

# EnviroTech Consultants, Inc.

5400 Rosedale Highway  
Bakersfield, CA 93308

**HATHAWAY, LLC  
PRELIMINARY RESPONSE TO  
RWQCB SECTION 13267 ORDER  
POND INFORMATION AND SAMPLING RESULTS**

**JASMIN OIL FIELD  
QUINN LEASES  
SECTION 15 T25S/R27E MDB&M**

**KERN FRONT OIL FIELD  
DAVIES LEASE  
SECTION 4 T28S/R27E MDB&M**

**POSO OIL FIELD  
HATHAWAY USL LEASE  
SECTION 20 T27S/R27E MDB&M**

**EDISON OIL FIELD  
CROFTON COFFEE LEASE  
SECTION 36 T29S/R29E MDB&M**

**DEVIL'S DEN OIL FIELD  
FEE AND GRACE CAIRNS LEASES  
SECTION 25 and 26 T25S/R18E MDB&M**

**December 8, 2015**

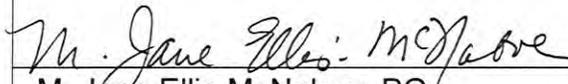
**Prepared by:**

**EnviroTech Consultants, Inc.**



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Kelsey Padilla, Geologist



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M. Jane Ellis-McNaboe, PG



December 9, 2015

**Certification Statement**

RWQCB Order 13267, Pond Sampling Technical Report  
Hathaway, LLC

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine an imprisonment for knowing violations.



12/10/15

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Chad Hathaway, President/ CEO

Date

Hathaway, LLC  
4205 Atlas Ct.  
Bakersfield, CA 93308

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## 1.0 IDENTIFICATION OF DISCHARGES OF PRODUCED WATER TO LAND

The Regional Water Quality Control Board (RWQCB) identified the following lease owned and operated by Hathaway, LLC (Hathaway) to contain areas of waste water discharge.

**TABLE 1-1: RWQCB IDENTIFIED WASTE WATER DISCHARGE AREAS**

Oil Field	Lease	No. of Ponds	Sampling Information
Jasmin Oil Field	Quinn	7	Sampled by Hathaway, LLC

In addition to the ponds currently identified by the RWQCB, Hathaway identified ponds on five other leases listed in the table below.

**TABLE 1-2: ADDITIONAL PONDS IDENTIFIED BY HATHAWAY, LLC**

Oil Field	Lease	Latitude	Longitude	Assessor's Parcel Number	Status	Liquids Yes/No	Sampling Information
Edison Oil Field	Crofton Coffee	35.359263	-118.811400	388-060-23	Inactive	No	Dry; could not sample.
Kern Front Oil Filed	Davies	35.516168	-119.068714	481-030-14	Active	Yes	Sampled by EnviroTech
Devil's Den Oil Field	Fee A	35.729926	-119.991278	043-140-18	Active	Yes	Sampled by EnviroTech
	Fee A	35.729684	-119.991158	043-140-18	Active	Yes	Sampled by EnviroTech
	Fee B	35.728033	-119.989845	043-140-19	Active	Yes	Sampled by EnviroTech
	Fee B	35.727918	-119.989836	043-140-19	Active	Yes	Sampled by EnviroTech
Poso Creek Oil Field	Hathaway USL	35.571103	-119.091336	074-042-67	Active	Yes	Freshwater Pond for steam injection; not sampled

Maps of these ponds and surrounding leases are included in Attachments A - J. All of these ponds are owned and operated by Hathaway, LLC.

## 2.0 POND SAMPLING

Representative samples of wastewater were collected by Hathaway, LLC (Hathaway) from the Quinn Ponds #1-8, located in the Jasmin Field, on March 30, 2015 as required by Order 13267 dated April 1, 2015 (Attachment M). The eight ponds located on the Quinn Lease are in series; only one wastewater sample is required. Following wastewater sample collection, two of the ponds were combined into one, only seven ponds are located on the site plan and location map.

Hathaway also disclosed information regarding ponds that were not directly mentioned in the 13267 Order. Representative samples of wastewater were collected by EnviroTech Consultants, Inc. (EnviroTech) from the Davies pond on November 19, 2015 and from the Fee A and Fee B Ponds on November 20, 2015. The ponds on both Fee A and Fee B were in series, only one water sample was collected from each site.

All wastewater samples were collected directly from each pond. The samples were decanted into appropriate laboratory sampling containers and cooled with ice for storage and transportation to the laboratory under standard chain of custody procedures.

## 3.0 POND SAMPLING ANALYTICAL RESULTS

The Quinn Lease wastewater samples collected by Hathaway were received by Zalco Laboratories on March 30, 2015. Hathaway received the final analytical report for the Quinn Lease on April 24, 2015.

The samples collected by EnviroTech were received by BC Laboratories, Inc. on November 19 and 20, 2015. EnviroTech received the preliminary laboratory analytical reports on December 4, 2015. The preliminary analytical reports do not include the full metal analysis and the radionuclides

This report includes the final analytical results for the Quinn Lease ponds, and the preliminary results for the Fee A and Fee B and Davies Lease ponds. An amended report will be submitted to the RWQCB when the final laboratory reports are received.

The analytical results are summarized in the following tables; complete laboratory reports are included in Attachment N.

**TABLE 3-1: GENERAL CHEMISTRY**

Sample ID	Date Sampled	Total Dissolved Solids	Calcium	Magnesium	Potassium	Sodium	Alkalinity as CaCO <sub>3</sub>	Bicarbonate ion as HCO <sub>3</sub>	Carbonate as CO <sub>3</sub>	Hydroxide as OH	Methane
EPA Analytical Method		SM-2540C	200.7				2320B				RSK-175M
Units		mg/L									
Reporting limit		Reporting limits vary, see full analytical report.									
Davies	11-19-2015	<b>190</b>	<b>7.0</b>	<b>0.33</b>	<b>0.38</b>	<b>56</b>	<b>43</b>	<b>88</b>	<2.5	<1.4	<0.0010
Fee A Pond #1	11-20-2015	<b>15000</b>	<b>73</b>	<b>100</b>	<b>30</b>	<b>5400</b>	<5.0	<b>5400</b>	<5.0	<2.8	<b>0.039</b>
Fee B Pond #1	11-20-2015	<b>20000</b>	<b>89</b>	<b>160</b>	<b>35</b>	<b>6300</b>	<5.0	<b>4700</b>	<5.0	<2.8	<b>0.11</b>
Quinn Pond #1	3-3-2015	<b>410</b>	<b>8.8</b>	<b>0.21</b>	<b>2.4</b>	<b>120</b>	<b>160</b>	<b>160</b>	<b>1</b>	<b>0</b>	<b>0.654</b>

**Bold** = Analyte detected at or above minimum reporting limit.

**TABLE 3-2: ANIONS**

Sample ID	Date Sampled	Anions, Ion Chromatography			
		Bromide	Chloride	Nitrate as NO <sub>3</sub>	Sulfate
EPA Analytical Method		EPA-300.0			
Units		mg/L			
Reporting Limit		Reporting limit varies, see complete analytical report.			
Davies	11-19-2015	<b>0.13</b>	<b>27</b>	<b>0.73</b>	<b>37</b>
Fee A Pond #1	11-20-2015	<b>41</b>	<b>6100</b>	<22	<b>230</b>
Fee B Pond #1	11-20-2015	<b>42</b>	<b>9300</b>	<22	<b>19</b>
Quinn Pond #1	3-3-2015	<b>0.22</b>	<b>57</b>	<2.0	<b>57</b>

**Bold** = Analyte detected at or above minimum reporting limit.

**TABLE 3-3: METALS**

Sample ID	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Chromium (Hexavalent)	Cobalt	Copper	Iron	Lead
EPA Analytical Method		200.7	200.8			200.7		200.8	218.6	200.8		200.7	
Units		mg/L	ug/L			mg/L		ug/L	ug/L	ug/L		mg/L	
Reporting Limit		Reporting limit varies by sample. See complete analytical report.											
Davies	11-19-2015	N/A	<b>1.1</b>	<b>64</b>	<1.0	<b>0.048</b>	N/A	<b>8.4</b>	<0.20	<b>0.10</b>	<b>320</b>	<b>0.069</b>	N/A
Fee A Pond #1	11-20-2015	N/A	N/A	N/A	N/A	<b>9.1</b>	N/A	N/A	N/A	N/A	N/A	<b>2.5</b>	N/A
Fee B Pond #1	11-20-2015	N/A	N/A	N/A	N/A	<b>25</b>	N/A	N/A	N/A	N/A	N/A	<b>1.1</b>	N/A
Quinn Pond #1	3-3-2015	<0.20	<0.020	<0.10	<0.010	<b>0.79</b>	<0.010	<0.050	N/A	<0.10	<0.050	<0.1	<0.050

**Bold** = Analyte detected at or above minimum reporting limit.

N/A = Not currently available in analytical report.

Sample ID	Date Sampled	Lithium	Molybdenum	Manganese	Nickel	Selenium	Silver	Strontium	Thallium	Vanadium	Zinc	Mercury
EPA Analytical Method		200.7	200.8	200.7	200.8			200.7		200.8		245.1
Units		mg/L	ug/L	mg/L	ug/L			mg/L		ug/L		ug/L
Reporting Limit		Reporting limit varies by sample. See complete analytical report.										
Davies	11-19-2015	<0.20	<b>1.7</b>	<0.010	<b>3.0</b>	<b>3.2</b>	<1.0	<b>0.063</b>	N/A	<b>3.6</b>	N/A	<0.20
Fee A Pond #1	11-20-2015	<b>1.3</b>	N/A	<b>0.14</b>	N/A	N/A	N/A	<b>4.9</b>	N/A	N/A	N/A	<b>0.065</b>
Fee B Pond #1	11-20-2015	<b>1.6</b>	N/A	<b>0.18</b>	N/A	N/A	N/A	<b>11</b>	N/A	N/A	N/A	<0.20
Quinn Pond #1	3-3-2015	<0.10	<0.10	<0.030	<0.050	<0.5	<0.20	<b>0.14</b>	<0.50	<0.50	<0.50	<0.002

**Bold** = Analyte detected at or above minimum reporting limit.

N/A = Not currently available in analytical report.

**TABLE 3-4: BTEX AND TPH**

Sample ID	Date Sampled	Benzene	Ethylbenzene	Toluene	P&M-Xylenes	O-Xylenes	Xylenes, Total	TPH as Crude Oil: Diesel and Gasoline Range Organics (GC)
								C12-C40
EPA Analytical Method		82602B						8015B
Units		ug/L						
Reporting Limit		Varies, see laboratory report						
Davies	11-19-2015	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<b>2000</b>
Fee A Pond #1	11-20-2015	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<b>55000</b>
Fee B Pond #1	11-20-2015	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<b>9000</b>
Quinn Pond #1	3-3-2015	<5.00	<5.00	<5.00	<5.00	<5.00	<b>0</b>	<b>1.13</b>

**Bold** = Analyte detected at or above minimum reporting limit.

**TABLE 3-5: SEMI-VOLATILE ORGANIC COMPOUNDS**

Sample ID	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
EPA Analytical Method		8270C_SIM															
Units		ug/L															
Davies	11-19-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fee A Pond #1	11-20-2015	<0.50	<0.50	<0.50	<b>0.76</b>	<0.50	<0.50	<0.50	<0.50	<b>1.7</b>	<0.50	<b>0.28</b>	<0.50	<0.50	<b>0.62</b>	<b>0.33</b>	<b>1.0</b>
Fee B Pond #1	11-20-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Quinn Pond #1	3-3-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

**Bold** = Analyte detected at or above minimum reporting limit.  
 Reporting limit varies by sample. See full analytic report.

**TABLE 3-6: RADIONUCLIDES**

Sample ID	Date Sampled	Gross Alpha	Gross Beta	Radium-226	Radium-228	Uranium
EPA Analytical Method		9310		9315_Ra226	9320_Ra228	6020A
Units		pCi/L				
Regulatory Threshold*		15		--	5	20
Davies	11-19-2015	N/A	N/A	N/A	N/A	N/A
Fee A Pond #1	11-20-2015	N/A	N/A	N/A	N/A	N/A
Fee B Pond #1	11-20-2015	N/A	N/A	N/A	N/A	N/A
Quinn Pond #1	3-3-2015	<b>5.49 ± 2.220</b>	<b>5.47 ± 1.70</b>	0.29 ± 0.02	0.79 ± 0.23	0.41 ± 0.30

**Bold** = Analyte detected at or above minimum reporting limit.

Results are expressed as ± Total Uncertainty

Reporting limit varies by sample. See full analytic report.

\* Title 22, Table 6443. MCL

-- No Regulatory Threshold

N/A = Not currently available in analytical report.

#### 4.0 INFORMATION FOR EACH SURFACE IMPOUNDMENT

The ponds located at the Devil's Den "Fee" Leases, the Jasmin "Quinn" Lease, the Poso Creek "Hathaway USL" Lease, and the Kern Front "Davies" Lease will all remain active and operated by Hathaway, LLC. The pond at the Hathaway USL Lease is solely used as a freshwater pond and is supplied by a single water well located approximately 150 feet south of the pond. The pond located at the Edison "Crofton-Coffee" Lease is currently in the process of being abandoned and will no longer be used for wastewater generated during petroleum production.

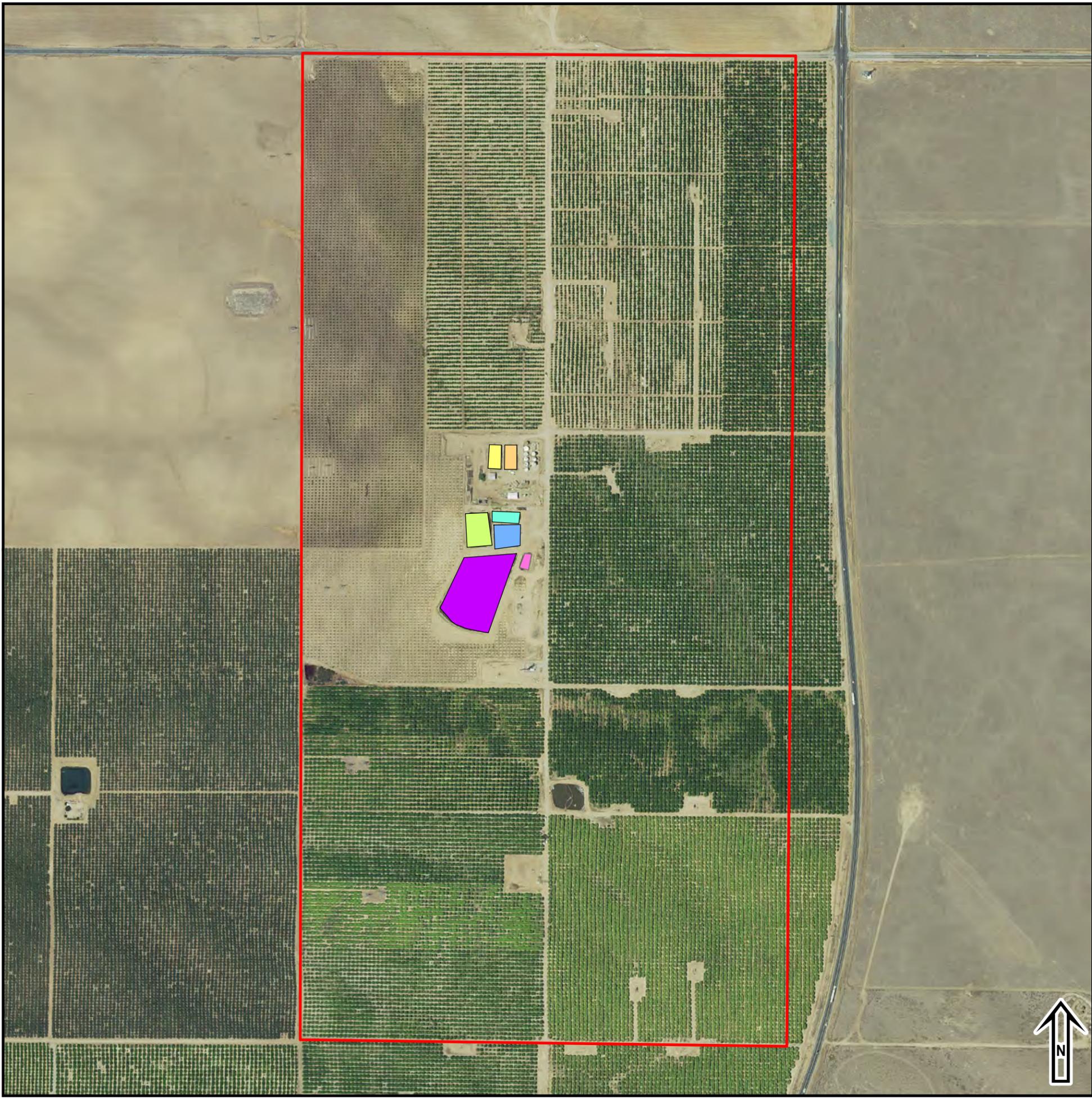
The following table contains the required information for the all of the Hathaway, LLC ponds.

**TABLE 4-1: SURFACE IMPOUNDMENT INFORMATION**

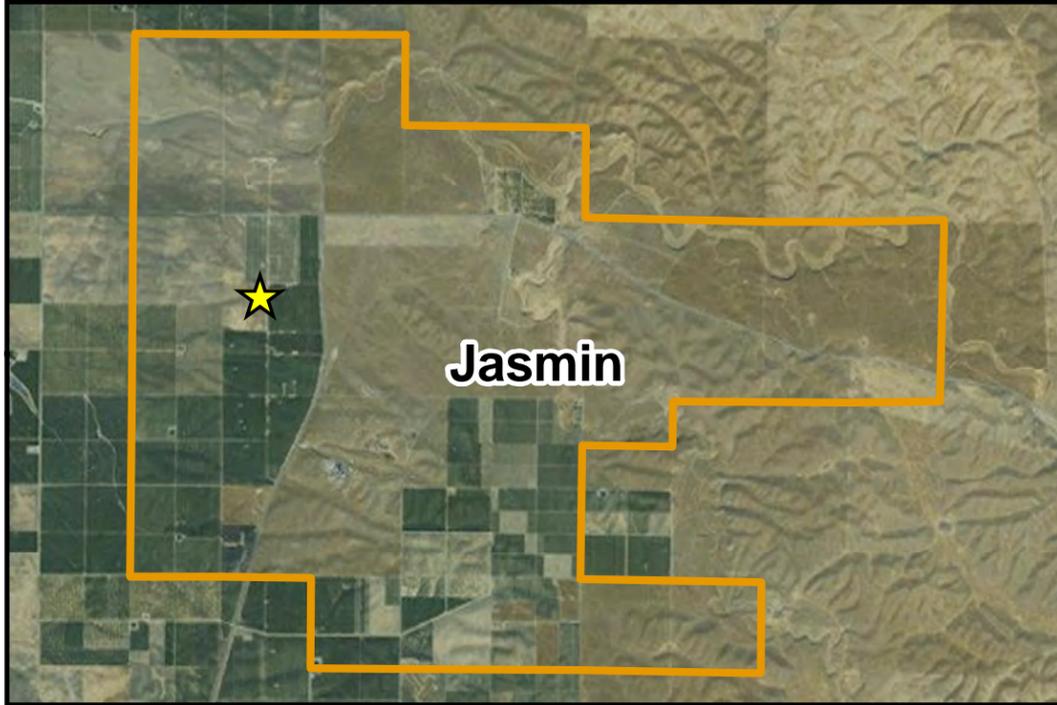
Pond Identification	Surface Impoundment Dimensions (feet)			Location (NAD 83)	Assessor's Parcel Number of the Lease	Duration of discharge (months)	Volume of wastewater discharged per year (bbls)
	Length	Width	Depth				
Crofton Coffee	Length	Width	Depth	Latitude: 35.359263°	388-060-23	203	5,322
	117'	85'	8'	Longitude: -118.811400°			
Davies	Length	Width	Depth	Latitude: 35.516168°	481-030-14	219	98,318
	203'	131'	8'	Longitude: -119.068714°			
Fee A Pond #1	Length	Width	Depth	Latitude: 35.729926°	043-140-18	452	37,252
	57'	22'	8'	Longitude: -119.991278°			
Fee A Pond #2	Length	Width	Depth	Latitude: 35.729684°	043-140-18		
	74'	24'	8'	Longitude: -119.991158°			
Fee B Pond #1	Length	Width	Depth	Latitude: 35.728033°	043-140-19		
	47'	14'	8'	Longitude: -119.989845			
Fee B Pond #2	Length	Width	Depth	Latitude: 35.727918°	043-140-19		
	96'	43'	8'	Longitude: -119.989836°			
Hathaway USL	Length	Width	Depth	Latitude: 35.571103°	074-042-67	55	568,382
	375'	152'	10'	Longitude: -119.091336°			
Quinn Pond #1	Length	Width	Depth	Latitude: 35.756054°	051-101-41	467	3,227,319
	123'	62'	N/A	Longitude: -119.059122°			
Quinn Pond #2	Length	Width	Depth	Latitude: 35.756077°	051-101-41		
	120'	58'	N/A	Longitude: -119.059400°			

Quinn Pond #3	Length	Width	Depth	Latitude: 35.755012°	051-101-41
	189'	133'	N/A	Longitude: -119.059684°	
Quinn Pond #4	Length	Width	Depth	Latitude: 35.755215°	051-101-41
	142'	52'	N/A	Longitude: -119.059196°	
Quinn Pond #5	Length	Width	Depth	Latitude: 35.754924°	051-101-41
	138'	122'	N/A	Longitude: -119.059173°	
Quinn Pond #6	Length	Width	Depth	Latitude: 35.754081°	051-101-41
	285'	467'	N/A	Longitude: -119.059678°	
Quinn Pond #7	Length	Width	Depth	Latitude: 35.754542°	051-101-41
	93'	43'	N/A	Longitude: -119.058798°	

**EXHIBIT A: QUINN POND MAP (JASMIN OIL FIELD)**

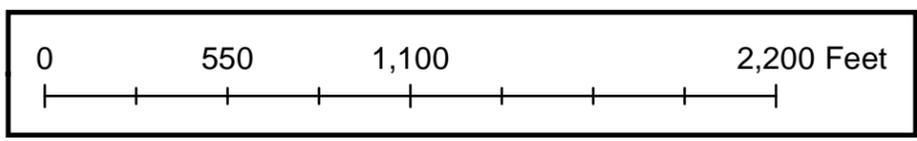


# Hathaway LLC



**Legend**

	Quinn Lease		Pond #3		Pond #6
	Pond #1		Pond #4		Pond #7
	Pond #2		Pond #5		



<b>Prepared By:</b> 	<b>TITLE:</b>	Quinn Ponds
	<b>OIL FIELD:</b>	Jasmin
<b>Section/Township/Range</b>  Section 15 - T25S/R27E	<b>COUNTY:</b>	Kern
	<b>DRN BY:</b>	Ashley Bylow
	<b>DATE:</b>	December 2, 2015
	<b>SCALE:</b>	1 inch = 550 feet

**EXHIBIT B: QUINN SITE MAP (JASMIN OIL FIELD)**

# Hathaway, LLC

Site Plan for Quinn Lease  
\*All ponds in series



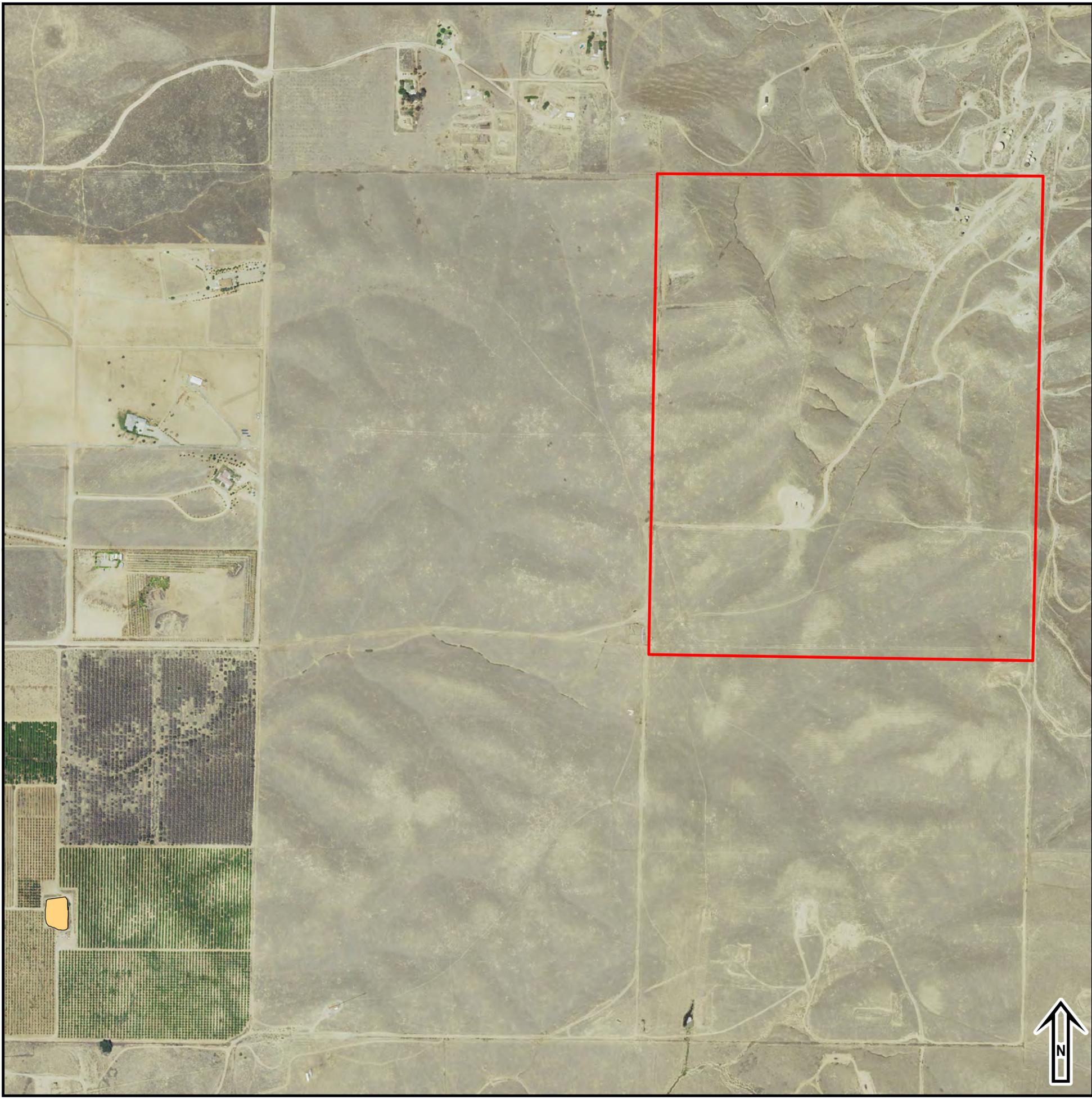
Sample Taken from Quinn Pond #1



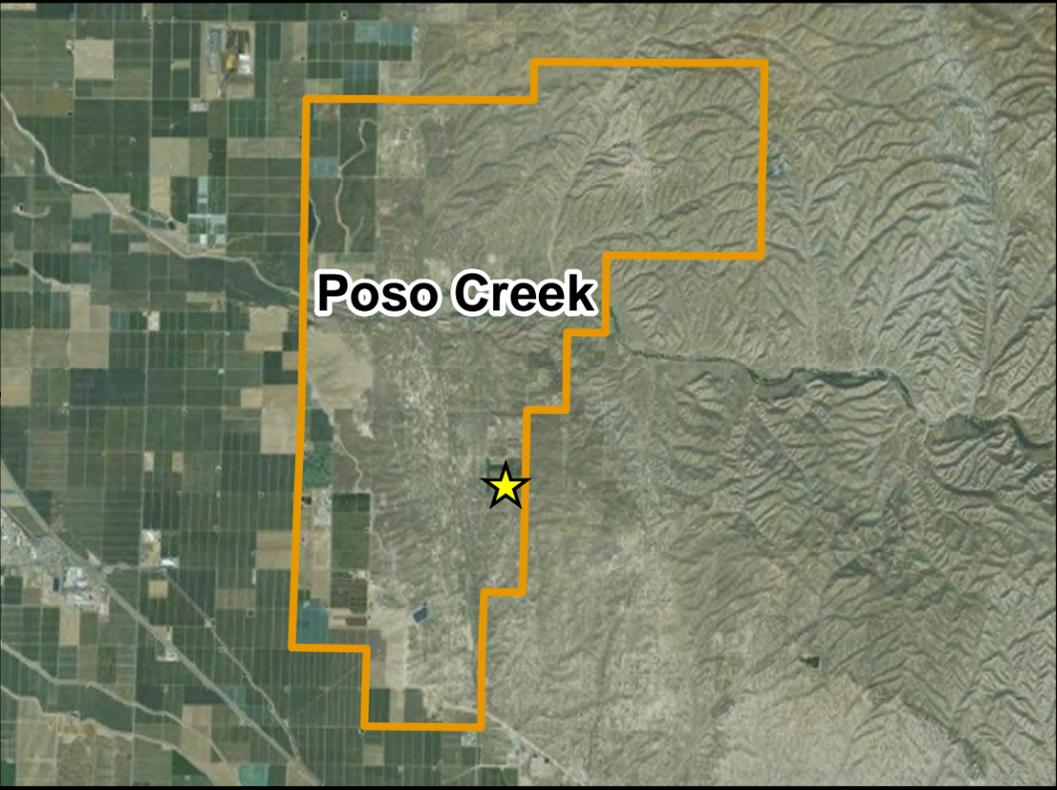
N

600 ft

**EXHIBIT C: DAVIES POND MAP (KERN FRONT/ POSO OIL FIELD)**

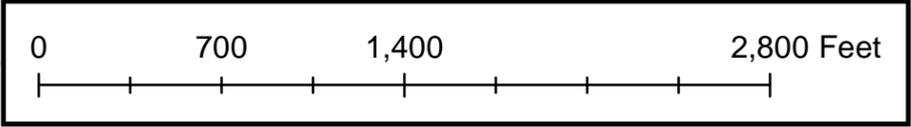


# Hathaway LLC



**Legend**

Davies Lease
  Davies Pond



Prepared By: <b>EnviroTech</b> Consultants, Inc.	<b>TITLE:</b>	Davies Pond
	<b>OIL FIELD:</b>	Poso Creek
<b>Section/Township/Range</b>  Section 4 - T28S/R27E	<b>COUNTY:</b>	Kern
	<b>DRN BY:</b>	Ashley Bylow
	<b>DATE:</b>	December 2, 2015
	<b>SCALE:</b>	1 inch = 700 feet



**EXHIBIT D: DAVIES SITE MAP (KERN FRONT/ POSO OIL FIELD)**

# Hathaway, LLC

Site Plan for Davies Lease

\*Pond used for freshwater irrigation

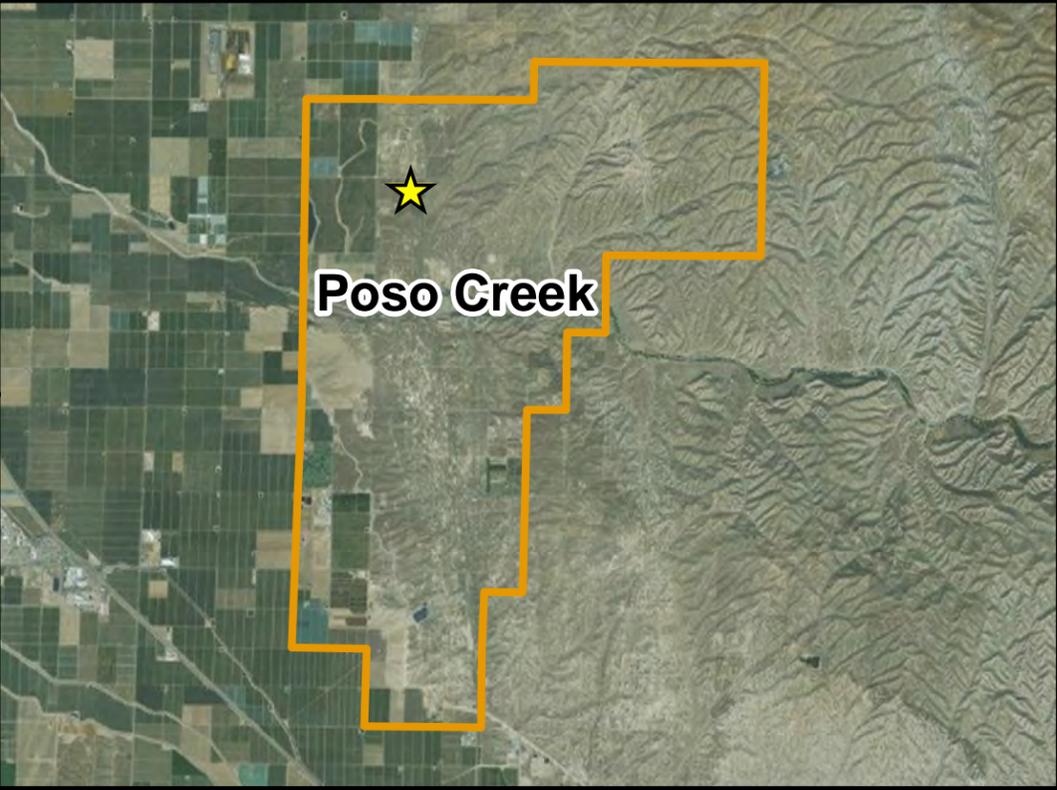
Sample taken directly from pond



**EXHIBIT E: HATHAWAY USL POND Map (POSO OIL FIELD)**

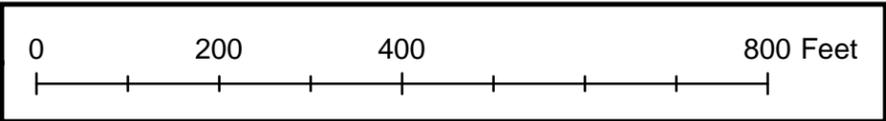


**Hathaway LLC**



**Legend**

USL Lease
  USL Pond



Prepared By: <b>EnviroTech</b> Consultants, Inc.	<b>TITLE:</b>	USL Pond
	<b>OIL FIELD:</b>	Poso Creek
	<b>COUNTY:</b>	Kern
<b>Section/Township/Range</b>	<b>DRN BY:</b>	Ashley Bylow
Section 20 - T27S/R27E	<b>DATE:</b>	December 2, 2015
	<b>SCALE:</b>	1 inch = 200 feet

**EXHIBIT F: HATHAWAY USL SITE MAP (POSO OIL FIELD)**

# Hathaway, LLC

Site Plan for Hathaway USL Lease

\*Pond used for freshwater for steam injection



**EXHIBIT G: CROFTON COFFEE POND MAP (EDISON OIL FIELD)**

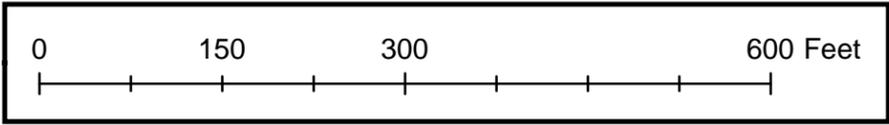


**Hathaway LLC**



**Legend**

Crofton Coffee Lease
  Crofton Coffee Pond



Prepared By: 	<b>TITLE:</b>	Crofton Coffee Pond
	<b>OIL FIELD:</b>	Edison Northeast
	<b>COUNTY:</b>	Kern
<b>Section/Township/Range</b>	<b>DRN BY:</b>	Ashley Bylow
Section 36 - T29S/R29E	<b>DATE:</b>	December 2, 2015
	<b>SCALE:</b>	1 inch = 150 feet

**EXHIBIT H: CROFTON COFFEE SITE MAP (EDISON OIL FIELD)**

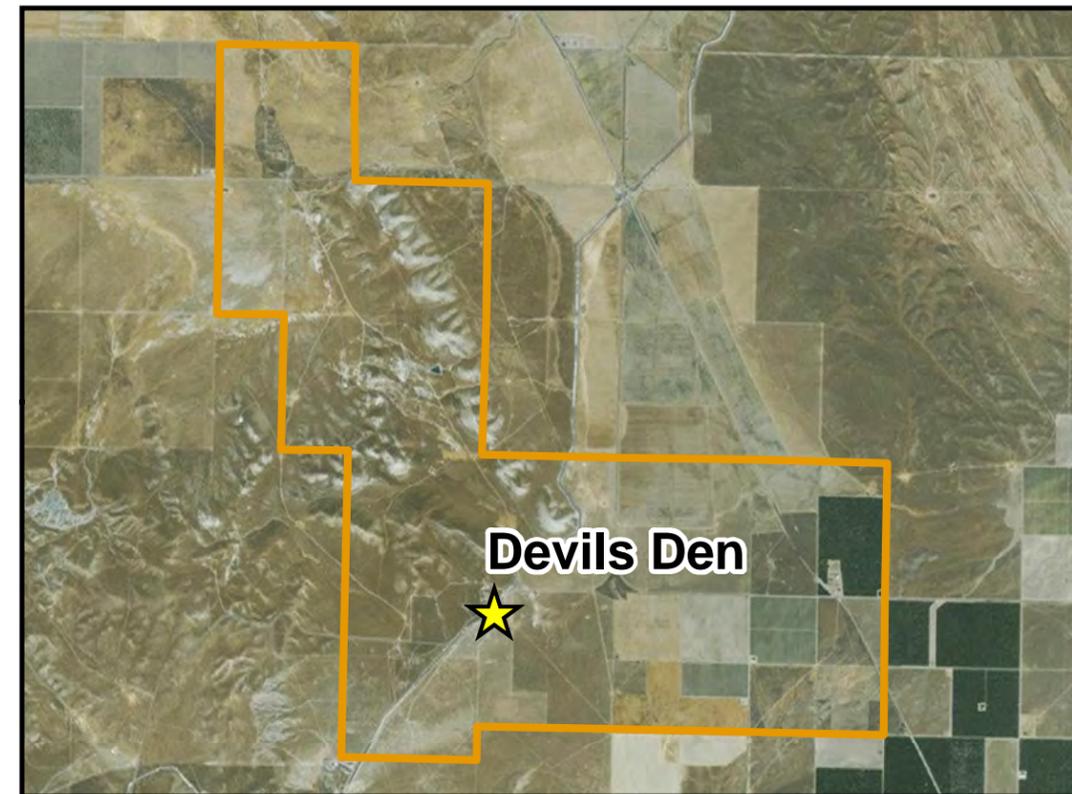
# Hathaway, LLC

Site Plan for Crofton Coffee Lease  
\*Pond is dry; no sample available



**EXHIBIT I: FEE A AND B POND MAP (DEVIL'S DEN OIL FIELD)**

# Hathaway LLC

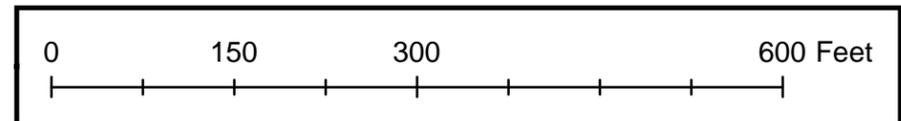


**Devils Den**



## Legend

- Fee Lease
- Fee B Pond #2
- Fee A Pond #2
- Fee B Pond #1
- Fee A Pond #1



Fee A Pond #1



Fee A Pond #2

Fee B Pond #1



Fee B Pond #2



Prepared By:	<b>EnviroTech</b> Consultants, Inc.	TITLE:	Fee Lease Ponds
		OIL FIELD:	Devils Den
		COUNTY:	Kern
Section/Township/Range		DRN BY:	Ashley Bylow
		DATE:	December 2, 2015
Section 25 - T25S/R18E		SCALE:	1 inch = 150 feet

**EXHIBIT J: FEE A AND B SITE MAP (DEVIL'S DEN OIL FIELD)**

# Hathaway, LLC

Site Plan for Fee A and Fee B Leases

Sample Taken from Fee A Pond #1

Sample Taken from Fee B Pond #1

Keeks Rd

California Aqueduct

Google earth

© 2015 Google

500 ft



**EXHIBIT K: COPY OF RWQCB ORDER 13267, 1 APRIL, 2015**



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Central Valley Regional Water Quality Control Board

1 April 2015

Chad J. Hathaway  
Hathaway LLC  
P.O. Box 81385  
Bakersfield, CA 93380

**CERTIFIED MAIL**  
7014 3490 0001 7023 0421

### **CALIFORNIA WATER CODE DIRECTIVE PURSUANT TO SECTION 13267. You are legally obligated to respond to this Order. Please read this Order carefully.**

Hathaway LLC (hereafter Discharger) has been identified as the owner or operator of petroleum production wastewater disposal ponds (ponds). A list of the ponds (and the leases and oil fields where they are located) that the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) identifies as under your control is presented in Attachment A. Ponds for the disposal of wastewater generated during the course of petroleum production have the potential to affect the quality of groundwater (a water of the State). Groundwater underlying the areas where your ponds are located have beneficial uses as identified in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan).

This order requires the collection and analysis of wastewater samples collected from each of the ponds listed in Attachment A to characterize the discharge. Each sample is to be analyzed for each of the constituents listed in Attachment B. These data are needed to comprehensively characterize wastewater in each pond and provide data needed to evaluate the threat to the quality of waters of the State. If more than one pond is connected in series (i.e., one pond drains directly to the next with no other source of inflow) then only the upstream pond must be sampled. This order is not intended to require the collection of duplicative data. ~~If during the 12 months (one year) prior to the date of this order, samples required by this order have been analyzed from one or more of the ponds for the required constituents, that data can be submitted for the appropriate order requirements.~~

This order also requires Discharger to identify any discharge(s) of oil field wastewater to land that is not identified in Attachment A. Discharger must also collect and analyze wastewater samples in accordance with Attachment B from any additionally identified discharge to characterize the discharge.

The Central Valley Water Board's authority to require technical reports derives from Section 13267 of the California Water Code, which specifies, in part, that:

*(pp) A regional Board ... in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the State within its region.*

*(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefit to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*

The Central Valley Water Board is concerned about the potential impacts to water quality posed by the discharge of oil field produced waters in surface ponds. The technical information and reports required by this order are necessary to assess the potential threat to water quality. The need to understand the potential impacts to water quality justify the need for the information and reports required by this order. Based on the nature and possible consequences of the discharges of waste, the burden of providing the required information, including the reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained. Discharger is required to submit this information and reports because it is the operator of the ponds listed in Attachment A of this order.

The unauthorized discharge of waste containing oil field waste constituents to land, including unlined ponds, may result in the degradation of water quality and creates or threatens to create, a condition of pollution in groundwater. Significant concentrations of salinity (measured as TDS and EC), significant contributors to salinity such as chloride and sulfate, and boron are present in oil field wastewater. Other potential constituents such as, but not limited to, metals, radionuclides, and organic compounds pose a threat to water quality. The concentrations of these waste constituents in wastewater being discharged needs to be known to evaluate the threat. In addition, all locations where these discharges are occurring needs to be known.

Underlying groundwater can be degraded if mixed with oil field wastewater. Elevated concentrations of oil field waste constituents could impair the groundwater for municipal and domestic supply and agricultural supply uses.

**Under the prescribed authority of California Water Code section 13267**, the Central Valley Water Board directs Discharger to:

1. **By 15 June 2015**, submit a technical report containing the following information:

- A. Identification of any discharges of oil field produced waters to land, including but not limited to ponds, since April of 2014 that are not listed in Attachment A;
- B. Collect representative samples of wastewater within each of the ponds. Samples must be analyzed in accordance with the water quality analysis and reporting requirements contained in Attachment B to this Order;<sup>1</sup>

If a representative sample cannot feasibly be collected from one or more of the sources discharging to a surface impoundment(s), then a comment will need to be added to the technical report required by this Order demonstrating that collection of a representative sample from a specific source is not feasible within the required timeframe, and propose an alternative sampling procedure and expeditious time schedule for obtaining a representative sample for each source. Alternative sampling procedures and time schedules are subject to approval by the Assistant Executive Officer of the Central Valley Regional Water Quality Control Board.

- C. All available information for each of the surface impoundment(s), including dimensions (i.e., length, width, and depth), latitude and longitude, Assessor's Parcel Numbers of the lease, duration of the discharge (in months), and the volume of wastewater discharged per year.

D. A location map that includes the following information:

- i. All surface impoundment(s) at the Facility,
- ii. Include the boundary lines for all leases at the Facility, and
- iii. Legend with the name of the surface impoundment(s).

2. **By 15 April 2015**, Discharger needs to contact Dane S. Johnson of this office at (559) 445-5525 if you have received this Order and cannot collect the required samples.

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<sup>1</sup> All previously obtained analytical data for oil field produced wastewater samples collected at the Facility, if any, with a description of the source and location for each analysis may be submitted in the alternative for re-running tests if the sample(s) was collected and analyzed within 12 months (one year) of the date of this order.

The technical report required by this Order must be submitted to the attention of:

Ronald Holcomb  
Central Valley Water Board  
1685 E Street  
Fresno, CA 93706

Based on the information submitted in the technical report, additional information or action may be required.

With the report required by this Order, Discharger shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

The Central Valley Water Board reserves the right to issue a Notice of Violation or pursue enforcement for Discharger's activities after reviewing the documentation provided in response to this Order.

The Technical Report is to be signed and stamped by a California Professional Engineer (Registered as a Civil Engineer) or a registered California Professional Geologist. Any laboratory analyses shall be performed by an analytical laboratory certified by the State of California for the analyses performed. Submissions pursuant to this Order shall include a statement by Discharger, or an authorized representative of Discharger, certifying (as described above) that the information submitted is true, complete, and accurate.

The failure to furnish the required report, or the submission of a substantially incomplete report or false information, is a misdemeanor, and may result in additional enforcement actions being taken against Discharger, including issuance of an Administrative Civil Liability Complaint pursuant to California Water Code section 13268. Liability may be imposed pursuant to California Water Code section 13268 in an amount not to exceed one thousand dollars (\$1,000) for each day in which the violation occurs. All discharges to unpermitted ponds should cease pending review and submission of the technical information sought by this order.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with

California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 days after the date of this directive, except that if the thirtieth day following the date of this directive falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

If you have any questions regarding this matter, please contact Doug Patteson of this office at (559) 445-5577 or at [doug.patteson@waterboards.ca.gov](mailto:doug.patteson@waterboards.ca.gov).



Clay L. Rodgers  
Assistant Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board, Sacramento  
Mike Toland, California Division of Oil, Gas, and Geothermal Resources, Bakersfield

**ATTACHMENT A**

The following table contains the names of oil fields and lease(s) and the corresponding number of ponds that the Central Valley Water Board has identified as active and under your control:

<b>OPERATOR</b>	<b>OIL FIELD</b>	<b>LEASE</b>	<b>NO. OF PONDS</b>
Hathaway LLC	Jasmin	Quinn	8

**ATTACHMENT B**Water Quality Analysis

Wastewater samples collected from the ponds shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program using currently applicable United States Environmental Protection Agency-approved analytical methods for water for the following:

- A. Total dissolved solids;
- B. Metals listed in California Code of Regulations, title 22, section 66261.24. subdivision (a)(2)(A);
- C. Benzene, toluene, ethylbenzene, and xylenes;
- D. Total petroleum hydrocarbons as crude oil;
- E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene);
- F. Radionuclides listed under California Code of Regulations, title 22, Table 64442;
- G. Major and minor cations (including sodium, potassium, magnesium, and calcium);
- H. Major and minor anions (including nitrate, chloride, sulfate, carbonate, bicarbonate, and bromide);
- I. Trace elements (including lithium, strontium, boron, iron, and manganese).

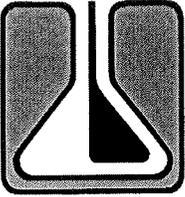
Reporting Requirements

Water Quality information shall be submitted in a technical report that includes at a minimum:

- A. Site plan(s) with the location(s) of where the samples were collected;
- B. A description of how the samples, representative of the pond contents, were collected;

Table(s) of analytical results organized by pond number with the data also submitted electronically as an Excel spreadsheet.

**EXHIBIT L: COPY OF ANALYTICAL FOR ALL PONDS**



ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

---

April 24, 2015

Michelle Ricker  
Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

TEL: (661) 393-2004  
FAX: (661) 393-2009

Project ID:  
RE: 1503332

Dear Michelle Ricker:

Zalco Laboratories, Inc. received 8 samples on 3/31/2015 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

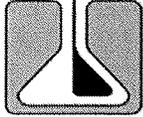
Sincerely,

A handwritten signature in cursive script, reading "Juan Magana".

Juan Magana  
Project Manager  
CC:Cynthia Allen

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



**ZALCO LABORATORIES, INC.**

Analytical and Consulting Services

4309 Armour Avenue, Bakersfield, CA 93308

www.zalcolabs.com

(661) 395-0539 FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-01  
Date Received: 3/31/2015  
Date Reported: 5/1/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #1

Sampled by: Date: 3/31/2015 Time: 14:00

Report Notes:

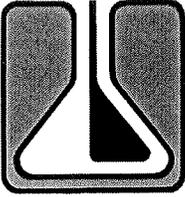
**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.29	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.66	Resistivity.....	15.15
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.8	0.44	3.45
Magnesium, Mg	0.21	0.017	0.14
Sodium, Na	120	5.2	40.99
Potassium, K	2.4	0.061	0.48
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0.90	0.03	0.24
Bicarbonate, HCO3	160	2.62	20.58
Chloride, Cl	57	1.6	12.62
Sulfate, SO4	79	1.6	12.93
Sulfide, S	7.1		
Boron, B	0.79		
Barium, Ba	< 0.10		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	386	11.6	100

Total Dissolved Solids, (Gravimetric)	410		
Calculated Hardness, CaCO3	23		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	290		
		Primary Salinity	51.1
		Secondary Salinity	0
		Total Salinity	51.1
Cation/Anion Balance, %	8.0%		
Sodium, Na (Calculated), mg/L	148.93	Primary Alkalinity	31.84
Langelier Scale Index	0.16	Secondary Alkalinity	7.18
Stiff/Davis Stability Index	0.05	Total Alkalinity	39.02

Laboratory Authorization



ZALCO LABORATORIES, INC.

Analytical & Consulting Services

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Bakersfield, California 93308

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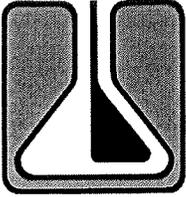
Table with 3 columns: Client Information (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Information (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Information (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Lab Sample Information (Lab Sample ID: 1503332-01, Client Sample ID: Jasmin Sump #1) and Collection Information (Collected By: William Moss, Date Collected: 3/31/2015 2:00:00PM)

Main analytical results table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, and Init. It includes sections for CAM, Toxicity (17 Metals) with TTC Limits and Semivolatile Organic Compounds.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



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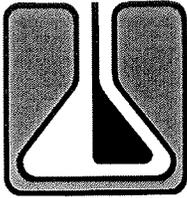
Table with 3 columns: Client Info (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Info (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Info (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Lab Sample Info (Lab Sample ID: 1503332-01, Client Sample ID: Jasmin Sump #1) and Collection Info (Collected By: William Moss, Date Collected: 3/31/2015 2:00:00PM)

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Rows include Semivolatile Organic Compounds like Benzo (k) fluoranthene, Benzoic acid, Benzyl alcohol, etc.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Bakersfield, California 93308

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FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01

Collected By: William Moss

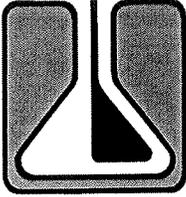
Client Sample ID: Jasmin Sump #1

Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Bakersfield, California 93308

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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01

Collected By: William Moss

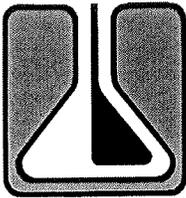
Client Sample ID: Jasmin Sump #1

Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01

Collected By: William Moss

Client Sample ID: Jasmin Sump #1

Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	27.7	0-67	4/2/15 13:51
Phenol-d6	20.9	0-57	4/2/15 13:51
Nitrobenzene-d5	43.8	0-95	4/2/15 13:51
2-Fluorobiphenyl	42.8	0-92	4/2/15 13:51
2,4,6-Tribromophenol	60.4	0-143	4/2/15 13:51
Terphenyl-d14	42.3	0-100	4/2/15 13:51

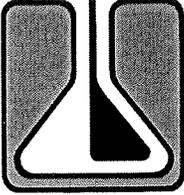
### Volatile Organic Compounds

m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Surrogates	% Recovery	Recovery Limits	Flag					

1,2-Dichloroethane-d4 105 89-165 4/1/15 14:15

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-01 Client Sample ID: Jasmin Sump #1	Collected By: William Moss Date Collected: 3/31/2015 2:00:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

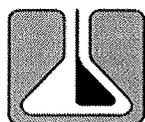
Surrogates	% Recovery	Recovery Limits	Flag	Date Prepared	Date Analyzed	Init.
Toluene-d8	105	65-124		4/1/15	14:15	
4-Bromofluorobenzene	115*	94-114	S-GC	4/1/15	14:15	

**Volatile Organic Contaminants (VOCs)**

Methane	1.00	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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(661) 395-0539 FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-02  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #2

Sampled by: Date: 3/31/2015 Time: 14:30

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.26	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.67	Resistivity.....	14.93
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	9.0	0.45	3.7
Magnesium, Mg	0.2	0.016	0.14
Sodium, Na	120	5.2	43.03
Potassium, K	2.4	0.061	0.51
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	21.61
Chloride, Cl	57	1.6	13.25
Sulfate, SO4	79	1.6	13.57
Sulfide, S	7.1		
Boron, B	0.78		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	385	11.5	100

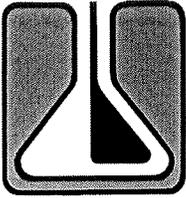
Total Dissolved Solids, (Gravimetric)	400
Calculated Hardness, CaCO3	23
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	280

Primary Salinity	53.64
Secondary Salinity	0
Total Salinity	53.64

Cation/Anion Balance, %	7.0%
Sodium, Na (Calculated), mg/L	134.62
Langelier Scale Index	0.14
Stiff/Davis Stability Index	0.03

Primary Alkalinity	33.44
Secondary Alkalinity	7.68
Total Alkalinity	41.12

*Juan Manuel Rodriguez J.*  
Laboratory Authorization



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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

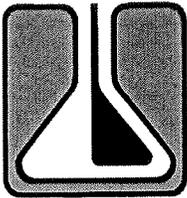
Lab Sample ID: 1503332-02  
Client Sample ID: Jasmin Sump #2

Collected By: William Moss  
Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>			<i>TTLC Limits</i>					
Antimony	<0.20	0.20	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L	SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
<b>Semivolatile Organic Compounds</b>								
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02

Collected By: William Moss

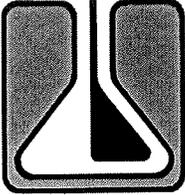
Client Sample ID: Jasmin Sump #2

Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCPLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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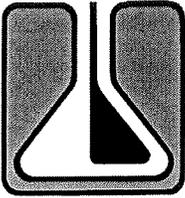
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-02 Client Sample ID: Jasmin Sump #2	Collected By: William Moss Date Collected: 3/31/2015 2:30:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02

Collected By: William Moss

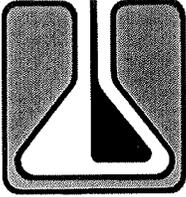
Client Sample ID: Jasmin Sump #2

Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-02 Client Sample ID: Jasmin Sump #2	Collected By: William Moss Date Collected: 3/31/2015 2:30:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	26.4	0-67	4/2/15 13:51
Phenol-d6	19.3	0-57	4/2/15 13:51
Nitrobenzene-d5	44.9	0-95	4/2/15 13:51
2-Fluorobiphenyl	45.8	0-92	4/2/15 13:51
2,4,6-Tribromophenol	63.6	0-143	4/2/15 13:51
Terphenyl-d14	43.8	0-100	4/2/15 13:51

### Volatile Organic Compounds

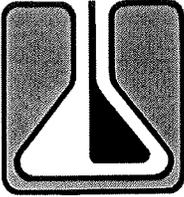
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag
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1,2-Dichloroethane-d4	116	89-165	4/1/15 14:15
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-02 Client Sample ID: Jasmin Sump #2	Collected By: William Moss Date Collected: 3/31/2015 2:30:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

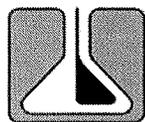
Surrogates	% Recovery	Recovery Limits	Flag	Date Prepared	Date Analyzed	Init.
Toluene-d8	105	65-124		4/1/15	14:15	
4-Bromofluorobenzene	116*	94-114	S-GC	4/1/15	14:15	

**Volatile Organic Contaminants (VOCs)**

Methane	0.654	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-03  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #3

Sampled by: Date: 3/31/2015 Time: 13:15

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.29	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.67	Resistivity.....	14.93
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.7	0.43	3.61
Magnesium, Mg	0.20	0.016	0.14
Sodium, Na	120	5.2	43.36
Potassium, K	2.3	0.059	0.49
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	21.77
Chloride, Cl	57	1.6	13.35
Sulfate, SO4	73	1.5	12.64
Sulfide, S	8.6		
Boron, B	0.77		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	380	11.4	100

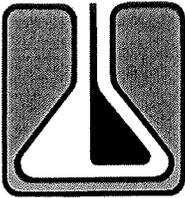
Total Dissolved Solids, (Gravimetric)	410
Calculated Hardness, CaCO3	23
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	270

Primary Salinity	51.98
Secondary Salinity	0
Total Salinity	51.98

Cation/Anion Balance, %	7.0%
Sodium, Na (Calculated), mg/L	133.32
Langelier Scale Index	0.16
Stiff/Davis Stability Index	0.05

Primary Alkalinity	35.72
Secondary Alkalinity	7.5
Total Alkalinity	43.22

*Janet M. Morgan J.*  
Laboratory Authorization



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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-03 Client Sample ID: Jasmin Sump #3	Collected By: William Moss Date Collected: 3/31/2015 1:15:00PM
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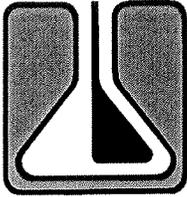
Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>			<i>TTLIC Limits</i>					
Antimony	<0.20	0.20	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L	SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L	SW846 6010B	4/1/15	4/1/15	SS

### Semivolatile Organic Compounds

Pentachloronitrobenzene (PCNB)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLIC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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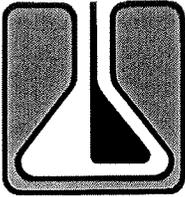
Table with 3 columns: Client info (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project info (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order info (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Lab Sample ID: 1503332-03, Client Sample ID: Jasmin Sump #3; Collected By: William Moss; Date Collected: 3/31/2015 1:15:00PM

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Section: Semivolatile Organic Compounds. Lists various compounds like Benzo (k) fluoranthene, Benzoic acid, Benzyl alcohol, etc., with results <10.0 and PQL 10.0.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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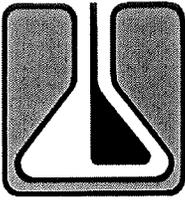
Table with 3 columns: Client Information (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Information (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Information (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Sample Information (Lab Sample ID: 1503332-03, Client Sample ID: Jasmin Sump #3) and Collection Information (Collected By: William Moss, Date Collected: 3/31/2015 1:15:00PM)

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Rows include Semivolatile Organic Compounds like Hexachlorobutadiene, Hexachlorocyclopentadiene, etc.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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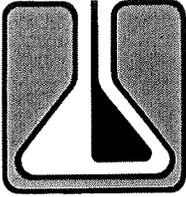
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-03 Client Sample ID: Jasmin Sump #3	Collected By: William Moss Date Collected: 3/31/2015 1:15:00PM
---	---

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
---	--	---

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

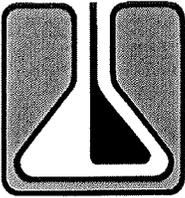
Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	20.1	0-67	4/2/15 13:51
Phenol-d6	14.0	0-57	4/2/15 13:51
Nitrobenzene-d5	41.0	0-95	4/2/15 13:51
2-Fluorobiphenyl	40.7	0-92	4/2/15 13:51
2,4,6-Tribromophenol	57.2	0-143	4/2/15 13:51
Terphenyl-dl4	37.3	0-100	4/2/15 13:51

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Volatile Organic Compounds</b>								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	115	89-165	4/1/15 14:15

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: <b>1503332</b> Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: <b>1503332-03</b>	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

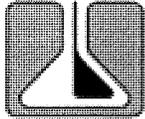
Surrogates	% Recovery	Recovery Limits	Flag	Date Prepared	Date Analyzed
Toluene-d8	95.2	65-124		4/1/15	14:15
4-Bromofluorobenzene	111	94-114		4/1/15	14:15

**Volatile Organic Contaminants (VOCs)**

Methane	0.694	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-04  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #4  
Sampled by:  
Report Notes:

Date: 3/31/2015 Time: 12:40

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.25	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC)..... (millimhos/cm @ 25 C)	0.66	Resistivity..... (ohm meters @ 25 C)	15.15

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.6	0.43	3.76
Magnesium, Mg	0.20	0.016	0.14
Sodium, Na	110	4.8	41.91
Potassium, K	2.3	0.059	0.52
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	22.95
Chloride, Cl	58	1.6	14.32
Sulfate, SO4	70	1.5	12.78
Sulfide, S	6.3		
Boron, B	0.75		
Barium, Ba	< 0.1		
Silica, SiO2	30		
Strontium, Sr	0.14		
Totals (Sum)	365	11	100

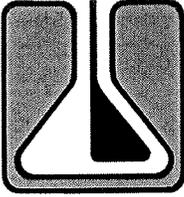
Total Dissolved Solids, (Gravimetric)	390
Calculated Hardness, CaCO3	22
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	270

Primary Salinity	54.2
Secondary Salinity	0
Total Salinity	54.2

Cation/Anion Balance, %	10.0%
Sodium, Na (Calculated), mg/L	129.3
Langelier Scale Index	0.11
Stiff/Davis Stability Index	0

Primary Alkalinity	30.66
Secondary Alkalinity	7.8
Total Alkalinity	38.46

*Jessie Ann Magallon J.*  
Laboratory Authorization



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Table with 2 columns: Sample Information (Lab Sample ID: 1503332-04, Client Sample ID: Jasmin Sump #4) and Collection Information (Collected By: William Moss, Date Collected: 3/31/2015 12:40:00PM)

Table with 10 columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init.

CAM, Toxicity (17 Metals)

TTLIC Limits

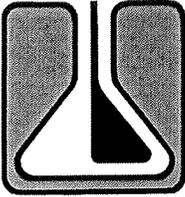
Table listing 17 metals (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc) with their respective results, PQL, TTLIC limits, units, methods, and dates.

Semivolatile Organic Compounds

Table listing 17 semivolatile organic compounds (Pentachloronitrobenzene, a,a-Dimethylphenethylamine, Acenaphthene, Acenaphthylene, Acetophenone, Aldrin, alpha-BHC, Aniline, Anthracene, Aramite, Benzaldehyde, Benzidine, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene) with their respective results, PQL, units, methods, and dates.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLIC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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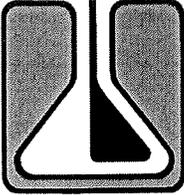
Table with 3 columns: Client Information (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Information (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Information (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Lab Sample Information (Lab Sample ID: 1503332-04, Client Sample ID: Jasmin Sump #4) and Collection Information (Collected By: William Moss, Date Collected: 3/31/2015 12:40:00PM)

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Lists various Semivolatile Organic Compounds and their results.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04

Collected By: William Moss

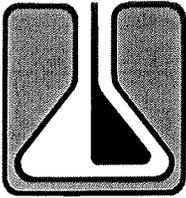
Client Sample ID: Jasmin Sump #4

Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04

Collected By: William Moss

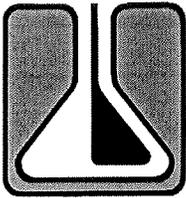
Client Sample ID: Jasmin Sump #4

Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04

Collected By: William Moss

Client Sample ID: Jasmin Sump #4

Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	24.0	0-67	4/2/15 13:51
Phenol-d6	18.9	0-57	4/2/15 13:51
Nitrobenzene-d5	46.6	0-95	4/2/15 13:51
2-Fluorobiphenyl	46.5	0-92	4/2/15 13:51
2,4,6-Tribromophenol	62.8	0-143	4/2/15 13:51
Terphenyl-d14	40.9	0-100	4/2/15 13:51

### Volatile Organic Compounds

m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

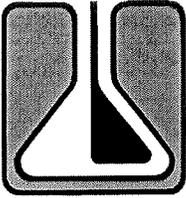
Surrogates	% Recovery	Recovery Limits	Flag
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1,2-Dichloroethane-d4 99.6 89-165 4/1/15 14:15

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-04 Client Sample ID: Jasmin Sump #4	Collected By: William Moss Date Collected: 3/31/2015 12:40:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

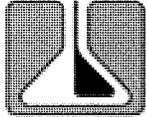
Surrogates	% Recovery	Recovery Limits	Flag
Toluene-d8	100	65-124	4/1/15 14:15
4-Bromofluorobenzene	112	94-114	4/1/15 14:15

**Volatile Organic Contaminants (VOCs)**

Methane	0.706	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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www.zalcolabs.com

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Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-05  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #5

Sampled by: Date: 3/31/2015 Time: 12:10

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.30	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.66	Resistivity.....	15.15
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.6	0.43	3.66
Magnesium, Mg	0.20	0.016	0.14
Sodium, Na	110	4.8	40.78
Potassium, K	2.3	0.059	0.5
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	1	0.02	0.17
Bicarbonate, HCO3	160	2.62	22.34
Chloride, Cl	57	1.6	13.7
Sulfate, SO4	59	1.2	10.48
Sulfide, S	6.3		
Boron, B	0.75		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	355	10.7	100

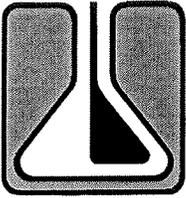
Total Dissolved Solids, (Gravimetric)	390
Calculated Hardness, CaCO3	22
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	270

Primary Salinity	48.36
Secondary Salinity	0
Total Salinity	48.36

Cation/Anion Balance, %	9.0%
Sodium, Na (Calculated), mg/L	136.51
Langelier Scale Index	0.16
Stiff/Davis Stability Index	0.05

Primary Alkalinity	34.2
Secondary Alkalinity	7.6
Total Alkalinity	41.8

*Jeanette M. Magallon J.*  
Laboratory Authorization



# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

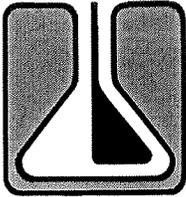
Lab Sample ID: 1503332-05  
Client Sample ID: Jasmin Sump #5

Collected By: William Moss  
Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>									
			<i>TTLC Limits</i>						
Antimony	<0.20	0.20	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
<b>Semivolatile Organic Compounds</b>									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



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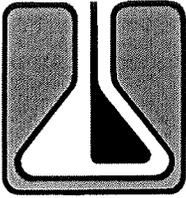
Table with 3 columns: Client Info (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Info (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Info (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Lab Sample ID: 1503332-05, Client Sample ID: Jasmin Sump #5; Collected By: William Moss; Date Collected: 3/31/2015 12:10:00PM

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Section: Semivolatile Organic Compounds. Lists various compounds like Benzo (k) fluoranthene, Benzoic acid, Benzyl alcohol, etc.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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Hathaway LLC
4205 Atlas Court
Bakersfield, CA 93308

Project: Master - 2015
Project #:
Attention: Michelle Ricker

Work Order No.: 1503332
Reported: 04/24/2015
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-05

Collected By: William Moss

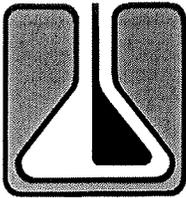
Client Sample ID: Jasmin Sump #5

Date Collected: 3/31/2015 12:10:00PM

Table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Rows include Semivolatile Organic Compounds such as Hexachlorobutadiene, Hexachlorocyclopentadiene, etc.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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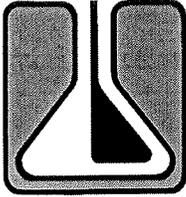
Table with 3 columns: Client/Project info (Hathaway LLC, Project: Master - 2015), Work Order No.: 1503332, and Reporting info (Reported: 04/24/2015, Received: 03/31/2015 15:30).

Table with 2 columns: Lab/Client Sample IDs (Lab Sample ID: 1503332-05, Client Sample ID: Jasmin Sump #5) and Collection info (Collected By: William Moss, Date Collected: 3/31/2015 12:10:00PM).

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Includes a section for Semivolatile Organic Compounds with various chemical names and their corresponding values.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-05 Client Sample ID: Jasmin Sump #5	Collected By: William Moss Date Collected: 3/31/2015 12:10:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	40.6	0-67	4/2/15 13:51
Phenol-d6	29.5	0-57	4/2/15 13:51
Nitrobenzene-d5	64.5	0-95	4/2/15 13:51
2-Fluorobiphenyl	71.0	0-92	4/2/15 13:51
2,4,6-Tribromophenol	103	0-143	4/2/15 13:51
Terphenyl-d14	63.4	0-100	4/2/15 13:51

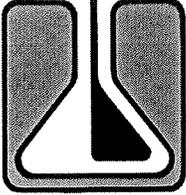
### Volatile Organic Compounds

m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	96.1	89-165	4/1/15 14:15

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-05 Client Sample ID: Jasmin Sump #5	Collected By: William Moss Date Collected: 3/31/2015 12:10:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

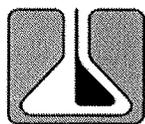
Surrogates	% Recovery	Recovery Limits	Flag
Toluene-d8	96.3	65-124	
4-Bromofluorobenzene	97.7	94-114	

**Volatile Organic Contaminants (VOCs)**

Methane	0.570	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-06  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #6

Sampled by: Date: 3/31/2015 Time: 11:45

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.25	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.67	Resistivity.....	14.93
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.6	0.43	3.84
Magnesium, Mg	0.21	0.017	0.15
Sodium, Na	110	4.8	42.77
Potassium, K	2.3	0.059	0.53
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	23.43
Chloride, Cl	58	1.6	14.62
Sulfate, SO4	61	1.3	11.36
Sulfide, S	5.5		
Boron, B	0.75		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	356	10.8	100

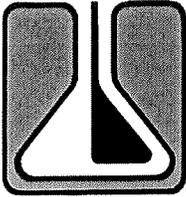
Total Dissolved Solids, (Gravimetric)	390
Calculated Hardness, CaCO3	22
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	260

Primary Salinity	51.96
Secondary Salinity	0
Total Salinity	51.96

Cation/Anion Balance, %	9.0%
Sodium, Na (Calculated), mg/L	123.96
Langelier Scale Index	0.11
Stiff/Davis Stability Index	0

Primary Alkalinity	34.64
Secondary Alkalinity	7.98
Total Alkalinity	42.62

*Jean Marie Mayers J.*  
Laboratory Authorization



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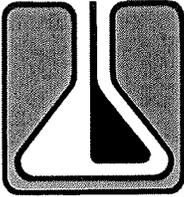
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>			<i>TTLC Limits</i>					
Antimony	<0.20	0.20	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L	SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
<b>Semivolatile Organic Compounds</b>								
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06

Collected By: William Moss

Client Sample ID: Jasmin Sump #6

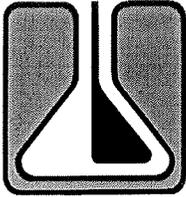
Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
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Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06

Collected By: William Moss

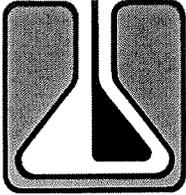
Client Sample ID: Jasmin Sump #6

Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06

Collected By: William Moss

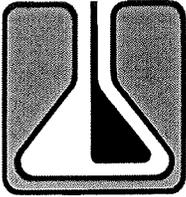
Client Sample ID: Jasmin Sump #6

Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

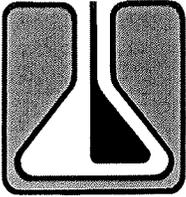
Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	25.4	0-67	4/2/15 13:51
Phenol-d6	19.0	0-57	4/2/15 13:51
Nitrobenzene-d5	40.4	0-95	4/2/15 13:51
2-Fluorobiphenyl	40.1	0-92	4/2/15 13:51
2,4,6-Tribromophenol	61.2	0-143	4/2/15 13:51
Terphenyl-d14	41.6	0-100	4/2/15 13:51

Surrogates	% Recovery	Recovery Limits	Flag
<b>Volatile Organic Compounds</b>			
m,p-Xylene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Benzene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Xylenes, total	0.00		ug/L SW846 8260B 4/1/15 4/1/15 HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Ethylbenzene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Toluene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
o-Xylene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	115	89-165	4/1/15 14:15

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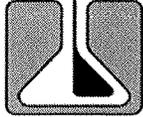
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Volatile Organic Compounds</b>								
Surrogates		% Recovery	Recovery Limits	Flag				
Toluene-d8		98.7	65-124			4/1/15	14:15	
4-Bromofluorobenzene		116*	94-114	S-GC		4/1/15	14:15	
<b>Volatile Organic Contaminants (VOCs)</b>								
Methane	0.506	0.000240		ppm	RSK-175	4/8/15	4/8/15	MO

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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Analytical and Consulting Services

4309 Armour Avenue, Bakersfield, CA 93308

www.zalcolabs.com

(661) 395-0539 FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-07  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #7

Sampled by: Date: 3/31/2015 Time: 10:45

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	8.26	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.67	Resistivity.....	14.93
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.8	0.44	3.87
Magnesium, Mg	0.21	0.017	0.15
Sodium, Na	120	5.2	45.97
Potassium, K	2.3	0.059	0.52
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	23.08
Chloride, Cl	50	1.4	12.42
Sulfate, SO4	63	1.3	11.56
Sulfide, S	3.9		
Boron, B	0.77		
Barium, Ba	< 0.1		
Silica, SiO2	32		
Strontium, Sr	0.14		
Totals (Sum)	360	11	100

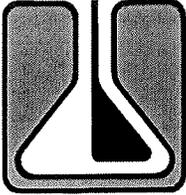
Total Dissolved Solids, (Gravimetric)	390
Calculated Hardness, CaCO3	23
Total Alkalinity, CaCO3	160
Sodium Chloride, (total)	250

Primary Salinity	47.96
Secondary Salinity	0
Total Salinity	47.96

Cation/Anion Balance, %	4.0%
Sodium, Na (Calculated), mg/L	117.35
Langelier Scale Index	0.13
Stiff/Davis Stability Index	0.02

Primary Alkalinity	45.02
Secondary Alkalinity	8.04
Total Alkalinity	53.06

*Janet M. Maguire J.*  
Laboratory Authorization



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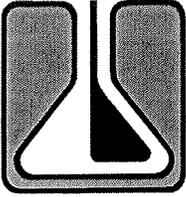
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-07	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>			<i>TTLIC Limits</i>					
Antimony	<0.20	0.20	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L	SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
<b>Semivolatile Organic Compounds</b>								
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLIC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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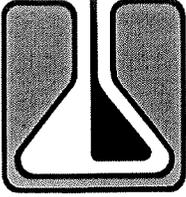
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-07	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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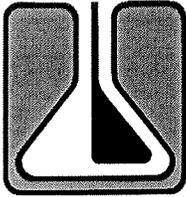
Table with 3 columns: Client Information (Hathaway LLC, 4205 Atlas Court, Bakersfield, CA 93308), Project Information (Project: Master - 2015, Project #: , Attention: Michelle Ricker), and Work Order Information (Work Order No.: 1503332, Reported: 04/24/2015, Received: 03/31/2015 15:30)

Table with 2 columns: Sample Information (Lab Sample ID: 1503332-07, Client Sample ID: Jasmin Sump #7) and Collection Information (Collected By: William Moss, Date Collected: 3/31/2015 10:45:00AM)

Main data table with columns: Analyte, Results, PQL, Units, Flag, Method, Date Prepared, Date Analyzed, Init. Section: Semivolatile Organic Compounds. Lists various compounds like Hexachlorobutadiene, Hexachlorocyclopentadiene, etc., with results <10.0 and PQL 10.0.

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative
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Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-07

Collected By: William Moss

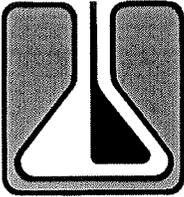
Client Sample ID: Jasmin Sump #7

Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-07	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

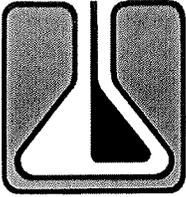
Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	30.4	0-67	4/2/15 13:51
Phenol-d6	22.4	0-57	4/2/15 13:51
Nitrobenzene-d5	48.3	0-95	4/2/15 13:51
2-Fluorobiphenyl	52.2	0-92	4/2/15 13:51
2,4,6-Tribromophenol	74.7	0-143	4/2/15 13:51
Terphenyl-d14	49.1	0-100	4/2/15 13:51

Surrogates	% Recovery	Recovery Limits	Flag
<b>Volatile Organic Compounds</b>			
m,p-Xylene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Benzene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Xylenes, total	0.00		ug/L SW846 8260B 4/1/15 4/1/15 HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Ethylbenzene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
Toluene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP
o-Xylene	<5.00	5.00	ug/L SW846 8260B 4/1/15 4/1/15 HLP

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	108	89-165	4/1/15 14:15

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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**ZALCO LABORATORIES, INC.**

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-07 Client Sample ID: Jasmin Sump #7	Collected By: William Moss Date Collected: 3/31/2015 10:45:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
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**Volatile Organic Compounds**

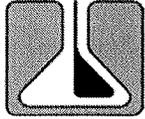
Surrogates	% Recovery	Recovery Limits	Flag	Date Prepared	Date Analyzed
Toluene-d8	101	65-124		4/1/15	14:15
4-Bromofluorobenzene	112	94-114		4/1/15	14:15

**Volatile Organic Contaminants (VOCs)**

Methane	0.461	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
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Hathaway LLC  
4205 Atlas Court  
Bakersfield CA 93308

Laboratory No: 1503332-08  
Date Received: 3/31/2015  
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #8

Sampled by: Date: 3/31/2015 Time: 9:40

Report Notes:

**COMPLETE GEOCHEM ANALYSIS**

pH.....	7.96	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC).....	0.68	Resistivity.....	14.71
(millimhos/cm @ 25 C)		(ohm meters @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	8.8	0.44	3.86
Magnesium, Mg	0.27	0.022	0.2
Sodium, Na	120	5.2	45.91
Potassium, K	2.3	0.059	0.52
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	150	2.46	21.64
Chloride, Cl	54	1.5	13.39
Sulfate, SO4	74	1.5	13.56
Sulfide, S	1.6		
Boron, B	0.71		
Barium, Ba	< 0.1		
Silica, SiO2	29		
Strontium, Sr	0.14		
Totals (Sum)	365	11.2	100

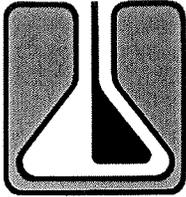
Total Dissolved Solids, (Gravimetric)	430
Calculated Hardness, CaCO3	22
Total Alkalinity, CaCO3	150
Sodium Chloride, (total)	250

Primary Salinity	53.9
Secondary Salinity	0
Total Salinity	53.9

Cation/Anion Balance, %	4.0%
Sodium, Na (Calculated), mg/L	117.45
Langelier Scale Index	-0.2
Stiff/Davis Stability Index	-0.31

Primary Alkalinity	38.96
Secondary Alkalinity	8.12
Total Alkalinity	47.08

*See actual signature*  
Laboratory Authorization



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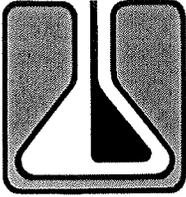
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>CAM, Toxicity (17 Metals)</b>			<i>TTLC Limits</i>					
Antimony	<0.20	0.20	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L	SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L	SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L	SW846 6010B	4/1/15	4/1/15	SS
<b>Semivolatile Organic Compounds</b>								
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L	SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08

Collected By: William Moss

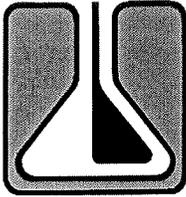
Client Sample ID: Jasmin Sump #8

Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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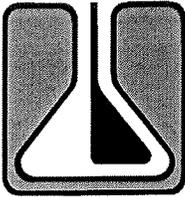
Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
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Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC  
4205 Atlas Court  
Bakersfield, CA 93308

Project: Master - 2015  
Project #:  
Attention: Michelle Ricker

Work Order No.: 1503332  
Reported: 04/24/2015  
Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08

Collected By: William Moss

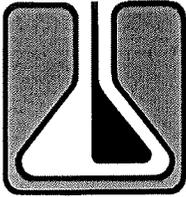
Client Sample ID: Jasmin Sump #8

Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
---	--	---

Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag
2-Fluorophenol	32.4	0-67	4/2/15 13:51
Phenol-d6	24.0	0-57	4/2/15 13:51
Nitrobenzene-d5	53.9	0-95	4/2/15 13:51
2-Fluorobiphenyl	58.1	0-92	4/2/15 13:51
2,4,6-Tribromophenol	84.3	0-143	4/2/15 13:51
Terphenyl-d14	53.7	0-100	4/2/15 13:51

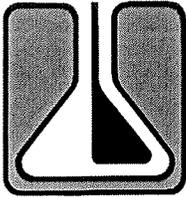
### Volatile Organic Compounds

m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	100	89-165	4/1/15 14:15

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Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30
---	--	---

Lab Sample ID: 1503332-08 Client Sample ID: Jasmin Sump #8	Collected By: William Moss Date Collected: 3/31/2015 9:40:00AM
---	---

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
---------	---------	-----	-------	------	--------	---------------	---------------	-------

**Volatile Organic Compounds**

Surrogates	% Recovery	Recovery Limits	Flag
Toluene-d8	98.9	65-124	
4-Bromofluorobenzene	101	94-114	

**Volatile Organic Contaminants (VOCs)**

Methane	0.190	0.000240	ppm	RSK-175	4/8/15	4/8/15	MO
---------	-------	----------	-----	---------	--------	--------	----

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
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**DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES**  
730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS  
REPORT

Company: Zalco Laboratories, Inc.  
Address: 4309 Armour Avenue  
Bakersfield, CA 93308

Project Manager: Megan Stillman  
Report Date: April 21, 2015  
Subcontract Order #: 1503332

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	±	2 Sigma error	MDA
Water								
1503332-01A	3/31/15		900.0	Gross Alpha	5.49	±	2.20	2.35
			900.0	Gross Beta	5.47	±	1.70	2.45
			908.1	Uranium	0.41	±	0.30	0.60
			903.0	Radium 226	0.29	±	0.02	0.24
			904.0	Radium 228	0.79	±	0.23	0.01
			SM7500-Rn	Radon 222	43	±	10	14
1503332-02A	3/31/15		900.0	Gross Alpha	4.89	±	1.96	2.10
			900.0	Gross Beta	4.64	±	1.61	2.36
			908.1	Uranium	0.31	±	0.23	0.45
			903.0	Radium 226	0.61	±	0.03	0.18
			904.0	Radium 228	0.99	±	0.29	0.01
			SM7500-Rn	Radon 222	45	±	10	14
1503332-03A	3/31/15		900.0	Gross Alpha	1.77	±	0.54	0.01
			900.0	Gross Beta	4.39	±	1.84	2.80
			908.1	Uranium	0.43	±	0.31	0.63
			903.0	Radium 226	0.52	±	0.03	0.24
			904.0	Radium 228	0.80	±	0.23	0.01
			SM7500-Rn	Radon 222	38	±	10	14
1503332-04A	3/31/15		900.0	Gross Alpha	3.09	±	0.72	0.01
			900.0	Gross Beta	6.58	±	1.96	2.79
			908.1	Uranium	0.22	±	0.29	0.64
			903.0	Radium 226	1.32	±	0.05	0.48
			904.0	Radium 228	1.91	±	0.55	0.02
			SM7500-Rn	Radon 222	42	±	10	14

Company:

Zalco Laboratories, Inc.

Project Manager:

Megan Stillman

Report Date:

April 21, 2015

Subcontract Order #:

1503332

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	±	2 Sigma error	MDA
1503332-05A	3/31/15		900.0	Gross Alpha	2.36	±	0.63	0.01
			900.0	Gross Beta	4.21	±	1.78	2.72
			908.1	Uranium	0.34	±	0.25	0.50
			903.0	Radium 226	0.25	±	0.02	0.19
			904.0	Radium 228	1.09	±	0.32	0.01
			SM7500-Rn	Radon 222	35	±	10	14
1503332-06A	3/31/15		900.0	Gross Alpha	3.64	±	0.77	0.01
			900.0	Gross Beta	4.88	±	1.88	2.83
			908.1	Uranium	0.21	±	0.28	0.61
			903.0	Radium 226	0.31	±	0.02	0.23
			904.0	Radium 228	2.65	±	0.77	0.02
			SM7500-Rn	Radon 222	28	±	10	14
1503332-07A	3/31/15		900.0	Gross Alpha	4.30	±	1.73	2.35
			900.0	Gross Beta	5.70	±	1.82	2.45
			908.1	Uranium	0.00	±	0.26	0.60
			903.0	Radium 226	0.75	±	0.04	0.24
			904.0	Radium 228	0.79	±	0.23	0.01
			SM7500-Rn	Radon 222	29	±	10	14
1503332-08A	3/31/15		900.0	Gross Alpha	4.12	±	0.83	2.35
			900.0	Gross Beta	4.60	±	1.87	2.45
			908.1	Uranium	1.00	±	0.30	0.60
			903.0	Radium 226	0.43	±	0.02	0.24
			904.0	Radium 228	1.58	±	0.23	0.01
			SM7500-Rn	Radon 222	22	±	10	14

Analyses Date: 4/20/15



ZALCO LABORATORIES, INC. CHAIN OF CUSTODY, ID # 15033332  
 4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069 www.zalcolabs.com

Page 1 of 1  
 Zalco Lab # 15033332  
 Client PO #

REPORT INFO

INVOICE INFO

ANALYSIS

Client: Hetherway LLC Invoice To: Same as Client   
 Address: \_\_\_\_\_ Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_  
 Attention: Michelle Rivers Attention: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Results:  Fax: \_\_\_\_\_  
 Results:  Email: \_\_\_\_\_  
 Results:

SAMPLED BY:

EMPLOYED BY:

Sample No. *	Sample Description	Date	Sample Time	Type *
1	DASMIN Samp # 1	3/31/15	1400	AQ
2			1430	
3			1315	
4			1340	
5			1210	
6			1145	
7			1145	
8			0940	

#	CONTAINERS	ANALYSIS
1	Geochem	
1	CAM LT	
1	Risk Methane	
1	Radionuclides	
1	0270c SW846	
1	BTEX	

PROJECT ID: \_\_\_\_\_  
 QUOTE ID: \_\_\_\_\_  
 COMMENTS:  
 Turnaround Time: \_\_\_\_\_ working days   
 Routine \_\_\_\_\_ working days   
 Rush By \_\_\_\_\_ working days  
 Send Copy to State of CA? Yes  No   
 Attention To: \_\_\_\_\_  
 Send Copy to County? Yes  No   
 County: \_\_\_\_\_

Sample No. *	Sample Description	Date	Sample Time	Type *	ANALYSIS
1	DASMIN Samp # 1	3/31/15	1400	AQ	Geochem
2			1430		CAM LT
3			1315		Risk Methane
4			1340		Radionuclides
5			1210		0270c SW846
6			1145		BTEX
7			1145		
8			0940		

RELINQUISHED BY: Signature EMery PRINT William Moss COMPANY Hetherway LLC Date 3/31/15 Time 3:30 RECEIVED BY: Signature William Johnson PRINT JOHNSON

NOTE: Samples are discarded 30 days after results unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client's expense.  
 \*Sample Type Key: AQ-Aqueous; BS-Biosolid; DW-Drinking Water; GW-Ground Water; G-Gas; LPG-Liquid Petroleum Gas; OL-Oil; O-Other; P-Petroleum; S-Soil/Solid; ST-Storm Water; WW-Wastewater  
 \*Sample No.: FOR OFFICE USE ONLY



Date of Report: 12/04/2015

Kelsey Padilla

Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

Client Project: HAT 204, Hathaway Ponds  
BCL Project: DOGGR Injection - Formation Water  
BCL Work Order: 1529656  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 11/19/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

\_\_\_\_\_  
Contact Person: Kerrie Vaughan  
Client Services

\_\_\_\_\_  
Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Method Blank Analysis..... 14

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

### Laboratory / Client Sample Cross Reference

Laboratory ID	Client Sample Information
---------------	---------------------------

<b>1529656-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/19/2015 12:00
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/19/2015 08:50
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Davies	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> K.Padilla/G.Brierley	<b>Sample Type:</b> Wastewater
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Davies

<b>1529656-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/19/2015 12:00
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/19/2015 00:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Davies Travel Blank	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> ---	<b>Sample Type:</b> Trip Blank
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Davies Travel Blank

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

<b>BCL Sample ID:</b> 1529656-01	<b>Client Sample Name:</b> Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/23/15	11/23/15 18:16	SE1	MS-V10	1	BYK2007

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

<b>BCL Sample ID:</b> 1529656-01	<b>Client Sample Name:</b> Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.037	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.028	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.053	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.026	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.030	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.041	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	94.3	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	77.5	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	82.3	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/23/15	11/30/15 12:58	MK1	MS-B7	0.960	BYK2379

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**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

<b>BCL Sample ID:</b> 1529656-01	<b>Client Sample Name:</b> Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	2000	ug/L	500	140	EPA-8015B/FFP	ND		1
Tetracosane (Surrogate)	73.3	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/20/15	11/25/15 12:32	MWB	GC-13	1	BYK2095

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**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Gas Testing in Water

<b>BCL Sample ID:</b> 1529656-01	<b>Client Sample Name:</b> Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	ND	mg/L	0.0010	0.00028	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 10:37	JH2	GC-V1	1	BYL0151

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Water Analysis (General Chemistry)

BCL Sample ID: 1529656-01		Client Sample Name: Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley						
Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	7.0	mg/L	0.10	0.014	EPA-200.7			1
Total Recoverable Magnesium	0.33	mg/L	0.050	0.019	EPA-200.7	50		1
Total Recoverable Sodium	56	mg/L	0.50	0.051	EPA-200.7			1
Total Recoverable Potassium	0.38	mg/L	1.0	0.10	EPA-200.7		J	1
Bicarbonate	88	mg/L	5.0	5.0	SM-2320B			2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B			2
Hydroxide	ND	mg/L	1.4	1.4	SM-2320B			2
Bromide	0.13	mg/L	0.10	0.035	EPA-300.0			3
Chloride	27	mg/L	0.50	0.061	EPA-300.0	600		3
Nitrate as NO3	0.73	mg/L	0.44	0.078	EPA-300.0	45		3
Sulfate	37	mg/L	1.0	0.10	EPA-300.0	500		3
Total Alkalinity	43	Reacting %	0	0	Calc			4
Total Dissolved Solids @ 180 C	190	mg/L	20	20	SM-2540C	1500		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/23/15	11/23/15 18:21	JRG	PE-OP2	1	BYK2108
2	SM-2320B	11/30/15	11/30/15 14:59	RML	MET-1	1	BYK2595
3	EPA-300.0	11/20/15	11/21/15 06:06	OLH	IC8	1	BYK2033
4	Calc	11/19/15	12/02/15 10:19	MSA	Calc	1	BYK1867
5	SM-2540C	11/22/15	11/22/15 12:00	CAD	MANUAL	2	BYK2051

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**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

### Draft: Metals Analysis

<b>BCL Sample ID:</b> 1529656-01	<b>Client Sample Name:</b> Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley
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Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
<b>Total Recoverable Aluminum</b>	<b>0.061</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.026</b>	<b>EPA-200.7</b>	1		2
<b>Total Recoverable Arsenic</b>	<b>1.1</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.70</b>	<b>EPA-200.8</b>	10	J	3
<b>Total Recoverable Barium</b>	<b>64</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.21</b>	<b>EPA-200.8</b>			3
Total Recoverable Beryllium	ND	ug/L	1.0	0.14	EPA-200.8	4		3
<b>Total Recoverable Boron</b>	<b>0.048</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.010</b>	<b>EPA-200.7</b>		J	2
<b>Total Recoverable Chromium</b>	<b>8.4</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>			3
<b>Total Recoverable Cobalt</b>	<b>0.10</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.10</b>	<b>EPA-200.8</b>		J	3
<b>Total Recoverable Copper</b>	<b>320</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.22</b>	<b>EPA-200.8</b>	1000		3
<b>Total Recoverable Iron</b>	<b>0.069</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.030</b>	<b>EPA-200.7</b>	0.3		2
Total Recoverable Lithium	ND	mg/L	0.020	0.0066	EPA-200.7			2
Total Recoverable Manganese	ND	mg/L	0.010	0.0040	EPA-200.7	0.05		2
Total Recoverable Mercury	ND	ug/L	0.20	0.033	EPA-245.1	2		4
<b>Total Recoverable Molybdenum</b>	<b>1.7</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.11</b>	<b>EPA-200.8</b>			3
<b>Total Recoverable Nickel</b>	<b>3.0</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.19</b>	<b>EPA-200.8</b>			3
<b>Total Recoverable Selenium</b>	<b>3.2</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.19</b>	<b>EPA-200.8</b>	50		3
Total Recoverable Silver	ND	ug/L	1.0	0.10	EPA-200.8			3
<b>Total Recoverable Strontium</b>	<b>0.063</b>	<b>mg/L</b>	<b>0.010</b>	<b>0.0010</b>	<b>EPA-200.7</b>			2
<b>Total Recoverable Vanadium</b>	<b>3.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.78</b>	<b>EPA-200.8</b>			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	11/21/15	11/21/15 04:29	OLH	IC-4	1	BYK2030
2	EPA-200.7	11/23/15	11/23/15 18:21	JRG	PE-OP2	1	BYK2108
3	EPA-200.8	11/24/15	12/01/15 04:01	GPD	PE-EL3	1	BYK2214
4	EPA-245.1	11/24/15	11/24/15 14:46	MEV	CETAC1	1	BYK2198

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

<b>BCL Sample ID:</b> 1529656-02	<b>Client Sample Name:</b> Davies Travel Blank, 11/19/2015 12:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 11:13	SE1	MS-V10	1	BYK2255

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**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: BYK2007**

Benzene	BYK2007-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2007-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2007-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2007-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2007-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2007-BLK1	ND	ug/L	0.50	0.082	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>BYK2007-BLK1</b>	<b>94.3</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>BYK2007-BLK1</b>	<b>99.1</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BYK2007-BLK1</b>	<b>107</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

**QC Batch ID: BYK2255**

Benzene	BYK2255-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2255-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2255-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2255-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2255-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2255-BLK1	ND	ug/L	0.50	0.082	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>93.7</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>101</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>107</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2007</b>										
Benzene	BYK2007-BS1	LCS	27.980	25.000	ug/L	112		70 - 130		
Toluene	BYK2007-BS1	LCS	30.390	25.000	ug/L	122		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2007-BS1	LCS	9.1600	10.000	ug/L	91.6		75 - 125		
Toluene-d8 (Surrogate)	BYK2007-BS1	LCS	10.160	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2007-BS1	LCS	10.040	10.000	ug/L	100		80 - 120		
<b>QC Batch ID: BYK2255</b>										
Benzene	BYK2255-BS1	LCS	25.510	25.000	ug/L	102		70 - 130		
Toluene	BYK2255-BS1	LCS	27.100	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2255-BS1	LCS	9.4100	10.000	ug/L	94.1		75 - 125		
Toluene-d8 (Surrogate)	BYK2255-BS1	LCS	10.170	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2255-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		

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**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

## Draft: Volatile Organic Analysis (EPA Method 8260B) Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2007</b>		Used client sample: N								
Benzene	MS	1528561-42	ND	27.450	25.000	ug/L		110		70 - 130
	MSD	1528561-42	ND	28.500	25.000	ug/L	3.8	114	20	70 - 130
Toluene	MS	1528561-42	ND	29.790	25.000	ug/L		119		70 - 130
	MSD	1528561-42	ND	30.850	25.000	ug/L	3.5	123	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-42	ND	9.3300	10.000	ug/L		93.3		75 - 125
	MSD	1528561-42	ND	9.4800	10.000	ug/L	1.6	94.8		75 - 125
Toluene-d8 (Surrogate)	MS	1528561-42	ND	9.9200	10.000	ug/L		99.2		80 - 120
	MSD	1528561-42	ND	10.170	10.000	ug/L	2.5	102		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1528561-42	ND	9.8700	10.000	ug/L		98.7		80 - 120
	MSD	1528561-42	ND	10.050	10.000	ug/L	1.8	100		80 - 120
<b>QC Batch ID: BYK2255</b>		Used client sample: N								
Benzene	MS	1528561-51	ND	27.430	25.000	ug/L		110		70 - 130
	MSD	1528561-51	ND	27.560	25.000	ug/L	0.5	110	20	70 - 130
Toluene	MS	1528561-51	ND	29.930	25.000	ug/L		120		70 - 130
	MSD	1528561-51	ND	30.010	25.000	ug/L	0.3	120	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-51	ND	9.5100	10.000	ug/L		95.1		75 - 125
	MSD	1528561-51	ND	9.4200	10.000	ug/L	1.0	94.2		75 - 125
Toluene-d8 (Surrogate)	MS	1528561-51	ND	10.230	10.000	ug/L		102		80 - 120
	MSD	1528561-51	ND	10.210	10.000	ug/L	0.2	102		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1528561-51	ND	9.9800	10.000	ug/L		99.8		80 - 120
	MSD	1528561-51	ND	9.8200	10.000	ug/L	1.6	98.2		80 - 120

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2379</b>						
Acenaphthene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Acenaphthylene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.031	
Benzo[a]anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.029	
Benzo[b]fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.037	
Benzo[k]fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Benzo[a]pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Benzo[g,h,i]perylene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Chrysene	BYK2379-BLK1	ND	ug/L	0.10	0.028	
Dibenzo[a,h]anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.053	
Fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.026	
Fluorene	BYK2379-BLK1	ND	ug/L	0.10	0.029	
Indeno[1,2,3-cd]pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Naphthalene	BYK2379-BLK1	ND	ug/L	0.10	0.040	
Phenanthrene	BYK2379-BLK1	ND	ug/L	0.10	0.030	
Pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.041	
<b>Nitrobenzene-d5 (Surrogate)</b>	<b>BYK2379-BLK1</b>	<b>102</b>	<b>%</b>	<b>40 - 130 (LCL - UCL)</b>		
<b>2-Fluorobiphenyl (Surrogate)</b>	<b>BYK2379-BLK1</b>	<b>85.2</b>	<b>%</b>	<b>50 - 120 (LCL - UCL)</b>		
<b>p-Terphenyl-d14 (Surrogate)</b>	<b>BYK2379-BLK1</b>	<b>112</b>	<b>%</b>	<b>40 - 130 (LCL - UCL)</b>		

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2379</b>										
Acenaphthene	BYK2379-BS1	LCS	0.86130	1.0000	ug/L	86.1		60 - 110		
Acenaphthylene	BYK2379-BS1	LCS	0.91080	1.0000	ug/L	91.1		60 - 120		
Anthracene	BYK2379-BS1	LCS	1.0098	1.0000	ug/L	101		60 - 130		
Benzo[a]anthracene	BYK2379-BS1	LCS	0.97020	1.0000	ug/L	97.0		60 - 130		
Benzo[b]fluoranthene	BYK2379-BS1	LCS	0.83160	1.0000	ug/L	83.2		50 - 130		
Benzo[k]fluoranthene	BYK2379-BS1	LCS	0.85140	1.0000	ug/L	85.1		60 - 120		
Benzo[a]pyrene	BYK2379-BS1	LCS	0.93060	1.0000	ug/L	93.1		60 - 120		
Benzo[g,h,i]perylene	BYK2379-BS1	LCS	0.63360	1.0000	ug/L	63.4		40 - 120		
Chrysene	BYK2379-BS1	LCS	0.65340	1.0000	ug/L	65.3		60 - 110		
Dibenzo[a,h]anthracene	BYK2379-BS1	LCS	0.68310	1.0000	ug/L	68.3		40 - 120		
Fluoranthene	BYK2379-BS1	LCS	0.97020	1.0000	ug/L	97.0		60 - 120		
Fluorene	BYK2379-BS1	LCS	0.92070	1.0000	ug/L	92.1		60 - 120		
Indeno[1,2,3-cd]pyrene	BYK2379-BS1	LCS	0.72270	1.0000	ug/L	72.3		40 - 130		
Naphthalene	BYK2379-BS1	LCS	0.85140	1.0000	ug/L	85.1		60 - 110		
Phenanthrene	BYK2379-BS1	LCS	0.89100	1.0000	ug/L	89.1		60 - 120		
Pyrene	BYK2379-BS1	LCS	0.99000	1.0000	ug/L	99.0		50 - 125		
Nitrobenzene-d5 (Surrogate)	BYK2379-BS1	LCS	3.9699	4.0000	ug/L	99.2		40 - 130		
2-Fluorobiphenyl (Surrogate)	BYK2379-BS1	LCS	3.3165	4.0000	ug/L	82.9		50 - 120		
p-Terphenyl-d14 (Surrogate)	BYK2379-BS1	LCS	3.5244	4.0000	ug/L	88.1		40 - 130		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/04/2015 14:42
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes a QC Batch ID: BYK2379 and a list of polynuclear aromatic hydrocarbons with their respective results and recovery percentages.

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: BYK2379</b>		Used client sample: N									
p-Terphenyl-d14 (Surrogate)	MS	1528561-50	ND	3.5900	4.0000	ug/L		89.8		40 - 130	
	MSD	1528561-50	ND	3.4629	4.0000	ug/L	3.6	86.6		40 - 130	

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Total Petroleum Hydrocarbons

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2095</b>						
TPH - Crude Oil	BYK2095-BLK1	ND	ug/L	500	140	
Tetracosane (Surrogate)	BYK2095-BLK1	77.8	%	37 - 134 (LCL - UCL)		

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2095</b>										
Tetracosane (Surrogate)	BYK2095-BS1	LCS	161.58	200.00	ug/L	80.8		37	134	

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**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

**Draft: Total Petroleum Hydrocarbons**  
**Quality Control Report - Precision & Accuracy**

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: BYK2095</b>		Used client sample: N									
Tetracosane (Surrogate)	MS	1513811-93	ND	141.77	200.00	ug/L		70.9		37 - 134	
	MSD	1513811-93	ND	152.77	200.00	ug/L	7.5	76.4		37 - 134	

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**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Gas Testing in Water

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYL0151</b>						
Methane	BYL0151-BLK1	ND	mg/L	0.0010	0.00028	

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

### Draft: Gas Testing in Water

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BYL0151</b>											
Methane	BYL0151-BS1	LCS	0.0096889	0.010843	mg/L	89.4		80 - 120			
	BYL0151-BSD1	LCSD	0.010670	0.010843	mg/L	98.4	9.6	80 - 120	20		

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK1867</b>						
Total Alkalinity	BYK1867-BLK1	0	Reacting %	0	0	
<b>QC Batch ID: BYK2033</b>						
Bromide	BYK2033-BLK1	ND	mg/L	0.10	0.035	
Chloride	BYK2033-BLK1	ND	mg/L	0.50	0.061	
Nitrate as NO3	BYK2033-BLK1	ND	mg/L	0.44	0.078	
Sulfate	BYK2033-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: BYK2051</b>						
Total Dissolved Solids @ 180 C	BYK2051-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: BYK2108</b>						
Total Recoverable Calcium	BYK2108-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	BYK2108-BLK1	ND	mg/L	0.050	0.019	
<b>Total Recoverable Sodium</b>	<b>BYK2108-BLK1</b>	<b>0.085753</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
Total Recoverable Potassium	BYK2108-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: BYK2595</b>						
Bicarbonate	BYK2595-BLK1	ND	mg/L	5.0	5.0	
Carbonate	BYK2595-BLK1	ND	mg/L	2.5	2.5	
Hydroxide	BYK2595-BLK1	ND	mg/L	1.4	1.4	

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

## Draft: Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2033</b>										
Bromide	BYK2033-BS1	LCS	2.0650	2.0000	mg/L	103		90 - 110		
Chloride	BYK2033-BS1	LCS	52.109	50.000	mg/L	104		90 - 110		
Nitrate as NO3	BYK2033-BS1	LCS	23.024	22.134	mg/L	104		90 - 110		
Sulfate	BYK2033-BS1	LCS	103.97	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: BYK2051</b>										
Total Dissolved Solids @ 180 C	BYK2051-BS1	LCS	575.00	586.00	mg/L	98.1		90 - 110		
<b>QC Batch ID: BYK2108</b>										
Total Recoverable Calcium	BYK2108-BS1	LCS	10.618	10.000	mg/L	106		85 - 115		
Total Recoverable Magnesium	BYK2108-BS1	LCS	10.786	10.000	mg/L	108		85 - 115		
Total Recoverable Sodium	BYK2108-BS1	LCS	10.292	10.000	mg/L	103		85 - 115		
Total Recoverable Potassium	BYK2108-BS1	LCS	10.070	10.000	mg/L	101		85 - 115		

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Bakersfield, CA 93308

Reported: 12/04/2015 14:42
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Draft: Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes sections for QC Batch ID: BYK2033, BYK2051, BYK2108, and BYK2595.

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**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

### Draft: Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2030</b>						
Hexavalent Chromium	BYK2030-BLK1	ND	ug/L	0.20	0.055	
<b>QC Batch ID: BYK2108</b>						
Total Recoverable Aluminum	BYK2108-BLK1	ND	mg/L	0.050	0.026	
<b>Total Recoverable Boron</b>	<b>BYK2108-BLK1</b>	<b>0.019641</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.010</b>	<b>J</b>
Total Recoverable Iron	BYK2108-BLK1	ND	mg/L	0.050	0.030	
Total Recoverable Lithium	BYK2108-BLK1	ND	mg/L	0.020	0.0066	
Total Recoverable Manganese	BYK2108-BLK1	ND	mg/L	0.010	0.0040	
Total Recoverable Strontium	BYK2108-BLK1	ND	mg/L	0.010	0.0010	
<b>QC Batch ID: BYK2198</b>						
Total Recoverable Mercury	BYK2198-BLK1	ND	ug/L	0.20	0.033	
<b>QC Batch ID: BYK2214</b>						
Total Recoverable Arsenic	BYK2214-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Barium	BYK2214-BLK1	ND	ug/L	1.0	0.21	
Total Recoverable Beryllium	BYK2214-BLK1	ND	ug/L	1.0	0.14	
Total Recoverable Chromium	BYK2214-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Cobalt	BYK2214-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Copper	BYK2214-BLK1	ND	ug/L	2.0	0.22	
Total Recoverable Molybdenum	BYK2214-BLK1	ND	ug/L	1.0	0.11	
Total Recoverable Nickel	BYK2214-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BYK2214-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Silver	BYK2214-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Vanadium	BYK2214-BLK1	ND	ug/L	3.0	0.78	

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

### Draft: Metals Analysis

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2030</b>										
Hexavalent Chromium	BYK2030-BS1	LCS	19.833	20.000	ug/L	99.2		90 - 110		
<b>QC Batch ID: BYK2108</b>										
Total Recoverable Aluminum	BYK2108-BS1	LCS	1.0755	1.0000	mg/L	108		85 - 115		
Total Recoverable Boron	BYK2108-BS1	LCS	1.0283	1.0000	mg/L	103		85 - 115		
Total Recoverable Iron	BYK2108-BS1	LCS	1.1125	1.0000	mg/L	111		85 - 115		
Total Recoverable Lithium	BYK2108-BS1	LCS	0.21552	0.20000	mg/L	108		85 - 115		
Total Recoverable Manganese	BYK2108-BS1	LCS	0.53793	0.50000	mg/L	108		85 - 115		
Total Recoverable Strontium	BYK2108-BS1	LCS	0.49818	0.50000	mg/L	99.6		85 - 115		
<b>QC Batch ID: BYK2198</b>										
Total Recoverable Mercury	BYK2198-BS1	LCS	1.1300	1.0000	ug/L	113		85 - 115		
<b>QC Batch ID: BYK2214</b>										
Total Recoverable Arsenic	BYK2214-BS1	LCS	93.848	100.00	ug/L	93.8		85 - 115		
Total Recoverable Barium	BYK2214-BS1	LCS	38.932	40.000	ug/L	97.3		85 - 115		
Total Recoverable Beryllium	BYK2214-BS1	LCS	39.677	40.000	ug/L	99.2		85 - 115		
Total Recoverable Chromium	BYK2214-BS1	LCS	39.720	40.000	ug/L	99.3		85 - 115		
Total Recoverable Cobalt	BYK2214-BS1	LCS	39.744	40.000	ug/L	99.4		85 - 115		
Total Recoverable Copper	BYK2214-BS1	LCS	101.82	100.00	ug/L	102		85 - 115		
Total Recoverable Molybdenum	BYK2214-BS1	LCS	38.288	40.000	ug/L	95.7		85 - 115		
Total Recoverable Nickel	BYK2214-BS1	LCS	99.445	100.00	ug/L	99.4		85 - 115		
Total Recoverable Selenium	BYK2214-BS1	LCS	91.087	100.00	ug/L	91.1		85 - 115		
Total Recoverable Silver	BYK2214-BS1	LCS	39.693	40.000	ug/L	99.2		85 - 115		
Total Recoverable Vanadium	BYK2214-BS1	LCS	39.162	40.000	ug/L	97.9		85 - 115		

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Reported: 12/04/2015 14:42
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Draft: Metals Analysis

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes sections for QC Batch IDs BYK2030, BYK2108, BYK2198, and BYK2214.

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Project: DOGGR Injection - Formation Water  
Project Number: HAT 204, Hathaway Ponds  
Project Manager: Kelsey Padilla

### Draft: Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BYK2214</b>		Used client sample: N								
Total Recoverable Chromium	DUP	1529725-02	ND	ND		ug/L			20	
	MS	1529725-02	ND	36.689	40.000	ug/L		91.7		70 - 130
	MSD	1529725-02	ND	37.117	40.000	ug/L	1.2	92.8	20	70 - 130
Total Recoverable Cobalt	DUP	1529725-02	3.7210	3.7340		ug/L	0.3		20	
	MS	1529725-02	3.7210	37.187	40.000	ug/L		83.7		70 - 130
	MSD	1529725-02	3.7210	37.876	40.000	ug/L	1.8	85.4	20	70 - 130
Total Recoverable Copper	DUP	1529725-02	7.8700	7.5690		ug/L	3.9		20	
	MS	1529725-02	7.8700	100.61	100.00	ug/L		92.7		70 - 130
	MSD	1529725-02	7.8700	100.60	100.00	ug/L	0.0	92.7	20	70 - 130
Total Recoverable Molybdenum	DUP	1529725-02	211.23	211.20		ug/L	0.0		20	
	MS	1529725-02	211.23	254.88	40.000	ug/L		109		70 - 130
	MSD	1529725-02	211.23	259.87	40.000	ug/L	1.9	122	20	70 - 130
Total Recoverable Nickel	DUP	1529725-02	65.905	66.518		ug/L	0.9		20	
	MS	1529725-02	65.905	145.26	100.00	ug/L		79.4		70 - 130
	MSD	1529725-02	65.905	148.36	100.00	ug/L	2.1	82.4	20	70 - 130
Total Recoverable Selenium	DUP	1529725-02	ND	ND		ug/L			20	
	MS	1529725-02	ND	70.052	100.00	ug/L		70.1		70 - 130
	MSD	1529725-02	ND	71.727	100.00	ug/L	2.4	71.7	20	70 - 130
Total Recoverable Silver	DUP	1529725-02	ND	ND		ug/L			20	
	MS	1529725-02	ND	33.842	40.000	ug/L		84.6		70 - 130
	MSD	1529725-02	ND	33.764	40.000	ug/L	0.2	84.4	20	70 - 130
Total Recoverable Vanadium	DUP	1529725-02	ND	ND		ug/L			20	
	MS	1529725-02	ND	38.899	40.000	ug/L		97.2		70 - 130
	MSD	1529725-02	ND	39.447	40.000	ug/L	1.4	98.6	20	70 - 130

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:42  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT 204, Hathaway Ponds  
**Project Manager:** Kelsey Padilla

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit



Date of Report: 12/04/2015

Kelsey Padilla

Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

Client Project: HAT204 Pond Sampling  
BCL Project: DOGGR Injection - Formation Water  
BCL Work Order: 1529855  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

\_\_\_\_\_  
Contact Person: Kerrie Vaughan  
Client Services

\_\_\_\_\_  
Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Laboratory / Client Sample Cross Reference

Laboratory ID	Client Sample Information
---------------	---------------------------

<b>1529855-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/20/2015 11:40
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/20/2015 09:25
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Fee A	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> K.Padilla/G.Brierley	<b>Sample Type:</b> Wastewater
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Fee A

<b>1529855-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/20/2015 11:40
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/20/2015 00:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Travel Blank	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> ---	<b>Sample Type:</b> Trip Blank
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Travel Blank

<b>1529855-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/20/2015 11:40
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/20/2015 10:05
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Fee B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> K.Padilla/G.Brierley	<b>Sample Type:</b> Wastewater
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Fee B

<b>1529855-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 11/20/2015 11:40
	<b>Project Number:</b> ---	<b>Sampling Date:</b> 11/20/2015 00:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Travel Blank	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> ---	<b>Sample Type:</b> Trip Blank
		API Number:
		WST Permit Number:
		Operator:
		Sample Location:
		Sample Number: Travel Blank

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	2.5	0.42	EPA-8260B	ND	A01,Z1	1
Ethylbenzene	ND	ug/L	2.5	0.49	EPA-8260B	ND	A01,Z1	1
Toluene	ND	ug/L	2.5	0.46	EPA-8260B	ND	A01,Z1	1
Total Xylenes	ND	ug/L	5.0	1.8	EPA-8260B	ND	A01,Z1	1
p- & m-Xylenes	ND	ug/L	2.5	1.4	EPA-8260B	ND	A01,Z1	1
o-Xylene	ND	ug/L	2.5	0.41	EPA-8260B	ND	A01,Z1	1
1,2-Dichloroethane-d4 (Surrogate)	92.7	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/30/15	11/30/15 18:29	SE1	MS-V10	5	BYK2541

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5400 Rosedale Highway  
Bakersfield, CA 93308

Reported: 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Acenaphthylene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Anthracene	ND	ug/L	0.50	0.16	EPA-8270C-SIM	ND	A01	1
Benzo[a]anthracene	ND	ug/L	0.50	0.14	EPA-8270C-SIM	ND	A01	1
<b>Benzo[b]fluoranthene</b>	<b>0.76</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-8270C-SIM</b>	ND	<b>A01</b>	1
Benzo[k]fluoranthene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
Benzo[a]pyrene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Benzo[g,h,i]perylene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
<b>Chrysene</b>	<b>1.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-8270C-SIM</b>	ND	<b>A01</b>	1
Dibenzo[a,h]anthracene	ND	ug/L	0.50	0.26	EPA-8270C-SIM	ND	A01	1
<b>Fluoranthene</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-8270C-SIM</b>	ND	<b>J,A01</b>	1
Fluorene	ND	ug/L	0.50	0.14	EPA-8270C-SIM	ND	A01	1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
<b>Naphthalene</b>	<b>0.62</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-8270C-SIM</b>	ND	<b>A01</b>	1
<b>Phenanthrene</b>	<b>0.33</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-8270C-SIM</b>	ND	<b>J,A01</b>	1
<b>Pyrene</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-8270C-SIM</b>	ND	<b>A01</b>	1
Nitrobenzene-d5 (Surrogate)	78.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		A01	1
2-Fluorobiphenyl (Surrogate)	76.0	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM		A01	1
p-Terphenyl-d14 (Surrogate)	89.1	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/24/15	11/30/15 19:42	MK1	MS-B7	4.750	BYK2429

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	55000	ug/L	5000	1400	EPA-8015B/FFP	ND	A01	1
Tetracosane (Surrogate)	73.8	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/24/15	12/01/15 09:02	MWB	GC-2	10	BYK2553

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Gas Testing in Water

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	0.039	mg/L	0.0010	0.00028	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 13:16	JH2	GC-V1	1	BYL0151

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT204 Pond Sampling  
**Project Manager:** Kelsey Padilla

### Draft: Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	73	mg/L	1.0	0.14	EPA-200.7		A07	1
Total Recoverable Magnesium	100	mg/L	0.50	0.19	EPA-200.7	50	A07	1
Total Recoverable Sodium	5400	mg/L	5.0	0.51	EPA-200.7		A07	1
Total Recoverable Potassium	30	mg/L	10	1.0	EPA-200.7		A07	1
Bicarbonate	5400	mg/L	10	10	SM-2320B			2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B			2
Hydroxide	ND	mg/L	2.8	2.8	SM-2320B			2
Bromide	41	mg/L	5.0	1.8	EPA-300.0		A07	3
Chloride	6100	mg/L	25	3.0	EPA-300.0	600	A07	3
Nitrate as NO3	ND	mg/L	22	3.9	EPA-300.0	45	A07	3
Sulfate	230	mg/L	50	5.0	EPA-300.0	500	A07	3
Total Dissolved Solids @ 180 C	15000	mg/L	1000	1000	SM-2540C	1500		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/25/15	11/30/15 16:34	JRG	PE-OP2	10	BYK2362
2	SM-2320B	11/30/15	12/01/15 02:31	RML	MET-1	2	BYK2602
3	EPA-300.0	11/21/15	11/21/15 16:27	OLH	IC8	50	BYK2034
4	SM-2540C	11/25/15	11/25/15 13:00	CAD	MANUAL	100	BYK2333

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT204 Pond Sampling  
**Project Manager:** Kelsey Padilla

### Draft: Metals Analysis

<b>BCL Sample ID:</b> 1529855-01	<b>Client Sample Name:</b> Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
Total Recoverable Aluminum	ND	mg/L	0.50	0.26	EPA-200.7	1	A07	2
<b>Total Recoverable Boron</b>	<b>9.1</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>EPA-200.7</b>		<b>A07</b>	<b>2</b>
<b>Total Recoverable Iron</b>	<b>2.5</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.30</b>	<b>EPA-200.7</b>	0.3	<b>A07</b>	<b>2</b>
<b>Total Recoverable Lithium</b>	<b>1.3</b>	<b>mg/L</b>	<b>0.20</b>	<b>0.066</b>	<b>EPA-200.7</b>		<b>A07</b>	<b>2</b>
<b>Total Recoverable Manganese</b>	<b>0.14</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.040</b>	<b>EPA-200.7</b>	0.05	<b>A07</b>	<b>2</b>
<b>Total Recoverable Mercury</b>	<b>0.065</b>	<b>ug/L</b>	<b>0.20</b>	<b>0.033</b>	<b>EPA-245.1</b>	2	<b>J</b>	<b>3</b>
<b>Total Recoverable Strontium</b>	<b>4.9</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.010</b>	<b>EPA-200.7</b>		<b>A07</b>	<b>2</b>

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-218.6	11/23/15	11/24/15 00:34	EMW	IC-4	1	BYK2177
2	EPA-200.7	11/25/15	11/30/15 16:34	JRG	PE-OP2	10	BYK2362
3	EPA-245.1	11/30/15	12/01/15 12:58	MEV	CETAC1	1	BYK2568

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529855-02		Client Sample Name: Travel Blank, 11/20/2015 12:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.1	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 12:48	SE1	MS-V10	1	BYK2255

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 15:39	SE1	MS-V10	1	BYK2255

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5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.037	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.028	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.053	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.026	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.030	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.041	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	96.5	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	76.1	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	75.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/24/15	11/30/15 14:58	MK1	MS-B7	0.970	BYK2429

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	9000	ug/L	500	140	EPA-8015B/FFP	ND	A55	1
Tetracosane (Surrogate)	72.6	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/24/15	12/02/15 02:47	MWB	GC-2	1	BYK2553

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Gas Testing in Water

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	0.11	mg/L	0.0010	0.00028	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 13:25	JH2	GC-V1	1	BYL0151

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	89	mg/L	2.0	0.28	EPA-200.7		A07	1
Total Recoverable Magnesium	160	mg/L	1.0	0.38	EPA-200.7	50	A07	1
Total Recoverable Sodium	6300	mg/L	10	1.0	EPA-200.7		A07	1
Total Recoverable Potassium	35	mg/L	20	2.0	EPA-200.7		A07	1
Bicarbonate	4700	mg/L	10	10	SM-2320B			2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B			2
Hydroxide	ND	mg/L	2.8	2.8	SM-2320B			2
Bromide	42	mg/L	5.0	1.8	EPA-300.0		A07	3
Chloride	9300	mg/L	25	3.0	EPA-300.0	600	A07	3
Nitrate as NO3	ND	mg/L	22	3.9	EPA-300.0	45	A07	3
Sulfate	19	mg/L	50	5.0	EPA-300.0	500	J,A07	3
Total Dissolved Solids @ 180 C	20000	mg/L	1000	1000	SM-2540C	1500		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/25/15	11/30/15 16:52	JRG	PE-OP2	20	BYK2362
2	SM-2320B	11/30/15	12/01/15 02:45	RML	MET-1	2	BYK2602
3	EPA-300.0	11/21/15	11/21/15 16:45	OLH	IC8	50	BYK2034
4	SM-2540C	11/25/15	11/25/15 13:00	CAD	MANUAL	100	BYK2333

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**Reported:** 12/04/2015 14:43  
**Project:** DOGGR Injection - Formation Water  
**Project Number:** HAT204 Pond Sampling  
**Project Manager:** Kelsey Padilla

### Draft: Metals Analysis

<b>BCL Sample ID:</b> 1529855-03	<b>Client Sample Name:</b> Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley
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Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
Total Recoverable Aluminum	ND	mg/L	1.0	0.52	EPA-200.7	1	A07	2
<b>Total Recoverable Boron</b>	<b>25</b>	<b>mg/L</b>	<b>2.0</b>	<b>0.20</b>	<b>EPA-200.7</b>		<b>A07</b>	<b>2</b>
Total Recoverable Iron	1.1	mg/L	1.0	0.60	EPA-200.7	0.3	A07	2
Total Recoverable Lithium	1.6	mg/L	0.40	0.13	EPA-200.7		A07	2
Total Recoverable Manganese	0.18	mg/L	0.20	0.080	EPA-200.7	0.05	J,A07	2
Total Recoverable Mercury	ND	ug/L	0.20	0.033	EPA-245.1	2		3
Total Recoverable Strontium	11	mg/L	0.20	0.020	EPA-200.7		A07	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-218.6	11/23/15	11/24/15 00:43	EMW	IC-4	1	BYK2177
2	EPA-200.7	11/25/15	11/30/15 16:52	JRG	PE-OP2	20	BYK2362
3	EPA-245.1	11/30/15	12/01/15 12:29	MEV	CETAC1	1	BYK2557

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Volatile Organic Analysis (EPA Method 8260B)

<b>BCL Sample ID:</b> 1529855-04	<b>Client Sample Name:</b> Travel Blank, 11/20/2015 12:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 13:07	SE1	MS-V10	1	BYK2255

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: BYK2255**

Benzene	BYK2255-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2255-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2255-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2255-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2255-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2255-BLK1	ND	ug/L	0.50	0.082	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>93.7</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>101</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BYK2255-BLK1</b>	<b>107</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

**QC Batch ID: BYK2541**

Benzene	BYK2541-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2541-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2541-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2541-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2541-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2541-BLK1	ND	ug/L	0.50	0.082	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>BYK2541-BLK1</b>	<b>96.3</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>BYK2541-BLK1</b>	<b>100</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BYK2541-BLK1</b>	<b>100</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2255</b>										
Benzene	BYK2255-BS1	LCS	25.510	25.000	ug/L	102		70 - 130		
Toluene	BYK2255-BS1	LCS	27.100	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2255-BS1	LCS	9.4100	10.000	ug/L	94.1		75 - 125		
Toluene-d8 (Surrogate)	BYK2255-BS1	LCS	10.170	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2255-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		
<b>QC Batch ID: BYK2541</b>										
Benzene	BYK2541-BS1	LCS	25.860	25.000	ug/L	103		70 - 130		
Toluene	BYK2541-BS1	LCS	28.740	25.000	ug/L	115		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2541-BS1	LCS	9.1900	10.000	ug/L	91.9		75 - 125		
Toluene-d8 (Surrogate)	BYK2541-BS1	LCS	10.090	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2541-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Volatile Organic Analysis (EPA Method 8260B) Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BYK2255</b>		Used client sample: N								
Benzene	MS	1528561-51	ND	27.430	25.000	ug/L		110		70 - 130
	MSD	1528561-51	ND	27.560	25.000	ug/L	0.5	110	20	70 - 130
Toluene	MS	1528561-51	ND	29.930	25.000	ug/L		120		70 - 130
	MSD	1528561-51	ND	30.010	25.000	ug/L	0.3	120	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-51	ND	9.5100	10.000	ug/L		95.1		75 - 125
	MSD	1528561-51	ND	9.4200	10.000	ug/L	1.0	94.2		75 - 125
Toluene-d8 (Surrogate)	MS	1528561-51	ND	10.230	10.000	ug/L		102		80 - 120
	MSD	1528561-51	ND	10.210	10.000	ug/L	0.2	102		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1528561-51	ND	9.9800	10.000	ug/L		99.8		80 - 120
	MSD	1528561-51	ND	9.8200	10.000	ug/L	1.6	98.2		80 - 120
<b>QC Batch ID: BYK2541</b>		Used client sample: N								
Benzene	MS	1528561-56	ND	26.750	25.000	ug/L		107		70 - 130
	MSD	1528561-56	ND	27.900	25.000	ug/L	4.2	112	20	70 - 130
Toluene	MS	1528561-56	ND	28.940	25.000	ug/L		116		70 - 130
	MSD	1528561-56	ND	30.310	25.000	ug/L	4.6	121	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-56	ND	9.3000	10.000	ug/L		93.0		75 - 125
	MSD	1528561-56	ND	9.2400	10.000	ug/L	0.6	92.4		75 - 125
Toluene-d8 (Surrogate)	MS	1528561-56	ND	9.9800	10.000	ug/L		99.8		80 - 120
	MSD	1528561-56	ND	9.9200	10.000	ug/L	0.6	99.2		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1528561-56	ND	9.7500	10.000	ug/L		97.5		80 - 120
	MSD	1528561-56	ND	9.7400	10.000	ug/L	0.1	97.4		80 - 120

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2429</b>						
Acenaphthene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Acenaphthylene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.031	
Benzo[a]anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.029	
Benzo[b]fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.037	
Benzo[k]fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Benzo[a]pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Benzo[g,h,i]perylene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Chrysene	BYK2429-BLK1	ND	ug/L	0.10	0.028	
Dibenzo[a,h]anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.053	
Fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.026	
Fluorene	BYK2429-BLK1	ND	ug/L	0.10	0.029	
Indeno[1,2,3-cd]pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Naphthalene	BYK2429-BLK1	ND	ug/L	0.10	0.040	
Phenanthrene	BYK2429-BLK1	ND	ug/L	0.10	0.030	
Pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.041	
<b>Nitrobenzene-d5 (Surrogate)</b>	<b>BYK2429-BLK1</b>	<b>87.1</b>	<b>%</b>	<b>40 - 130 (LCL - UCL)</b>		
<b>2-Fluorobiphenyl (Surrogate)</b>	<b>BYK2429-BLK1</b>	<b>65.1</b>	<b>%</b>	<b>50 - 120 (LCL - UCL)</b>		
<b>p-Terphenyl-d14 (Surrogate)</b>	<b>BYK2429-BLK1</b>	<b>84.2</b>	<b>%</b>	<b>40 - 130 (LCL - UCL)</b>		

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Enviro Tech Consultants, Inc.  
5400 Rosedale Highway  
Bakersfield, CA 93308

**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2429</b>										
Acenaphthene	BYK2429-BS1	LCS	0.87000	1.0000	ug/L	87.0		60 - 110		
Acenaphthylene	BYK2429-BS1	LCS	0.97000	1.0000	ug/L	97.0		60 - 120		
Anthracene	BYK2429-BS1	LCS	1.1100	1.0000	ug/L	111		60 - 130		
Benzo[a]anthracene	BYK2429-BS1	LCS	0.94000	1.0000	ug/L	94.0		60 - 130		
Benzo[b]fluoranthene	BYK2429-BS1	LCS	0.78000	1.0000	ug/L	78.0		50 - 130		
Benzo[k]fluoranthene	BYK2429-BS1	LCS	0.84000	1.0000	ug/L	84.0		60 - 120		
Benzo[a]pyrene	BYK2429-BS1	LCS	0.99000	1.0000	ug/L	99.0		60 - 120		
Benzo[g,h,i]perylene	BYK2429-BS1	LCS	0.52000	1.0000	ug/L	52.0		40 - 120		
Chrysene	BYK2429-BS1	LCS	0.67000	1.0000	ug/L	67.0		60 - 110		
Dibenzo[a,h]anthracene	BYK2429-BS1	LCS	0.46000	1.0000	ug/L	46.0		40 - 120		
Fluoranthene	BYK2429-BS1	LCS	0.99000	1.0000	ug/L	99.0		60 - 120		
Fluorene	BYK2429-BS1	LCS	0.92000	1.0000	ug/L	92.0		60 - 120		
Indeno[1,2,3-cd]pyrene	BYK2429-BS1	LCS	0.70000	1.0000	ug/L	70.0		40 - 130		
Naphthalene	BYK2429-BS1	LCS	0.84000	1.0000	ug/L	84.0		60 - 110		
Phenanthrene	BYK2429-BS1	LCS	0.90000	1.0000	ug/L	90.0		60 - 120		
Pyrene	BYK2429-BS1	LCS	1.0300	1.0000	ug/L	103		50 - 125		
Nitrobenzene-d5 (Surrogate)	BYK2429-BS1	LCS	3.9700	4.0000	ug/L	99.2		40 - 130		
2-Fluorobiphenyl (Surrogate)	BYK2429-BS1	LCS	3.2500	4.0000	ug/L	81.2		50 - 120		
p-Terphenyl-d14 (Surrogate)	BYK2429-BS1	LCS	3.6700	4.0000	ug/L	91.8		40 - 130		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/04/2015 14:43
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes a sub-table for QC Batch ID: BYK2429 with 'Used client sample: N'.

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Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BYK2429</b>		Used client sample: N								
p-Terphenyl-d14 (Surrogate)	MS	1528561-40	ND	3.7715	4.0000	ug/L		94.3	40 - 130	
	MSD	1528561-40	ND	3.6848	4.0000	ug/L	2.3	92.1	40 - 130	

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2553</b>						
TPH - Crude Oil	BYK2553-BLK1	ND	ug/L	500	140	
Tetracosane (Surrogate)	BYK2553-BLK1	75.5	%	37 - 134 (LCL - UCL)		

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Total Petroleum Hydrocarbons

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2553</b>										
Tetracosane (Surrogate)	BYK2553-BS1	LCS	76.300	100.00	ug/L	76.3		37	134	

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

**Draft: Total Petroleum Hydrocarbons**  
**Quality Control Report - Precision & Accuracy**

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: BYK2553</b>		Used client sample: N									
Tetracosane (Surrogate)	MS	1528561-58	ND	76.715	100.00	ug/L		76.7	37 - 134		
	MSD	1528561-58	ND	80.430	100.00	ug/L	4.7	80.4	37 - 134		

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Gas Testing in Water

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYL0151</b>						
Methane	BYL0151-BLK1	ND	mg/L	0.0010	0.00028	

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Gas Testing in Water

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BYL0151</b>											
Methane	BYL0151-BS1	LCS	0.0096889	0.010843	mg/L	89.4		80 - 120			
	BYL0151-BSD1	LCSD	0.010670	0.010843	mg/L	98.4	9.6	80 - 120	20		

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2034</b>						
Bromide	BYK2034-BLK1	ND	mg/L	0.10	0.035	
Chloride	BYK2034-BLK1	ND	mg/L	0.50	0.061	
Nitrate as NO3	BYK2034-BLK1	ND	mg/L	0.44	0.078	
Sulfate	BYK2034-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: BYK2333</b>						
Total Dissolved Solids @ 180 C	BYK2333-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: BYK2362</b>						
Total Recoverable Calcium	BYK2362-BLK1	0.050769	mg/L	0.10	0.014	J
Total Recoverable Magnesium	BYK2362-BLK1	0.040998	mg/L	0.050	0.019	J
Total Recoverable Sodium	BYK2362-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	BYK2362-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: BYK2602</b>						
Bicarbonate	BYK2602-BLK1	ND	mg/L	5.0	5.0	
Carbonate	BYK2602-BLK1	ND	mg/L	2.5	2.5	
Hydroxide	BYK2602-BLK1	ND	mg/L	1.4	1.4	

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

## Draft: Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2034</b>										
Bromide	BYK2034-BS1	LCS	2.1270	2.0000	mg/L	106		90 - 110		
Chloride	BYK2034-BS1	LCS	51.832	50.000	mg/L	104		90 - 110		
Nitrate as NO3	BYK2034-BS1	LCS	22.913	22.134	mg/L	104		90 - 110		
Sulfate	BYK2034-BS1	LCS	103.02	100.00	mg/L	103		90 - 110		
<b>QC Batch ID: BYK2333</b>										
Total Dissolved Solids @ 180 C	BYK2333-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: BYK2362</b>										
Total Recoverable Calcium	BYK2362-BS1	LCS	10.492	10.000	mg/L	105		85 - 115		
Total Recoverable Magnesium	BYK2362-BS1	LCS	10.474	10.000	mg/L	105		85 - 115		
Total Recoverable Sodium	BYK2362-BS1	LCS	10.589	10.000	mg/L	106		85 - 115		
Total Recoverable Potassium	BYK2362-BS1	LCS	10.004	10.000	mg/L	100		85 - 115		

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Reported: 12/04/2015 14:43
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Draft: Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits (RPD, Percent Recovery), Lab Quals. Includes sections for QC Batch ID: BYK2034, BYK2333, BYK2362, and BYK2602.

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYK2177</b>						
Hexavalent Chromium	BYK2177-BLK1	ND	ug/L	0.20	0.055	
<b>QC Batch ID: BYK2362</b>						
Total Recoverable Aluminum	BYK2362-BLK1	ND	mg/L	0.050	0.026	
Total Recoverable Boron	BYK2362-BLK1	ND	mg/L	0.10	0.010	
Total Recoverable Iron	BYK2362-BLK2	ND	mg/L	0.050	0.030	
Total Recoverable Lithium	BYK2362-BLK1	ND	mg/L	0.020	0.0066	
<b>Total Recoverable Manganese</b>	<b>BYK2362-BLK1</b>	<b>0.0050017</b>	<b>mg/L</b>	<b>0.010</b>	<b>0.0040</b>	<b>J</b>
Total Recoverable Strontium	BYK2362-BLK1	ND	mg/L	0.010	0.0010	
<b>QC Batch ID: BYK2557</b>						
Total Recoverable Mercury	BYK2557-BLK1	ND	ug/L	0.20	0.033	
<b>QC Batch ID: BYK2568</b>						
Total Recoverable Mercury	BYK2568-BLK1	ND	ug/L	0.20	0.033	

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Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BYK2177</b>										
Hexavalent Chromium	BYK2177-BS1	LCS	19.596	20.000	ug/L	98.0		90 - 110		
<b>QC Batch ID: BYK2362</b>										
Total Recoverable Aluminum	BYK2362-BS1	LCS	1.0679	1.0000	mg/L	107		85 - 115		
Total Recoverable Boron	BYK2362-BS1	LCS	0.98337	1.0000	mg/L	98.3		85 - 115		
Total Recoverable Iron	BYK2362-BS2	LCS	1.0617	1.0000	mg/L	106		85 - 115		
Total Recoverable Lithium	BYK2362-BS1	LCS	0.21678	0.20000	mg/L	108		85 - 115		
Total Recoverable Manganese	BYK2362-BS1	LCS	0.53041	0.50000	mg/L	106		85 - 115		
Total Recoverable Strontium	BYK2362-BS1	LCS	0.53822	0.50000	mg/L	108		85 - 115		
<b>QC Batch ID: BYK2557</b>										
Total Recoverable Mercury	BYK2557-BS1	LCS	1.0125	1.0000	ug/L	101		85 - 115		
<b>QC Batch ID: BYK2568</b>										
Total Recoverable Mercury	BYK2568-BS1	LCS	0.99500	1.0000	ug/L	99.5		85 - 115		

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Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

### Draft: Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BYK2177</b>		Used client sample: N								
Hexavalent Chromium	DUP	1529924-01	5.2330	5.2000		ug/L	0.6		10	
	MS	1529924-01	5.2330	25.038	20.202	ug/L		98.0		90 - 110
	MSD	1529924-01	5.2330	25.058	20.202	ug/L	0.1	98.1	10	90 - 110
<b>QC Batch ID: BYK2362</b>		Used client sample: N								
Total Recoverable Aluminum	DUP	1529973-01	0.026856	0.037535		mg/L	33.2		20	J,A02
	MS	1529973-01	0.026856	1.1187	1.0000	mg/L		109		75 - 125
	MSD	1529973-01	0.026856	1.0662	1.0000	mg/L	4.8	104	20	75 - 125
Total Recoverable Boron	DUP	1529973-01	0.55988	0.54987		mg/L	1.8		20	
	MS	1529973-01	0.55988	1.6208	1.0000	mg/L		106		75 - 125
	MSD	1529973-01	0.55988	1.5686	1.0000	mg/L	3.3	101	20	75 - 125
Total Recoverable Iron	DUP	1529973-01	1.1953	1.1661		mg/L	2.5		20	
	MS	1529973-01	1.1953	2.2348	1.0000	mg/L		104		75 - 125
	MSD	1529973-01	1.1953	2.1466	1.0000	mg/L	4.0	95.1	20	75 - 125
Total Recoverable Lithium	DUP	1529973-01	0.024096	0.024763		mg/L	2.7		20	
	MS	1529973-01	0.024096	0.23385	0.20000	mg/L		105		75 - 125
	MSD	1529973-01	0.024096	0.22844	0.20000	mg/L	2.3	102	20	75 - 125
Total Recoverable Manganese	DUP	1529973-01	0.90807	0.91696		mg/L	1.0		20	
	MS	1529973-01	0.90807	1.4481	0.50000	mg/L		108		75 - 125
	MSD	1529973-01	0.90807	1.4124	0.50000	mg/L	2.5	101	20	75 - 125
Total Recoverable Strontium	DUP	1529973-01	1.3562	1.3796		mg/L	1.7		20	
	MS	1529973-01	1.3562	1.9907	0.50000	mg/L		127		75 - 125
	MSD	1529973-01	1.3562	1.9213	0.50000	mg/L	3.5	113	20	75 - 125
<b>QC Batch ID: BYK2557</b>		Used client sample: N								
Total Recoverable Mercury	DUP	1529760-01	ND	ND		ug/L			20	
	MS	1529760-01	ND	1.0250	1.0000	ug/L		102		70 - 130
	MSD	1529760-01	ND	1.0225	1.0000	ug/L	0.2	102	20	70 - 130
<b>QC Batch ID: BYK2568</b>		Used client sample: N								
Total Recoverable Mercury	DUP	1529973-01	0.072500	0.050000		ug/L	36.7		20	J,A02
	MS	1529973-01	0.072500	1.0025	1.0000	ug/L		93.0		70 - 130
	MSD	1529973-01	0.072500	1.0375	1.0000	ug/L	3.4	96.5	20	70 - 130

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**Reported:** 12/04/2015 14:43  
Project: DOGGR Injection - Formation Water  
Project Number: HAT204 Pond Sampling  
Project Manager: Kelsey Padilla

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- A55 Chromatogram not typical of crude oil.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.
- Z1 50uL of antifoamer added to sample VOA.