SIRRINE

June 29, 1990

VIA FEDERAL EXPRESS

Mr. Jon Bornholm, Project Manager
U.S. Environmental Protection Agency,
Region IV
345 Courtland Street
Atlanta, Georgia 30365

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JUL 2 1990
EPA – REGION IV
ATLANTA, GA.

Re: Medley Farm Site RI/FS
Revised Inorganics Summary Tables
Sirrine Job No. G-8026

Dear Mr. Bornholm:

Attached are revised summary tables for inorganics data obtained during the Phase I Remedial Investigation at the Medley Farm Site. The tables have been augmented to include all inorganic compounds analyzed for during the RI and their detected concentrations. As a reminder, complete analytical results are included in Volume II, Appendix I of the Draft RI report.

As always, let us know when we can be of assistance to you.

Sirrine Environmental Consultants, Inc.

Sincerely,

James S. Chamness, P.G.
Project Manager

cc: Medley Farm Site PRP Steering Committee

TABLE 5.4

COMPARISON OF BACKGROUND CONCENTRATIONS (mg/kg) OF INORGANICS IN SOIL AT THE MEDLEY FARM SITE WITH COMMONLY OCCURRING RANGES

	PHASE IA TEST PITS								COMMON RANGE OF ELEMENTS IN SOIL - LINDSAY (1979)		
INORGANICS	TP1	TP2	TP3	TP4	TP5	TP7	TP9	TP10	RANGE	SELECTED AVERAGE	ELEMENT CONC. IN SOILS - EASTERN U.S. - USGS (1984)
Ag	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	0.01-5	0.05	–
Al	21,000(b)	13,700(b)	13,900(b)	10,300(b)	7830(b)	12,200(b)	20,200	16,300(b)	10,000-300,000	71,000	4.7%
As	30.6	9.8	20.2	19.8	BDL(a)	28.3	41.1	13.8	1-50	5	5.2
Ba	58	315	BDL(a)	BDL(a)	105	86.9	72.8	272	100-3,000	430	440
Ca	BDL(a)	1040	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	7,000-500,000	13,700	0.92%
Cd	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	0.01-0.70	0.06	–
Co	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	1-40	8	6.7
Cr	6.2	9.3	BDL(a)	7.6	6.8	7.3	7.4	6.1	1-1,000	100	37
Cu	BDL(a)	10.9	7.9	8.7	5.2	10.8	9.2	15.9	2-100	30	17
Fe	26,500(b)	17,400(b)	9450(b)	10,500(b)	6560(b)	10300(b)	13,200	18,400(b)	7,000-550,000	38,000	1.8%
Hg	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	0.01-0.30	0.03	0.058
K	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	200-5,000	600	1.5%
Mg	BDL(a)	BDL(a)	324	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	600-6,000	5,000	0.44%
Mn	77(b)	152(b)	75.5(b)	86.8(b)	214(b)	242(a)	133	137(b)	20-3,000	600	330
Na	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	BDL(a)	750-7,500	6,300	0.59%
Ni	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(a)	BDL(c)	5-500	40	13
Pb	14.3	6.9	27.4	35	27.4	21.2	23.6	21.3	2-200	10	16
Sb	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	–	–	0.48
Se	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	0.43	BDL(a)	0.1-2	0.3	0.26
Tl	BDL(c)	BDL(a)	BDL(c)	BDL(c)	3.5	BDL(c)	BDL(c)	BDL(c)	–	–	–
V	42.8	25.2	18.4	19.8	14.2	20.7	27.6	30.7	20-500	100	58
Zn	25	124	12.6	16.8	20.1	31.8	34.4	67.3	10-300	50	48
Cyanide	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	BDL(c)	1	0.66	–	–	–

a Below Contract Required Detection Limits.
b Estimated Result.
c Below Instrument Detection Limit.

TABLE 5.5

COMPARISON OF BACKGROUND CONCENTRATIONS (mg/kg) OF INORGANICS IN SOIL AT THE MEDLEY FARM SITE WITH COMMONLY OCCURRING RANGES

	BACKGROUND SOIL SAMPLES (Soil Boring SB1)			COMMON RANGE OF ELEMENTS IN SOIL - LINDSAY (1979)		
INORGANICS	SB1-S1 (5-7 ft.)	SB1-S3 (15-17 ft.)	SB1-S5 (25-27 ft.)	RANGE	SELECTED AVERAGE	ELEMENT CONC. IN SOILS - EASTERN U.S. - USGS (1984)
Ag	BDL (c)	BDL (c)	BDL (c)	0.01-5	0.05	-
Al	33,300	19,300	28,700	10,000-300,000	71,000	4.7%
As	17.6	14.2	21.4	1-50	5	5.2
Ba	BDL (a)	54.7	98	100-3,000	430	440
Be	BDL (a)	BDL (a)	1.3	0.1-40	6	0.63
Ca	BDL (a)	BDL (a)	BDL (a)	7,000-500,000	13,700	0.92%
Cd	BDL (a)	1.1	1.3	0.01-0.70	0.06	-
Co	BDL (a)	BDL (a)	13	1-40	8	6.7
Cr	10	5	BDL (a)	1-1,000	100	37
Cu	16 (b)	9.6 (b)	11.4 (b)	2-100	30	17
Fe	23,400	16,000	23,500	7,000-550,000	38,000	1.8%
Hg	BDL (c)	BDL (c)	BDL (c)	0.01-0.30	0.03	0.058
K	1,560	1,090	4,190	200-5,000	600	1.5%
Mg	1,480	1,870	5,610	600-6,000	5,000	0.44%
Mn	94.7	247	1,060	20-3,000	600	330
Na	BDL (c)	BDL (c)	BDL (c)	750-7,500	6,300	0.59%
Ni	BDL (a)	BDL (a)	BDL (a)	5-500	40	13
Pb	17.7	19.8	18.7	2-200	10	16
Sb	34.3	23.7	BDL (a)	-	-	0.48
Se	BDL (c)	BDL (c)	BDL (c)	0.1-2	0.3	0.26
Tl	BDL (c)	BDL (c)	BDL (c)	-	-	-
V	38.1(b)	23.2 (b)	23.4 (b)	20-500	100	58
Zn	23.6	25.4	65.4	10-300	50	48

a Below Contract Required Detection Limits.
b Estimated Result.
c Below Instrument Detection Limit.

TABLE 5.7

MEDLEY FARM SITE RI
COMPARISON OF INORGANICS CONCENTRATIONS (ug/L) IN GROUND WATER (SAPROLITE)

INORGANICS	SW1 (BACKGROUND)	SW3	SW4	EPA DRINKING WATER REGULATIONS MCLs (ug/L)
Ag	BDL (c)	20.2	BDL (c)	50 (d)
Al	189,000	11,800	41,400	–
As	65.6	BDL (c)	BDL (c)	50 (d)
Ba	1,690	BDL (b)	592	1,000 (d)
Be	14.2	BDL (b)	6	–
Ca	34,100	8,490	18,500	–
Cd	7	BDL (c)	BDL (c)	10 (d)
Co	183	BDL (b)	BDL (b)	–
Cr	97.8	12.7	20.8	50 (d)
Cu	307	45.2	BDL (c)	1,000 (e)
Fe	266,000	14,600	24.3	300 (e)
Hg	BDL (c)	BDL (c)	BDL (c)	2 (d)
K	105,000	6,180	9,100	–
Mg	143,000	6,150	24,300	–
Mn	10,700	794	3,210	50 (e)
Na	BDL (b)	9,930	12,600	–
Ni	116	BDL (c)	BDL (b)	–
Pb	45.8	5.3	24.3	50 (d)
Sb	492	BDL (c)	BDL (c)	–
Se	BDL (c)	BDL (c)	BDL (c)	10 (d)
Tl	BDL (b)	BDL (c)	BDL (c)	–
V	305	BDL (b)	72.3	–
Zn	1,290	19 (a)	884 (a)	5,000 (e)

a Estimated Result.
b Below Contract Required Detection Limit.
c Below Instrument Detection Limit.
d Primary Maximum Contaminant Level.
e Secondary MCL for Public Water Systems.

TABLE 5.8

MEDLEY FARM SITE RI
COMPARISON OF INORGANICS CONCENTRATIONS (ug/L) IN GROUND WATER (BEDROCK)

INORGANICS	BW1 (BACKGROUND)	BW2	BW4	EPA DRINKING WATER REGULATIONS MCLs (ug/L)
Ag	BDL (b)	BDL (c)	BDL (c)	50 (d)
Al	1,730	500	5,570	–
As	BDL (b)	BDL (c)	BDL (c)	50 (d)
Ba	BDL (b)	BDL (b)	BDL (b)	1,000 (d)
Be	BDL (c)	BDL (c)	BDL (c)	–
Ca	9,690	7,300	32,200	–
Cd	BDL (c)	10	BDL (c)	10 (d)
Co	BDL (b)	BDL (c)	BDL (b)	–
Cr	BDL (b)	BDL (c)	BDL (b)	50 (d)
Cu	BDL (b)	BDL (c)	BDL (c)	1,000 (e)
Fe	1,900	870	3,410	300 (e)
Hg	BDL (c)	BDL (c)	BDL (c)	2 (d)
K	BDL (b)	BDL (b)	BDL (c)	–
Mg	BDL (b)	BDL (b)	13,400	–
Mn	59.7	33	183	50 (e)
Na	10,700	8,400	12,900	–
Ni	BDL (c)	BDL (b)	BDL (c)	–
Pb	5.8	BDL (b)	BDL (c)	50 (d)
Sb	BDL (c)	BDL (c)	BDL (c)	–
Se	BDL (c)	BDL (c)	BDL (c)	10 (d)
Tl	BDL (c)	BDL (c)	BDL (c)	–
V	BDL (b)	BDL (c)	BDL (b)	–
Zn	BDL (b)	110	38.7 (a)	5,000 (e)

a Estimated Result.
b Below Contract Required Detection Limit.
c Below Instrument Detection Limit.
d Primary Maximum Contaminant Level.
e Secondary MCL for Public Water Systems.