

April 6, 2007
File No. 21.0056196.20



Mr. Eugene Melnyk
NYSDEC Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203

Re: IRM Work Plan Addendum
Special Metals Corporation
100 Willowbrook Avenue
Dunkirk, New York
Site # 907031

364 Nagel Drive
Buffalo
New York
14225
716-685-2300
Fax: 716-685-3629
www.gza.com

Dear Mr. Melnyk:

GZA GeoEnvironmental of New York (GZA), on behalf of Special Metals Corporation (SMC), prepared this letter as an addendum to the Interim Remedial Measures (IRM) Work Plan for the above referenced Site. The IRM Work Plan was submitted to the New York State Department of Environmental Conservation (NYSDEC) on February 22, 2007 to address soil impacted with polychlorinated biphenyls (PCBs) and was approved in a NYSDEC letter dated April 5, 2006. The IRM is being done under an Order on Consent (# B9-0737-0702; Site # 907031) between NYSDEC and SMC.

SMC completed additional investigations at its Dunkirk facility between March 15 and 19, 2007, which consisted of 40 soil probes and surface soil sampling (see Figure 1 for sampling locations). Selected soil samples collected were submitted for laboratory analysis which included volatile organic compounds (VOCS) via EPA Method 8260, semi-volatile organic compounds (SVOCs) via EPA Method 8270 base neutral compounds, polychlorinated biphenyls (PCBs) via EPA Method 8082 and Total Analyte List (TAL) metals via EPA Method 6010/7470. Figure 1 also identifies the sampling parameters tested for at the various exploration locations.

The preliminary findings are summarized on the attached two tables. Table 1 is a summary of the subsurface soil probe results and Table 2 is a summary of the surface soil sample results. The preliminary results indicate that PCBs (see Figure 2), the primary contaminant of concern, are present in soil at four isolated locations with concentrations above TAGM 4046¹ recommended soil cleanup objectives outside of the Area of Concern (AOC), previously identified in the February 2007 IRM Work Plan and defined in the Order on Consent. Based on conversations at a meeting between NYSDEC and SMC on April 4, 2007, the AOC, per the Order on Consent, will be redefined to include the additional areas identified during the additional investigation, as shown in Figure 3. Additional PCB

¹ NYSDEC, Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046: Determination of Soil Cleanup Objectives and Cleanup Levels, dated January 24, 1994 and revised December 20, 2000

impacted soils will also be excavated and disposed of as part of the IRM activities and is shown in Figure 4.

Figures 4 identifies five (5) separate areas to be excavated as part of the IRM and they are as follows.



Excavation 1: This is the 6,400 square foot area previously defined in the February 2007 IRM Work Plan.

Excavation 2: This is an approximate 20 foot (east-west) by 10 foot (north-south) by 7 foot deep excavation in the vicinity of SP-47.

Excavation 3: This is an approximate 20 foot (east-west) by 20 foot (north-south) by 6 foot deep excavation in the vicinity of SP-52.

Excavation 4: This is an approximate 20 foot (east-west) by 20 foot (north-south) by 2 foot deep excavation in the vicinity of SP-50.

Excavation 5: This is an approximate 10 foot long (east-west) by 6-inch deep excavation along the bottom of the drainage swale on the north side of Willowbrook Avenue in the vicinity of surface soil sample SS-1.

The procedures and protocols discussed in the February 2007 IRM Work Plan associated with the excavation and disposal of soil, field screening, confirmatory sampling, backfilling of excavations, health and safety, monitoring and reporting will be followed for the additional four excavation areas (Excavation 2 through 5) to be addressed.

The soil excavated from the four additional areas identified will be disposed of as hazardous waste at the landfill facility operated by CWM Chemical Services in Model City, NY (CMW).

It should be noted that additional delineation work (soil sampling) of the drainage swale along Willowbrook Avenue, in the vicinity of SS-1, will be completed during the Remedial Investigation activities. The work to be conducted as part of the IRM work will address the elevated levels detected in the immediate vicinity of SS-1.

The IRM activities are scheduled to begin on April 9, 2007 in the vicinity of Excavation 1 and should take approximately one week to complete. Upon completion of Excavation 1, soil removal activities will continue on to Excavations 2 through 5. Please confirm our understanding from the April 4th meeting that SMC has the Department's approval to perform this additional IRM work under the terms of the referenced Order on Consent.

Please do not hesitate to contact the undersigned if you have any questions or require any additional information.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK



Cliff Boron

Christopher Boron
Project Manager

Bart A. Hanna, P.E.

Ernest R. Hanna, P.E.
Principal

Attachments: Table 1 and 2
Figures 1 through 4

cc: Mr. Martin Doster (NYSDEC)
Mr. Joseph J. Hausbeck, Esq. (NYSDEC)
Mr. Gary Litwin (NYSDOH)
Mr. Dave Murray (PCC) – electronic version
Mr. Robert DiFondi (SMC) – electronic version
Mr. Barry Kogut (BS&K) – electronic version

Table 1
Summary of Soil Probe Soil Sample Analytical Results
Special Metals Corporation
Dunkirk, New York
Site # 907031

Sample Location	TAGM #4046	Published Background ¹⁰	SP-29 3/15/2007 0 - 2	SP-29 3/15/2007 8 - 10.5	SP-30 3/15/2007 1 - 3	SP-31 3/15/2007 0 - 2	SP-32 3/15/2007 1 - 4	SP-34 3/15/2007 0 - 4	SP-36 3/15/2007 0 - 4	SP-38 3/25/2007 0 - 4	SP-39 3/15/2007 0 - 2	SP-41 3/15/2007 0 - 4	SP-42 3/15/2007 3 - 5	SP-43 3/15/2007 5 - 8	SP-44 3/15/2007 2 - 4	SP-45 3/15/2007 8 - 12	SP-46 3/15/2007 4 - 8	SP-46 3/15/2007 0 - 4	
Sample Date	TAGM #4046	Published Background ¹⁰	SP-29 3/15/2007 0 - 2	SP-29 3/15/2007 8 - 10.5	SP-30 3/15/2007 1 - 3	SP-31 3/15/2007 0 - 2	SP-32 3/15/2007 1 - 4	SP-34 3/15/2007 0 - 4	SP-36 3/15/2007 0 - 4	SP-38 3/25/2007 0 - 4	SP-39 3/15/2007 0 - 2	SP-41 3/15/2007 0 - 4	SP-42 3/15/2007 3 - 5	SP-43 3/15/2007 5 - 8	SP-44 3/15/2007 2 - 4	SP-45 3/15/2007 8 - 12	SP-46 3/15/2007 4 - 8	SP-46 3/15/2007 0 - 4	
Volatile Organics (ng/kg)																			
Acetone	200	NV	NT		NT	NT	NT	100	NT	NT	NT								
Carbon disulfide	2,700	NV	NT		NT	NT	NT												
Methylene Chloride	100	NV	NT	2 J	NT	NT	NT		NT	NT	NT								
trans-1,2-Dichloroethene	300	NV	NT		NT	NT	NT		NT	NT	NT	NT	NT	NT	4 J		NT	NT	
2-Butanone	300	NV	NT		NT	NT	NT		NT	NT	NT								
cis-1,2-Dichloroethene	NV	NV	NT		NT	NT	NT		NT	NT	NT	NT	NT	NT	150		NT	NT	
Chloroform	300	NV	NT		NT	NT	NT		NT	NT	NT	NT	NT	NT	7		NT	NT	
Trichloroethene	700	NV	NT		NT	NT	NT		NT	NT	NT	NT	NT	I J	NT	5,400 E		NT	
Toluene	1,500	NV	NT		NT	NT	NT	4 J	NT	NT	NT	NT	NT	NT	23 J	1 J	3 J	NT	
Tetrachloroethene	1,400	NV	NT		NT	NT	NT		NT	NT	NT								
Chlorobenzene	1,700	NV	NT		NT	NT	NT		NT	NT	NT								
Total Xylene	1,200	NV	NT	1 J	NT	NT	NT	2 J	NT	NT	NT	NT	NT	NT	13 J		NT	NT	
Isopropylbenzene	2,300	NV	NT		NT	NT	NT		NT	NT	NT								
1,4-Dichlorobenzene	8,500	NV	NT		NT	NT	NT		NT	NT	NT								
Methylcyclohexane	NV	NV	NT		NT	NT	NT		NT	NT	NT								
Semi-Volatile Organics (ng/kg)																			
4-Methylphenol	900	NV	NT			NT	NT		NT	NT		49 J		NT	NT			NT	
2,4-Dimethylphenol	NV	NV	NT			NT	NT		NT	NT		67 J		NT	NT			NT	
Naphthalene	13,000	NV	NT	82 J		NT	NT	46 J	NT	40 J	NT	NT	700		NT	NT		NT	
2-Methylnaphthalene	36,400	NV	NT	450		NT	NT		NT	NT		800		NT	NT			NT	
Acenaphthylene	41,000	NV	NT			NT	NT		NT	NT		52 J	83 J	NT	NT	NT	NT	NT	
Acenaphthene	50,000	NV	NT	180 J		NT	NT		NT	NT		65 J		NT	NT			NT	
Dibenzofuran	6,200	NV	NT	110 J		NT	NT		NT	NT		260 J		NT	NT			NT	
Fluorene	50,000	NV	NT	200 J		NT	NT		NT	NT		94 J		NT	NT			NT	
Phenanthrene	50,000	NV	NT	590		NT	NT	280 J	NT	92 J	NT	NT	97 J	980		NT	NT	NT	
Anthracene	50,000	NV	NT	55 J		NT	NT	99 J	NT	54 J	NT	NT	79 J	280 J		NT	NT	NT	
Carbazole	NV	NV	NT			NT	NT		NT	NT		96 J		NT	NT			NT	
Fluoranthene	50,000	NV	NT			NT	NT	370 J	NT	170 J	NT	NT	220 J	900	53 J	NT	NT	NT	
Pyrene	50,000	NV	NT	43 J		NT	NT	260 J	NT	140 J	NT	NT	200 J	760		NT	NT	NT	
Benz(a)anthracene	224 or MDL	NV	NT			NT	NT	140 J	NT	110 J	NT	NT	180 J	480		NT	NT	NT	
Chrysene	400	NV	NT			NT	NT	180 J	NT	160 J	NT	NT	180 J	500		NT	NT	69 J	
bis(2-Ethylhexyl)phthalate	50,000	NV	NT	2,900 B	2,500 B	NT	NT	3,600 B	NT	4,000 B	NT	NT	1,500 B	2,100 B	2,800 B	NT	980 B	2,400 B	1,600 B
Benz(b)fluoranthene	1,100	NV	NT			NT	NT	170 J	NT	170 J	NT	NT	180 J	340 J		NT	NT		
Benz(k)fluoranthene	1,100	NV	NT			NT	NT	87 J	NT	110 J	NT	NT	220 J	370 J		NT	NT		
Benz(a)pyrene	61 or MDL	NV	NT		100 J	NT	NT	130 J	NT	110 J	NT	NT	150 J	350 J		NT	NT		
Indeno[1,2,3-cd]pyrene	3,200	NV	NT			NT	NT	85 J	NT	80 J	NT	NT	90 J	210 J		NT	NT		
Dibenzo(a,h)anthracene	14 or MDL	NV	NT			NT	NT		NT	NT		110 J	NT	93 J		NT	NT		
Benz(g,h,i)perylene	50,000	NV	NT			NT	NT		110 J	NT	93 J	NT	NT	100 J	280 J	42 J	NT	NT	
1,1'-Biphenyl	NV	NV	NT	120 J		NT	NT		NT	NT		NT	NT	82 J		NT	NT		
Benzaldehyde	NV	NV	NT			NT	NT	150 J	NT		NT	NT	400 J		NT	NT		NT	

Notes:

1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank indicates compound was not detected.
3. NT indicates compound was not tested.
4. Analytical testing completed by Mitkem Corporation.
5. Results presented for SP-29, 0 to 2 ft (PCBs only) and SP-60, 0 - 4 ft are the higher of these samples and their respective duplicates.
6. Q = laboratory qualifier.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
9. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
10. NV = no value; SB = site background; MDL = method detection limit
11. Concentrations that are bold exceed RSCO.

Table 1
Summary of Soil Probe Soil Sample Analytical Results
Special Metals Corporation
Dunkirk, New York
Site # 907031

Sample Location Sample Date Sample Depth (ft bgs)	TAGM #4046 RSCO ⁹	Published Background ¹⁰	SP-29 3/15/2007 0 - 2	SP-29 3/15/2007 8 - 10.5	SP-30 3/15/2007 1 - 3	SP-31 3/15/2007 0 - 2	SP-32 3/15/2007 1 - 4	SP-34 3/15/07 0 - 4	SP-34 3/15/2007 4 - 6	SP-36 3/15/2007 0 - 4	SP-38 3/15/2007 0 - 4	SP-39 3/15/2007 0 - 2	SP-39 3/15/2007 0 - 4	SP-41 3/15/2007 3 - 5	SP-41 3/15/2007 5 - 8	SP-42 3/15/2007 2 - 4	SP-43 3/15/2007 2 - 4	SP-44 3/15/2007 2 - 6	SP-44 3/15/2007 8 - 12	SP-45 3/15/2007 4 - 8	SP-46 3/15/2007 0 - 4		
PCB (ng/kg)																							
Aroclor-1242	NV	NV																					
Aroclor-1248	NV	NV	89																	70			
Aroclor-1254	NV	NV					56																
Aroclor-1260	NV	NV																					
Total PCBs	10,000	NV	89	0	0	56	0	0	0		0				293	0	0	0	0	70			
Inorganics (mg/kg)																							
Aluminum	SB	33,000	13,100	8,610		NT	NT	10,300	NT	9,710	NT	NT	NT	NT	NT	10,600	13,200	9,220	12,200	12,400			
Antimony	SB	NV	1.3	N		NT	NT			NT	NT	NT	NT	NT	NT	1.4	N	3.6	N	2.3	N		
Arsenic	7.5 or SB	3-12	11.4	E	10.4	E	NT	NT	17.4	E	NT	12.7	E	NT	NT	14.5	E	11.6	E	9.9	E		
Barium	300 or SB	15-600	67.7	E	75.2	E	NT	NT	84.4	E	NT	193	E	NT	NT	116	E	245	E	50	E		
Beryllium	0.16 or SB	0-1.75	0.55		0.42		NT	NT	0.41	NT	0.41	NT	NT	NT	NT	0.54		0.54		0.49			
Cadmium	I or SB	0.1-1	1.1		1	NT	NT	1.7	NT	1.4	NT	NT	NT	NT	NT	1.5		1.7		1			
Calcium	SB	130-35,000	3,010	*	32,400	*	NT	NT	6,640	*	NT	21,100	*	NT	NT	NT	2,720	*	239	*	516	*	
Chromium	10 or SB	1.5-40	43.8	*	13.5	*	NT	NT	2,260	*	NT	494	*	NT	NT	NT	34.9	*	23.2	*	14.4	*	
Cobalt	30 or SB	2.5-60	13.2	E	11.1	E	NT	NT	69.7	E	NT	67.3	E	NT	NT	NT	18.6	E	14.9	E	12.5	E	
Copper	25 or SB	1-50	18.9	*	27.4	*	NT	NT	99.4	*	NT	110	*	NT	NT	NT	34.6	*	41.6	*	42.8	*	
Iron	2,000 or SB	2,000-550,000	27,500	E	22,900	E	NT	NT	42,300	E	NT	30,600	E	NT	NT	NT	29,300	E	42,400	E	25,900	E	
Lead	SB	20-500 ¹⁰	19.8	E	10	E	NT	NT	33.2	E	NT	23	E	NT	NT	NT	17.1	E	17.8	E	11.8	E	
Magnesium	SB	100-5,000	2,410	E	10,100	E	NT	NT	3,910	E	NT	5,790	E	NT	NT	NT	3,930	E	5,020	E	3,990	E	
Manganese	SB	50-5,000	166	*E	273	*E	NT	NT	532	*E	NT	489	*E	NT	NT	NT	709	*E	164	*E	173	*E	
Mercury	0.1	0.001-0.2	0.012	B	0.011	B	NT	NT	0.034	B	NT	0.019	B	NT	NT	NT	0.017	B	0.009	B	0.016	B	
Nickel	13 or SB	0.5-25	31.9	*E	26.2	*E	NT	NT	1,180	*E	NT	389	*E	NT	NT	NT	50.5	*E	29.3	*E	32.9	*E	
Potassium	SB	8,500-43,000	571		1,600		NT	NT	NT		874		1,040		NT	NT	NT	799		1,230		1,230	
Selenium	2 or SB	0.1-3.9				NT	NT			NT		NT		NT	NT	NT	NT						
Silver	SB	NV				NT	NT			NT		NT		NT	NT	NT	NT						
Sodium	SB	6,000-8,000	521		157		NT	NT	88.8		NT	260		NT	NT	NT	46.9		47.5		53.5		
Thallium	SB	NV	1.1		0.54	B	NT	NT			NT	0.62	B	NT	NT	NT	0.86				0.75	B	
Vanadium	150 or SB	1-300	27.1	N*	16.5	N*	NT	NT	94.1	N*	NT	68.1	N*	NT	NT	NT	22.1	N*	21.4	N*	16.1	N*	
Zinc	20 or SB	9-50	62.4	E	65.6	E	NT	NT	80.4	E	NT	77.9	E	NT	NT	NT	74.6	E	49.6	E	114	E	

Notes:

1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank indicates compound was not detected.
3. NT indicates compound was not tested.
4. Analytical testing completed by Mitkem Corporation.
5. Results presented for SP-29, 0 to 2 ft (PCBs only) and SP-60, 0 - 4 ft are the higher of these samples and their respective duplicates.
6. Q = laboratory qualifier.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
9. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
10. NV = no value; SB = site background; MDL = method detection limit
11. Concentrations that are bold exceed RSCO.

Table 2
Summary of Surface Soil Sample Analytical Results
Special Metals Corporation
Dunkirk, New York
Site # 907031

Sample Location	TAGM #4046 RSCO ⁹	Published Background ¹⁰	SS-1 3/16/2007 0 - 0.25	SS-2 3/16/2007 0 - 0.25	SS-3 3/16/2007 0 - 0.25	SS-4 3/16/2007 0 - 0.25	SS-5 3/16/2007 0 - 0.25	
Sample Date			Q	Q	Q	Q	Q	
Volatile Organics (ug/kg)								
Semi-Volatile Organics (ug/kg)								
4-Methylphenol	900	NV		83	J	540	J	
Acenaphthylene	41,000	NV	920	J	170	J	380	J
Acenaphthene	50,000	NV	180	J				
Dibenzofuran	6,200	NV	400	J				
Fluorene	50,000	NV	1,300	J				
Phenanthrene	50,000	NV	9,800		360	J	1,000	J
Anthracene	50,000	NV	2,000		190	J	540	J
Carbazole	NV	NV	710	J				
Fluoranthene	50,000	NV	16,000		1,300		3,600	
Pyrene	50,000	NV	9,300		890		2,400	
Benzo(a)anthracene	224 or MDL	NV	5,400		450		1,400	J
Chrysene	400	NV	5,000		620		1,900	
bis(2-Ethylhexyl)phthalate	50,000	NV	700	J	390	J	2,000	
Benzo(b)fluoranthene	1,100	NV	7,300		540		1,500	
Benzo(k)fluoranthene	1,100	NV	3,600		570		2,500	
Benzo(a)pyrene	61 or MDL	NV	4,800		610		1,700	
Indeno[1,2,3-cd]pyrene	3,200	NV	2,800		430		1,400	J
Dibenzo(a,h)anthracene	14 or MDL	NV	1,200	J	130	J	540	J
Benzo(g,h,i)perylene	50,000	NV	3,400		480		1,900	
Benzaldehyde	NV	NV			190	J	1,300	J
PCB (ug/kg)								
Aroclor-1248	NV	NV	12,000		44	P		
Total PCBs	1,000	NV	12,000		44	0	420	450
Inorganics (mg/kg)								
Aluminum	SB	33,000	20,900		8,640		14,300	
Antimony	SB	NV						
Arsenic	7.5 or SB	3-12	22	*E	10.7	*E	14.8	*E
Barium	300 or SB	15-600						
Beryllium	0.16 or SB	0-1.75	1.5		0.48		0.71	B
Cadmium	1 or SB	0.1-1	2.1		0.86		2.4	
Calcium	SB	130-35,000	16,700	*	2,450	*	12,400	*
Chromium	10 or SB	1.5-40	726	N*	36.1	N*	145	N*
Cobalt	30 or SB	2.5-60	54	E	15.1	E	46	E
Copper	25 or SB	1-50	92.6		29.4		88.8	
Iron	2,000 or SB	2,000-550,000	35,300	E	17,700	E	32,400	E
Lead	SB	20-500 ¹⁰	104	E	32.4	E	79.6	E
Magnesium	SB	100-5,000	8,090	E	2,550	E	4,080	E
Manganese	SB	50-5,000	745	*	353	*	276	*
Mercury	0.1	0.001-0.2	0.21		0.04	B	0.11	B
Nickel	13 or SB	0.5-25	504	N*E	66.8	N*E	308	N*E
Potassium	SB	8,500-43,000	2,160		796		1,710	
Selenium	2 or SB	0.1-3.9	6.7		2.9		12.2	
Silver	SB	NV						
Sodium	SB	6,000-8,000	397		371		1,080	
Thallium	SB	NV	0.62	B	0.17	B	1.5	B
Vanadium	SB	150 or SB	1-300		46.6		18	
Zinc	SB	20 or SB	9-50		613	E	140	E
							1,030	E
							65.7	E
							94.3	E

Notes:

- Only compounds detected in one or more soil samples are presented in this table.
- Blank indicates compound was not detected.
- NT indicates compound was not tested.
- Analytical testing completed by Mitkem Corporation.
- Results presented for SS-4 are the higher of this sample and its respective duplicate.
- Q = laboratory qualifier.
- ug/kg = parts per billion, mg/kg = parts per million.
- TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
- Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
- NV = no value; SB = site background; MDL = method detection limit
- Concentrations that are bold exceed RSCO.

DRAFT

Page 1 of 1







