

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

REM 9784

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Date 08/01/2016

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☒ Site/Facility Closure ☐ Other (describe): _____

OGCC Operator Number: 95960

Name of Operator: Wexpro Company

Address: PO Box 458

City: Rock Springs State: WY Zip: 82901

Contact Name and Telephone:

April Stegall

No: 307.352.7561

Fax: 307.352.7583

API Number: 05-081-05448

County: Moffat County

Facility Name: BW Musser 5 pit

Facility Number: 100351

Well Name: BW Musser

Well Number: 5

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SENW-4-11N-97W

Latitude: 40.942977 Longitude: -108.297736

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): Produced Water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Rangeland, Non-cropland, Oil and Gas

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Tresano-Hiatha-Kandaly

Potential receptors (water wells within 1/4 mi, surface waters, etc.): 3048' from natural drainage, 3281' from nearest water well

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):



Soils



Vegetation



Groundwater



Surface Water

Extent of Impact:

TBD

How Determined:

Soil Analysis

REMEDIATION WORKPLAN**Describe initial action taken** (if previously provided, refer to that form or document):

Pit is closed. Pit appears to have been closed in 2014 when the well was plugged and abandoned. See attached pit closure procedure.

Describe how source is to be removed:

See attached Pit Closure Procedure.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

See attached Pit Closure Procedure.



REMEDIATION WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: 100351 / 312791

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

See attached Pit Closure Procedure.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Pit has been backfilled to grade.

See attached Pit Closure Procedure.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☒ Y ☐ N If yes, describe:

Core samples will be obtained upon approval from COGCC.

See attached Pit Closure Procedure.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

See attached Pit Closure Procedure.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>2016</u>	Date Site Investigation Completed: <u>2016</u>	Date Remediation Plan Submitted: _____
Remediation Start Date: <u>NA</u>	Anticipated Completion Date: <u>2016</u>	Actual Completion Date: <u>TBD</u>

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: April Stegall

Signed: April Stegall

Title: Reclamation Agent

Date: 8/1/2016

OGCC Approved: Tim J. Smith

Title: EPS

Date: 8/8/16

"Describe initial action taken":

First, a visual inspection will be performed; looking for signs of stained soil and any potential leeching of pit components that may have impacted surface water or groundwater. Other attachments include the following: NRC soil map description, topographic map and/or Google Earth image and additional information detailing the distance to the nearest water source, estimated groundwater depth and distance from the nearest water well.

Wexpro Company will determine, as best as possible, the location, size and estimated closure date of the pit by using sundries, permits, historic Google Earth imagery, site security diagrams and knowledge of the area obtained from long term Wexpro Company personnel.

It is believed that most, if not all, pits in the Hiawatha/Powder Wash area were lined with bentonite liners. These liners would have been broken up during the process of "stirring and airing" that occurs on all Wexpro Company pits prior to sampling.

"Describe how source is to be removed":

72 hour notification will be given to COGCC prior to sampling.

The pit will be located in the field based on information provided by Wexpro Company (*ex: COGCC inspections, site security diagrams, historic imagery, sundries, permits, personnel, visual inspection*).

Pit samples will be obtained using a sampling method capable of collecting representative soil samples (i.e. Geoprobe, auger/split spoon, hand auger, etc.). Enough discreet samples to adequately characterize the impact of the pit will be collected from the pit bottom and side walls. If the location of the load line's discharge to the pit is known, a sample of the wall opposite of the load line's discharge will be taken as one of the side wall samples. A sample of the low point of pit bottom will be taken. The sample estimated to be the most impacted should be tested for the full Table 910-1, with the other samples being analyzed for TPH, PAH, BTEX and Inorganics. If sample point was taken from below 3' of ground cover or more, samples will not be analyzed for TPH, PAH, BTEX and Inorganics. Background reference samples will also be obtained (*unless done previously*). Depth of samples will be determined by visual observations during sampling, as to best obtain a sample of the native soil. Crews will be watching for indications of groundwater during sampling. If groundwater is encountered, COGCC will be notified immediately.

All samples will be sent to a lab and tested according to Table 910-1. Testing results will be submitted to COGCC with an attached Form 4 Sundry, or new Form 27.

GPS coordinates (meeting Rule 215 requirements) for sampling points and depths will be provided with Form 27 and soil analysis results. All samples will be mapped and submitted with soil analysis results.

If samples meet Table 910-1 requirements, Wexpro Company will request closure of the facility in the COGCC database and NFA. If pit depth is known, it will be referenced in the Final Form 27 in comparison to depth at which pit samples were obtained. If samples do not meet Table 910-1 requirements, another Form 27 with remediation plan will be submitted.

"Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.":

To be determined after soil analysis. If remediation is necessary, an additional Form 27 with remediation plan will be submitted.

In the event that pit tests high for EC/SAR/pH, COGCC requires that materials with elevated pH, SAR, or EC be buried under a minimum of three (3) feet of backfill cover and soil that satisfies either the Table 910-1 levels for pH, SAR, and EC or the background levels for such contaminants within three (3) feet of the ground surface at the site. In addition, the soil horizons must be replaced in their original relative position and reclaimed in accordance with 1000 Series Rules, including the establishment of vegetative cover on non-cropland and successful crop growth on cropland. During final reclamation of the well pad, the pits will be backfilled and re-contoured with the well pad (if not previously done). Berm dirt will be knocked into the pit area and compacted. If less than 3' of backfill material is required, soils used for production pit berms will include a confirmation soil sample to demonstrate that soil is below Table 910-1 standards. Additional material, if needed, will be agronomic topsoil, brought in from a commercial or offsite source.

"If groundwater has been impacted, describe proposed monitoring plan":

To be determined, if necessary. In the event that groundwater has been potentially impacted, the extent will be determined and Wexpro Company will submit a monitoring plan to COGCC. In general, a minimum of at least one up-gradient and three down-gradient monitoring wells will be required. The actual number will be dependent upon site specific conditions.

"Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required":

Surface reclamation will be compliant with COGCC 1000 series rules. Wexpro Company understands that approval of a Form 27 does not imply approval of the reclamation planned submitted prior to final reclamation of the well pad. Wexpro Company will notify the COGCC Regional Reclamation Specialist and Surface Owner for reclamation plan approval prior to final reclamation. All reclamation on Federal Surface will comply with BLM, or other implementing agency, specifications. Final reclamation will take place after the plugging and abandonment of the well.

"Attach samples and analytical results taken to verify remediation impacts. Show locations of samples on an onsite schematic or drawing. Is further site investigation required? If yes, describe":

Soil investigation for the project will be carried out as described above. All analytical data obtained will be submitted to COGCC, on an attached Form 4 Sundry, or new Form 27.

"Final disposition of E&P waste (land treated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.)":

To be determined, if necessary. Final disposition of any E&P waste will be documented and submitted to COGCC. This includes haul tickets, volume of soil, etc.



Wexpro Company
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P.O. Box 458
Rock Springs, WY 82902
Tel (307) 352-7500
Fax (307) 352-7575

Jimmy L. Druce
General Manager
Direct: (307)352-7555
Jimmy.Druce@questar.com

5/19/2016

Kris Neidel
COGCC
1120 Lincoln St., Suite 801
Denver, CO 80203

Pit Maintenance and History in Wexpro Company Hiawatha/Powder Wash fields

Dear Mr. Neidel:

I worked as an Operator/Chief Operator in Colorado's Powder Wash and Hiawatha fields for Wexpro Company between the years of 1984 and 2002. Upon my hiring, Carl Foster, who also worked for Wexpro, taught myself and the other operators procedures for production/water drain pit cleaning/maintenance.

The procedures were as follows; For several years pit with visible oil in them were either burned or soaked with hot water and skimmed. Burning of the pits was standard until regulations prohibited the practice.

When soaking and skimming would occur, hot water would be added to the pits. After the addition of hot water to the pits, the pits were allowed to "soak" for a minimum of 3 hours allowing the oil to separate from the water and come to the surface. After the oil and water separated, the oil would be skimmed off via tanker truck and the pits drained of water. Oil skimmed from the pits would be added to the condensate tanks, and the water would be added to the water tanks or hauled for disposal at a commercial source. This process was repeated continuously until there was no more visible oil in the pits.

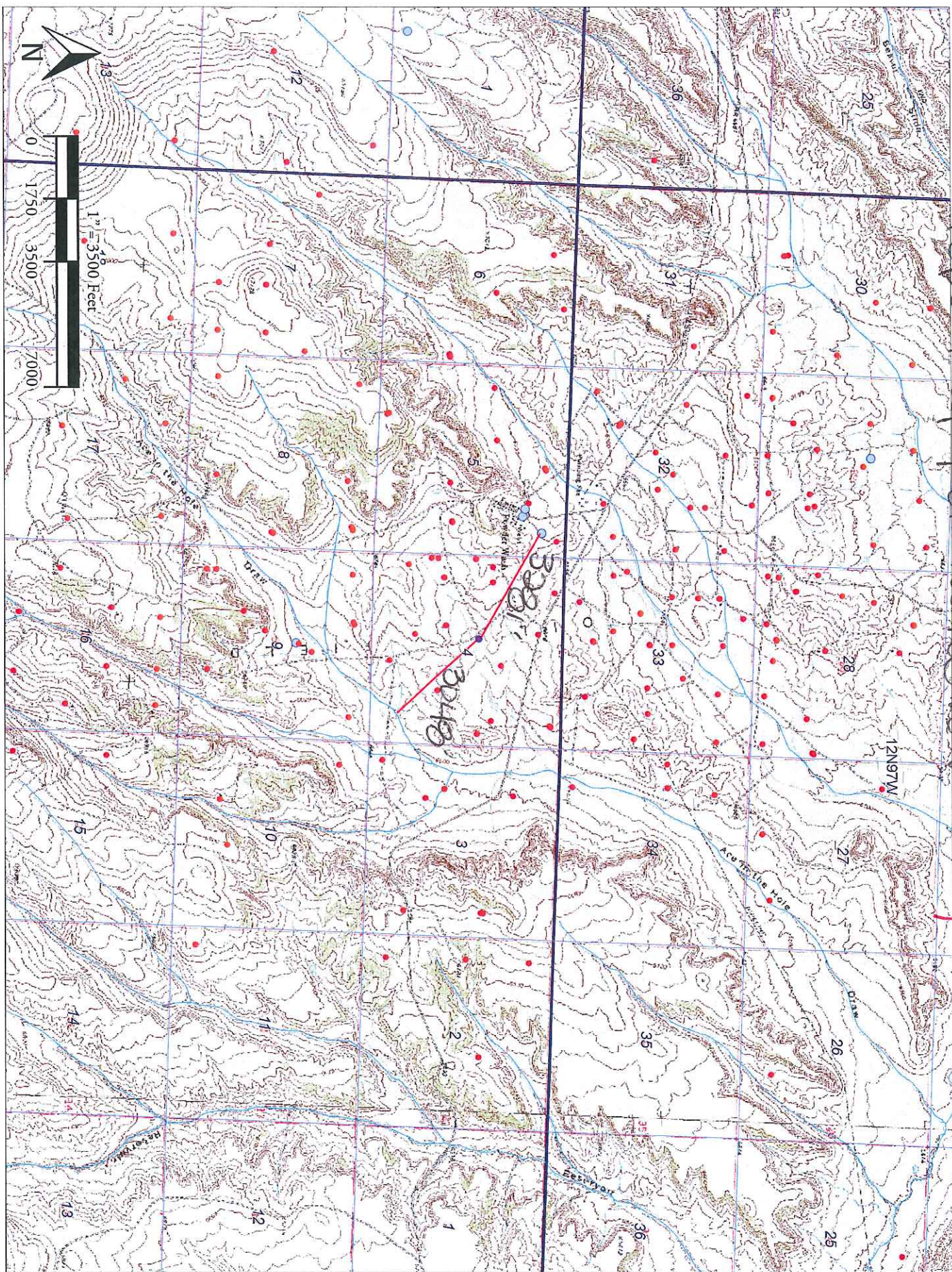
This procedure was passed along during and after my departure from the Hiawatha and Powder Wash fields, and continues to be used today.

Kind regards,

Jimmy Druce
General Manager

For questions, please call April Stegall at 307-352-7561 or 307-371-3610.

topo map / distance to water | nearest water well

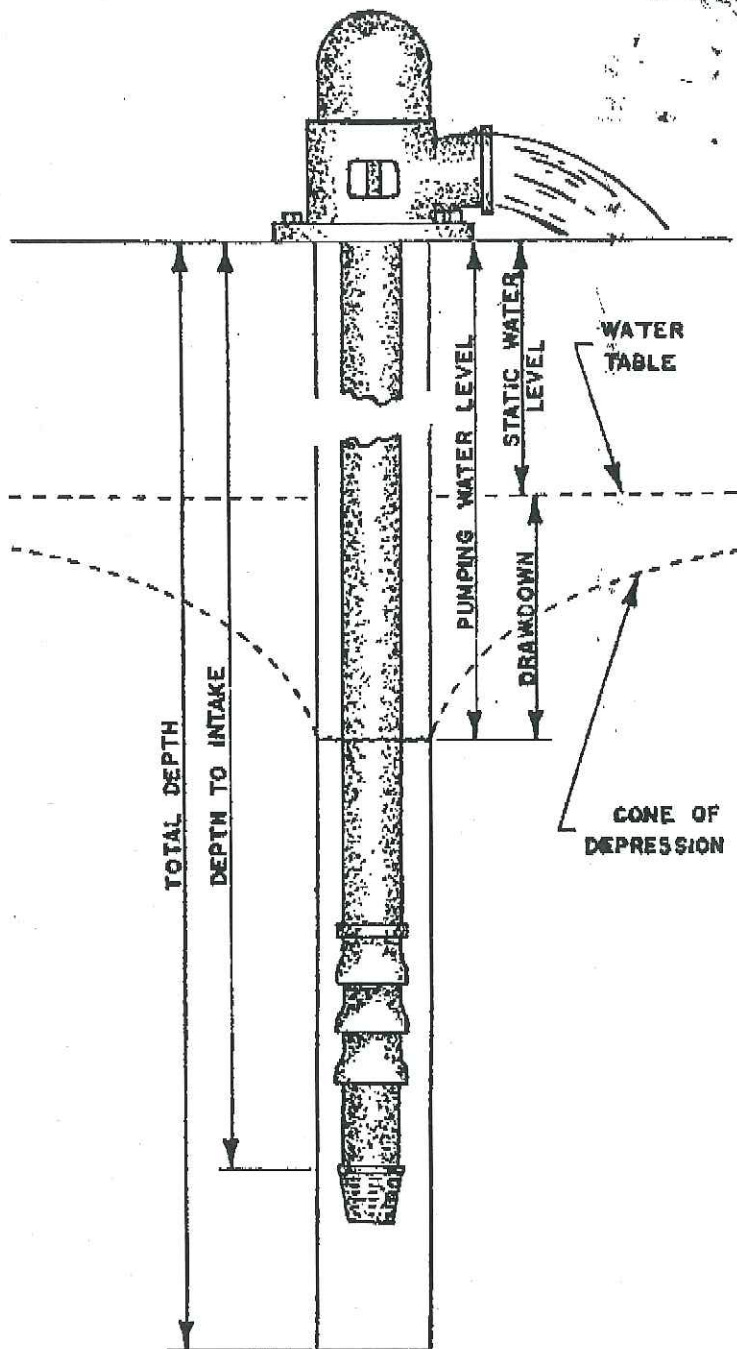


PUMP INSTALLATION REPORT

Pump ~~Model~~ Type SUBMERSIBLE
 Make ~~Type~~ GRUNDFOS
 Powered by HATACHI HP 15
 Pump ~~Serial~~ Model No. SP44DS
 Motor Serial No. _____
 Date Installed 1-22-90
 Pump Intake Depth 766'
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested 1-22-90
 Static Water Level Prior to Test 639'
 Length of Test 1 Hours
 Sustained yield (Metered) 37 GPM
 Pumping Water Level 761'
 Remarks _____



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Howard W. Ritchie License No. 1093

State of Colorado, County of _____ SS

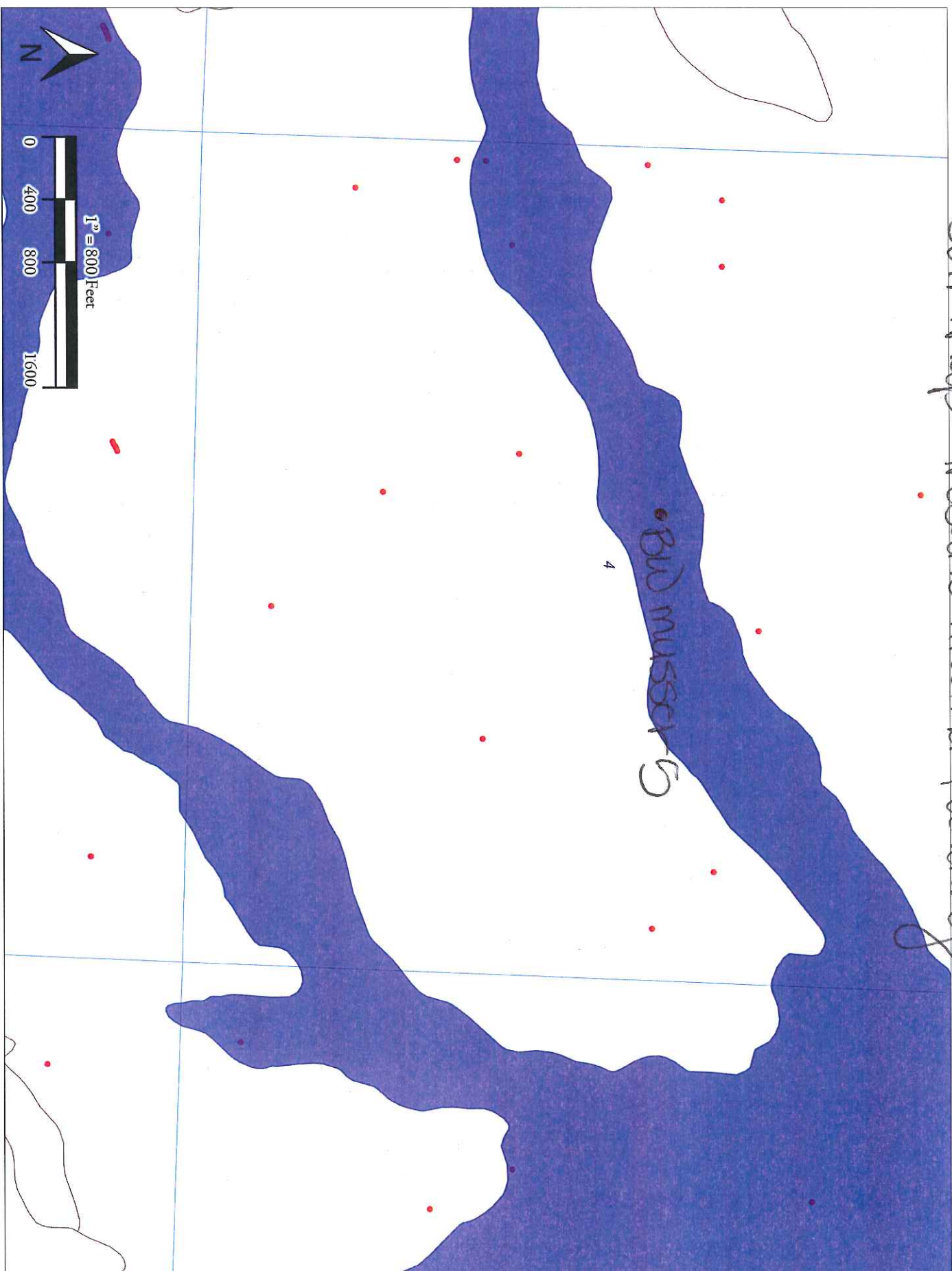
Subscribed and sworn to before me this _____ day of _____, 19 ____.

My Commission expires: _____, 19 ____.

Notary Public _____

FORM TO BE MADE OUT IN QUADRUPPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

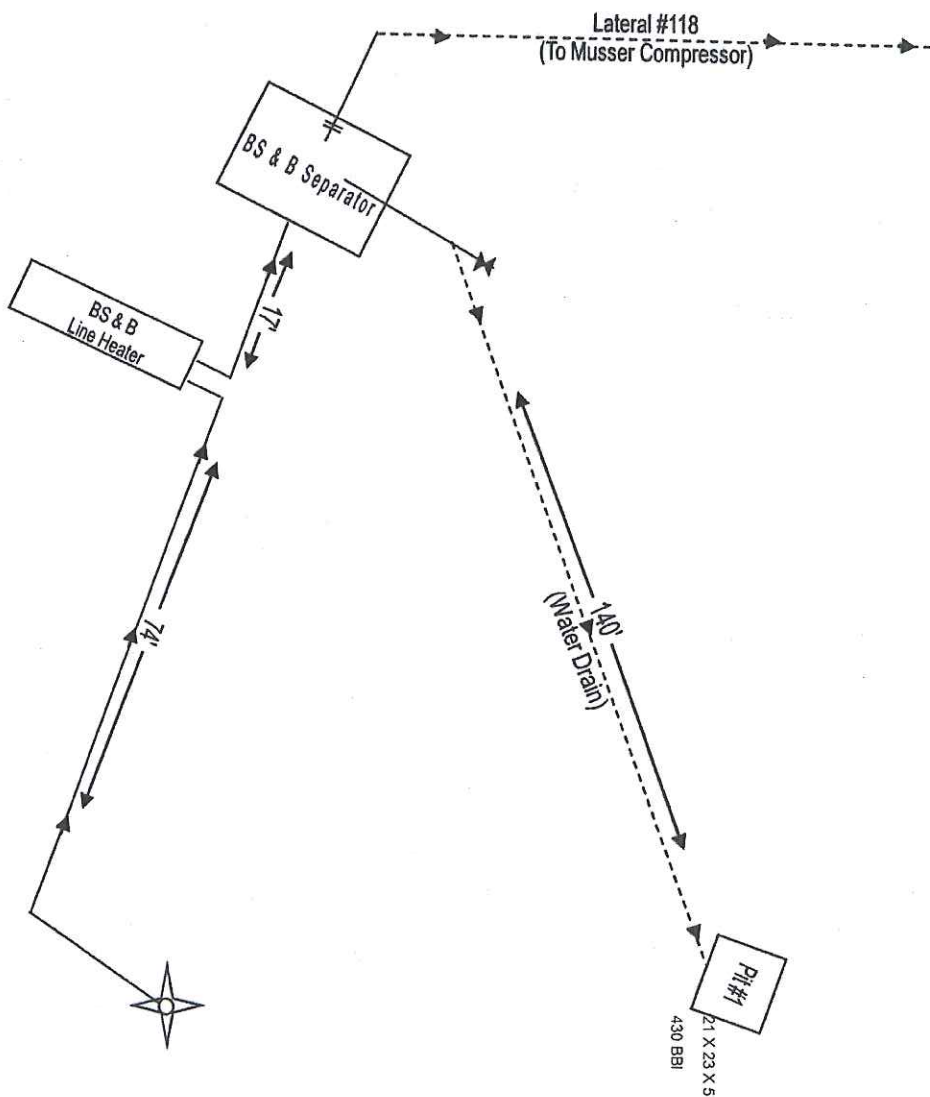
Site map: Treasure Hatha-Kandaly



Legend
 += Gas Meter
 ✕= Valve
 ---- Underground

B.W. Musser #5
 SE NW Sec 4-11-97
 D-038749-b
 Wexpro Co. Operator

N
 Spill Flow



Legend
 += Gas Meter
 ✕= Valve
 ---- Underground

Facility 100351

Legend

• proposed sampling points

JBW MUSSEY 6

40.943094, -108.297497

Google earth

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100 ft

