EPA Region 5 Records Ctr.
259645

SECTION 1
INTRODUCTION

On October 18, 2004, staff from the Illinois Environmental Protection Agency (IEPA) Office of Site Evaluation (OSE) received funding from the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Pre-CERCLIS (PCS) Screening Assessment of the Havana Right of Way located in Havana, Illinois. The PCS is performed under the authority of the Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA) commonly known as Superfund.

The 2004 PCS investigation of the Havana Right of Way site was the result of a request for additional investigation by the IEPA State Sites Unit (SSU). Heavy metal contamination of soil outside the physical boundaries of the Prairieland Steel site was discovered during a 2003 IEPA SSU investigation. The Prairieland Steel property was integrated into the 2004 PCS investigation of a larger site referred to as the Havana Right of Way.

The PCS is a review of information on potential Superfund sites to determine whether the site should be entered into U.S. EPA Comprehensive Environmental Response, Compensation, & Liability Information System (CERCLIS). If there is sufficient information that suggests the site may be impacting human health and/or the environment, the site will be placed in CERCLIS and will progress through the Superfund process.

2.2 Site History

The IEPA Bureau of Land file for Prairieland Steel contains a good deal of historical information regarding site activities for the entire Havana Right of Way site. The site is currently composed of at least five separate parcels. Four of the parcels are under private ownership. The former rail right of ways, which roughly form the border of the site, are owned by the City of Havana. A review of Sandborn maps revealed that industrial processes have taken place on at least one parcel of the site since approximately 1887. While operations at the former Prairieland Steel property were discontinued in 1996, there are still two active facilities within the Havana Right of Way site. The names of the two active facilities are Profile Screen, Incorporated and Crescent Forge. The site was initially brought to the attention of the IEPA by the City of Havana. File information indicates that in 2001 contractors for the IEPA SSU conducted a site investigation of Prairieland Steel. Findings from this investigation led to the excavation of two waste pits and the determination that shallow groundwater had been affected by site activities.

In 1996 the U.S. EPA conducted a Removal Action at the Prairieland Steel facility during which 7,000 gallons of waste corrosives, 45 drums of lead slag, 7 drums of waste solids, 18 drums of waste liquids, and a 25 cubic yards of non-hazardous debris were disposed. During the year of 2000, the bulk of the Prairieland Steel facility was demolished by the City of Havana using Brownfield Grant money. Groundwater and soil samples collected during the 2003 IEPA SSU investigation revealed on-site volatile organic (VOC) and heavy metal contamination. The results

SECTION 3
FIELD INVESTIGATION ACTIVITIES

3.1 Field Inspection

Prior to the June 2004 Pre-CERCLIS Screening Assessment, representatives from the IEPA OSE and SSU conducted a site reconnaissance of the Havana Right of Way. The site recon was conducted to determine the extent of the site and to identify potential sample locations. A survey of the surrounding area was conducted during the site recon as well. The survey of the surrounding area was done to determine land usage of the neighboring properties as well as any pathway or receptors that potentially may be affected by the site.

It was determined that an x-ray fluorescence (XRF) investigation of the property was needed in order to determine the extent of heavy metal contamination of on-site soil. It was also determined that confirmatory soil samples would be collected and sent to an IEPA laboratory for inorganic and toxicity characteristics leaching procedure (TCLP) analysis. Soil borings would be obtained with the Geoprobe® in order to determine the vertical extent of fill material and soil contamination. The soil borings would be screened with the XRF approximately every 6 to 12 inches. This information was necessary to determine if a more detailed investigation of the site was needed in areas other than the former Prairieland Steel property.

3.2 X-Ray Fluorescence (XRF) Results

SECTION 4
MIGRATION PATHWAYS

4.1 Soil Exposure Pathway

The soil exposure pathway appears to be the primary pathway of concern associated with the Havana Right of Way site. This determination is based upon information gathered during the 2004 Pre-CERCLIS Screening Assessment and prior IEPA investigations at Prairieland Steel. X-ray fluorescence and IEPA laboratory results indicate that in some areas of the site there is heavy metal contamination that meets CERCLA criteria for an observed release.

There is no indication that the property is used for recreational purposes. A maintained fence with locked gates is in place to deter trespassing. There are a small number of employees within the Havana Right of Way. There approximately 10 employees on-site, all of which work at either Profile Screen or Crescent Forge. There is a densely populated residential area located immediately to the south and east of the site. The population within one mile of the site is approximately 3,000 individuals. It should be noted that the site does not have good vegetative cover in some areas. However, at least half of the site is either paved over or confined within buildings. A maintained fence with locked gates restricts access to the Prairieland Steel site, but

4.3 Surface Water Pathway

According to a United States Geologic Survey (USGS) topographic map the Illinois River, a perennial waterway, is located approximately 1,500 feet west of the site. Based upon the same USGS map and visual observation there is no direct surface water route from the site to the Illinois River. Based upon this information it does not appear that a release to the surface water pathway has occurred recently at the Havana Right of Way site. Given the lack of information regarding any historical discharges it is possible that a release to the Illinois River may have occurred in the past. The more detailed investigation of historical information is necessary to fully assess the surface water pathway. The Federal Emergency Management Agency map for Havana indicates that the site is located inside of a 100-year floodplain.

4.4 Air Route

Ambient air monitoring was not conducted during the 2004 PCS at the Havana Right of Way site. This was due to the fact that heavy metal contamination, which was the focus of the 2004 PCS, cannot be detected with a toxic vapor analyzer. Available file information gave no indication that open burning occurred on-site. Nor are there any available reports of odors emanating from the site. As indicated earlier the site does not have good vegetative cover in all areas that were not paved over. It is possible that airborne particulates have been transported off-site via the air pathway.

SECTION 6
PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

TABLE 2
TCLP SAMPLE SUMMARY

Sample Point	X104	X105	X106	X109	X111
pH	8.8	8.6	8.6	8.7	8.7
Geoprobe Location	GP - 14	GP - 15	GP -15	GP - 23	GP - 26
Depth	4"	1"	1" (duplicate)	0" - 6"	0" - 6"
INORGANICS (ppm)					
Antimony	--	0.04	0.02	--	--
Arsenic	--	--	--	0.16	0.33
Barium	1.20	1.80	1.90	0.24	0.26
Cadmium	0.02	0.03	0.03	0.00	0.00
Lead	290.00	360.00	300.00	0.12	0.04
Nickel	0.10	0.40	0.36	0.01	0.01
Zinc	0.93	3.60	4.10	0.11	0.47

HAVANA RIGHT OF WAY XRF DATA

LOCATION	DEPTH	Lead	Arsenic	Mercury	Zinc	Copper	Nickel	Cobalt	Chromium
GP #1									
3	Surface	48.74							
4	2'	44.28	38.01					209.86	
5	3'	28.6	23.81						
6	4'								
7	4'	26.73							
8	5'		25.69						
9	6'	26.09							
GP #2									
10	2"	79.28	52.72					415.62	
11	10"	281.93	1506.25	55.9	144.72	106.34			
12	2'	192.75	46.06			88.76		352.98	
16	3'	27.71							
17	4'	39.39							
GP #3									
18	2"	223.16	797.9		141.5	112.77			
19	1'	186.34	403.82		111.73				
20	2'	30.83						272.42	
21	3'								
22	4'								
24	9" Comp	106.43	346.46		44	57.8			
GP #4									
25	5"	240.45	983.18		183.41	129.59			
26	1'	79.11	152.63						
27	2'	141.55							
28	3'	32.86							
29	3.5'		27.98						
30	4'	28.05							
31	5'								
GP #5									
32	4"	267.43	2554.16	81.76		138.43		558.84	
33	11"	515.31			147.49	177.73		873.76	
34	1.5'	24.17	21.13						304.79
35	2.5'	54.52							
36	3.5'								
37	4" - 7" Comp	91.61	812.83		55.91			423.8	
GP #6									
38	3"		45.12					312.03	
39	1'	383.57	915.16	44.19	114.32	166.99			
40	1.5'	155.31	449		95.91				
41	2'	35.29	169.33						
42	3'		83.62						
43	4'	22.78	26.57						
GP #7									
44	6"	164.79	789.61		142.3			821.84	
45	1'	206.19	2129.64	67.76	130.7			873.7	
46	2'	23.3	57.92						
47	3'								
48	3.5'	32.57							
49	4'		21.78						
50	5'	30.51							
GP #8									
51	6"	60.16	108.16						
52	1'	40.72	84.65					1119.28	479.93
53	1.5'	216.79			95.37	87.27		227.56	
54	2'	25.54							
55	3'								
56	4'								248.6

LOCATION	DEPTH	Lead	Arsenic	Mercury	Zinc	Copper	Nickel	Cobalt	Chromium
GP #18									
109	2.5"	409.97				2349.09	3491.74	19204.82	16097.08
110	9"	677.3						2144.89	
111	1.5'	201.47	52.52		174.13				
112	3" - 9" Comp	791.75	95.16						
113	2.5'	36.32							
114	3'	46.23							259.11
115	4.5'	33.2							
GP #19									
116	1"	1376.14			156.75				528.23
117	6"	460.51			2181.29	193.38			
118	1'	115.06			234.65				
119	2.5'	40.77							
120	3.25'	206.39			320.59			851.21	
121	4.5'	28.66							
GP #20									
122	2"	49.97							
123	6"	35.09							
124	1'								
125	2'	31.09							
GP #21									
126	2"	102.03							
127	6"	152.22			83.44				
128	1'	244.14			125.91				
129	2'	29.01							
GP #22									
130	2"	38.37							
131	6"	112.14	656.5					1277.92	
132	1'	87.66	30.38		260.09				
133	1.5'	83.94			93.19				
134	2.25'	30.65							
135	3'	22.67							
136	4'	26.23						166.78	
GP #23									
137	1"	178.41	590.4		139.07			473.61	
138	6"	209.06	198.71		112.14			462.81	
139	1'	280.78			111.05				
140	1.5'	28.68							
141	3'	27.06							
142	6" Comp	92.7	252.82		68.73				
GP #24									
143	2"	225.06	141.43		97.53			382	
144	6"	86.1	79.72		91.55				
145	1'	31.59							
146	2'	37.81							
147	3'								
GP #25									
148	2"	271.14	147.87		115.14			459.48	
149	6"	315.77	74.02						
150	1'	34.54			73.42				
151	2'		31.18						
152	3'								
GP #26									
153	1"	139.72	1123.56	40.5	134.46			492.75	
154	4"	83.14	1204.22		121.17	115.36			
155	6"	132.86	1141.5		156.65			1118.26	
156	1'	279.87	188.38		1279.33				
157	2'	28.07	25.5						
158	3'		27.15						

LOCATION		Lead	Arsenic	Mercury	Zinc	Copper	Nickel	Cobalt	Iron	Magnesium	Chromium
GP #1											
3	Surface	48.74	-4.12	-43.1	15.27	43.39	18.73	55.17	8714.32	1135.65	125.72
4	2'	44.28	38.01	-24.24	-0.58	44.91	-72.61	209.86	11588.92	1014.84	10.74
5	3'	28.6	23.81	1.9	2.92	0.07	-52.71	66.4	9061.75	1120.67	107.49
6	4'	32.03	9.21	-3.42	-2.47	18.08	93.85	332.86	8044.21	957.53	183.91
7	4'	26.73	14.46	-2.4	12.29	-5.78	-2.8	39.99	8316.78	1142.6	38.85
8	5'	11.57	25.69	-5.09	33.54	-20.08	-24.67	145.64	7254.51	1100.49	171.03
9	6'	26.09	17.97	4.84	31.65	9.79	2.08	91.62	6838.34	821.13	36.91
GP #2											
10	2"	79.28	52.72	-13.1	5.11	42.93	41.23	415.62	15408.78	2024.43	105.11
11	10"	281.93	1506.25	55.9	144.72	106.34	44.38	480.62	68294.25	4527.63	109.51
12	2'	192.75	46.06	21.21	34.62	88.76	4.74	352.98	21628.91	1759.78	22.3
16	3'	27.71	-0.19	11.96	1.08	-3.71	5.74	60.96	7940.06	1103.32	101.13
17	4'	39.39	10.75	-7.34	-7.36	-0.06	-1.49	-96.43	7118.24	822.32	105.17
GP #3											
18	2"	223.16	797.9	25.55	141.5	112.77	-22.81	368.98	36544.16	2534.79	117.57
19	1'	186.34	403.82	-2.02	111.73	75.45	-19.76	59.24	22609.3	1412.47	149.06
20	2'	30.83	-1.22	-5.83	5.23	-27.82	43.91	272.42	8035.68	984.23	8.94
21	3'	18.29	11.1	-4.35	22.7	-14.99	27.36	118.11	7238.38	1144.7	173.33
22	4'	15.45	18.51	0	45.92	30.53	2.84	22.97	7975.68	917.18	50.7
24	9" COMP	106.43	346.46	1.02	44	57.8	-34.43	133.26	18002.56	1118.74	-71.53
GP #4											
25	5"	240.45	983.18	5.94	183.41	129.59	-60.9	397.6	41747.9	3061.37	-27.03
26	1'	79.11	152.63	1.05	26.35	69.71	-60.24	121.42	15795.81	1331.83	133.95
27	2'	141.55	7.09	-7.48	38.17	37.16	-100.9	219.86	17125.82	1332.61	214.63
28	3'	32.86	19.9	-6.53	18.81	-16.36	-35.89	68.6	5538.46	516.43	152.08
29	3.5'	19.95	27.98	-16.73	-1.78	35.13	-49.31	179.18	7087.68	938.6	156.71
30	4'	28.05	14.54	-6.6	-1.74	26.78	-37.58	99.29	8443.22	831.65	36.48
31	5'	16.8	17.41	-10.16	-17.6	27.62	42.24	88.63	6523.03	612.89	109.68
GP #5											
32	4"	267.43	2554.16	81.76	57.66	138.43	-20.79	558.84	61496.76	4148.4	73.54
33	11"	515.31	10.49	-4.41	147.49	177.73	-81.59	873.76	71517.45	4477.98	-67.16
34	1.5'	24.17	21.13	-10.88	-21.98	21.01	-38.19	127.74	11628.43	1279.04	304.79
35	2.5'	54.52	-1.05	-0.57	7.78	-7.8	39.46	178.07	11614.71	1151.55	139.49
36	3.5'	19.48	-7.24	-5.42	-22.7	77.44	44.12	43.3	7785.97	1161.94	19.71
37	4" - 7" COMP	91.61	812.83	21.67	55.91	40.59	-71.19	423.8	29380.45	2254.7	-81.04
GP #6											
38	3"	28.76	45.12	-30.44	-22.49	-39.5	-146.9	312.03	8297.41	1276.65	171.14
39	1'	383.57	915.16	44.19	114.32	166.99	-20.91	289.41	36987	2775.46	90.4
40	1.5'	155.31	449	3.42	95.91	87.5	-8.95	152.64	19438.89	1890.87	-16.37
41	2'	35.29	169.33	-23.82	22.22	-19.15	2.87	126.29	9244.67	1293.84	103.29
42	3'	19.98	83.62	-34.04	-11.23	35.46	-11.74	31.11	9454.9	1047.03	137.02

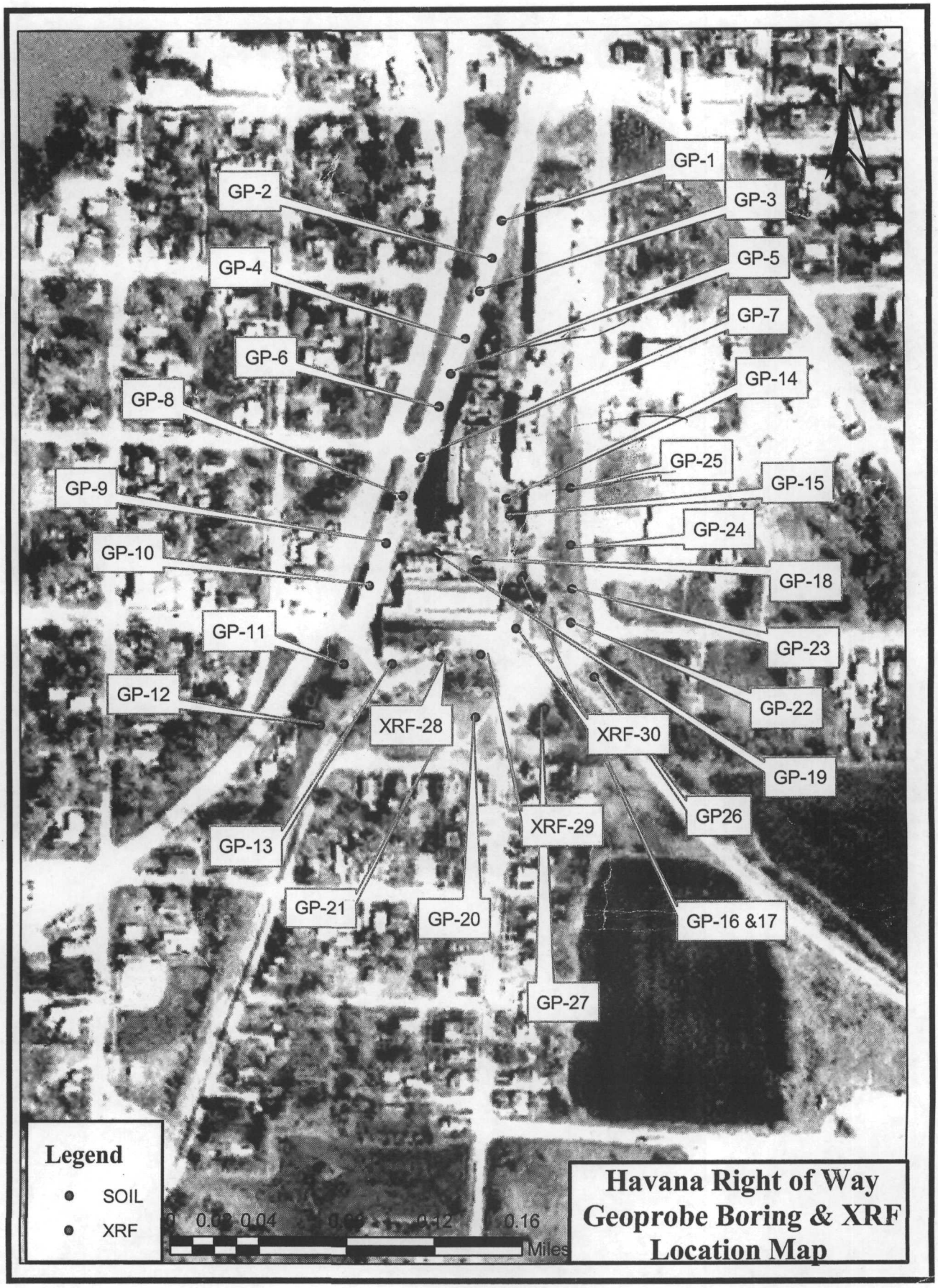
80	4'	29.96	12.31	-21.37	-26.03	-40.74	39.99	147.78	6357.72	549.97	48.26
81	5'	27.4	24.44	-13.04	-24.36	97.06	-67.37	151.37	11683.41	915.46	173.09
82	6'	13.85	18.84	-11.32	-33.8	8.59	-3.45	26.63	6052.78	663.39	-25.77
GP #13											
83	4"	192.97	109.31	-33.21	140.77	267.65	-141.45	3013.24	207493.3	14079.12	37.59
84	10"	183.89	51.44	-56.97	121.77	134.44	-203.66	3661.58	288254.3	18923.2	374.78
85	1.5'	212.22	10.6	-13.11	201.65	115.54	-39.65	349.46	28741.28	1942.06	148.51
86	2'	57.75	2.63	-6.08	24.92	-4.28	-12.18	143.76	8313.96	915.77	59.4
87	3'	19.2	22.3	-3.33	-0.32	27.74	-46.44	173.79	8355.52	618.86	40.1
GP #14											
88	4"	64071.51	-192.48	1289.43	966.22	299.25	44.95	1077	94720.46	6151.92	1010.22
89	1'	501.81	-0.47	-3.85	10.02	-13.81	58.07	185.85	26174.75	2004.87	94.01
90	2'	79.22	30.8	-0.99	-24.83	16.71	-41.63	110.09	7708.91	709.88	40.62
91	3'	50.5	9.82	-10.27	10.77	20.34	-6.55	81.18	5993.85	486.46	108.79
92	4'	411.93	65.11	-6.97	-2.43	-3.8	-15.32	49.7	6262.04	403.43	18.82
93	5'	27.2	16.26	6.66	-17.38	-24.49	-27.05	37.44	4995.73	391.31	127.77
94	4" COMP	80669.98	3112.96	1885.83	2134.47	900.39	126.46	3235.21	409103.3	26687.2	875.95
GP #15											
95	1"	67433.31	3215.79	1432.43	1210.6	674.48	148.74	4989.4	417366.6	30629.64	2783.31
96	6"	484.95	91.62	1.43	29.37	-51.49	-111.07	388.79	38049.38	2549.85	203.92
97	1'	595.08	97.85	2.32	-9.48	-55.8	2.07	34.2	9122.63	943.18	78.91
98	2'	1414.63	169.03	37.56	54.71	-7.88	-58.38	-24.29	16917.95	1408.82	89.77
99	3'	66.14	24.35	8.57	10.88	18.61	11.11	143.67	6415.13	611.65	114.76
100	4'	74.89	14.16	-3.72	6.97	-54.97	66.93	45.31	5119.46	439.67	103.95
101	5'	55.01	7.96	-13.45	-27.61	-5.41	11.71	139.79	4357.54	343.62	110.42
GP #16											
102	1"	84.29	3.98	-1.94	55.29	44.17	52.08	213.27	17433.96	1805.06	125.68
103	6"	116.39	12.17	8.76	33.96	-27.14	-28.41	434.54	20636.04	1521.82	88.12
104	1'	176.22	5.83	9.81	74.87	78.77	-19.32	394.25	48587.36	3161.11	-5.27
GP #17											
105	1"	262.56	14.98	-22.59	251.19	19.13	72.99	401.95	52204.29	3153.16	-0.03
106	6"	333.07	-4.95	24.77	258.83	64.25	2.89	387.74	49383.59	2658.72	60.92
107	1'	38.18	6.38	-2.03	31.98	59.81	-110.11	181.83	9200.16	530.02	101.91
108	2.5'	30.96	14.68	11.64	1.81	-7.66	-8.32	100.61	5663.26	430.67	107.45
GP #18											
109	2.5"	409.97	27.71	-270.33	-826.75	2349.09	3491.74	19204.82	2266120	173198.69	16097.08
110	9"	677.3	4.96	-11.09	191.64	163.88	-107.14	2144.89	258633.3	15613.59	531.75
111	1.5'	201.47	52.52	1.2	174.13	21.14	24.82	94.59	42062.85	2410.94	248.73
112	3" - 9" COMP	791.75	95.16	-1.03	-732.29	340.23	826.8	4763.9	1514252	93008.73	2586.19
113	2.5'	36.32	18.85	-17.71	-11.29	1.15	-56.47	71.11	7886.07	662.94	147.9
114	3'	46.23	10.01	-5.02	-18.22	-2.06	-5.51	-29.56	10829.37	1083.02	259.11
115	4.5'	33.2	14.43	4.52	-1.61	23.44	46.28	84.95	5842.66	500.18	38.05
GP #19											

GP #26											
153	1"	139.72	1123.56	40.5	134.46	10.3	-29.17	492.75	45966.07	2496.89	14.04
154	4"	83.14	1204.22	33.72	121.17	115.36	32.36	395.34	47658.8	3682.11	-118.94
155	6"	132.86	1141.5	42.6	156.65	33.1	-38.22	1118.26	84229.66	5747.34	304.06
156	1'	279.87	188.38	26.71	1279.33	72.73	86.5	88.07	27654.94	1862.28	103.09
157	2'	28.07	25.5	-2.06	-20.43	-52.5	-56.45	102.67	5876.73	557.89	39.75
158	3'	20.07	27.15	17.29	1.99	-21.29	-55.55	127.66	5051.89	249.41	104.31
GP #27											
159	3"	43.03	24.45	2.44	29.83	-25.73	-43.67	113.73	21124.9	1530.37	74.99
160	6"	210.64	24.02	25.25	-504.44	-73.3	253.16	2938.25	709583.8	38551.09	771.9
161	1'	253.01	113.22	-209.16	-927.37	73.16	1274.48	6213.5	1847592	105138.63	2011.08
162	2'	59.57	10.16	-3.06	56.58	-36.23	20.93	557.87	24075.96	1632.07	82.17
163	3'	24.86	18.5	-5.78	-5.29	27.27	-6.45	205.13	9208.43	692.69	214.35
164	4'	10.69	15.95	-4.01	-2.62	17.28	-36.18	103.08	4714.5	402.75	-19.57
SS #28											
165	Surface	99.77	94.3	-13.66	50.96	18.45	-204.87	1143.9	118837.4	6888.67	206.31
166	6" COMP	101.58	92.98	-15.63	48.38	-18.16	-8.4	482.46	71233.25	4392.41	47.71
SS #29											
167	Surface	141.89	125.39	-27.74	38.83	44.49	0.02	409.07	74919.47	4033.1	34.74
168	6" COMP	115.16	47.43	-9.53	35.31	-28.6	-35.14	745.54	83325.81	5715.12	294.57
SS #30											
169	Surface	113.61	19.8	5.58	55.65	9.32	-26.64	190.85	28929.19	2396.98	-50.02
170	4"	343.07	40.29	-25.27	256.43	137.02	217.55	2422.64	376093.5	22581.79	529.17

SITE SUMMARY & RECOMMENDATION

It is the recommendation of the IEPA Office of Site Evaluation that the Havana Right of Way site be placed on CERCLIS. Information collected prior to and during the 2004 Pre-CERCLIS (PCS) Screening Assessment has documented the presence of areas of high concentration heavy metal contamination of shallow on-site soil. An investigation by the IEPA State Sites Unit (SSU) of the former Prairieland Steel facility, which is located within the Havana Right of Way site, revealed heavy metal and VOC contamination of area soil and groundwater. This contamination has been directly attributed to activities at the former Prairieland Steel facility. During the 2003 investigation of the Prairieland Steel site, x-ray fluorescence (XRF) technology was used to screen parcels adjacent to the site which revealed further heavy metal contamination.

The 2004 PCS investigation extended the Prarieland Steel XRF investigation, with confirmatory lab analysis, to include other properties within the area referred to as the Havana Right of Way site. An expanded site inspection is needed to fully characterize the extent of documented inorganic and volatile organic contamination of on-site soil. A more comprehensive investigation of local groundwater is needed as well to determine if public wells in the area have been affected. The potential for the surface water pathway to have been affected exists as well. This pathway has not been addressed during any investigation or remediation of the property. The Illinois River is located less than 1,500 feet west of the site.



Havana Right of Way Geoprobe Boring & XRF Location Map