

NEW MEXICO ENVIRONMENT DEPARTMENT GROUND WATER QUALITY BUREAU

UNDERGROUND INJECTION CONTROL GENERAL



DISCHARGE PERMIT

Certified Mail- Return Receipt Requested

Mosquero, New Mexico Section
E
(Not a Responsible Party) 3208 eensboro, North Carolina
vironment Department age Tank Bureau en (Project Manager)
Injection Pilot Test
ller & Associates, Inc.
timhaller@vcimail.com
() \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

Subsection of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.I

Acting Chief, Ground Water Quality Bureau

Justin Ball

Pat's Service Station, DP-1931 Draft Date: October 8, 2021

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 Mr. Sid Branch, 3208 Martin Ave, Greensboro, North Carolina (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 Chemical Oxidant Injection Pilot Test Workplan (Injection Plan), under the authority of NMAC 20.5.119.1925 through 1929 - Corrective Action for Storage Tank Systems Containing Petroleum Products, with oversight by the Petroleum Storage Tank Bureau-Remedial Action Program. 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:

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

Copy of the Injection Plan Attached (required): X

The attached workplan provides methods and specifications for mixing PersulfOx and clean potable water for injection of a 14% solution into existing soil vapor extraction wells SVE-1 and SVE-2. One injection event will be performed.

Injection Site Information

Depth to groundwater: Approximately 59 ft

Existing concentration of total dissolved solids (TDS) in groundwater: 699 mg

ocation: Pat's Service Station, located on the northeast corner of Third Main in Mosquero, NM

County: arding atitude: 35.777145 ongitude: -103.957780

Map Showing Area of Injection Sites Attached (required) -: X

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

PersulfOx by Regenesis.

1,432 pounds of PersulfOx and 1,054 gallons of clean potable water

1,126 gallons total (Injection Volume)

563 gallons per well 2 wells, one event

Mixed onsite in 300-gallon batches

Ratio of PersulfOx powder to water is approximately 1.36 pounds per 1 gallon

Injection into the shallow aquifer by gravity drainage using wells SVE-1 and SVE-2

Depth to groundwater is approximately 59 feet

Anticipated Precipitation, Dissolution, Adsorption, and Desorption Products

Anticipated Increases: dissolved oxygen, p , oxidation-reduction potential, alkalinity and sulfate. Anticipated Decreases: dissolved iron, dissolved manganese, BOD, COD and petroleum contaminants. Anticipated Precipitants: reduced-state e and Mn will precipitate as solid oxides. The hydrogeologic regime will change from anaerobic to aerobic due to injection of persulfate oxidant.

With persulfate oxidation, the end products are primarily carbon dioxide and sulfate. Unconsumed sodium persulfate naturally degrades to sulfate and sodium after injection.

Public Notice Posting Locations

2 inch by 3 inch Newspaper Ad required for Renewal applications.

Newspaper: Not Applicable New Application

3 inch by 4 inch Newspaper Ad required for New, Modification, and Renewal Modification applications.

Newspaper: Quay County Sun (Published in Tucumcari Closest local newspaper)

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: Sign post installed on-site, facing Main Street

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:** Village of Mosquero Post Office (No public library in Mosquero)

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.

Draft Date: October 8, 2021

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:

Printed Name: Sid Branch

Date:

Title: Designated Representative

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Draft Date: October 8, 2021

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 [PETROLEUM STORAGE TANK BUREAU].

[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 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 schedule for completion of corrective actions to address the failure.

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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)
- 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 [PETROLEUM STORAGE TANK BUREAU] 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]

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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]



APPENDIX A

WORKPLAN FOR GROUNDWATER MONITORING AND INJECTION OF PERSULFOXTM



January 20, 2021

Ms. Susan von Gonten New Mexico Environment Department Petroleum Storage Tank Bureau 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505

RE: Chemical Oxidant Injection Pilot Test Workplan

Pat's Service Station, Third & Main, Mosquero, New Mexico

Facility #29879 Release ID #3258

Dear Ms. von Gonten:

Haller & Associates, Inc. (HAI) is pleased to submit this workplan and costs to perform a chemical oxidant injection pilot test at Pat's Service Station in Mosquero, New Mexico. This workplan was submitted in response to a request from the New Mexico Environment Department – Petroleum Storage Tank Bureau dated December 1, 2020.

This workplan was prepared on behalf of the Designated Representative: Mr. Sidney Branch, 3208 Martin Avenue, Greensboro, NC 27405.

This workplan is revised to reflect comments and revisions received from the NMED PSTB via email on January 15, 2020.

If you have questions or comments, please call me at (505) 281-9333.

Sincerely,

HALLER & ASSOCIATES, INC.

Timothy M. Haller, CPG VP / Hydrogeologist

Attachments: Oxidant Injection Pilot Test Workplan

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CHEMICAL OXIDANT INJECTION WORKPLAN

PAT'S SERVICE STATION THIRD & MAIN MOSQUERO, NEW MEXICO

1.0 BACKGROUND AND OBJECTIVE

Two underground storage tanks (USTs) were removed in 1997. On-site wells MW-1 through MW-4 were installed in 1998. Off-site wells MW-5 and MW-6 were installed in 2002. A two-well soil vapor extraction (SVE) system was completed in 2005 to remove non-aqueous phase liquid (NAPL) from the release area. The SVE system was expanded to four wells in 2011. The expanded system was operated intermittently until 2013. The SVE system was effective in remediating NAPL from the water table and capillary fringe.

Four low-volume applications of hydrogen peroxide into well SVE-1 were performed between December 2012 and August 2013. In December 2019, three additional wells were installed: off-site monitor well MW-7 and on-site wells SVE-2 and AS-1.

Depth to groundwater is 59 feet below ground surface (bgs). Groundwater occurs in unconsolidated silty sand and clayey sand. Groundwater flows to the south-southwest. The site location is shown on Figure 1. Site features are shown on Figure 2.

Measurable NAPL has not been detected in SVE-1 since September 2009. Dissolved contaminant concentrations have decreased by more than an order of magnitude since 2011. Between August 2011 and November 2020, dissolved benzene concentrations in SVE-1 decreased from 6,100 μg/L to 370 μg/L. Concentrations are slowly declining. Actionable on-site contaminants consist of benzene, toluene, ethylbenzene, xylenes (BTEX), total naphthalenes, methyl tertiary-butyl-ether (MTBE), ethylene dibromide (EDB) and ethylene dichloride (EDC). Actionable off-site contaminants consist of MTBE and EDC. Dissolved contaminant concentrations are summarized shown on Figure 3.

The objective of the oxidant injection pilot test is to determine the efficacy of in-situ chemical oxidation of recalcitrant contaminants in the source area at SVE-1 and SVE-2 where the former USTs and fuel dispensers were located.

The scope of this workplan consists of the following tasks:

- Baseline groundwater monitoring event
- Prepare discharge permit application for in-situ chemical oxidation treatment
- Perform in-situ chemical oxidation by injection of PersulfOx® by Regenesis
- Continued quarterly groundwater monitoring and remedial assessment
- Preparation of associated reports



2.0 BASELINE GROUNDWATER MONITORING EVENT

The most recent groundwater analytical data were obtained in November 2020. The injection permitting process will take several months. Therefore, another groundwater monitoring event will be performed before the oxidant injection event. All 11 monitor wells will be gauged and 8 monitor wells will be sampled to establish pre-test concentrations. The baseline monitoring regimen is summarized in Table 1. Analytical requirements are summarized in Table 2.

2.1 Notifications

Notification of the groundwater monitoring field schedule will be provided to the NMED-PSTB and Mr. Sidney Branch. Notifications will be provided by email at least 96 hours prior to start of fieldwork.

2.2 Water Level Measurements

Static water levels and total depths will first be gauged in all on-site and off-site monitor wells using an electronic interface probe. Measurements will be made relative to the top-of-casing to the nearest 0.01 foot.

2.3 Groundwater Sampling and Analysis

Monitor wells will be purged of a minimum of 3 well volumes or until dry, whichever occurs first, prior to sampling. The wells will be purged using 1.5-inch diameter polyethylene disposable bailers.

Field parameters of pH, specific conductivity, temperature, dissolved oxygen (DO) and oxidation-reduction potential (ORP) will be recorded at each purged well volume. Groundwater samples will be decanted into 40-milliliter glass vials with mercuric chloride and sodium thiosulfate preservatives. Each vial will be filled to a meniscus, leaving no bubbles or headspace. All samples will be labeled, placed on ice, and delivered to Hall Environmental Analysis Laboratory, Inc. with chain-of-custody records.

Groundwater samples will be analyzed for the following:

- Volatile Organic Compounds (VOCs) + Naphthalenes EPA Method 8260B
- Ethylene Dibromide (EDB) EPA Method 504.1

For purposes of the injection discharge permit application, selected samples will be analyzed for total dissolved solids. These samples will also be analyzed for sulfate to monitor dispersion of PersulfOx and the associated changes in sulfate concentrations (Table 2).

2.4 Baseline Groundwater Monitoring Report

The baseline groundwater monitoring report will present updated contaminant concentrations and distribution. The report will include discussion of changes and trends in groundwater elevations and flow direction, dissolved contaminant concentrations, dissolved contaminant distribution and trends.

Field and laboratory data will be summarized in cumulative tables. Figures and appendices will include a site location map, site maps based on satellite imagery, water table maps, analytical results maps, dissolved contaminant plume maps, and graphs of water levels and dissolved contaminant concentrations versus time, field data forms, hydraulic gradient calculations, sampling protocols and the laboratory reports.

3.0 DISCHARGE PERMIT APPLICATION AND PUBLIC NOTICE

HAI will prepare an application for an Underground Injection Control (UIC) General Discharge Permit in accordance with 20.6.2.5006 NMAC. The application will be prepared using forms issued by the NMED Ground Water Quality Bureau (GWQB) Pollution Prevention Section. The permit application will include the oxidant injection plan and groundwater monitoring plan. The permit application will be submitted with payment of a \$100.00 application fee. Following permit approval, GWQB will issue an invoice for the \$600.00 general permit fee.

Four forms of public notice of the permit application will be completed as required by the GWQB:

- Publish a 3-inch by 4-inch display ad in the local newspaper (Quay County Sun)
- Post a 2-foot by 3-foot laminated sign for 30 days in a conspicuous location at the site
- Post an 8.5-inch by 11-inch or larger flyer at the Mosquero post office or village office
- Mail 8.5-inch by 11-inch flyers to the site owner and owners of property within \(\frac{1}{3} \)-mile of the site

4.0 IN-SITU CHEMICAL OXIDATION EVENT

Regenesis has recommended PersulfOx (chemical oxidation reagent) based on the relatively low permeability of the clayey sand in which the source area contaminants are located (SVE-1, SVE-2, PE-1 and PE-2). Injectates such as PetroFix and Plume Stop were not selected due to their colloidal carbon content. The low permeability of the aquifer formation would prohibit areal distribution of the carbon particles. The majority of carbon would accumulate on the borehole walls rather than dispersing laterally into the formation. PersulfOx is completely water soluble and will readily disperse from the injection wells into the formation.

4.1 PersulfOx Solution Preparation

PersulfOx will be mixed on-site with potable water obtained from the Village of Mosquero public water system. PersulfOx solution will be batch mixed on-site in a 300-gallon polyethylene water tank. A centrifugal pump will be used to mix and circulate the PersulfOx solution. PersulfOx will be mixed with potable water at a ratio of approximately 1.36 pounds of PersulfOx per gallon of potable water. The PersulfOx® Application Design Summary prepared by Regenesis is presented in Appendix A.

4.2 PersulfOx Injection Strategy

PersulfOx chemical oxidant solution will be injected into the shallow aquifer by gravity drainage into wells SVE-1 and SVE-2. Approximately 1,126 gallons of 14% PersulfOx solution will be mixed using 1,432 pounds of PersulfOx and 1,054 gallons of clean potable water. Half of the solution (563 gallons) will be injected through SVE-1 and half of the solution (563 gallons) will be injected through SVE-2. The rate of PersulfOx injection is limited by formation permeability at wells SVE-1 and SVE-2. Fieldwork to complete the PersulfOx injection pilot test event is estimated at 4 full days. HAI will monitor fluid levels in the injection wells to control the injection rate and minimize mounding of PersulfOx solution into the vadose zone. Water levels, pH and specific conductivity will be monitored at nearby observation wells to confirm lateral dispersion of PersulfOx.

4.3 PersulfOx Injection Pilot Test Report

HAI will prepare a report summarizing the oxidant injection event. The report will include descriptions of field methods, dates of field work, oxidant injection batch volumes and total volumes, field observations, field data and any workplan deviations, if applicable. Appendices will include field notes, photographs, and PersulfOx purchase and shipping documentation. The report will be reviewed and signed by the engineer-of-record, Vener M. Mustafin, PE.

5.0 QUARTERLY GROUNDWATER MONITORING

The first quarter event will be performed approximately 1 month after PersulfOx injection. Initial results of the injection event will be determined using the first quarter monitoring data. Longer term effects, and the presence or absence of contaminant rebound, will be evaluated using the subsequent quarterly monitoring data.

NOTE – Post-injection analysis of sulfate and total dissolved solids will also be performed on selected groundwater samples during the first quarter monitoring event after PersulfOx injection.

5.1 Groundwater Monitoring Methodologies

Water level measurements and groundwater sampling will be performed in accordance with methods described in Sections 2.2 through 2.3 of this workplan. The quarterly groundwater monitoring regimen is summarized in Table 1.

5.2 Quarterly Groundwater Monitoring Reports

Quarterly groundwater monitoring reports will summarize the field and laboratory results obtained each quarter. The reports will include the following elements:

- Summary of activities performed and sampling protocols
- Field and Laboratory Results
- Discussion of dissolved contaminant concentrations and trends
- Discussion of the areal distribution of dissolved petroleum contaminants
- Conclusions and recommendations
- Figures:
 - o Site map
 - o Groundwater elevation map
 - o Distribution of dissolved benzene, naphthalenes, MTBE, EDB and EDC
- Tables:
 - o Groundwater levels and elevations
 - o Groundwater analytical results
- Calculations
 - o Hydraulic gradient
- Appendices:
 - o Monitor Well Gauging and Sampling Protocols
 - o Groundwater Sampling Field Data Forms
 - Laboratory Reports

6.0 SEQUENCE OF EVENTS

The proposed sequence of events is summarized below:

- 1. Baseline Groundwater Monitoring Event Fieldwork will be performed 2 to 3 weeks after receipt of workplan approval. The baseline groundwater monitoring report will be submitted approximately 3 weeks after completion of fieldwork.
- 2. Discharge Permit Application and Public Notice The permit application will be submitted to GWQB and PSTB approximately 6 weeks after workplan approval. Proof of completion of public notice will be submitted to GWQB and PSTB within 6 weeks after receipt of public notice instructions from GWQB.
- 3. PersulfOx Injection Pilot Test The PersulfOx injection event will be completed approximately one month after completion of all public notice procedures and public comment period.
- 4. 1st Quarter Groundwater Monitoring Event The first quarter monitoring event will be completed approximately 1 month after the PersulfOx injection pilot test event. The report will be completed within 3 weeks of completion of groundwater monitoring fieldwork.
- 5. 2nd Quarter, 3rd Quarter and 4th Quarter Groundwater Monitoring Events Fieldwork and report submittals will follow a quarterly schedule after completion of the first quarter groundwater monitoring event.

This conceptual schedule is subject to the following:

- Timeframe of approval of this workplan by the PSTB
- Timeframe of approval of the general discharge permit by the GWQB

7.0 DELIVERABLES AND COSTS

7.1 Baseline Groundwater Monitoring and Report

The baseline groundwater monitoring event and report will be completed for a Fixed Fee of \$11,066.84, including 6.4375% New Mexico Gross Receipts Tax (NMGRT). This includes workplan preparation, HASP update, project management, travel, per diem, field labor and laboratory costs.

7.2 Discharge Permit Application and Public Notice

Preparation of the discharge permit application and completion of public notice will be completed for a Fixed Fee of \$6,641.70, including NMGRT. Additional fees charged by the GWQB consist of the \$100.00 application fee and the \$600.00 general permit fee. Both fees are non-taxable expenses.

7.3 PersulfOx Injection Pilot Test and Report

The cost to purchase 1,433 pounds of Regenesis PersulfOx is \$4,678.18, including handling, shipping and NMGRT.

Completion of the PersulfOx injection event and associated report will be completed for a Fixed Fee of \$13,868.81, including NMGRT. This includes project management, travel, 4 days of field labor and per diem, procurement of local potable water and report preparation.

7.4 Quarterly Groundwater Monitoring and Reports

The 1st quarter O&M, groundwater monitoring and report will be completed for a Fixed Fee of \$8,198.35, including NMGRT. This includes travel, per diem, field labor, laboratory costs and preparation of the 1st quarter report.

The 2nd quarter groundwater monitoring and report will be completed for a Fixed Fee of \$7,985.47, including NMGRT. This includes travel, per diem, field labor, laboratory costs and preparation of the 2nd quarter report.

The 3rd quarter groundwater monitoring and report will be completed for a Fixed Fee of \$7,985.47, including NMGRT. This includes travel, per diem, field labor, laboratory costs and preparation of the 3rd quarter report.

The 4th quarter groundwater monitoring and report will be completed for a Fixed Fee of \$8,405.90, including NMGRT. This includes travel, per diem, field labor, laboratory costs and preparation of the 4th quarter report.

7.5 Contingency Set-Aside Funds

HAI requests a contingency set aside budget of \$3,000.00, including NMGRT, to cover substantial changes in field conditions or site specific access conditions that may affect costs during the term of this workplan. HAI will submit written requests for release of funds, including description and justification of request for funds. Contingency work will not be performed without prior written authorization from PSTB.

7.6 Total Workplan Cost

The full scope of this workplan will be completed for a Total Cost of \$72,530.72, including 6.4375% NMGRT and non-taxable expenses.

The costs quoted herein will not be exceeded without prior written authorization from the PSTB. The project costs were developed in conformance with the PSTB Contractor Fee Schedule, effective December 27, 2018.

A summary statement of qualifications is presented in Appendix B.



TABLE 1. BASELINE AND QUARTERLY GROUNDWATER MONITORING REGIMEN PAT'S SERVICE STATION, MOSQUERO, NEW MEXICO

Location	Well	Gauging Regimen	Sampling Regimen Analytical Regimen			gimen				
Location	ID	Every Event	Baseline	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	VOCs EDB	Sulfate* TDS*	Field Parameters
	MW-1	X	X	X	X	X	X	X		X
=	MW-2	X								
tatio	MW-4	X								
Pat's Service Station	PE-1	X	X	X	X	X	X	X	X	X
Serv	PE-2	X	X	X	X	X	X	X	X	X
at's !	SVE-1	X	X	X	X	X	X	X	X	X
Ь	SVE-2	X	X	X	X	X	X	X	X	X
	AS-1	X								
te	MW-5	X	X	X	X	X	X	X		X
Off-Site	MW-6	X	X	X	X	X	X	X		X
0	MW-7	X	X			_	X	X		X
7	TOTALS	11	8	7	7	7	8	37	8	37

NOTES:

*Sulfate and TDS will be analyzed during baseline event and 1st quarter event after PersulOx injection

EDB = Ethylene Dibromide by EPA Method 504.1

TDS = Total Dissolved Solids by SM 2540C

VOCs = Volatile Organic Compounds + Naphthalenes by EPA Method 8260B

Field Parameters = pH, temperature, specific conductance, oxidation-reduction potential and dissolved oxygen

X = Scheduled to be sampled and/or gauged

TABLE 2. SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS PAT'S SERVICE STATION, MOSQUERO, NEW MEXICO

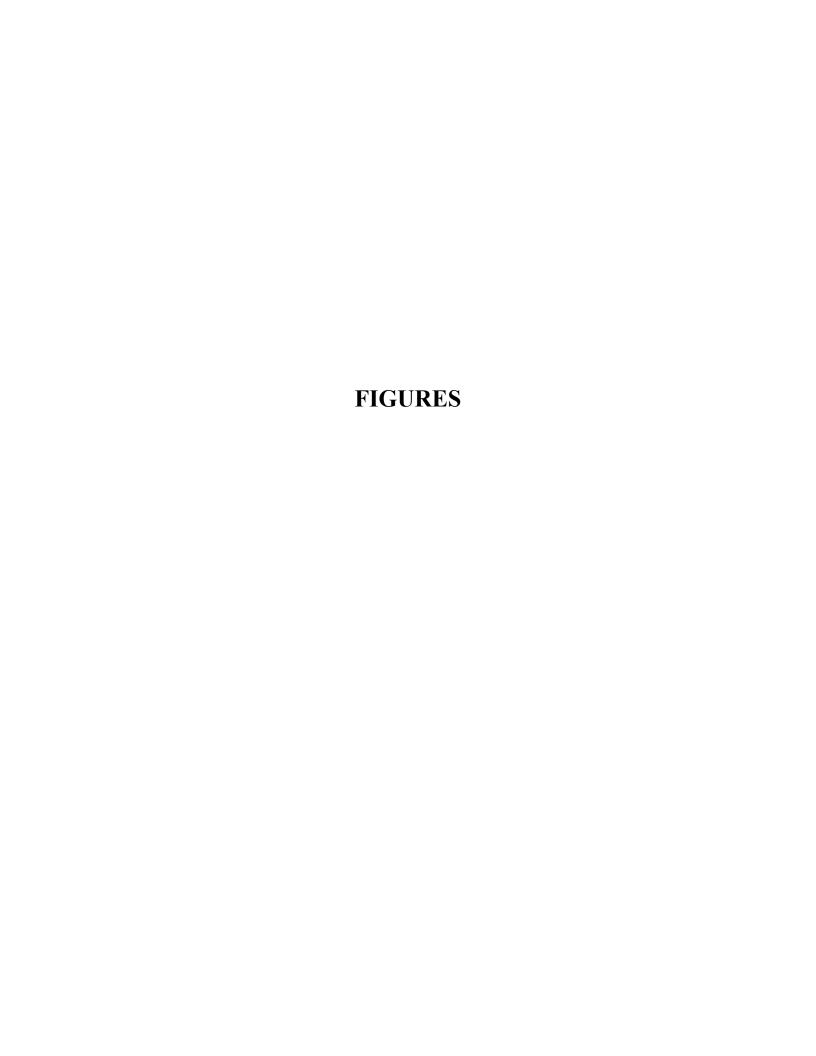
Target Analytes	Matrix	Analytical Method	Sample Container	Sample Preparation	Preservative	Holding Time
VOCs	Water	8260B	3 x 40 mL glass vials	sample vials filled with no bubbles/headspace	Mercuric Chloride	14 Days
EDB	Water	504.1	2 x 40 ml glass vials	sample vials filled with no bubbles/headspace	Sodium Thiosulfate	14 Days
Sulfate TDS	Water	300.0 SM 2540C	1 x 250 mL poly bottle 1 x 250 mL poly bottle	fill bottles to shoulder	None None	28 Days 7 Days

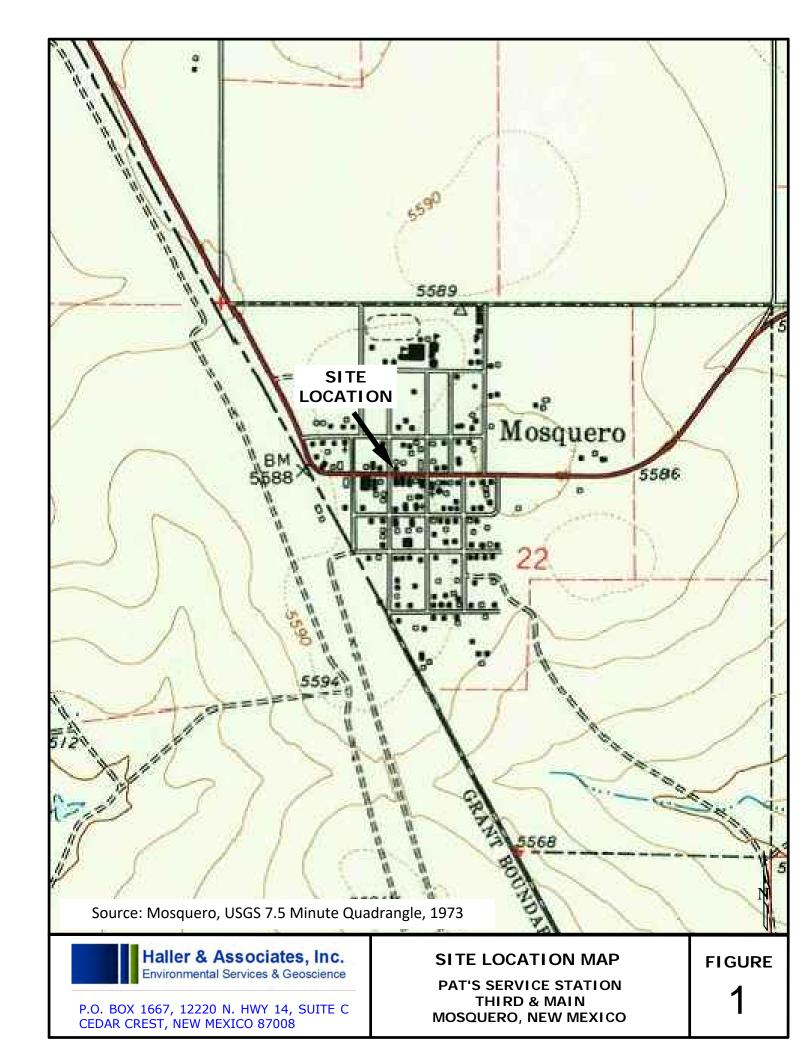
NOTES:

EDB = Ethylene Dibromide

TDS = Total Dissolved Solids

VOCs = Volatile Organic Compounds









APPENDIX A

PERSULFOX APPLICATION DESIGN SUMMARY BY REGENESIS



PersulfOx® A	pplication l	Design Summary

Treatment U	Field App. Instructions	
Application Method	Direct Push	
Spacing Within Rows (ft)	n a	
Spacing Between Rows (ft)	n a	
Injection Points (per app.)	1	
Number of Applications	1	
		Field Mixing Ratios
Top Application Depth (ft bgs)	57	Water per Pt per app (gals)
Bottom Application Depth (ft bgs)	65	527
PersulfOx to be Applied (lbs)	716.30	PersulfOx per Pt per app (lbs)
PersulfOx Solution	14	716
Volume Water (gals)	527	Total Volume per Pt per app (gals)
Total Volume (gals)	563	563
Per Application Totals		
PersulfOx per app. (lbs)	716	Volume per vertical ft (gals)
Volume Water per app. (gals)	<i>527</i>	70
Total Volume per app. (gals)	563	

Technical Notes/Discussion

This spreadsheet should be used for each of the two wells SVE-1 and SVE-2. Total recommended amount of PersulfOx for the two wells per application is 1,432.60 lbs. At a unit cost of \$2.75/lb the total PersulfOx price is \$3,939.65 plus shipping and applicable sales tax.

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

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PersulfOx® Technical Description

PersulfOx is an *In Stu* Chemical Oxidation (ISCO) reagent that destroys organic contaminants found in groundwater and soil through powerful, yet controlled, chemical reactions. A sodium persulfate-based technology (figure 1), PersulfOx employs a patented catalyst to enhance the oxidative destruction of both hydrocarbons and chlorinated contaminants in the subsurface.

Typically, sodium persulfate is activated with the addition of heat, chelated metals, hydrogen peroxide, or base in order to generate sulfate radicals. These activation processes are inherently complex, costly and can pose additional health and safety risks. In comparison, PersulfOx is a relatively safe and easy-to-use ISCO agent with a built-in catalyst which activates the persulfate component, generating contaminant-destroying free radicals without the need for the addition of a separate activator. The equation below shows the net complete oxidation of toluene, a constituent of gasoline, by PersulfOx:



Example of PersulfOx

For a list of treatable contaminants with the use of PersulfOx, view the Range of Treatable Contaminants Guide

Chemical Composition

- Sodium Persulfate CAS #7775-27-1
- Sodium Silicate CAS #1344-09-8

Properties

- pH 7 to 11.5 at 25°C
- Appearance White, free-flowing powder, clear to cloudy when mixed with water
- Odor Not detectable
- Vapor Pressure None
- Chemical Hazard Classification Class 5.1 Oxidizer

Storage and Handling Guidelines

Storage

Store locked up

Keep away from heat

Store in a cool, dry place out of direct sunlight

Handling

Minimize dust generation and accumulation

Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces



PersulfOx® Technical Description

Storage (continued)

Store in original tightly closed container

Store in a well-ventilated place

Do not store near combustible materials

Store away from incompatible materials

Recommended to store at less than 40°C

Provide appropriate exhaust ventilation in places where dust is formed

Handling (continued)

Avoid mixing with combustibles

Avoid contamination

Keep away from clothing and other combustible materials

Wear appropriate personal protective equipment

Avoid breathing dust

Avoid contact with eyes, skin, and clothing

Avoid prolonged exposure

Do not taste or swallow

When using, do not eat, drink or smoke

Wear appropriate personal protective equipment

Wash hands thoroughly after handling

Observe good industrial hygiene practices

Applications

- PersulfOx is mixed with water at a rate of 5% to 20% prior to application.
- For most applications, REGENESIS suggests a 10-15% solution. The resulting mixture has viscosity similar to water.
- Injects into formation through direct push injection points, injection wells or other injection delivery systems.

Application instructions for this product are contained here PersulfOx Application Instructions.

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Material is relatively safe to handle; however, avoid contact with eyes, skin and clothing. OSHA Level D personal protection equipment including: vinyl or rubber gloves, eye protection, and dust mask are recommended when handling this product. Please review the Material Safety Data Sheet for additional storage, usage, and handling requirements here: PersulfOx SDS.



Remedial Design Assumptions and Qualifications

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- **10. ASSETANCE AND ADVICE.** Upon request, seller in its discretion will furnish as an accommodation to buyer such technical advice or assistance as is available in reference to the goods and services. Seller assumes no obligation or liability for the advice or assistance given or results obtained, all such advice or assistance being given and accepted at buyer s risk.
- **11. SITE SAFETY.** Buyer shall provide a safe working environment at the site of services and shall comply with all applicable provisions of federal, state, provincial and municipal safety laws, building codes, and safety regulations to prevent accidents or injuries to persons on, about or adjacent to the site.
- **12. INDEPENDENT CONTRACTOR.** Seller and Buyer are independent contractors and nothing shall be construed to place them in the relationship of partners, principal and agent, employer employee or joint ventures. Neither party will have the power or right to bind or obligate the other party except as may be expressly agreed and delegated by other party, nor will it hold itself out as having such authority.
- 13. **REIMBURSEMENT**. Seller shall provide the products and services in reliance upon the data and professional judgments provided by or on behalf of buyer. The fees and charges associated with the products and services thus may not conform to billing guidelines, constraints or other limits on fees. Seller does not seek reimbursement directly from any government agency or any governmental reimbursement fund (the Government). In any circumstance where seller may serve as a supplier or subcontractor to an entity which seeks reimbursement from the Government for all or part of the services performed or products provided by seller, it is the sole responsibility of the buyer or other entity seeking reimbursement to ensure the products and services and associated charges are in compliance with and acceptable to the Government prior to submission. When serving as a supplier or subcontractor to an entity which seeks reimbursement from the Government, seller does not knowingly present or cause to be presented any claim for payment to the Government.
- **14. APPLICABLE IAW/JURISDICTION AND VENUE.** The rights and duties of the parties shall be governed by, construed, and enforced in accordance with the laws of the State of California (excluding its conflict of laws rules which would refer to and apply the substantive laws of another jurisdiction). Any suit or proceeding hereunder shall be brought exclusively in state or federal courts located in Orange County, California. Each party consents to the personal jurisdiction of said state and federal courts and waives any objection that such courts are an inconvenient forum.
- **15. ENTIRE AGREEMENT.** This agreement constitutes the entire contract between buyer and seller relating to the goods or services identified herein. No modifications hereof shall be binding upon the seller unless in writing and signed by seller s duly authorized representative, and no modification shall be effected by seller s acknowledgment or acceptance of buyer s purchase order forms containing different provisions. Trade usage shall neither be applicable nor relevant to this agreement, nor be used in any manner whatsoever to explain, qualify or supplement any of the provisions hereof. No waiver by either party of default shall be deemed a waiver of any subsequent default.



1011 Calle Sombra San Clemente, CA 92673-6244 Tel: 949.366.8000 • Fax: 949.366.8090

Terms and Conditions Products and Services

- **1. PAYMENT TERMS.** Net 30 Days. Accounts outstanding after 30 days will be assessed 1.5 monthly interest. Volume discount pricing will be rescinded on all accounts outstanding over 90 days. An early payment discount of 1.5 Net 10 is available for cash or check payments only. We accept Master Card, Visa and American Express.
- **2. RETURN POLICY.** A 15 re-stocking fee will be charged for all returned goods. All requests to return product must be pre-approved by seller. Returned product must be in original condition and no product will be accepted for return after a period of 90 days.
- **3 FORCE MAJEURE.** Seller shall not be liable for delays in delivery or services or failure to manufacture or deliver due to causes beyond its reasonable control, including but not limited to acts of God, acts of buyer, acts of military or civil authorities, fires, strikes, flood, epidemic, war, riot, delays in transportation or car shortages, or inability to obtain necessary labor, materials, components or services through seller s usual and regular sources at usual and regular prices. In any such event Seller may, without notice to buyer, at any time and from time to time, postpone the delivery or service dates under this contract or make partial delivery or performance or cancel all or any portion of this and any other contract with buyer without further liability to buyer. Cancellation of any part of this order shall not affect Seller's right to payment for any product delivered or service performed hereunder.
- **4. LIMITED WARRANTY.** Seller warrants the product(s) sold and services provided as specified on face of invoice, solely to buyer. Seller makes no other warranty of any kind respecting the product and services, and expressly DISC AIMS A OT ER WARRANTIES O W ATEVER IND RESPECTING T E PRODUCT AND SERVICES, INC UDING A WARRANTIES O MERC ANTABI IT, ITNESS OR PARTICU AR PURPOSE AND NON-IN RINGEMENT.
- **5. DISCIAIMER.** Where warranties to a person other than buyer may not be disclaimed under law, seller extends to such a person the same warranty seller makes to buyer as set forth herein, subject to all disclaimers, exclusions and limitations of warranties, all limitations of liability and all other provisions set forth in the Terms and Conditions herein. Buyer agrees to transmit a copy of the Terms and Conditions set forth herein to any and all persons to whom buyer sells, or otherwise furnishes the products and or services provided buyer by seller and buyer agrees to indemnify seller for any liability, loss, costs and attorneys fees which seller may incur by reason, in whole or in part, of failure by buyer to transmit the Terms and Conditions as provided herein.
- **6. LIMITATION OF SELLER'S LIABILITY AND LIMITATION OF BUYER'S REMEDY.** Seller s liability on any claim of any kind, including negligence, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery, resale, repair or use of any goods or performance of any services covered by or furnished hereunder, shall in no case exceed the lesser of (1) the cost of repairing or replacing goods and repeating the services failing to conform to the forgoing warranty or the price of the goods and or services or part thereof which gives rise to the claim. IN NO EVENTS A SE ER BE IAB E OR SPECIA INCIDENTA OR CONSEQUENTIA DAMAGES, INC UDING OST PRO ITS, OR OR DAMAGES IN T E NATURE O PENA TIES.
- **7. INDEMNIFICATION.** Buyer agrees to defend and indemnify seller of and from any and all claims or liabilities asserted against seller in connection with the manufacture, sale, delivery, resale or repair or use of any goods, and performance of any services, covered by or furnished hereunder arising in whole or in part out of or by reason of the failure of buyer, its agents, servants, employees or customers to follow instructions, warnings or recommendations furnished by seller in connection with such goods and services, by reason of the failure of buyer, its agents, servants, employees or customers to comply with all federal, state and local laws applicable to such goods and services, or the use thereof, including the Occupational Safety and ealth Act of 1970, or by reason of the negligence or misconduct of buyer, its agents, servants, employees or customers.
- **8. EXPENSES OF ENFORCEMENT.** In the event seller undertakes any action to collect amounts due from buyer, or otherwise enforce its rights hereunder, Buyer agrees to pay and reimburse Seller for all such expenses, including, without limitation, all attorneys and collection fees.
- **9. TAXES.** iability for all taxes and import or export duties, imposed by any city, state, federal or other governmental authority, shall be assumed and paid by buyer. Buyer further agrees to defend and indemnify seller against any and all liabilities for such taxes or duties and legal fees or costs incurred by seller in connection therewith.

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APPENDIX B SUMMARY STATEMENT OF QUALIFICATIONS

SUMMARY STATEMENT OF QUALIFICATIONS

1.0 OVERVIEW

Haller & Associates, Inc. (HAI) is an experienced soil and groundwater remediation consultant/contractor established in New Mexico in 1997. HAI has an established record of remediation experience and success at State Lead and Responsible Party Lead Petroleum Storage Tank Bureau (PSTB) sites. Our experience includes soil and groundwater investigation, hazard assessment and abatement, pilot testing, remedial design and permitting, remediation system construction, operation and maintenance, dig and haul and system decommissioning. We possess the experience, technical expertise, financial stability and managerial capabilities necessary to perform the proposed services.

HAI carries general and professional liability insurance, and worker's compensation insurance that exceeds the PSTB requirements. Our NMCID license (Soil and Groundwater Remediation GS 29 #92466) is current and in good standing. HAI is a New Mexico resident bidder (#68R18) with New Mexico CRS #02-348740-00-2.

2.0 KEY PROJECT PERSONNEL

Timothy M. Haller, CPG, senior geologist with over 25 years of experience will have direct supervisory control of investigation, remediation, monitoring and reporting activities. He is the primary point of contact for HAI.

Education: B.S. Geology, West Texas A&M University, Canyon, Texas – 1988

Certification: Certified Professional Geologist #10243, A.I.P.G. – 1997 to Present

OSHA Competent Person Training – Safety Solutions, Inc. – 2003

Experience: Fieldwork and project management of investigation and remediation of petroleum releases in the unsaturated zone and saturated zone at underground storage tank facilities, bulk storage terminals, refineries, and landfills.

Micah D. Nauck – Geologist with 10 years of environmental experience in environmental investigation and remediation. Will perform project management, fieldwork, and reporting.

Education: B.S., Geology, Stephen F. Austin State University, Nacogdoches, TX – 2007

Certification: OSHA 40-Hour Hazardous Waste Operations and Annual 8-Hour Refreshers OSHA 8-Hour Hazardous Waste Operations Supervisor

Experience: Fieldwork and project management of investigation and remediation of petroleum releases. Experience also includes drilling and well installation oversite, monitor well plug and abandonment oversite, groundwater monitoring, field and laboratory data evaluation and report preparation.



Vener Mustafin, PE – NM Professional Engineer (#12467) – Environmental Engineer with 15 years of environmental engineering experience and 8 years of experience in the role of direct supervisory remediation responsibilities.

<u>Education:</u> M.S., Civil Engineering, Environmental - University of New Mexico –

1997 M.S., Civil Engineering – Tajik Technical University – 1994

Experience: Design/construction of soil/groundwater remediation systems, contaminated soil

excavation, construction management and inspection, pilot test design and

evaluation, project management, AutoCAD and Civil 3D.

Kelly R. Haller will manage subcontractor invoices, budget tracking, invoicing and reimbursement claims, gross receipts tax filings, insurance and administrative project tasks.

<u>Education:</u> Associates Degree – Business Administration, Del Mar College, Corpus Christi,

Texas – 1985

Experience: Administration, corporate compliance, state/federal taxes, workmen's comp,

payroll, benefits, AP/AR, report editing and production, AutoCAD support.

3.0 SELECTED PROJECT EXPERIENCE

HAI has been actively engaged in petroleum investigation and remediation since 1997. Current and recent key projects include the following:

- Mike's Auto Detailing, Belen, NM Site remediation utilizing groundwater extraction and treatment, treated water reinjection, SVE, hot air injection and NAPL skimming; system decommissioning has been completed.
- Lee's Conoco Albuquerque, NM Site remediation utilizing SVE and air sparging; system decommissioning has been completed.
- Midway Chevron, Sapello, NM Site remediation utilizing multi-phase extraction with groundwater treatment and reinjection; transitioned to air sparging; system O&M.
- Canyon Auto and Turner Branch, Tijeras, NM Site remediation utilizing groundwater extraction and treatment, SVE and treated water reinjection. Permits are currently pending to address low-level recalcitrant contaminants using in-situ chemical oxidation.
- Former Belen Armory, Belen, NM Site remediation utilizing dig-and-haul followed by SVE and air sparging; BTEX and naphthalenes were successfully remediated to below NMWQCC standards in all wells. Hydrogen peroxide injection was used to remediate MTBE to below standards in the last two wells that previously exceeded standards.
- Sparkle Car Wash, Albuquerque, NM Site remediation utilizing dig and haul strategy. Performed Geoprobe boring program to delineate soil and groundwater plume. Supervised excavation, backfilling and surface restoration. Groundwater contaminants were remediated below NMWQCC standards. The site was granted No Further Action status.



- Belen Maintenance Yard, Belen, NM Supervision of a 10,000 cy dig and haul encompassing the site and a city street intersection. Supervised soil removal, water treatment, backfilling/compaction, and indoor air monitoring in a nearby office building. Groundwater contaminants were remediated below NMWQCC standards. The site was granted No Further Action status.
- Cañoncito Grocery HAI performed soil and groundwater plume delineation, remedial pilot testing and remedial design. HAI supervised construction of a remediation system consisting of soil vapor extraction and concentrated oxygen sparging. HAI is currently performing system O&M and quarterly monitoring and reporting to PSTB.

4.0 CONTACT INFORMATION

Our contact information is as follows:

Mailing Address: P.O. Box 1667, Cedar Crest, NM 87008

Physical Location: 12220 N. Highway 14, Suite C, Cedar Crest, NM 87008

Phone / Facsimile: Ph: (505) 281-9333 Fax: (505) 281-9338

Primary Point of Contact: <u>Timothy M. Haller (cell) 505-259-4733</u>
Alternative Point of Contact: <u>Micah D. Nauck (cell) 505-228-0492</u>

Project management, administration, and storage of equipment and supplies will occur at this location. HAI is a New Mexico resident bidder (68R18) as certified by the State Purchasing Division-Office of the State Purchasing Agent.

HAI is a New Mexico licensed soil and groundwater remediation contractor (License #92466) in good standing with the New Mexico Construction Industries Division.

5.0 EQUIPMENT AND RESOURCES

HAI maintains an inventory of water quality field meters for measurement of pH, specific conductivity, temperature, dissolved oxygen and oxidation-reduction potential. We also maintain ample supply of commercially prepared calibration solutions. Additionally, HAI owns several electronic water level indicators and hydrocarbon interface probes. Other in-house inventory includes disposable bailers, disposable poly and silicone tubing, decon equipment, ferrous iron field test kits, personnel protection equipment, hydrocarbon absorbents, dissolved metals filters, surveying equipment, spare well caps and locks, etc.

HAI also owns small diameter submersible pumps, controllers, disposable tubing, 3,000 psi gas-powered pressure washer and a 120/240 volt generator for sampling and other work in locations where electricity is unavailable.



HAI's air instrumentation includes an Ion Science photoionization detector, QRae Plus combustible gas indicator/oxygen meter, various air sampling pumps, air flow meters and magnehelic gauges. HAI maintains a current supply of commercially prepared calibration gases. HAI also maintains inventory of Tedlar bags, Tygon tubing, and other expendables.

Our SVE pilot test/rental equipment includes 1) skid-mounted Rotron DR555 regenerative blower with 4-hp motor, 80-gallon moisture separator and control panel; 2) Gardner-Denver Sutorbilt 3MVP vacuum/pressure positive displacement blower with 7.5-hp motor and silencers; 3) Rotron 454 regenerative blower with 1.5-hp explosion-proof motor and control panel; and 4) Roots URAI-22 positive displacement blower with 3-hp motor.

Additionally, HAI owns and utilizes a small Kubota BX25 loader/backhoe to perform small trenching and excavation projects in-house. Other equipment includes demolition hammers, portable air compressors, portable generators and metal detectors.

HAI has established business relationships with numerous subcontractors for drilling, surveying, excavation, construction, traffic control and laboratory services. Additionally, HAI has sufficient cash flow and recently increased credit line to initiate construction, emergency response, investigation, monitoring, and operation & maintenance.

6.0 SELECTED CURRENT AND PREVIOUS CLIENTS

- New Mexico Department of Military Affairs
- New Mexico Environment Department
- New Mexico Highlands University
- Gemini Rosemont
- EA Engineering, Science & Technology
- Boeing Corporation
- Honeywell Corporation
- Midway Chevron Carlos Martinez, Owner
- Central New Mexico Electric Cooperative
- Yellow Checker Cab Company, Inc.
- Bernalillo Public Schools
- Risk Assessment & Management Group, Inc.
- Banes Southwest, Inc.
- First Street Properties, LLC
- Tetra Tech EM, Inc.
- SECOR International, Inc.
- Engineers, Inc.
- Sunbelt Geophysics
- Numerous commercial real estate brokers in New Mexico



APPENDIX B SPECIFICATIONS AND MSDS FOR PERSULFOXTM



PersulfOx® A	pplication l	Design Summary

Treatment Unit		Field App. Instructions
Application Method	Direct Push	
Spacing Within Rows (ft)	n a	
Spacing Between Rows (ft)	n a	
Injection Points (per app.)	1	
Number of Applications	1	
		Field Mixing Ratios
Top Application Depth (ft bgs)	57	Water per Pt per app (gals)
Bottom Application Depth (ft bgs)	65	527
PersulfOx to be Applied (lbs)	716.30	PersulfOx per Pt per app (lbs)
PersulfOx Solution	14	716
Volume Water (gals)	527	Total Volume per Pt per app (gals)
Total Volume (gals)	563	563
Per Application Totals		-
PersulfOx per app. (lbs)	716	Volume per vertical ft (gals)
Volume Water per app. (gals)	<i>527</i>	70
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- Sodium Silicate CAS #1344-09-8

Properties

- pH 7 to 11.5 at 25°C
- Appearance White, free-flowing powder, clear to cloudy when mixed with water
- Odor Not detectable
- Vapor Pressure None
- Chemical Hazard Classification Class 5.1 Oxidizer

Storage and Handling Guidelines

Storage

Store locked up

Keep away from heat

Store in a cool, dry place out of direct sunlight

Handling

Minimize dust generation and accumulation

Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces



PersulfOx® Technical Description

Storage (continued)

Store in original tightly closed container

Store in a well-ventilated place

Do not store near combustible materials

Store away from incompatible materials

Recommended to store at less than 40°C

Provide appropriate exhaust ventilation in places where dust is formed

Handling (continued)

Avoid mixing with combustibles

Avoid contamination

Keep away from clothing and other combustible materials

Wear appropriate personal protective equipment

Avoid breathing dust

Avoid contact with eyes, skin, and clothing

Avoid prolonged exposure

Do not taste or swallow

When using, do not eat, drink or smoke

Wear appropriate personal protective equipment

Wash hands thoroughly after handling

Observe good industrial hygiene practices

Applications

- PersulfOx is mixed with water at a rate of 5% to 20% prior to application.
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Return Policy: To initiate a return please contact your local sales manager for an RMA. A 15 re-stocking fee will be charged for all returned goods. Return freight must be prepaid. All requests to return product must be in original condition and no product will be accepted for return after 90 days from date of delivery.

Professional Judgement: In generating this estimate, REGENESIS relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS developed this Scope of Work in reliance upon the data and professional judgments provided by those whom completed the earlier environmental site assessment(s), and in reliance upon REGENESIS' prior experience on similar project sites. The fees and charges associated with the Scope of Work were generated through REGENESIS' proprietary formulas and thus may not conform to billing guidelines, constraints or other limits on fees. REGENESIS does not seek reimbursement directly from any government agency or any governmental reimbursement fund (the Government). In any circumstance where REGENESIS may serve as a supplier or subcontractor to an entity which seeks reimbursement from the Government for all or part of the services performed or products provided by REGENESIS, <u>it is the sole responsibility of the entity seeking reimbursement to ensure the Scope of Work and associated charges are in compliance with and acceptable to the Government prior to submission</u>. When serving as a supplier or subcontractor to an entity which seeks reimbursement from Government, REGENESIS does not knowingly present or cause to be presented any claim for payment to the government.

- **10. ASSETANCE AND ADVICE.** Upon request, seller in its discretion will furnish as an accommodation to buyer such technical advice or assistance as is available in reference to the goods and services. Seller assumes no obligation or liability for the advice or assistance given or results obtained, all such advice or assistance being given and accepted at buyer s risk.
- **11. SITE SAFETY.** Buyer shall provide a safe working environment at the site of services and shall comply with all applicable provisions of federal, state, provincial and municipal safety laws, building codes, and safety regulations to prevent accidents or injuries to persons on, about or adjacent to the site.
- **12. INDEPENDENT CONTRACTOR.** Seller and Buyer are independent contractors and nothing shall be construed to place them in the relationship of partners, principal and agent, employer employee or joint ventures. Neither party will have the power or right to bind or obligate the other party except as may be expressly agreed and delegated by other party, nor will it hold itself out as having such authority.
- 13. **REIMBURSEMENT**. Seller shall provide the products and services in reliance upon the data and professional judgments provided by or on behalf of buyer. The fees and charges associated with the products and services thus may not conform to billing guidelines, constraints or other limits on fees. Seller does not seek reimbursement directly from any government agency or any governmental reimbursement fund (the Government). In any circumstance where seller may serve as a supplier or subcontractor to an entity which seeks reimbursement from the Government for all or part of the services performed or products provided by seller, it is the sole responsibility of the buyer or other entity seeking reimbursement to ensure the products and services and associated charges are in compliance with and acceptable to the Government prior to submission. When serving as a supplier or subcontractor to an entity which seeks reimbursement from the Government, seller does not knowingly present or cause to be presented any claim for payment to the Government.
- **14. APPLICABLE IAW/JURISDICTION AND VENUE.** The rights and duties of the parties shall be governed by, construed, and enforced in accordance with the laws of the State of California (excluding its conflict of laws rules which would refer to and apply the substantive laws of another jurisdiction). Any suit or proceeding hereunder shall be brought exclusively in state or federal courts located in Orange County, California. Each party consents to the personal jurisdiction of said state and federal courts and waives any objection that such courts are an inconvenient forum.
- **15. ENTIRE AGREEMENT.** This agreement constitutes the entire contract between buyer and seller relating to the goods or services identified herein. No modifications hereof shall be binding upon the seller unless in writing and signed by seller s duly authorized representative, and no modification shall be effected by seller s acknowledgment or acceptance of buyer s purchase order forms containing different provisions. Trade usage shall neither be applicable nor relevant to this agreement, nor be used in any manner whatsoever to explain, qualify or supplement any of the provisions hereof. No waiver by either party of default shall be deemed a waiver of any subsequent default.



1011 Calle Sombra San Clemente, CA 92673-6244 Tel: 949.366.8000 • Fax: 949.366.8090

Terms and Conditions Products and Services

- **1. PAYMENT TERMS.** Net 30 Days. Accounts outstanding after 30 days will be assessed 1.5 monthly interest. Volume discount pricing will be rescinded on all accounts outstanding over 90 days. An early payment discount of 1.5 Net 10 is available for cash or check payments only. We accept Master Card, Visa and American Express.
- **2. RETURN POLICY.** A 15 re-stocking fee will be charged for all returned goods. All requests to return product must be pre-approved by seller. Returned product must be in original condition and no product will be accepted for return after a period of 90 days.
- **3 FORCE MAJEURE.** Seller shall not be liable for delays in delivery or services or failure to manufacture or deliver due to causes beyond its reasonable control, including but not limited to acts of God, acts of buyer, acts of military or civil authorities, fires, strikes, flood, epidemic, war, riot, delays in transportation or car shortages, or inability to obtain necessary labor, materials, components or services through seller s usual and regular sources at usual and regular prices. In any such event Seller may, without notice to buyer, at any time and from time to time, postpone the delivery or service dates under this contract or make partial delivery or performance or cancel all or any portion of this and any other contract with buyer without further liability to buyer. Cancellation of any part of this order shall not affect Seller's right to payment for any product delivered or service performed hereunder.
- **4. LIMITED WARRANTY.** Seller warrants the product(s) sold and services provided as specified on face of invoice, solely to buyer. Seller makes no other warranty of any kind respecting the product and services, and expressly DISC AIMS A OT ER WARRANTIES O W ATEVER IND RESPECTING T E PRODUCT AND SERVICES, INC UDING A WARRANTIES O MERC ANTABI IT, ITNESS OR PARTICU AR PURPOSE AND NON-IN RINGEMENT.
- **5. DISCIAIMER.** Where warranties to a person other than buyer may not be disclaimed under law, seller extends to such a person the same warranty seller makes to buyer as set forth herein, subject to all disclaimers, exclusions and limitations of warranties, all limitations of liability and all other provisions set forth in the Terms and Conditions herein. Buyer agrees to transmit a copy of the Terms and Conditions set forth herein to any and all persons to whom buyer sells, or otherwise furnishes the products and or services provided buyer by seller and buyer agrees to indemnify seller for any liability, loss, costs and attorneys fees which seller may incur by reason, in whole or in part, of failure by buyer to transmit the Terms and Conditions as provided herein.
- **6. LIMITATION OF SELLER'S LIABILITY AND LIMITATION OF BUYER'S REMEDY.** Seller s liability on any claim of any kind, including negligence, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery, resale, repair or use of any goods or performance of any services covered by or furnished hereunder, shall in no case exceed the lesser of (1) the cost of repairing or replacing goods and repeating the services failing to conform to the forgoing warranty or the price of the goods and or services or part thereof which gives rise to the claim. IN NO EVENTS A SE ER BE IAB E OR SPECIA INCIDENTA OR CONSEQUENTIA DAMAGES, INC UDING OST PRO ITS, OR OR DAMAGES IN T E NATURE O PENA TIES.
- **7. INDEMNIFICATION.** Buyer agrees to defend and indemnify seller of and from any and all claims or liabilities asserted against seller in connection with the manufacture, sale, delivery, resale or repair or use of any goods, and performance of any services, covered by or furnished hereunder arising in whole or in part out of or by reason of the failure of buyer, its agents, servants, employees or customers to follow instructions, warnings or recommendations furnished by seller in connection with such goods and services, by reason of the failure of buyer, its agents, servants, employees or customers to comply with all federal, state and local laws applicable to such goods and services, or the use thereof, including the Occupational Safety and ealth Act of 1970, or by reason of the negligence or misconduct of buyer, its agents, servants, employees or customers.
- **8. EXPENSES OF ENFORCEMENT.** In the event seller undertakes any action to collect amounts due from buyer, or otherwise enforce its rights hereunder, Buyer agrees to pay and reimburse Seller for all such expenses, including, without limitation, all attorneys and collection fees.
- **9. TAXES.** iability for all taxes and import or export duties, imposed by any city, state, federal or other governmental authority, shall be assumed and paid by buyer. Buyer further agrees to defend and indemnify seller against any and all liabilities for such taxes or duties and legal fees or costs incurred by seller in connection therewith.

- **10. ASSISTANCE AND ADVICE.** Upon request, seller in its discretion will furnish as an accommodation to buyer such technical advice or assistance as is available in reference to the goods and services. Seller assumes no obligation or liability for the advice or assistance given or results obtained, all such advice or assistance being given and accepted at buyer s risk.
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- **15. ENTIRE AGREEMENT.** This agreement constitutes the entire contract between buyer and seller relating to the goods or services identified herein. No modifications hereof shall be binding upon the seller unless in writing and signed by seller s duly authorized representative, and no modification shall be effected by seller s acknowledgment or acceptance of buyer s purchase order forms containing different provisions. Trade usage shall neither be applicable nor relevant to this agreement, nor be used in any manner whatsoever to explain, qualify or supplement any of the provisions hereof. No waiver by either party of default shall be deemed a waiver of any subsequent default.

APPENDIX C

Permit Application Fee

OR SECURITY PURPOSES, THE FACE OF THIS DOCUMENT CONTAINS A COLORED BACKGROUND AND MICROPRINTING IN THE BORDER

HALLER & ASSOCIATES, INC.

PO BOX 1667 CEDAR CREST, NM 87008 (505) 281-9333



BANK OF THE WEST CEDAR CREST BRANCH CEDAR CREST, NM 87008 12123

5/25/2021

PAY TO THE ORDER OF ___

NMED Ground Water Quality Bureau

\$ _

**100.00

One Hundred and 00/100******

DOLLARS

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



YOID AFTER 90 DAYS

OUTHORIZED SIGNATURE

МЕМО

Pat's Service Station DP Application Esecurity FEATURES INCLUDED, DETAILS ON BACK

"O12123" :107006813:

277050167

HALLER & ASSOCIATES, INC.

NMED Ground Water Quality Bureau 4031 · Permitting

Pat's Service Station DP Application Fee

5/25/2021

12123

100.00

Bank of the West

Pat's Service Station DP Application Fee

100.00