Funding Agreement
Between the City of Los Angeles and
Chevron Environmental Management Company
Re: Monitoring Wells Near Berth 100

This Funding Agreement ("Agreement") is made by and between the City of Los Angeles, acting by and through its Board of Harbor Commissioners ("City"), and Chevron Environmental Management Company, a California corporation ("Chevron").

WHEREAS, the Regional Water Quality Control Board ("RWQCB") has directed Chevron and the City to perform groundwater monitoring in the vicinity of the former Chevron Marine Terminal No. 1001034, which area is now within the China Shipping Container Terminal (Site ID 2040150, Site Cleanup Program No.1150); and

WHEREAS, said groundwater monitoring requires that 10 wells be installed, developed, and then monitored on a quarterly basis for two years; and

WHEREAS, by that Settlement Agreement and Mutual Release executed in 2005 pertaining to this area (Harbor Dept. Agreement No. 2387), Chevron agreed to "perform site investigation, characterization, remediation, monitoring, testing, and any other activity as may be required of Chevron, either individually or jointly with the City, by the Regional Water Quality Control Board;" and

WHEREAS, the City would impose administrative requirements on Chevron and/or its consultants and contractors to perform said monitoring, including but not limited to, filing an Application for Port Project, gaining Engineering approvals, filing insurance certificates, and coordinating site access through Harbor Department staff; and

WHEREAS, the City's own consultants/contractors are not subject to similar administrative burdens and are able to coordinate their own access to container terminals directly; and

WHEREAS, in order to minimize the administrative burden associated with the required well work, Chevron asked that the City undertake the well installation, development and sampling and that Chevron pay for the City's actual costs for said work.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The City has provided Chevron with Tetra Tech's August 31, 2015 estimate, attached as Exhibit A, for performing certain work associated with the RWQCB monitoring requirements. As more fully described in Exhibit A, this work

consists of installing and developing the wells, collecting groundwater samples and soil samples, having samples analyzed, and conveying the laboratory reports and field logs to Chevron.

2. City shall cause the work described in Exhibit A to be performed by one or more of the City's own consultants or contractors. City shall require the work to be conducted and performed in a prompt, safe, efficient, and workmanlike manner. City shall have control over the consultant or contractors and shall act in an independent capacity and not as officers, employees or agents of Chevron.

3. Chevron shall be responsible for the preparation and submission on behalf of City and Chevron of all reports required by the RWQCB using data provided by the City's consultant/contractor. Chevron shall inform City as to the format needed for the data and City agrees to direct its consultant or contractors to provide the data to Chevron in the requested format.

4. The cost of the work shall not exceed $192,250 for groundwater well installation and first sampling and $136,105 for groundwater monitoring and sampling without Chevron's prior approval. (These not to exceed dollar amounts do not include the 30% contingency cost of $34,006 included in Exhibit A for unforeseen issues associated with drilling and well development activities included in Exhibit A.) City shall seek Chevron's approval prior to authorizing the contractor to perform additional activities, including, but not limited to, the activities associated with the contingency cost.

5. Subject to the requirements set forth in Paragraph 4 above and this Paragraph 5, Chevron agrees to pay one hundred percent (100%) of the actual costs for the work performed by the City's consultants or contractors to perform the work described in Exhibit A. Chevron agrees to pay City's consultant/contractor directly for the work. The City's consultant/contractor shall send invoices to the City for review. City shall determine if the work billed for in the invoice is appropriate, within budget, and covered under this Agreement. City shall return any invoices to its consultant/contractor that are not acceptable. City shall send the approved invoices to Chevron with a cover letter which states that the invoice is approved and must be paid pursuant to this Agreement. Chevron shall review and pay said invoices for work within 30 days of receipt of sufficient requests for payment unless Chevron delivers to City a written objection to the costs within fifteen (15) days after the City delivers the invoices to Chevron. Chevron shall timely pay all costs that are not in dispute. Any disagreement concerning costs that cannot be resolved shall be submitted to dispute resolution in accordance with Section 8. Chevron shall not be billed for City staff time.

6. City has provided a copy of this Agreement, including Exhibit A, to its tenant, and represents that its tenant understands the scope of the work to be performed on the Property. In no event shall Chevron be responsible for any disruption to tenant's use of the property due to the work.

7. This Agreement shall become effective on the date of its execution by the Executive Director of the Harbor Department following approval by the Board Harbor Commissioners, which approval is subject to review under Section 245 of the City Charter. The term of this Agreement shall not exceed three (3) years, commencing on the Agreement's effective date. This Agreement shall remain in effect until: a) cancelled by either party upon 30 days written notice; or b) three years have elapsed since the effective date. This Agreement may be renewed by written agreement of the parties. The parties agree to use good faith efforts to renew the Agreement.

CITY OF LOS ANGELES, acting by and through its BOARD OF HARBOR COMMISSIONERS

By: _____ Date: _____
Eugene Seroka, Executive Director

Attest:

By: _____ Date: _____
Board Secretary

Approved as to Form
Mike Feuer, Los Angeles City Attorney

By: _____ Date: Nov. 4 2015
Kenneth Mattfeld, Deputy

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY, a California corporation

By: _____ Date: 10/14/2015
Name: Andrew Noel

Exhibit "A" – TetraTech Cost Proposal dated August 31, 2015

TETRA TECH

Heather Benfield, P.E.
Project Manager

Ms. Heloise Froelich
Marine Environmental Specialist III
Environmental Management Division
City of Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, California 90733-0151

August 31, 2015

Subject: Project Technical Support for Groundwater Well Installation, Monitoring, and Sampling, and Data Transfer, China Shipping Terminal (Former Chevron Site), Berth 100, Port of Los Angeles, California; ADP# 910913-191H

Dear Ms. Froelich:

Tetra Tech is pleased to present this cost proposal to continue supporting the City of Los Angeles Harbor Department, Environmental Management Division (EMD) with site assessment activities at Berth 100, Port of Los Angeles, California (the "Site"). The Site is under a cleanup and abatement order (CAO) issued by the Los Angeles Regional Water Quality Control Board (LARWQCB) to the Port of Los Angeles and Chevron. This cost proposal has been prepared to conduct groundwater monitoring well installation and groundwater monitoring and sampling to monitor areas of impacted groundwater and soil for EMD and Chevron within the active China Shipping Terminal.

Task 1 – Project Management and Meetings with the Harbor Department, Leidos, and Chevron

In support of this project, it is anticipated that Tetra Tech will meet with the EMD and China Shipping representatives to mark locations onsite and coordinate Site access. Tetra Tech anticipates one calls with EMD and Leidos to coordinate schedule prior to field implementation. Upon completion of the well installation and first sampling event, Tetra Tech will meet or discuss via conference call the field program with EMD, Leidos, and Chevron. The estimated cost of Task 1 is $7,303.

Task 2 – Groundwater Well Installation

Prior to the start of field work, a health and safety plan (HASP) will be prepared that will include all applicable hazards including, but not limited to, drilling, traffic safety, biological and chemical hazards, etc. A geophysical survey and USA meet and greet markout will be conducted prior to the start of drilling. Tetra Tech will request all utility as-builts from the Port and request Engineering meet onsite during the meet and greet. All borings will require well installation permits, which will be obtained by Tetra Tech from the Los Angeles County Department of Public Health.

The borings will be drilled to various depths based upon the workplan prepared by SAIC (Leidos) on behalf of Chevron and approved by EMD and the LARWQCB. All locations will be hand-augered to five feet below existing ground surface (bgs). A total of 10 well locations will be drilled with a hollow-stem auger (HSA) or sonic drill rig. Temporary conductor casing will be utilized up to 20 feet bgs in the deep boreholes based upon depth of borehole to prevent cross-contamination.

Tetra Tech, Inc.
3475 E. Foothill Boulevard, Suite 200, Pasadena, CA 91107-6024
Tel 626.470.2415 Fax 626.470.2615 www.tetratech.com

Soil samples will be collected at varying depths based upon drilling technique as follows:

- Hand-auger to 5 feet bgs before HSA Drilling: 5 feet bgs
- Hand-auger to 5 feet bgs before Sonic Drilling: no samples
- Six shallow wells with HSA drilling: 8, 10, 15, and 20 feet bgs
- One shallow well with HSA drilling: 10, 15, 20, and 25 feet bgs
- One shallow well with Sonic drilling: 5, 10, 15, and 20 feet bgs
- Two deep wells with Sonic drilling : 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 feet bgs

Soil samples will be collected and submitted to a fixed laboratory (Eurofins Calscience Laboratories) for analyses. Select soil samples will be analyzed for the following:

- Total volatile petroleum hydrocarbons (TPH) C_4– C_{40} by EPA Method 8015M Carbon Chain –All 10 well locations
- Volatile organic compounds (VOCs) by EPA Method 8260B – All 10 well locations
- Organic Lead (DHS LUFT) – All six shallow wells to 20 ft bgs and two deep wells to 60 ft bgs.
- Total lead by EPA Method 6010B – One shallow well to 25 feet bgs.
- Semi-volatile organic compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs), by EPA Method 8310 – All 10 well locations

The final sample counts include duplicate samples collected at a rate of 10% of the number of primary samples for quality assurance/control (QA/QC).

Each boring will be logged by or under the supervision of a California-Registered Professional Geologist (PG). The 10 groundwater monitoring wells will be constructed using 4-inch-diameter Schedule 40 PVC blank casings and 10, 15, or 20 feet of 0.01-inch slotted screen sections. Clean, #2/16 Monterey sand (or similar) will be placed around the annular space of the well casing to approximately 1-foot above the well screen section and 1.5 ft below the bottom of the casing. An approximately 2-foot thick bentonite seal followed by hydrated bentonite grout will be placed above the filter pack section to within one foot of the surface. The wells will be completed in concreted 3 foot by 3 foot, 12-inch diameter, 64,000 pound traffic-rated well boxes per request of Leidos/Chevron.

Tetra Tech will provide a daily summary of drilling activities via email to the Port PM, including wells completed, change in any well depths or screening intervals from the Workplan, drilling conditions, and PPE levels. Tetra Tech will immediately notify the Port PM if any unexpected findings occur, such as discolored soil, free product in unexpected areas, etcetera.

The estimated cost for Task 2 is $160,571, which primarily consists of small business enterprises (SBEs) at 54.2% of the costs. SBEs proposed for this task include Pacific Coast Locators and BC2 Environmental. A 30% contingency cost ($27,615) has been included to the drilling costs, due to the potential for difficult drilling conditions, schedule conflicts, mobilization issues, and any unforeseen issues that may arise. Laboratory analytical costs were not included in the 30% contingency as the number of samples will not change if the drilling schedule changes (Task 2 costs minus laboratory costs is $92,050).

Task 3 – Groundwater Monitoring and Sampling

Approximately 72 hours after installation of the groundwater monitoring wells, each well will be developed with a rig-bailer or a submersible pump to remove any suspended solids and fine sediments within the wells and filter packs. Mechanical development will be performed by alternately bailing sediment out of the well

and swabbing the well screen with a tight-fitting surge block to remove sediments that may have entered the sand pack or well screen. Development will continue until the temperature, pH, and electrical conductivity have stabilized (e.g. values within ±10%); and the turbidity is lowered to less than 10 nephelometric turbidity units (NTUs) or successive turbidity readings are within ±10%. Development water will be collected in 55-gallon drums. We anticipate that a minimum of 3 days will be required for well development, assuming approximately 3 to 4 wells per day can be completed.

At least 48-hours after development, groundwater sampling will be conducted at each new well in accordance with the approved workplan. All wells will be gauged for light non-aqueous phase liquid (LNAPL). Following purging activities, the groundwater samples will be collected from the wells using a bladder pump into the appropriate sampling containers for analysis by Eurofins. We have estimated that groundwater purging and sampling of the 10 new wells will require two 10-hour field days by three personnel to ensure that the wells are completed within a two-day field event. Groundwater analyses will include one or more of the following:

- TPH C_4– C_{40} by EPA Method 8015M (Carbon Chain Fractionation)
- TPH C_6-C_{44} by Silica Gel Cleanup
- Full scan VOCs with oxygenates by EPA Method 8260B
- Organic Lead by DHS LUST
- Total Lead by EPA Method 6010B
- Semi-volatile organic compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs), by EPA Method 8310; and
- Ferrous Iron, methane, nitrate, and sulfate RSK 175
- Dissolved oxygen, oxidation/reduction potential (ORP), and pH will be recorded in the field, using a water quality meter.

Quality control/quality assurance samples include trip blanks (TBs), field (atmospheric) blanks (FBs), equipment blanks (EBs), and matrix spike/matrix spike duplicates (MS/MSD). EBs will be analyzed for the same analytes as the original samples. TBs will be provided by the laboratory and will consist of 40-ml VOA vials that have been filled with organic-free (HPLC-grade) water for TVPH and VOC analyses. In the field, one sealed FB and TB set will accompany the cooler set per day (one TB per day).

Soil investigation-derived waste (IDW) generated during the soil sampling and groundwater well installation activities will be stored in approximately fifty United Nations/Department of Transportation (UN/DOT)-approved 55-gallon drum and stored on Site. For cost estimating, we have assumed that all soil and water IDW drums will be characterized as non-hazardous. Tetra Tech will collect four composite samples from the soil drums and analyze for TPH C_4-C_{40}, VOCs, and Title 22 Metals for waste characterization. We anticipate that samples may contain elevated concentrations of metals, requiring soluble analyses via soluble threshold limit concentration (STLC) and toxicity characteristic leaching procedure (TCLP) and have included four metal analyses each for STLC and TCLP concentrations.

Decontamination water from all drilling, soil sampling, well installation, and development activities and purge and decontamination water from groundwater sampling will be stored in twelve UN/DOT 55-gallon drum and stored onsite. For costing purposes, we are anticipating the drums containing liquids will be characterized as non-hazardous. One composite water sample will be collected and analyzed for TPH $_4$-C_{40}, VOCs, and Title 22 Metals for waste characterization analyses.

Tetra Tech will summarize the laboratory results, compare to California and Federal waste classifications, prepare waste profile forms for review and signature approval by EMD, and provide properly completed

waste manifests for EMD signature. The IDW will be disposed offsite as soon as possible to reduce costs to EMD, and to minimize impact to the China Shipping property.

Task 3 costs include seven additional quarters of groundwater monitoring of the 10 onsite wells, including waste disposal, sampling, and field coordination. The estimated cost for Task 3 is $185,821, among which 10.2% is for SBEs: BC2 Environmental and Belshire Environmental Services, Inc. (BESI). A 30% contingency cost ($6,391) has been included to the well development costs, due to the potential schedule conflicts, mobilization issues, and any unforeseen issues that may arise.

Task 4 –Preparation of Boring Logs and Submittal of Project Data

Tetra Tech understands that we will not be providing an evaluation of the soil and water laboratory analytical data. However, all field logs from drilling and sampling activities will be used to prepare soil boring logs and well construction details. The boring logs and well construction details will be included with the soil and groundwater analytical data, waste manifests, daily logs, and photographs that will be submitted for review and interpretation by Leidos and Chevron. The Harbor Department will survey the 10 wells upon completion of installation and provide survey data in GeoTracker® format. Costs include seven additional quarters of groundwater monitoring data transfer to Leidos/Chevron. The estimated cost for Task 4 is $8,666.

Based upon discussions with EMD (and between EMD and China Shipping), all field work will be conducted on Sundays due to China Shipping's schedule. Therefore, field work, including pre-marking, geophysical survey, drilling, well installation, well development, groundwater monitoring, waste disposal, and other site visits are assumed to be conducted only on Sundays. The costs reflect premium rates for work conducted on Sundays. The total estimated cost for Tasks 1 through 4 is $362,362 and a detailed cost breakdown exhibit is attached. Tetra Tech is committed to the Harbor Department's SBE program and will be utilizing SBEs at 29.2% in exceedance of the 25% goal for this project as follows:

SBE Firm	***SBE%***
BC2 Environmental	26.1%
Belshire Environmental	2.5%
Pacific Locators	0.6%
Total	**29.2%**

Please feel free to contact me at (626) 470-2415 if you have any questions or need additional information. Tetra Tech appreciates the opportunity to continue serving the Port.

Sincerely,

Heather Benfield

Heather Benfield

TETRA TECH

Assumptions:

- Ground surface pavement will be asphalt and less than 24" thickness; concrete may be encountered.
- Drive time is included as part of the cost.
- A PID will be onsite for Tetra Tech's health and safety requirements and for conducting soil vapor screening.
- IDW will be placed in 55 gallon UN/DOT approved new drums for offsite disposal.
- All IDW will be characterized as non-hazardous waste.
- Four soluble metal analyses will be needed to characterize soil IDW.
- Site access will be restricted, but allowed during all field activities for TWIC cardholders. All access will be made via China Shipping Security.
- EMD will sign waste profile electronically and meet onsite for IDW pickup.

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
Task 1. Project Management, Meetings with the Port/Chevron/Leidos, China Shipping Coordination						
Labor						
Associate Director	$170.00	/hr	21	$3,570.00		
Project Scientist II	$110.00	/hr	21	$2,310.00		
Contract Administrator I	$65.00	/hr	16	$1,040.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	58	$107.30		
Field Vehicles	$65.00	/day	4	$260.00		
			G&A Cost of 14.5%	$15.56		
					Task 1 Total	**$7,302.86**
Task 2. Drilling, Soil Sampling, and Well Development						
Subtask 2.1 Pre-Drilling Activities Including Permitting						
Labor						
Associate Director	$170.00	/hr	4	$680.00		
Senior Engineer/Scientist III	$140.00	/hr	4	$560.00		
Project Scientist II	$110.00	/hr	8	$880.00		
Staff Scientist I	$80.00	/hr	24	$1,920.00		
CADD Operator (III)	$88.00	/hr	4	$352.00		
Permits						
LA County Dept. of Public Health (Non-production well)	$519.00	/well	10	$5,190.00		
			G&A Cost of 14.5%	$752.55		
Subcontractors						
Pacific Coast Locators SBE						
Geophysical Survey	$2,200	/trip	1	$2,200.00		
			5% subcontractor mark-up	$110.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	40	$74.00		
Field Equipment (gloves, paint, etc.)	$35.00	LS	1	$35.00		
CADD/GIS Computer Hours	$20.00	/hr	4	$80.00		
Field Vehicles	$65.00	/day	3	$195.00		
			G&A Cost of 14.5%	$109.00		
					Subtask 2.1 Total	**$13,137.55**
Subtask 2.2 Drilling, Soil Sampling, Well Installation						
Labor						
Associate Director	$170.00	/hr	5	$850.00		
Principal Scientist II	$150.00	/hr	17	$2,550.00		
Project Scientist II	$110.00	/hr	98	$10,780.00		
Staff Scientist/Engineer	$80.00	/hr	90	$7,200.00		
Subcontractors						
Sonic Drilling (BC2, SBE)						
Mobilization/Demobilization	$1,500	/trip	3	$4,500.00		
Roto Sonic Rig & 3-man crew	$4,750	/day	3	$14,250.00		
Drill, Sample & Install 4" SCH 40 PVC Wells	$19	/foot	146	$2,774.00		
12"CNI 65K lb Surface Completions, 3' x 3'	$1,150	/each	3	$3,450.00		
NEW Containment Drums (estimated)	$80	/drum	16	$1,280.00		
Decon Trailer/Station	$150	/day	3	$450.00		
Water and Support Truck	$225	/day	3	$675.00		
Forklift rental Pickup and Delivery	$400	/trip	3	$1,200.00		
Forklift rental	$295	/day	3	$885.00		
Premium Time Sunday Work 3-Man Crews	$180	/hr	30	$5,400.00		
			BC2 Subtotal	$34,864.00		
			5% subcontractor mark-up	$1,743.20		

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
HSA Drilling (BC2, SBE)						
Mobilization/Demobilization	$400	/trip	4	$1,600.00		
Hand Auger to 5ft to Clear for Utilities	$125	/each	7	$875.00		
Drill, Sample & Install 4" SCH 40 PVC Wells	$44	/foot	159	$6,996.00		
12"CNI 65K lb Surface Completions, 3' x 3'	$1,150	/each	7	$8,050.00		
NEW Containment Drums (est.)	$80	/drum	18	$1,440.00		
Decon Trailer/Station	$150	/day	4	$600.00		
Support Truck	$125	/day	4	$500.00		
Premium Time Sunday Work 3-Man Crews	$180	/hr	30	$5,400.00		
Concrete and asphalt coring	$205	/hr	24	$4,920.00		
			BC2 Subtotal	$30,381.00		
		5% subcontractor mark-up		$1,519.05		
Chemical Analysis Soil Samples (Eurofins Calscience)						
TPH C_4-C_{12} (8015)	$25.00	/sample	70	$1,750.00		
TPH C_{13}-C_{40} (8015)	$30.00	/sample	70	$2,100.00		
VOCs including oxygenates (8260B)	$70.00	/sample	70	$4,900.00		
PAHs (8310)	$110.00	/sample	70	$7,700.00		
Organic Lead	$70.00	/sample	64	$4,480.00		
Total lead (6010B)	$18.00	/sample	6	$108.00		
Terracore	$25.00	/each	70	$1,750.00		
Chemical Analysis QA/QC Samples (Eurofins Calscience)						
TPH C_4-C_{12} (8015) (with TB, FB, EB)	$25.00	/sample	21	$525.00		
TPH C_{13}-C_{40} (8015), EB	$30.00	/sample	7	$210.00		
VOCs including oxygenates (8260B) (with TB, FB, EB)	$70.00	/sample	21	$1,470.00		
PAHs (8310), EB	$110.00	/sample	7	$770.00		
Total lead (6010B), EB	$18.00	/sample	1	$18.00		
Organic Lead, EB	$70.00	/sample	7	$490.00		
			EDD- GeoTracker	$175.00		
		5% subcontractor mark-up		$1,322.30		
Other Direct Costs (ODCs)						
MultiRAE/4-Gas meter (Tt owned)	$19.50	/day	7	$136.50		
Digital Camera (Tt owned)	$1.50	/day	8	$12.00		
MiniRae 3000 (Tt owned)	$22.50	/day	7	$157.50		
Computer Usage	$1.85	/hr	210	$388.50		
Field Supplies (PPE: gloves/cartridges, calibration gas, sample baggies, ice, decontamination and drinking water, etc.)	$700.00	LS	1	$700.00		
MiniRae 2000/3000 (Rental)	$79.00	/day	1	$79.00		
Field Vehicles	$65.00	/day	8	$520.00		
			G&A Cost of 14.5%	$169.29		
				Subtask 2.2 Total	**$119,818.34**	
Total for Drilling, Labor, and Other Direct Costs minus Laboratory analytical costs					**$92,050.04**	
30% drilling contingency for Subtask 2.2					**$27,615.01**	
					Task 2 Total	**$160,570.90**
Task 3 Well Development, Groundwater Sampling Activities (1st Round), and disposal						
Task 3.1 Well Development Activities						
Labor						
Associate Director	$170.00	/hr	4	$680.00		
Project Scientist II	$110.00	/hr	8	$880.00		
Environmental Technician II	$75.00	/hr	27	$2,025.00		
Environmental Technician II (Overtime 1.5)	$112.50	/hr	12	$1,350.00		
Environmental Technician II (Overtime 2.0)	$150.00	/hr	-	$0.00		
Subcontractors						
Well Development (BC2, SBE)						
Smeal 5T 1-man Crew (est. 2-3hrs per well + Travel)	$155.00	/hour	30	$4,650.00		
Decontamination Trailer	$150.00	/day	3	$450.00		
NEW Containment Drums (est.)	$80.00	/drum	12	$960.00		
Premium Time Sunday Work 1-Man Crew	$50.00	/hour	30	$1,500.00		
			BC2 Subtotal	$7,560.00		
		5% subcontractor mark-up		$378.00		

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
Other Direct Costs (ODCs)						
Turbidity Meter - Well Development and Sampling (Tt owne	$6.50	/day	3	$19.50		
Interphase Probe (Tt owned)	$8.50	/day	3	$25.50		
MultiRAE/4-Gas meter (Tt owned)	$19.50	/day	3	$58.50		
Digital Camera (Tt owned)	$1.50	/day	3	$4.50		
Water Quality Meter (YSI Rental)	$100.00	/day	3	$300.00		
Computer Usage	$1.85	/hr	51	$94.35		
Field Supplies (PPE, towels, decontamination and drinking water, etc.)	$100.00	LS	1	$100.00		
Field Vehicles	$65.00	/day	3	$195.00		
			G&A Cost of 14.5%	$71.68		
				Subtask 3.1 Total	**$21,302.03**	
			30% well development contingency for Subtask 3.1		**$6,390.61**	
Task 3.2 Groundwater Sampling Activities (1st Event)						
Labor						
Associate Director	$170.00	/hr	3	$510.00		
Project Scientist II	$110.00	/hr	6	$660.00		
Staff Scientist I	$80.00	/hr	52	$4,160.00		
Environmental Technician II	$75.00	/hr	18	$1,350.00		
Environmental Technician II (Overtime 1.5)	$112.50	/hr	8	$900.00		
Environmental Technician II (Overtime 2.0)	$150.00	/hr	-	$0.00		
Other Direct Costs (ODCs)						
Turbidity Meter - Well Development and Sampling (Tt owne	$6.50	/day	2	$13.00		
Interphase Probe (Tt owned)	$8.50	/day	2	$17.00		
MultiRAE/4-Gas meter (Tt owned)	$19.50	/day	2	$39.00		
Bladder pump (Tt owned 1 controller, one pumps)	$45.00	/day	2	$90.00		
Digital Camera (Tt owned)	$1.50	/day	2	$3.00		
Water Quality Meter (YSI Rental)	$105.00	/day	4	$420.00		
Turbidity Meter - Well Development and Sampling (Rental)	$79.00	/day	2	$158.00		
Second Bladder Pump with controller (Rental)	$158.00	/day	2	$316.00		
Compressor (Rental)	$27.00	/day	2	$54.00		
Computer Usage	$1.85	/hr	87	$160.95		
Pump tubing and bladders	$1,000.00	LS	1	$1,000.00		
Field Supplies (PPE, towels, ice, decontamination and drinking water, etc.)	$360.00	LS	1	$360.00		
Field Vehicles	$65.00	/day	2	$130.00		
			G&A Cost of 14.5%	$358.00		
Laboratory Analyses (Eurofins Calscience)						
Groundwater Samples (including TB, FB, and EB)						
TPH C_4-C_{12} (8015) (with TB, FB, and EB)	$25.00	/sample	17	$425.00		
TPH C_{13}-C_{40} (8015) (EB)	$30.00	/sample	13	$390.00		
TPH (Silica Gel cleanup) (C_6-C_{44})	$73.50	/sample	2	$147.00		
VOCs including oxygenates (8260B) (with TB, FB, and EB)	$70.00	/sample	17	$1,190.00		
PAHs (8310) (EB)	$110.00	/sample	13	$1,430.00		
Organic Lead	$70.00	/sample	12	$840.00		
Total lead (6010B)	$18.00	/sample	2	$36.00		
Ferrous Iron Fe 2+	$35.00	/sample	11	$385.00		
methane	$50.00	/sample	11	$550.00		
nitrate and sulfate	$30.00	/sample	11	$330.00		
			EDD- GeoTracker	$50.00		
			5% subcontractor mark-up	$288.65		
				Subtask 3.2 Total	**$16,760.60**	

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
Task 3.3 Groundwater Sampling Activities (7 additional events)						
Labor						
Associate Director	$170.00	/hr	3	$510.00		
Project Scientist II	$110.00	/hr	6	$660.00		
Staff Scientist I	$80.00	/hr	52	$4,160.00		
Environmental Technician II	$75.00	/hr	18	$1,350.00		
Environmental Technician II (Overtime 1.5)	$112.50	/hr	8	$900.00		
Environmental Technician II (Overtime 2.0)	$150.00	/hr	-	$0.00		
Other Direct Costs (ODCs)						
Turbidity Meter - Well Development and Sampling (Tt owne	$6.50	/day	2	$13.00		
Interphase Probe (Tt owned)	$8.50	/day	2	$17.00		
MultiRAE/4-Gas meter (Tt owned)	$19.50	/day	2	$39.00		
Bladder pump (Tt owned 1 controller, one pumps)	$45.00	/day	2	$90.00		
Digital Camera (Tt owned)	$1.50	/day	2	$3.00		
Water Quality Meter (YSI Rental)	$105.00	/day	4	$420.00		
Turbidity Meter - Well Development and Sampling (Rental)	$79.00	/day	2	$158.00		
Second Bladder Pump with controller (Rental)	$158.00	/day	2	$316.00		
Compressor (Rental)	$27.00	/day	2	$54.00		
Computer Usage	$1.85	/hr	87	$160.95		
Pump tubing and bladders	$350.00	LS	1	$350.00		
Field Supplies (PPE, towels, ice, decontamination and drinking water, etc.)	$200.00	LS	1	$200.00		
Field Vehicles	$65.00	/day	2	$130.00		
			G&A Cost of 14.5%	$240.55		
Laboratory Analyses (Eurofins Calscience)						
Groundwater Samples (including TB, FB, and EB)						
TPH C_4-C_{12} (8015) (TB, FB, and EB)	$25.00	/sample	17	$425.00		
TPH C_{13}-C_{40} (8015) (EB)	$30.00	/sample	14	$420.00		
TPH (Silica Gel cleanup) (C_6-C_{44})	$73.50	/sample	2	$147.00		
VOCs including oxygenates (8260B) (TB, FB, EB)	$70.00	/sample	20	$1,400.00		
PAHs (8310) (EB)	$110.00	/sample	14	$1,540.00		
Organic Lead	$70.00	/sample	12	$840.00		
Total lead (6010B)	$18.00	/sample	2	$36.00		
Ferrous Iron Fe 2+	$35.00	/sample	11	$385.00		
methane	$50.00	/sample	11	$550.00		
nitrate and sulfate	$30.00	/sample	11	$330.00		
			EDD- GeoTracker	$50.00		
			5% subcontractor mark-up	$306.15		
			Subtask 3.3 Total for Seven Events		**$113,404.53**	
Subtask 3.4 IDW Characterization, Profiling, Manifesting, and Disposal for Well Installation						
Labor						
Associate Director	$170.00	/hr	2	$340.00		
Project Scientist II	$110.00	/hr	5	$550.00		
Staff Scientist I	$80.00	/hr	15	$1,200.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	22	$40.70		
Field Supplies (PPE, ice, etc.)	$50.00	LS	1	$50.00		
Bailer for IDW sample	$10.00	LS	1	$10.00		
Field Vehicles	$65.00	/day	1	$65.00		
			G&A Cost of 14.5%	$14.60		

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
Laboratory Analyses (Eurofins Calscience)						
Soil Samples						
VOCs (8260B)	$70.00	/sample	4	$280.00		
Terra Core (5035)	$25.00	/sample	4	$100.00		
Title 22 Metals (6000/7000)	$70.00	/sample	4	$280.00		
TPH C_4-C_{12} (8015)	$25.00	/sample	4	$100.00		
TPH C_{13}-C_{40} (8015)	$30.00	/sample	4	$120.00		
STLC (one metal, estimate)	$40.00	/sample	4	$160.00		
TCLP (one metal, estimate)	$40.00	/sample	4	$160.00		
Water Samples						
VOCs (8260B)	$70.00	/sample	1	$70.00		
Title 22 Metals (6000/7000)	$70.00	/sample	1	$70.00		
TPH C_4-C_{12} (8015)	$25.00	/sample	1	$25.00		
TPH C_{13}-C_{40} (8015)	$30.00	/sample	1	$30.00		
		5% subcontractor mark-up		$69.75		
Belshire Waste Removal Non-Hazardous (ESTIMATED)						
Soil Drum (Soil Safe)	$95.00	/drum	38	$3,610.00		
Water Drum (DeMenno Kerdoon)	$95.00	/drum	12	$1,140.00		
Misc. Service / Equipment / Supplies - Fuel Surcharge	$115.00	/LS	1	$115.00		
Misc. Service / Equipment / Supplies - Sunday Surcharge	$450.00	/LS	1	$450.00		
Manifest	$25.00	/LS	1	$25.00		
		5% subcontractor mark-up		$267.00		
				Subtask 3.4 Total	**$9,342.05**	
Subtask 3.5 IDW Characterization, Profiling, Manifesting, and Disposal for 7 quarters of GWM						
Labor						
Associate Director	$170.00	/hr	2	$340.00		
Project Scientist II	$110.00	/hr	4	$440.00		
Staff Scientist I	$80.00	/hr	12	$960.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	18	$33.30		
Field Supplies (gloves, respirator cartridges, ice, etc.)	$25.00	LS	1	$25.00		
Bailer for IDW sample	$10.00	LS	1	$10.00		
Field Vehicles	$65.00	/day	1	$65.00		
		G&A Cost of 14.5%		$9.90		
Water Samples						
VOCs (8260B)	$70.00	/sample	1	$70.00		
Title 22 Metals (6000/7000)	$70.00	/sample	1	$70.00		
TPH C_4-C_{12} (8015)	$25.00	/sample	1	$25.00		
TPH C_{13}-C_{40} (8015)	$30.00	/sample	1	$30.00		
		5% subcontractor mark-up		$9.75		
Belshire Offsite Removal (Assume Non-hazardous)						
Water Drum (DeMenno Kerdoon)	$95.00	/drum	1	$95.00		
Site Set-Up Fee	$100.00	/LS	1	$100.00		
FedEx Manifest	$25.00	/LS	1	$25.00		
Misc. Service / Equipment / Supplies - Sunday Surcharge	$325.00	/LS	1	$325.00		
		5% subcontractor mark-up		$27.25		
			Total per event	$2,660.20		
				Subtask 3.5 Total	**$18,621.42**	
					Task 3 Total	**$185,821.25**
Task 4. Data for Leidos/Chevron Reporting						
Task 4.1 Data from Well Installation, Development, and Sampling						
Labor						
Associate Director	$170.00	/hr	2	$340.00		
Principal Scientist II	$150.00	/hr	7	$1,050.00		
Project Scientist II	$110.00	/hr	21	$2,310.00		
Staff Scientist I	$80.00	/hr	10	$800.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	40	$74.00		
		G&A Cost of 14.5%		$10.73		
				Task 4.1 Total	**$4,584.73**	

TASK DESCRIPTION	Rate ($/unit)	Unit	Quantity	Extended Cost	Subtotals	Totals
Task 4.2 Quarterly GWM Data Collection						
Labor						
Associate Director	$170.00	/hr	1	$170.00		
Staff Scientist I	$80.00	/hr	5	$400.00		
Other Direct Costs (ODCs)						
Computer Usage	$1.85	/hr	6	$11.10		
			G&A Cost of 14.5%	$1.61		
			Total for One Quarter	$582.71		
			Task 4.2 Total for seven quarters of Data Submittal		**$4,078.97**	
					Task 4 Total	**$8,666.70**
					Total	**$362,361.70**