



# **SITE INSPECTION REPORT**

## **LINCOLN PARK LANDFILL Wenatchee, Chelan County, Washington**

**WAD980639074**

**1987**

### **Hazardous Waste Cleanup Program**

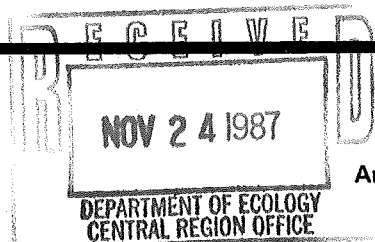
**PRELIMINARY ASSESSMENT**

**/**

**SITE INSPECTION UNIT**

**State of  
Washington**

**Booth Gardner  
Governor**



**Department  
of Ecology**

**Andrea Beatty Riniker  
Director**

PHASE I SITE INSPECTION REPORT  
CHELAN COUNTY LINCOLN PARK LANDFILL  
WENATCHEE, CHELAN COUNTY, WASHINGTON

WAD980639074

September 1987

Report Prepared by:

Michael J. Spencer  
Washington State Department of Ecology  
Preliminary Assessment/Site Inspection Unit  
Hazardous Waste Cleanup Program

SITE NAME/ADDRESS

Chelan County (former) Lincoln Park Landfill  
SW Corner Mission & Crawford  
Wenatchee, WA 98801

INVESTIGATION PARTICIPANTS

Michael J. Spencer	Environmental Washington State Department of Ecology Hazardous Waste Cleanup Program M/S PV-11 Olympia, WA 98504 (206) 438-3016
Bob Kievit	Environmental Protection Agency Region X Washington Operations Office M/S PV-11 Olympia, WA 98504 (206) 438-3053
Bob Johanson	City of Wenatchee P.O. Box 519 Wenatchee, WA 98801 (509) 663-7181

PRINCIPAL SITE CONTACT

Lyle Bland	Director of Public Works City of Wenatchee (509) 663-7181
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DATE OF PHASE I SITE INSPECTION

June 9, 1987

## PHASE I SITE INSPECTION

### INTRODUCTION

The (former) Chelan County Lincoln Park Landfill site, Wenatchee, Washington (hereinafter referred to as site), has been identified by the U.S. Environmental Protection Agency (EPA) Region X and the Washington State Department of Ecology (Ecology) as requiring additional information to accurately profile the nature and extent of past waste disposal activities.

The Potential Hazardous Waste Site Preliminary Assessment (PA) of June 25, 1985 recommended that a Site Inspection (SI) be performed to sample local ground and surface waters to determine if any contamination has occurred due to past disposal practices on-site. The subsequent inspection, carried out under the Superfund Multi-Site Cooperative Agreement PA/SI Program, is described in this report, along with further recommendations, under the following sections:

- 1.0 Site Owner/Operator
- 2.0 Site History and Background
- 3.0 Environmental Setting
  - 3.1 Climate
  - 3.2 Geology/Hydrology
  - 3.3 Topography and Drainage
  - 3.4 Ground Water and Surface Water Uses
- 4.0 Ecology Site Inspection
- 5.0 Results and Discussion
- 6.0 Conclusions and Recommendations
- 7.0 References
- 8.0 Figures and Tables
  - Appendix A: Analytical Data
  - Appendix B: Correspondence/Historical Data
  - Appendix C: EPA Site Inspection Report Form
  - Appendix D: Photographic Documentation
  - Appendix E: Site Sampling and Safety Plans

## PHASE I SITE INSPECTION

### 1.0 SITE OWNER/OPERATOR

The City of Wenatchee is the current owner of Lincoln Park, the location of the former Chelan County Lincoln Park Landfill (previously known as the Dry Gulch Landfill). The site has been inactive (as a landfill) since 1967, having been operated, also by the City of Wenatchee, since 1946.

### 2.0 SITE HISTORY AND BACKGROUND

Prior to 1945, Wenatchee's garbage system had been operated by a private company on a franchise. The method of disposal was by incineration. The operation was quite unsatisfactory. The incinerator was not properly designed and did a very poor job of breaking down the garbage. In addition to this, it was located in a place close to the business district and on the windward side of the business district so that the town was troubled very much at times by smoke and odors. The overall operation was also poor in that only about 40% of the people had garbage collection. The garbage was collected in open trucks and handled in a manner which was not too satisfactory.

Following a study by the local health department and the city commission in 1945, it was decided that the City of Wenatchee would take over the operation of the garbage business for the area. Various disposal sites were looked at and it was finally decided that the logical place was the deep gully just outside of town on the south side. This gully had been used for promiscuous dumping for many years and was very unsightly. It was a twenty acre tract of land just south of Crawford Street, between Mission and Methow Streets (Figure 1). The City purchased the land along with a house which was suitable for a home for the operator of the disposal system, and made plans to clean up the old dump, install a four foot culvert in the bottom of the gully to carry off spring run-off water and start the fill.

The City took over the operation of the garbage system in 1946. The operation as a fill was pretty much as planned, a four foot drain tile was put in the bottom of the ravine and garbage fill was started in the bottom. Cover material was dragged in by scraper or dozer from the slopes of the gully. From the beginning, no fill face was over eight feet. The old existing garbage was rapidly cleaned up and in a short time the disposal site appeared quite presentable. A very unique part of the whole operation was the fact that the City, in addition to collecting the garbage and disposing of it, furnished garbage cans to all customers and every person having a water tap was a customer.

In 1955, the operation of the Wenatchee Sanitation Department received recognition for the fine manner in which the fill was operated and for the department's use of packer vehicles to collect refuse from the City. The Washington State Department of Health selected

## PHASE I SITE INSPECTION

Wenatchee's operation as one of the finest of its kind and wrote the operation up in a publication which received widespread distribution.

In 1959, a file reference was made that the use of Crawford Street (northern boundary of present-day Lincoln Park) was completed as a sanitary fill, with final grading for the first zone of park development. Also 5.5 acres was purchased by the City east of Wenatchee Avenue, at the foot of what was referred to as "dry gulch", for a gravel pit and fill site. Only municipal and demolition wastes were accepted here during the mid-60's until closure in early 1970's. (This site is known to PA/SI as Chelan County South Wenatchee Landfill, WAD980638951 and the PA finalized on September 9, 1985 recommended a priority for further investigation of a none - no further action.)

Apparently a portion of that site is still used by the City for disposal of city-generated construction debris and excavation materials such as old cement, asphalt, street sweepings, etc. About half an acre is occupied by a transfer station operated by Dependable Disposal.

In 1981, the acting Director for the City of Wenatchee, Norm Delabarre, filed a CERCLA 103c notification for the Lincoln Park Landfill, stating the period of waste handling to be from 1948-1967 and general types of waste to be pesticides, mixed municipal wastes and unknown. Sources were from construction, utility companies, sanitary/refuse and unknown. It was indicated that there were no known, suspected or likely releases of wastes to the environment.

The site was placed on the CERCLIS List June 1, 1981 with Ecology finalizing a PA June 25, 1985.

### 3.0 ENVIRONMENTAL SETTING

Lincoln Park, approximately twenty acres in size, is located between the boundaries of Crawford Avenue to the north, Mission Street to the east and Methow Street to the west. The city limits of Wenatchee lie less than 0.1 miles to the south (Figure 1). The park is within Section 15, Township 22 North, Range 20 East, Willamette Meridian, at a latitude of 47°25'15" and a longitude of 120°18'17".<sup>1</sup>

The landfill area of the park, approximately eight acres,<sup>2</sup> occupies the northeast corner formed by the intersection of Crawford and Mission.

### 3.1 Climate<sup>3</sup>

The main ridge of the Cascade Mountains forms a north-south climate and topographic barrier across the State of Washington, approximately 30 miles west of the City of Wenatchee. The summit of this ridge of mountains ranges from 5,000 - 8,000 feet. The prevailing direction of the wind above the summit is westerly throughout the year. West

## PHASE I SITE INSPECTION

of the Cascades, the direction of the surface wind varies from southwest in the fall and winter to northwest in the summer.

There is a southwesterly flow of warm, moist air from over the Pacific Ocean into western Washington during the fall and winter. This moist air cools and condensation occurs as it rises along the western slope of the Cascades, producing heavy precipitation along the slope and near the summit. The air becomes warmer and drier as it flows down to the lee side of the Cascades into the Wenatchee and the Columbia River valleys. As a result of this process, the annual precipitation decreases from between 75 to 90 inches at the summit of the Cascades to 23 inches at Leavenworth (elevation 1160 feet), 9 inches at Wenatchee (elevation 634 feet), and 8 inches at Trinidad (elevation 555 feet). This rapid decrease in precipitation occurs within a distance of approximately 50 miles east of the summit of the Cascades. Snowfall during the winter season ranges from 30 to 35 inches in the vicinity of Wenatchee to 100 inches at Leavenworth and 350 inches at Stevens Pass.

The prevailing westerly flow of air over the Cascade Mountains results in a dry and more mild climate than is usually experienced at this latitude. Although the average number of days on which minimum temperatures of zero are recorded is three, it is not unusual for a year to pass without the temperature dropping to zero. However, temperatures of zero or below were recorded on 25 days during 1929, 21 days during 1937 and 16 days during 1950. Maximum temperatures reach 90 degrees or above on nearly one-half of the days in July and one-third of the days in August with 100 degrees being recorded on a few days nearly every summer.

### 3.2 Geology/Hydrology

There are four types of geological formations in Chelan County.<sup>4</sup> In the southeastern portion of the County, the area is underlaid with dark gray to black dense aphanitic basaltic rock. In the central portion and around Lake Chelan, the area is underlaid with granitic rock containing granite and quartz. In the Entiat Valley and Wenatchee Valley areas, and around the eastern portion of Lake Wenatchee, the land is underlaid with alluvial deposits and glacial drifts containing sand, gravel, silt and clay. Around the foothills of the Columbia River and the lower drainage area of the Wenatchee River, the land is surrounded by swauk bedrock formations.

Locally, the soils at the location of the former landfill site present a complex juncture of three designated classifications.<sup>5</sup> Along the northern boundary of the park, which includes a portion of the former landfill, the soils are Cashmere Sandy Loam, 0-3% slopes. Runoff is very slow, and the hazards of soil blowing and water erosion are none to slight. Just to the south of this area, about at the central area of the park, where Dry Gulch was filled in during the landfill operation, soils are described as Peshastin Stony Loam, 25-45% slopes. These are well-drained, medium textured soils that

## PHASE I SITE INSPECTION

formed in nonsorted glacial till. The extreme southern edge of the park is comprised of Peshastin Loam, 3-8% slopes. Permeability here is moderate to a depth of 18 inches and moderately rapid below. Runoff is slow.

Mountain ranges within Chelan County divide the County into three major drainage areas centering around the Wenatchee River, the Entiat River, and the Stehikin River including Lake Chelan.<sup>4</sup> Each of the drainage areas contains a number of canyons; some having a high flash flood potential. All surface runoff in the County eventually finds its way to the Columbia River.

The major source of the County's domestic water supply comes from surface streams, rivers and lakes. Some domestic water is provided from wells. Ground water appears to be available in significant quantities only in the immediate vicinity of streams and rivers where sufficient alluvium has been deposited. The remaining land is generally steep and rocky with frequent outcroppings of bedrock which generally precludes ground water storage.

Locally, the main aquifer is comprised of alluvial deposits of gravel laden fans with silt, fine sands and some clay.<sup>2</sup> The site resides on the eastern flank of the Churnstick Formation, composed of volcanic debris and which forms the hills west of Wenatchee. The depth to the aquifer (estimated from local well logs) is 60-100 feet.<sup>6</sup>

### 3.3 Topography and Drainage

Lincoln Park is essentially flat, with a slight, gradual slope east toward Mission Street, the eastern boundary (Photos 1 and 2). From Mission Street eastward down to the Columbia River, the slope approaches 10%. The unnamed stream which passes under the park (through the concrete culvert) runs to the northeast just before entering the park on the west side, then flows due east to the river. Prior to entering the park, this stream drains about a mile through an extensive orchard area to the west of the park, at a slope of 5%. Although shown on the topography map as an intermittent stream, there is flow throughout most of the year, with some contributed by irrigation raceways running north to south through the orchard (Lyle Bland, personal communication, August 19, 1987). It is quite likely that ground water and any surface water runoff would likewise flow east through the ravine (exit of culvert from park) to the river (refer to topography map).

### 3.4 Ground Water and Surface Water Uses

Private and public wells within three miles of the park serve over 13,000 people. The nearest known well is approximately 1 mile to the southeast and there is some use of ground water for irrigation purposes.<sup>2</sup>



## PHASE I SITE INSPECTION

There is no known use of surface water for drinking purposes within three miles of the park, although this water is used for irrigation of food crops. The nearest surface water to the site, other than the intermittent stream passing through it, is the Columbia River, 0.25 miles to the east.<sup>7</sup>

### 4.0 ECOLOGY SITE INSPECTION

A Phase I SI was conducted at Lincoln Park during the afternoon of June 9, 1987. Bob Kievit, EPA Washington Operations Office, Olympia and Bob Johanson, representing the City of Wenatchee, met with me on-site at 3:00 p.m.

I will present only the important points brought out in the SI here, with further details available in my June 23, 1987 memo to file (Appendix B). The main intent of the SI was to ascertain whether or not ground and surface water at or near the site could have been contaminated through suspected disposal of pesticides at the former landfill over which the park is located.

The sampling plan prepared for the SI (Appendix E) specified obtaining water samples from what appeared on the topographic map to be an unnamed intermittent stream that passed underneath the park (ostensibly through the former landfill material itself) and exited, via a ravine, east of Mission Street into the Columbia River, 0.3 miles east.

Our first observation point was at the exit of this stream, via the culvert, from the park. This was an approximate four foot diameter steel culvert at about 70-80 feet drop below the level (800 feet MSL) of Mission Street, on the east side, (Photo 4). As I approached the culvert opening, there was a distinct petroleum odor (smelled like gasoline) which got stronger the nearer to the opening. I used the Photovac TIP instrument inside the opening of the culvert and obtained a reading of 379, span set at 6.

We then went to Methow Street, on the west side of the park, and made a measurement at the culvert's entrance (Photo 3). No difference above background was recorded. There were several catch basins scattered throughout the park (in parking lots). Measurements taken at these again showed no difference over background. It was apparent that the source of fumes was coming from either within the culvert somehow, or from off-site.

Bob did not think any storm drains from adjoining streets would have been connected into the culvert, however upon radioing into his headquarters office, he learned there was a connection into the culvert towards the west end of the park, coming from the intersection of Methow Street and Crawford Avenue. (Dan Curry, City of Wenatchee Public Works, sent me a copy later of the schematics of this connection, Appendix B).

## PHASE I SITE INSPECTION

According to these plans, the culvert through the park was installed in 1961, and was 48 inches in diameter and of concrete construction (when the landfill first began in 1946, a four-foot drain tile was initially laid). The culvert from the intersection of Methow/Crawford was three-foot diameter corrugated aluminum, installed in 1979. Using the TIP instrument, a reading of 329 was obtained from a stormwater drain sump at this intersection, with a value of 129 further up Methow Street (north). Readings decreased further as the distance increased north on Methow.

A lawn on the northwest corner of the intersection had been recently mowed, thus we suspected gasoline had been spilled in that vicinity shortly prior to our arrival on-site.

Sample MJS050 was collected at the entrance to the culvert, prior to where it passed under the park.

Sample MJS051 was collected at the exit of culvert from the park. The reading on the Photovac TIP dropped down to under 200 and appeared to be falling with time.

The samples were stored on ice and transported to Manchester Laboratory within 48 hours. Analyses were to be performed for volatile organics, pesticides/PCB's and priority pollutant metals.

### Quality Control/Quality Assurance (QA/QC) of Sample Collection

Stringent QA/QC procedures for sample collection were developed in conjunction with the EPA Site Inspection Sampling Guidelines, and training course literature. These procedures are discussed in detail in the sampling and safety plans which were developed for this site prior to performing the actual inspection (see Appendix E). Procedures for documentation, chain of custody, decontamination of samples and personnel, safety, and labeling are included in these plans.

### Quality Control/Quality Assurance (QA/QC) of Laboratory Analyses

QA/QC of analytically derived data was performed by Manchester Laboratory following in-house procedures (Appendix A).

## 5.0 RESULTS AND DISCUSSION

It was not likely that the sample collected from the exit of the culvert from the park would give an indication of possible contaminant release from past waste disposal activities during the operation of a landfill from 1948-1967. Proper installation of the concrete culvert would be expected to have precluded infiltration of any leachate generated. However, the rationale for sampling was the indication by the Photovac TIP instrument that organics were present, at least in a volatile state.

## PHASE I SITE INSPECTION

There were no detectable concentrations of volatile organics and pesticides/PCB's in either of the two water samples collected (Appendix A). The priority pollutant total metals concentrations are summarized in Table 1. There were no significant differences between the two samples in metals concentrations, in terms of an order of magnitude. Arsenic and zinc showed approximately 100% increase in the latter collected sample, however the absolute concentrations for these two metals remained within acceptable limits. Copper concentrations decreased to undetectable levels at this exit of the culvert. Nine of thirteen priority pollutant metals analyzed for were present in less than detectable concentrations.

Laboratory results for metals fell within acceptable QA/QC controls, however the holding time was somewhat exceeded for the organics. I do not believe this influenced the results to the effect that no detectable concentrations of any organics would be found.

The Chelan County Environmental Health staff do not believe there were industrial or hazardous wastes disposed of at this former landfill nor are there any Ecology file records for this site.

### 6.0 CONCLUSIONS AND RECOMMENDATIONS

It can be concluded from the SI that:

- o No detectable levels of organics and pesticides/PCB's are emanating from the only surface water able to be sampled at the former landfill site.
- o Priority pollutant metals concentrations in this water are within acceptable ranges.
- o The landfill is sufficiently and adequately covered to prevent undesirable amounts of surface water runoff and/or infiltration, especially in view of the low annual precipitation.
- o No records exist to document that any hazardous constituents were disposed of at the former landfill.
- o A preliminary HRS score of 18.87 was obtained, based on no observed ground water or surface water releases and an assumption, though undocumented, that a minimal quantity of pesticide wastes were disposed of.

As there is no apparent threat to public health or to the environment, it is recommended that no further action be taken at this site under Superfund, and that it be removed from the CERCLIS list of active potential sites.

# PHASE I SITE INSPECTION

Table 1

Priority Pollutant Total Metal Concentrations (ug/l) in Water Samples

<u>Metal Specie</u>	<u>Above Park</u>		<u>Below Park</u>	
As	2		4	
Be	0.2	U	0.2	U
Cd	0.2	U	0.2	U
Cr	1	U	1	U
Cu	17		9	U
Pb	5	U	9	U
Tl	1	U	1	U
Ni	5	U	5	U
Ag	0.2	U	0.2	U
Zn	11	U	28	
Sb	1	U	1	U
Se	1	U	1	U
Hg	0.034	K	0.034	K

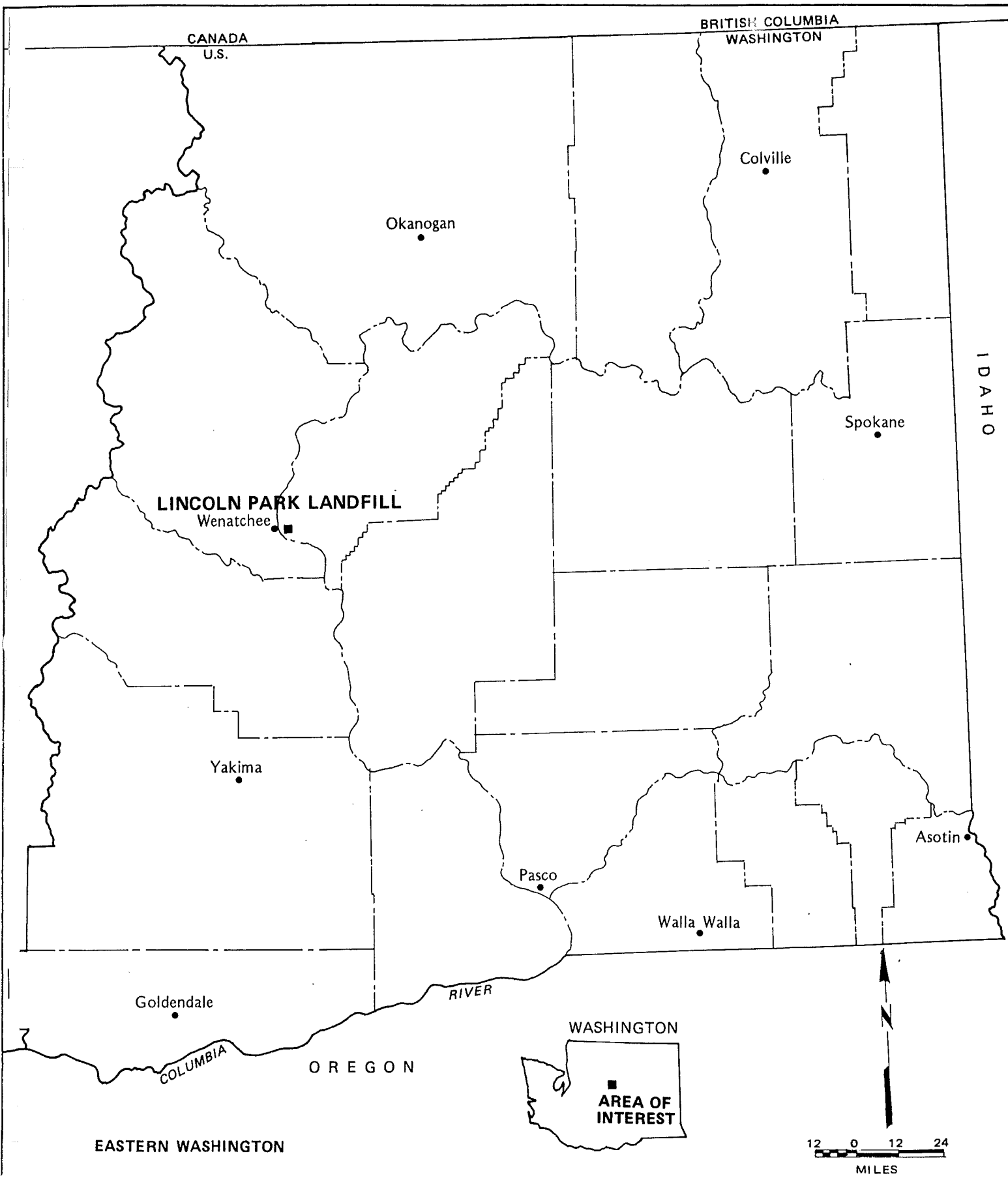
U = Analyzed for, but not detected. Value shown is the minimum detectable concentration.

K = Less than.

## PHASE I SITE INSPECTION

### 7.0 REFERENCES

1. U.S.G.S. Wenatchee Quad. Topo. (1978).
2. Ecology PA files.
3. Climatological Summary, Wenatchee (1931-1960). U.S. Dept. of Commerce.
4. Comprehensive Solid Waste Management Plan for Chelan County, Washington, 1972.
5. Soil Survey of Chelan Area, Washington. U.S. Dept. of Agriculture, Soil Conservation Service.
6. Washington Dept. of Geology and Earth Res. Bull. 75. Geology of Chelan and Douglas Counties, 1983.
7. Ecology, June 9, 1987 SI.



LOCATION MAP, LINCOLN PARK LANDFILL, CHELAN COUNTY, WASHINGTON.

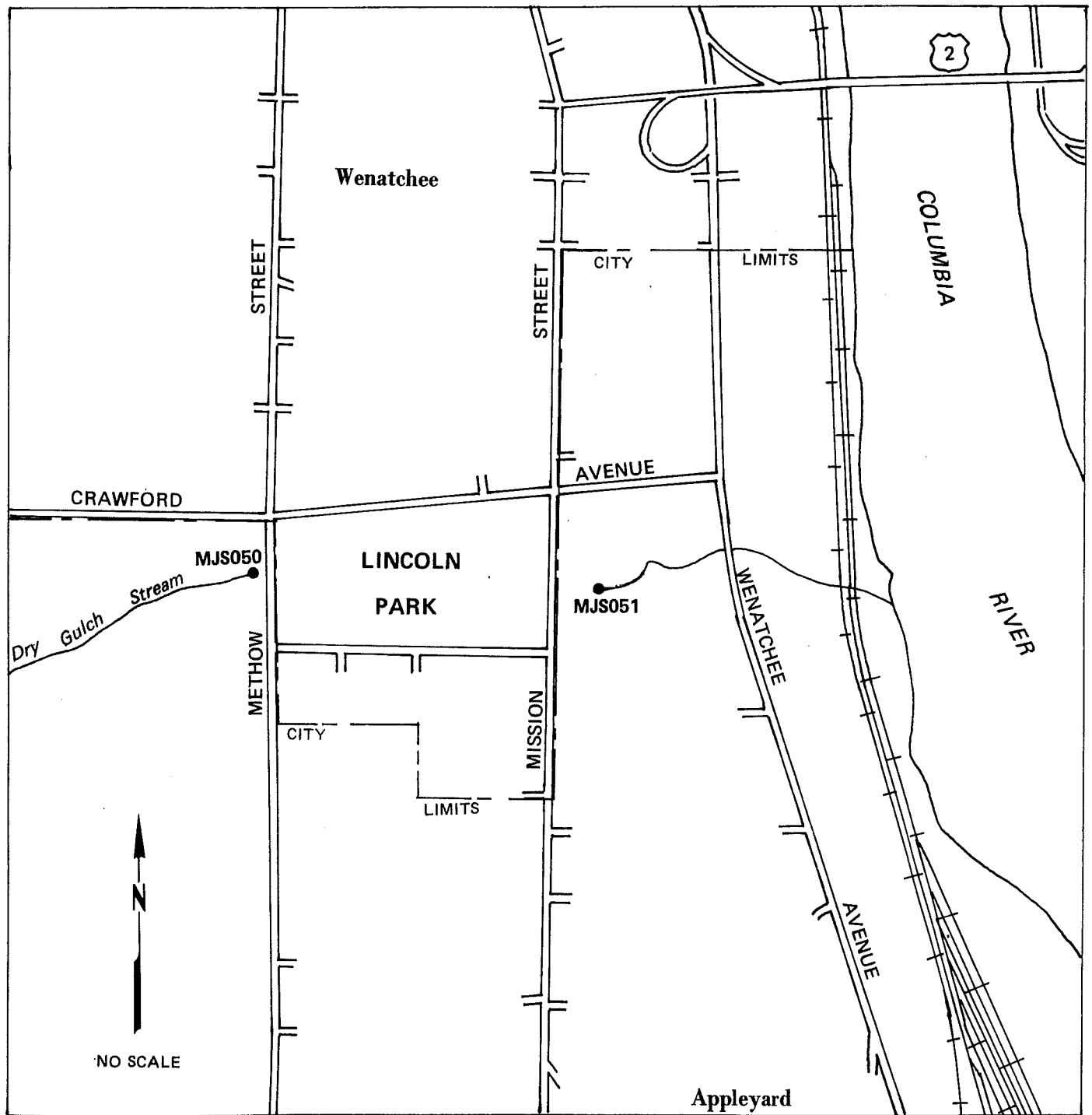


Figure 1. LINCOLN PARK LANDFILL SITE INSPECTION SKETCH AND SAMPLE LOCATION MAP.



# REQUEST FOR ANALYSIS

MANCHESTER ENVIRONMENTAL LABORATORY

PROGRAM CODE 868

DATE 5/21/87

SOURCE Chelan Co. Lincoln Park Landfill REQUESTED BY Michael J. Spencer

LOCATION Mission & Crawford Streets, Wenatchee, WA

REPORT DATA TO Michael J. Spencer <sup>Woodlens Square</sup> LAB USE ONLY

DATES: SAMPLING: 6/9/87 TO LAB: 6/11/87

☐ EMERGENCY ☒ CUSTODY ☐ CLASS II

MATRIX: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER

OTHER \_\_\_\_\_

LAB APPROVAL BY \_\_\_\_\_

PROJECT CODE \_\_\_\_\_

LAB NUMBERS \_\_\_\_\_

PHYSICAL & INORGANIC		C,N,P,BIOL & METALS		ORGANICS, TOXICS	
	# Samples		# Samples		# Samples
Turbidity		BOD/5 Day		Base/Neutrals/Acids	
pH		COD Chem Oxygen Demand		Base/Neutrals Only	
Conductivity		TDC Total Org Carbon		Acids Only	
Total Alkalinity				Volatile Organics	
Acidity		NUTS (4)		Pesticide/PCB's	3
Hardness, Total		Ammonia		PCB's Only	
Chloride		Nitrate-Nitrite		Purgeable Halocarbons	3
Fluoride, Total		Total Phosphate		Herbicides	
Sulfate		Ortho-Phosphate		Organo Phosphorus Pest.	3
Cyanide, Total					
Color				Poly. Aromatic Hydrocarbons	
Salinity		Fecal Coliform Bacteria		Hydrocarbon Analysis	
		Fish Bioassay		Phenolics (AAP)	
				Oil & Grease	
SOLIDS (4)		Priority Pollutant Metals	3	Ignitability	
TSS Tot Susp Solids		EP TOX Metals		Halogenated Hydrocarbons	
TS Total Solids		METALS (list) Total Diss.		TOX	
TVSS Volatile Solids				% Solids	
SS Settleable Solids				% Lipids	

COMMENTS:

① metals = 4 x 500 ml PE, acid washed, teflon caps

SAMPLE BOTTLES REQUIRED:

② Pesticides 8 x 1/2 gal glass jars

③ Purgeable HC: 8 x 40 ml septum vials

SAMPLE DISPOSITION AFTER ANALYSIS







Michael J. Spence

Ph 438-3016

ANALYSIS REQUIRED

# ORGANICS, METALS, HAZARDOUS WASTES

Project Name Lincoln Park  
ALCOA-Went.  
Project Code 868

- Matrix Codes
- 10 Water-Total
  - 11 Water-Dissolved
  - 40 Sediment/Sol
  - 45 Semi-Solid/Sludge
  - 46 Sediment for EP Toxicity
  - 70 Tissue
  - 80 Oil/Solvent
  - 00 Other

Matrix Codes

	Field Station Number									
	052	053	050	050	050	050	050	050	050	050
	24778	24778	24778	24778	24778	24778	24778	24778	24778	24778
	10	10	10	10	10	10	10	10	10	10
<b>GC/MS ORGANIC SCANS</b>										
Base/Neutrals/Acids										
Base/Neutrals Only										
Acids Only										
Volatile Organics						X	X			
<b>GC ORGANIC SCANS</b>										
Pesticide/PCB's	X	X	X			X	X			
PCB's Only										
Purgeable Halocarbons	X	X	X			X	X			
Herbicides										
<b>SPECIFIC ORGANICS</b>										
<b>OTHER MISC.</b>										
Poly. Aromatic Hydrocarbons										
Hydrocarbon Analysis										
Phenolics (AAP)										
Oil & Grease										
Ignitability										
Halogenated Hydrocarbons										
TOX										
% Solids										
% Lipids										
Cyanide	X	X	X							
<b>METALS</b>										
Priority Pollutant Metals	X	X	X			X	X			
EP TOX Metals										
Specific Metals (List)										
Total										
Dissolved										

Note - 051 will be high in volatile organics

COMMENTS:

## LABORATORY QUALITY ASSURANCE

The laboratory has a continuing Quality Assurance/Quality Control (QA/QC) program to assure that the data reported by the laboratory are as accurate as possible. The QA/QC program consists of both inhouse matrix spikes and laboratory blanks along with quarterly performance evaluation samples.

### ORGANICS

Quality Assurance in the Organic unit consists of running laboratory blanks and duplicate matrix spike samples with each set of sample matrices extracted. The acid/base-neutral, pesticides and volatiles have "surrogate spikes" added to every sample extracted to evaluate extraction performance as put forth in EPA's Contract Laboratory Program (CLP)\*. The Organic Analysis section also participates in the following performance evaluation programs.

- a) Water Supply Series (Drinking Water)  
WS Samples:  
Pesticides, Herbicides, Trihalomethanes, VOA, Carbon, Benzene
- b) Water Pollution Series (Water Quality Programs)  
WP Samples:  
PCB's, Pesticides, Purgeable Aromatic, VOA, Oil and Grease, Phenols
- c) SW Solid Waste Series (RCRW)  
SW Samples:  
Acid/Base-Neutrals, Pesticides, VOA, PCB's
- d) QB Superfund (Hazardous Waste) Series  
Acid/Base-Neutrals, Pesticides, PCB's, VOA

Standard Reference Materials, (SRM's) will be analyzed upon request when suitable materials are available.

\* USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, Multi-media, Multi-concentration

# MANCHESTER LABORATORY QUALITY ASSURANCE

Parameter	Matrix Spike	Multiple Calibrants	Dupl.	Internal Ck Stds.	External Ck Stds.	WP WS EPA Eval. Stds.	NCASI
Acidity			10%	10%		2/yr.	
Alkalinity			10%	10%		2/yr.	
BOD	100%		100%	100%		2/yr.	2/yr.
COD		X	10%	10%		2/yr.	
Conductivity			10%	10%		2/yr.	
Chloride		X	10%	10%		2/yr.	
Chlorophyll			10%		10%		
Color			10%	10%		2/yr.	2/yr.
Cyanide	10%	X	10%	10%	10%	2/yr.	
Fluoride	10%	X	10%	10%	10%	2/yr.	
Hardness			10%	10%		2/yr.	
MBAS			100%	100%			
Microbiology	1%		90%				
Nutrients	3%	X	10%	5%	1%	2/yr.	
Oil & Grease					10%	2/yr.	
pH		X	20%		20%	2/yr.	2/yr.
Phenolics	10%	X	10%	10%	10%	2/yr.	
Solids			30%		5%	2/yr.	
Salinity			20%				
Sulfate		X	10%	10%		2/yr.	
Tannin & Lignin			100%	100%			
TOC	10%	X	10%	20%	10%	2/yr.	
Turbidity		X	10%		10%	2/yr.	

The variety and number of Quality Assurance samples analyzed by the laboratory have major impact on the laboratory workload. Additional or special QA samples will only be accepted after approval by the laboratory supervisor.

Not all of the QA sample data are routinely reported with the samples, however, all of the QA sample results are available upon request.

DH/cm  
12-4-86

31-JUL-8  
11:21:26

EPA Region X Lab Management System  
Sample/Project Analysis Results

Page 2

Project: DOE-561A

LINCOLN PARK LANDFILL, WENATCHEE

Officer: MJS Account: 868

Sample No: 87 247785

Begin Sample Date: 87/06/09

Source: Water (General)

Depth:

QA Code:

Laboratory: WE

Description: 51

Metals - PP		Water-Total
Parameter	Result	Units
Arsenic	4	ug/l
Beryllium	0.2U	ug/l
Cadmium	0.2U	ug/l
Chromium	1U	ug/l
Copper	9	ug/l
Lead	9	ug/l
Thallium	1U	ug/l
Nickel	5U	ug/l
Silver	0.2U	ug/l
Zinc	28	ug/l
Antimony	1U	ug/l
Selenium	1U	ug/l
Mercury	0.034K	ug/l

Contract Lab Program		Water-Total
Parameter	Result	Units
VOA	GC/MS	CLP
P/PCBs	GC	CLP

(Sample Complete)

31-JUL-87  
11:21:26

EPA Region X Lab Management System  
Sample/Project Analysis Results

Page 1

Project: DOE-561A

LINCOLN PARK LANDFILL, WENATCHEE

Officer: MJS Account: 868

Sample No: 87 247784

Begin Sample Date: 87/06/09

Source: Water (General)

Depth: QA Code:

Laboratory: WE

Description: 50

Metals - PP Parameter	Water-Total Result Units
Arsenic As-Total	2 ug/l
Beryllium Be-Total	0.20 ug/l
Cadmium Cd-Total	0.20 ug/l
Chromium Cr-Total	10 ug/l
Copper Cu-Total	17 ug/l
Lead Pb-Total	50 ug/l
Thallium Tl-Total	10 ug/l
Nickel Ni-Total	50 ug/l
Silver Ag-Total	0.20 ug/l
Zinc Zn-Total	11 ug/l
Antimony Sb-Total	10 ug/l
Selenium Se-Total	10 ug/l
Mercury Hg-Total	0.034K ug/l

Contract Lab Program Parameter	Water-Total Result Units
VOA GC/MS	CLP CLP
P/PCBs GC	CLP CLP

Michael Spencer

(Sample Complete)

Lincoln Park  
Landfill, Wenatchee  
50  
(6/9/87)

ORGANICS SAMPLE NARRATIVE

Metro Sample Number: 247784 Sample I.D. Number: 247784

Matrix: Water Date Received: 6-12-87 Date Extracted: 6-22-87

% Solids: - Wet Weight Ext./Final Ext. Vol.: 500 ml / 5 ml

Storage Method Prior to Ext.: 4°C Storage Method After Ext.: 4°C

Spike I.D.:	Spike Ng Max.:	Acids	Base	Neutrals

Instrumentation:	GPC	NPC	FID	ECD	
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Date:				<u>7-16-87</u>	
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Volume Injected:				<u>1 µl</u>	
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GC-MS:	1	2	3	4	
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Fraction:	<u>VOA</u>				
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Fraction Vol.:	<u>5 ml</u>				
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Instrument:	<u>C</u>				
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Amount Inj.:	<u>-</u>				
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Data File:	<u>247784</u>				
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Comments:



Sample No. 247784  
 Laboratory: METRO  
 Page 1 of 2

ORGANICS ANALYSIS REPORT  
 VOLATILE ORGANICS BY EPA METHOD 1624

Amount Analyzed: 5.0 ML  
 Dilution Factor: 1

Matrix: WATER  
 Instrument ID: C

Spike ID:

Compound	Amount in PPB	Qualifier	Surrogate % Recovery
CHLOROMETHANE	4.2	U	120
VINYLCHLORIDE	4.2	U	120
BROMOMETHANE	4.5	U	110
CHLOROETHANE	4.5	U	110
1,1-DICHLOROETHYLENE	5.0	U	100
METHYLENE CHLORIDE	4.5	U	110
1,2-DICHLOROETHYLENE	4.5	U	110
1,1-DICHLOROETHANE	4.5	U	110
CHLOROFORM	5.1	U	98
1,1,1-TRICHLOROETHANE	4.5	U	110
CARBON TETRACHLORIDE	5.3	U	94
BENZENE	4.2	U	120
1,2-DICHLOROETHANE	5.1	U	98
1,1,2-TRICHLOROETHYLENE	5.0	U	100
1,2-DICHLOROPROPANE	5.0	U	100
BROMODICHLOROMETHANE	6.4	U	78

Data Reporting Qualifiers:

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report minimum detection limit based on necessary concentration/dilution actions.
  - J Indicates an estimated value when result is less than detection limit or when estimating a concentration for tentatively identified compounds.
  - B Indicates when the analyte is found in the blank as well as a sample and also possible/probable blank contamination.
  - N Surrogate not recovered.

## VOLATILE ORGANICS (cont)

Sample No. 247784

Laboratory: METRO

Page 2 of 2

Compound	Amount in PPB	Qualifier	Surrogate % Recovery
TRANS-1,3-DICHLOROPROPENE	6.6	U	76
TOLUENE	5.0	U	100
CIS-1,3-DICHLOROPROPENE	4.5	U	110
1,1,2-TRICHLOROETHANE	4.5	U	110
TETRACHLOROETHYLENE	4.5	U	110
CHLORODIBROMOMETHANE	4.2	U	120
CHLOROBENZENE	4.2	U	120
ETHYL BENZENE	4.2	U	120
BROMOFORM	4.2	U	120
1,1,2,2-TETRACHLOROETHANE	4.2	U	120

## Data Reporting Qualifiers:

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report minimum detection limit based on necessary concentration/dilution actions.
J	Indicates an estimated value when result is less than detection limit or when estimating a concentration for tentatively identified compounds.
B	Indicates when the analyte is found in the blank as well as a sample and also possible/probable blank contamination.
N	Surrogate not recovered.

## GC/ECD PESTICIDE AND PCB ORGANIC ANALYSIS DATA REPORT

Sample Number: 247784

Amount Analyzed: 500.00 ml

Matrix: WATER

Final Extract Vol: 5 ML

Amount Injected: 1 UL

Compound Name	Sample DL in PPB	Conc PPB (Wet Wt)
ALPHA-BHC	0.08	ND
BETA-BHC	0.08	ND
DELTA-BHC	0.08	ND
GAMMA-BHC (LINDANE)	0.08	ND
HEPTACHLOR	0.08	ND
ALDRIN	0.08	ND
HEPTACHLOR EPOXIDE	0.08	ND
ENDOSULFAN I	0.08	ND
DIELDRIN	0.16	ND
4,4-DDE	0.16	ND
ENDRIN	0.16	ND
ENDOSULFAN II	0.16	ND
4,4-DDD	0.16	ND
ENDRIN ALDEHYDE	0.16	ND
ENDOSULFAN SULFATE	0.16	ND
4,4-DDT	0.16	ND
CHLORDANE	0.80	ND
TOXAPHENE	1.60	ND
AROCHLOR-1016	0.80	ND
AROCHLOR-1221	0.80	ND
AROCHLOR-1232	0.80	ND
AROCHLOR-1242	0.80	ND
AROCHLOR-1248	0.80	ND
AROCHLOR-1254	1.60	ND
AROCHLOR-1260	1.60	ND

Lincoln Park  
Landfill, Wenatchee  
51  
(6/9/87)

ORGANICS SAMPLE NARRATIVE

Metro Sample Number: 247785A Sample I.D. Number: 247785

Matrix: \_\_\_\_\_ Date Received: 6-12-87 Date Extracted: 6-22-87

% Solids: \_\_\_\_\_ Wet Weight Ext./Final Ext. Vol.: 500 $\mu$ l/5 $\mu$ l

Storage Method Prior to Ext.: 4°C Storage Method After Ext.: 4°C

Spike I.D.: _____	Spike Ng Max.: _____	Acids _____	Base _____	Neutrals _____
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Instrumentation:	GPC	NPC	FID	ECD
Date:	_____	_____	_____	<u>7-16-87</u>

Volume Injected:	_____	_____	_____	<u>1<math>\mu</math>l</u>
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GC-MS:	1	2	3	4
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Fraction:	<u>V0A</u>	_____	_____	_____
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Fraction Vol.:	<u>5<math>\mu</math>l</u>	_____	_____	_____
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Instrument:	<u>C</u>	_____	_____	_____
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Amount Inj.:	<u>-</u>	_____	_____	_____
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Data File:	<u>247785A</u>	_____	_____	_____
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Comments:

Sample No. 247785A  
 Laboratory: METRO  
 Page 1 of 2

ORGANICS ANALYSIS REPORT  
 VOLATILE ORGANICS BY EPA METHOD 1624

Amount Analyzed: 5.0 ML  
 Dilution Factor: 1

Matrix: WATER  
 Instrument ID: C

Spike ID:

Compound	Amount in PPB	Qualifier	Surrogate % Recovery
CHLOROMETHANE	5.2	U	96
VINYLCHLORIDE	5.1	U	98
BROMOMETHANE	5.5	U	91
CHLOROETHANE	5.4	U	92
1,1-DICHLOROETHYLENE	5.7	U	88
METHYLENE CHLORIDE	5.3	U	94
1,2-DICHLOROETHYLENE	5.3	U	94
1,1,1-DICHLOROETHANE	5.3	U	94
CHLOROFORM	6.3	U	80
1,1,1-TRICHLOROETHANE	5.6	U	90
CARBON TETRACHLORIDE	6.6	U	76
BENZENE	5.0	U	100
1,2-DICHLOROETHANE	6.0	U	84
1,1,2-TRICHLOROETHYLENE	5.4	U	92
1,2-DICHLOROPROPANE	5.0	U	100
BROMODICHLOROMETHANE	6.8	U	74

Data Reporting Qualifiers:

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report minimum detection limit based on necessary concentration/dilution actions.

J Indicates an estimated value when result is less than detection limit or when estimating a concentration for tentatively identified compounds.

B Indicates when the analyte is found in the blank as well as a sample and also possible/probable blank contamination.

N Surrogate not recovered.

## VOLATILE ORGANICS (cont)

Sample No. 247785A

Laboratory: METRO

Page 2 of 2

Compound	Amount in PPB	Qualifier	Surrogate % Recovery
TRANS-1,3-DICHLOROPROPENE	6.9	U	72
TOLUENE	5.4	U	92
CIS-1,3-DICHLOROPROPENE	5.1	U	98
1,1,2-TRICHLOROETHANE	5.3	U	94
TETRACHLOROETHYLENE	5.4	U	92
CHLORODIBROMOMETHANE	5.2	U	96
CHLOROBENZENE	5.0	U	100
ETHYL BENZENE	5.0	U	100
BROMOFORM	5.1	U	98
1,1,2,2-TETRACHLOROETHANE	5.0	U	100

## Data Reporting Qualifiers:

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report minimum detection limit based on necessary concentration/dilution actions.
J	Indicates an estimated value when result is less than detection limit or when estimating a concentration for tentatively identified compounds.
B	Indicates when the analyte is found in the blank as well as a sample and also possible/probable blank contamination.
N	Surrogate not recovered.

## GC/ECD PESTICIDE AND PCB ORGANIC ANALYSIS DATA REPORT

Sample Number: 247785A

Amount Analyzed: 500.00 ml

Matrix: WATER

Final Extract Vol: 5 ML

Amount Injected: 1 UL

Compound Name	Sample DL in PPB	Conc PPB (Wet Wt)
ALPHA-BHC	0.08	ND
BETA-BHC	0.08	ND
DELTA-BHC	0.08	ND
GAMMA-BHC (LINDANE)	0.08	ND
HEPTACHLOR	0.08	ND
ALDRIN	0.08	ND
HEPTACHLOR EPOXIDE	0.08	ND
ENDOSULFAN I	0.08	ND
DIELDRIN	0.16	ND
4,4-DDE	0.16	ND
ENDRIN	0.16	ND
ENDOSULFAN II	0.16	ND
4,4-DDD	0.16	ND
ENDRIN ALDEHYDE	0.16	ND
ENDOSULFAN SULFATE	0.16	ND
4,4-DDT	0.16	ND
CHLORDANE	0.80	ND
TOXAPHENE	1.60	ND
AROCHLOR-1016	0.80	ND
AROCHLOR-1221	0.80	ND
AROCHLOR-1232	0.80	ND
AROCHLOR-1242	0.80	ND
AROCHLOR-1248	0.80	ND
AROCHLOR-1254	1.60	ND
AROCHLOR-1260	1.60	ND

## EPA Notification of Hazardous Waste Site

United States  
Environmental Protection  
Agency  
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

WAS 000 001 133  
PMD 8 8/10/81**A Person Required to Notify:**

Enter the name and address of the person or organization required to notify.

Name CITY OF WENATCHEE  
Street BOX 519  
City WENATCHEE State WA Zip Code 98801

**B Site Location:**

Enter the common name (if known) and actual location of the site.

<sup>Douglas</sup>  
Name of Site LINCOLN PARK LANDFILL  
Street MISSION & CRAWFORD  
City WENATCHEE County CHELAN State WA Zip Code 98801

**C Person to Contact:**

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) DELABARRE NORMAN ACTING DIR.  
Phone 509-663-7181

**D Dates of Waste Handling:**

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year) 1948 To (Year) 1967

**E Waste Type: Choose the option you prefer to complete**

**Option 1:** Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

**General Type of Waste:**

Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

- 1. ☐ Organics
- 2. ☐ Inorganics
- 3. ☐ Solvents
- 4. ☒ Pesticides
- 5. ☐ Heavy metals
- 6. ☐ Acids
- 7. ☐ Bases
- 8. ☐ PCBs
- 9. ☒ Mixed Municipal Waste
- 10. ☒ Unknown
- 11. ☐ Other (Specify)

**Source of Waste:**

Place an X in the appropriate boxes.

- 1. ☐ Mining
- 2. ☒ Construction
- 3. ☐ Textiles
- 4. ☐ Fertilizer
- 5. ☐ Paper/Printing
- 6. ☐ Leather Tanning
- 7. ☐ Iron/Steel Foundry
- 8. ☐ Chemical, General
- 9. ☐ Plating/Polishing
- 10. ☐ Military/Ammunition
- 11. ☐ Electrical Conductors
- 12. ☐ Transformers
- 13. ☒ Utility Companies
- 14. ☒ Sanitary/Refuse
- 15. ☐ Photofinish
- 16. ☐ Lab/Hospital
- 17. ☒ Unknown
- 18. ☐ Other (Specify)

**Option 2:** This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

**Specific Type of Waste:**

EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.




RECEIVED

JUN 11 '81



## Notification of Hazardous Waste Site

## Side Two

## Waste Quantity

Place an X in the appropriate boxes to indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

## Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☒ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) \_\_\_\_\_

## Total Facility Waste Amount

cubic feet UNKNOWNgallons UNKNOWN

## Total Facility Area

square feet \_\_\_\_\_

acres \_\_\_\_\_

## Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☐ Likely ☒ None

Note: Items Hand I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

## H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

SEE EXHIBIT "B"  
SITE "A"

A

## Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

## J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other"

Name

Norman L. Delabene

Street

Box 519

City

Wenatchee

State

WA

Zip Code

98801

Signature

Date

- ☐ Owner, Present  
☐ Owner, Past  
☐ Transporter  
☐ Operator, Present  
☒ Operator, Past  
☐ Other

ANDREA BEATTY RINIKER  
Director



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

June 1, 1987

Lyle Bland  
City of Wenatchee  
Box 519  
Wenatchee, WA 98801

Dear Mr. Bland:

As per our recent telephone conversation, I now want to confirm our scheduled meeting on Tuesday, June 9, 1987. I will be at the Worthen Street Office at 3:00 p.m.

I am enclosing a copy of the EPA Site Inspection Form 2070-13 as a work copy for your own use. You will receive a copy of the entire report when it has been through our review process, and finalized by the EPA.

You can be most helpful to me by completing, to the best of your knowledge/ability, sections 4.II and 7 through 11, where applicable. I shall be able to gather all the other required information for the remaining sections from our own files, and other inquiries.

Mr. Bob Kievit of EPA Washington Operations Office in Olympia will assist me in the collection of any appropriate environmental samples. You shall be allowed opportunity for sample splits at that time.

This investigation is being conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act, Section 104, Parts (d)(1) and (e)(1), and of the Revised Code of Washington, Section 70.105A.060, Parts (1) and (2). A copy of excerpts of those statutes is enclosed.

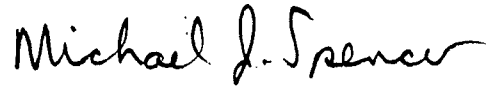
Also enclosed is a "Consent for Access to Property" form. Please sign this form and present it to me on Tuesday to document that you provided permission to access for this investigation, and whether or not you wish sample splits.

I look forward to meeting with you and following up on the preliminary assessment recommendations for the Lincoln Park Landfill.

Lyle Bland  
June 1, 1987  
Page 2

Please contact me at telephone (206) 438-3016 if you have any questions concerning the above.

Sincerely,

A handwritten signature in cursive script that reads "Michael J. Spencer".

Michael J. Spencer  
Hazardous Waste Cleanup Program

MJS:ra  
Enclosures

cc: Dennis Bowhay, Ecology  
Bob Kievit, EPA  
Ann Jensen, Chelan-Douglas  
County Health District

ANDREA BEATTY RINIKER  
Director



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

June 1, 1987

Lyle Bland  
City of Wenatchee  
Box 519  
Wenatchee, WA 98801

CONSENT FOR ACCESS TO PROPERTY

Property Address: Chelan Co. Lincoln Park Landfill  
Mission and Crawford  
Wenatchee, WA 98801

I hereby give my consent to officers, employees, contractors, and persons acting at the request of the Washington State Department of Ecology (Ecology) to enter and have access to my property located at the above property address for the following purposes:

Inspect for hazardous releases and collect samples as appropriate.

Permission for access commences on June 9, 1987

Date

6/8/87

Signature

Lyle Bland

Ecology is requested to provide me a duplicate of any sample(s) collected at the above property address during the time of access. I will supply the container(s) to receive the duplicate sample(s).

Date

Signature

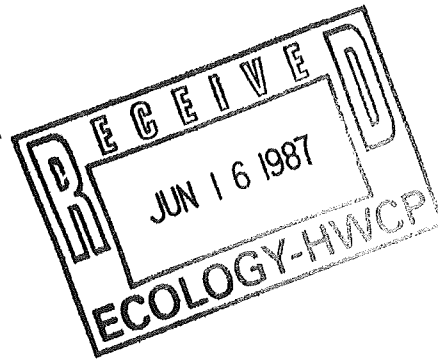
Ecology is not requested to provide me a duplicate of any sample(s) collected at the above address during the time of access.

Date

6/8/87

Signature

Lyle Bland



June 11, 1987

Mr. Michael J. Spencer, Environmentalist  
State Department of Ecology  
Mail Stop PV-11  
Olympia, Washington 98504

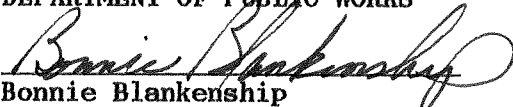
RE: City of Wenatchee - Lincoln Park Landfill

Dear Mr. Spencer:

Lyle Bland, Director of Public Works for the City of Wenatchee, has asked that I provide you any relevant file information available, relating to the operation of the Lincoln Park Landfill (previously known as the Dry Gulch Landfill). Our records are sparse for the period of time the landfill was operational; however, I am enclosing copies of file information which may be of assistance.

Please feel free to contact us if you have further questions.

Sincerely yours,  
DEPARTMENT OF PUBLIC WORKS

  
Bonnie Blankenship  
LID/CIP Coordinator

bb  
enc.

(509) 663-0551 City Hall  
(509) 663-7181 Public Works  
P.O. Box 519  
Wenatchee, WA 98801

SANITATION DEPARTMENT:

- 1945 - Twenty acre tract of land south of Crawford and between Mission and Methow Street was purchased from Lee R. Moore for \$10,000.00. This tract of land is commonly known as Dry Gulch.
- 1946 - The Sanitation Department discontinued the use of the incinerator building at the south edge of the Pumping Plant and started a sanitary land fill at Dry Gulch.
- 1955 - The operation of the Sanitation Department had received recognition for the fine manner in which the fill was operated and for the departments use of packer vehicles to collect refuse from the City. The Washington State Department of Health selected Wenatchee's operation as one of the finest of its kind and wrote the operation up in a publication which received widespread distribution.

Land fill was started on the property located on Worthen Street to reclaim the land for use by the City of Wenatchee.

- 1956 - Cooperated with other departments in making a compacted dirt fill obtained from street improvement projects for raising the land above the 1948 flood level as a site for the Engineering and Public Works Building.
- 1959 - Start of a light plane landing strip development through use of the Sanitary fill method. It is expected to take two years to complete the first segment of the strip.

Completed the use of Crawford Street as a Sanitary fill and provided the final grading for the first zone of the park development.

Purchase of and put into operation one new 20 yard load packer on Cab forward truck.

Purchased  $5\frac{1}{2}$  acres, for gravel pit and fill site, east of Wenatchee Avenue at the foot of dry gulch.

Helping in the development of the boat moorage at the foot of Orondo Avenue.

- 1960 - Fill in around the Sewage Treatment Plant.

Install a drive in window at the Worthen Street fill office.

Fill on the Columbia river air strip.

Helping in the development of boat Moorage at the foot of Orondo Avenue.

INFORMATION TO BE USED IN STORY ABOUT  
WENATCHEE GARBAGE SYSTEM

\* \* \*

Prior to 1945, Wenatchee's garbage system had been operated by a private company on a franchise. The method of disposal was by incineration. The operation was quite unsatisfactory. The incinerator was not properly designed and did a very poor job of breaking down the garbage. In addition to this, it was located in a place close to the business district and on the windward side of the business district so that the town was troubled very much at times by smoke and odors. The overall operation was also poor in that only about 40% of the people had garbage collection, in spite of the fact that a city ordinance made it compulsory to have garbage collection. It was just not practical to enforce the ordinance. The garbage was collected in open trucks and handled in a manner which was not too satisfactory.

A survey in 1944 and 1945 brought these facts out. The facts were presented by the Health Department, Dr. West and Mrs. Ajax to Jack V. Rogers, who was Mayor of the City at that time. We recommended, as a Health Department, that the city go into the garbage business and handle the whole situation. Mayor Rogers accepted the idea and said that he would work with us to this end. On one occasion in 1945 the entire City Commission, along with the advisor from the Fire Department and Engineering Department and Street Department were invited to the Health Department where they were shown a film by Mr. Ajax on operation of sanitary land fills for garbage disposal. At that time Mayor Rogers told his associates that the City of Wenatchee should have such a system and he was going to see that they got it. The other two commissioners Jack Goodfellow and Harry Ahlers agreed. Various disposal sites were looked over but it was finally decided that the logical place was the deep gully just outside of town on the south side of town. This gully had been used for promiscuous dumping for many years and was very unsightly. The City purchased the land along with a house which was suitable for a home for the operator of the disposal system, and made plans to clean up the old dump, install a 4 foot culvert in the bottom of the gully to carry off spring run-off water and start the fill. A near-by property owner started a petition to stop the city in this project. He obtained many signatures and was given a hearing by the City Commission. A temporary board of Inquiry was set up, 3 members appointed by the city, and 3 appointed by property owners to investigate the whole situation. The members of this board consulted the Health Department and were advised that this sanitary fill was not going to be an open dump as most of the people thought it would be. As a result, this board recommended to the city that they go ahead. Another factor which helped the city in this dispute was a picture which was obtained by a city employee of the principal objector dumping garbage in the ravine.

The city took over the operation of the garbage system in 1946. The operation as a fill was pretty much as planned, a 4-foot drain tile was put in the bottom of the ravine and garbage fill was started in the bottom. Cover material was dragged in by scraper or dozer from the slopes of the gully. From the beginning, no fill face has been over 8 feet. The old existing garbage was rapidly cleaned up and in a short time the disposal site appeared quite presentable. A very unique part of the whole operation was the fact that the city, in addition to collecting the garbage and disposing of it, furnished garbage cans to all customers and every person having a water tap was a customer. This along with rates and other pertinent details were included in a new garbage ordinance. The City soon obtained some "load packer" trucks and has gradually added to their equipment until at present they have a very first class operation.

Mr. Tom Tait, who has been in charge of the City Department of Sanitation for several years, has done a most excellent job in operating this department. He has put into effect many innovations and his record system is a model. For all details on this and the operation of the system as it is now being operated, I refer you to Tom Tait, the City Division of Sanitation has operated as an entirely separate department from the start. The only part the Health Department had in the whole operation was selling the idea to start with and in co-operation with the Department of Sanitation on various problems which arise from time to time.

Chelan-Douglas County Health Department  
Wenatchee, Washington

Lloyd C. Ajax  
Supervising Sanitarian



C O P Y

Wenatchee, Washington  
December 22, 1947

MEMORANDUM OF AGREEMENT:

Chelan County Commissioners agree to close the Hair Pin Turn in the South Mission Street highway at Dry Gulch.

Chelan County to stockpile surplus dirt from proposed cut on South Mission Street and permit use of same in city garbage fill.

Chelan County agrees to permanently vacate the Hair Pin Turn when new road is completed unless protested by users.

Chelan County Commissioners agree to vacate road on the east side of Dry Gulch between South Mission and So. Wenatchee Avenue after road is completed over Dry Gulch, unless protested by property owners.

-----  
City of Wenatchee to deed to Chelan County a right of way sixty feet wide across the Dry Gulch Fill together with slope easement necessary for construction and maintenance of highway.

City of Wenatchee to continue making the fill across Dry Gulch as their normal operations require but without interfering with construction contract.

City of Wenatchee to permit use of access road to county sand bunker.

APPROVED BY:

/s/

R. A. McKellar

K. P. Sexton

W. A. Galbraith

FOR CHELAN COUNTY.

APPROVED BY:

/s/

Arthur H. Pohlman

H. J. Ahlers

FOR CITY OF WENATCHEE.

ATTEST:

Carl W. Kruegel  
City Clerk

[S E A L]

Note: Please complete one copy and return to I Col. J.M.Morgan, Jr.  
Department of Civil Engineering, VMI, Lexington, Va., in  
stamped self-addressed envelope. Second copy is for your use.

(O V E R)

SANITARY LANDFILL OPERATIONS  
1954

(O V E R)

Municipality \_\_\_\_\_ Estimated population served 17,500  
Annual 1954 budget appropriation for collection and landfill  
operations \_\_\_\_\_  
Estimated 1954 tonnage or cubage collected or 1,448.2 tons  
\_\_\_\_\_ cubic yard

I FILL OPERATIONS

1. Operational days per week 6  
2. Is fill covered daily yes  
3. Average depth of compacted  
fill layer in feet 8'

II TRENCH (CR. AREA)

1. Average width in feet 14'  
2. Average depth in feet 8'  
3. Average length in feet 200'  
4. How often is this "typical"  
trench filled 30 day  
5. Acres of land utilized annually  
by landfill method 1/4  
6. Cubic yards of material buried  
in 1954 \_\_\_\_\_ or  
tons of material buried in  
1954 \_\_\_\_\_  
7. Average weight of material in  
pounds \_\_\_\_\_ per cubic  
yard or tons \_\_\_\_\_ per  
cubic yard

III TRUCKS

1. No. trucks used 3  
2. Ave. tons per truckload 3  
or ave. cubic yards per truck-  
load 12  
3. Average truck haul in miles  
(from parking area to collection  
area, during collection, and  
return to fill site) 30 mile  
4. Estimated present value of all  
trucks \$ \_\_\_\_\_  
5. Depreciation rate 20% or  
number of maximum years expected  
use 8 yr.  
6. Number of trucks and type.

Diamond T Models H224 P 1954  
International K P Z 1949  
International L 170 1951  
International K 7 1945  
7. Type of truck and body pre-  
ferred White 3020 16yd Garwood  
load parker 1955 Models

IV LAND VALUE

1. Burial land value in \$/acre  
before fill 602.50 20 acre (OVER)  
after fill 2000.00 acre  
2. Use of burial site after fill  
completed Park

(OVER)

V FENCING AND SIGNS

1. Is landfill area fenced NO
2. Type of fence ✓
3. Estimated first cost of fence including gates \$ ✓ or value of fence in \$/foot ✓
4. Length of fence in feet ✓
5. Value of signs on fences ✓
6. Is fenced area supervised 24 hours per day ✓

VI STRUCTURES

1. Are any structures on landfill site used for office space, garage, etc. yes
2. Use of structures Fill office  
Can repair Bldg 10 Room House
3. Value of structures \$ \$8,550.00
4. Percent of structures directly chargeable to landfill operations Fill office 100%

(OVER)

VII EXPENSES - \$/yrA. Salaries

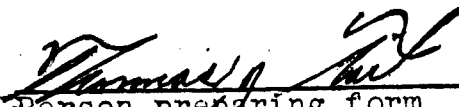
1. Labor at site El Rector 3,609.00 \$/yr
2. Eqpt. operators at site Cat driver 4,500.00 \$/yr
3. Truck drivers salary \$28,980.00 \$/yr
4. Truck labor salary \$4,110.00 \$/yr
5. Other 21,930.00 \$/yr

B. Operation - \$/yr

	<u>Trucks</u>	<u>Site Equipment</u>
Fuel	<u>\$3,182.58</u>	<u>\$538.30</u>
Repairs & Maintenance	<u>\$7,717.31</u>	<u>\$3,030.56</u>
Other	<u>          </u>	<u>          </u>

C. Overhead - \$/yr

1. Salary of Health Department or Public Works Department personnel in charge who regularly inspects landfill. \$/yr 5,100.00 (sup)
2. Percent of time this person spends on this job 100% %.

VIII COMMENTS AND REMARKSUtilizing
  
 Person preparing form

  
 Title

Would you care for copy of report?

(OVER) yes

ANDREA BEATTY RINIKER  
Director



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

TO: Chelan County Lincoln Park Landfill Files  
FROM: Michael J. Spencer *MJS*  
SUBJECT: Phase I Site Inspection  
DATE: June 23, 1987

I conducted a PA/SI Phase I Site Inspection (SI) at the (former) Chelan County Lincoln Park Landfill site in Wenatchee during the afternoon of June 9, 1987. Bob Kievit, EPA Washington Operations Office, Olympia, accompanied me to assist in sample collection.

The weather was sunny, high 70's, light variable wind, small amount of high clouds.

We met with Bob Johanson of the City of Chelan at the City Hall at approximately 3:00 p.m. He participated in the SI in place of Lyle Bland, with whom I had made earlier contact.

We drove to Lincoln Park where Bob explained that the total area of the park/former landfill was much larger than indicated on the map in the PA. The northern boundary is Crawford Avenue, which was recently widened. Methow Street forms the western boundary and Mission Street the eastern. The total area of the park now (measured off the topography map) is roughly 20 acres (600'x1400').

I explained to Bob my main interest was to investigate the possibility of pesticide wastes having been deposited in the former landfill here. To do this, I wanted to sample the intermittent stream (shown on the topo.) which appeared to enter (under) the park at the west side and exit directly east at Mission Avenue.

Bob then stated that he believed a sealed steel culvert ran entirely under the park, through where the former landfill existed. I checked out the culvert as it exited along Mission Street. It did appear to be about four feet in diameter and, even before I got that close to observing it, I could detect a rather gasoline-like odor emanating from it.

I returned to the van and warmed up the Photovac TIP instrument. With the span at a setting of 6, I obtained a reading of 379 at the culvert opening. We went to the western edge of the park, off Methow Street, and found no difference in the reading at the entrance to the culvert and background (approximately zero). (This meant the fumes were not entering here, but from elsewhere).

Chelan County  
June 23, 1987  
Page 2

Sample MJS 050 was collected at entrance to culvert prior to passing under the park.

We used the Photovac TIP at all catch basins in the park and got zero readings. At the intersection of Crawford and Methow Streets were several storm drain sumps. These gave readings from 329 down to 129 as we went up Methow Street, away from the intersection and the park.

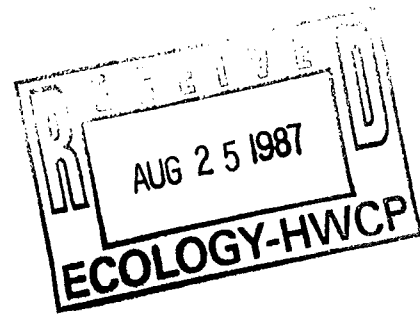
Bob said he would check into this through plans at the City Engineers to find out how these fumes were getting into the culvert that passes through the park.

I took sample MJS 051 at the exit of the culvert from the park. By this time the readings had dropped down to well under 200 and falling.

(Note - Bob called me on 6/22/87 and related that a follow-up inspection on last Thursday showed no detectable levels of fumes.)

Samples will be analyzed for priority pollutant metals, pesticide/PCB's, purgeable halocarbons and volatile organics.

MJS:vvhb



August 20, 1987

Department of Ecology  
Mike Spencer  
Mail Stop PV-11  
Woodland Square  
Olympia, WA 98504-8711

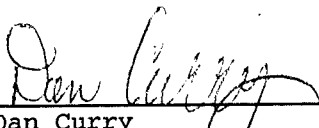
Dear Mike:

Here are the maps of the drainage system through Lincoln Park.  
I have included a copy of the as-builts and two city maps which show  
a little more detail of the Crawford Ave. and Methow St. intersection.

I will try to get the data that was collected by the high school  
chemistry student and mail that to you as soon as possible.

Stop by next time you are in town. We can talk about the "old days"  
in "rainy" Raymond.

Sincerely,  
DEPARTMENT OF PUBLIC WORKS

  
\_\_\_\_\_  
Dan Curry  
Water Resource Manager

Enclosure

DC:kda



MISSION ST. 1" = 60'

LINCOLN PARK

MISSION ST

GOVT. LIST

SEWER BY SNELSON CONST. 1976  
H.U.D. PROJECT # E-75-DN-53-0009

CRD 381  
M. 0100



CITY OF WENATCHEE

LINCOLN PARK  
SAN & STORM AS-BUILTS

SCALE 1" = 40'

1974-75

SHEET 2 of 4

1974-75 SAN & STORM



③

③



66' COLE ALUM 1979

5'-40"

48"

124' 10"

580'

METHUEN



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE WA 02 SITE NUMBER D980639074

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Lincoln Park Landfill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER SW corner Mission and Crawford, Wenatchee				
03 CITY Wenatchee		04 STATE WA	05 ZIP CODE 98801	06 COUNTY Chelan	07 COUNTY CODE 007	08 CONG DIST 01
09 COORDINATES LATITUDE 47 24 15.0 LONGITUDE 120 18 17.0		10 TYPE OF OWNERSHIP (Check one) <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input checked="" type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN				

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 6 9 87 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1946 1967 BEGINNING YEAR ENDING YEAR		UNKNOWN
---	---	--	--	---------

04 AGENCY PERFORMING INSPECTION (Check all that apply)

<input type="checkbox"/> A. EPA	<input type="checkbox"/> B. EPA CONTRACTOR	(Name of firm)	<input type="checkbox"/> C. MUNICIPAL	<input type="checkbox"/> D. MUNICIPAL CONTRACTOR	(Name of firm)
<input checked="" type="checkbox"/> E. STATE	<input type="checkbox"/> F. STATE CONTRACTOR	(Name of firm)	<input type="checkbox"/> G. OTHER	(Specify)	

05 CHIEF INSPECTOR Michael J. Spencer	06 TITLE Environmentalist	07 ORGANIZATION Ecology	08 TELEPHONE NO. 206 1438-3016
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09 OTHER INSPECTORS Bob Kievit	10 TITLE Environmental Engineer	11 ORGANIZATION EPA	12 TELEPHONE NO. 206 1438-3053
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			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED Bob Johanson	14 TITLE	15 ADDRESS City of Wenatchee	16 TELEPHONE NO. (509) 663-7181
---	----------	---------------------------------	------------------------------------

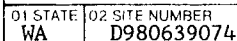
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 3-4:30 pm	19 WEATHER CONDITIONS Sunny, high 70's, light variable wind
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IV. INFORMATION AVAILABLE FROM

01 CONTACT Lyle Bland	02 OF (Agency/Organization) City of Wenatchee	03 TELEPHONE NO. (509) 663-7181
--------------------------	--	------------------------------------

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Michael J. Spencer	05 AGENCY Ecology	06 ORGANIZATION HWCP	07 TELEPHONE NO. (206) 438-3016	08 DATE 9 16 87 MONTH DAY YEAR
--	----------------------	-------------------------	------------------------------------	--------------------------------------



I. HIGHLY VOLATILE  
J. EXPLOSIVE  
K. REACTIVE  
L. INCOMPATIBLE  
M. NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
WA D980639074

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.  
Ground water at 50'-100'

01 B. SURFACE WATER CONTAMINATION 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.  
Nearest surface water is 0.25 miles (Columbia River)

01 C. CONTAMINATION OF AIR 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.

01 D. FIRE/EXPLOSIVE CONDITIONS 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.

01 E. DIRECT CONTACT 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.  
Site appeared to be adequately covered.

01 F. CONTAMINATION OF SOIL 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 AREA POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.

01 G. DRINKING WATER CONTAMINATION 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.

01 H. WORKER EXPOSURE/INJURY 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 WORKERS POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.

01 I. POPULATION EXPOSURE/INJURY 0 02 OBSERVED (DATE ) POTENTIAL ALLEGED  
03 POPULATION POTENTIALLY AFFECTED 0 04 NARRATIVE DESCRIPTION  
None observed or suspected as a result of 6/9/87 SI.



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE WA 02 SITE NUMBER D980639074

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA 0 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.

01 ☐ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION (include names of species)

None observed or suspected as a result of 6/9/87 SI.

01 ☐ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
(Spills, Runoff, Standing liquids, Leaking drums) 0  
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.  
Former landfill has adequate cover.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE ) ☐ POTENTIAL ☐ ALLEGED  
04 NARRATIVE DESCRIPTION

None observed or suspected as a result of 6/9/87 SI.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Site is not in river flood plain.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 0

IV. COMMENTS

Only municipal wastes were documented to have been disposed of on site.

V. SOURCES OF INFORMATION (Cite specific reference, e.g., state files, sample analysis reports)

Ecology 6/9/87 SI.  
Ecology PA files.  
AnnJensen, Chelan-Douglas County Health District



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION  
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE WA 02 SITE NUMBER D980639074

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED <small>Check all that apply</small>	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA		NA		
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE <small>(Specify)</small>				
<input type="checkbox"/> H. LOCAL <small>(Specify)</small>				
<input type="checkbox"/> I. OTHER <small>(Specify)</small>				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE DISPOSAL <small>Check all that apply</small>	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT <small>Check all that apply</small>	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	None
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND	Unknown	NA	<input type="checkbox"/> E. WASTE OIL PROCESSING	06 AREA OF SITE
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	8 (Acres)
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER	
<input type="checkbox"/> I. OTHER <small>(Specify)</small>				

07 COMMENTS

Unknown amount of municipal wastes were disposed of between 1946-1967.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES Check all that apply

☒ A. ADEQUATE, SECURE      ☐ B. MODERATE      ☐ C. INADEQUATE, POOR      ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Although landfill was unlined, has very good cover and scant rainfall (9 inches).

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS: Landfill is currently adequately covered, is a public park.

VI. SOURCES OF INFORMATION (Give source reference, e.g. state files, newspaper, etc.)

Ecology PA files.  
City of Wenatchee.  
Ecology 6/9/87 SI.



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

WA D980639074

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY

(Check as applicable)

SURFACE

WELL

COMMUNITY

A. ☐

B. ☒

NON-COMMUNITY

C. ☐

D. ☒

02 STATUS

ENDANGERED

AFFECTED

MONITORED

A. ☐

B. ☐

C. ☒

D. ☐

E. ☐

F. ☐

03 DISTANCE TO SITE

A. 2 (mi)

B. 1 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING

☐ B. DRINKING

(Other sources available)

☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION

(Limited other sources available)

☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION  
(No other water sources available)

02 POPULATION SERVED BY GROUND WATER > 13,000

03 DISTANCE TO NEAREST DRINKING WATER WELL 1 (mi)

04 DEPTH TO GROUNDWATER

60-100 (ft)

05 DIRECTION OF GROUNDWATER FLOW

East

06 DEPTH TO AQUIFER  
OF CONCERN

60-100 (ft)

07 POTENTIAL YIELD  
OF AQUIFER

unknown (gpd)

08 SOLE SOURCE AQUIFER

☐ YES ☒ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

Nearest private well is one mile SE and community supply wells (PUD, E. Wenatchee Water District) are two miles away.

10 RECHARGE AREA

☒ YES

COMMENTS

From Dry Gulch

☐ NO

11 DISCHARGE AREA

☒ YES

COMMENTS

To Columbia River

☐ NO

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION  
DRINKING WATER SOURCE

☒ B. IRRIGATION, ECONOMICALLY  
IMPORTANT RESOURCES

☐ C. COMMERCIAL, INDUSTRIAL

☐ D. NOT CURRENTLY USED

02 AFFECTED POTENTIALLY AFFECTED BODIES OF WATER

NAME

AFFECTED

DISTANCE TO SITE

Columbia River

0.25

(mi)

(mi)

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE

TWO (2) MILES OF SITE

THREE (3) MILES OF SITE

A. 3300

NO. OF PERSONS

B. 7100

NO. OF PERSONS

C. 15,450

NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

0.02

(mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

> 500

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.02

(mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g. rural, village, densely populated urban area)

The site lies just within the city limits for the city of Wenatchee (1983 pop. 17,150).  
The surrounding area is mainly rural. A three mile radius takes in 90% of the population.



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE WA 02 SITE NUMBER D980639074

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

A.  $10^{-8} - 10^{-6}$  cm/sec B.  $10^{-4} - 10^{-6}$  cm/sec ☒ C.  $10^{-4} - 10^{-3}$  cm/sec D. GREATER THAN  $10^{-3}$  cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

A. IMPERMEABLE (Less than  $10^{-6}$  cm/sec) ☒ B. RELATIVELY IMPERMEABLE ( $10^{-4} - 10^{-6}$  cm/sec) C. RELATIVELY PERMEABLE ( $10^{-2} - 10^{-4}$  cm/sec) ☐ D. VERY PERMEABLE (Greater than  $10^{-2}$  cm/sec)

03 DEPTH TO BEDROCK

unknown

(ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

NA

(ft)

05 SOIL pH

Unknown

06 NET PRECIPITATION

-11

(in)

07 ONE YEAR 24 HOUR RAINFALL

1.25

(in)

08 SLOPE

SITE SLOPE

3 %

DIRECTION OF SITE SLOPE

East

TERRAIN AVERAGE SLOPE

10 %

09 FLOOD POTENTIAL

SITE IS IN NA YEAR FLOODPLAIN

NA

SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (Check one)

ESTUARINE

NA

A (mi)

OTHER

NA

B (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

NA

(mi)

ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,  
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS  
PRIME AG LAND AG LAND

A 0.10 (mi)

B 0.02 (mi)

C 0.02 (mi) D (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Lincoln Park, approximately twenty acres in size, is located between the boundaries of Crawford Avenue to the north, Mission Street to the east and Methow Street to the west. The city limits of Wenatchee lie less than 0.1 miles to the south. The park is essentially flat, with a slight, gradual slope east toward Mission Street. From Mission Street eastward down to the Columbia River, the slope approaches 10%. An unnamed stream, which passes under the park (through a concrete culvert), runs to the northeast just before entering the park on the west side, then flows due east to the river. Prior to entering the park, this stream drains about a mile through an extensive orchard area to the west of the park, at a slope of 5%.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis reports)

U.S.G.S. Wenatchee Quad (1978)  
Ecology PA files  
Ecology 6/9/87 SI





POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE WA	02 SITE NUMBER D980639074
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II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	2	Ecology Manchester Lab	August 1987
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Volatile Organic	Photovac TIP instrument

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>Ecology PA/SI</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>Ecology PA/SI</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

NA

VI. SOURCES OF INFORMATION (Include dates of information and state how it was obtained)

Ecology 6/9/87 SI



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
WA D980639074

II. CURRENT OWNER(S)				PARENT COMPANY (If applicable)			
01 NAME City of Wenatchee		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) P.O. Box 519		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY Wenatchee	06 STATE WA	07 ZIP CODE 98801		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		12 CITY	13 STATE	14 ZIP CODE	
III. PREVIOUS OWNER(S) (List most recent first)				IV. REALTY OWNER(S) (If applicable, list most recent first)			
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	
V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis reports)							
Lyle Bland, City of Wenatchee							



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
WA D980639074

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER		

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

01 NAME	02 D+B NUMBER NA	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Lyle Bland, City of Wenatchee



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D980639074

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

NA

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Lyle Bland, City of Wenatchee



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
WA D980639074

II. PAST RESPONSE ACTIVITIES

01 <input type="checkbox"/> A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> H. ON SITE BURIAL 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> L. ENCAPSULATION 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> N. CUTOFF WALLS 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> O. EMERGENCY DIKING SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> P. CUTOFF TRENCHES-SUMP 04 DESCRIPTION	02 DATE	03 AGENCY
01 <input type="checkbox"/> Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE	03 AGENCY

NA



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
WA D980639074

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL  
04 DESCRIPTION

02 DATE

03 AGENCY

NA

01 ☐ Y. LEACHATE TREATMENT  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES  
04 DESCRIPTION

02 DATE

03 AGENCY

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Lyle Bland, City of Wenatchee



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D980639074

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY ENFORCEMENT ACTION

NA

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Lyle Bland, City of Wenatchee

All photographs taken by M.J. Spencer, using  
a Canon Sureshot 35 mm, f/2.8 Autofocus  
camera, during the June 9, 1987 SI.



Figure 1 (above): View of Lincoln Park from  
SE corner towards NW corner.

Figure 2 (below): View of Lincoln Park from  
Methow Street towards the east (Mission  
Street border of park 0.25 miles east)







Figure 3 (above): Entrance of culvert under (through) park at Methow Street. Sample MJS050 collected here.

Figure 4 (below): Exit of culvert, passing under park, down bank on east side of Mission Street. Sample MJS051 collected here.



SITE INVESTIGATION SAMPLING PLAN  
Chelan County Lincoln Park Landfill

WAD980639074

June 9, 1987

Prepared by  
Michael J. Spencer

Washington State Department of Ecology

Site Sampling Plan Summary

Site: Chelan County Lincoln Park Landfill  
Mission and Crawford  
Wenatchee, WA 98801

Proposed Date of Investigation: June 9, 1987

Preparer: Michael J. Spencer

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Michael J. Spencer  
Site Inspection Team Leader

Date



## I. INTRODUCTION

The purpose of this plan is to detail the program of site investigation sampling activities to be carried out by the Ecology PA/SI team at Chelan County Lincoln Park Landfill.

## II. SITE DESCRIPTION AND WASTE CHARACTERISTICS

The Lincoln Park Landfill was a city-operated landfill receiving municipal, construction, and possible agricultural wastes between 1948 and 1967. There are no records of hazardous wastes being received at site, although pesticides are believed to be present due to the agricultural nature of the landfill's service area.

The site was made into a park in the early 1970's, following closure of the landfill in 1967. The surrounding area is described as residential/commercial. Ground water is estimated to be at 65-100 feet in alluvial gravels, silts, sands and clays. Ground water and surface water in the area is used for food crop irrigation. The nearest known drinking water well is about one mile SE of the site.

The USGS topographical map shows an unnamed intermittent stream which appears to pass through (underground) the former landfill prior to joining the Columbia River at a point 0.25 miles east of the site. No records of ground water or surface water monitoring are believed to exist.

## III. OBJECTIVES

Surface water samples will be collected from up and down-stream in the intermittent stream, providing there is sufficient water. Existing Ecology well logs indicate all domestic and public supply drinking water wells within three miles are either upgradient or across the Columbia River from the site. Thus it is not expected that ground water samples will be collected during this first phase of the SI unless new information regarding more appropriate wells comes to light.

## IV. SAMPLE COLLECTION/ANALYSIS PARAMETERS

Grab samples will be collected where there is appropriate amounts of surface water above and below the landfill site. These will be analyzed for the following:

- Organophosphorus Pesticides
- Pesticides/PCB's
- Priority pollutant metals
- Purgeable halocarbons

### Sample Information

All samples will be analyzed by Ecology Manchester Laboratory.

### Equipment List

EQUIPMENT	USE
Sample Containers	Appropriate to analyses desired
Sample Preservatives	
Field Blanks	
Keys	For locked monitoring wells.
Pipe wrenches	May be necessary to remove steel security cap on wells which have not been recently opened and sampled.
Tape measure	Use to measure diameter of well casing above ground level.
Electronic water level indicator/ graduated depth sounder	Used to determine static water level and total depth of well.
Pocket Calculator	Use for static water volume calculations.
Pump	Use to purge or evacuate well prior to obtaining sample; it is not a recommended means to obtain a sample.
Sampling Trier	Collect soil samples at depths of up to several feet below surface.
Stainless Steel Mixing Bowl	Composite soil samples.
Stainless Steel Spoons	Soil sample collection.
Teflon Well Bailer	A bailer is a device which is lowered into a well to obtain water samples.
Monofilament Line	Use of lowering bailer into well; should be of sufficient strength to hold full bailer and overcome any resistance between well casing and bailer. The use of any other type of line is not recommended. Steel wire might be an appropriate substitute but can cause handling problems for personnel wearing gloves.

Decontamination solutions/water (Methanol)	Use for decontaminating sampling equipment, bailer, and water level indicator between samples.
Plastic pails, graduated	Use for measuring volume of water taken from well prior to sampling.
Thermometer	Use to measure temperature of ground water.
Field logbook	Used to record field observations.
Camera/film	Use to document sampling procedure.
Sample tags	
Chain-of-custody records	
Receipt for sample forms	
Waterproof ink pen	
Compass	
pH Meters - soil and water	Determine pH of samples

#### Field Measurements and Observations

The following field measurements and observations will be logged:

- 1) Measure the diameter of the well casings.
- 2) Note the casing materials (i.e., pvc, steel, etc.).
- 3) Available well log information noted.
- 4) Weather conditions, air temperature, sky conditions, etc.
- 5) Physical observable characteristics of water.
- 6) Observations about well characteristics.
- 7) Temperature of water before and after purging.

#### STANDARD SAMPLING PROCEDURES

##### Groundwater Sampling Procedures

A clean Teflon bailer will be used to obtain water to fill sample containers. This bailer will be lowered into the well on a mono-filament nylon line. Care will be taken to avoid agitation, which may promote the loss of volatile constituents from the samples.

##### Soil Sampling Procedures

Soil samples will be collected with a specially cleaned stainless steel sampling trier, trowel or spoon. Soil samples will be composited in pairs by mixing in a stainless steel bowl.



## Decontamination Procedures for Sampling Equipment

After equipment such as the bailer is used for sampling, it will be decontaminated before being used to sample another location. This will prevent cross contamination.

Equipment will first be washed with soap and water solution; then rinsed with clean water.

After this, equipment will be rinsed with methanol and water mixture and then triple rinsed with deionized water and let to air dry.

### Department of Ecology Chain of Custody Procedures

#### Background

These procedures were adopted for use by the Department of Ecology from those used by the EPA Region X Surveillance and Analysis Division. A documented record of sample handling is necessary for special studies involving compliance monitoring or other enforcement-related activities in which the data may be used in litigation. The evidence-gathering portion of a survey is characterized by the minimum number of samples required to give a fair representation of the effluent, or water body, air shed, or other media, from which they are taken.

The procedures described in this section represent the optimum method. The failure in any particular instance to follow one or more steps does not necessarily render evidence either inadmissible or unusable. Consequently, there should be no hesitancy to mention any deviation in procedure in any given case.

#### Definition of Custody

Chain of custody procedures are followed to establish sample possession from the time it is taken until the results are introduced as evidence into court. A sample is in your "custody" when:

1. It is in your actual physical possession.
2. It is in your view, after being in your physical possession.
3. It was secure beyond a reasonable doubt if not in your view.

#### Sample Collection

1. As few people as possible should handle the sample.
2. Preprinted sample tags are filled out in waterproof ink and attached to the sample container at the time the complete sample is collected. The tags contain, as a minimum, the following information: station identification, station location, date-time-type of sample (grab or composite), and initials of the sample collector and any observing witness. It is desirable that witnesses be present.

3. Blank samples, using distilled water with preservatives added, may be prepared at the time of sample collection and later analyzed to establish the lack of container or preservative contamination.
4. Bound Field Data Record logbooks with numbered pages are used to record field measurements and other pertinent information. These notes may be used to refresh the sampler collector's memory in the event he later takes the stand to testify regarding his actions during the evidence-gathering activity. Data entered in the logbooks are recorded with ballpoint pen or waterproof ink. Each page is signed by the sample collector and any available witnesses. Any errata in making entries should be lined out with a single line and then initialed.
5. The sample collector is responsible for the care and custody of the samples until properly dispatched to the receiving laboratory or turned over to an assigned custodian. The sample collector must assure that each container is in his physical possession or in his view at all times, or locked or sealed in such a place and manner that no one can tamper with it.
6. If colored slides, photographs, or other related evidence are obtained to show the impact of the pollutant or substantiate any other conclusions of the investigation, the following documentation is required on the back of each photo or in the Field Data Record Logbook: time, date, location of the photographer when taking the photo, film type, and the signature of the photographer and any witnesses.

#### Transfer of Custody and Shipment

1. Samples are accompanied by a chain of custody record which includes the name of the survey, sample collector's signature, number, and description of the samples. When turning over the possession of a part or all of the samples to a field analysis station or to a laboratory, the transferer and transferee will sign and record the time and date on the sheet.
2. All packages are accompanied by the sample custody record showing identification of the contents. The original accompanies the shipment, and a copy is retained by the survey coordinator. The chain of custody record is signed by the sample collector along with recording the date and time. It is then placed inside the shipping container.
3. Samples are carefully packed for shipment in suitable containers to avoid damage. The shipping containers are locked for shipment, or sealed in such a manner that the container cannot be opened without breaking the seal. This lock or seal is not removed until the shipping container is opened by the laboratory custodian or one of his alternates.
4. If sent by mail, the package is sent via Registered Mail with Return Receipt Requested. If sent by common carrier, all shipping receipts are retained as part of the permanent chain of custody documentation.



### Laboratory Custody Procedures

1. Couriers picking up samples at the bus depot, post office, etc., sign and retain the shipping documents to acknowledge receipt of the samples.
2. All incoming samples are received only by the laboratory sample custodian or one of his alternates who indicate receipt by signing the chain of custody record accompanying the samples and retaining it as part of the permanent record. Samples are then logged into the laboratory and assigned a laboratory number.
3. The sample custodian or one of his alternates is responsible for the security of the samples in the laboratory. Samples are stored in locked or sealed refrigerators or cabinets with the keys to the locks held by the sample custodian or one of his alternates.
4. Only the sample custodian or his alternates distribute samples to laboratory personnel who are to perform analyses. Laboratory personnel record in their laboratory notebook or analytical worksheet information describing the sample, the procedures performed, and the results of the analyses. The notes shall be retained as a permanent record in the laboratory and should note any abnormalities or other significant observations about the samples or analyses.
5. Laboratory personnel are responsible for the care and custody of the sample once it is distributed by the sample custodian.
6. Once the sample analyses are completed, the unused portion of the samples, together with all identifying tags and laboratory records, are returned to the sample custodian. The returned tagged sample is retained in locked or sealed cabinets or refrigerators until it is required for trial.
7. Analytical results are checked and initialed by senior laboratory personnel. The original lab bench sheets are stored in the laboratory files.
8. Samples and tags are discarded only upon the order of the Laboratory Director, after conferring with appropriate personnel in the Enforcement Division or the Assistant Attorney General handling the case to make certain that these items are no longer needed.

Site Safety and Health Plan

Chelan County Lincoln Park Landfill

WAD980639074

June 9, 1987

Prepared By

Michael J. Spencer

Washington State Department of Ecology

Site: Chelan County Lincoln Park Landfill

Location: Mission and Crawford  
Wenatchee  
Chelan County, Washington

Proposed Date of Investigation: June 9, 1987

Preparer: Michael J. Spencer

Reviewed by:

---

Michael J. Spencer	
Site Inspection Team Leader	Date

---

Bob Kievit, EPA-X-WOO	
Site Inspection Team Member	Date

### Site Safety Plan Summary

Type of Facility: Former city-operated landfill which closed in 1967.

Land Use in Surrounding Area: Site is in a residential/commercial area of Wentachee and is now a park.

Hazard Type: During 1948-1967 landfill received municipal and other unknown wastes.

Waste Type: Although no records of hazardous waste being accepted at site exist, it is believed pesticides may be present due to agricultural nature of service area.

Waste Characteristics: Any pesticides present would be toxic and persistent.

Identified Wastes: No previous monitoring is known to have been done, nor leachate generation documented.

Sampling Plan: Water samples to be collected, if possible, from any leachate seeps and upstream surface water.

Levels of Protection: Level D, Level C if necessary. Professional judgment will be used. No direct sampling of tanks or containers will be done.

Monitoring Equipment: TIP organic vapor detector, LEL meter.

Factors Promoting Action: This inspection is being carried out under the Multi-Site Cooperative Agreement, Preliminary Assessment Site Inspection Program.

#### Personnel:

Inspection Coordinator: Michael J. Spencer

Ecology Team Members:

EPA Project Officer: Bob Kievit

Emergency Facilities and Telephone Numbers

Nearest Telephone Location: Lyle Bland (509) 663-7181

Fire:       Emergency               911  
Police:     Sheriff               911  
             State Patrol         663-9721  
Emergency and Transportation   911

Hospitals:

Central Washington Hospital  
1300 Fuller  
Wentachee 662-1511

Wentachee Surgical Center  
600 Orondo  
Wentachee 662-8956

Emergency Routes:

See Attachment for map to hospitals

Emergency Contacts:

Harborview Hospital - Seattle	223-3005
EPA - ERT Emergency	201 321-6660
EPA Regional Safety Officer (Ron Blair)	851-8579 442-0370

#### Site Description/History of Activities

This site was a city-operated landfill from 1948-1967, receiving municipal, construction, and possible agricultural wastes. It was covered over in the early 1970's and made into a park. The topographic map for the region indicates that an intermittent stream passes through the site and joins the Columbia River at a point 0.25 miles east of the site.

#### Hazardous Substances Suspected On Site/Assessment

No known analyses have been performed, nor existence of any landfill generated leachate documented. If any leachate is present and can be sampled, analyses for pesticides will be done.

### Work Effort and Level of Protection

Sampling activities will entail ground water and possible shallow subsurface soil sampling. These activities are believed to be of a low relative hazard due to the expected dilution of hazardous materials if present. Level D protection will thus be utilized.

#### I. Level D

- Tyvek coveralls or rain suits
- Neoprene steel toe and shank boots
- Chemical resistant gloves - "Solvex"
- Safety goggles - if necessary
- Hard hat
- Latex inner glove liners

#### II. Level C

- Air purifying full face respirator (MSHA - NIOSH approved)
- Cyanide and organic vapor canister/cartridges
- Tyvek (Saranex if raining) coveralls
- Gloves (inner), latex chemical resistant
- Boots, chemical resistant steel toe and shank
- Hard Hat
- Safety Goggles
- Duct tape



## Decontamination Procedures

### I. Level D Decontamination

If soiled, Tyvek coveralls, and gloves will be placed in plastic bags and removed from the site for disposal. Boots will be washed with detergent and rinsed before leaving the site. If rain suits instead of Tyvek coveralls are used, soil will be rinsed off while they are still being worn and before the boots are washed.

### II. Level C Decontamination

#### Station 1: Contaminated Equipment Drop

Equipment used on-site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) will be separated and deposited on plastic drop cloths. Each will be contaminated to a different degree. Segregation at the drop reduces the probability of cross-contamination.

#### Station 2: Boot and Glove Wash

Scrub boots and gloves with detergent/water solution.

Equipment: container (20-30 gallons)  
detergent water  
2-3 long-handle, soft-bristle scrub brushes

#### Station 3: Boot and Glove Rinse

Rinse off detergent solution from Station 2 using copious amounts of water. Repeat as necessary.

Equipment: container (30-50 gallons)  
or  
pressure spray unit  
water  
2-3 long-handle, soft-bristle scrub brushes

#### Station 4: Tape Removal

Remove tape around boots and gloves and deposit in plastic bag or container with plastic liner.

Equipment: plastic bag  
or  
container (20-30 gallons)  
plastic liners

#### Station 5: Boot Removal

Remove boots, step onto clean dry plastic sheeting.

#### Station 6: Outer Glove Removal



Remove outer gloves and deposit in plastic bag or container with plastic liner.

Equipment: plastic bag  
or  
container (20-30 gallons)  
plastic liners

Station 7: Coverall Removal

Remove coveralls and deposit in plastic bag or container with plastic liner.

Equipment: plastic bag  
or  
container (20-30 gallons)  
plastic liners

Station 8: Facepiece Respirator Removal

Remove facepiece. Avoid touching face with gloves. Deposit facepiece in individual plastic bags. Decontaminate off of the site.

Equipment: plastic bags

Station 9: Inner Glove Removal

Remove inner gloves and deposit in a plastic bag or a container with plastic liner.

Equipment: plastic bag  
or  
container (20-30 gallons)  
plastic liners