(SID 1231

#### WORKSHEET 1 SUMMARY SCORE SHEET

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#### Note: This document currently has no provision for sediment route scoring.

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):

Sternoff Metals Corporation (Sternco) 1600 S.W. 43rd Street Renton, WA 98055 Sec-36, T-23N, 4E

Site Description (Include management areas, substances of concern, and quantities):

The Sternoff Metals Corporation (Sternco) operated from approximately 1967 to 1985 for the purpose of recycling scrap metal and electrical equipment. Products included automobiles, storage tanks, transformers and electrical wire. The recycling process included separation, shredding and the temporary storage of used drums. In 1985 the processing and shredding equipment was sold and removed from the property.

The Sternco Renton Site is located adjacent to the northwest corner of SW 43rd Street and Oaksdale Avenue SW in Renton. The property occupies approximately 43 acres bounded by railroad tracks to the north, SW 43rd Street to the south, Oaksdale Avenue SW to the east and a railroad track and wetlands to the west. 35 connections to private wells are within two miles of the site. Springbrook Creek crosses the site and essentially bisects the industrial portion of the property from the nonindustrial/residential section of the property. Two drainage channels also exist, both draining to Springbrook Creek. One drains from the wetlands eastward to the creek, the other lies north of the shredded wire cable pile east of the shredder building.

The major characteristics which are present on the site include:

Approximately 32,700 cubic yards of non-metallic, automobile shredder fluff located in the northwest portion of the site;

Approximately 1,000 cubic yards of wire shredder fluff is adjacent on the west side of the automobile shredder fluff;

A transformer building and concrete pad in the northeastern section of the site;

The former wire shredder building located in the northwestern portion of the property;

A scale house and scales in the approximate center of the site;

Additional structures including a water tower and former auto shredder and warehouse located on the northeastern portion of the property;

An area containing approximately 4,800 cubic yards of buried aluminum dross located south of the dirt road and to the north and east by a drainage ditch;

A debris pile/auto storage area adjacent to the west side of the dross area.

Past environmental investigations have included a preliminary geotechnical engineering study by Earth Consultants Inc. and a remedial investigation and feasibility study by SEACOR. These investigations have resulted in the construction of 10 groundwater monitoring wells, and the collection of 39 soil borings, 13 grab

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samples of soil or shredder fluff, 2 surface water samples from the wetlands area and Springbrook creek and the collection of three sediment samples. Analysis of theses samples have resulted in total metals, PCBs, TPH all over MTCA and soluble lead over the Dangerous Waste regulations. The Springbrook creek and drainage ditch sediment samples also had total metal concentration which were over MTCA regulations.

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A Site Hazard Assessment was conducted by Carla Gundermann and Carsten Thomsen of Seattle-King County Health Department on April 4, 1996. No samples were taken at the Sternco site due to the extensive sampling and investigative work of Earth Consultants Inc. and SEACOR.

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

#### ROUTE SCORES:

Surface Water/Human Health: 24.0

Air/Human Health: 9.8 Surface Water/Environ.: 58.9

Air/Environmental: 31.4

Ground Water/Human Health: 46.0

WARMSSH Rev. 7/12/94

OVERALL RANK: 1

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### WORKSHEET 2 ROUTE DOCUMENTATION

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## 1. SURFACE WATER ROUTE

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List those substances to be <u>considered</u> for scoring: Source: <u>1</u>

Arsenic, Cadmium, Lead, Mercury, PCB

Explain basis for choice of substance(s) to be used in scoring.

All of the above substance concentrations are above the MTCA Method A cleanup standards.

List those management units to be <u>considered</u> for scoring: Source: <u>1,9</u> Contaminated waste piles and surface soil contamination Explain basis for choice of unit to be <u>used</u> in scoring. Source: <u>9</u> Waste piles and surface soils are exposed to weather with no containment.

#### 2. AIR ROUTE

List those substances to be <u>considered</u> for scoring: Source:<u>1</u> Arsenic, Cadmium, Lead, Mercury, PCB

Explain basis for choice of substance(s) to be used in scoring.

All of the above substance concentrations are above the MTCA Method A cleanup standards.

List those management units to be <u>considered</u> for scoring: Source: <u>1,9</u> Contaminated waste piles and surface soil contamination

## WORKSHEET 2 (CONTINUED) ROUTE DOCUMENTATION

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#### 3. GROUND WATER ROUTE

List those substances to be <u>considered</u> for scoring:

Source: 1

Arsenic, Cadmium, Lead, Mercury, PCB

Explain basis for choice of substance(s) to be used in scoring.

All of the above substance concentrations are above the MTCA Method A cleanup standards.

List those management units to be <u>considered</u> for scoring:

Source: <u>1,9</u>

Contaminated waste piles and surface soil contamination

Explain basis for choice of unit to be used in scoring.

Waste piles and surface soils are exposed to weather with no containment.

## WORKSHEET 4 SURFACE WATER ROUTE

# **1.0 SUBSTANCE CHARACTERISTICS**

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# 1.1 Human Toxicity

	Drinki Water Standa	.ng rd	Acute Toxicity		Chronic Toxicit	Carcino- genicity			
Substance	<u>(uq/1)</u>	<u>Val.</u>	(mg/kg-bw)	Val.	(mq/kq/day)	Val.	WOE	PF*	<u>Val.</u>
1. Arsenic	50.0	6	763	5	0.001	5	A	1.75	7
2. Lead	5.0	8	·	ND		ND	в2	ND	ND
3. Cadmium	5.0	8	225	5	0.0005	5	в1	ND	ND
4. Mercury	2.0	8		ND	0.0003	5	-	-	ND
5. PCB	0.5	10	1315	3		_	B2	7.7	6
б.									

\*Potency Factor

Source: 1,2Highest Value: 10(Max.=10)

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+2 Bonus Points?\_2 Final Toxicity Value 12 (Max.=12)

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# 1.2 Environmental Toxicity

	<ul><li>(X) Freshwate</li><li>( ) Marine</li><li>Acute Wate</li><li>Quality Cr</li></ul>	r iteria	Non-human Acute To	Mammalia	n	
<u>Substance</u>	<u>(ug/1)</u>	<u>Value</u>	<u>(mg/kg)</u>	<u>Value</u>	Source: 1,2	Value: <u>8</u>
1. Arsenic	360	4	763	5		(Max.=10)
2. Lead	82	6	_	$\mathbf{ND}$		
3. Cadmium	3.9	8	225	5		
4. Mercury	2.4	8	_	ND		
5. PCB 6.	2.0	8	1315	3		

1.3	Substance Quantity: >420,000 (square feet)	Source: 1,9	Value: 10
	Explain basis: Estimated quantities obtained from		(Max.=10)
	Table 2-2 "Estimated Quantities of Affected Waste		
	Material and Soil in Each Area of Potential		
	Concern". Non-industrial figures (square feet)		
	136,000, 49,900, 340,000, 20,700, 110,800, 42,800,	<i>i</i>	
	4,000, 4,900 = 709,100		

# 2.0 MIGRATION POTENTIAL

2.1	Containment Explain basis:		Sou	.rce: <u>9,10</u> <b>Val</b> u	10: <u>10</u> (Max.=10)
	Noncontrolled waste	<u>piles, surface</u>	discharges/spills wi	th no containme	<u>ent.</u>
2.2	Surface Soil Permea	bility: <u>sands/</u>	silt Sou	.rce: <u>1,4</u> Value	€: <u>1</u> (Max.=7)

(Max.=7) 2.3 Total Annual Precipitation: <u>19.2</u> inches Source: 6 **Value: 2** 

			(Max.=5)
2.4	Max. 2-Yr/24-hour Precipitation: 1-2 inches	Source: <u>8</u>	Value: 2 (Max.=5)
2.5	Flood Plain: <u>No flood plain</u>	Source: 7	Value: 0 (Max.=2)
2.6	Terrain Slope:<2%	Source: 9	Value: 1
			(nax.=>)
3.0	TARGETS		
3.1	Distance to Surface Water: <1,000 Ft.	Source: <u>1,9</u>	Value: 10 (Max.=10)
3.2	Population Served within 2 miles (See WARM Scoring Manual Regarding Direction): $\sqrt{pop_{eq}} = 0$	Source: 5	Value: 0 (Max.=75)
3.3	Area Irrigated within 2 miles $0.75\sqrt{no. acres= 405}$ (Refer to note in 3.2.): $0.75\sqrt{405=0.75(20.1)= 1.6}$	Source: <u>5</u>	<b>Value:<u>2</u></b> (Max.=30)
3.4	Distance to Nearest Fishery Resource: <1000 ft (Class 2)	Source: 7	Value: 12 (Max.=12)
3.5	Distance to, and Name(s) of, Nearest Sensitive Environment(s) <u>Wetland on western boundry of</u> site (< 1,000ft).	Source: <u>1,9</u>	Value: <u>12</u> (Max.=12)

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# 4.0 RELEASE

**RELEASE** Explain basis for scoring a release to surface Source: 1 Value: 5 (Max.=5)

<u>Documented analytical results</u>

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### WORKSHEET 5 AIR ROUTE

#### SUBSTANCE CHARACTERISTICS 1.0

1.1 Introduction (WARM Scoring Manual) - Please review before scoring

1.2 Human Toxicity

<u> </u>	Air	Acute	Chronic	Carcino-			
	Standard	Toxicity	Toxicit	ЧY	ge	enicit	У
<u>Substance</u>	<u> (ug/m³) Val.</u>	<u>(mg/m³) Val.</u>	<u>(mg/kg/day)</u>	<u>Val.</u>	<u> WOE</u>	<u>PF</u>	<u>Val.</u>
1. Arsenic	0.00023 10	– ND	-	ND	А	50	9
2. Lead	0.05 10	– ND	· _	ND	B2	-	ND
3. Cadmium	0.00056 10	- 10	-	ND	в1	6.1	6 .
4. Mercury	0.3 10	– ND	8.5E-05	8	· -		ND
5. PCB	ND	– ND	-	ND	в2		ND
*Potency Factor Source: <u>1,2</u> Highest Value: <u>10</u> (Max.=10) +2 Bonus Points? <u>2</u>							
Final Toxicity Value: <u>12</u> (Max.=12) 1.3 Mobility (Use numbers to refer to above listed substances) 1.3.1 Gaseous Mobility							
1.3.2	<u>3=</u> ; <u>4=2.0E-</u> Particulate Mobi Soil type: <u>sands</u> Erodibility: <u>56</u>	03;5= ; 6= lity /silt, sandy	clay loam	Value Sou: Valu	$e: \frac{3}{(Max.=}$ $rce: 1$ $ue: \frac{1}{(Max)}$	4) 4, 4, 10	
1.4 Highest H 1.5 Environme	Human Health Tox	icity/Mobilit Tabl	y Matrix Valu e A-7) equals	e (fro <b>Fina</b> Sourc	om <b>1 Matı</b> ce: 1,	<b>ix Va</b>	lue: <u>18</u> (Max.=24)
•	·····			• .			
<u>Substance</u> 1. Cadmium 2. 3. 4. 5.	Non-human 1 <u>Inhal. Toxici</u> 25 (mouse/:	Mammalian Acu <u>ty (mg/m<sup>3</sup>) Val</u> rat) 1	te <u>ue Mobility</u> 0 <u>&lt;</u> 10E-	<u>(mmHg)</u> 05	<u>Valu</u> 1	(Ta <u>e Matr</u>	able A-7 <u>ix Value</u> 5
Highest Envi	ironmental Toxic:	ity/Mobility ) (From Tabl	Matrix Value e A-7) equals	Final	l Matr	ix Val	Lue: 5 (Max.=24)

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# WORKSHEET 5 (CONTINUED) AIR ROUTE

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1.6	Substance Quantity: <u>&gt;340,000-1,690,000 (sq.tt.)</u> Explain basis: Estimated quantities obtained from	Source: 1,9	Value: <u>8</u> (Max.=10)
	Material and Soil in Each Area of Potential	,	
	<u>Concern". Non-industrial figures (square feet)</u>		<i></i>
	136,000, 49,900, 340,000, 20,700, 110,800, 42,800,		
	4,000, 4,900 = 709,100.		
<b>.</b> .	VICTIMIN DOMESTIC	•	)
2.0	MIGRATION POTENTIAL		
2.1	Containment: No cover, discharges/spills directly	Source: 9	Value: <u>10</u>
	to ground		(Max.=10)
	· · · · · · · · · · · · · · · · · · ·		•
3.0	TARGETS		
3.1	Nearest Population: <1000 ft.	Source: 1,9	Value: 10
~ ~		~	(Max.=10)
3.2	Distance to, and Name(s) of, Nearest Sensitive	<b>G 1</b> 0	37-17
	Environment(s) wetlands on the western boundry	Source: 1,9	(Max.=7)
3.3	Population within 0.5 miles: $\sqrt{pop} = \sqrt{6} = 2.4$	Source: <u>1,9</u>	Value: 2 (Max.=75)
4.0	RELEASE		
		-	
	Explain basis for scoring a release to air:	Source: 9	Value: 0 (Max.=5)
	<u>No_documented release of air route release to</u>		-
	minimal population involveq.		

# WORKSHEET 6 GROUND WATER ROUTE

# 1.0 SUBSTANCE CHARACTERISTICS

# 1.1 Human Toxicity

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<u>Subs</u> 1. A 2. L 3. C 4. M 5. P 6.	tance rsenic ead admium fercury CB	Drink: Wate: Standa (ug/l) 50.0 5.0 5.0 2.0 0.5	ing r ard <u>Val.</u> 6 8 8 8 10	Acut Toxic <u>(mg/kg-bw</u> 763  225  1315	te sity <u>} Val.</u> 5 ND 5 ND 3	Chrc Toxi (mg/kg/ 0.00  0.00 0.00	onic .city ( <u>day) Val</u> 01 5 . NI 005 5 003 5	<u>WOE</u> A B1 - B2	Carcin genici <u>PF*</u> 1.75 ND ND - 7.7	o- ty 7 ND ND ND 6
*Pote	ency Factor						Highest	Sourc Value	e: <u>1,2</u> e: <u>10</u> (Max.=10)	- <u></u> -
						+ F	2 Bonus <b>'inal To</b> x	Point icity	s? <u>2</u> Value	_ :_ <u>12</u> (Max.=12)
1.2	Mobility (Use Cations/Anion OR Solubility(me Substance Qua Explain basis	e number ns: <u>1=3</u> 6= g/l): <u>1=</u> 6= antity:_ s: <u>Estim</u>	<pre>s to ; 2= = - ;2: = &gt;52,0! action</pre>	refer to a 2; 3= 3;4= = - ;3= - 00 cubic y guantities	bove li 3 ; 5= ;4= - ; ards 	sted sub	Source:	2,10	Value	: <u>3</u> (Max.=3) e: <u>10</u> ax.=10)
2.0	Table 2-2 "Es           Material and           Concern".           No           54,900, 4,500           500= 96,400           MIGRATION PO	Stimated Soil ir Dn-indug D, 22,40	1 <u>Ouan</u> 1 Each 1 Each 1 Strial 10, 2,	<u>Lities of</u> <u>Area of P</u> figures ( 300, 6,800	Affecte otentia cubic y , 4,800	d Waste 1 ards) , 200,				
2.1	Containment		ntoin	nont			Source:	9	Value:	: <u>10</u> Max.=10)
2.2	Net Precipita	ation:		19.2	inch	es	Source:	6	Value:	2 Max.=5)
2.3	Subsurface Hy	draulic	Condi	activity:	<u>sands/s</u>	ilts	Source:	1,4	Value:	3 Max.=4)
2.4	Vertical Dept	h to Gr	ound V	Vater: <u>6-1</u>	2	feet	Source:	1,4	Value:	8 Max.=8)

#### WORKSHEET 6 (CONTINUED) GROUND WATER ROUTE

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#### 3.0 TARGETS Ground Water Usage: private supply, altern source Source: 11 Value: 3.1 avail. Distance to Nearest Drinking Water Well:>1,300- ft Source: 5 Value: 3 3.2 2,640 Population Served within 2 Miles: $\sqrt{pop}$ , $=\sqrt{105} = 10.3$ Source: 5 Value: 10 3.3 3.4 Area Irrigated by (Groundwater) Wells within 2 miles: $0.75\sqrt{\text{no.acres}=10}$ Source: 5 Value: 2 $0.75\sqrt{10}=0.75$ (3.2)=2.4 (Max.=100) 4.0 RELEASE \_\_\_\_ Value: 5 Explain basis for scoring a release to ground Source: 1 water: confirmed analytical data

#### SOURCES USED IN SCORING.

- Feasibility Study. Sternco Renton and Sternco Industrial Renton Sites. SEACOR, May, 1991.
- 2. Toxicology Database for Use in Washington Ranking Method Scoring.

3. National Weather Service Data.

- 4. Preliminary Geotechnical Engineering Study. Earth Consultants, Inc., May, 1987.
- 5. Washington State Department of Health Public Water Supply Listing.
- 6. Washington State Water Use data.
- 7. Sensitive Areas Map folio. King County Washington, 1990.
- Isopluvials of 2-Yr 24-Hr Precipitation in tenths of an Inch. NOAA Atlas 2, Volume IX.
- 9. Site Hazard Assesssment. King County Health Department, April, 1996.

10. Washington Ranking Method Scoring Manual, April, 1992.

11. City of Renton.
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