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DEPARTMENT OF ECOLOGY
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May 7, 2018

Mr. Mike Scott
Wilcox and Flegel
95 Panel Way
Longview, WA 98632

Re: Request for Additional Information on Cleanup under the VCP for the following Contaminated Site:

- **Site Name:** John's Shell
- **Site Address:** 1410 Ocean Beach Hwy., Longview, 98632-4644, Cowlitz County
- **Cleanup Site ID:** 11294
- **Facility/Site ID:** 98186449
- **VCP Project ID:** SW1623

Dear Mr. Scott:

Thank you for submitting your Environmental Summary Report for review by the Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Based on a preliminary review, Ecology determined your report is incomplete. The enclosed Checklist identifies what additional information Ecology needs. Ecology requests that you update and resubmit your report to include the information specified in the enclosed Checklist.

When updating your report, we hope you will also reference our Template, available at https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process/Cleanup-options/Voluntary-cleanup-program/Reporting-requirements. Ecology developed both the Checklists and Template to provide clarity on our expectations for work plans and reports. We hope you find them useful.

If you have any questions about this request or how to complete your report, please contact me at (360) 407-6437 or aaren.fiedler@ecy.wa.gov. Thank you for your cooperation, and we look forward to working with you.

Sincerely,

Aaren Fiedler

Aaren Fiedler
VCP Site Manager
Toxics Cleanup Program,
Southwest Regional Office

Enclosures (2): Remedial Investigation Checklist
Site History

By certified mail: 91 7199 9991 7037 0238 2763

cc: David Borys, HydroCon Environmental, LLC
Nicholas Acklam, Ecology
Stephanie Bussell, Ecology
Ecology Site File

Remedial Investigation Checklist

Toxics Cleanup Program

May 2016

Publication No. 16-09-006

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Site Name/FSID: **John's Shell**

FSID: **98186449**

Report Name: **Environmental Summary Report**

Date Submitted: **12/26/2017**

Reviewed By: **Aaren Fiedler**

Review Date: **03/21/2018**

Remedial Investigation (RI) Checklist Guidance

The Model Toxics Control Act (MTCA) regulation Washington Administrative Code (WAC) 173-340-350(7) broadly describes the elements necessary to complete a RI. The purpose of a RI is to collect and evaluate sufficient information to fully characterize the nature and extent of contamination at a site.

This RI checklist is considered guidance based on the MTCA cleanup regulation WAC 173-340. Cleanup project managers with the Washington State Department of Ecology (Ecology) have discretion when reviewing and accepting RI reports as site-specific circumstances dictate the necessary scope and breadth of each report.

Remedial Investigation Report Body

Cover Letter. Include a letter describing the submittal and specifying the desired department action or response.

I. Introduction.

a. **General Site Information.** Include contact information for project coordinators (Ecology site manager, consultants, potentially liable persons (PLP), and current owner/operator). Include the site name and identification numbers, general description, and location (e.g., GPS coordinates, assessor parcel number, Quarter Section Township Range, address).

b. **Site History.** Describe site from earliest known time of habitation and/or development. Describe previous owners/operators, past uses of the site, and all potential/known sources (both on-site and off-site) of contamination (e.g., petroleum storage tanks, manufacturing processes, chemical storage, etc.). Include approximate dates or periods of past product and waste spills, identification of the materials spilled, and amount/location of the spill.

c. **Site Use.** Describe current site uses, land use/zoning, and future use plans.

II. Field Investigations

a. **Previous Environmental Investigations.** Discuss prior work performed, samples obtained, why sampling locations were chosen, etc. Cite any previous environmental reports.

b. **Site Characterization.** Discuss current site characterization activities for each site media (surface water/sediments, soils, groundwater systems, air, and cultural history/archeology, if applicable). Name site contaminants of concern (COCs) and discuss why they were chosen for analysis. Describe how prior and current work efforts contribute to the understanding of the nature and extent of contamination.

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	Adequate	Incomplete	Missing	N/A
	X			
	X			
	X			
		X		

Comments: I realize you can't speak to why previous consultants did what they did, but previous data collected from past consultants should be interpreted.

	X		

Comments: It has not been demonstrated that the Site has been fully characterized.

Ecology's understanding of the history of the Site based on submitted reports is included after this checklist.

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Adequate	Incomplete	Missing	N/A

III. Sampling/Analytical Results. Discussion of sampling/analytical results should include contaminants analyzed for in samples from each applicable site media (soil, groundwater, vapor, surface water). Include comparison of the results to the applicable Method (A, B, or C) cleanup level, sampling method, laboratory method, and any special sampling or analytical protocols (silica gel, filtration, etc.). Evaluate the quality of the data.

	X		

IV. Conceptual Site Model

a. **Conceptual Site Model (CSM).** Discuss contaminant release, fate and transport, exposure pathways (surface water, groundwater wells, air, direct contact, etc.), and potential receptors (human, aquatic, terrestrial). Describe typical concerns for this type of environmental contamination, and include a discussion of site specific concerns (hydro-geologic setting, receptors, current or future site zoning/land use etc.).

		X	

V. Proposed Cleanup Standards

a. **General.** Clearly identify proposed cleanup levels for each media and rationale for selected level. Explain/justify mixing MTCA methods for different media. Must include a demonstration of conditions that require a calculated solution if one is to be use (e.g., background calculations, use of Method B or C, etc.) and show calculation of the cleanup level, including a list of the input parameters. Include point(s) of compliance.

X			

b. **Terrestrial Ecological Evaluation (TEE).** A TEE should be performed, if required, as part of cleanup level selection. Reference WAC 173-340-7491 to see if the site qualifies for an exclusion.

www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm

		X	

Comments: A TEE was not included as part of your report, and could not be located in the Site file.

VI. Summary, Conclusions, and Recommendations

a. **Summary and Conclusions.** Summarize what is known about the site and contamination (updated CSM). Include discussion of COCs that exceed MTCA or are "indicator hazardous substances." Ensure conclusions are supported by the tables and figures included with the report.

X			

b. **Recommendations.** Outline possible interim/remedial actions if appropriate.

			X

Remedial Investigation Figures

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General – Figures should include a north arrow, scale, complete legend, measurement units, and annotated clarification as necessary. Figures should not be cluttered and must be legible and explicable. Document text must reference figures and draw conclusions consistent with information presented on figures. Consider using multiple figures when showing large amounts of information.

Adequate	Incomplete	Missing	N/A

I. Vicinity Map(s)

a. Show property in relation to surrounding region. Area covered by Vicinity Map should be proportional to site size.

Adequate	Incomplete	Missing	N/A
X			

b. Show other applicable items including (but not limited to): surface topography, natural areas, surrounding land uses, location of groundwater supply and monitoring wells within a one mile radius.

Adequate	Incomplete	Missing	N/A
			X

II. Site Map(s)

a. Show overall site layout with site features and existing well, boring, and sampling locations labeled consistently with current and historical site data and sample names used in the report. If multiple names exist for a sampling location or area of the site indicate this.

Adequate	Incomplete	Missing	N/A
		X	

Comments: Report focused on groundwater and did not show or discuss soils results.

b. Include COC locations, concentrations, and estimated vertical and horizontal extent of contamination for site media, as applicable. Include waste materials present on site as well as hazardous substance treatment, storage, or disposal areas (show current and historical features).

Adequate	Incomplete	Missing	N/A
		X	

c. Show geologic/hydrogeologic information including soil types, wells, screened intervals, and water levels (cross sections are useful for showing this information). Show groundwater flow direction and gradient.

Adequate	Incomplete	Missing	N/A
X			

d. Show other relevant information including (but not limited to): site and property boundaries, buildings/facilities on site, historical site features, underground storage tanks (USTs), previous excavation/interim action activity, etc.

Adequate	Incomplete	Missing	N/A
	X		

Comments: There was mention in earlier reports of a waste oil tank located near the observed TPH-O contamination. Its location and status should be included.

III. Conceptual Site Model

a. Provide figures showing contaminant release(s), fate and transport, exposure pathways, and potential and/or actual receptors. The lateral and vertical extent of contamination, as currently understood, should be clearly conveyed.

Adequate	Incomplete	Missing	N/A
		X	

Comments: Specifically, it does not appear that the extent of contamination in soil has been defined. Soils have not been sampled for all substances indicated in MTCA Table 830-1, and groundwater has been inadequately sampled.

It has not been demonstrated that the Site has been fully defined, or that contamination has not migrated off Property.

Remedial Investigation Tables

General - Tables should include detailed notes that explain any laboratory or other designations, assumptions, and references. All acronyms used in the table should be defined in a section of the notes even if they are defined in the body of the report, so table information can be quickly understood.

a. **Sampling Information/Laboratory Methods.** Include current and historical sampling methods and numerical cleanup levels, lab methods, reporting limits, and any special sampling protocols with justification or explanation (e.g. silica gel, filtration).

b. **Cleanup Levels.** Include potentially applicable ARAR values and recommended cleanup levels.

c. **Site Data.** Include current and historical analytical and field-measured data. Group by media type. For larger data sets, consider making a summary table of exceedances. Tables should include proposed cleanup levels with any contaminant exceedances clearly indicated using bold font or shading. Non-detectible levels should be noted as 'U' with the numerical laboratory reporting limit (RL) provided rather than 'ND'.

Remedial Investigation Appendices

General. Appendices should contain a description of content and explain how to interpret the information for use. Not all of the following suggestions will apply to all sites.

a. Exploratory logs, well installation diagrams, groundwater sampling logs, and field records.

b. Analytical laboratory report and Quality Assurance/Quality Control report.

c. **Limitations.** Explain any limitations that apply to the work.

d. Details of field and analytical methods used in former and current investigations and remedial activities. If applicable, append Work Plan/Sampling and Analysis Plan/Quality Assurance Project Plan/Health and Safety Plan.

e. Other documents that provide additional context or contribute to the understanding of the site – see suggested report format for additional information.

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	Adequate	Incomplete	Missing	N/A
	X			
	X			
	X			
	X			
	X			
	X			
	X			
	X			

Miscellaneous Items

Environmental Information Management (EIM). All sampling data must be uploaded into Ecology's EIM database. This allows Ecology to access data, check results, and/or perform additional analyses. For more information, reference:

www.ecy.wa.gov/programs/tcp/data_submittal/Data_Requirements.htm

Certification (Licensed Professional Stamp). Engineering, geologic, and hydrogeologic work must be performed under seal of an appropriately licensed professional (RCW 18.43 and 18.220).

a. **Additional information may be requested by Ecology as required to fully define the site.**

b. **Submittal Requirements:** Ecology requests three copies of reports submitted per WAC 173-340-850. Please contact the cleanup project manager for specific submittal requirements.

Accommodation Requests:
To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 800-826-7716. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

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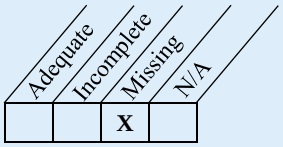
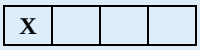
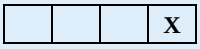
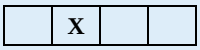


Comments: To avoid delays in Site reviews, please be sure to follow Ecology's submittal requirements.







Comments: To avoid delays in Site reviews, please be sure to follow Ecology's submittal requirements.

Site History

Soil Excavation (October 1991)

Environmental Inspection Services (EIS) conducted a contaminated soil removal by excavation in October 1991. An area (28 feet by 9 feet) south of and adjacent to the underground storage tank (UST) nest was excavated to a depth of 15 feet. Four confirmation soil samples were collected from the excavation and analyzed for TPH-G and BTEX. Only one sample (Sample # 2.0) showed BTEX constituents (ethylbenzene and xylenes) at concentrations below the MTCA Method A cleanup levels (CULs). TPH-G ranged from 10 mg/Kg (Sample # 1.0) to 43 mg/Kg (Sample # 4.0). Sample # 1.0 through Sample # 3.0 were below the TPH-G CUL. Sample # 4.0 does exceed the non-weathered TPH-G CUL, but not the weathered TPH-G CUL. Benzene reporting limits were 0.05 mg/Kg which exceed the CUL of 0.03 mg/Kg. Lead was also included in the analysis for soil at Sample # 3.0 and is reported as non-detect (<3 mg/Kg). One excavation water (pit water) sample was also collected. The excavation water sample showed benzene (22 µg/L) and TPH-G (12,800 µg/L) in excess of the MTCA Method A CULs. Ethylbenzene and xylenes were present in the excavation sample at concentrations below the CULs. TPH-D/O were not analyzed for in soil or groundwater. The extent of hazardous substances was not defined.

EIS stated that the soils were transported to an off-Site Wilcox & Flegel location. Ecology received a letter from Wilson Oil in August 1991, giving notice of the future excavation that indicates that removed soils will be stockpiled on Site and treated using soil bioremediation before being placed back in the excavation.

Soil Remediation and Reuse (October 1991 – February 1992)

A letter was sent to Ecology in February 1992, giving notice that approximately 50 yards of soil with a gasoline odor have been allowed to sit above ground under black plastic for three months before being sampled for BTEX. No BTEX was detected in the sample. The letter stated that the soil was to be removed and used for fill dirt. It is not clear where this soil was being stockpiled (on the Site, or at an off-Site Wilcox and Flegel location), and where the soil was used as fill dirt was not disclosed in the letter.

Soil and Groundwater Site Assessment (February – May 2005)

3 Kings Environmental, Inc. (3 Kings) advanced 10 borings on the Site in February 2005, to assess subsurface hazardous substances. The borings were samples for TPH only at the apparent groundwater saturation level. TPH-G and TPH-O were present in soil in one sample (B5-10'), and TPH-O was presents in soil in two samples (B2-9.5' and B4-10'). All TPH-O concentrations were below the MTCA Method A CULs, the TPH-G present in B5 at 90 mg/Kg exceeds the CUL for gasoline, but not for weathered gasoline. It was not adequately demonstrated that benzene is not presents in soil as only one boring was analyzed for BTEX. B5 was analyzed for BTEX, and only showed ethylbenzene and xylenes at concentrations that were below the CULs. Groundwater was sampled from two of the borings (B5 and B10) and analyzed for TPH by HCID. Groundwater from B10 showed no petroleum by NWTPH-HCID, and B5 showed TPH-G. B5 was further analyzed for TPH-G and BTEX. TPH-G was present at a

concentration of 4,410 µg/L, and ethylbenzene was present below the CUL. Groundwater from B5 was also analyzed for lead, and it was below the CUL. A letter was sent to Ecology in May 2005, that gave a brief Work Plan for moving forward and outlined the installation of three monitoring wells to determine groundwater flow direction and assess groundwater contamination. 3 Kings installed three monitoring wells in May 2005. Soils were sampled from two of the monitoring well borings and analyzed for TPH. Only one well boring (MW3) showed a TPH-G concentration (90 mg/Kg) that is greater than the non-weathered CUL and less that the weathered CUL. The three wells were sampled after purging >10 well volumes (approximately 2.5 gallons) and analyzed for TPH-G and BTEX. MW1 and MW2 were below laboratory detection limits for TPH-G and BTEX. MW3 showed TPH-G (499 µg/L) and benzene (14 µg/L) in excess of the MTCA Method A groundwater CULs.

3 Kings also notes that the TPH-O soil results are not located in the area where a waste oil tank hand been formally located on the Site. The former location of the waste oil tank is not given. The extent of hazardous substances at the Site were not defined.

Long Term Groundwater Monitoring (September 2015 – June 2017)

HydroCon conducted irregular sampling events between September 2015, and June 2017, using the three wells previously installed on the Site. Eight sampling events were completed over the approximately two year period. Groundwater samples were analyzed for TPH-G and BTEX only. Initially, for the September 2015, sampling, the groundwater results showed only one exceedance of the MTCA Method A CULs with a benzene result of 6.1 µg/L in well MW1. Well MW2 showed TPH-G (460 µg/L), toluene (4.4 µg/L), and xylenes (3.5 µg/L) that were below the CULs. Well MW3 had no TPH-G or BTEX above the laboratory detection limits. The follow-up sampling event (February 2016) showed similar results with a benzene concentration of 6.6 µg/L in MW1. In the third sampling event (April 2016), the benzene concentration in MW1 decreased to below the MTCA Method A CUL. From the April 2016, sampling event through the June 2017, sampling event, all TPH-G and BTEX results were below the MTCA Method A groundwater CULs or laboratory detection limits.

The groundwater flow direction was initially reported as being to the west-southwest. Groundwater flow directions were variable for the Site with directions of north-northwest, west-southwest, and west also reported over the groundwater sampling period.

UNITED STATES POSTAL SERVICE

Date: May 18, 2018

Dept of Ecology:

The following is in response to your May 18, 2018 request for delivery information on your Certified Mail™ item number 9171999991703702382763. The delivery record shows that this item was delivered on May 14, 2018 at 10:22 am in LONGVIEW, WA 98632. The scanned image of the recipient information is provided below.

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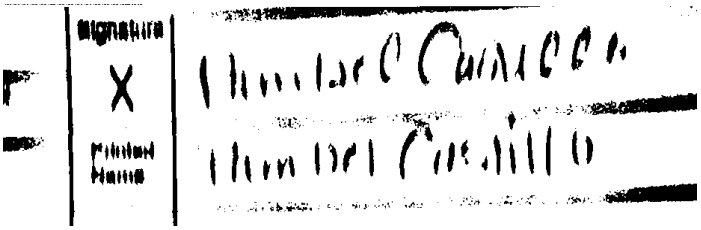

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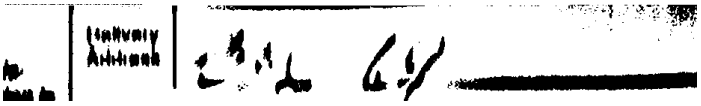

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Sincerely,
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