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State of Colorado
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

RECEIVED

MAR 20 2013

COGCC

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAVTracking No: Pit 432215
Emergency Pit Closure

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form must 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): Emergency Pit Closure

GENERAL INFORMATION

OGCC Operator Number: 69175		Contact Name and Telephone	
Name of Operator: PDC Energy, Inc.		Name: Adell Heneghan	
Address: 1775 Sherman Street, Suite 3000		No: (303) 860-5800	
City: Denver State: CO Zip: 80203		Fax: (303) 860-5838	
API/Facility No: 05-123-36153		County: Weld	
Facility Name: Ochsner 50-441		Facility Number: 432215 LOCATION 430370	
Well Name: Ochsner 50-441		Well Number: Ochsner 50-441	
Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW S5 T6N R67W 6th PM		Latitude: 40.516700 Longitude: -104.91788	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.):		Condensate	
Site Conditions: Is location within a sensitive area (according to Rule 901e)?		<input type="checkbox"/> X Y <input type="checkbox"/> N If yes, attach evaluation.	
Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.):		Oil and gas production, agricultural	
Soil type, if not previously identified on Form 2A or Federal Surface Use Plan:		Kim loam, 1 to 3 percent slopes	
Potential receptors (water wells within 1/4 mi, surface waters, etc.):		surface water is located appr 1,800' W, water wells appr 1,500' N	
Depth to shallowest groundwater is approximately 15 ft bgs.			
Description of Impact (if previously provided, refer to that form or document):			
Impacted Media (check):	Extent of Impact:	How Determined:	
<input checked="" type="checkbox"/> Soils	Form 19 and Form 27 approved by COGCC on February 20, 2013	Excavation and soil sampling	
<input type="checkbox"/> Vegetation			
<input type="checkbox"/> Groundwater			
<input type="checkbox"/> Surface water			

REMEDIALATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):	
A Form 15 for the construction and use of an emergency pit was submitted on February 11, 2012 (Pit Facility # 432215). A copy of this Form 15, signed by the COGCC, is attached with this Form 27. Figure 1 provides a topographic map of the well location and Figure 2 provides an aerial view of the well location. Figure 3 provides a schematic showing the layout of the pit and a interceptor trench that was constructed to be used in unison with the pit.	
Describe how source is to be removed:	
Impacted soil in the trench and pit were excavated and transported to the Waste Management facility in Ault, CO for disposal under PDC waste manifests.	
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.:	
On February 13, 2013 following the excavation of impacted soils, PDC collected forty (40) soil samples across the well pad after the well was capped. Seven (7) of these samples were collected along the interceptor trench and emergency pit. As illustrated on Figure 2, three (3) of these samples were collected within the extent of the pit. Each sample was submitted to Summit Scientific Laboratories in Golden, CO for analysis. Each of the trench and pit samples were analyzed for the full COGCC Table 910-1 soil analytical suite using applicable USEPA sampling methods. A summary of the organic compound data, for all of the well pad soil samples collected, is provided in Table 1 while a summary of the inorganic soil data is provided in Table 2. The soil sample results collected in the trench and pit are highlighted in the two tables. As summarized in the tables, analytical results for all of the analytes were below laboratory detection limits except for arsenic. Site remediation activities at the site have been completed and the pit is not longer being used. Based on this, PDC is requesting that the COGCC close the Pit Report for this site.	

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REMEDATION WORKPLAN (CONT.)

OGCC Employee: _____

Tracking Number: _____

Name of Operator: PDC Energy, Inc.

OGCC Operator No: 69175

Received Date: _____

Well Name & No: Ochsner 50-441

Facility Name & No.: Ochsner 50-441

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

Groundwater was not impacted

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.

The area where the trench and emergency pit were installed was backfilled on March 14, 2013 with clean soil and the area was recontoured to match the surrounding grade in accordance with interim reclamation requirements.

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:

Confirmation soil samples were collected from the interceptor trench and emergency pit for laboratory analyses. Lab results indicated concentrations below Table 910-1 standards. The interceptor trench and emergency pit were backfilled on March 14, 2013 and are no longer being used. Based on this information, PDC requests a No Further Action determination and closure of Facility 432215.

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

Before backfilling the trench and pit on March 14, 2013, PDC transported impacted soils to the Waste Management facility in Ault, CO for disposal.

IMPLEMENTATION SCHEDULE

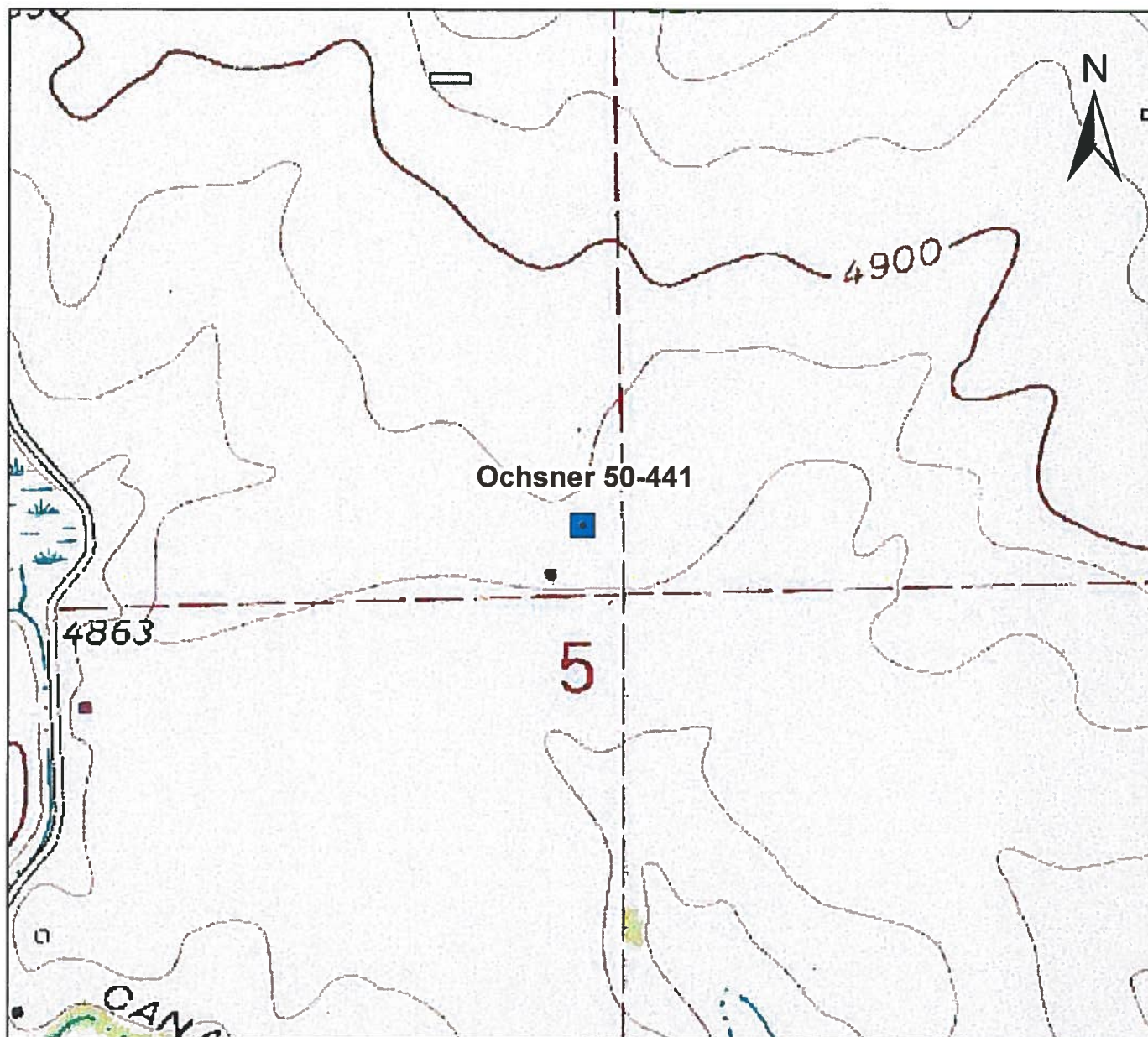
Date Site Investigation Began:	2/11/2013	Date Site Investigation Completed:	2/13/2013	Remediation Plan Submitted:	2/11/13
Remediation Start Date:	2/13/2013	Anticipated Completion Date:	3/8/2013	Actual Completion Date:	3/14/13

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

Print Name: Adell Heneghan

Signed: Adell Heneghan Title: EHS Director Date: 3/20/13OGCC Approved: [Signature] Title: EPS Date: 3/21/13

Note: See remediation # 7549 for analytical results.



0 375 750 1,500
Feet



Figure 1

Site Location Map
Ochsner 50-441
SENW S5 T6N R67W
Weld County, Colorado

Drawn By: DEB
Date: 02/13/2013


Tasman Geosciences



0 375 750 1,500 Feet

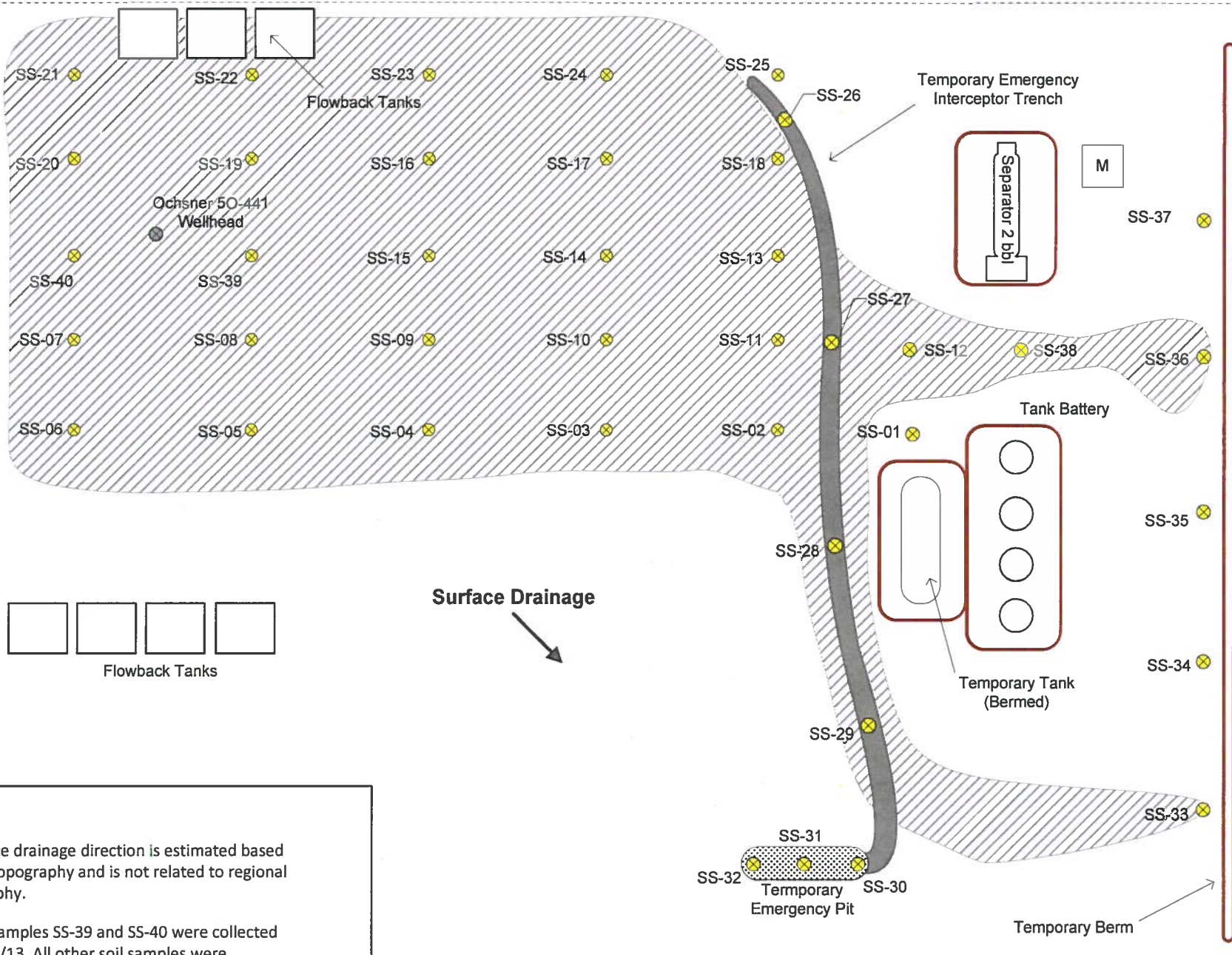


Figure 2

Site Location Map
Ochsner 50-441
SENW S5 T6N R67W
Weld County, Colorado

Drawn By: CAW
Date: 03/20/2013


Tasman Geosciences



Notes:

1. Surface drainage direction is estimated based on site topography and is not related to regional topography.
2. Soil samples SS-39 and SS-40 were collected on 2/14/13. All other soil samples were collected on 2/13/13.

PROJECT
NO:

DRAWN BY: MHL

DATE: 2/13/2013

Facility Diagram
PDC Energy – DJ Basin
Ochsner 50-441
SENW S51 T6N R67W
Weld County, CO



5690 Webster Avenue
Arvada CO 80002

LEGEND

- Earthen berm
- ⊗ Soil Sample Location
- ⊗ Well
- ▨ Area of Impacted Soil



FIGURE 3

Site Layout and Soil
Sample Locations
Not to Scale

FORM

15

Rev
10/11

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OGCC RECEPTION

Document Number:

400380955

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 Type: ☐ PERMIT ☒ REPORT

OGCC PIT NUMBER: 432215

NOTE: Operator to provide OGCC Pit Number only if available on an existing pit for pit report

OGCC Operator Number:	69175	Contact Name:	Brandon Bruns
Name of Operator:	PDC ENERGY INC		
Address:	1775 SHERMAN STREET - STE 3000	Phone:	(303) 831-3971
City:	DENVER	State:	CO Zip: 80203 Email: brandon.bruns@pdce.com

ATTACHMENTS

Detailed Site Plan
Design/Cross Sec
Topo Map
Calculations
Sensitive Area Info
Mud Program
Form 2A
Form 26
Water Analysis

Pit Location Information

Operator's Pit/Facility Name:	Ochsner 50-441	Operator's Pit/Facility Number:	
API Number (associated well):	05- 123 00		
OGCC Location ID (associated location):	430370	Or Form 2A #	
Pit Location (QtrQtr, Sec, Twp, Rng, Meridian):	SENW-5-6N-67W-6		
Latitude:	40.516080	Longitude:	-104.919200 County: WELD

Operation Information

Pit Use/Type (Check all that apply):	Pit Type:	<input type="checkbox"/> Lined	<input checked="" type="checkbox"/> Unlined
<input type="checkbox"/> Drilling: (Ancillary, Completion, Flowback, Reserve Pits)	<input type="checkbox"/> Oil-based Mud;	<input type="checkbox"/> Salt Sections or High Chloride Mud	
<input type="checkbox"/> Production:	<input type="checkbox"/> Skimming/Settling;	<input type="checkbox"/> Produced Water Storage;	<input type="checkbox"/> Percolation; <input type="checkbox"/> Evaporation
<input checked="" type="checkbox"/> Special Purpose:	<input type="checkbox"/> Flare;	<input checked="" type="checkbox"/> Emergency;	<input type="checkbox"/> Blowdown; <input type="checkbox"/> Workover; <input type="checkbox"/> Plugging; <input type="checkbox"/> BS&W/Tank Bottoms
<input checked="" type="checkbox"/> Multi-Well Pit:	Construction Date:	02/11/2013	Actual or Planned: Actual
Method of treatment prior to discharge into pit:	none		
Offsite disposal of pit contents:	<input type="checkbox"/> Injection;	<input checked="" type="checkbox"/> Commercial;	<input type="checkbox"/> Reuse/Recycle; <input type="checkbox"/> NPDES; Permit Number:
Other Information:	pit constructed for emergency response - Wild Well Control will be on site later today and a vacuum truck is on site assisting with fluid recovery		

Site Conditions

Distance (in feet) to the nearest surface water:	3000	Ground Water (depth):	25	Water Well:	3533
Is this location in a Sensitive Area?	Yes	Existing Location?	No		

Pit Design and Construction

Size of Pit (in feet):	Length:	60	Width:	30	Depth:	3	Calculated Working Volume (in barrels):	961
Flow Rates (in bbl/day):	Inflow:	0	Outflow:		Evaporation:		Percolation:	
Primary Liner. Type:	none	Thickness (mil):	0					
Secondary Liner (if present):	Type:		Thickness (mil):					
Is Pit Fenced?	No	Is Pit Netted?	No	Leak Detection?	No			
Other Information:	pit constructed for emergency response - Wild Well Control will be on site later today and a vacuum truck is on site assisting with fluid recovery							

Operator Comments: pit constructed for emergency response - Wild Well Control will be on site later today and a vacuum truck is on site assisting with fluid recovery

Certification

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

Signed:

Print Name:

Brandon Bruns

Title:


EHS Professional

Email:

brandon.bruns@pdce.com

Date:

02/11/2013

Approval		
Signed: 	Title: <u>Director of Cogcc</u>	Date: <u>03/18/2013</u>

<u>BMP</u>	
<u>Type</u>	<u>Comment</u>
Total: 0 comment(s)	
CONDITIONS OF APPROVAL:	