NM2 - ___12___

Minor Modification & Exception Request & Approval

Dec. 24, 2020

Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD
Sent: Thursday, December 24, 2020 10:48 AM
To: 'rspeer@chevron.com'
Cc: 'Rice, Steve'
Subject: Permit Minor Modification and Exception Requests
Attachments: 2020 1224 Chevron NM2-012 Permit Minor Modification Request approval signed.pdf

Mr. Speer,

Please see the attached approval of the Permit Minor Modification and Exception Requests for the Jal Landfarm, permit NM2-012. If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Brad A. Jones

Brad A. Jones ● Environmental Scientist Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
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State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
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Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval
Director, Oil Conservation Division

December 24, 2020

Robert Speer
Chevron North America Exploration and Production Company
15 Smith Road
Midland, Texas 79705

RE: Approval of Permit Minor Modification and Exception Requests
Jal Landfarm, Permit NM2-012
Location: W/2 of Section 17, Township 24 South, Range 36 East, NMPM
Lea County, New Mexico

Mr. Speer,

The Oil Conservation Division (OCD) has completed its review of Chevron Environmental Management Company's (CEMC) revised permit minor modification and exception request, dated September 3, 2020, for the commercial surface waste management facility *permit*, NM2-012 and exception request regarding compliance to the transitional provisions of 19.15.36.20 NMAC.

CEMC has requested the following minor modifications and exception:

- CEMC requests to cease tilling operations of the remaining active cells as treatment zone soil concentrations are below the successive lift standards. CEMC has not received any additional contaminated soils since 2007 and plans not to accept any additional contaminated soils;

- CEMC requests to modify the permit so that vadose zone samples are collected from 3 to 4 feet below native ground surface in compliance with 19.15.36.15.E(1) NMAC requirements, instead of 2 to 3 feet below native ground surface as required by the permit;

- CEMC requests to modify the permit so that vadose zone monitoring frequency and number of samples being collected be adjusted from one sample quarterly to four randomly selected, independent samples semi-annually in compliance with 19.15.36.15.E(2) NMAC requirements.

- CEMC requests to modify the permit so that the requirement for quarterly vadose zone testing of TPH/BTEX and annual testing of major cations/anions and WQCC metals be removed. Future vadose zone sampling requirements shall be completed in compliance with the requirements specified in 19.15.36.15.E(2) NMAC; and

- CEMC requests to modify the permit so that treatment zone soils must satisfy the monitoring requirements and constituent limits specified in 19.15.36.15.D NMAC, instead of the monitoring requirements and constituent limits required by the permit.

OCD hereby grants CEMC approval of the minor modification requests to permit NM2-012 and the exception request regarding compliance to the transitional provisions of 19.15.36.20 NMAC recognized above, with the following conditions:

1. CEMC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), the existing permit NM1-012 as modified, the transitional provisions of 19.15.36.20 NMAC, and all conditions specified in this approval;

2. Analysis of total petroleum hydrocarbons (TPH) shall be represented as the sum of the hydrocarbon chains from C_6 through C_{36} by EPA Method 8015B, in lieu of TPH by EPA Method 418.1;

3. Mercury shall be analyzed by EPA Method 7471A, in lieu of EPA Methods 6010B or 6020;

4. Vadose zone sampling and monitoring shall be performed in accordance with 19.15.36.15.E NMAC in lieu of the NM2-012 permit requirements;

5. Treatment zone sampling and monitoring for an additional lift shall be performed in accordance with 19.15.36.15.D NMAC in lieu of the NM2-012 permit requirements; and

6. CEMC shall obtain written approval from OCD prior to implementing any changes to this approval.

Please be advised that approval of this request does not relieve CEMC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve CEMC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to email me at brad.a.jones@state.nm.us.

Respectfully,

Brad A. Jones
Environmental Specialist

cc: Steve Rice Arcadis U.S., Inc

ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company

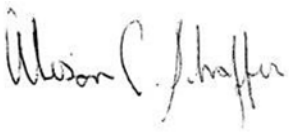
MINOR PERMIT MODIFICATION REQUEST

Jal Landfarm NM-02-0012

Centralized Surface Waste Management Facility

Lea County, New Mexico

September 3, 2020



Alison Schaffer
Assistant Project Manager

Steve Rice
Project Manager

MINOR PERMIT MODIFICATION REQUEST

Jal Landfarm NM-02-0012
Centralized Surface Waste Management Facility
Lea County, New Mexico

Prepared for:

Chevron Environmental Management Company

Prepared by:

Arcadis U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720 344 3500
Fax 720 344 3535

Our Ref.:

B0048818

Date:

September 3, 2020

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TABLES

FIGURE

ATTACHMENT

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis U.S., Inc.
Background SAP	Background Sampling and Analysis Plan, Jal Landfarm NM-02-0012, Centralized Surface Waste Management Facility, Lea County, New Mexico
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CEMC	Chevron Environmental Management Company
DRO	diesel range organics
GRO	gasoline range organics
mg/kg	milligrams per kilogram
msl	mean sea level
NMAC	New Mexico Administrative Code
NMOCD	New Mexico Oil Conservation Division
ORO	oil range organics
Part 36	19.15.36 New Mexico Administrative Code
PQL	practical quantification limit
Site	Centralized Surface Waste Management Facility NM-02-0012 located in Lea County, New Mexico
TPH	total petroleum hydrocarbons
Transitional Provision	Transitional Provisions of the Surface Waste Management Facilities Part 36 (19.15.36.20 NMAC)
USEPA	United States Environmental Protection Agency
WQCC	Water Quality Control Commission

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this Minor Permit Modification Request for the Jal Landfarm, a centralized surface waste management facility (NM-02-0012) located in Lea County, New Mexico (Site; Figure 1).

On August 2, 1999, the New Mexico Oil Conservation Division (NMOCD) issued Texaco Exploration & Production, Inc. (a legacy company of Chevron North America Exploration & Production Company) permit NM-02-0012, under Rule 711, to construct and operate a surface waste management facility (NMOCD 1999). The permit was subsequently amended on March 26, 2003 and April 1, 2004 (NMOCD 2003a, 2004). On February 14, 2007, Rule 711 was repealed and replaced by 19.15.36 New Mexico Administrative Code (NMAC; 02/14/2007, as amended through 06/30/2016), commonly referred to as "Part 36".

To date, the Site has been operating under the requirements of permit NM-02-0012 and provision 19.15.36.20 of Part 36 (Transitional Provisions), which outlines compliance requirements for existing surface waste management facilities in operation prior to the effective date of Part 36 (February 14, 2007). In order to fully transition Site operations from the Transitional Provisions to Part 36 requirements, a minor permit modification request is required, which is the subject of this document.

1.1 Purpose

In accordance with the Transitional Provisions, existing surface waste management facilities in operation prior to the effective date of Part 36, pursuant to division permits or orders, may continue to operate in accordance with such permits or orders, subject to the following provision:

- "**Provision 19.15.36.20.A:** Existing facilities shall comply with the financial assurance, operational, monitoring, waste acceptance and closure and post closure requirements provided in 19.15.36 NMAC, except as otherwise specifically provided in the applicable permit or order, or in a specific waiver, exception or agreement that the division has granted in writing to the particular surface waste management facility."

In correspondence dated June 30, 2011 (NMOCD 2011), the NMOCD provided guidance on complying with the Transitional Provisions. For Provision 19.15.36.20.A NMAC, where the language in the existing permit is silent (i.e., where a specified requirement of Part 36 is not addressed within the existing permit or in writing from the NMOCD), the operational, waste acceptance, and closure provisions of Part 36 apply and supplement existing conditions of the permit. The NMOCD also stipulated that a modification request is required to change previously specified provisions in permit NM-02-0012 to the new provisions of Part 36 (NMOCD 2011).

The purpose of this document is to provide a review of current Site operations and to present to NMOCD, for review and approval, a minor permit modification request in accordance with provision 19.15.36.8.D

NMAC[1]. The intent of the permit modification request is that all future Site activities will be conducted in accordance with Part 36 operational requirements in lieu of Transitional Provision requirements. A completed *Form C-137A: Application For Minor Modification to Surface Waste Management Facility* accompanies this document and is provided as Attachment A.

1.2 Site Description and Background

The Site is located approximately 4.5 miles northwest of Jal, New Mexico (west half of Section 17, Township 24 south, Range 36 east) north of Cooper cemetery Road (Figure 1). The Site is located within the Tertiary-age Ogallala formation, comprised of fluvial sand, silt, clay, and localized gravel. A caliche layer, approximately 9 to 21 feet thick, forms a hard, erosion resistant pedogenic calcrete approximately four feet below ground surface (bgs). The Ogallala formation is underlain by the Chinle formation, comprised of clay, silty clay, shale, and sandstone.

The nearest fresh water well (CP-00970) is located in the Northeast ¼ of Southeast ¼, Section 8, Township 24 South, and Range 36 East. The well is located approximately 0.8 miles northeast of the Site. According to the New Mexico Office of the State Engineer, the well was drilled to 198 feet bgs, with groundwater at approximately 180 ft bgs. The ground surface elevation of well CP-00970 is approximately 3,396 feet above mean sea level (msl). The ground surface elevation of the landfarm ranges from approximately 3,364 feet above msl at its eastern boundary to approximately 3,390 feet above msl at the western boundary. Based off groundwater elevation at well CP-00970 and ground surface elevation data from the Site, depth to water beneath the landfarm is expected to range from 148 to 174 feet bgs. Regional groundwater flows from northwest to southeast (Stantec 2017).

The Site was originally approved for 56 cells to be constructed over an area of approximately 320 acres; however, only 26 cells were constructed (Cells 1 to 26). Each cell is approximately 300 by 625 feet (approximately 4.3 acres). On July 29, 2003, NMOCD approved discontinuation of maintenance for cells 1 through 16 since the soil was treated to the applicable standards required under permit NM-02-0012 for a successive lift to be added to the landfarm cells (NMOCD 2003b). No additional soil lifts have been, or will be, added to these cells. Cells 1 through 16 have not been approved for closure. On February 19, 2008, NMOCD approved closure of cells 22, 23, and 24 since the treatment zone closure performance standards, as specified in 19.15.36.15.F NMAC, were met (NMOCD 2008). Active maintenance has continued at cells 17, 18, 19, 20, 21, 25, and 26; no soil has been added to these cells since 2007.

[1] 19.15.36.8.D NMAC: “Application requirements for minor modifications. Before making a minor modification, the operator of an existing surface waste management facility shall file a form C-137A with the environmental bureau in the division’s Santa Fe office describing the proposed change”.

2 CURRENT LANDFARM OPERATIONS

This section describes activities currently being performed at the Site as required by permit NM-02-0012 and the Transitional Provisions.

2.1 Bi-weekly Disking and Weekly Inspections

As specified by permit NM2-0012 Landfarm Operation conditions 4 and 11, “soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants”, and “landfarm inspection and maintenance must be conducted on a weekly basis or immediately following a consequential rainstorm or windstorm” (NMOCD 2004). Treatment zone soils in cells 17 through 21, 25, and 26 are currently disked on a bi-weekly basis, and site inspections are performed weekly.

In addition, as stated in 19.15.36.15.C(8) NMAC, “pooling of liquids in the landfarm is prohibited. The operator shall remove freestanding water within 24 hours”. Any identified ponded water in active landfarm cells is removed, to the extent practicable, within 24 hours of discovery.

2.2 Vadose Zone Sampling

Pursuant to permit NM-02-0012 conditions, vadose zone sampling is performed quarterly and consists of collecting one randomly-selected sample at a depth of 2 to 3 feet below native ground surface from each active cell (cells 17 through 21, 25, and 26). The samples are analyzed for the following constituents on a quarterly basis (NMOCD 2004):

- Total petroleum hydrocarbons (TPH) as diesel range organics (DRO), gasoline range organics (GRO), and oil range organics (ORO) by United States Environmental Protection Agency (USEPA) Method 8015B. As agreed upon in a February 2, 2019 meeting between representatives from NMOCD, CEMC, and Arcadis, TPH can be represented as the sum of the DRO, GRO, and ORO fractions.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8260B.

The samples are analyzed for the following the constituents on an annual basis (NMOCD 2004):

- Water Quality Control Commission (WQCC) metals. To align with Part 36 requirements, the WQCC metals listed in Subsections A and B of 20.6.2.3103 NMAC by USEPA Method 6020A (mercury is analyzed by USEPA Method 7471A) are analyzed.
- Major cations/anions by their respective methods.

Based on the Transitional Provisions, the samples are also analyzed for the following constituent on a semi-annual basis:

- Chloride by USEPA Method 300.0

In addition to quarterly vadose zone sampling of the seven active cells, vadose zone sampling is performed every five years for all cells as part of the five-year monitoring program outlined in provision 19.15.36.15(E)(3) NMAC. Four randomly-selected discrete soil samples are collected from the vadose zone of each developed cell (cells 1 through 26) at a depth of 2 to 3 feet below native ground surface. Soil

samples are analyzed for the WQCC metals listed in Subsections A and B of 20.6.2.3103 NMAC by USEPA Method 6020A (mercury is analysed by USEPA Method 7471A).

Vadose zone sampling will also be performed at each developed cell (cells 1 through 26) following the development, submittal, and NMOCD approval of a site closure/post-closure care plan. Additional details about the sampling scope will be provided in the closure/post-closure care plan, which CEMC will submit to the NMOCD for review and approval prior to sampling.

As specified in 19.15.36.15(E)(2) NMAC, the analytical results from the vadose zone sampling events are compared to the higher of the practical quantification limits (PQL) or the background soil concentrations to determine whether a release has occurred. In June 1998, a background soil sample was collected from the center of the Site at a depth of 2 to 2.5 feet below native ground surface. The sample was analyzed for TPH (GRO fraction), major cations and anions, BTEX, and heavy metals (Texaco Exploration & Production, Inc. 1998). The 1998 analytical results are considered background soil concentrations and are used to determine whether a release has occurred. Analytical results of constituents without representative background soil concentrations are compared to the sample detection limit to determine whether a release has occurred. A *Background Sampling and Analysis Plan* (Background SAP; Arcadis 2020*)* was submitted to NMOCD on March 27, 2019 and approved on August 14, 2020. Once the Background SAP is implemented, representative background values and PQLs for the constituents without recognized background soil concentrations will be established for the Site.

2.3 Treatment Zone Sampling

As specified in 19.15.36.15.D NMAC, treatment zone sampling is required and performed semi-annually and consists of collecting one composite soil sample, comprised of four discrete samples, from the treatment zone (i.e., 0 to 12 inches bgs) of each active cell (cells 17 through 21, 25, and 26). The samples are analyzed for the following constituents on a semi-annual basis:

- TPH as DRO, GRO, and ORO by USEPA Method 8015B. As previously stated, TPH can be represented as the sum of the DRO, GRO, and ORO fractions.
- Chloride by USEPA Method 300.0.

Following each semi-annual sampling event, the analytical results are compared to the following values, as stated in permit NM-02-0012 (Landfarm Operation condition 6) and 19.15.36.15.D NMAC:

- TPH: 500 mg/kg
- Chloride (where groundwater is 100 feet or more below the lowest elevation at which the operator will place oil field waste): 1,000 mg/kg.

As specified in 19.15.36.15.F NMAC, “the operator shall continue treatment until the contaminated soil has been remediated to the higher of the background concentrations or the following closure performance standards. The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples.

(1) Benzene, as determined by EPA SW-846 method 8021B or 8260B shall not exceed 0.2 mg/kg.

(2) Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 50 mg/kg.

(3) The GRO and DRO combined fractions, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA method 418.1 or other EPA method approved by the division, shall not exceed 2500 mg/kg.

(4) Chlorides, as determined by method 300.1, shall not exceed…1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste.

(5) The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentrations of those constituents exceed the PQL or background concentration, the operator shall either perform a site-specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC."

2.4 Reporting

Pursuant to permit NM-02-0012 conditions, the activities and analytical results from the ongoing landfarm operations are reported annually. The annual reports are submitted to the NMOCD Santa Fe office by July 27 of each year.

If the quarterly vadose zone analytical results show that a release has occurred, then CEMC will follow the release response protocol outlined in 19.15.36.15(E)(5) NMAC:

"The operator shall notify the division's environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides, and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division's approval within 45 days of the initial notification. The response action plan shall address changes in the landfarm's operation to prevent further contamination and, if necessary, a plan for remediating existing contamination."

3 PROPOSED PERMIT MODIFICATIONS

This section describes the proposed minor permit modifications for each activity, where applicable. The purpose of these proposed permit modifications is to transition all future Site activities to be performed in accordance with Part 36 operational requirements in lieu of the Transitional Provisions requirements. Detailed descriptions of the proposed minor permit modifications are provided in Table 1 and Attachment A.

3.1 Bi-weekly Disking and Weekly Inspections

Because no additional soil will be added to the existing landfarm cells, CEMC requests a minor permit modification to discontinue bi-weekly tillage of soils in cells 17 through 21, 25, and 26. As stated in permit NM-02-0012 Landfarm Operation condition 6 and 19.15.36.15.D NMAC, successive lifts may be added to the landfarm once the following soil concentrations are met in the previous lift:

- TPH: 500 mg/kg
- BTEX (sum): 50 mg/kg
- Benzene: 10 mg/kg
- Chloride (where groundwater is 100 feet or more below the lowest elevation at which the operator will place oil field waste): 1,000 mg/kg.

The facility has not received any soil since 2007, and the residual soil hydrocarbon and chloride concentrations obtained from recent treatment zone soil sampling events are stable and below NMOCD limits to add a successive lift. Tables 2 and 3 show the treatment zone sampling analytical results from 2017 and 2018, respectively, compared to the successive lift requirements. Laboratory analytical reports are available in the respective annual reports. Additionally, treatment zone sample results meet the closure performance standards outlined in 19.15.36.15.F NMAC (discussed in Section 2.3), with the exception of provision (5)[2].

3.2 Vadose Zone Sampling

CEMC requests the following minor modification to permit NM-02-0012:

- Vadose zone sampling will be performed semi-annually and consist of collecting four randomly-selected samples at a depth of 3 to 4 feet below native ground surface from each active cell (cells 17 through 21, 25, and 26).
- The samples will be analyzed for the following constituents on a semi-annual basis:

[2] "The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentration of those constituents exceed the PQL or background concentrations, the operator shall either perform a site specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC."

- TPH as DRO, GRO, and ORO by USEPA Method 8015B. As previously stated, TPH will be represented as the sum of the DRO, GRO, and ORO fractions
- BTEX by USEPA Method 8260B
- Chloride by USEPA Method 300.0.

In accordance with provision 19.15.36.15(E)(3) NMAC, five-year vadose zone sampling will continue to be performed at each developed cell (cells 1 through 26), as described in Section 2.2. In addition, vadose zone sampling will be performed at each developed cell (cells 1 through 26) prior to site closure. Additional details about the sampling scope will be provided in the closure/post-closure care plan and will be implemented once approved by NMOCD.

Vadose zone analytical results will continue to be compared to the higher of the PQL or the background soil concentrations to determine whether a release has occurred. The release response protocol outlined in 19.15.36.15(E)(5) NMAC will continue to be followed.

3.3 Treatment Zone Sampling

CEMC requests the following minor modification to permit NM-02-0012:

- Following each semi-annual event, the analytical results will be compared to the following values, as stated in 19.15.36.15.D NMAC:
  - TPH: 2,500 mg/kg
  - Chloride (where groundwater is 100 feet or more below the lowest elevation at which the operator will place oil field waste): 1,000 mg/kg.

Treatment zone sampling will continue to be performed in accordance with 19.15.36.15.D NMAC. No additional soil lifts will be added to the existing landfarm cells.

As specified in provision 19.15.36.15.F NMAC and described in Section 2.3, “the operator shall continue treatment until the contaminated soil has been remediated to the higher of the background concentrations or the following closure performance standards. The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples”. The closure/post-closure care plan will describe the treatment zone sampling requirements needed to comply with provision 19.15.36.15.F NMAC.

3.4 Reporting

Annual reports will continue to be submitted to the NMOCD Santa Fe office by July 27 each year, in accordance with existing permit NM-02-0012 conditions; therefore, no permit modification is requested.

If the semi-annual vadose zone analytical results show that a release has occurred, then CEMC will continue to follow the release response protocol outlined in 19.15.36.15(E)(5) NMAC and submit the release response sampling results and response action plan to the NMOCD.

CEMC plans to submit a closure/post-closure care plan to the NMOCD for review and approval. The closure/post-closure plan will outline the steps for site closure and post-closure care pursuant to provision 19.15.36.18 NMAC.

4 REFERENCES

Arcadis. 2020. Background Sampling and Analysis Plan (Background SAP), Jal Landfarm NM-02-0012, Centralized Surface Waste Management Facility, Lea County, New Mexico. June 15.

NMOCD. 1999. OCD Rule 711 Permit Approval NM-01-0012 & NM-02-0013. August 2.

NMOCD. 2003a. Letter from R. Anderson (NMOCD) to R. Bailey (Chevron Texaco) re: Texaco E&P Inc. OCD Rule 711 Permit Approval NM-02-0012. March 26.

NMOCD. 2003b. Letter from M. Kieling (NMOCD) to R. Bailey (Chevron Texaco) re: Approval of Discontinued Maintenance Status and Application of Additional Lifts, Texaco E&P Inc., Permit NM-02-0012. July 29.

NMOCD. 2004. Letter from R. Anderson (NMOCD) to R. Bailey (Chevron) re: Chevon USA Inc. Surface Waste Management Facility Permits NM-02-0012 and NM-02-0013. April 1.

NMOCD. 2008. Letter from B. Jones (NMOCD) to R. Bailey (Chevron) re: 2017 Sampling Results of Chevron Centralized Landfarm Centralized Surface Waste Management Facility Permit NM-1-0012. February 19.

NMOCD. 2011. Letter from J. Bailey (NMOCD) to R. Bailey (Chevron) re: Compliance with the Transitional Provisions of the Surface Waste Management Facilities rule (Rule 36) and Treatment and Vadose Monitoring Requirements at Existing Landfarms, Chevron North American Exploration and Production Company Landfarm #3: Permit NM-2-012. June 30.

Stantec. 2017. Draft Landfarm Operations, Sampling and Analysis Plan. Chevron Jal Landfarm Surface Waste Management Facility Number NM-02-0012. September 27.

Texaco Exploration & Production, Inc. 1998. Application for Waste Management Facility Soil Remediation/Landfarm Facility, Lea County, New Mexico. July 29.

TABLES

Table 2: 2017 Treatment Zone Soil Sampling Analytical Results
Minor Permit Modification Request
Jal Landfarm NM-02-0012
Lea County, New Mexico

		Constituent	DRO		GRO		ORO		TPH[a]		Benzene		Total BTEX		Chloride	
		Method	8015M		8015M		8015M		8015M		8021B		8021B		300.0	
		Units	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
		Successive Lift Requirements	--		--		--		500[b] / 2,500[c]		10		50		1,000	
Landfarm Cell	Zone	Sample ID	Sample Date	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cell 17	Treatment	Cell 17 Comp 1	03/16/2017	57.4	--	<15.0	U	25.8	--	83.2	--	<0.00151	U	<0.00151	U	10.8	--
Cell 17	Treatment	Cell 17 Comp	09/15/2017	62.1	--	<15.0	U	20	--	82.1	--	<0.00201	U	<0.00201	U	9.79	--
Cell 18	Treatment	Cell 18 Comp 1	03/16/2017	137	--	<15.0	U	53.5	--	191.0	--	<0.00150	U	<0.00150	U	18.90	--
Cell 18	Treatment	Cell 18 Comp	09/15/2017	76.6	--	<15.0	U	34.7	--	11.0	--	<0.00201	U	<0.00201	U	<5	U
Cell 19	Treatment	Cell 19 Comp 1	03/16/2017	83.3	--	<15.0	U	46.4	--	130.0	--	<0.00150	U	<0.00150	U	22.30	--
Cell 19	Treatment	Cell 19 Comp	09/15/2017	57	--	<15.0	U	47.5	--	105.0	--	<0.00344	U	<0.00344	U	8.97	--
Cell 20	Treatment	Cell 20 Comp 1	03/16/2017	47.5	--	<14.9	U	29.2	--	76.7	--	<0.00149	U	<0.00149	U	15.30	--
Cell 20	Treatment	Cell 20 Comp	09/15/2017	45.9	--	<15.0	U	35.7	--	81.6	--	<0.00336	U	<0.00336	U	<4.97	--
Cell 21	Treatment	Cell 21 Comp 1	03/16/2017	91.2	--	<15.0	U	48.3	--	140.0	--	<0.00152	U	<0.00152	U	8.20	--
Cell 21	Treatment	Cell 21 Comp	09/15/2017	147	--	<15.0	U	91.5	--	239.0	--	<0.00200	U	<0.00200	U	<5.0	U
Cell 25	Treatment	Cell 25 Comp 1	03/16/2017	65	--	<15.0	U	35	--	100.0	--	<0.00150	U	<0.00150	U	5.93	--
Cell 25	Treatment	Cell 25 Comp	09/15/2017	76.8	--	<15.0	U	51.7	--	129.0	--	<0.00202	U	<0.00202	U	<4.97	U
Cell 26	Treatment	Cell 26 Comp 1	03/16/2017	177	--	<15.0	U	71.8	--	249.0	--	<0.00151	U	<0.00151	U	7.48	--
Cell 26	Treatment	Cell 26 Comp	09/15/2017	22.3	--	<15.0	U	<15.0	U	22.3	--	<0.00199	U	<0.00199	U	<4.96	U

Notes:
1. Results are in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).
[a] TPH is the sum of the DRO, GRO, and ORO fractions.
[b] 500 ppm TPH obtained from permit NM-02-0012 Landfarm Operation condition (6).
[c] 2,500 mg/kg TPH obtained from 19.15.36.15(D) NMAC.

-- = not applicable
< = concentration is less than the reporting limit (equivalent to practical quantification limit)
DRO = diesel range organics
GRO = gasoline range organics
ID = identification
mg/kg = milligrams per kilogram
NMAC = New Mexico Administrative Code
ORO = oil range organics
TPH = total petroleum hydrocarbon

Qualifiers:
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Table 3: 2018 Treatment Zone Soil Sampling Analytical Results
Minor Permit Modification Request
Jal Landfarm NM-02-0012
Lea County, New Mexico

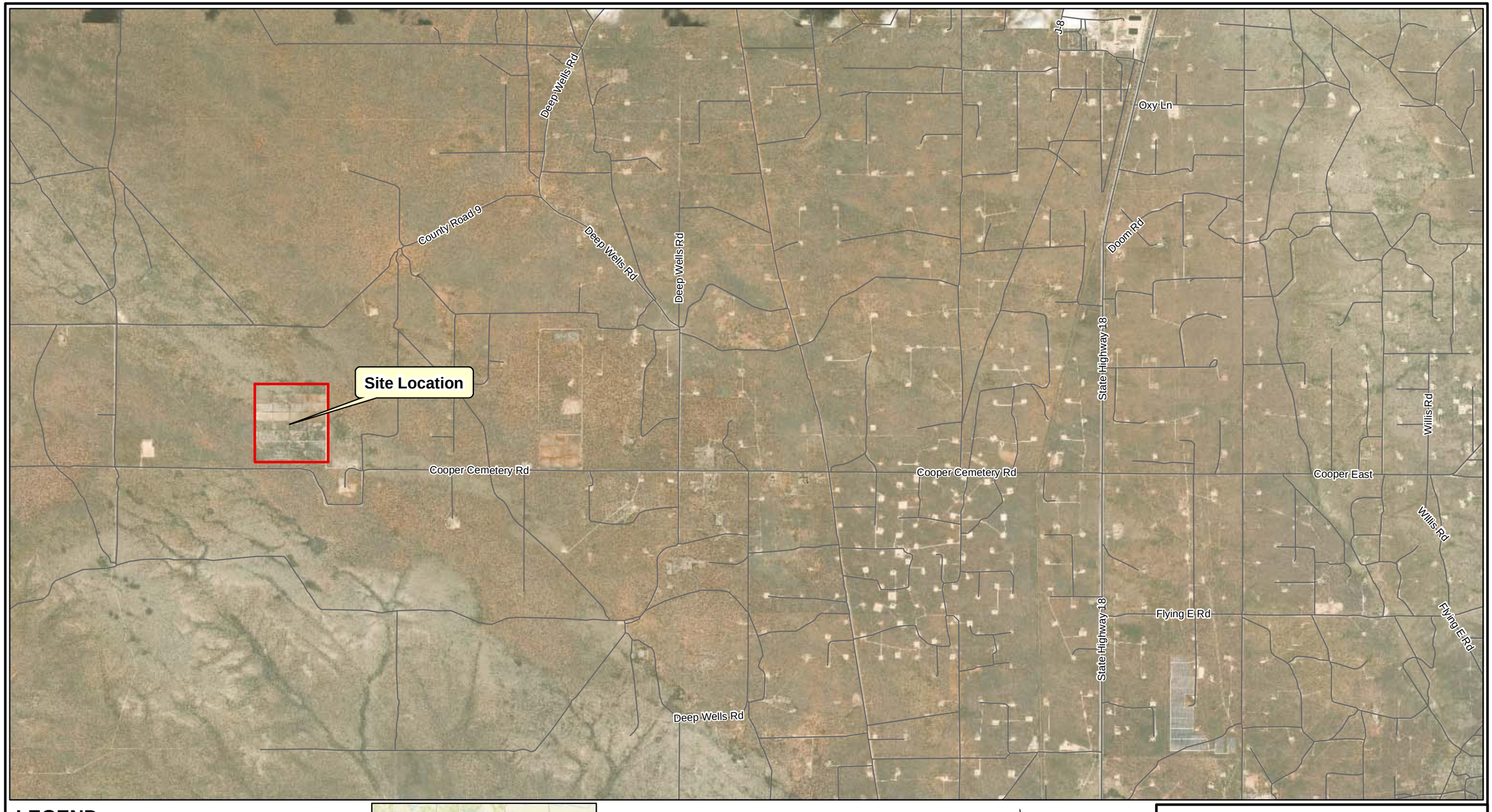
		Constituent	DRO		GRO		ORO		TPH[a]		Benzene		Total BTEX		Chloride	
		Method	8015B		8015B		8015B		8015B		8260B		8260B		300.0	
		Units	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
		Successive Lift Requirements	--		--		--		500[b] / 2,500[c]		10		50		1,000	
Landfarm Cell	Zone	Sample ID	Sample Date	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cell 17	Treatment	C17-T-S-8-12-180315	03/15/2018	94.2	--	0.085	U	70.5	--	164.8	--	0.00392	U	0.01568	U	2.53	J
Cell 17	Treatment	Cell17-Treatment-S-8-12-180928	09/28/2018	111	--	0.098	U	105	--	216	--	0.00385	U	0.01540	U	77.6	--
Cell 18	Treatment	C18-T-S-8-12-180315	03/15/2018	48.9	UB	0.0836	U	148	--	197.0	--	0.00425	U	0.01700	U	1.74	J
Cell 18	Treatment	Cell18-Treatment-S-8-12-180928	09/28/2018	126	--	0.0965	U	150	--	276	--	0.00431	U	0.01724	U	3.98	UB
Cell 19	Treatment	Cell19-Treatment-S-8-12-180928	09/28/2018	45.7	J	0.0982	U	62.2	--	108	--	0.00459	U	0.01836	U	3.95	UB
Cell 19	Treatment	Cell19-Treatment-S-8-12-180315	03/15/2018	49.5	UB	0.0918	U	97.5	--	147.1	--	0.00415	U	0.01660	U	2.02	J
Cell 20	Treatment	C20-T-S-8-12-180315	03/15/2018	4.96	UB	0.082	U	65.4	--	70.4	--	0.00438	U	0.01752	U	3.18	J
Cell 20	Treatment	Cell20-Treatment-S-8-12-180928	09/28/2018	43.4	J	0.098	U	38.8	J	82	--	0.00571	U	0.02284	U	3.98	UB
Cell 21	Treatment	C21-T-S-8-12-180315	03/15/2018	49.6	UB	0.0910	U	166	--	215.7	--	0.00414	U	0.01656	U	1.65	J
Cell 21	Treatment	Cell21-Treatment-S-8-12-180928	09/28/2018	121	--	0.0986	U	118	--	239	--	0.00473	U	0.01892	U	3.98	UB
Cell 25	Treatment	Cell25-Treatment-S-8-12-180315	03/15/2018	4.97	UB	0.0914	U	16	--	21.1	--	0.00476	U	0.01904	U	1.28	J
Cell 25	Treatment	Cell25-Treatment-S-8-12-180927	09/27/2018	51.4	J	0.0978	U	73.9	--	125	--	0.00401	U	0.01604	U	3.94	UB
Cell 26	Treatment	Cell26-Treatment-S-8-12-180315	03/15/2018	4.99	UB	0.0621	J	12.1	--	17.2	--	0.00386	U	0.01544	U	2.75	J
Cell 26	Treatment	Cell26-Treatment-S-8-12-180927	09/27/2018	23.6	--	0.0988	U	31.1	--	55	--	0.00387	U	0.01548	U	3.93	UB

Notes:
1. Results are in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).
[a] TPH is the sum of the DRO, GRO, and ORO fractions.
[b] 500 ppm TPH obtained from permit NM-02-0012 Landfarm Operation condition (6).
[c] 2,500 mg/kg TPH obtained from 19.15.36.15(D) NMAC.

-- = not applicable
< = concentration is less than the reporting limit (equivalent to practical quantification limit)
DRO = diesel range organics
GRO = gasoline range organics
ID = identification
mg/kg = milligrams per kilogram
NMAC = New Mexico Administrative Code
ORO = oil range organics
TPH = total petroleum hydrocarbon

Qualifiers:
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
UB = Compound considered non-detect at the listed value due to associated blank contamination.

FIGURE



LEGEND

Landfarm Boundary

0 3,000 6,000

SCALE IN FEET

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
JAL LANDFARM NM-02-0012
LEA COUNTY, NEW MEXICO

MINOR PERMIT MODIFICATION REQUEST

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

PATH: Z:\GISPROJECTS_ENV\CHEVRON_JAL-LANDFARM\GIS\MXD\FIGURE-1_JAL LANDFARM_2018.MXD SAVED: 1/28/2019 BY: AVI00976

ATTACHMENT A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For State Use Only:

Form C-137A
June 30, 2016

Submit 1 Copy to Santa Fe Office

APPLICATION FOR MINOR MODIFICATION TO SURFACE WASTE MANAGEMENT FACILITY

1. Operator: Chevron USA Inc.

Address: 1500 Louisiana Street, Houston, TX 77002

Contact Person: Robert Speer Phone: 832.854.5648

2. Location: W /2 Section 17 Township 24 South Range 36 East

3. Provide permit number NM-02-0012

4. Attach a description of the proposed minor modification(s) to the surface waste management facility. **See attached request document and Table 1.**

5. If the Minor Modification involves changes to a treatment, remediation, or disposal method, attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation, and disposal method and detailed designs of surface impoundments. **N/A**

6. If the Minor Modification will affect the closure and post-closure plan, attach an updated closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, and the environment (the closure and post closure plan shall comply with the requirements contained in 19.15.36.18 NMAC). **N/A**

7. If the Minor Modification will affect the contingency plan, attach an updated contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act). **N/A**

8. If the Minor Modification will affect the control of run-on or run-off water at the site, attach an updated plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC. **N/A**

9. If the Minor Modification will affect the best management practice plan, attach a best management practice plan to ensure protection of fresh water, public health, and the environment. **N/A**

10. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, or the environment and that the surface waste management facility will comply with division rules and orders.

11. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate, and complete to the best of my knowledge and belief.

Name: Rob Speer

Title: Project Manager

Signature: Rob Speer

Date: September 3, 2010

E-mail Address: rspeer@chevron.com

ARCADIS Design & Consultancy for natural and built assets

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