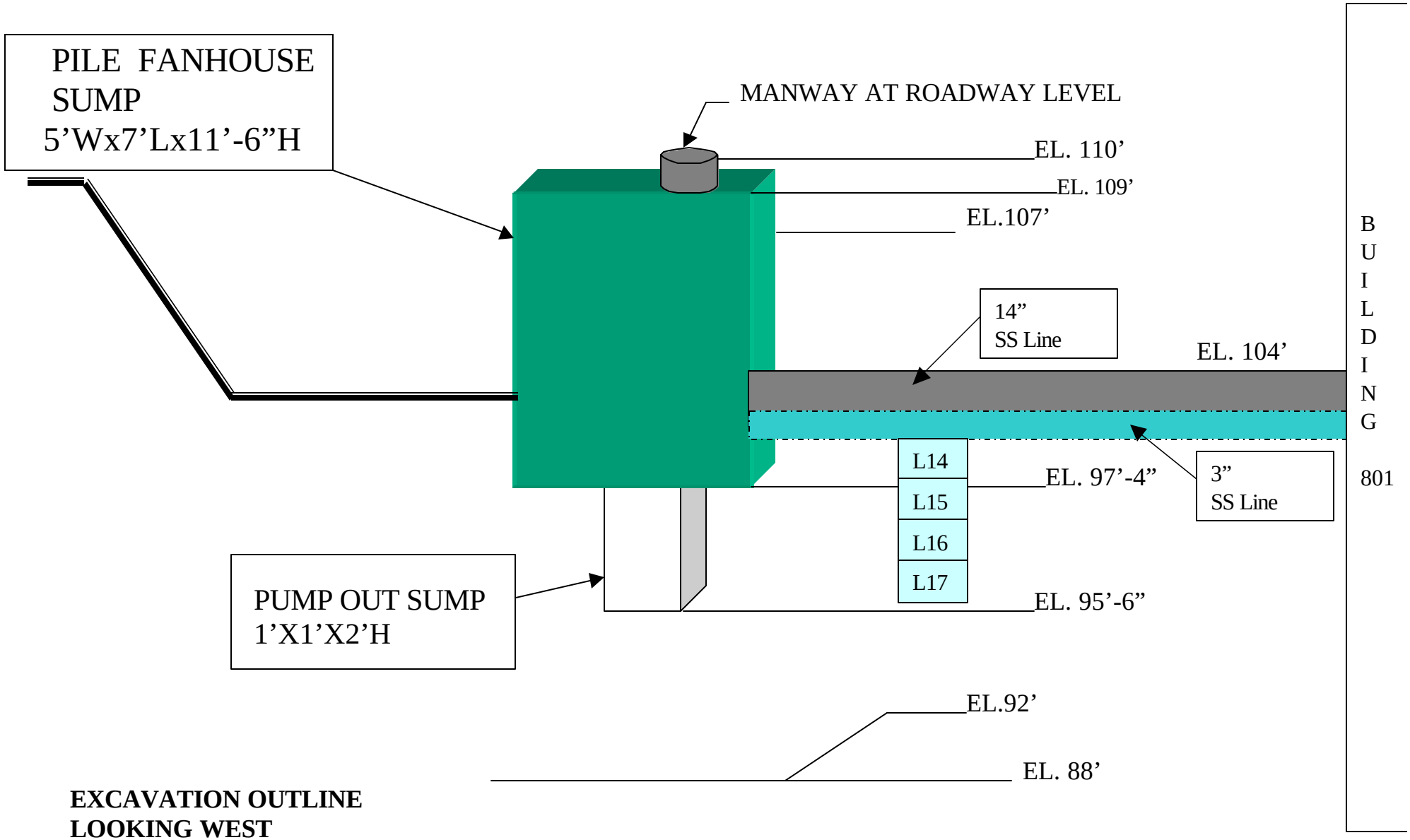
PFS Remediation -Final Verification Sampling

Data Package 4

COC #	SDG#	Sample Description	Sample Number	Location #
6451	23074	PFS, under 14&3" lines, 21' S of Bldg 801- 0-6"	065-004000306-36	L14
6451	23074	PFS, under 14&3" lines, 21' S of Bldg 801- 6-12"	065-005000306-36	L15
6451	23074	PFS, under 14&3" lines, 21' S of Bldg 801- 12-18"	065-006000306-36	L16
6451	23074	PFS, under 14&3" lines, 21' S of Bldg 801- 12-18"	065-006000306-31	L17



EXCAVATION OUTLINE
LOOKING WEST

NOT to SCALE

Data Package 4 Relative Soil Sample Locations L14 – L17

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0040
00306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 8A432

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/17/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	2.6	J
75-15-0	Carbon disulfide	5.2	U
75-09-2	Methylene chloride	1.3	JB
75-34-3	1,1-Dichloroethane	1.0	U
108-05-4	Vinyl acetate	5.2	U
78-93-3	2-Butanone	5.2	U
540-59-0	1,2-Dichloroethylene(total)	2.1	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.2	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.2	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
1330-20-7	Xylenes (total)	3.1	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0040
00306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 8A432

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/17/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

FORM I VOA OLM03.0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0050
00306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 8A438

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/17/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.2	U
75-15-0	Carbon disulfide	5.2	U
75-09-2	Methylene chloride	5.2	U
75-34-3	1,1-Dichloroethane	1.0	U
108-05-4	Vinyl acetate	5.2	U
78-93-3	2-Butanone	5.2	U
540-59-0	1,2-Dichloroethylene(total)	2.1	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.2	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.2	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
1330-20-7	Xylenes (total)	3.1	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0050
00306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 8A438

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/17/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0060
00306-31

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074008

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1B112

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/20/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-35-4	1,1-Dichloroethylene	1.0	U
67-64-1	Acetone	5.7	B
75-15-0	Carbon disulfide	5.2	U
75-09-2	Methylene chloride	5.2	U
75-34-3	1,1-Dichloroethane	1.0	U
108-05-4	Vinyl acetate	5.2	U
78-93-3	2-Butanone	5.2	U
540-59-0	1,2-Dichloroethylene(total)	2.1	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
71-43-2	Benzene	1.0	U
79-01-6	Trichloroethylene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropylene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.2	U
108-88-3	Toluene	1.0	U
10061-02-6	trans-1,3-Dichloropropylene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.2	U
127-18-4	Tetrachloroethylene	1.0	U
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
1330-20-7	Xylenes (total)	17.7	
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065-0060
00306-31

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074008

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1B112

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 4 Date Analyzed: 03/20/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065006000306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074007

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1B111

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 6 Date Analyzed: 03/20/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1.1	U
75-01-4	Vinyl chloride	1.1	U
74-83-9	Bromomethane	1.1	U
75-00-3	Chloroethane	1.1	U
75-35-4	1,1-Dichloroethylene	1.1	U
67-64-1	Acetone	5.0	JB
75-15-0	Carbon disulfide	5.3	U
75-09-2	Methylene chloride	5.3	U
75-34-3	1,1-Dichloroethane	1.1	U
108-05-4	Vinyl acetate	5.3	U
78-93-3	2-Butanone	5.3	U
540-59-0	1,2-Dichloroethylene(total)	2.1	U
67-66-3	Chloroform	1.1	U
71-55-6	1,1,1-Trichloroethane	1.1	U
56-23-5	Carbon tetrachloride	1.1	U
107-06-2	1,2-Dichloroethane	1.1	U
71-43-2	Benzene	1.1	U
79-01-6	Trichloroethylene	1.1	U
78-87-5	1,2-Dichloropropane	1.1	U
75-27-4	Bromodichloromethane	1.1	U
10061-01-5	cis-1,3-Dichloropropylene	1.1	U
108-10-1	4-Methyl-2-pentanone	5.3	U
108-88-3	Toluene	1.1	U
10061-02-6	trans-1,3-Dichloropropylene	1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	U
591-78-6	2-Hexanone	5.3	U
127-18-4	Tetrachloroethylene	1.1	U
124-48-1	Dibromochloromethane	1.1	U
108-90-7	Chlorobenzene	1.1	U
100-41-4	Ethylbenzene	1.1	U
1330-20-7	Xylenes (total)	3.2	U
100-42-5	Styrene	1.1	U
75-25-2	Bromoform	1.1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

065006000306-36

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 23074

Matrix: (soil/water) SOIL Lab Sample ID: 23074007

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1B111

Level: (low/med) LOW Date Received: 03/08/00

% Moisture: not dec. 6 Date Analyzed: 03/20/00

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 23074 Method Type: SW 846

Sample ID: 23074005 Client ID: 065-004000306-36

Contract: BRKL00297 Lab Code: Case No.: SAS No.:

Matrix: SOIL Date Received: 3/8/00 Level: LOW % Solids: 95.70

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7429-90-5	Aluminum	1850	mg/kg			P	0.67	TJA61 Trace ICP1	32100
7440-36-0	Antimony	0.20	mg/kg	U		P	0.20	TJA61 Trace ICP1	32100
7440-38-2	Arsenic	0.49	mg/kg	B		P	0.22	TJA61 Trace ICP1	32100
7440-39-3	Barium	4.68	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-41-7	Beryllium	0.08	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-43-9	Cadmium	0.02	mg/kg	U		P	0.02	TJA61 Trace ICP1	32100
7440-70-2	Calcium	289	mg/kg	B	N	P	0.57	TJA61 Trace ICP1	32100
7440-47-3	Chromium	2.80	mg/kg			P	0.06	TJA61 Trace ICP1	32100
7440-48-4	Cobalt	0.74	mg/kg	B		P	0.07	TJA61 Trace ICP1	32100
7440-50-8	Copper	2.05	mg/kg	B		P	0.10	TJA61 Trace ICP1	32100
7439-89-6	Iron	2420	mg/kg			P	0.20	TJA61 Trace ICP1	32100
7439-92-1	Lead	2.89	mg/kg			P	0.11	TJA61 Trace ICP1	32100
7439-95-4	Magnesium	329	mg/kg	B	N	P	0.77	TJA61 Trace ICP1	32100
7439-96-5	Manganese	32.5	mg/kg		N	P	0.04	TJA61 Trace ICP1	32100
7439-97-6	Mercury	0.02	mg/kg	B		AV	0.01	PE CVAA	32000spHg
7440-02-0	Nickel	1.53	mg/kg	B		P	0.12	TJA61 Trace ICP1	32100
7440-09-7	Potassium	121	mg/kg	B		P	4.25	TJA61 Trace ICP1	32100
7782-49-2	Selenium	0.21	mg/kg	U		P	0.21	TJA61 Trace ICP1	32100
7440-22-4	Silver	0.11	mg/kg	U		P	0.11	TJA61 Trace ICP1	32100
7440-23-5	Sodium	36.3	mg/kg	B	N	P	0.72	TJA61 Trace ICP2	32400
7440-28-0	Thallium	0.37	mg/kg	U		P	0.37	TJA61 Trace ICP1	32100
7440-62-2	Vanadium	4.08	mg/kg	B		P	0.06	TJA61 Trace ICP1	32100
7440-66-6	Zinc	4.93	mg/kg		E	P	0.05	TJA61 Trace ICP1	32100

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 23074 Method Type: SW 846

Sample ID: 23074006 Client ID: 065-005000306-36

Contract: BRKL00297 Lab Code: Case No.: SAS No.:

Matrix: SOIL Date Received: 3/8/00 Level: LOW % Solids: 96.00

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7429-90-5	Aluminum	1230	mg/kg			P	0.64	TJA61 Trace ICP1	32100
7440-36-0	Antimony	0.19	mg/kg	U		P	0.19	TJA61 Trace ICP1	32100
7440-38-2	Arsenic	0.55	mg/kg	B		P	0.21	TJA61 Trace ICP1	32100
7440-39-3	Barium	4.01	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-41-7	Beryllium	0.07	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-43-9	Cadmium	0.02	mg/kg	U		P	0.02	TJA61 Trace ICP1	32100
7440-70-2	Calcium	188	mg/kg	B	N	P	0.55	TJA61 Trace ICP1	32100
7440-47-3	Chromium	1.94	mg/kg			P	0.06	TJA61 Trace ICP1	32100
7440-48-4	Cobalt	0.70	mg/kg	B		P	0.07	TJA61 Trace ICP1	32100
7440-50-8	Copper	1.81	mg/kg	B		P	0.10	TJA61 Trace ICP1	32100
7439-89-6	Iron	1710	mg/kg			P	0.20	TJA61 Trace ICP1	32100
7439-92-1	Lead	1.48	mg/kg			P	0.11	TJA61 Trace ICP1	32100
7439-95-4	Magnesium	312	mg/kg	B	N	P	0.74	TJA61 Trace ICP1	32100
7439-96-5	Manganese	33.4	mg/kg		N	P	0.03	TJA61 Trace ICP1	32100
7439-97-6	Mercury	0.05	mg/kg			AV	0.01	PE CVAA	32000spHg
7440-02-0	Nickel	1.22	mg/kg	B		P	0.11	TJA61 Trace ICP1	32100
7440-09-7	Potassium	130	mg/kg	B		P	4.12	TJA61 Trace ICP1	32100
7782-49-2	Selenium	0.21	mg/kg	U		P	0.21	TJA61 Trace ICP1	32100
7440-22-4	Silver	0.11	mg/kg	U		P	0.11	TJA61 Trace ICP1	32100
7440-23-5	Sodium	37.0	mg/kg	B	N	P	0.70	TJA61 Trace ICP2	32400
7440-28-0	Thallium	0.36	mg/kg	U		P	0.36	TJA61 Trace ICP1	32100
7440-62-2	Vanadium	2.84	mg/kg	B		P	0.06	TJA61 Trace ICP1	32100
7440-66-6	Zinc	4.96	mg/kg		E	P	0.05	TJA61 Trace ICP1	32100

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA PACKAGE

DG No.: 23074 Method Type: SW 846

Sample ID: 23074007 Client ID: 065006000306-36

Contract: BRKL00297 Lab Code: Case No.: SAS No.:

Matrix: SOIL Date Received: 3/8/00 Level: LOW % Solids: 94.30

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7429-90-5	Aluminum	1500	mg/kg			P	0.64	TJA61 Trace ICP1	32100
7440-36-0	Antimony	0.19	mg/kg	U		P	0.19	TJA61 Trace ICP1	32100
7440-38-2	Arsenic	0.72	mg/kg	B		P	0.21	TJA61 Trace ICP1	32100
7440-39-3	Barium	4.37	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-41-7	Beryllium	0.07	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-43-9	Cadmium	0.02	mg/kg	U		P	0.02	TJA61 Trace ICP1	32100
7440-70-2	Calcium	251	mg/kg	B	N	P	0.55	TJA61 Trace ICP1	32100
7440-47-3	Chromium	2.98	mg/kg			P	0.06	TJA61 Trace ICP1	32100
7440-48-4	Cobalt	0.59	mg/kg	B		P	0.07	TJA61 Trace ICP1	32100
7440-50-8	Copper	1.72	mg/kg	B		P	0.10	TJA61 Trace ICP1	32100
7439-89-6	Iron	1890	mg/kg			P	0.20	TJA61 Trace ICP1	32100
7439-92-1	Lead	3.60	mg/kg			P	0.11	TJA61 Trace ICP1	32100
7439-95-4	Magnesium	247	mg/kg	B	N	P	0.74	TJA61 Trace ICP1	32100
7439-96-5	Manganese	28.5	mg/kg		N	P	0.03	TJA61 Trace ICP1	32100
7439-97-6	Mercury	0.04	mg/kg			AV	0.01	PE CVAA	32000spHg
7440-02-0	Nickel	1.18	mg/kg	B		P	0.11	TJA61 Trace ICP1	32100
7440-09-7	Potassium	118	mg/kg	B		P	4.08	TJA61 Trace ICP1	32100
7782-49-2	Selenium	0.21	mg/kg	U		P	0.21	TJA61 Trace ICP1	32100
7440-22-4	Silver	0.10	mg/kg	U		P	0.10	TJA61 Trace ICP1	32100
7440-23-5	Sodium	44.1	mg/kg	B	N	P	0.69	TJA61 Trace ICP2	32400
7440-28-0	Thallium	0.35	mg/kg	U		P	0.35	TJA61 Trace ICP1	32100
7440-62-2	Vanadium	3.36	mg/kg	B		P	0.06	TJA61 Trace ICP1	32100
7440-66-6	Zinc	4.65	mg/kg		E	P	0.05	TJA61 Trace ICP1	32100

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL METALS

INORGANIC ANALYSIS DATA PACKAGE

SDG No.: 23074 Method Type: SW 846

Sample ID: 23074008 Client ID: 065-006000306-31

Contract: BRKL00297 Lab Code: Case No.: SAS No.:

Matrix: SOIL Date Received: 3/8/00 Level: LOW % Solids: 95.60

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7429-90-5	Aluminum	1810	mg/kg			P	0.65	TJA61 Trace ICP1	32100
7440-36-0	Antimony	0.20	mg/kg	U		P	0.20	TJA61 Trace ICP1	32100
7440-38-2	Arsenic	0.66	mg/kg	B		P	0.21	TJA61 Trace ICP1	32100
7440-39-3	Barium	5.40	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-41-7	Beryllium	0.08	mg/kg	B		P	0.02	TJA61 Trace ICP1	32100
7440-43-9	Cadmium	0.02	mg/kg	U		P	0.02	TJA61 Trace ICP1	32100
7440-70-2	Calcium	326	mg/kg	B	N	P	0.56	TJA61 Trace ICP1	32100
7440-47-3	Chromium	2.91	mg/kg			P	0.06	TJA61 Trace ICP1	32100
7440-48-4	Cobalt	0.77	mg/kg	B		P	0.07	TJA61 Trace ICP1	32100
7440-50-8	Copper	2.00	mg/kg	B		P	0.10	TJA61 Trace ICP1	32100
7439-89-6	Iron	2320	mg/kg			P	0.20	TJA61 Trace ICP1	32100
7439-92-1	Lead	3.25	mg/kg			P	0.11	TJA61 Trace ICP1	32100
7439-95-4	Magnesium	328	mg/kg	B	N	P	0.75	TJA61 Trace ICP1	32100
7439-96-5	Manganese	35.5	mg/kg		N	P	0.03	TJA61 Trace ICP1	32100
7439-97-6	Mercury	0.03	mg/kg	B		AV	0.01	PE CVAA	32000spHg
7440-02-0	Nickel	1.63	mg/kg	B		P	0.12	TJA61 Trace ICP1	32100
7440-09-7	Potassium	143	mg/kg	B		P	4.18	TJA61 Trace ICP1	32100
7782-49-2	Selenium	0.21	mg/kg	U		P	0.21	TJA61 Trace ICP1	32100
7440-22-4	Silver	0.11	mg/kg	U		P	0.11	TJA61 Trace ICP1	32100
7440-23-5	Sodium	52.9	mg/kg	B	N	P	0.71	TJA61 Trace ICP2	32400
7440-28-0	Thallium	0.36	mg/kg	U		P	0.36	TJA61 Trace ICP1	32100
7440-62-2	Vanadium	3.83	mg/kg	B		P	0.06	TJA61 Trace ICP1	32100
7440-66-6	Zinc	5.15	mg/kg		E	P	0.05	TJA61 Trace ICP1	32100

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID:	065-004000306-36	Project:	BRKL00297
Sample ID:	23074001	Client ID:	BRKL001
Matrix:	Soil	COC:	6451
Collect Date:	06-MAR-00 14:17		
Receive Date:	08-MAR-00 10:00		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	U	0.00727	+/-0.0146	0.0218	1.00	pCi/g	1	MTE	03/29/00	1533	16918	1
Alphaspec Pu, solid												
Plutonium-238 4/18/2000	UJK	-0.0164	+/-0.0761	0.212	6.60	pCi/g	1	MTE	03/29/00	1602	16919	2
Plutonium-239/240 4/18/2000	UJK	-0.00601	+/-0.0317	0.117	4.00	pCi/g	1					
Alphaspec Th, solid												
Thorium-228		0.503	+/-0.137	0.0877	1.00	pCi/g	1	MTE	03/30/00	2104	16920	3
Thorium-230		0.266	+/-0.094	0.0796	1.00	pCi/g	1					
Thorium-232		0.370	+/-0.108	0.0373	1.00	pCi/g	1					
Alphaspec U, solid												
Uranium-233/234		0.134	+/-0.0863	0.0793	0.900	pCi/g	1	MTE	03/29/00	1730	16921	4
Uranium-235/236	U	0.0225	+/-0.0368	0.0675	0.900	pCi/g	1					
Uranium-238		0.201	+/-0.105	0.0673	0.900	pCi/g	1					
Rad Gamma Spec												
Gamma I129, solid												
Iodine-129	U	-0.0811	+/-0.184	0.229	1.00	pCi/g	1	SRB	03/27/00	1656	17256	5
Gammaspec, Gamma, solid												
Americium-241	U	-0.00393	+/-0.0167	0.0294	4.00	pCi/g	1	SRB	03/23/00	1726	17079	6
Beryllium-7	UJ	0.139	+/-0.144	0.200	1.00	pCi/g	1					
Cesium-134	U	0.00454	+/-0.0113	0.0196	0.100	pCi/g	1					
Cesium-137	U	0.00559	+/-0.0212	0.0221	2.30	pCi/g	1					
Cobalt-57	U	0.000342	+/-0.00658	0.0126	0.100	pCi/g	1					
Cobalt-60	U	0.00891	+/-0.0127	0.0257	0.100	pCi/g	1					
Europium-152	U	-0.0009	+/-0.0299	0.0538	4.80	pCi/g	1					
Europium-154	U	0.025	+/-0.0324	0.0668	17.0	pCi/g	1					
Europium-155	UJ	0.0296	+/-0.0475	0.0536	0.200	pCi/g	1					
Manganese-54	U	0.00639	+/-0.0118	0.023	0.100	pCi/g	1					
Radium-226		0.272	+/-0.066	0.0414	1.00	pCi/g	1					
Sodium-22	U	0.00902	+/-0.0116	0.024	0.700	pCi/g	1					
Vanadium-48 4/16/2000	UJK	-0.0245	+/-0.0238	0.038	1.00	pCi/g	1					
Zinc-65	U	0.0019	+/-0.0258	0.0427	0.200	pCi/g	1					
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		2.20	+/-0.444	0.396	1.00	pCi/g	1	TMC	04/04/00	0017	17049	7
Beta		4.00	+/-0.651	0.920	1.00	pCi/g	1					
GFPC, Sr90, solid												

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-004000306-36
Sample ID: 23074001

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow												
GFPC, Sr90, solid												
Strontium-90	U	-0.444	+/-0.961	2.64	7.50	pCi/g	1	AAK	03/23/00	2123	17036	8
Rad Liquid Scint												
LSC, Tritium Dist, solid												
Tritium	UJ	3.41	+/-2.48	4.05	6.00	pCi/g	1	PD	03/21/00	1707	16885	9
Liquid Scint C14, solid												
Carbon-14	UJK	-0.0889	+/-0.124	0.221	1.00	pCi/g	1	KDA	03/21/00	2307	16888	10
Liquid Scint Ni63, solid	4/18/00											
Nickel-63	UJK	-0.945	+/-0.775	1.90	2.00	pCi/g	1	AEA	04/07/00	0029	16971	11
Liquid Scint Tc99, solid	4/18/00											
Technetium-99	U	-0.115	+/-0.447	1.12	5.00	pCi/g	1	ADD	03/28/00	1043	16974	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep EPI A-021,A-021B,A-026	TC1	03/16/00	1003	16600
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	TC1	03/15/00	1712	16488

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	DOE EML HASL 300
5	LANL EM-9
6	DOE EML HASL 300
7	EPA 900
8	EPA 905.0
9	EPA 906.0
10	EPA 504.1
11	DOE RESL Ni-1
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 11, 2000

Client Sample ID: 065-004000306-36
Sample ID: 23074001

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

** Indicates the analyte is a surrogate compound.
DL Failed required detection limit.

RI Not quantified due to interference.

U Sample result < .5*MDA and MDA <= RDL.
UJ .5*MDA < Sample result < MDA and MDA <= RDL.
UJ-Q Not quantified due to low abundance.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Nancy Slater at 843-556-8171 Ext. 4438.

Wanda C Jenrees
Reviewed by

GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-005000306-36
Sample ID: 23074002
Matrix: Soil
Collect Date: 06-MAR-00 14:20
Receive Date: 08-MAR-00 10:00
Collector: Client

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	U	0.0111	+/-0.0218	0.0454	1.00	pCi/g	1	MTE	03/29/00	1533	16918	1
Alphaspec Pu, solid												
Plutonium-238 4/18/00 WC	UJK	-0.0158	+/-0.0902	0.241	6.60	pCi/g	1	MTE	03/29/00	1602	16919	2
Plutonium-239/240 4/18/00 WC	UJK	-0.00678	+/-0.00966	0.0879	4.00	pCi/g	1					
Alphaspec Th, solid												
Thorium-228		0.300	+/-0.106	0.118	1.00	pCi/g	1	MTE	03/30/00	2109	16920	3
Thorium-230		0.202	+/-0.0721	0.0339	1.00	pCi/g	1					
Thorium-232		0.177	+/-0.0678	0.0412	1.00	pCi/g	1					
Alphaspec U, solid												
Uranium-233/234		0.173	+/-0.103	0.123	0.900	pCi/g	1	MTE	03/29/00	1730	16921	4
Uranium-235/236	U	0.000501	+/-0.0278	0.0947	0.900	pCi/g	1					
Uranium-238		0.163	+/-0.0961	0.0944	0.900	pCi/g	1					
Rad Gamma Spec												
Gamma I129, solid												
Iodine-129	U	0.131	+/-0.177	0.272	1.00	pCi/g	1	SRB	03/27/00	1745	17256	5
Gammaspec, Gamma, solid												
Americium-241	U	0.0631	+/-0.0906	0.159	4.00	pCi/g	1	SRB	03/23/00	1727	17079	6
Beryllium-7	U	-0.102	+/-0.126	0.205	1.00	pCi/g	1					
Cesium-134 4/18/00 WC	UJK	-0.00328	+/-0.0131	0.0238	0.100	pCi/g	1					
Cesium-137	U	0.00	+/-0.0343	0.0215	2.30	pCi/g	1					
Cobalt-57	U	0.00179	+/-0.00834	0.0162	0.100	pCi/g	1					
Cobalt-60	U	0.00697	+/-0.0135	0.0274	0.100	pCi/g	1					
Europium-152	UJ	0.042	+/-0.044	0.063	4.80	pCi/g	1					
Europium-154	U	-0.0373	+/-0.0428	0.0721	17.0	pCi/g	1					
Europium-155	UJ	0.0362	+/-0.0337	0.0686	0.200	pCi/g	1					
Manganese-54	U	0.0095	+/-0.0123	0.0244	0.100	pCi/g	1					
Radium-226		0.161	+/-0.0586	0.0501	1.00	pCi/g	1					
Sodium-22	U	-0.0134	+/-0.0153	0.0258	0.700	pCi/g	1					
Vanadium-48 4/18/00 WC	UJK	-0.00657	+/-0.027	0.0479	1.00	pCi/g	1					
Zinc-65	U	0.00162	+/-0.0284	0.046	0.200	pCi/g	1					
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		1.52	+/-0.375	0.380	1.00	pCi/g	1	TMC	04/04/00	0017	17049	7
Beta		3.51	+/-0.677	1.01	1.00	pCi/g	1					
GFPC, Sr90, solid												
Strontium-90	U	0.689	+/-1.66	3.92	7.50	pCi/g	1	AAK	03/23/00	1952	17036	8

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-005000306-36
Sample ID: 23074002

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scint												
LSC, Tritium Dist, solid												
Tritium	U	-3.0	+/-2.96	5.45	6.00	pCi/g	1	PD	03/23/00	1336	16885	9
Liquid Scint C14, solid												
Carbon-14	UJK 4/18/00	0.0816	+/-0.127	0.215	1.00	pCi/g	1	KDA	03/21/00	2339	16888	10
Liquid Scint Ni63, solid												
Nickel-63	UJK 4/18/00	-0.0976	+/-0.717	1.74	2.00	pCi/g	1	AEA	04/07/00	1421	16971	11
Liquid Scint Tc99, solid												
Technetium-99	U	-0.968	+/-0.994	2.67	5.00	pCi/g	1	ADD	03/28/00	1115	16974	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep EPI A-021,A-021B,A-026	TC1	03/16/00	1003	16600
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	TC1	03/15/00	1713	16488

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	DOE EML HASL 300
5	LANL EM-9
6	DOE EML HASL 300
7	EPA 900
8	EPA 905.0
9	EPA 906.0
10	EPA 504.1
11	DOE RESL Ni-1
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
DL Failed required detection limit.

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Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-005000306-36
Sample ID: 23074002

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

RI Not quantified due to interference.

U Sample result < .5*MDA and MDA <= RDL.
UJ .5*MDA < Sample result < MDA and MDA <= RDL.
UJ-Q Not quantified due to low abundance.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Nancy Slater at 843-556-8171 Ext. 4438.

Wanda C Jenrao
Reviewed by

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
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Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-006000306-36
Sample ID: 23074003
Matrix: Soil
Collect Date: 06-MAR-00 14:35
Receive Date: 08-MAR-00 10:00
Collector: Client

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Alpha Spec											
Alphaspec Am241, Cm, solid											
Americium-241		0.0309	+/-0.022	0.0116	1.00	pCi/g	1	MTE 03/29/00	1737	16918	1
Alphaspec Pu, solid											
Plutonium-238 4/17/00 wcr	UJK	-0.00748	+/-0.0107	0.097	6.60	pCi/g	1	MTE 03/30/00	1048	16919	2
Plutonium-239/240	U	0.0118	+/-0.0321	0.0823	4.00	pCi/g	1				
Alphaspec Th, solid											
Thorium-228		0.293	+/-0.112	0.138	1.00	pCi/g	1	MTE 03/30/00	2109	16920	3
Thorium-230		0.221	+/-0.0788	0.0436	1.00	pCi/g	1				
Thorium-232		0.255	+/-0.0843	0.017	1.00	pCi/g	1				
Alphaspec U, solid											
Uranium-233/234	UJ	0.0991	+/-0.0963	0.168	0.900	pCi/g	1	MTE 03/29/00	1730	16921	4
Uranium-235/236	U	-0.00889	+/-0.0451	0.147	0.900	pCi/g	1				
Uranium-238		0.190	+/-0.106	0.0731	0.900	pCi/g	1				
Rad Gamma Spec											
Gamma I129, solid											
Iodine-129	U	0.0952	+/-0.186	0.267	1.00	pCi/g	1	SRB 03/27/00	1852	17256	5
Gammaspec, Gamma, solid											
Americium-241	U	-0.00814	+/-0.0257	0.0424	4.00	pCi/g	1	SRB 03/23/00	1728	17079	6
Beryllium-7	U	-0.0849	+/-0.131	0.228	1.00	pCi/g	1				
Cesium-134 4-18-00 wcr	UJK	-0.0213	+/-0.0189	0.0256	0.100	pCi/g	1				
Cesium-137	U	-0.011	+/-0.0174	0.0293	2.30	pCi/g	1				
Cobalt-57	UJ	0.0104	+/-0.00941	0.0178	0.100	pCi/g	1				
Cobalt-60	U	0.000518	+/-0.0148	0.028	0.100	pCi/g	1				
Europium-152	U	0.00724	+/-0.0456	0.0752	4.80	pCi/g	1				
Europium-154	U	-0.0348	+/-0.0572	0.0972	17.0	pCi/g	1				
Europium-155	U	0.00221	+/-0.0377	0.0692	0.200	pCi/g	1				
Manganese-54	U	-0.0105	+/-0.0171	0.0303	0.100	pCi/g	1				
Radium-226		0.137	+/-0.0889	0.054	1.00	pCi/g	1				
Sodium-22	U	-0.0123	+/-0.0205	0.0349	0.700	pCi/g	1				
Vanadium-48 4-18-00 wcr	UJK	-0.0265	+/-0.0329	0.056	1.00	pCi/g	1				
Zinc-65 4-18-00 wcr	UJK	-0.0125	+/-0.0401	0.0714	0.200	pCi/g	1				
Rad Gas Flow											
GFPC, Gross A/B, solid											
Alpha		2.18	+/-0.478	0.461	1.00	pCi/g	1	TMC 04/04/00	0017	17049	7
Beta		4.58	+/-0.677	0.931	1.00	pCi/g	1				
GFPC, Sr90, solid											
Strontium-90	U	0.283	+/-1.66	4.11	7.50	pCi/g	1	AAK 03/23/00	1952	17036	8

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Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-006000306-36
Sample ID: 23074003

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scint												
LSC, Tritium Dist, solid												
Tritium	U	-0.958	+/-2.42	4.32	6.00	pCi/g	1	PD	03/21/00	1811	16885	9
Liquid Scint C14, solid												
Carbon-14	U	0.00	+/-0.128	0.222	1.00	pCi/g	1	KDA	03/22/00	0011	16888	10
Liquid Scint Ni63, solid												
Nickel-63	U	0.196	+/-0.841	2.06	2.00	pCi/g	1	AEA	04/07/00	0133	16971	11
Liquid Scint Tc99, solid												
Technetium-99	U	-0.556	+/-0.507	1.38	5.00	pCi/g	1	ADD	03/28/00	1148	16974	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep EPI A-021,A-021B,A-026	TC1	03/16/00	1003	16600
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	TC1	03/15/00	1713	16488

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	DOE EML HASL 300
5	LANL EM-9
6	DOE EML HASL 300
7	EPA 900
8	EPA 905.0
9	EPA 906.0
10	EPA 504.1
11	DOE RESL Ni-1
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
DL Failed required detection limit.

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GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Brookhaven National Laboratory
Address : OER
Building 51M
Upton, NY 11973-5000
Contact: Ms. Anna Bou
Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID: 065-006000306-36
Sample ID: 23074003

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

RI Not quantified due to interference.

U Sample result < .5*MDA and MDA <= RDL.
UJ .5*MDA < Sample result < MDA and MDA <= RDL.
UJ-Q Not quantified due to low abundance.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Nancy Slater at 843-556-8171 Ext. 4438.

Wanda C Jennings
Reviewed by

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Project: Routine Analytical

Report Date: April 17, 2000

Client Sample ID:	065-006000306-31	Project:	BRKL00297
Sample ID:	23074004	Client ID:	BRKL001
Matrix:	Soil	COC:	6451
Collect Date:	06-MAR-00 14:35		
Receive Date:	08-MAR-00 10:00		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec												
Alphaspec Am241, Cm, solid												
Americium-241	UJ	0.0196	+/-0.0208	0.030	1.00	pCi/g	1	MTE	03/29/00	1737	16918	1
Alphaspec Pu, solid												
Plutonium-238	U	0.019	+/-0.0971	0.233	6.60	pCi/g	1	MTE	03/30/00	1048	16919	2
Plutonium-239/240	U	0.0212	+/-0.0408	0.0868	4.00	pCi/g	1					
Alphaspec Th, solid												
Thorium-228		0.330	+/-0.122	0.141	1.00	pCi/g	1	MTE	03/30/00	2109	16920	3
Thorium-230		0.138	+/-0.0676	0.0695	1.00	pCi/g	1					
Thorium-232		0.257	+/-0.0899	0.0481	1.00	pCi/g	1					
Alphaspec U, solid												
Uranium-233/234		0.115	+/-0.0834	0.115	0.900	pCi/g	1	MTE	03/29/00	1730	16921	4
Uranium-235/236	U	0.00888	+/-0.0241	0.0617	0.900	pCi/g	1					
Uranium-238		0.166	+/-0.0927	0.0809	0.900	pCi/g	1					
Rad Gamma Spec												
Gamma I129, solid												
Iodine-129	U	0.137	+/-0.191	0.278	1.00	pCi/g	1	SRB	03/27/00	1944	17256	5
Gammaspec, Gamma, solid												
Americium-241	U	0.00851	+/-0.100	0.168	4.00	pCi/g	1	SRB	03/23/00	1729	17079	6
Beryllium-7	U	-0.172	+/-0.228	0.395	1.00	pCi/g	1					
Cesium-134	U	0.00283	+/-0.0289	0.0457	0.100	pCi/g	1					
Cesium-137	U	-0.0181	+/-0.0345	0.0503	2.30	pCi/g	1					
Cobalt-57	U	0.00019	+/-0.0183	0.0337	0.100	pCi/g	1					
Cobalt-60	U	-0.00195	+/-0.0284	0.0522	0.100	pCi/g	1					
Europium-152	U	-0.032	+/-0.0777	0.121	4.80	pCi/g	1					
Europium-154	U	-0.0138	+/-0.0779	0.142	17.0	pCi/g	1					
Europium-155	U	0.0373	+/-0.0761	0.144	0.200	pCi/g	1					
Manganese-54	U	-0.0228	+/-0.0278	0.0454	0.100	pCi/g	1					
Radium-226		0.283	+/-0.115	0.0958	1.00	pCi/g	1					
Sodium-22	U	-0.00501	+/-0.0279	0.0507	0.700	pCi/g	1					
Vanadium-48	U	0.0396	+/-0.0528	0.106	1.00	pCi/g	1					
Zinc-65	UJ	0.0793	+/-0.0531	0.0836	0.200	pCi/g	1					
Rad Gas Flow												
GFPC, Gross A/B, solid												
Alpha		1.10	+/-0.352	0.365	1.00	pCi/g	1	TMC	04/04/00	0058	17049	7
Beta		4.57	+/-0.726	1.03	1.00	pCi/g	1					
GFPC, Sr90, solid												
Strontium-90	U	-0.272	+/-0.372	1.05	7.50	pCi/g	1	AAK	03/30/00	1712	17036	8

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Client Sample ID: 065-006000306-31
Sample ID: 23074004

Project: BRKL00297
Client ID: BRKL001
COC: 6451

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scint												
LSC, Tritium Dist, solid												
Tritium	U	0.618	+/-2.24	3.87	6.00	pCi/g	1	PD	03/21/00	1842	16885	9
Liquid Scint C14, solid												
Carbon-14	UJK 4/18/00	0.106	+/-0.134	0.226	1.00	pCi/g	1	KDA	03/22/00	0043	16888	10
Liquid Scint Ni63, solid												
Nickel-63	UJK 4-18-2000	-0.792	+/-0.828	2.03	2.00	pCi/g	1	AEA	04/07/00	0205	16971	11
Liquid Scint Tc99, solid												
Technetium-99	U	-0.306	+/-0.829	2.10	5.00	pCi/g	1	ADD	03/28/00	1220	16974	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep EPI A-021,A-021B,A-026	TC1	03/16/00	1003	16600
Dry Soil Prep	Dry Soil Prep EPI A-021,A-021B,A-026	TC1	03/15/00	1713	16488

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	DOE EML HASL 300
5	LANL EM-9
6	DOE EML HASL 300
7	EPA 900
8	EPA 905.0
9	EPA 906.0
10	EPA 504.1
11	DOE RESL Ni-1
12	DOE EML HASL 300

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
DL Failed required detection limit.

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