EPA Region 5 Records Ctr.
362893

ENVIRON

ENVIRON International Corp. **LETTER OF TRANSMITTAL**

740 Waukegan Road, Suite 401, Deerfield, IL 60015 (847) 444-9200

To:	**Dion Novak**	**Date: 8/30/01**	**Proj. No:**
	USEPA		
	77 West Jackson Blvd.	**RE: Eagle Zinc Site**	
	Chicago, IL 60604		

WE ARE SENDING YOU:

x Enclosed ☐ Under separate cover via _____ the following items:
☐ Shop drawings ☐ Technical Paper ☐ Prints ☐ Plans
☐ Copy of Letter ☐ Samples ☐ Specifications

COPIES	DATE	NO.	DESCRIPTION
1			Summary of previous investigations
1			Spreadsheets used to evaluate previous data

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ For approval ☐ Approved as submitted ☐ Resubmit____copies for approval
☐ For your use ☐ Approved as noted ☐ Submit____copies for distribution
x As requested ☐ Returned for corrections ☐ Return____corrected prints
☐ For Review and Comment

REMARKS: Dion: As noted above, we have attached two items that you requested during our meeting on Tuesday. Please call us if you have any questions.

COPY TO: R. Lanham, D. Ucci, G. Kuntz, J. Freudenberg

FROM: Ross Jones

If enclosures are not as noted, please notify us immediately.

Site Investigation Summary Table
Eagle Zinc, Hillsboro, IL

Dates	Sampler	Locations	Media	No. Samples	Analytical Parameters	On/Off Site	Purpose
1981/1982	IEPA	Surface Runoff Areas	Storm Water	Unknown	Metals	On-Site	IEPA Stormwater Runoff Concerns
Oct-93	IEPA	On-Site/Off-Site Areas	Soil, Residuals, Sediments	Soil - 19; Sediment - 8; Residuals - 2	Soils-TAL Inorganics; Sediments-Full TCL/TAL List	On-Site/Off-Site	CERCLA/HRS Ranking Data Requirements
May-98	GBI; IEPA Split	On-Site Soils; residual piles	Soil, Residuals	Soils - 44; Residuals - 68	Lead, Cadmium (also selected samples for TCLP lead and cadmium)	On-Site	Interim Consent Order Requirements
Jul-98	GBI; IEPA Split	Outfalls 001 and 002[2]	Storm Water	4	Selected Metals, Other Inorganics, Physical Parameters	On-Site	NPDES Permitting
Dec-98	GBI; IEPA Split	Site Monitoring Wells	Ground Water	10	35 IAC Part 620.410 Inorganic and Organic Parameters	On-Site	Ground Water Assessment

[1] As per 1993 IEPA CERCLA Expanded Site Inspection Report
[2] Outfall 002 also sampled monthly pursuant to general storm water permit

GBI - Goodwin & Broms, Inc.
IEPA - Illinois Environmental Protection Agency

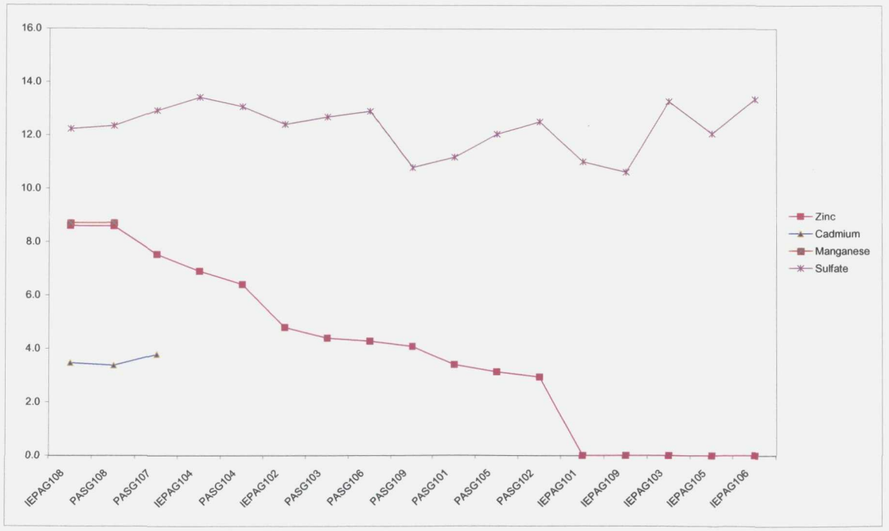
Ground Water
Eagle Zinc, Hillsboro, Illinois

IEPA Data

Well #	Date Sampled	GW Elevation	Lab	x	y	z	Lead	Iron	Sulfate	Manganese	Cadmium	Zinc	Antimony	Arsenic	Barium	Boron	Chloride	Chromium	Cobalt	Copper	Fluoride	Nickel	Nitrate-N	Selinium	TDS	pH
G101	12/1/98	627.09	IEPA	694809	910112	15	0.005	9	61	0.19					0.057	0.064	2.1	0.012		0.009	0.52	0.01	0.12		375	7.2
G102	12/1/98	625.39	IEPA	695539	910801	15		4	240	0.43		0			0.1		66.9	0.005			0.41				650	7.4
G109	12/1/98	626.98	IEPA	694836	909431	14	0.007	10	41	0.03					0.059	0.067		0.01		0.058	0.45	0.01	0.25		203	6.9
G103	12/1/98	624.67	IEPA	696047	910112	15	0.007	12	578	0.41					0.11	0.051	72.6	0.012	0.005	0.01	0.48	0.014	0.57		610	7.5
G104	12/1/98	622.49	IEPA	696494	909436	15	0.018	13	673	0.38		1			0.08	0.1	45.9	0.012	0.006	0.016	0.34	0.015	0.39		701	7.2
G105	12/1/98	623.52	IEPA	696593	908439	15		1	171	0.23					0.088		19.8				0.3				484	7.2
G106	12/1/98	624.02	IEPA	695856	908210	15		4	621	0.12					0.036	0.38	30.3			0.007	0.34				628	7.9
G107	slow recharge	603.12																								
G108	12/1/98	592.99	IEPA	693981	908137	43	0.010	7.7	204	6.00	0.032	5.4			0.053	0.56	16.7		0.02	0.006	0.38	0.016			501	7.4
						U/G Avg	0.006	7.7	114	0.22		0														
						D/G Avg	0.013	7.4	511	0.29		1														
						t-Test	22%	47%	2%	32%																
						G108 Exceeds	I	I	I	I	I	I														
						Class		II	II																	

PAS Data

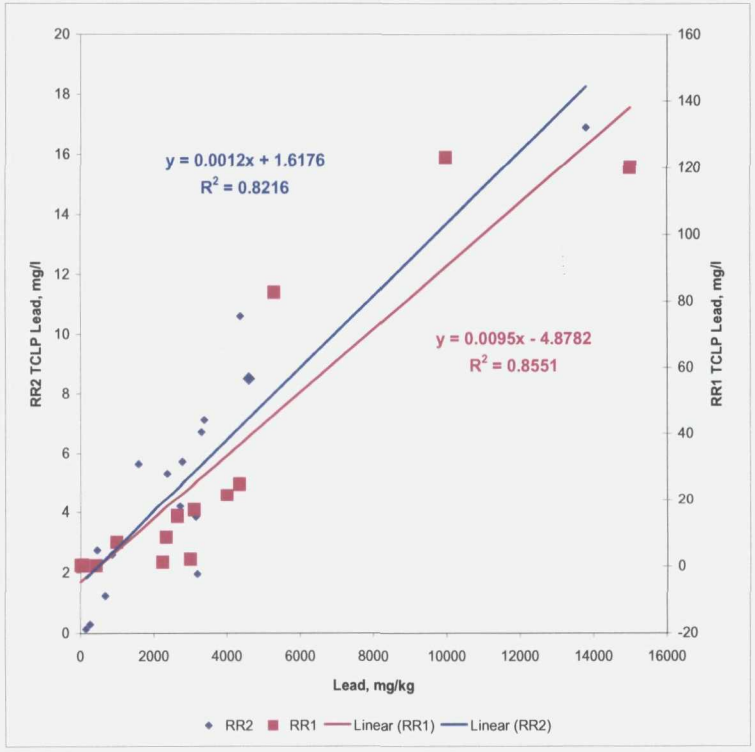
Well #	Date Sampled	GW Elevation	Lab	x	y	z	Lead	Iron	Sulfate	Manganese	Cadmium	Zinc	Antimony	Arsenic	Barium	Boron	Chloride	Chromium	Cobalt	Copper	Fluoride	Nickel	Nitrate-N	Selinium	TDS	pH
G106	12/1/98		PAS	695856	908210	15	0.003	1	398	0.06		0		0.001	0.037	0.44	23.4	0.003	0.001	0.008	0.32	0.004	0.3	0.001	895	7.5
G106D	12/1/98		PAS	695856	908210	15	0.011	4	400	0.22		0	0.001	0.004	0.092	0.42	23	0.014	0.004	0.013	0.33	0.012	0.3	0.002	905	7.4
G101	12/1/98	627.09	PAS	694809	910112	15	0.004	2	71	0.09		0		0.002	0.056		2.21	0.014	0.003	0.013	0.58	0.008		0.005	425	7.5
G102	12/1/98	625.39	PAS	695539	910801	15	0.002	2	271	0.42		0		0.001	0.109		47.9	0.005	0.002	0.009	0.42	0.005		0.001	700	7.4
G109	12/1/98	626.98	PAS	694836	909431	14	0.012	3	48	0.12		0	0.002	0.003	0.065	0.14	1.12	0.012	0.002	0.058	0.54	0.008	0.3	0.006	185	7.7
G103	12/1/98	624.67	PAS	696047	910112	15	0.007	3	319	0.21		0		0.004	0.124		51.1	0.013	0.004	0.013	0.49	0.013	0.7	0.002	1020	7.3
G104	12/1/98	622.49	PAS	696494	909436	15	0.016	7	470	0.18		1	0.001	0.006	0.11		31	0.022	0.006	0.021	0.37	0.019	0.4	0.002	995	7.5
G105	12/1/98	623.52	PAS	696593	908439	15	0.001	0	171	0.20		0			0.09		14.6	0.001		0.003	0.33	0.002			535	7.5
G106	12/2/98	624.02	PAS	695856	908210	15	0.007	2	399	0.14		0														
G107	12/1/98	603.12	PAS	694539	907962	15	0.182	6	410	2.56	0.044	2	0.002	0.003	0.071	0.64	11.5	0.002	0.006	0.019	0.52	0.005			790	7.2
G108	12/1/98	592.99	PAS	693981	908137	43	0.011	4	231	6.10	0.029	5.3		0.003	0.054	0.66	11.2	0.002	0.016	0.017	0.4	0.014	0.1	0.007	675	7
						U/G Avg	0.006	2.3	130	0.21		0	0.002	0.006	0.124	0.660	73	0.022	0.020	0.058	0.580	0.019	0.700	0.007	1020	
						D/G Avg	0.043	3.7	354	0.66	0.04	1	0.002	0.003	0.077	0.320	28	0.009	0.006	0.018	0.418	0.010	0.343	0.003	627	
						t-Test	35%	30%	4%	40%																
						G108 Exceeds	I	I	I	I	I	I														
						Class	II	II	II																	
						GWPA Class I	0.008	5	400	0.150	0.005	5	0.006	0.050	2	2	200	0.100	1	0.650	4.000	0.100	10	0.050	1200	
						Class II	0.100	5	400	10	0.050	10	0.024	0.200	2	2	200	1.000	1	0.650	4.000	2.000	100	0.050	1200	
						Max-I	1	0	0	1	0	0														
						Avg-I	6	0.7	0.9	4	9	0.1														



	Lead	Iron	Sulfate	Manganese	Cadmium	Zinc
IEPAG108	2.3	8.9	12.2	8.7	3.5	8.6
PASG108	2.4	8.2	12.4	8.7	3.4	8.6
PASG107	5.2	8.7	12.9		3.8	7.5
IEPAG104	2.9	9.5	13.4			6.9
PASG104	2.8	8.8	13.1			6.4
IEPAG102	0.0	8.3	12.4			4.8
PASG103	1.9	8.1	12.7			4.4
PASG106	1.9	7.8	12.9			4.3
PASG109	2.5	8.1	10.8			4.1
PASG101	1.4	7.6	11.2			3.4
PASG105	0.0	5.4	12.0			3.1
PASG102	0.7	7.5	12.5			2.9
IEPAG101	1.6	9.1	11.0			0.0
IEPAG109	1.9	9.2	10.6			0.0
IEPAG103	1.9	9.4	13.3			0.0
IEPAG105	0.0	6.9	12.0			0.0
IEPAG106	0.0	8.2	13.3			0.0

Residuals
Eagle Zinc, Hillsboro, Illinois

Location ID	Arsenic	Barium	Chromium	Selinium	Silver	Aluminum	Antimony	Beryllium	Calcium	Cobalt	Copper	Iron	Magnesium	Manganese	Nickel	Potassium	Sodium	Thallium	Vanadium	Zinc	Mercury
X103	5	112	15.9	1.3	6.3	14900	13.9	0.68	2010	12	201	13900	1970	915	55.9	300	39.6	1.3	22.6	31700	
X105	86.3	379	22.6	0.31		7430	11.4	0.83	1930	20.1	911	104000	1630	178	20	1120	47.8	0.31	28.2	5580	



Residuals
Eagle Zinc, Hillsboro, Illinois

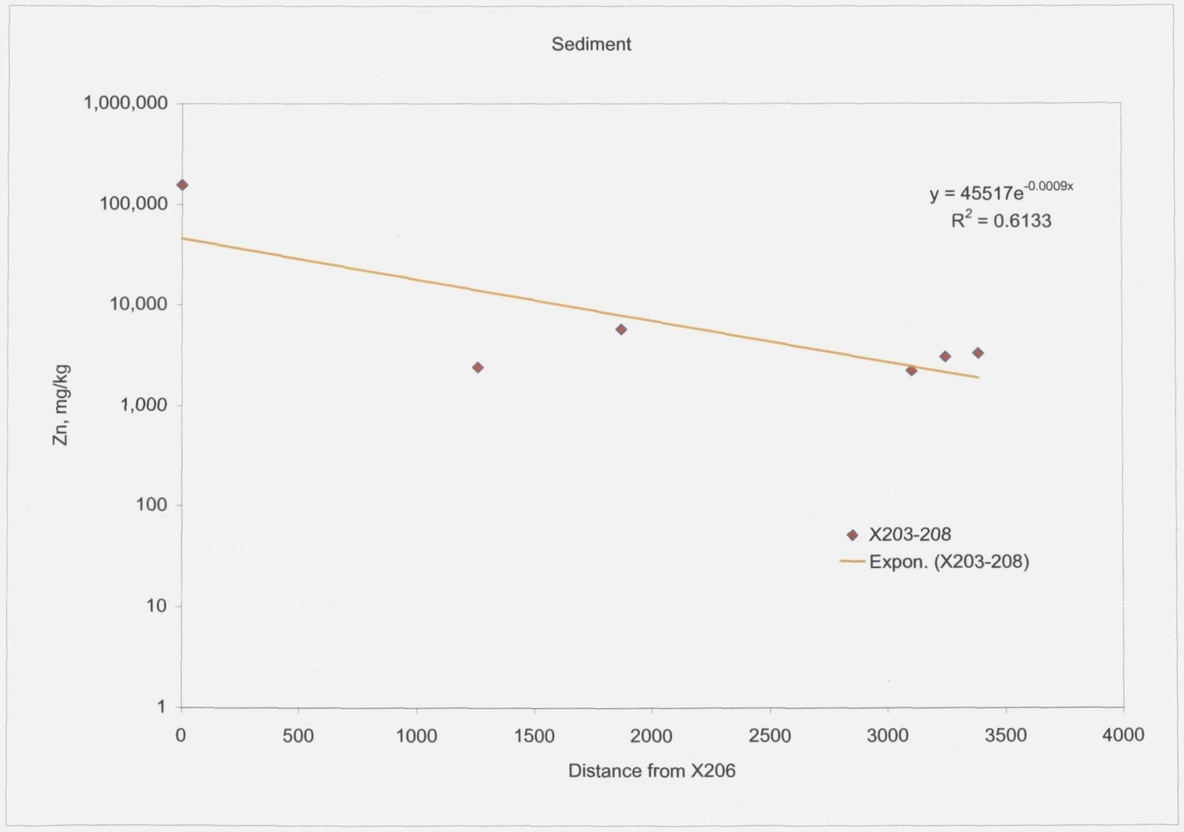
Location ID		X	Y	Z	Lead (T) mg/kg	Cadmium (T) mg/kg	5 Lead (TCLP) mg/L	1 Cadmium (TCLP) mg/L	
X103	Oct-93	694850	310272	0	260	3.2			
X105	Oct-93	694662	908214	0	5760	47.2			
CPH-P1-IB	May-98	695392	908686		198	13.7			
CPH-P1-IS	May-98	695392	908686	0	637	15	2	0.1	
CPH-P2-IB	May-98	695475	908918	0	35.4	10	0	0.0	
CPH-P2-IS	May-98	695469	908932	0	65	14.2			
X211	May-98	695475	908918	0	77	6.3	0	0.0	
MPI-IB	May-98	695091	908123	0	50290	24.2	288	0.2	Pb
MPI-IS	May-98	695091	908123	0	48695	15.8	255	0.0	Pb
RCO-P1-IB	May-98	6955870	908119	0	12.5	0.4			
RCO-P1-IS	May-98	695868	908118	0	1.43	0.61	0	0.0	
RCO-P2-IB	May-98	695697	908215	0	54.6	6.5			
RCO-P2-IM	May-98	695697	908215	0	22.9	1.94	0	0.0	
RCO-P2-IS	May-98	695699	908211	0	120	5.8			
RCO-P3-IM	May-98	695358	909030	0	2.8	1.1			
RCO-P4-IM	May-98	695363	909076	0	47.9	10.8			
X207	May-98	695868	908118	0	49		0	0.0	
X208	May-98	695697	908215	0	36	3.3	0	0.1	
RRI-P3-IM	May-98	694614	908061	0	15000	14.5	120		Pb
RRI-P1-IS	May-98	694292	908018	0	9970	19.6	123	0.2	Pb
RRI-P3-IB	May-98	694614	908061	0	5292	35.4	83		Pb
RRI-P6-IS	May-98	694952	908482	0	5012	19.3			
RRI-P3-IS	May-98	694614	908061	0	4339	30.7	25	0.3	Pb
X204	May-98	694614	908061	0	4000	29	21	0.2	Pb
X209	May-98	695176	908301	0	3100	120	17	1.0	Pb
RRI-P6-IB	May-98	694952	908482	0	3059	25			
X202	May-98	694292	908018	0	3000	44	2	0.1	
RRI-P4-IB2	May-98	695176	908301	0	2644	66.7	15	0.8	Pb
RRI-P6-IM	May-98	694952	908482	0	2338	19.7	9	0.3	Pb
RRI-P1-IB	May-98	694292	908018	0	2241	15	1		
RRI-P2-IB	May-98	694382	908080	0	986	11.9	7	0.1	Pb
RRI-P4-IM	May-98	695173	908325	0	423	8.1	0		
RRI-P5-3B	May-98	695275	908374	0	153	8.5			
RRI-P5-3S	May-98	695270	908360	0	124	7.5			
RRI-P7-4S	May-98	695506	908691	0	85	7.1			
RRI-P5-3M	May-98	695275	908374	0	65.4	3.89	0	0.0	
RRI-P2-IS	May-98	694382	908080	0	61.8	11.8	0		
RRI-P4-IB	May-98	695176	908301	0	55	6.54			
RRI-P7-IB	May-98	695500	908770	0	49.3	3.6			
X210	May-98	695494	908689	0	46	3.8	0	0.0	
RRI-P8-IB	May-98	695444	908789	0	45	6.1	0	0.0	
RRI-P7-4B	May-98	695494	908689	0	41.4	6.8	0	0.0	
RRI-P7-IM	May-98	695500	908770	0	40.7	5.7			
RRI-P4-IS	May-98	695173	908325	0	40	6.8			
RRI-P5-2M	May-98	695442	908420	0	31.7	5			
RRI-P7-3M	May-98	695518	908621	0	31.4	1.8			
RRI-P7-4M	May-98	695494	908689	0	26.9	3.8			
RRI-P7-3D	May-98	695518	908621	0	25.9	0.5			
RRI-P7-3S	May-98	695518	908649	0	25	3.9			
RRI-P7-2S	May-98	695535	908699	0	24	4			
RRI-P5-IS	May-98	695295	908460	0	23.2	5			
RRI-P5-2S	May-98	695442	908420	0	20.8	1.8			
RRI-P7-3B	May-98	695518	908621	0	20	5			
RRI-P7-IS	May-98	695508	908757	0	16.5	1.2			
RRI-P5-IM	May-98	695295	908460	0	15	1.5			
RRI-P7-2B	May-98	695576	908700	0	11.6	5.6			
RRI-P8-IS	May-98	695441	908799	0	8.8	8			
RRI-P5-2D	May-98	695442	908420	0	8.2	1.2			
RRI-P7-2M	May-98	695553	908700	0	6.7	1.8	0	0.1	
RRI-P5-2B	May-98	695442	908420	0	5.8	2.7			
RRI-P5-4B	May-98	695167	908394	0	5	12.3			
RRI-P5-IB	May-98	695295	908460	0	4.3	1.4			
RRI-P5-4M	May-98	695178	908395	0	2.9	11.1			
RRI-P5-4S	May-98	695200	908388	0	0.9	0.1			
RR2-P1-4B	May-98	695438	909344	0	14298	46.5	2	0.5	
RR2-P1-2S	May-98	695479	909271	0	13797	5.8	17	0.1	Pb
X216	May-98	695404	908677	0	4600	50	9	0.0	Pb
RR2-P1-3M	May-98	695456	909255	0	4362	7.7	11	0.1	Pb
RR2-P1-IB	May-98	695404	908677	0	3385	5	7	0.0	Pb
X215	May-98	695435	909348	0	3300	5.5	7	0.0	Pb
RR2-P1-2B	May-98	695496	909266	0	3186	3.6	2	0.0	
RR2-P1-4S	May-98	695450	909350	0	3147	9.1	4	0.1	
RR2-P1-4M	May-98	695435	909348	0	2781	2	6	0.0	Pb
RR2-P1-IS	May-98	695483	909405	0	2722	7.3	4	0.1	
RR2-P1-IM	May-98	695483	909411	0	2372	9.2	5	0.1	Pb
RR2-P1-3S	May-98	695462	909249	0	1589	3.6	6	0.0	Pb
X213	May-98	695486	909268	0	860	3	3	0.0	
RR2-P1-3B	May-98	695456	909255	0	690	4.2	1	0.1	
RR2-P1-2M	May-98	695486	909268	0	456	1.5	3	0.0	
RR2-P1-3D	May-98	695456	909255	0	274	10.4	0	0.1	
X214	May-98	909237	695440	0	160	11	0	0.1	
RRO-P1-IB	May-98	695493	909911	0	37.2	5.6			
RRO-P1-IM	May-98	695498	909909	0	44.3	4.3			
RRO-P1-IS	May-98	695484	909906	0	36.8	5	.		
RRO-P1-2B	May-98	695419	909924	0	1292	8.4	0	0.1	
RRO-P1-2M	May-98	695418	909917	0	272	3.6	0	0.0	
RRO-P1-2S	May-98	695418	909921	0	84.8	3.5			
RRO-P1-3B	May-98	695424	910049	0	1696	6.1	0	0.0	
RRO-P1-3M	May-98	695424	910047	0	842	6.7			
RRO-P1-3S	May-98	695426	910051	0	80	16.7			
X218	Jul-04	695424	910049	0	670	6.1	0	0.0	

Sediments
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	R	Antimony	Arsenic	Beryllium	Nickel	Zinc	Cadmium	Silver	Thallium	16.75	Calcium	Iron	Magnesium	Sodium	Barium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Selinium	Vanadium	Methylene Chloride
X201	BG	Oct-93	693471	904402		9	4.5	0.4	9.2	326	0.7	0.2	0.3	6630	6360	10100	2760	73.3	79.5	9.9	6.1	11.9	46.4	501		0.3	17.9	
X202	BG	Oct-93	693471	904402		10.4	4.3	0.4	8.7	291				6390	5520	9120	2390	79.5	70.4	9.9	4.9	11.2	35	384		0.3	17.4	
X203	W	Oct-93	692033	909740	3104	10.3	6.4	0.5	11.5	2200	9			7370	20300	12400	3330	132	99.9	12.1	6	37.9	101	722	0.2	0.3	19	
X204	W	Oct-93	692526	911575	3248	17.4	10.9	0.6	14.7	3040	7		0.4	14900	12000	14300	2960	150	97.4	13.2	8.1	41.9	72.5	451	0.1	0.4	26.3	
X205	ON	Oct-93	694020	908137	1872	9.3	2.9	0.5	12.6	5690	2		0.3	8360	4660	10900	2620	84.7	89.6	11	4.5	9	10.2	85.9		0.3	20.8	
						21%	21%	3%	2%	4%				13%	15%	4%	13%	7%										
X206	ON	Oct-93	695135	909640	0	62.7	19.4	1.5	583	156000	523	14.1	3.8	16300	6260	82400	4970	470	383	28.6	353	1420	932	3500	0.7	4.1	52.9	160
X207	NE	Oct-93	696259	910211	1260	10.7	6	0.7	11.9	2410	11		0.3	10700	1510	14900	1500	82	167	14.6	10.8	20.8	76	1470		0.3	41.2	
X208	NE	Oct-93	698055	911361	3389	10.8	8	0.6	12.7	3280	20		0.4	9810	3020	14500	1930	110	92.5	13.7	4.7	52.2	125	461	0.3	0.4	27.2	
						19%	12%	6%	2%	5%	11%		50%	5%	12%	17%	43%	18%										

Location ID	TACO Antimony	TACO Arsenic	TACO Beryllium	TACO Nickel	TACO Zinc	TACO Cadmium	TACO Silver	TACO Thallium	Aluminum	Calcium	Iron	Magnesium	Sodium	Barium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Selinium	Vanadium
TACO Soil->GW:I	5	29	140	180	7500	11	13	3						1700	36		200000			3.3	4.5	980
TACO Soil Res Soil->GW:I TCLP	31	0.4	0.1	1600	23000	78	390	6.3						5500	270	4700	2900	1000	3700	10	390	550
SMSA B/G	4	13	0.59	18	95	0.6	0.55	0.32			5					1		0.0075	0.15			
non-SMSA B/G	3.3	11.3	0.56	13	60.2	0.5	0.5	0.42														

0	156000
1260	2410
3389	3280
3104	2200
3248	3040
1872	5690



Sediments
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	R	Acetone	2-Butanone (MEK)	1,1,1-Trichloroethane	Carbon Tetrachloride	Bromodichloromethane	1,2-Dichloropropane	*cis*-1,3-Dichloropropane	Trichloroethene	Dibromochloromethane	1,1,2-Trichloroethane	Benzene	*trans*-1,3-Dichloropropane	Bromoform	4-Methyl-2-Pentanone	2-Hexanone
X201	BG	Oct-93	693471	904402		11	14													14
X202	BG	Oct-93	693471	904402		22	4													14
X203	W	Oct-93	692033	909740	3104	12	6	17	17	17	17	17	17	17	17	17	17	17	17	17
X204	W	Oct-93	692526	911575	3248	22	22	27	22	22	22	22	22	22	22	22	22	22	22	22
X205	ON	Oct-93	694020	908137	1872	37	20	9	14	14	14	14	14	14	14	14	14	14	14	14
X206	ON	Oct-93	695135	909640	0	78	48	290	36	36	36	36	36	36	36	36	36	36	36	36
X207	NE	Oct-93	696259	910211	1260		14													14
X208	NE	Oct-93	698055	911361	3389	17	17	8	17	17	17	17	17	17	17	17	17	17	17	17

Location ID
TACO Soil->GW:I
TACO Soil Res
Soil->GW:I TCLP
SMSA B/G
non-SMSA B/G

Sediments
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	R	Tetrachloroethene	Toluene	1,1,2,2-Tetrachloroethane	Chlorobenzene	Ethylbenzene	Styrene	Xylenes (T)	4-Chloroaniline	2-Methylnaphthalene	3-Nitroaniline	4-Nitroaniline	Phenanthrene	Anthracene	Carbazole
X201	BG	Oct-93	693471	904402									470		1100	1100			
X202	BG	Oct-93	693471	904402									470		1100	1100			
X203	W	Oct-93	692033	909740	3104								580		1400	1400	280		
X204	W	Oct-93	692526	911575	3248	22	22	22	22	22	22	22	730		1800	1800	1900	320	290
X205	ON	Oct-93	694020	908137	1872	14	14	14	14	14	14	14	480	100	1200	1200			
X206	ON	Oct-93	695135	909640	0	36	36	36	36	36	36	36	1200		2800	2800			
X207	NE	Oct-93	696259	910211	1260								440		1100	100			
X208	NE	Oct-93	698055	911361	3389	17	17	17	17	17	17	17	580		1400				

Location ID
TACO Soil->GW:I
TACO Soil Res
Soil->GW:I TCLP
SMSA B/G
non-SMSA B/G

Sediments
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	R	Fluoranthene	Pyrene	3,3-Dichlorobenzidine	Benzo(a)anthracene	Chrysene	bis(2-ethylhexyl)phthalate	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	alpha-BHC	beta-BHC	gamma-BHC (Lindane)	Aldrin	Heptachlor epoxide
X201	BG	Oct-93	693471	904402				470											
X202	BG	Oct-93	693471	904402				470											0.2
X203	W	Oct-93	692033	909740	3104	520	520	560	230	310	660	480	---	230				4.4	
X204	W	Oct-93	692526	911575	3248	1700	1600	730	850	670			1200	810					1.3
X205	ON	Oct-93	694020	908137	1872			480											
X206	ON	Oct-93	695135	909640	0			1200							1.5	1	1.1		4.7
X207	NE	Oct-93	696259	910211	1260	130	140	440	100	120		140							
X208	NE	Oct-93	698055	911361	3389														

Location ID
TACO Soil->GW:I
TACO Soil Res
Soil->GW:I TCLP
SMSA B/G
non-SMSA B/G

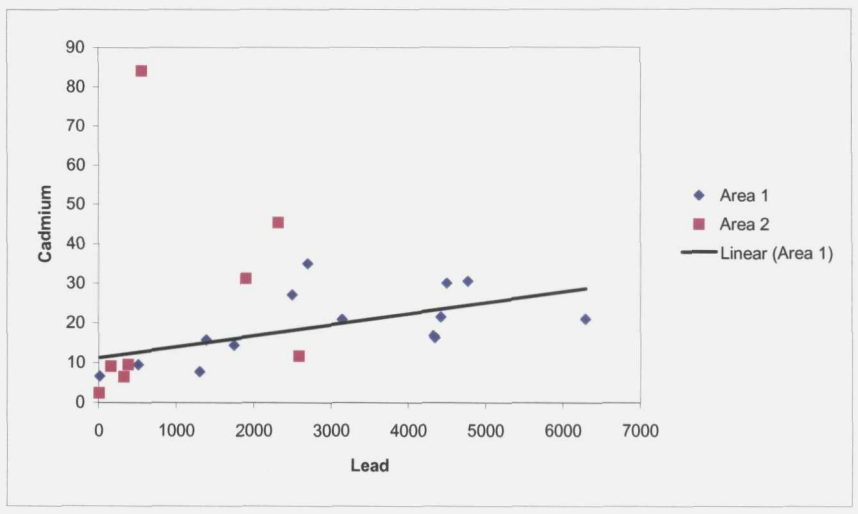
Sediments
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	R	Diedrin	4,4'-DDE	Endrin	Endosulfan II	4,4'-DDD	4,4'-DDT	Methoxyclor (Mariate)	Endrin Ketone	alpha-Chlorodane	gamma-Chlorodane	Toxaphene	Aroclor-1254	Aroclor-1260
X201	BG	Oct-93	693471	904402		2.3		0.3		0.4	3.7			2	2			17
X202	BG	Oct-93	693471	904402		2.6	0 4	0 9		0.9	0 4		0.5	3 1	2.5	110		9.3
X203	W	Oct-93	692033	909740	3104	16		18		7.5	11			16	15		250	110
X204	W	Oct-93	692526	911575	3248	12		12		6	15			7	7.4		120	100
X205	ON	Oct-93	694020	908137	1872			2 4					1.6					
X206	ON	Oct-93	695135	909640	0	10	0.7			1.8	4 8	13		1.7	3			
X207	NE	Oct-93	696259	910211	1260													
X208	NE	Oct-93	698055	911361	3389	1.3		2.8	3 6	5.1				0.6	0.7	320	24	

Location ID
TACO Soil->GW:I
TACO Soil Res
Soil->GW:I TCLP
SMSA B/G
non-SMSA B/G

On-Site Soil
Eagle Zinc, Hillsboro, Illinois

Location ID		X	Y	Z	Lead	Cadmium	Lead (TCLP) mg/L	Cadmium (TCLP) mg/L
X203	May-98	694457	908027	-5.2	6300	21	30	0.2
Area 1 - 3S	May-98	694457	908027	-0.8	4772	31	23	
X205	May-98	694513	908057	-7.8	4500	30	32	0.2
Area 1 - 4S	May-98	694513	908057	-0.5	4423	22	36	
Area 1 - 1S	May-98	693986	908095	-0.6	4342	16	8	0.2
Area 1 - 2S	May-98	694169	908048	-0.3	4330	17	14	
Area 1 - 3B	May-98	694457	908027	-5.2	3151	21	31	0.2
X201	May-98	693986	908095	-0.6	2700	35	4	0.2
X206	May-98	694724	908112	-3.7	2500	27	4	0.2
Area 1 - 108-8	May-98			-31.0	2330		3	
Area 1 - 5B	May-98	694724	908112	-3.7	1745	15	5	0.2
Area 1 - 4B	May-98	694513	908057	-7.8	1385	16	32	0.2
Area 1 - 5S	May-98	694724	908112	-0.5	1305	8	4	
Area 1 - 1B	May-98	693986	908095	-7.0	511	10		
Area 1 - 2B	May-98	694169	908048	-2.0	15.3	7		
Average					2954	19	17	0.18
St. Dev.					1789	9	13	0.02
90% UCL	90%				3714	23	24	0.20
TACO Soil->GW:I	mg/kg					11		
TACO Soil->GW:II						110		
TACO Soil I/C	mg/kg				1275	2000		
Soil->GW:I TCLP	mg/l						0.008	0.005
SMSA B/G	mg/kg				36.0	0.6		
non-SMSA B/G	mg/kg				20.9	0.5		
Area 2 - 2B	May-98	695497	908166	-1.0	552	84.1		
Area 2 - 2S	May-98	695497	908166	-0.5	2583	11.7	2.50	0.149
Area 2 - 2D	May-98	695497	908166	-0.5	2318	45.4	2.96	
Area 2 - 1S	May-98	695277	908146	-0.3	1900	31.2	5.98	
Area 2 - 3S	May-98	695701	908249	-0.5	378	9.6		
Area 2 - 4S	May-98	695909	908199	-0.3	328	6.5		
Area 2 - 4B	May-98	695909	908199	-1.2	158	9.2		
Area 2 - 3B	May-98	695701	908249	-0.8	9.2	2.5		
Average					1096	17	3.8	0.15
St. Dev.					1119	16	1.9	
90% UCL	90%				1792	26	5.6	
TACO Soil->GW:I	mg/kg					11		
TACO Soil->GW:II						110		
TACO Soil I/C	mg/kg				1275	2000		
Soil->GW:I TCLP	mg/l						0.008	0.005
SMSA B/G	mg/kg				36.0	0.6		
non-SMSA B/G	mg/kg				20.9	0.5		
Area 3 - 7S	May-98	695593	909472	-0.4	1260	27.5	0.54	
Area 3 - 6S	May-98	695598	909302	-0.9	887	485	0.56	
Area 3 - 1S	May-98	695601	908837	-0.4	650	22.1	0.04	
Area 3 - 3S	May-98	695509	909004	0.7	438	15.9	0.04	
Area 3 - 4B	May-98	695415	908972	-1.8	48.6	7.7		
Area 3 - 7B	May-98	695593	909472	-0.8	47.1	69.6		
X212	May-98	695415	909189	-1.8	18	2.7	0.005	0.015
Area 3 - 2S	May-98	695499	908866	-1.3	13.8	8.8		
Area 3 - 5S	May-98	695415	909189	-1.8	7.1	8.8	0.3	0.064
Area 3 - 4S	May-98	695415	908972	0.5	4.6	3.3		
Average					337	65	0.25	0.04
St. Dev.					454	149	0.26	0.03
90% UCL	90%				574	143	0.42	0.08
TACO Soil->GW:I	mg/kg					11		
TACO Soil->GW:II						110		
TACO Soil I/C	mg/kg				1275	2000		
Soil->GW:I TCLP	mg/l						0.008	0.005
SMSA B/G	mg/kg				36.0	0.6		
non-SMSA B/G	mg/kg				20.9	0.5		
Area 4 - 1S	May-98	695601	909586	-0.1	5075	83	13.60	
X217	May-98	695320	909901	-0.3	9800	88	6.70	0.001
Area 4 - 6S	May-98	695320	909901	-0.3	8137	53	4.73	0.679
Area 4 - 6D	May-98	695320	909901	-0.3	6273	45	5.25	0.487
Area 4 - 9S	May-98	695533	910090	-0.5	789	18	1.48	
Area 4 - 2S	May-98	695601	909586	-0.3	267	23		
Area 4 - 9D	May-98	695533	910090	3.0	177	9		
Area 4 - 7S	May-98	695485	909829	-0.8	160	15		
Area 4 - 9M	May-98	695533	910090	3.0	148	6		
Area 4 - 8S	May-98	695207	910076	-0.3	35	25	0.31	0.244
Area 4 - 4B	May-98	695305	909534	-1.2	30	16		
Area 4 - 6B	May-98	695320	909901	-0.9	30	25		
Area 4 - 3B	May-98	695433	909620	-1.0	21	5	0.10	0.074
Area 4 - 5B	May-98	695289	909698	-0.9	17	18		
Area 4 - 5S	May-98	695289	909698	-0.5	9	3		
Area 4 - 3S	May-98	695433	909620	-0.5	1	9		
Area 4 - 4S	May-98	695305	909534	-1.0	0	4		
Average					1618	23	3.1	0.30
St. Dev.					3271	22	2.8	0.28
90% UCL	90%				2963	32	5.0	0.51
TACO Soil->GW:I	mg/kg					11		
TACO Soil->GW:II						110		
TACO Soil I/C	mg/kg				1275	2000		
Soil->GW:I TCLP	mg/l						0.008	0.005
SMSA B/G	mg/kg				36.0	0.6		
non-SMSA B/G	mg/kg				20.9	0.5		



Off-Site Soil
Eagle Zinc, Hillsboro, Illinois

Location ID			X	Y	Antimony	Arsenic	Beryllium	Aluminum	Calcium	Iron	Magnesium	Potassium	Sodium	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selinium	Silver	Thallium	Vanadium	Zinc
X101		Oct-93			9	6	0.80	12400	10600	14700	2370	1890	106	230		16.2	4.1	20	148	434	0.17	14			0.33	28.5	136
X102		Oct-93			9	6	0.81	10000	9880	14400	2090	1600	87.9	265		14.4	6.5	19.7	236	686	0.18	12	1.3		0.34	27.1	138
X104	NE	Oct-93	696058	909717	11	7	0.49	6880	598	11500	1040	491	47.5	181	3	10.3	13.7	30.6	61	1180		27	0.27		1.2	27.5	4770
X118	NE	Oct-93	698624	910475	11	6	0.73	1410	1720	18200	2120	1210		106		18.5	11.1	15.9	30.4	795		13	0.27		0.27	34.5	354
X119	NE	Oct-93	697455	910999	8	7	0.60	9390	12100	14100	1790	1670		196	3	13.7	14.9	17.5	51.9	1520	0.32	15	0.55		0.5	26.7	1570
X120	NE	Oct-93	697470	912942	8	11	0.95	16300	2870	22900	2870	1490	27.7	155		20.4	7.4	17.2	32.7	889		17	0.38		0.25	39	371
					32%	11%	17%	23%	5%	23%	27%	7%	2%	2%											0.555	31.925	1766.25
X114	S	Oct-93	694953	907705	8	12	1.00	9750	4230	28600	1130	1040	293	183	3	15.9	5.8	28.3	137	314		14	0.76		0.71	29.7	1580
X115	S	Oct-93	695086	906224	11	11	0.80	14800	4970	19700	2030	1470	61.5	181	1	19.4	7	27.8	76.2	538	0.42	11	0.52	1.2	0.57	34.8	638
X116	S	Oct-93	695630	907058	10	7	0.93	12500	8430	18900	2020	1750	89.9	227	2	18.9	9.8	25.5	147	851	0.24	17	0.53		0.53	35.1	998
X117	S	Oct-93	697138	908047	15	9	1.70	13800	19300	21100	2140	1460	1020	222	5	17.3	10.6	57.2	186	995	0.14	28	0.35		0.35	34.3	7420
					12%	2%	12%	21%	40%	2%	11%	11%	16%	9%													
X111	SW	Oct-93	693259	907720	9	9	0.94	13500	8380	19300	1950	1920	120	193	2	20.2	7.8	33.8	70.8	491	0.11	17	0.42		0.25	34.2	488
X112	SW	Oct-93	692480	905378	10	6	0.85	9950	2800	13900	17.6	1970	52.4	233	3	14.8	11.3	15.9	70.1	2070	0.11	23	0.39		0.28	28.2	489
X113	SW	Oct-93	692568	905147	8	6	0.85	16600	5940	20400	4870	2400	45.8	116	1	21.7	10.6	22.5	75.1	568		19	0.27		0.27	33.7	451
					47%	18%	6%	21%	5%	12%	49%	10%	21%	9%													
X106	W	Oct-93	694623	910377	9	6	0.63	13000	11600	15400	2150	1060	37.4	224	1	15.1	11.1	24.7	28.5	922		14			0.26	28.5	1490
X107	W	Oct-93	693612	909996	11	9	0.72	13000	5360	14900	2090	1160	71.8	124	4	16.1	5.6	36.4	105	600	0.16	16			0.35	27.3	2480
X108	W	Oct-93	694421	909405	13	13	1.00	11500	5430	33900	1630		178	267	11	23.4	14.8	104	388	1670	0.16	35	0.84		1.4	37.7	2280
X109	W	Oct-93	692699	908896	9	5	0.60	10200	2580	12600	1530	1650	65.7	130	1	13.4	6.9	15.3	47	660	0.11	11	0.31		0.28	24.7	360
X110	W	Oct-93	693968	908402	8	14	0.78	15000	3450	20700	2500	1980	62.8	150	2	20.7	8.5	22.5	87.6	563		16	0.49			38.7	606
					16%	6%	23%	23%	2%	13%	17%	17%	31%	5%													

Location ID	X	Y	TACO Antimony	TACO Arsenic	TACO Beryllium	Aluminum	Calcium	Iron	Magnesium	Potassium	Sodium	Barium	TACO Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selinium	Silver	Thallium	Vanadium	Zinc
TACO Soil->GW:I			5	29	140							1700	11	36		200000			3.3	180	4.5	13	3	980	7500
TACO Soil Res			31	0.4	0.1							5500	78	270	4700	2900	400	3700	10	1600	390	390	6.3	550	23000
Soil->GW:I TCLP				13				5							1		0.0075	0.15							
SMSA B/G			4	13	0.59																				
non-SMSA B/G			3.3	11.3	0.56																				

Storm Water
Eagle Zinc, Hillsboro, Illinois

		Chromium (T)	Copper (T)	Manganese (T)	Sulfate	Zinc (T)	TSS	Ammonia (as N)	Arsenic (T)	Barium (T)	Boron (T)	Cadmium (T)	Chloride (T)	Cyanide T)	Fluoride	Lead (T)	Mercury (T)	Nickel (T)	Selenium (T)	Silver (T)	BOD5	pH
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Outfall 2																						
S401	6/30/98	0.067	0.64	1.3	135	291	4120	0.31	0.052	0.57	0.16	0.043	6.4	0.01	0.67	0.55	0.0001	0.16	0.01	0.006	5	7.6
S402	6/30/98	0.017	0.32	0.43	116	200	1080	0.42	0.032	0.17	0.1	0.022	6.6	0.01	0.98	0.31	0.0001	0.07	0.01	0.005	4	8
	7/18/00				237	56.5	200					<0.1										
	8/17/00				433	8.63	1					0.002										
	9/12/00				97	15.9	233					0.005										
	10/4/00				78	10.2	131					0.004										
	11/6/00				51.6	10.1	24					0.004										
	12/11/00				225	10.3	54					0.009										
	2/9/01				117	43.3	577					0.016										
	3/15/01				325	1.08						0.02										
	5/5/01				506	5.76						0.003										
	6/15/01				212	42.6	113					0.009										
	Average	0.042	0.480	0.865	211	58																
Above		Sub B	Sub B	Sub B Sub D	Sub B	Sub B Sub D																
Outfall 1																						
First Flush	6/9/98	0.001	0.007				20	0.1	0.001	0.042		0.006		0.1		0.017	0.0001	0.009	0.001	0.001	4.1	7.2
COMP	6/9/98	0.001	0.006				20	0.1	0.001	0.039		0.005		0.1		0.013	0.0001	0.008	0.001	0.001	3.7	7.4
First Flush	6/29/98	0.016	0.346				2400	0.1	0.006	0.202		0.031		0.1		0.362	0.0001	0.076	0.002	0.001	8.1	7
COMP	6/29/98	0.006	0.235				538	0.1	0.004	0.112		0.02		0.1		0.287	0.0001	0.051	0.002	0.001	6.7	7
Above			Sub B																			
35 IAC 30:	Subpart B	0.016	0.07	1	500	1		15	0.36	5	1	0.05	500	0.022	1.4	0.6	0.012	1	1	5	30	6.5-9
	Subpart D	1	1	1		1																

Storm Water
Eagle Zinc, Hillsboro, Illinois

		Aluminum (T)	Antimony	Beryllium (T)	Calcium (T)	Cobalt (T)	Iron (T)	Magnesium (T)	Nitrate,Nitrite (N Total)	Nitrate (as N)	Nitrite (as N)	Phenols (T)	Phosphorus-P (T)	Potassium (T)	Sodium (T)	Strontium (T)	Thallium	Vanadium (T)	Hardness	TDS	COD	FOG (T)
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Outfall 2																						
S401	6/30/98	39	0.017	0.0019	50	0.046	52	9.9	0.73			0	0.58	31	34	0.24	0.01	0.1		310		
S402	6/30/98	6.9	0.026	0.001	41	0.022	11	4	0.99			0	0.17	18	21	0.18	0.01	0.024		300		
	7/18/00																					
	8/17/00																					
	9/12/00																					
	10/4/00																					
	11/6/00																					
	12/11/00																					
	2/9/01																					
	3/15/01																					
	5/5/01																					
	6/15/01																					
	Average																					
Above																						
Outfall 1																						
First Flush	6/9/98	0.253					0.6			0.1	0.05		0.05		0.947				198		88	0.1
COMP	6/9/98	0.197					0.438			0.1	0.05		0.05		0.885				196		71	0.1
First Flush	6/29/98	5.5					3.05			0.81	0.05		0.17		273				88		147	0.8
COMP	6/29/98	2.8					2.78			1.06	0.05		0.11		216				98.8		76	0.6
Above																						
35 IAC 30	Subpart B																					
	Subpart D																					