City of Palo Alto (ID # 6696)

City Council Staff Report

Report Type: Consent Calendar **Meeting Date: 4/4/2016**

Summary Title: Transportation and Disposal of Ash and Sludge

Title: Approval of a Wastewater Treatment Fund Contract With PSC Industrial Outsourcing, Inc. in a Total Amount Not- to-Exceed $483,703.56 for a Three-Year Term to Transport and Dispose of Ash and Sludge for the Regional Water Quality Control Plant

From: City Manager

Lead Department: Public Works

Recommendation

Staff recommends that Council approve and authorize the City Manager or his designee to execute the attached contract with PSC Industrial Outsourcing, LP (PSC) for a period of three years not to exceed amount of $483,703.56 for transportation and disposal of ash and sludge for the Regional Water Quality Control Plant (Attachment A).

Background

The Regional Water Quality Control Plant (RWQCP) produces approximately two tons per day of ash from its sewage sludge incinerators. Ash pickups are weekly and average 11 to 15 tons per pickup. In recent years, annual ash transport and disposal service has been between 605 to 723 tons. Engineering design of a Sludge Dewatering and Loadout Facility (Staff Report ID #5295) is nearly complete with construction of the facility scheduled for completion in summer 2019. This will allow for the retirement of the incinerators after 47 years of service.

The ash has been managed as a state hazardous waste and placed in a hazardous waste landfill instead of a standard landfill since 2007. Staff has investigated the origin of the soluble copper that violates the state (but not federal) hazardous waste criteria. Staff has not been able to determine the cause of the soluble copper or any practical treatment modifications. The soluble copper forming in

the ash during sludge incineration has not impacted the plant's air or water discharges. If the soluble copper level drops below state thresholds for hazardous waste or hazardous waste stabilization during the contract term, the ash will be directed to an approved landfill at lower cost. During the contract term, it is expected that soluble copper levels will remain above 40 parts per million and require disposal as hazardous waste requiring stabilization.

The existing ash hauler is Clean Harbors Environmental Services, Inc. (Clean Harbors). Clean Harbors has hauled the ash from 2013 to present. Veolia hauled the plant ash from 2010 to the 2013. PSC hauled and disposed of the plant's ash from 2007 to 2010. PSC provided satisfactory service between 2007 and 2010.

Discussion

PSC will dedicate two sealed bins for ash hauling service. PSC will pick up a full bin of ash once a week and replace it with an empty bin. PSC will transport the ash to a state hazardous waste treatment facility operated by Waste Management. The facility is fully permitted to receive hazardous waste. The facility is located west of I-5 near the unincorporated area of Kettleman City, approximately 186 miles from the Plant.

The City's two sewage sludge incinerators have been operating reliably since 1972, without any serious disruption to the incineration process. However, it is possible that extended incinerator downtime would leave the City without readily available sludge treatment and disposal alternatives. As a backup to ash disposal, PSC will provide emergency sludge transport and disposal in the event the plant's two sewage sludge incinerators are both inoperative for a period of more than approximately four days. Like the ash, PSC has proposed disposal of the raw sludge at the Waste Management Kettleman Hills Facility. East Bay Municipal Utilities District (EBMUD) in Oakland, California is an alternate sludge disposal location during emergency situations. EBMUD has the necessary permits as well as the experience treating raw sludge from other wastewater treatment agencies. It can treat sludge on a short-term basis during emergencies and digester maintenance (e.g., for Richmond, California, Central Marin Sanitation Agency, and others).

<u>Summary of Bid Process</u>

A request for quotation for the project was posted on the City's procurement site and sent to 91 bidders. The bidding period was 31 days. Bids were received from two qualified contractors on February 23, 2016 as listed on the attached bid summary (Attachment B). Staff has reviewed all bids submitted. Bids ranged from a high of $253,336.80 (Clean Harbors) to a low bid of $156,492.79 (PSC). Staff recommends that the bid of $156,492.79 submitted by PSC be accepted and that PSC be declared the lowest responsible bidder. PSC provided the lowest bid for both one-year, two-year and three-year contract terms. Staff checked references supplied by the contractor for previous work performed and found no significant complaints**.** Staff also checked the Contractor's State License Board and found the contractor has an active license on file.

Bid Name/Number	Transportation and Disposal of Ash and Sludge / RFQ 161852
Proposed Length of Project	1 year with option to extend two additional years
Number of Bids Mailed to Contractors	91 notified through PlanetBids
Number of Bids Mailed to Builder's Exchanges	0
Number of downloads	7 prospective bidders, (2 of 7 are Builder's exchanges)
Total Days to Respond to Bid	31
Pre-Bid Meeting?	Yes
Number of Company Attendees at Pre-Bid Meeting?	2
Number of Bids Received:	2*
Bid Price Range	From a low of $156,492.79 to a high of $253,336.80 – 1st contract year From a low of $483,703.56 to a high of $783,011.45 – all 3 contract years

*Bid summary provided in Attachment B.

Resource Impact

Funds for the first year of the contract have been appropriated in the FY 2016 Wastewater Treatment Enterprise Fund operating budget. Fund for years two and

three are contingent upon Council approval of the budget for each subsequent year.

Policy Implications

This recommendation does not represent any change to existing City policies.

Environmental Review

The recommended action is exempt from review under the California Environmental Quality Act pursuant to CEQA Guidelines Section 15301 (b), which exempts negligible expansion of an existing use including operation of publicly-owned sewerage services, structures, facilities, mechanical equipment, or topographical features.

Attachments:

- Attachment A: Contract C16161852 (PDF)
- Attachment B: RFQ 161852 Bid Results Summary (PDF)

Attachment A

CITY OF PALO ALTO CONTRACT NO. C16161852

GENERAL SERVICES AGREEMENT

THIS AGREEMENT made and entered into on the 2nd day of March, 2016, by and between the **CITY OF PALO ALTO, a California chartered municipal corporation** ("**CITY**"), and **PSC INDUSTRIAL OUTSOURCING, LP**, a Delaware Limited Liability Partnership, located at 5151 San Felipe, Ste 1600, 1100 Houston, TX 77056, Telephone Number: 925-244-1803 ("**CONTRACTOR**"). In consideration of their mutual covenants, the parties hereto agree as follows:

1. **SERVICES.** CONTRACTOR shall provide or furnish the services (the "Services") described in the Scope of Services, attached at Exhibit A.

2. **EXHIBITS.** The following exhibits are attached to and made a part of this Agreement:

☒ "A" - Scope of Services
☒ "A-1" – Lab Data
☒ "A-2" – Ash Bin Cover Diagram
☒ "B" - Schedule of Performance
☒ "C" – Schedule of Fees
☒ "D" - Insurance Requirements

CONTRACT IS NOT COMPLETE UNLESS ALL INDICATED EXHIBITS ARE ATTACHED.

3. **TERM.**
The term of this Agreement is from April 4, 2016 to April 3, 2019 inclusive, subject to the provisions of Sections Q and V of the General Terms and Conditions.

4. **SCHEDULE OF PERFORMANCE**. CONTRACTOR shall complete the Services within the term of this Agreement in a reasonably prompt and timely manner based upon the circumstances and direction communicated to CONTRACTOR, and if applicable, in accordance with the schedule set forth in the Schedule of Performance, attached at Exhibit B. Time is of the essence in this Agreement.

5. **COMPENSATION FOR ORIGINAL TERM.** CITY shall pay and CONTRACTOR agrees to accept as not-to-exceed compensation for the full performance of the Services and reimbursable expenses, if any:

☐ The total maximum lump sum compensation of dollars ($); **OR**

☐ The sum of dollars ($) per hour, not to exceed a total maximum compensation amount of dollars ($); **OR**

☑ A sum calculated in accordance with the fee schedule set forth at Exhibit C, not to exceed a total maximum compensation amount of four hundred eighty three thousand seven hundred three dollars and fifty six cents ($483,703.56).

CONTRACTOR agrees that it can perform the Services for an amount not to exceed the total maximum compensation set forth above. Any hours worked or services performed by CONTRACTOR for which payment would result in a total exceeding the maximum amount of compensation set forth above for performance of the Services shall be at no cost to CITY.

☐ CITY has set aside the sum of dollars ($) for Additional Services. CONTRACTOR shall provide Additional Services only by advanced, written authorization from the City Manager or designee. CONTRACTOR, at the CITY's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONTRACTOR's proposed maximum compensation, including reimbursable expense, for such services. Compensation shall be based on the hourly rates set forth above or in Exhibit C (whichever is applicable), or if such rates are not applicable, a negotiated lump sum. CITY shall not authorize and CONTRACTOR shall not perform any Additional Services for which payment would exceed the amount set forth above for Additional Services. Payment for Additional Services is subject to all requirements and restrictions in this Agreement.

6. COMPENSATION DURING ADDITIONAL TERMS.

☐ CONTRACTOR'S compensation rates for each additional term shall be the same as the original term; **OR**

☐ CONTRACTOR's compensation rates shall be adjusted effective on the commencement of each Additional Term. The lump sum compensation amount, hourly rates, or fees, whichever is applicable as set forth in section 5 above, shall be adjusted by a percentage equal to the change in the Consumer Price Index for Urban Wage Earners and Clerical Workers for the San Francisco-Oakland- San Jose area, published by the United States Department of Labor Statistics (CPI) which is published most immediately preceding the commencement of the applicable Additional

Term, which shall be compared with the CPI published most immediately preceding the commencement date of the then expiring term. Notwithstanding the foregoing, in no event shall CONTRACTOR's compensation rates be increased by an amount exceeding five percent of the rates effective during the immediately preceding term. Any adjustment to CONTRACTOR's compensation rates shall be reflected in a written amendment to this Agreement.

7. **INVOICING.** Send all invoices to CITY, Attention: Project Manager. The Project Manager is: James Allen, Dept.: Water Quality Control Plant, Telephone: (650) 329-2243. Invoices shall be submitted in arrears for Services performed. Invoices shall not be submitted more frequently than monthly. Invoices shall provide a detailed statement of Services performed during the invoice period and are subject to verification by CITY. CITY shall pay the undisputed amount of invoices within 30 days of receipt.

GENERAL TERMS AND CONDITIONS

A. **ACCEPTANCE.** CONTRACTOR accepts and agrees to all terms and conditions of this Agreement. This Agreement includes and is limited to the terms and conditions set forth in sections 1 through 6 above, these general terms and conditions and the attached exhibits.

B. **QUALIFICATIONS.** CONTRACTOR represents and warrants that it has the expertise and qualifications to complete the services described in Section 1 of this Agreement, entitled "SERVICES," and that every individual charged with the performance of the services under this Agreement has sufficient skill and experience and is duly licensed or certified, to the extent such licensing or certification is required by law, to perform the Services. CITY expressly relies on CONTRACTOR's representations regarding its skills, knowledge, and certifications. CONTRACTOR shall perform all work in accordance with generally accepted business practices and performance standards of the industry, including all federal, state, and local operation and safety regulations.

C. **INDEPENDENT CONTRACTOR.** It is understood and agreed that in the performance of this Agreement, CONTRACTOR and any person employed by CONTRACTOR shall at all times be considered an independent CONTRACTOR and not an agent or employee of CITY. CONTRACTOR shall be responsible for employing or engaging all persons necessary to complete the work required under this Agreement.

D. **SUBCONTRACTORS.** CONTRACTOR may not use subcontractors to perform any Services under this Agreement unless CONTRACTOR obtains prior written

consent of CITY. CONTRACTOR shall be solely responsible for directing the work of approved subcontractors and for any compensation due to subcontractors.

E. **TAXES AND CHARGES.** CONTRACTOR shall be responsible for payment of all taxes, fees, contributions or charges applicable to the conduct of CONTRACTOR's business.

F. **COMPLIANCE WITH LAWS**. CONTRACTOR shall in the performance of the Services comply with all applicable federal, state and local laws, ordinances, regulations, and orders.

G. **PALO ALTO MINIMUM WAGE ORDINANCE.** CONTRACTOR shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as it may be amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, CONTRACTOR shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, CONTRACTOR shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.

H. **DAMAGE TO PUBLIC OR PRIVATE PROPERTY.** CONTRACTOR shall, at its sole expense, repair in kind, or as the City Manager or designee shall direct, any damage to public or private property that occurs in connection with CONTRACTOR's performance of the Services. CITY may decline to approve and may withhold payment in whole or in part to such extent as may be necessary to protect CITY from loss because of defective work not remedied or other damage to the CITY occurring in connection with CONTRACTOR's performance of the Services. CITY shall submit written documentation in support of such withholding upon CONTRACTOR's request. When the grounds described above are removed, payment shall be made for amounts withheld because of them.

I. **WARRANTIES.** CONTRACTOR expressly warrants that all services provided under this Agreement shall be performed in a professional and workmanlike manner in accordance with generally accepted business practices and performance standards of the industry and the requirements of this Agreement. CONTRACTOR expressly warrants that all materials, goods and equipment provided by CONTRACTOR under this Agreement shall be fit for the particular purpose intended, shall be free from defects, and shall conform to the requirements of this Agreement. CONTRACTOR agrees to promptly replace or correct any material or service not in compliance with these warranties, including incomplete, inaccurate, or defective material or service, at no further cost to CITY. The warranties set forth in this section shall be in effect for a period

of one year from completion of the Services and shall survive the completion of the Services or termination of this Agreement.

J. **MONITORING OF SERVICES.** CITY may monitor the Services performed under this Agreement to determine whether CONTRACTOR's work is completed in a satisfactory manner and complies with the provisions of this Agreement.

K. **CITY'S PROPERTY.** Any reports, information, data or other material (including copyright interests) developed, collected, assembled, prepared, or caused to be prepared under this Agreement will become the property of CITY without restriction or limitation upon their use and will not be made available to any individual or organization by CONTRACTOR or its subcontractors, if any, without the prior written approval of the City Manager.

L. **AUDITS.** CONTRACTOR agrees to permit CITY and its authorized representatives to audit, at any reasonable time during the term of this Agreement and for three (3) years from the date of final payment, CONTRACTOR's records pertaining to matters covered by this Agreement. CONTRACTOR agrees to maintain accurate books and records in accordance with generally accepted accounting principles for at least three (3) following the terms of this Agreement.

M. **NO IMPLIED WAIVER.** No payment, partial payment, acceptance, or partial acceptance by CITY shall operate as a waiver on the part of CITY of any of its rights under this Agreement.

N. **INSURANCE.** CONTRACTOR, at its sole cost, shall purchase and maintain in full force during the term of this Agreement, the insurance coverage described at Exhibit D. Insurance must be provided by companies with a Best's Key Rating of A-:VII or higher and which are otherwise acceptable to CITY's Risk Manager. The Risk Manager must approve deductibles and self-insured retentions. In addition, all policies, endorsements, certificates and/or binders are subject to approval by the Risk Manager as to form and content. CONTRACTOR shall obtain a policy endorsement naming the City of Palo Alto as an additional insured under any general liability or automobile policy. CONTRACTOR shall obtain an endorsement stating that the insurance is primary coverage and will not be canceled or materially reduced in coverage or limits until after providing 30 days prior written notice of the cancellation or modification to the Risk Manager. CONTRACTOR shall provide certificates of such policies or other evidence of coverage satisfactory to the Risk Manager, together with the required endorsements and evidence of payment of premiums, to CITY concurrently with the execution of this Agreement and shall throughout the term of this Agreement provide current certificates evidencing the required insurance coverages and endorsements to the Risk Manager. CONTRACTOR shall include all subcontractors as insured under its policies or shall obtain and provide to CITY

separate certificates and endorsements for each subcontractor that meet all the requirements of this section. The procuring of such required policies of insurance shall not operate to limit CONTRACTOR's liability or obligation to indemnify CITY under this Agreement.

O. **HOLD HARMLESS.** To the fullest extent permitted by law and without limitation by the provisions of section M relating to insurance, CONTRACTOR shall indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents from and against any and all demands, claims, injuries, losses, or liabilities of any nature, including death or injury to any person, property damage or any other loss and including without limitation all damages, penalties, fines and judgments, associated investigation and administrative expenses and defense costs, including, but not limited to reasonable attorney's fees, courts costs and costs of alternative dispute resolution), arising out of, or resulting in any way from or in connection with the performance of this Agreement. CONTRACTOR's obligations under this Section apply regardless of whether or not a liability is caused or contributed to by any negligent (passive or active) act or omission of CITY, except that CONTRACTOR shall not be obligated to indemnify for liability arising from the sole negligence or willful misconduct of CITY. The acceptance of the Services by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section survive the completion of the Services or termination of this Agreement.

P. **NON-DISCRIMINATION.** As set forth in Palo Alto Municipal Code section 2.30.510, CONTRACTOR certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONTRACTOR acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.

Q. **WORKERS' COMPENSATION**. CONTRACTOR, by executing this Agreement, certifies that it is aware of the provisions of the Labor Code of the State of California which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and certifies that it will comply with such provisions, as applicable, before commencing and during the performance of the Services.

R. **TERMINATION.** The City Manager may terminate this Agreement without cause by giving ten (10) days' prior written notice thereof to CONTRACTOR. If CONTRACTOR fails to perform any of its material obligations under this

Agreement, in addition to all other remedies provided by law, the City Manager may terminate this Agreement immediately upon written notice of termination. Upon receipt of such notice of termination, CONTRACTOR shall immediately discontinue performance. CITY shall pay CONTRACTOR for services satisfactorily performed up to the effective date of termination. If the termination if for cause, CITY may deduct from such payment the amount of actual damage, if any, sustained by CITY due to CONTRACTOR's failure to perform its material obligations under this Agreement. Upon termination, CONTRACTOR shall immediately deliver to the City Manager any and all copies of studies, sketches, drawings, computations, and other material or products, whether or not completed, prepared by CONTRACTOR or given to CONTRACTOR, in connection with this Agreement. Such materials shall become the property of CITY.

S. **ASSIGNMENTS/CHANGES.** This Agreement binds the parties and their successors and assigns to all covenants of this Agreement. This Agreement shall not be assigned or transferred without the prior written consent of CITY. No amendments, changes or variations of any kind are authorized without the written consent of CITY.

T. **CONFLICT OF INTEREST.** In accepting this Agreement, CONTRACTOR covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of this Contract. CONTRACTOR further covenants that, in the performance of this Contract, it will not employ any person having such an interest. CONTRACTOR certifies that no CITY Officer, employee, or authorized representative has any financial interest in the business of CONTRACTOR and that no person associated with CONTRACTOR has any interest, direct or indirect, which could conflict with the faithful performance of this Contract. CONTRACTOR agrees to advise CITY if any conflict arises.

U. **GOVERNING LAW.** This contract shall be governed and interpreted by the laws of the State of California.

V. **ENTIRE AGREEMENT.** This Agreement, including all exhibits, represents the entire agreement between the parties with respect to the services that may be the subject of this Agreement. Any variance in the exhibits does not affect the validity of the Agreement and the Agreement itself controls over any conflicting provisions in the exhibits. This Agreement supersedes all prior agreements, representations, statements, negotiations and undertakings whether oral or written.

W. **NON-APPROPRIATION.** This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in

the event that funds are not appropriated for the following fiscal year, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Contract are no longer available. This Section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Contract.

X. **ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS.** CONTRACTOR shall comply with CITY's Environmentally Preferred Purchasing policies which are available at CITY's Purchasing Division, which are incorporated by reference and may be amended from time to time. CONTRACTOR shall comply with waste reduction, reuse, recycling and disposal requirements of CITY's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONTRACTOR shall comply with the following zero waste requirements:

- All printed materials provided by CONTRACTOR to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.
- Goods purchased by Contractor on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including, but not limited to, Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- Reusable/returnable pallets shall be taken back by CONTRCATOR, at no additional cost to CITY, for reuse or recycling. CONTRACTOR shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

Y. **AUTHORITY**. The individual(s) executing this Agreement on behalf of the parties represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

Z. **CONTRACT TERMS**: All unchecked boxes do not apply to this Agreement. In the case of any conflict between the terms of this Agreement and the exhibits hereto or CONTRACTOR's proposal (if any), the Agreement shall control. In the case of any conflict between the exhibits hereto and CONTRACTOR's proposal, the exhibits shall control.

AA. DIR REGISTRATION. In regard to any public work construction, alteration, demolition, repair or maintenance work, CITY will not accept a bid proposal from or enter into this Agreement with CONTRACTOR without proof that CONTRACTOR and its listed subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work, subject to limited exceptions. City requires CONTRACTOR and its listed subcontractors to comply with the requirements of SB 854.

CITY provides notice to CONTRACTOR of the requirements of California Labor Code section 1771.1(a), which reads:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

CITY gives notice to CONTRACTOR and its listed subcontractors that CONTRCATOR is required to post all job site notices prescribed by law or regulation and CONTRACTOR is subject to SB 854-compliance monitoring and enforcement by DIR.

CITY requires CONTRACTOR and its listed subcontractors to comply with the requirements of Labor Code section 1776, including:

Keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by, respectively, CONTRACTOR and its listed subcontractors, in connection with the Project.

The payroll records shall be verified as true and correct and shall be certified and made available for inspection at all reasonable hours at the principal office of CONTRACTOR and its listed subcontractors, respectively.

At the request of CITY, acting by its project manager, CONTRACTOR and its listed subcontractors shall make the certified payroll records available for inspection or furnished upon request to the project manager within ten (10) days of receipt of CITY's request.

☐ CITY requests CONTRACTOR and its listed subcontractors to submit the certified payroll records to the project manager at the end of each week during the Project.

If the certified payroll records are not produced to the project manager within the 10-day period, then CONTRACTOR and its listed subcontractors shall be subject to a penalty of one hundred dollars ($100.00) per calendar day, or portion thereof, for each worker, and CITY shall withhold the sum total of penalties from the progress payment(s) then due and payable to CONTRACTOR.

Inform the project manager of the location of CONTRACTOR's and its listed subcontractors' payroll records (street address, city and county) at the commencement of the Project, and also provide notice to the project manager within five (5) business days of any change of location of those payroll records.

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

CITY OF PALO ALTO

_____
City Manager or Designee
(Required on contracts $85,000 and over)

PSC INDUSTRIAL OUTSOURCNG, LP

By _____

Name ~~Donna Ruff~~ Jeffrey A. Stocks

Title CFO & Treasurer

Telephone: 713-985-5409

Approved as to form:

_____

EXHIBIT A
SCOPE OF SERVICES

1.1 BACKGROUND

A. The Palo Alto Regional Water Quality Control Plant (RWQCP) operates a sewage sludge incinerator, which creates a dry ash in the bottom of the furnace. The sludge is thermally transformed into ash containing inorganic oxides.

B. CONTRACTOR will dispose of the ash at the Waste Management Kettleman Hills Facility (KHF).

C. Vendor has visually observed the bin drop off and pickup site and verified that the hauler's equipment can safely operate at owner's site.

D. This is a contract for the combined services of hauling and disposal of sludge and ash. CONTRACTOR is a qualified, licensed hauler with the appropriate contract with a Class I-nonRCRA sanitary landfill.

1.2 PURPOSE

A. This contract is for hauling and disposal of ash. The contractor is to maintain qualifications and licenses to haul the ash to a Class 1-nonRCRA sanitary landfill.

B. The contractor shall transport and dispose of the ash in accordance with the terms and conditions of this contract. The Contractor shall be expressly designated by the Parties hereto as the transporter of, and the arranger for the disposal of all wastes to be transported, managed and disposed of under this contract.

C. The sewage sludge incinerators have been operating since 1972 and producing ash. Though the incinerators have never failed, the potential exists for incinerator nonoperation and loss of all surplus sludge storage capacity. In this case, a backup transportation and disposal contract is needed to handle dewatered, untreated sludge and disposal at a sanitary landfill or at another sewage treatment plant.

1.3 CHARACTERISTICS OF ASH AND SLUDGE

Ash pickups are weekly and average 10 to 13 tons per pickup. A larger load (e.g., 20 tons) is not frequent and typically occurs after very large storms when the plant is processing a higher solids loading. In most years, there are 53 ash pickups (historically, they are always on Tuesday mornings). Pickups are occasionally (once or twice per year) more often than once a week and the CONTRACTOR will respond to calls for special pickups. Once a year, an industrial cleaning company (not part of this contract) cleans out one of the plant's incinerators of its ash for special inspection; an extra bin will be requested from the CONTRACTOR at least once a year for this purpose and drop off shall be within 48 hours. The special pickup shall not involve one of the two bins used for regular service. Previous year data is shown below, in tons.

Year	No. of Loads	Total	Minimum	25%ile	50%ile	75%ile	Maximum
2010	53	713	11.9	13.1	13.7	14.2	17.9
2011	54	723	10.0	12.6	13.4	14.0	18.0
2012	53	638	7.4	11.2	12.4	13.1	20.2
2013	55	628	2.9	10.7	11.2	12.5	16.8
2014	53	605	5.1	10.3	11.3	12.5	18.8
2015	51	631	6.2	11.3	12.3	14.5	15.7

A. Ash Copper Levels

1. Since about 2007, the plant's ash has been hauled and disposed of as a state hazardous waste because the soluble copper level exceeded state limits (not federal limits). If the soluble copper level drops below 25 ppm per state regulations during the contract term, the ash shall be directed to an approved municipal landfill.

2. Since mid-2011, the soluble copper level in the ash has been over 40 ppm. When the soluble copper level in the ash is greater than 40 ppm, final disposal will require that the ash be disposed of in a Class 1 non-RCRA hazardous waste landfill and stabilized prior to disposal, if required by the jurisdiction of the landfill. If the copper level drops per state requirements below 40 ppm during the contract term and remains over 25 ppm, the ash shall be direct landfilled at a Class 1 non-RCRA hazardous waste landfill.

3. Unless notified otherwise, the CONTRACTOR shall assume that the soluble copper level remains greater than 40 ppm during the contract term.

B. In previous years, offloading ash for stabilization, solidification, and disposal was delayed due to dust control and landfill equipment reliability issues. CONTRACTOR is aware that the material to be disposed of can easily become airborne and produce dust during treatment and/or offloading; CONTRACTOR has coordinated with KHF regarding these issues.

C. Wet sludge production is estimated to be 75 tons per day of 28% dry sludge cake (undigested and untreated).

D. For waste characterization, ash sample lab analysis is included in Exhibit A-1.

1.4 ASH PACKAGING AND TRANSPORTATION

A. The City will load the ash into a bin owned by the contractor and left at the plant site. The contractor shall provide two watertight, open-top, tarped bins for ash. One bin shall remain at the RWQCP and the other shall be used by the contractor for exchanges. The contractor shall deliver the bin to the RWQCP for the temporary storage of the ash. The City will place the ash into the bin and will notify the contractor for exchange of bin and disposal of the ash when the bin is sufficiently full and ready for disposal. The bin, each approximately 40 cubic yards, shall be water tight, lined, tarped, and suitable for transportation of the ash.

B. The City will notify the contractor two calendar days before the required disposal of the ash and bin exchange. Typical pickups are on Tuesdays. For City holidays falling upon a Tuesday or for other special coordination, the CONTRACTOR is to work with plant staff to determine an alternate pickup day. Upon notice, the contractor shall at its expense, remove, transport, and dispose of the ash at an approved, class 1-nonRCRA sanitary landfill site suitable for proper disposal of ash. Removal and exchange of the bins shall be between the hours of 6:05 a.m. and 5:30 p.m., upon City notification. Transportation shall be by licensed, registered hauler who complies with all local, state, and federal laws.

C. The City owns and maintains an ash bin cover with a screw to move ash throughout the bin for even distribution. The waste hauler shall only provide bins compatible with the existing cover. A diagram and dimensions of the City's ash bin cover is included in Exbibit A-2. The City will remove the ash bin cover prior to bin pickup.

1.5 EMERGENCY SLUDGE PACKAGING AND TRANSPORTATION

A. The City will load the sludge into a bin owned by the contractor and left at the plant site after notification of need for this service. The contractor shall provide multiple watertight bins for sludge. One bin shall remain at the RWQCP and the others shall be used by the contractor for exchanges. The contractor shall deliver the bin to the RWQCP for the temporary storage of the sludge. The City will place the sludge into the bin and will notify the contractor for exchange of bin and disposal of the sludge when the bin is sufficiently full and ready for disposal. The bin, each approximately 20 cubic yards, shall be water tight, lined, and suitable for transportation of untreated sludge.

B. If the emergency sludge disposal is needed, the hauler will need to mobilize to provide service within 24 hours. The plant will need the change out of five or more CONTRACTOR-supplied 20-cubic yard drop-off bins per day, 24 hours per day, seven days per week. The hauling and transport of sewage sludge will continue until the sewage sludge incinerators are repaired. The CONTRACTOR will need to have made arrangements in advance for this service should it be required.

C. The City will notify the contractor in the event of an emergency need to use their services for sludge hauling. The contractor shall provide a 24-hour emergency dispatch number. Upon notice, the contractor shall at its expense, remove, transport, and dispose of the sludge at an approved sanitary landfill site suitable for proper disposal of untreated sewage sludge. Removal and exchange of the bins shall be at all hours of plant operation. Temporary storage of sludge bins is available onsite when landfills are closed. Transportation shall be by licensed, registered hauler who complies with all local, state, and federal laws.

1.6 WEIGHTS AND ASSAYS

A. The City will keep a record of the estimated weight or volume of each truck load of waste. At its expense, the contractor shall weigh each truckload of waste received at its disposal site and submit the weight tags to the RWQCP.

1.7 DOCUMENTATION, PERMITS AND INSURANCE

A. The contractor shall maintain permits and insurance required during the term of this contract.

B. Contractor shall provide all appropriate documentation, certifications and records for the transportation, management and disposal of Class 1 wastes and all applicable federal, state and local laws and regulations, including, but not limited to:

1. bills of lading or non-hazardous waste manifests
2. Class I waste manifests and continuation sheets
3. labpack inventory sheets
4. land disposal restriction notifications
5. Class I waste profiles
6. certificates of destruction, decontamination, disposal and/or recycling

Appropriate copies of the documentation listed above as well as any other documents required by the City's Project Manager shall be furnished to the City's Project Manager at the time of waste shipment.

C. Closed originals of all uniform hazardous (and non-hazardous) waste manifests signed by a duly authorized representative of the receiving Treatment/Storage/Disposal Facility (TSDF) shall be

furnished to the City's Project Manager within thirty (30) calendar days of waste shipment. This requirement shall survive the expiration and/or termination of the Agreement.

D. Certificates of destruction, decontamination, disposal and/or recycling signed by a duly authorized representative of the receiving TSDF shall be furnished by the Contractor to the City's Project Manager for all wastes to be managed under this contract within one hundred and eighty (180) calendar days of waste shipment. This requirement shall survive the expiration and/or termination of the Agreement.

E. The Contractor shall, at all times during the transportation, storage, and disposal of wastes to be managed under this contract, know the location, condition and status of each item being managed. The Contractor shall make such information available in written progress reports to the City's Project Manager upon request. The progress reports shall include a listing of items removed, referenced by an appropriate identification number and uniform Class I waste manifest number and a description of the location and status of wastes on date of the written progress report.

1.8 PICKUP ADDRESS

A. Palo Alto Regional Water Quality Control Plant
Attn: Operations Shift Supervisor or Senior Operator
2501 Embarcadero Way
Palo Alto, CA 94303
650-329-2598 - phone

1.9 BILLING ADDRESS

B. Palo Alto Regional Water Quality Control Plant
Attn: Mary Sekator
2501 Embarcadero Way
Palo Alto, CA 94303
650-329-2396 - phone
650-494-8395 - fax

1.10 PRICING CONDITIONS AND ANNUAL INCREASES

A. ADDITIONAL PRICING CONDITIONS

1. Demurrage will not be charged for pickup of waste up to and including 90 minutes of loading and unloading time. After 90 minutes, the demurrage charge of $95/hour applies will apply if the City causes the delay.
2. Demurrage will not be charged for delays caused by the hauler not having proper paperwork at the time of arrival at the plant site.
3. Unloading demurrage will not be charged for wastes being delivered unless the City of Palo Alto creates a condition such as an improperly identified waste or nonconforming waste.
4. A minimum volume of 10 tons (or yards, whichever is greater) will be billed for all waste received in a roll-off container, intermodal, or dump trailer delivered to hauler's waste disposal facility.
5. Haulers' owned or leased roll-off containers or other equipment that are damaged by City of Palo Alto may be repaired by contractor and invoice City at a quoted hourly rate for labor and parts invoiced at no more than cost plus 30%.
6. Roll-off washout charges are to be included in the pricing.
7. In the event sludge can be hauled to East Bay Municipal Utilities District, the pricing for emergency sludge disposal shall be cost plus 10%. For the base contract, the prices in Section B above shall apply.
8. In case of price increase due to new regulatory fees, waste hauler must notify the City of Palo Alto

in writing before any additional fees will be allowed.

B. ANNUAL INCREASES

1. The price increase for the second and third 12-month periods of this contract is to be determined in the Base Bid Schedules.
2. In the case of a price increase due to new regulatory fees, the contractor must notify the City of Palo Alto in writing before any additional fees will be allowed.

1.11 MISCELLANEOUS CONDITIONS

A. The waste hauler will have free and easy access to the pickup site.

B. The waste hauler will maintain containers in DOT shippable condition.

C. Composition of Waste

i. If CITY'S waste materials do not conform to the descriptions and specifications in the corresponding Profile Sheet, CONTRACTOR and CITY shall, in good faith, attempt to amend the Profile Sheet and any other pertinent documents and/or correct any improper containerization, marking or labeling to enable CONTRACTOR to accept such non-conforming waste materials at a Facility. If the parties cannot, within a reasonable time after CONTRACTOR notifies CITY the waste materials are non-conforming, resolve the same as set forth above, CITY shall make prompt arrangements for the removal of such non-conforming waste materials from the Facility at which they are located to another lawful place of storage or disposal. CITY agrees to pay CONTRACTOR its reasonable expenses and charges incurred with respect to CITY'S' non-conforming waste materials.

ii. CONTRACTOR ADDITIONAL WARRANTIES CONTRACTOR represents and warrants to CITY that: a. CONTRACTOR is engaged in the business of performing Services with respect to waste materials and has developed the requisite expertise to perform the Services agreed to by CITY and CONTRACTOR hereunder; b. all CONTRACTOR vehicles and each Facility utilized to perform Services hereunder shall have all permits, licenses, certificates or approvals required under applicable laws and regulations for such Services; and c. CONTRACTOR will perform Services for CITY in a safe and workmanlike manner, and in compliance with all statutes, ordinances, laws, orders, rules and regulations applicable to the Services.

iii. CITY'S WARRANTIES CITY represents and warrants to CONTRACTOR that: a. the description of and specifications pertaining to its waste materials in the Profile Sheet is and at all times will be true and correct in all material respects, and waste materials tendered to CONTRACTOR will at all times, including, without limitation, at the time of recertification of the waste materials, conform to the description and specifications contained in the Profile Sheet; b. CITY has made available all information it has regarding the waste materials, and if CITY receives information that the waste materials described in a Profile Sheet present, or may present, a hazard or risk to persons or the environment not reasonably disclosed in the Profile Sheet, CITY will promptly report such information to CONTRACTOR; c. if CITY is not the Generator of the waste materials (as defined in 40 CFR 260.10), CITY has all necessary authority to enter into this Agreement with respect to the waste materials; d. CITY is under no legal restraint which prohibits the transfer of possession of such waste materials to CONTRACTOR; e. CITY shall comply with all applicable statutes, ordinances, laws, orders, rules and regulations, and shall provide CONTRACTOR a safe work environment for Services performed on any premises owned or controlled by CITY; and f. if CONTRACTOR requests that work areas be secured, CITY will be solely responsible for securing such work areas and for preventing anyone other than CONTRACTOR personnel from entering the designated work areas.

D. TRANSFER OF TITLE CONTRACTOR shall take title to CITY's waste materials which conform to

the descriptions and specifications stated in the Profile Sheet upon completion of loading into CONTRACTOR's transportation vehicles, or if transported by CITY, upon acceptance at the Facility.

E. CONTRACTOR acknowledges that a major construction project to construct a sludge dewatering building will occur in the field south of the ash bin during the contract term. The field south of the bin will not be available during much of the contract term for maneuvering the hauler's truck. The construction contractor may move the ash hauler's bin during the construction contract for logistical purposes. The CONTRACTOR is required to have a reciprocal agreement with the city's construction contractor allowing free movement of the hauler's bin at no cost to the city or the construction contractor. The agreement shall cover necessary coordination requirements (e.g., liability for bin damage). The construction contractor has not been selected. The city's project manager will notify PSC when the construction contractor has been selected.

F. The City does not expressly or by implication agree that the actual amount of work shall correspond to approximately weekly pickups in the range of 605 to 723 dry tons/year of ash mentioned in the bid, but reserves the right to increase, decrease or modify the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the City's Project Manager.

END OF SECTION

NELAP/ORELAP Certification 4036

Caltest ANALYTICAL LABORATORY
ENVIRONMENTAL ANALYSES

CA-ELAP Certification 1664

REVISED

Thursday, June 18, 2015

EXHIBIT A-1
Lab Data

Samantha Bialorucki
City of Palo Alto
2501 Embarcadero Way
Palo Alto, CA 94303

Re Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Collected By: WQCP LAB AND OPS
PO/Contract #: 4615000068

Dear Samantha Bialorucki:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, May 05, 2015. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Enclosures

Project Manager: Melinda F. Kelley

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SAMPLE SUMMARY

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Lab ID	Sample ID	Matrix	Date Collected	Date Received
Q050123001	E000764-01 ASH A	Solid	05/04/2015 10:00	05/05/2015 13:40
Q050123002	E000763-01 ASH A	Solid	05/04/2015 10:00	05/05/2015 13:40
Q050123003	E000765-01 ASH A	Solid	05/04/2015 10:00	05/05/2015 13:40
Q050123004	E000766-01 BARSCREEN RAGS	Solid	05/04/2015 09:33	05/05/2015 13:40
Q050123005	E000767-01 GRIT	Solid	05/04/2015 09:35	05/05/2015 13:40

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NARRATIVE

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods (SM) 20th Edition except where noted (SMOL=online edition).

Caltest collects samples in compliance with 40 CFR, EPA Methods, Cal. Title 22, and Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Workorder Notes

Report revised to reflect current MDLs for 6010B (Leachate)

Qualifiers and Compound Notes

1	Analyte(s) reported as 'ND' means not detected at or above the listed Method Detection Limits (MDL).
2	The Reporting Limit (R.L.) was raised due to background interference noted in the sample.
3	Sample diluted due to a high concentration of non-target analyte(s), resulting in increased reporting limits.
4	Initial sample amount reduced in prep in an effort to reduce matrix effects resulting in higher reporting limit(s).
5	Sample diluted to bring concentration of target analyte(s) within the working range of the instrument, resulting in increased reporting limits.
6	Sample prepared using methanolic extraction method resulting in higher reporting limit(s).

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123001 | Date Collected 5/4/2015 10:00 | Matrix Solid
Sample ID E000764-01 ASH A | Date Received 5/5/2015 13:40 | Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Mercury Analysis	**Prep Method:**		SW846 7471A			**Prep by:**	UK			
	Analytical Method:		SW846 7471A					**Analyzed by:**	LM	
Mercury	J0.0009	mg/kg	0.020	0.00080	1	05/06/15 00:00	MPR 13565	05/07/15 13:12	MHG 4963	
Metals Analysis by ICP	**Prep Method:**		SW846 3050B			**Prep by:**	UK			
	Analytical Method:		SW846 6010B					**Analyzed by:**	LM	
Antimony	3.5	mg/kg	2.0	1.5	1	05/06/15 00:00	MPR 13563	05/18/15 00:00	MIC 4479	
Arsenic	4.6	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Barium	830	mg/kg	1.0	0.70	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Beryllium	ND	mg/kg	5.0	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	2,1
Cadmium	0.36	mg/kg	0.20	0.050	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Chromium	70	mg/kg	1.0	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Cobalt	19	mg/kg	0.4	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Copper	1900	mg/kg	4.0	0.40	2	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	
Lead	55	mg/kg	1.0	0.50	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Molybdenum	29	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Nickel	81	mg/kg	1.0	0.30	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Selenium	7.9	mg/kg	2.0	0.80	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Silver	14	mg/kg	1.0	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Thallium	2.6	mg/kg	2.0	0.70	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Vanadium	77	mg/kg	0.40	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Zinc	2000	mg/kg	8.0	2.0	2	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	
Cyanide, Total Analysis	**Analytical Method:**		SW846 9012A					**Analyzed by:**	BCP	
Cyanide	0.69	mg/kg	0.080	0.080	1			05/09/15 17:05	WCO 10778	
Percent Solids Analysis	**Analytical Method:**		SM20-2540 G					**Analyzed by:**	JDC	
Solids, Percent	100	%	0.1	0.1	1			05/07/15 17:04	WGR 5763	

Lab ID Q050123002 | Date Collected 5/4/2015 10:00 | Matrix Solid
Sample ID E000763-01 ASH A | Date Received 5/5/2015 13:40 | Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Mercury Analysis, STLC	**Prep Method:**		SW846 7470A			**Prep by:**	UK			
	Analytical Method:		SW846 7470A					**Analyzed by:**	LM	
Mercury	ND	ug/L	0.50	0.30	1	05/12/15 00:00	MPR 13577	05/13/15 13:51	MHG 4968	1
Metals Analysis by ICP, STLC	**Prep Method:**		SW846 3010			**Prep by:**	UK			
	Analytical Method:		SW846 6010B (Leachate)					**Analyzed by:**	LM	
Barium	16	mg/L	0.15	0.070	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Copper	40	mg/L	0.10	0.030	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Lead	0.19	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Silver	ND	mg/L	0.030	0.0060	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	1

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123003 Date Collected 5/4/2015 10:00 Matrix Solid
Sample ID E000765-01 ASH A Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Asbestos Analysis - Solid	**Analytical Method:**		(per attached report)				**Asbestos Analysis - Solid**			

Analysis performed by EMSL Analytical, CA-ELAP Certification 1620. Refer to attached for original certificate of analysis.

Lab ID Q050123004 Date Collected 5/4/2015 09:33 Matrix Solid
Sample ID E000766-01 BARSCREEN RAGS Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Mercury Analysis, STLC, Low Level	**Prep Method:**		SW846 7470A Low Level			**Prep by:**	UK			
	Analytical Method:		SW846 7470A Low Level					**Analyzed by:**	LM	
Mercury	ND	ug/L	0.50	0.30	1	05/12/15 00:00	MPR 13577	05/13/15 13:54	MHG 4968	1
Mercury Analysis	**Prep Method:**		SW846 7471A			**Prep by:**	UK			
	Analytical Method:		SW846 7471A					**Analyzed by:**	LM	
Mercury	0.032	mg/kg	0.020	0.00079	1	05/06/15 00:00	MPR 13565	05/07/15 13:44	MHG 4963	
Metals Analysis by ICP, STLC	**Prep Method:**		SW846 3010			**Prep by:**	UK			
	Analytical Method:		SW846 6010B (Leachate)					**Analyzed by:**	LM	
Antimony	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	1
Arsenic	0.34	mg/L	0.10	0.050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Barium	0.45	mg/L	0.15	0.070	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Beryllium	ND	mg/L	0.010	0.0050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Cadmium	ND	mg/L	0.010	0.0040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Chromium	ND	mg/L	0.10	0.050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Cobalt	ND	mg/L	0.050	0.020	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Copper	ND	mg/L	0.10	0.030	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Lead	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Molybdenum	ND	mg/L	0.50	0.20	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Nickel	J0.042	mg/L	0.05	0.020	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Selenium	ND	mg/L	0.50	0.20	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Silver	ND	mg/L	0.030	0.0060	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Thallium	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Vanadium	0.034	mg/L	0.02	0.0050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Zinc	3.5	mg/L	0.20	0.10	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Metals Analysis by ICP	**Prep Method:**		SW846 3050B			**Prep by:**	UK			
	Analytical Method:		SW846 6010B					**Analyzed by:**	LM	
Antimony	ND	mg/kg	2.0	1.5	1	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	
Arsenic	ND	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	1
Barium	6.6	mg/kg	1.0	0.71	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Beryllium	ND	mg/kg	0.20	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Cadmium	J0.06	mg/kg	0.20	0.050	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Chromium	J0.9	mg/kg	1.0	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Cobalt	ND	mg/kg	0.4	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Copper	14	mg/kg	2.0	0.20	1	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID **Q050123004** Date Collected 5/4/2015 09:33 Matrix Solid
Sample ID **E000766-01 BARSCREEN RAGS** Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Lead	ND	mg/kg	1.0	0.50	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Molybdenum	ND	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Nickel	J0.93	mg/kg	1.0	0.30	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Selenium	J1.5	mg/kg	2.0	0.81	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Silver	J0.2	mg/kg	1.0	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Thallium	ND	mg/kg	2.0	0.71	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Vanadium	0.87	mg/kg	0.40	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Zinc	60	mg/kg	4.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	

Asbestos Analysis - Solid **Analytical Method:** (per attached report) **Asbestos Analysis - Solid**

Analysis performed by EMSL Analytical, CA-ELAP Certification 1620. Refer to attached for original certificate of analysis.

Total Extractable Petroleum Hydrocarbon **Prep Method:** SW846 3541 **Prep by:** MDT

Analytical Method: SW846 8015(MOD) **Analyzed by:** MDT

Diesel Fuel	ND	mg/kg	120	75	10	05/12/15 00:00	SPR 6946	05/27/15 19:31	SFL 1703	5
TPH quantitated as Diesel Fuel	2830	mg/kg	120	75	10	05/12/15 00:00	SPR 6946	05/27/15 19:31	SFL 1703	
o-Terphenyl (SS)	108	%	40-139		10	05/12/15 00:00	SPR 6946	05/27/15 19:31	SFL 1703	

Semivolatile Organic Analysis **Prep Method:** SW846 3540 **Prep by:** MDT

Analytical Method: SW846 8270C **Analyzed by:** MDT

Acenaphthene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	3,4
Acenaphthylene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Aniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzidine	ND	mg/kg	10	7.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzo(a)anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzo(a)pyrene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzo(b)fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzo(g,h,i)perylene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzo(k)fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzoic acid	ND	mg/kg	30	30	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzyl alcohol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Benzyl butyl phthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Bromophenyl phenyl ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Carbazole	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Chloroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
bis(2-Chloroethoxy) methane	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
bis(2-Chloroethyl) ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
bis(2-Chloroisopropyl) ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Chloro-3-methylphenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Chloronaphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Chlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Chlorophenyl phenyl ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	

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REVISED

ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123004 | Date Collected 5/4/2015 09:33 | Matrix Solid
Sample ID E000766-01 BARSCREEN RAGS | Date Received 5/5/2015 13:40 | Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Chrysene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Total Cresol	J9.7	mg/kg	10	9.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Dibenzo(a,h)anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Dibenzofuran	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
1,2-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
1,3-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
1,4-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
3,3'-Dichlorobenzidine	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4-Dichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Diethylphthalate	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4-Dimethylphenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Dimethylphthalate	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Di-n-butylphthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4-Dinitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4-Dinitrotoluene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,6-Dinitrotoluene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Di-n-octylphthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
1,2-Diphenylhydrazine / Azobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
bis(2-Ethylhexyl) phthalate	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Fluorene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Hexachlorobenzene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Hexachlorobutadiene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Hexachlorocyclo pentadiene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Hexachloroethane	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Isophorone	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Methyl-4,6-dinitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Methylnaphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Methylphenol (o-Cresol)	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
3 & 4-Methylphenol(m&p Cresol)	9.7	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Naphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Nitroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
3-Nitroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Nitroaniline	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Nitrobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Nitrophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
4-Nitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
N-Nitrosodimethylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
N-Nitroso-di-n-propylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
N-Nitrosodiphenylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Pentachlorophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Phenanthrene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	

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REVISED

ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123004 Date Collected 5/4/2015 09:33 Matrix Solid
Sample ID E000766-01 BARSCREEN RAGS Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Phenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Pyrene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Pyridine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
1,2,4-Trichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4,5-Trichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4,6-Trichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Fluorobiphenyl (SS)	81	%	10-149		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2-Fluorophenol (SS)	50	%	47-105		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Nitrobenzene-d5 (SS)	70	%	57-108		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Phenol-d6 (SS)	75	%	58-97		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Terphenyl-d14 (SS)	82	%	32-120		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
2,4,6-Tribromophenol (SS)	130	%	26-143		5	05/07/15 00:00	SPR 6939	06/05/15 01:34	SMS 3755	
Volatile Organic Analysis	**Analytical Method:**		SW846 5030B/8260B					**Analyzed by:**	AN	
Benzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	4
Bromobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Bromochloromethane	ND	mg/kg	0.025	0.015	1			05/07/15 18:57	VMS 3245	
Bromodichloromethane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Bromoform	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
Bromomethane (Methyl Bromide)	ND	mg/kg	0.10	0.020	1			05/07/15 18:57	VMS 3245	
n-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
sec-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
tert-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Carbon tetrachloride	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Chlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Chloroethane (Ethyl Chloride)	ND	mg/kg	0.10	0.015	1			05/07/15 18:57	VMS 3245	
Chloroform	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Chloromethane(Methyl Chloride)	ND	mg/kg	0.10	0.010	1			05/07/15 18:57	VMS 3245	
2-Chlorotoluene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
4-Chlorotoluene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Dibromochloromethane	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
Dibromomethane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,2-Dichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,3-Dichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,4-Dichlorobenzene	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
Dichlorodifluoromethane (F-12)	ND	mg/kg	0.050	0.010	1			05/07/15 18:57	VMS 3245	
1,1-Dichloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,2-Dichloroethane (EDC)	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
1,1-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
cis-1,2-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123004 Date Collected 5/4/2015 09:33 Matrix Solid
Sample ID E000766-01 BARSCREEN RAGS Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
trans-1,2-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,2-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,3-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
2,2-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,1-Dichloropropene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Dichlorotrifluoroethane (F123)	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
Ethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Hexachlorobutadiene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
4-Isopropyltoluene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Methyl tert-butyl ether (MTBE)	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Methylene chloride	ND	mg/kg	0.15	0.0050	1			05/07/15 18:57	VMS 3245	
Naphthalene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
n-Propylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Styrene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Tetrachloroethene (PCE)	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Toluene	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
1,2,3-Trichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,2,4-Trichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,1,2-Trichloroethane	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
1,1,1-Trichloroethane (TCA)	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Trichloroethene (TCE)	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Trichlorofluoromethane (F-11)	ND	mg/kg	0.025	0.020	1			05/07/15 18:57	VMS 3245	
1,2,3-Trichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Trichlorotrifluoroethane (F113)	ND	mg/kg	0.050	0.010	1			05/07/15 18:57	VMS 3245	
1,2,4-Trimethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
1,3,5-Trimethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 18:57	VMS 3245	
Vinyl chloride	ND	mg/kg	0.025	0.015	1			05/07/15 18:57	VMS 3245	
Xylenes, total	ND	mg/kg	0.025	0.0050	1			05/07/15 18:57	VMS 3245	
4-Bromofluorobenzene (SS)	92	%	74-130		1			05/07/15 18:57	VMS 3245	
Dibromofluoromethane (SS)	111	%	69-129		1			05/07/15 18:57	VMS 3245	
1,2-Dichloroethane-d4 (SS)	116	%	61-133		1			05/07/15 18:57	VMS 3245	
Toluene-d8 (SS)	103	%	71-135		1			05/07/15 18:57	VMS 3245	
Cyanide, Total Analysis		**Analytical Method:**	SW846 9012A					**Analyzed by:**	BCP	
Cyanide	0.094	mg/kg	0.080	0.080	1			05/09/15 17:05	WCO 10778	

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID **Q050123005** Date Collected 5/4/2015 09:35 Matrix Solid
Sample ID **E000767-01 GRIT** Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Mercury Analysis, STLC, Low Level	**Prep Method:**		SW846 7470A Low Level			**Prep by:**	UK			
	Analytical Method:		SW846 7470A Low Level					**Analyzed by:**	LM	
Mercury	ND	ug/L	0.50	0.30	1	05/12/15 00:00	MPR 13577	05/13/15 13:56	MHG 4968	1
Mercury Analysis	**Prep Method:**		SW846 7471A			**Prep by:**	UK			
	Analytical Method:		SW846 7471A					**Analyzed by:**	LM	
Mercury	0.099	mg/kg	0.020	0.00079	1	05/06/15 00:00	MPR 13565	05/07/15 13:52	MHG 4963	
Metals Analysis by ICP, STLC	**Prep Method:**		SW846 3010			**Prep by:**	UK			
	Analytical Method:		SW846 6010B (Leachate)					**Analyzed by:**	LM	
Antimony	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	1
Arsenic	J0.055	mg/L	0.10	0.050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Barium	1.4	mg/L	0.15	0.070	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Beryllium	ND	mg/L	0.010	0.0050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Cadmium	J0.0043	mg/L	0.010	0.0040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Chromium	0.11	mg/L	0.10	0.050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Cobalt	ND	mg/L	0.050	0.020	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Copper	ND	mg/L	0.10	0.030	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Lead	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Molybdenum	ND	mg/L	0.50	0.20	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Nickel	0.13	mg/L	0.05	0.020	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Selenium	ND	mg/L	0.50	0.20	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Silver	ND	mg/L	0.030	0.0060	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Thallium	ND	mg/L	0.10	0.040	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Vanadium	0.066	mg/L	0.02	0.0050	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Zinc	2.9	mg/L	0.20	0.10	1	05/11/15 00:00	MPR 13573	05/14/15 00:00	MIC 4481	
Metals Analysis by ICP	**Prep Method:**		SW846 3050B			**Prep by:**	UK			
	Analytical Method:		SW846 6010B					**Analyzed by:**	LM	
Antimony	ND	mg/kg	2.0	1.5	1	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	
Arsenic	ND	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	1
Barium	20	mg/kg	1.0	0.70	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Beryllium	ND	mg/kg	0.20	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Cadmium	J0.09	mg/kg	0.20	0.050	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Chromium	3.0	mg/kg	1.0	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Cobalt	0.6	mg/kg	0.4	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Copper	40	mg/kg	2.0	0.20	1	05/06/15 00:00	MPR 13563	05/14/15 00:00	MIC 4479	
Lead	6.4	mg/kg	1.0	0.50	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Molybdenum	ND	mg/kg	2.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Nickel	3.4	mg/kg	1.0	0.30	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Selenium	ND	mg/kg	2.0	0.80	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Silver	J0.5	mg/kg	1.0	0.15	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Thallium	ND	mg/kg	2.0	0.70	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Vanadium	2.6	mg/kg	0.40	0.20	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Zinc	96	mg/kg	4.0	1.0	1	05/06/15 00:00	MPR 13563	05/11/15 00:00	MIC 4479	
Asbestos Analysis - Solid	**Analytical Method:**		(per attached report)				**Asbestos Analysis - Solid**			

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CA-ELAP Certification 1664

REVISED

ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123005 Date Collected 5/4/2015 09:35 Matrix Solid
Sample ID E000767-01 GRIT Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Analysis performed by EMSL Analytical, CA-ELAP Certification 1620. Refer to attached for original certificate of analysis.										
Total Extractable Petroleum Hydrocarbon	**Prep Method:**		SW846 3541		**Prep by:**	MDT				
	Analytical Method:		SW846 8015(MOD)					**Analyzed by:**	MDT	
Diesel Fuel	ND	mg/kg	60	38	5	05/12/15 00:00	SPR 6946	05/27/15 20:17	SFL 1703	5
TPH quantitated as Diesel Fuel	1720	mg/kg	60	38	5	05/12/15 00:00	SPR 6946	05/27/15 20:17	SFL 1703	
o-Terphenyl (SS)	102	%	40-139		5	05/12/15 00:00	SPR 6946	05/27/15 20:17	SFL 1703	
Semivolatile Organic Analysis	**Prep Method:**		SW846 3540		**Prep by:**	MDT				
	Analytical Method:		SW846 8270C					**Analyzed by:**	MDT	
Acenaphthene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	4,3
Acenaphthylene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Aniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzidine	ND	mg/kg	10	7.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzo(a)anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzo(a)pyrene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzo(b)fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzo(g,h,i)perylene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzo(k)fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzoic acid	ND	mg/kg	30	30	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzyl alcohol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Benzyl butyl phthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Bromophenyl phenyl ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Carbazole	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Chloroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
bis(2-Chloroethoxy) methane	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
bis(2-Chloroethyl) ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
bis(2-Chloroisopropyl) ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Chloro-3-methylphenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Chloronaphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Chlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Chlorophenyl phenyl ether	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Chrysene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Total Cresol	ND	mg/kg	10	9.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Dibenzo(a,h)anthracene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Dibenzofuran	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
1,2-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
1,3-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
1,4-Dichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
3,3'-Dichlorobenzidine	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,4-Dichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Diethylphthalate	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	

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CA-ELAP Certification 1664

REVISED

ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID **Q050123005** Date Collected 5/4/2015 09:35 Matrix Solid
Sample ID **E000767-01 GRIT** Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
2,4-Dimethylphenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Dimethylphthalate	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Di-n-butylphthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,4-Dinitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,4-Dinitrotoluene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,6-Dinitrotoluene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Di-n-octylphthalate	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
1,2-Diphenylhydrazine / Azobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
bis(2-Ethylhexyl) phthalate	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Fluoranthene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Fluorene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Hexachlorobenzene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Hexachlorobutadiene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Hexachlorocyclo pentadiene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Hexachloroethane	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Isophorone	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Methyl-4,6-dinitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Methylnaphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Methylphenol (o-Cresol)	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
3 & 4-Methylphenol(m&p Cresol)	7.7	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Naphthalene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Nitroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
3-Nitroaniline	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Nitroaniline	ND	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Nitrobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Nitrophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
4-Nitrophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
N-Nitrosodimethylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
N-Nitroso-di-n-propylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
N-Nitrosodiphenylamine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Pentachlorophenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Phenanthrene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Phenol	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Pyrene	J2.0	mg/kg	5.0	1.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Pyridine	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
1,2,4-Trichlorobenzene	ND	mg/kg	5.0	3.0	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,4,5-Trichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2,4,6-Trichlorophenol	ND	mg/kg	5.0	4.5	5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Fluorobiphenyl (SS)	75	%	10-149		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
2-Fluorophenol (SS)	54	%	47-105		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Nitrobenzene-d5 (SS)	61	%	57-108		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Phenol-d6 (SS)	65	%	58-97		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Terphenyl-d14 (SS)	94	%	32-120		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID Q050123005 Date Collected 5/4/2015 09:35 Matrix Solid
Sample ID E000767-01 GRIT Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
2,4,6-Tribromophenol (SS)	122	%	26-143		5	05/07/15 00:00	SPR 6939	06/05/15 02:12	SMS 3755	
Volatile Organic Analysis	**Analytical Method:**		SW846 5030B/8260B					**Analyzed by:**	AN	
Benzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	4
Bromobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Bromochloromethane	ND	mg/kg	0.025	0.015	1			05/07/15 20:10	VMS 3245	
Bromodichloromethane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Bromoform	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
Bromomethane (Methyl Bromide)	ND	mg/kg	0.10	0.020	1			05/07/15 20:10	VMS 3245	
n-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
sec-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
tert-Butylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Carbon tetrachloride	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Chlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Chloroethane (Ethyl Chloride)	ND	mg/kg	0.10	0.015	1			05/07/15 20:10	VMS 3245	
Chloroform	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Chloromethane(Methyl Chloride)	ND	mg/kg	0.10	0.010	1			05/07/15 20:10	VMS 3245	
2-Chlorotoluene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
4-Chlorotoluene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Dibromochloromethane	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
Dibromomethane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,2-Dichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,3-Dichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,4-Dichlorobenzene	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
Dichlorodifluoromethane (F-12)	ND	mg/kg	0.050	0.010	1			05/07/15 20:10	VMS 3245	
1,1-Dichloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,2-Dichloroethane (EDC)	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
1,1-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
cis-1,2-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
trans-1,2-Dichloroethene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,2-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,3-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
2,2-Dichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,1-Dichloropropene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Dichlorotrifluoroethane (F123)	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
Ethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Hexachlorobutadiene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
4-Isopropyltoluene	0.16	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Methyl tert-butyl ether (MTBE)	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	

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ANALYTICAL RESULTS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Solid results are reported on a wet weight basis.

Lab ID **Q050123005** Date Collected 5/4/2015 09:35 Matrix Solid
Sample ID **E000767-01 GRIT** Date Received 5/5/2015 13:40 Results are expressed as wet weight values

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Methylene chloride	ND	mg/kg	0.15	0.0050	1			05/07/15 20:10	VMS 3245	
Naphthalene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
n-Propylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Styrene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Tetrachloroethene (PCE)	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Toluene	4.2	mg/kg	0.005	0.0010	1			05/12/15 20:00	VMS 3245	6
1,2,3-Trichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,2,4-Trichlorobenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,1,2-Trichloroethane	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
1,1,1-Trichloroethane (TCA)	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Trichloroethene (TCE)	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Trichlorofluoromethane (F-11)	ND	mg/kg	0.025	0.020	1			05/07/15 20:10	VMS 3245	
1,2,3-Trichloropropane	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Trichlorotrifluorethane (F113)	ND	mg/kg	0.050	0.010	1			05/07/15 20:10	VMS 3245	
1,2,4-Trimethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
1,3,5-Trimethylbenzene	ND	mg/kg	0.025	0.010	1			05/07/15 20:10	VMS 3245	
Vinyl chloride	ND	mg/kg	0.025	0.015	1			05/07/15 20:10	VMS 3245	
Xylenes, total	ND	mg/kg	0.025	0.0050	1			05/07/15 20:10	VMS 3245	
4-Bromofluorobenzene (SS)	93	%	74-130		1			05/07/15 20:10	VMS 3245	
Dibromofluoromethane (SS)	103	%	69-129		1			05/07/15 20:10	VMS 3245	
1,2-Dichloroethane-d4 (SS)	95	%	61-133		1			05/07/15 20:10	VMS 3245	
Toluene-d8 (SS)	93	%	71-135		1			05/07/15 20:10	VMS 3245	
Cyanide, Total Analysis	**Analytical Method:**		SW846 9012A					**Analyzed by:**	BCP	
Cyanide	0.25	mg/kg	0.080	0.080	1			05/09/15 17:05	WCO 10778	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Mercury Analysis	**QC Batch:**	MPR/13565
Analysis Method:	SW846 7471A	**QC Batch Method:**	SW846 7471A

METHOD BLANK: 638756

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Mercury	ND	0.020	0.0008	mg/kg	

LABORATORY CONTROL SAMPLE: 638757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Mercury	mg/kg	0.1	0.12	110	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 638759 638760

Parameter	Units	Q050123001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Mercury	mg/kg	0.0009	0.11	0.115	0.115	108	108	75-125	0	35	

Analysis Description:	Metals Analysis by ICP	**QC Batch:**	MPR/13563
Analysis Method:	SW846 6010B	**QC Batch Method:**	SW846 3050B

METHOD BLANK: 638744

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Antimony	ND	2.0	1.5	mg/kg	
Copper	ND	2.0	0.2	mg/kg	

METHOD BLANK: 638744

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Arsenic	ND	2.0	1.0	mg/kg	
Barium	ND	1.0	0.7	mg/kg	
Beryllium	ND	5.0	0.15	mg/kg	
Cadmium	ND	0.20	0.05	mg/kg	
Chromium	ND	1.0	0.2	mg/kg	
Cobalt	ND	0.4	0.2	mg/kg	
Lead	ND	1.0	0.5	mg/kg	
Molybdenum	ND	2.0	1.0	mg/kg	
Nickel	ND	1.0	0.30	mg/kg	
Selenium	ND	2.0	0.8	mg/kg	
Silver	ND	1.0	0.2	mg/kg	
Thallium	ND	2.0	0.7	mg/kg	
Vanadium	ND	0.40	0.20	mg/kg	
Zinc	ND	4.0	1.0	mg/kg	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Metals Analysis by ICP	**QC Batch:**	MPR/13563
Analysis Method:	SW846 6010B	**QC Batch Method:**	SW846 3050B

LABORATORY CONTROL SAMPLE: 638745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Antimony	mg/kg	20	17	84	75-125	
Arsenic	mg/kg	20	17	86	75-125	
Barium	mg/kg	99	90	91	75-125	
Beryllium	mg/kg	20	19	95	75-125	
Cadmium	mg/kg	9.9	9.1	92	75-125	
Chromium	mg/kg	20	18	91	75-125	
Cobalt	mg/kg	20	17	85	75-125	
Copper	mg/kg	20	17	88	75-125	
Lead	mg/kg	99	91	92	75-125	
Molybdenum	mg/kg	20	16	80	75-125	
Nickel	mg/kg	20	19	94	75-125	
Selenium	mg/kg	20	15	77	75-125	
Silver	mg/kg	20	19	95	75-125	
Thallium	mg/kg	99	88	89	75-125	
Vanadium	mg/kg	20	17	87	75-125	
Zinc	mg/kg	99	87	88	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 638747 638748

Parameter	Units	Q040896001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Antimony	mg/kg	0	20	15.5	15.4	78	78	75-125	0.6	35	
Arsenic	mg/kg	0	20	18.5	18.4	93	93	75-125	0.5	35	
Barium	mg/kg	85	100	177	176	92	92	75-125	0.6	35	
Beryllium	mg/kg	0	20	18.3	18.1	92	91	75-125	1.1	35	
Cadmium	mg/kg	0.43	10	9.31	9.18	89	88	75-125	1.4	35	
Chromium	mg/kg	7.3	20	25.2	25.2	90	90	75-125	0	35	
Cobalt	mg/kg	0.9	20	17.3	17.2	82	82	75-125	0.6	35	
Copper	mg/kg	110	20	121	121	RNC	RNC	75-125	0	35	7
Lead	mg/kg	6	100	95.7	94.5	90	89	75-125	1.3	35	
Molybdenum	mg/kg	0	20	17.1	17.3	86	87	75-125	1.2	35	
Nickel	mg/kg	6.9	20	25.4	25.3	93	93	75-125	0.4	35	
Selenium	mg/kg	1.9	20	16.7	17.4	74	78	75-125	4.1	35	8
Silver	mg/kg	1.3	20	20.5	20	96	94	75-125	2.5	35	
Thallium	mg/kg	0	100	86.5	85.8	87	86	75-125	0.8	35	
Vanadium	mg/kg	2	20	19.3	19.1	87	86	75-125	1	35	
Zinc	mg/kg	420	100	509	514	89	95	75-125	1	35	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Metals Analysis by ICP, STLC	**QC Batch:**	MPR/13573
Analysis Method:	SW846 6010B (Leachate)	**QC Batch Method:**	SW846 3010

LEACHATE BLANK: 638765

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Antimony	ND	0.10	0.040	mg/L	
Arsenic	ND	0.10	0.050	mg/L	
Barium	ND	0.15	0.070	mg/L	
Beryllium	ND	0.010	0.0050	mg/L	
Cadmium	ND	0.010	0.0040	mg/L	
Chromium	ND	0.10	0.050	mg/L	
Cobalt	ND	0.050	0.020	mg/L	
Copper	ND	0.10	0.030	mg/L	
Lead	ND	0.10	0.040	mg/L	
Molybdenum	ND	0.50	0.20	mg/L	
Nickel	ND	0.05	0.02	mg/L	
Selenium	ND	0.50	0.20	mg/L	
Silver	ND	0.030	0.006	mg/L	
Thallium	ND	0.10	0.040	mg/L	
Vanadium	ND	0.02	0.005	mg/L	
Zinc	ND	0.20	0.10	mg/L	

LABORATORY CONTROL SAMPLE: 639463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Antimony	mg/L	10	8.9	89	80-120	
Arsenic	mg/L	2	1.9	94	80-120	
Barium	mg/L	10	9.6	96	80-120	
Beryllium	mg/L	2	2	100	80-120	
Cadmium	mg/L	1	0.96	96	80-120	
Chromium	mg/L	2	1.9	97	80-120	
Cobalt	mg/L	2	1.9	95	80-120	
Copper	mg/L	2	2	99	80-120	
Lead	mg/L	10	9.7	97	80-120	
Molybdenum	mg/L	2	1.9	94	80-120	
Nickel	mg/L	2	2	98	80-120	
Selenium	mg/L	2	1.6	83	80-120	
Silver	mg/L	10	9.8	98	80-120	
Thallium	mg/L	10	9.4	94	80-120	
Vanadium	mg/L	2	1.9	95	80-120	
Zinc	mg/L	10	9.1	91	80-120	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Metals Analysis by ICP, STLC	**QC Batch:**	MPR/13573
Analysis Method:	SW846 6010B (Leachate)	**QC Batch Method:**	SW846 3010

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 639465 639466

Parameter	Units	Q050123002 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Antimony	mg/L	0.33	10	9.16	9.29	88	90	80-120	1.4	20	
Arsenic	mg/L	0.34	2	2.26	2.33	96	100	80-120	3.1	20	
Barium	mg/L	16	10	25.7	25.9	97	99	80-120	0.8	20	
Beryllium	mg/L	0	2	1.89	1.91	95	96	80-120	1.1	20	
Cadmium	mg/L	0.014	1	0.935	0.941	92	93	80-120	0.6	20	
Chromium	mg/L	0.24	2	2.11	2.11	94	94	80-120	0	20	
Cobalt	mg/L	0.24	2	2.08	2.1	92	93	80-120	1	20	
Copper	mg/L	40	2	42.2	42.6	110	RNC	80-120	0.9	20	7
Lead	mg/L	0.19	10	9.65	9.71	95	95	80-120	0.6	20	
Molybdenum	mg/L	2.4	2	4.31	4.36	96	98	80-120	1.2	20	
Nickel	mg/L	0.68	2	2.47	2.5	90	91	80-120	1.2	20	
Selenium	mg/L	0.2	2	1.97	2.01	89	91	80-120	2	20	
Silver	mg/L	0	10	9.72	10	97	100	80-120	2.8	20	
Thallium	mg/L	0.074	10	9.51	9.65	94	96	80-120	1.5	20	
Vanadium	mg/L	2.8	2	4.63	4.66	92	93	80-120	0.6	20	
Zinc	mg/L	31	10	39.9	39.9	89	89	80-120	0	20	

Analysis Description:	Mercury Analysis, STLC, Low Level	**QC Batch:**	MPR/13577
Analysis Method:	SW846 7470A Low Level	**QC Batch Method:**	SW846 7470A Low Level

LEACHATE BLANK: 638765

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Mercury	ND	0.50	0.30	ug/L	

Analysis Description:	Mercury Analysis, STLC	**QC Batch:**	MPR/13577
Analysis Method:	SW846 7470A	**QC Batch Method:**	SW846 7470A

LEACHATE BLANK: 638765

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Mercury	ND	0.50	0.30	ug/L	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Semivolatile Organic Analysis	**QC Batch:**	SPR/6939
Analysis Method:	SW846 8270C	**QC Batch Method:**	SW846 3540

METHOD BLANK: 638878

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Acenaphthene	ND	0.33	0.20	mg/kg	
Acenaphthylene	ND	0.33	0.20	mg/kg	
Aniline	ND	0.33	0.20	mg/kg	
Anthracene	ND	0.33	0.10	mg/kg	
Benzidine	ND	0.67	0.50	mg/kg	
Benzo(a)anthracene	ND	0.33	0.10	mg/kg	
Benzo(a)pyrene	ND	0.33	0.10	mg/kg	
Benzo(b)fluoranthene	ND	0.33	0.10	mg/kg	
Benzo(g,h,i)perylene	ND	0.33	0.10	mg/kg	
Benzo(k)fluoranthene	ND	0.33	0.10	mg/kg	
Benzoic acid	ND	2.0	2.0	mg/kg	
Benzyl alcohol	ND	0.33	0.20	mg/kg	
Benzyl butyl phthalate	ND	0.33	0.10	mg/kg	
4-Bromophenyl phenyl ether	ND	0.33	0.20	mg/kg	
Carbazole	ND	0.33	0.10	mg/kg	
4-Chloroaniline	ND	0.33	0.20	mg/kg	
bis(2-Chloroethoxy) methane	ND	0.33	0.20	mg/kg	
bis(2-Chloroethyl) ether	ND	0.33	0.20	mg/kg	
bis(2-Chloroisopropyl) ether	ND	0.33	0.20	mg/kg	
4-Chloro-3-methylphenol	ND	0.33	0.30	mg/kg	
2-Chloronaphthalene	ND	0.33	0.20	mg/kg	
2-Chlorophenol	ND	0.33	0.30	mg/kg	
4-Chlorophenyl phenyl ether	ND	0.33	0.20	mg/kg	
Chrysene	ND	0.33	0.10	mg/kg	
Total Cresol	ND	0.67	0.60	mg/kg	
Dibenzo(a,h)anthracene	ND	0.33	0.10	mg/kg	
Dibenzofuran	ND	0.33	0.20	mg/kg	
1,2-Dichlorobenzene	ND	0.33	0.20	mg/kg	
1,3-Dichlorobenzene	ND	0.33	0.20	mg/kg	
1,4-Dichlorobenzene	ND	0.33	0.20	mg/kg	
3,3'-Dichlorobenzidine	ND	0.33	0.30	mg/kg	
2,4-Dichlorophenol	ND	0.33	0.30	mg/kg	
Diethylphthalate	ND	0.33	0.20	mg/kg	
2,4-Dimethylphenol	ND	0.33	0.30	mg/kg	
Dimethylphthalate	ND	0.33	0.20	mg/kg	
Di-n-butylphthalate	ND	0.33	0.10	mg/kg	
2,4-Dinitrophenol	ND	0.33	0.20	mg/kg	
2,4-Dinitrotoluene	ND	0.33	0.20	mg/kg	
2,6-Dinitrotoluene	ND	0.33	0.20	mg/kg	
Di-n-octylphthalate	ND	0.33	0.10	mg/kg	
1,2Diphenylhydrazine/Azobenzen	ND	0.33	0.20	mg/kg	
bis(2-Ethylhexyl) phthalate	ND	0.33	0.30	mg/kg	
Fluoranthene	ND	0.33	0.10	mg/kg	
Fluorene	ND	0.33	0.20	mg/kg	
Hexachlorobenzene	ND	0.33	0.10	mg/kg	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Semivolatile Organic Analysis	**QC Batch:**	SPR/6939
Analysis Method:	SW846 8270C	**QC Batch Method:**	SW846 3540

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Hexachlorobutadiene	ND	0.33	0.20	mg/kg	
Hexachlorocyclo pentadiene	ND	0.33	0.10	mg/kg	
Hexachloroethane	ND	0.33	0.20	mg/kg	
Indeno(1,2,3-cd)pyrene	ND	0.33	0.10	mg/kg	
Isophorone	ND	0.33	0.20	mg/kg	
2-Methyl-4,6-dinitrophenol	ND	0.33	0.20	mg/kg	
2-Methylnaphthalene	ND	0.33	0.20	mg/kg	
2-Methylphenol (o-Cresol)	ND	0.33	0.30	mg/kg	
3 & 4-Methylphenol(m&p Cresol)	ND	0.33	0.30	mg/kg	
Naphthalene	ND	0.33	0.20	mg/kg	
2-Nitroaniline	ND	0.33	0.20	mg/kg	
3-Nitroaniline	ND	0.33	0.20	mg/kg	
4-Nitroaniline	ND	0.33	0.10	mg/kg	
Nitrobenzene	ND	0.33	0.20	mg/kg	
2-Nitrophenol	ND	0.33	0.30	mg/kg	
4-Nitrophenol	ND	0.33	0.20	mg/kg	
N-Nitrosodimethylamine	ND	0.33	0.20	mg/kg	
N-Nitroso-di-n-propylamine	ND	0.33	0.20	mg/kg	
N-Nitrosodiphenylamine	ND	0.33	0.20	mg/kg	
Pentachlorophenol	ND	0.33	0.20	mg/kg	
Phenanthrene	ND	0.33	0.20	mg/kg	
Phenol	ND	0.33	0.20	mg/kg	
Pyrene	ND	0.33	0.10	mg/kg	
Pyridine	ND	0.33	0.20	mg/kg	
1,2,4-Trichlorobenzene	ND	0.33	0.20	mg/kg	
2,4,5-Trichlorophenol	ND	0.33	0.30	mg/kg	
2,4,6-Trichlorophenol	ND	0.33	0.30	mg/kg	
2-Fluorobiphenyl (SS)	98	10-149		%	
2-Fluorophenol (SS)	93	47-105		%	
Nitrobenzene-d5 (SS)	83	57-108		%	
Phenol-d6 (SS)	95	58-97		%	
Terphenyl-d14 (SS)	110	32-120		%	
2,4,6-Tribromophenol (SS)	135	26-143		%	

LABORATORY CONTROL SAMPLE & LCSD: 638879 638880

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% REC Limits	RPD	Max RPD	Qualifier
Acenaphthene	mg/kg	3.3	3.46	3.2	104	96	67-108	7.8	68	
4-Chloro-3-methylphenol	mg/kg	6.7	6.36	6.25	95	94	45-98	1.7	74	
2-Chlorophenol	mg/kg	6.7	5.9	5.66	89	85	62-106	4.2	50	
1,4-Dichlorobenzene	mg/kg	3.3	3.22	2.91	97	87	55-112	10	50	
2,4-Dinitrotoluene	mg/kg	3.3	3.38	3.15	101	95	56-140	7	71	
4-Nitrophenol	mg/kg	6.7	7.18	6.78	108	102	67-127	5.7	52	
N-Nitroso-di-n-propylamine	mg/kg	3.3	2.86	2.62	86	79	20-120	8.8	50	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Semivolatile Organic Analysis	**QC Batch:**	SPR/6939
Analysis Method:	SW846 8270C	**QC Batch Method:**	SW846 3540

LABORATORY CONTROL SAMPLE & LCSD: 638879 638880

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% REC Limits	RPD	Max RPD	Qualifier
Pentachlorophenol	mg/kg	6.7	9.29	8.74	139	131	53-119	6.1	78	9
Phenol	mg/kg	6.7	5.63	5.34	84	80	48-95	5.3	50	
Pyrene	mg/kg	3.3	3.52	3.35	106	101	53-122	4.9	101	
1,2,4-Trichlorobenzene	mg/kg	3.3	3.45	3.21	104	96	69-110	7.2	80	
2-Fluorobiphenyl (SS)	%				102	95	10-149	7.9		
2-Fluorophenol (SS)	%				90	89	47-105	0.5		
Nitrobenzene-d5 (SS)	%				95	101	57-108	6.1		
Phenol-d6 (SS)	%				96	95	58-97	1.6		
Terphenyl-d14 (SS)	%				118	111	32-120	6.6		
2,4,6-Tribromophenol (SS)	%				133	137	26-143	3.1		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 638881 638882

Parameter	Units	Q040896001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acenaphthene	mg/kg	0	10	10.9	11	109	110	67-108	0.9	68	11
4-Chloro-3-methylphenol	mg/kg	0	20	22.9	23.9	115	120	45-98	4.3	74	11
2-Chlorophenol	mg/kg	0	20	18.4	18.6	92	93	62-106	1.1	50	
1,4-Dichlorobenzene	mg/kg	0	10	8.82	8.7	88	87	55-112	1.4	50	
2,4-Dinitrotoluene	mg/kg	0	10	11	11	110	110	56-140	0	71	
4-Nitrophenol	mg/kg	0	20	24.7	27.3	124	137	67-127	10	52	11
N-Nitroso-di-n-propylamine	mg/kg	0	10	10.8	11.6	108	116	20-120	7.1	50	
Pentachlorophenol	mg/kg	0	20	29.5	27.8	148	139	53-119	5.9	78	12
Phenol	mg/kg	41	20	63.5	69.8	113	144	48-95	9.5	50	11
Pyrene	mg/kg	0	10	24.1	27.7	241	277	53-122	14	101	11
1,2,4-Trichlorobenzene	mg/kg	0	10	10.2	9.64	102	96	69-110	5.6	80	
2-Fluorobiphenyl (SS)	%					113	110	10-149	2.3		
2-Fluorophenol (SS)	%					81	104	47-105	25		
Nitrobenzene-d5 (SS)	%					92	94	57-108	1.8		
Phenol-d6 (SS)	%					109	116	58-97	5.9		10
Terphenyl-d14 (SS)	%					201	241	32-120	18		10
2,4,6-Tribromophenol (SS)	%					143	143	26-143	0.1		

Analysis Description:	Total Extractable Petroleum Hydrocarbon	**QC Batch:**	SPR/6946
Analysis Method:	SW846 8015(MOD)	**QC Batch Method:**	SW846 3541

METHOD BLANK: 639585

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Diesel Fuel	ND	4	2	mg/kg	
TPH quantitated as Diesel Fuel	ND	4	2	mg/kg	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Total Extractable Petroleum Hydrocarbon	**QC Batch:**	SPR/6946
Analysis Method:	SW846 8015(MOD)	**QC Batch Method:**	SW846 3541

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
o-Terphenyl (SS)	92	40-139		%	

LABORATORY CONTROL SAMPLE: 639586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Diesel Fuel	mg/kg	67	57	85	36-120	
o-Terphenyl (SS)	%			89	40-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 639588 639589

Parameter	Units	Q050228001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TPH quantitated as Diesel Fuel	mg/kg	1170	200	1820	1620	RNC	RNC	28-156	12	40	7
o-Terphenyl (SS)	%					123	112	40-139	9.4		

Analysis Description:	Volatile Organic Analysis	**QC Batch:**	VMS/3245
Analysis Method:	SW846 5030B/8260B	**QC Batch Method:**	SW846 5030B/8260B

METHOD BLANK: 638856

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Benzene	ND	0.005	0.002	mg/kg	
Bromobenzene	ND	0.005	0.002	mg/kg	
Bromochloromethane	ND	0.005	0.003	mg/kg	
Bromodichloromethane	ND	0.005	0.002	mg/kg	
Bromoform	ND	0.005	0.001	mg/kg	
Bromomethane (Methyl Bromide)	ND	0.020	0.004	mg/kg	
n-Butylbenzene	ND	0.005	0.002	mg/kg	
sec-Butylbenzene	ND	0.005	0.002	mg/kg	
tert-Butylbenzene	ND	0.005	0.002	mg/kg	
Carbon tetrachloride	ND	0.005	0.002	mg/kg	
Chlorobenzene	ND	0.005	0.002	mg/kg	
Chloroethane (Ethyl Chloride)	ND	0.020	0.003	mg/kg	
Chloroform	ND	0.005	0.002	mg/kg	
Chloromethane(Methyl Chloride)	ND	0.020	0.002	mg/kg	
2-Chlorotoluene	ND	0.005	0.002	mg/kg	
4-Chlorotoluene	ND	0.005	0.002	mg/kg	
Dibromochloromethane	ND	0.005	0.001	mg/kg	
1,2-Dibromo-3-chloropropane	ND	0.005	0.002	mg/kg	
1,2-Dibromoethane (EDB)	ND	0.005	0.001	mg/kg	
Dibromomethane	ND	0.005	0.002	mg/kg	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Volatile Organic Analysis	**QC Batch:**	VMS/3245
Analysis Method:	SW846 5030B/8260B	**QC Batch Method:**	SW846 5030B/8260B

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
1,2-Dichlorobenzene	ND	0.005	0.002	mg/kg	
1,3-Dichlorobenzene	ND	0.005	0.002	mg/kg	
1,4-Dichlorobenzene	ND	0.005	0.001	mg/kg	
Dichlorodifluoromethane (F-12)	ND	0.010	0.002	mg/kg	
1,1-Dichloroethane	ND	0.005	0.002	mg/kg	
1,2-Dichloroethane (EDC)	ND	0.005	0.001	mg/kg	
1,1-Dichloroethene	ND	0.005	0.002	mg/kg	
cis-1,2-Dichloroethene	ND	0.005	0.002	mg/kg	
trans-1,2-Dichloroethene	ND	0.005	0.002	mg/kg	
1,2-Dichloropropane	ND	0.005	0.002	mg/kg	
1,3-Dichloropropane	ND	0.005	0.002	mg/kg	
2,2-Dichloropropane	ND	0.005	0.002	mg/kg	
1,1-Dichloropropene	ND	0.005	0.002	mg/kg	
Dichlorotrifluoroethane (F123)	ND	0.005	0.001	mg/kg	
Ethylbenzene	ND	0.005	0.002	mg/kg	
Hexachlorobutadiene	ND	0.005	0.002	mg/kg	
4-Isopropyltoluene	ND	0.005	0.002	mg/kg	
Methyl tert-butyl ether (MTBE)	ND	0.005	0.002	mg/kg	
Methylene chloride	ND	0.030	0.001	mg/kg	
Naphthalene	ND	0.005	0.002	mg/kg	
n-Propylbenzene	ND	0.005	0.002	mg/kg	
Styrene	ND	0.005	0.002	mg/kg	
1,1,1,2-Tetrachloroethane	ND	0.005	0.002	mg/kg	
1,1,2,2-Tetrachloroethane	ND	0.005	0.002	mg/kg	
Tetrachloroethene (PCE)	ND	0.005	0.002	mg/kg	
Toluene	ND	0.005	0.001	mg/kg	
1,2,3-Trichlorobenzene	ND	0.005	0.002	mg/kg	
1,2,4-Trichlorobenzene	ND	0.005	0.002	mg/kg	
1,1,2-Trichloroethane	ND	0.005	0.001	mg/kg	
1,1,1-Trichloroethane (TCA)	ND	0.005	0.002	mg/kg	
Trichloroethene (TCE)	ND	0.005	0.002	mg/kg	
Trichlorofluoromethane (F-11)	ND	0.005	0.004	mg/kg	
1,2,3-Trichloropropane	ND	0.005	0.002	mg/kg	
Trichlorotrifluorethane (F113)	ND	0.010	0.002	mg/kg	
1,2,4-Trimethylbenzene	ND	0.005	0.002	mg/kg	
1,3,5-Trimethylbenzene	ND	0.005	0.002	mg/kg	
Vinyl chloride	ND	0.005	0.003	mg/kg	
Xylenes, total	ND	0.005	0.001	mg/kg	
4-Bromofluorobenzene (SS)	89	74-130		%	
Dibromofluoromethane (SS)	101	69-129		%	
1,2-Dichloroethane-d4 (SS)	90	61-133		%	
Toluene-d8 (SS)	101	71-135		%	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Volatile Organic Analysis	**QC Batch:**	VMS/3245
Analysis Method:	SW846 5030B/8260B	**QC Batch Method:**	SW846 5030B/8260B

LABORATORY CONTROL SAMPLE & LCSD: 638857 638858

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% REC Limits	RPD	Max RPD	Qualifier
Benzene	mg/kg	0.04	0.0443	0.0366	111	92	50-150	19	50	
Bromochloromethane	mg/kg	0.04	0.043	0.0365	108	91	50-150	16	50	
Bromodichloromethane	mg/kg	0.04	0.0452	0.0385	113	96	50-150	16	50	
Chlorobenzene	mg/kg	0.04	0.0418	0.0343	105	86	50-150	20	50	
1,1-Dichloroethene	mg/kg	0.04	0.0444	0.0358	111	90	50-150	21	50	
Methyl tert-butyl ether (MTBE)	mg/kg	0.04	0.0488	0.0421	122	105	50-150	15	50	
Toluene	mg/kg	0.04	0.0413	0.0339	103	85	50-150	20	50	
Trichloroethene (TCE)	mg/kg	0.04	0.0442	0.0371	111	93	50-150	17	50	
4-Bromofluorobenzene (SS)	%				94	91	74-130	3.2		
Dibromofluoromethane (SS)	%				100	100	69-129	0		
1,2-Dichloroethane-d4 (SS)	%				101	98	61-133	3.3		
Toluene-d8 (SS)	%				100	101	71-135	1.2		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 639382 639383

Parameter	Units	Q050214001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Benzene	mg/kg	0	0.2	0.142	0.154	71	77	50-150	8.1	50	
Bromochloromethane	mg/kg	0	0.2	0.137	0.146	69	73	50-150	6.4	50	
Bromodichloromethane	mg/kg	0	0.2	0.104	0.0867	52	43	50-150	18	50	13
Chlorobenzene	mg/kg	0	0.2	0.111	0.109	56	55	50-150	1.8	50	
1,1-Dichloroethene	mg/kg	0	0.2	0.148	0.173	74	87	50-150	16	50	
Methyl tert-butyl ether (MTBE)	mg/kg	0	0.2	0.163	0.167	82	84	50-150	2.4	50	
Toluene	mg/kg	0.082	0.2	0.218	0.234	68	76	50-150	7.1	50	
Trichloroethene (TCE)	mg/kg	0	0.2	0.129	0.135	65	68	50-150	4.5	50	
4-Bromofluorobenzene (SS)	%					92	91	74-130	1.3		
Dibromofluoromethane (SS)	%					100	109	69-129	8.2		
1,2-Dichloroethane-d4 (SS)	%					105	112	61-133	6.2		
Toluene-d8 (SS)	%					102	97	71-135	5.5		

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/10778
Analysis Method:	SW846 9012A	**QC Batch Method:**	SW846 9012A

METHOD BLANK: 639384

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Cyanide	ND	0.080	0.080	mg/kg	

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QUALITY CONTROL DATA

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/10778
Analysis Method:	SW846 9012A	**QC Batch Method:**	SW846 9012A

LABORATORY CONTROL SAMPLE: 639385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Cyanide	mg/kg	0.3	0.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 639386 639387

Parameter	Units	Q050123001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Cyanide	mg/kg	0.69	0.6	1.08	1.12	65	72	70-130	3.6	30	8

Analysis Description:	Percent Solids Analysis	**QC Batch:**	WGR/5763
Analysis Method:	SM20-2540 G	**QC Batch Method:**	SM20-2540 G

METHOD BLANK: 639023

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Solids, Percent	ND	0.1	0.1	%	

SAMPLE DUPLICATE: 639038

Parameter	Units	Q050089001 Result	DUP Result	RPD	Max RPD	Qualifiers
Solids, Percent	%	17.8	17.7	0.6	20	

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QUALITY CONTROL DATA QUALIFIERS

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

3	Sample diluted due to a high concentration of non-target analyte(s), resulting in increased reporting limits.
7	RNC = Recovery Not Calculated. Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries were not calculated due to the high native concentration in the sample selected for MS/MSD versus the laboratory spike concentration.
8	Low Matrix Spike recovery(ies) due to possible matrix interferences in the QC sample. QC batch accepted based on LCS and RPD results.
9	Spike recovery for this compound was high, outside Caltest acceptance criteria. A sample result of 'ND' for this compound should be considered valid, otherwise any other value reported should be considered estimated.
10	Due to matrix interferences present in the sample, surrogate recoveries failed to meet the QA/QC acceptance criteria.
11	Matrix Spike recovery(ies) outside control limits: LCS(LCSD) recoveries and RPD are in control. Possible Matrix interference in QC sample.
12	Matrix Spike recovery(ies) outside control limits, RPD recovery is in control. Possible Matrix interference in QC sample.
13	Matrix Spike recovery(ies) outside of control limits. Sample result accepted based on LCS, RPD and Method Blank.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: Q050123
Project ID: NPDES QUARTERLY MAY 2015

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
Q050123001	**E000764-01 ASH A**	SW846 7471A	MPR/13565	SW846 7471A	MHG/4963
Q050123004	**E000766-01 BARSCREEN**	SW846 7471A	MPR/13565	SW846 7471A	MHG/4963
Q050123005	**E000767-01 GRIT**	SW846 7471A	MPR/13565	SW846 7471A	MHG/4963
Q050123002	**E000763-01 ASH A**	SW846 7470A	MPR/13577	SW846 7470A	MHG/4968
Q050123004	**E000766-01 BARSCREEN**	SW846 7470A Low Level	MPR/13577	SW846 7470A Low	MHG/4968
Q050123005	**E000767-01 GRIT**	SW846 7470A Low Level	MPR/13577	SW846 7470A Low	MHG/4968
Q050123001	**E000764-01 ASH A**	SW846 3050B	MPR/13563	SW846 6010B	MIC/4479
Q050123004	**E000766-01 BARSCREEN**	SW846 3050B	MPR/13563	SW846 6010B	MIC/4479
Q050123005	**E000767-01 GRIT**	SW846 3050B	MPR/13563	SW846 6010B	MIC/4479
Q050123002	**E000763-01 ASH A**	SW846 3010	MPR/13573	SW846 6010B	MIC/4481
Q050123004	**E000766-01 BARSCREEN**	SW846 3010	MPR/13573	SW846 6010B	MIC/4481
Q050123005	**E000767-01 GRIT**	SW846 3010	MPR/13573	SW846 6010B	MIC/4481
Q050123003	**E000765-01 ASH A**	(per attached report)	REF/2065		
Q050123004	**E000766-01 BARSCREEN**	(per attached report)	REF/2065		
Q050123005	**E000767-01 GRIT**	(per attached report)	REF/2065		
Q050123004	**E000766-01 BARSCREEN**	SW846 3541	SPR/6946	SW846 8015(MOD)	SFL/1703
Q050123005	**E000767-01 GRIT**	SW846 3541	SPR/6946	SW846 8015(MOD)	SFL/1703
Q050123004	**E000766-01 BARSCREEN**	SW846 3540	SPR/6939	SW846 8270C	SMS/3755
Q050123005	**E000767-01 GRIT**	SW846 3540	SPR/6939	SW846 8270C	SMS/3755
Q050123004	**E000766-01 BARSCREEN**	SW846 5030B/8260B	VMS/3245		
Q050123005	**E000767-01 GRIT**	SW846 5030B/8260B	VMS/3245		
Q050123001	**E000764-01 ASH A**	SW846 9012A	WCO/10778		
Q050123004	**E000766-01 BARSCREEN**	SW846 9012A	WCO/10778		
Q050123005	**E000767-01 GRIT**	SW846 9012A	WCO/10778		
Q050123001	**E000764-01 ASH A**	SM20-2540 G	WGR/5763		

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464 McCormick Street, San Leandro, CA 94577
Phone/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com sanleandrolab@emsl.com

EMSL Order:	091506686
CustomerID:	CALT50
CustomerPO:	Q050123
ProjectID:	

Attn: **Client Services**
Caltest Analytical Laboratories, Inc.
1885 North Kelly Road
NAPA, CA 94558

Phone:	(707) 258-4000
Fax:	(707) 226-1001
Received:	05/08/15 10:00 AM
Analysis Date:	5/21/2015
Collected:	5/8/2015

Project: **Q050123**

Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
Q050123003 *091506686-0001*	E000765-01 ASH A	Brown Non-Fibrous Homogeneous			100.00% Non-fibrous (other)	**None Detected**
Q050123004 *091506686-0002*	E000766-01 BARSCREEN RAGS	Brown Fibrous Homogeneous	100.00%	Cellulose		**None Detected**
Q050123005 *091506686-0003*	E00076-01 GRIT	Black Non-Fibrous Homogeneous			100.00% Non-fibrous (other)	**None Detected**

Analyst(s)

Matthew Batongbacal (3)

Chris Dojlidko, Laboratory Manager
or other approved signatory

Initial report from 05/21/2015 14:14:17

Caltest ANALYTICAL LABORATORY

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SAMPLE CHAIN OF CUSTODY

PROJECT NAME / PROJECT NUMBER: NPDES Quarterly May 2015

P.O. NUMBER: 4615000068

LAB ORDER #: Q050123

CLIENT: City of Palo Alto

REPORT ATTN: Samantha Bialorucki

MAILING ADDRESS: 2501 Embarcadero Way, Palo Alto

STATE: CA

ZIP: 94303

BILLING ADDRESS: – (Please provide data in CWIQS format zip file and PDF's)

ATTN:

PHONE NUMBER: 650-329-2334

FAX PHONE NUMBER: 650-494-8395

SAMPLER (PRINT & SIGN NAME): WQCP Lab and OPS

TURN-AROUND TIME: [X] STANDARD [ ] RUSH

DUE DATE:

ANALYSES REQUESTED

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	Cyanide	TTLC CAM 17 metals	Total Solid %	STLC Ag,Ba,Cu,Hg,Pb (mg/L)	Cu,As,Be,Cd,Cr,Hg,Ni,Pb	Asbestos(TEM)	TTLC Metals; STLC Metals; TPH as Die	VOC(EPA 624)	SEMI-VOC(EPA 625)	REMARKS
	5/4/2015	10:00	SL	8oz/SJ	None	E000764-01 ASH	A	COMP	X	X	X							TTLC; Quarterly Composite
	5/4/2015	10:00	SL	8oz/SJ	None	E000763-01 ASH	A	COMP				X						STLC (mg/L)
	5/4/2015	10:00	SL	8oz/SJ	None	E000770-01 ASH **	A	COMP						X				
*	5/4/2015	7:00	SL	8oz/SJ	None	E000770-01 Sludge Cake	A	COMP			X		X					Report Dry Wt in mg/Kg to 3 sig figs.
	5/4/2015	9:33	SL	1L/SJ	None	E000766-01 Barscreen Rags	A	GRAB	X					X	X	X	X	
	5/4/2015	9:35	SL	1L/SJ	None	E000767-01 Grit	A	GRAB	X					X	X	X	X	

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
Print Name and Sign: Ryan Hearg	5.5.15/10			5.5.15/1340	

Samples: WC ___ MICRO ___ BIO ___ AA ___ SV ___ VOA ___ pH? Y/N TEMP: 3.0 SEALED: Y/N INTACT: Y/N

BD: BIO ___ WC ___ AA ___

CC: AA ___ SV ___ VOA ___

SL: HP ___ FT ___ QT ___ VOA ___

W/HNO_3 ___ H_2SO_4 ___ NaOH ___

: HNO_3 ___ H_2SO_4 ___ NaOH ___ HCL ___

COMMENTS:

124

*ON Q050~~123~~ CM 5/5/15

CM 5/5/15

** ID ON Bottle Says E000765-01A

CM 5/5/15

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ___ PR ___ M ___ F ___

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

Caltest ANALYTICAL LABORATORY
ENVIRONMENTAL ANALYSES

SUBCONTRACT CHAIN OF CUSTODY

PROJECT ID / PO NUMBER - Q050123

PM Review: [signature]

Sending Laboratory
Caltest Analytical Laboratory
1885 N. Kelly Rd.
Napa, CA 94558
Phone: (707) 258-4000
Fax: (707) 226-1001
Report To: Client Services
Email: pmgr@caltestlabs.com

Receiving Laboratory
EMSL Analytical, Inc.
464 Mc Mormick St.
San Leandro, CA 94577
Phone: (510) 895-3675
Fax: (510) 895-3680

Due Date: **05/22/15** (contact if due date cannot be met)

Sampled By: WQCP LAB / OPS

Caltest Lab ID (ref. only)	Client Sample ID	Matrix	Sample Date	Container Type	Presevative	Requested Analyses	Comments
Q050123003	**E000765-01 ASH A**	SL	05/04/2015 10:00	SJ8g	NONE	Asbestos Analysis - PLM Carb A	
Q050123004	**E000766-01 BARSCREEN RAGS**	SL	05/04/2015 09:33	↓	↓	Asbestos Analysis - PLM Carb A	
Q050123005	**E000767-01 GRIT**	SL	05/04/2015 09:35	↓	↓	Asbestos Analysis - PLM Carb A	

Relinquished By	Date / Time	Received By	Date / Time
[signature]	5/7/15 1530	ontrac	
Relinquished By	Date / Time	Received By	Date / Time

Matrix: AQ - Aqueous DW - Drinking Water SL - Solid

DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES
730 Alfred Nobel Dr. * Hercules, CA 94547 (510) 724-9450

ANALYTICAL RESULTS
REPORTS

Company: City of Palo Alto WQCP
Address: 2501 Embarcadero Way
Palo Alto, CA 94303

Contact: Samantha Bialorucki
Project Manager
Date: August 27, 2015
Project Number: NPDES & Non-NPDES, WQCP

TABLE I

Sample ID	Sample Date	Matrix	EPA Method	Analyses	Results pCi/gram	±	2 sigma Error	MDA
E000766 BAR SCREEN RAGS	05-04-15 (09:33)	Solid						
Analyses completed on:								
	8/25/15		900.0	Gross Alpha	0.07	±	0.03	0.01
	8/25/15		900.0	Gross Beta	0.06	±	0.03	0.05
	8/11/15		901.1	K-40	ND		0.02	0.25
	8/11/15		901.1	I-131	ND		0.01	0.30
	8/11/15		901.1	Mn-54	ND		0.01	0.01
	8/11/15		901.1	Co-58	ND		0.01	0.01
	8/11/15		901.1	Co-60	ND		0.01	0.01
	8/11/15		901.1	Cs-137	ND		0.01	0.01
	8/11/15		901.1	Eu-152	ND		0.01	0.01
	8/11/15		901.1	Eu-154	ND		0.01	0.02
	8/11/15		901.1	Eu-155	ND		0.01	0.01
	8/11/15		901.1	Ir-192	ND		0.01	0.01
	8/11/15		901.1	Tl-208	ND		0.01	0.04
	8/11/15		901.1	Pb-210	0.02	±	0.02	0.02
	8/11/15		901.1	Bi-212	ND		0.03	0.08
	8/11/15		901.1	Pb-212	ND		0.01	0.01
	8/11/15		901.1	Bi-214	ND		0.01	0.02
	8/11/15		901.1	Pb-214	ND		0.01	0.02
	8/11/15		901.1	Ra-226	ND		0.01	0.03
	8/11/15		901.1	Ac-228	ND		0.01	0.03
	8/11/15		901.1	Th-228	ND		0.01	0.03
	8/11/15		901.1	Th-230	ND		0.01	0.20
	8/11/15		901.1	Th-232	ND		0.01	0.02
	8/11/15		901.1	Th-234	0.03	±	0.01	0.03
	8/11/15		901.1	Pa-234m	ND		0.01	0.01
	8/11/15		901.1	U-233/234	ND		0.01	0.02
	8/11/15		901.1	U-235	ND		0.01	0.01
	8/11/15		901.1	U-238	ND		0.01	0.02

TABLE I (cont'd)

Sample ID	Sample Date	Matrix	EPA Method	Analyses	Results pCi/gram	±	2 sigma Error	MDA
E000767 GRIT	05-04-15 (09:35)	Solid						
Analyses completed on:								
	8/25/15		900.0	Gross Alpha	1.62	±	1.30	0.62
	8/25/15		900.0	Gross Beta	ND		2.70	3.78
	8/12/15		901.1	K-40	0.33	±	0.04	0.20
	8/12/15		901.1	I-131	ND		0.01	0.10
	8/12/15		901.1	Mn-54	ND		0.01	0.01
	8/12/15		901.1	Co-58	ND		0.01	0.01
	8/12/15		901.1	Co-60	ND		0.01	0.01
	8/12/15		901.1	Cs-137	ND		0.01	0.01
	8/12/15		901.1	Eu-152	ND		0.01	0.01
	8/12/15		901.1	Eu-154	ND		0.01	0.02
	8/12/15		901.1	Eu-155	ND		0.01	0.01
	8/12/15		901.1	Ir-192	ND		0.01	0.01
	8/12/15		901.1	Tl-208	ND		0.01	0.04
	8/12/15		901.1	Pb-210	0.06	±	0.01	0.01
	8/12/15		901.1	Bi-212	ND		0.01	0.07
	8/12/15		901.1	Pb-212	ND		0.01	0.01
	8/12/15		901.1	Bi-214	ND		0.01	0.12
	8/12/15		901.1	Pb-214	ND		0.01	0.02
	8/12/15		901.1	Ra-226	0.01	±	0.01	0.01
	8/12/15		901.1	Ac-228	ND		0.01	0.03
	8/12/15		901.1	Th-228	ND		0.01	0.04
	8/12/15		901.1	Th-230	ND		0.01	0.02
	8/12/15		901.1	Th-232	0.02	±	0.01	0.01
	8/12/15		901.1	Th-234	0.05	±	0.01	0.02
	8/12/15		901.1	Pa-234m	ND		0.02	0.07
	8/12/15		901.1	U-233/234	0.15	±	0.03	0.01
	8/12/15		901.1	U-235	ND		0.01	0.01
	8/12/15		901.1	U-238	0.06	±	0.01	0.01

TABLE I (cont'd)

Sample ID	Sample Date	Matrix	EPA Method	Analyses	Results pCi/gram	±	2 sigma Error	MDA
E000770 SLUDGE CAKE (07:00)	05-14-15	Solid						
Analyses completed on:								
	8/25/15		900.0	Gross Alpha	1.48	±	0.37	0.08
	8/25/15		900.0	Gross Beta	1.35	±	0.32	0.38
	6/08/14		901.1	K-40	0.79	±	0.03	0.27
	8/13/15		901.1	I-131	ND		0.05	0.70
	8/13/15		901.1	Mn-54	ND		0.01	0.01
	8/13/15		901.1	Co-58	ND		0.01	0.01
	8/13/15		901.1	Co-60	ND		0.01	0.01
	8/13/15		901.1	Cs-137	ND		0.01	0.01
	8/13/15		901.1	Eu-152	ND		0.01	0.02
	8/13/15		901.1	Eu-154	ND		0.01	0.02
	8/13/15		901.1	Eu-155	ND		0.01	0.01
	8/13/15		901.1	Ir-192	ND		0.01	0.01
	8/13/15		901.1	Tl-208	ND		0.01	0.01
	8/13/15		901.1	Pb-210	ND		0.01	0.02
	8/13/15		901.1	Bi-212	ND		0.01	0.17
	8/13/15		901.1	Pb-212	ND		0.01	0.01
	8/13/15		901.1	Bi-214	ND		0.01	0.16
	8/13/15		901.1	Pb-214	ND		0.01	0.29
	8/13/15		901.1	Ra-226	ND		0.01	0.02
	8/13/15		901.1	Ac-228	ND		0.01	0.03
	8/13/15		901.1	Th-228	ND		0.02	0.05
	8/13/15		901.1	Th-230	ND		0.02	0.14
	8/13/15		901.1	Th-232	ND		0.01	0.03
	8/13/15		901.1	Th-234	0.10	±	0.01	0.03
	8/13/15		901.1	Pa-234m	ND		0.01	0.10
	8/13/15		901.1	U-233/234	0.02	±	0.01	0.02
	8/13/15		901.1	U-235	ND		0.01	0.01
	8/13/15		901.1	U-238	0.01	±	0.01	0.01

Sample ID	Sample Date	Matrix	EPA Method	Analyses	Results pCi/gram	±	2 Sigma Error	MDA
E000765-01B ASH	04-27-15 (00:00)	Solid						
Analyses completed on:								
	8/25/15		900.0	Gross Alpha	70.74	±	11.97	1.67
	8/25/15		900.0	Gross Beta	56.58	±	6.79	6.46
	8/14/15		901.1	K-40	3.89	±	0.21	1.64
	8/14/15		901.1	Mn-54	ND		0.01	0.07
	8/14/15		901.1	Co-58	ND		0.01	0.07
	8/14/15		901.1	Co-60	ND		0.01	0.06
	8/14/15		901.1	Cs-137	0.15	±	0.02	0.06
	8/14/15		901.1	Eu-152	ND		0.01	0.01
	8/14/15		901.1	Eu-154	ND		0.01	0.03
	8/14/15		901.1	Eu-155	ND		0.02	0.02
	8/14/15		901.1	Ir-192	ND		0.01	0.02
	8/14/15		901.1	Tl-208	0.01	±	0.01	0.01
	8/14/15		901.1	Pb-210	0.42	±	0.02	0.10
	8/14/15		901.1	Bi-212	2.20	±	0.19	1.01
	8/14/15		901.1	Pb-212	2.44	±	0.24	0.98
	8/14/15		901.1	Bi-214	0.44	±	0.03	0.11
	8/14/15		901.1	Pb-214	0.30	±	0.02	0.14
	8/14/15		901.1	Ra-226	0.43	±	0.03	0.11
	8/14/15		901.1	Ac-228	1.29	±	0.12	0.69
	8/14/15		901.1	Th-228	1.01	±	0.05	0.32
	8/14/15		901.1	Th-230	1.44	±	0.03	0.16
	8/14/15		901.1	Th-232	0.56	±	0.03	0.09
	8/14/15		901.1	Th-234	10.24	±	0.12	0.18
	8/14/15		901.1	Pa-234m	11.57	±	0.47	0.98
	8/14/15		901.1	U-233/234	9.65	±	0.19	0.25
	8/14/15		901.1	U-235	0.37	±	0.01	0.05
	8/14/15		901.1	U-238	10.89	±	0.12	0.13

TABLE II Q C RESULTS

Sample ID	Nuclide	Results ± pCi/Sample	2 Sigma Error	MDA	Amount added pCi	Evaluation % Recovery
Laboratory Control Sample						
LCS						
	Gross Alpha	352.61 ±	3.63	0.75	386.65	91.17
	Gross Beta	587.71 ±	6.17	0.05	604.45	97.23
	Co-60	8131.74 ±	48.11	0.09	8936.48	90.99
	Cs-137	5328.58 ±	41.62	0.05	5513.26	96.65
	Ra-226	1131.25 ±	9.86	0.07	1243.55	90.97
	U-233/234	6517.11 ±	19.06	5.62	6800.06	95.84
	U-235	316.32 ±	3.10	2.11	340.00	93.03
	U-238	6329.29 ±	32.41	16.47	6800.06	93.07
Blank	Gross Alpha	ND	0.09	0.12	NA	
	Gross Beta	ND	0.42	0.91	NA	
	K-40	ND	0.26	1.18	NA	
	Mn-54	ND	0.01	0.02	NA	
	Co-58	ND	0.01	0.02	NA	
	Co-60	ND	0.01	0.02	NA	
	Cs-137	ND	0.01	0.03	NA	
	Eu-152	ND	0.01	0.02	NA	
	Eu-154	ND	0.01	0.03	NA	
	Eu-155	ND	0.01	0.02	NA	
	Pb-210	ND	0.01	0.06	NA	
	Ra-226	ND	0.01	0.09	NA	
	Th-230	ND	0.03	0.10	NA	
	Th-232	ND	0.01	0.10	NA	
	Pa-234m	ND	0.01	0.15	NA	
	Bi-212	ND	0.01	0.02	NA	
	Pb-212	ND	0.01	0.09	NA	
	Bi-214	ND	0.01	0.20	NA	
	Pb-214	ND	0.02	0.06	NA	
	U-233/234	ND	0.02	0.07	NA	
	U-235	ND	0.03	0.05	NA	
	U-238	ND	0.01	0.12	NA	

Patricia Davi

Patricia Davi
QA/QC Manager
Davi Laboratories

PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT

INCINERATOR ASH REPORT FOR WET SEASON 2015

Sludge dewatering method: Belt filter presses followed by incineration

FEB 2015 INCINERATOR QUARTERLY ASH REPORT

Analytes	TTLC				STLC			
	Sample Collection Dates: 11/2014-1/2015; Composited 2/2/2015							
	Extraction Date:		2/6-10/2015		Extraction Dates: 2/13-17/2015			
	Analysis Date:		2/11-18/2015		Analysis Date:		2/18/2015	
	TTLC Max. Limit (mg/kg)	**RL/MDL (mg/kg)**	**mg/kg (Wet Weight)**	**Method**	**STLC Max. Limit (mg/L)**	**RL/MDL (mg/L)**	**mg/L**	**Method**
Antimony	500	2.0 / 1.5	**5.4**	A	15			
Arsenic	500	2.0 / .99	**7.6**	A	5			
Barium	10000	1.0 / .69	**820**	A	100	.050 / .010	**20**	B
Beryllium	75	4.0 / .15	**ND**	A	0.75			
Cadmium	100	0.20 / .050	**1.3**	A	1			
Chromium	2500	1.0 / .20	**63**	A	560			
Cobalt	8000	0.40/ .20	**17**	A	80			
Copper	2500	4.0 / 0.40	**1900**	A	25	0.10 / 0.030	**44**	B
Lead	1000	1.0 / 0.50	**67**	A	5	.050 / .020	**0.21**	B
Mercury	20	.020 / .00080	**DNQ (.0014)**	D	0.2	.0005/.0003	**ND**	C
Molybdenum	3500	2.0 / .99	**34**	A	350			
Nickel	2000	1.0 / .30	**78**	A	20			
Selenium	100	2.0 / 0.79	**8.2**	A	1			
Silver	500	1.0 / 0.15	**18**	A	5	0.03 / .006	**ND**	B
Thallium	700	2.0 / 0.69	**2.3**	A	7			
Vanadium	2400	0.40 / .20	**70**	A	24			
Zinc	5000	16/ 4.0	**2200**	A	250			
Cyanide	---	0.08/0.08	**0.73**	E	---			

Total Solids in Ash	METHOD	Analysis Date
100.0%	F	**2/9/2015**

ND = Not detected at or above the detection limit.

DNQ = Data not quantified, result between MDL and RL

NOTE = All data in the table are based on Quarterly composites made up of ash from Nov, Dec and Jan.

[Methods A-E] Caltest Analytical

[Method F] Palo Alto RWQCP

A= SW846 -3050B/6010B

B= SW846 -3010/6010B

C= SW846 -7470A

D =SW846 7471A

E= SW846 9012 A

F= SM 2540G

PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT

INCINERATOR ASH REPORT FOR DRY SEASON 2015

Sludge dewatering method: Belt filter presses followed by incineration

MAY 2015 INCINERATOR QUARTERLY ASH REPORT

Analytes	TTLC				STLC			
	Sample Collection Dates: 2/2015-4/2015; Composited 5/4/2015							
	Extraction Date:		5/6/2015		Extraction Dates: 5/11-12/2015			
	Analysis Date:		5/07-18/2015		Analysis Date:		5/13-14/2015	
	TTLC Max. Limit (mg/kg)	**RL/MDL (mg/kg)**	**mg/kg (Wet Weight)**	**Method**	**STLC Max. Limit (mg/L)**	**RL/MDL (mg/L)**	**mg/L**	**Method**
Antimony	500	2.0 / 1.5	**3.5**	A	15			
Arsenic	500	2.0 / 1.0	**4.6**	A	5			
Barium	10000	1.0 / .70	**830**	A	100	.070 / .015	**16**	B
Beryllium	75	5.0 / .15	**ND**	A	0.75			
Cadmium	100	0.20 / .050	**0.36**	A	1			
Chromium	2500	1.0 / .20	**70**	A	560			
Cobalt	8000	0.40/ .20	**19**	A	80			
Copper	2500	4.0 / 0.40	**1900**	A	25	0.10 / 0.030	**40**	B
Lead	1000	1.0 / 0.50	**55**	A	5	.10 / .040	**0.19**	B
Mercury	20	.020 / .00080	**DNQ 0.0009**	D	0.2	.0005/.0003	**ND**	C
Molybdenum	3500	2.0 / 1.0	**29**	A	350			
Nickel	2000	1.0 / .30	**81**	A	20			
Selenium	100	2.0 / 0.80	**7.9**	A	1			
Silver	500	1.0 / 0.15	**14**	A	5	0.030 / .0060	**ND**	B
Thallium	700	2.0 / 0.70	**2.6**	A	7			
Vanadium	2400	0.40 / .20	**77**	A	24			
Zinc	5000	8.0/ 2.0	**2000**	A	250			
Cyanide	---	0.08/0.08	**0.69**	E	---			

Total Solids in Ash	METHOD	Analysis Date
100.0%	F	**5/7/2015**

ND = Not detected at or above the detection limit.

DNQ = Data not quantified, result between MDL and RL

NOTE = All data in the table are based on Quarterly composites made up of ash from Feb, March, April.

[Methods A-E] Caltest Analytical

[Method F] Palo Alto RWQCP

A= SW846 -3050B/6010B

B= SW846 -3010/6010B

C= SW846 -7470A

D =SW846 7471A

E= SW846 9012 A

F= SM 2540G

PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT

INCINERATOR ASH REPORT FOR DRY SEASON 2015

Sludge dewatering method: Belt filter presses followed by incineration

AUG 2015 INCINERATOR QUARTERLY ASH REPORT

Analytes	TTLC				STLC			
	Sample Collection Dates: 5/2015-7/2015; Composited 8/3/2015							
	Extraction Date:		8/07-13/2015		Extraction Dates: 8/13/2015			
	Analysis Date:		8/11-14/2015		Analysis Date:		8/14-17/2015	
	TTLC Max. Limit (mg/kg)	**RL/MDL (mg/kg)**	**mg/kg (Wet Weight)**	**Method**	**STLC Max. Limit (mg/L)**	**RL/MDL (mg/L)**	**mg/L**	**Method**
Antimony	500	2.0 / 1.5	**3.9**	A	15			
Arsenic	500	2.0 / 0.99	**5.0**	A	5			
Barium	10000	1.0 / .69	**800**	A	100	.15 / .070	**19**	B
Beryllium	75	4.0 / .15	**ND**	A	0.75			
Cadmium	100	0.20 / .050	**2.4**	A	1			
Chromium	2500	1.0 / .20	**70**	A	560			
Cobalt	8000	0.40/ .20	**20**	A	80			
Copper	2500	4.0 / 0.40	**1960**	A	25	0.10 / 0.030	**41**	B
Lead	1000	1.0 / 0.50	**64**	A	5	.10/ .040	**0.27**	B
Mercury	20	.020 / .00081	**0.041**	D	0.2	.0005/.0003	**ND**	C
Molybdenum	3500	2.0 / 0.99	**56**	A	350			
Nickel	2000	1.0 / .30	**84**	A	20			
Selenium	100	2.0 / 0.99	**6.3**	A	1			
Silver	500	1.0 / 0.15	**16**	A	5	0.03 / .006	**ND**	B
Thallium	700	2.0 / 0.69	**DNQ 1.6**	A	7			
Vanadium	2400	0.40 / .20	**63**	A	24			
Zinc	5000	16/ 4.0	**2800**	A	250			
Cyanide	---	0.080/0.080	**0.44**	E	---			

Total Solids in Ash	METHOD	Analysis Date
100.0%	F	**8/6/2015**

ND = Not detected at or above the detection limit.

DNQ = Data not quantified, result between MDL and RL

NOTE = All data in the table are based on Quarterly composites made up of ash from May, June, and July.

[Methods A-E] Caltest Analytical

[Method F] Palo Alto RWQCP

A= SW846 -3050B/6010B

B= SW846 -3010/6010B

C= SW846 -7470A

D =SW846 7471A

E= SW846 9012 A

F= SM 2540B

PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT

INCINERATOR ASH REPORT FOR WET SEASON 2015

Sludge dewatering method: Belt filter presses followed by incineration

NOV 2015 INCINERATOR QUARTERLY ASH REPORT

Analytes	TTLC				STLC			
	Sample Collection Dates: 8/2015-10/2015; Composited 10/26/2015							
	Prepare Date:		11/17-24/2015		Prepare Dates: 11/17-19/2015			
	Analysis Date:		11/10-25/2015		Analysis Date:		11/18-19/2015	
	TTLC Max. Limit (mg/kg)	**RL/MDL (mg/kg)**	**mg/kg (Wet Weight)**	**Method**	**STLC Max. Limit (mg/L)**	**RL/MDL (mg/L)**	**mg/L**	**Method**
Antimony	500	2.0 / 1.5	**4.0**	A	15			
Arsenic	500	2.0 / 1.0	**5.8**	A	5			
Barium	10000	1.0 / .69	**730**	A	100	.15 / .070	**12**	B
Beryllium	75	4.0 / .15	**ND**	A	0.75			
Cadmium	100	0.20 / .050	**0.47**	A	1			
Chromium	2500	1.0 / .20	**60.4**	A	560			
Cobalt	8000	0.40/ .20	**17**	A	80			
Copper	2500	7.9 / 0.79	**2000**	A	25	0.10 / 0.030	**46**	B
Lead	1000	1.0 / 0.50	**59**	A	5	.05/ .040	**0.07**	B
Mercury	20	.020 / .00080	**0.043**	D	0.2	.0005/0.0003	**ND**	C
Molybdenum	3500	2.0 / 0.99	**300**	A	350			
Nickel	2000	1.0 / .30	**77**	A	20			
Selenium	100	2.0 / 0.99	**4.5**	A	1			
Silver	500	1.0 / 0.15	**16**	A	5	0.03 / .006	**ND**	B
Thallium	700	2.0 / 0.69	**DNQ 0.7**	A	7			
Vanadium	2400	0.40 / .20	**56**	A	24			
Zinc	5000	16/ 4.0	**2500**	A	250			
Cyanide	---	0.080/0.080	**0.72**	E	---			

Total Solids in Ash	METHOD	Analysis Date
100.0%	F	**11/6/2015**

ND = Not detected at or above the detection limit.

DNQ = Data not quantified, result between MDL and RL

NOTE = All data in the table are based on Quarterly composites made up of ash from August, September, and October.

[Methods A-E] Caltest Analytical

[Method F] Palo Alto RWQCP

A= SW846 -3050B/6010B

B= SW846 -3010/6010B

C= SW846 -7470A

D =SW846 7471A

E= SW846 9012 A

F= SM 2540G

EXHIBIT A-2
Ash Bin Cover

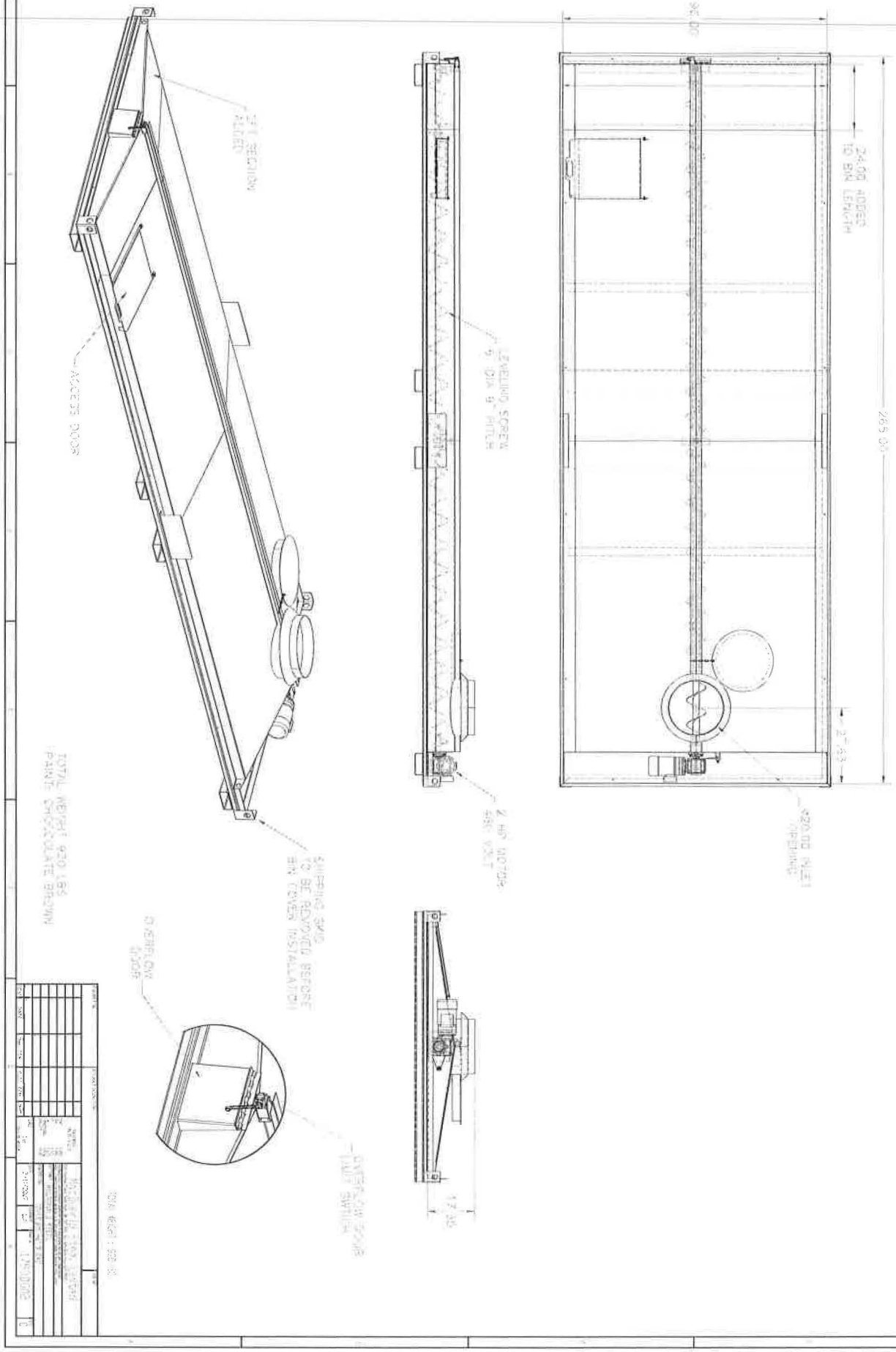

EXHIBIT B
SCHEDULE OF PERFORMANCE

CONTRACTOR shall perform the Services according to the following schedule: Ongoing services for a period of three(3) years.

EXHIBIT C
SCHEDULE OF FEES

CITY shall pay CONTRACTOR according to the following rate schedule. The maximum amount of compensation to be paid to CONTRACTOR, including both payment for services and reimbursable expenses, shall not exceed the amounts set forth in Sections 5 and 6 of the Agreement. Any services provided or hours worked for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to CITY.

Bid Item	Bid Schedule Section	Description	UOM	Qty	PSC[1] Unit Price	PSC[1] Line Total
A-1	A: ash hauling & disposal	Disposal cost of ash	TON	723	$65.00	$46,995.00
A-2	A: ash hauling & disposal	Transportation cost of ash:	LOAD	53	$1,200.00	$63,600.00
A-3	A: ash hauling & disposal	Liner installation fee for ash - per load	LOAD	53	$50.00	$2,650.00
A-4	A: ash hauling & disposal	Bin Rental for ash	DAYS	365	$9.00	$3,285.00
A-5	A: ash hauling & disposal	CA Non-RCRA taxes for ash; based on the most current CA BOE schedule	TON	723	$23.23	$16,795.29
A-6	A: ash hauling & disposal	Local taxes for ash, as necessary, per ton	TON	723	$6.50	$4,699.50
A-7	A: ash hauling & disposal	Surcharges/fees for ash, lump sum	LS	1	$0.00	$0.00
					Subtotal	$138,024.79
B-1	B: sludge hauling & disposal	Disposal cost of sludge	TON	150	$22.00	$3,300.00
B-2	B: sludge hauling & disposal	Transportation cost for sludge	LOAD	12	$600.00	$7,200.00
B-3	B: sludge hauling & disposal	Liner installation fee for sludge - per load	LOAD	12	$50.00	$600.00
B-4	B: sludge hauling & disposal	Bin Rental	DAYS	12	$9.00	$108.00
B-5	B: sludge hauling & disposal	Local taxes, as necessary, per ton	TON	150	$0.00	$0.00
B-6	B: sludge hauling & disposal	Surcharges/fees for sludge, lump sum	LS	1	$0.00	$0.00
B-7	B: sludge hauling & disposal	Roll-off bin mobilization during backup sludge hauling service	EA	6	$450.00	$2,700.00
B-8	B: sludge hauling & disposal	Onsite truck and truck driver to move empty and full bins in and out of incinerator building during backup sludge handling service	HR	48	$95.00	$4,560.00
					Subtotal	$18,468.00
		Contract Year 1, Total for Bid Schedules A and B			Subtotal	$156,492.79
	Price Increases	price increase - Year 2	%	1	3.00%	$4,694.78
	Price Increases	price increase - Year 3	%	1	3.00%	$4,835.63
		Contract Year 1, Total for Bid Schedules A and B				$156,492.79
		Contract Year 2, Total for Bid Schedules A and B				$161,187.57
		Contract Year 3, Total for Bid Schedules A and B				$166,023.20
					3y Total	$483,703.56

[1] PSC Industrial Outsourcing, LP

UOM = unit of measurement; Qty = quantity; LS = lump sum; EA = each; HR = hour

EXHIBIT D
INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A-:VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY PROPERTY DAMAGE BODILY INJURY & PROPERTY DAMAGE COMBINED.	$1,000,000 $1,000,000 $1,000,000	$1,000,000 $1,000,000 $1,000,000
YES	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY - EACH PERSON - EACH OCCURRENCE PROPERTY DAMAGE BODILY INJURY AND PROPERTY DAMAGE, COMBINED	$1,000,000 $1,000,000 $1,000,000 $1,000,000 $1,000,000	$1,000,000 $1,000,000 $1,000,000 $1,000,000 $1,000,000
NO	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE	ALL DAMAGES	$1,000,000	
YES	THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: **CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE,** NAMING AS ADDITIONAL INSUREDS CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.			

I. INSURANCE COVERAGE MUST INCLUDE:

A. A PROVISION FOR A WRITTEN THIRTY DAY ADVANCE NOTICE TO CITY OF CHANGE IN COVERAGE OR OF COVERAGE CANCELLATION; AND

B. A CONTRACTUAL LIABILITY ENDORSEMENT PROVIDING INSURANCE COVERAGE FOR CONTRACTOR'S AGREEMENT TO INDEMNIFY CITY.

C. DEDUCTIBLE AMOUNTS IN EXCESS OF $5,000 REQUIRE CITY'S PRIOR APPROVAL.

II. CONTACTOR MUST SUBMIT CERTIFICATES(S) OF INSURANCE EVIDENCING REQUIRED COVERAGE.

III. ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO "ADDITIONAL INSUREDS"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSUREDS.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSUREDS UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSUREDS, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONTRACTOR SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONTRACTOR SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

NOTICES SHALL BE EMAILED TO: InsuranceCerts@CityofPaloAlto.org

PURCHASING AND
CONTRACT ADMINISTRATION
CITY OF PALO ALTO
P.O. BOX 10250
PALO ALTO, CA 94303

Attachment B

Attachment B: Bid Result Summary
RFQ 161852: Transportation and Disposal of Ash and Sludge

Bid Item	Bid Schedule Section	Description	UOM	Qty	PSC[1] Unit Price	PSC[1] Line Total	CH[2] Unit Price	CH[2] Line Total
A-1	A: ash hauling & disposal	Disposal cost of ash	TON	723	$65.00	$46,995.00	$68.00	$49,164.00
A-2	A: ash hauling & disposal	Transportation cost of ash:	LOAD	53	$1,200.00	$63,600.00	$3,200.00	$169,600.00
A-3	A: ash hauling & disposal	Liner installation fee for ash - per load	LOAD	53	$50.00	$2,650.00	$57.00	$3,021.00
A-4	A: ash hauling & disposal	Bin Rental for ash	DAYS	365	$9.00	$3,285.00	$10.00	$3,650.00
A-5	A: ash hauling & disposal	CA Non-RCRA taxes for ash; based on the most current CA BOE schedule	TON	723	$23.23	$16,795.29	$0.00	$0.00
A-6	A: ash hauling & disposal	Local taxes for ash, as necessary, per ton	TON	723	$6.50	$4,699.50	$0.00	$0.00
A-7	A: ash hauling & disposal	Surcharges/fees for ash, lump sum	LS	1	$0.00	$0.00	$0.00	$0.00
					Subtotal	$138,024.79	Subtotal	$225,435.00
B-1	B: sludge hauling & disposal	Disposal cost of sludge	TON	150	$22.00	$3,300.00	$71.50	$10,725.00
B-2	B: sludge hauling & disposal	Transportation cost for sludge	LOAD	12	$600.00	$7,200.00	$710.80	$8,529.60
B-3	B: sludge hauling & disposal	Liner installation fee for sludge - per load	LOAD	12	$50.00	$600.00	$31.83	$381.96
B-4	B: sludge hauling & disposal	Bin Rental	DAYS	12	$9.00	$108.00	$10.61	$127.32
B-5	B: sludge hauling & disposal	Local taxes, as necessary, per ton	TON	150	$0.00	$0.00	$0.00	$0.00
B-6	B: sludge hauling & disposal	Surcharges/fees for sludge, lump sum	LS	1	$0.00	$0.00	$300.00	$300.00
B-7	B: sludge hauling & disposal	Roll-off bin mobilization during backup sludge hauling service	EA	6	$450.00	$2,700.00	$500.00	$3,000.00
B-8	B: sludge hauling & disposal	Onsite truck and truck driver to move empty and full bins in and out of incinerator building during backup sludge handling service	HR	48	$95.00	$4,560.00	$100.79	$4,837.92
					Subtotal	$18,468.00	Subtotal	$27,901.80
		Contract Year 1, Total for Bid Schedules A and B			Subtotal	$156,492.79	Subtotal	$253,336.80
	Price Increases	Estimated price increase - Year 2 (see note 3)	%	1	3.00%	$4,694.78	3.00%	$7,591.10
	Price Increases	Estimated price increase - Year 3 (see note 3)	%	1	3.00%	$4,835.63	3.00%	$7,818.84
		Contract Year 1, Total for Bid Schedules A and B				$156,492.79		$253,336.80
		Contract Year 2, Total for Bid Schedules A and B				$161,187.57		$260,927.90
		Contract Year 3, Total for Bid Schedules A and B				$166,023.20		$268,746.74
					3y Total	$483,703.56	3y Total	$783,011.45

[1] PSC Industrial Outsourcing, LP

[2] Clean Harbors Environmental Services, Inc.

[3] Clean Harbors Environmental Services, Inc.; 2nd and 3rd year contract price increases on items A-1, 2, 3, and 4, and B-1, 2, 3, 4, 7, and 8 only

UOM = unit of measurement; Qty = quantity; LS = lump sum; EA = each; HR = hour