

**State of Colorado**  
**Oil and Gas Conservation Commission**  
1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax: (303) 894-2109

received  
03/18/2010  
document 200236063  
facility 416075

**EARTHEN PIT REPORT / PERMIT**

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

**FORM SUBMITTED FOR:**

\_\_\_\_ Pit Report        X   Pit Permit

**Complete the  
Attachment Checklist**

	Oper	OGCC
Detailed Site Plan	X	
Topo Map with Pit Location	X	
Water Analysis (Form 25)	X	
Source Wells (Form 26)	n/a	
Pit Design Plan & Cross Sect.	X	
Design Calculations	X	
Sensitive Area Determination	X	
Mud Program	n/a	
Form 2A	X	

OGCC Operator Number: 10084  
Name of Operator: PIONEER NATURAL RESOURCES USA, Inc.  
Address: 1401 17th STREET, SUITE 1200  
City: DENVER State: CO Zip: 80202

Contact Name and Telephone:

David Castro

No: 303-298-8100

Fax: 303-298-7800

API Number (of associated well): 05-071-09599 COGCC Facility ID (of other associated facility): \_\_\_\_\_  
Pit Location (QtrQtr, Sec, Twp, Rng, Meridian) NWNE, SEC. 9, T33S, R66W, 6<sup>TH</sup> P.M.  
Latitude: 37.18969 Longitude: -104.78329 County: LAS ANIMAS  
Pit Use:   X   Production \_\_\_\_ Drilling (Attach mud program) \_\_\_\_ Special Purpose (Describe use): \_\_\_\_\_  
Pit Type:   X   Lined \_\_\_\_ Unlined Surface Discharge Permit:   X   Yes \_\_\_\_ No  
Offsite disposal of pit contents: \_\_\_\_ Injection \_\_\_\_ Commercial Pit/Facility Name: Gopher 31-9 Pit/Facility No: \_\_\_\_\_  
**Form 25 to provide Produced Water Analysis results. See COA**

**Existing Site Conditions**

Is the location in a "Sensitive Area"? \_\_\_\_ Yes   X   No **Attach data used for determination.**  
Distance (in feet) to nearest surface water: 475' ground water: 66' water wells: : 238'  
**LAND USE (or attach copy of Form 2A, if previously submitted for associated well) Select one which best describes land use:**  
Crop Land: \_\_\_\_ Irrigated \_\_\_\_ Dry Land \_\_\_\_ Improved Pasture \_\_\_\_ Hay Meadow \_\_\_\_ CRP  
Non-Crop Land: \_\_\_\_ Rangeland   X   Timber \_\_\_\_ Recreational \_\_\_\_ Other (describe): \_\_\_\_\_  
Subdivided: \_\_\_\_ Industrial \_\_\_\_ Commercial \_\_\_\_ Residential **Form 2A Attached**  
**SOILS (or attach copy of Form 2A, if previously submitted for associated well)**  
Soil map units from USNRCS survey: Sheet No: 57 Soil Complex/Series No: GA  
Soils Series Name: Gulnare-Allens Park Complex Horizon thickness (in inches): A: Oi: 0-2 B: E: 2-5 C: Btl: 5-13  
**Attach detailed site plan and topo map with pit location.**

**Pit Design and Construction**

Size of pit (feet): Length: 90 Width: 45 Depth: 6  
Calculated pit volume (bbls): 4327 Daily inflow rate (bbls/day): 62  
Daily disposal rates (attach calculations): Evaporation 5.7 bbl/day Percolation: n/a bbls/day  
Type of liner material: PVCR Faille Finish Fabric Thickness: 30 mil  
**Attach description of proposed design and construction (include sketches and calculations).**  
Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): SEPARATOR  
Is pit fenced?   X   Yes \_\_\_\_ No Is pit netted? \_\_\_\_ Yes   X   No

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

Print Name: David Castro

Signed:  Title: Environmental Coordinator Date: 3/18/2010

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

**CONDITIONS OF APPROVAL, IF ANY:**

Representative water sample results provided with permit. Pit had been operated for storage and disposal of produced water from July 2008 to March 2010 prior to pit permit submittal. Site closure will require soil sampling and analysis under an approved site investigation and remediation plan.

Facility Number: 416075

## **Form 15-Additional Information**

### **Raton Basin**

#### *1. Contacts*

##### Primary Contact Person:

David Castro  
Pioneer Natural Resources USA, Inc.  
1401 17<sup>th</sup> Street, Suite 1200  
Denver, Colorado 80202  
303-298-8100  
303-298-7800 (FAX)

##### Local Contact Person:

Elton Smith  
Pioneer Natural Resources USA, Inc.  
11318 County Road 53.5  
Trinidad, Colorado 81082  
719-846-7898  
719-846-1657 (FAX)

*2. Purpose of this application.* Pioneer has submitted this application to convert the existing drilling reserve pit on the wellsite to a lined earthen pit for the storage, evaporation and disposal of produced groundwater. Produced water will be piped directly from the wellhead to the converted reserve pits via a surface line. This lined earthen pit is located within the confines of the existing wellsite. Any excess water production will be trucked or piped to the nearest permitted multi-well unlined earthen pit or disposed of in an existing Class II injection well. In the future, Pioneer could discharge from this lined earthen pit under a CDPHE surface discharge permit.

*3. Sensitive area determination.* This proposed earthen pit shall be lined with a 30 mil Faille Finish Fabric Liner; no percolation of produced water shall occur from this lined pit.

*4. Well site survey and color map.* The proposed pit is located on the well site and is shown on the attached color map.

*5. Water quality testing.* Pioneer typically collects a representative water sample from the wellhead approximately 60 to 90 days after first gas sales. If final water quality results are available, they shall be submitted with this pit permit application. If final water quality results are not available at the time of pit permit application submittal, results shall be submitted to the Commission as soon as final reports are received by Pioneer.

#### *6. Calculations:*

Surface area = length x width = 90 feet x 45 feet = 4050 sq. feet

Storage capacity = length x width x depth = 90 feet x 45 feet x 6 feet =  
24300 cubic feet. 24300 cubic feet x 1 barrel/5.615 cubic feet = 4327 barrels

**Daily evaporative loss.** Based on climatic data and a conversion table provided by COGCC, evaporation loss for this area (Las Animas County) averages 45 pan inches/year = 5.7 barrel(s)/day for 4050 square feet of pit surface.

**Percolation rate.** Not applicable- no percolation.

7. *Water wells within 1/8 mile* Known, permitted water wells (based on State records) within a one-mile radius are shown on the attached map.

8. *Inspection and reporting.* Typically, water production and/or the lined earthen pit is monitored at least once a day by Pioneer field personnel. All spills and/or releases will be reported in accordance with COGCC and CDPHE regulations.

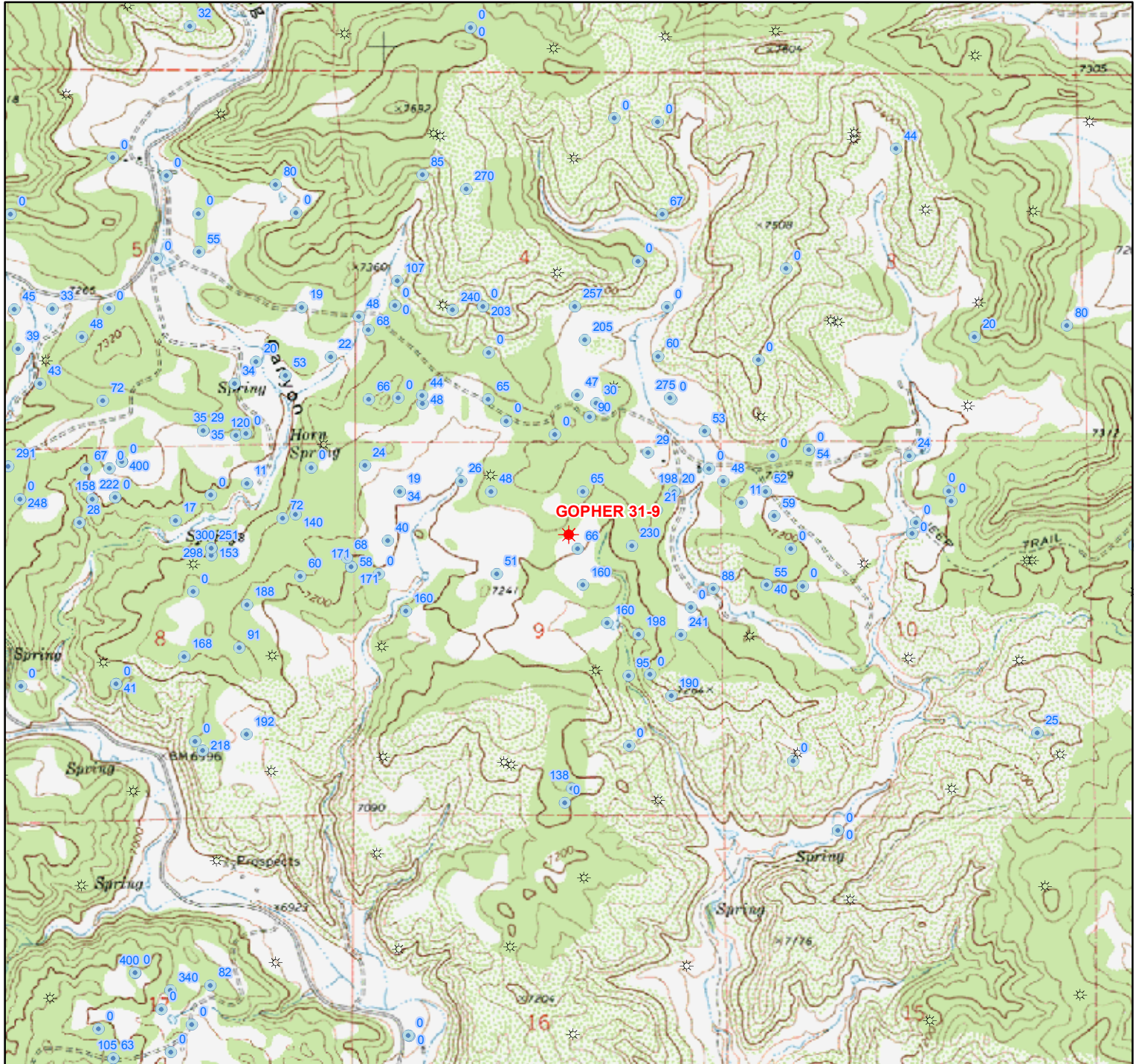




# Topographic Map

## Gopher 31-9

**PIONEER**  
NATURAL RESOURCES



### Legend

- ★ Permitted Well
- ☆ Other Operator's Wells
- Water Well (Static Level ft)

**1:24,000**

0 0.25 0.5 0.75 1 Miles

0 2,000 4,000 6,000 8,000 Feet

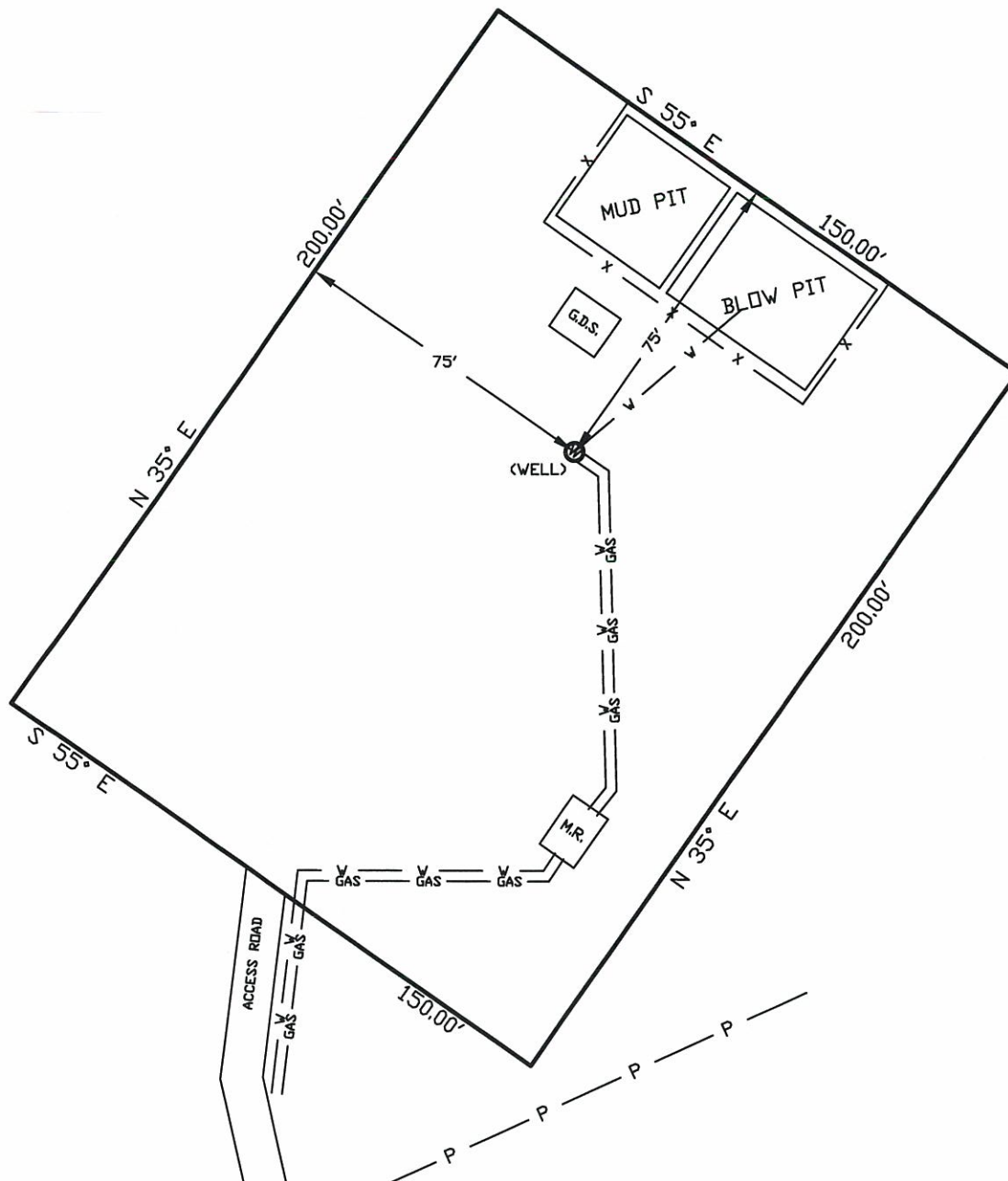
Projection: UTM  
Datum: NAD 1983  
Zone: 13N  
Units: Feet

# WELLSITE/PRODUCTION EQUIPMENT LAYOUT

OPERATOR: Pioneer Natural Resources

WELL NAME: Gopher 31-9

NWNE of SECTION 9 TOWNSHIP 33 S, RANGE 66 W OF THE 6TH P.M., IN LAS ANIMAS COUNTY



## NOTE:

MUD AND BLOW PITS WILL BE CONVERTED TO UNLINED EVAPORATION PITS FOR PRODUCTION.

WELLHEADS ARE TYPICALLY PCP DRIVE HEADS

January 24, 2008

Date Platted

## GRAPHIC SCALE



( IN FEET )

1 inch = 40 ft.

## LEGEND:



= WELLHEAD

= EXISTING WELLPAD

= FENCE (4 STRAND)

= 4" GAS GATHERING LINE

= 2" WATER LINE

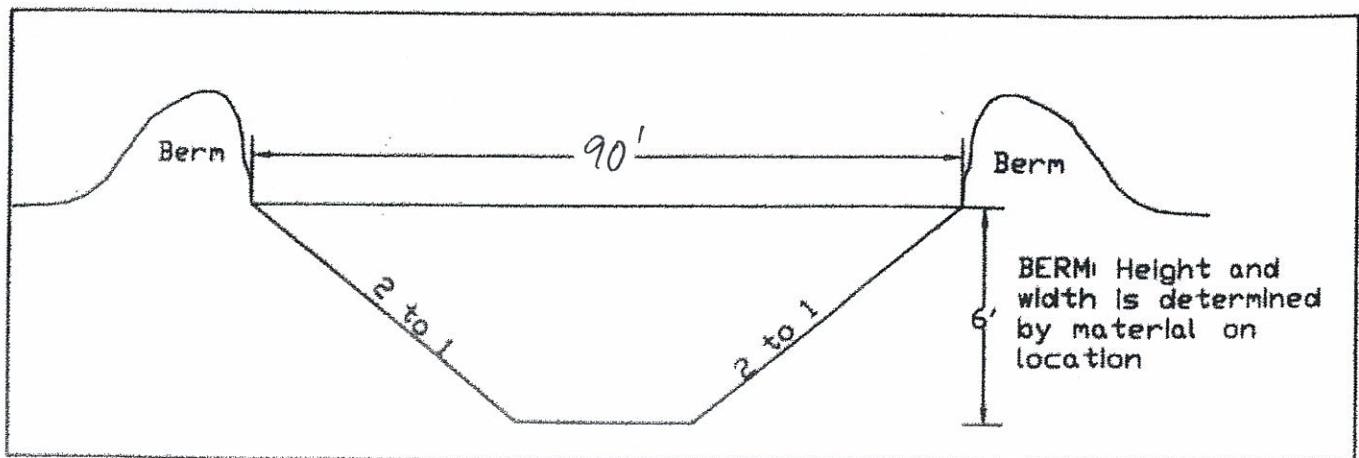
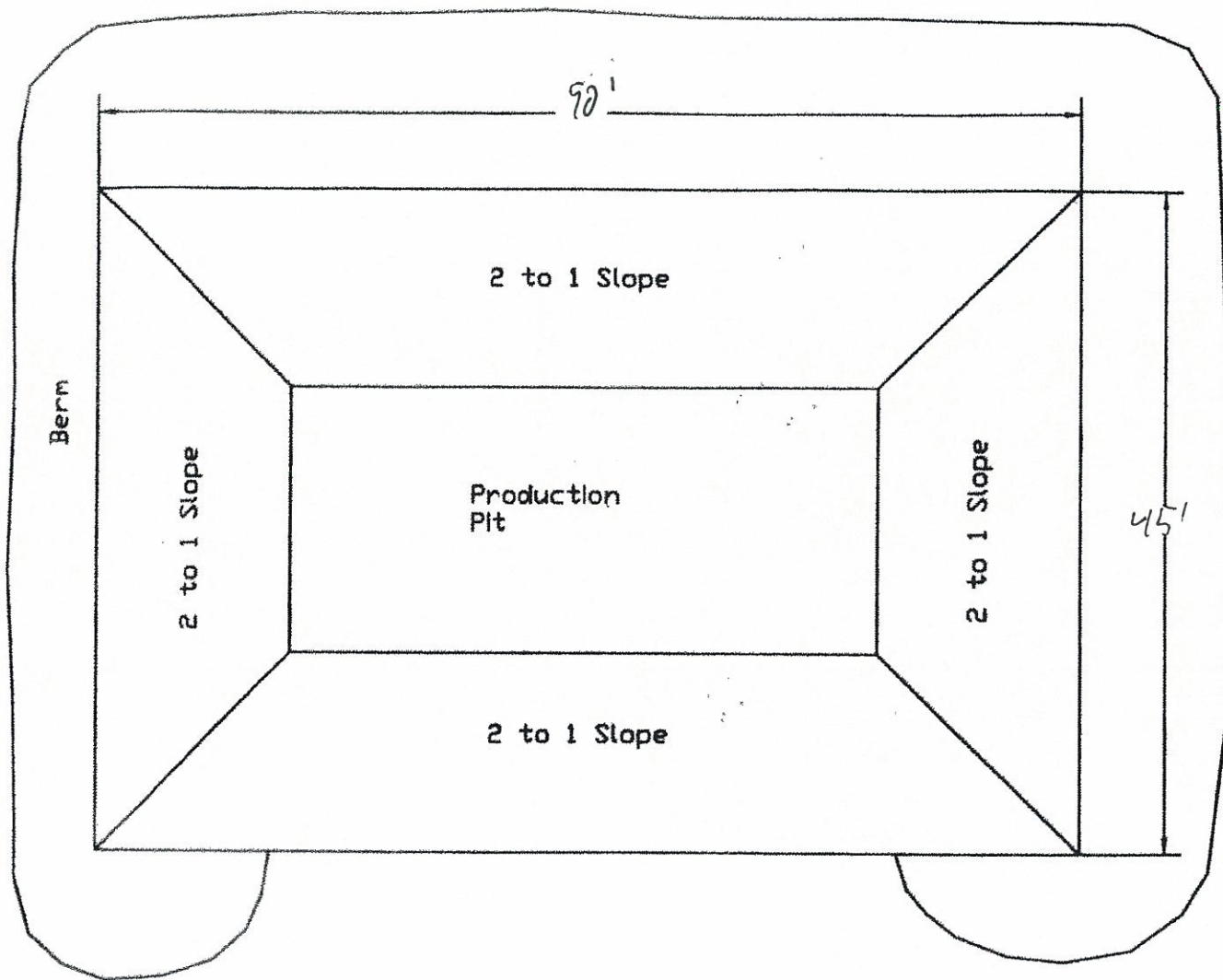
M.R. = COMBO METER RUN AND WATER/GAS SEPARATOR

G.D.S. = GAS DRIVE SYSTEM

SHIELDS SURVEY L<sup>td</sup>. C<sup>o</sup>.  
Raton, New Mexico 87740  
(505)445-1232



PIONEER NATURAL RESOURCES USA, INC.  
LINED EARTHEN PIT APPLICATION  
WELL/LOCATION: Gopher 31-9  
Scale: 1" = 5'





# 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

## DRILL SITE/ACCESS ROAD RECLAMATION FORM

This form shall be submitted in duplicate with the application for permit-to-drill (OGCC Form 2) unless a Federal 13-point surface plan is included. Also required are a minimum of two photographs (site and access road). Soil and plant community information is from United States Natural Resources Conservation Services (USNRCS).

<b>1. OGCC Operator Number:</b> <u>10084</u>		<b>4. Contact Name and Telephone:</b> <u>Georgina Guzman</u>		<b>Complete the Attachment Checklist</b> <table border="1"><thead><tr><th></th><th>Oper</th><th>OGCC</th></tr></thead><tbody><tr><td>Drillsite and access photographs</td><td>✓</td><td></td></tr><tr><td>COE Section 404 documentation</td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></tbody></table>			Oper	OGCC	Drillsite and access photographs	✓		COE Section 404 documentation								
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Drillsite and access photographs	✓																			
COE Section 404 documentation																				
<b>2. Name of Operator:</b> <u>Pioneer Natural Resources USA Inc</u>		<b>No:</b> <u>(303) 675-2611</u>																		
<b>3. Address:</b> <u>1401 17th Street, Ste. 1200</u>		<b>Fax:</b> <u>(303) 294-1275</u>																		
<b>City:</b> <u>Denver</u> <b>State:</b> <u>CO</u> <b>Zip:</b> <u>80202</u>																				
<b>5. Well Name and No.:</b> <u>Gopher 31-9</u>		<b>6. County:</b> <u>Las Animas</u>																		
<b>7. Location (QtrQtr, Sec, Twp, Rng, Meridian):</b> <u>NW/NE - 9 - T33S R66W 6th pm</u>																				

### Pre-Drilling Information Current Land Use

<b>8. Crop Land:</b>	<input type="checkbox"/> Irrigated	<input type="checkbox"/> Dry Land	<input type="checkbox"/> Improved Pasture	<input type="checkbox"/> Hay Meadow	<input type="checkbox"/> CRP
<b>9. Non-Crop Land:</b>	<input type="checkbox"/> Rangeland	<input checked="" type="checkbox"/> Timber	<input type="checkbox"/> Recreational	<input type="checkbox"/> Other (describe): _____	
<b>10. Subdivided:</b>	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Residential		

Attach color photographs of drill site and access road; identify each photo by date, well name and location.

### Soils

<b>11. Soil map units from USNRCS survey:</b> Sheet No: <u>Weston</u> Soil Complex/Series No: <u>GA</u>	
Soils Series Name: <u>Gulnare - Allens Park Complex</u>	Horizon thickness (in inches): A: <u>0-2</u> ; B: <u>E: 2-5</u> ; C: <u>Bt1: 5-13</u>
Soils Series Name: _____	Horizon thickness (in inches): A: _____ ; B: _____ ; C: _____

### Plant Community

Complete this section only if operations are to be conducted upon non-crop land.

**12. Plant species from:** ☐ USNRCS or ☒ Field Observation Date of observation: 1/22/08

List individual species: Pine, pinyon, cedar, oak

**13. Check one predominant plant community for the drill site:**

<input type="checkbox"/> Disturbed Grassland	(Cactus, Yucca, Cheatgrass, Rye, Thistle)
<input type="checkbox"/> Grassland	(Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
<input type="checkbox"/> Shrub and Brush Land	(Mahogany, Oak, Sage, Serviceberry, Chokecherry)
<input type="checkbox"/> Plains Deciduous Riparian	(Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
<input type="checkbox"/> Mountain Conifer Riparian	(Spruce, Fir, Ponderosa Pine)
<input checked="" type="checkbox"/> Evergreen Forest Land	(Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon)
<input type="checkbox"/> Aquatic	(Bullrush, Sedges, Cattail, Arrowhead)
<input type="checkbox"/> Tundra	(Alpine, Willow, Currant, Raspberry)
<input type="checkbox"/> Other (describe):	_____

**14. Was an Army Corps of Engineers Section 404 Permit filed?** ☐ Yes ☒ No If yes, attach appropriate documentation.

Comments:


I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions which presently exist, that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Georgina Guzman

Signed: \_\_\_\_\_ Title: Engineering Tech. Date: \_\_\_\_\_