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Global Specialists in the Environment

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March 2, 2011

Andy Smith, On-Scene Coordinator
United States Environmental Protection Agency
1200 Sixth Avenue, Mail Stop ECL-116
Seattle, Washington 98101

Re: Contract Number: EP-S7-06-02
Technical Direction Document Number: 09-03-0008
Double H Pesticide Burial Emergency Response Trip Report

Dear Mr. Smith:

Enclosed please find the Emergency Response Trip Report for the Double H Pesticide Burial site located in Grandview, Washington. If you have any question regarding this submittal, please call Eric Nuchims at (206) 624-9537 or me at (206) 920-1739.

Sincerely,

ECOLOGY AND ENVIRONMENT, INC.

Steven G. Hall
START-3 Project Leader

cc: Eric Nuchims, START-3 Project Manager, E & E, Seattle, Washington

EMERGENCY RESPONSE TRIP REPORT

Double H Pesticide Burial
Grandview, Washington
TDD: 09-03-0008

REGION 10
START-3
SUPERFUND TECHNICAL ASSESSMENT & RESPONSE TEAM

Prepared for

U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Prepared by

Ecology and Environment, Inc.
720 Third Avenue, Suite 1700
Seattle, Washington 98104

March 2011

DOUBLE H PESTICIDE BURIAL
EMERGENCY RESPONSE TRIP REPORT

EXECUTIVE SUMMARY

In March 2009, the United States Environmental Protection Agency (EPA) responded to a suspected container burial site near Grandview, Washington. The investigation of the Double H Pesticide Burial site uncovered over 100 containers that held various types of pesticides and oil. The sizes of these containers ranged from quart-sized oil containers to 35-gallon pesticide drums. The containers with labels were sampled, analyzed, and confirmed to contain the products associated with the labels. The containers with contents that were not labeled were evaluated by hazard characterization and sampled and analyzed if determined to be hazardous. Soil and groundwater samples were also collected in the excavated areas where the containers were unearthed. Soil and groundwater sample results indicated that some of the contents of the containers had been released to the environment as well as additional contaminants not initially known. After EPA's response and investigation, the potential responsible parties agreed to investigate their property for additional burial sites, investigate groundwater for potential impacts from the buried containers, and perform a removal action to address the oil and pesticide containers and contaminated soil.

1. PLACE VISITED

a. Site Name:	Double H Pesticide Burial
b. SSID	10HA
c. Location:	1501 Bethany Road Grandview, WA
d. Latitude:	46.2908
e. Longitude:	-119.9269
f. Date of Response:	March 16, 2009

2. PURPOSE

Ecology and Environment, Inc. (E & E) was tasked by the United States Environmental Protection Agency (EPA) to provide technical support for the investigation of a suspected pesticide burial site located in Grandview, Washington. E & E completed the technical support oversight under Superfund Technical Assessment and Response Team (START)-3 contract number EP-S7-06-02, Technical Direction Document Number 09-03-0008.

The purpose of the initial response was to assess a release to the environment of pesticides, a hazardous substance, by improper disposal practices. Any buried pesticides and waste oil would

threaten, in particular, the groundwater at the site. As directed by the On-Scene Coordinators (OSCs), START analyzed the nature, amount, and location of discharged or released materials; documented site conditions (including photographs; see Attachment A); and provided technical assistance to the OSCs.

3. PERSONS INVOLVED

Agency/Company	Contact Persons/ Position	Phone Number
United States Environmental Protection Agency	Dan Heister – OSC Mike Boykin – OSC Jeff Fowlow – OSC	503-326-6869 206-553-6362 206-553-2751
Washington State Department of Ecology – Central Region Office	Dick Granberg – Hazardous Waste	509-457-7147
	Sam Hunn – Hazardous Waste	509-454-4329
	Greg Bohn – Water Quality	509-454-4174
Washington State Department of Agriculture – Yakima Branch	Lee Barigar – Compliance Division	206-684-3716
	Gary Buckner – Compliance Division	206-684-3716
Ecology and Environment, Inc. (START)	Eric Nuchims – Project Manager/Sampler/Site Oversight	206-624-9537
	Josh Hancock – Sampler/Site Oversight	206-624-9537
Environmental Quality Management, Inc. (Emergency and Rapid Response Services [ERRS])	Joe Ficek – Response Manager	206-751-1118

4. BACKGROUND

The site is located in a rural area of eastern Washington near the town of Grandview (see Figure 1, Site Location Map). The property is currently owned by Double H Farms, LLC. Double H Farms is owned by George and Edith Higgins and managed by their daughter and son-in-law Jim and Linda Hansen. The property owners and property managers are considered the potentially responsible parties (PRPs). The site is on approximately ½ acres of undeveloped property next to a vineyard for Concord grapes. The undeveloped area of the vineyard is used for equipment staging during farm operations. Surface water was present in an irrigation ditch on the site. The closest home was a quarter mile to the south, and that residence had a groundwater well used for drinking water.

The Double H Pesticide Burial site was brought to EPA's attention by Ecology's Hazardous Waste Program. The Washington State Department of Ecology (Ecology) and Washington State

Department of Agriculture (WSDA) had initially received information from anonymous informants that two drums of herbicide, as well as approximately thirty 5-gallon containers of used oil, had been buried in an excavated trench in October 2008. The informants stated that they were instructed to dump the drums and containers into the pit, cover them with broken apple crates and household trash, and then backfill with soil. The pesticide drums were said to have contained a bright yellow liquid. The total amount of material that was disposed at the burial site was unknown.

Based on the information received, WSDA was concerned that the pesticide may have been a post-emergent herbicide dinoseb product that was marketed under the brand name Dinitro as well as several others names. Dinoseb was banned by the EPA in 1986 because it is acutely toxic and suspected of causing birth defects and other hazards. At the request of Ecology, EPA became involved in the investigation of the suspected pesticide burial site because of the potential threat to human health and the environment through the contamination of soil and groundwater from the pesticides and other hazardous materials that may have been present.

5. ACTIVITIES

Initial Response

EPA activated START on Friday, March 13, 2009, to assist in the investigation of the suspected pesticide burial site. On Monday, March 16, OSC Heister mobilized to Yakima, Washington, from Portland, Oregon, and three START staff mobilized from Seattle with the EPA Mobile Command Post and sampling supplies. On March 17 OSC Heister and START met with representatives from Ecology and WSDA at Ecology's Central Regional Office in Yakima. After the meeting, OSC Heister, representatives from Ecology and WSDA, and START mobilized to the site in Grandview.

Mr. Higgins was contacted in nearby Sunnyside by representatives from Ecology and WSDA along with OSC Heister. Mr. Higgins directed them to the site's property manager, Mr. Hansen. EPA, Ecology, and WSDA then contacted and met with Mr. Hansen. Mr. Hansen was informed of the allegations of the illegal burial of hazardous waste on the property. Mr. Hansen denied having any knowledge of any hazardous substances being buried at the site and he signed the access agreement to the property allowing EPA to conduct an investigation of the suspected burial location.

After access was granted to the OSC, representatives from Ecology, a representative from WSDA, and START began to investigate the site. The site is surrounded by Bethany Lane on the western side and grape orchards on the other three sides (see Figure 2, Site Layout Map). There was an open pit with household garbage inside measuring approximately 12 feet by 12 feet and 6 to 8 feet deep with standing water. There were three piles of soil stockpiled along the eastern edge of this pit. START used a magnetometer (i.e., a device that can identify metal buried in subsurface soil) to survey the subsurface of the site. START identified several areas where metal objects were possibly buried. Metal objects detected under ground can indicate that a burial took

place. START observed depressions in the ground in the area around the open pit that could have represented similar potential burial pits that had been excavated and then filled with soil.

To further investigate these potential burial locations, the OSC directed START to arrange for a subcontracted ground penetrating radar (GPR) operator to mobilize to the site. The OSC also activated the Emergency and Rapid Response Services (ERRS) contractor Environmental Quality Management, Inc. (EQM) to mobilize to the site and prepare to excavate any potential burial pits that were identified. On March 18, 2009, ERRS mobilized personnel and equipment (an excavator and an end loader) to the site. START also mobilized the EPA Level A Truck and two additional START personnel to Grandview to aide in the site characterization.

START sampled the soil piles that were located along the eastern side of the open pit. A total of three composite soil samples were collected from the three overburden soil piles already on site (09030801 – 09030803). START then sent the samples to WSDA's Plant Protection Laboratory in Yakima for analysis by phenoxy acid herbicide screen and target analyte Oryzalin. These analyses were chosen based on recommendations from WSDA's on-site representative Lee Barigar. The results were obtained from the WSDA laboratory the next day, and the results were non-detect for phenoxy acid herbicides and Oryzalin analyses for all soil samples (see Table 1).

GPR Survey

On March 19, 2009, START subcontractor Environmental Compliance Associates, LLC (ECA) mobilized to the site to conduct a GPR survey of the site to investigate the subsurface for potential burial pit locations.

According to Ecology's informants, the pesticide and oil containers were buried underneath the location of the soil piles. ERRS therefore used the heavy equipment to move the piles to allow the GPR contractor to survey the area underneath. ERRS moved the soil piles to an area of the site that appeared to be undisturbed based on visual observations and the START magnetometer survey.

ECA performed the GPR survey of the target areas and identified three suspected burial locations near the open pit (Area 1) and two additional locations in a clearing to the northeast (Area 2; see Figure 3). Area 2 is located approximately 75 yards to the northeast of Area 1 in a smaller clearing in the grape orchard with a large vegetation debris pile located in the center. Additional details about the GPR survey are provided in ECA's report, which is presented in Attachment B.

Test Pit Excavation

Based on the results of the GPR survey, ERRS used an excavator to excavate test pits in the suspected burial locations in Area 1 and Area 2. Based on the observations obtained from the excavation of test pits in Areas 1 and 2, observation of disturbed soil, and use of a magnetometer, EPA identified a third area that was investigated for potential burial locations with additional test pits (Area 3; see Figure 4). The excavation of test pits began on March 19 and continued through March 25. During the excavation of the test pits DataRam particulate monitors were set up to measure any nuisance dust from the excavation of test pits (see Figure 2 for DataRam locations).

The following summarizes the containers that were discovered in each of the test pits:

Area 1 Pit 1 2 – 2.5 gallon containers labeled Gramoxone and garbage

Area 1 Pit 2 1 – 20 gallon drum and garbage

Area 1 Pit 3 3 – 30 gallon drums (1 lime sulfur solution label), 7 – 5 gallon containers, 4 car batteries, and garbage

Area 1 Pit 4 24 – 30 gallon drums (1 Pendemethalin label), 8 – 20 gallon drums, 2 – 2 gallon containers (1 Prowl label and 1 Carbaryl label), 1 – 1 gallon container, and garbage

Area 2 Pit 1 1 car battery and garbage

Area 2 Pit 2 garbage

Area 2 Pit 3 garbage

Area 3 Pit 1 18 – 30 gallon drums (1 Paraquat label and 1 Round Up [Glyphosate] label), 15 – 5 gallon containers (4 motor oil labels) 3 – 20 gallon drums, 2 – 5 gallon containers, 4 – 2 gallon containers (1 Cornerstone label [Glyphosate] and 1 Paraquat label), and garbage

Area 3 Pit 2 garbage

Area 3 Pit 3 3 – 20 gallon drums (3 JMS Stylet Oil labels), 1 – 2 gallon container (1 Metalosate, calcium labels), 3 – 1 gallon containers (3 Epimek labels), and garbage

ERRS staged excavated drums and containers on plastic sheeting as they were recovered from the pits. START inspected the drums and containers and documented their labels, size, amount of contents, and condition. Of the approximately 100 drums recovered, approximately 20 still contained a measureable amount of product, and START collected samples for characterization testing from them.

On March 24, 2009, ERRS moved a stack of apple crates to excavate and investigate for additional burial locations. ERRS excavated additional test pits underneath the former apple crate location but did not encounter any burial pits. ERRS moved the wood earth debris pile in the middle of Area 2 and excavated down to 3 feet below ground surface and encounter debris. A newspaper was discovered in the burial pit with the date of Sunday, June 11, 2006. ERRS stockpiled the debris removed from the pit on to plastic sheeting alongside the western edge of Area 1.

On March 25, after all test pit excavation was completed, ERRS installed a fence around Area 1 and Area 3 to secure the excavations, which were left open pending additional investigation and cleanup activities by the PRPs. No drums or containers of hazardous materials were observed in the Area 2 test pits, so they were backfilled with overburden soil. The drums and containers that were recovered from the test pits were placed on and covered with plastic sheeting at the eastern edge of Area 1.

Dust monitoring with the DataRams indicated that nuisance dust levels were well below action levels. After the test pits were excavated and the fencing was installed, ERRS demobilized from the site on March 26.

Sampling and Analysis Activities

Initially START collected samples from the three soil piles that were on site when the investigation began (samples 09030801 – 09030803). Those samples were sent to the WSDA laboratory in Yakima for phenoxy acid herbicide screen (including dinoseb) and target compound Oryzalin. The analyses were chosen because the informant said the pesticide was yellow and the WSDA officials thought the pesticide could be dinoseb. The results were non-detect and are summarized in Table 1.

START sampled two drums found during the initial excavation of Area 1. START also collected two surface water samples from the drainage ditch alongside the site and Bethany Road, a ground water sample from the initial pit (Pit 1 Area 1), and two surface water samples from the drainage ditch northeast of Area 1 and south of the access road to the orchard (see Figure 2). The five water samples (four surface water samples and one groundwater sample) and three product samples were sent to E & E's subcontracted laboratory OnSite Environmental, Inc. (OnSite) in Redmond, Washington, to be analyzed for chlorinated acid herbicides (including dinoseb) by EPA method 8151A. This analytical method was chosen because the informant said the pesticide was yellow and WSDA officials thought the pesticide could be dinoseb. Preliminary results were received the next day and dinoseb was not detected in any of the water or product samples (Table 2).

Due to the presence of pesticide drums and containers that appeared to contain some product, START collected samples from the excavated drums and containers that contained enough liquid for hazard categorization testing (see Attachment C for hazard categorization results). OSC Boykin and START then identified 21 containers to be sampled for additional analysis. At this time it was also decided by the OSCs that START would collect split samples for the PRP. The containers that were chosen to be sampled were based on the results from the hazard categorization analysis and/or the labels on the drums and containers. For any drum or container that was determined to contain a hazardous material through hazard categorization testing or appeared to contain the pesticide product described on its label, then an additional amount of sample was collected for analysis at the off-site laboratory. The product samples (summarized in Table 3) were sent to OnSite for the following analyses: priority pollutant metals, Northwest Total Petroleum Hydrocarbons Diesel Range Extended (NWTPH-Dx), volatile organic compounds (VOCs), pH, sulfur content, flammability, multi-residue pesticide screen, and

paraquat. The multi-residue pesticide screen and paraquat samples were shipped by OnSite to their subcontracted laboratory Pacific Agriculture Laboratory (PAL) in Portland, Oregon.

Based on the preliminary results from the product samples (discussed below), soil and groundwater samples were collected from targeted excavation pits. The pit samples were collected to determine the extent of contamination of any pesticides and oil. Additional soil samples were collected from the overburden soil and debris piles as well as a background location to determine if any contamination was present. A total of 15 soil samples (sample numbers 09030806-09030820) and four groundwater samples (sample numbers 09030938-09030941) were collected. The locations of the soil and water samples can be seen in Figure 3 START packaged, transported, and delivered the soil and water sample containers to be analyzed for priority pollutant metals and NWTPH-Dx to OnSite. After these samples were collected, START began to demobilize personnel and equipment from the site.

On March 26, START transferred custody of the split samples that were collected for the PRP and retained a signed copy of the chain of custody. On March 27, the OSC and the remaining START staff demobilized from the site to the EPA warehouse in Seattle. START packaged the remaining soil and water sample containers and shipped them to PAL for multi-residue pesticide analysis.

Analytical Results

The initial water and soil samples were collected and analyzed based on the assumption that the chemical of concern was dinoseb. The soil and water sample results had no detections for dinoseb. The other pesticides/herbicides analyzed for by Method 8151, the WSDA phenoxy acid herbicide, and target Oryzalin analyses had results of either no detection or results below action levels (Tables 1 and 2).

The product samples results (Tables 2 and 3) identified the chemicals in the drums and containers. The chemicals identified in the product samples were glyphosate, dimethoate, carbaryl, pendimehtalin, abamectin, oil range organics, diesel range organics, toluene, ethyl benzene, xylenes, n-propylbenzene, 1,3,5-trimethybenzene, 1,2,4-trimethybezene, p-isopropyl toluene, and naphthalene.

The additional soil and water samples that were collected were analyzed for the chemicals identified in the product samples (see Tables 4, 5, 6, 7, and 8). For the water samples, the major chemicals of concern that were detected above the applicable or relevant and appropriate requirements (ARARs) include glyphosate, dimethoate, carbaryl, oil range organics, diesel range organics, acetone, 2-butanone, benzene, toluene, ethyl benzene, xylenes, 1,2-dichloroethane,1,3,5-trimethybenzene, 1,2,4-trimethybezene, naphthalene, arsenic, and lead. In the soil samples, only oil range organics was detected above any ARARs, in one sample.

Analytical results from the laboratories are located in Attachment C.

Planning for PRP-Led Site Removal Action

During the investigation of the site EPA informed the PRPs of their right to hire their own contractor and clean up the site themselves under EPA oversight. The PRPs agreed to perform the removal action and hired Riverside Associates of Yakima, Washington, as their consultant/contractor. An administrative order on consent (AOC) was signed by EPA and the PRPs in June of 2009. In the AOC the site that EPA investigated is referred to as Site A and the additional site to be investigated at 53 Bethany Road as Site B. Site B was identified as an additional burial site by the informant and is described as the farm use equipment shop area where the farm equipment is serviced. The primary objectives of the PRP-led removal action were to continue the investigation of Site B and also properly dispose of any waste container and contaminated soil discovered in Sites A and B. This PRP-led removal action was performed with EPA oversight from June through October 2009. A detailed summary of the results and observations from the PRP-led removal action will be presented in a separate report.

6. SUMMARY AND CONCLUSIONS

Based on the referral from Ecology, EPA investigated the Double H Pesticide Burial site in Grandview, Washington. EPA investigated the suspected site by performing magnetometer and GPR surveys and excavating test pits in suspected burial pits. The investigation discovered approximately 100 buried containers, ranging in size from 1-quart containers to 35-gallon drums that had contained pesticides and oil. Approximately 20% of those containers still had some amount of product remaining inside. Analytical results for soil, surface water, and groundwater samples collected from the area indicated that pesticides and petroleum hydrocarbons have contaminated soil and groundwater in the area where the containers were buried, with concentrations above federal and state cleanup levels. The PRPs agreed to act under an EPA AOC and hired an environmental consultant to clean up Site A and to investigate Site B. The results of the PRP-led removal action will be summarized in a separate report.

Table 1

Summary of Screening Results in Initial Soil Samples Analyzed by WSDA Laboratory
Double H Pesticide Burial Site
Grandview, Washington

Sample Number	9030801	9030802	9030803
Sample Location	Pile 1	Pile 2	Pile 3
Compound (ppm)			
Clopyralid	0.01 U	0.01 U	0.01 U
Bromoxynil	0.03 U	0.03 U	0.03 U
2,4-DB	0.01 U	0.01 U	0.01 U
MCPP	0.03 U	0.03 U	0.03 U
2,4-DP	0.01 U	0.01 U	0.01 U
2,4-D	0.01 U	0.010 U	0.01 U
Picloram	0.03 U	0.03 U	0.030 U
Dicamba	0.01 U	0.01 U	0.01 U
MCPA	0.03 U	0.03 U	0.030 U
Triclopyr	0.01 U	0.01 U	0.010 U
MCPB	0.03 U	0.03 U	0.030 U
Silvex	0.01 U	0.01 U	0.010 U
Dinoseb	0.01 U	0.01 U	0.010 U
Acifluorfen	0.01 U	0.01 U	0.01 U
Oryzalin	0.02 U	0.02 U	0.02 U

Key:

J = estimated value
ppm = parts per million
U = not detected (at the indicated method detection limit)

Table 2

Summary of Pesticide Results in Initial Water and Product Samples
Double H Pesticide Burial Site
Grandview, Washington

	WATER SAMPLES					ARARs				PRODUCT SAMPLES		
Sample Number	9030900	9030901	9030902	9030903	9030904					9030905	9030906	9030907
Sample Location	CT01SQ	CT02SQ	PT01SQ	CT03SQ	CT04SQ	Drinking Water MCL (µg/L) [1]	EPA RSL Tap Water (µg/L) [2]	MTCA Method B Unrestricted Use Groundwater (µg/L) [3]	MTCA Method C Conditional Use Groundwater (µg/L) [3]	PT03PD01	PT03PD02	PT04PD01
Pesticides	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**					**(µg/kg)**	**(µg/kg)**	**(µg/kg)**
Dalapon	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	200	1100	240	530	1,600 U	2,000 U	1,900 U
Dicamba	0.023 U	0.023 U	0.24 J	0.022 U	0.022 U	n.a.	1100	480	1100	670 U	840 U	790 U
MCPP	4.6 U	4.6 U	4.5 U	4.4 U	4.4 U	n.a.	37	n.a.	n.a.	67,000 U	83,000 U	79,000 U
MCPA	4.6 U	4.6 U	4.5 U	4.4 U	4.4 U	n.a.	18	NA	n.a.	67,000 U	83,000 U	79,000 U
Dichlorprop	0.023 U	0.023 U	0.023 U	0.022 U	0.022 U	n.a.	0.43	0.24	2.4	680 U	840 U	800 U
2,4-D	0.023 U	0.034	3.6	0.039 J	0.036 J	70	370	160	350	670 U	840 U	790 U
Pentachlorophenol	0.0094 U	0.0093 U	0.044	0.0090 U	0.0090 U	1.0	0.56	0.73	7.3	68 U	85 U	80 U
2,4,5-TP (Silvex)	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	50	290	n.a.	n.a.	680 U	850 U	800 U
2,4,5-T	0.023 U	0.023 U	0.055 J	0.022 U	0.023 U	n.a.	370	n.a.	n.a.	680 U	850 U	800 U
2,4-DB	0.25 J	0.17 J	0.23 U	0.022 U	0.022 U	n.a.	290	130	280	680 U	850 U	26,000 J
Dinoseb	0.023 U	0.023 U	0.023 U	0.022 U	0.022 U	7.0	37	n.a.	n.a.	680 U	840 U	800 U

Notes:
Bold type indicates that the compound exceeds the Washington MTCA Method B Unrestricted Use Groundwater.
Italic type indicates that the compound exceeds the Washington MTCA Method C Conditional Use Groundwater.
Underline type indicates that the compound exceeds the EPA RSL for tap water.
Highlighted type indicates that the compound exceeds the EPA MCL for drinking water.
(1) EPA Drinking Water Maximum Contaminant Level.
(2) EPA Regional Screening Levels (EPA 2009).
(3) Washington State MTCA Cleanup Levels (2007).

Key:

ARAR	=applicable or relevant and appropriate requirement
EPA	=Environmental Protection Agency
ID	= identification
J	= estimated value
µg/kg	= micrograms per kilogram
µg/L	= micrograms per liter
n.a.	= not available
MCL	=Maximum Contaminant Level
U	= not detected (at the indicated reporting limit)
UJ	= not detected (estimated reporting limit)
RSL	= Regional Screening Level

Table 3

Summary of Screening Results in Product Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample Number	Matrix	Area	Pit	Drum#	pH	TPH HCID	Total Sulfides (mg/kg)	Ignitability	PP Metals (mg/kg) [1]	VOC (mg/kg) [1]		Method 549 for paraquat and diquat (mg/kg)	Multiresidue Pesticide Screen (mg/kg) [1]
									Cd 0.76	Toluene	9.4		
									Cr 0.63 J	Ethyl benzene	1.4		
									Cu 71	m,p-Xylene	4.9		
									Pb 12	o-Xylene	2.5		
									Zn 390	n-Propylbenzene	0.52		
										1,3,5-Trimethylbenzene	2		
				Oil on top						1,2,4-Trimethylbenzene	5.3		
				of Ground						p-Isopropyl toluene	2.2		
9030914	Product	1	3	Water	NA	Diesel Fuel #2 and Lube Oil	NA	NA		Naphthalene	5.7	NA	NA
9030916	Product	1	3	1	11.5 J	NA	374	NA	NA	NA		NA	NA
9030917	Product	1	3	2	12.0 J	NA	538	NA	NA	NA		NA	NA
									Cr 4,1 J	m,p-Xylene	0.82		
									Cu 24	o-Xylene	0.6		
									Pb 21	1,3,5-Trimethylbenzene	0.8		
									Zn 1,100	1,2,4-Trimethylbenzene	1.8		
										p-Isopropyl toluene	0.37		
9030918	Product	1	3	10	NA	Diesel Fuel #2 and Lube Oil	NA	NA		Naphthalene	2.3	NA	NA
9030919	Product	1	4	3	NA	NA	NA	NA	NA	NA		NA	Pendimethalin 1,000 JN
9030921	Product	1	4	9	NA	NA	NA	Yes </= 75 °F J	NA	NA		NA	Pendimethalin 10,000 JN
9030922	Product	1	4	12	NA	NA	NA	NA	NA	NA		NA	n.a.
9030923	Product	1	4	13	NA	NA	NA	NA	NA	NA		NA	Carbaryl 13,000 JN
9030925	Product	3	3	1	NA	NA	NA	NA	NA	NA		NA	Abamectin 23
9030926	Product	3	3	2	NA	NA	NA	NA	NA	NA		NA	Abamectin 24
9030927	Product	3	3	3	NA	NA	NA	NA	NA	NA		NA	Abamectin 79
9030928	Product	3	3	4	NA	Lube Oil	NA	NA	NA	NA		NA	NA
9030929	Product	3	3	5	NA	Lube Oil	NA	NA	NA	NA		NA	NA
9030930	Product	3	3	6	NA	Lube Oil	NA	NA	NA	NA		NA	NA
												Diquat 0.5 U	
9030931	Product	3	1	26	NA	NA	NA	NA	NA	NA		Paraquat 0.5 U	NA
9030932	Product	3	1	2	NA	Lube Oil	NA	NA	NA	NA		NA	NA
9030933	Product	1	4	1	NA	NA	NA	NA	NA	NA		NA	Glyphosate 64 mg/L JN
												Diquat 0.5 U	
9030934	Product	3	1	17	NA	NA	NA	NA	NA	NA		Paraquat 0.5 U	NA
												Diquat 0.5 U	
9030935	Product	1	1	1	NA	NA	NA	NA	NA	NA		Paraquat 0.5 U	NA
9030936	Product	1	4	31	NA	Lube Oil	NA	NA	NA	NA		NA	NA
9030937	Product	2	1	1	2.4 J	NA	NA	NA	NA	NA		NA	NA

Note: (1) Additional compounds were analyzed but were not detected. The complete results are included in Attachment C.

Key:

HCID = hydrocarbon identification
J = estimated value
JN = estimated value and tentative identification of analyte
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
NA = Not Analyzed
ND = Not Detected
PP = Priority Pollutants
ppm = Parts per million
TPH = total petroleum hydrocarbons
U = not detected (at the indicated reporting limit)
VOC = Volatile organic compound
WSDA = Washington State Department of Agriculture

Table 4

Summary of Pesticide Results in Soil Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample Number			09030806	09030807	09030808	09030809	09030810	09030811	09030812	09030813	ARARs			
Sample Location			PT02SB01	PT03SB01	PT03SB02	PT04SB01	PT04SB02	PT04SB03	PT01SB01	PT01SB02	EPA RSL Residential Soil (mg/kg) [2]	EPA RSL Industrial Soil (mg/kg) [2]	MTCA Method B Unrestricted Use Soil (mg/kg) [3]	MTCA Method C Industrial Use Soil (mg/kg) [3]
Method	**UNITS**	**ANALYTE**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**				
Monsanto Method (HPLC-FLD)	mg/kg	Glyphosate	1.20 JN	0.085 U	0.085 U	26.00 JN	9.10 JN	0.64 JN	51.00 JN	27.00 JN	6,100	62,000	8,000	350,000
Monsanto Method (HPLC-FLD)	mg/kg	AMPA	0.085 U	0.085 U	0.085 U	3.10 JN	0.42 JN	0.095 JN	7.20 JN	4.00 JN	n.a.	n.a.	n.a.	n.a.
Modified EPA 8081B (GC-ECD)	mg/kg	p,p'-DDE	NR	NR	NR	NR	NR	NR	NR	NR	1.4	5.1	2.9	390
Modified EPA 8081B (GC-ECD)	mg/kg	Dichlobenil	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.033 U	n.a.	n.a.	n.a.	n.a.
Modified EPA 8081B (GC-ECD)	mg/kg	Pendimethalin	0.034 U	0.034 U	0.034 U	0.034 U	2.50	0.034 U	0.034 U	0.033 U	2400	25000	3200	140000
Modified EPA 8141B (GC-FPD)	mg/kg	Dimethoate	0.93 JN	0.085 U	0.085 U	4.80 JN	11.00 JN	0.32 JN	0.085 U	0.083 U	12	120	16	700
Modified EPA 8141B (GC-FPD)	mg/kg	Disulfoton	0.085 UJ	0.085 UJ	0.085 UJ	0.085 UJ	0.085 UJ	0.085 UJ	0.085 UJ	0.083 UJ	2.4	25	3.2	140
Modified EPA 8321B (HPLC-MS)	mg/kg	Carbaryl	1.50	0.034 U	2.40	0.034 U	0.034 U	0.034 U	0.034 U	0.033 U	6,100	62,000	8,000	350,000

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Table 4 (continued)

Summary of Pesticide Results in Soil Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample Number			09030814	09030815	09030816	09030817	09030818	09030819	09030820	ARARs			
Sample Location			BG01SB	SP01SS	SP02SS	SP03SS	SP04SS	DP01SS	DP02SS	EPA RSL Residential Soil (mg/kg) [2]	EPA RSL Industrial Soil (mg/kg) [2]	MTCA Method B Unrestricted Use Soil (mg/kg) [3]	MTCA Method C Industrial Use Soil (mg/kg) [3]
Method	**UNITS**	**ANALYTE**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**	**RESULT**				
Monsanto Method (HPLC-FLD)	mg/kg	Glyphosate	0.33 JN	NR	NR	NR	NR	NR	NR	6,100	62,000	8,000	350,000
Monsanto Method (HPLC-FLD)	mg/kg	AMPA	0.095 JN	NR	NR	NR	NR	NR	NR	n.a.	n.a.	n.a.	n.a.
Modified EPA 8081B (GC-ECD)	mg/kg	p,p'-DDE	0.058 JN	NR	NR	NR	NR	NR	NR	1.4	5.1	2.9	390
Modified EPA 8081B (GC-ECD)	mg/kg	Dichlobenil	0.034 U	0.034 U	0.033 U	0.034 U	0.034 U	0.034 U	0.034 U	n.a.	n.a.	n.a.	n.a.
Modified EPA 8081B (GC-ECD)	mg/kg	Pendimethalin	0.034 U	0.034 U	0.033 U	0.034 U	0.034 U	0.034 U	0.034 U	2400	25000	3200	140000
Modified EPA 8141B (GC-FPD)	mg/kg	Dimethoate	0.085 U	0.76 JN	0.15 JN	0.085 U	0.085 U	0.085 U	0.39 JN	12	120	16	700
Modified EPA 8141B (GC-FPD)	mg/kg	Disulfoton	0.085 UJ	0.085 UJ	0.083 UJ	0.085 UJ	0.085 UJ	0.085 UJ	0.085 UJ	2.4	25	3.2	140
Modified EPA 8321B (HPLC-MS)	mg/kg	Carbaryl	0.034 U	0.034 U	0.330 U	0.034 U	0.034 U	0.034 U	0.048	6,100	62,000	8,000	350,000

Notes:
Bold type indicates that the compound exceeds the Washington MTCA Method B Unrestricted Use Soil.
Italic type indicates that the compound exceeds the Washington MTCA Method C Restricted/Commercial Clean Up Level.
Underline type indicates that the compound exceeds the EPA Residential RSLs for Soil.
Highlighted type indicates that the compound exceeds the EPA Industrial RSLs for soil.
(1) Washington State MTCA Cleanup Levels (2007).
(2) EPA Regional Screening Levels (EPA 2008).
(3) Washington State MTCA Cleanup Levels (2007).

Key:

ARAR	=applicable or relevant and appropriate requirement
EPA	=Environmental Protection Agency
ID	= identification
J	= estimated value
JN	= estimated value and tentative identification of analyte
mg/kg	= milligrams per kilogram
MTCA	=Model Toxic Control Act
n.a.	=not available
NR	= not reported
U	= not detected (at the indicated reporting limit)
UJ	= not detected (estimated reporting limit)
RSL	= Regional Screening Level

Table 5

Summary of Pesticide Results in Water Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample Number	9030938	9030939	9030940	9030941	ARARs			
Sample Location	PT04GW01	PT04GW02	PT03GW01	PT01GW01	EPA Drinking Water MCL (µg/L) [1]	EPA RSL Tap Water (µg/L) [2]	MTCA Method B Unrestricted Use Groundwater (µg/L) [3]	MTCA Method C Conditional Use Groundwater (µg/L) [3]
Pesticides (µg/L)	**RESULT**	**RESULT**	**RESULT**	**RESULT**				
Glyphosate	4,700 JN	1,800 JN	50 UJ	390 JN	700	3,700	n.a.	n.a.
AMPA	50 U	50 U	50 U	50 U	n.a.	n.a.	n.a.	n.a.
Abamectin	50 U	50 U	50 U	50 U	n.a.	n.a.	n.a.	n.a.
p,p'-DDE	1.20 U	1.20 U	1.20 U	1.20 U	n.a.	0.2	0.26	2.6
Dichlobenil	7.5 JN	31 JN	1.20 U	1.20 U	n.a.	n.a.	n.a.	n.a.
Pendimethalin	1.20 U	1.20 U	1.20 U	1.20 U	n.a.	1500	640	1400
Dimethoate	***20,000*** JN	***20,000*** JN	0.60 U	0.60 U	n.a.	7.3	3.2	7.0
Disulfoton	60 U	60 UJ	**0.79** JN	0.60 UJ	n.a.	1.5	0.64	1.4
Carbaryl	1.5 JN	0.84 JN	***5,100*** JN	0.48 JN	n.a.	3,700	1,600	3,500

Notes:
Bold type indicates that the compound exceeds the Washington MTCA Method B Unrestricted Use Groundwater.
Italic type indicates that the compound exceeds the Washington MTCA Method C Conditional Use Groundwater.
Underline type indicates that the compound exceeds the EPA RSL for tap water.
Highlighted type indicates that the compound exceeds the EPA MCL for drinking water.
(1) EPA Drinking Water Maximum Contaminant Level.
(2) EPA Regional Screening Levels (EPA 2008).
(3) Washington State MTCA Cleanup Levels (2007).

Key:

ARAR	= applicable or relevant and appropriate requirement
EPA	= Environmental Protection Agency
J	= estimated value
JN	= estimated value and tentative identification of analyte
µg/L	= micrograms per liter
n.a.	= not available
MCL	= Maximum Contaminant Level
U	= not detected (at the indicated reporting limit)
UJ	= not detected (estimated reporting limit)
RSL	= Regional Screening Level

Table 6

Summary of VOC Results in Soil Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample ID:	09030806	09030807	09030808	09030809	09030810	09030811	09030812	09030813	09030814	ARARs			
Sample Location:	PT02SB01	PT03SB01	PT03SB02	PT04SB01	PT04SB02	PT04SB03	PT01SB01	PT01SB02	BG01SB	Washington MTCA Method B Unrestricted Use Soil (mg/kg) [1]	Washington MTCA Method C Industrial Use Soil (mg/kg) [1]	EPA RSL Residential Soil (mg/kg) [2]	EPA RSL Industrial Soil (mg/kg) [2]
VOCs (mg/kg)													
Dichlorodifluoromethane	0.0014 UJ	0.0015 UJ	0.0018 UJ	0.0017 UJ	0.0014 UJ	0.0014 UJ	0.0015 UJ	0.0015 UJ	0.0016 UJ	16,000	700,000	190	780
Chloromethane	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	77	10,000	1.7	8.4
Vinyl Chloride	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	0.67	88	0.06	1.7
Bromomethane	0.0069 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	110	4,900	7.9	35
Chloroethane	0.0014 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	350	45,000	15,000	62,000
Trichlorofluoromethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	24,000	1,100,000	800	3,400
1,1-Dichloroethene	0.0069 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	4,000	180,000	250	1,100
Acetone	0.0069 U	0.11 J	0.0091 U	1 J	0.13 J	0.34 J	0.062 J	0.028 J	0.0078 U	8,000	350,000	61,000	610,000
Iodomethane	0.0014 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	n.a.	n.a.	n.a.	n.a.
Carbon Disulfide	0.0069 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	8,000	350,000	670	3,000
Methylene Chloride	0.0014 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	130	18,000	11	54
(trans) 1,2-Dichloroethene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	1,600	70,000	110	500
Methyl t-Butyl Ether	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	560	73,000	39	190
1,1-Dichloroethane	0.0069 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	16,000	700,000	3.4	17
Vinyl Acetate	0.0014 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	80,000	3,500,000	990	4,200
2,2-Dichloropropane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
(cis) 1,2-Dichloroethene	0.0069 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	800	35,000	780	10,000
2-Butanone	0.0014 U	0.059 J	0.0091 U	0.22 J	0.042 J	0.2 J	0.0091 J	0.1 J	0.0078 U	48,000	2,100,000	28,000	190,000
Bromochloromethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
Chloroform	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	160	22,000	0.30	1.5
1,1,1-Trichloroethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	72,000	3,200,000	9,000	39,000
Carbon Tetrachloride	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	7.7	1,000	0.25	1.3
1,1-Dichloropropene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
Benzene	0.0014 U	0.0023	0.0018 U	0.0017 U	0.0028	0.0014 U	0.0015 U	0.0015 U	0.0016 U	18	2,400	1.1	5.6
1,2-Dichloroethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	11	1,400	0.45	2.2
Trichloroethene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	11	1,500	2.8	14
1,2-Dichloropropane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	15	1,900	0.93	4.7
Dibromomethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	800	35,000	780	10,000
Bromodichloromethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	16	2,100	10	46
2-Chloroethyl Vinyl Ether	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.0072 U	0.0073 U	0.0073 U	0.0078 U	n.a.	n.a.	n.a.	n.a.
(cis) 1,3-Dichloropropene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	5.6	730	1.7	8.4
Methyl Isobutyl Ketone	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	6,400	280,000	5,300	52,000
Toluene	0.0069 U	0.078	0.0091 U	0.0085 U	0.0088	0.04	0.0073 U	0.043	0.0078 U	6,400	280,000	5,000	46,000
(trans) 1,3-Dichloropropene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	5.6	730	1.7	8.4
1,1,2-Trichloroethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	18	2,300	1.1	5.5
Tetrachloroethene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	1.9	240	0.6	2.7
1,3-Dichloropropane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	1,600	20,000
2-Hexanone	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	n.a.	n.a.	n.a.	n.a.
Dibromochloromethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	12	1,600	5.8	21
1,2-Dibromoethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	0.034	0.17
Chlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	1,600	70,000	310	1,500
1,1,1,2-Tetrachloroethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	38	38	2.0	10
Ethylbenzene	0.0014 U	0.01	0.0018 U	0.0017 U	0.0014 U	0.0033	0.0015 U	0.008	0.0031 U	8,000	350,000	5.7	29
m,p-Xylene	0.0028 U	0.043	0.0036 U	0.0054	0.0033	0.0028 U	0.0029 U	0.021	0.0016 U	16,000	700,000	600	2,600
o-Xylene	0.0014 U	0.023	0.0018 U	0.0028	0.0069	0.0014 U	0.0015 U	0.0044	0.0016 U	160,000	7,000,000	5,300	23,000
Styrene	0.0014 U	0.0045	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	33	4,400	6,500	38,000
Bromoform	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	130	17,000	61	220
Isopropylbenzene	0.0014 U	0.0022	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	8,000	350,000	2,200	11,000
Bromobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	94	410
1,1,2,2-Tetrachloroethane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	5.0	660	0.59	2.9
1,2,3-Trichloropropane	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	0.14	19	0.091	0.41
n-Propylbenzene	0.0014 U	0.0074	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
2-Chlorotoluene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	1,600	70,000	1,600	20,000
4-Chlorotoluene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	5,500	72,000
1,3,5-Trimethylbenzene	0.0014 U	0.03	0.0018 U	0.0018	0.0043	0.0014 U	0.0015 U	0.0041	0.0016 U	4,000	180,000	47	200
tert-Butylbenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
1,2,4-Trimethylbenzene	0.0014 U	0.07	0.0018 U	0.0051	0.0014 U	0.0014 U	0.0015 U	0.01	0.0016 U	4,000	180,000	67	280
sec-Butylbenzene	0.0014 U	0.0045	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
1,3-Dichlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
p-Isopropyltoluene	0.0014 U	0.04	0.0018 U	0.0017 U	0.0014	0.012	0.0015 U	0.057	0.0016 U	8,000	350,000	2,200	11,000
1,4-Dichlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014	0.0015 U	0.0015 U	0.0016 U	42	5,500	2.6	13
1,2-Dichlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	7,200	320,000	2,000	10,000
n-Butylbenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.
1,2-Dibromo-3-chloropropane	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	0.71	94	0.0056	0.073
1,2,4-Trichlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	800	35,000	87	400
Hexachlorobutadiene	0.0069 U	0.0077 U	0.0091 U	0.0085 U	0.0072 U	0.007 U	0.0073 U	0.0073 U	0.0078 U	13	1,700	6.2	22
Naphthalene	0.0014 U	0.019	0.0018 U	0.0026	0.0081	0.0014 U	0.0015 U	0.0091	0.0016 U	1,600	70,000	3.9	20
1,2,3-Trichlorobenzene	0.0014 U	0.0015 U	0.0018 U	0.0017 U	0.0014 U	0.0014 U	0.0015 U	0.0015 U	0.0016 U	n.a.	n.a.	n.a.	n.a.

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Table 6 (continued)

Summary of VOC Results in Water Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample ID:	09030938	09030939	09030940	09030941	09030943	ARARs			
Sample Location:	PT04GW01	PT04GW02	PT03GW01	PT01GW01	TB01	MTCA Method B Unrestricted Use Groundwater (µg/L) [1]	MTCA Method C Conditional Use Groundwater (µg/L) [1]	EPA Drinking Water MCL (µg/L) [3]	EPA RSL Tap Water (µg/L) [2]
VOCs (µg/L)									
Dichlorodifluoromethane	30 UJ	50 UJ	10 UJ	2 UJ	0.2 UJ	1,600	3,500	n.a.	390
Chloromethane	150 U	250 U	50 U	10 U	1 U	3.4	34	n.a.	1.8
Vinyl Chloride	30 U	50 U	10 U	2 U	0.2 U	0.029	0.29	2.0	0.016
Bromomethane	30 U	50 U	10 U	2 U	0.2 U	11	25	n.a.	8.7
Chloroethane	150 U	250 U	50 U	10 U	1 U	15	150	n.a.	21,000
Trichlorofluoromethane	30 U	50 U	10 U	2 U	0.2 U	2,400	5,300	n.a.	1,300
1,1-Dichloroethene	30 U	50 U	10 U	2 U	0.2 U	400	880	7.0	340
Acetone	***4,500***	***11,000***	360	270	24	800	1,800	n.a.	22,000
Iodomethane	150 U	250 U	50 U	10 U	1 U	n.a.	n.a.	n.a.	n.a.
Carbon Disulfide	30 U	50 U	10 U	2 U	0.2 U	800	1,800	n.a.	1,000
Methylene Chloride	150 U	250 U	50 U	10 U	1 U	5.800	58.000	5.0	4.8
(trans) 1,2-Dichloroethene	30 U	50 U	10 U	2 U	0.2 U	0.48	4.8	100	110
Methyl t-Butyl Ether	30 U	50 U	10 U	2 U	0.2 U	24	240	n.a.	12
1,1-Dichloroethane	30 U	50 U	10 U	2 U	0.2 U	1,600	3,500	n.a.	2.4
Vinyl Acetate	300 U	500 U	100 U	20 U	2 U	8,000	18,000	n.a.	410
2,2-Dichloropropane	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
(cis) 1,2-Dichloroethene	30 U	50 U	10 U	2 U	0.2 U	80	180	70	370
2-Butanone	2,000	**6,000**	250 U	290	5 U	4,800	11,000	n.a.	7,100
Bromochloromethane	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
Chloroform	30 U	50 U	10 U	2 U	0.63	7.2000	72.0000	n.a.	0.19
1,1,1-Trichloroethane	30 U	50 U	10 U	2 U	0.2 U	7,200	16,000	200	9,100
Carbon Tetrachloride	30 U	50 U	10 U	2 U	0.2 U	0.34	3.4	5.0	0.20
1,1-Dichloropropene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
Benzene	***71***	***110***	***57***	**3.3**	0.2 U	0.80	8.0	5.0	0.41
1,2-Dichloroethane	30 U	50 U	10 U	**3.8**	0.2 U	0.48	4.8	5.0	0.15
Trichloroethene	30 U	50 U	10 U	2 U	0.2 U	0.49	5.0	5.0	1.7
1,2-Dichloropropane	30 U	50 U	10 U	2 U	0.2 U	0.64	6.4	5.0	0.39
Dibromomethane	30 U	50 U	10 U	2 U	0.2 U	80	180	n.a.	370
Bromodichloromethane	30 U	50 U	10 U	2 U	0.2 U	0.71	7.1	n.a.	1.1
2-Chloroethyl Vinyl Ether	150 U	250 U	50 U	10 U	1 U	n.a.	n.a.	n.a.	n.a.
(cis) 1,3-Dichloropropene	30 U	50 U	10 U	2 U	0.2 U	0.24	2.4	n.a.	0.43
Methyl Isobutyl Ketone	300 U	500 U	10 U	2 U	2 U	640	1,400	n.a.	2,000
Toluene	360	**710**	***1,500***	39	1 U	640	1,400	1,000	2,300
(trans) 1,3-Dichloropropene	30 U	50 U	10 U	2 U	0.2 U	0.24	2.4	n.a.	0.43
1,1,2-Trichloroethane	30 U	50 U	10 U	2 U	0.2 U	0.77	7.7	5.0	0.24
Tetrachloroethene	30 U	50 U	10 U	2 U	0.2 U	0.081	0.81	5.0	0.11
1,3-Dichloropropane	30 U	50 U	10 U	2 U	0.2 U	0.24	2.4	n.a.	730
2-Hexanone	300 U	500 U	100 U	20 U	2 U	n.a.	n.a.	n.a.	n.a.
Dibromochloromethane	30 U	50 U	10 U	2 U	0.2 U	0.52	5.2	n.a.	0.80
1,2-Dibromoethane	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	0.050	0.007
Chlorobenzene	30 U	50 U	10 U	2 U	0.2 U	160	350	100	91
1,1,1,2-Tetrachloroethane	30 U	50 U	10 U	2 U	0.2 U	1.7	17	n.a.	0.52
Ethylbenzene	34	74	47	4	81	800	1,800	700	1.5
m,p-Xylene	130	280	190	14	290	1,600	3,500	10,000	200
o-Xylene	54	86	100	6.7	61	16,000	35,000	n.a.	1,400
Styrene	30 U	50 U	10 U	2 U	0.2 U	1.5	15	100	1,600
Bromoform	150 U	250 U	50 U	10 U	1 U	5.5	55	n.a.	8.5
Isopropylbenzene	30 U	50 U	10 U	2 U	0.2 U	800	1,800	n.a.	680
Bromobenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	20
1,1,2,2-Tetrachloroethane	30 U	50 U	10 U	2 U	0.2 U	0.22	2.2	n.a.	0.067
1,2,3-Trichloropropane	30 U	50 U	10 U	2 U	0.2 U	0.0063	0.063	n.a.	0.010
n-Propylbenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
2-Chlorotoluene	30 U	50 U	10 U	2 U	0.2 U	160	350	n.a.	730
4-Chlorotoluene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	2,600
1,3,5-Trimethylbenzene	30 U	50 U	15	4	0.2 U	400	880	n.a.	12
tert-Butylbenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
1,2,4-Trimethylbenzene	40	50 U	47	11	0.2 U	400	880	n.a.	15
sec-Butylbenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
1,3-Dichlorobenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
p-Isopropyltoluene	30 U	50 U	26	9.5	0.2 U	800	1,800	n.a.	680
1,4-Dichlorobenzene	30 U	50 U	10 U	2 U	0.2 U	1.8	18	75	0.43
1,2-Dichlorobenzene	30 U	50 U	10 U	2 U	0.2 U	720	1,600	600	370
n-Butylbenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.
1,2-Dibromo-3-chloropropane	150 U	250 U	50 U	10 U	1 U	0.031	0.31	0.20	0.00032
1,2,4-Trichlorobenzene	30 U	50 U	10 U	2 U	0.2 U	80	180	70	8.2
Hexachlorobutadiene	30 U	50 U	10 U	2 U	0.2 U	0.56	5.6	n.a.	0.86
Naphthalene	150 U	250 U	50 U	17	1 U	160	350	n.a.	0.14
1,2,3-Trichlorobenzene	30 U	50 U	10 U	2 U	0.2 U	n.a.	n.a.	n.a.	n.a.

Notes:
Bold type indicates that the compound exceeds the Washington MTCA Method B Residential Clean Up Level.
Italic type indicates that the compound exceeds the Washington MTCA Method C Restricted/Commercial Clean Up Level.
Underline type indicates that the compound exceeds the EPA Residential RSLs or EPA RSL for tap water.
Highlighted type indicates that the compound exceeds the EPA Industrial RSLs or EPA MCL for drinking water.
(1) Washington State MTCA Cleanup Levels (2007).
(2) EPA Regional Screening Levels (EPA 2008).
(3) EPA Drinking Water Maximum Contaminant Level.

Key:
ARAR = applicable or relevant and appropriate requirement
EPA = Environmental Protection Agency
J = estimated value
mg/kg = milligrams per kilogram
µg/L = micrograms per liter
n.a. = not available
VOC = Volatile organic compound
U = not detected (at the indicated reporting limit)
UJ = not detected (estimated reporting limit)
RSL = Regional Screening Level
MTCA = Model Control Toxic Act

Table 7

Summary of NWTPH-Dx Results in Soil and Water Samples
Double H Pesticide Burial Site
Grandview, Washington

NWTPH-Dx (mg/kg) - Soil Samples

Sample ID:	09030806	09030807	09030808	09030809	09030810	09030811	09030812	09030813	ARARs		
Sample Location:	PT02SB01	PT03SB01	PT03SB02	PT04SB01	PT04SB02	PT04SB03	PT01SB01	PT01SB02	Washington MTCA Method A [1]	EPA RSL Residential Soil [2]	EPA RSL Industrial Soil [2]
Diesel-Range Organics	35 U	1,100	150	37 U	46	35 U	36 U	390	2,000 mg/kg	n.a.	n.a.
Oil-Range Organics	81	**2,800**	730	74 U	96	70 U	180	1,900	2,000 mg/kg	n.a.	n.a.

NWTPH-Dx (µg/L) - Water Samples

Sample ID:	09030938	09030939	09030940	09030941	ARARs		
Sample Location:	PT04GW01	PT04GW02	PT03GW01	PT01GW01	Washington MTCA Method A [1]	EPA RSL Residential Soil [2]	EPA RSL Industrial Soil [2]
Diesel-Range Organics	**1,200**	**1,300**	**13,000**	**6,200**	500 µg/liter	n.a.	n.a.
Oil-Range Organics	**1,200**	**1,100**	**26,000**	**48,000**	500 µg/liter	n.a.	n.a.

Key is on last page.

Table 7 (continued)

DRAFT Summary of NWTPH-Dx Results in Soil and Water Samples
Double H Pesticide Burial Site
Grandview, Washington

NWTPH-Dx (mg/kg) - Soil Samples

Sample ID:	09030814	09030815	09030816	09030817	09030818	09030819	09030820	ARARs		
Sample Location:	BG01SB	SP01SS	SP02SS	SP03SS	SP04SS	DP01SS	DP02SS	Washington MTCA Method A [1]	EPA RSL Residential Soil [2]	EPA RSL Industrial Soil [2]
Diesel-Range Organics	30 U	31 U	33 U	31 U	32 U	280 U	120 U	2,000 mg/kg	n.a.	n.a.
Oil-Range Organics	60 U	61 U	65 U	62 U	63 U	1,600	1,000	2,000 mg/kg	n.a.	n.a.

Notes: Italics indicate Bold type indicates a detected compound.
Bold type indicates that the compound exceeds the Washington Model Toxics Control Act (MTCA) Soil Clean Up Levels.
(1) Washington MTCA Cleanup Levels (2007).
(2) EPA Regional Screening Levels (2008).

Key:

ARAR	= applicable or relavant and appropriate requirement
ID	= identification
J	= estimated value
µg/L	= micrograms per liter
mg/kg	= milligrams per kilogram
NWTPH-Dx	= Northwest Total Petroleum Hydrocarbon, Diesel Range Extended
U	= not detected (at the indicated reporting limit)
UJ	= not detected (estimated reporting limit)
MTCA	= Model Control Toxic Act
RSL	= Regional Screening Level
n.a.	= not available

Table 8

Summary of Priority Pollutant Metal Results in Soil and Water Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample ID:	09030806	09030807	09030808	09030809	09030810	09030811	09030812	09030813	ARARs			
Sample Location:	PT02SB01	PT03SB01	PT03SB02	PT04SB01	PT04SB02	PT04SB03	PT01SB01	PT01SB02	MTCA Method B Residential Soil [1]	MTCA Method C Industrial Soil [1]	EPA RSL Residential Soil (mg/kg)[2]	EPA RSL Industrial Soil (mg/kg)[2]
Priority Pollutant Metals (mg/kg) - Soil Samples												
Antimony	7 U	6.8 U	7.1 U	7.4 U	7.1 U	7 U	7.1 U	7.5 U	32	1,400	31	410
Arsenic	14 U	14 U	14 U	15 U	14 U	14 U	14 U	15 U	0.67	88	0.39	1.6
Beryllium	0.7 U	0.68 U	0.71 U	0.74 U	0.71 U	0.7 U	0.71 U	0.75 U	160	7,000	160	2,000
Cadmium	0.7 U	0.68 U	0.71 U	0.74 U	0.71 U	0.7 U	0.71 U	0.75 U	80	3,500	70	810
Chromium [4]	22	14	14	13	15	13	14	15	120,000	5,300,000	280	1,400
Copper	21	20	23	19	21	20	20	24	3,000	130,000	3,100	41,000
Lead	44	7.1	8	7.6	7.1 U	7 U	7.7	7.5 U	n.a.	n.a.	400	800
Mercury	0.35 U	0.34 U	0.36 U	0.37 U	0.36 U	0.35 U	0.36 U	0.37 U	24	1,100	23	310
Nickel	17	16	17	16	17	15	15	15	1,600	70,000	1,600	20,000
Selenium	14 U	14 U	14 U	15 U	14 U	14 U	14 U	15 U	400	18,000	390	5,100
Silver	0.7 U	0.68 U	0.71 U	0.74 U	0.71 U	0.7 U	0.71 U	0.75 U	400	18,000	390	5,100
Thallium	7 U	6.8 U	7.1 U	7.4 U	7.1 U	7 U	7.1 U	7.5 U	5.6	250	5.1	66
Zinc	65	100	69	56	69	64	140	180	24,000	1,100,000	23,000	310,000

Sample ID:	09030938	09030939	09030940	09030941		ARARs			
Sample Location:	PT04GW01	PT04GW02	PT03GW01	PT01GW01		MTCA Method B Groundwater (µg/L) [1]	MTCA Method C Groundwater (µg/L) [1]	Federal MCL (µg/L)	EPA RSL Tap Water (µg/L) [2]
Priority Pollutant Metals (µg/L) - Water Samples									
Antimony	5.6 U	5.6 U	5.6 U	5.6 U		6.4	14	6	15
Arsenic	***47***	***30***	***18***	***41***		0.058	0.58	10	0.045
Beryllium	11 U	11 U	11 U	11 U		32	70	4	73
Cadmium	4.4 U	4.4 U	4.4 U	4.4 U		8	18	5	18
Chromium [4]	43	26	11 U	60		24,000	53,000	100	55,000
Copper	63	33	20	110		590	1,300	1,300	1,500
Lead	33	11	13	46		n.a.	n.a.	15	n.a.
Mercury	0.5 U	0.5 U	0.5 U	0.5 U		4.8	11	2	11
Nickel	150	110	33	80		320	700	n.a.	730
Selenium	7.5	5.6 U	5.6 U	5.6 U		80	180	50	180
Silver	11 U	11 U	11 U	11 U		80	180	n.a.	180
Thallium	5.6 U	5.6 U	5.6 U	5.6 U		1.1	2.5	2	2.4
Zinc	1,400	2,900	2,000	1,000		4,800	11,000	n.a.	11,000

Key is at end of table.

Table 8 (continued)

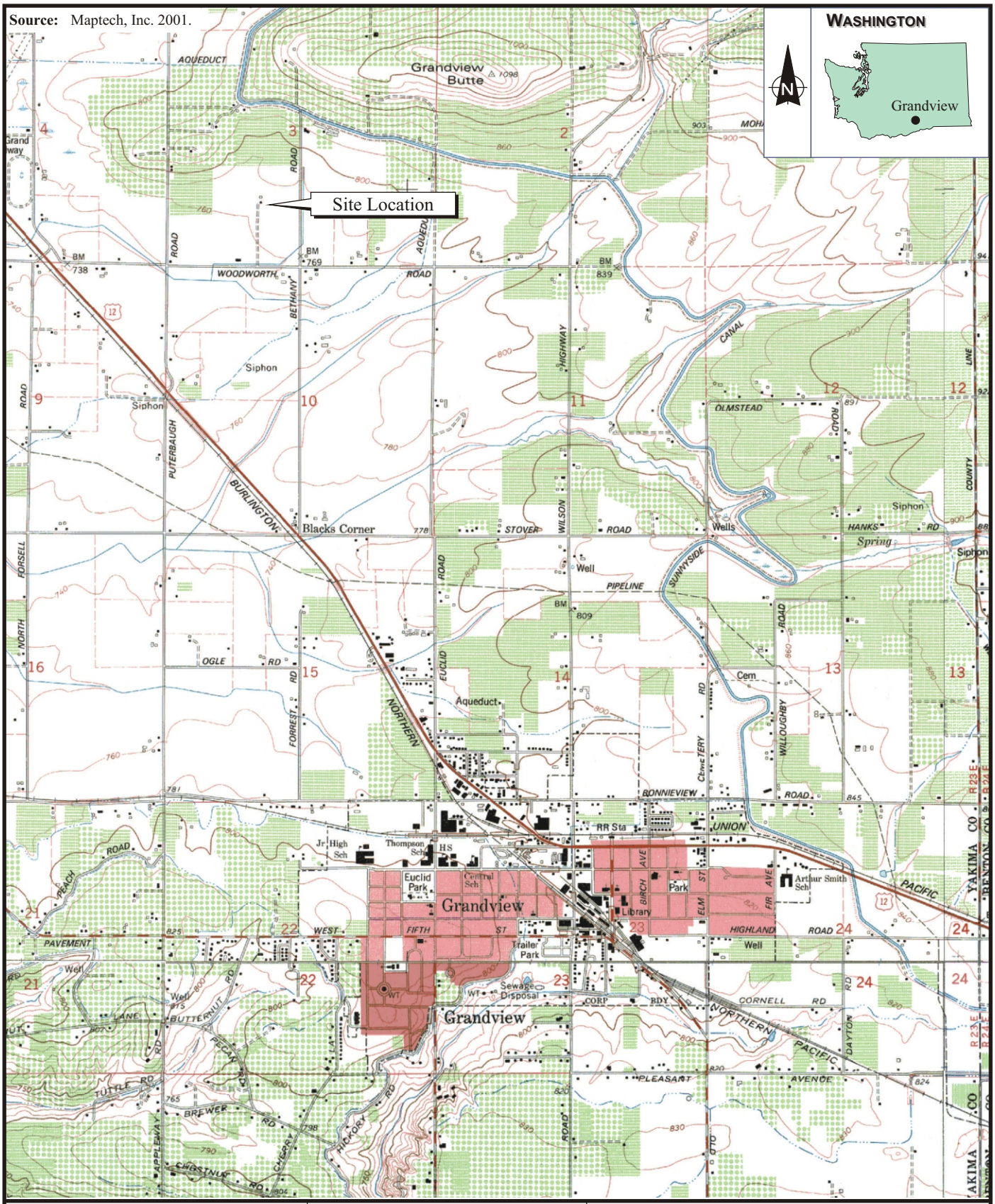
Summary of Priority Pollutant Metal Results in Soil Samples
Double H Pesticide Burial Site
Grandview, Washington

Sample ID:	09030814	09030815	09030816	09030817	09030818	09030819	09030820	ARARs			
Sample Location:	BG01SB	SP01SS	SP02SS	SP03SS	SP04SS	DP01SS	DP02SS	MTCA Method B Residential Soil [1]	MTCA Method C Industrial Soil [1]	EPA RSL Residential Soil (mg/kg)[2]	EPA RSL Industrial Soil (mg/kg)[2]
Priority Pollutant Metals (mg/kg) - Soil Samples											
Antimony	6 U	6.1 U	6.5 U	6.2 U	6.3 U	6.3 U	6.4 U	32	1,400.0	31	410
Arsenic [4]	12 U	12 U	13 U	12 U	13 U	13 U	13 U	0.67	88	0.39	1.6
Beryllium	0.6 U	0.61 U	0.65 U	0.62 U	0.63 U	0.63 U	0.64 U	160	7,000	160	2,000
Cadmium	0.6 U	0.61 U	0.65 U	0.62 U	0.63 U	0.63 U	0.64 U	80	3,500	70	810
Chromium	12	14	14	14	14	14	14	120,000	5,300,000	280	1,400
Copper	18	20	20	21	21	22	23	3,000	130,000	3,100	41,000
Lead	13	6.5	8.8	6.9	6.3 U	6.7	6.8	n.a.	n.a.	400	800
Mercury	0.3 U	0.3 U	0.32 U	0.31 U	0.32 U	0.32 U	0.32 U	24	1,100	23	310
Nickel	17	16	16	16	17	16	16	1,600	70,000	1,600	20,000
Selenium	12 U	12 U	13 U	12 U	13 U	13 U	13 U	400	18,000	390	5,100
Silver	0.6 U	0.61 U	0.65 U	0.62 U	0.63 U	0.63 U	0.64 U	400	18,000	390	5,100
Thallium	6 U	6.1 U	6.5 U	6.2 U	6.3 U	6.3 U	6.4 U	5.6	250	5.1	66
Zinc	53	56	57	60	58	70	75	24,000	1,100,000	23,000	310,000

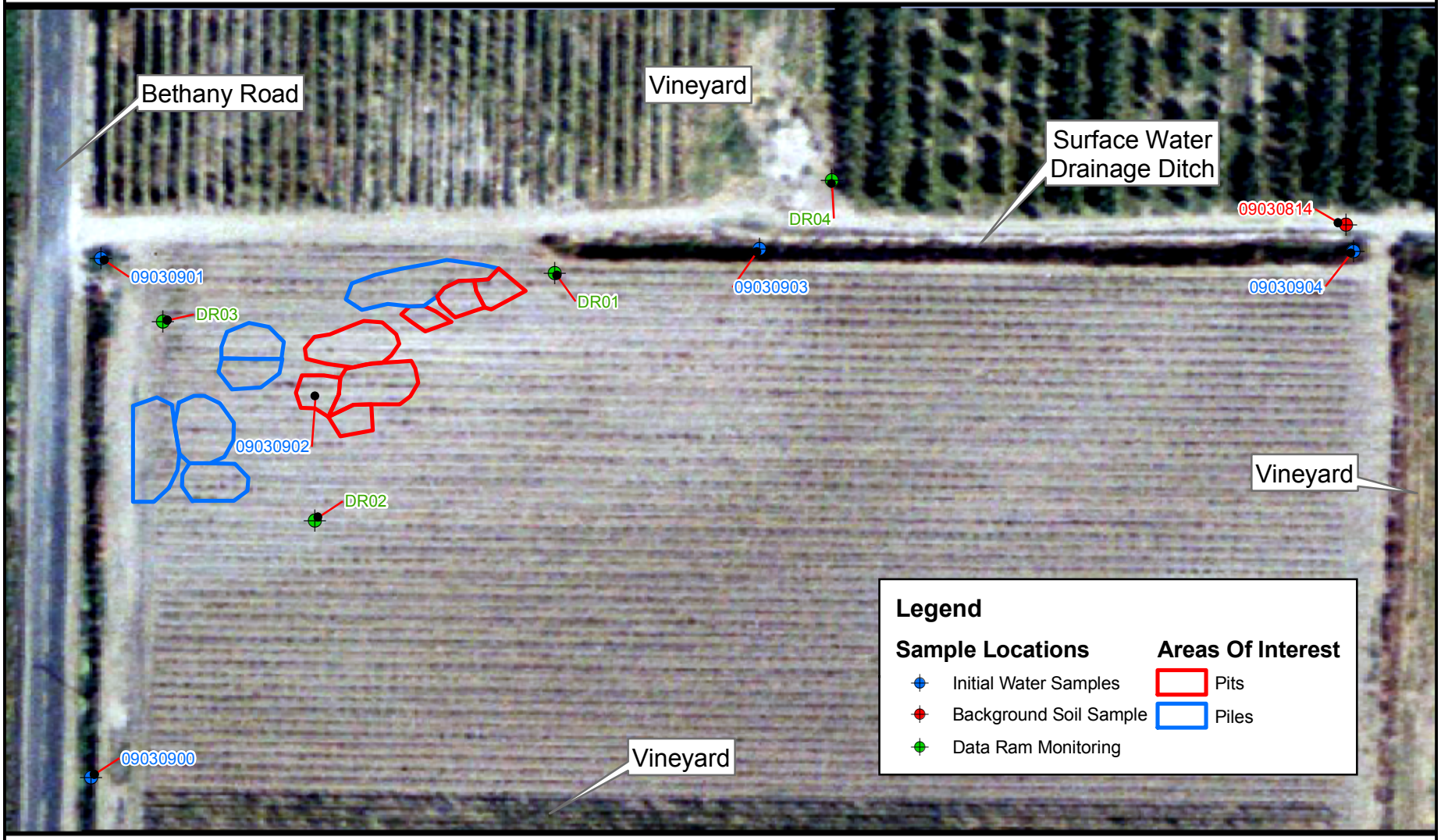
Notes:
Bold type indicates that the compound exceeds the Washington MTCA Method B Residential Clean Up Level.
Italic type indicates that the compound exceeds the Washington MTCA Method C Restricted/Commercial Clean Up Level.
Underline type indicates that the compound exceeds the EPA Residential RSLs for soil or EPA RSL for tap water.
Highlighted type indicates that the compound exceeds the EPA Industrial RSLs for soil or EPA MCL for drinking water.
(1) Washington State MTCA Cleanup Levels (2007).
(2) EPA Regional Screening Levels (EPA 2008).
(3) EPA Drinking Water Maximum Contaminant Level.
(4) Federal MCL and EPA RSLs for soil are for total chromium. Other values are for Cr(III).

Key:

ARAR	= applicable or relevant and appriopriate requirement
ID	= identification
J	= estimated value
µg/L	= micrograms per liter
mg/kg	= milligrams per kilogram
n.a.	= not available
MTCA	= Model Toxic Control Act
RSL	= Residential Screening Level
U	= not detected (at the indicated reporting limit)
UJ	= not detected (estimated reporting limit)
EPA	=Environmental Protection Agency



ecology and environment, inc. International Specialists in the Environment Seattle, Washington	DOUBLE H PESTICIDE BURIAL Grandview, Washington	Figure 1 SITE LOCATION MAP		
	0 1333 2666 Approximate Scale in Feet	Date: 11-12-09	Drawn by: AES	10:START-3\09030008\fig 1



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International Specialists in the Environment
Seattle, Washington

N W E S

0 15 30 60 90 120 Feet

Map Reference:
Tele Atlas, 2009

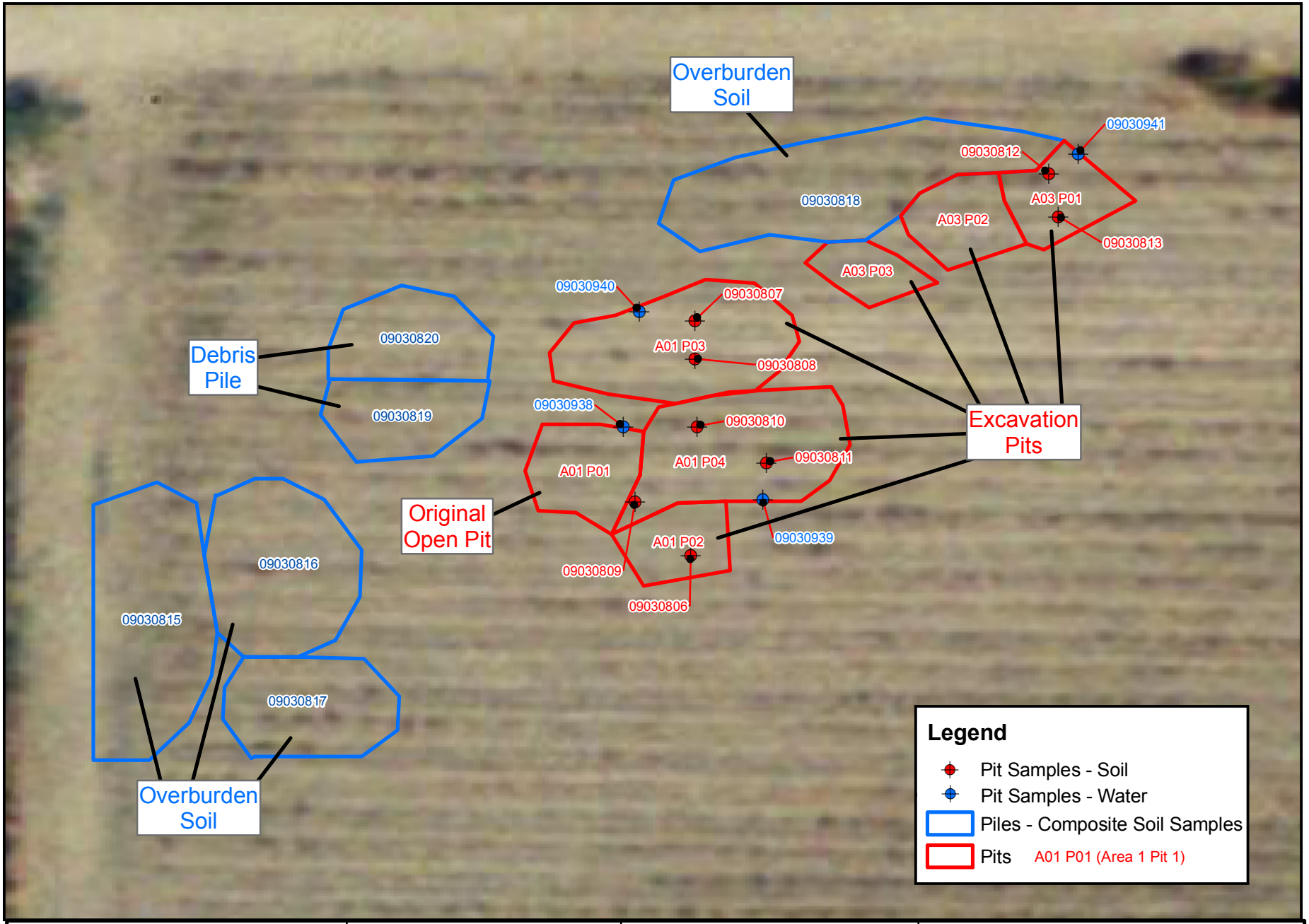
DOUBLE H PESTICIDE BURIAL REMOVAL ASSESSMENT

Grandview, Washington

FIGURE 2
SITE MAP

Date:	Drawn by:	Job Number:
11/16/2009	amm	002233.0461.01RA

ecology and environment, inc. International Specialists in the Environment Seattle, Washington	DOUBLE H PESTICIDE BURIAL Grandview, Washington	Figure 3 AREA LOCATIONS		
	Base Map Reference: Environmental Compliance Associates, LLC (ECA), 2009.	Date: 11/13/08	Drawn by: AES	10:START-3\09030008\fig 3



ecology and environment, inc.
International Specialists in the Environment
Seattle, Washington

N W E S

0 5 10 20 30 40 Feet

Map Reference:
Tele Atlas, 2009

DOUBLE H PESTICIDE BURIAL REMOVAL ASSESSMENT

Grandview, Washington

FIGURE 4
SAMPLE LOCATION MAP

Date:	Drawn by:	Job Number:
11/16/2009	amm	002233.0461.01RA

A Photographic Documentation

Double H Pesticide Burial
Grandview, Washington

TDD Number: 09-03-0008
Photographed by: Joe Grojean (JG), Eric Goetz (EG)

Photo 1 Overview of suspected site burial.

Direction: *Southeast* *Date: 3/17/09* *Time: 13:50* *Taken by: JG*

Photo 2 Open burial pit found initially.

Direction: *Southeast* *Date: 3/17/09* *Time: 14:10* *Taken by: JG*

Photo 3 Site scanned with magnetic locator and GPS location collected.

Direction: *Southeast* *Date: 3/17/09* *Time: 14:25* *Taken by: JG*

Photo 4 Command post staged on site.

Direction: *North* *Date: 3/18/09* *Time: 12:41* *Taken by: JG*

Photo 5 Staging area for over burden soil.

Direction: *South* *Date: 3/19/09* *Time: 08:33* *Taken by: JG*

Photo 6 Ground penetrating radar identifying subsurface anomalies.

Direction: *Southwest* *Date: 3/19/09* *Time: 12:00* *Taken by: JG*

Photo 7 Removal of surface soils in Area 1 Pit 2.

Direction: *South* *Date: 3/19/09* *Time: 15:16* *Taken by: JG*

Photo 8 Separating trash from soil.

Direction: *Down* *Date: 3/19/09* *Time: 15:29* *Taken by: JG*

Photo 9 Drum discovered during excavation in Area 1.

Direction: *Down* *Date: 3/19/09* *Time: 15:37* *Taken by: JG*

Photo 10 Oil in groundwater in Area 1 Pit 3.

Direction: *Down* *Date: 3/19/09* *Time: 16:54* *Taken by: JG*

Photo 11 Metal debris and oil contamination.

Direction: *Down* *Date: 3/19/09* *Time: 17:36* *Taken by: JG*

Photo 12 START sampling a drum of yellow liquid.

Direction: *Close-up* *Date: 3/19/09* *Time: 17:40* *Taken by: JG*

Photo 13 Buckets found in Area 1 Pit 4.

Direction: *Down* *Date: 3/20/09* *Time: 09:04* *Taken by: JG*

Photo 14 Yellow liquid from white drum (Area 1 Pit 4 southwest corner).

Direction: *Close-up* *Date: 3/20/09* *Time: 09:32* *Taken by: JG*

Photo 15 Press interviewing OSC Dan Heister.

Direction: *Northwest* *Date: 3/20/09* *Time: 11:10* *Taken by: JG*

Photo 16 Area 1 Pit 1 (foreground), Pit 4 (background).

Direction: *Northeast* *Date: 3/20/09* *Time: 14:47* *Taken by: JG*

Photo 17 More drums found during excavation.

Direction: *Down* *Date: 3/21/09* *Time: 15:15* *Taken by: JG*

Photo 18 Stamp on opposite side on top of drum.

Direction: *Close-up* *Date: 3/21/09* *Time: 15:37* *Taken by: JG*

Photo 19 Gramoxone label on drum (Paraquat).

Direction: *Close-up* *Date: 3/21/09* *Time: 15:38* *Taken by: JG*

Photo 20 Carbaryl container from Area 1 Pit 4.

Direction: *Close-up* *Date: 3/22/09* *Time: 17:54* *Taken by: JG*

Photo 21 Epimek labeled container.

Direction: *Close-up*	*Date: 3/23/09*	*Time: 09:29*	*Taken by: JG*

Photo 22 Overview - Area 3 (left of photo), Area 1 (right of photo).

Direction: *West*	*Date: 3/23/09*	*Time: 18:35*	*Taken by: JG*

Photo 23 Overview of northwest area of site.

Direction: *East*	*Date: 3/24/09*	*Time: 13:09*	*Taken by: JG*

Photo 24 Overview of southwest area of site.

Direction: *Southeast*	*Date: 3/24/09*	*Time: 13:09*	*Taken by: JG*

Photo 25 Debris excavated from Area 2 Pit 3 including one car battery and a pesticide sprayer.

Direction: *Date: 3/24/09* *Time: 13:33* *Taken by: EG*

Photo 26 Newspaper recovered from within Area 2 Pit 3 excavation with the date of 6/11/06.

Direction: *Date: 3/24/09* *Time: 13:42* *Taken by: EG*

Photo 27 Drum staging Area 1. Empty drums in background.

Direction: *North* *Date: 3/25/09* *Time: 09:11* *Taken by: JG*

Photo 28 Empty container staging area.

Direction: *North* *Date: 3/25/09* *Time: 09:11* *Taken by: JG*

Photo 29 Site overview after investigation.

Direction: *Northeast* *Date: 3/25/09* *Time: 18:49* *Taken by: JG*

Photo 30 Site overview of Area 1 - staged contaminated debris (covered).

Direction: *East* *Date: 3/25/09* *Time: 18:49* *Taken by: JG*

Photo 31 Site overview - over burden soil staged.

Direction: *South* *Date: 3/25/09* *Time: 18:49* *Taken by: JG*

B Environmental Compliance Associates Ground Penetrating Radar Report

April 3, 2009

Eric Nuchims
ecology and environment, inc.
720 Third Avenue
Suite 1700
Seattle, WA 98104

RE: GPR survey of property located at 1501 Bethany Road in Grandview, Washington

Dear Eric,

Environmental Compliance Associates, LLC (**ECA**) is pleased to submit this letter report to you regarding the recently completed Ground Penetrating Radar (GPR) survey at the property located at 1501 Bethany Road in Grandview, Washington.

INTRODUCTION

On March 19, 2009 **ECA** performed a GPR survey of two locations within the above referenced site. This work was performed, at the request of **ecology and environment, inc.**, to enable a more effective excavation program at the site. The site comprised an approximate 0.5-acre polygonal area and an approximate 0.1-acre rectangular area, as shown in Figure 1 below.

Approximate locations of the five trenches identified by GPR

FIGURE 1

PURPOSE OF SURVEY

As stated above, **ecology and environment, inc.** requested the geophysical survey for the purpose of better locating buried drums suspected of containing liquid pesticides and other toxic materials.

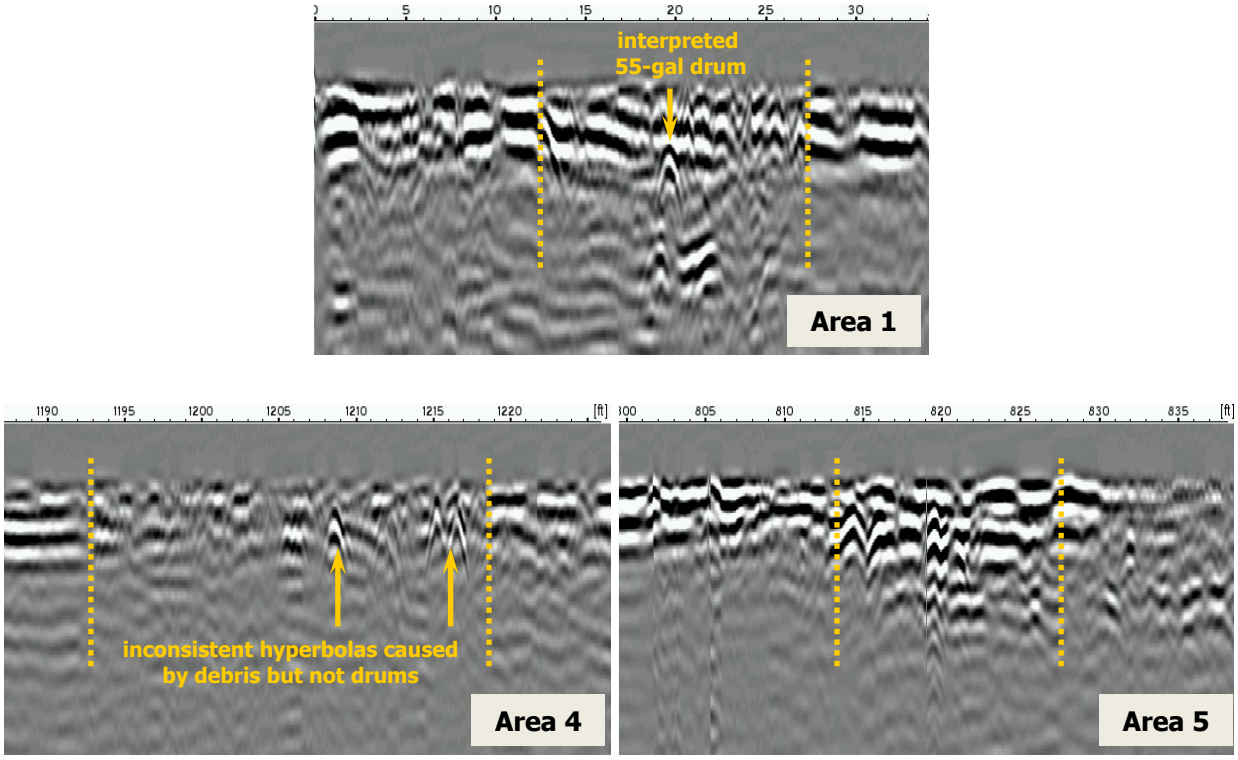
INSTRUMENTATION

The instrument utilized for this survey was the "Easy Locator" GPR system manufactured by Mala Geoscience of Charleston, South Carolina. This system operates at a frequency of 350 MHz and is capable of imaging objects within the upper 15 feet of the subsurface. The system utilizes high performance, non-conductive fiber optic cables that connect the control unit and the antenna. The control unit operates at a 100 kHz pulse repetition frequency, enabling rapid data acquisition without compromising data quality.

DATA ACQUISITION

ECA performed a saturation survey that consisted of traverses spaced only two feet apart. Due to time constraints, depth calibrations (over buried objects of known depth) were not performed.

Whenever anomalous readings were identified, ECA made additional parallel and perpendicular traverses, in order to confirm the boundary of a suspected burial trench or to confirm the presence of buried drums or tanks. The interpreted trench locations were marked with spray paint and are indicated in Figure 1 above. Selected GPR images (radargrams) are presented in Figure 2 below.



Radargrams of N-S GPR traverses taken across Area 1, Area 4 and Area 5 with interpreted trench boundaries indicated by dashed yellow lines

FIGURE 2

DISCUSSION OF SURVEY RESULTS

Area 1 - The symmetric and consistent hyperbola revealed in the radargram was more than likely caused by the 55-gallon plastic drum that was later excavated from this burial trench.

Area 2 – This area revealed no definitive trench or drum signatures, only sufficient changes in the background pattern to warrant consideration as a burial trench. Because nothing noteworthy was identified, a radargram was not recorded.

Area 3 – Like Area 2, this area revealed no definitive trench or drum signatures, only changes in the background. Accordingly, a radargram was not recorded. The subsequent excavation produced drums that may have been masked by overlying boards and trash.

Area 4 – This area contained approximately 20 causative bodies that did not reveal the hyperbola signature when scanned from different directions. Accordingly, the multiple anomalies were more than likely attributable to simple trash and debris.

Area 5 – This area was considered a trench due to definitive trench wall signatures. However, no other anomalous signatures were identified.

CLOSING COMMENTS

ECA performed this geophysical survey utilizing best available methods and practices. However, all interpretations and opinions presented herein should in no way be considered as unequivocal facts. Accordingly, ECA does not guarantee the validity or accuracy of offered interpretations, as they only constitute *conjecture* based upon the limited information obtained during this investigation.

Respectfully submitted,

Brett D. Smith PE, LG
Engineer / Geophysicist

C Hazcat Results

03/22/09

md

Hazard Categorization Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	IR ~~Conclusion~~ or Hazard Category	Raman
A-1 P-4 #3	Bright Yellow	+	Sol	7	−	−		non	no		yellow vapors blk char	aqueous neutral pH	
Pit 1 16 A3	clear w/ little cloudy	+		8 md	−	−			no		no residue no flame		
A-1 P-4 #2	dark grey	+		8 md	−	−			no		no residue no flame		
A-1 P-4 #1	dark grey	+	sol	7	−	−		non	none		no residue no flam vapor	did not test - H_2O	did not test - H_2O
A-3 P-1 #25	med cloudy	+		7	−	−					slight blk char residue		
A-1 P-3 #2	brn liquid w/ silt	−	sol	12	−	+	−				wht residue		
Pit #3 1 A1	dark red liquid	−	sol	12	−	+	−	non			wht solid left	water	poor match
Pit 4 9 A 1	bright orange liquid	−	float	?	−	−		flammable		Pearl Pendencillin	yellow vapors flammable	air tool oil kerosene	poor match similar to gasoline
+ top layer	A3 P1 -#2	wht cloudy liquid	immiscible	emulsion	5	−	−		no		~~blue~~ flammable vapors	~~water~~	

agsi: screen ticket

− top

03/23/09

Hazard Categorization Data Summary Sheet

✓ ✓ ✗ ✓ ✓ ✓

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	~~Iodine~~ Raman Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category	I R
A1 P4 #12	black aqueous liquid	+	sol	upper layer				non	−	−	none		water −
A1 P4 #13	biphasic top: wht milky bottom: grey sludge	+ top	top sol.	#5 universal + 2 drop diluted to 20 mL organophosphate/carbonate			+	top - non sludge - flammable	yellow	−	top - none sludge - char flammable vapors → yellow		water both layers
A1 P2 #1	light turbid clear liquid	+	sol					non flammable	yellow	−	none		water
A1 P4 #P	cloudy liquid	+	sol					non	−	−	none		water
A3 P3 #5	Bi phasic cloudy upper clear/turbid lower	− top + bottom	top - insol bottom - sol					top - flammable bottom - incombustible	−	−	top - flam vapors (wispy) bottom - incombustible		up: mineral oil low: water
A1 P3 #10	Blk oil on top of water	− top + bottom	top - insol bottom - sol					top - combustible bottom - non	−	−	top - flam vapors bottom - non		Didecyldimethyl ammonium bromide (?) the lower
A3 P3 #6	milky wht top (small) clear lower	− top + bottom	top - insol bottom - sol					top - flammable bottom - non	−	−	top - flam vapors bottom - non		top: heavy mineral oil low: H_2O
A3 P3 #4	milky wht top layer dirty H_2O bottom layer	− top + bottom	top - insol bottom - sol					top - flammable bottom - non	−	−	top - flamm vapors bottom - non		top: heavy bottom: H_2O
A3 P1 #5	sheen on top clear liquid lower	− sheen + bottom	sheen → immiscible bottom - sol					top - combust bottom - non	−	−	top - incombustible bottom - non		→
A3 P1 #10													

Redo Arun 03/22

A3	top layer	
P1	milky wht	
#2	bottom layer	
	grey gelb	

03/23/09
(red)

Hazard Categorization
Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category
A3 P3 #1	dirty water	+	sol					non	−		none	
A3 P3 #2	dirty water	+	sol					non	yellow		none	
A3 P3 #3	dirty water	+	sol					non	yellow		none	
A3 P1 #10	top: dirty water on sludge bottom	+										
A3 P1 #13	top: dirty H_2O Mudge bottom	+		7								
A3 P1 #22	clear liquid	+										
A3 P1 #12	clear liquid dirt on bottom	+										
A3 P1 #9	turbid liquid	+										
A1 P4 #11	turbid liquid	+										
A3 P1 #20	turbid liquid dirt on bottom	+	sol liquid					liquid - non flammable dirt - non flammable	top: none bottom: none		top: none bottom: none	

03/23/09

md

Hazard Categorization Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category
A3 P1 #18	dark turbid water	+										
A3 P1 #14	turbid liquid	+										
A3 P1 #15	turbid liquid w/ silt	+										
A3 P1 #17	turbid liquid w/ sludge	+	+					top: non flammable → none sludge: non flammable → none			top: none sludge: grey solid	
A1 P4 #5	turbid liquid w/ silt	+										
A3 P1 #11	turbid liquid w/ silt	+										
A3 P1 #7	turbid liquid w/ dirt	+										
A3 P1 #16	turbid liquid w/ dirt	+										

Hazard Categorization
Results Sheet

Sample Description (ID, color, viscosity, turbidity)	Water (+/-) (slight, delayed, caustic)	Water Sol./React (soluble, floats, sinks, insol., reacts)	pH (0-14)	Oxidizer (+/- or rxn with acid)	Sulfide (+/-)	Cyanide (+/-)	Flammability (non flammable <100, 100-140, 140-200,>200)	Beilstein (color)	Iodine Saturation (color)	Char Test (char, no char, organic, inorganic)	Hazard Category or best guess
A3 P1 #7 turbid liquid											water
A3 P1 #15 slight turbid clear liquid											water
A3 P1 #11 light turbidity liquid, clear											water
A3 P1 #14 clear liquid little turbid											water
A3 P1 #16 clear liquid little turbid											

03/26/2009 (md)

Sample taken 03/26/2009

Hazard Categorization Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category
A1 P4 #37	clear water like liquid w/ little silt	+	Sol					non	none		none	water

03/24/09 (mb)

samples taken 03/23 and 03/24 (Battery)

Hazard Categorization Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category
Al 15 15	light turbid water like liquid 5mm silt on bottom	+	sol									
Al pH 35	high turbid water like liquid	+	sol									
Al pH 33	med turbid water like liquid	+	sol									
Al pH 22	milky top layer water like liquid 10mm silt bottom	+	sol									
Al pH 30	milky top layer water like liquid 13mm silt	+	sol									
Al pH 32	dark turbid water like liquid 4mm silt	+	sol									
Al pH 20	light turbid water like liquid	+	sol									
Battery I	clear water like liquid			2-3								
Battery II	clear water like liquid			5								
Battery III	clear water like liquid			5								

03/24/09 (md)
sampler taken from field on 03/24/09 ✓ ✓

Hazard Categorization Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	Iodine Saturation (color)	Char Test (char/ flam.vapors)	Conclusion or Hazard Category
Al p4 #17	high turbid water like liquid silt on bottom	(+)	sol									
Al p4 #16	high turbid water like liquid silt on bottom	(+)	sol									
Al p4 #21	med turbid water like liquid 3mm silt on bottom	(+)	sol									
Al p4 #23	med turbid water like liquid silt on bottom	(+)	sol									
Al p4 #24	med turbid water like liquid 3mm silt on bottom	(+)	sol									
Al p4 #26	med turbid water like liquid silt on bottom	(+)	sol									
Al p4 #27	med turbid water like liquid silt on bottom	(+)	sol									
Al p4 #28	high turbid water like liquid silt on bottom	(+)	sol									
Al p4 #29	high turbid water like liquid 2mm silt on bottom	(+)	sol									
Al p4 #36	high turbid water like liquid silt on bottom	(+)	sol									

03/24/2009

Hazard Categorization
Data Summary Sheet

Sample Number	Sample Description	Watesmo (+/-)	Water Solubility/ Reactivity (Sol./Insol./ Floater/Sinker)	pH	Oxidizer (+/-)	Sulfide (+/-)	Cyanide (+/-)	Flammability (<100/100-140/ 140-200/>200/ nonflammable)	Beilstein (color)	~~Iodine Saturation~~ IR (color)	Char Test (char/ flam.vapors)	~~Conclusion or Hazard Category~~ Raman
Al Pl #1	clear liquid	(+)	sol					non flammable	none		none	
Al Pl #2	light turbid liquid	(+)	sol					non flammable	none		none	
Al P4 #31	bilayer: top: wht liquid bottom: opaque grey liq	top (-) bottom (+)	insol (top) sol (bottom)					top: combustable bottom: non flammable	none	top (see back) bottom (H_2O)	top flam vapors only bottom char	
Al Pl #34	dark black liquid	(+)	sol					non flammable	none		light char	

D Analytical Results

Chemist Report
Residue Analysis

Date Received:	3/19/2009	Field Sample #:	011-2009-01	Lab#:	09-037-001
Date Reported:	3/24/2009	Sample Type:	Soil	Commodity:	Soil
Submitted By:	LEE BARIGAR	Comments:			
Date Collected:	3/18/2009				

RESULTS

Test: Phenoxy Acid Herbicide Screen Comments:

Compound	Result	MDL	LOQ	Units
Clopyralid	ND	0.01	0.03	ppm
Bromoxynil	ND	0.03	0.09	ppm
2,4-DB	ND	0.01	0.02	ppm
MCPP	ND	0.03	0.08	ppm
2,4-DP	ND	0.01	0.03	ppm
2,4-D	ND	0.01	0.03	ppm
Picloram	ND	0.03	0.09	ppm
Dicamba	ND	0.01	0.03	ppm
MCPA	ND	0.03	0.08	ppm
Triclopyr	ND	0.01	0.03	ppm
MCPB	ND	0.03	0.09	ppm
Silvex	ND	0.01	0.03	ppm
Dinoseb	ND	0.01	0.03	ppm
Acifluorfen	ND	0.01	0.03	ppm

Test: ENV 2009 Triazine Herbicides Screen Comments:

Compound	Result	MDL	LOQ	Units
Oryzalin	ND	0.021	0.063	ppm

Note: ND = None Detected
MDL = Minimum Detection Limit
ppm = Parts Per Million
ug = microgram
ug/ml = micrograms per millileter
ppb = Parts Per Billion
Q = Below Quantitation Limit

WSDA
Plant Protection
21 North 1st Avenue
Suite 106
Yakima, WA 98902
(509) 225-2626
Issuing Authority: Royal Schoen

M = Parts Per Million
LOQ = Limit of Quantitation

Chemist Report
Residue Analysis

Date Received:	3/19/2009	Field Sample #:	011-2009-02	Lab#:	09-037-002
Date Reported:	3/24/2009	Sample Type:	Soil	Commodity:	Soil
Submitted By:	LEE BARIGAR	Comments:			
Date Collected:	3/18/2009				

RESULTS

Test: Phenoxy Acid Herbicide Screen Comments:

Compound	Result	MDL	LOQ	Units
Clopyralid	ND	0.01	0.03	ppm
Bromoxynil	ND	0.03	0.09	ppm
2,4-DB	ND	0.01	0.02	ppm
MCPP	ND	0.03	0.08	ppm
2,4-DP	ND	0.01	0.03	ppm
2,4-D	ND	0.01	0.03	ppm
Picloram	ND	0.03	0.09	ppm
Dicamba	ND	0.01	0.03	ppm
MCPA	ND	0.03	0.08	ppm
Triclopyr	ND	0.01	0.03	ppm
MCPB	ND	0.03	0.09	ppm
Silvex	ND	0.01	0.03	ppm
Dinoseb	ND	0.01	0.03	ppm
Acifluorfen	ND	0.01	0.03	ppm

Test: ENV 2009 Triazine Herbicides Screen Comments:

Compound	Result	MDL	LOQ	Units
Oryzalin	ND	0.021	0.063	ppm

Note: ND = None Detected
MDL = Minimum Detection Limit
ppm = Parts Per Million
ug = microgram
ug/ml = micrograms per millileter
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Yakima, WA 98902
(509) 225-2626
Issuing Authority: Royal Schoen

M = Parts Per Million
LOQ = Limit of Quantitation

Chemist Report
Residue Analysis

Date Received:	3/19/2009	Field Sample #:	011-2009-03	Lab#:	09-037-003
Date Reported:	3/24/2009	Sample Type:	Soil	Commodity:	Soil
Submitted By:	LEE BARIGAR	Comments:			
Date Collected:	3/18/2009				

RESULTS

Test: Phenoxy Acid Herbicide Screen Comments:

Compound	Result	MDL	LOQ	Units
Clopyralid	ND	0.01	0.03	ppm
Bromoxynil	ND	0.03	0.09	ppm
2,4-DB	ND	0.01	0.02	ppm
MCPP	ND	0.03	0.08	ppm
2,4-DP	ND	0.01	0.03	ppm
2,4-D	ND	0.01	0.03	ppm
Picloram	ND	0.03	0.09	ppm
Dicamba	ND	0.01	0.03	ppm
MCPA	ND	0.03	0.08	ppm
Triclopyr	ND	0.01	0.03	ppm
MCPB	ND	0.03	0.09	ppm
Dinoseb	ND	0.01	0.03	ppm
Silvex	ND	0.01	0.03	ppm
Acifluorfen	ND	0.01	0.03	ppm

Test: ENV 2009 Triazine Herbicides Screen Comments:

Compound	Result	MDL	LOQ	Units
Oryzalin	ND	0.021	0.063	ppm

Note: ND = None Detected
MDL = Minimum Detection Limit
ppm = Parts Per Million
ug = microgram
ug/ml = micrograms per millileter
ppb = Parts Per Billion
Q = Below Quantitation Limit

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21 North 1st Avenue
Suite 106
Yakima, WA 98902
(509) 225-2626
Issuing Authority: Royal Schoen

M = Parts Per Million
LOQ = Limit of Quantitation

ecology and environment, inc.
International Specialists in the Environment
720 Third Avenue, Suite 1700, Seattle, WA 98104
Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE: April 13, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of eight liquid samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analysis for Chlorinated Herbicides (EPA Method 8151A) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered:

09030900	09030901	09030902	09030903	09030904
09030905	09030906	09030907		

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

Some samples were received slightly below the QC limits of 4°C (+ 2°C); no actions were taken based on these slight outliers. The samples were collected on March 19 or 20, 2009, extracted on March 21, 2009, and were analyzed by March 23, 2009, therefore meeting QC criteria of less than 7 days between collection and water sample extraction and less than 40 days between extraction and analysis.

2. **Instrument Performance: Acceptable.**

The surrogate retention time percent difference between the initial calibration standards and the remaining standards and samples was ≤ 0.3% for capillary column analyses.

3. **Initial and Continuing Calibration: Satisfactory.**

All initial calibration relative standard deviations (RSDs) were less than 15% or the correlation coefficient was > 0.99. All continuing calibration % differences (% D) were less than 15% and were within QC limits on at least one column except 2,4-DB with a high response in the March 21, 2009, continuing calibration at 2254; positive results associated with this outlier were qualified as estimated quantities (J).

4. **Error Determination: Not Provided.**

Samples necessary for bias and precision determination were not provided to the laboratory. All samples were flagged RND (Recovery Not Determined) and PND (Precision Not Determined), although the flags are not found on the Form I's.

5. Blanks: Acceptable.

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and for each concentration level, or every 20 samples, whichever is greater, and for each analytical system. No target analytes were detected in any blanks.

6. Performance Evaluation Samples: Not Provided.

Performance evaluation samples were not provided to the laboratory.

7. System Monitoring Compounds (SMCs): Acceptable.

All recoveries of the SMCs were within the established control limits.

8. Blank and Matrix Spikes: Acceptable.

Recoveries of all spiked analytes were within the appropriate control limits.

9. Duplicates: Acceptable.

Relative Percent Differences (RPDs) of all spiked analytes were within the required control limits.

10. Compound Identification: Satisfactory.

All results were dual-column confirmed with differences between the columns less than 25% except the positive results qualified by the laboaratory with a "P" qualifier. Positive sample results with percent differences between the columns greater than 25% were qualified as estimated quantities (J).

11. Target Compound Quantitation and Quantitation Limits: Acceptable, Satisfactory, or Not Acceptable.

Sample results and quantitation limits were correctly calculated.

12. Laboratory Contact

No laboratory contact was required.

13. Overall Assessment

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: March 23, 2009
Samples Submitted: March 20, 2009
Laboratory Reference: 0903-112
Project: Site #: 10HA

CHLORINATED ACID HERBICIDES by EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**09030900**					
Laboratory ID:	03-112-01					
Dalapon	**ND**	0.23	EPA 8151	3-21-09	3-22-09	
Dicamba	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
MCPP	**ND**	4.6	EPA 8151	3-21-09	3-22-09	
MCPA	**ND**	4.6	EPA 8151	3-21-09	3-22-09	
Dichlorprop	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4-D	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
Pentachlorophenol	**ND**	0.0094	EPA 8151	3-21-09	3-22-09	
2,4,5-TP (Silvex)	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4,5-T	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4-DB	**0.25**	0.023	EPA 8151	3-21-09	3-22-09	
Dinoseb	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*75*	*42-103*				
Client ID:	**09030901**					
Laboratory ID:	03-112-02					
Dalapon	**ND**	0.22	EPA 8151	3-21-09	3-22-09	
Dicamba	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
MCPP	**ND**	4.6	EPA 8151	3-21-09	3-22-09	
MCPA	**ND**	4.6	EPA 8151	3-21-09	3-22-09	
Dichlorprop	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4-D	**0.034**	0.023	EPA 8151	3-21-09	3-22-09	
Pentachlorophenol	**ND**	0.0093	EPA 8151	3-21-09	3-22-09	
2,4,5-TP (Silvex)	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4,5-T	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
2,4-DB	**0.17**	0.023	EPA 8151	3-21-09	3-22-09	
Dinoseb	**ND**	0.023	EPA 8151	3-21-09	3-22-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*81*	*42-103*				

MW 4-13-09

Date of Report: March 23, 2009
Samples Submitted: March 20, 2009
Laboratory Reference: 0903-112
Project: Site #: 10HA

CHLORINATED ACID HERBICIDES by EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**09030902**					
Laboratory ID:	03-112-03					
Dalapon	**ND**	0.22 U	EPA 8151	3-21-09	3-21-09	
Dicamba	**0.24** J	0.023	EPA 8151	3-21-09	3-21-09	PMV
MCPP	**ND**	4.5 U	EPA 8151	3-21-09	3-21-09	
MCPA	**ND**	4.5	EPA 8151	3-21-09	3-21-09	
Dichlorprop	**ND**	0.023	EPA 8151	3-21-09	3-21-09	
2,4-D	**3.6**	0.23	EPA 8151	3-21-09	3-22-09	
Pentachlorophenol	**0.044**	0.0092	EPA 8151	3-21-09	3-21-09	
2,4,5-TP (Silvex)	**ND**	0.023 U	EPA 8151	3-21-09	3-21-09	
2,4,5-T	**0.055** J	0.023	EPA 8151	3-21-09	3-21-09	PMV
2,4-DB	**ND**	0.23 U	EPA 8151	3-21-09	3-22-09	
Dinoseb	**ND**	0.023 U	EPA 8151	3-21-09	3-21-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*104*	*42-103*				
Client ID:	**09030903**					
Laboratory ID:	03-112-04					
Dalapon	**ND**	0.22 U	EPA 8151	3-21-09	3-21-09	
Dicamba	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
MCPP	**ND**	4.4	EPA 8151	3-21-09	3-21-09	
MCPA	**ND**	4.4	EPA 8151	3-21-09	3-21-09	
Dichlorprop	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
2,4-D	**0.039** J	0.022	EPA 8151	3-21-09	3-21-09	PMV
Pentachlorophenol	**ND**	0.0090 U	EPA 8151	3-21-09	3-21-09	
2,4,5-TP (Silvex)	**ND**	0.023	EPA 8151	3-21-09	3-21-09	
2,4,5-T	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
2,4-DB	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
Dinoseb	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*76*	*42-103*				

MW 4/3-09

Date of Report: March 23, 2009
Samples Submitted: March 20, 2009
Laboratory Reference: 0903-112
Project: Site #: 10HA

CHLORINATED ACID HERBICIDES by EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**09030904**					
Laboratory ID:	03-112-05					
Dalapon	**ND**	0.22	EPA 8151	3-21-09	3-21-09	
Dicamba	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
MCPP	**ND**	4.4	EPA 8151	3-21-09	3-21-09	
MCPA	**ND**	4.4	EPA 8151	3-21-09	3-21-09	
Dichlorprop	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
2,4-D	**0.036** J	0.022	EPA 8151	3-21-09	3-21-09	P/MW
Pentachlorophenol	**ND**	0.0090	EPA 8151	3-21-09	3-21-09	
2,4,5-TP (Silvex)	**ND**	0.023	EPA 8151	3-21-09	3-21-09	
2,4,5-T	**ND**	0.023	EPA 8151	3-21-09	3-21-09	
2,4-DB	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
Dinoseb	**ND**	0.022	EPA 8151	3-21-09	3-21-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*80*	*42-103*				

MW 4-13-09

Date of Report: March 23, 2009
Samples Submitted: March 20, 2009
Laboratory Reference: 0903-112
Project: Site #: 10HA

CHLORINATED ACID HERBICIDES by EPA 8151A

Matrix: Product
Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**09030905**					
Laboratory ID:	03-112-06					
Dalapon	**ND**	1600	EPA 8151	3-21-09	3-23-09	X
Dicamba	**ND**	670	EPA 8151	3-21-09	3-23-09	X
MCPP	**ND**	67000	EPA 8151	3-21-09	3-23-09	X
MCPA	**ND**	67000	EPA 8151	3-21-09	3-23-09	X
Dichlorprop	**ND**	680	EPA 8151	3-21-09	3-23-09	X
2,4-D	**ND**	670	EPA 8151	3-21-09	3-23-09	X
Pentachlorophenol	**ND**	68	EPA 8151	3-21-09	3-23-09	X
2,4,5-TP (Silvex)	**ND**	680	EPA 8151	3-21-09	3-23-09	X
2,4,5-T	**ND**	680	EPA 8151	3-21-09	3-23-09	X
2,4-DB	**ND**	680	EPA 8151	3-21-09	3-23-09	X
Dinoseb	**ND**	680	EPA 8151	3-21-09	3-23-09	X
Surrogate:	*Percent Recovery*	*Control Limits*				MW
DCAA	*79*	*75-125*				
Client ID:	**09030906**					
Laboratory ID:	03-112-07					
Dalapon	**ND**	2000	EPA 8151	3-21-09	3-23-09	X
Dicamba	**ND**	840	EPA 8151	3-21-09	3-23-09	X
MCPP	**ND**	83000	EPA 8151	3-21-09	3-23-09	X
MCPA	**ND**	83000	EPA 8151	3-21-09	3-23-09	X
Dichlorprop	**ND**	840	EPA 8151	3-21-09	3-23-09	X
2,4-D	**ND**	840	EPA 8151	3-21-09	3-23-09	X
Pentachlorophenol	**ND**	85	EPA 8151	3-21-09	3-23-09	X
2,4,5-TP (Silvex)	**ND**	850	EPA 8151	3-21-09	3-23-09	X
2,4,5-T	**ND**	850	EPA 8151	3-21-09	3-23-09	X
2,4-DB	**ND**	850	EPA 8151	3-21-09	3-23-09	X
Dinoseb	**ND**	840	EPA 8151	3-21-09	3-23-09	X
Surrogate:	*Percent Recovery*	*Control Limits*				MW
DCAA	*95*	*75-125*				

MW 4-13-09

Date of Report: March 23, 2009
Samples Submitted: March 20, 2009
Laboratory Reference: 0903-112
Project: Site #: 10HA

CHLORINATED ACID HERBICIDES by EPA 8151A

Matrix: Product
Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**09030907**					
Laboratory ID:	03-112-08					
Dalapon	**ND**	1900 U	EPA 8151	3-21-09	3-21-09	
Dicamba	**ND**	790	EPA 8151	3-21-09	3-21-09	
MCPP	**ND**	79000	EPA 8151	3-21-09	3-21-09	
MCPA	**ND**	79000	EPA 8151	3-21-09	3-21-09	
Dichlorprop	**ND**	800	EPA 8151	3-21-09	3-21-09	
2,4-D	**ND**	790	EPA 8151	3-21-09	3-21-09	
Pentachlorophenol	**ND**	80	EPA 8151	3-21-09	3-21-09	
2,4,5-TP (Silvex)	**ND**	800	EPA 8151	3-21-09	3-21-09	
2,4,5-T	**ND**	800	EPA 8151	3-21-09	3-21-09	
2,4-DB	**26000** J	800	EPA 8151	3-21-09	3-21-09	~~P~~ MW
Dinoseb	**ND**	800 U	EPA 8151	3-21-09	3-21-09	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*75*	*75-125*				

MW
4/3/09

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MEMORANDUM

DATE: May 28, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 15 samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analyses for MR Pesticides and Abamectin (EPA Methods 8081, 8141, 8270, and 8231), diquat and paraquat (EPA Method 549.1), and glyphosate (EPA Method 547) were performed by Pacific Agricultural Laboratory, Inc., Portland, Oregon.

The samples were numbered:

09030925	09030926	09030927	09030931	09030933
09030934	09030935	09030919	09030921	09030922
09030923	09030925	09030926	09030927	09030933
09030916	09030917			

Data Qualifications:

1. Sample Holding Times: Acceptable.

The samples were maintained at 4°C (± 2°C). The samples were collected on March 23 or 24, 2009, extracted on March 26 or 27, 2009, and were analyzed by March 27, 2009, for pesticides and herbicides, therefore meeting QC criteria of less than 7 days between collection and water sample extraction (14 days for soils and product) and less than 40 days between extraction and analysis.

2. Instrument Performance: Acceptable.

The surrogate retention time percent difference between the initial calibration standards and the remaining standards and samples was ≤ 0.3% for capillary column analyses.

3. Initial and Continuing Calibration: Satisfactory.

All applicable initial calibration results were within QC limits. All continuing calibration % differences (% D) were less than 15% and were within QC limits except fenamiphos, dimethoate, and disulfoton (all with high recoveries; no action was taken as there were no positive results for these analytes) and pirimicarb, dimethenamid, endrin aldehyde, 4,4'-DDT, metolachlor, flumioxazin, and carfentrazone-ethyl (all with low recoveries; qualified "J" or "UJ").

4. Error Determination: Not Provided.

Samples necessary for bias and precision determination were not provided to the laboratory. All samples were flagged RND (Recovery Not Determined) and PND (Precision Not Determined), although the flags are not found on the Form I's.

5. Blanks: Acceptable.

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and for each concentration level, or every 20 samples, whichever is greater, and for each analytical system. No target analytes were detected in any blanks.

6. Performance Evaluation Samples: Not Provided.

Performance evaluation samples were not provided to the laboratory.

7. System Monitoring Compounds (SMCs): Acceptable.

All recoveries of the SMCs were within the established control limits except one SMC in the method blank with a high recovery. No action was taken as there were no detections in the blank.

8. Blank Spikes: Acceptable.

Recoveries of all spiked analytes were within the appropriate control limits.

9. Duplicates: Acceptable.

Relative Percent Differences (RPDs) of all spiked analytes were within the required control limits.

10. Compound Identification: Acceptable.

All positive results that weren't second-column or mass spectrometer-confirmed are tentatively identified and are qualified with "JN" to indicate this.

11. Target Compound Quantitation and Quantitation Limits: Acceptable.

Sample results and quantitation limits were correctly calculated.

12. Laboratory Contact

No laboratory contact was required.

13. Overall Assessment

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification".

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because

quality control criteria were not met.

Pacific Agricultural Laboratory
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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 1OHA

Analytical Report

Client Sample ID: 09030925
Matrix: liquid
PAL Sample ID: P090147-05
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8321B (HPLC-MS)					
3/26/09	3/26/09	Abamectin	23 mg/kg	4.8 mg/kg	

Client Sample ID: 09030926
Matrix: liquid
PAL Sample ID: P090147-06
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8321B (HPLC-MS)					
3/26/09	3/26/09	Abamectin	24 mg/kg	5.0 mg/kg	

Client Sample ID: 09030927
Matrix: liquid
PAL Sample ID: P090147-07
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8321B (HPLC-MS)					
3/26/09	3/26/09	Abamectin	79 mg/kg	5.0 mg/kg	

Client Sample ID: 09030931
Matrix: water
PAL Sample ID: P090147-08
Sample Date: 3/24/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 549.1 (HPLC-UV)					
3/27/09	3/27/09	Diquat	Not Detected	0.50 mg/kg	U
3/27/09	3/27/09	Paraquat	Not Detected	0.50 mg/kg	U

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Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 1OHA

Analytical Report

Client Sample ID: 09030933
Matrix: liquid

PAL Sample ID: P090147-09
Sample Date: 3/24/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Mod. EPA 547 (HPLC-FLD)					
3/26/09	3/26/09	Glyphosate	64 mg/L	5.0 mg/L	

Client Sample ID: 09030934
Matrix: water

PAL Sample ID: P090147-10
Sample Date: 3/24/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 549.1 (HPLC-UV)					
3/27/09	3/27/09	Diquat	Not Detected	0.50 mg/kg	U
3/27/09	3/27/09	Paraquat	Not Detected	0.50 mg/kg	U

Client Sample ID: 09030935
Matrix: water

PAL Sample ID: P090147-11
Sample Date: 3/24/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 549.1 (HPLC-UV)					
3/27/09	3/27/09	Diquat	Not Detected	0.50 mg/kg	U
3/27/09	3/27/09	Paraquat	Not Detected	0.50 mg/kg	U

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Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 1OHA

Analytical Report

Client Sample ID: 09030919
Matrix: liquid

PAL Sample ID: P090147-01
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/26/09	Pendimethalin	1000 mg/kg JW	250 mg/kg	
3/26/09	3/27/09	Other Pesticides	Not Detected	See Analyte List (Last 3 pages of this memo)	

Surrogate Recovery: 120 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

Client Sample ID: 09030921
Matrix: liquid

PAL Sample ID: P090147-02
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amonnt Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/26/09	Pendimethalin	10000 mg/kg JW	2500 mg/kg	
3/26/09	3/27/09	Other Pesticides	Not Detected	See Analyte List (Last 3 pages of this memo)	

Surrogate Recovery: 120 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

Client Sample ID: 09030922
Matrix: liquid

PAL Sample ID: P090147-03
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	MR Pesticides	Not Detected	See Analyte List (Last 3 pages of this memo)	

Surrogate Recovery: 78 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

JW 5/28/09

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Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030923
Matrix: liquid

PAL Sample ID: P090147-04
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	Carbaryl	13000 mg/kg W	2000 mg/kg	
3/26/09	3/27/09	Other Pesticides	Not Detected	See Analyte List (last 3 pages of this Memo)	

Surrogate Recovery: 117 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

Client Sample ID: 09030925
Matrix: liquid

PAL Sample ID: P090147-05
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	MR Pesticides	Not Detected	See Analyte List (last 3 pages of this Memo)	

Surrogate Recovery: 78 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

Client Sample ID: 09030926
Matrix: liquid

PAL Sample ID: P090147-06
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	MR Pesticides	Not Detected	See Analyte List (last 3 pages of this Memo)	

Surrogate Recovery: 79 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

MW 5-20-9

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Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 1OHA

Analytical Report

Client Sample ID: 09030927
Matrix: liquid

PAL Sample ID: P090147-07
Sample Date: 3/23/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	MR Pesticides	Not Detected	See Analyte List	

Surrogate Recovery: 81 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

(Last 3 pages of this memo)

Client Sample ID: 09030933
Matrix: liquid

PAL Sample ID: P090147-09
Sample Date: 3/24/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
3/26/09	3/27/09	MR Pesticides	Not Detected	See Analyte List	

Surrogate Recovery: 81 %
Surrogate Recovery Range: 55-132
(DCBP used as Surrogate)

(Last 3 pages of this memo)

MW
5-28-09

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Report Number: P090147
Report Date: March 30, 2009
Client Project ID: 1OHA

Multiresidue Analyte List

Organophosphorous and Organosulfur Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Aspon	25 mg/kg	Azinphos-methyl	25 mg/kg
Carbofenothion	25 mg/kg	Chlorfenvinphos	25 mg/kg
Chlorpyrifos-methyl	25 mg/kg	Coumaphos	25 mg/kg
Demeton	25 mg/kg	Diazinon	25 mg/kg
Dichlorofenthion	25 mg/kg	Dichlorvos	25 mg/kg
Dicrotophos	25 mg/kg	Dimethoate	25 mg/kg
Disulfoton	25 mg/kg	EPN	25 mg/kg
Ethion	25 mg/kg	Ethoprop	25 mg/kg
Famphur	25 mg/kg	Fenamiphos	25 mg/kg
Fenitrothion	25 mg/kg	Fensulfothion	25 mg/kg
Fenthion	25 mg/kg	Malathion	25 mg/kg
Merphos	25 mg/kg	Methidathion	25 mg/kg
Mevinphos	25 mg/kg	Monocrotophos	25 mg/kg
Parathion	25 mg/kg	Parathion methyl	25 mg/kg
Phorate	25 mg/kg	Phosmet	25 mg/kg
Phosphamidon	25 mg/kg	Pirimiphos-methyl	25 mg/kg
Ronnel	25 mg/kg	Sulprofos	25 mg/kg
Terbufos	25 mg/kg	Tetrachlorvinphos	25 mg/kg
Tokuthion	25 mg/kg	Trichloronate	25 mg/kg
Chlorpyrifos	25 mg/kg	Propargite	10 mg/kg

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Halogenated Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
a-BHC	25 mg/kg	Acetochlor	25 mg/kg
Alachlor	25 mg/kg	Aldrin	25 mg/kg
b-BHC	25 mg/kg	Benfluralin	25 mg/kg
Bifenthrin	25 mg/kg	Captafol	25 mg/kg
Captan	25 mg/kg	Chlordane	50 mg/kg
Chlorobenzilate	25 mg/kg	Chloroneb	25 mg/kg
Chlorothalonil	25 mg/kg	Cyfluthrin	50 mg/kg
Cyhalothrin	50 mg/kg	Cypermethrin	100 mg/kg
Dacthal	25 mg/kg	d-BHC	25 mg/kg
Deltamethrin	100 mg/kg	Dichlobenil	25 mg/kg
Dicloran	25 mg/kg	Dicofol	25 mg/kg
Dieldrin	25 mg/kg	Dithiopyr	25 mg/kg
Endosulfan I	25 mg/kg	Endosulfan II	25 mg/kg
Endosulfan sulfate	25 mg/kg	Endrin	25 mg/kg
Endrin aldehyde	25 mg/kg	Endrin ketone	25 mg/kg
Esfenvalerate	25 mg/kg	Ethalfluralin	25 mg/kg
Etridiazole	25 mg/kg	Fenarimol	25 mg/kg
Fenvalerate	25 mg/kg	Flutolanil	100 mg/kg
Folpet	25 mg/kg	g-BHC	25 mg/kg
Heptachlor	25 mg/kg	Heptachlor epoxide	25 mg/kg
Hexachlorobenzene	25 mg/kg	Iprodione	25 mg/kg
Methoxychlor	25 mg/kg	Metolachlor	25 mg/kg
Mirex	25 mg/kg	Norflurazon	25 mg/kg
Ovex	25 mg/kg	Oxadiazon	25 mg/kg
Oxyfluorfen	25 mg/kg	p,p'-DDD	25 mg/kg
p,p'-DDE	25 mg/kg	p,p'-DDT	25 mg/kg
PCNB	25 mg/kg	Permethrin	100 mg/kg
Prodiamine	25 mg/kg	Pronamide	25 mg/kg
Propachlor	25 mg/kg	Propanil	25 mg/kg
Propiconazole	25 mg/kg	Terbacil	25 mg/kg
Toxaphene	500 mg/kg	Trifloxystrobin	25 mg/kg
Triflumizole	25 mg/kg	Trifluralin	25 mg/kg
Vinclozalin	25 mg/kg		

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Report Date: March 30, 2009
Client Project ID: 1OHA

Organonitrogen Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Ametryn	5.0 mg/kg	Amitraz	10 mg/kg
Atrazine	5.0 mg/kg	Azoxystrobin	5.0 mg/kg
Bensulide	5.0 mg/kg	Boscalid	5.0 mg/kg
Bromacil	5.0 mg/kg	Bromopropylate	10 mg/kg
Carfentrazone-ethyl	5.0 mg/kg	Clothianidin	5.0 mg/kg
Cyanazine	10 mg/kg	Diclofop-methyl	10 mg/kg
Dimethenamid	5.0 mg/kg	Diphenylamine	5.0 mg/kg
Ethofumesate	5.0 mg/kg	Fenbuconazole	10 mg/kg
Fenoxaprop-ethyl	10 mg/kg	Fipronil	10 mg/kg
Fluazifop-p-butyl	10 mg/kg	Fludioxonil	10 mg/kg
Flumioxazin	5.0 mg/kg	Fluometuron	5.0 mg/kg
Fluroxypyr-meptyl	5.0 mg/kg	Hexazinone	5.0 mg/kg
Imidacloprid	5.0 mg/kg	Isoxaben	5.0 mg/kg
Mefenoxam	5.0 mg/kg	Metalaxyl	5.0 mg/kg
Metribuzin	10 mg/kg	Myclobutanil	10 mg/kg
Napropamide	10 mg/kg	Oryzalin	5.0 mg/kg
Pendimethalin	250 mg/kg	Pirimicarb	5.0 mg/kg
Prometon	10 mg/kg	Prometryn	5.0 mg/kg
Propazine	5.0 mg/kg	Pyraclostrobin	5.0 mg/kg
Pyridaben	10 mg/kg	Pyrimethanil	5.0 mg/kg
Sethoxydim	5.0 mg/kg	Simazine	10 mg/kg
Simetryn	5.0 mg/kg	Sulfentrazone	5.0 mg/kg
Tebuconazole	10 mg/kg	Tebuthiuron	10 mg/kg
Thiabendazole	5.0 mg/kg	Triadimefon	10 mg/kg

Phenylurea Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Chlorpropham	5.0 mg/kg	DCPMU	5.0 mg/kg
Diuron	5.0 mg/kg	Fenuron	5.0 mg/kg
Linuron	5.0 mg/kg	Monuron	5.0 mg/kg
Neburon	5.0 mg/kg	Propham	5.0 mg/kg
Siduron	5.0 mg/kg		

Carbamate Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
3-Hydroxycarbofuran	5.0 mg/kg	Aldicarb	5.0 mg/kg
Aldicarb Sulfone	5.0 mg/kg	Aldicarb sulfoxide	5.0 mg/kg
Bendiocarb	5.0 mg/kg	Carbaryl	5.0 mg/kg
Carbofuran	5.0 mg/kg	Fenobucarb	5.0 mg/kg
Methiocarb	5.0 mg/kg	Methomyl	5.0 mg/kg
Oxamyl	5.0 mg/kg	Propoxur	5.0 mg/kg
Thiobencarb	5.0 mg/kg		

Steve Thun, Laboratory Director

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Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE: May 28, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 23 samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analyses for disulfoton and dimethoate (EPA Method 8141), carbaryl (EPA Method 8321), multi residue profile (various EPA methods), and AMPA and glyphosate (Monsanto Method) were performed by Pacific Agricultural Laboratory, Inc., Portland, Oregon.

The samples were numbered:

09030938	09030939	09030940	09030941	09030806
09030807	09030808	09030809	09030810	09030811
09030812	09030813	09030814	09030815	09030816
09030817	09030818	09030819	09030820	09030938
09030939	09030940	09030941		

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

The samples were maintained at 4°C (± 2°C). The samples were collected on March 25 or 26, 2009, extracted by April 9, 2009, and were analyzed by April 24, 2009, therefore meeting QC criteria of less than 7 days between collection and water sample extraction (14 days for soils) and less than 40 days between extraction and analysis.

2. **Instrument Performance: Acceptable.**

The surrogate retention time percent difference between the calibration standards and the remaining standards and samples was ≤ 0.3% for capillary column analyses.

3. **Initial and Continuing Calibration: Satisfactory.**

All calibration results were within QC limits except disulfoton with several low recoveries; associated results were qualified as estimated quantities (J or UJ).

4. **Error Determination: Not Provided.**

Samples necessary for bias and precision determination were not provided to the laboratory. All

samples were flagged RND (Recovery Not Determined) and PND (Precision Not Determined), although the flags are not found on the Form I's.

5. Blanks: Acceptable.

A method blank was prepared at the required frequency of every time samples were extracted for each matrix and for each concentration level, or every 20 samples, whichever is greater, and for each analytical system. No target analytes were detected in any blanks.

6. Performance Evaluation Samples: Not Provided.

Performance evaluation samples were not provided to the laboratory.

7. System Monitoring Compounds (SMCs): Satisfactory.

All recoveries of the SMCs were within the established control limits except high MR pesticide recoveries; associated positive results were qualified as estimated quantities (J).

8. Matrix and Blank Spikes: Satisfactory.

Recoveries of all spiked analytes were within the appropriate control limits except the batch matrix spike results for glyphosate in the water samples, the low carbofuran and diuron recoveries in the water samples (results associated with the low recovery outliers were qualified as estimated quantities [J or UJ]), and the high coumaphos, endrin, ethofumesate, and ethoprop results (positive results associated with the high recovery outliers were qualified as estimated quantities [J].

9. Duplicates: Acceptable.

Relative Percent Differences (RPDs) of all spiked analytes were within the required control limits.

10. Compound Identification: Satisfactory.

All positive results that weren't second-column or mass spectrometer-confirmed are tentatively identified and are qualified with "JN" to indicate this.

11. Target Compound Quantitation and Quantitation Limits: Acceptable.

Sample results and quantitation limits were correctly calculated.

12. Laboratory Contact

No laboratory contact was required.

13. Overall Assessment

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification".

R - The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Pacific Agricultural Laboratory — 12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030938
Matrix: water
PAL Sample ID: P090151-16
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 547 (HPLC-FLD)					
4/02/09	4/2/09	AMPA	Not Detected	50 ug/L	U
4/02/09	4/2/09	Glyphosate	4700 ug/L	50 ug/L	JN
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/1/09	Abamectin	Not Detected	50 ug/L	U

Client Sample ID: 09030939
Matrix: water
PAL Sample ID: P090151-17
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 547 (HPLC-FLD)					
4/02/09	4/2/09	AMPA	Not Detected	50 ug/L	U
4/02/09	4/2/09	Glyphosate	1800 ug/L	50 ug/L	JN
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/1/09	Abamectin	Not Detected	50 ug/L	U

Client Sample ID: 09030940
Matrix: water
PAL Sample ID: P090151-18
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 547 (HPLC-FLD)					
4/02/09	4/2/09	AMPA	Not Detected	50 ug/L	U
4/02/09	4/2/09	Glyphosate	Not Detected	50 ug/L	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/1/09	Abamectin	Not Detected	50 ug/L	U

Steve Thun, Laboratory Director

MW 5-28-09

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030941
Matrix: water

PAL Sample ID: P090151-19
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: EPA 547 (HPLC-FLD)					
4/02/09	4/2/09	AMPA	Not Detected	50 ug/L U	
4/02/09	4/2/09	Glyphosate	390 ug/L JN	50 ug/L	
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/1/09	Abamectin	Not Detected	50 ug/L U	

Steve Thun, Laboratory Director

MW 4/8/09

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030938
Matrix: water

PAL Sample ID: P090151-16
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
4/01/09	4/2/09	Dichlobenil	7.5 ug/L	1.2 ug/L	
4/01/09	4/6/09	Dimethoate	20000 ug/L	6000 ug/L	
4/01/09	4/3/09	Carbaryl	1.5 ug/L	0.12 ug/L	
4/01/09	4/6/09	Other Pesticides	Not Detected	See Analyte List	

Surrogate Recovery: 165 % S1
Surrogate Recovery Range: 37-151
(DCBP used as Surrogate)

Steve Thun, Laboratory Director

MW 5-28-09

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Multiresidue Analyte List

Organophosphorous and Organosulfur Pesticides

Analyte	Reporting Limit
Aspon	60 ug/L
Carbofenothion	60 ug/L
Chlorpyrifos-methyl	60 ug/L
Demeton	60 ug/L
Dichlorofenthion	60 ug/L
Dicrotophos	60 ug/L
Disulfoton	60 ug/L
Ethion	60 ug/L
Famphur	60 ug/L
Fenitrothion	60 ug/L
Fenthion	60 ug/L
Merphos	60 ug/L
Mevinphos	60 ug/L
Parathion	60 ug/L
Phorate	60 ug/L
Phosphamidon	60 ug/L
Ronnel	60 ug/L
Terbufos	60 ug/L
Tokuthion	60 ug/L
Chlorpyrifos	3.0 ug/L

Analyte	Reporting Limit
Azinphos-methyl	60 ug/L
Chlorfenvinphos	60 ug/L
Coumaphos	60 ug/L
Diazinon	60 ug/L
Dichlorvos	60 ug/L
Dimethoate	6000 ug/L
EPN	60 ug/L
Ethoprop	60 ug/L
Fenamiphos	60 ug/L
Fensulfothion	60 ug/L
Malathion	60 ug/L
Methidathion	60 ug/L
Monocrotophos	60 ug/L
Parathion methyl	60 ug/L
Phosmet	60 ug/L
Pirimiphos-methyl	60 ug/L
Sulprofos	60 ug/L
Tetrachlorvinphos	60 ug/L
Trichloronate	60 ug/L
Propargite	0.60 ug/L

Steve Thun, Laboratory Director

MW 5-26-09

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Halogenated Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Acetochlor	3.0 ug/L	Alachlor	3.0 ug/L
Aldrin	1.2 ug/L	Benfluralin	1.2 ug/L
Bifenthrin	1.2 ug/L	a-BHC	1.2 ug/L
b-BHC	1.2 ug/L	d-BHC	1.2 ug/L
g-BHC	1.2 ug/L	Captafol	1.2 ug/L
Captan	3.0 ug/L	Chlordane	6.0 ug/L
Chlorobenzilate	3.0 ug/L	Chloroneb	3.0 ug/L
Chlorothalonil	1.2 ug/L	Cyfluthrin	6.0 ug/L
Cyhalothrin	6.0 ug/L	Cypermethrin	12 ug/L
p,p'-DDD	1.2 ug/L	p,p'-DDE	1.2 ug/L
p,p'-DDT	1.2 ug/L	Dacthal	1.2 ug/L
Deltamethrin	12 ug/L	Dichlobenil	1.2 ug/L
Dicloran	1.2 ug/L	Dicofol	3.0 ug/L
Dieldrin	1.2 ug/L	Dithiopyr	1.2 ug/L
Endosulfan I	1.2 ug/L	Endosulfan II	1.2 ug/L
Endosulfan sulfate	1.2 ug/L	Endrin	1.2 ug/L
Endrin aldehyde	1.2 ug/L	Endrin ketone	1.2 ug/L
Esfenvalerate	1.2 ug/L	Ethalfluralin	1.2 ug/L
Etridiazole	1.2 ug/L	Fenarimol	1.2 ug/L
Fenvalerate	1.2 ug/L	Flutolanil	12 ug/L
Folpet	1.2 ug/L	Heptachlor	1.2 ug/L
Heptachlor epoxide	1.2 ug/L	Hexachlorobenzene	1.2 ug/L
Iprodione	1.2 ug/L	Methoxychlor	1.2 ug/L
Metolachlor	3.0 ug/L	Mirex	1.2 ug/L
Norflurazon	1.2 ug/L	Ovex	1.2 ug/L
Oxadiazon	1.2 ug/L	Oxyfluorfen	1.2 ug/L
PCNB	1.2 ug/L	Permethrin	12 ug/L
Prodiamine	1.2 ug/L	Pronamide	1.2 ug/L
Propachlor	3.0 ug/L	Propanil	1.2 ug/L
Propiconazole	3.0 ug/L	Terbacil	1.2 ug/L
Toxaphene	60 ug/L	Trifloxystrobin	1.2 ug/L
Triflumizole	1.2 ug/L	Trifluralin	1.2 ug/L
Vinclozalin	1.2 ug/L		

Steve Thun, Laboratory Director

MW 5-8-09

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Organonitrogen Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Ametryn	0.30 ug/L	Amitraz	0.60 ug/L
Atrazine	0.30 ug/L	Azoxystrobin	0.12 ug/L
Bensulide	0.30 ug/L	Boscalid	0.30 ug/L
Bromacil	0.30 ug/L	Bromopropylate	0.60 ug/L
Carfentrazone-ethyl	0.30 ug/L	Clothianidin	0.30 ug/L
Cyanazine	0.60 ug/L	Diclofop-methyl	0.60 ug/L
Dimethenamid	0.30 ug/L	Diphenylamine	0.30 ug/L
Ethofumesate	0.30 ug/L	Fenbuconazole	0.60 ug/L
Fenoxaprop-ethyl	0.60 ug/L	Fipronil	0.60 ug/L
Fluazifop-p-butyl	0.60 ug/L	Fludioxonil	0.60 ug/L
Flumioxazin	0.30 ug/L	Fluometuron	0.12 ug/L
Fluroxypyr-meptyl	0.30 ug/L	Hexazinone	0.30 ug/L
Imidacloprid	0.30 ug/L	Isoxaben	0.12 ug/L
Mefenoxam	0.30 ug/L	Metalaxyl	0.30 ug/L
Metribuzin	0.60 ug/L	Myclobutanil	0.60 ug/L
Oryzalin	0.30 ug/L	Pendimethalin	1.2 ug/L
Pirimicarb	0.30 ug/L	Prometon	0.60 ug/L
Prometryn	0.30 ug/L	Propazine	0.30 ug/L
Pyraclostrobin	0.12 ug/L	Pyridaben	0.60 ug/L
Pyrimethanil	0.12 ug/L	Sethoxydim	6.0 ug/L
Simazine	0.60 ug/L	Simetryn	0.30 ug/L
Sulfentrazone	0.30 ug/L	Tebuconazole	0.60 ug/L
Tebuthiuron	0.60 ug/L	Thiabendazole	0.12 ug/L
Triadimefon	0.60 ug/L		

Phenylurea Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Chlorpropham	0.30 ug/L	DCPMU	0.12 ug/L
Diuron	0.12 ug/L	Fenuron	0.12 ug/L
Linuron	0.30 ug/L	Monuron	0.12 ug/L
Neburon	0.12 ug/L	Propham	0.30 ug/L
Siduron	0.12 ug/L		

Carbamate Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
3-Hydroxycarbofuran	0.12 ug/L	Aldicarb	0.12 ug/L
Aldicarb Sulfone	0.12 ug/L	Aldicarb sulfoxide	0.12 ug/L
Bendiocarb	0.12 ug/L	Carbaryl	0.12 ug/L
Carbofuran	0.12 ug/L	Fenobucarb	0.12 ug/L
Methiocarb	0.12 ug/L	Methomyl	0.12 ug/L
Oxamyl	0.12 ug/L	Propoxur	0.12 ug/L
Thiobencarb	0.30 ug/L		

Steve Thun, Laboratory Director

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OnSite Environmental, Inc.
14648 NE 95th Street
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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030939
Matrix: water

PAL Sample ID: P090151-17
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
4/01/09	4/2/09	Dichlobenil	31 ug/L	1.2 ug/L	
4/01/09	4/6/09	Dimethoate	20000 ug/L	6000 ug/L	
4/01/09	4/3/09	Carbaryl	0.84 ug/L	0.12 ug/L	
4/01/09	4/6/09	Other Pesticides	Not Detected	See Analyte List	

Surrogate Recovery: 170 % S1
Surrogate Recovery Range: 37-151
(DCBP used as Surrogate)

Steve Thun, Laboratory Director

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Multiresidue Analyte List

Organophosphorous and Organosulfur Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Aspon	60 ug/L	Azinphos-methyl	60 ug/L
Carbofenothion	60 ug/L	Chlorfenvinphos	60 ug/L
Chlorpyrifos-methyl	60 ug/L	Coumaphos	60 ug/L
Demeton	60 ug/L	Diazinon	60 ug/L
Dichlorofenthion	60 ug/L	Dichlorvos	60 ug/L
Dicrotophos	60 ug/L	Dimethoate	6000 ug/L
Disulfoton	60 ug/L	EPN	60 ug/L
Ethion	60 ug/L	Ethoprop	60 ug/L
Famphur	60 ug/L	Fenamiphos	60 ug/L
Fenitrothion	60 ug/L	Fensulfothion	60 ug/L
Fenthion	60 ug/L	Malathion	60 ug/L
Merphos	60 ug/L	Methidathion	60 ug/L
Mevinphos	60 ug/L	Monocrotophos	60 ug/L
Parathion	60 ug/L	Parathion methyl	60 ug/L
Phorate	60 ug/L	Phosmet	60 ug/L
Phosphamidon	60 ug/L	Pirimiphos-methyl	60 ug/L
Ronnel	60 ug/L	Sulprofos	60 ug/L
Terbufos	60 ug/L	Tetrachlorvinphos	60 ug/L
Tokuthion	60 ug/L	Trichloronate	60 ug/L
Chlorpyrifos	3.0 ug/L	Propargite	0.60 ug/L

Steve Thun, Laboratory Director

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OnSite Environmental, Inc.
14648 NE 95th Street
Redmond, WA 98052

Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Halogenated Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Acetochlor	3.0 ug/L	Alachlor	3.0 ug/L
Aldrin	1.2 ug/L	Benfluralin	1.2 ug/L
Bifenthrin	1.2 ug/L	a-BHC	1.2 ug/L
b-BHC	1.2 ug/L	d-BHC	1.2 ug/L
g-BHC	1.2 ug/L	Captafol	1.2 ug/L
Captan	3.0 ug/L	Chlordane	6.0 ug/L
Chlorobenzilate	3.0 ug/L	Chloroneb	3.0 ug/L
Chlorothalonil	1.2 ug/L	Cyfluthrin	6.0 ug/L
Cyhalothrin	6.0 ug/L	Cypermethrin	12 ug/L
p,p'-DDD	1.2 ug/L	p,p'-DDE	1.2 ug/L
p,p'-DDT	1.2 ug/L	Dacthal	1.2 ug/L
Deltamethrin	12 ug/L	Dichlobenil	1.2 ug/L
Dicloran	1.2 ug/L	Dicofol	3.0 ug/L
Dieldrin	1.2 ug/L	Dithiopyr	1.2 ug/L
Endosulfan I	1.2 ug/L	Endosulfan II	1.2 ug/L
Endosulfan sulfate	1.2 ug/L	Endrin	1.2 ug/L
Endrin aldehyde	1.2 ug/L	Endrin ketone	1.2 ug/L
Esfenvalerate	1.2 ug/L	Ethalfluralin	1.2 ug/L
Etridiazole	1.2 ug/L	Fenarimol	1.2 ug/L
Fenvalerate	1.2 ug/L	Flutolanil	12 ug/L
Folpet	1.2 ug/L	Heptachlor	1.2 ug/L
Heptachlor epoxide	1.2 ug/L	Hexachlorobenzene	1.2 ug/L
Iprodione	1.2 ug/L	Methoxychlor	1.2 ug/L
Metolachlor	3.0 ug/L	Mirex	1.2 ug/L
Norflurazon	1.2 ug/L	Ovex	1.2 ug/L
Oxadiazon	1.2 ug/L	Oxyfluorfen	1.2 ug/L
PCNB	1.2 ug/L	Permethrin	12 ug/L
Prodiamine	1.2 ug/L	Pronamide	1.2 ug/L
Propachlor	3.0 ug/L	Propanil	1.2 ug/L
Propiconazole	3.0 ug/L	Terbacil	1.2 ug/L
Toxaphene	60 ug/L	Trifloxystrobin	1.2 ug/L
Triflumizole	1.2 ug/L	Trifluralin	1.2 ug/L
Vinclozalin	1.2 ug/L		

Steve Thun, Laboratory Director

MW 5-8-09

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OnSite Environmental, Inc.
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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Organonitrogen Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Ametryn	0.30 ug/L	Amitraz	0.60 ug/L
Atrazine	0.30 ug/L	Azoxystrobin	0.12 ug/L
Bensulide	0.30 ug/L	Boscalid	0.30 ug/L
Bromacil	0.30 ug/L	Bromopropylate	0.60 ug/L
Carfentrazone-ethyl	0.30 ug/L	Clothianidin	0.30 ug/L
Cyanazine	0.60 ug/L	Diclofop-methyl	0.60 ug/L
Dimethenamid	0.30 ug/L	Diphenylamine	0.30 ug/L
Ethofumesate	0.30 ug/L	Fenbuconazole	0.60 ug/L
Fenoxaprop-ethyl	0.60 ug/L	Fipronil	0.60 ug/L
Fluazifop-p-butyl	0.60 ug/L	Fludioxonil	0.60 ug/L
Flumioxazin	0.30 ug/L	Fluometuron	0.12 ug/L
Fluroxypyr-meptyl	0.30 ug/L	Hexazinone	0.30 ug/L
Imidacloprid	0.30 ug/L	Isoxaben	0.12 ug/L
Mefenoxam	0.30 ug/L	Metalaxyl	0.30 ug/L
Metribuzin	0.60 ug/L	Myclobutanil	0.60 ug/L
Oryzalin	0.30 ug/L	Pendimethalin	1.2 ug/L
Pirimicarb	0.30 ug/L	Prometon	0.60 ug/L
Prometryn	0.30 ug/L	Propazine	0.30 ug/L
Pyraclostrobin	0.12 ug/L	Pyridaben	0.60 ug/L
Pyrimethanil	0.12 ug/L	Sethoxydim	6.0 ug/L
Simazine	0.60 ug/L	Simetryn	0.30 ug/L
Sulfentrazone	0.30 ug/L	Tebuconazole	0.60 ug/L
Tebuthiuron	0.60 ug/L	Thiabendazole	0.12 ug/L
Triadimefon	0.60 ug/L		

Phenylurea Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Chlorpropham	0.30 ug/L	DCPMU	0.12 ug/L
Diuron	0.12 ug/L	Fenuron	0.12 ug/L
Linuron	0.30 ug/L	Monuron	0.12 ug/L
Neburon	0.12 ug/L	Propham	0.30 ug/L
Siduron	0.12 ug/L		

Carbamate Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
3-Hydroxycarbofuran	0.12 ug/L	Aldicarb	0.12 ug/L
Aldicarb Sulfone	0.12 ug/L	Aldicarb sulfoxide	0.12 ug/L
Bendiocarb	0.12 ug/L	Carbaryl	0.12 ug/L
Carbofuran	0.12 ug/L	Fenobucarb	0.12 ug/L
Methiocarb	0.12 ug/L	Methomyl	0.12 ug/L
Oxamyl	0.12 ug/L	Propoxur	0.12 ug/L
Thiobencarb	0.30 ug/L		

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030940
Matrix: water

PAL Sample ID: P090151-18
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
4/01/09	4/3/09	Carbaryl	5100 ug/L	480 ug/L	
4/01/09	4/2/09	Disulfoton	0.79 ug/L	0.60 ug/L	
4/01/09	4/3/09	Other Pesticides	Not Detected	See Analyte List	
Surrogate Recovery: 170 %					S1
Surrogate Recovery Range: 37-151					
(DCBP used as Surrogate)					

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5-8-09

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Multiresidue Analyte List

Organophosphorous and Organosulfur Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Aspon	0.60 ug/L	Azinphos-methyl	0.60 ug/L
Carbofenothion	0.60 ug/L	Chlorfenvinphos	0.60 ug/L
Chlorpyrifos-methyl	0.60 ug/L	Coumaphos	0.60 ug/L
Demeton	0.60 ug/L	Diazinon	0.60 ug/L
Dichlorofenthion	0.60 ug/L	Dichlorvos	0.60 ug/L
Dicrotophos	0.60 ug/L	Dimethoate	0.60 ug/L
Disulfoton	0.60 ug/L	EPN	0.60 ug/L
Ethion	0.60 ug/L	Ethoprop	0.60 ug/L
Famphur	0.60 ug/L	Fenamiphos	0.60 ug/L
Fenitrothion	0.60 ug/L	Fensulfothion	0.60 ug/L
Fenthion	0.60 ug/L	Malathion	0.60 ug/L
Merphos	0.60 ug/L	Methidathion	0.60 ug/L
Mevinphos	0.60 ug/L	Monocrotophos	0.60 ug/L
Parathion	0.60 ug/L	Parathion methyl	0.60 ug/L
Phorate	0.60 ug/L	Phosmet	0.60 ug/L
Phosphamidon	0.60 ug/L	Pirimiphos-methyl	0.60 ug/L
Ronnel	0.60 ug/L	Sulprofos	0.60 ug/L
Terbufos	0.60 ug/L	Tetrachlorvinphos	0.60 ug/L
Tokuthion	0.60 ug/L	Trichloronate	0.60 ug/L
Chlorpyrifos	3.0 ug/L	Propargite	0.60 ug/L

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Organonitrogen Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Ametryn	0.30 ug/L	Amitraz	0.60 ug/L
Atrazine	0.30 ug/L	Azoxystrobin	0.12 ug/L
Bensulide	0.30 ug/L	Boscalid	0.30 ug/L
Bromacil	0.30 ug/L	Bromopropylate	0.60 ug/L
Carfentrazone-ethyl	0.30 ug/L	Clothianidin	0.30 ug/L
Cyanazine	0.60 ug/L	Diclofop-methyl	0.60 ug/L
Dimethenamid	0.30 ug/L	Diphenylamine	0.30 ug/L
Ethofumesate	0.30 ug/L	Fenbuconazole	0.60 ug/L
Fenoxaprop-ethyl	0.60 ug/L	Fipronil	0.60 ug/L
Fluazifop-p-butyl	0.60 ug/L	Fludioxonil	0.60 ug/L
Flumioxazin	0.30 ug/L	Fluometuron	0.12 ug/L
Fluroxypyr-meptyl	0.30 ug/L	Hexazinone	0.30 ug/L
Imidacloprid	0.30 ug/L	Isoxaben	0.12 ug/L
Mefenoxam	0.30 ug/L	Metalaxyl	0.30 ug/L
Metribuzin	0.60 ug/L	Myclobutanil	0.60 ug/L
Oryzalin	0.30 ug/L	Pendimethalin	1.2 ug/L
Pirimicarb	0.30 ug/L	Prometon	0.60 ug/L
Prometryn	0.30 ug/L	Propazine	0.30 ug/L
Pyraclostrobin	0.12 ug/L	Pyridaben	0.60 ug/L
Pyrimethanil	0.12 ug/L	Sethoxydim	6.0 ug/L
Simazine	0.60 ug/L	Simetryn	0.30 ug/L
Sulfentrazone	0.30 ug/L	Tebuconazole	0.60 ug/L
Tebuthiuron	0.60 ug/L	Thiabendazole	0.12 ug/L
Triadimefon	0.60 ug/L		

Phenylurea Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Chlorpropham	0.30 ug/L	DCPMU	0.12 ug/L
Diuron	0.12 ug/L	Fenuron	0.12 ug/L
Linuron	0.30 ug/L	Monuron	0.12 ug/L
Neburon	0.12 ug/L	Propham	0.30 ug/L
Siduron	0.12 ug/L		

Carbamate Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
3-Hydroxycarbofuran	0.12 ug/L	Aldicarb	0.12 ug/L
Aldicarb Sulfone	0.12 ug/L	Aldicarb sulfoxide	0.12 ug/L
Bendiocarb	0.12 ug/L	Carbaryl	480 ug/L
Carbofuran	0.12 ug/L	Fenobucarb	0.12 ug/L
Methiocarb	0.12 ug/L	Methomyl	0.12 ug/L
Oxamyl	0.12 ug/L	Propoxur	0.12 ug/L
Thiobencarb	0.30 ug/L		

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Analytical Report

Client Sample ID: 09030941
Matrix: water

PAL Sample ID: P090151-19
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Multiresidue Profile					
4/01/09	4/3/09	Carbaryl	0.48 ug/L JN	0.12 ug/L	
4/01/09	4/3/09	Other Pesticides	Not Detected	See Analyte List	S1

Surrogate Recovery: 165 %
Surrogate Recovery Range: 37-151
(DCBP used as Surrogate)

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MW 4-8-09

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Multiresidue Analyte List

Organophosphorous and Organosulfur Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Aspon	0.60 ug/L	Azinphos-methyl	0.60 ug/L
Carbofenothion	0.60 ug/L	Chlorfenvinphos	0.60 ug/L
Chlorpyrifos-methyl	0.60 ug/L	Coumaphos	0.60 ug/L
Demeton	0.60 ug/L	Diazinon	0.60 ug/L
Dichlorofenthion	0.60 ug/L	Dichlorvos	0.60 ug/L
Dicrotophos	0.60 ug/L	Dimethoate	0.60 ug/L
Disulfoton	0.60 ug/L	EPN	0.60 ug/L
Ethion	0.60 ug/L	Ethoprop	0.60 ug/L
Famphur	0.60 ug/L	Fenamiphos	0.60 ug/L
Fenitrothion	0.60 ug/L	Fensulfothion	0.60 ug/L
Fenthion	0.60 ug/L	Malathion	0.60 ug/L
Merphos	0.60 ug/L	Methidathion	0.60 ug/L
Mevinphos	0.60 ug/L	Monocrotophos	0.60 ug/L
Parathion	0.60 ug/L	Parathion methyl	0.60 ug/L
Phorate	0.60 ug/L	Phosmet	0.60 ug/L
Phosphamidon	0.60 ug/L	Pirimiphos-methyl	0.60 ug/L
Ronnel	0.60 ug/L	Sulprofos	0.60 ug/L
Terbufos	0.60 ug/L	Tetrachlorvinphos	0.60 ug/L
Tokuthion	0.60 ug/L	Trichloronate	0.60 ug/L
Chlorpyrifos	3.0 ug/L	Propargite	0.60 ug/L

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Halogenated Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Acetochlor	3.0 ug/L	Alachlor	3.0 ug/L
Aldrin	1.2 ug/L	Benfluralin	1.2 ug/L
Bifenthrin	1.2 ug/L	a-BHC	1.2 ug/L
b-BHC	1.2 ug/L	d-BHC	1.2 ug/L
g-BHC	1.2 ug/L	Captafol	1.2 ug/L
Captan	3.0 ug/L	Chlordane	6.0 ug/L
Chlorobenzilate	3.0 ug/L	Chloroneb	3.0 ug/L
Chlorothalonil	1.2 ug/L	Cyfluthrin	6.0 ug/L
Cyhalothrin	6.0 ug/L	Cypermethrin	12 ug/L
p,p'-DDD	1.2 ug/L	p,p'-DDE	1.2 ug/L
p,p'-DDT	1.2 ug/L	Dacthal	1.2 ug/L
Deltamethrin	12 ug/L	Dichlobenil	1.2 ug/L
Dicloran	1.2 ug/L	Dicofol	3.0 ug/L
Dieldrin	1.2 ug/L	Dithiopyr	1.2 ug/L
Endosulfan I	1.2 ug/L	Endosulfan II	1.2 ug/L
Endosulfan sulfate	1.2 ug/L	Endrin	1.2 ug/L
Endrin aldehyde	1.2 ug/L	Endrin ketone	1.2 ug/L
Esfenvalerate	1.2 ug/L	Ethalfluralin	1.2 ug/L
Etridiazole	1.2 ug/L	Fenarimol	1.2 ug/L
Fenvalerate	1.2 ug/L	Flutolanil	12 ug/L
Folpet	1.2 ug/L	Heptachlor	1.2 ug/L
Heptachlor epoxide	1.2 ug/L	Hexachlorobenzene	1.2 ug/L
Iprodione	1.2 ug/L	Methoxychlor	1.2 ug/L
Metolachlor	3.0 ug/L	Mirex	1.2 ug/L
Norflurazon	1.2 ug/L	Ovex	1.2 ug/L
Oxadiazon	1.2 ug/L	Oxyfluorfen	1.2 ug/L
PCNB	1.2 ug/L	Permethrin	12 ug/L
Prodiamine	1.2 ug/L	Pronamide	1.2 ug/L
Propachlor	3.0 ug/L	Propanil	1.2 ug/L
Propiconazole	3.0 ug/L	Terbacil	1.2 ug/L
Toxaphene	60 ug/L	Trifloxystrobin	1.2 ug/L
Triflumizole	1.2 ug/L	Trifluralin	1.2 ug/L
Vinclozalin	1.2 ug/L		

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MW 5-8-09

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Report Number: P090151
Report Date: April 07, 2009
Client Project ID: [none]

Organonitrogen Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Ametryn	0.30 ug/L	Amitraz	0.60 ug/L
Atrazine	0.30 ug/L	Azoxystrobin	0.12 ug/L
Bensulide	0.30 ug/L	Boscalid	0.30 ug/L
Bromacil	0.30 ug/L	Bromopropylate	0.60 ug/L
Carfentrazone-ethyl	0.30 ug/L	Clothianidin	0.30 ug/L
Cyanazine	0.60 ug/L	Diclofop-methyl	0.60 ug/L
Dimethenamid	0.30 ug/L	Diphenylamine	0.30 ug/L
Ethofumesate	0.30 ug/L	Fenbuconazole	0.60 ug/L
Fenoxaprop-ethyl	0.60 ug/L	Fipronil	0.60 ug/L
Fluazifop-p-butyl	0.60 ug/L	Fludioxonil	0.60 ug/L
Flumioxazin	0.30 ug/L	Fluometuron	0.12 ug/L
Fluroxypyr-meptyl	0.30 ug/L	Hexazinone	0.30 ug/L
Imidacloprid	0.30 ug/L	Isoxaben	0.12 ug/L
Mefenoxam	0.30 ug/L	Metalaxyl	0.30 ug/L
Metribuzin	0.60 ug/L	Myclobutanil	0.60 ug/L
Oryzalin	0.30 ug/L	Pendimethalin	1.2 ug/L
Pirimicarb	0.30 ug/L	Prometon	0.60 ug/L
Prometryn	0.30 ug/L	Propazine	0.30 ug/L
Pyraclostrobin	0.12 ug/L	Pyridaben	0.60 ug/L
Pyrimethanil	0.12 ug/L	Sethoxydim	6.0 ug/L
Simazine	0.60 ug/L	Simetryn	0.30 ug/L
Sulfentrazone	0.30 ug/L	Tebuconazole	0.60 ug/L
Tebuthiuron	0.60 ug/L	Thiabendazole	0.12 ug/L
Triadimefon	0.60 ug/L		

Phenylurea Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
Chlorpropham	0.30 ug/L	DCPMU	0.12 ug/L
Diuron	0.12 ug/L	Fenuron	0.12 ug/L
Linuron	0.30 ug/L	Monuron	0.12 ug/L
Neburon	0.12 ug/L	Propham	0.30 ug/L
Siduron	0.12 ug/L		

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Carbamate Pesticides

Analyte	Reporting Limit	Analyte	Reporting Limit
3-Hydroxycarbofuran	0.12 ug/L	Aldicarb	0.12 ug/L
Aldicarb Sulfone	0.12 ug/L	Aldicarb sulfoxide	0.12 ug/L
Bendiocarb	0.12 ug/L	Carbaryl	0.12 ug/L
Carbofuran	0.12 ug/L	Fenobucarb	0.12 ug/L
Methiocarb	0.12 ug/L	Methomyl	0.12 ug/L
Oxamyl	0.12 ug/L	Propoxur	0.12 ug/L
Thiobencarb	0.30 ug/L		

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MW 5-8-09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030806
Matrix: soil

PAL Sample ID: P090151-01
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/14/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/08/09	4/14/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 90 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	0.93 mg/kg	0.085 mg/kg	JN
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg	U
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	Not Detected	0.085 mg/kg	U
4/10/09	4/15/09	Glyphosate	1.2 mg/kg	0.085 mg/kg	JN

MW 5/28/09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030807
Matrix: soil

PAL Sample ID: P090151-02
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/14/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/08/09	4/14/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 89 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	Not Detected	0.085 mg/kg	U
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg	U
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	Not Detected	0.085 mg/kg	U
4/10/09	4/15/09	Glyphosate	Not Detected	0.085 mg/kg	U

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MW 4/28/09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030808
Matrix: soil

PAL Sample ID: P090151-03
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/14/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/08/09	4/14/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 87 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/17/09	Dimethoate	Not Detected	0.085 mg/kg	U
4/09/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	2.4 mg/kg	0.068 mg/kg	
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	Not Detected	0.085 mg/kg	U
4/10/09	4/15/09	Glyphosate	Not Detected	0.085 mg/kg	U

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MW 5/8/09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030809
Matrix: soil

PAL Sample ID: P090151-04
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/14/09	Dichlobenil	Not Detected	0.034 mg/kg U	
4/08/09	4/14/09	Pendimethalin	Not Detected	0.034 mg/kg U	
Surrogate Recovery: 91%					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	4.8 mg/kg JN	1.7 mg/kg	
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg U	
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	3.1 mg/kg JN	0.85 mg/kg	
4/10/09	4/15/09	Glyphosate	26 mg/kg JN	0.85 mg/kg	

MW 5/28/09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030810
Matrix: soil

PAL Sample ID: P090151-05
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/08/09	4/20/09	Pendimethalin	2.5 mg/kg	0.67 mg/kg	
Surrogate Recovery: 91 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	11 mg/kg	1.7 mg/kg	JN
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg	U
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	0.42 mg/kg	0.42 mg/kg	JN
4/10/09	4/15/09	Glyphosate	9.1 mg/kg	0.42 mg/kg	JN

MW
5-28-09

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OnSite Environmental, Inc.
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Redmond, WA 98052

Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030811
Matrix: soil

PAL Sample ID: P090151-06
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/08/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 93 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	0.32 mg/kg	0.085 mg/kg	JN
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg	U
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	0.095 mg/kg	0.085 mg/kg	JN
4/10/09	4/15/09	Glyphosate	0.64 mg/kg	0.085 mg/kg	JN

MW 5/8/09

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OnSite Environmental, Inc.
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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030812
Matrix: soil

PAL Sample ID: P090151-07
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg U	
4/08/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg U	
Surrogate Recovery: 93 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	Not Detected	0.085 mg/kg U	
4/08/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg U	
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/16/09	AMPA	7.2 mg/kg JN	1.7 mg/kg	
4/10/09	4/16/09	Glyphosate	51 mg/kg JN	1.7 mg/kg	

JMW
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OnSite Environmental, Inc.
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Redmond, WA 98052

Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030813
Matrix: soil

PAL Sample ID: P090151-08
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/08/09	4/15/09	Dichlobenil	Not Detected	0.033 mg/kg U	
4/08/09	4/15/09	Pendimethalin	Not Detected	0.033 mg/kg U	
Surrogate Recovery: 84 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/08/09	4/17/09	Dimethoate	Not Detected	0.083 mg/kg U	
4/08/09	4/17/09	Disulfoton	Not Detected	0.083 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/08/09	4/15/09	Carbaryl	Not Detected	0.033 mg/kg U	
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/16/09	AMPA	4.0 mg/kg JN	0.85 mg/kg	
4/10/09	4/16/09	Glyphosate	27 mg/kg JN	0.85 mg/kg	

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030814
Matrix: soil

PAL Sample ID: P090151-09
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg U	
4/09/09	4/17/09	p,p'-DDE	0.058 mg/kg JN	0.034 mg/kg	
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg U	
Surrogate Recovery: 88 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/17/09	Dimethoate	Not Detected	0.085 mg/kg U	
4/09/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg U	
Method: Monsanto Method (HPLC-FLD)					
4/10/09	4/15/09	AMPA	0.095 mg/kg JN	0.085 mg/kg	
4/10/09	4/15/09	Glyphosate	0.33 mg/kg JN	0.085 mg/kg	

Client Sample ID: 09030815
Matrix: soil

PAL Sample ID: P090151-10
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg U	
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg U	
Surrogate Recovery: 80 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/17/09	Dimethoate	0.76 mg/kg JN	0.085 mg/kg	
4/09/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/15/09	Carbaryl	Not Detected	0.034 mg/kg U	

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030816
Matrix: soil

PAL Sample ID: P090151-11
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.033 mg/kg U	
4/09/09	4/15/09	Pendimethalin	Not Detected	0.033 mg/kg U	
Surrogate Recovery: 90 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/17/09	Dimethoate	0.15 mg/kg JN	0.083 mg/kg	
4/09/09	4/17/09	Disulfoton	Not Detected	0.083 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/15/09	Carbaryl	Not Detected	0.033 mg/kg U	

Client Sample ID: 09030817
Matrix: soil

PAL Sample ID: P090151-12
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg U	
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg U	
Surrogate Recovery: 92 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/17/09	Dimethoate	Not Detected	0.085 mg/kg U	
4/09/09	4/17/09	Disulfoton	Not Detected	0.085 mg/kg UJ	
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/16/09	Carbaryl	Not Detected	0.034 mg/kg U	

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MW 5/8/09

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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030818
Matrix: soil

PAL Sample ID: P090151-13
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 87 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/18/09	Dimethoate	Not Detected	0.085 mg/kg	U
4/09/09	4/18/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/16/09	Carbaryl	Not Detected	0.034 mg/kg	U

Client Sample ID: 09030819
Matrix: soil

PAL Sample ID: P090151-14
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg	U
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg	U
Surrogate Recovery: 89 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/18/09	Dimethoate	Not Detected	0.085 mg/kg	U
4/09/09	4/18/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/16/09	Carbaryl	Not Detected	0.034 mg/kg	U

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OnSite Environmental, Inc.
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Report Number: P090151
Report Date: April 22, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030820
Matrix: soil

PAL Sample ID: P090151-15
Sample Date: 3/26/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/09/09	4/15/09	Dichlobenil	Not Detected	0.034 mg/kg	V
4/09/09	4/15/09	Pendimethalin	Not Detected	0.034 mg/kg	V
Surrogate Recovery: 86 %					
Surrogate Recovery Range: 54-139					
(DCBP used as Surrogate)					
Method: Modified EPA 8141B (GC-FPD)					
4/09/09	4/18/09	Dimethoate	0.39 mg/kg	0.085 mg/kg	JN
4/09/09	4/18/09	Disulfoton	Not Detected	0.085 mg/kg	UJ
Method: Modified EPA 8321B (HPLC-MS)					
4/09/09	4/16/09	Carbaryl	0.048 mg/kg	0.034 mg/kg	

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Report Number: P090151
Report Date: April 28, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030938
Matrix: water

PAL Sample ID: P090151-16
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/01/09	4/18/09	Dichlobenil	7.2 ug/L JN	1.2 ug/L	
Method: Modified EPA 8141B (GC-FPD)					
4/01/09	4/17/09	Dimethoate	32000 ug/L JN	6000 ug/L	
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/16/09	Carbaryl	3.4 ug/L	0.90 ug/L	

Client Sample ID: 09030939
Matrix: water

PAL Sample ID: P090151-17
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8081B (GC-ECD)					
4/01/09	4/24/09	Dichlobenil	30 ug/L JN	6.0 ug/L	
Method: Modified EPA 8141B (GC-FPD)					
4/01/09	4/17/09	Dimethoate	32000 ug/L JN	6000 ug/L	
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/16/09	Carbaryl	1.7 ug/L	0.36 ug/L	

Client Sample ID: 09030940
Matrix: water

PAL Sample ID: P090151-18
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/16/09	Carbaryl	2600 ug/L	900 ug/L	

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MW 5/8/09

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OnSite Environmental, Inc.
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Report Number: P090151
Report Date: April 28, 2009
Client Project ID: 10HA

Analytical Report

Client Sample ID: 09030941
Matrix: water

PAL Sample ID: P090151-19
Sample Date: 3/25/09

Extraction Date	Analysis Date	Analyte	Amount Detected	Method Reporting Limit	Notes
Method: Modified EPA 8321B (HPLC-MS)					
4/01/09	4/16/09	Carbaryl	0.44 ug/L	0.36 ug/L	

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MEMORANDUM

DATE: May 4, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 3 product and 4 water samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analysis for Hydrocarbon Identification (HCID; Ecology Method NWTPH-HCID) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered:

09030914	09030918	09030932	09030928	09030929
09030930	09030936			

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

The samples were maintained and received within the QC limits of $4^{o}C \pm 2^{o}C$. The samples were collected between March 21 and 24, 2009, were extracted on March 26, 2009, and were analyzed by March 26, 2009, therefore meeting QC criteria of less than 7 days between collection and extraction and less than 40 days between extraction and analysis.

2. **Initial Calibration: Acceptable.**

Calculations were verified as correct. All relative percent differences (RPDs) were less than or equal to the laboratory control limits of 15%.

3. **Continuing Calibration: Acceptable.**

Calculations were verified as correct. All percent differences were less than or equal to the laboratory control limits of 15%.

4. **Error Determination: Not Performed.**

Samples necessary for bias and precision determination were not provided to the laboratory. All

samples were flagged RND (Recovery Not Determined) and PND (Precision Not Determined), although the flags are not found on the Form I's.

5. Blanks: Acceptable.

A method blank was analyzed at the required frequency of every 12 hours for each matrix, preparation technique, and analysis system. TPHs were not detected in any blank.

6. System Monitoring Compounds (SMC): Satisfactory.

All recoveries of the SMCs were greater than 10% and within QC criteria except in sample 09030929; no action was taken based on this outlier as matrix interference is suspected.

7. Performance Evaluation Samples: Not Provided.

Performance evaluation samples were not provided to the laboratory.

8. Quantitation and Quantitation Limits: Acceptable.

Sample quantitation and sample quantitation limits were correctly calculated.

9. Laboratory Contact: Not Required.

No laboratory contact was required.

10. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Directive "Quality Assurance/Quality Control Guidance for Removal Activities, Data Validation Procedures" (EPA/540/G-90/004) and the analytical method. Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

R - The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

NWTPH-HCID

Date Extracted: 3-26-09
Date Analyzed: 3-26-09

Matrix: Product
Units: mg/kg (ppm)

Client ID:	**9030914**	**9030918**	**9030932**
Lab ID:	03-138-01	03-138-04	03-138-16
Gasoline:	**ND**	**ND**	**ND**
PQL:	930 U	900 U	980 U
Diesel Fuel:	**Diesel Fuel #2**	**Diesel Fuel #2**	**ND**
PQL:	2300	2200	2400 U
Lube Oil:	**Lube Oil**	**Lube Oil**	**Lube Oil**
PQL:	4700	4500	4900
Surrogate Recovery:			
o-Terphenyl	114%	114%	102%
Flags:	Y	Y	Y

MW 5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

NWTPH-HCID

Date Extracted: 3-26-09
Date Analyzed: 3-26-09

Matrix: Water
Units: mg/L (ppm)

Client ID:	**9030928**	**9030929**	**9030930**
Lab ID:	03-138-12	03-138-13	03-138-14
Gasoline:	**ND**	**ND**	**ND**
PQL:	10 U	10 U	10 U
Diesel Fuel:	**ND**	**ND**	**ND**
PQL:	25 U	25 U	25 U
Lube Oil:	**Lube Oil**	**Lube Oil**	**Lube Oil**
RQL:	40	40	40
Surrogate Recovery:			
o-Terphenyl	93%	---	81%
Flags:	Y	Y,F	Y

MW 5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

NWTPH-HCID

Date Extracted:	3-26-09
Date Analyzed:	3-26-09
Matrix:	Water
Units:	mg/L (ppm)
Client ID:	**9030936**
Lab ID:	03-138-20
Gasoline:	**ND**
PQL:	10 U
Diesel Fuel:	**ND**
PQL:	25 U
Lube Oil:	**Lube Oil**
PQL:	40
Surrogate Recovery:	
o-Terphenyl	102%
Flags:	Y

MW 5-4-09

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MEMORANDUM

DATE: May 4, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 2 product samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Target Analyte List (TAL) metals analyses (EPA Methods 6010, 6020, and/or 7471) were performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered: 09030914 09030918

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

The samples were maintained at 4°C (± 2°C). The samples were collected on March 21 or 23, 2009, and were analyzed by March 27, 2009, therefore meeting QC criteria of less than 6 months between collection, extraction, and analysis (28 days for mercury).

2. **Initial and Continuing Calibration: Acceptable.**

A minimum of one calibration standard and a blank were analyzed at the beginning of the ICP analysis sequence and after every 10 samples. No results were greater than 110% of the highest calibration standard. All ICP recoveries were within the QC limits of 90% to 110%. All AA recoveries were within QC limits of 80% to 120%.

3. **Blanks: Acceptable.**

A preparation blank was analyzed for each 20 samples or per matrix per concentration level. Blanks were analyzed after each Initial or Continuing Calibration Verification. There were no detections in any blanks that affected the sample results.

4. **ICP Interference Check Sample: Acceptable.**

An Interference Check Sample (ICS) was analyzed at the beginning and end of each sequence or at least twice every 8 hours, whichever was more frequent. All ICS (solution AB) results were within QC

limits of 80% - 120% recovery.

5. Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory. All results were flagged "PND" (Precision Not Determined) and "RND" (Recovery Not Determined), although the flags do not appear on the data sheets.

6. Performance Evaluation Sample Analysis: Not Provided.

Performance evaluation samples were not provided to the laboratory.

7. ICP Serial Dilution: Acceptable.

A serial dilution analysis was performed per matrix per concentration or per sample delivery group, whichever was more frequent. All serial dilution results were within QC limits. except antimony and zinc. Associated sample results were qualified as estimated quantities (J or UJ).

8. Matrix Spike Analysis: Acceptable.

A matrix spike analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. Spike and spike duplicate recoveries were within the QC limits.

9. Duplicate Analysis: Satisfactory.

A laboratory duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All duplicate results were within QC limits except chromium; associated results were qualified as estimated quantities (J or UJ).

10. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical methods, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample detection limits but greater than the instrument detection limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-26-09
Date Analyzed: 3-26&27-09

Matrix: Product
Units: mg/kg (ppm)

Lab ID: 03-138-01
Client ID: **09030914**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	5.0 U
Arsenic	6010B	**ND**	10
Beryllium	6010B	**ND**	0.50
Cadmium	6010B	**0.76**	0.50
Chromium	6010B	**0.63** J	0.50
Copper	6010B	**71**	1.0
Lead	6010B	**12**	5.0
Mercury	7471A	**ND**	0.25 U
Nickel	6010B	**ND**	2.5
Selenium	6010B	**ND**	10
Silver	6010B	**ND**	0.50
Thallium	6020	**ND**	5.0
Zinc	6010B	**390**	2.5

MW 5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-26-09
Date Analyzed: 3-26&27-09

Matrix: Product
Units: mg/kg (ppm)

Lab ID: 03-138-04
Client ID: **09030918**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	5.0 U
Arsenic	6010B	**ND**	10
Beryllium	6010B	**ND**	0.50 U
Cadmium	6010B	**0.61**	0.50
Chromium	6010B	**4.1** J	0.50
Copper	6010B	**24**	1.0
Lead	6010B	**21**	5.0
Mercury	7471A	**ND**	0.25 U
Nickel	6010B	**ND**	2.5
Selenium	6010B	**ND**	10
Silver	6010B	**ND**	0.50
Thallium	6020	**ND**	5.0 U
Zinc	6010B	**1100**	25

MW 5-4-09

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International Specialists in the Environment
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Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE: May 4, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington

SUBJ: **Miscellaneous Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 4 samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analysis for ignitability (EPA Method 1010) And pH (EPA Method 150.1) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered: 09030916 09030917 09030937 09030921

Data Qualifications:

The samples were maintained and received within the QC limits of 4°C ± 2°C. The samples were collected on March 23 or 24, 2009, and were analyzed for ignitability and pH on March 26, 2009, therefore meeting QC criteria of less than 14 days between collection and analysis for ignitability but exceeding the 24 hour limit for pH; the pH result was qualified as an estimated quantity (J). The case narrative noted that the ignitability sample jar had headspace and the volume was not enough to fill the analysis cup, therefore the ignitability result is qualified as an estimated quantity (J). The pH calibration and duplicate results were within QC limits. No other QC information was provided for ignitability.

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Directive "Quality Assurance/Quality Control Guidance for Removal Activities, Data Validation Procedures" (EPA/540/G-90/004) and the analytical method. Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

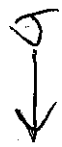
Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

pH
EPA 150.1

Date Analyzed: 3-26-09

Matrix: Water

Client ID	Lab ID	**pH (@ 25ºC)**
09030916	03-138-02	**11.5**
09030917	03-138-03	**12.0**
09030937	03-138-21	**2.4**



MW
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Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

IGNITABILITY by EPA 1010

Date Analyzed: 3-26-09

Matrix: Liquid
Units: Temp. (°F)

Client ID	Lab ID	Result
09030921	03-138-06	**</= 75** J

MW 5-4-09

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MEMORANDUM

DATE: May 4, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 2 product samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Volatile Organic Compound (VOC) analysis (EPA Method 8260) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered: 09030914 09030918

Data Qualifications:

1. Sample Holding Times: Acceptable.

The samples were maintained and received within the QC limits of $4^{o}C \pm 2^{o}C$. The samples were collected on March 21 or 23, 2009, and were analyzed by March 26, 2009, therefore meeting QC criteria of less than 14 days between collection and analysis for soil samples. Soil criteria were used in the absence of product criteria.

2. Tuning: Acceptable.

Tuning was performed at the beginning of each 12-hour analysis sequence. All results were within QC limits.

3. Initial Calibration: Acceptable.

All average Relative Response Factors (RRFs) were greater than the QC limit of 0.050. All Relative Standard Deviations (RSDs) were less than the QC limits of 30%.

4. Continuing Calibration: Satisfactory.

All RRFs were greater than the QC limit of 0.050. All % differences were less than the QC limit of 25% except dichlorodifluoromethane (low recovery) and acetone, 2-butanone, and 2-hexanone (high recoveries). Positive results and sample quantitation limits were qualified as estimated quantities (J or UJ) for the low recovery outlier. Positive results associated with the high recovery outliers were qualified as estimated quantities (J).

5. Blanks: Acceptable.

A method blank was analyzed for each 20 sample batch per matrix. There were no detections in any method blank.

6. System Monitoring Compounds (SMCs): Acceptable.

All SMC recoveries were within QC limits.

7. Blank Spike (BS)/BS Duplicate: Acceptable.

BS and BSD analyses were performed per SDG or per matrix per concentration level, whichever was more frequent. All recoveries were within QC limits.

8. Duplicate Analysis: Acceptable.

Laboratory spike duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All duplicate results were within QC limits.

9. Internal Standards: Acceptable.

All internal standards were within $\pm$ 30 seconds of the continuing calibration internal standard retention times. All area counts were within 50 % to 200 % of the continuing calibration area counts.

10. Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory. All results were flagged "PND" (Precision Not Determined) and "RND" (Recovery Not Determined), although the flags do not appear on the data sheets.

11. Performance Evaluation Sample Analysis: Not Provided.

Performance evaluation samples were not provided to the laboratory.

12. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	3-26-09
Date Analyzed:	3-26-09
Matrix:	Product
Units:	mg/kg (ppm)
Lab ID:	03-138-01
Client ID:	**09030914**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.25
Chloromethane	ND		1.3
Vinyl Chloride	ND		0.25
Bromomethane	ND		0.25
Chloroethane	ND		1.3
Trichlorofluoromethane	ND		0.25
1,1-Dichloroethene	ND		0.25
Acetone	ND		1.3
Iodomethane	ND		1.3
Carbon Disulfide	ND		0.25
Methylene Chloride	ND		1.3
(trans) 1,2-Dichloroethene	ND		0.25
Methyl t-Butyl Ether	ND		0.25
1,1-Dichloroethane	ND		0.25
Vinyl Acetate	ND		1.3
2,2-Dichloropropane	ND		0.25
(cis) 1,2-Dichloroethene	ND		0.25
2-Butanone	ND		1.3
Bromochloromethane	ND		0.25
Chloroform	ND		0.25
1,1,1-Trichloroethane	ND		0.25
Carbon Tetrachloride	ND		0.25
1,1-Dichloropropene	ND		0.25
Benzene	ND		0.25
1,2-Dichloroethane	ND		0.25
Trichloroethene	ND		0.25
1,2-Dichloropropane	ND		0.25
Dibromomethane	ND		0.25
Bromodichloromethane	ND		0.25
2-Chloroethyl Vinyl Ether	ND		1.3
(cis) 1,3-Dichloropropene	ND		0.25
Methyl Isobutyl Ketone	ND		1.3
Toluene	9.4		1.3
(trans) 1,3-Dichloropropene	ND		0.25

MW 5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 03-138-01
Client ID: 09030914

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.25
Tetrachloroethene	ND		0.25
1,3-Dichloropropane	ND		0.25
2-Hexanone	ND		1.3
Dibromochloromethane	ND		0.25
1,2-Dibromoethane	ND		0.25
Chlorobenzene	ND		0.25
1,1,1,2-Tetrachloroethane	ND		0.25
Ethylbenzene	1.4		0.25
m,p-Xylene	4.9		0.50
o-Xylene	2.5		0.25
Styrene	ND		0.25
Bromoform	ND		0.25
Isopropylbenzene	ND		0.25
Bromobenzene	ND		0.25
1,1,2,2-Tetrachloroethane	ND		0.25
1,2,3-Trichloropropane	ND		0.25
n-Propylbenzene	0.52		0.25
2-Chlorotoluene	ND		0.25
4-Chlorotoluene	ND		0.25
1,3,5-Trimethylbenzene	2.0		0.25
tert-Butylbenzene	ND		0.25
1,2,4-Trimethylbenzene	5.3		0.25
sec-Butylbenzene	ND		0.25
1,3-Dichlorobenzene	ND		0.25
p-Isopropyltoluene	2.2		0.25
1,4-Dichlorobenzene	ND		0.25
1,2-Dichlorobenzene	ND		0.25
n-Butylbenzene	ND		0.25
1,2-Dibromo-3-chloropropane	ND		1.3
1,2,4-Trichlorobenzene	ND		0.25
Hexachlorobutadiene	ND		1.3
Naphthalene	5.7		0.25
1,2,3-Trichlorobenzene	ND		0.25

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	99	70-118
Toluene-d8	87	70-121
4-Bromofluorobenzene	86	70-130

5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	3-26-09
Date Analyzed:	3-26-09
Matrix:	Product
Units:	mg/kg (ppm)
Lab ID:	03-138-04
Client ID:	**09030918**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.25
Chloromethane	ND		1.3
Vinyl Chloride	ND		0.25
Bromomethane	ND		0.25
Chloroethane	ND		1.3
Trichlorofluoromethane	ND		0.25
1,1-Dichloroethene	ND		0.25
Acetone	ND		1.3
Iodomethane	ND		1.3
Carbon Disulfide	ND		0.25
Methylene Chloride	ND		1.3
(trans) 1,2-Dichloroethene	ND		0.25
Methyl t-Butyl Ether	ND		0.25
1,1-Dichloroethane	ND		0.25
Vinyl Acetate	ND		1.3
2,2-Dichloropropane	ND		0.25
(cis) 1,2-Dichloroethene	ND		0.25
2-Butanone	ND		1.3
Bromochloromethane	ND		0.25
Chloroform	ND		0.25
1,1,1-Trichloroethane	ND		0.25
Carbon Tetrachloride	ND		0.25
1,1-Dichloropropene	ND		0.25
Benzene	ND		0.25
1,2-Dichloroethane	ND		0.25
Trichloroethene	ND		0.25
1,2-Dichloropropane	ND		0.25
Dibromomethane	ND		0.25
Bromodichloromethane	ND		0.25
2-Chloroethyl Vinyl Ether	ND		1.3
(cis) 1,3-Dichloropropene	ND		0.25
Methyl Isobutyl Ketone	ND		1.3
Toluene	ND		1.3
(trans) 1,3-Dichloropropene	ND		0.25

UJ

5-4-09

Date of Report: April 3, 2009
Samples Submitted: March 25, 2009
Laboratory Reference: 0903-138
Project: Site #: 10HA

VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 03-138-04
Client ID: 09030918

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.25
Tetrachloroethene	ND		0.25
1,3-Dichloropropane	ND		0.25
2-Hexanone	ND		1.3
Dibromochloromethane	ND		0.25
1,2-Dibromoethane	ND		0.25
Chlorobenzene	ND		0.25
1,1,1,2-Tetrachloroethane	ND		0.25
Ethylbenzene	ND		0.25
m,p-Xylene	0.82		0.50
o-Xylene	0.60		0.25
Styrene	ND		0.25
Bromoform	ND		0.25
Isopropylbenzene	ND		0.25
Bromobenzene	ND		0.25
1,1,2,2-Tetrachloroethane	ND		0.25
1,2,3-Trichloropropane	ND		0.25
n-Propylbenzene	ND		0.25
2-Chlorotoluene	ND		0.25
4-Chlorotoluene	ND		0.25
1,3,5-Trimethylbenzene	0.80		0.25
tert-Butylbenzene	ND		0.25
1,2,4-Trimethylbenzene	1.8		0.25
sec-Butylbenzene	ND		0.25
1,3-Dichlorobenzene	ND		0.25
p-Isopropyltoluene	0.37		0.25
1,4-Dichlorobenzene	ND		0.25
1,2-Dichlorobenzene	ND		0.25
n-Butylbenzene	ND		0.25
1,2-Dibromo-3-chloropropane	ND		1.3
1,2,4-Trichlorobenzene	ND		0.25
Hexachlorobutadiene	ND		1.3
Naphthalene	2.3		0.25
1,2,3-Trichlorobenzene	ND		0.25

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	70-118
Toluene-d8	94	70-121
4-Bromofluorobenzene	89	70-130

MW 5-4-09

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MEMORANDUM

DATE: April 20, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 2 liquid samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Total Sulfide (Method PSEP p. 32) analyses were performed by AmTest Inc., Kirkland, Washington.

The samples were numbered: 09030916 09030917

Data Qualifications:

The samples were maintained and received within the QC limits of 4°C ± 2°C. The samples were collected on March 23, 2009, and were analyzed by April 1, 2009, therefore meeting holding time criteria of less than 40 days between extraction and analysis.

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

R - The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com

AMTEST LABORATORIES

Professional Analytical Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th St
Redmond, WA 98052
Attention: David Baumeister
Project #: 10HA-03/24/09-5
All results reported on an as received basis.

Date Received: 03/31/09
Date Reported: 4/ 3/09

AMTEST Identification Number 09-A005223
Client Identification 09030916
Sampling Date 03/23/09, 17:13

Miscellaneous

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANLST	DATE
Total Sulfides	374.	mg/kg		1.00	PSEP p32	SL	04/01/09

AMTEST Identification Number 09-A005224
Client Identification 09030917
Sampling Date 03/23/09, 17:13

Miscellaneous

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANLST	DATE
Total Sulfides	538.	mg/kg		1.00	PSEP p32	SL	04/01/09

MW 4-7-09

Aaron W. Young
Laboratory Manager

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MEMORANDUM

DATE: April 28, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 9 soil and 5 water samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Volatile Organic Compound (VOC) analysis (EPA Method 8260) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered:

09030806	09030807	09030808	09030809	09030810
09030811	09030812	09030813	09030814	09030938
09030939	09030940	09030941	09030943	

Data Qualifications:

1. Sample Holding Times: Acceptable.

The samples were maintained and received within the QC limits of $4^{o}C \pm 2^{o}C$. The samples were collected on March 25, 2009, and were analyzed by March 31, 2009, therefore meeting QC criteria of less than 14 days between collection and analysis for soil and preserved water samples.

2. Tuning: Acceptable.

Tuning was performed at the beginning of each 12-hour analysis sequence. All results were within QC limits.

3. Initial Calibration: Satisfactory.

All average Relative Response Factors (RRFs) were greater than the QC limit of 0.050. All soil Relative Standard Deviations (RSDs) were less than the QC limits of 30%, but the water 1,2-dibromo-3-chloropropane and 3-chloropropane results were greater than 30%; associated positive results were qualified as estimated quantities (J).

4. Continuing Calibration: Satisfactory.

All RRFs were greater than the QC limit of 0.050. All % differences were less than the QC limit of 25% except the soil dichlorodifluoromethane (low recovery) and acetone, 2-butanone, and 2-hexanone (high recoveries) and the water (March 30) dichlorodifluoromethane (low recovery) and methylene chloride (high recovery) and the water (March 31) dichlorodifluoromethane, chloromethane (both low recoveries), p-isopropyltoluene, and hexachlorobutadiene (high recoveries). Positive results and sample quantitation limits were qualified as estimated quantities (J or UJ) for low recovery outliers. Positive results associated with the high recovery outliers were qualified as estimated quantities (J).

5. Blanks: Acceptable.

A method blank was analyzed for each 20 sample batch per matrix. There were no detections in any method blank.

6. System Monitoring Compounds (SMCs): Acceptable.

All SMC recoveries were within QC limits.

7. Matrix Spike (MS)/MS Duplicate (MSD)/Blank Spike (BS)/BS Duplicate: Acceptable.

MS and MSD analyses were performed per SDG or per matrix per concentration level, whichever was more frequent. All recoveries were within QC limits.

8. Duplicate Analysis: Acceptable.

Laboratory duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All duplicate results were within QC limits.

9. Internal Standards: Acceptable.

All internal standards were within $\pm$ 30 seconds of the continuing calibration internal standard retention times. All area counts were within 50 % to 200 % of the continuing calibration area counts.

10. Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory. All results were flagged "PND" (Precision Not Determined) and "RND" (Recovery Not Determined), although the flags do not appear on the data sheets.

11. Performance Evaluation Sample Analysis: Not Provided.

Performance evaluation samples were not provided to the laboratory.

12. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the site-specific sampling plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-01
Client ID:	**09030806**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0014
Chloromethane	ND		0.0069
Vinyl Chloride	ND		0.0014
Bromomethane	ND		0.0014
Chloroethane	ND		0.0069
Trichlorofluoromethane	ND		0.0014
1,1-Dichloroethene	ND		0.0014
Acetone	ND		0.0069
Iodomethane	ND		0.0069
Carbon Disulfide	ND		0.0014
Methylene Chloride	ND		0.0069
(trans) 1,2-Dichloroethene	ND		0.0014
Methyl t-Butyl Ether	ND		0.0014
1,1-Dichloroethane	ND		0.0014
Vinyl Acetate	ND		0.0069
2,2-Dichloropropane	ND		0.0014
(cis) 1,2-Dichloroethene	ND		0.0014
2-Butanone	ND		0.0069
Bromochloromethane	ND		0.0014
Chloroform	ND		0.0014
1,1,1-Trichloroethane	ND		0.0014
Carbon Tetrachloride	ND		0.0014
1,1-Dichloropropene	ND		0.0014
Benzene	ND		0.0014
1,2-Dichloroethane	ND		0.0014
Trichloroethene	ND		0.0014
1,2-Dichloropropane	ND		0.0014
Dibromomethane	ND		0.0014
Bromodichloromethane	ND		0.0014
2-Chloroethyl Vinyl Ether	ND		0.0069
(cis) 1,3-Dichloropropene	ND		0.0014
Methyl Isobutyl Ketone	ND		0.0069
Toluene	ND		0.0069
(trans) 1,3-Dichloropropene	ND		0.0014

U J

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 03-169-01
Client ID: 09030806

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0014
Tetrachloroethene	ND		0.0014
1,3-Dichloropropane	ND		0.0014
2-Hexanone	ND		0.0069
Dibromochloromethane	ND		0.0014
1,2-Dibromoethane	ND		0.0014
Chlorobenzene	ND		0.0014
1,1,1,2-Tetrachloroethane	ND		0.0014
Ethylbenzene	ND		0.0014
m,p-Xylene	ND		0.0028
o-Xylene	ND		0.0014
Styrene	ND		0.0014
Bromoform	ND		0.0014
Isopropylbenzene	ND		0.0014
Bromobenzene	ND		0.0014
1,1,2,2-Tetrachloroethane	ND		0.0014
1,2,3-Trichloropropane	ND		0.0014
n-Propylbenzene	ND		0.0014
2-Chlorotoluene	ND		0.0014
4-Chlorotoluene	ND		0.0014
1,3,5-Trimethylbenzene	ND		0.0014
tert-Butylbenzene	ND		0.0014
1,2,4-Trimethylbenzene	ND		0.0014
sec-Butylbenzene	ND		0.0014
1,3-Dichlorobenzene	ND		0.0014
p-Isopropyltoluene	ND		0.0014
1,4-Dichlorobenzene	ND		0.0014
1,2-Dichlorobenzene	ND		0.0014
n-Butylbenzene	ND		0.0014
1,2-Dibromo-3-chloropropane	ND		0.0069
1,2,4-Trichlorobenzene	ND		0.0014
Hexachlorobutadiene	ND		0.0069
Naphthalene	ND		0.0014
1,2,3-Trichlorobenzene	ND		0.0014

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	70-118
Toluene-d8	97	70-121
4-Bromofluorobenzene	94	70-130

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

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Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-02
Client ID:	**09030807**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0015
Chloromethane	ND		0.0077
Vinyl Chloride	ND		0.0015
Bromomethane	ND		0.0015
Chloroethane	ND		0.0077
Trichlorofluoromethane	ND		0.0015
1,1-Dichloroethene	ND		0.0015
Acetone	0.11	J	0.0077
Iodomethane	ND		0.0077
Carbon Disulfide	ND		0.0015
Methylene Chloride	ND		0.0077
(trans) 1,2-Dichloroethene	ND		0.0015
Methyl t-Butyl Ether	ND		0.0015
1,1-Dichloroethane	ND		0.0015
Vinyl Acetate	ND		0.0077
2,2-Dichloropropane	ND		0.0015
(cis) 1,2-Dichloroethene	ND		0.0015
2-Butanone	0.059	J	0.0077
Bromochloromethane	ND		0.0015
Chloroform	ND		0.0015
1,1,1-Trichloroethane	ND		0.0015
Carbon Tetrachloride	ND		0.0015
1,1-Dichloropropene	ND		0.0015
Benzene	0.0023		0.0015
1,2-Dichloroethane	ND		0.0015
Trichloroethene	ND		0.0015
1,2-Dichloropropane	ND		0.0015
Dibromomethane	ND		0.0015
Bromodichloromethane	ND		0.0015
2-Chloroethyl Vinyl Ether	ND		0.0077
(cis) 1,3-Dichloropropene	ND		0.0015
Methyl Isobutyl Ketone	ND		0.0077
Toluene	0.078		0.0077
(trans) 1,3-Dichloropropene	ND		0.0015

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Lab ID: 03-169-02
Client ID: 09030807

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0015 U
Tetrachloroethene	ND		0.0015
1,3-Dichloropropane	ND		0.0015
2-Hexanone	ND		0.0077
Dibromochloromethane	ND		0.0015
1,2-Dibromoethane	ND		0.0015
Chlorobenzene	ND		0.0015
1,1,1,2-Tetrachloroethane	ND		0.0015
Ethylbenzene	0.010 U		0.0015
m,p-Xylene	0.043 U		0.0031
o-Xylene	0.023 U		0.0015
Styrene	0.0045 U		0.0015
Bromoform	ND		0.0015 U
Isopropylbenzene	0.0022		0.0015
Bromobenzene	ND		0.0015 U
1,1,2,2-Tetrachloroethane	ND		0.0015
1,2,3-Trichloropropane	ND		0.0015
n-Propylbenzene	0.0074		0.0015
2-Chlorotoluene	ND		0.0015 U
4-Chlorotoluene	ND		0.0015 U
1,3,5-Trimethylbenzene	0.030		0.0015
tert-Butylbenzene	ND		0.0015 U
1,2,4-Trimethylbenzene	0.070		0.0015
sec-Butylbenzene	0.0045		0.0015
1,3-Dichlorobenzene	ND		0.0015 U
p-Isopropyltoluene	0.040		0.0015
1,4-Dichlorobenzene	ND		0.0015 U
1,2-Dichlorobenzene	ND		0.0015
n-Butylbenzene	ND		0.0015
1,2-Dibromo-3-chloropropane	ND		0.0077
1,2,4-Trichlorobenzene	ND		0.0015
Hexachlorobutadiene	ND		0.0077
Naphthalene	0.019		0.0015
1,2,3-Trichlorobenzene	ND		0.0015 U

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	70-118
Toluene-d8	92	70-121
4-Bromofluorobenzene	89	70-130

MW 4-28-09

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Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-03
Client ID:	**09030808**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0018
Chloromethane	ND		0.0091
Vinyl Chloride	ND		0.0018
Bromomethane	ND		0.0018
Chloroethane	ND		0.0091
Trichlorofluoromethane	ND		0.0018
1,1-Dichloroethene	ND		0.0018
Acetone	ND		0.0091
Iodomethane	ND		0.0091
Carbon Disulfide	ND		0.0018
Methylene Chloride	ND		0.0091
(trans) 1,2-Dichloroethene	ND		0.0018
Methyl t-Butyl Ether	ND		0.0018
1,1-Dichloroethane	ND		0.0018
Vinyl Acetate	ND		0.0091
2,2-Dichloropropane	ND		0.0018
(cis) 1,2-Dichloroethene	ND		0.0018
2-Butanone	ND		0.0091
Bromochloromethane	ND		0.0018
Chloroform	ND		0.0018
1,1,1-Trichloroethane	ND		0.0018
Carbon Tetrachloride	ND		0.0018
1,1-Dichloropropene	ND		0.0018
Benzene	ND		0.0018
1,2-Dichloroethane	ND		0.0018
Trichloroethene	ND		0.0018
1,2-Dichloropropane	ND		0.0018
Dibromomethane	ND		0.0018
Bromodichloromethane	ND		0.0018
2-Chloroethyl Vinyl Ether	ND		0.0091
(cis) 1,3-Dichloropropene	ND		0.0018
Methyl Isobutyl Ketone	ND		0.0091
Toluene	ND		0.0091
(trans) 1,3-Dichloropropene	ND		0.0018

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Lab ID: 03-169-03
Client ID: 09030808

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0018
Tetrachloroethene	ND		0.0018
1,3-Dichloropropane	ND		0.0018
2-Hexanone	ND		0.0091
Dibromochloromethane	ND		0.0018
1,2-Dibromoethane	ND		0.0018
Chlorobenzene	ND		0.0018
1,1,1,2-Tetrachloroethane	ND		0.0018
Ethylbenzene	ND		0.0018
m,p-Xylene	ND		0.0036
o-Xylene	ND		0.0018
Styrene	ND		0.0018
Bromoform	ND		0.0018
Isopropylbenzene	ND		0.0018
Bromobenzene	ND		0.0018
1,1,2,2-Tetrachloroethane	ND		0.0018
1,2,3-Trichloropropane	ND		0.0018
n-Propylbenzene	ND		0.0018
2-Chlorotoluene	ND		0.0018
4-Chlorotoluene	ND		0.0018
1,3,5-Trimethylbenzene	ND		0.0018
tert-Butylbenzene	ND		0.0018
1,2,4-Trimethylbenzene	ND		0.0018
sec-Butylbenzene	ND		0.0018
1,3-Dichlorobenzene	ND		0.0018
p-Isopropyltoluene	ND		0.0018
1,4-Dichlorobenzene	ND		0.0018
1,2-Dichlorobenzene	ND		0.0018
n-Butylbenzene	ND		0.0018
1,2-Dibromo-3-chloropropane	ND		0.0091
1,2,4-Trichlorobenzene	ND		0.0018
Hexachlorobutadiene	ND		0.0091
Naphthalene	ND		0.0018
1,2,3-Trichlorobenzene	ND		0.0018

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	87	70-118
Toluene-d8	94	70-121
4-Bromofluorobenzene	93	70-130

MW 4-28-09

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Date Extracted: 3-27-09
Date Analyzed: 3-27-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-04
Client ID: 09030809

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0017
Chloromethane	ND		0.0085
Vinyl Chloride	ND		0.0017
Bromomethane	ND		0.0017
Chloroethane	ND		0.0085
Trichlorofluoromethane	ND		0.0017
1,1-Dichloroethene	ND		0.0017
Acetone	1.0		0.48
Iodomethane	ND		0.0085
Carbon Disulfide	ND		0.0017
Methylene Chloride	ND		0.0085
(trans) 1,2-Dichloroethene	ND		0.0017
Methyl t-Butyl Ether	ND		0.0017
1,1-Dichloroethane	ND		0.0017
Vinyl Acetate	ND		0.0085
2,2-Dichloropropane	ND		0.0017
(cis) 1,2-Dichloroethene	ND		0.0017
2-Butanone	0.22	J	0.0085
Bromochloromethane	ND		0.0017
Chloroform	ND		0.0017
1,1,1-Trichloroethane	ND		0.0017
Carbon Tetrachloride	ND		0.0017
1,1-Dichloropropene	ND		0.0017
Benzene	ND		0.0017
1,2-Dichloroethane	ND		0.0017
Trichloroethene	ND		0.0017
1,2-Dichloropropane	ND		0.0017
Dibromomethane	ND		0.0017
Bromodichloromethane	ND		0.0017
2-Chloroethyl Vinyl Ether	ND		0.0085
(cis) 1,3-Dichloropropene	ND		0.0017
Methyl Isobutyl Ketone	ND		0.0085
Toluene	ND		0.0085
(trans) 1,3-Dichloropropene	ND		0.0017

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Lab ID: 03-169-04
Client ID: 09030809

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0017
Tetrachloroethene	ND		0.0017
1,3-Dichloropropane	ND		0.0017
2-Hexanone	ND		0.0085
Dibromochloromethane	ND		0.0017
1,2-Dibromoethane	ND		0.0017
Chlorobenzene	ND		0.0017
1,1,1,2-Tetrachloroethane	ND		0.0017
Ethylbenzene	ND		0.0017
m,p-Xylene	0.0054		0.0034
o-Xylene	0.0028		0.0017
Styrene	ND		0.0017
Bromoform	ND		0.0017
Isopropylbenzene	ND		0.0017
Bromobenzene	ND		0.0017
1,1,2,2-Tetrachloroethane	ND		0.0017
1,2,3-Trichloropropane	ND		0.0017
n-Propylbenzene	ND		0.0017
2-Chlorotoluene	ND		0.0017
4-Chlorotoluene	ND		0.0017
1,3,5-Trimethylbenzene	0.0018		0.0017
tert-Butylbenzene	ND		0.0017
1,2,4-Trimethylbenzene	0.0051		0.0017
sec-Butylbenzene	ND		0.0017
1,3-Dichlorobenzene	ND		0.0017
p-Isopropyltoluene	ND		0.0017
1,4-Dichlorobenzene	ND		0.0017
1,2-Dichlorobenzene	ND		0.0017
n-Butylbenzene	ND		0.0017
1,2-Dibromo-3-chloropropane	ND		0.0085
1,2,4-Trichlorobenzene	ND		0.0017
Hexachlorobutadiene	ND		0.0085
Naphthalene	0.0026		0.0017
1,2,3-Trichlorobenzene	ND		0.0017

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	70-118
Toluene-d8	95	70-121
4-Bromofluorobenzene	89	70-130

MW 4-29-09

Date of Report: April 8, 2009
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Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-05
Client ID:	**09030810**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0014
Chloromethane	ND		0.0072
Vinyl Chloride	ND		0.0014
Bromomethane	ND		0.0014
Chloroethane	ND		0.0072
Trichlorofluoromethane	ND		0.0014
1,1-Dichloroethene	ND		0.0014
Acetone	0.13		0.0072
Iodomethane	ND		0.0072
Carbon Disulfide	ND		0.0014
Methylene Chloride	ND		0.0072
(trans) 1,2-Dichloroethene	ND		0.0014
Methyl t-Butyl Ether	ND		0.0014
1,1-Dichloroethane	ND		0.0014
Vinyl Acetate	ND		0.0072
2,2-Dichloropropane	ND		0.0014
(cis) 1,2-Dichloroethene	ND		0.0014
2-Butanone	0.042		0.0072
Bromochloromethane	ND		0.0014
Chloroform	ND		0.0014
1,1,1-Trichloroethane	ND		0.0014
Carbon Tetrachloride	ND		0.0014
1,1-Dichloropropene	ND		0.0014
Benzene	0.0028		0.0014
1,2-Dichloroethane	ND		0.0014
Trichloroethene	ND		0.0014
1,2-Dichloropropane	ND		0.0014
Dibromomethane	ND		0.0014
Bromodichloromethane	ND		0.0014
2-Chloroethyl Vinyl Ether	ND		0.0072
(cis) 1,3-Dichloropropene	ND		0.0014
Methyl Isobutyl Ketone	ND		0.0072
Toluene	0.0088		0.0072
(trans) 1,3-Dichloropropene	ND		0.0014

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Lab ID: 03-169-05
Client ID: 09030810

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0014
Tetrachloroethene	ND		0.0014
1,3-Dichloropropane	ND		0.0014
2-Hexanone	ND		0.0072
Dibromochloromethane	ND		0.0014
1,2-Dibromoethane	ND		0.0014
Chlorobenzene	ND		0.0014
1,1,1,2-Tetrachloroethane	ND		0.0014
Ethylbenzene	ND		0.0014
m,p-Xylene	0.0033	U	0.0029
o-Xylene	0.0069	U	0.0014
Styrene	ND		0.0014
Bromoform	ND		0.0014
Isopropylbenzene	ND		0.0014
Bromobenzene	ND		0.0014
1,1,2,2-Tetrachloroethane	ND		0.0014
1,2,3-Trichloropropane	ND		0.0014
n-Propylbenzene	ND		0.0014
2-Chlorotoluene	ND		0.0014
4-Chlorotoluene	ND		0.0014
1,3,5-Trimethylbenzene	0.0043		0.0014
tert-Butylbenzene	ND		0.0014
1,2,4-Trimethylbenzene	ND		0.0014
sec-Butylbenzene	ND		0.0014
1,3-Dichlorobenzene	ND		0.0014
p-Isopropyltoluene	0.0014		0.0014
1,4-Dichlorobenzene	ND		0.0014
1,2-Dichlorobenzene	ND		0.0014
n-Butylbenzene	ND		0.0014
1,2-Dibromo-3-chloropropane	ND		0.0072
1,2,4-Trichlorobenzene	ND		0.0014
Hexachlorobutadiene	ND		0.0072
Naphthalene	0.0081		0.0014
1,2,3-Trichlorobenzene	ND		0.0014

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	70-118
Toluene-d8	92	70-121
4-Bromofluorobenzene	97	70-130

MW 4-28-09

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Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-06
Client ID:	**09030811**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0014
Chloromethane	ND		0.0070
Vinyl Chloride	ND		0.0014
Bromomethane	ND		0.0014
Chloroethane	ND		0.0070
Trichlorofluoromethane	ND		0.0014
1,1-Dichloroethene	ND		0.0014
Acetone	0.34		0.0070
Iodomethane	ND		0.0070
Carbon Disulfide	ND		0.0014
Methylene Chloride	ND		0.0070
(trans) 1,2-Dichloroethene	ND		0.0014
Methyl t-Butyl Ether	ND		0.0014
1,1-Dichloroethane	ND		0.0014
Vinyl Acetate	ND		0.0070
2,2-Dichloropropane	ND		0.0014
(cis) 1,2-Dichloroethene	ND		0.0014
2-Butanone	0.20		0.0070
Bromochloromethane	ND		0.0014
Chloroform	ND		0.0014
1,1,1-Trichloroethane	ND		0.0014
Carbon Tetrachloride	ND		0.0014
1,1-Dichloropropene	ND		0.0014
Benzene	ND		0.0014
1,2-Dichloroethane	ND		0.0014
Trichloroethene	ND		0.0014
1,2-Dichloropropane	ND		0.0014
Dibromomethane	ND		0.0014
Bromodichloromethane	ND		0.0014
2-Chloroethyl Vinyl Ether	ND		0.0070
(cis) 1,3-Dichloropropene	ND		0.0014
Methyl Isobutyl Ketone	ND		0.0070
Toluene	0.040		0.0070
(trans) 1,3-Dichloropropene	ND		0.0014

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Samples Submitted: March 26, 2009
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Lab ID: 03-169-06
Client ID: 09030811

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0014
Tetrachloroethene	ND		0.0014
1,3-Dichloropropane	ND		0.0014
2-Hexanone	ND		0.0070
Dibromochloromethane	ND		0.0014
1,2-Dibromoethane	ND		0.0014
Chlorobenzene	ND		0.0014
1,1,1,2-Tetrachloroethane	ND		0.0014
Ethylbenzene	0.0033		0.0014
m,p-Xylene	ND		0.0028
o-Xylene	ND		0.0014
Styrene	ND		0.0014
Bromoform	ND		0.0014
Isopropylbenzene	ND		0.0014
Bromobenzene	ND		0.0014
1,1,2,2-Tetrachloroethane	ND		0.0014
1,2,3-Trichloropropane	ND		0.0014
n-Propylbenzene	ND		0.0014
2-Chlorotoluene	ND		0.0014
4-Chlorotoluene	ND		0.0014
1,3,5-Trimethylbenzene	ND		0.0014
tert-Butylbenzene	ND		0.0014
1,2,4-Trimethylbenzene	ND		0.0014
sec-Butylbenzene	ND		0.0014
1,3-Dichlorobenzene	ND		0.0014
p-Isopropyltoluene	0.012		0.0014
1,4-Dichlorobenzene	0.0014		0.0014
1,2-Dichlorobenzene	ND		0.0014
n-Butylbenzene	ND		0.0014
1,2-Dibromo-3-chloropropane	ND		0.0070
1,2,4-Trichlorobenzene	ND		0.0014
Hexachlorobutadiene	ND		0.0070
Naphthalene	ND		0.0014
1,2,3-Trichlorobenzene	ND		0.0014

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	70-118
Toluene-d8	91	70-121
4-Bromofluorobenzene	96	70-130

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Date Extracted: 3-27-09
Date Analyzed: 3-27-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-07
Client ID: 09030812

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0015
Chloromethane	ND		0.0073
Vinyl Chloride	ND		0.0015
Bromomethane	ND		0.0015
Chloroethane	ND		0.0073
Trichlorofluoromethane	ND		0.0015
1,1-Dichloroethene	ND		0.0015
Acetone	0.062	U	0.0073
Iodomethane	ND		0.0073
Carbon Disulfide	ND		0.0015
Methylene Chloride	ND		0.0073
(trans) 1,2-Dichloroethene	ND		0.0015
Methyl t-Butyl Ether	ND		0.0015
1,1-Dichloroethane	ND		0.0015
Vinyl Acetate	ND		0.0073
2,2-Dichloropropane	ND		0.0015
(cis) 1,2-Dichloroethene	ND		0.0015
2-Butanone	0.0091	J	0.0073
Bromochloromethane	ND		0.0015
Chloroform	ND		0.0015
1,1,1-Trichloroethane	ND		0.0015
Carbon Tetrachloride	ND		0.0015
1,1-Dichloropropene	ND		0.0015
Benzene	ND		0.0015
1,2-Dichloroethane	ND		0.0015
Trichloroethene	ND		0.0015
1,2-Dichloropropane	ND		0.0015
Dibromomethane	ND		0.0015
Bromodichloromethane	ND		0.0015
2-Chloroethyl Vinyl Ether	ND		0.0073
(cis) 1,3-Dichloropropene	ND		0.0015
Methyl Isobutyl Ketone	ND		0.0073
Toluene	ND		0.0073
(trans) 1,3-Dichloropropene	ND		0.0015

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Lab ID: 03-169-07
Client ID: 09030812

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0015
Tetrachloroethene	ND		0.0015
1,3-Dichloropropane	ND		0.0015
2-Hexanone	ND		0.0073
Dibromochloromethane	ND		0.0015
1,2-Dibromoethane	ND		0.0015
Chlorobenzene	ND		0.0015
1,1,1,2-Tetrachloroethane	ND		0.0015
Ethylbenzene	ND		0.0015
m,p-Xylene	ND		0.0029
o-Xylene	ND		0.0015
Styrene	ND		0.0015
Bromoform	ND		0.0015
Isopropylbenzene	ND		0.0015
Bromobenzene	ND		0.0015
1,1,2,2-Tetrachloroethane	ND		0.0015
1,2,3-Trichloropropane	ND		0.0015
n-Propylbenzene	ND		0.0015
2-Chlorotoluene	ND		0.0015
4-Chlorotoluene	ND		0.0015
1,3,5-Trimethylbenzene	ND		0.0015
tert-Butylbenzene	ND		0.0015
1,2,4-Trimethylbenzene	ND		0.0015
sec-Butylbenzene	ND		0.0015
1,3-Dichlorobenzene	ND		0.0015
p-Isopropyltoluene	ND		0.0015
1,4-Dichlorobenzene	ND		0.0015
1,2-Dichlorobenzene	ND		0.0015
n-Butylbenzene	ND		0.0015
1,2-Dibromo-3-chloropropane	ND		0.0073
1,2,4-Trichlorobenzene	ND		0.0015
Hexachlorobutadiene	ND		0.0073
Naphthalene	ND		0.0015
1,2,3-Trichlorobenzene	ND		0.0015

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	70-118
Toluene-d8	96	70-121
4-Bromofluorobenzene	98	70-130

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Date Extracted: 3-27-09
Date Analyzed: 3-27-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-08
Client ID: 09030813

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0015
Chloromethane	ND		0.0073
Vinyl Chloride	ND		0.0015
Bromomethane	ND		0.0015
Chloroethane	ND		0.0073
Trichlorofluoromethane	ND		0.0015
1,1-Dichloroethene	ND		0.0015
Acetone	0.28		0.0073
Iodomethane	ND		0.0073
Carbon Disulfide	ND		0.0015
Methylene Chloride	ND		0.0073
(trans) 1,2-Dichloroethene	ND		0.0015
Methyl t-Butyl Ether	ND		0.0015
1,1-Dichloroethane	ND		0.0015
Vinyl Acetate	ND		0.0073
2,2-Dichloropropane	ND		0.0015
(cis) 1,2-Dichloroethene	ND		0.0015
2-Butanone	0.10		0.0073
Bromochloromethane	ND		0.0015
Chloroform	ND		0.0015
1,1,1-Trichloroethane	ND		0.0015
Carbon Tetrachloride	ND		0.0015
1,1-Dichloropropene	ND		0.0015
Benzene	ND		0.0015
1,2-Dichloroethane	ND		0.0015
Trichloroethene	ND		0.0015
1,2-Dichloropropane	ND		0.0015
Dibromomethane	ND		0.0015
Bromodichloromethane	ND		0.0015
2-Chloroethyl Vinyl Ether	ND		0.0073
(cis) 1,3-Dichloropropene	ND		0.0015
Methyl Isobutyl Ketone	ND		0.0073
Toluene	0.043		0.0073
(trans) 1,3-Dichloropropene	ND		0.0015

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Lab ID: 03-169-08
Client ID: 09030813

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0015
Tetrachloroethene	ND		0.0015
1,3-Dichloropropane	ND		0.0015
2-Hexanone	ND		0.0073
Dibromochloromethane	ND		0.0015
1,2-Dibromoethane	ND		0.0015
Chlorobenzene	ND		0.0015
1,1,1,2-Tetrachloroethane	ND		0.0015
Ethylbenzene	0.0080		0.0015
m,p-Xylene	0.021		0.0029
o-Xylene	0.0044		0.0015
Styrene	ND		0.0015
Bromoform	ND		0.0015
Isopropylbenzene	ND		0.0015
Bromobenzene	ND		0.0015
1,1,2,2-Tetrachloroethane	ND		0.0015
1,2,3-Trichloropropane	ND		0.0015
n-Propylbenzene	ND		0.0015
2-Chlorotoluene	ND		0.0015
4-Chlorotoluene	ND		0.0015
1,3,5-Trimethylbenzene	0.0041		0.0015
tert-Butylbenzene	ND		0.0015
1,2,4-Trimethylbenzene	0.010		0.0015
sec-Butylbenzene	ND		0.0015
1,3-Dichlorobenzene	ND		0.0015
p-Isopropyltoluene	0.057		0.0015
1,4-Dichlorobenzene	ND		0.0015
1,2-Dichlorobenzene	ND		0.0015
n-Butylbenzene	ND		0.0015
1,2-Dibromo-3-chloropropane	ND		0.0073
1,2,4-Trichlorobenzene	ND		0.0015
Hexachlorobutadiene	ND		0.0073
Naphthalene	0.0091		0.0015
1,2,3-Trichlorobenzene	ND		0.0015

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	85	70-118
Toluene-d8	97	70-121
4-Bromofluorobenzene	94	70-130

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Date Extracted:	3-27-09
Date Analyzed:	3-27-09
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	03-169-09
Client ID:	**09030814**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0016
Chloromethane	ND		0.0078
Vinyl Chloride	ND		0.0016
Bromomethane	ND		0.0016
Chloroethane	ND		0.0078
Trichlorofluoromethane	ND		0.0016
1,1-Dichloroethene	ND		0.0016
Acetone	ND		0.0078
Iodomethane	ND		0.0078
Carbon Disulfide	ND		0.0016
Methylene Chloride	ND		0.0078
(trans) 1,2-Dichloroethene	ND		0.0016
Methyl t-Butyl Ether	ND		0.0016
1,1-Dichloroethane	ND		0.0016
Vinyl Acetate	ND		0.0078
2,2-Dichloropropane	ND		0.0016
(cis) 1,2-Dichloroethene	ND		0.0016
2-Butanone	ND		0.0078
Bromochloromethane	ND		0.0016
Chloroform	ND		0.0016
1,1,1-Trichloroethane	ND		0.0016
Carbon Tetrachloride	ND		0.0016
1,1-Dichloropropene	ND		0.0016
Benzene	ND		0.0016
1,2-Dichloroethane	ND		0.0016
Trichloroethene	ND		0.0016
1,2-Dichloropropane	ND		0.0016
Dibromomethane	ND		0.0016
Bromodichloromethane	ND		0.0016
2-Chloroethyl Vinyl Ether	ND		0.0078
(cis) 1,3-Dichloropropene	ND		0.0016
Methyl Isobutyl Ketone	ND		0.0078
Toluene	ND		0.0078
(trans) 1,3-Dichloropropene	ND		0.0016

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Lab ID: 03-169-09
Client ID: 09030814

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0016
Tetrachloroethene	ND		0.0016
1,3-Dichloropropane	ND		0.0016
2-Hexanone	ND		0.0078
Dibromochloromethane	ND		0.0016
1,2-Dibromoethane	ND		0.0016
Chlorobenzene	ND		0.0016
1,1,1,2-Tetrachloroethane	ND		0.0016
Ethylbenzene	ND		0.0016
m,p-Xylene	ND		0.0031
o-Xylene	ND		0.0016
Styrene	ND		0.0016
Bromoform	ND		0.0016
Isopropylbenzene	ND		0.0016
Bromobenzene	ND		0.0016
1,1,2,2-Tetrachloroethane	ND		0.0016
1,2,3-Trichloropropane	ND		0.0016
n-Propylbenzene	ND		0.0016
2-Chlorotoluene	ND		0.0016
4-Chlorotoluene	ND		0.0016
1,3,5-Trimethylbenzene	ND		0.0016
tert-Butylbenzene	ND		0.0016
1,2,4-Trimethylbenzene	ND		0.0016
sec-Butylbenzene	ND		0.0016
1,3-Dichlorobenzene	ND		0.0016
p-Isopropyltoluene	ND		0.0016
1,4-Dichlorobenzene	ND		0.0016
1,2-Dichlorobenzene	ND		0.0016
n-Butylbenzene	ND		0.0016
1,2-Dibromo-3-chloropropane	ND		0.0078
1,2,4-Trichlorobenzene	ND		0.0016
Hexachlorobutadiene	ND		0.0078
Naphthalene	ND		0.0016
1,2,3-Trichlorobenzene	ND		0.0016

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	93	70-118
Toluene-d8	94	70-121
4-Bromofluorobenzene	84	70-130

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Date Extracted:	3-30-09
Date Analyzed:	3-30-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-169-16
Client ID:	**09030938**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		30
Chloromethane	ND		150
Vinyl Chloride	ND		30
Bromomethane	ND		30
Chloroethane	ND		150
Trichlorofluoromethane	ND		30
1,1-Dichloroethene	ND		30
Acetone	4500		750
Iodomethane	ND		150
Carbon Disulfide	ND		30
Methylene Chloride	ND		150
(trans) 1,2-dichloroethene	ND		30
Methyl t-Butyl Ether	ND		30
1,1-Dichloroethane	ND		30
Vinyl Acetate	ND		300
2,2-Dichloropropane	ND		30
(cis) 1,2-Dichloroethene	ND		30
2-Butanone	2000		750
Bromochloromethane	ND		30
Chloroform	ND		30
1,1,1-Trichloroethane	ND		30
Carbon Tetrachloride	ND		30
1,1-Dichloropropene	ND		30
Benzene	71		30
1,2-Dichloroethane	ND		30
Trichloroethene	ND		30
1,2-Dichloropropane	ND		30
Dibromomethane	ND		30
Bromodichloromethane	ND		30
2-Chloroethyl Vinyl Ether	ND		150
(cis) 1,3-Dichloropropene	ND		30
Methyl Isobutyl Ketone	ND		300
Toluene	360		150
(trans) 1,3-Dichloropropene	ND		30

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Lab ID: 03-169-16
Client ID: 09030938

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		30
Tetrachloroethene	ND		30
1,3-Dichloropropane	ND		30
2-Hexanone	ND		300
Dibromochloromethane	ND		30
1,2-Dibromoethane	ND		30
Chlorobenzene	ND		30
1,1,1,2-Tetrachloroethane	ND		30
Ethylbenzene	34	U	30
m,p-Xylene	130	U	60
o-Xylene	54	U	30
Styrene	ND		30
Bromoform	ND		150
Isopropylbenzene	ND		30
Bromobenzene	ND		30
1,1,2,2-Tetrachloroethane	ND		30
1,2,3-Trichloropropane	ND		30
n-Propylbenzene	ND		30
2-Chlorotoluene	ND		30
4-Chlorotoluene	ND		30
1,3,5-Trimethylbenzene	ND		30
tert-Butylbenzene	ND		30
1,2,4-Trimethylbenzene	40		30
sec-Butylbenzene	ND		30
1,3-Dichlorobenzene	ND		30
p-Isopropyltoluene	ND		30
1,4-Dichlorobenzene	ND		30
1,2-Dichlorobenzene	ND		30
n-Butylbenzene	ND		30
1,2-Dibromo-3-chloropropane	ND		150
1,2,4-Trichlorobenzene	ND		30
Hexachlorobutadiene	ND		30
Naphthalene	ND		150
1,2,3-Trichlorobenzene	ND		30

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	77	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	87	70-123

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Date Extracted:	3-30-09
Date Analyzed:	3-30-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-169-17
Client ID:	**09030939**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		50
Chloromethane	ND		250
Vinyl Chloride	ND		50
Bromomethane	ND		50
Chloroethane	ND		250
Trichlorofluoromethane	ND		50
1,1-Dichloroethene	ND		50
Acetone	11000		2500
Iodomethane	ND		250
Carbon Disulfide	ND		50
Methylene Chloride	ND		250
(trans) 1,2-dichloroethene	ND		50
Methyl t-Butyl Ether	ND		50
1,1-Dichloroethane	ND		50
Vinyl Acetate	ND		500
2,2-Dichloropropane	ND		50
(cis) 1,2-Dichloroethene	ND		50
2-Butanone	6000		1300
Bromochloromethane	ND		50
Chloroform	ND		50
1,1,1-Trichloroethane	ND		50
Carbon Tetrachloride	ND		50
1,1-Dichloropropene	ND		50
Benzene	110		50
1,2-Dichloroethane	ND		50
Trichloroethene	ND		50
1,2-Dichloropropane	ND		50
Dibromomethane	ND		50
Bromodichloromethane	ND		50
2-Chloroethyl Vinyl Ether	ND		250
(cis) 1,3-Dichloropropene	ND		50
Methyl Isobutyl Ketone	ND		500
Toluene	710		250
(trans) 1,3-Dichloropropene	ND		50

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Lab ID: 03-169-17
Client ID: 09030939

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		50
Tetrachloroethene	ND		50
1,3-Dichloropropane	ND		50
2-Hexanone	ND		500
Dibromochloromethane	ND		50
1,2-Dibromoethane	ND		50
Chlorobenzene	ND		50
1,1,1,2-Tetrachloroethane	ND		50
Ethylbenzene	74		50
m,p-Xylene	280		100
o-Xylene	86		50
Styrene	ND		50
Bromoform	ND		250
Isopropylbenzene	ND		50
Bromobenzene	ND		50
1,1,2,2-Tetrachloroethane	ND		50
1,2,3-Trichloropropane	ND		50
n-Propylbenzene	ND		50
2-Chlorotoluene	ND		50
4-Chlorotoluene	ND		50
1,3,5-Trimethylbenzene	ND		50
tert-Butylbenzene	ND		50
1,2,4-Trimethylbenzene	ND		50
sec-Butylbenzene	ND		50
1,3-Dichlorobenzene	ND		50
p-Isopropyltoluene	ND		50
1,4-Dichlorobenzene	ND		50
1,2-Dichlorobenzene	ND		50
n-Butylbenzene	ND		50
1,2-Dibromo-3-chloropropane	ND		250
1,2,4-Trichlorobenzene	ND		50
Hexachlorobutadiene	ND		50
Naphthalene	ND		250
1,2,3-Trichlorobenzene	ND		50

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	85	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	96	70-123

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Date Extracted: 3-30-09
Date Analyzed: 3-30-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-169-18
Client ID: 09030940

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		10
Chloromethane	ND		50
Vinyl Chloride	ND		10
Bromomethane	ND		10
Chloroethane	ND		50
Trichlorofluoromethane	ND		10
1,1-Dichloroethene	ND		10
Acetone	360		250
Iodomethane	ND		50
Carbon Disulfide	ND		10
Methylene Chloride	ND		50
(trans) 1,2-dichloroethene	ND		10
Methyl t-Butyl Ether	ND		10
1,1-Dichloroethane	ND		10
Vinyl Acetate	ND		100
2,2-Dichloropropane	ND		10
(cis) 1,2-Dichloroethene	ND		10
2-Butanone	ND		250
Bromochloromethane	ND		10
Chloroform	ND		10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
1,1-Dichloropropene	ND		10
Benzene	57		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
1,2-Dichloropropane	ND		10
Dibromomethane	ND		10
Bromodichloromethane	ND		10
2-Chloroethyl Vinyl Ether	ND		50
(cis) 1,3-Dichloropropene	ND		10
Methyl Isobutyl Ketone	ND		100
Toluene	1500		50
(trans) 1,3-Dichloropropene	ND		10

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Lab ID: 03-169-18
Client ID: 09030940

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		10
Tetrachloroethene	ND		10
1,3-Dichloropropane	ND		10
2-Hexanone	ND		100
Dibromochloromethane	ND		10
1,2-Dibromoethane	ND		10
Chlorobenzene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
Ethylbenzene	47		10
m,p-Xylene	190		20
o-Xylene	100		10
Styrene	ND		10
Bromoform	ND		50
Isopropylbenzene	ND		10
Bromobenzene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
1,2,3-Trichloropropane	ND		10
n-Propylbenzene	ND		10
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
1,3,5-Trimethylbenzene	15		10
tert-Butylbenzene	ND		10
1,2,4-Trimethylbenzene	47		10
sec-Butylbenzene	ND		10
1,3-Dichlorobenzene	ND		10
p-Isopropyltoluene	26		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
n-Butylbenzene	ND		10
1,2-Dibromo-3-chloropropane	ND		50
1,2,4-Trichlorobenzene	ND		10
Hexachlorobutadiene	ND		10
Naphthalene	ND		50
1,2,3-Trichlorobenzene	ND		10

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	80	71-126
Toluene-d8	86	76-116
4-Bromofluorobenzene	92	70-123

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Date Extracted:	3-30-09
Date Analyzed:	3-30-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-169-19
Client ID:	**09030941**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		2.0
Chloromethane	ND		10
Vinyl Chloride	ND		2.0
Bromomethane	ND		2.0
Chloroethane	ND		10
Trichlorofluoromethane	ND		2.0
1,1-Dichloroethene	ND		2.0
Acetone	270		50
Iodomethane	ND		10
Carbon Disulfide	ND		2.0
Methylene Chloride	ND		10
(trans) 1,2-dichloroethene	ND		2.0
Methyl t-Butyl Ether	ND		2.0
1,1-Dichloroethane	ND		2.0
Vinyl Acetate	ND		20
2,2-Dichloropropane	ND		2.0
(cis) 1,2-Dichloroethene	ND		2.0
2-Butanone	290		50
Bromochloromethane	ND		2.0
Chloroform	ND		2.0
1,1,1-Trichloroethane	ND		2.0
Carbon Tetrachloride	ND		2.0
1,1-Dichloropropene	ND		2.0
Benzene	3.3		2.0
1,2-Dichloroethane	3.8		2.0
Trichloroethene	ND		2.0
1,2-Dichloropropane	ND		2.0
Dibromomethane	ND		2.0
Bromodichloromethane	ND		2.0
2-Chloroethyl Vinyl Ether	ND		10
(cis) 1,3-Dichloropropene	ND		2.0
Methyl Isobutyl Ketone	ND		20
Toluene	39		10
(trans) 1,3-Dichloropropene	ND		2.0

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Samples Submitted: March 26, 2009
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Lab ID: 03-169-19
Client ID: 09030941

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		2.0
Tetrachloroethene	ND		2.0
1,3-Dichloropropane	ND		2.0
2-Hexanone	ND		20
Dibromochloromethane	ND		2.0
1,2-Dibromoethane	ND		2.0
Chlorobenzene	ND		2.0
1,1,1,2-Tetrachloroethane	ND		2.0
Ethylbenzene	4.0		2.0
m,p-Xylene	14		4.0
o-Xylene	6.7		2.0
Styrene	ND		2.0
Bromoform	ND		10
Isopropylbenzene	ND		2.0
Bromobenzene	ND		2.0
1,1,2,2-Tetrachloroethane	ND		2.0
1,2,3-Trichloropropane	ND		2.0
n-Propylbenzene	ND		2.0
2-Chlorotoluene	ND		2.0
4-Chlorotoluene	ND		2.0
1,3,5-Trimethylbenzene	4.0		2.0
tert-Butylbenzene	ND		2.0
1,2,4-Trimethylbenzene	11		2.0
sec-Butylbenzene	ND		2.0
1,3-Dichlorobenzene	ND		2.0
p-Isopropyltoluene	9.5		2.0
1,4-Dichlorobenzene	ND		2.0
1,2-Dichlorobenzene	ND		2.0
n-Butylbenzene	ND		2.0
1,2-Dibromo-3-chloropropane	ND		10
1,2,4-Trichlorobenzene	ND		2.0
Hexachlorobutadiene	ND		2.0
Naphthalene	17		10
1,2,3-Trichlorobenzene	ND		2.0

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	78	71-126
Toluene-d8	85	76-116
4-Bromofluorobenzene	89	70-123

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Date Extracted:	3-30&31-09
Date Analyzed:	3-30&31-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-169-20
Client ID:	**09030943**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Acetone	24		5.0
Iodomethane	ND		1.0
Carbon Disulfide	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
Methyl t-Butyl Ether	ND		0.20
1,1-Dichloroethane	ND		0.20
Vinyl Acetate	ND		2.0
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
2-Butanone	ND		5.0
Bromochloromethane	ND		0.20
Chloroform	0.63		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
Benzene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
Methyl Isobutyl Ketone	ND		2.0
Toluene	ND		1.0
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: April 8, 2009
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Lab ID: 03-169-20
Client ID: 09030943

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
2-Hexanone	ND		2.0
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Ethylbenzene	81		1.0
m,p-Xylene	290		2.0
o-Xylene	61		1.0
Styrene	ND		0.20
Bromoform	ND		1.0
Isopropylbenzene	ND		0.20
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
n-Propylbenzene	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3,5-Trimethylbenzene	ND		0.20
tert-Butylbenzene	ND		0.20
1,2,4-Trimethylbenzene	ND		0.20
sec-Butylbenzene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
p-Isopropyltoluene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
n-Butylbenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
Naphthalene	ND		1.0
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	79	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	91	70-123

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MEMORANDUM

DATE: April 28, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 15 soil and 4 water samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Analysis for Extended Diesel Range Total Petroleum Hydrocarbons (Ecology Method NWTPH-Dx) was performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered:

09030806	09030807	09030808	09030809	09030810
09030811	09030812	09030813	09030814	09030815
09030816	09030817	09030818	09030819	09030820
09030838	09030839	09030840	09030841	

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

The samples were collected on March 25 or 26, 2009, extracted on April 1 or 2, 2009, and analyzed by April 4, 2009, therefore meeting QC criteria of less than 7 days between collection and extraction for water samples, less than 14 days between collection and extraction for soil samples, and less than 40 days between extraction and analysis.

2. **Initial Calibration: Acceptable.**

Calculations were verified as correct. All relative percent differences (RPDs) were less than or equal to the laboratory control limits.

3. **Continuing Calibration: Acceptable.**

Calculations were verified as correct. All percent differences (%Ds) were $\leq$ the laboratory control limits of 15%.

4. Error Determination: Not Performed.

Samples necessary for bias and precision determination were not provided to the laboratory. All samples were flagged RND (Recovery Not Determined) and PND (Precision Not Determined), although the flags are not found on the Form I's.

5. Blanks: Acceptable.

A method blank was analyzed for each extraction batch for each matrix and analysis system. Diesel- and motor oil-range TPHs were not detected in any blank.

6. System Monitoring Compounds (SMC): Acceptable.

All recoveries of the SMCs were greater than 10% and within QC criteria.

7. Performance Evaluation Samples: Not Provided.

Performance evaluation samples were not provided to the laboratory.

8. Matrix and Blank Spikes: Acceptable.

Matrix and blank spike results were within QC limits.

9. Duplicates: Acceptable.

Duplicate results were acceptable.

10. Quantitation and Quantitation Limits: Acceptable.

Sample concentrations were correctly calculated.

11. Laboratory Contact: Not Required.

No laboratory contact was required.

12. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the Site-Specific Sampling Plan, the OSWER Directive "Quality Assurance/Quality Control Guidance for Removal Activities, Data Validation Procedures" (EPA/540/G-90/004) and the analytical method. Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample quantitation limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted: 4-2-09
Date Analyzed: 4-2-09

Matrix: Soil
Units: mg/kg (ppm)

Client ID:	**09030806**	**09030807**	**09030808**
Lab ID:	03-169-01	03-169-02	03-169-03
Diesel Range:	**ND**	**1100**	**150**
PQL:	35 U	34	36
Identification:	---	Diesel Range Organics	Diesel Range Organics
Lube Oil Range:	**81**	**2800**	**730**
PQL:	70	68	71
Identification:	Lube Oil	Lube Oil	Lube Oil
Surrogate Recovery			
o-Terphenyl:	98%	103%	101%
Flags:	Y	Y	Y

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted: 4-2-09
Date Analyzed: 4-2&4-09

Matrix: Soil
Units: mg/kg (ppm)

Client ID:	**09030809**	**09030810**	**09030811**
Lab ID:	03-169-04	03-169-05	03-169-06
Diesel Range:	**ND**	**46**	**ND**
PQL:	37 U	36	35 U
Identification:	---	Diesel Range Organics	---
Lube Oil Range:	**ND**	**96**	**ND**
PQL:	74 U	71	70 U
Identification:	---	Lube Oil	---
Surrogate Recovery			
o-Terphenyl:	85%	78%	75%
Flags:	Y	Y	Y

4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted:	4-2-09
Date Analyzed:	4-2-09
Matrix:	Soil
Units:	mg/kg (ppm)

Client ID:	**09030812**	**09030813**	**09030814**
Lab ID:	03-169-07	03-169-08	03-169-09
Diesel Range:	**ND**	**390**	**ND**
PQL:	36 U	37	30 U
Identification:	---	Diesel Range Organics	---
Lube Oil Range:	**180**	**1900**	**ND**
PQL:	71	75	60 U
Identification:	Lube Oil	Lube Oil	---
Surrogate Recovery			
o-Terphenyl:	66%	91%	102%
Flags:	Y	Y	Y

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted: 4-2-09
Date Analyzed: 4-2-09

Matrix: Soil
Units: mg/kg (ppm)

Client ID:	**09030815**	**09030816**	**09030817**
Lab ID:	03-169-10	03-169-11	03-169-12
Diesel Range:	**ND**	**ND**	**ND**
PQL:	31 U	33 U	31 U
Identification:	---	---	---
Lube Oil Range:	**ND**	**ND**	**ND**
PQL:	61 U	65 U	62 U
Identification:	---	---	---
Surrogate Recovery			
o-Terphenyl:	88%	90%	83%
Flags:	Y	Y	Y

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted: 4-2-09
Date Analyzed: 4-2&4-09

Matrix: Soil
Units: mg/kg (ppm)

Client ID:	**09030818**	**09030819**	**09030820**
Lab ID:	03-169-13	03-169-14	03-169-15
Diesel Range:	**ND**	**ND**	**ND**
PQL:	32 U	280 U	120 U
Identification:	---	---	---
Lube Oil Range:	**ND**	**1600**	**1000**
PQL:	63 U	63	64
Identification:	---	Lube Oil	Lube Oil
Surrogate Recovery			
o-Terphenyl:	82%	98%	83%
Flags:	Y	Y,U1	Y,U1

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted: 4-1-09
Date Analyzed: 4-1&2-09

Matrix: Water
Units: mg/L (ppm)

Client ID:	**09030938**	**09030939**	**09030940**
Lab ID:	03-169-16	03-169-17	03-169-18
Diesel Range:	**1.2**	**1.3**	**13**
PQL:	0.25	0.24	0.60
Identification:	Diesel Range Organics	Diesel Range Organics	Diesel Range Organics
Lube Oil Range:	**1.2**	**1.1**	**26**
PQL:	0.39	0.39	0.96
Identification:	Lube Oil	Lube Oil	Lube Oil
Surrogate Recovery			
o-Terphenyl:	103%	85%	128%
Flags:	Y,M	Y,M	Y

4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

NWTPH-Dx

Date Extracted:	4-1-09
Date Analyzed:	4-2-09
Matrix:	Water
Units:	mg/L (ppm)
Client ID:	**09030941**
Lab ID:	03-169-19
Diesel Range:	**6.2**
PQL:	0.61
Identification:	Diesel Range Organics
Lube Oil Range:	**48**
PQL:	0.97
Identification:	Lube Oil
Surrogate Recovery	
o-Terphenyl:	99%
Flags:	Y

MW 4/28/09

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MEMORANDUM

DATE: April 28, 2009

TO: Eric Nuchims, Project Manager, E & E, Seattle, Washington

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ: **Organic Data Quality Assurance Review, Double H Pesticide Burial Site, Yakima, Washington**

REF: TDD: 09-03-0008 PAN: 002233.0442.01SF

The data quality assurance review of 15 soil and 4 water samples collected from the Double H Pesticide Burial site located near Yakima, Washington, has been completed. Total Target Analyte List (TAL) metals analyses (EPA Methods 200.8, 6010B, 6020, 7470A, and 7471A) were performed by OnSite Environmental, Inc., Redmond, Washington.

The samples were numbered:

09030806	09030807	09030808	09030809	09030810
09030811	09030812	09030813	09030814	09030815
09030816	09030817	09030818	09030819	09030820
09030938	09030939	09030940	09039841	

Data Qualifications:

1. Sample Holding Times: Acceptable.

All liquid samples were preserved to a pH < 2. The samples were maintained at 4°C (± 2°C). The samples were collected on March 25 or 26, 2009, were extracted on March 30, 2009, and were analyzed by April 6, 2009, therefore meeting QC criteria of less than 6 months between collection, extraction, and analysis (28 days for mercury).

2. Initial and Continuing Calibration: Acceptable.

A minimum of one calibration standard and a blank were analyzed at the beginning of the ICP analysis sequence and after every 10 samples. No results were greater than 110% of the highest calibration standard. All ICP recoveries were within the QC limits of 90% to 110%. All AA recoveries were within QC limits of 80% to 120%.

3. Blanks: Acceptable.

A preparation blank was analyzed for each 20 samples or per matrix per concentration level. Blanks were analyzed after each Initial or Continuing Calibration Verification. There were no detections

in any blanks that affected the sample results.

4. ICP Interference Check Sample: Acceptable.

An Interference Check Sample (ICS) was analyzed at the beginning and end of each sequence or at least twice every 8 hours, whichever was more frequent. All ICS (solution AB) results were within QC limits of 80% - 120% recovery.

5. Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory. All results were flagged "PND" (Precision Not Determined) and "RND" (Recovery Not Determined), although the flags do not appear on the data sheets.

6. Performance Evaluation Sample Analysis: Not Provided.

Performance evaluation samples were not provided to the laboratory.

7. ICP Serial Dilution: Acceptable.

A serial dilution analysis was performed per matrix per concentration or per sample delivery group, whichever was more frequent. All serial dilution results were within QC limits.

8. Matrix Spike Analysis: Acceptable.

A matrix spike analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. Spike and spike duplicate recoveries were within the QC limits.

9. Duplicate Analysis: Acceptable.

A laboratory duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All duplicate results were within QC limits.

10. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical methods, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the sample detection limits but greater than the instrument detection limits or because quality control criteria limits were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

UJ - The material was analyzed for, but not detected. The reported detection limit is estimated because quality control criteria were not met.

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-01
Client ID: **09030806**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.0
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.70
Cadmium	6010B	**ND**	0.70
Chromium	6010B	**22**	0.70
Copper	6010B	**21**	1.4
Lead	6010B	**44**	7.0
Mercury	7471A	**ND**	0.35
Nickel	6010B	**17**	3.5
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.70
Thallium	6020	**ND**	7.0
Zinc	6010B	**65**	3.5

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-02
Client ID: **09030807**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.8
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.68
Cadmium	6010B	**ND**	0.68
Chromium	6010B	**14**	0.68
Copper	6010B	**20**	1.4
Lead	6010B	**7.1**	6.8
Mercury	7471A	**ND**	0.34
Nickel	6010B	**16**	3.4
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.68
Thallium	6020	**ND**	6.8
Zinc	6010B	**100**	3.4

4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-03
Client ID: **09030808**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.1
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.71
Cadmium	6010B	**ND**	0.71
Chromium	6010B	**14**	0.71
Copper	6010B	**23**	1.4
Lead	6010B	**8.0**	7.1
Mercury	7471A	**ND**	0.36
Nickel	6010B	**17**	3.6
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.71
Thallium	6020	**ND**	7.1
Zinc	6010B	**69**	3.6

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-04
Client ID: **09030809**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.4
Arsenic	6010B	**ND**	15
Beryllium	6010B	**ND**	0.74
Cadmium	6010B	**ND**	0.74
Chromium	6010B	**13**	0.74
Copper	6010B	**19**	1.5
Lead	6010B	**7.6**	7.4
Mercury	7471A	**ND**	0.37
Nickel	6010B	**16**	3.7
Selenium	6010B	**ND**	15
Silver	6010B	**ND**	0.74
Thallium	6020	**ND**	7.4
Zinc	6010B	**56**	3.7

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-05
Client ID: **09030810**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.1
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.71
Cadmium	6010B	**ND**	0.71
Chromium	6010B	**15**	0.71
Copper	6010B	**21**	1.4
Lead	6010B	**ND**	7.1
Mercury	7471A	**ND**	0.36
Nickel	6010B	**17**	3.6
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.71
Thallium	6020	**ND**	7.1
Zinc	6010B	**69**	3.6

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-06
Client ID: **09030811**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.0
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.70
Cadmium	6010B	**ND**	0.70
Chromium	6010B	**13**	0.70
Copper	6010B	**20**	1.4
Lead	6010B	**ND**	7.0
Mercury	7471A	**ND**	0.35
Nickel	6010B	**15**	3.5
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.70
Thallium	6020	**ND**	7.0
Zinc	6010B	**64**	3.5

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-07
Client ID: **09030812**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.1
Arsenic	6010B	**ND**	14
Beryllium	6010B	**ND**	0.71
Cadmium	6010B	**ND**	0.71
Chromium	6010B	**14**	0.71
Copper	6010B	**20**	1.4
Lead	6010B	**7.7**	7.1
Mercury	7471A	**ND**	0.36
Nickel	6010B	**15**	3.6
Selenium	6010B	**ND**	14
Silver	6010B	**ND**	0.71
Thallium	6020	**ND**	7.1
Zinc	6010B	**140**	3.6

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-08
Client ID: **09030813**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	7.5
Arsenic	6010B	**ND**	15
Beryllium	6010B	**ND**	0.75
Cadmium	6010B	**ND**	0.75
Chromium	6010B	**15**	0.75
Copper	6010B	**24**	1.5
Lead	6010B	**ND**	7.5
Mercury	7471A	**ND**	0.37
Nickel	6010B	**15**	3.7
Selenium	6010B	**ND**	15
Silver	6010B	**ND**	0.75
Thallium	6020	**ND**	7.5
Zinc	6010B	**180**	3.7

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-09
Client ID: **09030814**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.0 U
Arsenic	6010B	**ND**	12
Beryllium	6010B	**ND**	0.60
Cadmium	6010B	**ND**	0.60
Chromium	6010B	**12**	0.60
Copper	6010B	**18**	1.2
Lead	6010B	**13**	6.0
Mercury	7471A	**ND**	0.30 U
Nickel	6010B	**17**	3.0
Selenium	6010B	**ND**	12 U
Silver	6010B	**ND**	0.60
Thallium	6020	**ND**	6.0
Zinc	6010B	**53**	3.0

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-10
Client ID: **09030815**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.1
Arsenic	6010B	**ND**	12
Beryllium	6010B	**ND**	0.61
Cadmium	6010B	**ND**	0.61
Chromium	6010B	**14**	0.61
Copper	6010B	**20**	1.2
Lead	6010B	**6.5**	6.1
Mercury	7471A	**ND**	0.30
Nickel	6010B	**16**	3.0
Selenium	6010B	**ND**	12
Silver	6010B	**ND**	0.61
Thallium	6020	**ND**	6.1
Zinc	6010B	**56**	3.0

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-11
Client ID: **09030816**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.5
Arsenic	6010B	**ND**	13
Beryllium	6010B	**ND**	0.65
Cadmium	6010B	**ND**	0.65
Chromium	6010B	**14**	0.65
Copper	6010B	**20**	1.3
Lead	6010B	**8.8**	6.5
Mercury	7471A	**ND**	0.32
Nickel	6010B	**16**	3.2
Selenium	6010B	**ND**	13
Silver	6010B	**ND**	0.65
Thallium	6020	**ND**	6.5
Zinc	6010B	**57**	3.2

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-12
Client ID: **09030817**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.2
Arsenic	6010B	**ND**	12
Beryllium	6010B	**ND**	0.62
Cadmium	6010B	**ND**	0.62
Chromium	6010B	**14**	0.62
Copper	6010B	**21**	1.2
Lead	6010B	**6.9**	6.2
Mercury	7471A	**ND**	0.31
Nickel	6010B	**16**	3.1
Selenium	6010B	**ND**	12
Silver	6010B	**ND**	0.62
Thallium	6020	**ND**	6.2
Zinc	6010B	**60**	3.1

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-13
Client ID: **09030818**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.3
Arsenic	6010B	**ND**	13
Beryllium	6010B	**ND**	0.63
Cadmium	6010B	**ND**	0.63
Chromium	6010B	**14**	0.63
Copper	6010B	**21**	1.3
Lead	6010B	**ND**	6.3
Mercury	7471A	**ND**	0.32
Nickel	6010B	**17**	3.2
Selenium	6010B	**ND**	13
Silver	6010B	**ND**	0.63
Thallium	6020	**ND**	6.3
Zinc	6010B	**58**	3.2

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-14
Client ID: **09030819**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.3
Arsenic	6010B	**ND**	13
Beryllium	6010B	**ND**	0.63
Cadmium	6010B	**ND**	0.63
Chromium	6010B	**14**	0.63
Copper	6010B	**22**	1.3
Lead	6010B	**6.7**	6.3
Mercury	7471A	**ND**	0.32
Nickel	6010B	**16**	3.2
Selenium	6010B	**ND**	13
Silver	6010B	**ND**	0.63
Thallium	6020	**ND**	6.3
Zinc	6010B	**70**	3.2

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 6010B/6020/7471A

Date Extracted: 3-30&4-1-09
Date Analyzed: 3-30,4-1&3-09

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-169-15
Client ID: **09030820**

Analyte	Method	Result	PQL
Antimony	6010B	**ND**	6.4 U
Arsenic	6010B	**ND**	13
Beryllium	6010B	**ND**	0.64
Cadmium	6010B	**ND**	0.64
Chromium	6010B	**14**	0.64
Copper	6010B	**23**	1.3
Lead	6010B	**6.8**	6.4
Mercury	7471A	**ND**	0.32 U
Nickel	6010B	**16**	3.2
Selenium	6010B	**ND**	13 U
Silver	6010B	**ND**	0.64
Thallium	6020	**ND**	6.4
Zinc	6010B	**75**	3.2

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Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 200.8/7470A

Date Extracted: 3-31-09
Date Analyzed: 3-31&4-6-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-169-16
Client ID: 09030938

Analyte	Method	Result	PQL
Antimony	200.8	**ND**	5.6 U
Arsenic	200.8	**47**	3.3
Beryllium	200.8	**ND**	11 U
Cadmium	200.8	**ND**	4.4 U
Chromium	200.8	**43**	11
Copper	200.8	**63**	11
Lead	200.8	**33**	1.1
Mercury	7470A	**ND**	0.50 U
Nickel	200.8	**150**	22
Selenium	200.8	**7.5**	5.6
Silver	200.8	**ND**	11 U
Thallium	200.8	**ND**	5.6 U
Zinc	200.8	**1400**	28

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 200.8/7470A

Date Extracted: 3-31-09
Date Analyzed: 3-31&4-6-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-169-17
Client ID: 09030939

Analyte	Method	Result	PQL
Antimony	200.8	**ND**	5.6 U
Arsenic	200.8	**30**	3.3
Beryllium	200.8	**ND**	11 U
Cadmium	200.8	**ND**	4.4 U
Chromium	200.8	**26**	11
Copper	200.8	**33**	11
Lead	200.8	**11**	1.1
Mercury	7470A	**ND**	0.50 U
Nickel	200.8	**110**	22
Selenium	200.8	**ND**	5.6 U
Silver	200.8	**ND**	11 U
Thallium	200.8	**ND**	5.6 U
Zinc	200.8	**2900**	28

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 200.8/7470A

Date Extracted: 3-31-09
Date Analyzed: 3-31&4-6-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-169-18
Client ID: 09030940

Analyte	Method	Result	PQL
Antimony	200.8	**ND**	5.6 U
Arsenic	200.8	**18**	3.3
Beryllium	200.8	**ND**	11 U
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**ND**	11
Copper	200.8	**20**	11
Lead	200.8	**13**	1.1
Mercury	7470A	**ND**	0.50 U
Nickel	200.8	**33**	22
Selenium	200.8	**ND**	5.6 U
Silver	200.8	**ND**	11
Thallium	200.8	**ND**	5.6
Zinc	200.8	**2000**	28

MW 4-28-09

Date of Report: April 8, 2009
Samples Submitted: March 26, 2009
Laboratory Reference: 0903-169
Project: 10HA-03/24/09-0008

TOTAL METALS
EPA 200.8/7470A

Date Extracted: 3-31-09
Date Analyzed: 3-31&4-6-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-169-19
Client ID: 09030941

Analyte	Method	Result	PQL
Antimony	200.8	**ND**	5.6
Arsenic	200.8	**41**	3.3
Beryllium	200.8	**ND**	11
Cadmium	200.8	**ND**	4.4
Chromium	200.8	**60**	11
Copper	200.8	**110**	11
Lead	200.8	**46**	1.1
Mercury	7470A	**ND**	0.50
Nickel	200.8	**80**	22
Selenium	200.8	**ND**	5.6
Silver	200.8	**ND**	11
Thallium	200.8	**ND**	5.6
Zinc	200.8	**1000**	28