



Shaw Environmental, Inc.
111 West Pleasant Street, Suite 105
Milwaukee, Wisconsin 53212-3939
414.291.2357
FAX: 414.291.2385

VIA EMAIL: okbailey@flash.net

February 24, 2010

Mr. Keith Bailey
Environmental Answers LLC
3229 Persimmon Creek Drive
Edmond, OK 73013

**Re: Proposal for Demonstration of Perchlorate Treatment within Groundwater
Using an Injected Permeable Reactive Barrier (PRB)**

Dear Mr. Bailey,

Shaw Environmental, Inc. (Shaw) is pleased to submit this updated proposal to Tronox LLC (Tronox) via Environmental Answers LLC, for conducting the above referenced pilot scale demonstration. The following paragraphs provide details regarding our proposed scope of work, pricing, assumptions, and project schedule.

Background

Tronox has implemented a series of hydraulic containment barriers, at both on-site and off-site locations, for the capture and treatment of perchlorate impacted groundwater associated with historical operations. While substantial perchlorate control and reduction has been achieved to date, a zone of elevated perchlorate impacted groundwater (>10mg/kg) continues to be observed in monitoring wells located downgradient from the hydraulic containment wells located near Galleria Road (f.k.a. Athens Road). As per our previous discussions, Tronox is interested in evaluating alternatives for the enhanced control/treatment of the perchlorate migrating with groundwater down gradient from this hydraulic containment barrier zone.

Shaw has completed a preliminary review of the geologic, hydrogeologic, and contaminant data contained within the Quarterly Performance Report – Perchlorate Recovery System, April – June 2006 prepared by ENSR (July 2006). Based on the plume and aquifer characteristics observed, several alternatives have been contemplated for the control/in-situ treatment of perchlorate. This proposal describes the conceptual approach for implementing a pilot scale demonstration of an injected permeable reactive barrier (PRB) for the in-situ treatment of perchlorate approximately 1,500 feet north of the Galleria Road extraction wells (see [Figure 1](#)).

Description of the Conceptual Pilot Demonstration Project

The primary focus of this project will be to demonstrate the treatment of perchlorate migrating with groundwater via development of an injected PRB zone. In order to create the PRB, a slow release, edible oil organic substrate, Enhanced Oil Substrate (EOS[®]) 598 will be injected into the saturated alluvium overlying the Muddy Creek Bedrock formation. An MSDS for this product has been included in [Attachment A](#). The conceptual location of the PRB zone is shown on [Figure 1](#). The EOS amendment is anticipated to be injected using a series of fixed point injection wells. Fixed point wells are proposed due to the inability to utilize low cost direct push drilling and injection methods within the alluvial deposits present at the site, as well as the potential that multiple injections of amendments will be required to maintain proper conditions for the biological reduction of perchlorate to innocuous end products (chloride and oxygen) while avoiding or minimizing unwanted secondary reactions (sulfate reduction, methanogenesis or metals mobilization) over an extended treatment timeframe. The proposed pilot study approach and key assumptions are described below as well as in our June 19, 2007 memorandum.

Scope of Work and Budgetary Costs

Task 1 Work Plan, Permitting, and Pre-field Activities

These activities include:

- Preparation of a work plan describing pilot implementation procedures.
- Submission of draft work plan to Tronox
- Submission of final work plan to Nevada Department of Environmental Protection (NDEP)
- Underground utility clearance (both State and private utility locating services will be utilized)
- Providing assistance to Tronox staff when obtaining the temporary underground injection control (UIC) and hydrant tap permits from the NDEP and City of Henderson

The budgetary cost for these activities is **\$5,000**.

Task 2 Well Installation and Development

Includes:

- Installation of three (3) injection wells and three (3) monitoring wells. The layout of the proposed well network is shown on [Figure 2](#). The injection wells will be installed on 50 foot centers, oriented perpendicular to groundwater flow. Two of the proposed monitoring wells will be installed 15 and 30 feet from the center injection well, also aligned perpendicular to groundwater flow. The third monitoring well will be installed approximately 100 feet up-gradient (south) of the center injection well. All injection wells to be installed to an average depth of 40 ft and all monitoring wells to an average depth of 35 ft below ground surface, respectively.
- Wells to be installed using hollow-stem auger drilling techniques
- Wells to be constructed from 2" ID schedule 40 PVC casing and screen materials
- Well development using surging, bailing, and pumping techniques
- Soils will be sampled using split-spoon sampling methods and classified according to the Unified Soil Classification System (USCS)

- Soil samples will be analyzed for physical parameters: grain size and maximum oil retention capacity. No analytical parameters will be run on soil samples
- The budgetary cost for these activities is **\$28,300**.

Task 3 Amendment Injection

Includes:

- Collection of groundwater samples prior to amendment injection from the three injection wells, three newly installed monitoring wells, and two down-gradient piezometers (PC-98R and MW-K5)
- Groundwater samples to be analyzed for field parameters: ORP, DO, pH, specific electrical conductance; and laboratory parameters: perchlorate, chlorate, nitrate, sulfate, bromide, total organic carbon (TOC), total and dissolved iron and manganese; to establish baseline groundwater quality conditions
- Aquifer conductivities will be estimated by performing slug testing in two of the newly installed monitoring wells and two of the injection wells
- A short term stepped injection test (2 to 4 hrs) will be conducted to establish well injection rates and pressures
- A mixture containing 550 gallons of EOS598 slow release agent, approximately 60,000 gallons of water, and tracer (bromide) will be injected into the saturated formation at each injection well (the total quantity of EOS (1,650 gal) is expected to provide enough donor agent to completely degrade perchlorate passing through the PRB zone for a period of between 6 and 9 months - based on a groundwater flow velocity of approximately 5 ft/day and an average perchlorate/chlorate loading of between 100 and 200 mg/L)
- Samples will be collected from the side-gradient monitoring wells throughout the injection process and monitored in the field for changes in turbidity and ORP
- Samples will be collected from the three injection wells and two barrier zone monitoring wells at the completion of the injection process and analyzed for the same suite of field parameters. The suite of laboratory parameters will be limited to bromide and TOC to assess the post injection concentrations of the tracer and EOS compounds.

The budgetary cost for these activities is **\$57,900**.

Task 4 Monitoring

Includes:

- Collection of groundwater samples from a total of 8 wells (three (3) injection wells, two (2) down-gradient piezometers (MW-K5 and PC-98R), two (2) barrier zone monitoring wells, and one (1) up-gradient monitoring well). Samples to be analyzed for field parameters: ORP, DO, pH, specific electrical conductance; and laboratory parameters: perchlorate, chlorate, nitrate, sulfate, bromide (downgradient wells only), TOC (7 wells), total and dissolved iron and manganese (4 wells).
- Aquifer slug testing will be repeated on the two injection and the two barrier zone monitoring wells tested initially (Task 3) in conjunction with the 3 month sampling event to determine if any loss of aquifer porosity and hydraulic conductivity occurs

within the PRB zone due to the injection of the amendments or biological/geochemical processes
The budgetary cost for these activities is **\$9,200**.

Task 5 Reporting

Includes:

- Reduction of all data generated over the course of the demonstration
- Preparation of a report detailing performance and cost details
- Submittal of Draft report to Tronox
- Final report to NDEP

The budgetary cost for reporting is **\$6,500**.

Project Management

Includes:

- Planning and coordination
- Routine client and regulatory correspondence
- Cost Tracking
- Procurement
- Invoicing

The budgetary cost for project management is **\$5,600** based on 5% of total project implementation costs.

The total budgetary cost for complete project execution as outlined above would be **\$112,500**.

Key Assumptions

The budgetary costs provided above are based on the following key assumptions:

- A total drilling footage of 225 ft
- Average cost per foot for drilling, well installation, and well development of \$76.00 (includes pro-rated mobilization and decontamination charges and a 10% markup)
- All drilling can be completed in one mobilization
- All soil cuttings can be thin spread on-site
- All decontamination/well development/purge water can be purged to ground or treated in the existing fluidized-bed bioreactor operating at the Tronox site
- 1,650 gallons of EOS™ 598 with an average cost of \$15.90/gallon
- Fluid injection rates of 15 gallons per minute or greater can be achieved for each injection well
- Fluid injection can be performed on a **24 hour per day basis** once injection begins
- Shipping costs associated with EOS and other equipment do not exceed \$5,700
- Fresh water can be obtained from a hydrant located within 500 feet of the injection site using a hydrant tap permit provided by the City of Henderson
- Average cost for water usage of \$3.00 per 1,000 gallons
- Completion of up to 3 Maximum Oil Retention tests using aquifer materials obtained during Task 2.

- All analytical testing to be performed in Shaw's New Jersey certified analytical laboratory (with the exception of metals analyses)
- A total of 2 post injection groundwater sampling events with 8 wells sampled per event and one duplicate sample collected for QC purposes
- Travel costs for Task 2 limited to one man for one week
- Travel costs for Task 3 limited to 2 men for one week (including weekend travel) and one man for 2 days
- Travel costs for Task 4 limited to 1 man for 2 days per sampling event
- No travel costs associated with Tasks 1, 5, or project management

Project Schedule

A conceptual project schedule is outlined below in **Table 1**.

**Table 1
 Proposed Task Details and Project Schedule**

Item	Details	Timeline Following NTP
Task 1	- Work Plan – Draft to Tronox - Work Plan – Final to NDEP - Permit Applications to NDEP - Permit Issued by NDEP	3 weeks 6 weeks ⁽¹⁾ 6 weeks 10 weeks
Task 2	- Drilling and Well Installation	13 weeks
Task 3	- Oil Retention Capacity Testing, Well Development, Baseline Sampling, and Aquifer Testing - EOS/Water Injection	17 weeks
Task 4	- Monitoring (3 and 6 months)	29 weeks 41 weeks
Task 5	- Final Report – Draft to Tronox - Final Report – Final to NDEP	49 weeks 53 weeks

Notes:

NTP - Notice to Proceed

1 - Assumes Tronox comments received within 2 weeks of draft submittal and 1 week for incorporating comments into final reports.

Terms and Conditions

Shaw will perform all services on a time and materials basis in accordance with the terms and conditions contained within the Agreement for Construction or Field Services (Class II) dated June 8, 2007 between Tronox and Shaw and the rate schedule enclosed as **Attachment B** with the following exception: Tronox will agree to a payment schedule as outlined in the Milestone Pre-Payment Plan enclosed as **Attachment C**. Actual costs for services may be more or less

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Environmental Answers LLC
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then the budgetary amount shown above; however, Shaw's charges will not exceed \$112,500 without the prior approval of Tronox.

Shaw appreciates the opportunity to submit this proposal to Tronox for providing remedial demonstration support services as outlined above. We look forward to being of continued service to you. If you have any questions, please feel free to contact me at (414) 291-2357 at your convenience.

Please acknowledge your acceptance of this proposal by issuing a work order or purchase order referencing this proposal and the executed Field Services Agreement.

Sincerely,
SHAW ENVIRONMENTAL, INC.



Jay B. Diebold, P.E., P.G.
Program Manager

Enclosures

- Figure 1** - Site Location Map
- Figure 2** - Proposed Well Installations
- Attachment A** - EOS598 MSDS
- Attachment B** - Rate Schedule
- Attachment C** - Milestone Pre-Payment Plan

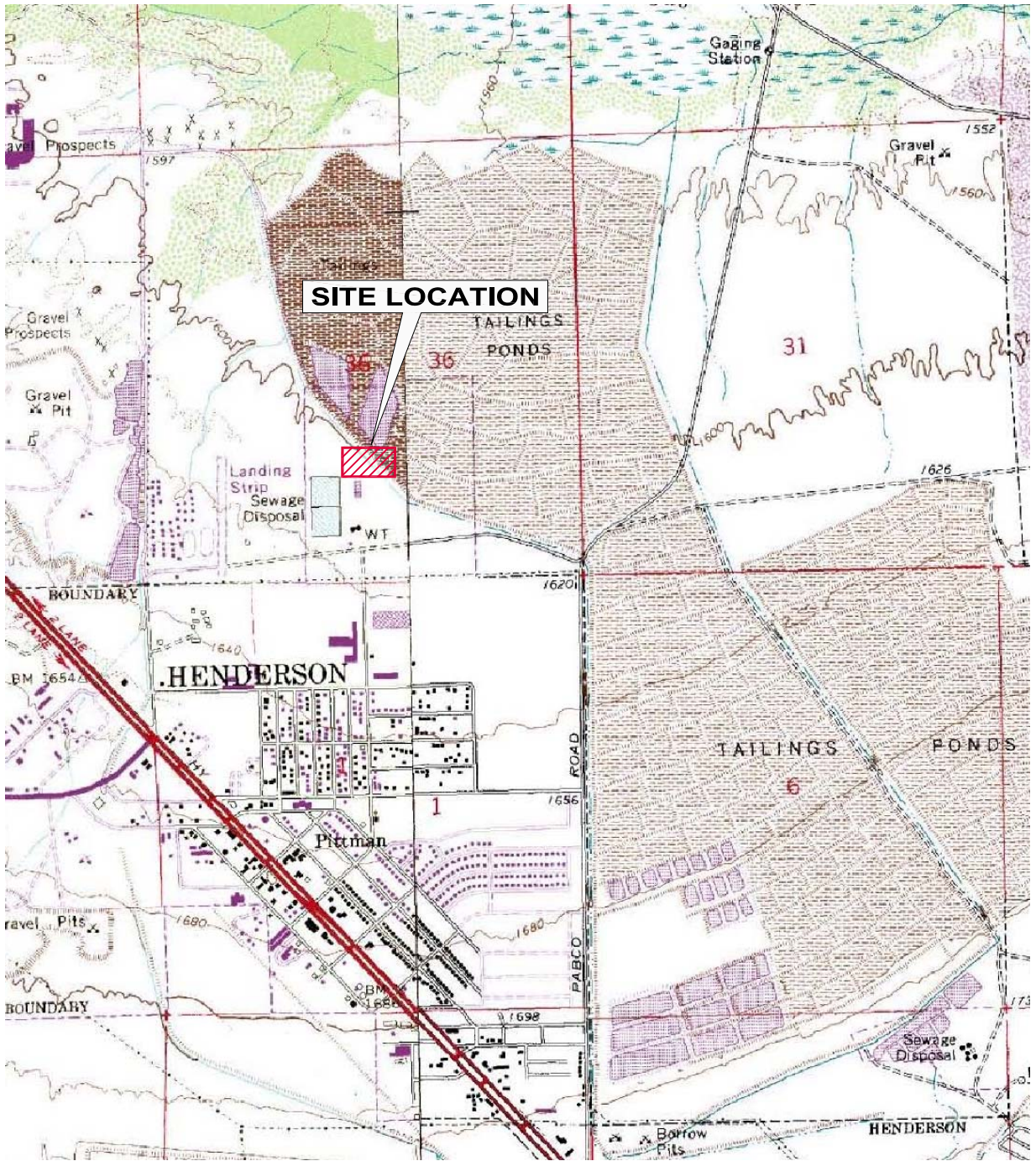
cc: Paul Hatzinger, PhD, Shaw Environmental, Inc.

Figures

XREF Files: IMAGE Files: USGS_HENDERSON NV.jpg
 000_Tronox - GW PRB Figures 5-17-07_Page_2.jpg
 1 Tronox - GW PRB 9-9-08.tif
 USGS_HENDERSON NV.jpg

1" 1/2" 0"

File: C:\Documents and Settings\jill.Deitchler\Desktop\LV-TRONOX_ALT PROP WELLS 6-07.dwg Layout: FIG1 SITE LOC MAP User: jill.deitchler Apr 03, 2009 - 11:31am



APPROXIMATE SCALE IN FEET
 0 1000 2000 3000

Taken from the
 HENDERSON, NEVADA
 7.5 Series U.S.G.S. Topographic Quadrangle

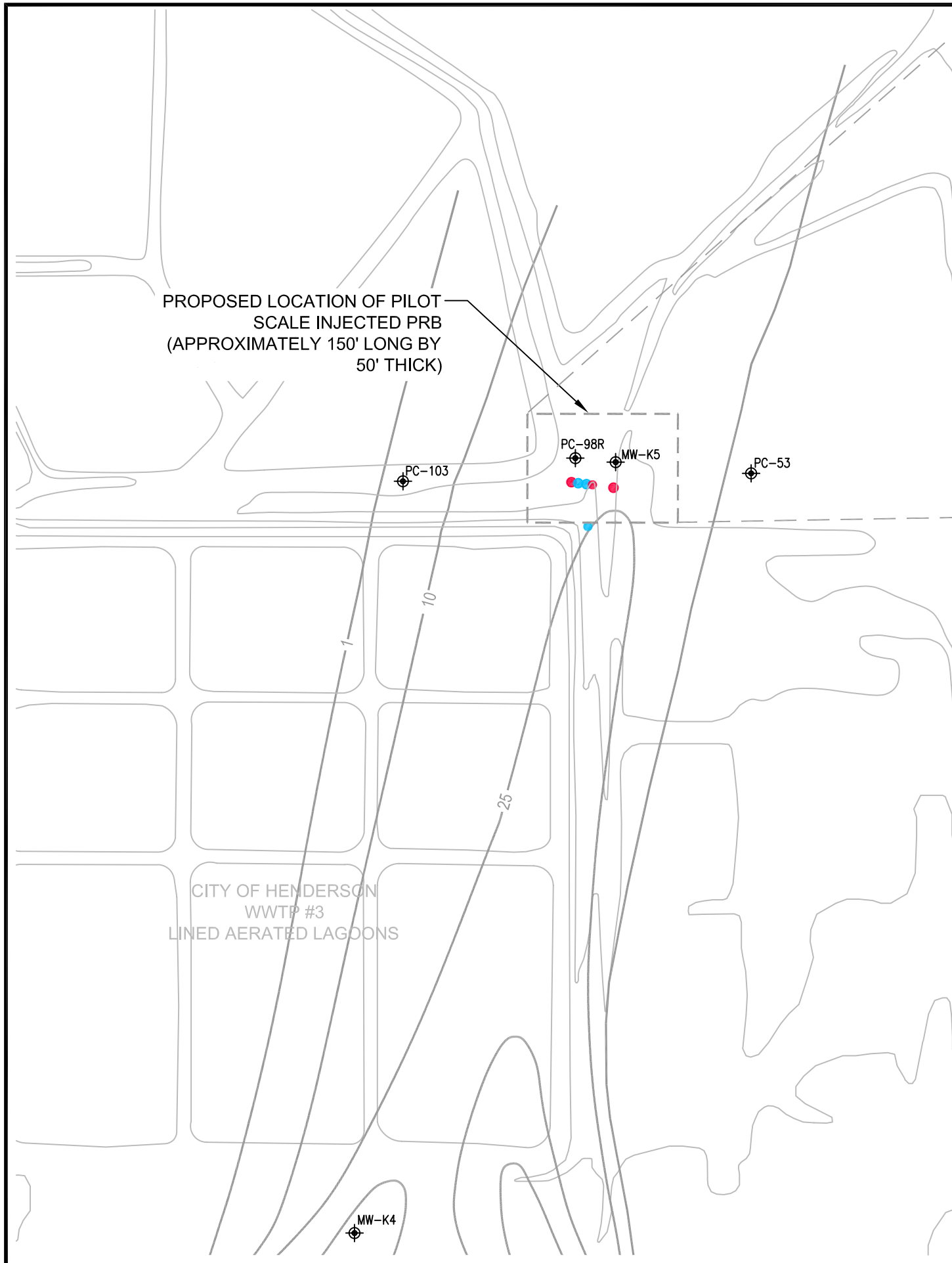
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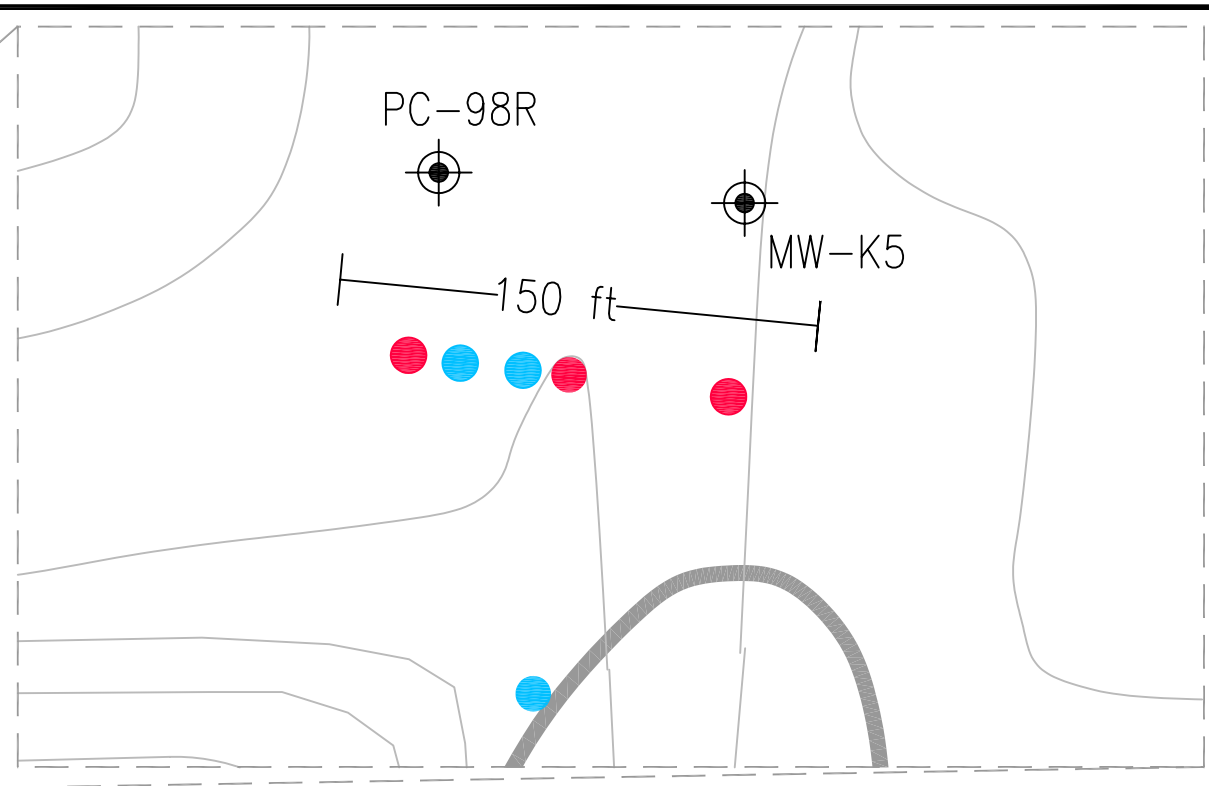


Shaw The Shaw Group, Inc. CLIENT	Shaw Environmental, Inc. 111 W. Pleasant Street Suite 105 Milwaukee, Wisconsin 53212	TITLE SITE LOCATION MAP INJECTED PRB PILOT DEMONSTRATION			
	LOCATION Athens Road Henderson, Nevada	DRWN DGS	CHKD JD	REV DATE REVD BY	PROJECT NO. 117604 DATE 05/17/07

XREF Files: IMAGE Files: USGS_HENDERSON NV.jpg
 000_Tronox - GW PRB Figures 5-17-07-07_Page_2.jpg
 1 Tronox - GW PRB 9-9-08.tif
 USGS_HENDERSON NV.jpg
 File: C:\Documents and Settings\Jill.Deitchler\Desktop\LV-TRONOX_ALT PROP WELLS 6-07.dwg Layout: FIG2 PROP WELLS-Single Phase Alt User: jill.deitchler Apr 03, 2009 - 12:14pm



PROPOSED LOCATION OF PILOT SCALE INJECTED PRB (APPROXIMATELY 150' LONG BY 50' THICK)



APPROXIMATE SCALE IN FEET
 0 30 60 90

LEGEND

- PROPOSED INJECTION WELL
- PROPOSED MONITORING WELL
- EXISTING EXTRACTION WELL
- EXISTING PIEZOMETER
- ELEVATION CONTOUR
- 25 ISOCONCENTRATION CONTOUR (mg/L)

NOTES:

1. INJECTION WELL SPACING OF 50' IS BASED ON AN ASSUMED EFFECTIVE RADIUS OF INFLUENCE OF 30'.
2. MONITORING WELLS TO BE INSTALLED AT 15' AND 30' SPACING FROM CENTER INJECTION WELL.
3. EXISTING MONITORING WELLS MW-K5 AND PC-98R WILL SERVE AS DOWN-GRADIENT MONITORING POINTS.
4. PROPOSED UP-GRADIENT WELL TO BE LOCATED APPROXIMATELY 100' SOUTH OF THE PRB INJECTION WELLS.

APPROXIMATE SCALE IN FEET
 0 150 300 450

Shaw Environmental, Inc. The Shaw Group, Inc. 111 W. Pleasant Street Suite 105 Milwaukee, Wisconsin 53212		TITLE PROPOSED WELL INSTALLATIONS INJECTED PRB PILOT DEMONSTRATION Single-Phase Alternative			
		CLIENT TRONOX	DRWN DGS	CHKD JD	REV DATE 09/09/08 REV BY JD
LOCATION Henderson WWTP Henderson, Nevada		FIGURE NO. 2			

Attachment A

MATERIAL SAFETY DATA SHEET

EMULSIFIED EDIBLE OIL SUBSTRATE

D.O.T. HAZARD CLASSIFICATION: NONE

HEALTH 1
FLAMMABILITY 0
REACTIVITY 0
PERSONAL PROTECTION B

----HMIS----

MANUFACTURER'S NAME

EOS Remediation, Inc
1101 Nowell Road
Raleigh, NC 27607
www.EOSRemediation.com

DATE OF PREPARATION
01-24-03, Rev. 04-19-05

INFORMATION TELEPHONE NO.
919-873-2204

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME **EOS® CONCENTRATE 598B 42**
PRODUCT CLASS **VEGETABLE OIL BASED EMULSION**
CAS NUMBER **MIXTURE**

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT(S)

EXPOSURE LIMIT

THIS PRODUCT IS A MIXTURE OF EDIBLE FOOD GRADE ADDITIVES AND CONTAINS NO HAZARDOUS INGREDIENTS.

SECTION III - PHYSICAL DATA

BOILING POINT: **212°F**
SPECIFIC GRAVITY: **0.97; .92 (pure oil phase)**
VAPOR PRESSURE: **NOT ESTABLISHED**
PERCENT VOLATILE BY VOLUME (%): **24 (AS WATER)**
VAPOR DENSITY: **HEAVIER THAN AIR**
EVAPORATION RATE: **NOT ESTABLISHED**
SOLUBILITY IN WATER: **SOLUBLE**
APPEARANCE AND ODOR: **OFF WHITE LIQUID WITH VEGETABLE OIL ODOR**

EMULSIFIED EDIBLE OIL SUBSTRATE

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >300°F
FLAMMABLE LIMITS: NOT ESTABLISHED
EXTINGUISHING MEDIA: CO₂, FOAM, DRY CHEMICAL
NOTE: WATER, FOG, AND FOAM MAY CAUSE FROTHING AND SPATTERING.

UNUSUAL FIRE AND EXPLOSION HAZARDS: BURNING WILL CAUSE OXIDES OF CARBON.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS AND CHEMICAL RESISTANT CLOTHING. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

SECTION V - PHYSICAL HAZARDS

STABILITY: STABLE
CONDITIONS TO AVOID: NONE

INCOMPATIBILITY: STRONG ACIDS AND OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION MAY PRODUCT OXIDES OF CARBON.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VI - HEALTH HAZARDS

SIGNS AND SYMPTOMS OF EXPOSURE:

1. Acute Overexposure - NONE
2. Chronic Overexposure - NONE

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:

N.T.P. - **NO** I.A.R.C. - **NO** OSHA - **NO**

EMERGENCY AND FIRST AID PROCEDURES:

- 1.) Inhalation- REMOVE TO FRESH AIR.
- 2.) Eyes- FLUSH WITH WATER FOR 15 MINUTES, IF IRRITATION PERSISTS SEE PHYSICIAN.
- 3.) Skin- WASH WITH MILD SOAP AND WATER.
- 4.) Ingestion- PRODUCT IS NON-TOXIC. IF NAUSEA OCCURS, INDUCE VOMITING AND SEEK MEDICAL ATTENTION.

EMULSIFIED EDIBLE OIL SUBSTRATE

SECTION VII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	NOT NORMALLY REQUIRED
VENTILATION:	LOCAL EXHAUST
PROTECTIVE GLOVES:	NOT NORMALLY REQUIRED
EYE PROTECTION:	NOT NORMALLY REQUIRED
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	NONE

SECTION VIII - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:	DO NOT STORE NEAR EXCESSIVE HEAT OR OXIDIZERS.
OTHER PRECAUTIONS:	NONE
STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED:	SOAK UP WITH DRY ABSORBENT AND FLUSH AREA WITH LARGE AMOUNTS OF WATER.
WASTE DISPOSAL METHODS:	DISPOSE OF ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION IX - ADDITIONAL REGULATORY INFORMATION

SARA TITLE III

UNDER THE PROVISIONS OF TITLE 111, SECTION 311/312 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATIONS ACT, THIS PRODUCT IS CLASSIFIED INTO THE FOLLOWING HAZARD CATEGORIES: **NONE**

THIS PRODUCT DOES **NOT** CONTAIN SECTION 313 REPORTABLE INGREDIENTS.

THE INFORMATION CONTAINED HEREIN IS BASED ON AVAILABLE DATA AND IS BELIEVED TO BE CORRECT. HOWEVER, EOS REMEDIATION, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED THEREOF. THIS INFORMATION AND PRODUCT ARE FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING THEM SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE PRODUCT FOR HIS/HER PARTICULAR PURPOSE.

Attachment B



Category Rate Schedule

Category	Typical Category Function	Nat'l / Volume Rate ⁽¹⁾
M	Technical Publications Assistant 1 Laborer 1	\$44.00
N	Administrative Assistant 1 Drafter 1 Laborer 2 Equipment Operator 1 Technician 1	\$50.00
O	Administrative Assistant 2 Transaction Processing Assistant 3 Laborer 3 Equipment Operator 2 Technician 2 Scientist 1	\$62.00
P	Administrative Assistant 3 Project Controls Cost Scheduler 1 Project Accountant 1 Drafter 2 Equipment Operator 3 Foreman Technician 3 Engineer 1	\$73.00
Q	Admin/Executive Assistant 4 Subcontract Administrator 1 EH&S Specialist 1 Scientist 2	\$83.00
R	Subcontract Administrator 2 Project Controls Cost Scheduler 2 Drafter 3 Engineer 2	\$93.00
S	Project Accountant 2 Technician 4 Scientist 3	\$104.00
T	Subcontract Administrator 3 Drafter 4 EH&S Specialist 2	\$112.00
U	Project Accountant 3 Project Controls Cost Scheduler 3 EH&S Specialist 3 Project Scientist 3	\$121.00
V	Project Accountant 4 Site Superintendent 1 Engineer 3 Scientist 4	\$130.00
W	Project Controls Cost Scheduler 4 Subcontract Administrator 4 Site Superintendent 2 Engineer 4 Project Engineer 3 Project Scientist 4 Client Program Manager 1 Project Manager 1	\$139.00
X	Scientist 5 Project Engineer 4 Client Program Manager 2 Business Line Manager 1	\$157.00
Y	Engineer 5 Scientist 6 Project Engineer 5 Project Scientist 5 Client Program Manager 3 Project Manager 2 Business Line Manager 2	\$182.00
Z	Principal Engineer Principal Consultant	\$210.00

⁽¹⁾ Represents discount for preferred national and high volume clients.



Category Rate Schedule

TERMS AND CONDITIONS - NATIONAL / VOLUME

1.0 Personnel Charges

- 1.1 Personnel time charges for technical, management, and direct project clerical and administrative support activities will be invoiced according to the applicable Category Rate.
- 1.2 All time is rounded to the nearest quarter hour.
- 1.3 The Category Rate Schedule is revised periodically; Shaw E&I will provide written notice of a revision within (30) days of the effective date.
- 1.4 All field labor and equipment are subject to a four (4) hour minimum charge and are charged portal-to-portal, Shaw E&I's facility.
- 1.5 Shaw E&I Temporary (contract) personnel may be charged at the applicable Category Rate.
- 1.6 Personnel time charges for travel are invoiced at the applicable Category Rate at the actual time incurred.

2.0 Premium Charges

- 2.1 The Category Rate Schedule applies for all hours worked by exempt (salaried) personnel.
- 2.2 Overtime, Weekends & Holidays - Hours worked in excess of daily or weekly standards and/or weekends and holidays by non-exempt and hourly personnel may be subject to a contract specific premium.
- 2.3 Emergency Response - Non-exempt and hourly personnel may be subject to a contract specific Category Rate premium.
- 2.4 Expert Testimony - Testimony about the nature or extent of Shaw E&I's services, preparation thereof, and/or standby time may be subject to a contract specific Category Rate premium.

3.0 Travel and Living Expenses

- 3.1 Travel expenses for transportation (including mileage reimbursement) and lodging expenses will be charged at cost plus 10%.
- 3.2 Meals and incidental expenses will be charged at a pre-determined daily rate (based on location) plus 10%.
- 3.3 Long-term, on-site project personnel are permitted to return home every three (3) weeks. These travel expenses will be invoiced at cost plus 10%.

4.0 Other Charges

- 4.1 Charges for equipment will be invoiced in accordance with Shaw E&I Equipment Rates.
- 4.2 Client shall be responsible for payment (without deduction or offset from the total contract amount) of any and all sales, use, value added, gross receipts, franchise and like taxes, and tariffs and duties, and all disposal fees and taxes, levied against Shaw E&I or its employees by any governing or taxing authority.

5.0 Reimbursable Expenses

- 5.1 All project-related expenses including materials, purchased equipment, subcontractor costs, fees, duties, deposits, tolls, weight certificates, special permits, and associated federal, state, county, city taxes or surcharges and other costs incurred specifically for the project will be invoiced at cost plus 10%.

6.0 Invoicing and Terms of Payment

- 6.1 Invoices may be submitted as frequently as biweekly; however, on any project where total billings are expected to exceed \$1,000,000 or monthly billings are expected to exceed \$250,000, progress billings may be submitted as frequently as weekly.
- 6.2 Payment for services is due upon receipt of the invoice.
- 6.3 A service charge equal to 1.5% per month or the maximum lawful rate, whichever is lesser, may be charged on all account balances past due.

Attachment C

Attachment C
 Milestone Pre-Payment Plan for
 Tronox - GW PRB Demonstration
 Henderson, NV
 Shaw Proposal dated February 24, 2010

Payment #	Amount	Comments
1	\$ 28,125.00	25% of total project estimate due upon contract execution
2	\$ 56,250.00	50% of total project estimate due upon receipt of all permits and approvals from Federal, State, and Local agencies
3	\$ 28,125.00	25% of total project estimate due upon completion of Task 3 oil injection activities
4	TBD	A final invoice will be issued, if necessary, following completion of Task 5 to reconcile actual costs incurred versus invoiced costs.
Est Total	\$ 112,500.00	

Notes:

- 1) Shaw will provide Tronox with detailed financial summaries at the completion of each task for purposes of tracking actual expenditures versus budget estimates. Any deviations (positive or negative) from the budget estimate for each task will be noted.
- 2) In the event that a task is completed for less than the estimated amount, the remaining balance for that task would be automatically applied to cost overruns incurred in other tasks, without the need for written or verbal authorization from Tronox.
- 3) In the event that scope changes occur or key assumptions prove to be inaccurate, resulting in the need for an increase in the overall project budget of \$112,500, Shaw will promptly notify Tronox in writing of the scope change and proposed overall budget increase. Shaw will obtain written approval from Tronox for additional project funding, prior to exceeding the \$112,500 budget estimate.
- 4) Milestone payment totals issued subsequent to the approved scope and budget change will be adjusted to reflect the new project total and achieve 100% payment level following Milestone Payment #3.
- 5) A final invoice will be issued, if necessary, following project completion to reconcile actual costs incurred versus invoiced costs