

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program



APPLICATION FORM

Under the Voluntary Cleanup Program (VCP), the Department of Ecology (Ecology) may provide informal site-specific technical consultations to persons conducting independent remedial actions at a hazardous waste site. Ecology may provide such consultations under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC.

To request technical consultations under the VCP, you must submit an application to Ecology. That application must include, at a minimum, the following documents:

- VCP Application Form (including required attachments); ← **THIS DOCUMENT**
- VCP Agreement.

For guidance on how to complete your VCP application, including this Application Form, please refer to the Application Instructions, which are available separately. All of these documents are available for downloading on the VCP web site: <http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm>.

Part 1 - ADMINISTRATION

Client Information. The "Client" is the person or entity seeking informal site-specific technical consultations from Ecology under the VCP. This person must sign the VCP Agreement and is responsible for payment of those costs incurred by Ecology in providing the requested consultative services. Please enter the required information below.

Name: Eric Weber		Title: Principal	
Organization: Landau Associates			
Mailing address: 950 Pacific Avenue, Suite 515			
City: Tacoma		State: WA	Zip: 98402
Phone: 253.926.2493	Fax: 253.926.2531		E-mail: eweber@landauinc.com

What is the Client's involvement at the Site? Please check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Property owner | <input type="checkbox"/> Business owner (operator) |
| <input type="checkbox"/> Past property owner | <input type="checkbox"/> Mortgage holder |
| <input type="checkbox"/> Future property owner | <input checked="" type="checkbox"/> Consultant |
| <input type="checkbox"/> Property lessee | <input type="checkbox"/> Attorney |
| <input type="checkbox"/> Other – please specify: _____ | |

If not the current property owner, is the Client acting as the agent for the property owner?

- Yes No

If not the current property owner, is the Client authorized to grant access to the property?

- Yes No

F/S# 5774537

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FEB 27 2008

Washington State
Department of Ecology

SW0938

Property Owner Information (if different than Client). If the Client is not the current property owner, please enter the required information below.

Name: **John O'Loughlin** Title:

Organization: **City of Tacoma**

Mailing address: **2201 Portland Avenue**

City: Tacoma State: WA Zip: 98421

Phone: 253.502.2175 Fax: 253.502.2107 E-mail: joloughl@ci.tacoma.wa.us

What type of entity is the property owner? Please check only one.

<input type="checkbox"/> Private	<input type="checkbox"/> County
<input type="checkbox"/> Tribal	<input checked="" type="checkbox"/> Municipal
<input type="checkbox"/> Federal	<input type="checkbox"/> Mixed
<input type="checkbox"/> State	<input type="checkbox"/> Public School
<input type="checkbox"/> Other – please specify: _____	

Billing Contact Information (if different than Client). If the Client would like Ecology to mail billing statements to an address different than the Client's above, please enter the required information below. Please note that the Client will remain responsible for payment under the VCP Agreement.

Name: Title:

Organization:

Mailing address:

City: State: Zip:

Phone: Fax: E-mail:

What type of entity is the property owner? Please check only one.

<input type="checkbox"/> Private	<input type="checkbox"/> County
<input type="checkbox"/> Tribal	<input type="checkbox"/> Municipal
<input type="checkbox"/> Federal	<input type="checkbox"/> Mixed
<input type="checkbox"/> State	<input type="checkbox"/> Public School
<input type="checkbox"/> Other – please specify: _____	

Services Requested by Client.

What type of independent remedial action plan or report are you submitting to Ecology with your application for review under the VCP? Please check all that apply.

<input type="checkbox"/> Interim action plan	<input type="checkbox"/> Remedial investigation plan
<input type="checkbox"/> Interim action report	<input type="checkbox"/> Remedial investigation report
<input type="checkbox"/> Cleanup action plan	<input type="checkbox"/> Feasibility study report
<input type="checkbox"/> Cleanup action plan	<input checked="" type="checkbox"/> Other – please specify: Site Review for Delisting

Do you want Ecology to provide you with a written opinion on the planned or completed independent remedial action?

Yes No

Please note that Ecology's opinion will be limited to:

- Whether the planned or completed remedial actions at the site meet the substantive requirements of MTCA, and/or
- Whether further remedial action is necessary at the site under MTCA to characterize and address all of the contamination at the site.

Instructions for Data Submittal.

In accordance with WAC 173-340-840(5), when submitting any sampling data to Ecology, please submit the data in both a printed form and an electronic form capable of being transferred into Ecology's data management systems. The data must be submitted consistent with the procedures specified in Ecology's Toxic Cleanup Program Policy 840 (Data Submittal Requirements). Please note that any report submitted to Ecology for review under the VCP that does not comply with these data submittal requirements will be considered incomplete by Ecology.

Part 2 - DESCRIPTION OF THE SITE

Name of the Site. Please enter the name of the Site below.

Name: 35th Street Landfill

Alternate Name None

Location of the Site.

Reference Point.

Do you know which property is the source of the release(s) of hazardous substances at the Site (i.e., source property)?

Yes

If you answered "YES," then please refer to the "source property" when answering the following questions regarding the location of the Site, even if your independent remedial action does not address that property.

No

If you answered "NO," then please refer to the "affected property" addressed by your independent remedial action when answering the following questions regarding the location of the Site. An affected property is a property affected by the release(s) on the source property.

Physical Address. Please enter the physical address of the property below.

Name: 35th Street Landfill

City: Tacoma

State: WA

Zip: 98418

Geographic Position – Latitude (Lat) and Longitude (Long). For additional guidance on how to complete this part of the application form, please refer to the application instructions.

COORDINATES	LATITUDE:	Degrees: 47	Minutes: 13	Seconds: 45.56
	LONGITUDE :	Degrees: 122	Minutes: 25	Seconds: 58.16
LOCATION ON PROPERTY: [e.g., point of release or center of parcel]	Center of Site			
COLLECTION METHOD: [e.g., GPS or address matching]	Google Earth			
COLLECTION SOURCE: [i.e., map scale]	Map at approximately 1" = 180 ft			
HORIZONTAL DATUM: [i.e., base reference for coordinate system]	Lat/Long			

ACCURACY LEVEL: [i.e., +/- feet or meters]		10 ft		
Legal Descriptions.				
TRS DATA:	Township: 20N	Range: 03E	Section: 9	Quarter-Quarter: SW/SE
TAX PARCEL #(s):	2084140040, 2084140050, 2085130060, 2085130070, 2085140040, 2085140070			

Extent of the Site.

What is the approximate areal extent of the Site? Please check only one.

- < 5,000 square feet
- > 5,000 square feet, but < 1 acre
- > 1 acre, but < 10 acres
- > 10 acres
- Unknown

Properties Affected by the Site.

Do any of the releases on the source property affect any properties adjacent to the source property (affected properties)?

- Yes
- No
- Unknown

If you answered "YES" above, then please identify each property that you know has been affected by the release(s) on the source property. If you need to identify additional properties, please attach additional pages.

1.	Address:
	Tax Parcel(s):
2.	Address:
	Tax Parcel(s):
3.	Address:
	Tax Parcel(s):
4.	Address:
	Tax Parcel(s):

Do any of the releases affect any right-of-ways (e.g., streets) located on or adjacent to the source property?

- Yes
- No
- Unknown

If you answered "YES" above, please specify:

Is the source property affected by any release(s) on properties adjacent to the source property?

- Yes
- No
- Unknown

If you answered "YES" above, please specify:

Description of Release(s) at the Site.

Source of Release(s).

What are the source(s) of the release(s) at the Site? Please check all that apply.

- Point source (e.g., leaking tank)
- Non-point source (e.g., contaminated soil used as fill)
- Area-wide lead and arsenic soil contamination (see Question #4 below)
- Other – please specify: _____
- Unknown

To the extent known, please describe the source(s) of the release(s): Inert waste such as soil, concrete, and asphalt; street sweepings and catchbasin cleanings

Circumstances of Release(s). To the extent known, please describe below the circumstances of the release(s).

The site is a natural ravine that was used as a landfill by the City of Tacoma between approximately 1960 and 1990. The bulk of the fill material was placed during the construction of I-5/I-705 extension between 1960 and 1965. The fill consists primarily of soil mixed with other inert materials such as waste concrete, asphalt, brick, and soil. Between 1985 and 1990 the site was used to dispose of street sweepings and catchbasin cleanings. The street sweepings and catchbasin material was reportedly disposed of primarily in the northern part of the site. In 1991 the City regraded the site to provide greater slope stability. At the same time the site was covered with topsoil and seeded with grass.

Circumstances of Release Discovery. To the extent known, please describe below the circumstances of the discovery of the release(s).

An environmental assessment was conducted by the City in 1991 when concerns arose about possible methane gas production from the landfill. The study included soil samples from test pits, surface water samples from the toe of the landfill slope, and vapor analysis from gas probes. Soil samples were analyzed for priority pollutant metals, TPH, volatile organic compounds (purgeables), and TCLP. Surface water samples were analyzed for priority pollutant metals, TPH, and volatile organic compounds (purgeables). Air samples were analyzed for methane, benzene, toluene, ethylbenzene, xylene and diesel.

Area-Wide Soil Contamination. For guidance on how to complete this part of the application form, please refer to the application instructions and the area-wide soil contamination tool box located at the following Ecology web site: http://www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html.

Is the Site located within an area affected by smelter emissions, such as the Tacoma Smelter Plume area, or on a former apple or pear orchard in operation prior to 1947?

Yes No Unknown

Does the Site contain area-wide arsenic and/or lead soil contamination?

Yes No Unknown

Nature and Extent of Hazardous Substances Released at the Site.

Hazardous Substances and Affected Media. To the extent known, please identify in the following table the hazardous substances released at the Site and the media (e.g., soil) impacted by those substances using the codes at the bottom of the table.

HAZARDOUS SUBSTANCE	AFFECTED MEDIA				
	SOIL	GROUND WATER	SURFACE WATER	SEDIMENT	AIR
EXAMPLE: Benzene	C	S	N/A	N/A	B
TPH	B	N/A	U	N/A	O
VOCs	O	N/A	B	N/A	B
Arsenic	C	N/A	C	N/A	N/A
Priority Pollutant Metals other than arsenic	B	N/A	B	N/A	N/A

When identifying the affected media in the table above, please use one of the following codes:

- C = confirmed, above cleanup level
- B = confirmed, below cleanup level
- O = confirmed, not present
- S = suspected
- N/A = not suspected
- U = unknown

Current Business Operations. To the extent known, please identify below the current operations of the business located on the source property.

What is the current land use of the source property? Please check all that apply.

- Residential School
 Commercial Childcare facility
 Industrial Park
 Agricultural
 Other – please specify: **Undeveloped**

Is there a currently operational commercial or industrial business located on the source property?

- Yes No Unknown

If you answered "YES" above, please identify in the following table the current business operations using the North American Industry Classification System (NAICS) codes and specifying the operations.

NAICS CODE	DESCRIPTION OF OPERATIONS
EX: 447110	Gasoline Stations with Convenience Stores

Is there a solid waste handling facility located on the Source Property?

- Yes No Unknown

If you answered "YES" above, please identify:

Is there a dangerous waste treatment, storage, or disposal facility located on the Source Property?

- Yes No Unknown

If you answered "YES" above, please identify:

Regulation of Current Business Operations.

Does the business operate under any federal, state, or local permits related to the release of hazardous substances into the environment (e.g., NPDES permit)?

- Yes No Unknown

If you answered "YES" above, please specify the regulated operation, the name of the permit, and the date it was issued in the table below.

REGULATED OPERATION	PERMIT	DATE ISSUED
EX: Wastewater discharge	NPDES permit	02/02/02

Has a state or federal notice of enforcement action (e.g., notice of violation) ever been issued related to the release of hazardous substances at the business?

- Yes No Unknown

If you answered "yes" above, please specify (notice and year issued):

Have business operations resulted in any other spills or other unpermitted releases on the source property?

Yes No Unknown

If you answered "YES" above, please specify in the table below.

RELEASE	DATE OF RELEASE	STATUS OF RELEASE

Storage Tank Information. In table below, please identify all above ground storage tanks (AST) and underground storage tanks (UST) that have been used for storing hazardous substances on the source property, irrespective of whether the tanks are still in use or in place. *If you are unable to provide answers to specific questions regarding a tank, please enter "U" for unknown.*

IDENTIFICATION				STATUS AND CLOSURE				RELEASES	
Hazardous Substance	Type (AST/UST)	Size (Gallons)	TANK ID	DATE INSTALL	IN USE (Y/N)	DATE CLOSED	CLOSURE METHOD (*)	PAST (Y/N)	CURRENT (Y/N)
EX: Diesel	UST	10,000	4	02/87	N	05/98	Removed	Y	N
none known									

(*) Options = Removed or Closed in Place

Past Use of Source Property. *Note that the following questions refer only to the Source Property, not other properties affected by the Site. Please answer these questions to the best of your ability.*

Past Property Owners. To the extent known, please identify below the current owner(s) of the source property.

Name: None known		Title:
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:	Fax:	E-mail:

Past Business Owners (Operators). To the extent known, please identify below the current owner(s) of the source property.

Name: None known		Title:
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:	Fax:	E-mail:

Identification of Past Business Operations. Please identify in the following table the past operations of businesses located on the source property using the North American Industry Classification System (NAICS) codes and/or specifying the operations.

NAICS CODE	DESCRIPTION OF OPERATIONS
EX: 447110	Gasoline Stations with Convenience Stores
none known	

Future Use of Source and Affected Properties. The following questions refer to both source and affected properties. Please answer these questions to the best of your ability.

Will any ownership interest in the source or affected properties be conveyed prior to, or upon completion of, the cleanup?

Yes No Unknown

If you answered "YES" above, please specify:

Will any of the source or affected properties, or portions of those properties, be redeveloped as part of the cleanup?

Yes No Unknown

If you answered "YES" above, please specify the proposed land use below. Please check all that apply.

- Residential School
 Commercial Childcare facility
 Industrial Park
 Agricultural
 Other – please specify: _____

Please also specify the activities proposed for that land use:

Part 4 – ADMINISTRATIVE HISTORY OF THE SITE

Have you previously reported the release(s) of hazardous substances at the Site to Ecology?

Yes – If so, when? _____ No Unknown

Has the cleanup of the Site, or any portion of the Site, ever been managed under the VCP?

Yes – If so, please specify the VCP Project ID#: _____
 No
 Unknown

Has the cleanup of the Site, or any portion of the Site, ever been managed under a federal or state order or decree?

Yes – If so, please specify the type and docket #: _____
 No
 Unknown

Part 5 – DESCRIPTION OF INDEPENDENT REMEDIAL ACTIONS AT THE SITE

Scope of Remedial Actions.

Do you plan to characterize and address all of the contamination at the Site, including any contamination located on affected adjacent properties, as part of the VCP project?

Yes No Unknown

If you answered "NO" above, please describe below the scope of the VCP project, including the contamination (properties, portions of a property, media and/or hazardous substances) that you DO NOT plan on characterizing and/or addressing as part of the VCP project. Please include additional pages if necessary.

Status of Remedial Actions.

What is the current status of remedial actions at the site? Please check all that apply in the table below.

REMEDIAL ACTION	PLANNED	ONGOING	COMPLETED	NOT APPLICABLE
INITIAL RESPONSE (UST ONLY)				X
INTERIM ACTION			X	
REMEDIAL INVESTIGATION			X	
FEASIBILITY STUDY				X
CLEANUP ACTION				X

Documentation of Remedial Actions.


Please list in the table below all known remedial action plans or reports produced for the site, including:

- The title of the plan or report,
- The author (e.g. consulting firm) of the plan or report,
- The date the plan or report was produced,
- Whether the plan or report has been submitted to Ecology,
- The date the plan or report was submitted to Ecology.

	TITLE	AUTHOR	DATE	SUBMITTED TO ECOLOGY	
				Y/N?	DATE
EX:	John Doe's Property: Remedial Investigation Work Plan	Mom's Consulting Firm	02/20/99	NO	N/A
1.	Final Report, Environmental Site Assessment, 35 th Street Landfill	Tacoma Refuse Utility	April 1992	Y	February 2008
2.	Initial Investigation Report	Tacoma Pierce County Health Department	August 2005	Y	August 5, 2005
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Part 6 – STATEMENT AND SIGNATURE

Statement and Signature. The undersigned affirms that the information contained in this application is true and accurate to the best of his or her knowledge. Please note that someone other than the Client may sign this Application Form.

Name: Eric Weber 		Title: Principal
Organization: Landau Associates		
Mailing address: 950 Pacific Avenue, Suite 515		
City: Tacoma	State: WA	Zip code: 98402
Phone: 253.926.2493	Fax: 253.926.2531	E-mail: eweber@landauinc.com

Affiliation.

What is the signatory's involvement at the Site? Please check all that apply.

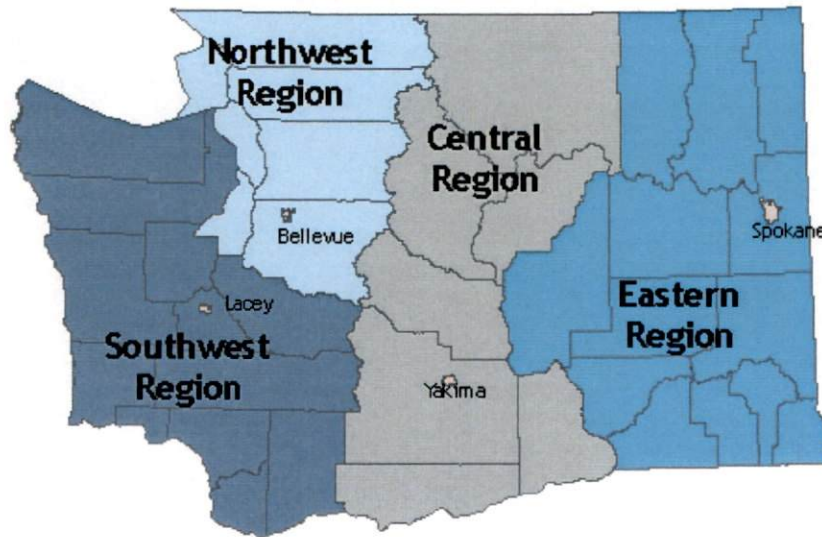
- Client
- Property Owner
- Consultant
- Attorney
- Other – please specify:

SUBMITTAL INSTRUCTIONS

To complete your application, please submit the following materials to the Ecology regional office for the County in which your Site is located:

- 1 - VCP Application Form (signed)
- 2 - VCP Agreement (signed by Client)
- 3 - Independent Remedial Action Plan(s) or Report(s) (see Part I.D of VCP Application Form)
- 4 - Map(s) of the Site (see Part II.G of VCP Application Form)
- 5 - Terrestrial Ecological Evaluation Exclusion Form (if applicable)

To identify the appropriate Ecology regional office, please refer to the following map:



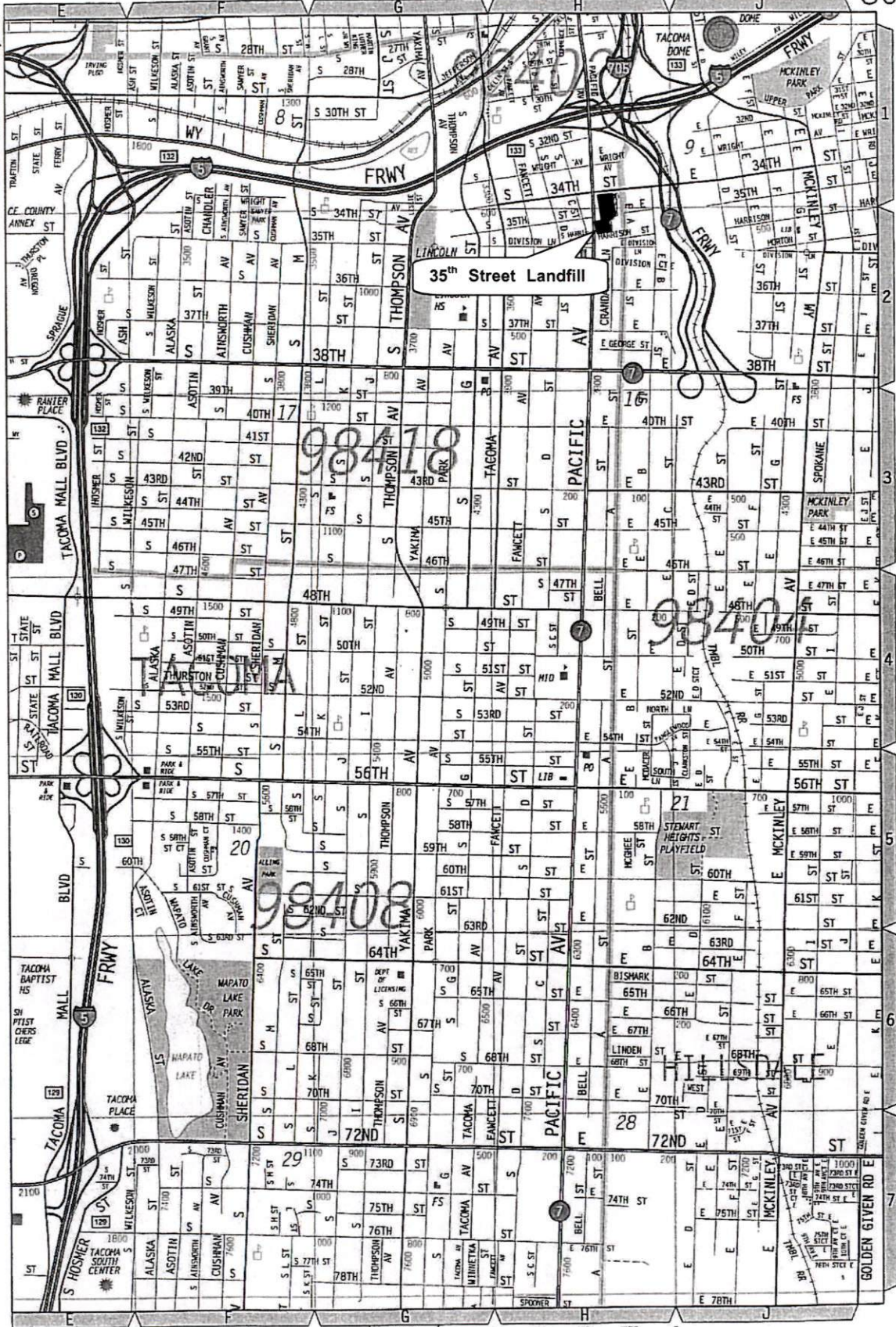
<p>Northwest Region: Attn: Sara Maser 3190 160th Ave. SE Bellevue, WA 98008-5452</p>	<p>Central Region: Attn: Mark Dunbar 15 W. Yakima Ave., Suite 200 Yakima, WA 98902</p>
<p>Southwest Region: Attn: Scott Rose P.O. Box 47775 Olympia, WA 98504-7775</p>	<p>Eastern Region: Attn: Patti Carter N. 4601 Monroe Spokane, WA 99205-1295</p>

If you have any questions regarding the application process or how to complete the forms, please contact the appropriate regional office contact listed below:

<p>Northwest Region: Russ Olsen, Unit Manager (425) 649-7038 rols461@ecy.wa.gov</p>	<p>Central Region: Valerie Bound, Unit Manager (509) 454-7886 vdre461@ecy.wa.gov</p>
<p>Southwest Region: Scott Rose, Acting Unit Manager (360) 407-6347 sros461@ecy.wa.gov</p>	<p>Eastern Region: Keith Holliday, Unit Manager (509) 329-3431 khol461@ecy.wa.gov</p>

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

ECY #020-74 (revised 11/07)



98418

98401

99408

See Page H for Downtown Map

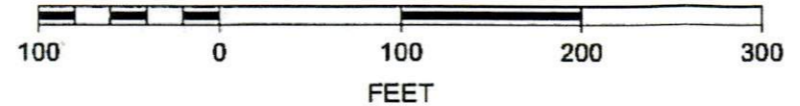
SEE 833 MAP

0 .125 .25 .375 .5 miles 1 in. = 1900 ft.

35th Street Landfill Site



SCALE 1 : 1,600



Reservation of Rights / No Settlement

This Agreement does not constitute a settlement of liability to the state under MTCA. This Agreement also does not protect a liable person from contribution claims by third parties for matters addressed by the Agreement. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). Ecology's signature on this Agreement in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority.

Ecology reserves all rights under MTCA, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

Effective Date, Modifications, and Severability

The effective date of this Agreement shall be the date on which this Agreement is signed by the Toxics Cleanup Program's Section Manager or delegated representative. This Agreement may be amended by mutual agreement of Ecology and the Client. Amendments shall be in writing and shall be effective when signed by the Toxics Cleanup Program's Section Manager or delegated representative. If any provision of this Agreement proves to be void, it shall in no way invalidate any other provision of this Agreement.

Termination of Agreement

Either party may terminate this Agreement without cause by sending written notice to the other party by certified mail, return receipt requested. The effective date of termination shall be the date Ecology sends notice to the Client or the date Ecology receives notice from the Client, whichever occurs first.

Under this Agreement, the Client is only responsible for costs incurred by Ecology before the effective date of termination. However, termination of this Agreement shall not affect any right Ecology may have to recover its costs under MTCA or any other provision of law.

Representations and Signatures

The undersigned representative of the Client hereby certifies that he or she is fully authorized to enter into this Agreement and to execute and legally bind the Client to comply with the Agreement.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

FEB 27 2008

Washington State
Department of Ecology

Marwan L. Abbett

Signature

Marwan L. Abbett

Printed Name

Section Manager, SWRO

Toxics Cleanup Program Section

Date: 2/28/08

Landau Associates

Name of Client

E. D.

Signature of Client or Client Representative

ERIC WEBER

Printed Name of Signatory

Principal

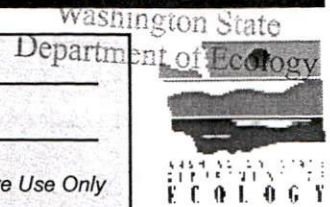
Title of Signatory

Date: 2/26/08

Instructions: Please submit this Agreement to Ecology as part of the VCP application. Before submitting the Agreement, please provide the Client's name and the Site's address on the first page and complete the Client's portion of the signature block on the second page. If the application is accepted, Ecology will sign the Agreement and send the Client an acceptance letter that will include the completed Agreement as an enclosure.

RECEIVED

VCP AGREEMENT



• Facility/Site Name:	<u>35th Street Landfill</u>	<i>For Office Administrative Use Only</i>
• Facility/Site No.:	<u>5774537</u>	
• VCP Project No.:	<u>SW0938</u>	

This document constitutes an Agreement between the State of Washington Department of Ecology (Ecology) and Landau Associates (Client) to provide informal site-specific technical consultations under the Voluntary Cleanup Program (VCP) for the Site identified above and associated with the following address: 35th Street Landfill located at 35th Street East and Pacific Avenue.

The purpose of this Agreement is to facilitate independent remedial action at the Site. Ecology is entering into this Agreement under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC. If a term in this Agreement is defined in MTCA or Chapter 173-340 WAC, then that definition shall govern.

Services Provided by Ecology

Upon request, Ecology agrees to provide the Client informal site-specific technical consultations on the independent remedial actions proposed for or performed at the Site consistent with WAC 173-340-515(5). Those consultations may include assistance in identifying applicable regulatory requirements and opinions on whether the remedial actions proposed for or conducted at the Site meet those requirements.

Ecology may use any appropriate resource to provide the Client with the requested consultative services. Those resources may include, but shall not be limited to, those of Ecology and the Office of the Attorney General. However, Ecology shall not use independent contractors unless the Client provides Ecology with prior written authorization.

In accordance with RCW 70.105D.030(1)(i), any opinions provided by Ecology under this Agreement are advisory only and not binding on Ecology. Ecology, the state, and officers and employees of the state are immune from all liability. Furthermore, no cause of action of any nature may arise from any act or omission in providing, or failing to provide, informal advice and assistance under the VCP.

Payment for Services by Client

The Client agrees to pay all costs incurred by Ecology in providing the informal site-specific technical consultations requested by the Client consistent with WAC 173-340-515(6) and 173-340-515(6). Those costs may include the costs incurred by attorneys or independent contractors used by Ecology to provide the requested consultative services. Ecology's hourly costs shall be determined based on the method in WAC 173-340-550(2).

Ecology shall mail the Client a monthly itemized statement of costs (invoice) by the tenth day of each month (invoice date) that there is a balance on the account. The invoice shall include a summary of the costs incurred, payments received, identity of staff involved, and amount of time staff spent on the project.

The Client shall pay the required amount by the due date, which shall be thirty (30) calendar days after the invoice date. If payment has not been received by the due date, then Ecology shall withhold any requested opinions and notify the Client by certified mail that the debt is past due. If payment has not been received within sixty (60) calendar days of the invoice date, then Ecology shall stop all work under the Agreement and may, as appropriate, assign the debt to a collection agency under Chapter 19.16 RCW. The Client agrees to pay the collection agency fee incurred by Ecology in the course of debt collection.

City of Tacoma
Public Works Department

John O'Loughlin, P.E.
Principal Professional Engineer

502-2175

Environmental Services / Science & Engineering
2201 Portland Avenue, Tacoma, WA 98421-2711
(253) ~~502-2100~~ / FAX (253) 502-2107
Email: joloughl@cityoftacoma.org



LANDAU
ASSOCIATES

Jennifer W. Wynkoop
Senior Project Scientist

950 Pacific Avenue, Suite 515
Tacoma, WA 98402
cell: 253 370 0058
toll free: 800 552 5957
phone: 253 926 2493
fax: 253 926 2531
email: jwynkoop@landauinc.com
web: www.landauinc.com

ENVIRONMENTAL | GEOTECHNICAL | NATURAL RESOURCES



LANDAU
ASSOCIATES

Eric F. Weber, L.H.G.
Principal Hydrogeologist
Office Manager

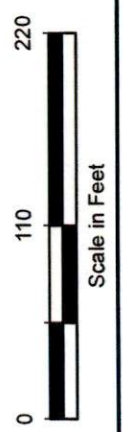
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phone: 253 926 2493
fax: 253 926 2531
email: eweber@landauinc.com
web: www.landauinc.com

ENVIRONMENTAL | GEOTECHNICAL | NATURAL RESOURCES



Legend

- Surface Water Sample Location
- ⊕ Test Pit Location



35th Street Landfill Site
Tacoma, Washington

Historic Sampling Locations

8/20/08/mje



TABLE 1. Selected Chemical Analysis for Surface Water, Soil and Air Samples.

Matrix & Lab ID No.	Location A	ANALYSES PERFORMED				
		TPH	Priority Pollutant Metals	Purgeables	TCLP	Hydrocarbons In Air
Field Blank	--	X	X	X		
Surface Water 0405910307	SW1	X	X	X		
Surface Water 0405910308	SW2	X	X	X		
Soil 0405910309	TP1	X	X	X		
Soil 0405910310	TP2	X	X	X	X	
Soil 0405910311	TP3	X	X	X	X	
Soil 0405910312	TP4	X	X	X		
Soil 0405910313	TP4 B	X	X	X		
Soil 0405910314	TP9	X	X	X		
Air 108038	TP2 C	--	--	--		X
Air 108039	TP2 D	--	--	--		X
Air 108040	TP3	--	--	--		X

A Refer to Figure 2
 B 0405910313 was a duplicate sample.
 C Short sampling duration.
 D Long sampling duration.

TABLE 2. Surface Water Conductivity as Measured by a HACH Model 44600 Conductivity/TSD Meter with a Flow Rate of 25 gpm.

<u>Source</u>	<u>Meter Readings in Millisemens (ms)</u>
Runoff	.057
Runoff	.068
Runoff	.088
Culvert Pipe	.184

(W0090S)

TABLE 3. Analyses for Total Petroleum Hydrocarbons (TPH) in Surface Water and Soil Samples.

<u>Matrix & Lab ID No.</u>	<u>Location</u>	<u>TPH mg/l or mg/kg (1)</u>
Field Blank	--	3.1
Surface Water 0405910307	SW1	25.6
Surface Water 0405910308	SW2	32.0
Soil 0405910309	TP1	1140
Soil 0405910310	TP2	500
Soil 0405910311	TP3	1330
Soil 0405910312	TP4	780
Soil 0405910313	TP4 (2)	750
Soil 0405910314	TP9	1300

(1) Mg/kg on a dry weight basis = mg/l = parts per million.

(2) Duplicate sample.

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TABLE 4. Analysis for Priority Pollutant Metals on Surface Water and Soil Samples.

Matrix & Lab ID No.	Location	ANALYTE (Parts per Million)												
		1 Sb	2 As	3 Be	4 Cd	5 Cr	6 Cu	7 Pb	8 Hg	9 Ni	10 Se	11 Ag	12 Tl	13 Zn
Field Blank	--	<0.001	<0.001	0.001	<0.001	<0.005	0.029	<0.005	<0.0002	<0.001	<0.005	0.002	0.001	0.013
Surface Water 0405910307	SW1	<0.001	0.013	<0.001	<0.001	<0.005	0.017	<0.005	<0.0002	<0.001	<0.005	0.001	<0.001	0.017
Surface Water 0405910308	SW2	<0.001	<0.001	<0.001	<0.001	0.007	0.018	0.039	<0.0002	<0.001	<0.50	<0.001	<0.001	0.042
Soil 0405910309	TP1	8.81	4.76	0.16	0.26	37.01	20.19	37.25	0.034	34.68	<0.50	<0.10	<1.00	118.60
Soil 0405910310	TP2	<1.00	6.25	0.20	0.48	51.56	16.10	108.30	0.184	35.08	<0.50	2.50	<1.00	89.80
Soil 0405910311	TP3	4.00	21.70	0.16	0.30	27.20	30.60	162.70	0.028	25.26	<0.50	<0.10	<1.00	142.90
Soil 0405910312	TP4	<1.00	5.55	0.13	0.07	19.95	2.97	53.20	0.035	19.50	<0.50	<0.10	<1.00	33.65
Soil 0405910313	TP4	<1.00	5.82	0.23	0.13	43.60	8.71	48.00	0.035	34.10	<0.50	<0.10	<1.00	61.79
Soil 0405910314	TP9	<1.00	228.00	0.28	0.34	22.50	12.04	26.50	0.036	31.30	<0.50	1.14	<1.00	56.21

TABLE 5. Toxicity Characteristics Leaching Procedure (TCLP) Analysis on Soil Samples TP2 and TP3.

<u>Matrix & Lab ID No.</u>	<u>Location</u>	<u>ANALYTE (mg/l)</u>		
		<u>Arsenic</u>	<u>Chromium</u>	<u>Lead</u>
Soil 0405910310	TP2	< 5.0	< 5.0	< 5.0
Soil 0405910311	TP3	< 5.0	< 5.0	< 5.0

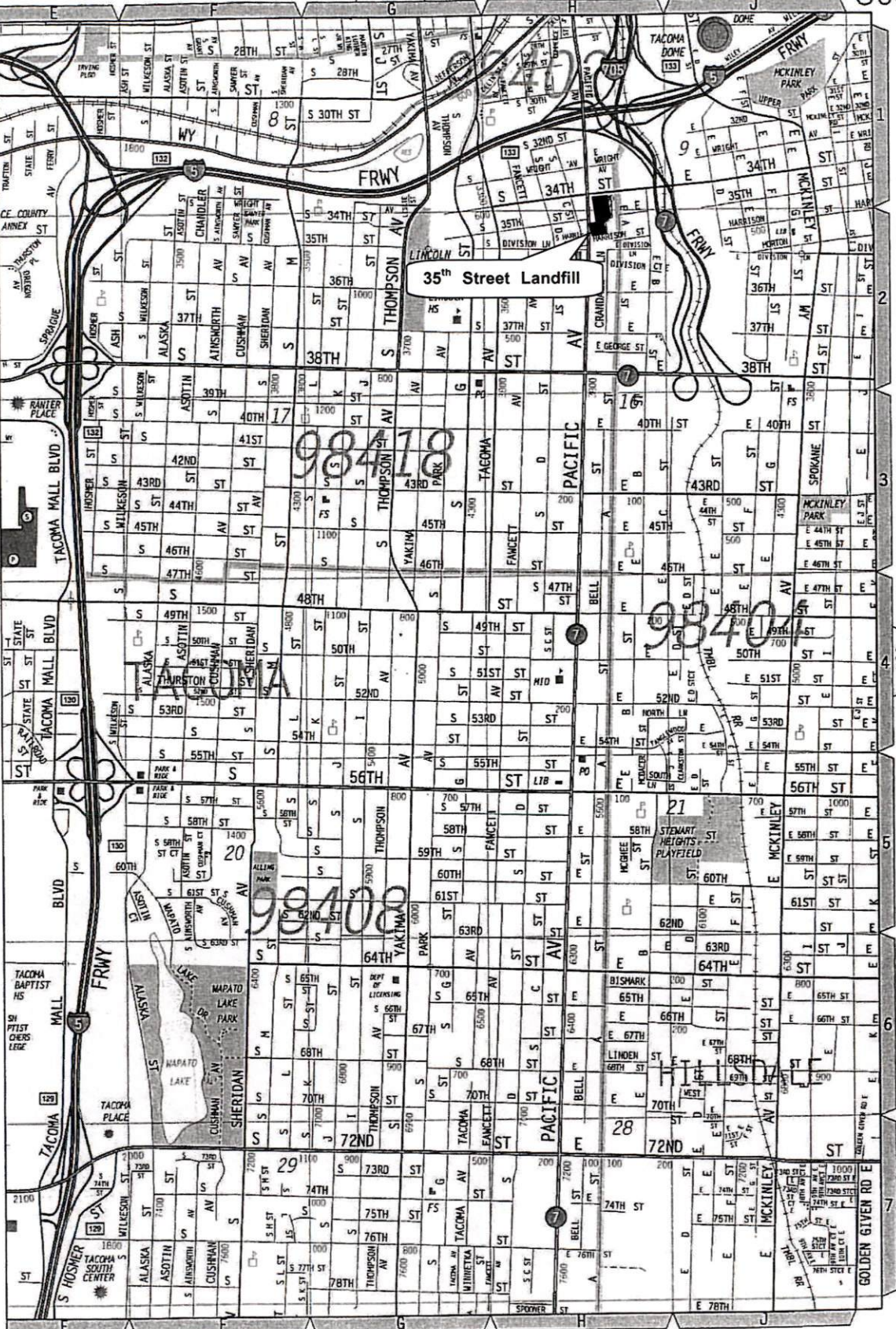
(W0090S)

TABLE 6. Selected Chemical Analyses for Air Bag and Charcoal Tube Samples.

<u>Matrix & Lab ID No.</u>	<u>Location</u>	<u>Methane</u>	<u>ANALYTE</u>					<u>Diesel</u>
			<u>Benzene</u>	<u>Ethylbenzene</u>	<u>Toluene</u>	<u>Xylene</u>		
Air Bag 108038	TP2	52 %	< 100 ppm	< 100 ppm	< 100 ppm	< 100 ppm	--	
Charcoal Tube 108039	TP2	--	--	--	2.3 mg/m ³	--	0.00 mg/m ³	
Charcoal Tube 108040	TP3	--	--	--	0.8 mg/m ³	--	0.00 mg/m ³	

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See Page H for Downtown Map

SEE 833 MAP

0 .125 .25 .375 .5 miles 1 in. = 1900 ft.

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35th Street Landfill
Tacoma, Washington

Vicinity Map