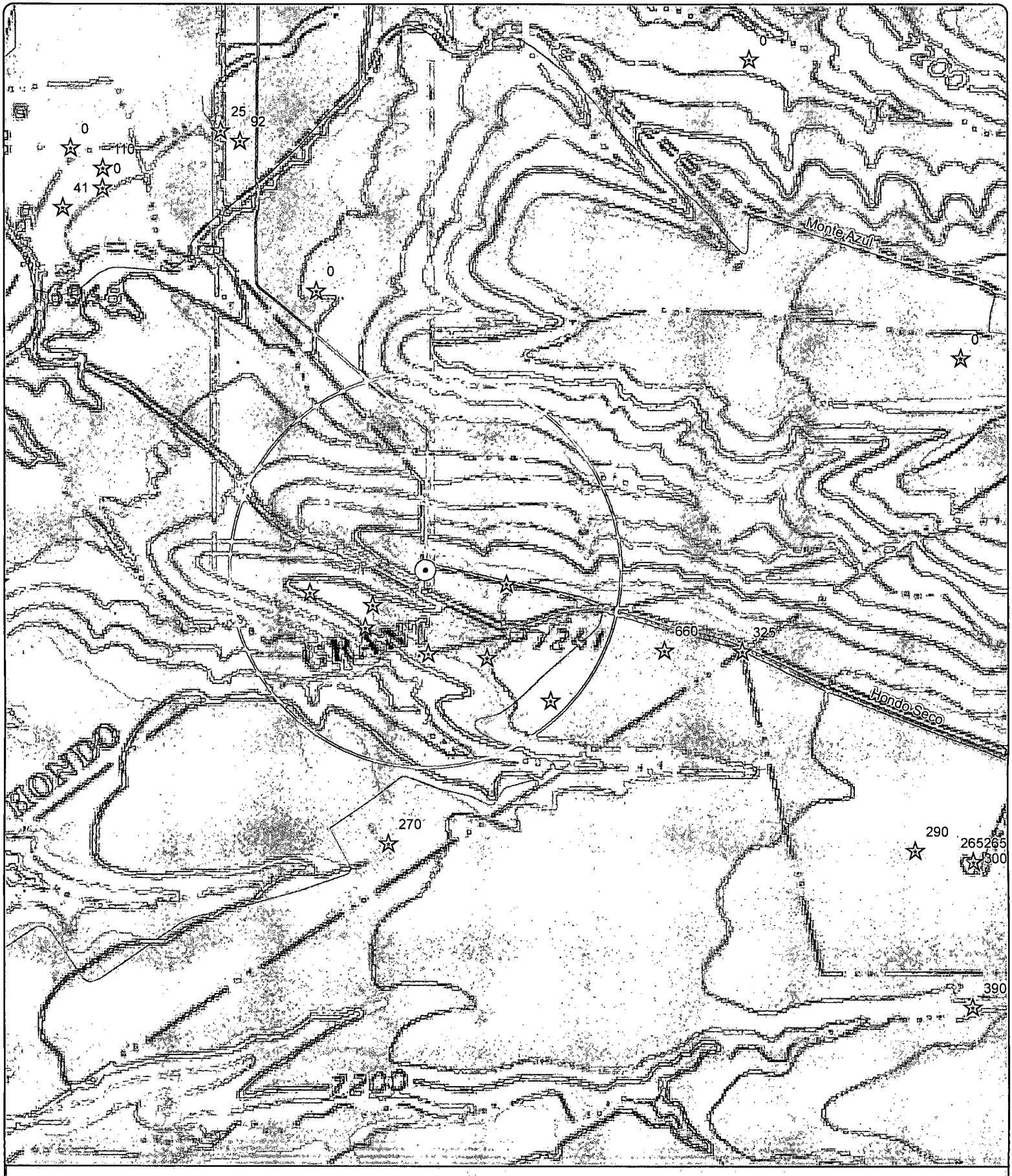
500ft buffer

200ft buffer

Taos-Questa Mainline Hydrostatic Test
Collection Location Map Aerial

1 in = 636 ft

0 195 390 780 1,170 1,560 Feet

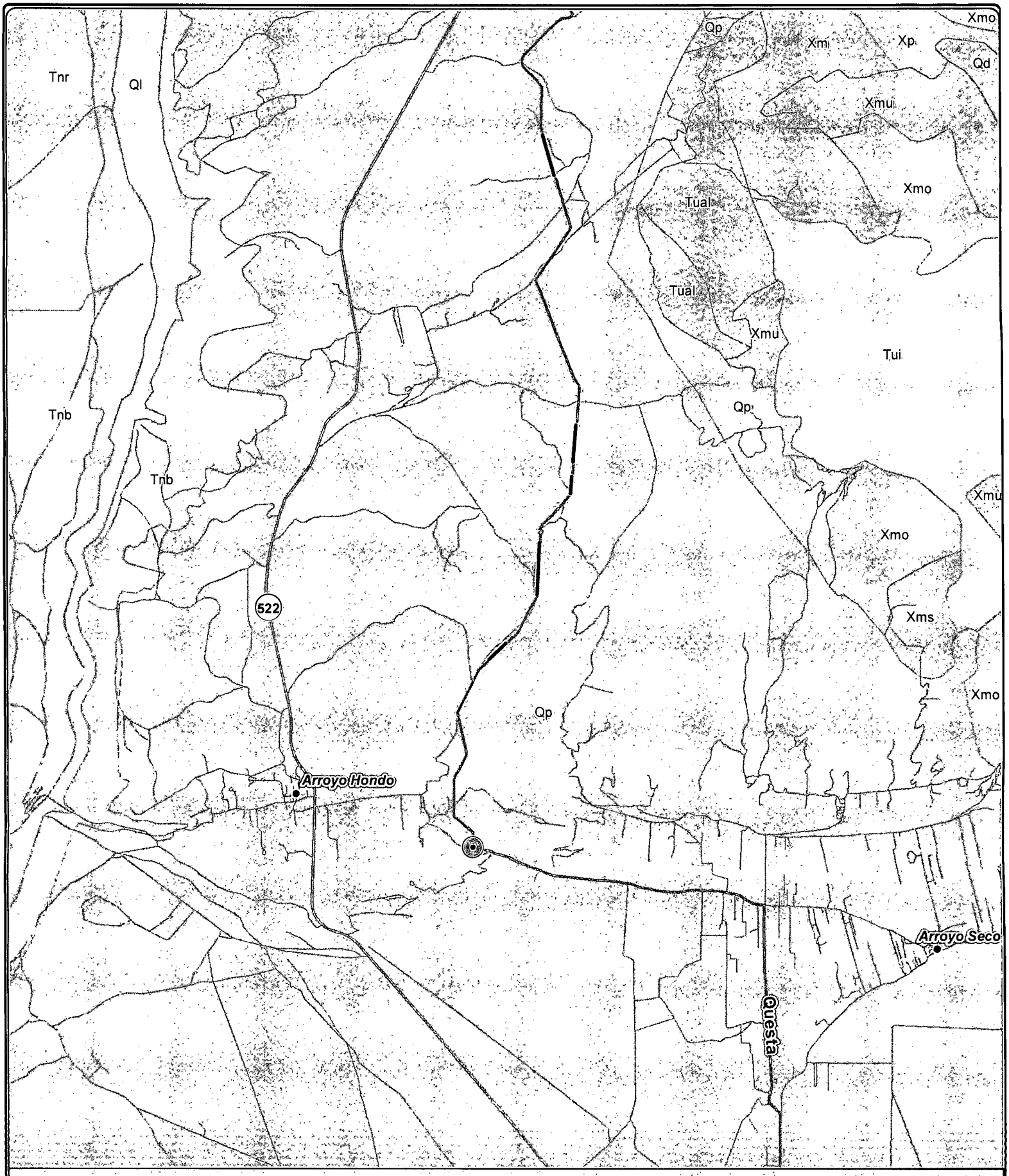


Taos-Questa Mainline Hydrostatic Test
Well Location and Depth to Water

Collection Location
Transmission Mains by Size
1000ft buffer
Wells (depth to water)

1 in = 636 ft

0 195 390 780 1,170 1,560 Feet



Taos-Questa Mainline Hydrostatic Test
Geology

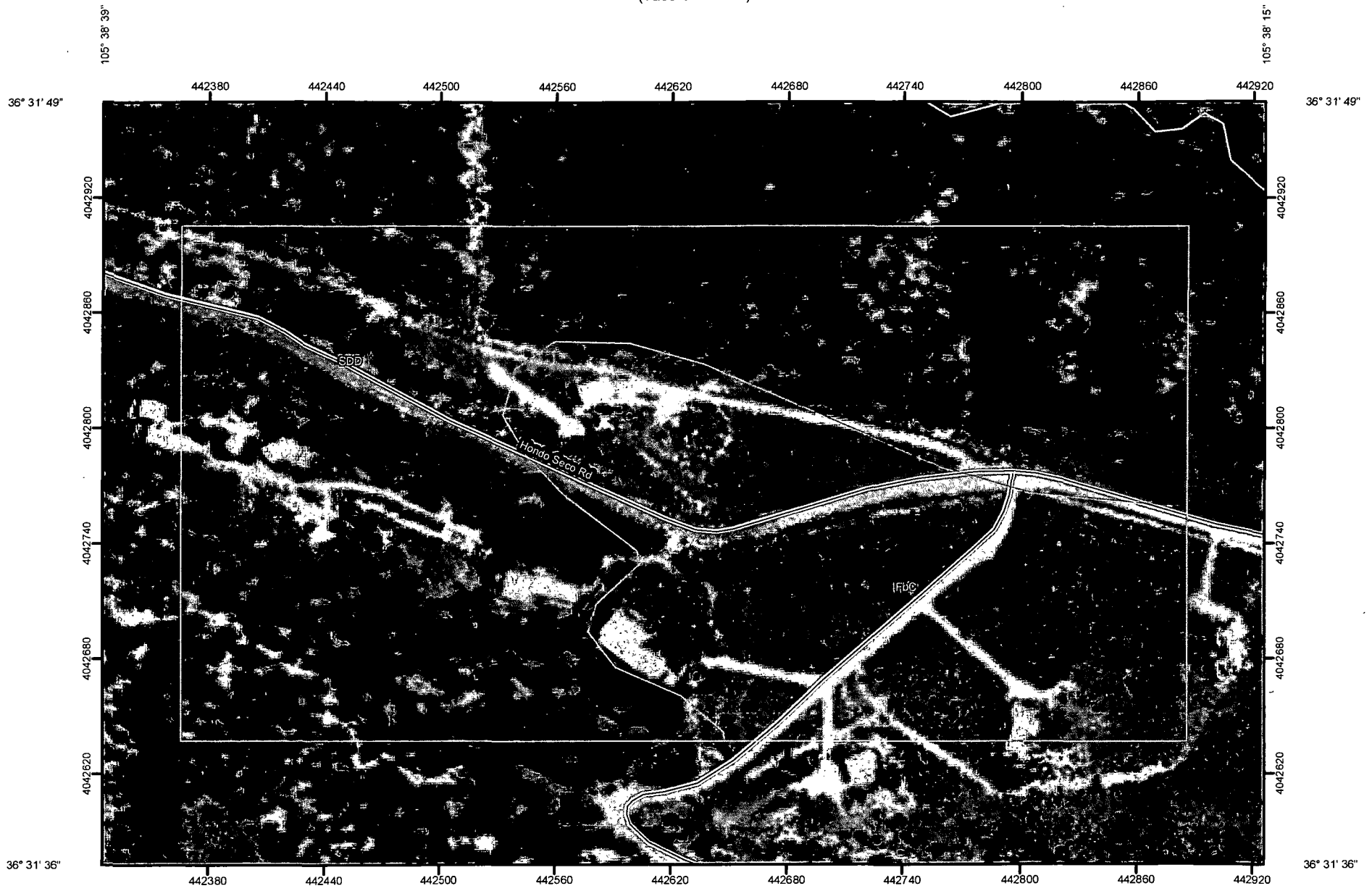
Collection Location
Discharge Area
Transmission Mains by System

Qp = Piedmont alluvial deposits; upper and middle quarternary

1 in = 5,677 ft

0 1,750 3,500 7,000 10,500 14,000 Feet

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(Taos Collection)



Map Unit Legend

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FbC	Fernando silt loam, 0 to 7 percent slopes	12.2	35.3%
SDD	Sedillo-Orthents association, strongly sloping	22.4	64.7%
Totals for Area of Interest		**34.6**	**100.0%**

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 or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,840 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Date(s) aerial images were photographed: Data not available.

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.

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

FbC—Fernando silt loam, 0 to 7 percent slopes

Map Unit Setting

Elevation: 6,500 to 7,500 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 115 to 135 days

Map Unit Composition

Fernando and similar soils: 75 percent

Description of Fernando

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: High (about 11.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability (nonirrigated): 6e
Ecological site: Gravelly Loamy (R036XB006NM)

Typical profile

0 to 8 inches: Silt loam
8 to 36 inches: Silty clay loam

36 to 60 inches: Silt loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

SDD—Sedillo-Orthents association, strongly sloping

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 16 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Sedillo and similar soils: 45 percent
Orthents and similar soils: 35 percent

Description of Sedillo

Setting

Landform: Drainageways, ridges
Landform position (three-dimensional): Side slope, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability (nonirrigated): 6s
Ecological site: Gravelly Slopes (R036XA004NM)

Typical profile

0 to 3 inches: Gravelly loam
3 to 11 inches: Very cobbly loam
11 to 60 inches: Very cobbly sandy loam

Description of Orthents

Setting

Landform: Drainageways, ridges
Landform position (three-dimensional): Side slope, dip
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 30 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

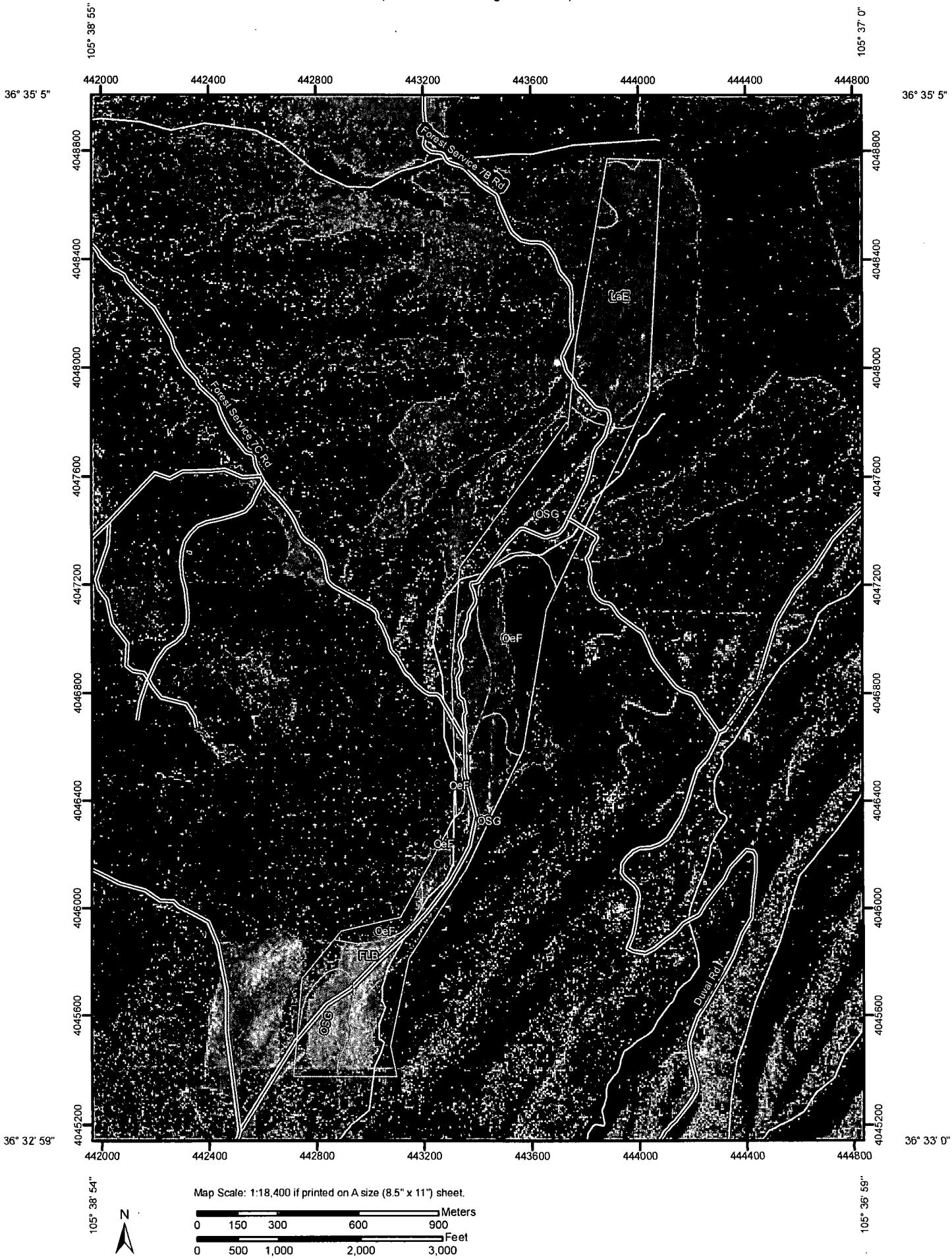
Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(Southern Discharge locations)



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 or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:18,400 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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Map Unit Legend

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FLB	Fluvents, nearly level	55.5	23.9%
LaE	Lama loam, 0 to 20 percent slopes	58.2	25.1%
OeF	Orejas stony loam, 15 to 40 percent slopes	40.7	17.5%
OSG	Orthents-Calciorthids association, very steep	77.9	33.5%
Totals for Area of Interest		**232.3**	**100.0%**

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

FLB—Fluvents, nearly level

Map Unit Setting

Elevation: 7,000 to 8,000 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 125 to 135 days

Map Unit Composition

Fluvents and similar soils: 80 percent

Description of Fluvents

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 8w
Ecological site: Mountain Valley (R048AY003NM)

Typical profile

0 to 6 inches: Very gravelly sand
6 to 60 inches: Stratified extremely gravelly coarse sand to gravelly sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

LaE—Lama loam, 0 to 20 percent slopes

Map Unit Setting

Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 130 days

Map Unit Composition

Lama and similar soils: 90 percent

Description of Lama

Setting

Landform: Stream terraces, plains
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from igneous and sedimentary rock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii (F048AY011NM)

Typical profile

0 to 7 inches: Loam
7 to 30 inches: Clay loam
30 to 41 inches: Cobbly sandy clay
41 to 48 inches: Cobbly sandy clay loam

48 to 60 inches: Very gravelly loamy sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OeF—Orejas stony loam, 15 to 40 percent slopes

Map Unit Setting

Elevation: 7,000 to 7,980 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 125 to 135 days

Map Unit Composition

Orejas and similar soils: 80 percent

Description of Orejas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Properties and qualities

Slope: 15 to 40 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Very low (about 1.5 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Pinus edulis-Juniperus monosperma/Quercus gambelii (F048AY015NM)

Typical profile

0 to 2 inches: Stony loam
2 to 14 inches: Very cobbly clay loam

14 to 18 inches: Bedrock

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OSG—Orthents-Calciorthids association, very steep

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 17 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Orthents and similar soils: 50 percent
Calciorthids and similar soils: 30 percent

Description of Orthents

Setting

Landform: Alluvial flats, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 40 to 80 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Description of Calciorthids

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Talf
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 10 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Limy (R051XA008NM)

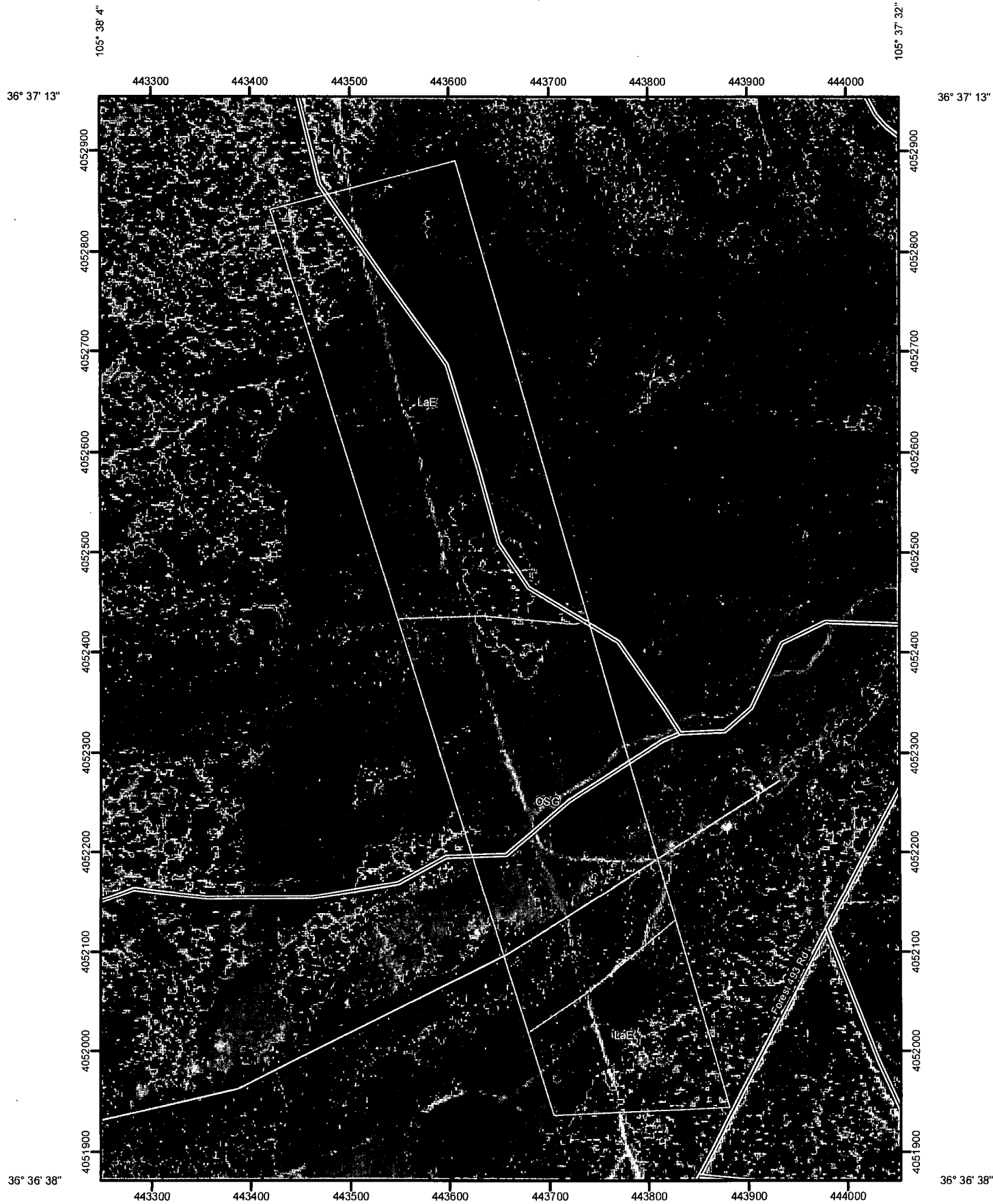
Typical profile

0 to 5 inches: Very gravelly loam
5 to 60 inches: Very gravelly sandy loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(North discharge)



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 or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- *Interstate Highways*
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:5,160 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Date(s) aerial images were photographed: Data not available.

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

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LaE	Lama loam, 0 to 20 percent slopes	26.9	61.7%
OSG	Orthents-Calciorthids association, very steep	16.7	38.3%
Totals for Area of Interest		**43.6**	**100.0%**

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

LaE—Lama loam, 0 to 20 percent slopes

Map Unit Setting

Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 130 days

Map Unit Composition

Lama and similar soils: 90 percent

Description of Lama

Setting

Landform: Stream terraces, plains
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from igneous and sedimentary rock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii (F048AY011NM)

Typical profile

0 to 7 inches: Loam
7 to 30 inches: Clay loam
30 to 41 inches: Cobbly sandy clay
41 to 48 inches: Cobbly sandy clay loam

48 to 60 inches: Very gravelly loamy sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OSG—Orthents-Calciorthids association, very steep

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 17 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Orthents and similar soils: 50 percent
Calciorthids and similar soils: 30 percent

Description of Orthents

Setting

Landform: Alluvial flats, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 40 to 80 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Description of Calciorthids

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Talf
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 10 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Limy (R051XA008NM)

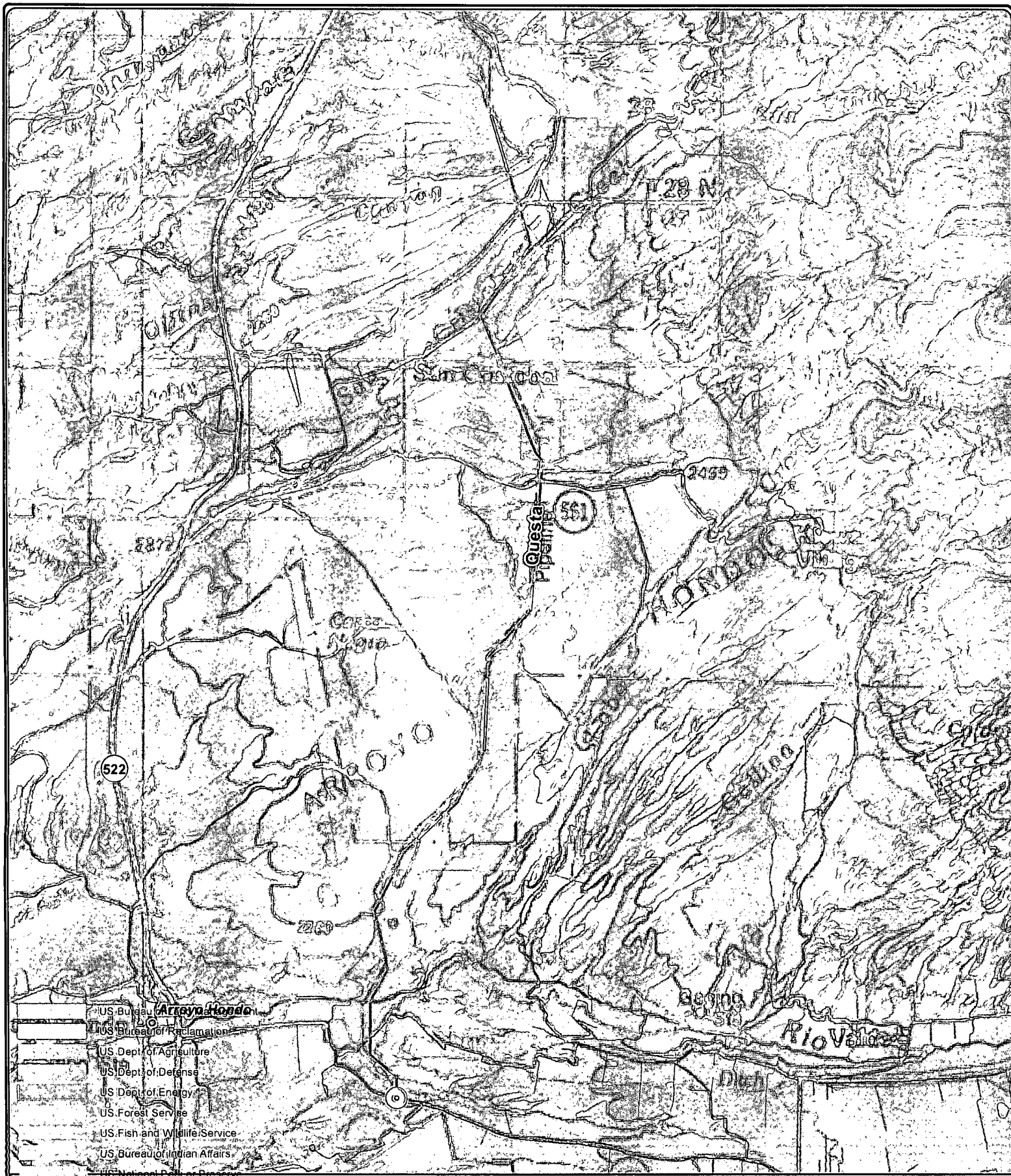
Typical profile

0 to 5 inches: Very gravelly loam
5 to 60 inches: Very gravelly sandy loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos-Questa Mainline Hydrostatic Test
Land Ownership
Collection Location
third mile buffer
US Bureau of Land Management
US Bureau of Reclamation
US Dept. of Agriculture
US Dept. of Defense
US Dept. of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
1 in = 2,500 ft
0 750 1,500 3,000 4,500 6,000 Feet
Arroyo Hondo
6" Questa Mainline
Hondo Seco
Vista Lejos
Monte Azul
Lobo Ranch
Del Medio
Tres Lomas
Jaramillo
Lucero
Sandia Canyon
Lelman
Mesa Sea
Ribbon
Canoncito Rim
Cedar Beach
Barbara
TRACT B TAOS PUEBLO
LEROUX
HONDO
ARROYO
PIPELINE
522
Water Tank

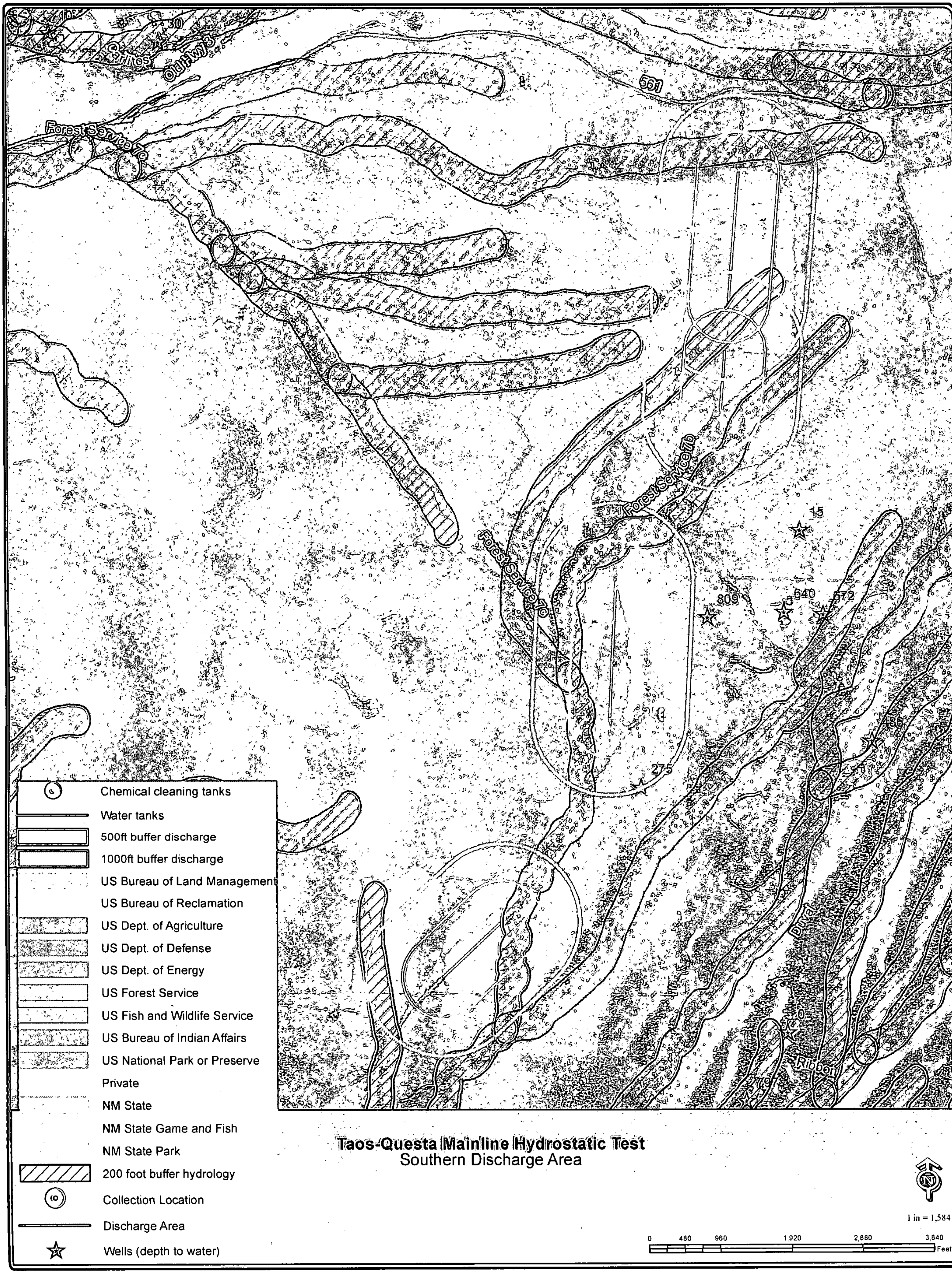


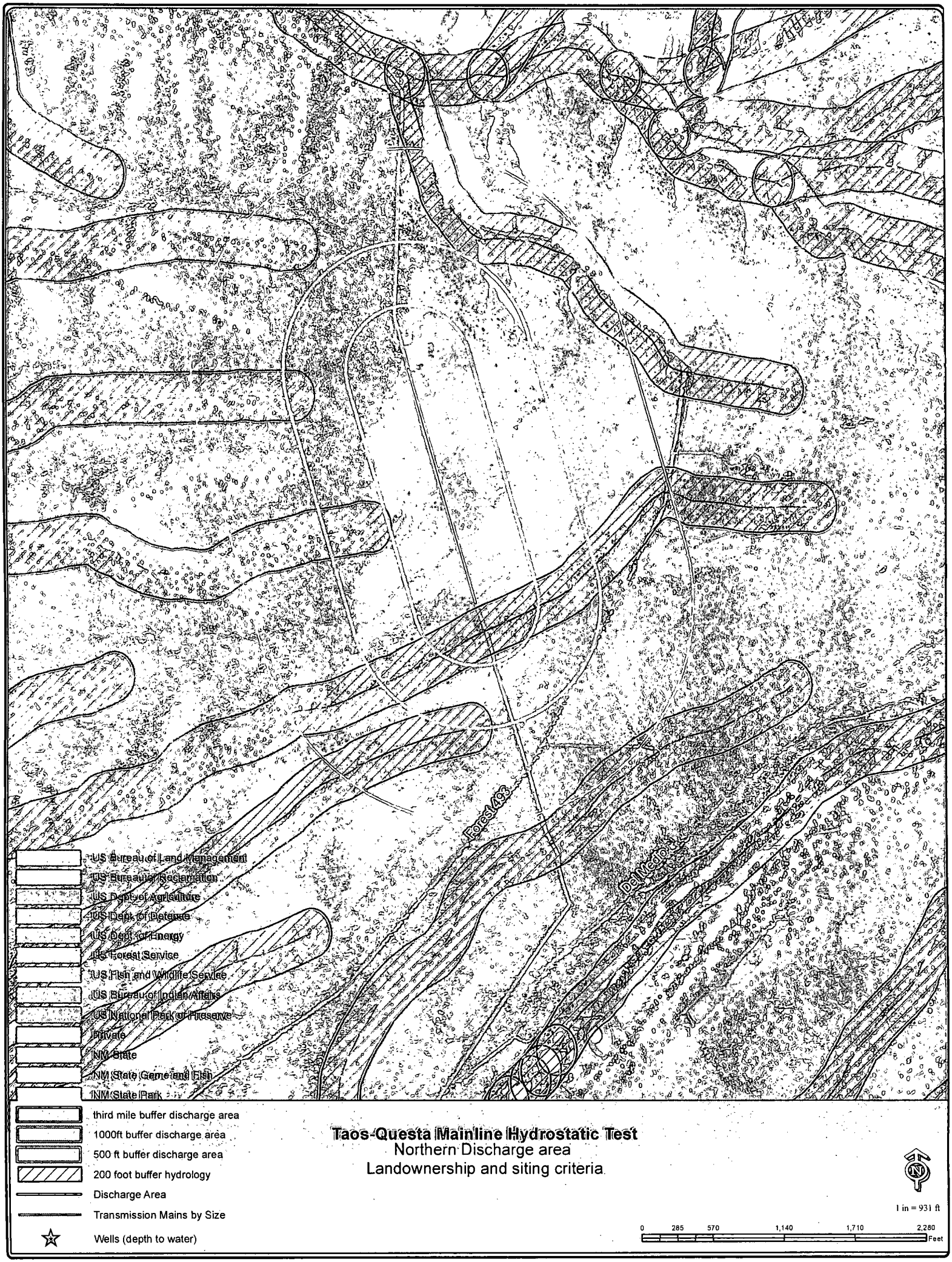
US Bureau of Land Management
US Bureau of Reclamation
US Dept. of Agriculture
US Dept. of Defense
US Dept. of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
Collection Location
Discharge Area
Transmission Mains by System

Taos-Questa Mainline Hydrostatic Test
Overview of Discharge areas

1 in = 4,167 ft

0 1,250 2,500 5,000 7,500 10,000 Feet


Taos-Questa Mainline Hydrostatic Test
Southern Discharge Area
Chemical cleaning tanks
Water tanks
500ft buffer discharge
1000ft buffer discharge
US Bureau of Land Management
US Bureau of Reclamation
US Dept. of Agriculture
US Dept. of Defense
US Dept. of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
200 foot buffer hydrology
Collection Location
Discharge Area
Wells (depth to water)
Old Hwy 3
561
Forest Service 76
Forest Service 7b
Forest Service 76
15
809
640
672
275
186
Ribbon
1 in = 1,584 ft
0
480
960
1,920
2,880
3,840
Feet


Forest 493
Del Medio
US Bureau of Land Management
US Bureau of Reclamation
US Dept of Agriculture
US Dept of Defense
US Dept of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
third mile buffer discharge area
1000ft buffer discharge area
500 ft buffer discharge area
200 foot buffer hydrology
Discharge Area
Transmission Mains by Size
Wells (depth to water)
Taos-Questa Mainline Hydrostatic Test
Northern Discharge area
Landownership and siting criteria
1 in = 931 ft
0 285 570 1,140 1,710 2,280
Feet

Earl Morse

From: Tompson, Mike, EMNRD [Mike.Tompson@state.nm.us]
Sent: Friday, February 17, 2012 9:04 AM
To: Earl Morse
Cc: Moiola, Lloyd, EMNRD
Subject: RE: Recorded Mines

Mr. Morse,

The New Mexico Abandoned Mine Land Program knows of no abandoned mines in the sections referenced in your request.

If you have any questions, please let me know.

Mike Tompson
New Mexico Abandoned Mine Land Program
(505) 476-3427

From: Earl Morse [Earl.Morse@nmgco.com]
Sent: Friday, February 17, 2012 7:40 AM
To: Moiola, Lloyd, EMNRD
Cc: Marcelle Fiedler
Subject: Recorded Mines

Mr. Moiola,
New Mexico Gas Company is planning to do hydrostatic pressure test of gas transmission lines in the Taos/Questa area this summer. As part of the permit application process with the Oil Conservation Division, we need to obtain information on the location of active or abandoned mines in the area of our test. Can you please tell me if there are any recorded mines within the following sections?

1) T27N R12E Sec 34
2) T27N R12E Sec 23, 14, 11 and 35.

Thank you for your assistance and please contact me if you have any questions.

Earl Morse
New Mexico Gas Company
Sr. Environmental Scientist
Office: (505) 697-3438
Cell: (505) 238-4410
earl.morse@nmgco.com

MATERIAL SAFETY DATA SHEET

Lubchem, Inc. 23609 W. Hardy Rd. Spring, TX 77373
Telephone (281) 350-9600
Revision 4/15/00

NFPA CODES	
Health	1
Flammability	0
Reactivity	0
Special	COR

Section I - Product Identification

Product Name: Lubchem IS-1100
Product Type: Pipeline Cleaning Fluid
Formula/CAS No.: Complex Mixture

Section II - Hazardous Ingredients / Identity Information

Hazardous Ingredients	CAS Number	%	Exposure Limits
Sodium Hydroxide	CAS # 1310-73-2	10	2mg/m (ceiling)
Ethylene Glycol Butyl Ether	CAS# 111-76-2	5	TWA/TLV 25ppm

Section III - Physical / Chemical Characteristics

Boiling Point: >210 F
Specific Gravity (H2O = 1): 0.987
Vapor Pressure (mm Hg.): .006@20C
Melting Point: N/A
Vapor Density (Air =1) >1
Evaporation Rate (Butyl Acetate =1): >1
Solubility in Water: Complete
Appearance/Odor: Amber liquid, characteristic odor
pH: 13

Section IV - Fire and Explosion Hazard Data

Flash Point (PMCC) >212F
Extinguishing Media: N/A
Special Fire Fighting Procedures: Use suitable extinguishing media to control surrounding fire.
Unusual Fire and Explosion Hazards: N/A

Section V - Reactivity Data

Stability: Material is stable
Conditions to Avoid: N/D
Incompatibility (materials to avoid): Amphoteric metals (zinc, aluminum, copper and brass), bleaching agents, oxidizers, organic acids, organic nitrogen compounds,
Hazardous Decomposition Products: Fumes of metal oxides.
Hazardous Polymerization: Will not occur

Section VI - Health Hazard Data

Health Hazards (Chronic): N/D
Signs and Symptoms of Over Exposure
Eyes: Eye contact with product may cause severe irritation, burns, irreversible damage, and blindness.
Inhalation: Inhalation of mist may cause irritation, nausea, headache, and pain, decreased breathing capacity, tissue destruction.
Ingestion: may cause severe irritation, burns, tissue ululceration, and gastrointestinal damage.
Skin: contact may cause burns, tissue destruction, skin damage, effects may be delayed.
Medical Conditions Generally Aggravated by Exposure: Over exposure may aggravate disorders of the blood circulatory system, lungs - respiratory system.
Emergency and First Aid Procedures:
Eyes: Flush eyes with water for 15 minutes while lifting upper and lower eyelids and consult physician immediately.
Inhalation: Remove to fresh air, if not breathing give artificial respiration, if breathing is difficult give oxygen. Contact physician immediately.

Ingestion: Do not induce vomiting. Rinse mouth with water. Dilute stomach contents by drinking large quantities of water. Do not induce vomiting, ilf vomiting occurs spontaneously keep head below hips to prevent breathing vomit into lungs. Call physician immediately.
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician.

Section VII – Environmental Protection:

Steps To Be Taken In Case Material Is Released or Spilled: Contain spill immediately. Prevent entering any waterway by diking. Absorb with inert absorbent material (sand, clay, dirt, absorbent). Large spills should be diked and picked up with vacuum pumps, shovels, buckets or other means and placed in suitable containers.
Waste Disposal Method: Comply with all governmental regulations.

Section VIII – Special Precautions:

Precautions To Be Taken In Handling and Storage: Do not store containers in direct sunlight, keep containers away from excessive heat.
Other Precautions: Avoid contact with skin and eyes. Use good housekeeping practices and clean up spills promptly. Eye wash and safety shower should be in close proximity.

Section IX - Control Measures:

Respiratory Protection: If exposure to mist may occur use a NIOSH respirator approved for your conditions of exposure.
Ventilation - Local Exhaust: Acceptable
Eye Protection: Chemical splash goggles with full-face shield recommended.
Protective Gloves: Rubber or neoprene.
Other Protective Clothing or Equipment: Chemical resistant clothing, rubber apron and rubber boots.
Work / Hygienic Practices: Safety shower and eye wash fountain.

Section X – Transportation Data

DOT Proper Shipping Name: Corrosive Liquid, n.o.s. (contains Sodium Hydroxide), 8, UN1760, PG III
Label Requirements: Corrosive

Section XI – Regulatory Information

All ingredients are listed on the TSCA inventory

This document is prepared pursuant to the OSHA Hazard Communication Standard (29CFR1910.1200). The information herein is given in good faith, but no warranty, express or implied, is made. Consult Lubchem, Inc. For further information: 281-350-9600.

Abbreviations: N/A: Not Applicable N/D: Not Determined

MATERIAL SAFETY DATA SHEET

Lubchem, Inc. 23609 W. Hardy Rd. Spring, TX 77373
Telephone (281) 350-9600
Revision 2/15/00

NFPA CODES	
Flammability	0
Reactivity	0
Health	1
Special	-

Section I - Product Identification

Product Name: IS-1000
Product Type: Pipeline Cleaning Fluid
Chemical Name and Synonyms: Anionic/Nonionic Surfactants
Formula/CAS No.: Complex Mixture

Section II - Hazardous Ingredients / Identity Information

Component	CAS Number	%	EXPOSURE LIMITS
Dipropylene glycol methyl ether	34590-94-8	5%	ACGIH - 100 ppm, OSHA - 100 ppm
Non-ionic and amphoteric surfactants		35%	N/E

Section III - Physical / Chemical Characteristics

Boiling Point: >210°F
Specific Gravity (H2O = 1): 1.056
Vapor Pressure (mm Hg.): N/E
Melting Point: N/A
Vapor Density (Air =1): N/E
Evaporation Rate (Butyl Acetate =1): >1
Solubility in Water: Complete
Appearance / Odor: Amber liquid/Soap odor

Section IV - Fire and Explosion Hazard Data

Flash Point (Method): None Flammable Limits-LEL: N/A UEL: N/A
Extinguishing Media: Use media suitable for surrounding fire.
Special Fire Fighting Procedures: No special fire fighting procedures.
Unusual Fire and Explosion Hazards: None known.

Section V - Reactivity Data

Stability: Material is stable
Conditions to Avoid: None known
Incompatibility (materials to avoid): Strong oxidizing agents.
Hazardous Decomposition Products: Oxides of carbon
Hazardous Polymerization: Will not occur.

Section VI - Health Hazard Data

Carcinogens under OSHA, ACGIH, NTP, IARC: This product contains no carcinogens in concentrations of 0.1 percent or greater.
Signs and Symptoms of Overexposure: Liquid may cause eye, nose, and throat irritation. Prolonged exposure may result in drying which can cause skin irritation and dermatitis. Ingestion may be harmful.
Medical Conditions Generally Aggravated by Exposure: Skin disorders and allergies.
Emergency and First Aid Procedures:
Eyes: Flush with water for at least 15 minutes. If irritation occurs seek medical attention.
Inhalation: Not expected.
Ingestion: Seek immediate medical attention. Never give anything by mouth to an unconscious person.
Skin: Promptly wash contacted area thoroughly with soap and water. If redness or irritation persists, seek medical attention. If spilled on clothing, remove and launder before reuse.

Section VII – Environmental Protection

Steps To Be Taken In Case Material is released or spilled: Contain spill immediately. Prevent entering any waterway by diking. Absorb with inert absorbent material (sand, dirt, clay, absorbent, etc.). Large spills should be diked and may be picked up by using shovels, buckets or other means and placed in drums or other suitable containers. Comply with all Federal, State and Local Laws.

Waste Disposal: Incinerate in approved system, use approved landfill, or dispose of in accordance with local, state, and federal regulations.

Section VIII – Special Precautions

Precautions To Be Taken In Handling and Storage: Store in a cool well ventilated area. Keep containers sealed. If the container is warm, open bung slowly to release internal pressure.
Other Precautions: Use good housekeeping practices and clean up spills, promptly. Eye wash and safety shower should be in close proximity.

Section IX - Control Measures/Special Protection

Respiratory Protection: Use approved respirator or air-supplied mask if working in an enclosed area or if mist concentrations exceed permissible exposure limit.
Ventilation Type Required: Natural ventilation should be provided.
Protective Clothing: Gloves: Synthetic or rubber gloves should be worn to avoid prolonged or repeated contact with the liquid. Eye Protection: Chemical safety goggles should be worn to avoid contact with the eyes. Other Protective Clothing or Equipment: Impervious synthetic rubber boots and apron to prevent prolonged or repeated skin contact.

Section X – Transportation Data

Not Regulated

Section XI - Regulatory Information

Label requirements – none
All ingredients are listed on the TSCA Inventory.

This document is prepared pursuant to the OSHA Hazard Communication Standard (29CFR1910.1200). The information herein is given in good faith, but no warranty, express or implied, is made. Consult Lubchem, Inc. For further information: 281-350-9600.

Abbreviations: N/E: Not Established N/A: Not Applicable N/D: Not Determined

PRODUCT DATA SHEET
January, 2007

420 BBL FIXED AXLE DOUBLE WALL TANK (WADE)

GENERAL INFORMATION

All four walls and the rounded bottom of this tank are double-skinned. The open area between the walls (interstitial area) will contain leakage from the primary (inner) wall, should that occur, preventing liquid from leaking to the environment. There are interstitial drains to check for leaks.

WEIGHTS AND MEASURES

Capacity:	420 BBL @ overflow (17,640 gal.)
Height:	9'-6" (to top of tank roof steel) 10'-3" (to handrails when folded down) 13'-0" (to handrails in upright position)
Width:	8'-0"
Length:	46'-4" (overall)
Weight:	33,960 lbs.

STRUCTURAL DESIGN

Outer Floor:	3/16" ASTM A36 carbon steel
Inner Floor:	1/4" ASTM A36 carbon steel
Outer Skin: (Sides/ends)	3/16" ASTM A36 carbon steel
Inner Skin: (sides/ends)	1/4" ASTM A36 carbon steel
Roof Deck:	1/4" ASTM A36 carbon steel
Interstitial Framing:	1/4" x 5" x 3" carbon steel channel iron

FEATURES

Valves:	(2)Front & (1)Rear: 4"- wafer butterfly valve. Cast iron body, Buna-N seat & seals, 316 SS stem, Nylon 11 coated ductile iron disk, with plug and chain.
Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
Front Drain:	4" flange w/butterfly valve along centerline bottom of floor
Rear Drain:	4" flange w/butterfly valve along centerline bottom of floor

FEATURES – cont.

Front Fill Connection:	4" flange w/butterfly valve on passenger side
Interstitial Drains:	Two (2) – 1" @ bottom center, front and rear of tank with ball valve
Fill Line:	3" stub at rear driver side on roof top
Overflow:	3" collar at front driver side
Manways:	Three (3) – 22" round manways on rear, center and front of roof, made of flat 1/2" flat plate with 5/8" bolts and nuts; 1/2" x 1/2" square Buna-N spliced ring gaskets
Stairway:	At rear of tank with OSHA handrail
Guardrails:	Self locking, 1" square tubing on top of tank
Internal Ladder:	One (1) located below rear hatch, constructed of ¾" round bar
Level Gauge:	Ball float style, 2-8" 304 SS floats
Misc. Piping Connections:	One (1) – 4" top vent (blinded) Two (2) – 1" nipples & plugs at top rear into interstitial area
Tires:	11R x 22.5
Axles:	22,500 Spicer – Dana D-22

SURFACE DETAILS

Exterior Coating:	High gloss polyurethane
Interior Coating:	Chemical resistant lining
Safety Paint:	Safety yellow – handrails, hatch covers and trip hazard surfaces

TESTS/CERTIFICATIONS

Test Performed:	3 psi air test; scheduled Level 1, 2 & 3 QMS inspections

BAKERCORP™

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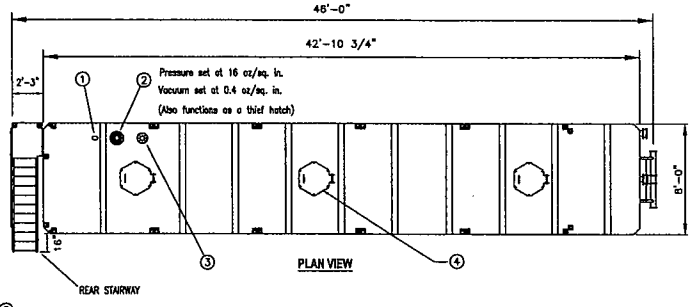
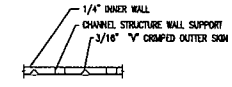
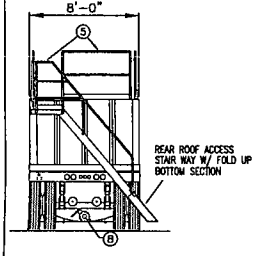
ITEM	QTY	DESCRIPTION
1	1	3" ROOF FILL
2	1	8" PRESSURE/VACUUM VALVE
3	1	4" FLANGE (VAPOR RECOVERY CONN.)
4	3	22" MANWAY HATCH
5	14	FOLD-DOWN HANDRAIL (various shapes/sizes)
6	1	4" FRONT FILL WITH BUTTERFLY VALVE
7	1	4" FRONT DRAIN WITH BUTTERFLY VALVE
8	1	4" REAR DRAIN WITH BUTTERFLY VALVE



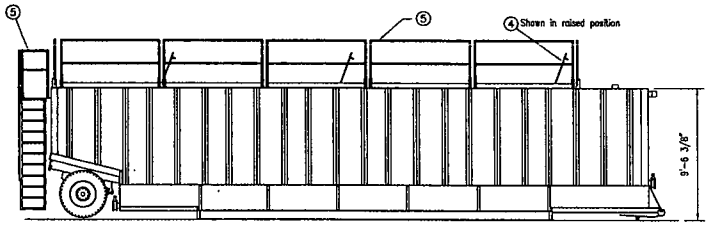
PLAN VIEW



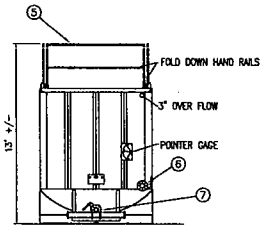
PLAN VIEW
TANK VERTICAL SIDE WALL SECTION



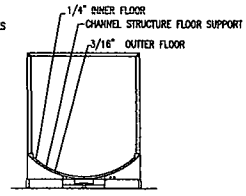
REAR ELEVATION



PASSENGER SIDE ELEVATION



FRONT ELEVATION



INTERNAL VIEW

SPECIFICATIONS:
1) Tank Capacity: 17,640 gallons (420 BBL.)
2) Tank Weight: 33,960 lbs. (empty)

NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. THIS TANK IS *NOT DESIGNED FOR TRANSPORTING LIQUIDS*. It should be moved only when empty.
3. Tanks of this type have an internal lining (coating) on the wetted surfaces.
4. This tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/sq. in. pressure and 0.4 oz/sq.in. vacuum.

REV.	DESCRIPTION	DATE	BY
G			
F			
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D			
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B			
A	MADE TEXT READABLE	7/12/05	Z.E.R

BAKERCORP 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

SCALE: Do Not Scale	SIZE: B	ORIGINAL DWG. DATE: 11SEP02
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS: ––
TITLE: WADE FIXED AXLE DOUBLE WALL TANK		SHEET: 1 OF 1
DRAWING NO.: S-2-M0009-1-		REV.: A

PRODUCT DATA SHEET

October, 2007

DOUBLE WALL TANK

(Baker Style Tank)

GENERAL INFORMATION

Double wall tanks provide maximum environmental protection and are easy to clean because they have smooth interior walls since the structural frame is between the two walls. Only the internal piping crossties remain. Two large vapor tight hatch doors on the top deck provide easy access inside.

WEIGHTS AND MEASURES

Capacity:	425 BBL (17850 gallons)
Height:	12'-6" (15'-2" with handrails in up position)
Width:	8'-0" (tank only)
Length:	35'-0" (tank only); 37'-6" (including stairway)
Weight:	29,500 lbs.

STRUCTURAL DESIGN

Outer Floor:	¼" thick ASTM A36 carbon steel
Inner Floor:	3/16" thick ASTM A36 carbon steel
Outer Skin: (sides/ends)	¼" thick ASTM A36 carbon steel
Inner Skin: (sides/ends)	3/16" thick ASTM A36 carbon steel
Roof Deck:	¼" thick ASTM A36 carbon steel plate (not double walled)
Interstitial Framing:	Walls: 4" steel channel Floors: 2" steel channel
Internal Cross Bracing:	11 – 2" schedule 80 pipes

FEATURES

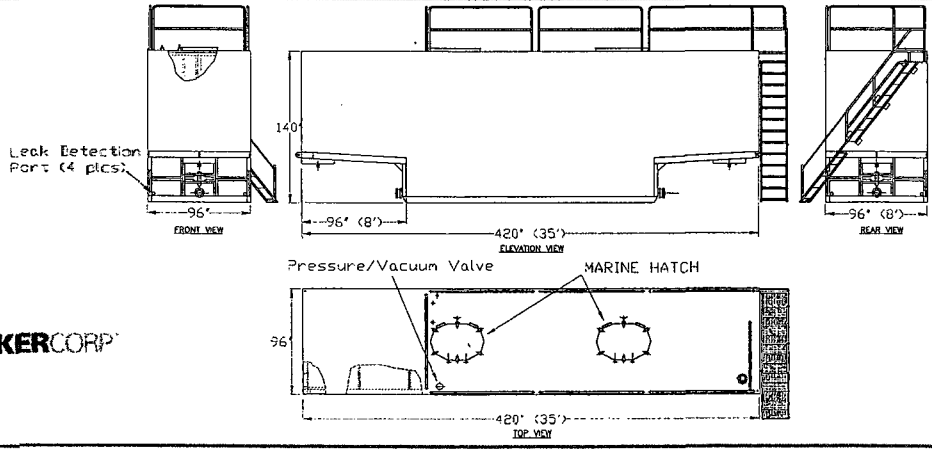
Interstitial Drains:	4 – 1¼" threaded and capped, one at each bottom corner of floor
Valves:	2-4" 150# butterfly, one on each end of tank, bottom center
Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
Roof Piping Connection:	1-4" 150# flanged (blinded) connection, driver side on rear end of tank
Top Access Hatches:	2-50" long x 32" wide marine-style (rounded ends)
Access Hatch Seals:	1" thick x 1¼" wide neoprene gasket
Manways:	None
Stairway:	Rear end – lower section folds for extension and retraction. Stairway includes handrails.
Guardrails:	Around the top deck; fold-down.
Internal Ladder:	One, located at rear top hatch opening
Level Gauge:	Ball float style, 2-8" SS floats
Wheels:	Removable dolly (not a fixed axle)

SURFACE DETAILS

Exterior Coating:	High Gloss Polyurethane
Interior Coating:	Chemical resistant coating (SS float balls are not coated)

TESTS/CERTIFICATIONS

Test Performed:	Full hydrostatic – tank and interstitial space on construction. Scheduled Level 1, 2 and 3 inspections



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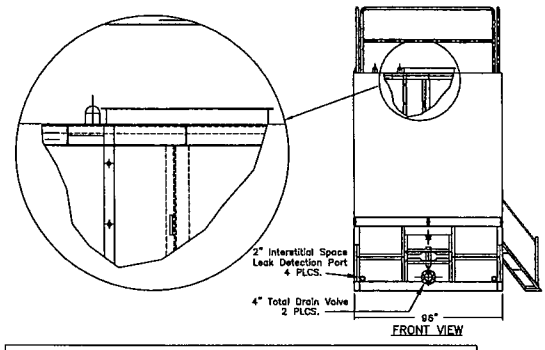
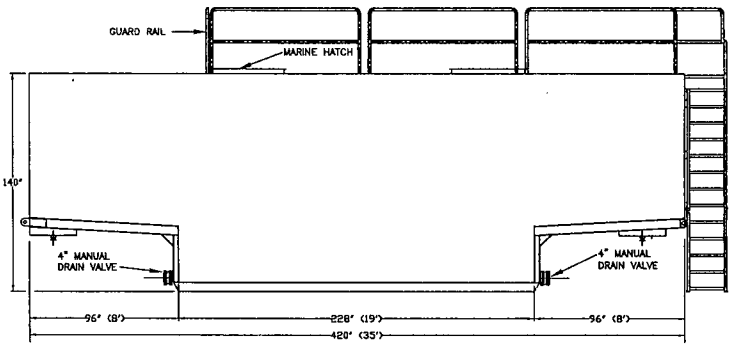
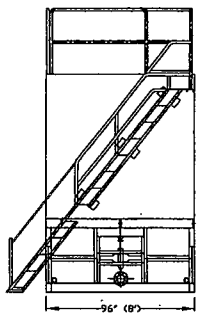


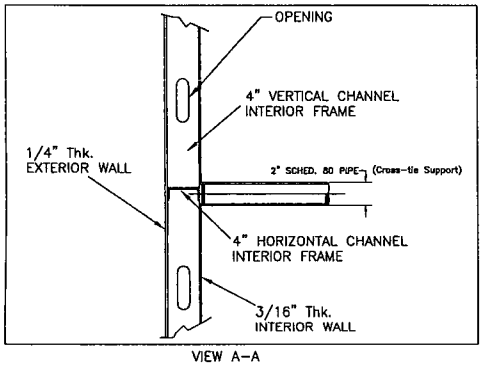
FRONT VIEW



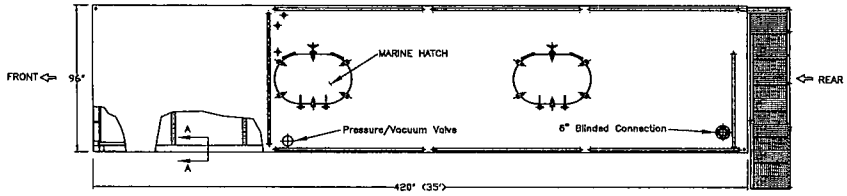
ELEVATION VIEW



REAR VIEW



VIEW A–A



TOP VIEW

SPECIFICATIONS:
1) Tank Capacity: 17,850 gallons (425 BBL)
2) Tank Weight: 29,500 lbs. (empty)

NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. THIS TANK IS *NOT DESIGNED FOR TRANSPORTING LIQUIDS*. It should be moved only when empty.
3. Tanks of this type have an internal lining (coating) on the wetted surfaces.
4. This tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/sq. in. pressure and 0.4 oz/sq.in. vacuum.

REV.	DESCRIPTION	DATE	BY
G			
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BAKERCORP 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

SCALE: To Scale	SIZE: B	ORIGINAL DWG. DATE: 11AUG03
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS: – –
TITLE: BAKER STYLE DOUBLE WALL TANK		SHEET: 1 OF 1
DRAWING NO.: S-1-M0010-1-		REV.: 0

PRODUCT DATA SHEET
October, 2007

420 BBL FIXED AXLE DOUBLE WALL TANK (Pinnacle)

GENERAL INFORMATION

All four walls and the V-bottom of this tank are double-skinned. The open area between the walls (interstitial area) will contain leakage from the primary (inner) wall, should that occur, preventing liquid from leaking to the environment. There are interstitial drains to check for leaks.

WEIGHTS AND MEASURES

Capacity:	420 BBL (17,622 gal.)
Height*: *Tank resting on grade w/axle retracted	9'-0" (to top of tank roof steel) 9'-7" (to handrails when folded down) 12'-6" (to handrails in upright position)
Width:	8'-6"
Length:	45'-7" (overall – nose to tail)
Weight:	36,300 lbs.

STRUCTURAL DESIGN

Outer Floor:	1/4" ASTM A36 carbon steel
Inner Floor:	1/4" ASTM A36 carbon steel
Outer Skin: (Sides/ends)	3/16" ASTM A36 carbon steel
Inner Skin: (sides/ends)	1/4" ASTM A36 carbon steel
Roof Deck:	1/4" ASTM A36 carbon steel
Interstitial Framing:	1/4" x 6" x 2¾" formed carbon steel channel

FEATURES

Valves:	(1)Front & (1)Rear: 4"- wafer butterfly valve. Cast iron body, Buna-N seat & seals, 316 SS stem, Nylon 11 coated ductile iron disk, with plug and chain.
Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
Front Drain:	4" flange w/butterfly valve along centerline bottom of floor
Rear Drain:	4" flange w/butterfly valve along centerline bottom of floor

FEATURES – cont.

Interstitial Drains:	Six (6) total – three ¾" ball valves each on front and rear of tank.
Manways:	Two (2) – 36" round (steel) on roof along tank centerline, near front and rear of tank; Buna-N ring gaskets. Removable fall protection grid over manway opening.
Roof Access:	Stairway at front of tank with OSHA handrail
Guardrails:	Self locking & fold-down; 1¼" square tubing around top perimeter of tank
Internal Ladder:	One (1) located below each top hatch, constructed of ¾" round bar
Level Gauge:	Ball float style, 2-8" 304 SS floats
Misc. Piping Connections:	Three (3) 4" blind-flanged nozzles on the roof, one on each end and another at the tank center. One (1) 2" blind-flanged nozzle on roof at front end of tank.
Tires:	11R x 22.5 14 ply
Axles:	71.5" track, 22,500 lbs. capacity

SURFACE DETAILS

Exterior Coating:	High gloss polyurethane
Interior Coating:	Chemical resistant lining
Safety Paint:	Safety yellow – handrails, hatch covers and trip hazard surfaces

TESTS/CERTIFICATIONS

Test Performed:	3 psi air test; scheduled Level 1, 2 & 3 QMS inspections

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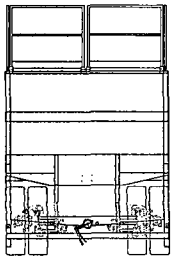

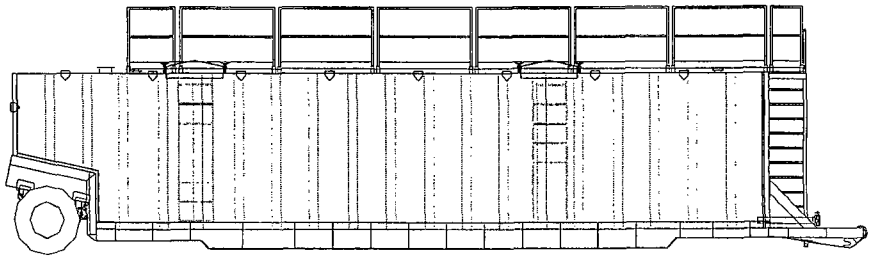

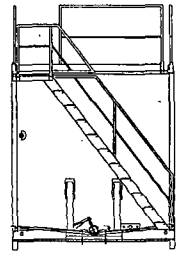

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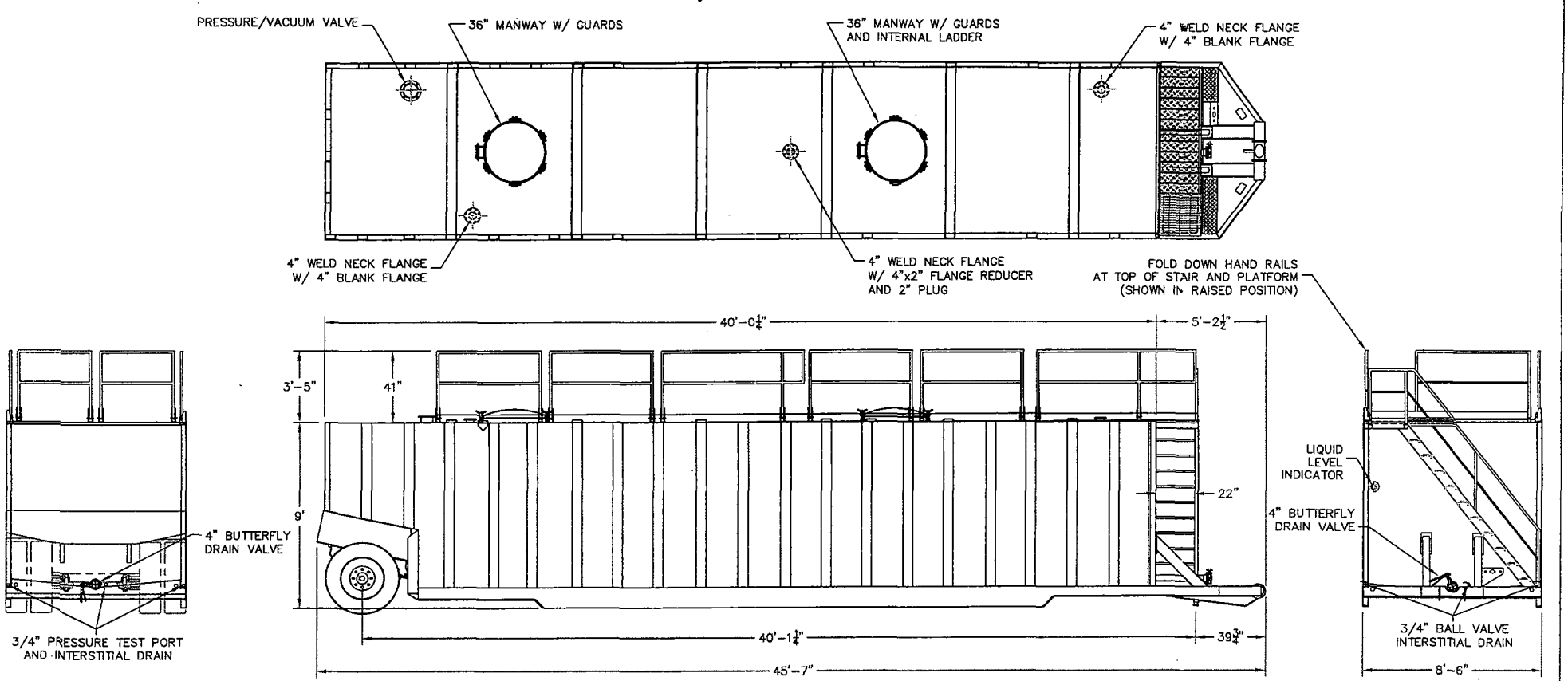


SPECIFICATIONS:

Tank Capacity: 420 BBL (17,600 Gallons)

Tank Weight:

NOTES:

1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. This Tank is ***NOT DESIGNED FOR TRANSPORTING LIQUIDS***. It should be moved only when empty.
3. This Tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/inch² pressure and 0.4 oz/inch² vacuum.

TOLERANCE: Fractions: +/- 1/16; Decimals: .XX +/- 1/16, .XXX +/- 1/32; Angles: +/- 0°30'; Bends: +/- 2°

MATERIAL:

FINISH:

BAKERCORP 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

TITLE: **DOUBLE WALL TANK**
AL 470-DW STANDARD SPECIFICATIONS

CUSTOMER: -				JOB No: 00
DWG BY: J. GONZALEZ	DATE: 01-30-08	SCALE: NOTS		SHEET: 1 OF: 1
CKD BY: -	DATE: -	DWG No: S2M0017		REV: -

Jones, Brad A., EMNRD

From: Marcelle Fiedler [Marcelle.Fiedler@nmgco.com]
Sent: Friday, February 24, 2012 2:35 PM
To: Jones, Brad A., EMNRD
Cc: Earl Morse; Curtis Winner
Subject: OCD applications
Attachments: Taos QuestaOCD hydro.pdf; TQ Overview map.pdf

Brad
We are still planning to meet with you on Tuesday. It will be myself, Curtis and Earl.
Attached is the text of the Taos-Questa test we want to do. The package with maps is 18 MB so it is too large to send all together. I will attach the overview map so you can see the location.
Talk with you soon.

Marcelle Fiedler
NMGC, Senior Environmental Scientist
7120 Wyoming Blvd. NE Ste 20
Albuquerque, NM 87109

Mailing address:
PO Box 97500
Albuquerque, NM 87199-7500

w-505-697-3516
c-505-220-1056
f-505-697-4497
marcelle.fiedler@nmgco.com

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 23, 2012

Brad Jones
State of New Mexico - Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: NMGC test of Taos Questa Mainline
Notice of Intent to Hydrostatically Test and Discharge

Dear Mr. Jones,

New Mexico Gas Company (NMGC) is submitting their notice of intent to hydrostatically test and discharge water from the Taos-Questa Mainline in Taos County, New Mexico. Following the Oil Conservation Division Guidelines for Hydrostatic Test Dewatering, NMGC has provided the following information.

Summary of Activities
NMGC will hydrostatically test 26.13 miles of 6-5/8 inch existing pipe on the Taos Mainline. Approximately 116,426 gallons of water from the Taos County public works department, a municipal source, will be used for the test. The pipeline will be tested in two sections. When testing is completed in the first section the water will be transferred to the second section. The pipeline will be cleaned prior to testing

Name and Address of Discharger
NMGC
Marcelle Fiedler
BC 22
PO Box 97500
Albuquerque, NM 87109

Location and Legal Description of Discharge

The test water will be collected at the Arroyo Hondo block valve which is in the middle of the 26.13 miles of pipeline being tested and is within Section 34, Township 27N, and Range 12E. The location can be found by driving from Taos on US64 about 3.3 miles to State Road 150. Turn right onto State Road 150 and drive 2.7 miles to State Road 230. Veer left onto State Road 230 and drive north for 1.9 miles. Turn left onto Hondo Seco Road (B143) for 2.8 miles to a gate that enters a private drive located on the right (north) side of the road. Take the gravel access road located east of the private gate for 1,000 feet to the Arroyo Hondo block valve. Enclosed are maps showing the location where the water will be collected.

Once collected, the hydrostatic test water will be tested, and if approved by OCD, will be discharged within Sections 11, 14, 23, and 35 of T27N and R12E along the MNGC gas pipeline right-of-way (ROW) with a sprayer truck. Water will be sprayed along NMGC's 50 foot ROW approximately 1.8 miles to the north of the Arroyo Hondo block valve, the location where water comes out of the pipe. Enclosed is a map showing the location along the ROW where water will be sprayed. Areas where water will not be sprayed, because they do not meet the siting criteria, are also shown.

Maps

The following maps are included with this permit application.

- Overview of project area (topo map)
- Water collection site (topo and aerial map)
- Wells
- Geology of area
- Soils
- Land Ownership map
- Overview of locations where water will be sprayed on the ROW
- Discharge maps where water will be sprayed on the ROW

Demonstration of Compliance with Siting Criteria

See attached Maps and Certification of Compliance with Siting Criteria completed by the NMGC Project Manager for demonstration of compliance with Siting Criteria. Areas along the discharge route which do not conform to the siting criteria (e.g.waterways) will be avoided. This will be accomplished through contractor training and flagging/signs along the ROW

Compliance with four of the five siting criteria where the water will be collected are met because:

1. Hydrostatic test water collected in tanks will not be within 200 feet of any watercourse (see Discharge site map)
2. The nearest wells are more than 1,200 ft away from the discharge site
3. There are no wetlands within 500 ft
4. NMGC contacted the NM Bureau of Mines and Minerals about subsurface mines and email verification was submitted to NMGC that there are no mines in the area. (see attached email from Bureau of Mines)

NMGC will collect the water within 500 feet of a permanent residence and therefore does not meet that siting criteria.

Description of Activities

The natural gas pipeline will be hydrostatically tested in two sections using approximately 103,387 gallons of water from Taos County for the first section and an additional 13,039 gallons for the second section. A total of 116,426 gallons of water will be used for the test. Each section will be tested for a minimum of 8 hours.

Prior to testing, the pipeline will be chemically cleaned. The MSDS for the proposed cleaning agent is attached. Four to six chemical cleaning runs are anticipated in order to achieve desired

pipe conditions. Each run will use 5,000 gallons of water and chemical agent combined, resulting in between 20,000 and 30,000 gallons of chemical cleaning fluids.

NMGC anticipates starting the hydrostatic test in July 2012. Once hydrostatic testing starts, the test will last 3-4 days and then the water will be stored in holding tanks for an additional 4 to 5 days while the water analysis is completed. When the results of the water analysis are received, and with OCD permission, the water will be sprayed onto NMGC ROW, approximately 2 weeks after hydrostatic testing starts. NMGC anticipates that the water will be off site by approximately early August or two weeks from when the hydrostatic test begins.

Method & Location for Collection and Retention of Fluids & Solids

Hydrostatic Test

Seven 18,000 gallon mobile tanks will be used to contain the test water after the test is complete. The test water will be transferred from the pipe into the tanks by connecting a hose from the pipe directly to the tank. When filling, the tanks will be interconnected. When a tank has been filled, valves will be closed/disconnected to isolate the filled tank. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring water. NMGC will conduct daily inspections of each tank containing test water.

Chemical Cleaning

The fluids from each cleaning run will be collected in a 60-barrel tanker truck and transferred to ten 3,000 gallon tanks that are not interconnected (the tank dimensions are 8 feet in diameter by 8 feet tall). The 3,000 gallon tanks will be located at the same location where the hydrostatic test water will be collected. Hay bales and a plastic liner will be installed around the tanks for secondary containment that will be sufficient to hold one and a third the tanks capacity. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring wastes.

BMPs to Contain Discharge On Site & Control Erosion

Plastic liner and drip trays will be placed under hoses and valves to collect drips and leaks when transferring water. Water will be sprayed onto the ROW in a controlled rate so that erosion does not occur. Water will not be sprayed on days when wind will carry the water off the ROW.

Request for Alternate Treatment/Disposal

If the hydrostatic test water does not meet conditions for discharge to the ROW, NMGC has made arrangements with Key Energy Services for Class I injection well disposal, if the test water meets Key Energy Services disposal criteria. If the hydrostatic test water does not meet conditions for discharge to Key Energy Services injection well disposal, test water will be sent to a RCRA permitted TSDF for disposal.

Hydrostatic Test Water Sampling Plan

A hydrostatic test water sample will be collected from the first tank filled. The test water will be analyzed for the constituents identified in NMAC 20.6.2.3103 (A)(B(C). Upon receipt of the analytical results, NMGC will submit them to the OCD for approval to discharge. NMGC will expedite the laboratory analyses to minimize the storage time of the test water in the storage tanks.

Disposal of Fluids & Solids

Chemical Cleaning

A representative sample of the chemical cleaning fluids will be taken from the storage tank. Prior to disposal, the chemical cleaning fluids will be analyzed for the following:

- TPH (418.1)
- TCLP (RCRA 8)
- NORM Testing
- BTEX, MTB, TMB (8021B)
- PCB (8082)
- Reactivity
- Corrosivity
- Ignitability
- Chlorides

If the chemical cleaning waste is Non-Hazardous/ Non-RCRA regulated, it will go to Key Energy Services Class 1 Injection Well (Farmington, NM). If it is Hazardous/RCRA regulated, it will go to Clean Harbors Aragonite TSDF (Knolls, Utah) for incineration.

Expected Quality & Volume of Discharge

The expected volume of the hydrostatic test discharge is approximately 116,426 gallons. Given the extensive pipeline cleaning prior to the test, water quality is expected to be comparable to the quality of the inlet municipal water and will be analyzed to determine if it meets WQCC standards.

Geological Characteristics of Subsurface at Discharge Site

The geology of the Taos region consists of a diverse mix of structural, volcanic and depositional terrains associated with Laramide-age uplift and Teritary-age extensional tectonics. The major features in the region include the northern extension of the Rio Grande rift in which the town of Taos is situated. To the east are the Sangre de Cristo and Picuris Mountains that act as the eastern boundary of the Rio Grande rift. These mountains are composed of Precambrian plutonic and metavolcanics as well as scattered Tertiary intrusive rocks. The westward extension of the Rio Grande rift is found along the San Juan Mountains to the north and Precambrian rocks exposed in the Tres Piedras/Ojo Caliente region west of Taos.

The San Luis Basin is one of the major structural elements of the Rio Grande rift. It is approximately 240 km long, and is bordered by the Sangre de Cristo Mountains on the east, and the Tusas and San Juan Mountains on the west. The southern part of the basin is a physiographically and geologically unique terrain known as the Taos Plateau. The plateau is composed mostly of 3-5 million-year-old basalts that were erupted locally. The plateau surface shows only minor dissection, although the Rio Grande and its tributaries are confined to deep canyons cut through the volcanic rocks (Rio Grande Gorge). The basalt flows of the plateau pinch out eastward and southward towards the edge of the basin.

The basin fill is comprised of a wide variety of alluvial, fluvial and eolian deposits of Tertiary and Quaternary age. The NMGC Rio Hondo block valve is located along the southern escarpment of the Rio Hondo drainage and rests on Quaternary-age pediment deposits. All of the work performed during the hydrostatic tests will be conducted within basin fill pediment sediments of the Rio Grande Rift. This information is from the NM Bureau of Mines and Mineral geologic map which may be found: http://geoinfo.nmt.edu/publications/maps/geologic/state/home.html

Depth & TDS Concentration of Ground Water Most Likely to be Affected by Discharge
According to State Engineer well records, the nearest well is 1,270 feet from the collection location. The depth to water at that well is 660 feet. Other wells in the area have a depth to water from between 270 to 325 feet. Total dissolved solid data from the Taos area provided by Glorieta Geosciences shows a range from 112 to 436 mg/l.

ID of Landowners at and Adjacent to Discharge Site and Collection/Retention Site
A map is provided showing the landownership of the underlying and adjacent property owners from the water collection location and the area where water will be sprayed if approved by OCD. The collection location is on private land and the discharge location is on Forest Service property.

Closing
In the event of a release associated with project activities, NMGC will comply with OCD's Release Notification and Corrective Action regulation NMAC 19.15.29 to remediate the spill as soon as possible.

Once OCD rules this application as administratively complete, and if required, NMGC will provide notice of the permit application in the Tao News following requirements in NMAC 20.6.2.3108. In addition, a sign will be placed at the location of the discharge and at the Arroyo Seco post office on State Road 150 providing a synopsis of the public notice. A check for $100 is enclosed for the filing fee. Thank you for your assistance. If additional information is required please notify me in writing. Please call me at (505) 697-3516 if you have any questions.

Sincerely,

Marcelle Fiedler
Senior Environmental Scientist
Attachment: Location maps

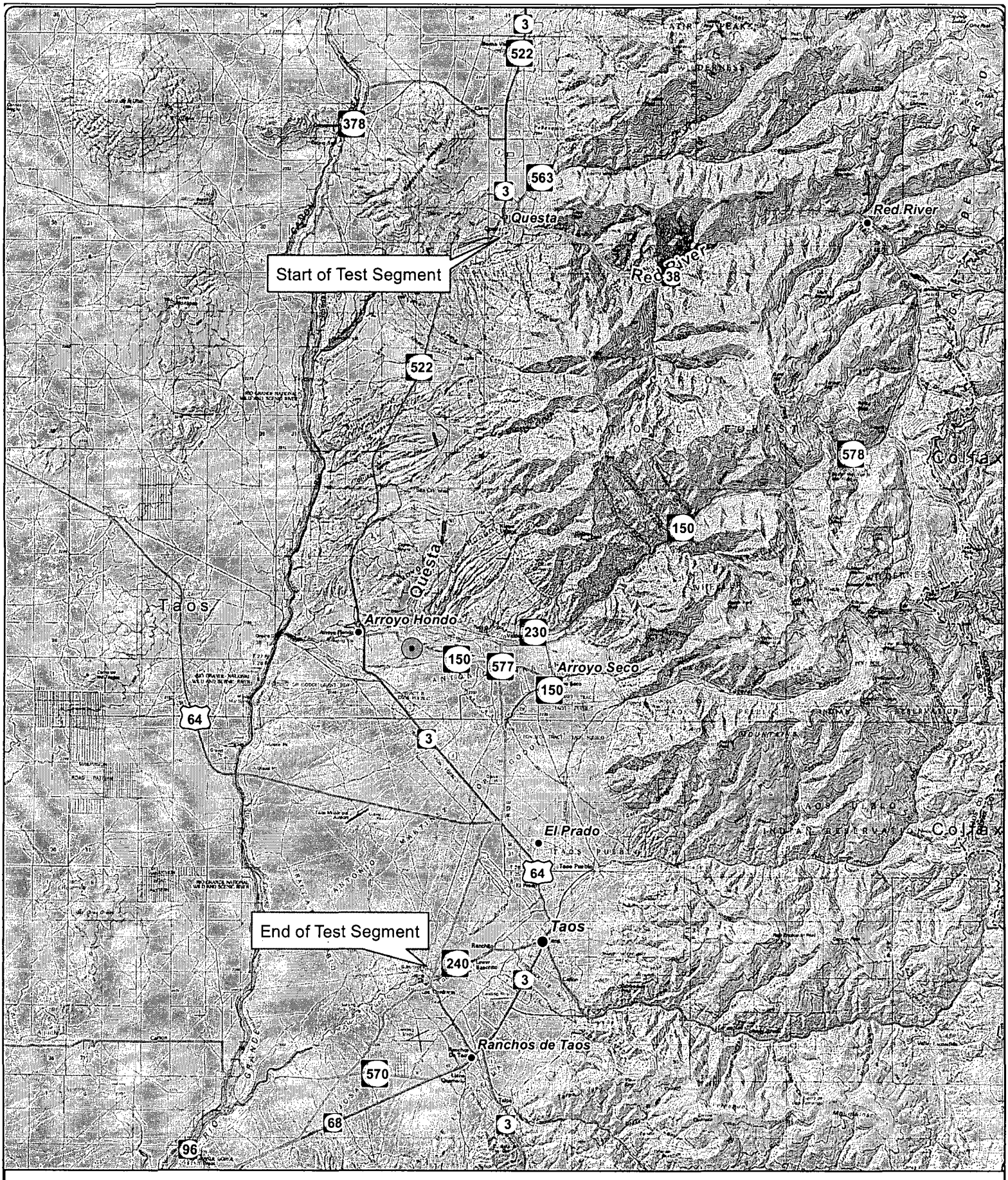
Certification of Compliance with Siting Criteria

I, Rebecca Sandoval, Professional Engineer with NMGC visited the project site in the field on February 20, 2008 and verified that the location where NMGC will collect the hydrostatic test water from the pipe, meets the following siting criteria:

- No wells within 1,000 ft
- No watercourses within 200 ft
- No wetlands within 500ft

My observations in the field match the enclosed map showing where NMGC plans to collect the water.

Signature	Title	Date



Taos-Questa Mainline Hydrostatic Test
Project Overview

Collection Location

Discharge Area

Transmission Mains by System

1 in = 18,904 ft

0 6,000 12,000 24,000 36,000 48,000 Feet

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 23, 2012

Mr. Brad Jones
State of New Mexico - Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: NMGC test of Taos Questa Mainline
Notice of Intent to Hydrostatically Test and Discharge

Dear Mr. Jones,

New Mexico Gas Company (NMGC) is submitting this notice of intent to hydrostatically test and discharge water from the Taos-Questa Mainline in Taos County, New Mexico. Following the Oil Conservation Division Guidelines for Hydrostatic Test Dewatering, NMGC has provided the following information.

Summary of Activities
NMGC will hydrostatically test 26.13 miles of 6-5/8 inch existing pipe on the Taos Mainline. Approximately 116,426 gallons of water from the Taos County public works department, a municipal source, will be used for the test. The pipeline will be tested in two sections. When testing is completed in the first section the water will be transferred to the second section. The pipeline will be chemically cleaned prior to testing

Name and Address of Discharger
NMGC
Marcelle Fiedler
BC 22
PO Box 97500
Albuquerque, NM 87109

Location and Legal Description of Discharge

The test water will be collected at the Arroyo Hondo block valve which is in the middle of the 26.13 miles of pipeline being tested and is within Section 34, Township 27N, and Range 12E. The location can be found by driving from Taos on US64 about 3.3 miles to State Road 150. Turn right onto State Road 150 and drive 2.7 miles to State Road 230. Veer left onto State Road 230 and drive north for 1.9 miles. Turn left onto Hondo Seco Road (B143) for 2.8 miles to a gate that enters a private drive located on the right (north) side of the road. Take the gravel access road located east of the private gate for 1,000 feet to the Arroyo Hondo block valve. Enclosed are maps showing the location where the water will be collected.

Once collected, the hydrostatic test water will be tested, and if approved by OCD, will be discharged within Sections 11, 14, 23, and 35 of T27N and R12E along the MNGC gas pipeline right-of-way (ROW) with a sprayer truck. Water will be sprayed along NMGC's 50 foot ROW approximately 1.8 miles to the north of the Arroyo Hondo block valve, the location where water comes out of the pipe. Enclosed is a map showing the location along the ROW where water will be sprayed. Areas where water will not be sprayed, because they do not meet the siting criteria, are also shown.

Maps

The following maps are included with this permit application.

- Overview of project area (topo map)
- Water collection site (topo and aerial map)
- Wells
- Geology of area
- Soils
- Land Ownership map
- Overview of locations where water will be sprayed on the ROW
- Discharge maps where water will be sprayed on the ROW

Demonstration of Compliance with Siting Criteria

See attached Maps and Certification of Compliance with Siting Criteria completed by the NMGC Project Manager for demonstration of compliance with Siting Criteria. Areas along the discharge route which do not conform to the siting criteria (e.g.waterways) will be avoided. This will be accomplished through contractor training and flagging/signs along the ROW

Compliance with four of the five siting criteria where the water will be collected are met because:

1. Hydrostatic test water collected in tanks will not be within 200 feet of any watercourse (see Discharge site map)
2. The nearest wells are more than 1,200 ft away from the discharge site
3. There are no wetlands within 500 ft
4. NMGC contacted the NM Bureau of Mines and Minerals about subsurface mines and email verification was submitted to NMGC that there are no mines in the area. (see attached email from Bureau of Mines)

NMGC will collect the water within 500 feet of a permanent residence and therefore does not meet that siting criteria.

Description of Activities

The natural gas pipeline will be hydrostatically tested in two sections using approximately 103,387 gallons of water from Taos County for the first section and an additional 13,039 gallons for the second section. A total of 116,426 gallons of water will be used for the test. Each section will be tested for a minimum of 8 hours.

Prior to testing, the pipeline will be chemically cleaned. The MSDS for the proposed cleaning agents are attached. Two chemical cleaning runs and two water flushes are anticipated in order to achieve desired pipe conditions. Each cleaning run will use 825 gallons of water and chemical

agent combined. Each flush will include 1000 gallons of fresh water. The total fluid volume will be approximately 3650 gallons.

NMGC anticipates starting the hydrostatic test in July 2012. Once hydrostatic testing starts, the test will last 3-4 days and then the water will be stored in holding tanks for an additional 4 to 5 days while the water analysis is completed. When the results of the water analysis are received, and with OCD permission, the water will be sprayed onto NMGC ROW, approximately 2 weeks after hydrostatic testing starts. NMGC anticipates that the water will be off site by approximately early August or two weeks from when the hydrostatic test begins.

Method & Location for Collection and Retention of Fluids & Solids

Hydrostatic Test

Seven 18,000 gallon (approximately), double-walled mobile tanks will be used to contain the test water after the test is complete. Specification sheets for potential tanks to be utilized are provided in the attachments of this document. The test water will be transferred from the pipe into the tanks by connecting a hose from the pipe directly to the tank. When filling, the tanks will be interconnected. When a tank has been filled, valves will be closed/disconnected to isolate the filled tank. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring water. NMGC will conduct daily inspections of each tank containing test water.

Chemical Cleaning

The fluids from each cleaning run will be collected in a 60-barrel tanker truck and transferred to two 3,000 gallon tanks that are not interconnected (the tank dimensions are 8 feet in diameter by 8 feet tall). The 3,000 gallon tanks will be located at the same location where the hydrostatic test water will be collected. Hay bales and a plastic liner will be installed around the tanks for secondary containment that will be sufficient to hold one and a third the tanks capacity. NMGC will use plastic liner or drip trays under hoses and valves to collect drips and leaks when transferring wastes.

BMPs to Contain Discharge On Site & Control Erosion

Plastic liner and drip trays will be placed under hoses and valves to collect drips and leaks when transferring water. Water will be sprayed onto the ROW in a controlled rate so that erosion does not occur. Water will not be sprayed on days when wind will carry the water off the ROW.

Request for Alternate Treatment/Disposal

If the hydrostatic test water does not meet conditions for discharge to the ROW, NMGC has made arrangements with Key Energy Services for Class I injection well disposal, if the test water meets Key Energy Services disposal criteria. If the hydrostatic test water does not meet conditions for discharge to Key Energy Services injection well disposal, test water will be sent to a RCRA permitted TSDF for disposal.

Hydrostatic Test Water Sampling Plan

A hydrostatic test water sample will be collected from the first tank filled. The test water will be analyzed for the constituents identified in NMAC 20.6.2.3103 (A)(B(C). Upon receipt of the analytical results, NMGC will submit them to the OCD for approval to discharge. NMGC will

expedite the laboratory analyses to minimize the storage time of the test water in the storage tanks.

Disposal of Fluids & Solids

Chemical Cleaning

A representative sample of the chemical cleaning fluids will be taken from the storage tank. The sample will be analyzed to determine if the fluid meets acceptance criteria for disposal at Key Energy in Farmington, NM or hazardous waste criteria. The chemical cleaning fluids will be analyzed for the following:

- TCLP (RCRA 8)
- TCLP Volatile Organics
- PCB (8082)
- Reactivity
- Corrosivity
- Ignitability
- Chlorides

If the chemical cleaning waste is Non-Hazardous/ RCRA Non-Exempt, it will go to Key Energy Services Class 1 Injection Well (Farmington, NM). If it is determined to be hazardous (RCRA regulated), Advanced Chemical Transport will be utilized to transport and dispose the liquid at a RCRA permitted TSDF for incineration.

Expected Quality & Volume of Discharge

The expected volume of the hydrostatic test discharge is approximately 116,426 gallons. Given the extensive pipeline cleaning prior to the test, water quality is expected to be comparable to the quality of the inlet municipal water and will be analyzed to determine if it meets WQCC standards.

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The geology of the Taos region consists of a diverse mix of structural, volcanic and depositional terrains associated with Laramide-age uplift and Teritary-age extensional tectonics. The major features in the region include the northern extension of the Rio Grande rift in which the town of Taos is situated. To the east are the Sangre de Cristo and Picuris Mountains that act as the eastern boundary of the Rio Grande rift. These mountains are composed of Precambrian plutonic and metavolcanics as well as scattered Tertiary intrusive rocks. The westward extension of the Rio Grande rift is found along the San Juan Mountains to the north and Precambrian rocks exposed in the Tres Piedras/Ojo Caliente region west of Taos.

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This information is from the NM Bureau of Mines and Mineral geologic map which may be found: http://geoinfo.nmt.edu/publications/maps/geologic/state/home.html

Soils
Collection Area: The collection area consists of two soil types: 1) The Sedillo-Orthents association and 2) the Fernando silt loam. The Sedillo-Orthents association consists of gravelly, cobbly to sandy loam often associated with drainageways and ridges. It's typically well drained and has low available water capacity. The Fernando silt loam consists of alluvial fan deposits of silt loam and silty clay loam.. The unit is well drained and has high available water capacity.

Discharge Area (Southern Region): Discharge in the southern region of Forest Service property consists of a complex series of soil types. The soils include the Orthents-Calciorthids association, the Orejas stony loam, the Lama loam and Fluvents mappable units. Detailed soil descriptions are provided in the attachments. The Northern Region for fluid discharge consists of soils of the Lama loam and the Orthents-Calciorthids association found on stream terraces/plains and alluvial flats/drainageways respectively.

Depth & TDS Concentration of Ground Water Most Likely to be Affected by Discharge
According to State Engineer well records, the nearest well is 1,270 feet from the collection location. The depth to water at that well is 660 feet. Other wells in the area have a depth to water from between 270 to 325 feet. Total dissolved solid data from the Taos area provided by Glorieta Geosciences shows a range from 112 to 436 mg/l.

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A map is provided showing the landownership of the underlying and adjacent property owners from the water collection location and the area where water will be sprayed if approved by OCD. The collection location is on private land and the discharge location is on Forest Service property.

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Sincerely,

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Senior Environmental Scientist
Attachment: Location maps

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- No wells within 1,000 ft
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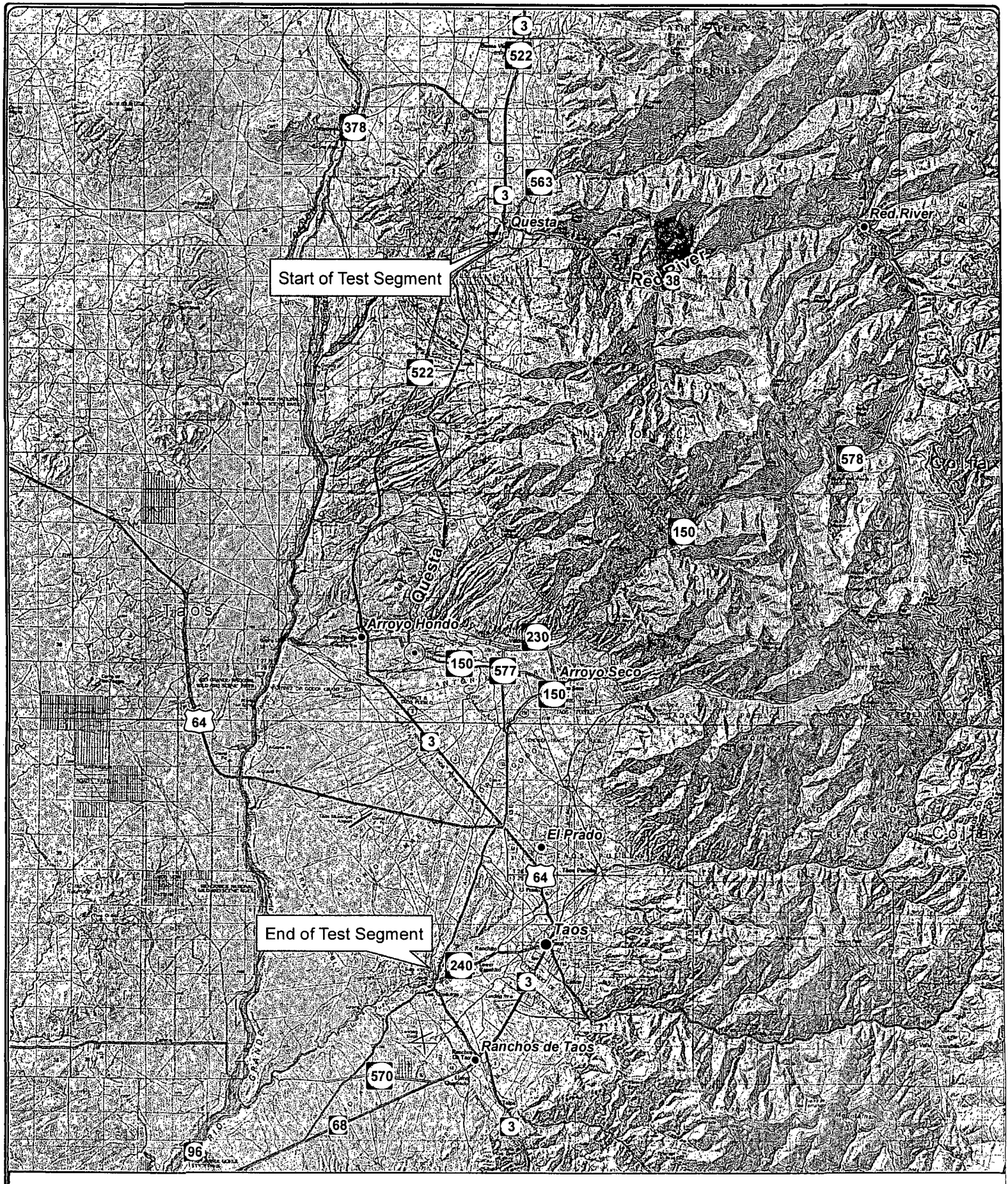
My observations in the field match the enclosed map showing where NMGC plans to collect the water.

Signature	Title	Date



Taos-Questa Mainline Hydrostatic Test
Project Overview

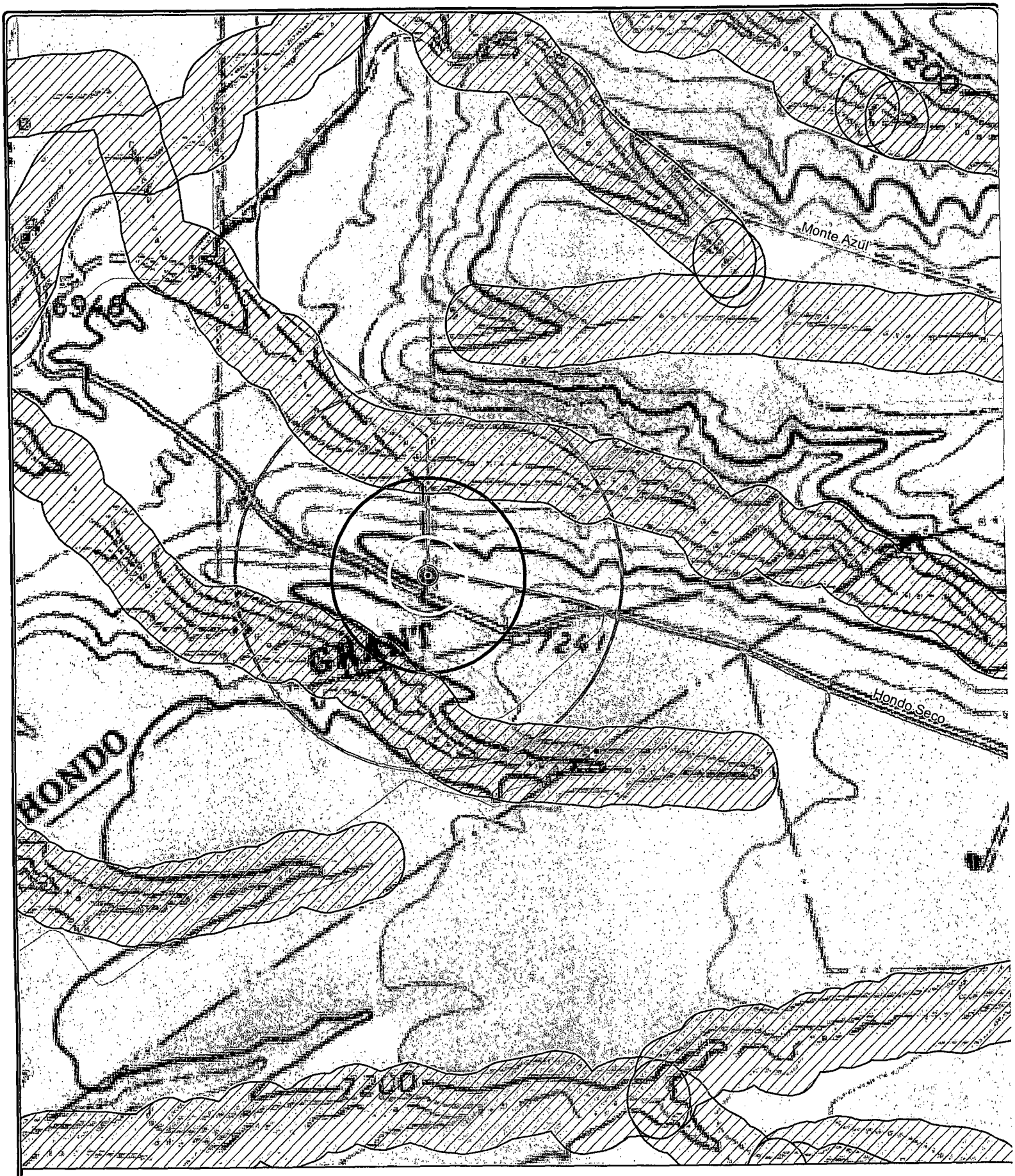
Collection Location

Discharge Area

Transmission Mains by System

1 in = 18,904 Ft

0 6,000 12,000 24,000 36,000 48,000 Ft



200 foot buffer hydrology

Collection Location

Discharge Area

1000ft buffer

500ft buffer

200ft buffer

Transmission Mains by Size

Taos-Questa Mainline Hydrostatic Test

Collection location topo

1 in = 636 ft

0 195 390 780 1,170 1,560 Feet

Collection Location

Discharge Area

1000ft buffer

500ft buffer

200ft buffer

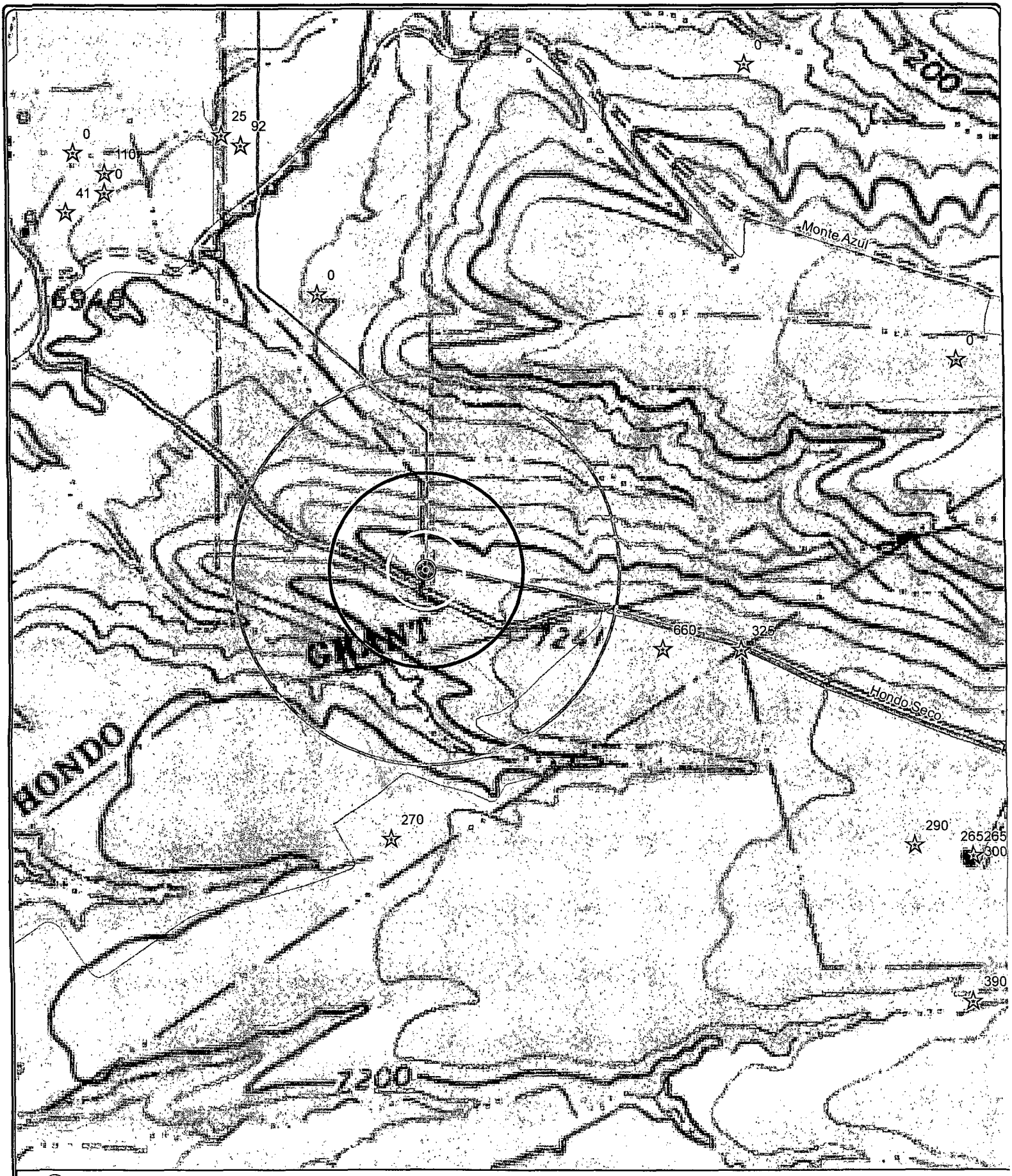
Transmission Mains by Size

Taos-Questa Mainline Hydrostatic Test
Collection location map aerial

N

0 195 390 780 1,170 1,560

1 in = 636 ft



Collection Location

Discharge Area

1000ft buffer

500ft buffer

200ft buffer

Transmission Mains by Size

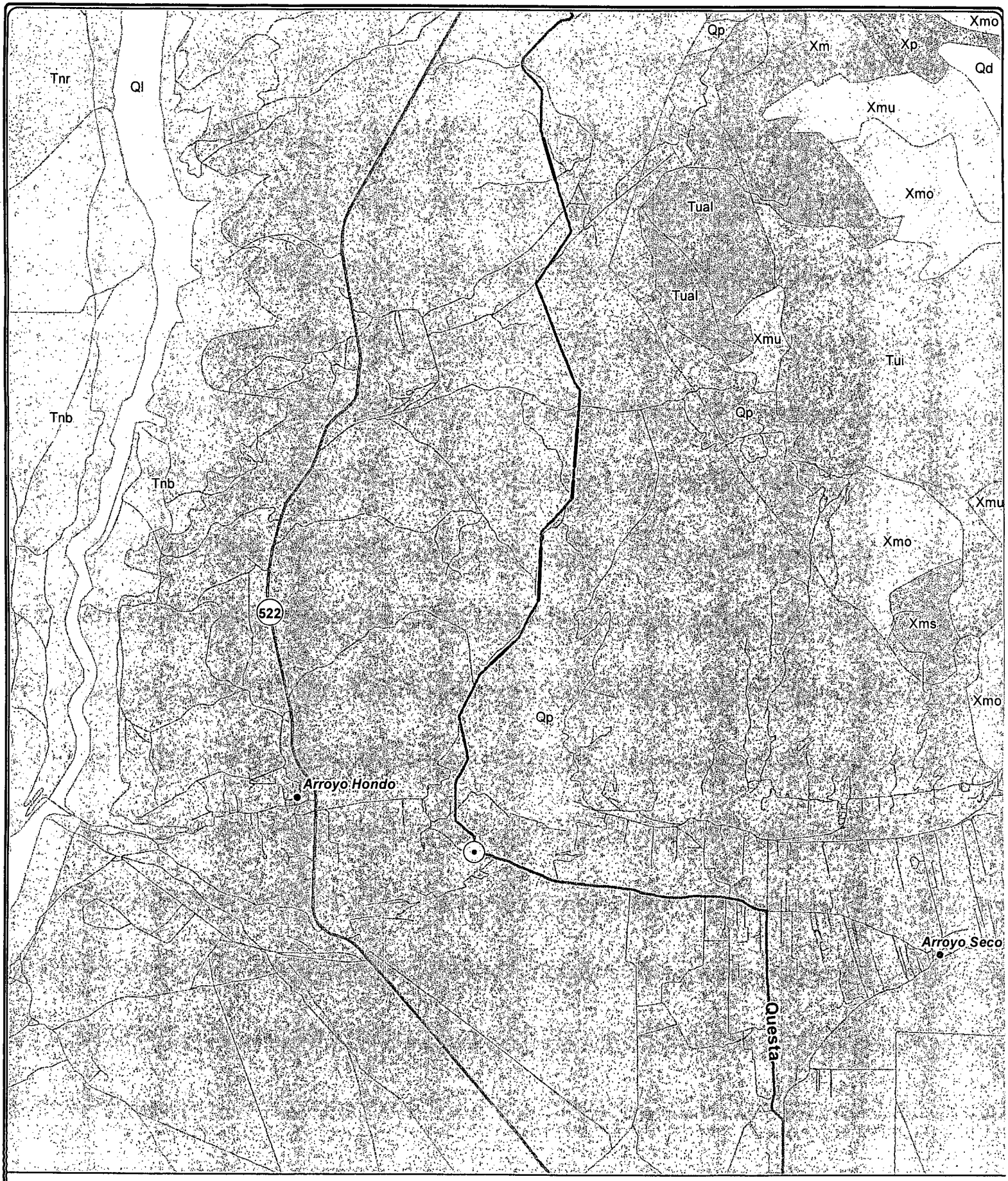
Wells (depth to water)

Taos-Questa Mainline Hydrostatic Test

Well location and depth to water

1 in = 636 ft

0 195 390 780 1,170 1,560 Feet



Taos-Questa Mainline Hydrostatic Test
Geology

Collection Location

Discharge Area

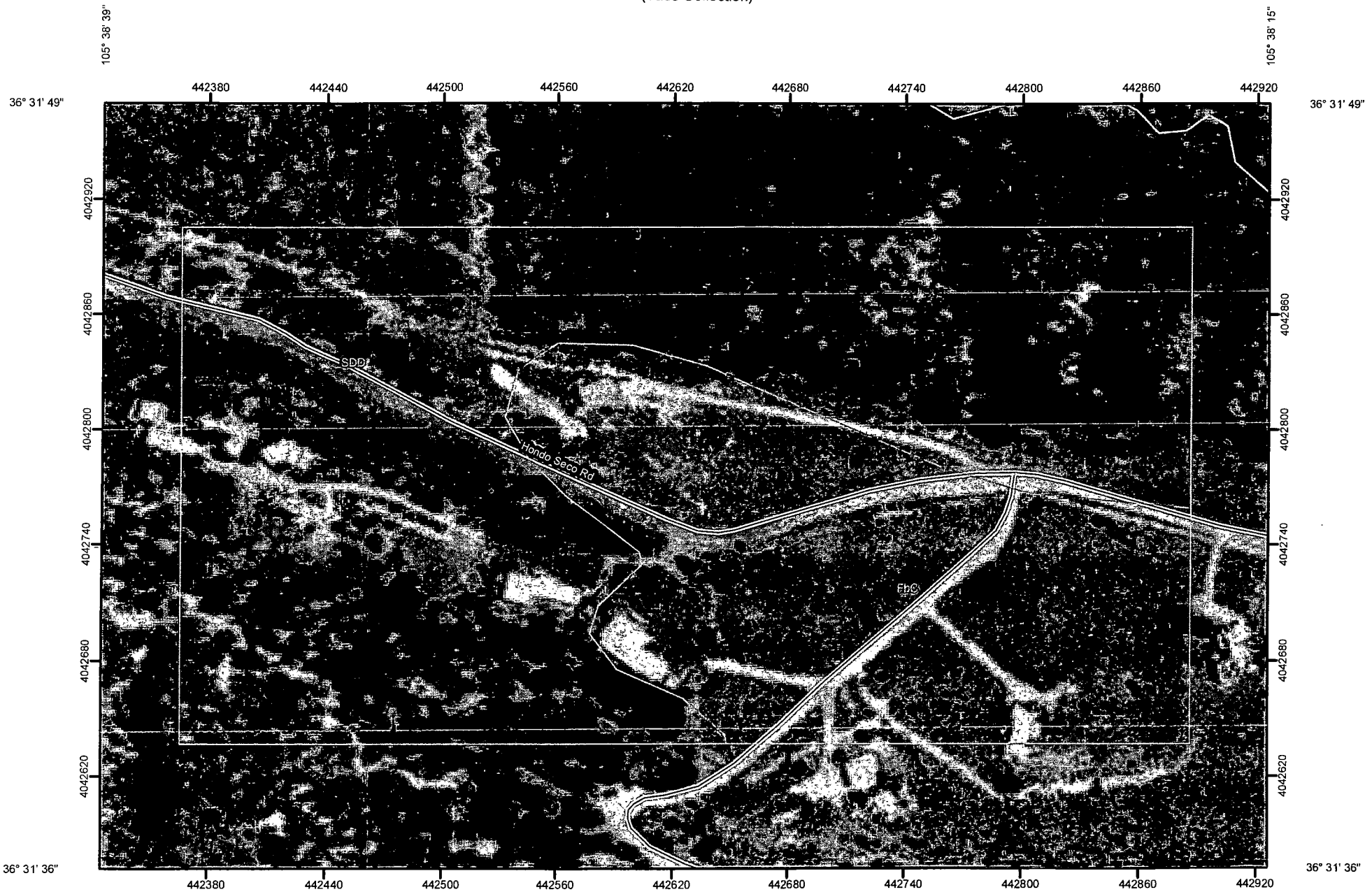
Transmission Mains by System

Qp = Piedmont alluvial deposits; upper and middle quarternary

1 in = 5,677 ft

0 1,750 3,500 7,000 10,500 14,000 Feet

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(Taos Collection)



Map Unit Legend

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FbC	Fernando silt loam, 0 to 7 percent slopes	12.2	35.3%
SDD	Sedillo-Orthents association, strongly sloping	22.4	64.7%
Totals for Area of Interest		**34.6**	**100.0%**

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 or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,840 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Date(s) aerial images were photographed: Data not available.

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.

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

FbC—Fernando silt loam, 0 to 7 percent slopes

Map Unit Setting

Elevation: 6,500 to 7,500 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 115 to 135 days

Map Unit Composition

Fernando and similar soils: 75 percent

Description of Fernando

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: High (about 11.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability (nonirrigated): 6e
Ecological site: Gravelly Loamy (R036XB006NM)

Typical profile

0 to 8 inches: Silt loam
8 to 36 inches: Silty clay loam

36 to 60 inches: Silt loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

SDD—Sedillo-Orthents association, strongly sloping

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 16 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Sedillo and similar soils: 45 percent
Orthents and similar soils: 35 percent

Description of Sedillo

Setting

Landform: Drainageways, ridges
Landform position (three-dimensional): Side slope, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability (nonirrigated): 6s
Ecological site: Gravelly Slopes (R036XA004NM)

Typical profile

0 to 3 inches: Gravelly loam
3 to 11 inches: Very cobbly loam
11 to 60 inches: Very cobbly sandy loam

Description of Orthents

Setting

Landform: Drainageways, ridges
Landform position (three-dimensional): Side slope, dip
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 30 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

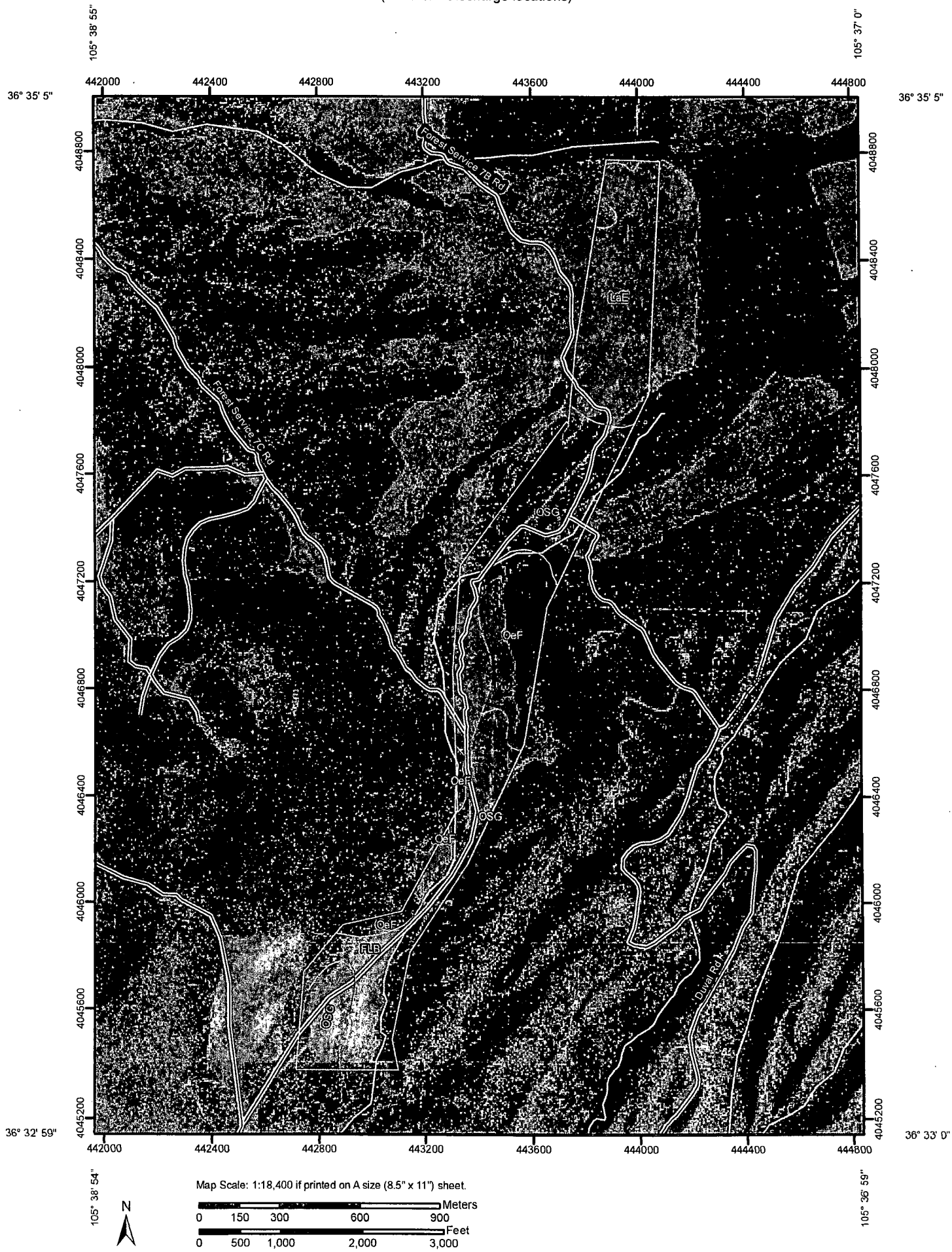
Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(Southern Discharge locations)



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

Soils
- Soil Map Units

Special Point Features:
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- Clay Spot
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- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

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Survey Area Data: Version 8, Dec 9, 2008

Date(s) aerial images were photographed: Data not available.

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

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FLB	Fluvents, nearly level	55.5	23.9%
LaE	Lama loam, 0 to 20 percent slopes	58.2	25.1%
OeF	Orejas stony loam, 15 to 40 percent slopes	40.7	17.5%
OSG	Orthents-Calciorthids association, very steep	77.9	33.5%
Totals for Area of Interest		**232.3**	**100.0%**

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

FLB—Fluvents, nearly level

Map Unit Setting

Elevation: 7,000 to 8,000 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 125 to 135 days

Map Unit Composition

Fluvents and similar soils: 80 percent

Description of Fluvents

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 8w
Ecological site: Mountain Valley (R048AY003NM)

Typical profile

0 to 6 inches: Very gravelly sand
6 to 60 inches: Stratified extremely gravelly coarse sand to gravelly sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

LaE—Lama loam, 0 to 20 percent slopes

Map Unit Setting

Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 130 days

Map Unit Composition

Lama and similar soils: 90 percent

Description of Lama

Setting

Landform: Stream terraces, plains
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from igneous and sedimentary rock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii (F048AY011NM)

Typical profile

0 to 7 inches: Loam
7 to 30 inches: Clay loam
30 to 41 inches: Cobbly sandy clay
41 to 48 inches: Cobbly sandy clay loam

48 to 60 inches: Very gravelly loamy sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OeF—Orejas stony loam, 15 to 40 percent slopes

Map Unit Setting

Elevation: 7,000 to 7,980 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 125 to 135 days

Map Unit Composition

Orejas and similar soils: 80 percent

Description of Orejas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Properties and qualities

Slope: 15 to 40 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Very low (about 1.5 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Pinus edulis-Juniperus monosperma/Quercus gambelii (F048AY015NM)

Typical profile

0 to 2 inches: Stony loam
2 to 14 inches: Very cobbly clay loam

14 to 18 inches: Bedrock

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OSG—Orthents-Calciorthids association, very steep

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 17 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Orthents and similar soils: 50 percent
Calciorthids and similar soils: 30 percent

Description of Orthents

Setting

Landform: Alluvial flats, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 40 to 80 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Description of Calciorthids

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Talf
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 10 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Limy (R051XA008NM)

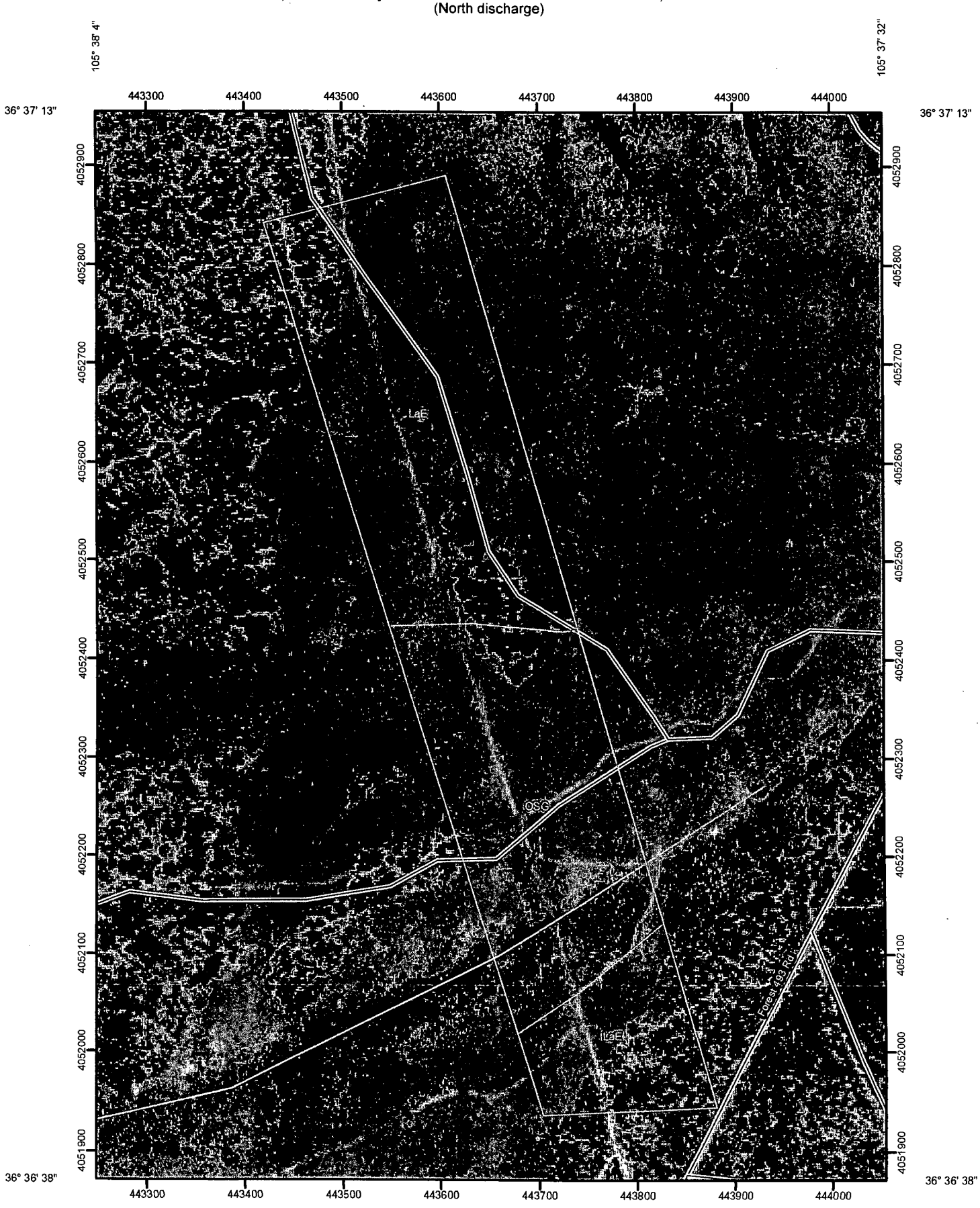
Typical profile

0 to 5 inches: Very gravelly loam
5 to 60 inches: Very gravelly sandy loam

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Soil Map—Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
(North discharge)



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 or swamp
- 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
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:5,160 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 13N NAD83

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

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Date(s) aerial images were photographed: Data not available.

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

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico (NM670)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LaE	Lama loam, 0 to 20 percent slopes	26.9	61.7%
OSG	Orthents-Calciorthids association, very steep	16.7	38.3%
Totals for Area of Interest		**43.6**	**100.0%**

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

LaE—Lama loam, 0 to 20 percent slopes

Map Unit Setting

Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 130 days

Map Unit Composition

Lama and similar soils: 90 percent

Description of Lama

Setting

Landform: Stream terraces, plains
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from igneous and sedimentary rock

Properties and qualities

Slope: 0 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 7 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability (nonirrigated): 6e
Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii (F048AY011NM)

Typical profile

0 to 7 inches: Loam
7 to 30 inches: Clay loam
30 to 41 inches: Cobbly sandy clay
41 to 48 inches: Cobbly sandy clay loam

48 to 60 inches: Very gravelly loamy sand

Data Source Information

Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008

Taos County and Parts of Rio Arriba and Mora Counties, New Mexico

OSG—Orthents-Calciorthids association, very steep

Map Unit Setting

Elevation: 6,400 to 8,500 feet
Mean annual precipitation: 9 to 17 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 110 to 140 days

Map Unit Composition

Orthents and similar soils: 50 percent
Calciorthids and similar soils: 30 percent

Description of Orthents

Setting

Landform: Alluvial flats, drainageways
Landform position (three-dimensional): Talf, dip
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 40 to 80 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Breaks (R051XA006NM)

Typical profile

0 to 10 inches: Very gravelly loam
10 to 60 inches: Very gravelly clay loam

Description of Calciorthids

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Talf
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Alluvium derived from igneous and metamorphic rock

Properties and qualities

Slope: 10 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 4.8 inches)

Interpretive groups

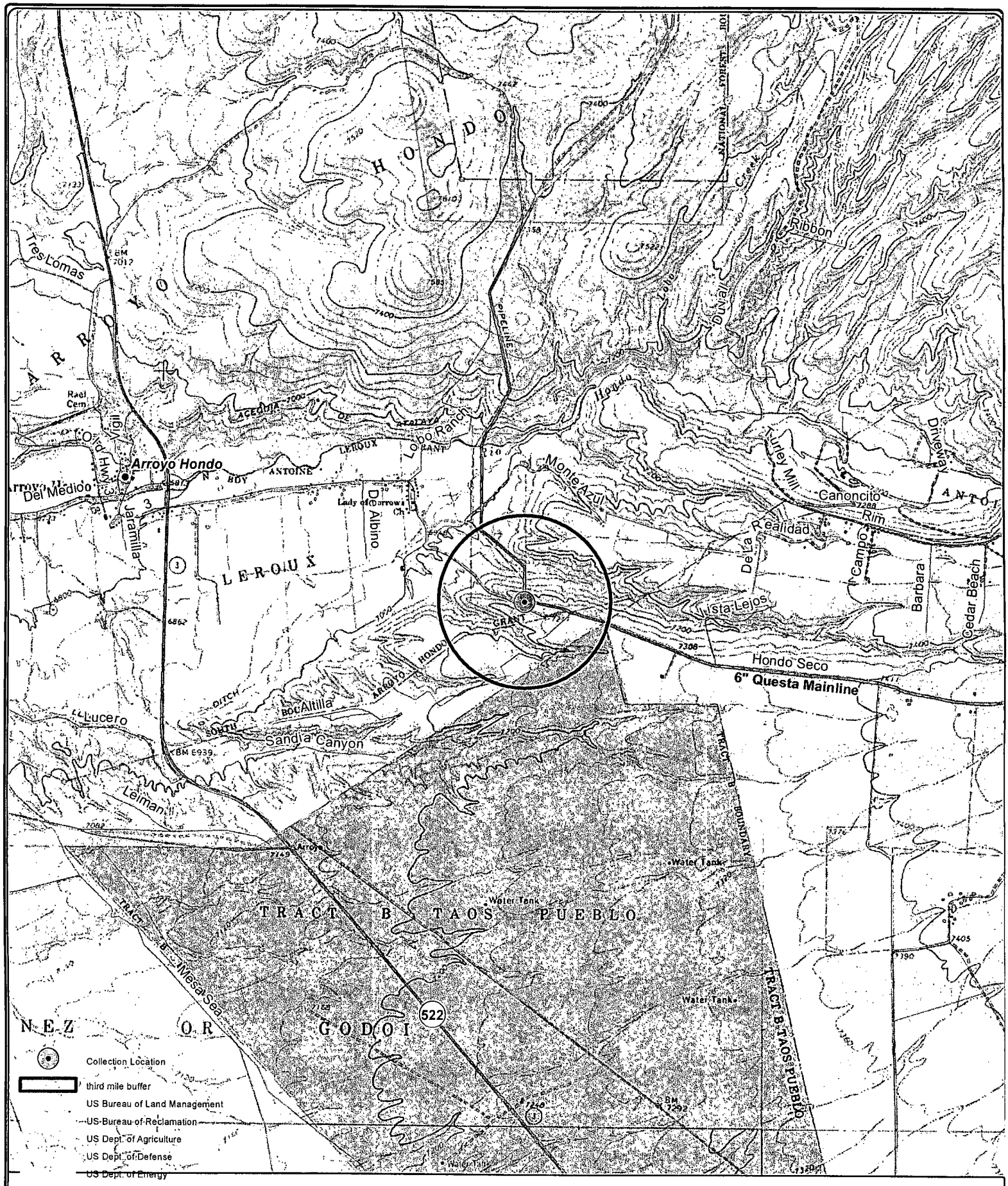
Land capability (nonirrigated): 7e
Ecological site: Limy (R051XA008NM)

Typical profile

0 to 5 inches: Very gravelly loam
5 to 60 inches: Very gravelly sandy loam

Data Source Information

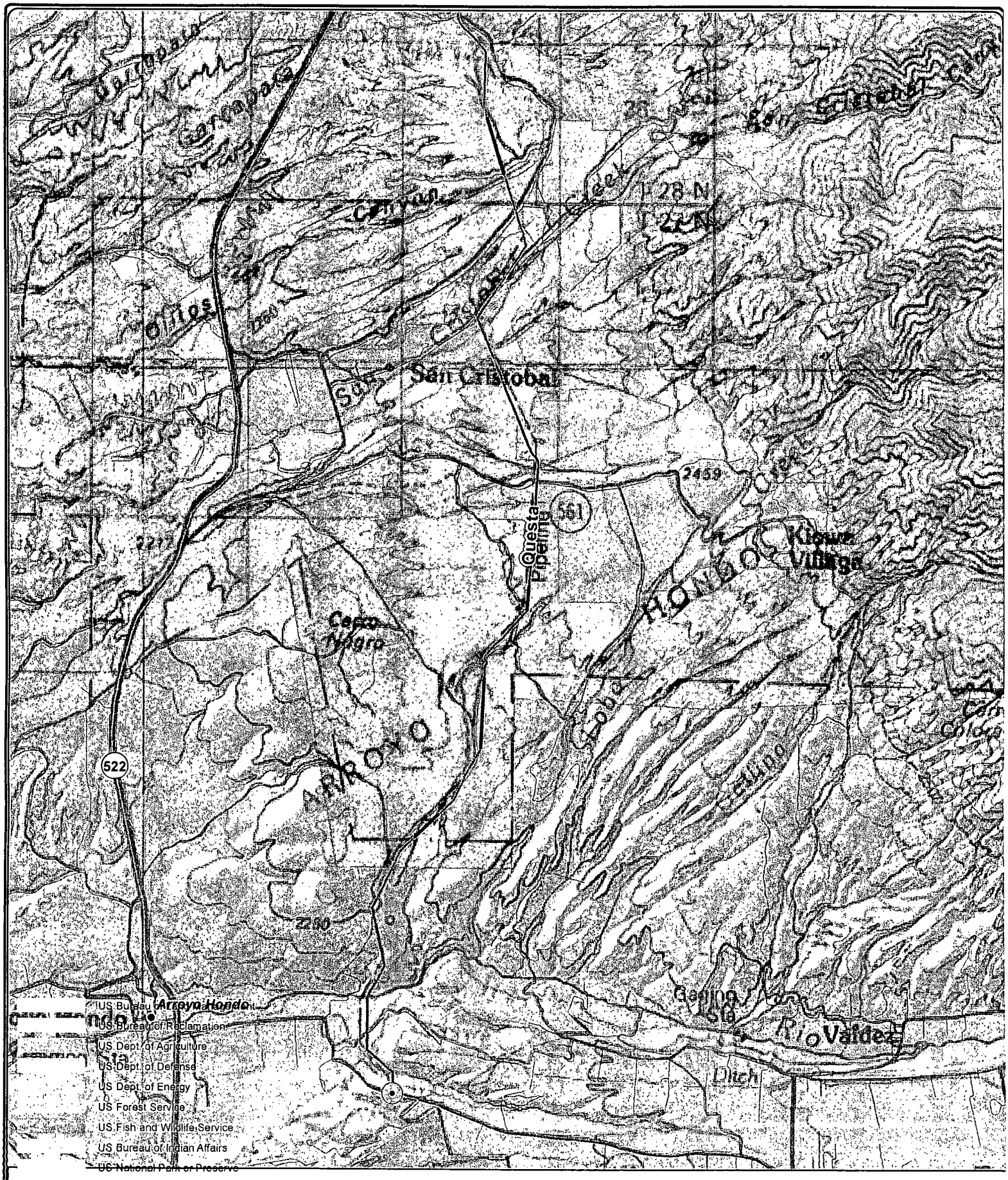
Soil Survey Area: Taos County and Parts of Rio Arriba and Mora Counties, New Mexico
Survey Area Data: Version 8, Dec 9, 2008



Taos-Questa Mainline Hydrostatic Test
Land Ownership

1 in = 2,500 ft

0 750 1,500 3,000 4,500 6,000 Feet



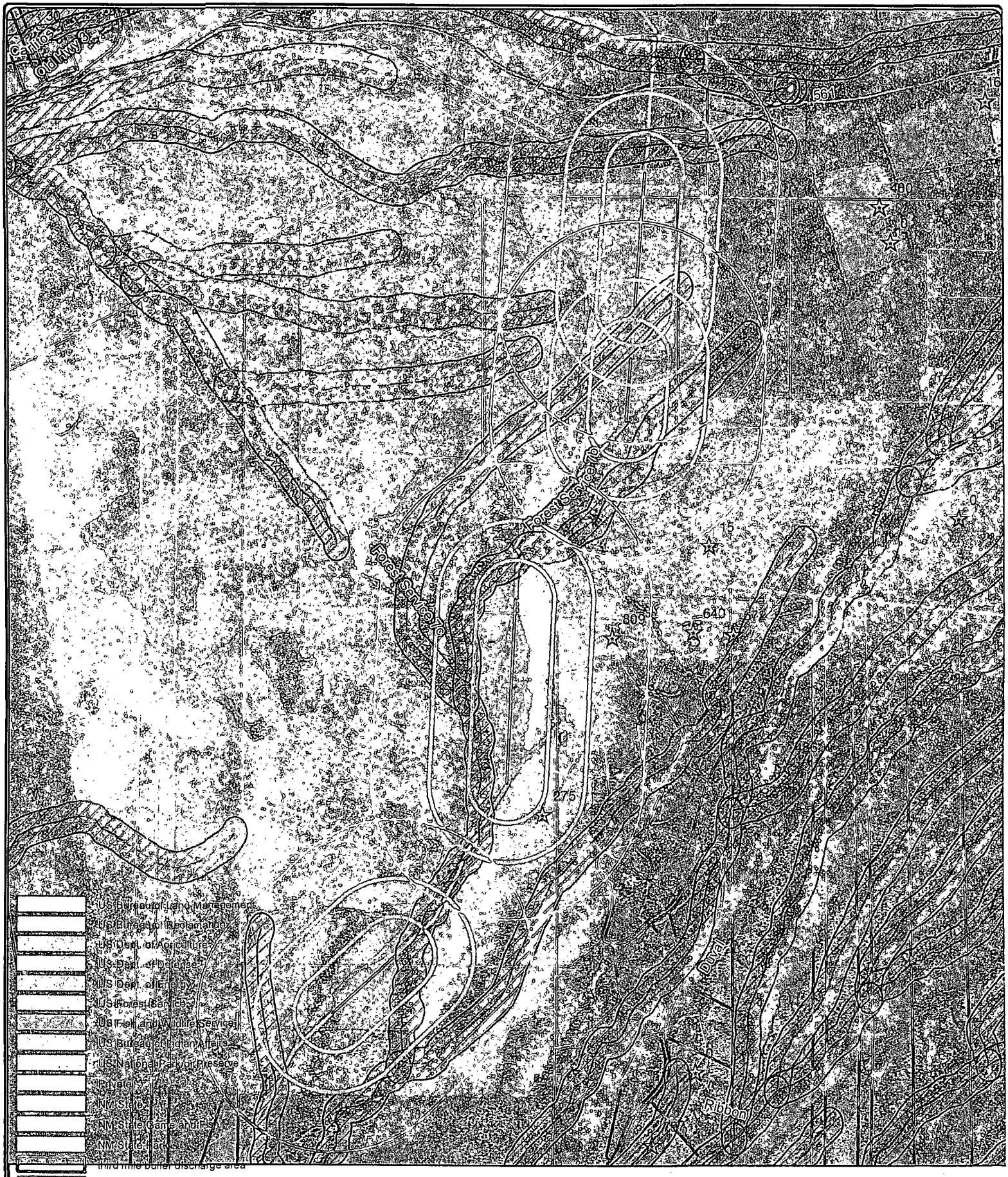
US Bureau of Land Management
US Bureau of Reclamation
US Dept of Agriculture
US Dept of Defense
US Dept of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
Collection Location
Discharge Area
Transmission Mains by System

Taos-Questa Mainline Hydrostatic Test
Overview of Discharge areas

1 in = 4,167 f

0 1,250 2,500 5,000 7,500 10,000 Feet


Forest 493
Del Medio
US Bureau of Land Management
US Bureau of Reclamation
US Dept of Agriculture
US Dept of Defense
US Dept of Energy
US Forest Service
US Fish and Wildlife Service
US Bureau of Indian Affairs
US National Park or Preserve
Private
NM State
NM State Game and Fish
NM State Park
third mile buffer discharge area
1000ft buffer discharge area
500 ft buffer discharge area
200 foot buffer hydrology
Discharge Area
Transmission Mains by Size
Wells (depth to water)
Taos-Questa Mainline Hydrostatic Test
Northern Discharge area
Landownership and siting criteria
1 in = 931 ft
0 285 570 1,140 1,710 2,280
Feet



Taos-Questa Mainline Hydrostatic Test

Southern Discharge area

Landownership and siting criteria

1 in = 1,584 ft

0 480 960 1,920 2,880 3,840 Feet

MATERIAL SAFETY DATA SHEET

Lubchem, Inc. 23609 W. Hardy Rd. Spring, TX 77373
Telephone (281) 350-9600
Revision 4/15/00

NFPA CODES	
Health	1
Flammability	0
Reactivity	0
Special	COR

Section I - Product Identification

Product Name: Lubchem IS-1100
Product Type: Pipeline Cleaning Fluid
Formula/CAS No.: Complex Mixture

Section II - Hazardous Ingredients / Identity Information

Hazardous Ingredients	CAS Number	%	Exposure Limits
Sodium Hydroxide	CAS # 1310-73-2	10	2mg/m (ceiling)
Ethylene Glycol Butyl Ether	CAS# 111-76-2	5	TWA/TLV 25ppm

Section III - Physical / Chemical Characteristics

Boiling Point: >210 F
Specific Gravity (H2O = 1): 0.987
Vapor Pressure (mm Hg.): .006@20C
Melting Point: N/A
Vapor Density (Air =1) >1
Evaporation Rate (Butyl Acetate =1): >1
Solubility in Water: Complete
Appearance/Odor: Amber liquid, characteristic odor
pH: 13

Section IV - Fire and Explosion Hazard Data

Flash Point (PMCC) >212F
Extinguishing Media: N/A
Special Fire Fighting Procedures: Use suitable extinguishing media to control surrounding fire.
Unusual Fire and Explosion Hazards: N/A

Section V - Reactivity Data

Stability: Material is stable
Conditions to Avoid: N/D
Incompatibility (materials to avoid): Amphoteric metals (zinc, aluminum, copper and brass), bleaching agents, oxidizers, organic acids, organic nitrogen compounds,
Hazardous Decomposition Products: Fumes of metal oxides.
Hazardous Polymerization: Will not occur

Section VI - Health Hazard Data

Health Hazards (Chronic): N/D
Signs and Symptoms of Over Exposure
Eyes: Eye contact with product may cause severe irritation, burns, irreversible damage, and blindness.
Inhalation: Inhalation of mist may cause irritation, nausea, headache, and pain, decreased breathing capacity, tissue destruction.
Ingestion: may cause severe irritation, burns, tissue ululceration, and gastrointestinal damage.
Skin: contact may cause burns, tissue destruction, skin damage, effects may be delayed.
Medical Conditions Generally Aggravated by Exposure: Over exposure may aggravate disorders of the blood circulatory system, lungs - respiratory system.
Emergency and First Aid Procedures:
Eyes: Flush eyes with water for 15 minutes while lifting upper and lower eyelids and consult physician immediately.
Inhalation: Remove to fresh air, if not breathing give artificial respiration, if breathing is difficult give oxygen. Contact physician immediately.

Ingestion: Do not induce vomiting. Rinse mouth with water. Dilute stomach contents by drinking large quantities of water. Do not induce vomiting, ilf vomiting occurs spontaneously keep head below hips to prevent breathing vomit into lungs. Call physician immediately.
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician.

Section VII – Environmental Protection:

Steps To Be Taken In Case Material Is Released or Spilled: Contain spill immediately. Prevent entering any waterway by diking. Absorb with inert absorbent material (sand, clay, dirt, absorbent). Large spills should be diked and picked up with vacuum pumps, shovels, buckets or other means and placed in suitable containers.
Waste Disposal Method: Comply with all governmental regulations.

Section VIII – Special Precautions:

Precautions To Be Taken In Handling and Storage: Do not store containers in direct sunlight, keep containers away from excessive heat.
Other Precautions: Avoid contact with skin and eyes. Use good housekeeping practices and clean up spills promptly. Eye wash and safety shower should be in close proximity.

Section IX - Control Measures:

Respiratory Protection: If exposure to mist may occur use a NIOSH respirator approved for your conditions of exposure.
Ventilation - Local Exhaust: Acceptable
Eye Protection: Chemical splash goggles with full-face shield recommended.
Protective Gloves: Rubber or neoprene.
Other Protective Clothing or Equipment: Chemical resistant clothing, rubber apron and rubber boots.
Work / Hygienic Practices: Safety shower and eye wash fountain.

Section X – Transportation Data

DOT Proper Shipping Name: Corrosive Liquid, n.o.s. (contains Sodium Hydroxide), 8, UN1760, PG III
Label Requirements: Corrosive

Section XI – Regulatory Information

All ingredients are listed on the TSCA inventory

This document is prepared pursuant to the OSHA Hazard Communication Standard (29CFR1910.1200). The information herein is given in good faith, but no warranty, express or implied, is made. Consult Lubchem, Inc. For further information: 281-350-9600.

Abbreviations: N/A: Not Applicable N/D: Not Determined

MATERIAL SAFETY DATA SHEET

Lubchem, Inc. 23609 W. Hardy Rd. Spring, TX 77373
Telephone (281) 350-9600
Revision 2/15/00

NFPA CODES	
Flammability	0
Reactivity	0
Health	1
Special	-

Section I - Product Identification

Product Name: IS-1000
Product Type: Pipeline Cleaning Fluid
Chemical Name and Synonyms: Anionic/Nonionic Surfactants
Formula/CAS No.: Complex Mixture

Section II - Hazardous Ingredients / Identity Information

Component	CAS Number	%	EXPOSURE LIMITS
Dipropylene glycol methyl ether	34590-94-8	5%	ACGIH - 100 ppm, OSHA - 100 ppm
Non-ionic and amphoteric surfactants		35%	N/E

Section III - Physical / Chemical Characteristics

Boiling Point: >210°F
Specific Gravity (H2O = 1): 1.056
Vapor Pressure (mm Hg.): N/E
Melting Point: N/A
Vapor Density (Air =1): N/E
Evaporation Rate (Butyl Acetate =1): >1
Solubility in Water: Complete
Appearance / Odor: Amber liquid/Soap odor

Section IV - Fire and Explosion Hazard Data

Flash Point (Method): None Flammable Limits-LEL: N/A UEL: N/A
Extinguishing Media: Use media suitable for surrounding fire.
Special Fire Fighting Procedures: No special fire fighting procedures.
Unusual Fire and Explosion Hazards: None known.

Section V - Reactivity Data

Stability: Material is stable
Conditions to Avoid: None known
Incompatibility (materials to avoid): Strong oxidizing agents.
Hazardous Decomposition Products: Oxides of carbon
Hazardous Polymerization: Will not occur.

Section VI - Health Hazard Data

Carcinogens under OSHA, ACGIH, NTP, IARC: This product contains no carcinogens in concentrations of 0.1 percent or greater.
Signs and Symptoms of Overexposure: Liquid may cause eye, nose, and throat irritation. Prolonged exposure may result in drying which can cause skin irritation and dermatitis. Ingestion may be harmful.
Medical Conditions Generally Aggravated by Exposure: Skin disorders and allergies.
Emergency and First Aid Procedures:
Eyes: Flush with water for at least 15 minutes. If irritation occurs seek medical attention.
Inhalation: Not expected.
Ingestion: Seek immediate medical attention. Never give anything by mouth to an unconscious person.
Skin: Promptly wash contacted area thoroughly with soap and water. If redness or irritation persists, seek medical attention. If spilled on clothing, remove and launder before reuse.

Section VII – Environmental Protection

Steps To Be Taken In Case Material is released or spilled: Contain spill immediately. Prevent entering any waterway by diking. Absorb with inert absorbent material (sand, dirt, clay, absorbent, etc.). Large spills should be diked and may be picked up by using shovels, buckets or other means and placed in drums or other suitable containers. Comply with all Federal, State and Local Laws.

Waste Disposal: Incinerate in approved system, use approved landfill, or dispose of in accordance with local, state, and federal regulations.

Section VIII – Special Precautions

Precautions To Be Taken In Handling and Storage: Store in a cool well ventilated area. Keep containers sealed. If the container is warm, open bung slowly to release internal pressure.
Other Precautions: Use good housekeeping practices and clean up spills, promptly. Eye wash and safety shower should be in close proximity.

Section IX - Control Measures/Special Protection

Respiratory Protection: Use approved respirator or air-supplied mask if working in an enclosed area or if mist concentrations exceed permissible exposure limit.
Ventilation Type Required: Natural ventilation should be provided.
Protective Clothing: Gloves: Synthetic or rubber gloves should be worn to avoid prolonged or repeated contact with the liquid. Eye Protection: Chemical safety goggles should be worn to avoid contact with the eyes. Other Protective Clothing or Equipment: Impervious synthetic rubber boots and apron to prevent prolonged or repeated skin contact.

Section X – Transportation Data

Not Regulated

Section XI - Regulatory Information

Label requirements – none
All ingredients are listed on the TSCA Inventory.

This document is prepared pursuant to the OSHA Hazard Communication Standard (29CFR1910.1200). The information herein is given in good faith, but no warranty, express or implied, is made. Consult Lubchem, Inc. For further information: 281-350-9600.

Abbreviations: N/E: Not Established N/A: Not Applicable N/D: Not Determined

PRODUCT DATA SHEET
October, 2007

420 BBL FIXED AXLE DOUBLE WALL TANK (Pinnacle)

GENERAL INFORMATION

All four walls and the V-bottom of this tank are double-skinned. The open area between the walls (interstitial area) will contain leakage from the primary (inner) wall, should that occur, preventing liquid from leaking to the environment. There are interstitial drains to check for leaks.

WEIGHTS AND MEASURES

Capacity:	420 BBL (17,622 gal.)
Height*: *Tank resting on grade w/axle retracted	9'-0" (to top of tank roof steel) 9'-7" (to handrails when folded down) 12'-6" (to handrails in upright position)
Width:	8'-6"
Length:	45'-7" (overall – nose to tail)
Weight:	36,300 lbs.

STRUCTURAL DESIGN

Outer Floor:	1/4" ASTM A36 carbon steel
Inner Floor:	1/4" ASTM A36 carbon steel
Outer Skin: (Sides/ends)	3/16" ASTM A36 carbon steel
Inner Skin: (sides/ends)	1/4" ASTM A36 carbon steel
Roof Deck:	1/4" ASTM A36 carbon steel
Interstitial Framing:	1/4" x 6" x 2¾" formed carbon steel channel

FEATURES

Valves:	(1)Front & (1)Rear: 4"- wafer butterfly valve. Cast iron body, Buna-N seat & seals, 316 SS stem, Nylon 11 coated ductile iron disk, with plug and chain.
Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
Front Drain:	4" flange w/butterfly valve along centerline bottom of floor
Rear Drain:	4" flange w/butterfly valve along centerline bottom of floor

FEATURES – cont.

Interstitial Drains:	Six (6) total – three ¾" ball valves each on front and rear of tank.
Manways:	Two (2) – 36" round (steel) on roof along tank centerline, near front and rear of tank; Buna-N ring gaskets. Removable fall protection grid over manway opening.
Roof Access:	Stairway at front of tank with OSHA handrail
Guardrails:	Self locking & fold-down; 1¼" square tubing around top perimeter of tank
Internal Ladder:	One (1) located below each top hatch, constructed of ¾" round bar
Level Gauge:	Ball float style, 2-8" 304 SS floats
Misc. Piping Connections:	Three (3) 4" blind-flanged nozzles on the roof, one on each end and another at the tank center. One (1) 2" blind-flanged nozzle on roof at front end of tank.
Tires:	11R x 22.5 14 ply
Axles:	71.5" track, 22,500 lbs. capacity

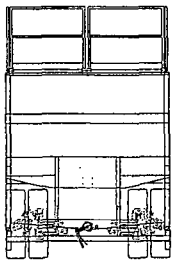
SURFACE DETAILS

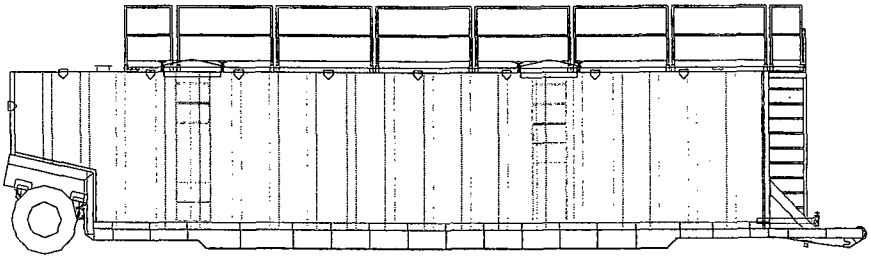
Exterior Coating:	High gloss polyurethane
Interior Coating:	Chemical resistant lining
Safety Paint:	Safety yellow – handrails, hatch covers and trip hazard surfaces

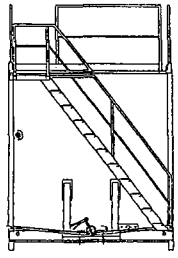
TESTS/CERTIFICATIONS

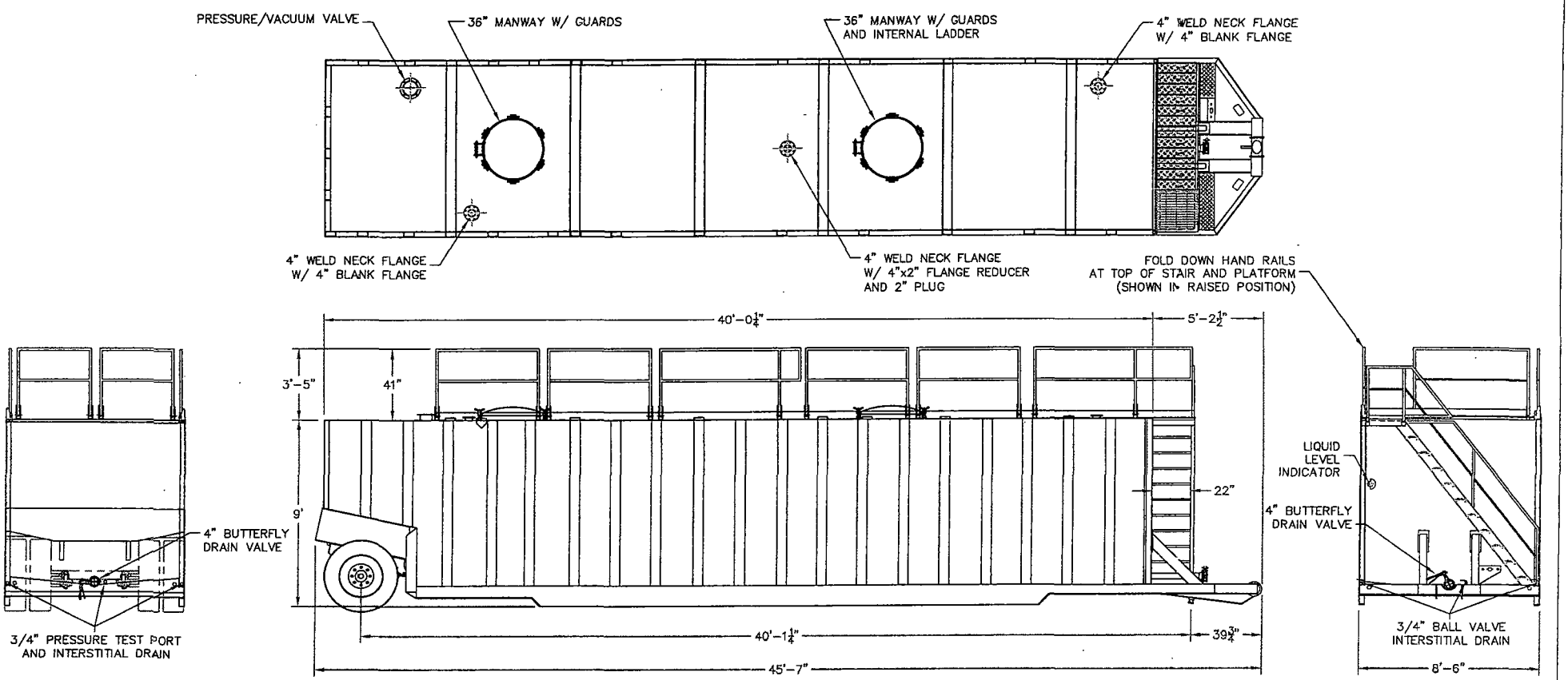
Test Performed:	3 psi air test; scheduled Level 1, 2 & 3 QMS inspections

BAKERCORP









SPECIFICATIONS:
Tank Capacity: 420 BBL (17,600 Gallons)
Tank Weight:

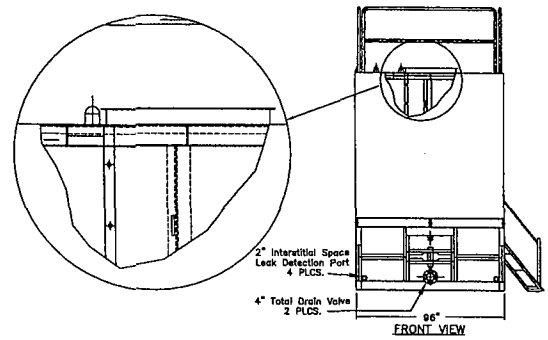
NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. This Tank is ***NOT DESIGNED FOR TRANSPORTING LIQUIDS***. It should be moved only when empty.
3. This Tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/inch² pressure and 0.4 oz/inch² vacuum.

TOLERANCE: Fractions: +/- 1/16 Decimals: .X X +/- 1/16 .XXX +/- 1/32 Angles: +/- 0°30' Bends: +/- 2°
MATERIAL:
FINISH:

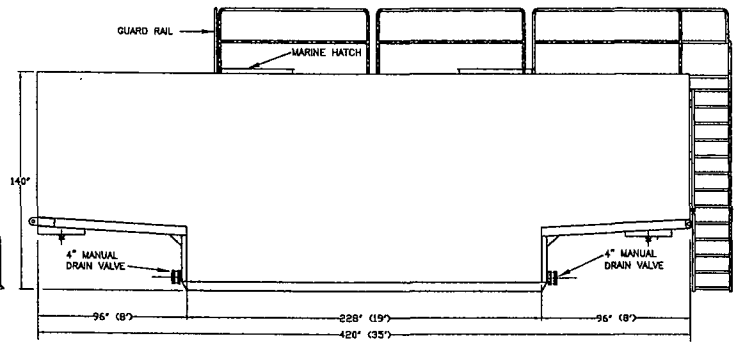
BAKERCORP 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

TITLE: **DOUBLE WALL TANK**
AL 470-DW STANDARD SPECIFICATIONS

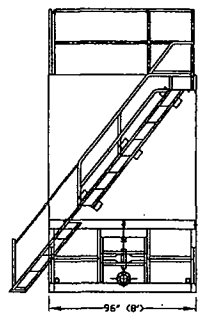
CUSTOMER: _ JOB No: 00
DWG BY: J. GONZALEZ DATE: 01-30-08 SCALE: NOTS SHEET: 1 OF: 1
CKD BY: _ DATE: _ DWG No: S2M0017 REV: _



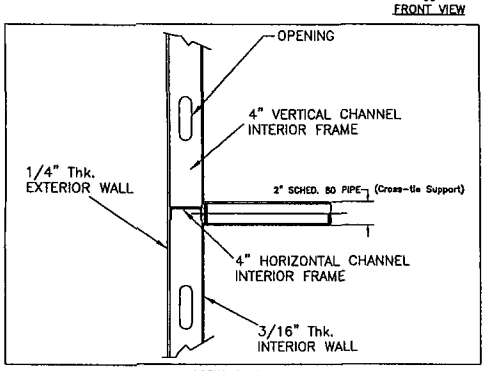
FRONT VIEW



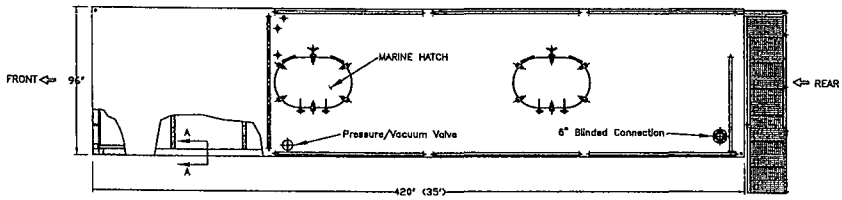
ELEVATION VIEW



REAR VIEW



VIEW A-A



TOP VIEW

SPECIFICATIONS:
1) Tank Capacity: 17,850 gallons (425 BBL)
2) Tank Weight: 29,500 lbs. (empty)

NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. THIS TANK IS *NOT DESIGNED FOR TRANSPORTING LIQUIDS*. It should be moved only when empty.
3. Tanks of this type have an internal lining (coating) on the wetted surfaces.
4. This tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/sq. in. pressure and 0.4 oz/sq.in. vacuum.

REV.	DESCRIPTION	DATE	BY
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BAKERCORP® 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

SCALE: To Scale	SIZE: B	ORIGINAL DWG. DATE: 11AUG03
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS: --
TITLE: BAKER STYLE DOUBLE WALL TANK		SHEET: 1 OF 1
DRAWING NO.: S-1-M0010-1-		REV.: 0

PRODUCT DATA SHEET

October, 2007

DOUBLE WALL TANK

(Baker Style Tank)

GENERAL INFORMATION

Double wall tanks provide maximum environmental protection and are easy to clean because they have smooth interior walls since the structural frame is between the two walls. Only the internal piping crossties remain. Two large vapor tight hatch doors on the top deck provide easy access inside.

WEIGHTS AND MEASURES

Capacity:	425 BBL (17850 gallons)
Height:	12'-6" (15'-2" with handrails in up position)
Width	8'-0" (tank only)
Length	35'-0" (tank only); 37'-6" (including stairway)
Weight:	29,500 lbs.

STRUCTURAL DESIGN

Outer Floor:	¼" thick ASTM A36 carbon steel
Inner Floor:	3/16" thick ASTM A36 carbon steel
Outer Skin: (sides/ends)	¼" thick ASTM A36 carbon steel
Inner Skin: (sides/ends)	3/16" thick ASTM A36 carbon steel
Roof Deck:	¼" thick ASTM A36 carbon steel plate (not double walled)
Interstitial Framing:	Walls: 4" steel channel Floors: 2" steel channel
Internal Cross Bracing:	11 – 2" schedule 80 pipes

FEATURES

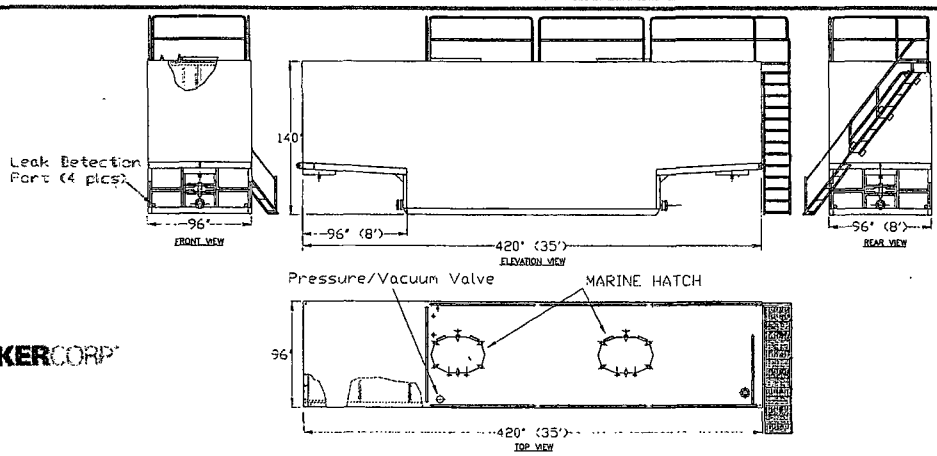
Interstitial Drains:	4 – 1¼" threaded and capped, one at each bottom corner of floor
Valves:	2-4" 150# butterfly, one on each end of tank, bottom center
Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
Roof Piping Connection:	1-4" 150# flanged (blinded) connection, driver side on rear end of tank
Top Access Hatches:	2-50" long x 32" wide . marine-style (rounded ends)
Access Hatch Seals:	1" thick x 1¼" wide neoprene gasket
Manways:	None
Stairway:	Rear end – lower section folds for extension and retraction. Stairway includes handrails.
Guardrails:	Around the top deck; fold-down.
Internal Ladder:	One, located at rear top hatch opening
Level Gauge:	Ball float style, 2-8" SS floats
Wheels:	Removable dolly (not a fixed axle)

SURFACE DETAILS

Exterior Coating:	High Gloss Polyurethane
Interior Coating:	Chemical resistant coating (SS float balls are not coated)

TESTS /CERTIFICATIONS

Test Performed:	Full hydrostatic – tank and interstitial space on construction. Scheduled Level 1, 2 and 3 inspections



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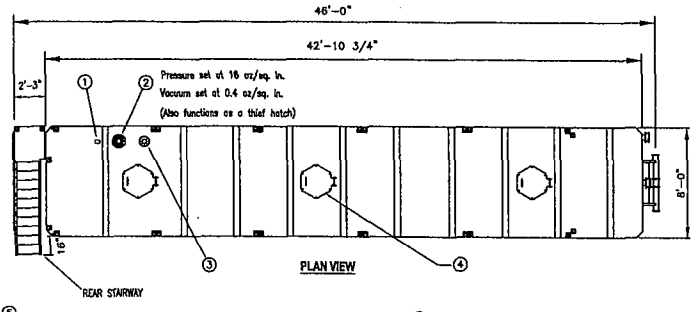
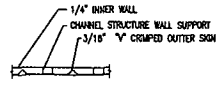
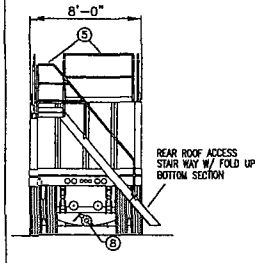
ITEM	QTY	DESCRIPTION
1	1	3" ROOF FILL
2	1	8" PRESSURE/VACUUM VALVE
3	1	4" FLANGE (VAPOR RECOVERY CONN.)
4	3	22" MANWAY HATCH
5	14	FOLD-DOWN HANDRAIL (various shapes/sizes)
6	1	4" FRONT FILL WITH BUTTERFLY VALVE
7	1	4" FRONT DRAIN WITH BUTTERFLY VALVE
8	1	4" REAR DRAIN WITH BUTTERFLY VALVE



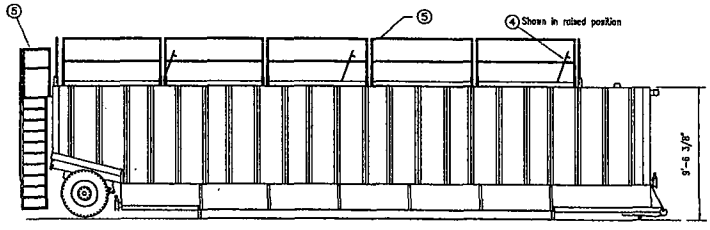
PLAN VIEW



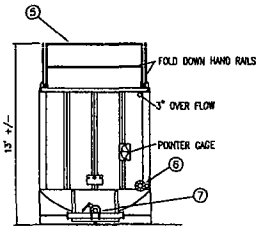
PLAN VIEW
TANK VERTICAL SIDE WALL SECTION



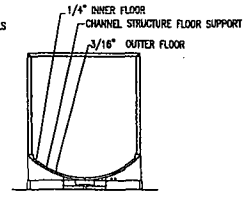
REAR ELEVATION



PASSENGER SIDE ELEVATION



FRONT ELEVATION



INTERNAL VIEW

SPECIFICATIONS:
1) Tank Capacity: 17,640 gallons (420 BBL.)
2) Tank Weight: 33,960 lbs. (empty)

NOTES:
1. This drawing is a baseline representation for this model of tank. Variations between this drawing and the actual equipment in the field can and do exist, primarily with appurtenance locations, sizes and quantities. Consult your local BakerCorp representative if specific needs exist.
2. THIS TANK IS *NOT DESIGNED FOR TRANSPORTING LIQUIDS*. It should be moved only when empty.
3. Tanks of this type have an internal lining (coating) on the wetted surfaces.
4. This tank is equipped with a pressure/vacuum relief valve set at 1.0 lbs/sq. in. pressure and 0.4 oz/sq.in. vacuum.

REV.	DESCRIPTION	DATE	BY
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A	MADE TEXT READABLE	7/12/05	Z.E.R

BAKERCORP 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

SCALE: Do Not Scale	SIZE: B	ORIGINAL DWG. DATE: 11SEP02	
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS: --	
TITLE: WADE FIXED AXLE DOUBLE WALL TANK		SHEET: 1 OF 1	
DRAWING NO.: S-2-M0009-1-		REV.: A	

PRODUCT DATA SHEET
January, 2007

420 BBL FIXED AXLE DOUBLE WALL TANK (WADE)

GENERAL INFORMATION

All four walls and the rounded bottom of this tank are double-skinned. The open area between the walls (interstitial area) will contain leakage from the primary (inner) wall, should that occur, preventing liquid from leaking to the environment. There are interstitial drains to check for leaks.

WEIGHTS AND MEASURES

» Capacity:	420 BBL @ overflow (17,640 gal.)
» Height:	9'-6" (to top of tank roof steel) 10'-3" (to handrails when folded down) 13'-0" (to handrails in upright position)
» Width:	8'-0"
» Length:	46'-4" (overall)
» Weight:	33,960 lbs.

STRUCTURAL DESIGN

» Outer Floor:	3/16" ASTM A36 carbon steel
» Inner Floor:	1/4" ASTM A36 carbon steel
» Outer Skin: (Sides/ends)	3/16" ASTM A36 carbon steel
» Inner Skin: (sides/ends)	1/4" ASTM A36 carbon steel
» Roof Deck:	1/4" ASTM A36 carbon steel
» Interstitial Framing:	1/4" x 5" x 3" carbon steel channel iron

FEATURES

» Valves:	(2)Front & (1)Rear: 4"- wafer butterfly valve. Cast iron body, Buna-N seat & seals, 316 SS stem, Nylon 11 coated ductile iron disk, with plug and chain.
» Relief Valve:	16 oz./in^2 pressure setting, 0.4 oz./in^2 vacuum setting; Buna-N seal
» Front Drain:	4" flange w/butterfly valve along centerline bottom of floor
» Rear Drain:	4" flange w/butterfly valve along centerline bottom of floor

FEATURES – cont.

» Front Fill Connection:	4" flange w/butterfly valve on passenger side
» Interstitial Drains:	Two (2) – 1" @ bottom center, front and rear of tank with ball valve
» Fill Line:	3" stub at rear driver side on roof top
» Overflow:	3" collar at front driver side
» Manways:	Three (3) – 22" round manways on rear, center and front of roof, made of flat 1/2" flat plate with 5/8" bolts and nuts; 1/2" x 1/2" square Buna-N spliced ring gaskets
» Stairway:	At rear of tank with OSHA handrail
» Guardrails:	Self locking, 1" square tubing on top of tank
» Internal Ladder:	One (1) located below rear hatch, constructed of ¾" round bar
» Level Gauge:	Ball float style, 2-8" 304 SS floats
» Misc. Piping Connections:	One (1) – 4" top vent (blinded) Two (2) – 1" nipples & plugs at top rear into interstitial area
» Tires:	11R x 22.5
» Axles:	22,500 Spicer – Dana D-22

SURFACE DETAILS

» Exterior Coating:	High gloss polyurethane
» Interior Coating:	Chemical resistant lining
» Safety Paint:	Safety yellow – handrails, hatch covers and trip hazard surfaces

TESTS/CERTIFICATIONS

» Test Performed:	3 psi air test; scheduled Level 1, 2 & 3 QMS inspections

BAKERCORP

3020 Old Ranch Parkway • Suite 220 • Seal Beach, CA • 562-430-6262

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 34951 dated 2/24/12

or cash received on _____ in the amount of $ 100 00

from New Mexico Gas Co.

for HIP-118

Submitted by: Lawrence Romero Date: 3/26/12

Submitted to ASD by: _____ Date: 3/26/12

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2012

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____