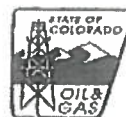


State of Colorado
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

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.

Complete the
Attachment Checklist

Oper OGCC

FORM SUBMITTED FOR:

☒ Pit Report

☒ Pit Permit

| | | |
|-----------------------------|--|--|
| Detailed Site Plan | | |
| Topo Map w/ Pit Location | | |
| Water Analysis (Form 25) | | |
| Source Wells (Form 26) | | |
| Pit Design/Plan & Cross Sec | | |
| Design Calculations | | |
| Sensitive Area Determ. | | |
| Mud Program | | |
| Form 2A | | |

OGCC Operator Number: 69175

Name of Operator: Petroleum Development Corporation (PDC)

Address: 1775 Sherman Street

City: Denver State: CO Zip: 80203

Contact Name and Telephone:

Adell Heneghan

No: (970) 285-9606

Fax: (970) 285-9619

API Number (of associated well): 05-045-14738

OGCC Facility ID (of other associated facility):

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NESW, Sec 17, T6S, R96W, 6th Principal Meridian

Latitude: 39.52442

Longitude: -108.13372

County: Garfield

Pit Use: ☐ Production ☐ Drilling (Attach mud program) ☒ Special Purpose (Describe Use): Emergency Fluid Recovery Pits

Pit Type: ☐ Lined ☒ Unlined Surface Discharge Permit: ☐ Yes ☐ No

Offsite disposal of pit contents: ☐ Injection ☒ Commercial Pit/Facility Name: Pit/Facility No:

Attach Form 26 to identify Source Wells and Form 25 to provide Produced Water Analysis results.

Existing Site Conditions

Is the location in a "Sensitive Area?" ☒ Yes ☐ No Attach data used for determination.

Distance (in feet) to nearest surface water: 880' E ground water: Unk water wells: > 1 Mile

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 ☐ Timber ☐ Recreational ☒ Other (describe): Agricultural land

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

SOILS (or attach copy of Form 2A if previously submitted for associated well)

Soil map units from USNRCS survey: Sheet No: 66 Soil Complex/Series No:

Soils Series Name: Torriorthents-Camborthids-Rock outcrop complex Horizon thickness (in inches): A: 4-30 ; B: 15-60 ; C: 0

Soils Series Name: Horizon thickness (in inches): A: ; B: ; C:

Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 5 feet Width: 5 feet Depth: 5 feet

Calculated pit volume (bbls): ~22 Daily inflow rate (bbls/day): NA

Daily disposal rates (attach calculations): Evaporation: NA bbls/day Percolation: NA bbls/day

Type of liner material: NA Thickness: NA

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): NA- Emergency Fluid Recovery Pits

Is pit fenced? ☐ Yes ☒ No Is pit netted? ☐ Yes ☒ No

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: EH & S Coordinator

Date: 2/24/10

OGCC Approved:

Title: FOR Chris Camfield

Date: 03/07/2013

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER: 432080

EPS NW Region

P. + report submitted in 2010.
Approved retroactively to close pit.
Form 27 submitted concurrently.



February 24, 2010

Mr. Chris Canfield
Colorado Oil and Gas Conservation Commission
707 Wapiti Court, Suite 204
Rifle, CO 81650

Re: Form 15 Submittal
Chevron 22D-17 (1/22/10 Release) Spill #1632343
NESW – Sec 17 – T6S – R96W

Dear Mr. Canfield:

LT Environmental, Inc. (LTE), on behalf of Petroleum Development Corporation (PDC), is pleased to present the Colorado Oil and Gas Conservation Commission (COGCC) with additional information for the above referenced site (Figure 1). The COGCC requested PDC submit a Form 15 Earthen Pit Report/Permit as required by Rule 903.b.(1) for the special purpose pit used in the initial phase of emergency response activities at the site.

On January 22, 2010 a flow back line parted near the wellhead valve, causing an immediate release of flow back fluid onto the pad site. A diversion ditch was excavated across the pad surface from the release location at the well head and connected to two emergency fluid recovery pits. The first pit was excavated approximately 140 feet (ft) east of the center of the production tank. A second pit was excavated 35 ft west of the first pit to capture additional flow back fluid moving across the pad surface. Both of the pits were unlined and approximately 5 ft wide by 5ft long by 5ft below ground surface (bgs). Based on the calculated volume of the pits, each pit would have been able to capture 22 barrels (bbls) of flow back fluid at one time. A Site Map showing the locations of the two pits is presented as Figure 2.

Vacuum trucks were used to recover flow back fluid from the site. The pits were utilized during fluid recovery activities from 10:45 pm on January 22, 2010 to 3:30 am on January 23, 2010, which was when control of the well was re-gained. The emergency fluid recovery pits and berms allowed for the recovery of approximately 1,182 bbls of flow back fluid. All of the fluid recovered at the site was transported to Cisco, Utah for disposal. Once emergency response activities were completed, the emergency fluid recovery pits and diversion ditch were backfilled with clean soil.

On February 17, 2010, pot holes were excavated in each of the two pits to collect confirmation soil samples. Soil samples were collected from the base of each pit at approximately 5 ft bgs and were submitted to a contract laboratory for analysis of benzene, toluene, ethylbenzene, xylenes (BTEX), total petroleum hydrocarbons (TPH), electrical conductivity (EC), sodium adsorption ratio (SAR), pH, polycyclic aromatic



hydrocarbons (PAHs), and metals. A background soil sample was also collected off the pad surface and was submitted for arsenic analysis. The laboratory results for the confirmation soil samples and background soil sample will be submitted in a Form 27 under separate cover.

If you have any questions or require additional information, please contact Adell Heneghan at (970) 285-9606.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Asher Weinberg".

Asher Weinberg
Staff Environmental Scientist

A handwritten signature in black ink, appearing to read "Scott Ghan".

Scott Ghan
Senior Environmental Scientist

cc: Adell Heneghan, PDC

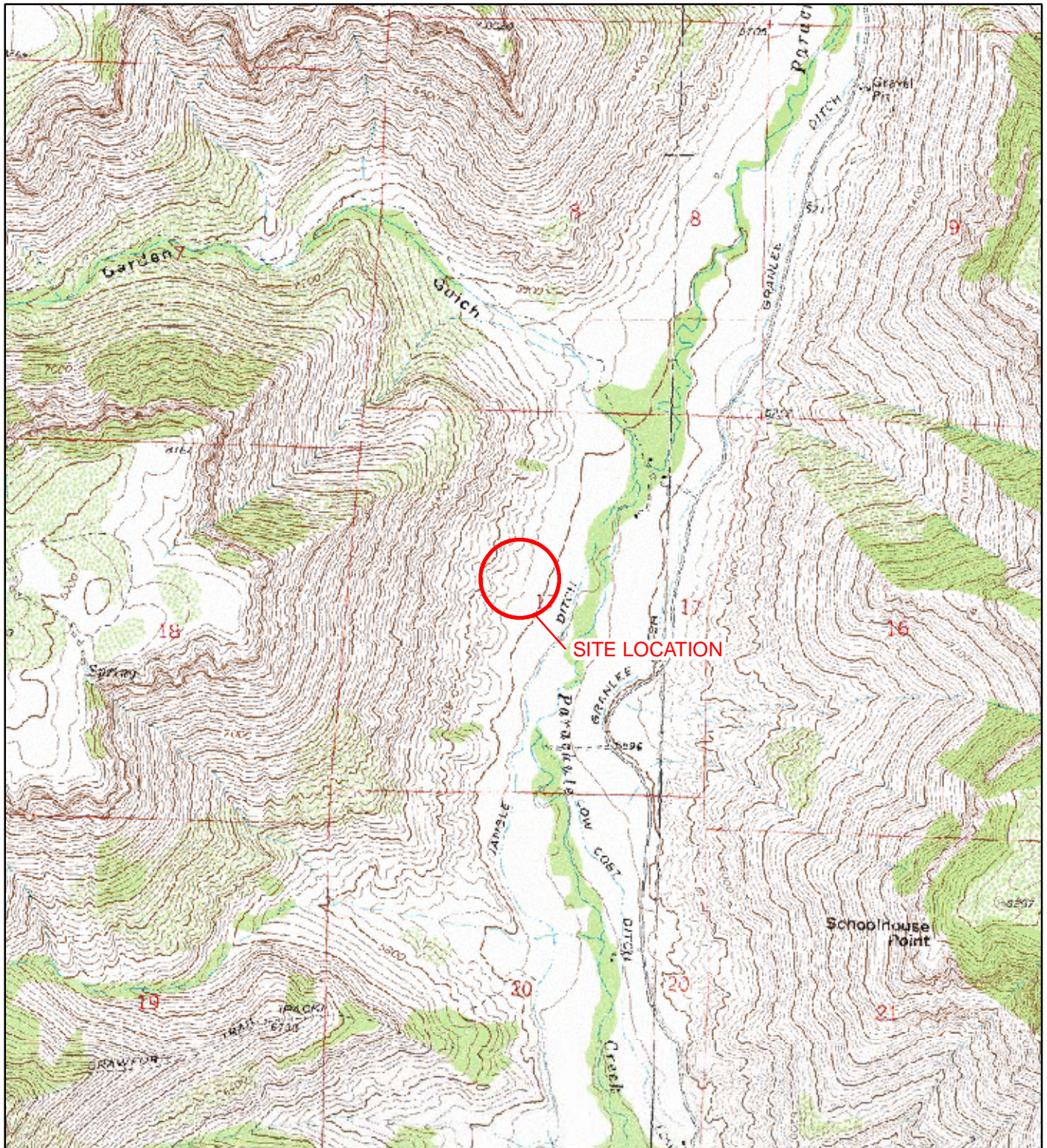
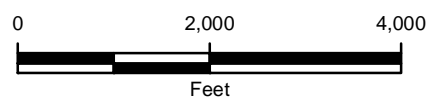


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES



LEGEND

○ SITE LOCATION

FIGURE 1
SITE LOCATION MAP
CHEVRON 22D-17 (01/22/10 RELEASE)
SENW SEC 17 T6S R96W
GARFIELD COUNTY, COLORADO
PETROLEUM DEVELOPMENT CORPORATION





LEGEND

- | | | |
|---------------------------|---------------------------------|-----------------------------|
| ● WELLHEAD | ▭ FRAC TANKS | ▨ LINED SOIL CONTAINMENT |
| ✕ RELEASE LOCATION | ➡ SURFACE FLOW | ■ FLUID RECOVERY EXCAVATION |
| ▲ SOIL SAMPLE | — SPILL RESPONSE BERM (EARTHEN) | ⋯ DIVERSION DITCH |
| ↓ DRAINAGE FLOW DIRECTION | ⋯ IRRIGATION DITCH | — ROAD |
| ▭ PAD PERIMETER | | |
| ✕ FENCE | | |

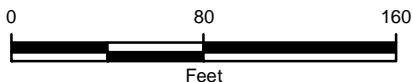


FIGURE 2
SITE MAP
CHEVRON 22D-17 (01/22/10 RELEASE)
SENW SEC 17 T6S R96W
GARFIELD COUNTY, COLORADO
PETROLEUM DEVELOPMENT CORPORATION

