

Page 1
FORM 4
 Rev 12/05

State of Colorado
Oil and Gas Conservation Commission
 1120 Lincoln Street, Suite 601, Denver, Colorado 80202 Phone: (303)841-2100 Fax: (303)841-2101

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form) identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b)

1. OGCC Operator Number: <u>68175</u> 2. Name of Operator: <u>Petroleum Development Corporation</u> 3. Address: <u>120 Railroad Ave. Suite D</u> City: <u>Parachute</u> State: <u>CO</u> Zip: <u>81635</u>	4. Contact Name: <u>Ed Waters</u> Phone: <u>970-285-9608</u> Fax: <u>970-285-9619</u>	Complete the Attachment Checklist OGCC										
5. API Number <u>05-045-18216</u> 6. Well/Facility Name: <u>Puckell</u> 8. Location (Cir/Oil, Sec, Twp, Rng, Mark/Sn): <u>HWSE, Sec 24, T6S, R 97W, 6 P1A</u> 9. County: <u>Garfield</u> 11. Federal, Indian or State Lease Number: _____	OGCC Facility ID Number: <u>335519</u> 7. Well/Facility Number: <u>23C-24D</u> 10. Field Name: <u>Grand Valley</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Sundry Plat</td><td></td></tr> <tr><td>Directional Survey</td><td></td></tr> <tr><td>Surface Egmpt Diagram</td><td></td></tr> <tr><td>Technical Info Page</td><td style="text-align: center;">x</td></tr> <tr><td>Other</td><td style="text-align: center;">x</td></tr> </table>	Sundry Plat		Directional Survey		Surface Egmpt Diagram		Technical Info Page	x	Other	x
Sundry Plat												
Directional Survey												
Surface Egmpt Diagram												
Technical Info Page	x											
Other	x											

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface footage is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:	FILL/BL	FILL/BL	FILL/BL	FILL/BL	
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	attach directional survey

Bottomhole location Cir/Oil, Sec, Twp, Rng, Mark: _____
 Distance to nearest property line _____ Distance to nearest bldg, public rd, utility or RR _____
 Latitude _____ Distance to nearest lease line _____ Is location in a High Density Area (rule 603b)? Yes/No: _____
 Longitude _____ Distance to nearest well same formation _____ Surface owner consultation date: _____
 Ground Elevation _____

GPS DATA: Date of Measurement _____ PDDP Reading _____ Instrument Operator's Name _____

CHANGE SPACING UNIT

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

Remove from surface bond
 Signed surface use agreement attached

CHANGE OF OPERATOR (prior to drilling):

Effective Date: _____
 Plugging Bond: Blanket Individual

CHANGE WELL NAME NUMBER

From: _____
 To: _____
 Effective Date: _____

ABANDONED LOCATION:

Was location ever built? Yes No
 Is site ready for inspection? Yes No
 Date Ready for Inspection: _____

NOTICE OF CONTINUED SHUT IN STATUS

Date well shut in or temporarily abandoned: _____
 Has Production Equipment been removed from site? Yes No
 MIT required if shut in longer than two years Date of last MIT _____

SPUD DATE: _____

REQUEST FOR CONFIDENTIAL STATUS (5 mos from date casing set)

SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK *submit cbl and cement job summaries

Method used	Cementing tool setting/depth	Cement volume	Cement top	Cement bottom	Date

RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.
 Final reclamation will commence on approximately _____ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

Notice of Intent Approximate Start Date: _____ Report of Work Done Date Work Completed: 7-23-2011

Detailed work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 602 variance requested	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: <u>Background</u>	

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

Signature: Ed Waters Date: 4/24/15 Email: edwaters@ogccc.com
 Print Name: Ed Waters Title: Governmental Field Coordinator

OGCC Approved: ACE for Alex Fischer W. Env Date: 4/24/15
 CONDITIONS OF APPROVAL, IF ANY: Supervisor

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 69175 API Number: 05-045-16215
 2. Name of Operator: PDC Energy OGCC Facility ID # 335519
 3. Well/Facility Name: Puckett Well/Facility Number: 23C-24D
 4. Location (Qtr/qr, Sec, Twp, Rng, Meridian): SWNW, Sec 24, T6S, R 97W, 6 PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

Initial Response Actions:

A release was reported to PDC Energy (PDC) on November 7, 2010. The incident tracking number is 2522622. Water being used for fracturing operations was released during water transfer procedures. One of the onsite Baker tanks was not gauged properly prior to water transfer, which resulted in the Baker tank overflowing. The hose connections to the Baker tanks were secured, stopping the release. All released fluids were contained to the well pad. HRL Compliance Solutions, Inc. (HCSI) was contacted and a site investigation was initiated on November 8, 2010.

Frac Water Release Investigation:

A series of soil borings were installed within the impacted area by use of a hand auger. A PetroFlag was utilized to field screen the impacted soil. Field screen readings were elevated. The estimated impacted area was approximately 3,350 square feet. The impacted area could not be fully characterized at depth due to Baker tanks over the spill area.

HCSI personnel was onsite to conduct further site investigation on July 19, 2011. A geoprobe/drill rig was utilized to drill a total of thirteen (13) boreholes within the estimated impacted area. Field screen readings were collected at one foot intervals to a depth of five (5) feet below the ground surface. A PID and PetroFlag were utilized to collect the field screens. Field screen readings were below COGCC Table 910-1 standards from each of the borehole locations. A confirmation soil sample was collected from each boring and analyzed for Table 910-1 parameters.

Analytical results were below COGCC Table 910-1 standards for hydrocarbons and metals in soil with the exception of arsenic. It was determined that natural attenuation had reduced the hydrocarbon levels to below Table 910-1 standards for soils before a remediation plan could be implemented.

All associated documents will be filed for future reference. The analytical reports will include quality assurance/quality control sections to confirm the samples were handled in accordance with proper laboratory protocol.

Based on analytical data indicating that soils formally impacted with hydrocarbons have successfully been treated by natural attenuation.

Arsenic:

This COGCC Form 4 is also being used to submit analytical results for arsenic at the Puckett 23C-24D well pad as well as background arsenic concentrations. In accordance with footnote 1 to the COGCC Table 910-1 the treatment area arsenic concentration is below the background arsenic levels.

The request is based on the arsenic analytical results below.

Puckett 23C-24D Confirmation Sample 1:	20 mg/kg
Puckett 23C-24D Confirmation Sample 2:	27 mg/kg
Puckett 23C-24D Confirmation Sample 3:	6.2 mg/kg
Puckett 23C-24D Confirmation Sample 4:	47 mg/kg
Puckett 23C-24D Confirmation Sample 5:	10 mg/kg
Puckett 23C-24D Confirmation Sample 6:	12 mg/kg
Puckett 23C-24D Confirmation Sample 7:	28 mg/kg
Puckett 23C-24D Confirmation Sample 8:	19 mg/kg
Puckett 23C-24D Confirmation Sample 9:	15 mg/kg
Puckett 23C-24D Confirmation Sample 10:	11 mg/kg
Puckett 23C-24D Confirmation Sample 11:	22 mg/kg
Puckett 23C-24D Confirmation Sample 12:	24 mg/kg
Puckett 23C-24D Confirmation Sample 13:	25 mg/kg

Average: 20.5 mg/kg

Three (3) grab samples were collected from nearby non-impacted, native soil from the surface to eight (8) inches below to establish background arsenic concentrations. Refer to the attached map for sample locations.

Puckett 23C-24D Background 1:	21 mg/kg
Puckett 23C-24D Background 2:	28 mg/kg
Puckett 23C-24D Background 3:	44 mg/kg

Average: 31 mg/kg

Based on the analytical results from the impacted area and the native background soil samples, PDC is requesting that a variance be approved for the impacted soil with respect to arsenic. If further analytical documentation is desired, please make a request to PDC for lab generated analytical reports.