



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 15, 2022

Corey Jarrett, Project Manager
NMED Petroleum Storage Tank Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87506

RE: UIC General Discharge Permit and Invoice, DP-1945, Conoco Station

Dear Corey Jarrett:

The New Mexico Environment Department (NMED) issues the enclosed UIC General Discharge Permit, DP-1945, to NMED Petroleum Storage Tank Bureau (Permittee) pursuant to the New Mexico Water Quality Act and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED sent you a draft permit dated July 14, 2022, and also made the draft available to the public for a 30-day comment period. NMED did not receive any comments on the draft permit.

Enclosed is an invoice for \$600.00. This fee is due 30 days from the date of this letter. If you wish to make annual payments, you may instead pay one-fifth of the applicable permit fee \$120.00 and pay this amount annually thereafter until expiration or termination of the Discharge Permit, Pursuant to 20.6.2.3114(F) NMAC. In addition, NMED now offers an online payment option. If you would like additional information, please contact Howard Gurule at howard.gurule@state.nm.us, (505) 490-2352 or nmenv-gwqb-financials@state.nm.us.

NMED advises you to submit an application for renewal or renewal/modification at least 180 days prior to September 14, 2027, the end of the Discharge Permit term, in order to avoid a lapse in permit coverage which could result in enforcement action.

This approval is issued pursuant to WQCC Regulation 20.6.2.3109 NMAC, and the NMED Delegation Order dated May 24, 2021, through which the Cabinet Secretary has delegated this authority to sign a Discharge Permit to the Chief of the Ground Water Quality Bureau. If you have any questions, please contact Andrew Romero at (505) 660-8624 or andrewc.romero@state.nm.us or submit an email to pps.general@state.nm.us. Thank you for your cooperation during the application review process.

Sincerely,

Justin D. Ball, Chief
Ground Water Quality Bureau

JB:AR

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469
Telephone (505) 827-2900 | www.env.nm.gov/gwqb/

Encl: UIC General Discharge Permit, DP-1945

cc: William Chavez, Acting District Manager, NMED District II
John Romero, Office of the State Engineer
Eric Hall, DWB, UOCP
Vener Mustafin, P.E., EA Engineering, Science, and Technology, Inc., PBC, vmustafin@eaest.com

State of New Mexico Environment Department
Ground Water Quality Bureau
PO Box 5469
Santa Fe, NM 87502-5469

INVOICE

Primary Billing Party:

Corey Jarrett, Project Manager
NMED Petroleum Storage Tank Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87506
corey.jarrett@state.nm.us

INVOICE DUE DATE: October 15, 2022

ASSESSMENTS

UIC General Discharge Permit, DP-1945, Conoco Service Station Discharge Fee	\$600.00
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CREDITS

Payment - received with application

BALANCE DUE	\$600.00
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Cut Here and Include Lower Portion with Payment

Agency Interest: DP-1945, Conoco Service Station

Primary Billing Party:

Corey Jarrett
NMED Petroleum Storage Tank Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87506
corey.jarrett@state.nm.us

INVOICE DUE DATE: October 15, 2022

Invoice Amount: \$600.00

Amount Enclosed _____

Please make checks payable to:

New Mexico Environment Department

*****PLEASE ALSO NOTE "DP-1945, Permit Fee" ON YOUR CHECK *****

Mail payments to:

NMED Ground Water Quality Bureau
PO Box 5469
Santa Fe, NM 87502-5469

NMED Federal Tax ID#: 85-6000565



**NEW MEXICO ENVIRONMENT DEPARTMENT GROUND
WATER QUALITY BUREAU
UNDERGROUND INJECTION CONTROL
GENERAL DISCHARGE PERMIT**



Certified Mail- Return Receipt Requested

Facility Name: Conoco Service Station

Facility Location: 3837 Highway 64, Chama, New Mexico
Section 00 Township 32 North Range 2 East
Rio Arriba County

Legally Responsible Party: NMED Petroleum Storage Tank Bureau
121 Tijeras Avenue NE Suite 1000
Albuquerque, NM 87102
(505) 372-8335

Remediation Oversight Agency Contact: NMED Petroleum Storage Tank Bureau Corey
Jarrett, Project Manager, Geoscientist 505-
372-8335
NM State Contract Number: 22-667-3200-0007

Remediation or Injection Plan Identification: Chama Conoco Final Remediation Plan
FID 27498 RID 2316 Work Plan ID 4262

Permitting Action: New DP-1945

PPS Contact Andrew Romero
(505) 660-8624

EFFECTIVE DATE: September 15, 2022 **TERM ENDS:** September 14, 2027

Justin D. Ball

Chief, Ground Water Quality Bureau

[Subsection H of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.1]

Version updated December 5, 2018

CHAMA CONOCO SERVICE STATION, DP-1945
EFFECTIVE DATE: September 15, 2022

I. UIC GENERAL DISCHARGE PERMIT

The New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) issues this Underground Injection Control General Discharge Permit (UIC Permit) for the subsurface emplacement of additive fluids through a Class V UIC injection well for the purpose of facilitating vadose zone or groundwater remediation. The GWQB issues this UIC Permit to New Mexico Environment Department Petroleum Storage Tank Bureau (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

In issuing this UIC Permit, the GWQB has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met. The activities authorized by this UIC Permit are principally governed by Work Plan for Site Remediation (Injection Plan), under the authority of NMED PSTB, with oversight by the NMED PSTB. Compliance with this UIC Permit requires compliance with the terms, requirements, and conditions of the Injection Plan. The term of this UIC Permit shall be no longer than five years from the effective date of this UIC Permit.

The injection activities, the location of the injection site, the type of injection and quantities of additives being used are briefly described as follows:

Injection Activities (summary: including injection well type, number of wells, and injection frequency)

Copy of the Injection Plan Attached (required): <input checked="" type="checkbox"/> Summary of Injection Plan: Inject 400 pounds of ORC-A in a slurry mixed with 120 gallons of water into approximately 10 direct push injection points. The target interval is between 4 feet bgs and 12 feet bgs around monitoring well MW-7.

Injection Site Information

Depth to most shallow groundwater (required): 6 ft
Existing concentration of total dissolved solids (TDS) in groundwater (required): 473 - 754 mg/L
Location (required): 3837 US Highway 64, Chama, New Mexico
County (required): Rio Arriba
Latitude: 36.89007
Longitude: -106.58196
Map Showing Area of Injection Sites Attached (required):

Additives Being Used (including volumes, manufacturer, and mixing ratios)

Regenesis ORC-A 400 pounds mixed with 120 gallons of water and injected into approximately 10 injection points.

Anticipated Precipitation, Dissolution, Adsorption, and Desorption Products

None. Increased dissolved oxygen is expected for a period of up to 1 year.

Public Notice Posting Locations

2 inch by 3 inch Newspaper Ad required for Renewal applications.
Newspaper: Northern New Mexico Independent or another selected by the GWQB

3 inch by 4 inch Newspaper Ad required for New, Modification, and Renewal/Modification applications.
Newspaper: Northern New Mexico Independent or another selected by the GWQB

2 feet by 3 feet sign posted for 30 days in a location conspicuous to the public at or near the facility required for New, Modification, and Renewal/Modification applications.
Sign Location: Onsite at 3837 Highway 64, Chama, New Mexico

8.5 inch by 11 inch or larger posted off-site location conspicuous to the public (e.g. public library). Required for New, Modification, and Renewal/Modification applications.
Flyer Location: Eleanor Daggett Library, 299 4th Street, Chama, NM 87520

This UIC Permit consists of the complete and accurate completion of this UIC Permit form as determined by the GWQB.

Issuance of this UIC Permit does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

Signatures

Signature must be that of the person listed as the legally responsible party on this application.

I, the applicant, attest under penalty of law to the truth of the information and supporting documentation contained in this application for an Underground Injection Control General Discharge Permit.

Applicant's Signature

Signature: Lorena Goerger Digitally signed by Lorena Goerger
Date: 2022.05.19 10:50:16 -0600 Date: 5/19/2022

Printed Name: Lorena Goerger Title: Acting Bureau Chief

Applicant Note that Submissions Must Include:

- 1- One electronic copy of the application delivered to the GWQB via email or other format
- 2- Two hardcopies of the application delivered to: Ground Water Quality Bureau
Harold Runnels Building
1190 Saint Francis Drive
P.O. Box 5469
Santa Fe, NM 87502-5469
- 3- Payment by check or electronic transfer of one application fee of \$100.00

II. FINDINGS

In issuing this UIC Permit, GWQB finds:

1. The Permittee is injecting fluids so that such injections will move directly or indirectly into groundwater within the meaning of Section 20.6.2.3104 NMAC.
2. The Permittee is injecting fluids so that such fluids will move into groundwater of the State of New Mexico which has an existing concentration of 10,000 mg/L or less of TDS within the meaning of Subsection A of 20.6.2.3101 NMAC.
3. The Permittee is using a Class V UIC well as described in 20.6.2.5002(B)(5)(d)(ii) NMAC for in situ groundwater remediation by injecting a fluid that facilitates vadose zone or groundwater remediation.
4. The Permittee is injecting fluids into groundwater in order to achieve the remediation goals identified in the Injection Plan.

III. AUTHORIZATION TO DISCHARGE

The Permittee is authorized to inject chemical additives into groundwater in accordance with this UIC Permit and the Injection Plan under the oversight of NMED PSTB.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3109 NMAC]

IV. CONDITIONS

The conditions of this UIC Permit shall be complied with by the Permittee and are enforceable by GWQB.

1. The Permittee shall perform remediation activities in accordance with the Injection Plan and shall notify GWQB of any changes prior to making them.

[20.6.2.3107 NMAC]

2. The Permittee shall monitor the injection activities and their effects on groundwater quality as required by the Injection Plan and shall provide GWQB with electronic copies of the required reporting and any pertinent documentation of activities at the site.

[20.6.2.3107.A NMAC, 20.6.2.3109.A NMAC]

3. If the GWQB or the Permittee identifies any failure of the Injection Plan or this UIC Permit to comply with 20.6.2 NMAC not specifically noted herein, GWQB may require the Permittee to submit a corrective action plan and a schedule for completion of corrective actions to address the failure.

Additionally, the GWQB may require the Permittee to submit a proposed modification to the Injection Plan, this UIC Permit, or both.

[20.6.2.3107.A NMAC, 20.6.2.3109.E NMAC]

4. ADDITIONAL MONITORING REQUIREMENTS – (RESERVED) - Placeholder for any added monitoring and reporting requirements.
5. TERMINATION – Within 30 days of completion of activities authorized by this UIC Permit the Permittee shall submit a closure report and a request to terminate the UIC Permit to the GWQB for its approval. The closure report shall identify how the injection well(s) was (were) closed in accordance with the Injection Plan. The Permittee shall provide NMED GWQB with a copy of this closure report.
[20.6.2.5005 NMAC, 19.27.4 NMAC]
6. INSPECTION and ENTRY – The Permittee shall allow a representative of the NMED to inspect the facility and its operations subject to this UIC Permit and the WQCC regulations. The GWQB representative may, upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which are located any records required to be maintained by regulations of the federal government or the WQCC.

The Permittee shall allow the GWQB representative to have access to, and reproduce for their use, any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this UIC Permit and the WQCC regulations.

Nothing in this UIC Permit shall be construed as limiting in any way the inspection and entry authority of GWQB under the WQA, the WQCC Regulations, or any other local, state, or federal regulations.

[20.6.2.3107.D NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]

7. MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the injection plan that would result in a change in the volume injected; the location of the injections; or the concentration of the additives being injected by the facility, the Permittee shall notify GWQB prior to implementing such changes. The Permittee shall obtain approval (which may require modification of this UIC Permit) by GWQB prior to implementing such changes.

[20.6.2.3107.C NMAC, 20.6.2.3109.E and G NMAC]

8. COMPLIANCE with OTHER LAWS – Nothing in this UIC Permit shall be construed in any way as relieving the Permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits, or orders.

[NMSA 1978, § 74-6-5.L]

9. PERMIT FEES – Payment of permit fees is due at the time of UIC Permit approval. Permit fees shall be paid in a single payment remitted to GWQB no later than 30 days after the UIC Permit effective date.

Permit fees are associated with issuance of this UIC Permit. Nothing in this UIC Permit shall be construed as relieving the Permittee of the obligation to pay all permit fees assessed by GWQB. A Permittee that ceases injecting or does not commence injecting during the term of the UIC Permit shall pay all permit fees assessed by GWQB. An approved UIC Permit shall be suspended or terminated if the facility fails to remit a payment by its due date.

[20.6.2.3114.F NMAC, NMSA 1978, § 74-6-5.K]

Work Plan for Site Remediation (Injection Plan)

February 17, 2022

Mr. Corey Jarrett
Geoscientist, Project Manager
State of New Mexico Petroleum Storage Tank Bureau
121 Tijeras Avenue NE, Suite 1000
Albuquerque, NM 87102

**Work Plan for Site Remediation
Conoco Service Station, 3837 US Highway 64, Chama, New Mexico
Release ID #: 2316 Contract #: 22 667 3200 0007**

Dear Mr. Jarrett:

EA Engineering, Science, and Technology, Inc. PBC (EA) prepared this Work Plan for remediation activities at Conoco Service Station, 3837 US Highway 64, Chama New Mexico. Work will be performed under Contact No. 22 667 3200 0007. The objective is to inject a controlled release oxidant amendment to reduce recalcitrant petroleum hydrocarbon contaminant concentrations to below New Mexico Water Quality Control Commission (WQCC) to facilitate a No Further Action at the site.

The remediation activities will be performed in accordance with the requirements of the New Mexico Petroleum Storage Tank Regulations, NMAC 20.5.119. EA maintains the New Mexico Construction Division (CID) GS-29 license #359538 and New Mexico Professional Engineer licensure. All remediation activities will be conducted under the direct supervision of Vener Mustafin, New Mexico Professional Engineer License #17630.

BACKGROUND

Provided below is a summary of the site background.

- In well MW-7, a NAPL sheen was noted in April 2021. Before that, in 2017, total naphthalene concentrations exceeded the NMWQCC standard ranging between 180 and 277 micrograms per liter ($\mu\text{g/L}$).
- The depth to groundwater in recent years has varied between approximately 5 and 8 feet below the top of the well casing (ft btoc). Historically, the groundwater level was as high as 3.5 ft btoc.
- The groundwater flow direction is primarily to the Southwest at a gradient of approximately 0.02 foot per foot.
- Dissolved oxygen (DO) concentrations were slightly aerobic at approximately 1.0 milligrams per liter (mg/L), as estimated from the oxygen saturation of 15%, indicating that aerobic biodegradation may be supported. Oxidation-reduction potential (ORP) was slightly positive around 50 millivolts (mV).

- Total petroleum hydrocarbons (TPH) were below the laboratory detection levels indicating low contaminant mass.
- Soil to seven (7) feet below ground surface (ft bgs) is comprised of clay with sand and gravel of slight plasticity and medium stiffness. The soil between 7 and 12 ft bgs is comprised of fine to coarse well-graded sand with some gravel. Large cobbles were noted between 9 and 12.5 ft bgs.
- High photoionization detector (PID) readings were observed at 5 ft bgs (3,480 parts per million by volume [ppmv]) and 9 ft bgs (2,470 ppmv).
- Well MW-7 extends to a depth of approximately 12.5 ft bgs, where refusal of the hollow stem auger was noted during well installation.

GENERAL APPROACH

The remediation approach includes the following major elements: 1) conduct pre-injection (baseline) groundwater monitoring, 2) obtain an Underground Injection Control General Discharge Permit (UIC DP), 3) prepare a Final Remediation Plan (FRP), 4) perform injection of remediation fluids, and 5) optional task as budget allows (post-injection groundwater monitoring). Each of these elements is discussed below.

1. PRE-INJECTION (BASELINE) GROUNDWATER MONITORING

- Gauge six (6) monitoring wells (MW-6, MW-7, MW-8, MW-9, MW-11, and MW-12).
- Purge a minimum of three casing volumes of stagnant groundwater from the well.
- Collect groundwater samples from six wells (MW-6, MW-7, MW-8, MW-9, MW-11, and MW-12) for laboratory analysis.
- Submit samples for volatile organic compounds (VOCs) analysis by U.S. Environmental Protection Agency (EPA) Method 8260B and for total dissolved solids (TDS) analysis in MW-6 and MW-8 by SM 2540 C.
- Prepare and submit a one-page groundwater monitoring report, including the analytical laboratory report as an attachment.

The following activities will be completed as part of the pre-injection groundwater monitoring:

- Before conducting fieldwork, EA will prepare a site-specific Health and Safety Plan (HASP) describing activities, hazards, personal protective equipment, route to the hospital, emergency contacts, and other required elements.
- EA assumes that NMED PSTB has an agreement with the site owner to access the site.
- EA will notify the NMED PSTB project manager and site owner at least 96-hour before conducting field activities.
- EA personnel will review the Work Plan, HASP, order equipment, obtain supplies, and discuss the scope of work with the project manager.
- Before gauging, well caps will be removed to allow the groundwater in the well casing to equilibrate with atmospheric pressure.
- Gauging will be conducted using an electronic interface probe to the nearest 0.01 foot.
- Before sampling, purging will be performed to remove stagnant water using dedicated, clean, disposable bailers and twine or a variable speed peristaltic pump. Three casing

volumes will be purged before sample collection. If wells go dry, they will be allowed to recover until sufficient sample aliquot can be collected.

- During purging, DO, ORP, pH, temperature, and specific conductivity will be measured using a properly calibrated water quality meter.
- Samples will be collected in clean sealed containers supplied by Hall Environmental Analysis Laboratory (HEAL), labeled, placed into coolers packed with ice, entered into a chain of custody, and delivered to HEAL under direct custody.
- Upon receipt of laboratory analytical data, EA will prepare and submit a one-page analytical summary, including the analytical laboratory report as an attachment.

2. OBTAIN UNDERGROUND INJECTION CONTROL GENERAL DISCHARGE PERMITS

Before injection, EA will obtain a UIC DP from the NMED Ground Water Quality Bureau (NMED GWQB). As part of the UIC DP, the following will be completed:

- EA will prepare and submit a UIC DP application to the NMED GWQB on behalf of the NMED PSTB.
- Public notice will be published in the local newspaper.
- A 2' x 3' sign will be posted for 30 days in a location conspicuous to the public at or near the site.
- An 8.5" x 11" notice will be posted in a public library.
- A public notice flyer will be mailed by 1st Class mail to the property owners within 1/3 mile of the site.
- A public notice flyer will be mailed by certified mail to the owner of the site.
- An affidavit of posting of the public notice, a list of names and addresses to whom the public notice was mailed, a list and names and addresses of owners of discharge sites, certified mail receipts, and a copy of the newspaper ad will be submitted to the NMED GWQB.

Depending on the NMED GWQB instructions for the UIC DP, the final requirement may differ and will be followed.

3. PREPARE FINAL REMEDIATION PLAN

An FRP will be prepared in accordance with 20.5.119.1923 NMAC. The design and engineering of the FRP will be executed under the supervision of Vener Mustafin, P.E., Professional Engineer registered to practice engineering in the State of New Mexico. The FRP will minimally include the following:

- Goals of remediation and target concentrations.
- A site history summary, which includes current soil and groundwater conditions.
- Site maps identifying roads, buildings, utilities, existing monitoring wells, groundwater contours, dissolved-phase contaminant distribution, and planned injection locations.
- A discussion of the planned injection strategy, including a description of the planned injectate, rationale for the selected injectate, the injection process, target injection depth intervals, and calculations supporting planned injection point spacing and volumes.
- An implementation schedule.
- A discussion of planned observations and monitoring during the injection.
- Copies of required discharge permits and anticipated public and agency notifications.

- Copies of subcontractor/injection contractor's datasheets.
- A health and safety plan.

4. PERFORM INJECTION OF REMEDIATION FLUIDS

Objective. As specified in the Request for Quote (RFQ), the objective of remediation will be to address recalcitrant benzene and naphthalene concentrations in the monitoring well MW-7 through injection of a controlled-release oxidant injectate. In recent years, this has been the only well that has contained naphthalene concentrations above the applicable standard. The remediation goal is to decrease the total naphthalenes concentration to below 30 µg/L.

NMED PSTB-Specified Injectate. Regenesis ORC Advanced® (ORC-A), was selected as a controlled-release oxidant injectate based on NMED PSTB RFQ specification. ORC-A is an engineered, oxygen release compound designed specifically for enhanced, in situ aerobic bioremediation of petroleum hydrocarbons in groundwater and saturated soils. Upon contact with groundwater, this calcium oxyhydroxide-based material becomes hydrated producing a controlled release of molecular oxygen (17% by weight) for periods of up to 12 months on a single application.

Utilities and Notifications. Before intrusive activities, a utility locate will be requested through New Mexico One Call and marked by the respective utility entities. It is assumed in the cost estimate that a trip to mark the site boundaries will not be required. At least 96-hours before field activities, the NMED PSTB project manager and the site owner will be notified.

Injection Methodology. Direct push technology will be used to inject the remediation fluids using a top-down application.

Target Area. The area near well MW-7 is the target remediation area as shown in the attached Figure.

Target Interval. The capillary fringe and impacted saturated zone are the targets of the injection. The target interval will be an 8 foot-thick zone between 4 ft bgs and 12 ft bgs. Considering the presence of cobbles, if the refusal is consistent without reaching 12 ft bgs, boreholes will be advanced to the refusal depth and fluids injected within the achievable interval.

Injection Point Spacing. The injection interval is both clay and sand. As such, a spacing of 7.5-feet on center (5-foot ROI) was selected for the grid application based on professional judgment. This spacing will result in approximately 10 injection points to compensate for heterogeneity. This spacing is considered sufficient for the distribution of the injectate in the subsurface and is practical to fit the scope of the small procurement project. Additional points were placed upgradient of the well to provide a sustained oxygen supply for in-situ biodegradation.

Injection Pressure. Due to the cohesive nature of the soil in the upper injection zone at the site and ORC-A forming a high-solids slurry, a high injection pressure over 100-150 pounds per square inch (psi) will be likely required to adequately deliver the injectate. If surfacing occurs, the injection tool will be advanced deeper and injection will be attempted again. If that fails, the injection tool will be advanced in another location in the general vicinity. The injection will be staggered to allow for pressure dissipation.

Dosage. TPH concentrations were below the detection limit; however, a sheen was observed in MW-7; therefore, an empirical application rate of 5 pounds of ORC-A per foot and 1.5 gallons of water per foot were selected. The application rate per point for an 8-foot-thick injection interval will

be 40 pounds of ORC-A and approximately 12 gallons of water. The total quantities are 400 pounds of ORC-A and 120 gallons of water. For the 10 injection points, 17% by weight releasable oxygen, and 3.5 pounds oxygen to mineralize 1 pound of fuel hydrocarbons, this targeted injection of 400 pounds of ORC-A will release 68 pounds of oxygen and mineralize up to 19 pounds of hydrocarbons in the target area.

$$\frac{5 \frac{\text{lb}}{\text{ft}} \cdot 8 \text{ ft} \cdot 10 \cdot 17\%}{3.5 \frac{\text{lb}}{\text{lb}}} = 19 \text{ lb}$$

Mixing and Injection. ORC-A will be mixed with potable water using a mechanical mixer in a mixing vessel. An injection pump equipped with control valves and a pressure gauge will be used to inject fluids through the injection tool. A high-pressure hose will be run from the pump to the top of the drilling rod. The injection volume will be measured using a mixing vessel or a totalizing flow meter. The injection volume, pressure, and times will be recorded on the field data forms. Injection and field activities will be documented by photographs.

Monitoring. During injection, the following monitoring will be performed:

- Groundwater levels will be measured before and after injection in MW-7 and surrounding wells.
- Proportions of ORC-A® and water in each batch will be recorded.
- The injection interval, pressure, and volume for each borehole/interval will be recorded.

Plugging and Restoration. Upon completion of the injection, boreholes will be plugged with hydrated bentonite granules or grout. The surfaces in the injection area will be restored to match existing types and conditions, and material, supplies, and equipment will be removed.

Duration of Remediation. ORC-A persists for approximately 12 months releasing oxygen to enhance in-situ biodegradation. It is anticipated that concentrations of benzene and total naphthalenes will decrease to NMWQCC standards within one year. Additional monitoring will be required to verify concentration trends.

Prepare a Completion Report. Within 30 days after injection completion, EA will prepare a report, which will include the following:

- A discussion of the injection process;
- A site map showing injection point locations;
- Table(s) of injection depth intervals, pressures, volumes, and mass of ORC-A injected;
- Field notes and injection data forms; and
- Photographic documentation.

5. OPTIONAL TASK – PERFORM POST-INJECTION GROUNDWATER MONITORING

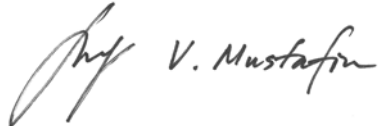
The optional post-injection monitoring will be identical in scope and execution to Task 1 – Perform Pre-Injection Groundwater Monitoring. The post-injection monitoring will be performed as budget allows and upon a directive to proceed by the NMED PSTB.

Tasks, costs, payment triggers, and schedule are provided in attached table.

Please feel free to contact me at (505) 296-1070 or vmustafin@eaest.com if you have questions or comments.

Sincerely,

EA Engineering, Science, and Technology, Inc., PBC



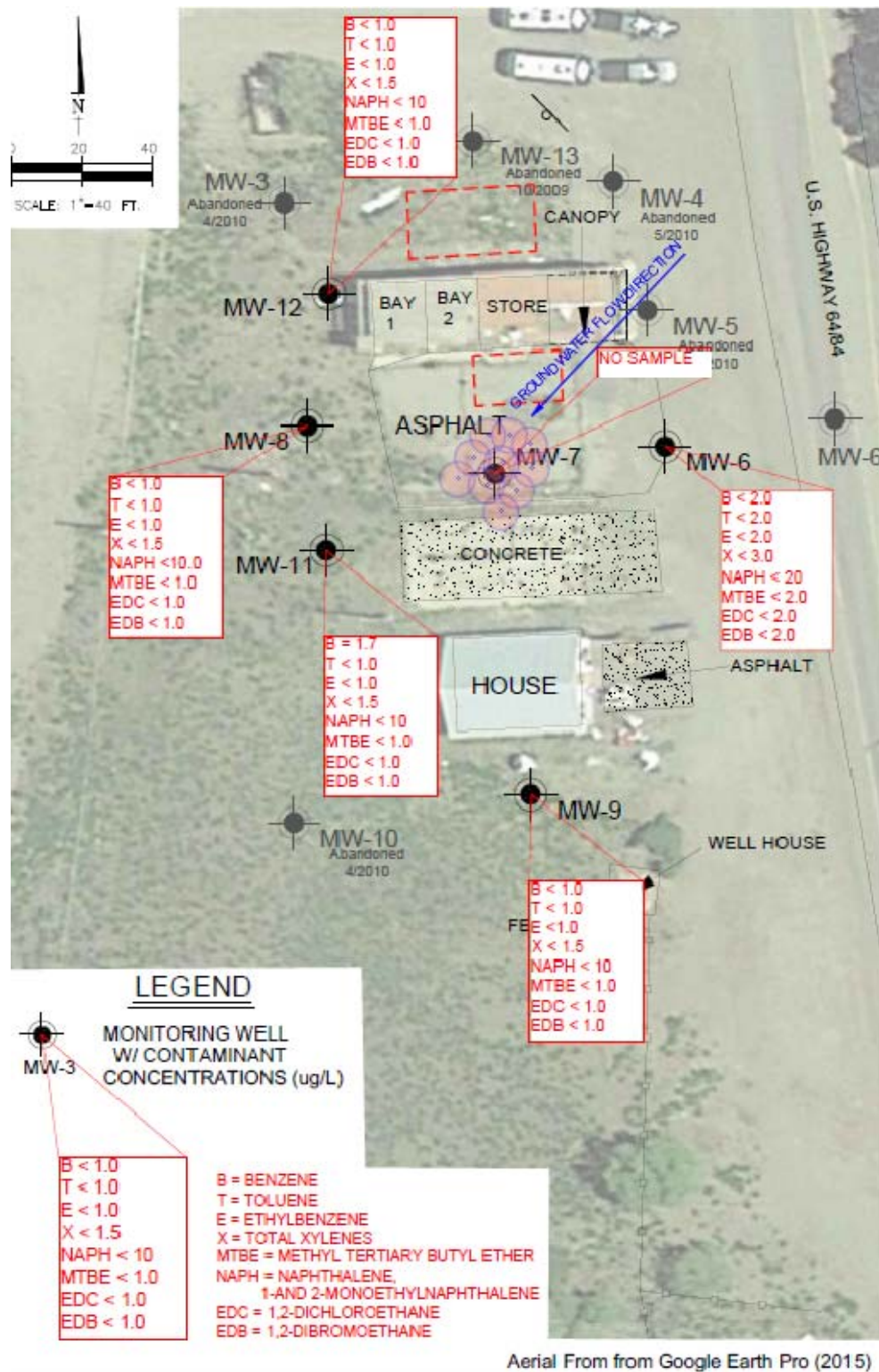
Vener Mustafin, P.E.
Project Manager/Engineer

Attachments:

- Figure Contaminant Concentrations and Proposed Injection Grid Around MW-7
- Table Tasks, Costs, Schedule, and Payment Triggers

FIGURE

Contaminant Concentrations and Proposed Injection Grid Around MW-7



Base map was adopted from SMA May 2021 Report.