TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1761	11/9/2010 15:10	36	72	-36	513-BKGDS1A	133	
1762	11/9/2010 15:10	47	72	-25	513-BKGDS1A	133	
1763	11/9/2010 15:11	53	72	-19	513-BKGDS1A	133	
1764	11/9/2010 15:11	61	72	-11	513-BKGDS1A	133	
1765	11/9/2010 15:11	71	72	-1	513-BKGDS1A	133	
1766	11/9/2010 15:11	85	72	13	513-BKGDS1A	133	
1767	11/9/2010 15:11	82	72	10	513-BKGDS1A	133	
1768	11/9/2010 15:11	53	72	-19	513-BKGDS1A	133	
1769	11/9/2010 15:11	43	72	-29	513-BKGDS1A	133	
1770	11/9/2010 15:11	67	72	-5	513-BKGDS1A	133	
1771	11/9/2010 15:12	63	72	-9	513-BKGDS1A	133	
1772	11/9/2010 15:12	46	72	-26	513-BKGDS1A	133	
1773	11/9/2010 15:12	27	72	-45	513-BKGDS1A	133	
1774	11/9/2010 15:12	50	72	-22	513-BKGDS1A	133	
1775	11/9/2010 15:12	54	72	-18	513-BKGDS1A	133	
1776	11/9/2010 15:12	86	72	14	513-BKGDS1A	133	
1777	11/9/2010 15:13	68	72	-4	513-BKGDS1A	133	
1778	11/9/2010 15:13	46	72	-26	513-BKGDS1A	133	
1779	11/9/2010 15:13	61	72	-11	513-BKGDS1A	133	
1780	11/9/2010 15:13	57	72	-15	513-BKGDS1A	133	
1781	11/9/2010 15:13	55	72	-17	513-BKGDS1A	133	
1782	11/9/2010 15:13	48	72	-24	513-BKGDS1A	133	
1783	11/9/2010 15:13	55	72	-17	513-BKGDS1A	133	
1784	11/9/2010 15:14	21	72	-51	513-BKGDS1A	133	
1785	11/9/2010 15:14	47	72	-25	513-BKGDS1A	133	
1786	11/9/2010 15:14	54	72	-18	513-BKGDS1A	133	
1787	11/9/2010 15:14	79	72	7	513-BKGDS1A	133	
1788	11/9/2010 15:14	72	72	0	513-BKGDS1A	133	
1789	11/9/2010 15:15	98	72	26	513-BKGDS1A	133	
1790	11/9/2010 15:15	99	72	27	513-BKGDS1A	133	
1791	11/9/2010 15:15	83	72	11	513-BKGDS1A	133	
1792	11/9/2010 15:15	64	72	-8	513-BKGDS1A	133	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1793	11/9/2010 15:15	76	72	4	513-BKGDS1A	133	
1794	11/9/2010 15:15	24	72	-48	513-BKGDS1A	133	
1795	11/9/2010 15:16	57	72	-15	513-BKGDS1A	133	
1796	11/9/2010 15:16	45	72	-27	513-BKGDS1A	133	
1797	11/9/2010 15:16	49	72	-23	513-BKGDS1A	133	
1798	11/9/2010 15:16	85	72	13	513-BKGDS1A	133	
1799	11/9/2010 15:16	76	72	4	513-BKGDS1A	133	
1800	11/9/2010 15:16	63	72	-9	513-BKGDS1A	133	
1801	11/9/2010 15:16	37	72	-35	513-BKGDS1A	133	
1802	11/9/2010 15:16	53	72	-19	513-BKGDS1A	133	
1803	11/9/2010 15:17	34	72	-38	513-BKGDS1A	133	
1804	11/9/2010 15:17	73	72	1	513-BKGDS1A	133	
1805	11/9/2010 15:17	53	72	-19	513-BKGDS1A	133	
1806	11/9/2010 15:17	82	72	10	513-BKGDS1A	133	
1807	11/9/2010 15:17	90	72	18	513-BKGDS1A	133	
1808	11/9/2010 15:18	87	72	15	513-BKGDS1A	133	
1809	11/9/2010 15:18	64	72	-8	513-BKGDS1A	133	
1810	11/9/2010 15:18	106	72	34	513-BKGDS1A	133	
1811	11/9/2010 15:18	75	72	3	513-BKGDS1A	133	
1812	11/9/2010 15:18	34	72	-38	513-BKGDS1A	133	
1813	11/9/2010 15:19	23	72	-49	513-BKGDS1A	133	
1814	11/9/2010 15:19	53	72	-19	513-BKGDS1A	133	
1815	11/9/2010 15:19	58	72	-14	513-BKGDS1A	133	
1816	11/9/2010 15:19	55	72	-17	513-BKGDS1A	133	
1817	11/9/2010 15:19	73	72	1	513-BKGDS1A	133	
1818	11/9/2010 15:19	83	72	11	513-BKGDS1A	133	
1819	11/9/2010 15:20	35	72	-37	513-BKGDS1A	133	
1820	11/9/2010 15:20	60	72	-12	513-BKGDS1A	133	
1821	11/9/2010 15:20	46	72	-26	513-BKGDS1A	133	
1822	11/9/2010 15:20	70	72	-2	513-BKGDS1A	133	
1823	11/9/2010 15:20	82	72	10	513-BKGDS1A	133	
1824	11/9/2010 15:20	77	72	5	513-BKGDS1A	133	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1825	11/9/2010 15:21	21	72	-51	513-BKGDS1A	133	
1826	11/9/2010 15:21	25	72	-47	513-BKGDS1A	133	
1827	11/9/2010 15:21	73	72	1	513-BKGDS1A	133	
1828	11/9/2010 15:21	66	72	-6	513-BKGDS1A	133	
1829	11/9/2010 15:21	56	72	-16	513-BKGDS1A	133	
1830	11/9/2010 15:21	58	72	-14	513-BKGDS1A	133	
1831	11/9/2010 15:21	67	72	-5	513-BKGDS1A	133	
1832	11/9/2010 15:22	50	72	-22	513-BKGDS1A	133	
1833	11/9/2010 15:22	61	72	-11	513-BKGDS1A	133	
1834	11/9/2010 15:23	73	72	1	513-BKGDS1A	133	
1835	11/9/2010 15:23	64	72	-8	513-BKGDS1A	133	
1836	11/9/2010 15:23	78	72	6	513-BKGDS1A	133	
1837	11/9/2010 15:23	90	72	18	513-BKGDS1A	133	
1838	11/9/2010 15:24	21	72	-51	513-BKGDS1A	133	
1839	11/9/2010 15:24	29	72	-43	513-BKGDS1A	133	
1840	11/9/2010 15:24	74	72	2	513-BKGDS1A	133	
1841	11/9/2010 15:24	94	72	22	513-BKGDS1A	133	
1842	11/9/2010 15:24	80	72	8	513-BKGDS1A	133	
1843	11/9/2010 15:24	67	72	-5	513-BKGDS1A	133	
1844	11/9/2010 15:24	58	72	-14	513-BKGDS1A	133	
1845	11/9/2010 15:25	22	72	-50	513-BKGDS1A	133	
1846	11/9/2010 15:25	36	72	-36	513-BKGDS1A	133	
1847	11/9/2010 15:25	49	72	-23	513-BKGDS1A	133	
1848	11/9/2010 15:25	93	72	21	513-BKGDS1A	133	
1849	11/9/2010 15:25	76	72	4	513-BKGDS1A	133	
1850	11/9/2010 15:26	65	72	-7	513-BKGDS1A	133	
1851	11/9/2010 15:26	24	72	-48	513-BKGDS1A	133	
1852	11/9/2010 15:26	59	72	-13	513-BKGDS1A	133	
1853	11/9/2010 15:26	65	72	-7	513-BKGDS1A	133	
1854	11/9/2010 15:27	98	72	26	513-BKGDS1A	133	
1855	11/9/2010 15:27	77	72	5	513-BKGDS1A	133	
1856	11/9/2010 15:27	72	72	0	513-BKGDS1A	133	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1857	11/9/2010 15:27	73	72	1	513-BKGDS1A	133	

Net Gamma cpm Summary

Min: -52
Avg: -4
Max: 60
St Dev: 20

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 513 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228703 Probe Serial #: 091806C1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 513-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	11/02/2010 7:32	51
2	11/02/2010 7:34	90
3	11/02/2010 7:35	57
4	11/02/2010 7:36	77
5	11/02/2010 7:38	63
6	11/02/2010 7:39	84
7	11/02/2010 7:40	89
8	11/02/2010 7:41	141
9	11/02/2010 7:42	71
10	11/02/2010 7:44	46
11	11/02/2010 7:45	76
12	11/02/2010 7:46	65
13	11/02/2010 7:48	58
14	11/02/2010 7:49	65
15	11/02/2010 7:50	67
16	11/02/2010 7:51	81
17	11/02/2010 7:52	72
18	11/02/2010 7:54	56
19	11/02/2010 7:55	62
20	11/02/2010 7:56	65

Gamma Mean Background (cpm): 72

Standard Deviation: 20

Gamma 3σ Investigation Level (cpm): 133

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228694 Probe Serial #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	168
2	10/13/2011 15:13	176
3	10/13/2011 15:14	169
4	10/13/2011 15:15	178
5	10/13/2011 15:16	162
6	10/13/2011 15:17	168
7	10/13/2011 15:19	198
8	10/13/2011 15:20	190
9	10/13/2011 15:21	169
10	10/13/2011 15:22	282
11	10/13/2011 15:23	192
12	10/13/2011 15:25	230
13	10/13/2011 15:26	196
14	10/13/2011 15:27	165
15	10/13/2011 15:28	291
16	10/13/2011 15:30	147
17	10/13/2011 15:31	166
18	10/13/2011 15:32	168
19	10/13/2011 15:33	290
20	10/13/2011 15:35	284

Gamma Mean Background (cpm): 199

Standard Deviation: 48

Gamma 3σ Investigation Level (cpm): 344

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	421-BKGDS1
Instrument Serial Number:	167145		
Instrument Calibration Due Date:	3/5/2011	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	11/22/2010	7	
2	11/22/2010	7	
3	11/22/2010	7	
4	11/22/2010	7	
5	11/22/2010	7	
6	11/22/2010	6	
7	11/22/2010	7	
8	11/22/2010	7	
9	11/22/2010	7	
10	11/22/2010	7	
11	11/22/2010	6	
12	11/22/2010	7	
13	11/22/2010	7	
14	11/22/2010	5	
15	11/22/2010	6	
16	11/22/2010	6	
17	11/22/2010	7	
18	11/22/2010	7	
19	11/22/2010	6	
20	11/22/2010	6	
21	12/1/2010	7	
22	12/1/2010	8	
23	12/1/2010	7	
24	12/1/2010	8	
25	12/1/2010	7	
26	12/1/2010	6	
27	12/1/2010	7	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	12/1/2010	8	
29	12/1/2010	8	
30	12/1/2010	8	
31	12/1/2010	7	
32	12/1/2010	8	
33	1/17/2011	6	
34	1/17/2011	5	
35	1/17/2011	5	
36	1/17/2011	6	
37	1/17/2011	6	
38	1/17/2011	6	
39	1/17/2011	5	
40	1/17/2011	5	
41	1/17/2011	5	
42	2/15/2011	4	
43	2/15/2011	4	
44	2/15/2011	5	
45	3/4/2011	6	
46	3/4/2011	4	
47	3/4/2011	4	
48	3/4/2011	4	
49	3/4/2011	5	
50	3/4/2011	6	
51	3/4/2011	4	
52	3/4/2011	6	
53	3/4/2011	6	
54	3/4/2011	5	
55	3/4/2011	7	
56	3/4/2011	4	
57	3/4/2011	4	
58	3/4/2011	6	
59	3/4/2011	6	
60	3/4/2011	6	
61	3/4/2011	6	
62	3/4/2011	5	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
63	3/4/2011	7	
64	3/4/2011	7	

Instrument Model:	Model 19	Reference Area Background Identification #:	577-BKGDS1
Instrument Serial Number:	109970		
Instrument Calibration Due Date:	2/24/2012	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
65	5/6/2011	6	
66	5/6/2011	6	

Instrument Model:	Model 19	Reference Area Background Identification #:	578-BKGDS1
Instrument Serial Number:	207505		
Instrument Calibration Due Date:	2/24/2012	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
67	6/7/2011	5	
68	6/7/2011	5	
69	6/7/2011	6	
70	6/7/2011	6	
71	6/7/2011	6	
72	6/7/2011	6	
73	6/7/2011	6	
74	6/7/2011	6	
75	6/7/2011	6	
76	6/7/2011	6	
77	6/7/2011	6	
78	6/7/2011	6	
79	6/7/2011	6	
80	6/7/2011	6	
81	6/7/2011	6	
82	6/7/2011	6	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
83	6/7/2011	6	
84	6/7/2011	6	
85	6/7/2011	6	
86	6/7/2011	6	

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/15/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
87	5/4/2012	6	
88	5/4/2012	6	
89	5/4/2012	6	
90	5/4/2012	6	
91	6/29/2012	5	

Instrument Model:	Model 19	Reference Area Background Identification #:	667-BKGDS1
Instrument Serial Number:	107447	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/12/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
92	8/7/2012	5	

Exposure Rate Summary (µR/hr)	Min:	4.00
	Avg:	6.03
	Max:	8.00
	St Dev:	1.00

Jars

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01728

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: TINA ROLFE	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
							1	1	1										
03707-S0016-F001-01	11/22/2010	1010	1		S		☑	☑	☐										
03707-S0016-F002-01	11/22/2010	1015	1		S		☑	☑	☐										
03707-S0016-F003-01	11/22/2010	1020	1		S		☑	☑	☐										
03707-S0016-F004-01	11/22/2010	1025	1		S		☑	☑	☐						DUP				
03707-S0016-F005-01	11/22/2010	1030	1		S		☑	☑	☐										
03707-S0016-F006-01	11/22/2010	1035	1		S		☑	☑	☐										
03707-S0016-F007-01	11/22/2010	1040	1		S		☑	☑	☐										
03707-S0016-F008-01	11/22/2010	1045	1		S		☑	☑	☐										
03707-S0016-F009-01	11/22/2010	1050	1		S		☑	☑	☐										
03707-S0016-F010-01	11/22/2010	1055	1		S		☑	☑	☐										
03707-S0016-F011-01	11/22/2010	1100	1		S		☑	☑	☐										
03707-S0016-F012-01	11/22/2010	1105	1		S		☑	☑	☐										

Relinquished by: (signature)	Date	Received by: (signature)
Tina Rolfe	11-22-10	Eric Schnaden
Company: RSRS	Time: 15:10	Company: NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS:

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BUILDING 707 TRIANGLE
SURVEY UNIT 16
SYSTEMATIC 1-20

PARCEL E

ED_004747_00010904-00011

Jars

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01729

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: TINA ROLFE	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0016-F013-01	11/22/2010	1110	1		S		☑	☑	☐										
03707-S0016-F014-01	11/22/2010	1115	1		S		☑	☑	☐										
03707-S0016-F015-01	11/22/2010	1120	1		S		☑	☑	☐										
03707-S0016-F016-01	11/22/2010	1125	1		S		☑	☑	☐										
03707-S0016-F017-01	11/22/2010	1130	1		S		☑	☑	☐										
03707-S0016-F018-01	11/22/2010	1135	1		S		☑	☑	☐										
03707-S0016-F019-01	11/22/2010	1140	1		S		☑	☑	☐										
03707-S0016-F020-01	11/22/2010	1145	1		S		☑	☑	☐										

Relinquished by: (signature)	Date	Received by: (signature)
Tina Rolfe	11-22-10	Eric Schmodl
Company: TSRS	Time: 15:10	Company: NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BUILDING 707 TRIANGLE
SURVEY UNIT 16
SYSTEMATIC 1-20

PARCEL E

ED_004747_00010904-00012

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01755

Bags

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: A. Smith	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0016-F021-01	12/1/2010	0920	1		S		☑	☑	☐										
03707-S0016-F022-01	12/1/2010	0925	1		S		☑	☑	☐										
03707-S0016-F023-01	12/1/2010	0930	1		S		☑	☑	☐										
03707-S0016-F024-01	12/1/2010	0935	1		S		☑	☑	☐										
03707-S0016-F025-01	12/1/2010	0940	1		S		☑	☑	☐										
03707-S0016-F026-01	12/1/2010	0945	1		S		☑	☑	☐										
03707-S0016-F027-01	12/1/2010	0950	1		S		☑	☑	☐										
03707-S0016-F028-01	12/1/2010	1000	1		S		☑	☑	☐										
03707-S0016-F029-01	12/1/2010	1005	1		S		☑	☑	☐										
03707-S0016-F030-01	12/1/2010	1010	1		S		☑	☑	☐										
03707-S0016-F031-01	12/1/2010	1015	1		S		☑	☑	☐										
03707-S0016-F032-01	12/1/2010	1020	1		S		☑	☑	☐										

Relinquished by: (signature) [signature]	Date 12-1-10	Received by: (signature) [signature]
Company RSRS	Time 1415	Company NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE
SU-16
BIASED 21-32

TECHTECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01825

Bags

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: R. Zahersky	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC I	SR90 I	ALPHA I						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0016-F033-01	1/17/2011	1330	1		S		☑	☑	☐										
03707-S0016-F034-01	1/17/2011	1340	1		S		☑	☑	☐										
03707-S0016-F035-01	1/17/2011	1350	1		S		☑	☑	☐										
03707-S0016-F036-01	1/17/2011	1400	1		S		☑	☑	☐										
03707-S0016-F037-01	1/17/2011	1410	1		S		☑	☑	☐										
03707-S0016-F038-01	1/17/2011	1420	1		S		☑	☑	☐										
03707-S0016-F039-01	1/17/2011	1430	1		S		☑	☑	☐										
03707-S0016-F040-01	1/17/2011	1440	1		S		☑	☑	☐										
03707-S0016-F041-01	1/17/2011	1450	1		S		☑	☑	☐										

Relinquished by: (signature)	Date	Received by: (signature)
[signature]	01-17-11	[signature]
Company: RSRS	Time: 15:38	Company: RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS: 2 samples per ID

COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS: B707 TRIANGLE FSS SU-16 POST-REMEDIATION 33-41

TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01856

Bags

Project Name: Radiological Building Survey	PO Number: N/A																						
Project Location: HUNTERS POINT	Project Number: 3670-0003																						
Sampler Name: R Zahonsky	Airbill Number: N/A																						
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592																						
							GAMMASPEC	SR90	ALPHA														
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1														
03707-S0016-F042-01	2/15/2011	1350	1		S		☑	☑	☐														
03707-S0016-F043-01	2/15/2011	1355	1		S		☑	☑	☐														
03707-S0016-F044-01	2/15/2011	1400	1		S		☑	☑	☐														

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

COMMENTS	LOCATION	DEPTH START	DEPTH END	QC

Relinquished by: (signature) R Zahonsky	Date 2-15-11	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS: 2 ~~samples~~ per Jars 5 sample
Company RSRS	Time 1600	Company RS RS	COMPOSITE DESCRIPTION
Relinquished by: (signature)	Date	Received by: (signature)	
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE FSS
SV-16
POST-REMEDIATION 42-44

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01901

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0016-F045-01	3/4/2011	1030	1		S		☑	☑	☐					
03707-S0016-F046-01	3/4/2011	1035	1		S		☑	☑	☐					
03707-S0016-F047-01	3/4/2011	1040	1		S		☑	☑	☐					
03707-S0016-F048-01	3/4/2011	1045	1		S		☑	☑	☐					
03707-S0016-F049-01	3/4/2011	1050	1		S		☑	☑	☐					
03707-S0016-F050-01	3/4/2011	1055	1		S		☑	☑	☐					
03707-S0016-F051-01	3/4/2011	1100	1		S		☑	☑	☐					
03707-S0016-F052-01	3/4/2011	1105	1		S		☑	☑	☐					
03707-S0016-F053-01	3/4/2011	1110	1		S		☑	☑	☐	DUP				
03707-S0016-F054-01	3/4/2011	1115	1		S		☑	☑	☐					
03707-S0016-F055-01	3/4/2011	1120	1		S		☑	☑	☐					
03707-S0016-F056-01	3/4/2011	1125	1		S		☑	☑	☐					

Relinquished by: (signature) J. Rolfe	Date 3.4.11	Received by: (signature)	
Company RSRS	Time 1410	Company RSRS	
Relinquished by: (signature)	Date	Received by: (signature)	
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	
Company	Time	Company	

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE FSS
SU-16
SYSTEMATIC 45-64

ED_004747_00010904-00016

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01902

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - RSRS	Project Information Section
Project Location: HUNTERS POINT	Project Number: 3670-0003	LABORATORY ID:	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0016-F057-01	3/4/2011	1130	1		S		☑	☑	☐										
03707-S0016-F058-01	3/4/2011	1135	1		S		☑	☑	☐										
03707-S0016-F059-01	3/4/2011	1140	1		S		☑	☑	☐										
03707-S0016-F060-01	3/4/2011	1145	1		S		☑	☑	☐										
03707-S0016-F061-01	3/4/2011	1150	1		S		☑	☑	☐										
03707-S0016-F062-01	3/4/2011	1240	1		S		☑	☑	☐										
03707-S0016-F063-01	3/4/2011	1245	1		S		☑	☑	☐										
03707-S0016-F064-01	3/4/2011	1250	1		S		☑	☑	☐										

Relinquished by: (signature) J. Rolfe	Date 3-4-11	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1410	Company RSRS	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECRIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00017

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01959

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 3670-0003			
Sampler Name: R Zahenskey	Airbill Number: N/A			
Project Chemist: ~~LISA BIENKOWSKI~~	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	I	I	I	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F065-01	5/6/2011	1005	1		S		☐	☑	☐			
03707-S0016-F066-01	5/6/2011	1010	1		S		☐	☑	☐			

Relinquished by: (signature)	Date	Received by: (signature)
Company: RSRS	Time: 15:55	Company: RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE AREA
SU-16 # 65-66
SR90 POST - REMEDIATION

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01987

67-78 not provided

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - RSRS	Project Information Section
Project Location: HUNTERS POINT	Project Number: 3670-0003	LABORATORY ID:	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F079-01	6/7/2011	1340	1		S		☑	☑	☐			
03707-S0016-F080-01	6/7/2011	1345	1		S		☑	☑	☐			
03707-S0016-F081-01	6/7/2011	1350	1		S		☑	☑	☐			
03707-S0016-F082-01	6/7/2011	1355	1		S		☑	☑	☐			
03707-S0016-F083-01	6/7/2011	1400	1		S		☑	☑	☐			
03707-S0016-F084-01	6/7/2011	1405	1		S		☑	☑	☐			
03707-S0016-F085-01	6/7/2011	1410	1		S		☑	☑	☐			
03707-S0016-F086-01	6/7/2011	1415	1		S		☑	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 6-7-11	Received by: (signature) Eric Schnoda	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company RSRS	Time 15:26	Company RSRS		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02408

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID: [redacted]
Sampler Name: R Zabensky	Airbill Number: N/A				**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F087-01	5/4/2012	1300	1		S		☐	☑	☐			
03707-S0016-F088-01	5/4/2012	1310	1		S		☐	☑	☐			
03707-S0016-F089-01	5/4/2012	1320	1		S		☐	☑	☐			

Relinquished by: (signature) [signature]	*Date* 05-04-12	*Received by: (signature)* [signature]	LABORATORY INSTRUCTIONS/COMMENTS: [redacted]
Company RSRS	*Time* 1437	*Company* CT	SAMPLING COMMENTS: [redacted]
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION: [redacted]
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITIONS UPON RECEIPT BY LABORATORY: [redacted]
Company	*Time*	*Company*	

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02409

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	
Project Location: HUNTERS POINT	Project Number: 4044-0007				
Sampler Name: R Zahensky	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [redacted]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F090-01	5/4/2012		1		S		☐	☑	☐			

Relinquished by: (signature)	Date: 05-04-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS: [illegible]
Company: RSRS	Time: 15:50	Company: C&T		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY):	
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	

ED_004747_00010904-00021

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

237561

BFS 02491

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: R Zahensky	Airbill Number: N/A				Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F091-01	6/29/2012	1320	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr	for 707-SU22-SP33	

Relinquished by: (signature) R Zahensky	Date 6.29.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company PSRS	Time 15:27	Company C&T		707-S0016
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	Post-remediation
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT BY LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

ED_004747_00010904-00022

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

238581

Chain-of-Custody Record

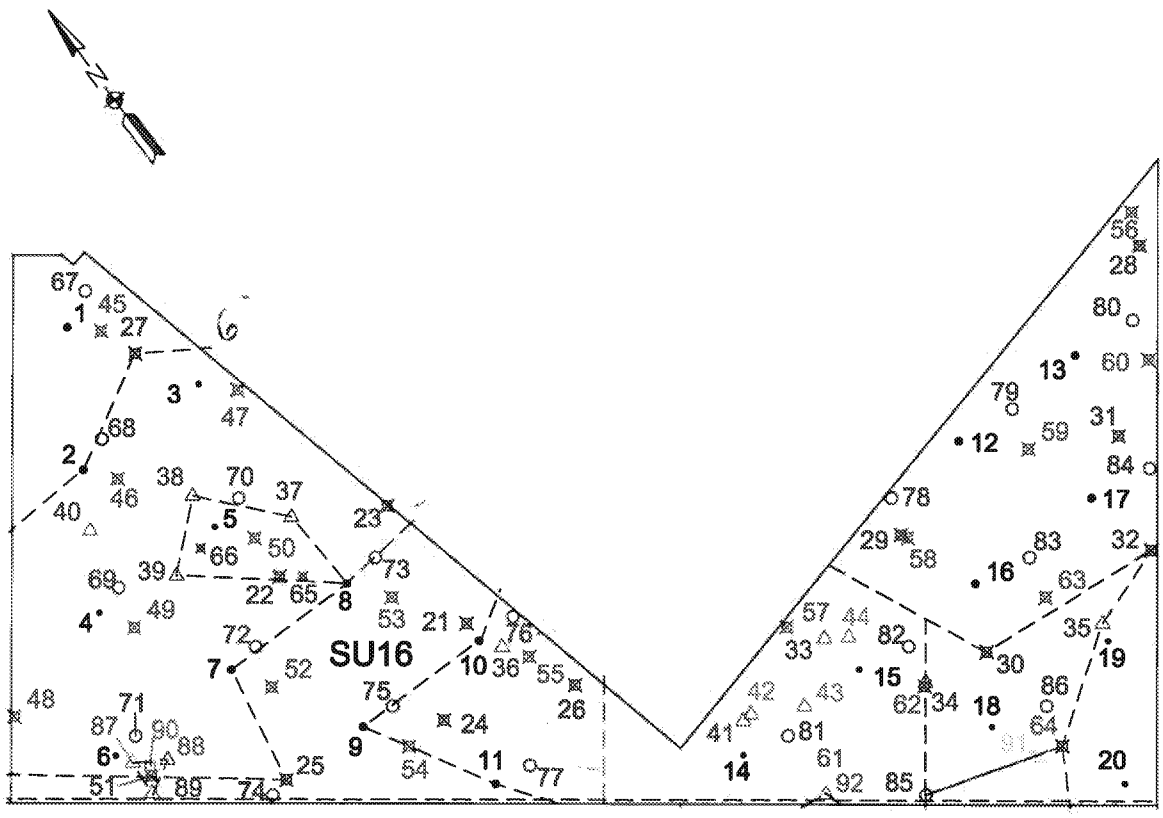
BFS 02535

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0016-F092-01	8/7/2012	0945	1		S		☑	☐	☐		for 707-SU22-SP45	

Relinquished by: J. Rolfe	Date: 8-7-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:	SHIPPING COMMENTS: 707-S0016 Characterization
Company: RSRS	Time: 14:14	Company: C&T		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT BY LABORATORY: TEMPERATURE: SAMPLE CONDITION: GOOD/BROKEN	
Company	Time	Company		

ED_004747_00010904-00023



LEGEND:

•	1	SYSTEMATIC 1 SAMPLES 1–20
⊠	21	BIASED SAMPLES 21–32
△	33	POST REMEDIATION 1 SAMPLES 33–41
△	42	POST REMEDIATION 2 SAMPLES 42–44
⊠	45	SYSTEMATIC 2 SAMPLES 45–64
⊠	65	Sr–90 REMEDIATION 1 SAMPLES 65–66
○	67	SYSTEMATIC 3 SAMPLES 67–86
△	87	Sr–90 REMEDIATION 2 SAMPLES 87–90
△	91	POST REMEDIATION 3 SAMPLES 91
△	92	CHARACTERIZATION SAMPLES 92
– – – – – –		PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:30

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 13:21:05

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707

SURVEY UNIT 16

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: November 22, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #21 and #22. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 90 cpm for the FIDLER and 8,423 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 109 cpm for the FIDLER and 8,502 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

- Following a review of analytical results from Survey Unit 5, staged asphalt debris from Grids 18, 20 and 22 were transferred to the recycling stockpile.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team and the RASO concurred with backfilling Trench Unit No. 182.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: December 1, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 3. A total of 18 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 83 cpm for the FIDLER and 7,705 cpm. In addition, 9 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 13. A total of 6 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 73 cpm for the FIDLER and 6,663 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 14. A total of 14 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 167 cpm for the FIDLER and 6,981 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 24 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 87 cpm for the FIDLER and 9,091 cpm. In addition, 12 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 18. A total of 16 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 212 cpm for the FIDLER and 8,560 cpm. In addition, 8 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

- The HPS Team performed Class 1 survey activities in Survey Unit 20. A total of 12 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 167 cpm for the FIDLER and 8,622 cpm. In addition, 6 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 21. A total of 30 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 99 cpm for the FIDLER and 8,382 cpm. In addition, 15 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

- The HPS Team performed Class 1 survey activities in Survey Unit 7. A characterization gamma static measurement was logged, and a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Backfilling activities were initiated for Trench Unit No. 182 by the HPS Team.
- Backfilling activities were continued for Trench Units No. 174 and 183 by the HPS Team.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: January 17, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3 and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 90 cubic yards of soil from Survey Units 15, 16 and 17 and placed the material in LLRW bins BKRU025553G13, BKRU026385G14, GFLU001013G8, GFLU001059G15, GFLU001127G15, and GFLU001199G9 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 18 post-remediation gamma statics were logged. The maximum gamma static measurements logged were 73 cpm for the FIDLER and 7,830 cpm. In addition, nine post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of six post-remediation gamma statics were logged. The maximum gamma static measurements logged were 218 cpm for the FIDLER and 9,088 cpm. In addition, three post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Compaction testing was continued on recently backfilled areas of Trench Units No. 184 and 187. Based on the compaction testing results, backfill activities were continued for both trench survey units.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: February 15, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, the Scrap Yard, Parcel UC3, and Work Areas #16, #20 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 60 cubic yards of soil from Survey Units 5, 9, and 14 and placed the material in LLRW bins BKRU025603G15, GFLU001039G16, GFLU001139G8 and GFLU001233G5 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of six post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 56 cpm (FIDLER) and 4,468 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of four characterization gamma static measurements were logged. The maximum gamma static measurements logged were 208 cpm (FIDLER) and 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Units 3, 5, 7, 9, 13, 14, 15, 20, and 21. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the biased "pothole" samples collected from Survey Unit 4. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Unit 16. The laboratory analytical results identified ^{90}Sr activity above the release criteria at Sample Point 33 (18.5 pCi/g).
- The HPS Team provided the RASO with the on-site and off-site analytical results for the post-remediation samples collected from Survey Unit 17. The analytical results

identified the presence of ^{90}Sr activity above the release criteria at Sample Point 37 (15.1 pCi/g).

- Staged asphalt debris excavated from Survey Units 10, 11 and18 was transferred to the off-site recycling stockpiles near Building 411.
- The HPS Team issued record drawings to identify locations for post-remediation sample collection in Survey Unit 13.

Scrap Yard

- Staged asphalt debris from Survey Unit 6 was transferred to the recycling stockpiles near Building 411.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and continued preparations for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: March 4, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 13. A total of 20 systematic gamma static measurements were logged. The maximum gamma static measurements logged were 99 cpm for the FIDLER and 5,755 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed survey activities in Survey Unit 16. A total of 20 systematic gamma static measurements were logged. The maximum gamma static measurements logged were 82 cpm for the FIDLER and 6,963 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and preparation for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: May 6, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- Approximately 7.5 cubic yards of soil was remediated from Survey Units 16 and 17 by the HPS Team and placed in LLRW bins BKRU012774G6, BKRU026398G13, and GFLU001221G8 for off-site disposal.
- The HPS Team logged a total of four post-remediation gamma static measurements in Survey Unit 16. The maximum measurements logged were 83 cpm (FIDLER) and 5,499 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged four post-remediation gamma static measurements in Survey Unit 17. The maximum measurements logged were 209 cpm (FIDLER) and 8,228 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged 42 investigative gamma static measurements in Survey Unit 19. The maximum measurements logged were 184 cpm (FIDLER) and 9,731 cpm. In addition, 21 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: June 7, 2011	EMAC – CTO 03

Overview

The HPNS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPNS Team performed survey activities in Survey Unit 16. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 95 cpm (FIDLER) and 7,256 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: May 4, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- Approximately 92 cubic yards of soil was remediated from Class 1 Survey Units 16 and 21 by the HPNS Team and placed in LLRW bins BFLU000163T17, ESUU100006, GFLU001028, GFLU001107, GFLU002057, and GFLU002171 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Asphalt Grid A7 – An investigational gamma static measurement was logged at 5,688 cpm. A total of 80 alpha/beta scan readings and an additional investigational static measurement also were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. In addition, one swipe sample was collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 16 – Three characterization and one post-remediation gamma static measurements were logged with maximum measurements of 192 cpm (FIDLER) and 5,960 cpm. In addition, four soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 16.

Shacks 79 and 80

- The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 2. Because no activity above the release criteria was identified, the entire systematic sample set will be submitted to the off-site laboratory for analysis.

500 Series Area

- Towed array gamma scan survey activities were resumed over sections of Class 2 Survey Unit 23.

- The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 5, 6, and 15; no activity above the release criteria was identified.
- The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Class 1 Survey Unit 15 and record drawings to identify the post-remediation sample collection locations in Class 1 Survey Units 16 and 18.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 360 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-507-38-3V 34 linear feet completed
  - 07-507-38-4B 7 linear feet completed
  - 07-508-38-4C 44 linear feet completed
  - 07-508-38-4D 61 linear feet completed
  - 07-508-38-4E 59 linear feet completed
  - 07-508-38-8A 10 linear feet completed
  - 07-E36-38-3V 35 linear feet completed
  - 07-E36-38-4B 15 linear feet completed
  - 07-E36-38-4C 15 linear feet completed
  - 07-E36-38-4F 20 linear feet completed
  - 07-E36-38-4M 3 linear feet completed
- A total of 293 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 10 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH1239, MH1240, MH1241, MH1242, and MH1271, and pipe excavated from trench segments 07-507-38-8A and 07-E36-38-4F were placed on plastic pending further activities.
- Approximately 2.5 cubic yards of soil was remediated from Trench Unit No. 249 (trench segment 07-E36-38-3M) by the HPNS Team and placed in LLRW bin GFLU002139 for off-site disposal.
- Three post-remediation samples were collected from Trench Unit No. 249 by the HPNS Team and submitted to the on-site laboratory for analysis.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: June 29, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 11 (07500SA-S0022-F011-01) with ^{137}Cs at 0.1628 pCi/g
  - Sample Point 38 (07500SA-S0022-F038-01) with ^{137}Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ^{137}Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ^{137}Cs at 0.1338 pCi/g
- Sample Point 35 (07500SA-S0023-F035-01) with ^{137}Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ^{137}Cs at 0.1210 pCi/g

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 7 (07500SA-S0024-F007-01) with ^{137}Cs at 0.1434 pCi/g
  - Sample Point 11 (07500SA-S0024-F011-01) with ^{137}Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 7, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued activities on the containment vault concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The upper five feet of the containment vault concrete walls were removed and placed on plastic pending radiological survey activities.
- Approximately 10 cubic yards of soil generated during excavation of the outer walls of the containment vault were transferred by the HPNS Team to LLRW bin AWIU000216T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 16 – A total of two characterization gamma static measurements were logged at 226 cpm (FIDLER) and 6,811 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 22 – A total of twenty characterization gamma static measurements were logged with the maximum measurements recorded at 231 cpm (FIDLER) and 5,689 cpm. In addition, ten soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing survey data for Class 1 Survey Units 16 and 22.
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Units 16 and 22.

500 Series Area

- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Units 22 through 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 893 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	U-238	Cs-137	Bi-214	Pb-214	K-40	U-238	Cs-137	Bi-214	Pb-214
707	16	1	Systematic	03707-S0016-F001-01	22-Nov-10	Tina Rolfe	25.977	0.35391	0.056503	0.61543	0.81845					
707	16	2	Systematic	03707-S0016-F002-01	22-Nov-10	Tina Rolfe	14.209	1.0213	0.021841	0.65986	0.50425					
707	16	3	Systematic	03707-S0016-F003-01	22-Nov-10	Tina Rolfe	19.228	0.33111	0.12657	0.68357	0.65055					
707	16	4	Systematic	03707-S0016-F004-01	22-Nov-10	Tina Rolfe	18.23	0.89666	0.26484	0.59529	0.60482					
707	16	5	Systematic	03707-S0016-F005-01	22-Nov-10	Tina Rolfe	21.443	0.26586	0.17455	0.80719	0.62778					
707	16	6	Systematic	03707-S0016-F006-01	22-Nov-10	Tina Rolfe	9.5126	-0.026202	0.29169	0.46	0.4241					
707	16	7	Systematic	03707-S0016-F007-01	22-Nov-10	Tina Rolfe	14.83	1.2128	0.041026	0.6713	0.76229					
707	16	8	Systematic	03707-S0016-F008-01	22-Nov-10	Tina Rolfe	17.283	0.50386	0.0072541	0.66701	0.72834					
707	16	9	Systematic	03707-S0016-F009-01	22-Nov-10	Tina Rolfe	19.058	0.78578	0.041577	0.68971	0.65485					
707	16	10	Systematic	03707-S0016-F010-01	22-Nov-10	Tina Rolfe	20.351	0.50459	-0.0079741	0.76514	0.76514					
707	16	11	Systematic	03707-S0016-F011-01	22-Nov-10	Tina Rolfe	6.7239	-0.062491	0.049879	0.24614	0.2484					
707	16	12	Systematic	03707-S0016-F012-01	22-Nov-10	Tina Rolfe	21.015	0.54214	0.0012024	0.49041	0.73573					
707	16	13	Systematic	03707-S0016-F013-01	22-Nov-10	Tina Rolfe	21.376	0.4858	0.055742	0.55434	0.73795					
707	16	14	Systematic	03707-S0016-F014-01	22-Nov-10	Tina Rolfe	9.6587	0.36838	0.4707	0.2944	0.29011					
707	16	15	Systematic	03707-S0016-F015-01	22-Nov-10	Tina Rolfe	12.982	0.44589	0.24454	0.45561	0.47084					
707	16	16	Systematic	03707-S0016-F016-01	22-Nov-10	Tina Rolfe	19.139	0.019777	0.015999	0.5763	0.51572					
707	16	17	Systematic	03707-S0016-F017-01	22-Nov-10	Tina Rolfe	19.333	0.068967	0.022832	0.73022	0.75396					
707	16	18	Systematic	03707-S0016-F018-01	22-Nov-10	Tina Rolfe	15.963	0.32873	0.14804	0.41252	0.37991					
707	16	19	Systematic	03707-S0016-F019-01	22-Nov-10	Tina Rolfe	14.134	0.54611	0.17309	0.43743	0.40684					
707	16	20	Systematic	03707-S0016-F020-01	22-Nov-10	Tina Rolfe	10.183	0.031277	0.18895	0.38684	0.46314					
707	16	21	Biased	03707-S0016-F021-01	01-Dec-10	Anthony Smith	17.49	1.1015	-0.01223	0.81148	0.8514					
707	16	22	Biased	03707-S0016-F022-01	01-Dec-10	Anthony Smith	19.806	0.89363	0.13495	0.91984	0.83414					
707	16	23	Biased	03707-S0016-F023-01	01-Dec-10	Anthony Smith	21.483	1.1035	0.13996	0.77523	0.91474					
707	16	24	Biased	03707-S0016-F024-01	01-Dec-10	Anthony Smith	9.6753	0.41222	0.20792	0.36109	0.3563					
707	16	25	Biased	03707-S0016-F025-01	01-Dec-10	Anthony Smith	16.043	1.1717	0.026127	0.83408	0.79666					
707	16	26	Biased	03707-S0016-F026-01	01-Dec-10	Anthony Smith	14.399	0.82215	0.20937	0.4707	0.52887					
707	16	27	Biased	03707-S0016-F027-01	01-Dec-10	Anthony Smith	20.437	1.0715	0.049257	0.76693	0.66048					
707	16	28	Biased	03707-S0016-F028-01	01-Dec-10	Anthony Smith	22.663	0.93953	-0.0012831	0.71665	0.69167					
707	16	29	Biased	03707-S0016-F029-01	01-Dec-10	Anthony Smith	20.942	0.52624	0.020506	0.73853	0.72367					
707	16	30	Biased	03707-S0016-F030-01	01-Dec-10	Anthony Smith	17.35	0.39821	0.10758	0.44863	0.52639					
707	16	31	Biased	03707-S0016-F031-01	01-Dec-10	Anthony Smith	19.385	0.90962	-0.0065887	0.67967	0.59581					
707	16	32	Biased	03707-S0016-F032-01	01-Dec-10	Anthony Smith	23.22	0.72588	0.069129	0.7661	0.8401					
707	16	33	Post-Remediation	03707-S0016-F033-01	17-Jan-11	Rick Zahensky	12.93	1.144	8.221	0.6597	0.7154					
707	16	34	Post-Remediation	03707-S0016-F034-01	17-Jan-11	Rick Zahensky	5.662	0.297	0	0.2781	0.313					
707	16	35	Post-Remediation	03707-S0016-F035-01	17-Jan-11	Rick Zahensky	12.99	0.3137	0.0009286	0.3539	0.2971					
707	16	36	Post-Remediation	03707-S0016-F036-01	17-Jan-11	Rick Zahensky	0.9922	0.5175	-0.002927	0.5959	0.5373					
707	16	37	Post-Remediation	03707-S0016-F037-01	17-Jan-11	Rick Zahensky	22.95	1.181	-0.003293	0.7502	0.7777					
707	16	38	Post-Remediation	03707-S0016-F038-01	17-Jan-11	Rick Zahensky	21.71	1.204	0.0128	0.4688	0.7863					
707	16	39	Post-Remediation	03707-S0016-F039-01	17-Jan-11	Rick Zahensky	16.09	1.033	0.005474	0.3186	0.2787					
707	16	40	Post-Remediation	03707-S0016-F040-01	17-Jan-11	Rick Zahensky	12.12	0.2989	0.007668	0.3626	0.3631					
707	16	41	Post-Remediation	03707-S0016-F041-01	17-Jan-11	Rick Zahensky	9.371	-0.02126	-0.001834	0.2684	0.3256					
707	16	42	Post-Remediation	03707-S0016-F042-01	15-Feb-11	Rick Zahensky	13.27	0.5436	0.01628	0.2246	0.2975					
707	16	43	Post-Remediation	03707-S0016-F043-01	15-Feb-11	Rick Zahensky	12.13	0.7198	0.01883	0.4216	0.4412					
707	16	44	Post-Remediation	03707-S0016-F044-01	15-Feb-11	Rick Zahensky	11.85	-0.001787	0.01242	0.4198	0.3846					
707	16	45	Systematic	03707-S0016-F045-01	04-Mar-11	Jeff Rolfe	6.635	0.8271	-0.005854	0.1939	0.3053	4.73	0.121	-0.0342	0.121	0.282
707	16	46	Systematic	03707-S0016-F046-01	04-Mar-11	Jeff Rolfe	6.553	0.4715	0.003859	0.26	0.2745	7.33	0.489	0	0.489	0.299
707	16	47	Systematic	03707-S0016-F047-01	04-Mar-11	Jeff Rolfe	6.587	0.097	0.00006063	0.1483	0.3005	5.54	0.267	-0.0307	0.267	0.398
707	16	48	Systematic	03707-S0016-F048-01	04-Mar-11	Jeff Rolfe	5.965	0.3896	-0.009017	0.118	0.2547	5.85	0.38	0	0.38	0.412
707	16	49	Systematic	03707-S0016-F049-01	04-Mar-11	Jeff Rolfe	5.821	0.4077	-0.008171	0.1508	0.1992	6.39	0.353	-0.00783	0.353	0.31
707	16	50	Systematic	03707-S0016-F050-01	04-Mar-11	Jeff Rolfe	4.325	0.1315	-0.009793	0.1309	0.2081	3.31	0.239	-0.0258	0.239	0.393
707	16	51	Systematic	03707-S0016-F051-01	04-Mar-11	Jeff Rolfe	5.419	0.3943	0.007731	0.2131	0.2173	6.4	0.135	0.00282	0.135	0.199
707	16	52	Systematic	03707-S0016-F052-01	04-Mar-11	Jeff Rolfe	6.296	0.1049	-0.003647	0.1081	0.2524	5.85	0.354	-0.00172	0.354	0.415
707	16	53	Systematic	03707-S0016-F053-01	04-Mar-11	Jeff Rolfe	5.279	0.2166	0.004443	0.1002	0.1484	4.76	0.234	-0.000264	0.234	0.353

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CCC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
707	16	54	Systematic	03707-S0016-F054-01	04-Mar-11	Jeff Rolfe	6.448	0.1772	-0.000337	0.3066	0.1182	2.49	0.466	-0.0151	0.466	0.286
707	16	55	Systematic	03707-S0016-F055-01	04-Mar-11	Jeff Rolfe	7.27	0.3256	0.001196	0.2063	0.2104	4.54	0.0812	-0.0374	0.0812	0.28
707	16	56	Systematic	03707-S0016-F056-01	04-Mar-11	Jeff Rolfe	6.321	0.1429	0.003227	0.2811	0.2283	7.83	0.34	-0.00112	0.34	0.308
707	16	57	Systematic	03707-S0016-F057-01	04-Mar-11	Jeff Rolfe	4.77	0.253	0.002548	0.4943	0.3934	5.1	0.445	0.00511	0.445	0.3
707	16	58	Systematic	03707-S0016-F058-01	04-Mar-11	Jeff Rolfe	5.407	0.1624	0.003164	0.1221	0.1433	5.86	0.314	-0.00959	0.314	0.378
707	16	59	Systematic	03707-S0016-F059-01	04-Mar-11	Jeff Rolfe	7.281	0.452	-0.003997	0.1471	0.2353	4.34	0.199	-0.0194	0.199	0.327
707	16	60	Systematic	03707-S0016-F060-01	04-Mar-11	Jeff Rolfe	6.152	0.002317	0	0.184	0.3286	4.37	0.356	-0.0329	0.356	0.381
707	16	61	Systematic	03707-S0016-F061-01	04-Mar-11	Jeff Rolfe	7.212	0.1016	-0.0006468	0.2156	0.2407	7.55	0.426	0.000311	0.426	0.348
707	16	62	Systematic	03707-S0016-F062-01	04-Mar-11	Jeff Rolfe	7.198	0.4266	-0.001584	0.2997	0.3297	7.46	0.324	0.0292	0.324	0.332
707	16	63	Systematic	03707-S0016-F063-01	04-Mar-11	Jeff Rolfe	5.891	0.5774	0	0.1825	0.2358	5	0.0686	-0.0229	0.0686	0.354
707	16	64	Systematic	03707-S0016-F064-01	04-Mar-11	Jeff Rolfe	5.84	0.2994	-0.005774	0.1207	0.1984	4.2	0.415	0.0198	0.415	0.358
707	16	65	Sr90 Remediation	03707-S0016-F065-01	06-May-11	Rick Zahensky										
707	16	66	Sr90 Remediation	03707-S0016-F066-01	06-May-11	Rick Zahensky										
707	16	67	Systematic	03707-S0016-F067-01	07-Jun-11	Jeff Rolfe	5.497	0.5569	-0.002965	0.2645	0.2208	4.31	0.28	0.0264	0.28	0.341
707	16	68	Systematic	03707-S0016-F068-01	07-Jun-11	Jeff Rolfe	3.585	0.2724	-0.006602	0.1009	0.2097	3.19	0.175	-0.0124	0.175	0.365
707	16	69	Systematic	03707-S0016-F069-01	07-Jun-11	Jeff Rolfe	5.921	0.4072	-0.0003025	0.1929	0.2087	3.72	0.163	-0.00933	0.163	0.43
707	16	70	Systematic	03707-S0016-F070-01	07-Jun-11	Jeff Rolfe	3.912	0.2403	0.0006924	0.1092	0.05742	4.46	0.226	-0.00835	0.226	0.229
707	16	71	Systematic	03707-S0016-F071-01	07-Jun-11	Jeff Rolfe	0.5989	0.189	0	0.03181	0.0576	1.59	0.177	0.00898	0.177	0.178
707	16	72	Systematic	03707-S0016-F072-01	07-Jun-11	Jeff Rolfe	1.052	0.3574	0.003927	0.05744	0.0009318	0.479	0.224	0	0.224	0.0311
707	16	73	Systematic	03707-S0016-F073-01	07-Jun-11	Jeff Rolfe	0.6922	-0.08615	0.00003038	0.02316	0.005738	0.815	0.0254	0.000167	0.0254	0.0309
707	16	74	Systematic	03707-S0016-F074-01	07-Jun-11	Jeff Rolfe	1.028	0.138	0.003106	0.03219	0.005892	1.99	0.0509	0.00637	0.0509	0.0294
707	16	75	Systematic	03707-S0016-F075-01	07-Jun-11	Jeff Rolfe	0.4487	0.1769	0.00115	0.01864	0.02665	0.786	0.0433	0.0168	0.0433	0.0852
707	16	76	Systematic	03707-S0016-F076-01	07-Jun-11	Jeff Rolfe	0.73	0.2528	0	-0.05055	0.001416	1.68	0.0677	0.00883	0.0677	0.194
707	16	77	Systematic	03707-S0016-F077-01	07-Jun-11	Jeff Rolfe	2.085	0	0	0.06933	0.01033	2.08	0.0856	-0.0078	0.0856	0.125
707	16	78	Systematic	03707-S0016-F078-01	07-Jun-11	Jeff Rolfe	1.468	0.1912	-0.001889	-0.02702	0.1142	2.55	0.194	0.0183	0.194	0.0571
707	16	79	Systematic	03707-S0016-F079-01	07-Jun-11	Jeff Rolfe	1.561	0.06709	0	0.0632	0.0918	1.84	0.135	0.000445	0.135	0.183
707	16	80	Systematic	03707-S0016-F080-01	07-Jun-11	Jeff Rolfe	1.395	0.09918	-0.004538	0.06217	0.06162	1.7	0.219	-0.0228	0.219	0.215
707	16	81	Systematic	03707-S0016-F081-01	07-Jun-11	Jeff Rolfe	5.032	0.6889	-0.008213	0.02611	0.2336	2.78	0.162	-0.000692	0.162	0.283
707	16	82	Systematic	03707-S0016-F082-01	07-Jun-11	Jeff Rolfe	2.903	0.2683	-0.008008	0.2192	0.07929	2.1	0.148	-0.0319	0.148	0.213
707	16	83	Systematic	03707-S0016-F083-01	07-Jun-11	Jeff Rolfe	2.539	0	-0.004677	0.05441	0.1153	3.15	0.175	-0.0088	0.175	0.266
707	16	84	Systematic	03707-S0016-F084-01	07-Jun-11	Jeff Rolfe	2.951	0.2242	-0.003493	0.07767	0.1788	3.86	0.585	-0.00758	0.585	0.705
707	16	85	Systematic	03707-S0016-F085-01	07-Jun-11	Jeff Rolfe	5.209	0.5809	-0.005378	0.01803	0.1538	3.03	0.248	0.0062	0.248	0.25
707	16	86	Systematic	03707-S0016-F086-01	07-Jun-11	Jeff Rolfe	4.85	0.1707	0.00324	0.07472	0.2392	4.22	0.35	0.0131	0.35	0.345
707	16	87	Sr90 Remediation	03707-S0016-F087-01	04-May-12	Rick Zahensky										
707	16	88	Sr90 Remediation	03707-S0016-F088-01	04-May-12	Rick Zahensky										
707	16	89	Sr90 Remediation	03707-S0016-F089-01	04-May-12	Rick Zahensky										
707	16	90	Sr90 Remediation	03707-S0016-F090-01	04-May-12	Rick Zahensky										
707	16	91	Post-Remediation	03707-S0016-F091-01	29-Jun-12	Rick Zahensky	1.112	0.2955	0	0.03228	0.02751					
707	16	92	Characterization	03707-S0016-F092-01	07-Aug-12	Jeff Rolfe	0.8809	0.1604	-0.002972	0.03894	0					

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

REPORT TITLE

BUILDING 707
SURVEY UNIT 16, SURVEY 328

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW: 0
AUTHOR: GFG
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: su16_328.mxd

TETRA TECH EC INC.

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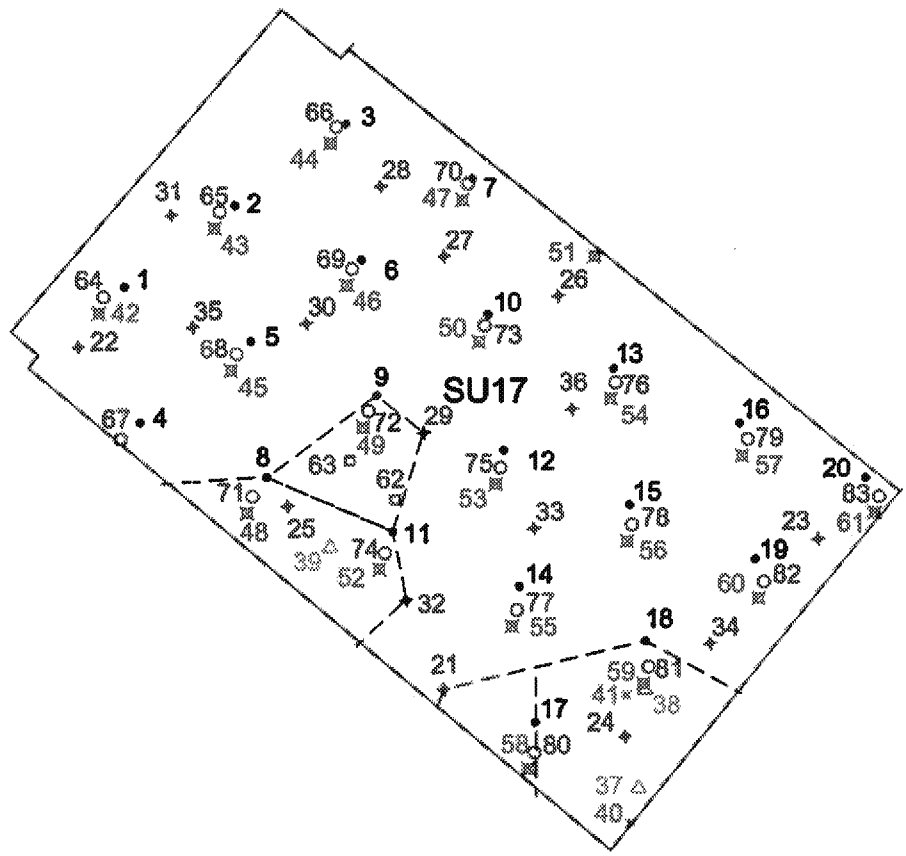

LEGEND:

- • 1 SYSTEMATIC 1 SAMPLES 1–20
- ⊠ 21 BIASED SAMPLES 21–36
- △ 37 POST REMEDIATION 1 SAMPLES 37–39
- △ 40 POST REMEDIATION 2 SAMPLES 40–41
- ⊠ 42 SYSTEMATIC 2 SAMPLES 42–61
- ▫ 62 Sr–90 REMEDIATION SAMPLES 62–63
- ○ 64 SYSTEMATIC 3 SAMPLES 64–83
- – – – – – PREVIOUS REMEDIATION

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SCALE 1:30

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PLOT/UPDATE: OCT 18 2012 13:26:08

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 17

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 518 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 126182 Probe Serial #: 230161

Calibration Due Date: 11/17/2011

Reference Area Background Identification #: 518-BKGDS18 Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	03/01/2011 10:24	5734
2	03/01/2011 10:26	6197
3	03/01/2011 10:27	5923
4	03/01/2011 10:28	5458
5	03/01/2011 10:29	6885
6	03/01/2011 10:30	5930
7	03/01/2011 10:31	5459
8	03/01/2011 10:32	5899
9	03/01/2011 10:34	5865
10	03/01/2011 10:35	5347
11	03/01/2011 10:36	5470
12	03/01/2011 10:37	5852
13	03/01/2011 10:38	6022
14	03/01/2011 10:40	6222
15	03/01/2011 10:41	5742
16	03/01/2011 10:42	5119
17	03/01/2011 10:43	5970
18	03/01/2011 10:44	5959
19	03/01/2011 10:45	6120
20	03/01/2011 10:46	6291

Gamma Mean Background (cpm): 5873

Standard Deviation: 392

Gamma 3σ Investigation Level (cpm): 7049

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/19/2010 7:36	6906	5817	1089	479-BKGDS1A	7378	
2	11/19/2010 7:37	5775	5817	-42	479-BKGDS1A	7378	
3	11/19/2010 7:39	5294	5817	-523	479-BKGDS1A	7378	
4	11/19/2010 7:40	6744	5817	927	479-BKGDS1A	7378	
5	11/19/2010 7:42	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
6	11/19/2010 7:43	5983	5817	166	479-BKGDS1A	7378	
7	11/19/2010 7:44	5717	5817	-100	479-BKGDS1A	7378	
8	11/19/2010 7:45	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
9	11/19/2010 7:47	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
10	11/19/2010 7:48	6838	5817	1021	479-BKGDS1A	7378	
11	11/19/2010 7:50	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
12	11/19/2010 7:51	6979	5817	1162	479-BKGDS1A	7378	
13	11/19/2010 7:52	7332	5817	1515	479-BKGDS1A	7378	
14	11/19/2010 7:54	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
15	11/19/2010 7:55	6929	5817	1112	479-BKGDS1A	7378	
16	11/19/2010 7:56	4743	5817	-1074	479-BKGDS1A	7378	
17	11/19/2010 7:58	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
18	11/19/2010 7:59	6603	5817	786	479-BKGDS1A	7378	
19	11/19/2010 8:00	5740	5817	-77	479-BKGDS1A	7378	
20	11/19/2010 8:01	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
21	11/30/2010 10:14	6537	5817	720	479-BKGDS1A	7378	
22	11/30/2010 10:15	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
23	11/30/2010 10:16	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
24	11/30/2010 10:18	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
25	11/30/2010 10:19	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
26	11/30/2010 10:20	7123	5817	1306	479-BKGDS1A	7378	
27	11/30/2010 10:22	6675	5817	858	479-BKGDS1A	7378	
28	11/30/2010 10:23	7298	5817	1481	479-BKGDS1A	7378	
29	11/30/2010 10:24	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
30	11/30/2010 10:25	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
31	11/30/2010 10:27	[illegible]	5817	[illegible]	479-BKGDS1A	7378	
32	11/30/2010 10:28	[illegible]	5817	[illegible]	479-BKGDS1A	7378	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/30/2010 10:29	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
34	11/30/2010 10:30	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
35	11/30/2010 10:32	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
36	11/30/2010 10:33	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
37	1/17/2011 11:29	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
38	1/17/2011 11:35	5862	5817	45	479-BKGDS1A	7378	
39	1/17/2011 11:39	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
40	2/15/2011 13:34	5370	5817	-447	479-BKGDS1A	7378	
41	2/15/2011 13:36	4533	5817	-1284	479-BKGDS1A	7378	
42	3/8/2011 11:04	7043	5817	1226	479-BKGDS1A	7378	
43	3/8/2011 11:06	6535	5817	718	479-BKGDS1A	7378	
44	3/8/2011 11:07	5131	5817	-686	479-BKGDS1A	7378	
45	3/8/2011 11:08	7033	5817	1216	479-BKGDS1A	7378	
46	3/8/2011 11:10	6310	5817	493	479-BKGDS1A	7378	
47	3/8/2011 11:11	5874	5817	57	479-BKGDS1A	7378	
48	3/8/2011 11:12	6395	5817	578	479-BKGDS1A	7378	
49	3/8/2011 11:13	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
50	3/8/2011 11:15	6672	5817	855	479-BKGDS1A	7378	
51	3/8/2011 11:16	5932	5817	115	479-BKGDS1A	7378	
52	3/8/2011 11:17	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
53	3/8/2011 11:19	7312	5817	1495	479-BKGDS1A	7378	
54	3/8/2011 11:20	6416	5817	599	479-BKGDS1A	7378	
55	3/8/2011 11:21	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
56	3/8/2011 11:22	4662	5817	-1155	479-BKGDS1A	7378	
57	3/8/2011 11:24	4473	5817	-1344	479-BKGDS1A	7378	
58	3/8/2011 11:25	7270	5817	1453	479-BKGDS1A	7378	
59	3/8/2011 11:26	4503	5817	-1314	479-BKGDS1A	7378	
60	3/8/2011 11:28	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
61	3/8/2011 11:29	7269	5817	1452	479-BKGDS1A	7378	
62	5/6/2011 11:11	5440	5817	-377	479-BKGDS1A	7378	
63	5/6/2011 11:12	[redacted]	5817	[redacted]	479-BKGDS1A	7378	
64	6/8/2011 11:02	6993	5873	1120	518-BKGDS1B	7049	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	6/8/2011 11:03	5038	5873	-835	518-BKGDS1B	7049	
66	6/8/2011 11:04	4680	5873	-1193	518-BKGDS1B	7049	
67	6/8/2011 11:06	6890	5873	1017	518-BKGDS1B	7049	
68	6/8/2011 11:07	5865	5873	-8	518-BKGDS1B	7049	
69	6/8/2011 11:08	6848	5873	975	518-BKGDS1B	7049	
70	6/8/2011 11:09	5563	5873	-310	518-BKGDS1B	7049	
71	6/8/2011 11:10	6237	5873	364	518-BKGDS1B	7049	
72	6/8/2011 11:11	6179	5873	306	518-BKGDS1B	7049	
73	6/8/2011 11:14	6310	5873	437	518-BKGDS1B	7049	
74	6/8/2011 11:15	6600	5873	727	518-BKGDS1B	7049	
75	6/8/2011 11:17	6518	5873	645	518-BKGDS1B	7049	
76	6/8/2011 11:18	6446	5873	573	518-BKGDS1B	7049	
77	6/8/2011 11:19	6463	5873	590	518-BKGDS1B	7049	
78	6/8/2011 11:20	6532	5873	659	518-BKGDS1B	7049	
79	6/8/2011 11:21	6498	5873	625	518-BKGDS1B	7049	
80	6/8/2011 11:22	4985	5873	-888	518-BKGDS1B	7049	
81	6/8/2011 11:23	5868	5873	-5	518-BKGDS1B	7049	
82	6/8/2011 11:24	5098	5873	-775	518-BKGDS1B	7049	
83	6/8/2011 11:26	5946	5873	73	518-BKGDS1B	7049	

Net Gamma cpm Summary
Min: -1344
Avg: 931
Max: 3926
St Dev: 1188

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m^2

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 479 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm):	5817
Standard Deviation:	520
Gamma 3σ Investigation Level (cpm):	7378

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 **Survey Unit:** 17 **Class:** 1 **Area:** 907.33 m² **Count Time:** 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/19/2010 7:34	116	158	-42	512-BKGDS1A	387	
2	11/19/2010 7:35	132	158	-26	512-BKGDS1A	387	
3	11/19/2010 7:37	145	158	-13	512-BKGDS1A	387	
4	11/19/2010 7:38	131	158	-27	512-BKGDS1A	387	
5	11/19/2010 7:39	171	158	13	512-BKGDS1A	387	
6	11/19/2010 7:41	146	158	-12	512-BKGDS1A	387	
7	11/19/2010 7:42	125	158	-33	512-BKGDS1A	387	
8	11/19/2010 7:43	155	158	-3	512-BKGDS1A	387	
9	11/19/2010 7:45	151	158	-7	512-BKGDS1A	387	
10	11/19/2010 7:46	152	158	-6	512-BKGDS1A	387	
11	11/19/2010 7:47	151	158	-7	512-BKGDS1A	387	
12	11/19/2010 7:49	154	158	-4	512-BKGDS1A	387	
13	11/19/2010 7:50	155	158	-3	512-BKGDS1A	387	
14	11/19/2010 7:51	152	158	-6	512-BKGDS1A	387	
15	11/19/2010 7:53	139	158	-19	512-BKGDS1A	387	
16	11/19/2010 7:54	102	158	-56	512-BKGDS1A	387	
17	11/19/2010 7:55	137	158	-21	512-BKGDS1A	387	
18	11/19/2010 7:56	135	158	-23	512-BKGDS1A	387	
19	11/19/2010 7:57	133	158	-25	512-BKGDS1A	387	
20	11/19/2010 7:59	149	158	-9	512-BKGDS1A	387	
21	11/30/2010 8:15	220	158	62	512-BKGDS1A	387	
22	11/30/2010 8:20	154	158	-4	512-BKGDS1A	387	
23	11/30/2010 8:22	152	158	-6	512-BKGDS1A	387	
24	11/30/2010 8:25	162	158	4	512-BKGDS1A	387	
25	11/30/2010 8:28	157	158	-1	512-BKGDS1A	387	
26	11/30/2010 8:33	170	158	12	512-BKGDS1A	387	
27	11/30/2010 8:35	155	158	-3	512-BKGDS1A	387	
28	11/30/2010 8:36	160	158	2	512-BKGDS1A	387	
29	11/30/2010 8:37	145	158	-13	512-BKGDS1A	387	
30	11/30/2010 8:40	151	158	-7	512-BKGDS1A	387	
31	11/30/2010 8:42	146	158	-12	512-BKGDS1A	387	
32	11/30/2010 9:26	174	158	16	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/30/2010 9:28	175	158	17	512-BKGDS1A	387	
34	11/30/2010 9:29	154	158	-4	512-BKGDS1A	387	
35	11/30/2010 9:31	145	158	-13	512-BKGDS1A	387	
36	11/30/2010 9:32	148	158	-10	512-BKGDS1A	387	
37	1/17/2011 12:42	218	158	60	512-BKGDS1A	387	
38	1/17/2011 12:44	180	158	22	512-BKGDS1A	387	
39	1/17/2011 12:45	186	158	28	512-BKGDS1A	387	
40	2/15/2011 13:58	202	158	44	512-BKGDS1A	387	
41	2/15/2011 14:00	208	158	50	512-BKGDS1A	387	
42	3/8/2011 11:34	169	158	11	512-BKGDS1A	387	
43	3/8/2011 11:35	193	158	35	512-BKGDS1A	387	
44	3/8/2011 11:36	167	158	9	512-BKGDS1A	387	
45	3/8/2011 11:38	172	158	14	512-BKGDS1A	387	
46	3/8/2011 11:39	176	158	18	512-BKGDS1A	387	
47	3/8/2011 11:40	164	158	6	512-BKGDS1A	387	
48	3/8/2011 11:41	139	158	-19	512-BKGDS1A	387	
49	3/8/2011 11:43	155	158	-3	512-BKGDS1A	387	
50	3/8/2011 11:44	157	158	-1	512-BKGDS1A	387	
51	3/8/2011 11:45	135	158	-23	512-BKGDS1A	387	
52	3/8/2011 11:47	164	158	6	512-BKGDS1A	387	
53	3/8/2011 11:48	166	158	8	512-BKGDS1A	387	
54	3/8/2011 11:49	158	158	0	512-BKGDS1A	387	
55	3/8/2011 11:50	140	158	-18	512-BKGDS1A	387	
56	3/8/2011 11:51	140	158	-18	512-BKGDS1A	387	
57	3/8/2011 11:52	130	158	-28	512-BKGDS1A	387	
58	3/8/2011 12:41	196	158	38	512-BKGDS1A	387	
59	3/8/2011 12:42	136	158	-22	512-BKGDS1A	387	
60	3/8/2011 12:43	145	158	-13	512-BKGDS1A	387	
61	3/8/2011 12:45	202	158	44	512-BKGDS1A	387	
62	5/6/2011 11:08	209	158	51	512-BKGDS1A	387	
63	5/6/2011 11:09	178	158	20	512-BKGDS1A	387	
64	6/8/2011 10:40	180	158	22	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	6/8/2011 10:41	177	158	19	512-BKGDS1A	387	
66	6/8/2011 11:00	133	158	-25	512-BKGDS1A	387	
67	6/8/2011 11:01	135	158	-23	512-BKGDS1A	387	
68	6/8/2011 11:02	171	158	13	512-BKGDS1A	387	
69	6/8/2011 11:04	142	158	-16	512-BKGDS1A	387	
70	6/8/2011 11:05	138	158	-20	512-BKGDS1A	387	
71	6/8/2011 11:06	148	158	-10	512-BKGDS1A	387	
72	6/8/2011 11:07	137	158	-21	512-BKGDS1A	387	
73	6/8/2011 11:08	144	158	-14	512-BKGDS1A	387	
74	6/8/2011 11:09	153	158	-5	512-BKGDS1A	387	
75	6/8/2011 11:10	132	158	-26	512-BKGDS1A	387	
76	6/8/2011 11:11	129	158	-29	512-BKGDS1A	387	
77	6/8/2011 11:17	136	158	-22	512-BKGDS1A	387	
78	6/8/2011 11:18	124	158	-34	512-BKGDS1A	387	
79	6/8/2011 11:19	128	158	-30	512-BKGDS1A	387	
80	6/8/2011 11:20	157	158	-1	512-BKGDS1A	387	
81	6/8/2011 11:21	135	158	-23	512-BKGDS1A	387	
82	6/8/2011 11:22	104	158	-54	512-BKGDS1A	387	
83	6/8/2011 11:23	147	158	-11	512-BKGDS1A	387	

Net Gamma cpm Summary
Min: -56
Avg: -3
Max: 62
St Dev: 24

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/10/2010 14:43	168	158	10	512-BKGDS1A	387	
2	11/10/2010 14:43	97	158	-61	512-BKGDS1A	387	
3	11/10/2010 14:43	146	158	-12	512-BKGDS1A	387	
4	11/10/2010 14:44	133	158	-25	512-BKGDS1A	387	
5	11/10/2010 14:44	173	158	15	512-BKGDS1A	387	
6	11/10/2010 14:44	158	158	0	512-BKGDS1A	387	
7	11/10/2010 14:44	137	158	-21	512-BKGDS1A	387	
8	11/10/2010 14:44	121	158	-37	512-BKGDS1A	387	
9	11/10/2010 14:44	148	158	-10	512-BKGDS1A	387	
10	11/10/2010 14:44	143	158	-15	512-BKGDS1A	387	
11	11/10/2010 14:44	147	158	-11	512-BKGDS1A	387	
12	11/10/2010 14:44	128	158	-30	512-BKGDS1A	387	
13	11/10/2010 14:45	127	158	-31	512-BKGDS1A	387	
14	11/10/2010 14:45	118	158	-40	512-BKGDS1A	387	
15	11/10/2010 14:45	121	158	-37	512-BKGDS1A	387	
16	11/10/2010 14:45	177	158	19	512-BKGDS1A	387	
17	11/10/2010 14:45	180	158	22	512-BKGDS1A	387	
18	11/10/2010 14:45	174	158	16	512-BKGDS1A	387	
19	11/10/2010 14:45	149	158	-9	512-BKGDS1A	387	
20	11/10/2010 14:45	190	158	32	512-BKGDS1A	387	
21	11/10/2010 14:46	165	158	7	512-BKGDS1A	387	
22	11/10/2010 14:46	153	158	-5	512-BKGDS1A	387	
23	11/10/2010 14:46	150	158	-8	512-BKGDS1A	387	
24	11/10/2010 14:46	123	158	-35	512-BKGDS1A	387	
25	11/10/2010 14:46	152	158	-6	512-BKGDS1A	387	
26	11/10/2010 14:46	126	158	-32	512-BKGDS1A	387	
27	11/10/2010 14:46	127	158	-31	512-BKGDS1A	387	
28	11/10/2010 14:46	119	158	-39	512-BKGDS1A	387	
29	11/10/2010 14:46	120	158	-38	512-BKGDS1A	387	
30	11/10/2010 14:47	132	158	-26	512-BKGDS1A	387	
31	11/10/2010 14:47	148	158	-10	512-BKGDS1A	387	
32	11/10/2010 14:47	142	158	-16	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/10/2010 14:47	178	158	20	512-BKGDS1A	387	
34	11/10/2010 14:47	166	158	8	512-BKGDS1A	387	
35	11/10/2010 14:47	138	158	-20	512-BKGDS1A	387	
36	11/10/2010 14:47	117	158	-41	512-BKGDS1A	387	
37	11/10/2010 14:47	137	158	-21	512-BKGDS1A	387	
38	11/10/2010 14:48	137	158	-21	512-BKGDS1A	387	
39	11/10/2010 14:48	154	158	-4	512-BKGDS1A	387	
40	11/10/2010 14:48	173	158	15	512-BKGDS1A	387	
41	11/10/2010 14:48	145	158	-13	512-BKGDS1A	387	
42	11/10/2010 14:48	135	158	-23	512-BKGDS1A	387	
43	11/10/2010 14:48	127	158	-31	512-BKGDS1A	387	
44	11/10/2010 14:49	95	158	-63	512-BKGDS1A	387	
45	11/10/2010 14:49	101	158	-57	512-BKGDS1A	387	
46	11/10/2010 14:49	146	158	-12	512-BKGDS1A	387	
47	11/10/2010 14:49	134	158	-24	512-BKGDS1A	387	
48	11/10/2010 14:50	149	158	-9	512-BKGDS1A	387	
49	11/10/2010 14:50	150	158	-8	512-BKGDS1A	387	
50	11/10/2010 14:50	150	158	-8	512-BKGDS1A	387	
51	11/10/2010 14:50	142	158	-16	512-BKGDS1A	387	
52	11/10/2010 14:50	190	158	32	512-BKGDS1A	387	
53	11/10/2010 14:50	155	158	-3	512-BKGDS1A	387	
54	11/10/2010 14:50	143	158	-15	512-BKGDS1A	387	
55	11/10/2010 14:50	137	158	-21	512-BKGDS1A	387	
56	11/10/2010 14:50	117	158	-41	512-BKGDS1A	387	
57	11/10/2010 14:51	125	158	-33	512-BKGDS1A	387	
58	11/10/2010 14:51	127	158	-31	512-BKGDS1A	387	
59	11/10/2010 14:51	132	158	-26	512-BKGDS1A	387	
60	11/10/2010 14:51	135	158	-23	512-BKGDS1A	387	
61	11/10/2010 14:51	137	158	-21	512-BKGDS1A	387	
62	11/10/2010 14:51	124	158	-34	512-BKGDS1A	387	
63	11/10/2010 14:51	138	158	-20	512-BKGDS1A	387	
64	11/10/2010 14:51	109	158	-49	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	11/10/2010 14:52	160	158	2	512-BKGDS1A	387	
66	11/10/2010 14:52	192	158	34	512-BKGDS1A	387	
67	11/10/2010 14:52	192	158	34	512-BKGDS1A	387	
68	11/10/2010 14:52	172	158	14	512-BKGDS1A	387	
69	11/10/2010 14:52	152	158	-6	512-BKGDS1A	387	
70	11/10/2010 14:52	139	158	-19	512-BKGDS1A	387	
71	11/10/2010 14:52	117	158	-41	512-BKGDS1A	387	
72	11/10/2010 14:52	125	158	-33	512-BKGDS1A	387	
73	11/10/2010 14:52	125	158	-33	512-BKGDS1A	387	
74	11/10/2010 14:53	135	158	-23	512-BKGDS1A	387	
75	11/10/2010 14:53	148	158	-10	512-BKGDS1A	387	
76	11/10/2010 14:53	126	158	-32	512-BKGDS1A	387	
77	11/10/2010 14:53	111	158	-47	512-BKGDS1A	387	
78	11/10/2010 14:53	82	158	-76	512-BKGDS1A	387	
79	11/10/2010 14:53	107	158	-51	512-BKGDS1A	387	
80	11/10/2010 14:53	91	158	-67	512-BKGDS1A	387	
81	11/10/2010 14:53	117	158	-41	512-BKGDS1A	387	
82	11/10/2010 14:54	105	158	-53	512-BKGDS1A	387	
83	11/10/2010 14:54	123	158	-35	512-BKGDS1A	387	
84	11/10/2010 14:54	114	158	-44	512-BKGDS1A	387	
85	11/10/2010 14:54	124	158	-34	512-BKGDS1A	387	
86	11/10/2010 14:54	149	158	-9	512-BKGDS1A	387	
87	11/10/2010 14:55	54	158	-104	512-BKGDS1A	387	
88	11/10/2010 14:55	109	158	-49	512-BKGDS1A	387	
89	11/10/2010 14:55	134	158	-24	512-BKGDS1A	387	
90	11/10/2010 14:55	130	158	-28	512-BKGDS1A	387	
91	11/10/2010 14:55	135	158	-23	512-BKGDS1A	387	
92	11/10/2010 14:55	143	158	-15	512-BKGDS1A	387	
93	11/10/2010 14:55	133	158	-25	512-BKGDS1A	387	
94	11/10/2010 14:55	178	158	20	512-BKGDS1A	387	
95	11/10/2010 14:56	160	158	2	512-BKGDS1A	387	
96	11/10/2010 14:56	130	158	-28	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	11/10/2010 14:56	150	158	-8	512-BKGDS1A	387	
98	11/10/2010 14:56	138	158	-20	512-BKGDS1A	387	
99	11/10/2010 14:56	154	158	-4	512-BKGDS1A	387	
100	11/10/2010 14:56	187	158	29	512-BKGDS1A	387	
101	11/10/2010 14:56	167	158	9	512-BKGDS1A	387	
102	11/10/2010 14:56	154	158	-4	512-BKGDS1A	387	
103	11/10/2010 14:56	149	158	-9	512-BKGDS1A	387	
104	11/10/2010 14:57	175	158	17	512-BKGDS1A	387	
105	11/10/2010 14:57	150	158	-8	512-BKGDS1A	387	
106	11/10/2010 14:57	118	158	-40	512-BKGDS1A	387	
107	11/10/2010 14:57	176	158	18	512-BKGDS1A	387	
108	11/10/2010 14:57	163	158	5	512-BKGDS1A	387	
109	11/10/2010 14:57	190	158	32	512-BKGDS1A	387	
110	11/10/2010 14:57	178	158	20	512-BKGDS1A	387	
111	11/10/2010 14:57	158	158	0	512-BKGDS1A	387	
112	11/10/2010 14:57	130	158	-28	512-BKGDS1A	387	
113	11/10/2010 14:58	137	158	-21	512-BKGDS1A	387	
114	11/10/2010 14:58	167	158	9	512-BKGDS1A	387	
115	11/10/2010 14:58	146	158	-12	512-BKGDS1A	387	
116	11/10/2010 14:58	141	158	-17	512-BKGDS1A	387	
117	11/10/2010 14:58	134	158	-24	512-BKGDS1A	387	
118	11/10/2010 14:58	93	158	-65	512-BKGDS1A	387	
119	11/10/2010 14:58	125	158	-33	512-BKGDS1A	387	
120	11/10/2010 14:58	125	158	-33	512-BKGDS1A	387	
121	11/10/2010 14:59	88	158	-70	512-BKGDS1A	387	
122	11/10/2010 14:59	108	158	-50	512-BKGDS1A	387	
123	11/10/2010 14:59	92	158	-66	512-BKGDS1A	387	
124	11/10/2010 14:59	122	158	-36	512-BKGDS1A	387	
125	11/10/2010 14:59	115	158	-43	512-BKGDS1A	387	
126	11/10/2010 14:59	158	158	0	512-BKGDS1A	387	
127	11/10/2010 14:59	136	158	-22	512-BKGDS1A	387	
128	11/10/2010 14:59	135	158	-23	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
129	11/10/2010 14:59	99	158	-59	512-BKGDS1A	387	
130	11/10/2010 15:00	53	158	-105	512-BKGDS1A	387	
131	11/10/2010 15:00	110	158	-48	512-BKGDS1A	387	
132	11/10/2010 15:00	158	158	0	512-BKGDS1A	387	
133	11/10/2010 15:00	139	158	-19	512-BKGDS1A	387	
134	11/10/2010 15:00	126	158	-32	512-BKGDS1A	387	
135	11/10/2010 15:00	129	158	-29	512-BKGDS1A	387	
136	11/10/2010 15:01	151	158	-7	512-BKGDS1A	387	
137	11/10/2010 15:01	148	158	-10	512-BKGDS1A	387	
138	11/10/2010 15:01	153	158	-5	512-BKGDS1A	387	
139	11/10/2010 15:01	157	158	-1	512-BKGDS1A	387	
140	11/10/2010 15:01	130	158	-28	512-BKGDS1A	387	
141	11/10/2010 15:01	132	158	-26	512-BKGDS1A	387	
142	11/10/2010 15:01	140	158	-18	512-BKGDS1A	387	
143	11/10/2010 15:01	127	158	-31	512-BKGDS1A	387	
144	11/10/2010 15:01	131	158	-27	512-BKGDS1A	387	
145	11/10/2010 15:02	149	158	-9	512-BKGDS1A	387	
146	11/10/2010 15:02	96	158	-62	512-BKGDS1A	387	
147	11/10/2010 15:02	110	158	-48	512-BKGDS1A	387	
148	11/10/2010 15:02	105	158	-53	512-BKGDS1A	387	
149	11/10/2010 15:02	144	158	-14	512-BKGDS1A	387	
150	11/10/2010 15:02	180	158	22	512-BKGDS1A	387	
151	11/10/2010 15:02	187	158	29	512-BKGDS1A	387	
152	11/10/2010 15:02	153	158	-5	512-BKGDS1A	387	
153	11/10/2010 15:03	165	158	7	512-BKGDS1A	387	
154	11/10/2010 15:03	163	158	5	512-BKGDS1A	387	
155	11/10/2010 15:03	131	158	-27	512-BKGDS1A	387	
156	11/10/2010 15:03	127	158	-31	512-BKGDS1A	387	
157	11/10/2010 15:03	105	158	-53	512-BKGDS1A	387	
158	11/10/2010 15:03	147	158	-11	512-BKGDS1A	387	
159	11/10/2010 15:03	156	158	-2	512-BKGDS1A	387	
160	11/10/2010 15:03	155	158	-3	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
161	11/10/2010 15:03	154	158	-4	512-BKGDS1A	387	
162	11/10/2010 15:04	142	158	-16	512-BKGDS1A	387	
163	11/10/2010 15:04	131	158	-27	512-BKGDS1A	387	
164	11/10/2010 15:04	103	158	-55	512-BKGDS1A	387	
165	11/10/2010 15:04	116	158	-42	512-BKGDS1A	387	
166	11/10/2010 15:04	157	158	-1	512-BKGDS1A	387	
167	11/10/2010 15:04	158	158	0	512-BKGDS1A	387	
168	11/10/2010 15:04	136	158	-22	512-BKGDS1A	387	
169	11/10/2010 15:04	182	158	24	512-BKGDS1A	387	
170	11/10/2010 15:05	163	158	5	512-BKGDS1A	387	
171	11/10/2010 15:05	149	158	-9	512-BKGDS1A	387	
172	11/10/2010 15:05	140	158	-18	512-BKGDS1A	387	
173	11/10/2010 15:05	75	158	-83	512-BKGDS1A	387	
174	11/10/2010 15:05	119	158	-39	512-BKGDS1A	387	
175	11/10/2010 15:05	112	158	-46	512-BKGDS1A	387	
176	11/10/2010 15:06	131	158	-27	512-BKGDS1A	387	
177	11/10/2010 15:06	121	158	-37	512-BKGDS1A	387	
178	11/10/2010 15:06	148	158	-10	512-BKGDS1A	387	
179	11/10/2010 15:06	162	158	4	512-BKGDS1A	387	
180	11/10/2010 15:06	133	158	-25	512-BKGDS1A	387	
181	11/10/2010 15:06	90	158	-68	512-BKGDS1A	387	
182	11/10/2010 15:06	163	158	5	512-BKGDS1A	387	
183	11/10/2010 15:06	153	158	-5	512-BKGDS1A	387	
184	11/10/2010 15:06	148	158	-10	512-BKGDS1A	387	
185	11/10/2010 15:07	111	158	-47	512-BKGDS1A	387	
186	11/10/2010 15:07	178	158	20	512-BKGDS1A	387	
187	11/10/2010 15:07	180	158	22	512-BKGDS1A	387	
188	11/10/2010 15:07	196	158	38	512-BKGDS1A	387	
189	11/10/2010 15:07	150	158	-8	512-BKGDS1A	387	
190	11/10/2010 15:07	168	158	10	512-BKGDS1A	387	
191	11/10/2010 15:07	176	158	18	512-BKGDS1A	387	
192	11/10/2010 15:07	197	158	39	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
193	11/10/2010 15:08	150	158	-8	512-BKGDS1A	387	
194	11/10/2010 15:08	183	158	25	512-BKGDS1A	387	
195	11/10/2010 15:08	169	158	11	512-BKGDS1A	387	
196	11/10/2010 15:08	132	158	-26	512-BKGDS1A	387	
197	11/10/2010 15:08	116	158	-42	512-BKGDS1A	387	
198	11/10/2010 15:08	138	158	-20	512-BKGDS1A	387	
199	11/10/2010 15:08	110	158	-48	512-BKGDS1A	387	
200	11/10/2010 15:08	146	158	-12	512-BKGDS1A	387	
201	11/10/2010 15:08	151	158	-7	512-BKGDS1A	387	
202	11/10/2010 15:09	147	158	-11	512-BKGDS1A	387	
203	11/10/2010 15:09	179	158	21	512-BKGDS1A	387	
204	11/10/2010 15:09	122	158	-36	512-BKGDS1A	387	
205	11/10/2010 15:09	143	158	-15	512-BKGDS1A	387	
206	11/10/2010 15:09	144	158	-14	512-BKGDS1A	387	
207	11/10/2010 15:09	184	158	26	512-BKGDS1A	387	
208	11/10/2010 15:09	188	158	30	512-BKGDS1A	387	
209	11/10/2010 15:09	181	158	23	512-BKGDS1A	387	
210	11/10/2010 15:10	184	158	26	512-BKGDS1A	387	
211	11/10/2010 15:10	188	158	30	512-BKGDS1A	387	
212	11/10/2010 15:10	160	158	2	512-BKGDS1A	387	
213	11/10/2010 15:18	74	158	-84	512-BKGDS1A	387	
214	11/10/2010 15:19	88	158	-70	512-BKGDS1A	387	
215	11/10/2010 15:19	141	158	-17	512-BKGDS1A	387	
216	11/10/2010 15:19	119	158	-39	512-BKGDS1A	387	
217	11/10/2010 15:19	165	158	7	512-BKGDS1A	387	
218	11/10/2010 15:19	147	158	-11	512-BKGDS1A	387	
219	11/10/2010 15:19	165	158	7	512-BKGDS1A	387	
220	11/10/2010 15:19	175	158	17	512-BKGDS1A	387	
221	11/10/2010 15:19	150	158	-8	512-BKGDS1A	387	
222	11/10/2010 15:20	154	158	-4	512-BKGDS1A	387	
223	11/10/2010 15:20	170	158	12	512-BKGDS1A	387	
224	11/10/2010 15:20	176	158	18	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
225	11/10/2010 15:20	149	158	-9	512-BKGDS1A	387	
226	11/10/2010 15:20	131	158	-27	512-BKGDS1A	387	
227	11/10/2010 15:20	139	158	-19	512-BKGDS1A	387	
228	11/10/2010 15:20	148	158	-10	512-BKGDS1A	387	
229	11/10/2010 15:20	224	158	66	512-BKGDS1A	387	
230	11/10/2010 15:20	185	158	27	512-BKGDS1A	387	
231	11/10/2010 15:21	179	158	21	512-BKGDS1A	387	
232	11/10/2010 15:21	164	158	6	512-BKGDS1A	387	
233	11/10/2010 15:21	192	158	34	512-BKGDS1A	387	
234	11/10/2010 15:21	155	158	-3	512-BKGDS1A	387	
235	11/10/2010 15:21	165	158	7	512-BKGDS1A	387	
236	11/10/2010 15:21	155	158	-3	512-BKGDS1A	387	
237	11/10/2010 15:21	142	158	-16	512-BKGDS1A	387	
238	11/10/2010 15:21	192	158	34	512-BKGDS1A	387	
239	11/10/2010 15:22	143	158	-15	512-BKGDS1A	387	
240	11/10/2010 15:22	181	158	23	512-BKGDS1A	387	
241	11/10/2010 15:22	173	158	15	512-BKGDS1A	387	
242	11/10/2010 15:22	138	158	-20	512-BKGDS1A	387	
243	11/10/2010 15:22	150	158	-8	512-BKGDS1A	387	
244	11/10/2010 15:22	160	158	2	512-BKGDS1A	387	
245	11/10/2010 15:22	195	158	37	512-BKGDS1A	387	
246	11/10/2010 15:22	151	158	-7	512-BKGDS1A	387	
247	11/10/2010 15:22	129	158	-29	512-BKGDS1A	387	
248	11/10/2010 15:23	160	158	2	512-BKGDS1A	387	
249	11/10/2010 15:23	135	158	-23	512-BKGDS1A	387	
250	11/10/2010 15:23	106	158	-52	512-BKGDS1A	387	
251	11/10/2010 15:23	115	158	-43	512-BKGDS1A	387	
252	11/10/2010 15:23	107	158	-51	512-BKGDS1A	387	
253	11/10/2010 15:23	120	158	-38	512-BKGDS1A	387	
254	11/10/2010 15:23	121	158	-37	512-BKGDS1A	387	
255	11/10/2010 15:23	90	158	-68	512-BKGDS1A	387	
256	11/10/2010 15:24	131	158	-27	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
257	11/10/2010 15:24	126	158	-32	512-BKGDS1A	387	
258	11/10/2010 15:24	96	158	-62	512-BKGDS1A	387	
259	11/10/2010 15:24	89	158	-69	512-BKGDS1A	387	
260	11/10/2010 15:24	102	158	-56	512-BKGDS1A	387	
261	11/10/2010 15:25	105	158	-53	512-BKGDS1A	387	
262	11/10/2010 15:25	110	158	-48	512-BKGDS1A	387	
263	11/10/2010 15:25	139	158	-19	512-BKGDS1A	387	
264	11/10/2010 15:25	126	158	-32	512-BKGDS1A	387	
265	11/10/2010 15:25	117	158	-41	512-BKGDS1A	387	
266	11/10/2010 15:25	118	158	-40	512-BKGDS1A	387	
267	11/10/2010 15:25	122	158	-36	512-BKGDS1A	387	
268	11/10/2010 15:25	143	158	-15	512-BKGDS1A	387	
269	11/10/2010 15:25	120	158	-38	512-BKGDS1A	387	
270	11/10/2010 15:26	146	158	-12	512-BKGDS1A	387	
271	11/10/2010 15:26	172	158	14	512-BKGDS1A	387	
272	11/10/2010 15:26	156	158	-2	512-BKGDS1A	387	
273	11/10/2010 15:26	145	158	-13	512-BKGDS1A	387	
274	11/10/2010 15:26	143	158	-15	512-BKGDS1A	387	
275	11/10/2010 15:26	165	158	7	512-BKGDS1A	387	
276	11/10/2010 15:26	188	158	30	512-BKGDS1A	387	
277	11/10/2010 15:26	155	158	-3	512-BKGDS1A	387	
278	11/10/2010 15:26	125	158	-33	512-BKGDS1A	387	
279	11/10/2010 15:27	136	158	-22	512-BKGDS1A	387	
280	11/10/2010 15:27	126	158	-32	512-BKGDS1A	387	
281	11/10/2010 15:27	132	158	-26	512-BKGDS1A	387	
282	11/10/2010 15:27	117	158	-41	512-BKGDS1A	387	
283	11/10/2010 15:27	114	158	-44	512-BKGDS1A	387	
284	11/10/2010 15:27	137	158	-21	512-BKGDS1A	387	
285	11/10/2010 15:27	153	158	-5	512-BKGDS1A	387	
286	11/10/2010 15:27	129	158	-29	512-BKGDS1A	387	
287	11/10/2010 15:28	116	158	-42	512-BKGDS1A	387	
288	11/10/2010 15:28	215	158	57	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
289	11/10/2010 15:28	162	158	4	512-BKGDS1A	387	
290	11/10/2010 15:28	142	158	-16	512-BKGDS1A	387	
291	11/10/2010 15:28	148	158	-10	512-BKGDS1A	387	
292	11/10/2010 15:28	143	158	-15	512-BKGDS1A	387	
293	11/10/2010 15:28	160	158	2	512-BKGDS1A	387	
294	11/10/2010 15:28	176	158	18	512-BKGDS1A	387	
295	11/10/2010 15:28	179	158	21	512-BKGDS1A	387	
296	11/10/2010 15:29	143	158	-15	512-BKGDS1A	387	
297	11/10/2010 15:29	125	158	-33	512-BKGDS1A	387	
298	11/10/2010 15:29	120	158	-38	512-BKGDS1A	387	
299	11/10/2010 15:29	129	158	-29	512-BKGDS1A	387	
300	11/10/2010 15:29	125	158	-33	512-BKGDS1A	387	
301	11/11/2010 7:25	57	158	-101	512-BKGDS1A	387	
302	11/11/2010 7:25	78	158	-80	512-BKGDS1A	387	
303	11/11/2010 7:25	124	158	-34	512-BKGDS1A	387	
304	11/11/2010 7:25	143	158	-15	512-BKGDS1A	387	
305	11/11/2010 7:25	150	158	-8	512-BKGDS1A	387	
306	11/11/2010 7:25	171	158	13	512-BKGDS1A	387	
307	11/11/2010 7:25	163	158	5	512-BKGDS1A	387	
308	11/11/2010 7:25	162	158	4	512-BKGDS1A	387	
309	11/11/2010 7:26	123	158	-35	512-BKGDS1A	387	
310	11/11/2010 7:26	130	158	-28	512-BKGDS1A	387	
311	11/11/2010 7:26	162	158	4	512-BKGDS1A	387	
312	11/11/2010 7:26	165	158	7	512-BKGDS1A	387	
313	11/11/2010 7:26	134	158	-24	512-BKGDS1A	387	
314	11/11/2010 7:26	143	158	-15	512-BKGDS1A	387	
315	11/11/2010 7:26	130	158	-28	512-BKGDS1A	387	
316	11/11/2010 7:26	150	158	-8	512-BKGDS1A	387	
317	11/11/2010 7:27	124	158	-34	512-BKGDS1A	387	
318	11/11/2010 7:27	124	158	-34	512-BKGDS1A	387	
319	11/11/2010 7:27	173	158	15	512-BKGDS1A	387	
320	11/11/2010 7:27	152	158	-6	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
321	11/11/2010 7:27	162	158	4	512-BKGDS1A	387	
322	11/11/2010 7:27	145	158	-13	512-BKGDS1A	387	
323	11/11/2010 7:27	159	158	1	512-BKGDS1A	387	
324	11/11/2010 7:27	150	158	-8	512-BKGDS1A	387	
325	11/11/2010 7:27	157	158	-1	512-BKGDS1A	387	
326	11/11/2010 7:28	130	158	-28	512-BKGDS1A	387	
327	11/11/2010 7:28	122	158	-36	512-BKGDS1A	387	
328	11/11/2010 7:28	117	158	-41	512-BKGDS1A	387	
329	11/11/2010 7:28	115	158	-43	512-BKGDS1A	387	
330	11/11/2010 7:28	139	158	-19	512-BKGDS1A	387	
331	11/11/2010 7:28	120	158	-38	512-BKGDS1A	387	
332	11/11/2010 7:28	127	158	-31	512-BKGDS1A	387	
333	11/11/2010 7:28	137	158	-21	512-BKGDS1A	387	
334	11/11/2010 7:29	147	158	-11	512-BKGDS1A	387	
335	11/11/2010 7:29	131	158	-27	512-BKGDS1A	387	
336	11/11/2010 7:29	136	158	-22	512-BKGDS1A	387	
337	11/11/2010 7:29	144	158	-14	512-BKGDS1A	387	
338	11/11/2010 7:29	126	158	-32	512-BKGDS1A	387	
339	11/11/2010 7:29	107	158	-51	512-BKGDS1A	387	
340	11/11/2010 7:29	104	158	-54	512-BKGDS1A	387	
341	11/11/2010 7:29	155	158	-3	512-BKGDS1A	387	
342	11/11/2010 7:29	156	158	-2	512-BKGDS1A	387	
343	11/11/2010 7:30	188	158	30	512-BKGDS1A	387	
344	11/11/2010 7:30	74	158	-84	512-BKGDS1A	387	
345	11/11/2010 7:30	77	158	-81	512-BKGDS1A	387	
346	11/11/2010 7:31	141	158	-17	512-BKGDS1A	387	
347	11/11/2010 7:31	175	158	17	512-BKGDS1A	387	
348	11/11/2010 7:31	162	158	4	512-BKGDS1A	387	
349	11/11/2010 7:31	163	158	5	512-BKGDS1A	387	
350	11/11/2010 7:31	195	158	37	512-BKGDS1A	387	
351	11/11/2010 7:31	152	158	-6	512-BKGDS1A	387	
352	11/11/2010 7:31	137	158	-21	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
353	11/11/2010 7:31	136	158	-22	512-BKGDS1A	387	
354	11/11/2010 7:32	132	158	-26	512-BKGDS1A	387	
355	11/11/2010 7:32	116	158	-42	512-BKGDS1A	387	
356	11/11/2010 7:32	128	158	-30	512-BKGDS1A	387	
357	11/11/2010 7:32	142	158	-16	512-BKGDS1A	387	
358	11/11/2010 7:32	170	158	12	512-BKGDS1A	387	
359	11/11/2010 7:32	190	158	32	512-BKGDS1A	387	
360	11/11/2010 7:32	162	158	4	512-BKGDS1A	387	
361	11/11/2010 7:32	144	158	-14	512-BKGDS1A	387	
362	11/11/2010 7:32	155	158	-3	512-BKGDS1A	387	
363	11/11/2010 7:33	171	158	13	512-BKGDS1A	387	
364	11/11/2010 7:33	143	158	-15	512-BKGDS1A	387	
365	11/11/2010 7:33	121	158	-37	512-BKGDS1A	387	
366	11/11/2010 7:33	125	158	-33	512-BKGDS1A	387	
367	11/11/2010 7:33	124	158	-34	512-BKGDS1A	387	
368	11/11/2010 7:33	149	158	-9	512-BKGDS1A	387	
369	11/11/2010 7:33	140	158	-18	512-BKGDS1A	387	
370	11/11/2010 7:33	132	158	-26	512-BKGDS1A	387	
371	11/11/2010 7:33	145	158	-13	512-BKGDS1A	387	
372	11/11/2010 7:34	136	158	-22	512-BKGDS1A	387	
373	11/11/2010 7:34	124	158	-34	512-BKGDS1A	387	
374	11/11/2010 7:34	132	158	-26	512-BKGDS1A	387	
375	11/11/2010 7:34	116	158	-42	512-BKGDS1A	387	
376	11/11/2010 7:34	136	158	-22	512-BKGDS1A	387	
377	11/11/2010 7:34	102	158	-56	512-BKGDS1A	387	
378	11/11/2010 7:34	87	158	-71	512-BKGDS1A	387	
379	11/11/2010 7:34	108	158	-50	512-BKGDS1A	387	
380	11/11/2010 7:35	109	158	-49	512-BKGDS1A	387	
381	11/11/2010 7:35	131	158	-27	512-BKGDS1A	387	
382	11/11/2010 7:35	158	158	0	512-BKGDS1A	387	
383	11/11/2010 7:35	141	158	-17	512-BKGDS1A	387	
384	11/11/2010 7:35	132	158	-26	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
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Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
385	11/11/2010 7:35	108	158	-50	512-BKGDS1A	387	
386	11/11/2010 7:35	128	158	-30	512-BKGDS1A	387	
387	11/11/2010 7:36	49	158	-109	512-BKGDS1A	387	
388	11/11/2010 7:36	102	158	-56	512-BKGDS1A	387	
389	11/11/2010 7:36	129	158	-29	512-BKGDS1A	387	
390	11/11/2010 7:36	174	158	16	512-BKGDS1A	387	
391	11/11/2010 7:36	156	158	-2	512-BKGDS1A	387	
392	11/11/2010 7:36	142	158	-16	512-BKGDS1A	387	
393	11/11/2010 7:37	143	158	-15	512-BKGDS1A	387	
394	11/11/2010 7:37	151	158	-7	512-BKGDS1A	387	
395	11/11/2010 7:37	130	158	-28	512-BKGDS1A	387	
396	11/11/2010 7:37	141	158	-17	512-BKGDS1A	387	
397	11/11/2010 7:37	128	158	-30	512-BKGDS1A	387	
398	11/11/2010 7:37	138	158	-20	512-BKGDS1A	387	
399	11/11/2010 7:37	148	158	-10	512-BKGDS1A	387	
400	11/11/2010 7:37	176	158	18	512-BKGDS1A	387	
401	11/11/2010 7:37	147	158	-11	512-BKGDS1A	387	
402	11/11/2010 7:38	154	158	-4	512-BKGDS1A	387	
403	11/11/2010 7:38	154	158	-4	512-BKGDS1A	387	
404	11/11/2010 7:38	169	158	11	512-BKGDS1A	387	
405	11/11/2010 7:38	176	158	18	512-BKGDS1A	387	
406	11/11/2010 7:38	170	158	12	512-BKGDS1A	387	
407	11/11/2010 7:38	150	158	-8	512-BKGDS1A	387	
408	11/11/2010 7:38	147	158	-11	512-BKGDS1A	387	
409	11/11/2010 7:38	116	158	-42	512-BKGDS1A	387	
410	11/11/2010 7:38	155	158	-3	512-BKGDS1A	387	
411	11/11/2010 7:39	156	158	-2	512-BKGDS1A	387	
412	11/11/2010 7:39	153	158	-5	512-BKGDS1A	387	
413	11/11/2010 7:39	170	158	12	512-BKGDS1A	387	
414	11/11/2010 7:39	152	158	-6	512-BKGDS1A	387	
415	11/11/2010 7:39	159	158	1	512-BKGDS1A	387	
416	11/11/2010 7:39	108	158	-50	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
417	11/11/2010 7:39	121	158	-37	512-BKGDS1A	387	
418	11/11/2010 7:39	146	158	-12	512-BKGDS1A	387	
419	11/11/2010 7:40	174	158	16	512-BKGDS1A	387	
420	11/11/2010 7:40	163	158	5	512-BKGDS1A	387	
421	11/11/2010 7:40	141	158	-17	512-BKGDS1A	387	
422	11/11/2010 7:40	132	158	-26	512-BKGDS1A	387	
423	11/11/2010 7:40	150	158	-8	512-BKGDS1A	387	
424	11/11/2010 7:40	126	158	-32	512-BKGDS1A	387	
425	11/11/2010 7:40	144	158	-14	512-BKGDS1A	387	
426	11/11/2010 7:40	147	158	-11	512-BKGDS1A	387	
427	11/11/2010 7:40	144	158	-14	512-BKGDS1A	387	
428	11/11/2010 7:41	142	158	-16	512-BKGDS1A	387	
429	11/11/2010 7:41	132	158	-26	512-BKGDS1A	387	
430	11/11/2010 7:41	99	158	-59	512-BKGDS1A	387	
431	11/11/2010 7:41	49	158	-109	512-BKGDS1A	387	
432	11/11/2010 7:42	64	158	-94	512-BKGDS1A	387	
433	11/11/2010 7:42	102	158	-56	512-BKGDS1A	387	
434	11/11/2010 7:42	121	158	-37	512-BKGDS1A	387	
435	11/11/2010 7:44	54	158	-104	512-BKGDS1A	387	
436	11/11/2010 7:44	103	158	-55	512-BKGDS1A	387	
437	11/11/2010 7:44	130	158	-28	512-BKGDS1A	387	
438	11/11/2010 7:44	135	158	-23	512-BKGDS1A	387	
439	11/11/2010 7:44	121	158	-37	512-BKGDS1A	387	
440	11/11/2010 7:44	162	158	4	512-BKGDS1A	387	
441	11/11/2010 7:44	140	158	-18	512-BKGDS1A	387	
442	11/11/2010 7:44	124	158	-34	512-BKGDS1A	387	
443	11/11/2010 7:44	142	158	-16	512-BKGDS1A	387	
444	11/11/2010 7:45	154	158	-4	512-BKGDS1A	387	
445	11/11/2010 7:45	130	158	-28	512-BKGDS1A	387	
446	11/11/2010 7:45	134	158	-24	512-BKGDS1A	387	
447	11/11/2010 7:45	150	158	-8	512-BKGDS1A	387	
448	11/11/2010 7:45	154	158	-4	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
449	11/11/2010 7:45	143	158	-15	512-BKGDS1A	387	
450	11/11/2010 7:45	144	158	-14	512-BKGDS1A	387	
451	11/11/2010 7:45	163	158	5	512-BKGDS1A	387	
452	11/11/2010 7:46	144	158	-14	512-BKGDS1A	387	
453	11/11/2010 7:46	125	158	-33	512-BKGDS1A	387	
454	11/11/2010 7:46	122	158	-36	512-BKGDS1A	387	
455	11/11/2010 7:46	145	158	-13	512-BKGDS1A	387	
456	11/11/2010 7:46	134	158	-24	512-BKGDS1A	387	
457	11/11/2010 7:46	120	158	-38	512-BKGDS1A	387	
458	11/11/2010 7:46	134	158	-24	512-BKGDS1A	387	
459	11/11/2010 7:46	129	158	-29	512-BKGDS1A	387	
460	11/11/2010 7:46	106	158	-52	512-BKGDS1A	387	
461	11/11/2010 7:47	105	158	-53	512-BKGDS1A	387	
462	11/11/2010 7:47	121	158	-37	512-BKGDS1A	387	
463	11/11/2010 7:47	127	158	-31	512-BKGDS1A	387	
464	11/11/2010 7:47	145	158	-13	512-BKGDS1A	387	
465	11/11/2010 7:47	108	158	-50	512-BKGDS1A	387	
466	11/11/2010 7:47	121	158	-37	512-BKGDS1A	387	
467	11/11/2010 7:47	143	158	-15	512-BKGDS1A	387	
468	11/11/2010 7:47	133	158	-25	512-BKGDS1A	387	
469	11/11/2010 7:48	127	158	-31	512-BKGDS1A	387	
470	11/11/2010 7:48	122	158	-36	512-BKGDS1A	387	
471	11/11/2010 7:48	104	158	-54	512-BKGDS1A	387	
472	11/11/2010 7:48	114	158	-44	512-BKGDS1A	387	
473	11/11/2010 7:49	145	158	-13	512-BKGDS1A	387	
474	11/11/2010 7:49	148	158	-10	512-BKGDS1A	387	
475	11/11/2010 7:49	171	158	13	512-BKGDS1A	387	
476	11/11/2010 7:49	158	158	0	512-BKGDS1A	387	
477	11/11/2010 7:49	153	158	-5	512-BKGDS1A	387	
478	11/11/2010 7:49	191	158	33	512-BKGDS1A	387	
479	11/11/2010 7:50	146	158	-12	512-BKGDS1A	387	
480	11/11/2010 7:50	124	158	-34	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
481	11/11/2010 7:50	156	158	-2	512-BKGDS1A	387	
482	11/11/2010 7:50	148	158	-10	512-BKGDS1A	387	
483	11/11/2010 7:50	157	158	-1	512-BKGDS1A	387	
484	11/11/2010 7:50	140	158	-18	512-BKGDS1A	387	
485	11/11/2010 7:50	149	158	-9	512-BKGDS1A	387	
486	11/11/2010 7:50	132	158	-26	512-BKGDS1A	387	
487	11/11/2010 7:50	130	158	-28	512-BKGDS1A	387	
488	11/11/2010 7:51	116	158	-42	512-BKGDS1A	387	
489	11/11/2010 7:51	153	158	-5	512-BKGDS1A	387	
490	11/11/2010 7:51	133	158	-25	512-BKGDS1A	387	
491	11/11/2010 7:51	148	158	-10	512-BKGDS1A	387	
492	11/11/2010 7:51	150	158	-8	512-BKGDS1A	387	
493	11/11/2010 7:51	118	158	-40	512-BKGDS1A	387	
494	11/11/2010 7:51	110	158	-48	512-BKGDS1A	387	
495	11/11/2010 7:51	100	158	-58	512-BKGDS1A	387	
496	11/11/2010 7:52	91	158	-67	512-BKGDS1A	387	
497	11/11/2010 7:52	94	158	-64	512-BKGDS1A	387	
498	11/11/2010 7:52	118	158	-40	512-BKGDS1A	387	
499	11/11/2010 7:52	126	158	-32	512-BKGDS1A	387	
500	11/11/2010 7:52	124	158	-34	512-BKGDS1A	387	
501	11/11/2010 7:52	117	158	-41	512-BKGDS1A	387	
502	11/11/2010 7:52	175	158	17	512-BKGDS1A	387	
503	11/11/2010 7:52	152	158	-6	512-BKGDS1A	387	
504	11/11/2010 7:52	119	158	-39	512-BKGDS1A	387	
505	11/11/2010 7:53	138	158	-20	512-BKGDS1A	387	
506	11/11/2010 7:53	144	158	-14	512-BKGDS1A	387	
507	11/11/2010 7:53	127	158	-31	512-BKGDS1A	387	
508	11/11/2010 7:53	100	158	-58	512-BKGDS1A	387	
509	11/11/2010 7:53	87	158	-71	512-BKGDS1A	387	
510	11/11/2010 7:53	138	158	-20	512-BKGDS1A	387	
511	11/11/2010 7:53	119	158	-39	512-BKGDS1A	387	
512	11/11/2010 7:53	109	158	-49	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
513	11/11/2010 7:54	120	158	-38	512-BKGDS1A	387	
514	11/11/2010 7:54	128	158	-30	512-BKGDS1A	387	
515	11/11/2010 7:54	112	158	-46	512-BKGDS1A	387	
516	11/11/2010 7:54	117	158	-41	512-BKGDS1A	387	
517	11/11/2010 7:54	133	158	-25	512-BKGDS1A	387	
518	11/11/2010 7:55	106	158	-52	512-BKGDS1A	387	
519	11/11/2010 7:55	94	158	-64	512-BKGDS1A	387	
520	11/11/2010 7:55	92	158	-66	512-BKGDS1A	387	
521	11/11/2010 7:55	124	158	-34	512-BKGDS1A	387	
522	11/11/2010 7:55	130	158	-28	512-BKGDS1A	387	
523	11/11/2010 7:55	97	158	-61	512-BKGDS1A	387	
524	11/11/2010 7:55	122	158	-36	512-BKGDS1A	387	
525	11/11/2010 7:55	128	158	-30	512-BKGDS1A	387	
526	11/11/2010 7:56	118	158	-40	512-BKGDS1A	387	
527	11/11/2010 7:56	158	158	0	512-BKGDS1A	387	
528	11/11/2010 7:56	144	158	-14	512-BKGDS1A	387	
529	11/11/2010 7:56	132	158	-26	512-BKGDS1A	387	
530	11/11/2010 7:56	136	158	-22	512-BKGDS1A	387	
531	11/11/2010 7:56	164	158	6	512-BKGDS1A	387	
532	11/11/2010 7:56	172	158	14	512-BKGDS1A	387	
533	11/11/2010 7:56	126	158	-32	512-BKGDS1A	387	
534	11/11/2010 7:56	132	158	-26	512-BKGDS1A	387	
535	11/11/2010 7:57	165	158	7	512-BKGDS1A	387	
536	11/11/2010 7:57	143	158	-15	512-BKGDS1A	387	
537	11/11/2010 7:57	127	158	-31	512-BKGDS1A	387	
538	11/11/2010 7:57	94	158	-64	512-BKGDS1A	387	
539	11/11/2010 7:57	109	158	-49	512-BKGDS1A	387	
540	11/11/2010 7:57	116	158	-42	512-BKGDS1A	387	
541	11/11/2010 7:57	128	158	-30	512-BKGDS1A	387	
542	11/11/2010 7:57	162	158	4	512-BKGDS1A	387	
543	11/11/2010 7:58	173	158	15	512-BKGDS1A	387	
544	11/11/2010 7:58	154	158	-4	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
545	11/11/2010 7:58	145	158	-13	512-BKGDS1A	387	
546	11/11/2010 7:58	136	158	-22	512-BKGDS1A	387	
547	11/11/2010 7:58	135	158	-23	512-BKGDS1A	387	
548	11/11/2010 7:58	131	158	-27	512-BKGDS1A	387	
549	11/11/2010 7:58	135	158	-23	512-BKGDS1A	387	
550	11/11/2010 7:58	148	158	-10	512-BKGDS1A	387	
551	11/11/2010 7:58	137	158	-21	512-BKGDS1A	387	
552	11/11/2010 7:59	128	158	-30	512-BKGDS1A	387	
553	11/11/2010 7:59	139	158	-19	512-BKGDS1A	387	
554	11/11/2010 7:59	127	158	-31	512-BKGDS1A	387	
555	11/11/2010 7:59	114	158	-44	512-BKGDS1A	387	
556	11/11/2010 7:59	143	158	-15	512-BKGDS1A	387	
557	11/11/2010 7:59	145	158	-13	512-BKGDS1A	387	
558	11/11/2010 7:59	122	158	-36	512-BKGDS1A	387	
559	11/11/2010 8:00	126	158	-32	512-BKGDS1A	387	
560	11/11/2010 8:00	100	158	-58	512-BKGDS1A	387	
561	11/11/2010 8:00	102	158	-56	512-BKGDS1A	387	
562	11/11/2010 8:00	129	158	-29	512-BKGDS1A	387	
563	11/11/2010 8:00	118	158	-40	512-BKGDS1A	387	
564	11/11/2010 8:00	116	158	-42	512-BKGDS1A	387	
565	11/11/2010 8:00	104	158	-54	512-BKGDS1A	387	
566	11/11/2010 8:01	146	158	-12	512-BKGDS1A	387	
567	11/11/2010 8:01	122	158	-36	512-BKGDS1A	387	
568	11/11/2010 8:01	128	158	-30	512-BKGDS1A	387	
569	11/11/2010 8:01	117	158	-41	512-BKGDS1A	387	
570	11/11/2010 8:01	119	158	-39	512-BKGDS1A	387	
571	11/11/2010 8:01	172	158	14	512-BKGDS1A	387	
572	11/11/2010 8:01	181	158	23	512-BKGDS1A	387	
573	11/11/2010 8:01	190	158	32	512-BKGDS1A	387	
574	11/11/2010 8:01	176	158	18	512-BKGDS1A	387	
575	11/11/2010 8:02	160	158	2	512-BKGDS1A	387	
576	11/11/2010 8:02	126	158	-32	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
577	11/11/2010 8:02	129	158	-29	512-BKGDS1A	387	
578	11/11/2010 8:02	154	158	-4	512-BKGDS1A	387	
579	11/11/2010 8:02	123	158	-35	512-BKGDS1A	387	
580	11/11/2010 8:02	127	158	-31	512-BKGDS1A	387	
581	11/11/2010 8:02	146	158	-12	512-BKGDS1A	387	
582	11/11/2010 8:02	124	158	-34	512-BKGDS1A	387	
583	11/11/2010 8:02	133	158	-25	512-BKGDS1A	387	
584	11/11/2010 8:03	131	158	-27	512-BKGDS1A	387	
585	11/11/2010 8:03	134	158	-24	512-BKGDS1A	387	
586	11/11/2010 8:03	137	158	-21	512-BKGDS1A	387	
587	11/11/2010 8:03	110	158	-48	512-BKGDS1A	387	
588	11/11/2010 8:03	136	158	-22	512-BKGDS1A	387	
589	11/11/2010 8:03	132	158	-26	512-BKGDS1A	387	
590	11/11/2010 8:03	143	158	-15	512-BKGDS1A	387	
591	11/11/2010 8:03	142	158	-16	512-BKGDS1A	387	
592	11/11/2010 8:04	156	158	-2	512-BKGDS1A	387	
593	11/11/2010 8:04	160	158	2	512-BKGDS1A	387	
594	11/11/2010 8:04	138	158	-20	512-BKGDS1A	387	
595	11/11/2010 8:04	127	158	-31	512-BKGDS1A	387	
596	11/11/2010 8:04	146	158	-12	512-BKGDS1A	387	
597	11/11/2010 8:04	158	158	0	512-BKGDS1A	387	
598	11/11/2010 8:04	142	158	-16	512-BKGDS1A	387	
599	11/11/2010 8:04	132	158	-26	512-BKGDS1A	387	
600	11/11/2010 8:04	133	158	-25	512-BKGDS1A	387	
601	11/11/2010 8:05	177	158	19	512-BKGDS1A	387	
602	11/11/2010 8:05	188	158	30	512-BKGDS1A	387	
603	11/11/2010 8:05	161	158	3	512-BKGDS1A	387	
604	11/11/2010 8:06	109	158	-49	512-BKGDS1A	387	
605	11/11/2010 8:06	117	158	-41	512-BKGDS1A	387	
606	11/11/2010 8:06	114	158	-44	512-BKGDS1A	387	
607	11/11/2010 8:06	135	158	-23	512-BKGDS1A	387	
608	11/11/2010 8:06	132	158	-26	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
609	11/11/2010 8:06	165	158	7	512-BKGDS1A	387	
610	11/11/2010 8:06	140	158	-18	512-BKGDS1A	387	
611	11/11/2010 8:06	108	158	-50	512-BKGDS1A	387	
612	11/11/2010 8:06	111	158	-47	512-BKGDS1A	387	
613	11/11/2010 8:07	125	158	-33	512-BKGDS1A	387	
614	11/11/2010 8:07	153	158	-5	512-BKGDS1A	387	
615	11/11/2010 8:07	144	158	-14	512-BKGDS1A	387	
616	11/11/2010 8:07	148	158	-10	512-BKGDS1A	387	
617	11/11/2010 8:07	115	158	-43	512-BKGDS1A	387	
618	11/11/2010 8:07	122	158	-36	512-BKGDS1A	387	
619	11/11/2010 8:07	117	158	-41	512-BKGDS1A	387	
620	11/11/2010 8:07	122	158	-36	512-BKGDS1A	387	
621	11/11/2010 8:08	148	158	-10	512-BKGDS1A	387	
622	11/11/2010 8:08	122	158	-36	512-BKGDS1A	387	
623	11/11/2010 8:08	119	158	-39	512-BKGDS1A	387	
624	11/11/2010 8:08	134	158	-24	512-BKGDS1A	387	
625	11/11/2010 8:08	133	158	-25	512-BKGDS1A	387	
626	11/11/2010 8:08	134	158	-24	512-BKGDS1A	387	
627	11/11/2010 8:08	150	158	-8	512-BKGDS1A	387	
628	11/11/2010 8:08	142	158	-16	512-BKGDS1A	387	
629	11/11/2010 8:08	122	158	-36	512-BKGDS1A	387	
630	11/11/2010 8:09	119	158	-39	512-BKGDS1A	387	
631	11/11/2010 8:09	152	158	-6	512-BKGDS1A	387	
632	11/11/2010 8:09	130	158	-28	512-BKGDS1A	387	
633	11/11/2010 8:09	127	158	-31	512-BKGDS1A	387	
634	11/11/2010 8:09	112	158	-46	512-BKGDS1A	387	
635	11/11/2010 8:09	133	158	-25	512-BKGDS1A	387	
636	11/11/2010 8:09	145	158	-13	512-BKGDS1A	387	
637	11/11/2010 8:09	117	158	-41	512-BKGDS1A	387	
638	11/11/2010 8:10	103	158	-55	512-BKGDS1A	387	
639	11/11/2010 8:10	136	158	-22	512-BKGDS1A	387	
640	11/11/2010 8:10	151	158	-7	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
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Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
641	11/11/2010 8:10	167	158	9	512-BKGDS1A	387	
642	11/11/2010 8:10	158	158	0	512-BKGDS1A	387	
643	11/11/2010 8:10	139	158	-19	512-BKGDS1A	387	
644	11/11/2010 8:10	127	158	-31	512-BKGDS1A	387	
645	11/11/2010 8:12	157	158	-1	512-BKGDS1A	387	
646	11/11/2010 8:12	123	158	-35	512-BKGDS1A	387	
647	11/11/2010 8:12	124	158	-34	512-BKGDS1A	387	
648	11/11/2010 8:13	121	158	-37	512-BKGDS1A	387	
649	11/11/2010 8:13	141	158	-17	512-BKGDS1A	387	
650	11/11/2010 8:13	148	158	-10	512-BKGDS1A	387	
651	11/11/2010 8:13	126	158	-32	512-BKGDS1A	387	
652	11/11/2010 8:13	149	158	-9	512-BKGDS1A	387	
653	11/11/2010 8:13	171	158	13	512-BKGDS1A	387	
654	11/11/2010 8:13	170	158	12	512-BKGDS1A	387	
655	11/11/2010 8:13	148	158	-10	512-BKGDS1A	387	
656	11/11/2010 8:13	143	158	-15	512-BKGDS1A	387	
657	11/11/2010 8:14	165	158	7	512-BKGDS1A	387	
658	11/11/2010 8:14	167	158	9	512-BKGDS1A	387	
659	11/11/2010 8:14	183	158	25	512-BKGDS1A	387	
660	11/11/2010 8:14	178	158	20	512-BKGDS1A	387	
661	11/11/2010 8:14	164	158	6	512-BKGDS1A	387	
662	11/11/2010 8:14	142	158	-16	512-BKGDS1A	387	
663	11/11/2010 8:14	137	158	-21	512-BKGDS1A	387	
664	11/11/2010 8:14	127	158	-31	512-BKGDS1A	387	
665	11/11/2010 8:15	116	158	-42	512-BKGDS1A	387	
666	11/11/2010 8:15	107	158	-51	512-BKGDS1A	387	
667	11/11/2010 8:15	118	158	-40	512-BKGDS1A	387	
668	11/11/2010 8:15	182	158	24	512-BKGDS1A	387	
669	11/11/2010 8:15	199	158	41	512-BKGDS1A	387	
670	11/11/2010 8:15	142	158	-16	512-BKGDS1A	387	
671	11/11/2010 8:15	108	158	-50	512-BKGDS1A	387	
672	11/11/2010 8:15	181	158	23	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
673	11/11/2010 8:15	163	158	5	512-BKGDS1A	387	
674	11/11/2010 8:16	132	158	-26	512-BKGDS1A	387	
675	11/11/2010 8:16	135	158	-23	512-BKGDS1A	387	
676	11/11/2010 8:16	118	158	-40	512-BKGDS1A	387	
677	11/11/2010 8:16	113	158	-45	512-BKGDS1A	387	
678	11/11/2010 8:16	149	158	-9	512-BKGDS1A	387	
679	11/11/2010 8:16	167	158	9	512-BKGDS1A	387	
680	11/11/2010 8:16	134	158	-24	512-BKGDS1A	387	
681	11/11/2010 8:16	160	158	2	512-BKGDS1A	387	
682	11/11/2010 8:16	166	158	8	512-BKGDS1A	387	
683	11/11/2010 8:17	146	158	-12	512-BKGDS1A	387	
684	11/11/2010 8:17	154	158	-4	512-BKGDS1A	387	
685	11/11/2010 8:17	151	158	-7	512-BKGDS1A	387	
686	11/11/2010 8:17	139	158	-19	512-BKGDS1A	387	
687	11/11/2010 8:17	168	158	10	512-BKGDS1A	387	
688	11/11/2010 8:17	165	158	7	512-BKGDS1A	387	
689	11/11/2010 8:19	105	158	-53	512-BKGDS1A	387	
690	11/11/2010 8:19	126	158	-32	512-BKGDS1A	387	
691	11/11/2010 8:19	98	158	-60	512-BKGDS1A	387	
692	11/11/2010 8:19	155	158	-3	512-BKGDS1A	387	
693	11/11/2010 8:19	148	158	-10	512-BKGDS1A	387	
694	11/11/2010 8:19	107	158	-51	512-BKGDS1A	387	
695	11/11/2010 8:19	117	158	-41	512-BKGDS1A	387	
696	11/11/2010 8:19	127	158	-31	512-BKGDS1A	387	
697	11/11/2010 8:20	101	158	-57	512-BKGDS1A	387	
698	11/11/2010 8:20	119	158	-39	512-BKGDS1A	387	
699	11/11/2010 8:20	106	158	-52	512-BKGDS1A	387	
700	11/11/2010 8:20	116	158	-42	512-BKGDS1A	387	
701	11/11/2010 8:20	104	158	-54	512-BKGDS1A	387	
702	11/11/2010 8:20	163	158	5	512-BKGDS1A	387	
703	11/11/2010 8:20	132	158	-26	512-BKGDS1A	387	
704	11/11/2010 8:20	131	158	-27	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
705	11/11/2010 8:20	134	158	-24	512-BKGDS1A	387	
706	11/11/2010 8:21	158	158	0	512-BKGDS1A	387	
707	11/11/2010 8:21	137	158	-21	512-BKGDS1A	387	
708	11/11/2010 8:21	116	158	-42	512-BKGDS1A	387	
709	11/11/2010 8:21	91	158	-67	512-BKGDS1A	387	
710	11/11/2010 8:21	170	158	12	512-BKGDS1A	387	
711	11/11/2010 8:21	169	158	11	512-BKGDS1A	387	
712	11/11/2010 8:21	128	158	-30	512-BKGDS1A	387	
713	11/11/2010 8:21	146	158	-12	512-BKGDS1A	387	
714	11/11/2010 8:21	120	158	-38	512-BKGDS1A	387	
715	11/11/2010 8:22	120	158	-38	512-BKGDS1A	387	
716	11/11/2010 8:22	127	158	-31	512-BKGDS1A	387	
717	11/11/2010 8:22	111	158	-47	512-BKGDS1A	387	
718	11/11/2010 8:22	92	158	-66	512-BKGDS1A	387	
719	11/11/2010 8:22	84	158	-74	512-BKGDS1A	387	
720	11/11/2010 8:22	97	158	-61	512-BKGDS1A	387	
721	11/11/2010 8:22	88	158	-70	512-BKGDS1A	387	
722	11/11/2010 8:22	130	158	-28	512-BKGDS1A	387	
723	11/11/2010 8:23	151	158	-7	512-BKGDS1A	387	
724	11/11/2010 8:23	131	158	-27	512-BKGDS1A	387	
725	11/11/2010 8:23	145	158	-13	512-BKGDS1A	387	
726	11/11/2010 8:23	123	158	-35	512-BKGDS1A	387	
727	11/11/2010 8:23	122	158	-36	512-BKGDS1A	387	
728	11/11/2010 8:23	135	158	-23	512-BKGDS1A	387	
729	11/11/2010 8:23	128	158	-30	512-BKGDS1A	387	
730	11/11/2010 8:23	94	158	-64	512-BKGDS1A	387	
731	11/11/2010 8:23	120	158	-38	512-BKGDS1A	387	
732	11/11/2010 8:39	162	158	4	512-BKGDS1A	387	
733	11/11/2010 8:39	132	158	-26	512-BKGDS1A	387	
734	11/11/2010 8:39	121	158	-37	512-BKGDS1A	387	
735	11/11/2010 8:39	131	158	-27	512-BKGDS1A	387	
736	11/11/2010 8:40	143	158	-15	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
737	11/11/2010 8:40	119	158	-39	512-BKGDS1A	387	
738	11/11/2010 8:40	128	158	-30	512-BKGDS1A	387	
739	11/11/2010 8:40	155	158	-3	512-BKGDS1A	387	
740	11/11/2010 8:40	165	158	7	512-BKGDS1A	387	
741	11/11/2010 8:40	177	158	19	512-BKGDS1A	387	
742	11/11/2010 8:40	177	158	19	512-BKGDS1A	387	
743	11/11/2010 8:40	187	158	29	512-BKGDS1A	387	
744	11/11/2010 8:40	212	158	54	512-BKGDS1A	387	
745	11/11/2010 8:41	176	158	18	512-BKGDS1A	387	
746	11/11/2010 8:41	170	158	12	512-BKGDS1A	387	
747	11/11/2010 8:41	137	158	-21	512-BKGDS1A	387	
748	11/11/2010 8:41	148	158	-10	512-BKGDS1A	387	
749	11/11/2010 8:41	158	158	0	512-BKGDS1A	387	
750	11/11/2010 8:41	199	158	41	512-BKGDS1A	387	
751	11/11/2010 8:41	175	158	17	512-BKGDS1A	387	
752	11/11/2010 8:41	161	158	3	512-BKGDS1A	387	
753	11/11/2010 8:42	170	158	12	512-BKGDS1A	387	
754	11/11/2010 8:42	169	158	11	512-BKGDS1A	387	
755	11/11/2010 8:42	203	158	45	512-BKGDS1A	387	
756	11/11/2010 8:42	154	158	-4	512-BKGDS1A	387	
757	11/11/2010 8:42	167	158	9	512-BKGDS1A	387	
758	11/11/2010 8:42	167	158	9	512-BKGDS1A	387	
759	11/11/2010 8:42	136	158	-22	512-BKGDS1A	387	
760	11/11/2010 8:42	126	158	-32	512-BKGDS1A	387	
761	11/11/2010 8:42	121	158	-37	512-BKGDS1A	387	
762	11/11/2010 8:43	174	158	16	512-BKGDS1A	387	
763	11/11/2010 8:43	176	158	18	512-BKGDS1A	387	
764	11/11/2010 8:43	137	158	-21	512-BKGDS1A	387	
765	11/11/2010 8:43	187	158	29	512-BKGDS1A	387	
766	11/11/2010 8:43	149	158	-9	512-BKGDS1A	387	
767	11/11/2010 8:43	163	158	5	512-BKGDS1A	387	
768	11/11/2010 8:43	184	158	26	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
769	11/11/2010 8:43	168	158	10	512-BKGDS1A	387	
770	11/11/2010 8:44	209	158	51	512-BKGDS1A	387	
771	11/11/2010 8:44	173	158	15	512-BKGDS1A	387	
772	11/11/2010 8:44	180	158	22	512-BKGDS1A	387	
773	11/11/2010 8:44	196	158	38	512-BKGDS1A	387	
774	11/11/2010 8:44	171	158	13	512-BKGDS1A	387	
775	11/11/2010 8:45	184	158	26	512-BKGDS1A	387	
776	11/11/2010 8:45	159	158	1	512-BKGDS1A	387	
777	11/11/2010 8:45	141	158	-17	512-BKGDS1A	387	
778	11/11/2010 8:45	194	158	36	512-BKGDS1A	387	
779	11/11/2010 8:45	131	158	-27	512-BKGDS1A	387	
780	11/11/2010 8:45	150	158	-8	512-BKGDS1A	387	
781	11/11/2010 8:45	158	158	0	512-BKGDS1A	387	
782	11/11/2010 8:46	137	158	-21	512-BKGDS1A	387	
783	11/11/2010 8:46	148	158	-10	512-BKGDS1A	387	
784	11/11/2010 8:46	159	158	1	512-BKGDS1A	387	
785	11/11/2010 8:46	148	158	-10	512-BKGDS1A	387	
786	11/11/2010 8:46	136	158	-22	512-BKGDS1A	387	
787	11/11/2010 8:46	135	158	-23	512-BKGDS1A	387	
788	11/11/2010 8:46	151	158	-7	512-BKGDS1A	387	
789	11/11/2010 8:46	161	158	3	512-BKGDS1A	387	
790	11/11/2010 8:46	209	158	51	512-BKGDS1A	387	
791	11/11/2010 8:47	166	158	8	512-BKGDS1A	387	
792	11/11/2010 8:47	174	158	16	512-BKGDS1A	387	
793	11/11/2010 8:47	181	158	23	512-BKGDS1A	387	
794	11/11/2010 8:47	174	158	16	512-BKGDS1A	387	
795	11/11/2010 8:47	164	158	6	512-BKGDS1A	387	
796	11/11/2010 8:47	105	158	-53	512-BKGDS1A	387	
797	11/11/2010 8:47	101	158	-57	512-BKGDS1A	387	
798	11/11/2010 8:47	156	158	-2	512-BKGDS1A	387	
799	11/11/2010 8:48	141	158	-17	512-BKGDS1A	387	
800	11/11/2010 8:48	103	158	-55	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
801	11/11/2010 8:48	117	158	-41	512-BKGDS1A	387	
802	11/11/2010 8:48	131	158	-27	512-BKGDS1A	387	
803	11/11/2010 8:48	142	158	-16	512-BKGDS1A	387	
804	11/11/2010 8:48	116	158	-42	512-BKGDS1A	387	
805	11/11/2010 8:48	117	158	-41	512-BKGDS1A	387	
806	11/11/2010 8:48	131	158	-27	512-BKGDS1A	387	
807	11/11/2010 8:48	145	158	-13	512-BKGDS1A	387	
808	11/11/2010 8:49	146	158	-12	512-BKGDS1A	387	
809	11/11/2010 8:49	156	158	-2	512-BKGDS1A	387	
810	11/11/2010 8:49	130	158	-28	512-BKGDS1A	387	
811	11/11/2010 8:49	169	158	11	512-BKGDS1A	387	
812	11/11/2010 8:49	182	158	24	512-BKGDS1A	387	
813	11/11/2010 8:49	152	158	-6	512-BKGDS1A	387	
814	11/11/2010 8:49	188	158	30	512-BKGDS1A	387	
815	11/11/2010 8:49	143	158	-15	512-BKGDS1A	387	
816	11/11/2010 8:50	108	158	-50	512-BKGDS1A	387	
817	11/11/2010 8:50	140	158	-18	512-BKGDS1A	387	
818	11/11/2010 9:19	202	158	44	512-BKGDS1A	387	
819	11/11/2010 9:19	172	158	14	512-BKGDS1A	387	
820	11/11/2010 9:19	193	158	35	512-BKGDS1A	387	
821	11/11/2010 9:20	189	158	31	512-BKGDS1A	387	
822	11/11/2010 9:20	209	158	51	512-BKGDS1A	387	
823	11/11/2010 9:20	199	158	41	512-BKGDS1A	387	
824	11/11/2010 9:20	191	158	33	512-BKGDS1A	387	
825	11/11/2010 9:20	208	158	50	512-BKGDS1A	387	
826	11/11/2010 9:20	186	158	28	512-BKGDS1A	387	
827	11/11/2010 9:20	168	158	10	512-BKGDS1A	387	
828	11/11/2010 9:20	183	158	25	512-BKGDS1A	387	
829	11/11/2010 9:21	167	158	9	512-BKGDS1A	387	
830	11/11/2010 9:21	171	158	13	512-BKGDS1A	387	
831	11/11/2010 9:21	179	158	21	512-BKGDS1A	387	
832	11/11/2010 9:21	203	158	45	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
833	11/11/2010 9:21	214	158	56	512-BKGDS1A	387	
834	11/11/2010 9:21	180	158	22	512-BKGDS1A	387	
835	11/11/2010 9:21	189	158	31	512-BKGDS1A	387	
836	11/11/2010 9:21	165	158	7	512-BKGDS1A	387	
837	11/11/2010 9:21	157	158	-1	512-BKGDS1A	387	
838	11/11/2010 9:22	142	158	-16	512-BKGDS1A	387	
839	11/11/2010 9:22	128	158	-30	512-BKGDS1A	387	
840	11/11/2010 9:22	139	158	-19	512-BKGDS1A	387	
841	11/11/2010 9:22	122	158	-36	512-BKGDS1A	387	
842	11/11/2010 9:22	128	158	-30	512-BKGDS1A	387	
843	11/11/2010 9:22	159	158	1	512-BKGDS1A	387	
844	11/11/2010 9:22	157	158	-1	512-BKGDS1A	387	
845	11/11/2010 9:22	198	158	40	512-BKGDS1A	387	
846	11/11/2010 9:23	210	158	52	512-BKGDS1A	387	
847	11/11/2010 9:23	153	158	-5	512-BKGDS1A	387	
848	11/11/2010 9:23	102	158	-56	512-BKGDS1A	387	
849	11/11/2010 9:23	139	158	-19	512-BKGDS1A	387	
850	11/11/2010 9:23	141	158	-17	512-BKGDS1A	387	
851	11/11/2010 9:23	149	158	-9	512-BKGDS1A	387	
852	11/11/2010 9:23	137	158	-21	512-BKGDS1A	387	
853	11/11/2010 9:23	115	158	-43	512-BKGDS1A	387	
854	11/11/2010 9:23	133	158	-25	512-BKGDS1A	387	
855	11/11/2010 9:24	164	158	6	512-BKGDS1A	387	
856	11/11/2010 9:24	153	158	-5	512-BKGDS1A	387	
857	11/11/2010 9:24	162	158	4	512-BKGDS1A	387	
858	11/11/2010 9:24	150	158	-8	512-BKGDS1A	387	
859	11/11/2010 9:24	120	158	-38	512-BKGDS1A	387	
860	11/11/2010 9:24	156	158	-2	512-BKGDS1A	387	
861	11/11/2010 9:25	186	158	28	512-BKGDS1A	387	
862	11/11/2010 9:25	159	158	1	512-BKGDS1A	387	
863	11/11/2010 9:25	169	158	11	512-BKGDS1A	387	
864	11/11/2010 9:25	142	158	-16	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
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Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
865	11/11/2010 9:25	158	158	0	512-BKGDS1A	387	
866	11/11/2010 9:25	116	158	-42	512-BKGDS1A	387	
867	11/11/2010 9:25	112	158	-46	512-BKGDS1A	387	
868	11/11/2010 9:26	113	158	-45	512-BKGDS1A	387	
869	11/11/2010 9:26	117	158	-41	512-BKGDS1A	387	
870	11/11/2010 9:26	114	158	-44	512-BKGDS1A	387	
871	11/11/2010 9:26	110	158	-48	512-BKGDS1A	387	
872	11/11/2010 9:26	116	158	-42	512-BKGDS1A	387	
873	11/11/2010 9:26	158	158	0	512-BKGDS1A	387	
874	11/11/2010 9:26	126	158	-32	512-BKGDS1A	387	
875	11/11/2010 9:26	110	158	-48	512-BKGDS1A	387	
876	11/11/2010 9:27	148	158	-10	512-BKGDS1A	387	
877	11/11/2010 9:27	160	158	2	512-BKGDS1A	387	
878	11/11/2010 9:27	131	158	-27	512-BKGDS1A	387	
879	11/11/2010 9:27	134	158	-24	512-BKGDS1A	387	
880	11/11/2010 9:27	122	158	-36	512-BKGDS1A	387	
881	11/11/2010 9:27	121	158	-37	512-BKGDS1A	387	
882	11/11/2010 9:27	116	158	-42	512-BKGDS1A	387	
883	11/11/2010 9:27	104	158	-54	512-BKGDS1A	387	
884	11/11/2010 9:27	109	158	-49	512-BKGDS1A	387	
885	11/11/2010 9:28	113	158	-45	512-BKGDS1A	387	
886	11/11/2010 9:28	118	158	-40	512-BKGDS1A	387	
887	11/11/2010 9:28	132	158	-26	512-BKGDS1A	387	
888	11/11/2010 9:28	150	158	-8	512-BKGDS1A	387	
889	11/11/2010 9:28	177	158	19	512-BKGDS1A	387	
890	11/11/2010 9:28	171	158	13	512-BKGDS1A	387	
891	11/11/2010 9:28	135	158	-23	512-BKGDS1A	387	
892	11/11/2010 9:28	150	158	-8	512-BKGDS1A	387	
893	11/11/2010 9:28	173	158	15	512-BKGDS1A	387	
894	11/11/2010 9:29	121	158	-37	512-BKGDS1A	387	
895	11/11/2010 9:29	136	158	-22	512-BKGDS1A	387	
896	11/11/2010 9:29	114	158	-44	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
897	11/11/2010 9:29	88	158	-70	512-BKGDS1A	387	
898	11/11/2010 9:29	144	158	-14	512-BKGDS1A	387	
899	11/11/2010 9:29	142	158	-16	512-BKGDS1A	387	
900	11/11/2010 9:29	146	158	-12	512-BKGDS1A	387	
901	11/11/2010 9:29	144	158	-14	512-BKGDS1A	387	
902	11/11/2010 9:30	154	158	-4	512-BKGDS1A	387	
903	11/11/2010 9:30	122	158	-36	512-BKGDS1A	387	
904	11/11/2010 9:30	124	158	-34	512-BKGDS1A	387	
905	11/11/2010 9:30	126	158	-32	512-BKGDS1A	387	
906	11/11/2010 9:31	111	158	-47	512-BKGDS1A	387	
907	11/11/2010 9:31	153	158	-5	512-BKGDS1A	387	
908	11/11/2010 9:31	185	158	27	512-BKGDS1A	387	
909	11/11/2010 9:31	166	158	8	512-BKGDS1A	387	
910	11/11/2010 9:31	189	158	31	512-BKGDS1A	387	
911	11/11/2010 9:31	139	158	-19	512-BKGDS1A	387	
912	11/11/2010 9:31	188	158	30	512-BKGDS1A	387	
913	11/11/2010 9:31	185	158	27	512-BKGDS1A	387	
914	11/11/2010 9:31	167	158	9	512-BKGDS1A	387	
915	11/11/2010 9:32	163	158	5	512-BKGDS1A	387	
916	11/11/2010 9:32	166	158	8	512-BKGDS1A	387	
917	11/11/2010 9:32	161	158	3	512-BKGDS1A	387	
918	11/11/2010 9:32	145	158	-13	512-BKGDS1A	387	
919	11/11/2010 9:32	160	158	2	512-BKGDS1A	387	
920	11/11/2010 9:32	126	158	-32	512-BKGDS1A	387	
921	11/11/2010 9:32	118	158	-40	512-BKGDS1A	387	
922	11/11/2010 9:32	162	158	4	512-BKGDS1A	387	
923	11/11/2010 9:33	143	158	-15	512-BKGDS1A	387	
924	11/11/2010 9:33	150	158	-8	512-BKGDS1A	387	
925	11/11/2010 9:33	118	158	-40	512-BKGDS1A	387	
926	11/11/2010 9:33	122	158	-36	512-BKGDS1A	387	
927	11/11/2010 9:33	171	158	13	512-BKGDS1A	387	
928	11/11/2010 9:33	140	158	-18	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
929	11/11/2010 9:33	120	158	-38	512-BKGDS1A	387	
930	11/11/2010 9:33	120	158	-38	512-BKGDS1A	387	
931	11/11/2010 9:33	136	158	-22	512-BKGDS1A	387	
932	11/11/2010 9:34	128	158	-30	512-BKGDS1A	387	
933	11/11/2010 9:34	115	158	-43	512-BKGDS1A	387	
934	11/11/2010 9:34	136	158	-22	512-BKGDS1A	387	
935	11/11/2010 9:34	167	158	9	512-BKGDS1A	387	
936	11/11/2010 9:34	145	158	-13	512-BKGDS1A	387	
937	11/11/2010 9:34	116	158	-42	512-BKGDS1A	387	
938	11/11/2010 9:34	117	158	-41	512-BKGDS1A	387	
939	11/11/2010 9:34	111	158	-47	512-BKGDS1A	387	
940	11/11/2010 9:34	114	158	-44	512-BKGDS1A	387	
941	11/11/2010 9:35	134	158	-24	512-BKGDS1A	387	
942	11/11/2010 9:35	132	158	-26	512-BKGDS1A	387	
943	11/11/2010 9:35	139	158	-19	512-BKGDS1A	387	
944	11/11/2010 9:35	147	158	-11	512-BKGDS1A	387	
945	11/11/2010 9:35	123	158	-35	512-BKGDS1A	387	
946	11/11/2010 9:35	116	158	-42	512-BKGDS1A	387	
947	11/11/2010 9:36	159	158	1	512-BKGDS1A	387	
948	11/11/2010 9:36	123	158	-35	512-BKGDS1A	387	
949	11/11/2010 9:36	122	158	-36	512-BKGDS1A	387	
950	11/11/2010 9:36	145	158	-13	512-BKGDS1A	387	
951	11/11/2010 9:37	98	158	-60	512-BKGDS1A	387	
952	11/11/2010 9:37	106	158	-52	512-BKGDS1A	387	
953	11/11/2010 9:37	123	158	-35	512-BKGDS1A	387	
954	11/11/2010 9:37	161	158	3	512-BKGDS1A	387	
955	11/11/2010 9:37	120	158	-38	512-BKGDS1A	387	
956	11/11/2010 9:37	147	158	-11	512-BKGDS1A	387	
957	11/11/2010 9:37	175	158	17	512-BKGDS1A	387	
958	11/11/2010 9:37	141	158	-17	512-BKGDS1A	387	
959	11/11/2010 9:37	139	158	-19	512-BKGDS1A	387	
960	11/11/2010 9:38	140	158	-18	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
961	11/11/2010 9:38	143	158	-15	512-BKGDS1A	387	
962	11/11/2010 9:38	103	158	-55	512-BKGDS1A	387	
963	11/11/2010 9:38	142	158	-16	512-BKGDS1A	387	
964	11/11/2010 9:38	138	158	-20	512-BKGDS1A	387	
965	11/11/2010 9:38	144	158	-14	512-BKGDS1A	387	
966	11/11/2010 9:38	145	158	-13	512-BKGDS1A	387	
967	11/11/2010 9:38	126	158	-32	512-BKGDS1A	387	
968	11/11/2010 9:39	129	158	-29	512-BKGDS1A	387	
969	11/11/2010 9:39	129	158	-29	512-BKGDS1A	387	
970	11/11/2010 9:39	85	158	-73	512-BKGDS1A	387	
971	11/11/2010 9:39	111	158	-47	512-BKGDS1A	387	
972	11/11/2010 9:39	117	158	-41	512-BKGDS1A	387	
973	11/11/2010 9:39	128	158	-30	512-BKGDS1A	387	
974	11/11/2010 9:39	154	158	-4	512-BKGDS1A	387	
975	11/11/2010 9:39	145	158	-13	512-BKGDS1A	387	
976	11/11/2010 9:39	147	158	-11	512-BKGDS1A	387	
977	11/11/2010 9:40	116	158	-42	512-BKGDS1A	387	
978	11/11/2010 9:40	107	158	-51	512-BKGDS1A	387	
979	11/11/2010 9:40	116	158	-42	512-BKGDS1A	387	
980	11/11/2010 9:40	103	158	-55	512-BKGDS1A	387	
981	11/11/2010 9:40	145	158	-13	512-BKGDS1A	387	
982	11/11/2010 9:40	147	158	-11	512-BKGDS1A	387	
983	11/11/2010 9:40	137	158	-21	512-BKGDS1A	387	
984	11/11/2010 9:40	124	158	-34	512-BKGDS1A	387	
985	11/11/2010 9:41	113	158	-45	512-BKGDS1A	387	
986	11/11/2010 9:41	101	158	-57	512-BKGDS1A	387	
987	11/11/2010 9:41	113	158	-45	512-BKGDS1A	387	
988	11/11/2010 9:41	130	158	-28	512-BKGDS1A	387	
989	11/11/2010 9:41	118	158	-40	512-BKGDS1A	387	
990	11/11/2010 9:41	148	158	-10	512-BKGDS1A	387	
991	11/11/2010 9:42	124	158	-34	512-BKGDS1A	387	
992	11/11/2010 9:42	114	158	-44	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
993	11/11/2010 9:42	105	158	-53	512-BKGDS1A	387	
994	11/11/2010 9:42	106	158	-52	512-BKGDS1A	387	
995	11/11/2010 9:42	120	158	-38	512-BKGDS1A	387	
996	11/11/2010 9:42	143	158	-15	512-BKGDS1A	387	
997	11/11/2010 9:42	116	158	-42	512-BKGDS1A	387	
998	11/11/2010 9:42	115	158	-43	512-BKGDS1A	387	
999	11/11/2010 9:42	146	158	-12	512-BKGDS1A	387	
1000	11/11/2010 9:43	167	158	9	512-BKGDS1A	387	
1001	11/11/2010 9:43	112	158	-46	512-BKGDS1A	387	
1002	11/11/2010 9:43	100	158	-58	512-BKGDS1A	387	
1003	11/11/2010 9:43	153	158	-5	512-BKGDS1A	387	
1004	11/11/2010 9:43	157	158	-1	512-BKGDS1A	387	
1005	11/11/2010 9:43	129	158	-29	512-BKGDS1A	387	
1006	11/11/2010 9:43	102	158	-56	512-BKGDS1A	387	
1007	11/11/2010 9:43	129	158	-29	512-BKGDS1A	387	
1008	11/11/2010 9:44	96	158	-62	512-BKGDS1A	387	
1009	11/11/2010 9:44	126	158	-32	512-BKGDS1A	387	
1010	11/11/2010 9:44	133	158	-25	512-BKGDS1A	387	
1011	11/11/2010 9:44	181	158	23	512-BKGDS1A	387	
1012	11/11/2010 9:44	134	158	-24	512-BKGDS1A	387	
1013	11/11/2010 9:44	141	158	-17	512-BKGDS1A	387	
1014	11/11/2010 9:44	173	158	15	512-BKGDS1A	387	
1015	11/11/2010 9:44	149	158	-9	512-BKGDS1A	387	
1016	11/11/2010 9:44	133	158	-25	512-BKGDS1A	387	
1017	11/11/2010 9:45	148	158	-10	512-BKGDS1A	387	
1018	11/11/2010 9:45	117	158	-41	512-BKGDS1A	387	
1019	11/11/2010 9:45	108	158	-50	512-BKGDS1A	387	
1020	11/11/2010 9:45	134	158	-24	512-BKGDS1A	387	
1021	11/11/2010 9:45	167	158	9	512-BKGDS1A	387	
1022	11/11/2010 9:45	135	158	-23	512-BKGDS1A	387	
1023	11/11/2010 9:45	106	158	-52	512-BKGDS1A	387	
1024	11/11/2010 9:45	124	158	-34	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1025	11/11/2010 9:46	124	158	-34	512-BKGDS1A	387	
1026	11/11/2010 9:46	101	158	-57	512-BKGDS1A	387	
1027	11/11/2010 9:46	113	158	-45	512-BKGDS1A	387	
1028	11/11/2010 9:46	159	158	1	512-BKGDS1A	387	
1029	11/11/2010 9:46	150	158	-8	512-BKGDS1A	387	
1030	11/11/2010 9:46	164	158	6	512-BKGDS1A	387	
1031	11/11/2010 9:46	160	158	2	512-BKGDS1A	387	
1032	11/11/2010 9:46	172	158	14	512-BKGDS1A	387	
1033	11/11/2010 9:48	147	158	-11	512-BKGDS1A	387	
1034	11/11/2010 9:49	60	158	-98	512-BKGDS1A	387	
1035	11/11/2010 9:49	51	158	-107	512-BKGDS1A	387	
1036	11/11/2010 9:49	97	158	-61	512-BKGDS1A	387	
1037	11/11/2010 9:49	116	158	-42	512-BKGDS1A	387	
1038	11/11/2010 9:49	104	158	-54	512-BKGDS1A	387	
1039	11/11/2010 9:49	174	158	16	512-BKGDS1A	387	
1040	11/11/2010 9:50	144	158	-14	512-BKGDS1A	387	
1041	11/11/2010 9:50	155	158	-3	512-BKGDS1A	387	
1042	11/11/2010 9:50	152	158	-6	512-BKGDS1A	387	
1043	11/11/2010 9:50	122	158	-36	512-BKGDS1A	387	
1044	11/11/2010 9:50	134	158	-24	512-BKGDS1A	387	
1045	11/11/2010 9:50	150	158	-8	512-BKGDS1A	387	
1046	11/11/2010 9:50	203	158	45	512-BKGDS1A	387	
1047	11/11/2010 9:50	147	158	-11	512-BKGDS1A	387	
1048	11/11/2010 9:50	120	158	-38	512-BKGDS1A	387	
1049	11/11/2010 9:51	125	158	-33	512-BKGDS1A	387	
1050	11/11/2010 9:51	136	158	-22	512-BKGDS1A	387	
1051	11/11/2010 9:51	131	158	-27	512-BKGDS1A	387	
1052	11/11/2010 9:51	121	158	-37	512-BKGDS1A	387	
1053	11/11/2010 9:51	87	158	-71	512-BKGDS1A	387	
1054	11/11/2010 9:51	97	158	-61	512-BKGDS1A	387	
1055	11/11/2010 9:51	103	158	-55	512-BKGDS1A	387	
1056	11/11/2010 9:51	120	158	-38	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1057	11/11/2010 9:52	125	158	-33	512-BKGDS1A	387	
1058	11/11/2010 9:52	127	158	-31	512-BKGDS1A	387	
1059	11/11/2010 9:52	168	158	10	512-BKGDS1A	387	
1060	11/11/2010 9:52	155	158	-3	512-BKGDS1A	387	
1061	11/11/2010 9:52	175	158	17	512-BKGDS1A	387	
1062	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1063	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1064	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1065	11/11/2010 9:52	125	158	-33	512-BKGDS1A	387	
1066	11/11/2010 9:53	131	158	-27	512-BKGDS1A	387	
1067	11/11/2010 9:53	134	158	-24	512-BKGDS1A	387	
1068	11/11/2010 9:53	159	158	1	512-BKGDS1A	387	
1069	11/11/2010 9:53	150	158	-8	512-BKGDS1A	387	
1070	11/11/2010 9:53	157	158	-1	512-BKGDS1A	387	
1071	11/11/2010 9:53	135	158	-23	512-BKGDS1A	387	
1072	11/11/2010 9:53	112	158	-46	512-BKGDS1A	387	
1073	11/11/2010 9:53	128	158	-30	512-BKGDS1A	387	
1074	11/11/2010 9:53	143	158	-15	512-BKGDS1A	387	
1075	11/11/2010 9:54	127	158	-31	512-BKGDS1A	387	
1076	11/11/2010 9:55	125	158	-33	512-BKGDS1A	387	
1077	11/11/2010 9:55	130	158	-28	512-BKGDS1A	387	
1078	11/11/2010 9:55	170	158	12	512-BKGDS1A	387	
1079	11/11/2010 9:55	172	158	14	512-BKGDS1A	387	
1080	11/11/2010 9:55	130	158	-28	512-BKGDS1A	387	
1081	11/11/2010 9:55	134	158	-24	512-BKGDS1A	387	
1082	11/11/2010 9:56	150	158	-8	512-BKGDS1A	387	
1083	11/11/2010 9:56	159	158	1	512-BKGDS1A	387	
1084	11/11/2010 9:56	135	158	-23	512-BKGDS1A	387	
1085	11/11/2010 9:56	122	158	-36	512-BKGDS1A	387	
1086	11/11/2010 9:56	154	158	-4	512-BKGDS1A	387	
1087	11/11/2010 9:56	121	158	-37	512-BKGDS1A	387	
1088	11/11/2010 9:56	156	158	-2	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1089	11/11/2010 9:56	165	158	7	512-BKGDS1A	387	
1090	11/11/2010 9:56	147	158	-11	512-BKGDS1A	387	
1091	11/11/2010 9:57	112	158	-46	512-BKGDS1A	387	
1092	11/11/2010 9:57	105	158	-53	512-BKGDS1A	387	
1093	11/11/2010 9:57	107	158	-51	512-BKGDS1A	387	
1094	11/11/2010 9:57	110	158	-48	512-BKGDS1A	387	
1095	11/11/2010 9:57	124	158	-34	512-BKGDS1A	387	
1096	11/11/2010 9:57	170	158	12	512-BKGDS1A	387	
1097	11/11/2010 9:57	136	158	-22	512-BKGDS1A	387	
1098	11/11/2010 9:57	149	158	-9	512-BKGDS1A	387	
1099	11/11/2010 9:57	137	158	-21	512-BKGDS1A	387	
1100	11/11/2010 9:58	125	158	-33	512-BKGDS1A	387	
1101	11/11/2010 9:58	176	158	18	512-BKGDS1A	387	
1102	11/11/2010 9:58	111	158	-47	512-BKGDS1A	387	
1103	11/11/2010 9:58	93	158	-65	512-BKGDS1A	387	
1104	11/11/2010 9:58	120	158	-38	512-BKGDS1A	387	
1105	11/11/2010 9:58	155	158	-3	512-BKGDS1A	387	
1106	11/11/2010 9:58	133	158	-25	512-BKGDS1A	387	
1107	11/11/2010 9:58	126	158	-32	512-BKGDS1A	387	
1108	11/11/2010 9:59	112	158	-46	512-BKGDS1A	387	
1109	11/11/2010 9:59	117	158	-41	512-BKGDS1A	387	
1110	11/11/2010 9:59	107	158	-51	512-BKGDS1A	387	
1111	11/11/2010 9:59	122	158	-36	512-BKGDS1A	387	
1112	11/11/2010 9:59	106	158	-52	512-BKGDS1A	387	
1113	11/11/2010 9:59	108	158	-50	512-BKGDS1A	387	
1114	11/11/2010 9:59	110	158	-48	512-BKGDS1A	387	
1115	11/11/2010 9:59	121	158	-37	512-BKGDS1A	387	
1116	11/11/2010 9:59	141	158	-17	512-BKGDS1A	387	
1117	11/11/2010 10:00	159	158	1	512-BKGDS1A	387	
1118	11/11/2010 10:00	130	158	-28	512-BKGDS1A	387	
1119	11/11/2010 10:01	113	158	-45	512-BKGDS1A	387	
1120	11/11/2010 10:01	112	158	-46	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1121	11/11/2010 10:01	157	158	-1	512-BKGDS1A	387	
1122	11/11/2010 10:01	150	158	-8	512-BKGDS1A	387	
1123	11/11/2010 10:01	134	158	-24	512-BKGDS1A	387	
1124	11/11/2010 10:02	128	158	-30	512-BKGDS1A	387	
1125	11/11/2010 10:02	145	158	-13	512-BKGDS1A	387	
1126	11/11/2010 10:02	119	158	-39	512-BKGDS1A	387	
1127	11/11/2010 10:02	144	158	-14	512-BKGDS1A	387	
1128	11/11/2010 10:02	124	158	-34	512-BKGDS1A	387	
1129	11/11/2010 10:02	156	158	-2	512-BKGDS1A	387	
1130	11/11/2010 10:02	156	158	-2	512-BKGDS1A	387	
1131	11/11/2010 10:02	139	158	-19	512-BKGDS1A	387	
1132	11/11/2010 10:02	176	158	18	512-BKGDS1A	387	
1133	11/11/2010 10:03	128	158	-30	512-BKGDS1A	387	
1134	11/11/2010 10:03	170	158	12	512-BKGDS1A	387	
1135	11/11/2010 10:03	150	158	-8	512-BKGDS1A	387	
1136	11/11/2010 10:03	148	158	-10	512-BKGDS1A	387	
1137	11/11/2010 10:03	129	158	-29	512-BKGDS1A	387	
1138	11/11/2010 10:03	142	158	-16	512-BKGDS1A	387	
1139	11/11/2010 10:03	153	158	-5	512-BKGDS1A	387	
1140	11/11/2010 10:03	222	158	64	512-BKGDS1A	387	
1141	11/11/2010 10:03	189	158	31	512-BKGDS1A	387	
1142	11/11/2010 10:04	185	158	27	512-BKGDS1A	387	
1143	11/11/2010 10:04	143	158	-15	512-BKGDS1A	387	
1144	11/11/2010 10:04	130	158	-28	512-BKGDS1A	387	
1145	11/11/2010 10:04	104	158	-54	512-BKGDS1A	387	
1146	11/11/2010 10:04	118	158	-40	512-BKGDS1A	387	
1147	11/11/2010 10:04	118	158	-40	512-BKGDS1A	387	
1148	11/11/2010 10:04	99	158	-59	512-BKGDS1A	387	
1149	11/11/2010 10:04	111	158	-47	512-BKGDS1A	387	
1150	11/11/2010 10:05	137	158	-21	512-BKGDS1A	387	
1151	11/11/2010 10:05	163	158	5	512-BKGDS1A	387	
1152	11/11/2010 10:05	142	158	-16	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1153	11/11/2010 10:05	142	158	-16	512-BKGDS1A	387	
1154	11/11/2010 10:05	155	158	-3	512-BKGDS1A	387	
1155	11/11/2010 10:05	124	158	-34	512-BKGDS1A	387	
1156	11/11/2010 10:05	97	158	-61	512-BKGDS1A	387	
1157	11/11/2010 10:05	102	158	-56	512-BKGDS1A	387	
1158	11/11/2010 10:05	111	158	-47	512-BKGDS1A	387	
1159	11/11/2010 10:06	98	158	-60	512-BKGDS1A	387	
1160	11/11/2010 10:06	105	158	-53	512-BKGDS1A	387	
1161	11/11/2010 10:06	128	158	-30	512-BKGDS1A	387	
1162	11/11/2010 10:19	195	158	37	512-BKGDS1A	387	
1163	11/11/2010 10:19	163	158	5	512-BKGDS1A	387	
1164	11/11/2010 10:19	169	158	11	512-BKGDS1A	387	
1165	11/11/2010 10:19	129	158	-29	512-BKGDS1A	387	
1166	11/11/2010 10:19	169	158	11	512-BKGDS1A	387	
1167	11/11/2010 10:19	163	158	5	512-BKGDS1A	387	
1168	11/11/2010 10:19	131	158	-27	512-BKGDS1A	387	
1169	11/11/2010 10:20	126	158	-32	512-BKGDS1A	387	
1170	11/11/2010 10:20	124	158	-34	512-BKGDS1A	387	
1171	11/11/2010 10:20	113	158	-45	512-BKGDS1A	387	
1172	11/11/2010 10:20	178	158	20	512-BKGDS1A	387	
1173	11/11/2010 10:20	126	158	-32	512-BKGDS1A	387	
1174	11/11/2010 10:20	123	158	-35	512-BKGDS1A	387	
1175	11/11/2010 10:20	150	158	-8	512-BKGDS1A	387	
1176	11/11/2010 10:20	160	158	2	512-BKGDS1A	387	
1177	11/11/2010 10:21	164	158	6	512-BKGDS1A	387	
1178	11/11/2010 10:21	186	158	28	512-BKGDS1A	387	
1179	11/11/2010 10:21	184	158	26	512-BKGDS1A	387	
1180	11/11/2010 10:21	176	158	18	512-BKGDS1A	387	
1181	11/11/2010 10:21	130	158	-28	512-BKGDS1A	387	
1182	11/11/2010 10:21	105	158	-53	512-BKGDS1A	387	
1183	11/11/2010 10:21	110	158	-48	512-BKGDS1A	387	
1184	11/11/2010 10:21	118	158	-40	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1185	11/11/2010 10:21	121	158	-37	512-BKGDS1A	387	
1186	11/11/2010 10:22	113	158	-45	512-BKGDS1A	387	
1187	11/11/2010 10:22	143	158	-15	512-BKGDS1A	387	
1188	11/11/2010 10:22	139	158	-19	512-BKGDS1A	387	
1189	11/11/2010 10:22	149	158	-9	512-BKGDS1A	387	
1190	11/11/2010 10:22	123	158	-35	512-BKGDS1A	387	
1191	11/11/2010 10:22	136	158	-22	512-BKGDS1A	387	
1192	11/11/2010 10:22	86	158	-72	512-BKGDS1A	387	
1193	11/11/2010 10:22	116	158	-42	512-BKGDS1A	387	
1194	11/11/2010 10:22	132	158	-26	512-BKGDS1A	387	
1195	11/11/2010 10:23	118	158	-40	512-BKGDS1A	387	
1196	11/11/2010 10:23	140	158	-18	512-BKGDS1A	387	
1197	11/11/2010 10:23	145	158	-13	512-BKGDS1A	387	
1198	11/11/2010 10:23	135	158	-23	512-BKGDS1A	387	
1199	11/11/2010 10:23	158	158	0	512-BKGDS1A	387	
1200	11/11/2010 10:23	143	158	-15	512-BKGDS1A	387	
1201	11/11/2010 10:23	124	158	-34	512-BKGDS1A	387	
1202	11/11/2010 10:23	86	158	-72	512-BKGDS1A	387	
1203	11/11/2010 10:24	120	158	-38	512-BKGDS1A	387	
1204	11/11/2010 10:24	135	158	-23	512-BKGDS1A	387	
1205	11/11/2010 10:25	131	158	-27	512-BKGDS1A	387	
1206	11/11/2010 10:25	97	158	-61	512-BKGDS1A	387	
1207	11/11/2010 10:25	84	158	-74	512-BKGDS1A	387	
1208	11/11/2010 10:26	83	158	-75	512-BKGDS1A	387	
1209	11/11/2010 10:26	122	158	-36	512-BKGDS1A	387	
1210	11/11/2010 10:26	119	158	-39	512-BKGDS1A	387	
1211	11/11/2010 10:26	151	158	-7	512-BKGDS1A	387	
1212	11/11/2010 10:26	171	158	13	512-BKGDS1A	387	
1213	11/11/2010 10:26	129	158	-29	512-BKGDS1A	387	
1214	11/11/2010 10:26	128	158	-30	512-BKGDS1A	387	
1215	11/11/2010 10:26	145	158	-13	512-BKGDS1A	387	
1216	11/11/2010 10:27	113	158	-45	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1217	11/11/2010 10:27	114	158	-44	512-BKGDS1A	387	
1218	11/11/2010 10:27	119	158	-39	512-BKGDS1A	387	
1219	11/11/2010 10:27	120	158	-38	512-BKGDS1A	387	
1220	11/11/2010 10:27	122	158	-36	512-BKGDS1A	387	
1221	11/11/2010 10:27	137	158	-21	512-BKGDS1A	387	
1222	11/11/2010 10:27	144	158	-14	512-BKGDS1A	387	
1223	11/11/2010 10:27	155	158	-3	512-BKGDS1A	387	
1224	11/11/2010 10:27	143	158	-15	512-BKGDS1A	387	
1225	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1226	11/11/2010 10:28	147	158	-11	512-BKGDS1A	387	
1227	11/11/2010 10:28	133	158	-25	512-BKGDS1A	387	
1228	11/11/2010 10:28	136	158	-22	512-BKGDS1A	387	
1229	11/11/2010 10:28	132	158	-26	512-BKGDS1A	387	
1230	11/11/2010 10:28	148	158	-10	512-BKGDS1A	387	
1231	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1232	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1233	11/11/2010 10:29	120	158	-38	512-BKGDS1A	387	
1234	11/11/2010 10:29	104	158	-54	512-BKGDS1A	387	
1235	11/11/2010 10:29	113	158	-45	512-BKGDS1A	387	
1236	11/11/2010 10:29	109	158	-49	512-BKGDS1A	387	
1237	11/11/2010 10:29	119	158	-39	512-BKGDS1A	387	
1238	11/11/2010 10:29	107	158	-51	512-BKGDS1A	387	
1239	11/11/2010 10:29	125	158	-33	512-BKGDS1A	387	
1240	11/11/2010 10:29	120	158	-38	512-BKGDS1A	387	
1241	11/11/2010 10:29	90	158	-68	512-BKGDS1A	387	
1242	11/11/2010 10:30	111	158	-47	512-BKGDS1A	387	
1243	11/11/2010 10:30	96	158	-62	512-BKGDS1A	387	
1244	11/11/2010 10:30	103	158	-55	512-BKGDS1A	387	
1245	11/11/2010 10:30	120	158	-38	512-BKGDS1A	387	
1246	11/11/2010 10:30	107	158	-51	512-BKGDS1A	387	
1247	11/11/2010 10:30	124	158	-34	512-BKGDS1A	387	
1248	11/11/2010 10:31	113	158	-45	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1249	11/11/2010 10:32	140	158	-18	512-BKGDS1A	387	
1250	11/11/2010 10:32	154	158	-4	512-BKGDS1A	387	
1251	11/11/2010 10:32	124	158	-34	512-BKGDS1A	387	
1252	11/11/2010 10:33	88	158	-70	512-BKGDS1A	387	
1253	11/11/2010 10:33	120	158	-38	512-BKGDS1A	387	
1254	11/11/2010 10:33	104	158	-54	512-BKGDS1A	387	
1255	11/11/2010 10:33	140	158	-18	512-BKGDS1A	387	
1256	11/11/2010 10:33	139	158	-19	512-BKGDS1A	387	
1257	11/11/2010 10:34	150	158	-8	512-BKGDS1A	387	
1258	11/11/2010 10:34	103	158	-55	512-BKGDS1A	387	
1259	11/11/2010 10:34	121	158	-37	512-BKGDS1A	387	
1260	11/11/2010 10:34	144	158	-14	512-BKGDS1A	387	
1261	11/11/2010 10:34	171	158	13	512-BKGDS1A	387	
1262	11/11/2010 10:34	176	158	18	512-BKGDS1A	387	
1263	11/11/2010 10:34	120	158	-38	512-BKGDS1A	387	
1264	11/11/2010 10:34	97	158	-61	512-BKGDS1A	387	
1265	11/11/2010 10:35	144	158	-14	512-BKGDS1A	387	
1266	11/11/2010 10:35	128	158	-30	512-BKGDS1A	387	
1267	11/11/2010 10:35	139	158	-19	512-BKGDS1A	387	
1268	11/11/2010 10:35	171	158	13	512-BKGDS1A	387	
1269	11/11/2010 10:35	157	158	-1	512-BKGDS1A	387	
1270	11/11/2010 10:35	146	158	-12	512-BKGDS1A	387	
1271	11/11/2010 10:35	135	158	-23	512-BKGDS1A	387	
1272	11/11/2010 10:35	112	158	-46	512-BKGDS1A	387	
1273	11/11/2010 10:35	117	158	-41	512-BKGDS1A	387	
1274	11/11/2010 10:36	109	158	-49	512-BKGDS1A	387	
1275	11/11/2010 10:36	133	158	-25	512-BKGDS1A	387	
1276	11/11/2010 10:36	139	158	-19	512-BKGDS1A	387	
1277	11/11/2010 10:36	101	158	-57	512-BKGDS1A	387	
1278	11/11/2010 10:36	115	158	-43	512-BKGDS1A	387	
1279	11/11/2010 10:36	116	158	-42	512-BKGDS1A	387	
1280	11/11/2010 10:36	120	158	-38	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1281	11/11/2010 10:36	113	158	-45	512-BKGDS1A	387	
1282	11/11/2010 10:36	109	158	-49	512-BKGDS1A	387	
1283	11/11/2010 10:37	101	158	-57	512-BKGDS1A	387	
1284	11/11/2010 10:37	107	158	-51	512-BKGDS1A	387	
1285	11/11/2010 10:37	135	158	-23	512-BKGDS1A	387	
1286	11/11/2010 10:37	119	158	-39	512-BKGDS1A	387	
1287	11/11/2010 10:37	158	158	0	512-BKGDS1A	387	
1288	11/11/2010 10:37	153	158	-5	512-BKGDS1A	387	
1289	11/11/2010 10:37	111	158	-47	512-BKGDS1A	387	
1290	11/11/2010 10:37	127	158	-31	512-BKGDS1A	387	
1291	11/11/2010 10:38	114	158	-44	512-BKGDS1A	387	
1292	11/11/2010 10:38	164	158	6	512-BKGDS1A	387	
1293	11/11/2010 10:38	150	158	-8	512-BKGDS1A	387	
1294	11/11/2010 10:38	165	158	7	512-BKGDS1A	387	
1295	11/11/2010 10:38	132	158	-26	512-BKGDS1A	387	
1296	11/11/2010 10:39	112	158	-46	512-BKGDS1A	387	
1297	11/11/2010 10:39	107	158	-51	512-BKGDS1A	387	
1298	11/11/2010 10:39	148	158	-10	512-BKGDS1A	387	
1299	11/11/2010 10:39	147	158	-11	512-BKGDS1A	387	
1300	11/11/2010 10:39	151	158	-7	512-BKGDS1A	387	
1301	11/11/2010 10:39	114	158	-44	512-BKGDS1A	387	
1302	11/11/2010 10:39	123	158	-35	512-BKGDS1A	387	
1303	11/11/2010 10:39	149	158	-9	512-BKGDS1A	387	
1304	11/11/2010 10:40	143	158	-15	512-BKGDS1A	387	
1305	11/11/2010 10:40	134	158	-24	512-BKGDS1A	387	
1306	11/11/2010 10:40	111	158	-47	512-BKGDS1A	387	
1307	11/11/2010 10:40	131	158	-27	512-BKGDS1A	387	
1308	11/11/2010 10:40	123	158	-35	512-BKGDS1A	387	
1309	11/11/2010 10:40	136	158	-22	512-BKGDS1A	387	
1310	11/11/2010 10:40	109	158	-49	512-BKGDS1A	387	
1311	11/11/2010 10:40	122	158	-36	512-BKGDS1A	387	
1312	11/11/2010 10:40	132	158	-26	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1313	11/11/2010 10:41	118	158	-40	512-BKGDS1A	387	
1314	11/11/2010 10:41	111	158	-47	512-BKGDS1A	387	
1315	11/11/2010 10:41	156	158	-2	512-BKGDS1A	387	
1316	11/11/2010 10:41	143	158	-15	512-BKGDS1A	387	
1317	11/11/2010 10:41	185	158	27	512-BKGDS1A	387	
1318	11/11/2010 10:41	125	158	-33	512-BKGDS1A	387	
1319	11/11/2010 10:41	125	158	-33	512-BKGDS1A	387	
1320	11/11/2010 10:41	123	158	-35	512-BKGDS1A	387	
1321	11/11/2010 10:41	120	158	-38	512-BKGDS1A	387	
1322	11/11/2010 10:42	111	158	-47	512-BKGDS1A	387	
1323	11/11/2010 10:42	101	158	-57	512-BKGDS1A	387	
1324	11/11/2010 10:42	113	158	-45	512-BKGDS1A	387	
1325	11/11/2010 10:42	113	158	-45	512-BKGDS1A	387	
1326	11/11/2010 10:42	104	158	-54	512-BKGDS1A	387	
1327	11/11/2010 10:42	116	158	-42	512-BKGDS1A	387	
1328	11/11/2010 10:42	117	158	-41	512-BKGDS1A	387	
1329	11/11/2010 10:42	84	158	-74	512-BKGDS1A	387	
1330	11/11/2010 10:43	117	158	-41	512-BKGDS1A	387	
1331	11/11/2010 10:43	112	158	-46	512-BKGDS1A	387	
1332	11/11/2010 10:43	112	158	-46	512-BKGDS1A	387	
1333	11/11/2010 10:43	97	158	-61	512-BKGDS1A	387	
1334	11/11/2010 10:44	145	158	-13	512-BKGDS1A	387	
1335	11/11/2010 10:44	123	158	-35	512-BKGDS1A	387	
1336	11/11/2010 10:44	129	158	-29	512-BKGDS1A	387	
1337	11/11/2010 10:44	125	158	-33	512-BKGDS1A	387	
1338	11/11/2010 10:44	115	158	-43	512-BKGDS1A	387	
1339	11/11/2010 10:44	119	158	-39	512-BKGDS1A	387	
1340	11/11/2010 10:44	98	158	-60	512-BKGDS1A	387	
1341	11/11/2010 10:45	132	158	-26	512-BKGDS1A	387	
1342	11/11/2010 10:45	158	158	0	512-BKGDS1A	387	
1343	11/11/2010 10:45	118	158	-40	512-BKGDS1A	387	
1344	11/11/2010 10:45	128	158	-30	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1345	11/11/2010 10:45	132	158	-26	512-BKGDS1A	387	
1346	11/11/2010 10:45	124	158	-34	512-BKGDS1A	387	
1347	11/11/2010 10:45	133	158	-25	512-BKGDS1A	387	
1348	11/11/2010 10:45	121	158	-37	512-BKGDS1A	387	
1349	11/11/2010 10:45	117	158	-41	512-BKGDS1A	387	
1350	11/11/2010 10:46	113	158	-45	512-BKGDS1A	387	
1351	11/11/2010 10:46	136	158	-22	512-BKGDS1A	387	
1352	11/11/2010 10:46	104	158	-54	512-BKGDS1A	387	
1353	11/11/2010 10:46	113	158	-45	512-BKGDS1A	387	
1354	11/11/2010 10:46	110	158	-48	512-BKGDS1A	387	
1355	11/11/2010 10:46	120	158	-38	512-BKGDS1A	387	
1356	11/11/2010 10:46	124	158	-34	512-BKGDS1A	387	
1357	11/11/2010 10:46	132	158	-26	512-BKGDS1A	387	
1358	11/11/2010 10:46	105	158	-53	512-BKGDS1A	387	
1359	11/11/2010 10:47	94	158	-64	512-BKGDS1A	387	
1360	11/11/2010 10:47	102	158	-56	512-BKGDS1A	387	
1361	11/11/2010 10:47	134	158	-24	512-BKGDS1A	387	
1362	11/11/2010 10:47	140	158	-18	512-BKGDS1A	387	
1363	11/11/2010 10:47	169	158	11	512-BKGDS1A	387	
1364	11/11/2010 10:47	144	158	-14	512-BKGDS1A	387	
1365	11/11/2010 10:47	130	158	-28	512-BKGDS1A	387	
1366	11/11/2010 10:47	131	158	-27	512-BKGDS1A	387	
1367	11/11/2010 10:48	98	158	-60	512-BKGDS1A	387	
1368	11/11/2010 10:48	109	158	-49	512-BKGDS1A	387	
1369	11/11/2010 10:48	130	158	-28	512-BKGDS1A	387	
1370	11/11/2010 10:48	137	158	-21	512-BKGDS1A	387	
1371	11/11/2010 10:48	137	158	-21	512-BKGDS1A	387	
1372	11/11/2010 10:48	118	158	-40	512-BKGDS1A	387	
1373	11/11/2010 10:48	177	158	19	512-BKGDS1A	387	
1374	11/11/2010 10:48	183	158	25	512-BKGDS1A	387	
1375	11/11/2010 10:48	135	158	-23	512-BKGDS1A	387	
1376	11/11/2010 10:49	142	158	-16	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1377	11/11/2010 10:49	129	158	-29	512-BKGDS1A	387	
1378	11/11/2010 10:49	113	158	-45	512-BKGDS1A	387	
1379	11/11/2010 10:50	101	158	-57	512-BKGDS1A	387	
1380	11/11/2010 10:50	121	158	-37	512-BKGDS1A	387	
1381	11/11/2010 10:50	122	158	-36	512-BKGDS1A	387	
1382	11/11/2010 10:50	103	158	-55	512-BKGDS1A	387	
1383	11/11/2010 10:50	78	158	-80	512-BKGDS1A	387	
1384	11/11/2010 10:50	103	158	-55	512-BKGDS1A	387	
1385	11/11/2010 10:50	107	158	-51	512-BKGDS1A	387	
1386	11/11/2010 10:50	98	158	-60	512-BKGDS1A	387	
1387	11/11/2010 10:51	119	158	-39	512-BKGDS1A	387	
1388	11/11/2010 10:51	101	158	-57	512-BKGDS1A	387	
1389	11/11/2010 10:51	101	158	-57	512-BKGDS1A	387	
1390	11/11/2010 10:51	152	158	-6	512-BKGDS1A	387	
1391	11/11/2010 10:51	132	158	-26	512-BKGDS1A	387	
1392	11/11/2010 10:51	128	158	-30	512-BKGDS1A	387	
1393	11/11/2010 10:51	141	158	-17	512-BKGDS1A	387	
1394	11/11/2010 10:51	144	158	-14	512-BKGDS1A	387	
1395	11/11/2010 10:51	142	158	-16	512-BKGDS1A	387	
1396	11/11/2010 10:52	196	158	38	512-BKGDS1A	387	
1397	11/11/2010 10:52	176	158	18	512-BKGDS1A	387	
1398	11/11/2010 10:52	156	158	-2	512-BKGDS1A	387	
1399	11/11/2010 10:52	114	158	-44	512-BKGDS1A	387	
1400	11/11/2010 10:52	114	158	-44	512-BKGDS1A	387	
1401	11/11/2010 10:52	147	158	-11	512-BKGDS1A	387	
1402	11/11/2010 10:52	166	158	8	512-BKGDS1A	387	
1403	11/11/2010 10:52	148	158	-10	512-BKGDS1A	387	
1404	11/11/2010 10:52	147	158	-11	512-BKGDS1A	387	
1405	11/11/2010 10:53	118	158	-40	512-BKGDS1A	387	
1406	11/11/2010 10:53	140	158	-18	512-BKGDS1A	387	
1407	11/11/2010 10:53	103	158	-55	512-BKGDS1A	387	
1408	11/11/2010 10:53	123	158	-35	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1409	11/11/2010 10:53	162	158	4	512-BKGDS1A	387	
1410	11/11/2010 10:53	140	158	-18	512-BKGDS1A	387	
1411	11/11/2010 10:53	139	158	-19	512-BKGDS1A	387	
1412	11/11/2010 10:53	138	158	-20	512-BKGDS1A	387	
1413	11/11/2010 10:54	154	158	-4	512-BKGDS1A	387	
1414	11/11/2010 10:54	183	158	25	512-BKGDS1A	387	
1415	11/11/2010 10:54	157	158	-1	512-BKGDS1A	387	
1416	11/11/2010 10:54	173	158	15	512-BKGDS1A	387	
1417	11/11/2010 10:54	157	158	-1	512-BKGDS1A	387	
1418	11/11/2010 10:54	148	158	-10	512-BKGDS1A	387	
1419	11/11/2010 10:54	135	158	-23	512-BKGDS1A	387	
1420	11/11/2010 10:55	127	158	-31	512-BKGDS1A	387	
1421	11/11/2010 10:55	131	158	-27	512-BKGDS1A	387	
1422	11/11/2010 10:55	141	158	-17	512-BKGDS1A	387	
1423	11/11/2010 10:55	194	158	36	512-BKGDS1A	387	
1424	11/11/2010 10:55	136	158	-22	512-BKGDS1A	387	
1425	11/11/2010 10:55	108	158	-50	512-BKGDS1A	387	
1426	11/11/2010 10:55	139	158	-19	512-BKGDS1A	387	
1427	11/11/2010 10:55	104	158	-54	512-BKGDS1A	387	
1428	11/11/2010 10:56	84	158	-74	512-BKGDS1A	387	
1429	11/11/2010 10:56	81	158	-77	512-BKGDS1A	387	
1430	11/11/2010 10:56	120	158	-38	512-BKGDS1A	387	
1431	11/11/2010 10:56	129	158	-29	512-BKGDS1A	387	
1432	11/11/2010 10:56	142	158	-16	512-BKGDS1A	387	
1433	11/11/2010 10:56	117	158	-41	512-BKGDS1A	387	
1434	11/11/2010 10:56	101	158	-57	512-BKGDS1A	387	
1435	11/11/2010 10:56	113	158	-45	512-BKGDS1A	387	
1436	11/11/2010 10:56	130	158	-28	512-BKGDS1A	387	
1437	11/11/2010 10:57	123	158	-35	512-BKGDS1A	387	
1438	11/11/2010 10:57	145	158	-13	512-BKGDS1A	387	
1439	11/11/2010 10:57	98	158	-60	512-BKGDS1A	387	
1440	11/11/2010 10:57	109	158	-49	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1441	11/11/2010 10:57	101	158	-57	512-BKGDS1A	387	
1442	11/11/2010 10:57	128	158	-30	512-BKGDS1A	387	
1443	11/11/2010 10:57	132	158	-26	512-BKGDS1A	387	
1444	11/11/2010 10:57	124	158	-34	512-BKGDS1A	387	
1445	11/11/2010 10:58	124	158	-34	512-BKGDS1A	387	
1446	11/11/2010 10:58	118	158	-40	512-BKGDS1A	387	
1447	11/11/2010 10:58	130	158	-28	512-BKGDS1A	387	
1448	11/11/2010 10:58	129	158	-29	512-BKGDS1A	387	
1449	11/11/2010 10:58	102	158	-56	512-BKGDS1A	387	
1450	11/11/2010 10:58	148	158	-10	512-BKGDS1A	387	
1451	11/11/2010 10:58	150	158	-8	512-BKGDS1A	387	
1452	11/11/2010 10:58	114	158	-44	512-BKGDS1A	387	
1453	11/11/2010 10:58	124	158	-34	512-BKGDS1A	387	
1454	11/11/2010 10:59	97	158	-61	512-BKGDS1A	387	
1455	11/11/2010 10:59	117	158	-41	512-BKGDS1A	387	
1456	11/11/2010 10:59	113	158	-45	512-BKGDS1A	387	
1457	11/11/2010 10:59	99	158	-59	512-BKGDS1A	387	
1458	11/11/2010 10:59	136	158	-22	512-BKGDS1A	387	
1459	11/11/2010 10:59	131	158	-27	512-BKGDS1A	387	
1460	11/11/2010 10:59	97	158	-61	512-BKGDS1A	387	
1461	11/11/2010 10:59	76	158	-82	512-BKGDS1A	387	
1462	11/11/2010 11:00	110	158	-48	512-BKGDS1A	387	
1463	11/11/2010 11:00	150	158	-8	512-BKGDS1A	387	
1464	11/11/2010 11:00	140	158	-18	512-BKGDS1A	387	
1465	11/11/2010 11:00	141	158	-17	512-BKGDS1A	387	
1466	11/11/2010 11:00	146	158	-12	512-BKGDS1A	387	
1467	11/11/2010 11:00	129	158	-29	512-BKGDS1A	387	
1468	11/11/2010 11:00	126	158	-32	512-BKGDS1A	387	
1469	11/11/2010 11:01	135	158	-23	512-BKGDS1A	387	
1470	11/11/2010 11:01	148	158	-10	512-BKGDS1A	387	
1471	11/11/2010 11:01	129	158	-29	512-BKGDS1A	387	
1472	11/11/2010 11:01	160	158	2	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1473	11/11/2010 11:01	129	158	-29	512-BKGDS1A	387	
1474	11/11/2010 11:01	125	158	-33	512-BKGDS1A	387	
1475	11/11/2010 11:01	140	158	-18	512-BKGDS1A	387	
1476	11/11/2010 11:01	116	158	-42	512-BKGDS1A	387	
1477	11/11/2010 11:01	117	158	-41	512-BKGDS1A	387	
1478	11/11/2010 11:02	121	158	-37	512-BKGDS1A	387	
1479	11/11/2010 11:02	111	158	-47	512-BKGDS1A	387	
1480	11/11/2010 11:02	124	158	-34	512-BKGDS1A	387	
1481	11/11/2010 11:02	136	158	-22	512-BKGDS1A	387	
1482	11/11/2010 11:02	102	158	-56	512-BKGDS1A	387	
1483	11/11/2010 11:02	152	158	-6	512-BKGDS1A	387	
1484	11/11/2010 11:02	144	158	-14	512-BKGDS1A	387	
1485	11/11/2010 11:02	158	158	0	512-BKGDS1A	387	
1486	11/11/2010 11:03	149	158	-9	512-BKGDS1A	387	
1487	11/11/2010 11:03	141	158	-17	512-BKGDS1A	387	
1488	11/11/2010 11:03	124	158	-34	512-BKGDS1A	387	
1489	11/11/2010 11:03	152	158	-6	512-BKGDS1A	387	
1490	11/11/2010 11:03	123	158	-35	512-BKGDS1A	387	
1491	11/11/2010 11:03	124	158	-34	512-BKGDS1A	387	
1492	11/11/2010 11:03	135	158	-23	512-BKGDS1A	387	
1493	11/11/2010 11:03	112	158	-46	512-BKGDS1A	387	
1494	11/11/2010 11:03	131	158	-27	512-BKGDS1A	387	
1495	11/11/2010 11:04	105	158	-53	512-BKGDS1A	387	
1496	11/11/2010 11:04	118	158	-40	512-BKGDS1A	387	
1497	11/11/2010 11:04	109	158	-49	512-BKGDS1A	387	
1498	11/11/2010 11:04	110	158	-48	512-BKGDS1A	387	
1499	11/11/2010 11:04	120	158	-38	512-BKGDS1A	387	
1500	11/11/2010 11:04	97	158	-61	512-BKGDS1A	387	
1501	11/11/2010 11:04	114	158	-44	512-BKGDS1A	387	
1502	11/11/2010 11:04	97	158	-61	512-BKGDS1A	387	
1503	11/11/2010 11:05	95	158	-63	512-BKGDS1A	387	
1504	11/11/2010 11:05	85	158	-73	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1505	11/11/2010 11:05	113	158	-45	512-BKGDS1A	387	
1506	11/11/2010 11:05	111	158	-47	512-BKGDS1A	387	
1507	11/11/2010 11:05	116	158	-42	512-BKGDS1A	387	
1508	11/11/2010 11:05	108	158	-50	512-BKGDS1A	387	
1509	11/11/2010 11:06	122	158	-36	512-BKGDS1A	387	
1510	11/11/2010 11:06	119	158	-39	512-BKGDS1A	387	
1511	11/11/2010 11:06	130	158	-28	512-BKGDS1A	387	
1512	11/11/2010 11:06	138	158	-20	512-BKGDS1A	387	
1513	11/11/2010 11:06	129	158	-29	512-BKGDS1A	387	
1514	11/11/2010 11:06	109	158	-49	512-BKGDS1A	387	
1515	11/11/2010 11:06	119	158	-39	512-BKGDS1A	387	
1516	11/11/2010 11:06	150	158	-8	512-BKGDS1A	387	
1517	11/11/2010 11:07	147	158	-11	512-BKGDS1A	387	
1518	11/11/2010 11:07	170	158	12	512-BKGDS1A	387	
1519	11/11/2010 11:07	139	158	-19	512-BKGDS1A	387	
1520	11/11/2010 11:07	121	158	-37	512-BKGDS1A	387	
1521	11/11/2010 11:07	107	158	-51	512-BKGDS1A	387	
1522	11/11/2010 11:07	101	158	-57	512-BKGDS1A	387	
1523	11/11/2010 11:07	112	158	-46	512-BKGDS1A	387	
1524	11/11/2010 11:07	120	158	-38	512-BKGDS1A	387	
1525	11/11/2010 11:07	125	158	-33	512-BKGDS1A	387	
1526	11/11/2010 11:08	122	158	-36	512-BKGDS1A	387	
1527	11/11/2010 11:08	87	158	-71	512-BKGDS1A	387	
1528	11/11/2010 11:08	74	158	-84	512-BKGDS1A	387	
1529	11/11/2010 11:08	128	158	-30	512-BKGDS1A	387	
1530	11/11/2010 11:08	121	158	-37	512-BKGDS1A	387	
1531	11/11/2010 11:08	109	158	-49	512-BKGDS1A	387	
1532	11/11/2010 11:08	142	158	-16	512-BKGDS1A	387	
1533	11/11/2010 11:08	138	158	-20	512-BKGDS1A	387	
1534	11/11/2010 11:09	142	158	-16	512-BKGDS1A	387	
1535	11/11/2010 11:09	148	158	-10	512-BKGDS1A	387	
1536	11/11/2010 11:09	156	158	-2	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1537	11/11/2010 11:09	135	158	-23	512-BKGDS1A	387	
1538	11/11/2010 11:09	138	158	-20	512-BKGDS1A	387	
1539	11/11/2010 11:09	114	158	-44	512-BKGDS1A	387	
1540	11/11/2010 11:09	112	158	-46	512-BKGDS1A	387	
1541	11/11/2010 11:09	150	158	-8	512-BKGDS1A	387	
1542	11/11/2010 11:09	138	158	-20	512-BKGDS1A	387	
1543	11/11/2010 11:10	119	158	-39	512-BKGDS1A	387	
1544	11/11/2010 11:10	116	158	-42	512-BKGDS1A	387	
1545	11/11/2010 11:10	121	158	-37	512-BKGDS1A	387	
1546	11/11/2010 11:10	119	158	-39	512-BKGDS1A	387	
1547	11/11/2010 11:10	108	158	-50	512-BKGDS1A	387	
1548	11/11/2010 11:10	121	158	-37	512-BKGDS1A	387	
1549	11/11/2010 11:11	176	158	18	512-BKGDS1A	387	
1550	11/11/2010 11:11	145	158	-13	512-BKGDS1A	387	
1551	11/11/2010 11:11	121	158	-37	512-BKGDS1A	387	
1552	11/11/2010 11:11	119	158	-39	512-BKGDS1A	387	
1553	11/11/2010 11:11	121	158	-37	512-BKGDS1A	387	
1554	11/11/2010 11:11	108	158	-50	512-BKGDS1A	387	
1555	11/11/2010 11:14	115	158	-43	512-BKGDS1A	387	
1556	11/11/2010 11:14	170	158	12	512-BKGDS1A	387	
1557	11/11/2010 11:14	145	158	-13	512-BKGDS1A	387	
1558	11/11/2010 11:14	143	158	-15	512-BKGDS1A	387	
1559	11/11/2010 11:14	159	158	1	512-BKGDS1A	387	
1560	11/11/2010 11:14	143	158	-15	512-BKGDS1A	387	
1561	11/11/2010 11:14	117	158	-41	512-BKGDS1A	387	
1562	11/11/2010 11:14	111	158	-47	512-BKGDS1A	387	
1563	11/11/2010 11:15	143	158	-15	512-BKGDS1A	387	
1564	11/11/2010 11:15	97	158	-61	512-BKGDS1A	387	
1565	11/11/2010 11:15	87	158	-71	512-BKGDS1A	387	
1566	11/11/2010 11:15	81	158	-77	512-BKGDS1A	387	
1567	11/11/2010 11:15	80	158	-78	512-BKGDS1A	387	
1568	11/11/2010 11:15	86	158	-72	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1569	11/11/2010 11:15	122	158	-36	512-BKGDS1A	387	
1570	11/11/2010 11:15	136	158	-22	512-BKGDS1A	387	
1571	11/11/2010 11:15	129	158	-29	512-BKGDS1A	387	
1572	11/11/2010 11:16	80	158	-78	512-BKGDS1A	387	
1573	11/11/2010 11:16	121	158	-37	512-BKGDS1A	387	
1574	11/11/2010 11:16	81	158	-77	512-BKGDS1A	387	
1575	11/11/2010 11:16	100	158	-58	512-BKGDS1A	387	
1576	11/11/2010 11:16	85	158	-73	512-BKGDS1A	387	
1577	11/11/2010 11:16	107	158	-51	512-BKGDS1A	387	
1578	11/11/2010 11:16	108	158	-50	512-BKGDS1A	387	
1579	11/11/2010 11:16	137	158	-21	512-BKGDS1A	387	
1580	11/11/2010 11:17	122	158	-36	512-BKGDS1A	387	
1581	11/11/2010 11:17	101	158	-57	512-BKGDS1A	387	
1582	11/11/2010 11:17	140	158	-18	512-BKGDS1A	387	
1583	11/11/2010 11:17	151	158	-7	512-BKGDS1A	387	
1584	11/11/2010 11:17	169	158	11	512-BKGDS1A	387	
1585	11/11/2010 11:17	159	158	1	512-BKGDS1A	387	
1586	11/11/2010 11:17	158	158	0	512-BKGDS1A	387	
1587	11/11/2010 11:17	140	158	-18	512-BKGDS1A	387	
1588	11/11/2010 11:17	126	158	-32	512-BKGDS1A	387	
1589	11/11/2010 11:18	130	158	-28	512-BKGDS1A	387	
1590	11/11/2010 11:18	152	158	-6	512-BKGDS1A	387	
1591	11/11/2010 11:18	182	158	24	512-BKGDS1A	387	
1592	11/11/2010 11:32	155	158	-3	512-BKGDS1A	387	
1593	11/11/2010 11:32	163	158	5	512-BKGDS1A	387	
1594	11/11/2010 11:32	202	158	44	512-BKGDS1A	387	
1595	11/11/2010 11:32	213	158	55	512-BKGDS1A	387	
1596	11/11/2010 11:32	223	158	65	512-BKGDS1A	387	
1597	11/11/2010 11:33	167	158	9	512-BKGDS1A	387	
1598	11/11/2010 11:33	158	158	0	512-BKGDS1A	387	
1599	11/11/2010 11:33	117	158	-41	512-BKGDS1A	387	
1600	11/11/2010 11:33	103	158	-55	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1601	11/11/2010 11:33	89	158	-69	512-BKGDS1A	387	
1602	11/11/2010 11:33	132	158	-26	512-BKGDS1A	387	
1603	11/11/2010 11:34	115	158	-43	512-BKGDS1A	387	
1604	11/11/2010 11:34	119	158	-39	512-BKGDS1A	387	
1605	11/11/2010 11:34	110	158	-48	512-BKGDS1A	387	
1606	11/11/2010 11:34	111	158	-47	512-BKGDS1A	387	
1607	11/11/2010 11:34	101	158	-57	512-BKGDS1A	387	
1608	11/11/2010 11:34	109	158	-49	512-BKGDS1A	387	
1609	11/11/2010 11:34	117	158	-41	512-BKGDS1A	387	
1610	11/11/2010 11:34	122	158	-36	512-BKGDS1A	387	
1611	11/11/2010 11:34	102	158	-56	512-BKGDS1A	387	
1612	11/11/2010 11:35	115	158	-43	512-BKGDS1A	387	
1613	11/11/2010 11:35	103	158	-55	512-BKGDS1A	387	
1614	11/11/2010 11:35	155	158	-3	512-BKGDS1A	387	
1615	11/11/2010 11:35	149	158	-9	512-BKGDS1A	387	
1616	11/11/2010 11:35	136	158	-22	512-BKGDS1A	387	
1617	11/11/2010 11:35	116	158	-42	512-BKGDS1A	387	
1618	11/11/2010 11:35	133	158	-25	512-BKGDS1A	387	
1619	11/11/2010 11:35	126	158	-32	512-BKGDS1A	387	
1620	11/11/2010 11:36	129	158	-29	512-BKGDS1A	387	
1621	11/11/2010 11:36	117	158	-41	512-BKGDS1A	387	
1622	11/11/2010 11:36	88	158	-70	512-BKGDS1A	387	
1623	11/11/2010 11:36	149	158	-9	512-BKGDS1A	387	
1624	11/11/2010 11:36	131	158	-27	512-BKGDS1A	387	
1625	11/11/2010 11:36	124	158	-34	512-BKGDS1A	387	
1626	11/11/2010 11:36	117	158	-41	512-BKGDS1A	387	
1627	11/11/2010 11:36	90	158	-68	512-BKGDS1A	387	
1628	11/11/2010 11:36	86	158	-72	512-BKGDS1A	387	
1629	11/11/2010 11:37	70	158	-88	512-BKGDS1A	387	
1630	11/11/2010 11:37	96	158	-62	512-BKGDS1A	387	
1631	11/11/2010 11:37	102	158	-56	512-BKGDS1A	387	
1632	11/11/2010 11:37	154	158	-4	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1633	11/11/2010 11:37	104	158	-54	512-BKGDS1A	387	
1634	11/11/2010 11:37	111	158	-47	512-BKGDS1A	387	
1635	11/11/2010 11:38	151	158	-7	512-BKGDS1A	387	
1636	11/11/2010 11:38	147	158	-11	512-BKGDS1A	387	
1637	11/11/2010 11:38	124	158	-34	512-BKGDS1A	387	
1638	11/11/2010 11:38	132	158	-26	512-BKGDS1A	387	
1639	11/11/2010 11:38	119	158	-39	512-BKGDS1A	387	
1640	11/11/2010 11:38	109	158	-49	512-BKGDS1A	387	
1641	11/11/2010 11:38	123	158	-35	512-BKGDS1A	387	
1642	11/11/2010 11:38	89	158	-69	512-BKGDS1A	387	
1643	11/11/2010 11:38	108	158	-50	512-BKGDS1A	387	
1644	11/11/2010 11:39	109	158	-49	512-BKGDS1A	387	
1645	11/11/2010 11:39	126	158	-32	512-BKGDS1A	387	
1646	11/11/2010 11:39	137	158	-21	512-BKGDS1A	387	
1647	11/11/2010 11:39	156	158	-2	512-BKGDS1A	387	
1648	11/11/2010 11:39	108	158	-50	512-BKGDS1A	387	
1649	11/11/2010 11:39	164	158	6	512-BKGDS1A	387	
1650	11/11/2010 11:39	122	158	-36	512-BKGDS1A	387	
1651	11/11/2010 11:39	134	158	-24	512-BKGDS1A	387	
1652	11/11/2010 11:40	128	158	-30	512-BKGDS1A	387	
1653	11/11/2010 11:40	113	158	-45	512-BKGDS1A	387	
1654	11/11/2010 11:40	134	158	-24	512-BKGDS1A	387	
1655	11/11/2010 11:40	126	158	-32	512-BKGDS1A	387	
1656	11/11/2010 11:40	127	158	-31	512-BKGDS1A	387	
1657	11/11/2010 11:40	121	158	-37	512-BKGDS1A	387	
1658	11/11/2010 11:40	123	158	-35	512-BKGDS1A	387	
1659	11/11/2010 11:40	90	158	-68	512-BKGDS1A	387	
1660	11/11/2010 11:40	97	158	-61	512-BKGDS1A	387	
1661	11/11/2010 11:41	143	158	-15	512-BKGDS1A	387	
1662	11/11/2010 11:41	122	158	-36	512-BKGDS1A	387	
1663	11/11/2010 11:41	111	158	-47	512-BKGDS1A	387	
1664	11/11/2010 11:41	119	158	-39	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1665	11/11/2010 11:41	138	158	-20	512-BKGDS1A	387	
1666	11/11/2010 11:41	126	158	-32	512-BKGDS1A	387	
1667	11/11/2010 11:41	134	158	-24	512-BKGDS1A	387	
1668	11/11/2010 11:41	130	158	-28	512-BKGDS1A	387	
1669	11/11/2010 11:42	123	158	-35	512-BKGDS1A	387	
1670	11/11/2010 11:42	124	158	-34	512-BKGDS1A	387	
1671	11/11/2010 11:42	100	158	-58	512-BKGDS1A	387	
1672	11/11/2010 11:42	129	158	-29	512-BKGDS1A	387	
1673	11/11/2010 11:42	151	158	-7	512-BKGDS1A	387	
1674	11/11/2010 11:42	111	158	-47	512-BKGDS1A	387	
1675	11/11/2010 11:42	120	158	-38	512-BKGDS1A	387	
1676	11/11/2010 11:42	149	158	-9	512-BKGDS1A	387	
1677	11/11/2010 11:42	151	158	-7	512-BKGDS1A	387	
1678	11/11/2010 11:43	140	158	-18	512-BKGDS1A	387	
1679	11/11/2010 11:43	116	158	-42	512-BKGDS1A	387	
1680	11/11/2010 11:43	90	158	-68	512-BKGDS1A	387	
1681	11/11/2010 11:43	99	158	-59	512-BKGDS1A	387	
1682	11/11/2010 11:43	88	158	-70	512-BKGDS1A	387	
1683	11/11/2010 11:43	140	158	-18	512-BKGDS1A	387	
1684	11/11/2010 11:43	107	158	-51	512-BKGDS1A	387	
1685	11/11/2010 11:44	100	158	-58	512-BKGDS1A	387	
1686	11/11/2010 11:44	100	158	-58	512-BKGDS1A	387	
1687	11/11/2010 11:44	103	158	-55	512-BKGDS1A	387	
1688	11/11/2010 11:44	80	158	-78	512-BKGDS1A	387	
1689	11/11/2010 11:44	126	158	-32	512-BKGDS1A	387	
1690	11/11/2010 11:44	113	158	-45	512-BKGDS1A	387	
1691	11/11/2010 11:44	92	158	-66	512-BKGDS1A	387	
1692	11/11/2010 11:44	154	158	-4	512-BKGDS1A	387	
1693	11/11/2010 11:45	114	158	-44	512-BKGDS1A	387	
1694	11/11/2010 11:45	125	158	-33	512-BKGDS1A	387	
1695	11/11/2010 11:45	125	158	-33	512-BKGDS1A	387	
1696	11/11/2010 11:45	136	158	-22	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1697	11/11/2010 11:45	131	158	-27	512-BKGDS1A	387	
1698	11/11/2010 11:45	114	158	-44	512-BKGDS1A	387	
1699	11/11/2010 11:45	99	158	-59	512-BKGDS1A	387	
1700	11/11/2010 11:45	111	158	-47	512-BKGDS1A	387	
1701	11/11/2010 11:45	115	158	-43	512-BKGDS1A	387	
1702	11/11/2010 11:46	152	158	-6	512-BKGDS1A	387	
1703	11/11/2010 11:46	180	158	22	512-BKGDS1A	387	
1704	11/11/2010 11:46	161	158	3	512-BKGDS1A	387	
1705	11/11/2010 11:46	122	158	-36	512-BKGDS1A	387	
1706	11/11/2010 11:46	104	158	-54	512-BKGDS1A	387	
1707	11/11/2010 11:46	120	158	-38	512-BKGDS1A	387	
1708	11/11/2010 11:46	128	158	-30	512-BKGDS1A	387	
1709	11/11/2010 11:46	104	158	-54	512-BKGDS1A	387	
1710	11/11/2010 11:47	105	158	-53	512-BKGDS1A	387	
1711	11/11/2010 11:47	119	158	-39	512-BKGDS1A	387	
1712	11/11/2010 11:47	124	158	-34	512-BKGDS1A	387	
1713	11/11/2010 11:47	96	158	-62	512-BKGDS1A	387	
1714	11/11/2010 11:47	100	158	-58	512-BKGDS1A	387	
1715	11/11/2010 11:47	142	158	-16	512-BKGDS1A	387	
1716	11/11/2010 11:47	129	158	-29	512-BKGDS1A	387	
1717	11/11/2010 11:47	145	158	-13	512-BKGDS1A	387	
1718	11/11/2010 11:47	131	158	-27	512-BKGDS1A	387	
1719	11/11/2010 11:48	132	158	-26	512-BKGDS1A	387	
1720	11/11/2010 11:48	106	158	-52	512-BKGDS1A	387	
1721	11/11/2010 11:48	98	158	-60	512-BKGDS1A	387	
1722	11/11/2010 11:48	123	158	-35	512-BKGDS1A	387	
1723	11/11/2010 11:48	126	158	-32	512-BKGDS1A	387	
1724	11/11/2010 11:48	126	158	-32	512-BKGDS1A	387	
1725	11/11/2010 11:48	129	158	-29	512-BKGDS1A	387	
1726	11/11/2010 11:49	127	158	-31	512-BKGDS1A	387	
1727	11/11/2010 11:49	113	158	-45	512-BKGDS1A	387	
1728	11/11/2010 11:49	115	158	-43	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1729	11/11/2010 11:49	91	158	-67	512-BKGDS1A	387	
1730	11/11/2010 11:49	134	158	-24	512-BKGDS1A	387	
1731	11/11/2010 11:49	131	158	-27	512-BKGDS1A	387	
1732	11/11/2010 11:49	165	158	7	512-BKGDS1A	387	
1733	11/11/2010 11:49	157	158	-1	512-BKGDS1A	387	
1734	11/11/2010 11:49	140	158	-18	512-BKGDS1A	387	
1735	11/11/2010 11:50	104	158	-54	512-BKGDS1A	387	
1736	11/11/2010 11:50	110	158	-48	512-BKGDS1A	387	
1737	11/11/2010 11:50	145	158	-13	512-BKGDS1A	387	
1738	11/11/2010 11:50	141	158	-17	512-BKGDS1A	387	
1739	11/11/2010 11:50	136	158	-22	512-BKGDS1A	387	
1740	11/11/2010 11:50	131	158	-27	512-BKGDS1A	387	
1741	11/11/2010 11:50	103	158	-55	512-BKGDS1A	387	
1742	11/11/2010 11:50	141	158	-17	512-BKGDS1A	387	
1743	11/11/2010 11:51	161	158	3	512-BKGDS1A	387	
1744	11/11/2010 11:51	136	158	-22	512-BKGDS1A	387	
1745	11/11/2010 11:51	187	158	29	512-BKGDS1A	387	
1746	11/11/2010 11:51	158	158	0	512-BKGDS1A	387	
1747	11/11/2010 11:51	158	158	0	512-BKGDS1A	387	
1748	11/11/2010 11:51	145	158	-13	512-BKGDS1A	387	
1749	11/11/2010 11:51	110	158	-48	512-BKGDS1A	387	
1750	11/11/2010 11:51	98	158	-60	512-BKGDS1A	387	
1751	11/11/2010 11:51	87	158	-71	512-BKGDS1A	387	
1752	11/11/2010 11:52	126	158	-32	512-BKGDS1A	387	
1753	11/11/2010 11:52	137	158	-21	512-BKGDS1A	387	
1754	11/11/2010 11:52	88	158	-70	512-BKGDS1A	387	
1755	11/11/2010 11:52	91	158	-67	512-BKGDS1A	387	
1756	11/11/2010 11:52	102	158	-56	512-BKGDS1A	387	
1757	11/11/2010 11:52	145	158	-13	512-BKGDS1A	387	
1758	11/11/2010 11:52	142	158	-16	512-BKGDS1A	387	
1759	11/11/2010 11:52	139	158	-19	512-BKGDS1A	387	
1760	11/11/2010 11:52	118	158	-40	512-BKGDS1A	387	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1761	11/11/2010 11:53	122	158	-36	512-BKGDS1A	387	
1762	11/11/2010 11:53	155	158	-3	512-BKGDS1A	387	
1763	11/11/2010 11:53	140	158	-18	512-BKGDS1A	387	

Net Gamma cpm Summary

Min: -109
Avg: -23
Max: 66
St Dev: 26

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 **Survey Unit:** 17 **Class:** 1 **Area:** 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 512 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228695 Probe Serial #: 022006AE1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 512-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	11/02/2010 8:19	162
2	11/02/2010 8:20	147
3	11/02/2010 8:22	160
4	11/02/2010 8:23	151
5	11/02/2010 8:25	138
6	11/02/2010 8:26	134
7	11/02/2010 8:28	127
8	11/02/2010 8:29	141
9	11/02/2010 8:30	152
10	11/02/2010 8:31	150
11	11/02/2010 8:32	120
12	11/02/2010 8:34	158
13	11/02/2010 8:35	122
14	11/02/2010 8:36	478
15	11/02/2010 8:38	141
16	11/02/2010 8:39	133
17	11/02/2010 8:40	147
18	11/02/2010 8:41	128
19	11/02/2010 8:42	138
20	11/02/2010 8:43	132

Gamma Mean Background (cpm): 158

Standard Deviation: 76

Gamma 3σ Investigation Level (cpm): 387

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	421-BKGDS1
Instrument Serial Number:	167145		
Instrument Calibration Due Date:	3/5/2011	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	11/19/2010	7	
2	11/19/2010	7	
3	11/19/2010	6	
4	11/19/2010	7	
5	11/19/2010	7	
6	11/19/2010	6	
7	11/19/2010	7	
8	11/19/2010	8	
9	11/19/2010	8	
10	11/19/2010	7	
11	11/19/2010	8	
12	11/19/2010	7	
13	11/19/2010	6	
14	11/19/2010	8	
15	11/19/2010	7	
16	11/19/2010	6	
17	11/19/2010	7	
18	11/19/2010	7	
19	11/19/2010	6	
20	11/19/2010	7	
21	11/30/2010	7	
22	11/30/2010	7	
23	11/30/2010	8	
24	11/30/2010	8	
25	11/30/2010	8	
26	11/30/2010	7	
27	11/30/2010	6	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	11/30/2010	7	
29	11/30/2010	8	
30	11/30/2010	8	
31	11/30/2010	8	
32	11/30/2010	7	
33	11/30/2010	8	
34	11/30/2010	8	
35	11/30/2010	8	
36	11/30/2010	8	
37	1/17/2011	6	
38	1/17/2011	5	
39	1/17/2011	6	
40	2/15/2011	5	
41	2/15/2011	5	

Instrument Model:	Model 19	Reference Area Background Identification #:	578-BKGDS1
Instrument Serial Number:	207505		
Instrument Calibration Due Date:	2/24/2012	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
42	3/8/2011	6	
43	3/8/2011	6	
44	3/8/2011	6	
45	3/8/2011	6	
46	3/8/2011	6	
47	3/8/2011	6	
48	3/8/2011	6	
49	3/8/2011	6	
50	3/8/2011	6	
51	3/8/2011	6	
52	3/8/2011	6	
53	3/8/2011	6	
54	3/8/2011	6	
55	3/8/2011	4	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
56	3/8/2011	4	
57	3/8/2011	6	
58	3/8/2011	6	
59	3/8/2011	4	
60	3/8/2011	6	
61	3/8/2011	6	
62	5/6/2011	5	
63	5/6/2011	6	
64	6/8/2011	6	
65	6/8/2011	6	
66	6/8/2011	6	
67	6/8/2011	6	
68	6/8/2011	6	
69	6/8/2011	6	
70	6/8/2011	6	
71	6/8/2011	6	
72	6/8/2011	6	
73	6/8/2011	6	
74	6/8/2011	6	
75	6/8/2011	6	
76	6/8/2011	6	
77	6/8/2011	6	
78	6/8/2011	6	
79	6/8/2011	6	
80	6/8/2011	6	
81	6/8/2011	6	
82	6/8/2011	6	
83	6/8/2011	6	

Exposure Rate Summary (µR/hr)	
Min:	4.00
Avg:	6.41
Max:	8.00
St Dev:	0.95

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01720

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0017-F001-01	11/19/2010	0730	1		S		☑	☑	☐					
03707-S0017-F002-01	11/19/2010	0735	1		S		☑	☑	☐					
03707-S0017-F003-01	11/19/2010	0740	1		S		☑	☑	☐					
03707-S0017-F004-01	11/19/2010	0745	1		S		☑	☑	☐	DUP				
03707-S0017-F005-01	11/19/2010	0750	1		S		☑	☑	☐					
03707-S0017-F006-01	11/19/2010	0755	1		S		☑	☑	☐					
03707-S0017-F007-01	11/19/2010	0800	1		S		☑	☑	☐					
03707-S0017-F008-01	11/19/2010	0805	1		S		☑	☑	☐					
03707-S0017-F009-01	11/19/2010	0810	1		S		☑	☑	☐					
03707-S0017-F010-01	11/19/2010	0815	1		S		☑	☑	☐					
03707-S0017-F011-01	11/19/2010	0820	1		S		☑	☑	☐					
03707-S0017-F012-01	11/19/2010	0825	1		S		☑	☑	☐					

Relinquished by: (signature) J. Rolfe	Date 11-19-10	Received by: (signature) Eric Schnader
Company RSRS	Time 14:01	Company NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BUILDING 707 TRIANGLE
SURVEY UNIT 17
SYSTEMATIC 1-20

PARCEL E

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01721

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0017-F013-01	11/19/2010	0830	1		S		☑	☑	☐					
03707-S0017-F014-01	11/19/2010	0835	1		S		☑	☑	☐					
03707-S0017-F015-01	11/19/2010	0840	1		S		☑	☑	☐					
03707-S0017-F016-01	11/19/2010	0845	1		S		☑	☑	☐					
03707-S0017-F017-01	11/19/2010	0850	1		S		☑	☑	☐					
03707-S0017-F018-01	11/19/2010	0925	1		S		☑	☑	☐					
03707-S0017-F019-01	11/19/2010	0925	1		S		☑	☑	☐					
03707-S0017-F020-01	11/19/2010	0940	1		S		☑	☑	☐					

Relinquished by: (signature) J. Rolfe	Date 11-19-10	Received by: (signature) Eric Schmidt
Company KSRS	Time 14:01	Company NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00113

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01749

Bags

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - NWT

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0017-F021-01	11/30/2010	0730	1		S		☑	☑	☐										
03707-S0017-F022-01	11/30/2010	0735	1		S		☑	☑	☐										
03707-S0017-F023-01	11/30/2010	0740	1		S		☑	☑	☐										
03707-S0017-F024-01	11/30/2010	0745	1		S		☑	☑	☐										
03707-S0017-F025-01	11/30/2010	0750	1		S		☑	☑	☐										
03707-S0017-F026-01	11/30/2010	0755	1		S		☑	☑	☐										
03707-S0017-F027-01	11/30/2010	0800	1		S		☑	☑	☐										
03707-S0017-F028-01	11/30/2010	0805	1		S		☑	☑	☐										
03707-S0017-F029-01	11/30/2010	0810	1		S		☑	☑	☐										
03707-S0017-F030-01	11/30/2010	0815	1		S		☑	☑	☐										
03707-S0017-F031-01	11/30/2010	0820	1		S		☑	☑	☐										
03707-S0017-F032-01	11/30/2010	0825	1		S		☑	☑	☐										

Relinquished by: (signature) Jeff Rolfe	Date 11-30-10	Received by: (signature) [signature]
Company RSRS	Time 15:28	Company NWT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS: ~~2 [illegible]~~ 2 jars / sample

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS: BUILDING 707 TRIANGLE SURVEY UNIT 17 BIASED 21-36

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01750

Bags

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - NWT	Project Information Section
Project Location: HUNTERS POINT	Project Number: 3670-003	LABORATORY ID: [illegible]	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0017-F033-01	11/30/2010	0830	1		S		☑	☑	☐										
03707-S0017-F034-01	11/30/2010	0835	1		S		☑	☑	☐										
03707-S0017-F035-01	11/30/2010	0840	1		S		☑	☑	☐										
03707-S0017-F036-01	11/30/2010	0845	1		S		☑	☑	☐										

Relinquished by: (signature) Jeff Rolfe	Date 11-30-10	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS: 2 jars / sample	SAMPLING COMMENTS
Company RSRS	Time 15:28	Company NWT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St. Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01826

Fmgs

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA									LABORATORY NAME: ONSITE - RSRS	Project Information Section						
Project Location: HUNTERS POINT	Project Number: 3670-0003												LABORATORY ID							
Sampler Name: R. Zaherskv	Airbill Number: N/A																			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592																			
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	FAT	1	1	1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC	
03707-S0017-F037-01	1/17/2011	1300	1		S		☑	☑	☐											
03707-S0017-F038-01	1/17/2011	1310	1		S		☑	☑	☐											
03707-S0017-F039-01	1/17/2011	1320	1		S		☑	☑	☐											

Relinquished by: (signature) [signature]	Date 01-17-11	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS: 2 samples per I.D.	SAMPLING COMMENTS: B707 TRIANGLE FSS SU-17 POST-REMEDIATION 57-39
Company RSAS	Time 15:34	Company RSAS		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St. Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01857

Bags

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - RSRS	Project Information Section
Project Location: HUNTERS POINT	Project Number: 3670-0003		
Sampler Name: R Zahensky	Airbill Number: N/A	LABORATORY ID:	
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
							1	1	1										
03707-S0017-F040-01	2/15/2011	1330	1		S		☑	☑	☐										
03707-S0017-F041-01	2/15/2011	1340	1		S		☑	☑	☐										

Relinquished by: (signature) R Zahensky	Date 2.15.11	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS: 2 jars per sample
Company RSRS	Time 14:00	Company RSRS	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE FSS
SU-17
POST-REMEDIATION 40-41

ED_004747_00010904-00117

TETRA TECH EC, INC.
1230 Columbia St. Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01910

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Bolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	FAT	GAMMASPEC 1	SR90 1	ALPHA 1						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
03707-S0017-F042-01	3/8/2011	0815	1		S		☑	☑	☐										
03707-S0017-F043-01	3/8/2011	0820	1		S		☑	☑	☐										
03707-S0017-F044-01	3/8/2011	0825	1		S		☑	☑	☐										
03707-S0017-F045-01	3/8/2011	0830	1		S		☑	☑	☐										
03707-S0017-F046-01	3/8/2011	0835	1		S		☑	☑	☐										
03707-S0017-F047-01	3/8/2011	0840	1		S		☑	☑	☐										
03707-S0017-F048-01	3/8/2011	0845	1		S		☑	☑	☐						Dup				
03707-S0017-F049-01	3/8/2011	0850	1		S		☑	☑	☐										
03707-S0017-F050-01	3/8/2011	0920	1		S		☑	☑	☐										
03707-S0017-F051-01	3/8/2011	0925	1		S		☑	☑	☐										
03707-S0017-F052-01	3/8/2011	0930	1		S		☑	☑	☐										
03707-S0017-F053-01	3/8/2011	0935	1		S		☑	☑	☐										

Relinquished by: (signature) [signature]	Date 3-8-11	Received by: (signature) [signature]
Company RSRS	Time 15:48	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE FSS
SU-17
SYSTEMATIC 42-61

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01911

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA						COMMENTS	LOCATION	DEPTH START	DEPTH END	QC
							1	1	1										
03707-S0017-F054-01	3/8/2011	0940	1		S		☑	☑	☐										
03707-S0017-F055-01	3/8/2011	0945	1		S		☑	☑	☐										
03707-S0017-F056-01	3/8/2011	0950	1		S		☑	☑	☐										
03707-S0017-F057-01	3/8/2011	0955	1		S		☑	☑	☐										
03707-S0017-F058-01	3/8/2011	1000	1		S		☑	☑	☐										
03707-S0017-F059-01	3/8/2011	1005	1		S		☑	☑	☐										
03707-S0017-F060-01	3/8/2011	1010	1		S		☑	☑	☐										
03707-S0017-F061-01	3/8/2011	1015	1		S		☑	☑	☐										

Relinquished by: (signature) J. Rolfe	Date 3-8-11	Received by: (signature)
Company RSRS	Time 15:48	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00119

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01960

Project Name: Radiological Building Survey	PO Number: N/A		
Project Location: HUNTERS POINT	Project Number: 3670-0003		
Sampler Name: Rich Zahonsky	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
03707-S0017-F062-01	5/6/2011	1105	1		S		☐	☑	☐			
03707-S0017-F063-01	5/6/2011	1110	1		S		☐	☑	☐			

Relinquished by: (signature)	Date	Received by: (signature)
RZahonsky	5-6-11	
Company: RSRS	Time: 15:55	Company: RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B707 TRIANGLE AREA
SU-17 # 62-63
SE90 POST-REMEDIATION

ED_004747_00010904-00120

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01990

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
03707-S0017-F064-01	6/8/2011	1030	1		S		☑	☑	☐			
03707-S0017-F065-01	6/8/2011	1035	1		S		☑	☑	☐			
03707-S0017-F066-01	6/8/2011	1040	1		S		☑	☑	☐			
03707-S0017-F067-01	6/8/2011	1045	1		S		☑	☑	☐			
03707-S0017-F068-01	6/8/2011	1050	1		S		☑	☑	☐			
03707-S0017-F069-01	6/8/2011	1055	1		S		☑	☑	☐			
03707-S0017-F070-01	6/8/2011	1100	1		S		☑	☑	☐			
03707-S0017-F071-01	6/8/2011	1105	1		S		☑	☑	☐			
03707-S0017-F072-01	6/8/2011	1110	1		S		☑	☑	☐			
03707-S0017-F073-01	6/8/2011	1115	1		S		☑	☑	☐			
03707-S0017-F074-01	6/8/2011	1120	1		S		☑	☑	☐			
03707-S0017-F075-01	6/8/2011	1125	1		S		☑	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 6-8-11	Received by: (signature) [illegible]
Company RSRS	Time 1345	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
3707 Triangle Area FSS
SU-17
Systematic 64-83

ED_004747_00010904-00121

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01991

Project Name: Radiological Building Survey	PO Number: N/A		
Project Location: HUNTERS POINT	Project Number: 3670-0003		
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
03707-S0017-F076-01	6/8/2011	1130	1		S		☑	☑	☐			
03707-S0017-F077-01	6/8/2011	1135	1		S		☑	☑	☐			
03707-S0017-F078-01	6/8/2011	1140	1		S		☑	☑	☐			
03707-S0017-F079-01	6/8/2011	1145	1		S		☑	☑	☐			
03707-S0017-F080-01	6/8/2011	1150	1		S		☑	☑	☐			
03707-S0017-F081-01	6/8/2011	1155	1		S		☑	☑	☐			
03707-S0017-F082-01	6/8/2011	1200	1		S		☑	☑	☐	Dup		
03707-S0017-F083-01	6/8/2011	1205	1		S		☑	☑	☐			

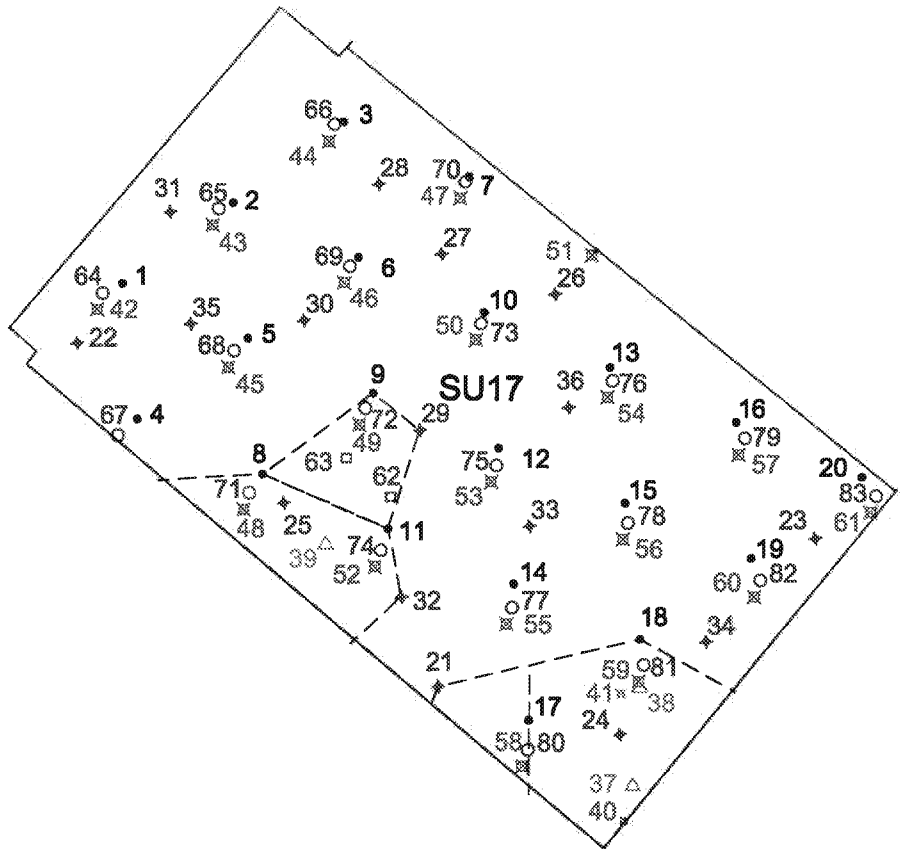
Relinquished by: (signature) J. Rolfe	Date 6-8-11	Received by: (signature) [illegible]
Company RSRS	Time 1345	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS:

COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT: (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS:



LEGEND:

•	1	SYSTEMATIC 1 SAMPLES 1–20
⊠	21	BIASED SAMPLES 21–36
△	37	POST REMEDIATION 1 SAMPLES 37–39
△	40	POST REMEDIATION 2 SAMPLES 40–41
⊠	42	SYSTEMATIC 2 SAMPLES 42–61
▫	62	Sr–90 REMEDIATION SAMPLES 62–63
○	64	SYSTEMATIC 3 SAMPLES 64–83
– – – – – –		PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:30

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 13:26:08

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 17

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: November 19, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #21 and #22. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 171 cpm for the FIDLER and 8,010 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 20. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 174 cpm for the FIDLER and 7,923 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 21. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 100 cpm for the FIDLER and 7,808 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team issued drawings to identify locations for biased sample collection within Class 1 Survey Units 11 through 17 and 21.

Scrap Yard

- Following the receipt of analytical results from Survey Units 1, 2 and 3, the staged asphalt debris from Grids 2, 6, 8, 10, 12 and 14 were transferred to the recycling stockpile.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Soil compaction was performed by the HPS Team in those trench survey units with backfill activity in preparation for upcoming heavy rains.
- The HPS Team issued an updated Parcel E/UC1/UC3 Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: November 30, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 1. A total of 18 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 83 cpm for the FIDLER and 7,726 cpm. In addition, 9 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 6. A total of 10 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 91 cpm for the FIDLER and 7,608 cpm. In addition, 5 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 14 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 95 cpm for the FIDLER and 8,746 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 10. A total of 20 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 190 cpm for the FIDLER and 8,419 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 11. A total of 24 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 158 cpm for the FIDLER and 8,201 cpm. In addition, 12 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of 32 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 220 cpm for the FIDLER and 9,743 cpm. In addition, 16 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Backfilling activities were initiated for Trench Unit No. 183 by the HPS Team.
- The HPS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 187 along with a request for concurrence to backfill.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: January 17, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3 and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 90 cubic yards of soil from Survey Units 15, 16 and 17 and placed the material in LLRW bins BKRU025553G13, BKRU026385G14, GFLU001013G8, GFLU001059G15, GFLU001127G15, and GFLU001199G9 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 18 post-remediation gamma statics were logged. The maximum gamma static measurements logged were 73 cpm for the FIDLER and 7,830 cpm. In addition, nine post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of six post-remediation gamma statics were logged. The maximum gamma static measurements logged were 218 cpm for the FIDLER and 9,088 cpm. In addition, three post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Compaction testing was continued on recently backfilled areas of Trench Units No. 184 and 187. Based on the compaction testing results, backfill activities were continued for both trench survey units.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: February 15, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, the Scrap Yard, Parcel UC3, and Work Areas #16, #20 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 60 cubic yards of soil from Survey Units 5, 9, and 14 and placed the material in LLRW bins BKRU025603G15, GFLU001039G16, GFLU001139G8 and GFLU001233G5 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of six post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 56 cpm (FIDLER) and 4,468 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of four characterization gamma static measurements were logged. The maximum gamma static measurements logged were 208 cpm (FIDLER) and 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Units 3, 5, 7, 9, 13, 14, 15, 20, and 21. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the biased "pothole" samples collected from Survey Unit 4. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Unit 16. The laboratory analytical results identified ^{90}Sr activity above the release criteria at Sample Point 33 (18.5 pCi/g).
- The HPS Team provided the RASO with the on-site and off-site analytical results for the post-remediation samples collected from Survey Unit 17. The analytical results

identified the presence of ^{90}Sr activity above the release criteria at Sample Point 37 (15.1 pCi/g).

- Staged asphalt debris excavated from Survey Units 10, 11 and18 was transferred to the off-site recycling stockpiles near Building 411.
- The HPS Team issued record drawings to identify locations for post-remediation sample collection in Survey Unit 13.

Scrap Yard

- Staged asphalt debris from Survey Unit 6 was transferred to the recycling stockpiles near Building 411.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and continued preparations for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: March 8, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 81 cpm (FIDLER) and 8,136 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 202 cpm (FIDLER) and 7,675 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team provided the RASO with on-site analytical results for the post-remediation samples collected from Survey Unit 21. Because no activity above the release criteria was identified, systematic sample collection will be performed.
- The HPS Team issued drawings to identify systematic sample collection locations in Survey Unit 21.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: May 6, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- Approximately 7.5 cubic yards of soil was remediated from Survey Units 16 and 17 by the HPS Team and placed in LLRW bins BKRU012774G6, BKRU026398G13, and GFLU001221G8 for off-site disposal.
- The HPS Team logged a total of four post-remediation gamma static measurements in Survey Unit 16. The maximum measurements logged were 83 cpm (FIDLER) and 5,499 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged four post-remediation gamma static measurements in Survey Unit 17. The maximum measurements logged were 209 cpm (FIDLER) and 8,228 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged 42 investigative gamma static measurements in Survey Unit 19. The maximum measurements logged were 184 cpm (FIDLER) and 9,731 cpm. In addition, 21 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: June 8, 2011	EMAC – CTO 03

Overview

The HPNS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPNS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 88 cpm (FIDLER) and 6,758 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPNS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 180 cpm (FIDLER) and 6,993 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
707	17	1	Systematic	03707-S0017-F001-01	19-Nov-10	Jeff Rolfe	23.408	1.449	0.016344	0.81238	0.88375					
707	17	2	Systematic	03707-S0017-F002-01	19-Nov-10	Jeff Rolfe	15.013	-0.063562	0.014311	0.77532	0.71345					
707	17	3	Systematic	03707-S0017-F003-01	19-Nov-10	Jeff Rolfe	16.6	0.77864	-0.0042353	0.73537	0.52804					
707	17	4	Systematic	03707-S0017-F004-01	19-Nov-10	Jeff Rolfe	12.573	0.10661	0.0037937	0.59786	0.64628					
707	17	5	Systematic	03707-S0017-F005-01	19-Nov-10	Jeff Rolfe	23.6	0.61444	0.02119	0.79473	0.70744					
707	17	6	Systematic	03707-S0017-F006-01	19-Nov-10	Jeff Rolfe	16.258	0.99447	0.024694	0.69371	0.61748					
707	17	7	Systematic	03707-S0017-F007-01	19-Nov-10	Jeff Rolfe	12.411	-0.21347	0.0018224	0.7596	0.51395					
707	17	8	Systematic	03707-S0017-F008-01	19-Nov-10	Jeff Rolfe	23.754	0.75219	0.076954	0.56785	0.56888					
707	17	9	Systematic	03707-S0017-F009-01	19-Nov-10	Jeff Rolfe	21.318	0.4623	0.0072203	0.894	0.92174					
707	17	10	Systematic	03707-S0017-F010-01	19-Nov-10	Jeff Rolfe	23.893	0.26135	0.024491	0.8075	0.80574					
707	17	11	Systematic	03707-S0017-F011-01	19-Nov-10	Jeff Rolfe	16.34	0.75956	0.063639	0.47293	0.71822					
707	17	12	Systematic	03707-S0017-F012-01	19-Nov-10	Jeff Rolfe	16.649	0.89335	0.032931	0.69536	0.57031					
707	17	13	Systematic	03707-S0017-F013-01	19-Nov-10	Jeff Rolfe	16.71	0.66703	0.00981	0.76514	0.75417					
707	17	14	Systematic	03707-S0017-F014-01	19-Nov-10	Jeff Rolfe	16.965	0.89048	0.0022201	0.92399	0.69589					
707	17	15	Systematic	03707-S0017-F015-01	19-Nov-10	Jeff Rolfe	16.882	0.44015	0.027384	0.63904	0.53297					
707	17	16	Systematic	03707-S0017-F016-01	19-Nov-10	Jeff Rolfe	9.8905	0.50128	0.034723	0.45005	0.29187					
707	17	17	Systematic	03707-S0017-F017-01	19-Nov-10	Jeff Rolfe	16.376	0.53304	0.42415	0.49928	0.49966					
707	17	18	Systematic	03707-S0017-F018-01	19-Nov-10	Jeff Rolfe	19.046	0.66589	0.087692	0.58707	0.61673					
707	17	19	Systematic	03707-S0017-F019-01	19-Nov-10	Jeff Rolfe	14.49	0.73091	0.031521	0.54935	0.4189					
707	17	20	Systematic	03707-S0017-F020-01	19-Nov-10	Jeff Rolfe	19.367	0.94077	-0.004309	0.54169	0.65881					
707	17	21	Biased	03707-S0017-F021-01	30-Nov-10	Jeff Rolfe	17.625	0.80219	0.056036	0.73924	0.66759					
707	17	22	Biased	03707-S0017-F022-01	30-Nov-10	Jeff Rolfe	23.545	0.93095	0.10777	0.757	0.63898					
707	17	23	Biased	03707-S0017-F023-01	30-Nov-10	Jeff Rolfe	19.967	0.5066	0.012118	0.86184	0.8116					
707	17	24	Biased	03707-S0017-F024-01	30-Nov-10	Jeff Rolfe	16.33	0.77939	0.073568	0.61802	0.60389					
707	17	25	Biased	03707-S0017-F025-01	30-Nov-10	Jeff Rolfe	21.576	0.022045	11.991	0.73385	0.73317					
707	17	26	Biased	03707-S0017-F026-01	30-Nov-10	Jeff Rolfe	19.768	0.95295	0.013088	0.76181	0.73299					
707	17	27	Biased	03707-S0017-F027-01	30-Nov-10	Jeff Rolfe	19.827	0.66857	0.021724	0.91968	0.76258					
707	17	28	Biased	03707-S0017-F028-01	30-Nov-10	Jeff Rolfe	20.182	0.68807	0.023769	0.66371	0.6091					
707	17	29	Biased	03707-S0017-F029-01	30-Nov-10	Jeff Rolfe	22.964	0.72452	0.023168	0.85363	0.85382					
707	17	30	Biased	03707-S0017-F030-01	30-Nov-10	Jeff Rolfe	25.338	1.0994	-0.0054638	0.96664	0.75926					
707	17	31	Biased	03707-S0017-F031-01	30-Nov-10	Jeff Rolfe	21.476	1.0009	0.015022	0.94526	0.81479					
707	17	32	Biased	03707-S0017-F032-01	30-Nov-10	Jeff Rolfe	21.359	0.43716	-0.0019141	0.84428	0.8361					
707	17	33	Biased	03707-S0017-F033-01	30-Nov-10	Jeff Rolfe	22.48	0.88349	0.076408	0.77681	0.83523					
707	17	34	Biased	03707-S0017-F034-01	30-Nov-10	Jeff Rolfe	20.054	0.9386	0.0069849	0.54052	0.72789					
707	17	35	Biased	03707-S0017-F035-01	30-Nov-10	Jeff Rolfe	22.53	1.0846	-0.007164	0.75477	0.58077					
707	17	36	Biased	03707-S0017-F036-01	30-Nov-10	Jeff Rolfe	20.024	0.5961	0.023275	0.79847	0.75232					
707	17	37	Post-Remediation	03707-S0017-F037-01	17-Jan-11	Rick Zahensky	12.62	0.6966	0.8955	0.5143	0.5402					
707	17	38	Post-Remediation	03707-S0017-F038-01	17-Jan-11	Rick Zahensky	15.59	0.4255	-0.004596	0.2339	0.1956					
707	17	39	Post-Remediation	03707-S0017-F039-01	17-Jan-11	Rick Zahensky	9.231	1.165	-0.01036	0.7094	0.7161					
707	17	40	Post-Remediation	03707-S0017-F040-01	15-Feb-11	Rick Zahensky	10.88	1.063	0.007966	0.3057	0.2995					
707	17	41	Post-Remediation	03707-S0017-F041-01	15-Feb-11	Rick Zahensky	12.31	0.9082	0.01596	0.1728	0.3573					
707	17	42	Systematic	03707-S0017-F042-01	08-Mar-11	Jeff Rolfe	4.737	0.06751	-0.003952	0.09169	0.2002	5.16	0.297	-0.0115	0.297	0.268
707	17	43	Systematic	03707-S0017-F043-01	08-Mar-11	Jeff Rolfe	11.87	0.1655	-0.001459	0.4816	0.3289	12.1	0.676	0.00518	0.676	0.534
707	17	44	Systematic	03707-S0017-F044-01	08-Mar-11	Jeff Rolfe	10.14	0.5431	-0.00883	0.5098	0.4341	11.7	0.663	-0.0209	0.663	0.517
707	17	45	Systematic	03707-S0017-F045-01	08-Mar-11	Jeff Rolfe	10.45	0.8509	0.008339	0.4444	0.4847	10.4	0.577	0.00982	0.577	0.591
707	17	46	Systematic	03707-S0017-F046-01	08-Mar-11	Jeff Rolfe	11.98	0.5445	0.002762	0.4609	0.5379	9.58	0.367	0.0019	0.367	0.569
707	17	47	Systematic	03707-S0017-F047-01	08-Mar-11	Jeff Rolfe	11.85	0.5051	0.03658	0.509	0.4939	11.2	0.517	0	0.517	0.712
707	17	48	Systematic	03707-S0017-F048-01	08-Mar-11	Jeff Rolfe	12.32	0.713	-0.003733	0.4716	0.3464	11.7	0.47	-0.000246	0.47	0.646
707	17	49	Systematic	03707-S0017-F049-01	08-Mar-11	Jeff Rolfe	11.6	0.7492	-0.0007392	0.4024	0.5283	12	0.5	0.000389	0.5	0.685
707	17	50	Systematic	03707-S0017-F050-01	08-Mar-11	Jeff Rolfe	12.19	0.9205	0.006227	0.4796	0.3986	9.82	0.546	-0.019	0.546	0.59
707	17	51	Systematic	03707-S0017-F051-01	08-Mar-11	Jeff Rolfe	8.848	0.7143	-0.003357	0.4896	0.4137	10.8	0.603	-0.0063	0.603	0.562
707	17	52	Systematic	03707-S0017-F052-01	08-Mar-11	Jeff Rolfe	13.25	0.6659	0	0.454	0.507	9.64	0.625	-0.00722	0.625	0.67
707	17	53	Systematic	03707-S0017-F053-01	08-Mar-11	Jeff Rolfe	11.8	0.6153	0	0.4836	0.4295	11.3	0.72	0	0.72	0.566

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
707	17	54	Systematic	03707-S0017-F054-01	08-Mar-11	Jeff Rolfe	11.79	0.6081	-0.006221	0.4122	0.4439	7.81	0.599	-0.017	0.599	0.564
707	17	55	Systematic	03707-S0017-F055-01	08-Mar-11	Jeff Rolfe	11.51	0.5153	0.00992	0.4029	0.2954	10	0.528	0.0122	0.528	0.65
707	17	56	Systematic	03707-S0017-F056-01	08-Mar-11	Jeff Rolfe	10.85	0.777	-0.01197	0.4008	0.4229	10.4	0.426	-0.000619	0.426	0.482
707	17	57	Systematic	03707-S0017-F057-01	08-Mar-11	Jeff Rolfe	11.71	0.5384	0	0.4535	0.4568	9.88	0.514	0.0388	0.514	0.444
707	17	58	Systematic	03707-S0017-F058-01	08-Mar-11	Jeff Rolfe	10.66	1.099	0.01097	0.2278	0.3329	9.3	0.52	0	0.52	0.551
707	17	59	Systematic	03707-S0017-F059-01	08-Mar-11	Jeff Rolfe	9.83	0.2524	-0.00007019	0.3211	0.3636	9.27	0.462	0.00335	0.462	0.593
707	17	60	Systematic	03707-S0017-F060-01	08-Mar-11	Jeff Rolfe	10.28	0.4147	0	0.354	0.3775	10.8	0.414	-0.044	0.414	0.419
707	17	61	Systematic	03707-S0017-F061-01	08-Mar-11	Jeff Rolfe	8.807	0.4218	-0.003131	0.3824	0.3614	10.3	0.468	-0.0173	0.468	0.601
707	17	62	Sr90 Remediation	03707-S0017-F062-01	06-May-11	Rick Zahensky										
707	17	63	Sr90 Remediation	03707-S0017-F063-01	06-May-11	Rick Zahensky										
707	17	64	Systematic	03707-S0017-F064-01	08-Jun-11	Jeff Rolfe	4.862	0.436	-0.005611	0.1403	0.21	5.22	0.341	-0.000143	0.341	0.27
707	17	65	Systematic	03707-S0017-F065-01	08-Jun-11	Jeff Rolfe	6.23	0.5965	0	0.2959	0.1526	5.46	0.285	-0.0193	0.285	0.232
707	17	66	Systematic	03707-S0017-F066-01	08-Jun-11	Jeff Rolfe	5.821	0.1404	0.003488	0.2556	0.1834	5.14	0.32	-0.000153	0.32	0.264
707	17	67	Systematic	03707-S0017-F067-01	08-Jun-11	Jeff Rolfe	4.624	0.3343	0	0.1111	0.2471	5.06	0.347	0.00617	0.347	0.17
707	17	68	Systematic	03707-S0017-F068-01	08-Jun-11	Jeff Rolfe	5.648	0.3461	-0.003752	0.2735	0.2699	4.66	0.38	0.000492	0.38	0.381
707	17	69	Systematic	03707-S0017-F069-01	08-Jun-11	Jeff Rolfe	5.595	0.2589	-0.002401	0.19	0.1767	4.38	0.513	-0.0272	0.513	0.391
707	17	70	Systematic	03707-S0017-F070-01	08-Jun-11	Jeff Rolfe	4.363	0.0645	0.00159	0.1275	0.2811	4.55	0.295	-0.0114	0.295	0.391
707	17	71	Systematic	03707-S0017-F071-01	08-Jun-11	Jeff Rolfe	5.183	0.6115	0	0.2073	0.2913	5.36	0.32	0.00414	0.32	0.212
707	17	72	Systematic	03707-S0017-F072-01	08-Jun-11	Jeff Rolfe	5.676	0.577	-0.01196	0.2672	0.1481	3.69	0.343	0.00454	0.343	0.354
707	17	73	Systematic	03707-S0017-F073-01	08-Jun-11	Jeff Rolfe	5.811	0.465	0	0.2357	0.2275	4.35	0.389	0.0188	0.389	0.374
707	17	74	Systematic	03707-S0017-F074-01	08-Jun-11	Jeff Rolfe	4.118	0.316	0	0.2288	0.2564	3.45	0.231	-0.0259	0.231	0.383
707	17	75	Systematic	03707-S0017-F075-01	08-Jun-11	Jeff Rolfe	6.012	0.7396	0	0.1016	0.1509	6.31	0.327	0.00646	0.327	0.372
707	17	76	Systematic	03707-S0017-F076-01	08-Jun-11	Jeff Rolfe	4.893	0.02696	0	0.1565	0.2241	5.17	0.291	0	0.291	0.321
707	17	77	Systematic	03707-S0017-F077-01	08-Jun-11	Jeff Rolfe	5.737	0.3798	-0.008098	0.1745	0.1254	3.69	0.291	0.00166	0.291	0.305
707	17	78	Systematic	03707-S0017-F078-01	08-Jun-11	Jeff Rolfe	5.904	0.463	-0.007242	0.08165	0.1895	5.13	0.292	0.0109	0.292	0.345
707	17	79	Systematic	03707-S0017-F079-01	08-Jun-11	Jeff Rolfe	6.726	0.504	-0.00686	0.1484	0.1773	5.55	0.348	-0.0187	0.348	0.433
707	17	80	Systematic	03707-S0017-F080-01	08-Jun-11	Jeff Rolfe	5.787	0.4051	0.0004447	0.1673	0.1405	7.61	0.328	0.0109	0.328	0.392
707	17	81	Systematic	03707-S0017-F081-01	08-Jun-11	Jeff Rolfe	4.51	0.7243	-0.003767	0.239	0.1895	5.16	0.328	-0.00678	0.328	0.428
707	17	82	Systematic	03707-S0017-F082-01	08-Jun-11	Jeff Rolfe	5.955	0.5374	0.001496	0.1092	0.2566	4.04	0.395	0	0.395	0.122
707	17	83	Systematic	03707-S0017-F083-01	08-Jun-11	Jeff Rolfe	5.449	0.6041	-0.002971	0.2936	0.1314	7.01	0.349	-0.00733	0.349	0.393

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

REPORT TITLE

BUILDING 707
SURVEY UNIT 17, SURVEY 330

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW: 0
AUTHOR: GFG
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: su17_330.mxd

TETRA TECH EC, INC

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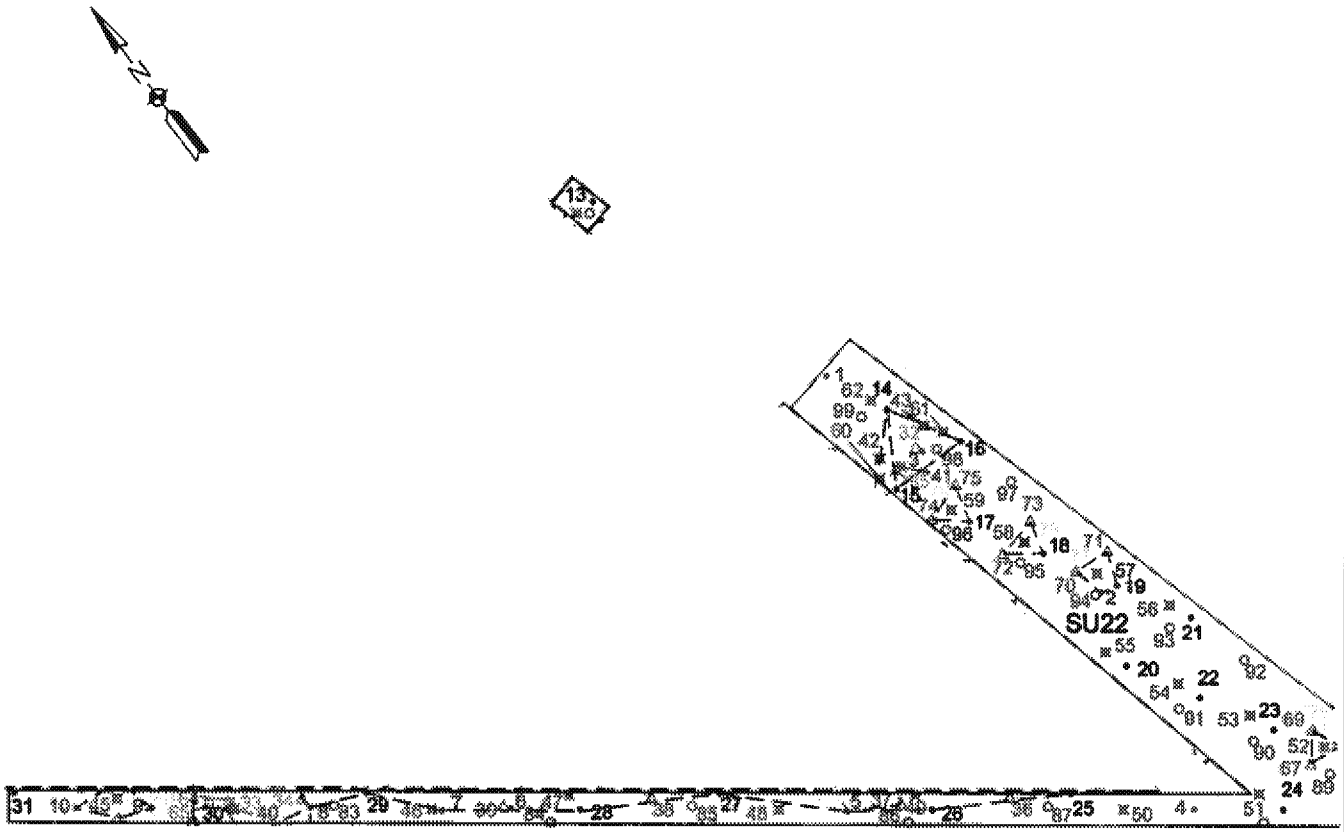

LEGEND:

⊠ 1	BIASED SAMPLES 1–11
• 12	SYSTEMATIC 1 SAMPLES 12–31
△ 32	Sr–90 REMEDIATION SAMPLES 32–35
△ 36	POST REMEDIATION 1 SAMPLES 36–39
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⊠ 44	SYSTEMATIC 2 SAMPLES 44–63
▫ 64	POST REMEDIATION 3 SAMPLES 64–65
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▫ 76	POST REMEDIATION 4 SAMPLES 76–80
○ 81	SYSTEMATIC 3 SAMPLES 81–100
- - - - - -	PREVIOUS REMEDIATION
◯	POTHOLE LOCATIONS

RECORD COPY

SCALE 1:40

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 14:29:13

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 22

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/22/2011 10:25	5770	5817	-47	479-BKGDS1A	7378	
2	4/22/2011 10:26	6080	5817	263	479-BKGDS1A	7378	
3	4/22/2011 10:28	6654	5817	837	479-BKGDS1A	7378	
4	4/22/2011 10:29	4686	5817	-1131	479-BKGDS1A	7378	
5	4/22/2011 10:31	4802	5817	-1015	479-BKGDS1A	7378	
6	4/22/2011 10:36	4485	5817	-1332	479-BKGDS1A	7378	
7	4/22/2011 10:38	4635	5817	-1182	479-BKGDS1A	7378	
8	4/22/2011 10:39	4827	5817	-990	479-BKGDS1A	7378	
9	4/22/2011 10:40	4797	5817	-1020	479-BKGDS1A	7378	
10	4/22/2011 10:41	5127	5817	-690	479-BKGDS1A	7378	
11	4/22/2011 10:45	6037	5817	220	479-BKGDS1A	7378	
12	4/22/2011 10:47	6508	5817	691	479-BKGDS1A	7378	
13	4/22/2011 10:56	5163	5817	-654	479-BKGDS1A	7378	
14	4/22/2011 11:23	5147	5817	-670	479-BKGDS1A	7378	
15	4/22/2011 11:25	6172	5817	355	479-BKGDS1A	7378	
16	4/22/2011 11:26	5217	5817	-600	479-BKGDS1A	7378	
17	4/22/2011 11:27	5497	5817	-320	479-BKGDS1A	7378	
18	4/22/2011 11:28	5468	5817	-349	479-BKGDS1A	7378	
19	4/22/2011 11:29	4710	5817	-1107	479-BKGDS1A	7378	
20	4/22/2011 11:30	5530	5817	-287	479-BKGDS1A	7378	
21	4/22/2011 11:32	5354	5817	-463	479-BKGDS1A	7378	
22	4/22/2011 11:33	5287	5817	-530	479-BKGDS1A	7378	
23	4/22/2011 11:34	4827	5817	-990	479-BKGDS1A	7378	
24	4/22/2011 11:35	4112	5817	-1705	479-BKGDS1A	7378	
25	4/22/2011 11:36	4909	5817	-908	479-BKGDS1A	7378	
26	4/22/2011 11:38	5437	5817	-380	479-BKGDS1A	7378	
27	4/22/2011 11:39	4880	5817	-937	479-BKGDS1A	7378	
28	4/22/2011 11:40	4867	5817	-950	479-BKGDS1A	7378	
29	4/22/2011 11:42	4802	5817	-1015	479-BKGDS1A	7378	
30	4/22/2011 11:43	4702	5817	-1115	479-BKGDS1A	7378	
31	4/22/2011 11:44	4768	5817	-1049	479-BKGDS1A	7378	
32	5/1/2012 14:16	4440	5886	-1446	621-BKGDS1A	7001	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	5/1/2012 14:28	5034	5886	-852	621-BKGDS1A	7001	
34	5/2/2012 10:02	4099	5886	-1787	621-BKGDS1A	7001	
35	5/2/2012 10:06	5860	5886	-26	621-BKGDS1A	7001	
36	5/14/2012 13:09	5221	5886	-665	621-BKGDS1A	7001	
37	5/14/2012 13:10	4683	5886	-1203	621-BKGDS1A	7001	
38	5/14/2012 13:11	3878	5886	-2008	621-BKGDS1A	7001	
39	5/14/2012 13:12	4449	5886	-1437	621-BKGDS1A	7001	
40	6/29/2012 13:34	3742	5845	-2103	622-BKGDS1A	7004	
41	7/2/2012 10:35	4167	5845	-1678	622-BKGDS1A	7004	
42	7/2/2012 10:37	4089	5845	-1756	622-BKGDS1A	7004	
43	7/2/2012 10:38	3963	5845	-1882	622-BKGDS1A	7004	
44	8/8/2012 7:32	6418	5845	573	622-BKGDS1A	7004	
45	7/31/2012 9:25	3881	5845	-1964	622-BKGDS1A	7004	
46	7/31/2012 9:27	3621	5845	-2224	622-BKGDS1A	7004	
47	7/31/2012 9:28	4131	5845	-1714	622-BKGDS1A	7004	
48	7/31/2012 9:30	4344	5845	-1501	622-BKGDS1A	7004	
49	7/31/2012 9:31	4202	5845	-1643	622-BKGDS1A	7004	
50	7/31/2012 9:32	4400	5845	-1445	622-BKGDS1A	7004	
51	7/31/2012 9:34	3367	5845	-2478	622-BKGDS1A	7004	
52	7/31/2012 9:35	4377	5845	-1468	622-BKGDS1A	7004	
53	7/31/2012 9:36	3276	5845	-2569	622-BKGDS1A	7004	
54	7/31/2012 9:37	4784	5845	-1061	622-BKGDS1A	7004	
55	7/31/2012 9:39	4928	5845	-917	622-BKGDS1A	7004	
56	7/31/2012 9:40	4412	5845	-1433	622-BKGDS1A	7004	
57	7/31/2012 9:41	4554	5845	-1291	622-BKGDS1A	7004	
58	7/31/2012 9:42	5563	5845	-282	622-BKGDS1A	7004	
59	7/31/2012 9:44	5143	5845	-702	622-BKGDS1A	7004	
60	7/31/2012 9:45	4309	5845	-1536	622-BKGDS1A	7004	
61	7/31/2012 9:46	4975	5845	-870	622-BKGDS1A	7004	
62	7/31/2012 9:48	4924	5845	-921	622-BKGDS1A	7004	
63	7/31/2012 9:49	4765	5845	-1080	622-BKGDS1A	7004	
64	8/2/2012 8:06	3978	5845	-1867	622-BKGDS1A	7004	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	8/2/2012 8:07	4091	5845	-1754	622-BKGDS1A	7004	
66	8/7/2012 11:14	4416	5845	-1429	622-BKGDS1A	7004	
67	8/7/2012 11:21	4525	5845	-1320	622-BKGDS1A	7004	
68	8/7/2012 11:22	4222	5845	-1623	622-BKGDS1A	7004	
69	8/7/2012 11:23	4448	5845	-1397	622-BKGDS1A	7004	
70	8/7/2012 11:25	5270	5845	-575	622-BKGDS1A	7004	
71	8/7/2012 11:26	4705	5845	-1140	622-BKGDS1A	7004	
72	8/7/2012 11:27	5690	5845	-155	622-BKGDS1A	7004	
73	8/7/2012 11:28	4474	5845	-1371	622-BKGDS1A	7004	
74	8/7/2012 11:29	4933	5845	-912	622-BKGDS1A	7004	
75	8/7/2012 11:30	5256	5845	-589	622-BKGDS1A	7004	
76	8/15/2012 11:17	3784	5845	-2061	622-BKGDS1A	7004	
77	8/15/2012 11:18	4223	5845	-1622	622-BKGDS1A	7004	
78	8/15/2012 11:20	4004	5845	-1841	622-BKGDS1A	7004	
79	8/15/2012 11:21	5090	5845	-755	622-BKGDS1A	7004	
80	8/15/2012 11:23	4408	5845	-1437	622-BKGDS1A	7004	
81	8/23/2012 9:29	6680	5845	835	622-BKGDS1A	7004	
82	8/23/2012 9:32	4494	5845	-1351	622-BKGDS1A	7004	
83	8/23/2012 9:34	4497	5845	-1348	622-BKGDS1A	7004	
84	8/23/2012 9:35	4127	5845	-1718	622-BKGDS1A	7004	
85	8/23/2012 9:37	4646	5845	-1199	622-BKGDS1A	7004	
86	8/23/2012 9:38	4693	5845	-1152	622-BKGDS1A	7004	
87	8/23/2012 9:40	4641	5845	-1204	622-BKGDS1A	7004	
88	8/23/2012 9:41	4105	5845	-1740	622-BKGDS1A	7004	
89	8/23/2012 9:42	4520	5845	-1325	622-BKGDS1A	7004	
90	8/23/2012 9:45	4597	5845	-1248	622-BKGDS1A	7004	
91	8/23/2012 9:46	4174	5845	-1671	622-BKGDS1A	7004	
92	8/23/2012 9:47	4355	5845	-1490	622-BKGDS1A	7004	
93	8/23/2012 9:48	4673	5845	-1172	622-BKGDS1A	7004	
94	8/23/2012 9:50	5697	5845	-148	622-BKGDS1A	7004	
95	8/23/2012 9:51	5372	5845	-473	622-BKGDS1A	7004	
96	8/23/2012 9:52	4947	5845	-898	622-BKGDS1A	7004	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	8/23/2012 9:54	4776	5845	-1069	622-BKGDS1A	7004	
98	8/23/2012 9:55	3712	5845	-2133	622-BKGDS1A	7004	
99	8/23/2012 9:57	5125	5845	-720	622-BKGDS1A	7004	
100	8/23/2012 9:59	4782	5845	-1063	622-BKGDS1A	7004	

Net Gamma cpm Summary
Min: -2569
Avg: -1066
Max: 837
St Dev: 693

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 479 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm): 5817

Standard Deviation: 520

Gamma 3σ Investigation Level (cpm): 7378

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 621 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 98613 Probe Serial #: 192584

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 621-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/28/2011 13:11	6579
2	10/28/2011 13:12	5806
3	10/28/2011 13:13	5810
4	10/28/2011 13:15	5708
5	10/28/2011 13:16	5928
6	10/28/2011 13:17	6468
7	10/28/2011 13:19	6385
8	10/28/2011 13:20	6664
9	10/28/2011 13:21	5974
10	10/28/2011 13:22	5682
11	10/28/2011 13:23	5896
12	10/28/2011 13:24	5890
13	10/28/2011 13:25	5313
14	10/28/2011 13:27	5811
15	10/28/2011 13:28	5835
16	10/28/2011 13:29	5626
17	10/28/2011 13:30	5476
18	10/28/2011 13:31	5758
19	10/28/2011 13:32	5698
20	10/28/2011 13:33	5403

Gamma Mean Background (cpm): 5886

Standard Deviation: 372

Gamma 3σ Investigation Level (cpm): 7001

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm): 5845

Standard Deviation: 386

Gamma 3σ Investigation Level (cpm): 7004

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/22/2011 10:04	183	158	25	512-BKGDS1A	387	
2	4/22/2011 10:12	123	158	-35	512-BKGDS1A	387	
3	4/22/2011 10:13	132	158	-26	512-BKGDS1A	387	
4	4/22/2011 10:15	144	158	-14	512-BKGDS1A	387	
5	4/22/2011 10:17	133	158	-25	512-BKGDS1A	387	
6	4/22/2011 10:18	138	158	-20	512-BKGDS1A	387	
7	4/22/2011 10:19	123	158	-35	512-BKGDS1A	387	
8	4/22/2011 10:20	111	158	-47	512-BKGDS1A	387	
9	4/22/2011 10:22	121	158	-37	512-BKGDS1A	387	
10	4/22/2011 10:23	124	158	-34	512-BKGDS1A	387	
11	4/22/2011 10:50	120	158	-38	512-BKGDS1A	387	
12	4/22/2011 10:51	134	158	-24	512-BKGDS1A	387	
13	4/22/2011 10:59	133	158	-25	512-BKGDS1A	387	
14	4/22/2011 11:03	125	158	-33	512-BKGDS1A	387	
15	4/22/2011 11:05	134	158	-24	512-BKGDS1A	387	
16	4/22/2011 11:06	150	158	-8	512-BKGDS1A	387	
17	4/22/2011 11:07	154	158	-4	512-BKGDS1A	387	
18	4/22/2011 11:08	131	158	-27	512-BKGDS1A	387	
19	4/22/2011 11:09	103	158	-55	512-BKGDS1A	387	
20	4/22/2011 11:10	125	158	-33	512-BKGDS1A	387	
21	4/22/2011 11:12	122	158	-36	512-BKGDS1A	387	
22	4/22/2011 11:13	130	158	-28	512-BKGDS1A	387	
23	4/22/2011 11:14	131	158	-27	512-BKGDS1A	387	
24	4/22/2011 11:15	107	158	-51	512-BKGDS1A	387	
25	4/22/2011 11:17	110	158	-48	512-BKGDS1A	387	
26	4/22/2011 11:18	116	158	-42	512-BKGDS1A	387	
27	4/22/2011 11:19	114	158	-44	512-BKGDS1A	387	
28	4/22/2011 11:20	132	158	-26	512-BKGDS1A	387	
29	4/22/2011 11:22	102	158	-56	512-BKGDS1A	387	
30	4/22/2011 11:23	102	158	-56	512-BKGDS1A	387	
31	4/22/2011 11:24	109	158	-49	512-BKGDS1A	387	
32	5/1/2012 14:29	165	199	-34	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	5/1/2012 14:31	194	199	-5	620-BKGDS1A	344	
34	5/2/2012 10:05	169	199	-30	620-BKGDS1A	344	
35	5/2/2012 10:09	239	199	40	620-BKGDS1A	344	
36	5/15/2012 8:25	197	199	-2	620-BKGDS1A	344	
37	5/15/2012 8:26	191	199	-8	620-BKGDS1A	344	
38	5/15/2012 8:27	182	199	-17	620-BKGDS1A	344	
39	5/15/2012 8:28	178	199	-21	620-BKGDS1A	344	
40	6/29/2012 13:34	203	199	4	620-BKGDS1A	344	
41	7/2/2012 10:44	201	199	2	620-BKGDS1A	344	
42	7/2/2012 10:46	224	199	25	620-BKGDS1A	344	
43	7/2/2012 10:47	186	199	-13	620-BKGDS1A	344	
44	8/8/2012 7:36	305	199	106	620-BKGDS1A	344	
45	7/31/2012 9:33	174	199	-25	620-BKGDS1A	344	
46	7/31/2012 9:35	173	199	-26	620-BKGDS1A	344	
47	7/31/2012 9:36	155	199	-44	620-BKGDS1A	344	
48	7/31/2012 9:37	198	199	-1	620-BKGDS1A	344	
49	7/31/2012 9:39	201	199	2	620-BKGDS1A	344	
50	7/31/2012 9:40	155	199	-44	620-BKGDS1A	344	
51	7/31/2012 9:41	169	199	-30	620-BKGDS1A	344	
52	7/31/2012 9:42	171	199	-28	620-BKGDS1A	344	
53	7/31/2012 9:43	183	199	-16	620-BKGDS1A	344	
54	7/31/2012 9:44	188	199	-11	620-BKGDS1A	344	
55	7/31/2012 9:46	219	199	20	620-BKGDS1A	344	
56	7/31/2012 9:47	194	199	-5	620-BKGDS1A	344	
57	7/31/2012 9:48	171	199	-28	620-BKGDS1A	344	
58	7/31/2012 9:49	240	199	41	620-BKGDS1A	344	
59	7/31/2012 9:50	206	199	7	620-BKGDS1A	344	
60	7/31/2012 9:51	188	199	-11	620-BKGDS1A	344	
61	7/31/2012 9:52	238	199	39	620-BKGDS1A	344	
62	7/31/2012 9:54	190	199	-9	620-BKGDS1A	344	
63	7/31/2012 9:55	224	199	25	620-BKGDS1A	344	
64	8/2/2012 8:11	152	199	-47	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	8/2/2012 8:13	200	199	1	620-BKGDS1A	344	
66	8/7/2012 14:33	176	199	-23	620-BKGDS1A	344	
67	8/7/2012 14:36	197	199	-2	620-BKGDS1A	344	
68	8/7/2012 14:37	214	199	15	620-BKGDS1A	344	
69	8/7/2012 14:38	162	199	-37	620-BKGDS1A	344	
70	8/7/2012 14:40	231	199	32	620-BKGDS1A	344	
71	8/7/2012 14:41	172	199	-27	620-BKGDS1A	344	
72	8/7/2012 14:42	198	199	-1	620-BKGDS1A	344	
73	8/7/2012 14:43	204	199	5	620-BKGDS1A	344	
74	8/7/2012 14:44	215	199	16	620-BKGDS1A	344	
75	8/7/2012 14:46	220	199	21	620-BKGDS1A	344	
76	8/15/2012 11:19	175	199	-24	620-BKGDS1A	344	
77	8/15/2012 11:20	169	199	-30	620-BKGDS1A	344	
78	8/15/2012 11:22	176	199	-23	620-BKGDS1A	344	
79	8/15/2012 11:23	178	199	-21	620-BKGDS1A	344	
80	8/15/2012 11:25	193	199	-6	620-BKGDS1A	344	
81	8/23/2012 9:31	253	199	54	620-BKGDS1A	344	
82	8/23/2012 9:35	206	199	7	620-BKGDS1A	344	
83	8/23/2012 9:36	176	199	-23	620-BKGDS1A	344	
84	8/23/2012 9:37	172	199	-27	620-BKGDS1A	344	
85	8/23/2012 9:39	230	199	31	620-BKGDS1A	344	
86	8/23/2012 9:40	205	199	6	620-BKGDS1A	344	
87	8/23/2012 9:42	201	199	2	620-BKGDS1A	344	
88	8/23/2012 9:43	161	199	-38	620-BKGDS1A	344	
89	8/23/2012 9:45	213	199	14	620-BKGDS1A	344	
90	8/23/2012 9:47	222	199	23	620-BKGDS1A	344	
91	8/23/2012 9:48	195	199	-4	620-BKGDS1A	344	
92	8/23/2012 9:49	206	199	7	620-BKGDS1A	344	
93	8/23/2012 9:51	178	199	-21	620-BKGDS1A	344	
94	8/23/2012 9:52	250	199	51	620-BKGDS1A	344	
95	8/23/2012 9:53	222	199	23	620-BKGDS1A	344	
96	8/23/2012 9:55	195	199	-4	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m^2 Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	8/23/2012 9:56	211	199	12	620-BKGDS1A	344	
98	8/23/2012 9:57	165	199	-34	620-BKGDS1A	344	
99	8/23/2012 9:59	204	199	5	620-BKGDS1A	344	
100	8/23/2012 10:01	216	199	17	620-BKGDS1A	344	

Net Gamma cpm Summary
Min: -56
Avg: -12
Max: 106
St Dev: 28

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 512 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228695 Probe Serial #: 022006AE1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 512-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	11/02/2010 8:19	162
2	11/02/2010 8:20	147
3	11/02/2010 8:22	160
4	11/02/2010 8:23	151
5	11/02/2010 8:25	138
6	11/02/2010 8:26	134
7	11/02/2010 8:28	127
8	11/02/2010 8:29	141
9	11/02/2010 8:30	152
10	11/02/2010 8:31	150
11	11/02/2010 8:32	120
12	11/02/2010 8:34	158
13	11/02/2010 8:35	122
14	11/02/2010 8:36	478
15	11/02/2010 8:38	141
16	11/02/2010 8:39	133
17	11/02/2010 8:40	147
18	11/02/2010 8:41	128
19	11/02/2010 8:42	138
20	11/02/2010 8:43	132

Gamma Mean Background (cpm): 158

Standard Deviation: 76

Gamma 3σ Investigation Level (cpm): 387

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228694 Probe Serial #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGD51A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	168
2	10/13/2011 15:13	176
3	10/13/2011 15:14	169
4	10/13/2011 15:15	178
5	10/13/2011 15:16	162
6	10/13/2011 15:17	168
7	10/13/2011 15:19	198
8	10/13/2011 15:20	190
9	10/13/2011 15:21	169
10	10/13/2011 15:22	282
11	10/13/2011 15:23	192
12	10/13/2011 15:25	230
13	10/13/2011 15:26	196
14	10/13/2011 15:27	165
15	10/13/2011 15:28	291
16	10/13/2011 15:30	147
17	10/13/2011 15:31	166
18	10/13/2011 15:32	168
19	10/13/2011 15:33	290
20	10/13/2011 15:35	284

Gamma Mean Background (cpm): 199

Standard Deviation: 48

Gamma 3σ Investigation Level (cpm): 344

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	577-BKGDS1
Instrument Serial Number:	109970	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	2/24/2012	Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	4/22/2011	5	
2	4/22/2011	6	
3	4/22/2011	6	
4	4/22/2011	5	
5	4/22/2011	5	
6	4/22/2011	5	
7	4/22/2011	5	
8	4/22/2011	5	
9	4/22/2011	5	
10	4/22/2011	5	
11	4/22/2011	6	
12	4/22/2011	6	
13	4/22/2011	5	
14	4/22/2011	5	
15	4/22/2011	6	
16	4/22/2011	5	
17	4/22/2011	5	
18	4/22/2011	5	
19	4/22/2011	5	
20	4/22/2011	5	
21	4/22/2011	5	
22	4/22/2011	5	
23	4/22/2011	5	
24	4/22/2011	5	
25	4/22/2011	5	
26	4/22/2011	5	
27	4/22/2011	5	

TETRATECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	4/22/2011	5	
29	4/22/2011	5	
30	4/22/2011	5	
31	4/22/2011	5	

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/15/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
32	5/1/2012	5	
33	5/1/2012	5	
34	5/2/2012	5	
35	5/2/2012	6	
36	5/14/2012	5	
37	5/14/2012	5	
38	5/14/2012	5	
39	5/14/2012	5	
40	6/29/2012	5	
41	7/2/2012	6	
42	7/2/2012	6	
43	7/2/2012	6	

Instrument Model:	Model 19	Reference Area Background Identification #:	667-BKGDS1
Instrument Serial Number:	107447	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/12/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
44	8/8/2012	5	
45	7/31/2012	4	
46	7/31/2012	4	
47	7/31/2012	4	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
48	7/31/2012	4	
49	7/31/2012	4	
50	7/31/2012	5	
51	7/31/2012	5	
52	7/31/2012	5	
53	7/31/2012	4	
54	7/31/2012	4	
55	7/31/2012	4	
56	7/31/2012	5	
57	7/31/2012	5	
58	7/31/2012	5	
59	7/31/2012	5	
60	7/31/2012	5	
61	7/31/2012	5	
62	7/31/2012	6	
63	7/31/2012	6	
64	8/2/2012	4	
65	8/2/2012	4	
66	8/7/2012	5	
67	8/7/2012	5	
68	8/7/2012	5	
69	8/7/2012	5	
70	8/7/2012	5	
71	8/7/2012	5	
72	8/7/2012	5	
73	8/7/2012	5	
74	8/7/2012	6	
75	8/7/2012	6	
76	8/15/2012	5	
77	8/15/2012	5	
78	8/15/2012	5	
79	8/15/2012	5	
80	8/15/2012	5	
81	8/23/2012	6	
82	8/23/2012	5	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
83	8/23/2012	5	
84	8/23/2012	5	
85	8/23/2012	5	
86	8/23/2012	4	
87	8/23/2012	4	
88	8/23/2012	5	
89	8/23/2012	4	
90	8/23/2012	5	
91	8/23/2012	5	
92	8/23/2012	5	
93	8/23/2012	5	
94	8/23/2012	6	
95	8/23/2012	5	
96	8/23/2012	6	
97	8/23/2012	5	
98	8/23/2012	5	
99	8/23/2012	5	
100	8/23/2012	5	

Exposure Rate Summary (µR/hr)	
Min:	4.00
Avg:	5.03
Max:	6.00
St Dev:	0.54

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01955

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC (1)	SR90 (1)	ALPHA (1)	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F001-01	4/22/2011	0815	1		S		☑	☑	☐			
03707-S0022-F002-01	4/22/2011	0820	1		S		☑	☑	☐			
03707-S0022-F003-01	4/22/2011	0825	1		S		☑	☑	☐			
03707-S0022-F004-01	4/22/2011	0830	1		S		☑	☑	☐			
03707-S0022-F005-01	4/22/2011	0835	1		S		☑	☑	☐			
03707-S0022-F006-01	4/22/2011	0840	1		S		☑	☑	☐			
03707-S0022-F007-01	4/22/2011	0845	1		S		☑	☑	☐			
03707-S0022-F008-01	4/22/2011	0850	1		S		☑	☑	☐			
03707-S0022-F009-01	4/22/2011	0925	1		S		☑	☑	☐			
03707-S0022-F010-01	4/22/2011	0930	1		S		☑	☑	☐			
03707-S0022-F011-01	4/22/2011	0935	1		S		☑	☑	☐			
03707-S0022-F012-01	4/22/2011	0940	1		S		☑	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 4-22-11	Received by: (signature) Eric Schmidt
Company RSRS	Time 15:00	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B709 TRIANGLE FSS
SU-22
BIASED 1-11
SYSTEMATIC 12-31

ED_004747_00010904-00155

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01956

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F013-01	4/22/2011	0945	1		S		☑	☑	☐			
03707-S0022-F014-01	4/22/2011	0950	1		S		☑	☑	☐	DUP		
03707-S0022-F015-01	4/22/2011	0955	1		S		☑	☑	☐			
03707-S0022-F016-01	4/22/2011	1000	1		S		☑	☑	☐			
03707-S0022-F017-01	4/22/2011	1005	1		S		☑	☑	☐			
03707-S0022-F018-01	4/22/2011	1010	1		S		☑	☑	☐			
03707-S0022-F019-01	4/22/2011	1015	1		S		☑	☑	☐			
03707-S0022-F020-01	4/22/2011	1020	1		S		☑	☑	☐			
03707-S0022-F021-01	4/22/2011	1025	1		S		☑	☑	☐			
03707-S0022-F022-01	4/22/2011	1030	1		S		☑	☑	☐			
03707-S0022-F023-01	4/22/2011	1035	1		S		☑	☑	☐			
03707-S0022-F024-01	4/22/2011	1040	1		S		☑	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 4-22-11	Received by: (signature) Eric Schnoda	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 15:00	Company RSRS	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

TETRA TECH EC, INC.
1230 Columbia St. Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 01957

Project Name: Radiological Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 3670-0003
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - RSRS

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	FAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F025-01	4/22/2011	1045	1		S		☑	☑	☐			
03707-S0022-F026-01	4/22/2011	1050	1		S		☑	☑	☐			
03707-S0022-F027-01	4/22/2011	1055	1		S		☑	☑	☐			
03707-S0022-F028-01	4/22/2011	1100	1		S		☑	☑	☐			
03707-S0022-F029-01	4/22/2011	1105	1		S		☑	☑	☐			
03707-S0022-F030-01	4/22/2011	1110	1		S		☑	☑	☐			
03707-S0022-F031-01	4/22/2011	1115	1		S		☑	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 4-22-11	Received by: (signature) Eric Simmons
Company RSRS	Time 1500	Company RSRS
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00157

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02398

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F032-01	5/1/2012	1410	1		S		☐	☑	☐			
03707-S0022-F033-01	5/1/2012	1415	1		S		☐	☑	☐			

Relinquished by: (signature) [signature]	Date 5-1-12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS: 707 [illegible] FSS SO-22 [illegible] 3233 "TOTAL [illegible] ONLY - OFF SITE"
Company RSRS	Time 1507	Company CT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02399

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [illegible]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F034-01	5/2/2012	1010	1		S		☐	☑	☐			
03707-S0022-F035-01	5/2/2012	1015	1		S		☐	☑	☐			

Relinquished by: (signature) J. Rolfe	Date 5-2-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	Time 1255	Company CT	SAMPLING COMMENTS: [illegible]
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	[illegible]
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00159

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02424

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section
Project Location: HUNTERS POINT	Project Number: 4044-0007	LABORATORY ID:	
Sampler Name: R Zalensky	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-758-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F036-01	5/14/2012	1310	1		S		☑	☑	☐			
03707-S0022-F037-01	5/14/2012	1315	1		S		☑	☑	☐			
03707-S0022-F038-01	5/14/2012	1320	1		S		☑	☑	☐			
03707-S0022-F039-01	5/14/2012	1325	1		S		☑	☑	☐			

Relinquished by: (signature) [signature]	Date 5.14.12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS 707 TRIANGLE AREA SO-22 POST-REMEDIATION 36-39 "ON-SITE GAMMASPEC & OFF-SITE TOTAL SR"
Company RSRS	Time 1245	Company CET		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

237563

Chain-of-Custody Record

BFS 02493

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	
Project Location: HUNTERS POINT	Project Number: 4044-0007				
Sampler Name: R Zahanskas	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [illegible]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F040-01	6/29/2012	1305	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr		

Relinquished by: (signature) [signature]	Date 6-29-12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS 707-S0022 Post-remediation
Company RSRS	Time 15:29	Company C&T		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

237617,

BFS 02495

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: R Zahensky	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F041-01	7/2/2012	1120	1		S		☑	☐	☐			
03707-S0022-F042-01	7/2/2012	1125	1		S		☑	☐	☐			
03707-S0022-F043-01	7/2/2012	1130	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 07-02-12	Received by: (signature)
Company: RSRS	Time: 14:39	Company: C&T
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS:

COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY):
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS:
707-S0022
Post-remediation

ED_004747_00010904-00162

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

238632

Chain-of-Custody Record

BFS 02536

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J-Rolfe	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F044-01	8/8/2012	0730	1		S		☑	☐	☐	DUP		

Relinquished by: (signature) J-Rolfe	Date 8-8-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	Time 0803	Company CET	SAMPLING COMMENTS: 707750022 Systematic
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: SAMPLE CONDITION: GOOD/BREAK
Company	Time	Company	

ED_004747_00010904-00163

238302

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02525

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: A. Smith	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F044-01	7/31/2012	1020	1		S		☑	☐	☐			
03707-S0022-F045-01	7/31/2012	1025	1		S		☑	☐	☐			
03707-S0022-F046-01	7/31/2012	1030	1		S		☑	☐	☐			
03707-S0022-F047-01	7/31/2012	1035	1		S		☑	☐	☐			
03707-S0022-F048-01	7/31/2012	1040	1		S		☑	☐	☐			
03707-S0022-F049-01	7/31/2012	1045	1		S		☑	☐	☐			
03707-S0022-F050-01	7/31/2012	1050	1		S		☑	☐	☐			
03707-S0022-F051-01	7/31/2012	1055	1		S		☑	☐	☐			
03707-S0022-F052-01	7/31/2012	1100	1		S		☑	☐	☐			
03707-S0022-F053-01	7/31/2012	1105	1		S		☑	☐	☐			
03707-S0022-F054-01	7/31/2012	1110	1		S		☑	☐	☐			
03707-S0022-F055-01	7/31/2012	1115	1		S		☑	☐	☐			

Relinquished by: (signature) [signature]	Date 07-31-12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1355	Company C&T	SAMPLING COMMENTS: 707-S0022 Systematic
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00164

238360

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02526

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: A. Smith	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F056-01	7/31/2012	1120	1		S		☑	☐	☐			
03707-S0022-F057-01	7/31/2012	1125	1		S		☑	☐	☐			
03707-S0022-F058-01	7/31/2012	1130	1		S		☑	☐	☐			
03707-S0022-F059-01	7/31/2012	1135	1		S		☑	☐	☐			
03707-S0022-F060-01	7/31/2012	1140	1		S		☑	☐	☐			
03707-S0022-F061-01	7/31/2012	1145	1		S		☑	☐	☐			
03707-S0022-F062-01	7/31/2012	1150	1		S		☑	☐	☐	DUP		
03707-S0022-F063-01	7/31/2012	1155	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 07-31-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: RSRS	Time: 1355	Company: CET	SAMPLING COMMENTS: 707-S0022 Systematic
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00165

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

238438,
BFS 02530

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1 (GAMMASPEC)	1 (SR90)	1 (ALPHA)	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F064-01	8/2/2012	0800	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr		
03707-S0022-F065-01	8/2/2012	0805	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr		

Relinquished by: (signature) J. Rolfe	Date 8-2-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	Time 0847	Company CET	SAMPLING COMMENTS: 707S0022 "Post-remediation"
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: GOOD/BROKEN
Company	Time	Company	

ED_004747_00010904-00166

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

238580
BFS 02534

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC / SR90 / ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007		LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A		Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F066-01	8/7/2012	0950	1		S		☑	☐	☐			
03707-S0022-F067-01	8/7/2012	0955	1		S		☑	☐	☐			
03707-S0022-F068-01	8/7/2012	1000	1		S		☑	☐	☐			
03707-S0022-F069-01	8/7/2012	1005	1		S		☑	☐	☐			
03707-S0022-F070-01	8/7/2012	1010	1		S		☑	☐	☐			
03707-S0022-F071-01	8/7/2012	1015	1		S		☑	☐	☐			
03707-S0022-F072-01	8/7/2012	1020	1		S		☑	☐	☐			
03707-S0022-F073-01	8/7/2012	1025	1		S		☑	☐	☐			
03707-S0022-F074-01	8/7/2012	1030	1		S		☑	☐	☐			
03707-S0022-F075-01	8/7/2012	1035	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	Date 8-7-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	Time 14:28	Company CET	SAMPLING COMMENTS: 707-S0022 Characterization
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00167

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

238833

Chain-of-Custody Record

BFS 02539

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: Jeff Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F076-01	8/15/2012	1040	1		S		☑	☐	☐			
03707-S0022-F077-01	8/15/2012	1045	1		S		☑	☐	☐			
03707-S0022-F078-01	8/15/2012	1050	1		S		☑	☐	☐			
03707-S0022-F079-01	8/15/2012	1055	1		S		☑	☐	☐			
03707-S0022-F080-01	8/15/2012	1100	1		S		☑	☐	☐			

Relinquished by: (signature) Jeff Rolfe	Date 8-15-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSAS	Time 14:35	Company CET	SAMPLING COMMENTS: 707S90022 Post-remediation
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER/SEAL:
Company	Time	Company	

ED_004747_00010904-00168

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

239072,
BFS 02553

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: A. Smith	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F081-01	8/23/2012	0830	1		S		☑	☐	☐			
03707-S0022-F082-01	8/23/2012	0835	1		S		☑	☐	☐			
03707-S0022-F083-01	8/23/2012	0840	1		S		☑	☐	☐			
03707-S0022-F084-01	8/23/2012	0845	1		S		☑	☐	☐			
03707-S0022-F085-01	8/23/2012	0850	1		S		☑	☐	☐			
03707-S0022-F086-01	8/23/2012	0925	1		S		☑	☐	☐			
03707-S0022-F087-01	8/23/2012	0930	1		S		☑	☐	☐			
03707-S0022-F088-01	8/23/2012	0935	1		S		☑	☐	☐			
03707-S0022-F089-01	8/23/2012	0940	1		S		☑	☐	☐			
03707-S0022-F090-01	8/23/2012	0945	1		S		☑	☐	☐			
03707-S0022-F091-01	8/23/2012	0950	1		S		☑	☐	☐			
03707-S0022-F092-01	8/23/2012	0955	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 8-23-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company: RSRS	Time: 1132	Company: CT	SAMPLING COMMENTS: 707-30022 Systematic
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00169

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

239073
BFS 02554

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: A. Smith	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0022-F093-01	8/23/2012	1000	1		S		☑	☐	☐			
03707-S0022-F094-01	8/23/2012	1005	1		S		☑	☐	☐			
03707-S0022-F095-01	8/23/2012	1010	1		S		☑	☐	☐			
03707-S0022-F096-01	8/23/2012	1015	1		S		☑	☐	☐			
03707-S0022-F097-01	8/23/2012	1020	1		S		☑	☐	☐			
03707-S0022-F098-01	8/23/2012	1025	1		S		☑	☐	☐			
03707-S0022-F099-01	8/23/2012	1030	1		S		☑	☐	☐			
03707-S0022-F100-01	8/23/2012	1035	1		S		☑	☐	☐			

Relinquished by: (signature) [signature]	Date 8-23-12	Received by: (signature) [signature]
Company RSRS	Time 1135	Company CAT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

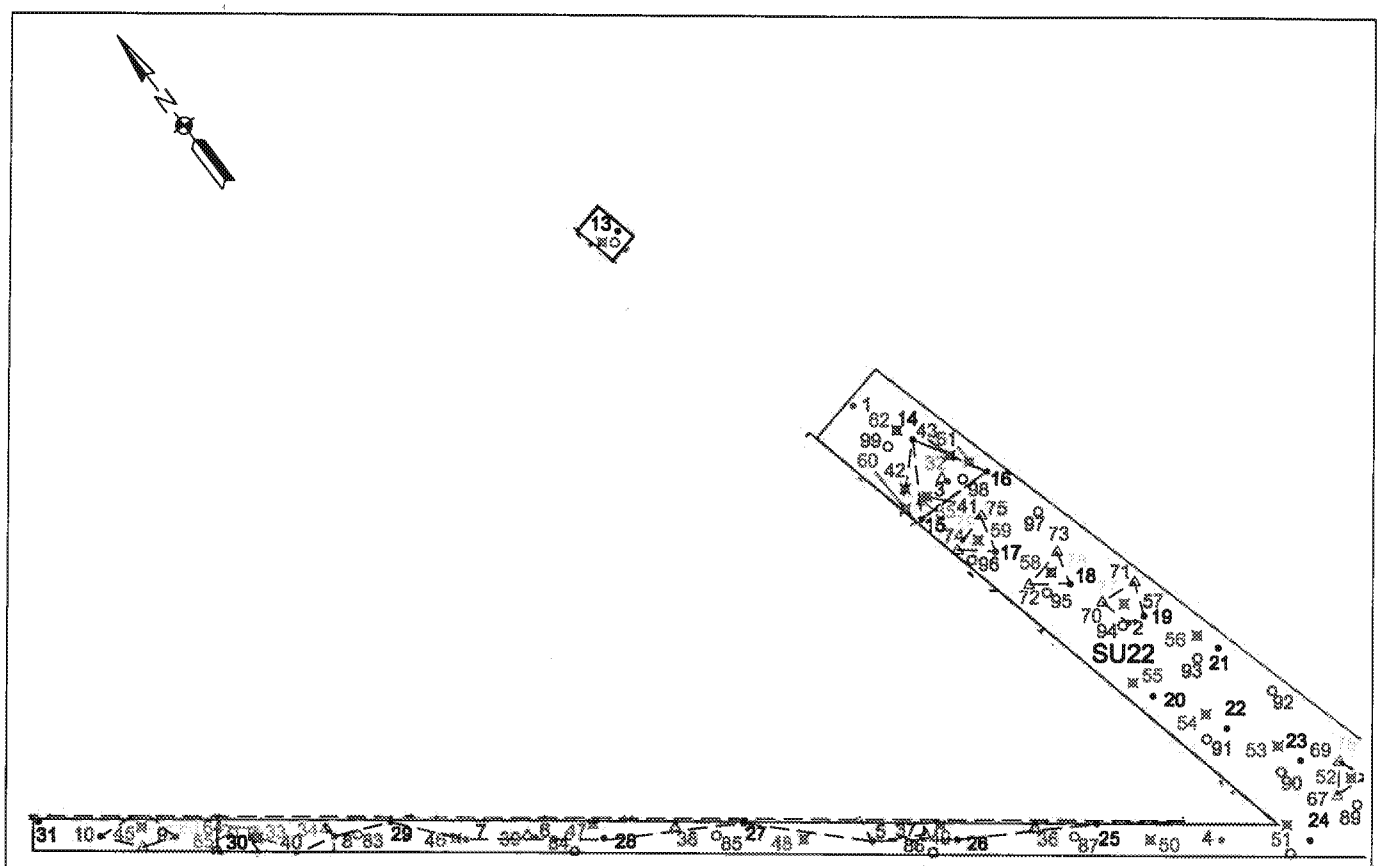
LABORATORY INSTRUCTIONS/COMMENTS:

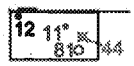
COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS:
707-S0022
Systematic

ED_004747_00010904-00170





LEGEND:

⊠ 1	BIASED SAMPLES 1–11
• 12	SYSTEMATIC 1 SAMPLES 12–31
△ 32	Sr–90 REMEDIATION SAMPLES 32–35
△ 36	POST REMEDIATION 1 SAMPLES 36–39
△ 40	POST REMEDIATION 2 SAMPLES 40–43
⊠ 44	SYSTEMATIC 2 SAMPLES 44–63
▫ 64	POST REMEDIATION 3 SAMPLES 64–65
△ 66	CHARACTERIZATION 1 SAMPLES 66–75
▫ 76	POST REMEDIATION 4 SAMPLES 76–80
○ 81	SYSTEMATIC 3 SAMPLES 81–100
– – – – – –	PREVIOUS REMEDIATION
◌	POTHOLE LOCATIONS

RECORD COPY

SCALE 1:40

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 14:29:13

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 22

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: April 22, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 22. A total of 11 biased and 20 systematic gamma static measurements were logged. The maximum measurements logged were 183 cpm (FIDLER) and 6,654 cpm. In addition, 31 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team provided the RASO with analytical results for the characterization samples collected from pothole lifts in Survey Unit 7. No activity above the release criteria was identified
- The HPS Team provided the RASO with off-site analytical results for the post-remediation samples collected from Survey Unit 20. No activity above the release criteria was identified.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: May 1, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Asphalt Grid A7 – A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm^2.
  - Survey Unit 22 – A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by post-remediation sample collection activities will be performed.
- The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 14. Characterization and remediation will be continued due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 7 (07500SA-S0014-F007-01) with ^{137}Cs at 0.1183 pCi/g
  - Sample Point 17 (07500SA-S0014-F017-01) with ^{137}Cs at 0.2425 pCi/g
  - Sample Point 37 (07500SA-S0014-F037-01) with ^{137}Cs at 0.3768 pCi/g

- The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-00-7F 133 linear feet completed
  - 07-E36-00-7G 10 linear feet completed
  - 07-E36-00-7H 12 linear feet completed
  - 07-E36-00-7I 6 linear feet completed
  - 07-E36-00-8Y 25 linear feet completed
- A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.
- Excavated Manhole MH1244 was placed on plastic pending further activities.
- The HPNS Team provided the RASO with analytical results for the sediment samples collected from Manholes MH1302 and MH1303. Both manholes will be placed in LLRW bins for off-site disposal due to the presence of ^{137}Cs contamination as follows:
  - Manhole MH1302 (07-PEMH1302-013-01) with ^{137}Cs at 0.2161 pCi/g
  - Manhole MH1303 (07-PEMH1303-014-01) with ^{137}Cs at 0.1319 pCi/g
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination at Sample Point 17 (0.2726 pCi/g).
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: May 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 520 Site

- The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 5; no activity above the release criteria was identified.

Building 707 Triangle

- A total of 18 cubic yards of soil were remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bin ERRU000162 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Asphalt Grid A7 – A total of 1,100 alpha/beta scan readings were logged. The preliminary data results did not indicate the presence of alpha/beta activity above the release limits.
  - Survey Unit 22 – A total of four post-remediation gamma static measurements were logged with maximum measurements of 239 cpm (FIDLER) and 5,859 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

Shacks 79 and 80

- The HPNS Team provided the RASO with total strontium analytical results for the samples collected from Class 1 Survey Unit 2 that identified elevated ^{137}Cs activity; no further contamination was identified.

500 Series Area

- Approximately 2.5 cubic yards of soil was remediated from Class 1 Survey Units 16 and 18 by the HPNS Team and placed in LLRW bin AWIU000263 for off-site disposal.

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 20. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination at Sample Point 76 (0.161 pCi/g).
- The HPNS Team provided the RASO with total strontium analytical results for the samples collected from Class 1 Survey Units 15 and 17 that identified elevated ^{137}Cs activity; no further contamination was identified.
- The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 21; no activity above the release criteria was identified.
- The HPNS Team issued the following drawings:
  - Survey Unit 12 Biased and Systematic Sample Collection
  - Survey Unit 14 Characterization Sample Collection
  - Survey Unit 16 Remediation and Post-Remediation Sample Collection
  - Survey Unit 18 Remediation and Post-Remediation Sample Collection
  - Survey Unit 19 Characterization Sample Collection
  - Survey Unit 21 Remediation and Post-Remediation Sample Collection.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-00-7G 108 linear feet completed
  - 07-E36-00-9L 24 linear feet completed
  - 07-E36-38-3U 51 linear feet completed
  - 07-E36-38-3W 60 linear feet completed
  - 07-E36-38-3X 30 linear feet completed
- A total of 249 linear feet of trench (including excavated soil and pipes) identified on the design drawings and 24 linear feet not identified on the design drawings were completed by the HPNS Team.
- The HPNS Team issued drawings to identify locations for remediation and post-remediation sample collection in Trench Unit No. 249.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: May 14, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- Approximately 4 cubic yards of soil was remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bin GFLU001181T4 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 21 – A total of 30 post-remediation gamma static measurements were logged with maximum measurements of 229 cpm (FIDLER) and 5,202 cpm. In addition, 15 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 22 – A total of eight post-remediation gamma static measurements were logged with maximum measurements of 197 cpm (FIDLER) and 5,220 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 14 and 20.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 19. A total of three characterization gamma static measurements were logged with a maximum measurement of 6,238 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify biased, characterization, and systematic sample collection locations in Class 1 Survey Unit 11 and record drawings to identify post-remediation sample collection locations in Class 1 Survey Units 14 and 20.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 396 cubic yards of soil from Work Area #36 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-00-3T 58 linear feet completed

- 07-E36-00-3U 25 linear feet completed
- 07-E36-00-3X 3 linear feet completed
- 07-E36-00-3Z 24 linear feet completed
- 07-E36-00-4A 10 linear feet completed
- 07-E36-39-1U 10 linear feet completed

- A total of 130 linear feet of trench (including excavated soil and pipes) identified on the design drawings were completed by the HPNS Team.
- Pipes excavated from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U were placed on plastic pending further activities.
- The HPNS Team investigated trench segment 07-E36-00-3X for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.
- A sediment sample was collected from pipe excavated from trench segment 07-E36-00-3T (07-PEPI-0028-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A total of 18 systematic soil samples were collected from Trench Unit No. 301 by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: June 29, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 11 (07500SA-S0022-F011-01) with ^{137}Cs at 0.1628 pCi/g
  - Sample Point 38 (07500SA-S0022-F038-01) with ^{137}Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ^{137}Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ^{137}Cs at 0.1338 pCi/g
- Sample Point 35 (07500SA-S0023-F035-01) with ^{137}Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ^{137}Cs at 0.1210 pCi/g

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 7 (07500SA-S0024-F007-01) with ^{137}Cs at 0.1434 pCi/g
  - Sample Point 11 (07500SA-S0024-F011-01) with ^{137}Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: July 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, Shacks 79 and 80, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 520 Site

- The HPNS Team provided the RASO with isotopic plutonium analytical results for the elevated ^{90}Sr sample collected from Class 1 Survey Unit 5; no further contamination was identified.

Shacks 79 & 80

- Approximately 1 cubic yard of soil was remediated from Class 1 Survey Unit 1 by the HPNS Team and placed in LLRW bin GFLU001228T17 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of three characterization and one replacement systematic gamma static measurements were logged with a maximum measurement of 4,491 cpm. In addition, four soil samples were collected and submitted to the on-site and off-site laboratories for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify remediation and both characterization and replacement systematic sample collection locations in Class 1 Survey Unit 1.

Building 707 Triangle

- Approximately 14 cubic yards of soil was remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins GFLU001200T18 and GFLU001233T8 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 21 – A total of four post-remediation gamma static readings were logged with the maximum measurements recorded at 215 cpm (FIDLER) and 4,148 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

- Survey Unit 22 – A total of six post-remediation gamma static readings were logged with the maximum measurements recorded at 224 cpm (FIDLER) and 4,167 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 21 and 22
- The HPNS Team issued record drawings to identify post-remediation sample collection locations in the pothole excavations associated with the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23).

500 Series Area

- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs sample collected from Class 1 Survey Unit 16; no further contamination was identified.
- The HPNS Team provided the RASO with the off-site analytical results for the systematic and replacement systematic samples collected from Class 1 Survey Units 10, 14, and 20; no activity above the release criteria was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Trench Unit No. 300; no further contamination was identified.
- Swale installation activities were continued by the HPNS Team along Hussey Street.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 8, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued excavation and removal activities for the containment vault associated with the former underground radiological waste storage tank in Survey Unit 3; removed concrete walls and support structures were placed on plastic pending upcoming radiological surveys
- Approximately 15 cubic yards of the concrete containment vault bottom were removed and placed directly into LLRW bins AWIU000175T1 and ERRU000162T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of two replacement systematic gamma static measurements were logged at 305 cpm (FIDLER) and 6,418 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the characterization and post-remediation samples collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.

500 Series Area

- Approximately 30 cubic yards of concrete and soil were remediated from Class 1 Survey Unit 24 by the HPNS Team and placed in LLRW bins AWIU000107, AWIU000175T1, AWIU000190, ERRU000150, ERRU000162T1, GFLU001015T3, and GFLU001051T1 for off-site disposal.
- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Unit 24. Characterization and remediation will be continued due to the presence of ^{137}Cs above the release criteria at Sample Point 66 (0.1557 pCi/g).

- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Units 15, 23, and 24; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites). Characterization and remediation will be performed due to the presence of ^{137}Cs above the release criteria at Sample Point 34 (0.170 pCi/g).
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs sample collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites); no further contamination was identified.
- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 861 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: July 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team completed excavation of the remaining tank pit concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The tank pit measures approximately 10 feet in width, 30 feet in length, and 8 feet in depth. A sump pump measuring 1 cubic foot was identified at the base of the structure. Due to the presence of the cracked vault floor, a sample was collected from the soil beneath the concrete surface and submitted to the on-site laboratory for analysis
- During radiological surface scanning of the removed soil and debris, 170 linear feet of 1.5 inch diameter utility piping, 1 sump filter, 2 metal valves, and 4 cubic yards of soil indicated the presence of elevated gamma readings. The HPNS Team transferred these items to LLRW bin ERRU000159T1 for off-site disposal. In addition, a waste characterization sample was collected and submitted to the on-site laboratory for analysis.
- Perimeter fencing was installed around the exposed tank pit by the HPNS Team.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 22 – A total of 40 systematic gamma static measurements were logged with the maximum measurements recorded at 240 cpm (FIDLER) and 5,563 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 23 – A total of 4 biased and 40 systematic gamma static measurements were logged with the maximum measurements recorded at 286 cpm (FIDLER) and 5,730 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 23 and 24

- The HPNS Team provided the RASO with the following:
  - Total strontium analytical results for the 10 additional 12-inch deep pothole excavations around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23); no activity above the release criteria was identified.
  - Total strontium analytical results for the characterization sample collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.
  - Total strontium analytical results for the post-remediation samples collected from Class 1 Survey Unit 22. Characterization and remediation will be performed due to the presence of ^{90}Sr activity above the release criteria at Sample Point 40 (1.29 pCi/g).
  - Isotopic plutonium analytical results for the elevated ^{90}Sr samples collected from Class 1 Survey Units 21 and 22; no further contamination was identified.
  - Off-site analytical results for the systematic samples collected from Class 1 Survey Unit 14; no activity above the release criteria was identified.

Shacks 79 and 80

- The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified.

500 Series Area

- Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 15 by the HPNS Team and placed in LLRW bin ERRU000159T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 15. A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,811 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Approximately 855 tons of asphalt near Building 411was ground and recycled by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team provided the RASO with on-site analytical results for the three unique soil stratifications encountered during excavation of the containment vault associated with the former radiological waste storage tank. Because ^{137}Cs contamination was identified in the lowest soil layer at 0.2263 pCi/g (Sample No. 07AB506-246), soil and debris removed from the containment vault will be disposed of as LLRW.
- The HPNS Team provided the RASO with on-site analytical results for the soil sample collected from the access hole in the containment vault concrete floor. Because ^{137}Cs contamination was identified in Sample No. 07AB506-247 at 0.4690 pCi/g, the containment vault and surrounding soils will be excavated and disposed of as LLRW.
- Approximately 54 cubic yards of soil removed from the containment vault was transferred by the HPNS Team to LLRW bins AWIU000105T1, GFLU000108T1, and GFLU001186T19 for off-site disposal. In addition, waste characterization samples were collected for each LLRW bin and submitted to the on-site laboratory for analysis.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of four post-remediation gamma static measurements were logged with the maximum gamma measurements recorded at 200 cpm (FIDLER) and 4,091 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with the on-site analytical results for the post-remediation samples collected from Class 1 Survey Unit 15; no activity above the release criteria was identified.

- The HPNS Team issued drawings to identify the replacement systematic sample collection location in Class 1 Survey Unit 15 and remediation locations in Class 1 Survey Unit 24 and Class 2 Survey Unit 25.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Approximately 879 tons of asphalt was ground and recycled near Building 411 by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 7, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued activities on the containment vault concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The upper five feet of the containment vault concrete walls were removed and placed on plastic pending radiological survey activities.
- Approximately 10 cubic yards of soil generated during excavation of the outer walls of the containment vault were transferred by the HPNS Team to LLRW bin AWIU000216T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 16 – A total of two characterization gamma static measurements were logged at 226 cpm (FIDLER) and 6,811 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 22 – A total of twenty characterization gamma static measurements were logged with the maximum measurements recorded at 231 cpm (FIDLER) and 5,689 cpm. In addition, ten soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing survey data for Class 1 Survey Units 16 and 22.
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Units 16 and 22.

500 Series Area

- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Units 22 through 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 893 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 15, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- Approximately 6.5 cubic yards of concrete associated with the containment vault concrete walls was removed and placed directly into LLRW bin AWIU000258 for off-site disposal.

Building 707 Triangle

- Approximately 7 cubic yards of soil was remediated from Class 1 Survey Units 16 and 22 by the HPNS Team and placed in LLRW bins AWIU000258 and BKRU025663T20 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 10 post-remediation static gamma measurements were logged with maximum measurements of 193 cpm (FIDLER) and 5,090 cpm. In addition, five soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 23. A total of 27 post-remediation gamma static measurements were logged with a maximum measurement of 6,834 cpm. In addition, 27 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued record drawings to identify post-remediation sample collection locations in Class 1 Survey Units 23 and 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued for Trench Unit No. 307 by the HPNS Team.
- The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 501 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: August 23, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 40 systematic gamma static measurements were logged with maximum measurements of 253 cpm (FIDLER) and 6,680 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify systematic sample collection locations in Class 1 Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site laboratory analytical results for the post-remediation samples collected from Class 1 Survey Unit 24. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team provided the RASO with on-site laboratory analytical and survey results for the systematic soil samples collected from Class 1 Survey Unit 26. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify systematic sample collection locations in Class 1 Survey Unit 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued for Trench Unit No. 300 by the HPNS Team.
- Backfill activities were initiated for Trench Unit No. 306 (associated with the Building 507, 508, and 509 Sites) by the HPNS Team.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.

- Staged rebar and scrap metal debris was sized and prepared for transfer to the recycling bins near Building 411.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 251 tons of concrete near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

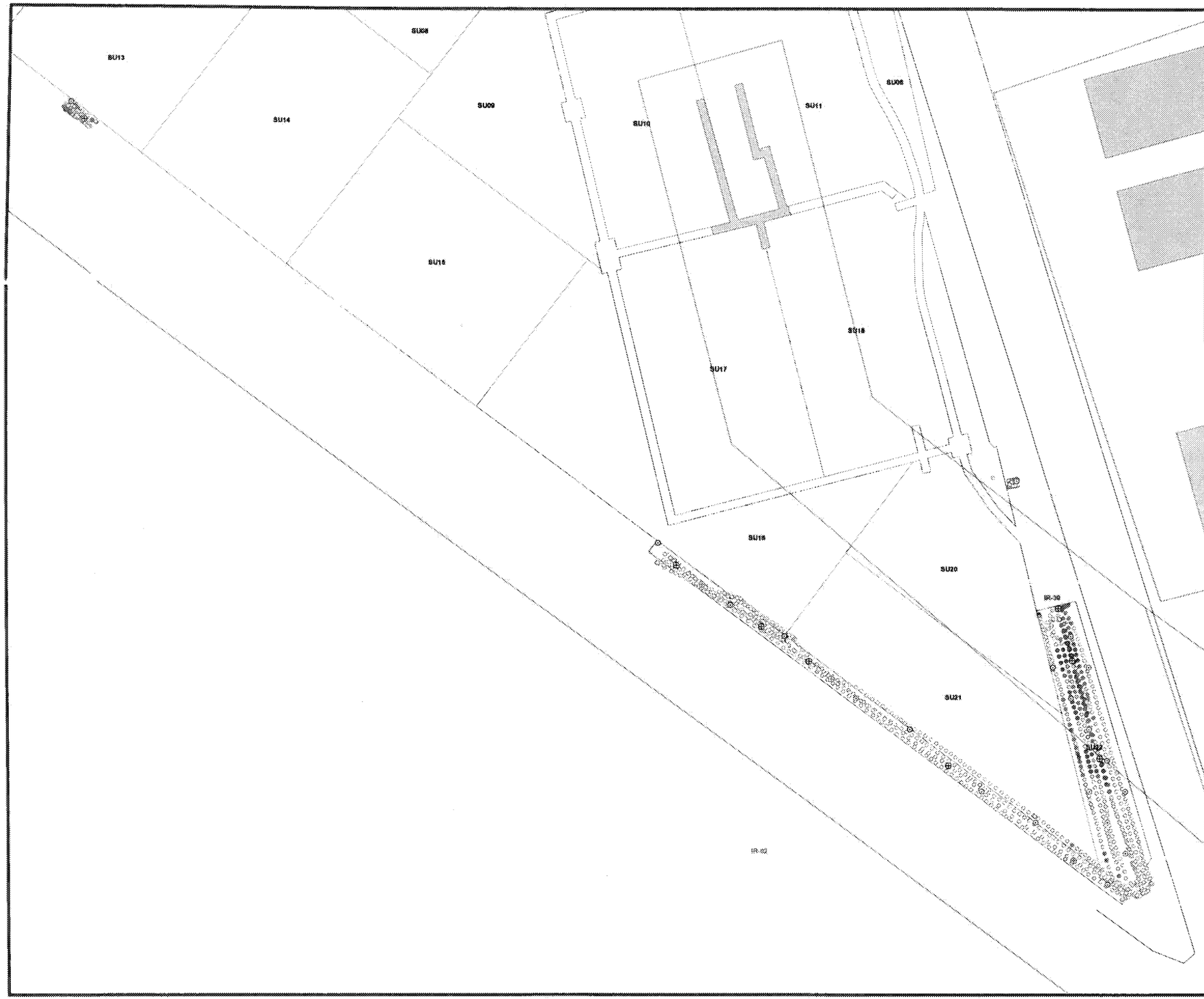
Issues/Items Pending Action

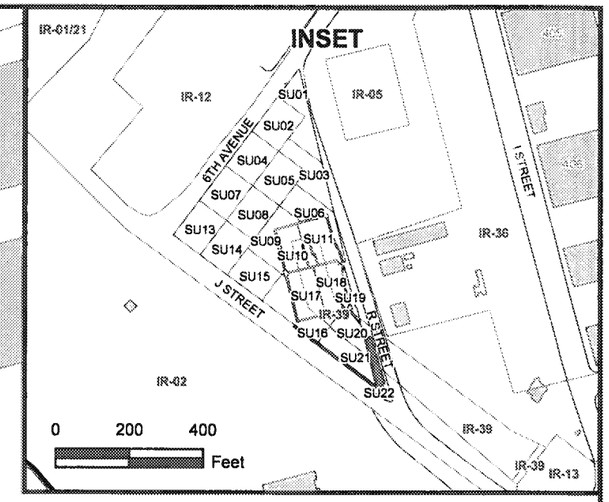
- Internal Draft Radiological Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
707	22	1	Biased	03707-S0022-F001-01	22-Apr-11	Jeff Rolfe	14.6	0.4295	0.004363	0.3873	0.4731					
707	22	2	Biased	03707-S0022-F002-01	22-Apr-11	Jeff Rolfe	15.93	0.7036	-0.002437	0.4207	0.4913					
707	22	3	Biased	03707-S0022-F003-01	22-Apr-11	Jeff Rolfe	15.41	0.4906	0	0.3078	0.2995					
707	22	4	Biased	03707-S0022-F004-01	22-Apr-11	Jeff Rolfe	11.22	0.1889	0.007279	0.06852	0.1038					
707	22	5	Biased	03707-S0022-F005-01	22-Apr-11	Jeff Rolfe	13.74	0.371	-0.004928	0.3497	0.4716					
707	22	6	Biased	03707-S0022-F006-01	22-Apr-11	Jeff Rolfe	9.391	0.1104	0	0.05633	0.2068					
707	22	7	Biased	03707-S0022-F007-01	22-Apr-11	Jeff Rolfe	10.93	0.2889	0	0.3574	0.1917					
707	22	8	Biased	03707-S0022-F008-01	22-Apr-11	Jeff Rolfe	11.16	0.3361	0	0.09782	0.1587					
707	22	9	Biased	03707-S0022-F009-01	22-Apr-11	Jeff Rolfe	11.77	0.224	-0.00186	0.09234	0.2864					
707	22	10	Biased	03707-S0022-F010-01	22-Apr-11	Jeff Rolfe	10.53	0.4351	-0.01214	0.1677	0.2949					
707	22	11	Biased	03707-S0022-F011-01	22-Apr-11	Jeff Rolfe	8.683	0.3903	0.0139	0.227	0.3261					
707	22	12	Systematic	03707-S0022-F012-01	22-Apr-11	Jeff Rolfe	7.621	0.4132	-0.009895	0.1858	0.3122	9.31	0.35	-0.000341	0.35	0.366
707	22	13	Systematic	03707-S0022-F013-01	22-Apr-11	Jeff Rolfe	4.069	-0.05031	0.002237	0.101	0.149	2.93	0.215	0.00582	0.215	0.0997
707	22	14	Systematic	03707-S0022-F014-01	22-Apr-11	Jeff Rolfe	13.84	0.4277	0.002051	0.4146	0.4141	12.8	0.491	0.0104	0.491	0.585
707	22	15	Systematic	03707-S0022-F015-01	22-Apr-11	Jeff Rolfe	15.43	0.4447	0.0127	0.3089	0.3812	11.1	0.5	-0.00552	0.5	0.53
707	22	16	Systematic	03707-S0022-F016-01	22-Apr-11	Jeff Rolfe	11.21	1.108	-0.00008475	0.4179	0.4405	14.2	0.551	0.0122	0.551	0.558
707	22	17	Systematic	03707-S0022-F017-01	22-Apr-11	Jeff Rolfe	15.85	0.1139	-0.001627	0.2309	0.2663	14.7	0.519	0.00632	0.519	0.674
707	22	18	Systematic	03707-S0022-F018-01	22-Apr-11	Jeff Rolfe	12.96	0.01835	-0.001102	0.1664	0.1644	9.49	0.332	-0.015	0.332	0.43
707	22	19	Systematic	03707-S0022-F019-01	22-Apr-11	Jeff Rolfe	8.657	-0.01906	0.003394	0.1198	0.1682	8.63	0.146	0.0223	0.146	0.221
707	22	20	Systematic	03707-S0022-F020-01	22-Apr-11	Jeff Rolfe	14.11	0.4557	0	0.2746	0.4187	15.4	0.321	0.02	0.321	0.704
707	22	21	Systematic	03707-S0022-F021-01	22-Apr-11	Jeff Rolfe	14.49	0.3527	0.0007028	0.3519	0.2212	15	0.674	0.0149	0.674	0.558
707	22	22	Systematic	03707-S0022-F022-01	22-Apr-11	Jeff Rolfe	10.1	0.2144	0.0048	0.1693	0.2672	8.36	0.252	-0.0183	0.252	0.303
707	22	23	Systematic	03707-S0022-F023-01	22-Apr-11	Jeff Rolfe	13.34	0.8487	0.00688	0.2012	0.3666	13.7	0.497	0.00516	0.497	0.387
707	22	24	Systematic	03707-S0022-F024-01	22-Apr-11	Jeff Rolfe	6.292	-0.03328	0.0103	0.1017	0.07488	12.2	0.421	0.00306	0.421	0.36
707	22	25	Systematic	03707-S0022-F025-01	22-Apr-11	Jeff Rolfe	11.87	0.4893	0.01473	0.2222	0.2778	7.32	-0.0135	0.0148	-0.0135	0.159
707	22	26	Systematic	03707-S0022-F026-01	22-Apr-11	Jeff Rolfe	17.94	0.9182	0.002209	0.4958	0.5276	13.6	0.63	0.00116	0.63	0.677
707	22	27	Systematic	03707-S0022-F027-01	22-Apr-11	Jeff Rolfe	12.42	0.2551	-0.0004736	0.096	0.1848	10.2	0.136	0.000517	0.136	0.374
707	22	28	Systematic	03707-S0022-F028-01	22-Apr-11	Jeff Rolfe	14.38	-0.02077	0.005459	0.1056	0.1912	14.4	0.139	0.00063	0.139	0.342
707	22	29	Systematic	03707-S0022-F029-01	22-Apr-11	Jeff Rolfe	9.297	0.4011	0	0.2129	0.3209	12.1	0.475	0.0192	0.475	0.631
707	22	30	Systematic	03707-S0022-F030-01	22-Apr-11	Jeff Rolfe	6.457	-0.0388	-0.003685	0.1054	0.03135	7.26	0.191	-0.000146	0.191	0.235
707	22	31	Systematic	03707-S0022-F031-01	22-Apr-11	Jeff Rolfe	6.2	0.1165	-0.0006781	0.2313	0.2157	9.48	0.355	0.0142	0.355	0.369
707	22	32	Sr90 Remediation	03707-S0022-F032-01	01-May-12	Jeff Rolfe	11.32	0.6497	-0.008756	0.2812	0.3429					
707	22	33	Sr90 Remediation	03707-S0022-F033-01	01-May-12	Jeff Rolfe	12.6	0.5271	-0.0001563	0.1564	0.1262					
707	22	34	Sr90 Remediation	03707-S0022-F034-01	02-May-12	Jeff Rolfe	2.819	0.02453	0	0.02953	0.159					
707	22	35	Sr90 Remediation	03707-S0022-F035-01	02-May-12	Jeff Rolfe	20.99	0.4983	0.1581	0.1682	0.2973					
707	22	36	Post-Remediation	03707-S0022-F036-01	14-May-12	Rick Zahensky	17.43	0.1857	0.002068	0.5686	0.5451					
707	22	37	Post-Remediation	03707-S0022-F037-01	14-May-12	Rick Zahensky	13.66	0.9134	0.03359	0.3809	0.4283					
707	22	38	Post-Remediation	03707-S0022-F038-01	14-May-12	Rick Zahensky	17.14	-0.02445	0.01827	0.05633	0.2062					
707	22	39	Post-Remediation	03707-S0022-F039-01	14-May-12	Rick Zahensky	14.54	0.5327	-0.002218	0.2823	0.2936					
707	22	40	Post-Remediation	03707-S0022-F040-01	29-Jun-12	Rick Zahensky	12.54	0.6083	0.0003269	-0.02339	0.1914					
707	22	41	Post-Remediation	03707-S0022-F041-01	02-Jul-12	Rick Zahensky	15.33	0.6714	-0.007957	0.2342	0.3188					
707	22	42	Post-Remediation	03707-S0022-F042-01	02-Jul-12	Rick Zahensky	13.22	0.5198	-0.001097	0.2305	0.3998					
707	22	43	Post-Remediation	03707-S0022-F043-01	02-Jul-12	Rick Zahensky	13.49	0.8327	0.00789	0.3543	0.3497					
707	22	44	Systematic	03707-S0022-F044-01	08-Aug-12	Jeff Rolfe	0.7434	0.09522	0.0003437	0.01371	0.07965					
707	22	45	Systematic	03707-S0022-F045-01	31-Jul-12	Anthony Smith	10.49	0.06737	0.1448	0.3403	0.3289					
707	22	46	Systematic	03707-S0022-F046-01	31-Jul-12	Anthony Smith	12.58	0.4815	0.01202	0.2862	0.2154					
707	22	47	Systematic	03707-S0022-F047-01	31-Jul-12	Anthony Smith	19.1	0.5782	-0.0002317	0.2996	0.485					
707	22	48	Systematic	03707-S0022-F048-01	31-Jul-12	Anthony Smith	12.06	0.6185	0.001965	0.4296	0.2591					
707	22	49	Systematic	03707-S0022-F049-01	31-Jul-12	Anthony Smith	15.37	0.6668	0.0003866	0.3827	0.3735					
707	22	50	Systematic	03707-S0022-F050-01	31-Jul-12	Anthony Smith	16.58	0.1908	-0.0008727	0.1897	0.1937					
707	22	51	Systematic	03707-S0022-F051-01	31-Jul-12	Anthony Smith	9.592	0.03913	0.005825	0.06908	0.09955					
707	22	52	Systematic	03707-S0022-F052-01	31-Jul-12	Anthony Smith	13.77	0.3323	0.1144	0.2344	0.2191					
707	22	53	Systematic	03707-S0022-F053-01	31-Jul-12	Anthony Smith	9.225	0.08332	0.004033	0.06761	0.1584					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
707	22	54	Systematic	03707-S0022-F054-01	31-Jul-12	Anthony Smith	16.7	0.4551	0.02982	0.3168	0.3305					
707	22	55	Systematic	03707-S0022-F055-01	31-Jul-12	Anthony Smith	10.95	0.3957	0.03285	0.1733	0.3511					
707	22	56	Systematic	03707-S0022-F056-01	31-Jul-12	Anthony Smith	18.59	1.256	0.007916	0.3746	0.6653					
707	22	57	Systematic	03707-S0022-F057-01	31-Jul-12	Anthony Smith	13.83	0.7944	0.3355	0.3142	0.3599					
707	22	58	Systematic	03707-S0022-F058-01	31-Jul-12	Anthony Smith	18.95	0.6319	0.1291	0.4015	0.4725					
707	22	59	Systematic	03707-S0022-F059-01	31-Jul-12	Anthony Smith	17.71	0.6347	0.1419	0.4266	0.4528					
707	22	60	Systematic	03707-S0022-F060-01	31-Jul-12	Anthony Smith	13.46	0.5706	0.007399	0.3933	0.4135					
707	22	61	Systematic	03707-S0022-F061-01	31-Jul-12	Anthony Smith	14.8	0.7045	0.01191	0.3468	0.4122					
707	22	62	Systematic	03707-S0022-F062-01	31-Jul-12	Anthony Smith	18.25	1.029	0	0.3393	0.363					
707	22	63	Systematic	03707-S0022-F063-01	31-Jul-12	Anthony Smith	9.038	0.2303	-0.004328	0.2561	0.2155					
707	22	64	Post-Remediation	03707-S0022-F064-01	02-Aug-12	Jeff Rolfe	1.158	0.3027	0	0.05071	0.0558					
707	22	65	Post-Remediation	03707-S0022-F065-01	02-Aug-12	Jeff Rolfe	1.214	0.09519	-0.00141	-0.01005	0.0466					
707	22	66	Characterization	03707-S0022-F066-01	07-Aug-12	Jeff Rolfe	1.844	0	0.0004094	0.1142	0.09381					
707	22	67	Characterization	03707-S0022-F067-01	07-Aug-12	Jeff Rolfe	0.9697	0.15	-0.004368	0.05798	0.1215					
707	22	68	Characterization	03707-S0022-F068-01	07-Aug-12	Jeff Rolfe	0.9118	-0.1572	-0.006097	0.06276	0.1386					
707	22	69	Characterization	03707-S0022-F069-01	07-Aug-12	Jeff Rolfe	0.7041	0.1991	-0.002815	0.04832	0.03374					
707	22	70	Characterization	03707-S0022-F070-01	07-Aug-12	Jeff Rolfe	0.8321	0.0368	-0.003946	0.02724	0.05868					
707	22	71	Characterization	03707-S0022-F071-01	07-Aug-12	Jeff Rolfe	0.9673	0.3704	-0.004617	0.03761	0.1344					
707	22	72	Characterization	03707-S0022-F072-01	07-Aug-12	Jeff Rolfe	0.5437	0.1259	0.006632	0.0611	0					
707	22	73	Characterization	03707-S0022-F073-01	07-Aug-12	Jeff Rolfe	0.486	0.2445	0.009228	0.05871	0.06633					
707	22	74	Characterization	03707-S0022-F074-01	07-Aug-12	Jeff Rolfe	0.9082	0.1311	-0.004249	0.02277	0.04243					
707	22	75	Characterization	03707-S0022-F075-01	07-Aug-12	Jeff Rolfe	1.41	0.01773	-0.001018	0.03966	0.05691					
707	22	76	Post-Remediation	03707-S0022-F076-01	15-Aug-12	Jeff Rolfe	1.119	0.0758	0.00602	0.1084	0.1071					
707	22	77	Post-Remediation	03707-S0022-F077-01	15-Aug-12	Jeff Rolfe	0.9082	0.1134	0	0.06834	0.01176					
707	22	78	Post-Remediation	03707-S0022-F078-01	15-Aug-12	Jeff Rolfe	0.4755	0.3053	-0.000699	0.05184	0.04178					
707	22	79	Post-Remediation	03707-S0022-F079-01	15-Aug-12	Jeff Rolfe	1.221	0.0934	-0.004716	0.04945	0.1233					
707	22	80	Post-Remediation	03707-S0022-F080-01	15-Aug-12	Jeff Rolfe	0.8861	0.108	0	0.003372	0.1362					
707	22	81	Systematic	03707-S0022-F081-01	23-Aug-12	Anthony Smith	0.5238	0.1046	0	0.0457	0.06157	0.468	0.00786	-0.0211	0.00786	0.0668
707	22	82	Systematic	03707-S0022-F082-01	23-Aug-12	Anthony Smith	0.5046	-0.01796	0	0.03112	0.04465	0.582	0.0515	0.00471	0.0515	0.0697
707	22	83	Systematic	03707-S0022-F083-01	23-Aug-12	Anthony Smith	1.018	0.1995	0.00782	0.01325	0.09882	0.727	0.124	0	0.124	0.0429
707	22	84	Systematic	03707-S0022-F084-01	23-Aug-12	Anthony Smith	0.6387	0.2445	-0.0006185	0.04372	0.05256	0.635	0.15	-0.00111	0.15	0.0719
707	22	85	Systematic	03707-S0022-F085-01	23-Aug-12	Anthony Smith	0.4676	0.1138	0	0.01568	0.02506	0.678	0.0763	-0.019	0.0763	0.0523
707	22	86	Systematic	03707-S0022-F086-01	23-Aug-12	Anthony Smith	0.4036	0.1243	-0.00585	0.01166	0.0399	0.776	0.0222	0.000176	0.0222	0.126
707	22	87	Systematic	03707-S0022-F087-01	23-Aug-12	Anthony Smith	0.6427	0.1398	-0.002715	0.01433	0.1456	0.403	0.0535	-0.014	0.0535	0.0551
707	22	88	Systematic	03707-S0022-F088-01	23-Aug-12	Anthony Smith	0.5402	0.06083	0	-0.03851	0.01219	0.29	-0.0469	-0.00585	-0.0469	0.0897
707	22	89	Systematic	03707-S0022-F089-01	23-Aug-12	Anthony Smith	0.6286	0.004864	-0.00746	-0.005137	-0.007707	0.232	0.0193	0.00963	0.0193	0.0462
707	22	90	Systematic	03707-S0022-F090-01	23-Aug-12	Anthony Smith	0.8984	-0.01682	-0.007707	0.04843	0.05357	0.518	0.0202	0	0.0202	0.0457
707	22	91	Systematic	03707-S0022-F091-01	23-Aug-12	Anthony Smith	0.4446	0.08688	0.006627	0.02457	0.04072	-0.436	-0.0352	-0.02	-0.0352	0.0343
707	22	92	Systematic	03707-S0022-F092-01	23-Aug-12	Anthony Smith	0.7225	-0.09149	-0.003634	0.0361	0.03664	0.661	-0.0388	0.00854	-0.0388	0.117
707	22	93	Systematic	03707-S0022-F093-01	23-Aug-12	Anthony Smith	0.6219	0	-0.0003882	0.05494	0.05583	0.741	0.0857	-0.0073	0.0857	0.0756
707	22	94	Systematic	03707-S0022-F094-01	23-Aug-12	Anthony Smith	0.8285	0.003954	0.003053	0.06295	0.1074	0.914	0.228	0.00248	0.228	0.121
707	22	95	Systematic	03707-S0022-F095-01	23-Aug-12	Anthony Smith	1.306	0.05902	0	0.0778	0.06895	1.04	0.0457	0.00616	0.0457	0.166
707	22	96	Systematic	03707-S0022-F096-01	23-Aug-12	Anthony Smith	1.165	0.2001	0.004483	0.04389	0.2061	1.38	0.0679	-0.0221	0.0679	0.0595
707	22	97	Systematic	03707-S0022-F097-01	23-Aug-12	Anthony Smith	0.8961	0.153	0	0.08016	0.05605	0.775	0.16	-0.0114	0.16	0.0733
707	22	98	Systematic	03707-S0022-F098-01	23-Aug-12	Anthony Smith	0.7094	0.2738	0	0.02735	0.07018	0.769	0.0578	0.0237	0.0578	0.0824
707	22	99	Systematic	03707-S0022-F099-01	23-Aug-12	Anthony Smith	1.197	0.4918	0.004195	0.04845	0.08865	1.68	0.035	0.0192	0.035	0.136
707	22	100	Systematic	03707-S0022-F100-01	23-Aug-12	Anthony Smith	0.3402	0.5001	0	0.01793	0.03381	0.273	0.161	-0.00615	0.161	0.011

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)





LEGEND

- GAMMA TOTAL, <1 SIGMA
- GAMMA TOTAL, ≥1 AND <2 SIGMA
- GAMMA TOTAL, ≥2 AND <3 SIGMA
- GAMMA TOTAL, ≥3 AND <4 SIGMA
- GAMMA TOTAL, ≥4 AND <5 SIGMA
- GAMMA TOTAL, ≥5 AND <6 SIGMA
- GAMMA TOTAL, ≥6 SIGMA
- BIAS SAMPLE
- SYSTEMATIC SAMPLE
- ROAD
- BUILDING
- SCREENING PAD
- WATER

10 0 10 20 Feet

Scale: 1" = 20'

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

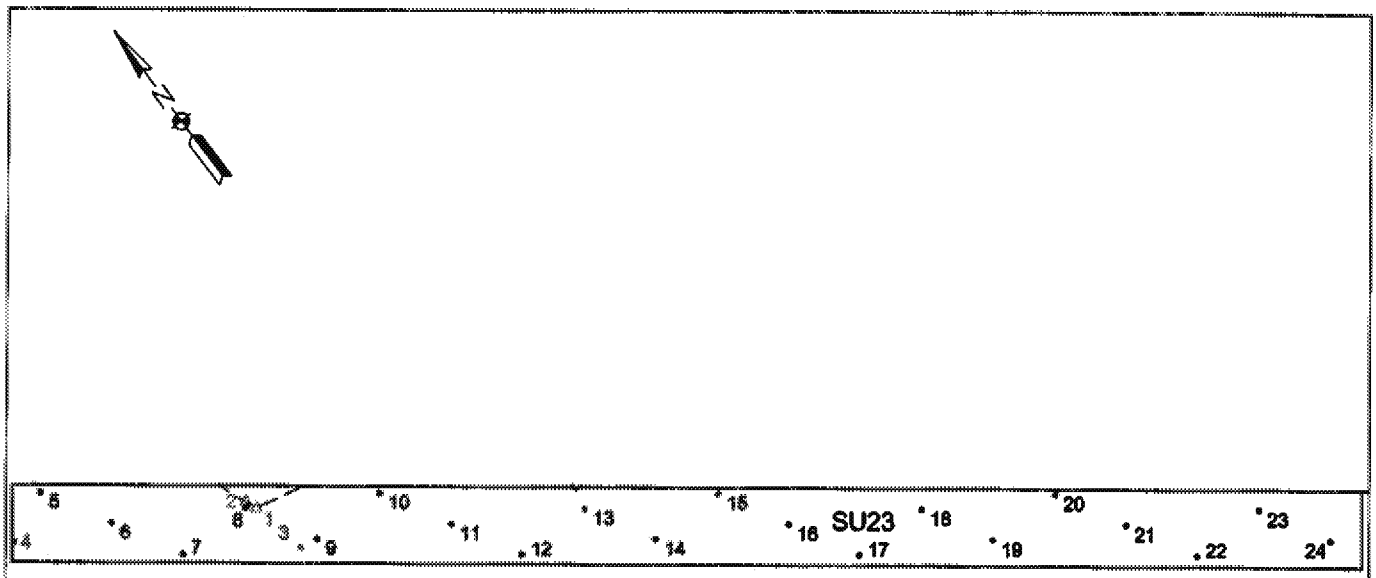
REPORT TITLE

BUILDING 707
SURVEY UNIT 22

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW: 0
AUTHOR: GFG
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: B707_SU22.mxd

TETRA TECH EC, INC.



SU23

LEGEND:

△	1	CHARACTERIZATION 1 SAMPLE 1
△	2	POST REMEDIATION 1 SAMPLE 2
⊠	3	BIASED SAMPLES 3–4
•	5	SYSTEMATIC 1 SAMPLES 5–24
- - - - - -		PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:40

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 14:34:57

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 23

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	6/22/2012 9:39	4296	5845	-1549	622-BKGDS1A	7004	Collected at Sidewall 12" depth
1	6/22/2012 9:37	5548	5845	-297	622-BKGDS1A	7004	Collected at Surface 0" depth
1	6/22/2012 9:40	4827	5845	-1018	622-BKGDS1A	7004	Collected at Bottom 24" depth
2	6/29/2012 13:35	3722	5845	-2123	622-BKGDS1A	7004	
3	7/31/2012 7:55	5730	5845	-115	622-BKGDS1A	7004	
4	7/31/2012 7:57	5268	5845	-577	622-BKGDS1A	7004	
5	7/31/2012 7:58	4974	5845	-871	622-BKGDS1A	7004	
6	7/31/2012 7:59	4848	5845	-997	622-BKGDS1A	7004	
7	7/31/2012 8:00	5696	5845	-149	622-BKGDS1A	7004	
8	7/31/2012 8:02	4212	5845	-1633	622-BKGDS1A	7004	
9	7/31/2012 8:03	5152	5845	-693	622-BKGDS1A	7004	
10	7/31/2012 8:04	4642	5845	-1203	622-BKGDS1A	7004	
11	7/31/2012 8:05	4112	5845	-1733	622-BKGDS1A	7004	
12	7/31/2012 8:07	4670	5845	-1175	622-BKGDS1A	7004	
13	7/31/2012 8:08	4827	5845	-1018	622-BKGDS1A	7004	
14	7/31/2012 8:10	4143	5845	-1702	622-BKGDS1A	7004	
15	7/31/2012 8:11	4855	5845	-990	622-BKGDS1A	7004	
16	7/31/2012 8:13	4427	5845	-1418	622-BKGDS1A	7004	
17	7/31/2012 8:14	4315	5845	-1530	622-BKGDS1A	7004	
18	7/31/2012 8:15	4502	5845	-1343	622-BKGDS1A	7004	
19	7/31/2012 8:17	4631	5845	-1214	622-BKGDS1A	7004	
20	7/31/2012 8:18	4685	5845	-1160	622-BKGDS1A	7004	
21	7/31/2012 8:20	4975	5845	-870	622-BKGDS1A	7004	
22	7/31/2012 8:21	5343	5845	-502	622-BKGDS1A	7004	
23	7/31/2012 8:22	4315	5845	-1530	622-BKGDS1A	7004	
24	7/31/2012 8:24	5117	5845	-728	622-BKGDS1A	7004	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -2123
Avg: -1082
Max: -115
St Dev: 508

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm):	5845
Standard Deviation:	386
Gamma 3σ Investigation Level (cpm):	7004

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	6/22/2012 9:37	168	199	-31	620-BKGDS1A	344	Collected at Bottom 24" depth
1	6/22/2012 9:36	171	199	-28	620-BKGDS1A	344	Collected at Sidewall 12" depth
1	6/22/2012 9:34	223	199	24	620-BKGDS1A	344	Collected at Surface 0" depth
2	6/29/2012 13:36	152	199	-47	620-BKGDS1A	344	
3	7/31/2012 8:01	286	199	87	620-BKGDS1A	344	
4	7/31/2012 8:02	194	199	-5	620-BKGDS1A	344	
5	7/31/2012 8:03	217	199	18	620-BKGDS1A	344	
6	7/31/2012 8:04	184	199	-15	620-BKGDS1A	344	
7	7/31/2012 8:05	203	199	4	620-BKGDS1A	344	
8	7/31/2012 8:07	180	199	-19	620-BKGDS1A	344	
9	7/31/2012 8:08	223	199	24	620-BKGDS1A	344	
10	7/31/2012 8:09	235	199	36	620-BKGDS1A	344	
11	7/31/2012 8:10	172	199	-27	620-BKGDS1A	344	
12	7/31/2012 8:11	201	199	2	620-BKGDS1A	344	
13	7/31/2012 8:12	225	199	26	620-BKGDS1A	344	
14	7/31/2012 8:14	176	199	-23	620-BKGDS1A	344	
15	7/31/2012 8:15	208	199	9	620-BKGDS1A	344	
16	7/31/2012 8:16	180	199	-19	620-BKGDS1A	344	
17	7/31/2012 8:17	195	199	-4	620-BKGDS1A	344	
18	7/31/2012 8:18	155	199	-44	620-BKGDS1A	344	
19	7/31/2012 8:19	207	199	8	620-BKGDS1A	344	
20	7/31/2012 8:20	180	199	-19	620-BKGDS1A	344	
21	7/31/2012 8:22	177	199	-22	620-BKGDS1A	344	
22	7/31/2012 8:23	177	199	-22	620-BKGDS1A	344	
23	7/31/2012 8:24	185	199	-14	620-BKGDS1A	344	
24	7/31/2012 8:25	201	199	2	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -47
Avg: -4
Max: 87
St Dev: 29

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	5/8/2012 14:24	166	199	-33	620-BKGDS1A	344	
2	5/8/2012 14:24	177	199	-22	620-BKGDS1A	344	
3	5/8/2012 14:24	168	199	-31	620-BKGDS1A	344	
4	5/8/2012 14:24	202	199	3	620-BKGDS1A	344	
5	5/8/2012 14:25	204	199	5	620-BKGDS1A	344	
6	5/8/2012 14:25	229	199	30	620-BKGDS1A	344	
7	5/8/2012 14:25	263	199	64	620-BKGDS1A	344	
8	5/8/2012 14:25	239	199	40	620-BKGDS1A	344	
9	5/8/2012 14:25	257	199	58	620-BKGDS1A	344	
10	5/8/2012 14:25	272	199	73	620-BKGDS1A	344	
11	5/8/2012 14:25	286	199	87	620-BKGDS1A	344	
12	5/8/2012 14:25	195	199	-4	620-BKGDS1A	344	
13	5/8/2012 14:25	233	199	34	620-BKGDS1A	344	
14	5/8/2012 14:26	220	199	21	620-BKGDS1A	344	
15	5/8/2012 14:26	201	199	2	620-BKGDS1A	344	
16	5/8/2012 14:26	152	199	-47	620-BKGDS1A	344	
17	5/8/2012 14:26	164	199	-35	620-BKGDS1A	344	
18	5/8/2012 14:26	182	199	-17	620-BKGDS1A	344	
19	5/8/2012 14:26	188	199	-11	620-BKGDS1A	344	
20	5/8/2012 14:26	219	199	20	620-BKGDS1A	344	
21	5/8/2012 14:26	178	199	-21	620-BKGDS1A	344	
22	5/8/2012 14:26	216	199	17	620-BKGDS1A	344	
23	5/8/2012 14:27	178	199	-21	620-BKGDS1A	344	
24	5/8/2012 14:27	229	199	30	620-BKGDS1A	344	
25	5/8/2012 14:27	194	199	-5	620-BKGDS1A	344	
26	5/8/2012 14:27	282	199	83	620-BKGDS1A	344	
27	5/8/2012 14:27	275	199	76	620-BKGDS1A	344	
28	5/8/2012 14:27	189	199	-10	620-BKGDS1A	344	
29	5/8/2012 14:27	155	199	-44	620-BKGDS1A	344	
30	5/8/2012 14:27	171	199	-28	620-BKGDS1A	344	
31	5/8/2012 14:28	200	199	1	620-BKGDS1A	344	
32	5/8/2012 14:28	212	199	13	620-BKGDS1A	344	

TETRATECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	5/8/2012 14:28	192	199	-7	620-BKGDS1A	344	
34	5/8/2012 14:28	200	199	1	620-BKGDS1A	344	
35	5/8/2012 14:28	158	199	-41	620-BKGDS1A	344	
36	5/8/2012 14:28	165	199	-34	620-BKGDS1A	344	
37	5/8/2012 14:28	176	199	-23	620-BKGDS1A	344	
38	5/8/2012 14:28	160	199	-39	620-BKGDS1A	344	
39	5/8/2012 14:28	173	199	-26	620-BKGDS1A	344	
40	5/8/2012 14:29	137	199	-62	620-BKGDS1A	344	
41	5/8/2012 14:29	208	199	9	620-BKGDS1A	344	
42	5/8/2012 14:29	213	199	14	620-BKGDS1A	344	
43	5/8/2012 14:29	210	199	11	620-BKGDS1A	344	
44	5/8/2012 14:29	166	199	-33	620-BKGDS1A	344	
45	5/8/2012 14:29	202	199	3	620-BKGDS1A	344	
46	5/8/2012 14:29	251	199	52	620-BKGDS1A	344	
47	5/8/2012 14:29	207	199	8	620-BKGDS1A	344	
48	5/8/2012 14:30	231	199	32	620-BKGDS1A	344	
49	5/8/2012 14:30	189	199	-10	620-BKGDS1A	344	
50	5/8/2012 14:30	213	199	14	620-BKGDS1A	344	
51	5/8/2012 14:30	46	199	-153	620-BKGDS1A	344	
52	5/8/2012 14:30	136	199	-63	620-BKGDS1A	344	
53	5/8/2012 14:31	118	199	-81	620-BKGDS1A	344	
54	5/8/2012 14:31	199	199	0	620-BKGDS1A	344	
55	5/8/2012 14:31	242	199	43	620-BKGDS1A	344	
56	5/8/2012 14:31	203	199	4	620-BKGDS1A	344	
57	5/8/2012 14:31	176	199	-23	620-BKGDS1A	344	
58	5/8/2012 14:31	187	199	-12	620-BKGDS1A	344	
59	5/8/2012 14:31	187	199	-12	620-BKGDS1A	344	
60	5/8/2012 14:31	148	199	-51	620-BKGDS1A	344	
61	5/8/2012 14:31	186	199	-13	620-BKGDS1A	344	
62	5/8/2012 14:32	180	199	-19	620-BKGDS1A	344	
63	5/8/2012 14:32	141	199	-58	620-BKGDS1A	344	
64	5/8/2012 14:32	126	199	-73	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	5/8/2012 14:32	145	199	-54	620-BKGDS1A	344	
66	5/8/2012 14:32	150	199	-49	620-BKGDS1A	344	
67	5/8/2012 14:32	135	199	-64	620-BKGDS1A	344	
68	5/8/2012 14:32	153	199	-46	620-BKGDS1A	344	
69	5/8/2012 14:32	141	199	-58	620-BKGDS1A	344	
70	5/8/2012 14:33	159	199	-40	620-BKGDS1A	344	
71	5/8/2012 14:33	195	199	-4	620-BKGDS1A	344	
72	5/8/2012 14:33	202	199	3	620-BKGDS1A	344	
73	5/8/2012 14:33	209	199	10	620-BKGDS1A	344	
74	5/8/2012 14:33	172	199	-27	620-BKGDS1A	344	
75	5/8/2012 14:33	182	199	-17	620-BKGDS1A	344	
76	5/8/2012 14:33	229	199	30	620-BKGDS1A	344	
77	5/8/2012 14:33	204	199	5	620-BKGDS1A	344	
78	5/8/2012 14:33	222	199	23	620-BKGDS1A	344	
79	5/8/2012 14:34	198	199	-1	620-BKGDS1A	344	
80	5/8/2012 14:34	209	199	10	620-BKGDS1A	344	
81	5/8/2012 14:34	222	199	23	620-BKGDS1A	344	
82	5/8/2012 14:34	169	199	-30	620-BKGDS1A	344	
83	5/8/2012 14:34	152	199	-47	620-BKGDS1A	344	
84	5/8/2012 14:34	184	199	-15	620-BKGDS1A	344	
85	5/8/2012 14:34	177	199	-22	620-BKGDS1A	344	
86	5/8/2012 14:34	197	199	-2	620-BKGDS1A	344	
87	5/8/2012 14:35	293	199	94	620-BKGDS1A	344	
88	5/8/2012 14:35	251	199	52	620-BKGDS1A	344	
89	5/8/2012 14:35	208	199	9	620-BKGDS1A	344	
90	5/8/2012 14:35	224	199	25	620-BKGDS1A	344	
91	5/8/2012 14:35	209	199	10	620-BKGDS1A	344	
92	5/8/2012 14:35	164	199	-35	620-BKGDS1A	344	
93	5/8/2012 14:35	182	199	-17	620-BKGDS1A	344	
94	5/8/2012 14:35	196	199	-3	620-BKGDS1A	344	
95	5/8/2012 14:35	226	199	27	620-BKGDS1A	344	
96	5/8/2012 14:36	246	199	47	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	5/8/2012 14:36	208	199	9	620-BKGDS1A	344	
98	5/8/2012 14:36	180	199	-19	620-BKGDS1A	344	
99	5/8/2012 14:36	200	199	1	620-BKGDS1A	344	
100	5/8/2012 14:36	189	199	-10	620-BKGDS1A	344	
101	5/8/2012 14:37	77	199	-122	620-BKGDS1A	344	
102	5/8/2012 14:37	100	199	-99	620-BKGDS1A	344	
103	5/8/2012 14:37	184	199	-15	620-BKGDS1A	344	
104	5/8/2012 14:37	187	199	-12	620-BKGDS1A	344	
105	5/8/2012 14:37	174	199	-25	620-BKGDS1A	344	
106	5/8/2012 14:37	244	199	45	620-BKGDS1A	344	
107	5/8/2012 14:37	280	199	81	620-BKGDS1A	344	
108	5/8/2012 14:37	225	199	26	620-BKGDS1A	344	
109	5/8/2012 14:37	221	199	22	620-BKGDS1A	344	
110	5/8/2012 14:38	256	199	57	620-BKGDS1A	344	
111	5/8/2012 14:38	201	199	2	620-BKGDS1A	344	
112	5/8/2012 14:38	251	199	52	620-BKGDS1A	344	
113	5/8/2012 14:38	179	199	-20	620-BKGDS1A	344	
114	5/8/2012 14:38	173	199	-26	620-BKGDS1A	344	
115	5/8/2012 14:38	255	199	56	620-BKGDS1A	344	
116	5/8/2012 14:38	179	199	-20	620-BKGDS1A	344	
117	5/8/2012 14:38	217	199	18	620-BKGDS1A	344	
118	5/8/2012 14:39	173	199	-26	620-BKGDS1A	344	
119	5/8/2012 14:39	227	199	28	620-BKGDS1A	344	
120	5/8/2012 14:39	237	199	38	620-BKGDS1A	344	
121	5/8/2012 14:39	192	199	-7	620-BKGDS1A	344	
122	5/8/2012 14:39	242	199	43	620-BKGDS1A	344	
123	5/8/2012 14:39	217	199	18	620-BKGDS1A	344	
124	5/8/2012 14:39	178	199	-21	620-BKGDS1A	344	
125	5/8/2012 14:39	179	199	-20	620-BKGDS1A	344	
126	5/8/2012 14:39	254	199	55	620-BKGDS1A	344	
127	5/8/2012 14:40	226	199	27	620-BKGDS1A	344	
128	5/8/2012 14:40	199	199	0	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
129	5/8/2012 14:40	159	199	-40	620-BKGDS1A	344	
130	5/8/2012 14:40	171	199	-28	620-BKGDS1A	344	
131	5/8/2012 14:40	185	199	-14	620-BKGDS1A	344	
132	5/8/2012 14:40	171	199	-28	620-BKGDS1A	344	
133	5/8/2012 14:40	216	199	17	620-BKGDS1A	344	
134	5/8/2012 14:40	231	199	32	620-BKGDS1A	344	
135	5/8/2012 14:41	180	199	-19	620-BKGDS1A	344	
136	5/8/2012 14:41	198	199	-1	620-BKGDS1A	344	
137	5/8/2012 14:41	167	199	-32	620-BKGDS1A	344	
138	5/8/2012 14:41	161	199	-38	620-BKGDS1A	344	
139	5/8/2012 14:41	180	199	-19	620-BKGDS1A	344	
140	5/8/2012 14:41	205	199	6	620-BKGDS1A	344	
141	5/8/2012 14:41	244	199	45	620-BKGDS1A	344	
142	5/8/2012 14:41	190	199	-9	620-BKGDS1A	344	
143	5/8/2012 14:41	170	199	-29	620-BKGDS1A	344	
144	5/8/2012 14:42	189	199	-10	620-BKGDS1A	344	
145	5/8/2012 14:42	216	199	17	620-BKGDS1A	344	
146	5/8/2012 14:42	192	199	-7	620-BKGDS1A	344	
147	5/8/2012 14:42	183	199	-16	620-BKGDS1A	344	
148	5/8/2012 14:42	178	199	-21	620-BKGDS1A	344	
149	5/8/2012 14:42	207	199	8	620-BKGDS1A	344	
150	5/8/2012 14:42	228	199	29	620-BKGDS1A	344	
151	5/8/2012 14:43	81	199	-118	620-BKGDS1A	344	
152	5/8/2012 14:43	109	199	-90	620-BKGDS1A	344	
153	5/8/2012 14:43	150	199	-49	620-BKGDS1A	344	
154	5/8/2012 14:43	182	199	-17	620-BKGDS1A	344	
155	5/8/2012 14:43	128	199	-71	620-BKGDS1A	344	
156	5/8/2012 14:43	116	199	-83	620-BKGDS1A	344	
157	5/8/2012 14:43	150	199	-49	620-BKGDS1A	344	
158	5/8/2012 14:44	117	199	-82	620-BKGDS1A	344	
159	5/8/2012 14:44	187	199	-12	620-BKGDS1A	344	
160	5/8/2012 14:44	163	199	-36	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
161	5/8/2012 14:44	221	199	22	620-BKGDS1A	344	
162	5/8/2012 14:44	188	199	-11	620-BKGDS1A	344	
163	5/8/2012 14:44	173	199	-26	620-BKGDS1A	344	
164	5/8/2012 14:44	207	199	8	620-BKGDS1A	344	
165	5/8/2012 14:44	167	199	-32	620-BKGDS1A	344	
166	5/8/2012 14:44	175	199	-24	620-BKGDS1A	344	
167	5/8/2012 14:45	165	199	-34	620-BKGDS1A	344	
168	5/8/2012 14:45	146	199	-53	620-BKGDS1A	344	
169	5/8/2012 14:45	184	199	-15	620-BKGDS1A	344	
170	5/8/2012 14:45	211	199	12	620-BKGDS1A	344	
171	5/8/2012 14:45	167	199	-32	620-BKGDS1A	344	
172	5/8/2012 14:45	213	199	14	620-BKGDS1A	344	
173	5/8/2012 14:45	112	199	-87	620-BKGDS1A	344	
174	5/8/2012 14:45	174	199	-25	620-BKGDS1A	344	
175	5/8/2012 14:46	162	199	-37	620-BKGDS1A	344	
176	5/8/2012 14:46	172	199	-27	620-BKGDS1A	344	
177	5/8/2012 14:46	225	199	26	620-BKGDS1A	344	
178	5/8/2012 14:46	187	199	-12	620-BKGDS1A	344	
179	5/8/2012 14:46	240	199	41	620-BKGDS1A	344	
180	5/8/2012 14:46	212	199	13	620-BKGDS1A	344	
181	5/8/2012 14:46	215	199	16	620-BKGDS1A	344	
182	5/8/2012 14:46	174	199	-25	620-BKGDS1A	344	
183	5/8/2012 14:46	209	199	10	620-BKGDS1A	344	
184	5/8/2012 14:47	206	199	7	620-BKGDS1A	344	
185	5/8/2012 14:47	267	199	68	620-BKGDS1A	344	
186	5/8/2012 14:47	261	199	62	620-BKGDS1A	344	
187	5/8/2012 14:47	201	199	2	620-BKGDS1A	344	
188	5/8/2012 14:47	195	199	-4	620-BKGDS1A	344	
189	5/8/2012 14:47	195	199	-4	620-BKGDS1A	344	
190	5/8/2012 14:47	200	199	1	620-BKGDS1A	344	
191	5/8/2012 14:47	199	199	0	620-BKGDS1A	344	
192	5/8/2012 14:48	196	199	-3	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
193	5/8/2012 14:48	223	199	24	620-BKGDS1A	344	
194	5/8/2012 14:48	227	199	28	620-BKGDS1A	344	
195	5/8/2012 14:48	223	199	24	620-BKGDS1A	344	
196	5/8/2012 14:48	195	199	-4	620-BKGDS1A	344	
197	5/8/2012 14:48	139	199	-60	620-BKGDS1A	344	
198	5/8/2012 14:48	182	199	-17	620-BKGDS1A	344	
199	5/8/2012 14:48	153	199	-46	620-BKGDS1A	344	
200	5/8/2012 14:48	182	199	-17	620-BKGDS1A	344	
201	5/8/2012 14:49	75	199	-124	620-BKGDS1A	344	
202	5/8/2012 14:49	150	199	-49	620-BKGDS1A	344	
203	5/8/2012 14:49	182	199	-17	620-BKGDS1A	344	
204	5/8/2012 14:49	215	199	16	620-BKGDS1A	344	
205	5/8/2012 14:49	204	199	5	620-BKGDS1A	344	
206	5/8/2012 14:49	222	199	23	620-BKGDS1A	344	
207	5/8/2012 14:50	220	199	21	620-BKGDS1A	344	
208	5/8/2012 14:50	157	199	-42	620-BKGDS1A	344	
209	5/8/2012 14:50	181	199	-18	620-BKGDS1A	344	
210	5/8/2012 14:50	223	199	24	620-BKGDS1A	344	
211	5/8/2012 14:50	249	199	50	620-BKGDS1A	344	
212	5/8/2012 14:50	252	199	53	620-BKGDS1A	344	
213	5/8/2012 14:50	202	199	3	620-BKGDS1A	344	
214	5/8/2012 14:50	235	199	36	620-BKGDS1A	344	
215	5/8/2012 14:50	262	199	63	620-BKGDS1A	344	
216	5/8/2012 14:51	219	199	20	620-BKGDS1A	344	
217	5/8/2012 14:51	186	199	-13	620-BKGDS1A	344	
218	5/8/2012 14:51	182	199	-17	620-BKGDS1A	344	
219	5/8/2012 14:51	244	199	45	620-BKGDS1A	344	
220	5/8/2012 14:51	220	199	21	620-BKGDS1A	344	
221	5/8/2012 14:51	152	199	-47	620-BKGDS1A	344	
222	5/8/2012 14:51	170	199	-29	620-BKGDS1A	344	
223	5/8/2012 14:51	178	199	-21	620-BKGDS1A	344	
224	5/8/2012 14:52	227	199	28	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
225	5/8/2012 14:52	197	199	-2	620-BKGDS1A	344	
226	5/8/2012 14:52	188	199	-11	620-BKGDS1A	344	
227	5/8/2012 14:52	191	199	-8	620-BKGDS1A	344	
228	5/8/2012 14:52	184	199	-15	620-BKGDS1A	344	
229	5/8/2012 14:52	207	199	8	620-BKGDS1A	344	
230	5/8/2012 14:52	201	199	2	620-BKGDS1A	344	
231	5/8/2012 14:52	222	199	23	620-BKGDS1A	344	
232	5/8/2012 14:52	221	199	22	620-BKGDS1A	344	
233	5/8/2012 14:53	244	199	45	620-BKGDS1A	344	
234	5/8/2012 14:53	209	199	10	620-BKGDS1A	344	
235	5/8/2012 14:53	171	199	-28	620-BKGDS1A	344	
236	5/8/2012 14:53	235	199	36	620-BKGDS1A	344	
237	5/8/2012 14:53	269	199	70	620-BKGDS1A	344	
238	5/8/2012 14:53	222	199	23	620-BKGDS1A	344	
239	5/8/2012 14:53	158	199	-41	620-BKGDS1A	344	
240	5/8/2012 14:53	181	199	-18	620-BKGDS1A	344	
241	5/8/2012 14:53	184	199	-15	620-BKGDS1A	344	
242	5/8/2012 14:54	179	199	-20	620-BKGDS1A	344	
243	5/8/2012 14:54	188	199	-11	620-BKGDS1A	344	
244	5/8/2012 14:54	213	199	14	620-BKGDS1A	344	
245	5/8/2012 14:54	179	199	-20	620-BKGDS1A	344	
246	5/8/2012 14:54	188	199	-11	620-BKGDS1A	344	
247	5/8/2012 14:54	218	199	19	620-BKGDS1A	344	
248	5/8/2012 14:54	195	199	-4	620-BKGDS1A	344	
249	5/8/2012 14:54	182	199	-17	620-BKGDS1A	344	
250	5/8/2012 14:55	267	199	68	620-BKGDS1A	344	
251	5/8/2012 14:55	129	199	-70	620-BKGDS1A	344	
252	5/8/2012 14:56	165	199	-34	620-BKGDS1A	344	
253	5/8/2012 14:56	177	199	-22	620-BKGDS1A	344	
254	5/8/2012 14:56	180	199	-19	620-BKGDS1A	344	
255	5/8/2012 14:56	162	199	-37	620-BKGDS1A	344	
256	5/8/2012 14:56	142	199	-57	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
257	5/8/2012 14:56	166	199	-33	620-BKGDS1A	344	
258	5/8/2012 14:56	229	199	30	620-BKGDS1A	344	
259	5/8/2012 14:56	253	199	54	620-BKGDS1A	344	
260	5/8/2012 14:56	165	199	-34	620-BKGDS1A	344	
261	5/8/2012 14:57	176	199	-23	620-BKGDS1A	344	
262	5/8/2012 14:57	130	199	-69	620-BKGDS1A	344	
263	5/8/2012 14:57	232	199	33	620-BKGDS1A	344	
264	5/8/2012 14:57	234	199	35	620-BKGDS1A	344	
265	5/8/2012 14:57	261	199	62	620-BKGDS1A	344	
266	5/8/2012 14:57	171	199	-28	620-BKGDS1A	344	
267	5/8/2012 14:57	161	199	-38	620-BKGDS1A	344	
268	5/8/2012 14:57	214	199	15	620-BKGDS1A	344	
269	5/8/2012 14:58	175	199	-24	620-BKGDS1A	344	
270	5/8/2012 14:58	190	199	-9	620-BKGDS1A	344	
271	5/8/2012 14:58	192	199	-7	620-BKGDS1A	344	
272	5/8/2012 14:58	192	199	-7	620-BKGDS1A	344	
273	5/8/2012 14:58	159	199	-40	620-BKGDS1A	344	
274	5/8/2012 14:58	223	199	24	620-BKGDS1A	344	
275	5/8/2012 14:58	153	199	-46	620-BKGDS1A	344	
276	5/8/2012 14:58	174	199	-25	620-BKGDS1A	344	
277	5/8/2012 14:58	185	199	-14	620-BKGDS1A	344	
278	5/8/2012 14:59	194	199	-5	620-BKGDS1A	344	
279	5/8/2012 14:59	232	199	33	620-BKGDS1A	344	
280	5/8/2012 14:59	203	199	4	620-BKGDS1A	344	
281	5/8/2012 14:59	245	199	46	620-BKGDS1A	344	
282	5/8/2012 14:59	235	199	36	620-BKGDS1A	344	
283	5/8/2012 14:59	221	199	22	620-BKGDS1A	344	
284	5/8/2012 14:59	283	199	84	620-BKGDS1A	344	
285	5/8/2012 14:59	225	199	26	620-BKGDS1A	344	
286	5/8/2012 14:59	236	199	37	620-BKGDS1A	344	
287	5/8/2012 15:00	235	199	36	620-BKGDS1A	344	
288	5/8/2012 15:00	220	199	21	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
289	5/8/2012 15:00	182	199	-17	620-BKGDS1A	344	
290	5/8/2012 15:00	182	199	-17	620-BKGDS1A	344	
291	5/8/2012 15:00	195	199	-4	620-BKGDS1A	344	
292	5/8/2012 15:00	169	199	-30	620-BKGDS1A	344	
293	5/8/2012 15:00	218	199	19	620-BKGDS1A	344	
294	5/8/2012 15:00	220	199	21	620-BKGDS1A	344	
295	5/8/2012 15:01	207	199	8	620-BKGDS1A	344	
296	5/8/2012 15:01	258	199	59	620-BKGDS1A	344	
297	5/8/2012 15:01	227	199	28	620-BKGDS1A	344	
298	5/8/2012 15:01	276	199	77	620-BKGDS1A	344	
299	5/8/2012 15:01	216	199	17	620-BKGDS1A	344	
300	5/8/2012 15:01	226	199	27	620-BKGDS1A	344	
301	5/8/2012 15:01	75	199	-124	620-BKGDS1A	344	
302	5/8/2012 15:02	125	199	-74	620-BKGDS1A	344	
303	5/8/2012 15:02	139	199	-60	620-BKGDS1A	344	
304	5/8/2012 15:02	192	199	-7	620-BKGDS1A	344	
305	5/8/2012 15:02	195	199	-4	620-BKGDS1A	344	
306	5/8/2012 15:02	168	199	-31	620-BKGDS1A	344	
307	5/8/2012 15:02	216	199	17	620-BKGDS1A	344	
308	5/8/2012 15:02	218	199	19	620-BKGDS1A	344	
309	5/8/2012 15:02	215	199	16	620-BKGDS1A	344	
310	5/8/2012 15:03	195	199	-4	620-BKGDS1A	344	
311	5/8/2012 15:03	169	199	-30	620-BKGDS1A	344	
312	5/8/2012 15:03	245	199	46	620-BKGDS1A	344	
313	5/8/2012 15:03	222	199	23	620-BKGDS1A	344	
314	5/8/2012 15:03	191	199	-8	620-BKGDS1A	344	
315	5/8/2012 15:03	194	199	-5	620-BKGDS1A	344	
316	5/8/2012 15:03	264	199	65	620-BKGDS1A	344	
317	5/8/2012 15:03	221	199	22	620-BKGDS1A	344	
318	5/8/2012 15:03	221	199	22	620-BKGDS1A	344	
319	5/8/2012 15:04	187	199	-12	620-BKGDS1A	344	
320	5/8/2012 15:04	124	199	-75	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
321	5/8/2012 15:04	170	199	-29	620-BKGDS1A	344	
322	5/8/2012 15:04	205	199	6	620-BKGDS1A	344	
323	5/8/2012 15:04	235	199	36	620-BKGDS1A	344	
324	5/8/2012 15:04	200	199	1	620-BKGDS1A	344	
325	5/8/2012 15:04	158	199	-41	620-BKGDS1A	344	
326	5/8/2012 15:04	218	199	19	620-BKGDS1A	344	
327	5/8/2012 15:05	212	199	13	620-BKGDS1A	344	
328	5/8/2012 15:05	200	199	1	620-BKGDS1A	344	
329	5/8/2012 15:05	261	199	62	620-BKGDS1A	344	
330	5/8/2012 15:05	244	199	45	620-BKGDS1A	344	
331	5/8/2012 15:05	195	199	-4	620-BKGDS1A	344	
332	5/8/2012 15:05	139	199	-60	620-BKGDS1A	344	
333	5/8/2012 15:05	214	199	15	620-BKGDS1A	344	
334	5/8/2012 15:05	178	199	-21	620-BKGDS1A	344	
335	5/8/2012 15:05	167	199	-32	620-BKGDS1A	344	
336	5/8/2012 15:06	138	199	-61	620-BKGDS1A	344	
337	5/8/2012 15:06	175	199	-24	620-BKGDS1A	344	
338	5/8/2012 15:06	212	199	13	620-BKGDS1A	344	
339	5/8/2012 15:06	200	199	1	620-BKGDS1A	344	
340	5/8/2012 15:06	223	199	24	620-BKGDS1A	344	
341	5/8/2012 15:06	264	199	65	620-BKGDS1A	344	
342	5/8/2012 15:06	247	199	48	620-BKGDS1A	344	
343	5/8/2012 15:06	277	199	78	620-BKGDS1A	344	
344	5/8/2012 15:06	287	199	88	620-BKGDS1A	344	
345	5/8/2012 15:07	216	199	17	620-BKGDS1A	344	
346	5/8/2012 15:07	211	199	12	620-BKGDS1A	344	
347	5/8/2012 15:07	198	199	-1	620-BKGDS1A	344	
348	5/8/2012 15:07	162	199	-37	620-BKGDS1A	344	
349	5/8/2012 15:07	168	199	-31	620-BKGDS1A	344	
350	5/8/2012 15:07	132	199	-67	620-BKGDS1A	344	
351	5/8/2012 15:07	76	199	-123	620-BKGDS1A	344	
352	5/8/2012 15:08	79	199	-120	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
353	5/8/2012 15:08	155	199	-44	620-BKGDS1A	344	
354	5/8/2012 15:08	240	199	41	620-BKGDS1A	344	
355	5/8/2012 15:08	218	199	19	620-BKGDS1A	344	
356	5/8/2012 15:08	287	199	88	620-BKGDS1A	344	
357	5/8/2012 15:08	180	199	-19	620-BKGDS1A	344	
358	5/8/2012 15:08	237	199	38	620-BKGDS1A	344	
359	5/8/2012 15:08	193	199	-6	620-BKGDS1A	344	
360	5/8/2012 15:09	173	199	-26	620-BKGDS1A	344	
361	5/8/2012 15:09	219	199	20	620-BKGDS1A	344	
362	5/8/2012 15:09	187	199	-12	620-BKGDS1A	344	
363	5/8/2012 15:09	165	199	-34	620-BKGDS1A	344	
364	5/8/2012 15:09	190	199	-9	620-BKGDS1A	344	
365	5/8/2012 15:09	180	199	-19	620-BKGDS1A	344	
366	5/8/2012 15:09	172	199	-27	620-BKGDS1A	344	
367	5/8/2012 15:09	202	199	3	620-BKGDS1A	344	
368	5/8/2012 15:09	176	199	-23	620-BKGDS1A	344	
369	5/8/2012 15:10	198	199	-1	620-BKGDS1A	344	
370	5/8/2012 15:10	154	199	-45	620-BKGDS1A	344	
371	5/8/2012 15:10	168	199	-31	620-BKGDS1A	344	
372	5/8/2012 15:10	212	199	13	620-BKGDS1A	344	
373	5/8/2012 15:10	231	199	32	620-BKGDS1A	344	
374	5/8/2012 15:10	269	199	70	620-BKGDS1A	344	
375	5/8/2012 15:10	181	199	-18	620-BKGDS1A	344	
376	5/8/2012 15:10	161	199	-38	620-BKGDS1A	344	
377	5/8/2012 15:11	177	199	-22	620-BKGDS1A	344	
378	5/8/2012 15:11	183	199	-16	620-BKGDS1A	344	
379	5/8/2012 15:11	152	199	-47	620-BKGDS1A	344	
380	5/8/2012 15:11	162	199	-37	620-BKGDS1A	344	
381	5/8/2012 15:11	145	199	-54	620-BKGDS1A	344	
382	5/8/2012 15:11	156	199	-43	620-BKGDS1A	344	
383	5/8/2012 15:11	217	199	18	620-BKGDS1A	344	
384	5/8/2012 15:11	170	199	-29	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
385	5/8/2012 15:11	202	199	3	620-BKGDS1A	344	
386	5/8/2012 15:12	205	199	6	620-BKGDS1A	344	
387	5/8/2012 15:12	156	199	-43	620-BKGDS1A	344	
388	5/8/2012 15:12	163	199	-36	620-BKGDS1A	344	
389	5/8/2012 15:12	149	199	-50	620-BKGDS1A	344	
390	5/8/2012 15:12	180	199	-19	620-BKGDS1A	344	
391	5/8/2012 15:12	150	199	-49	620-BKGDS1A	344	
392	5/8/2012 15:12	165	199	-34	620-BKGDS1A	344	
393	5/8/2012 15:12	188	199	-11	620-BKGDS1A	344	
394	5/8/2012 15:13	228	199	29	620-BKGDS1A	344	
395	5/8/2012 15:13	227	199	28	620-BKGDS1A	344	
396	5/8/2012 15:13	228	199	29	620-BKGDS1A	344	
397	5/8/2012 15:13	228	199	29	620-BKGDS1A	344	
398	5/8/2012 15:13	190	199	-9	620-BKGDS1A	344	
399	5/8/2012 15:13	221	199	22	620-BKGDS1A	344	
400	5/8/2012 15:13	219	199	20	620-BKGDS1A	344	
401	5/9/2012 7:36	47	199	-152	620-BKGDS1A	344	
402	5/9/2012 7:36	96	199	-103	620-BKGDS1A	344	
403	5/9/2012 7:36	150	199	-49	620-BKGDS1A	344	
404	5/9/2012 7:36	167	199	-32	620-BKGDS1A	344	
405	5/9/2012 7:36	102	199	-97	620-BKGDS1A	344	
406	5/9/2012 7:37	110	199	-89	620-BKGDS1A	344	
407	5/9/2012 7:37	206	199	7	620-BKGDS1A	344	
408	5/9/2012 7:37	176	199	-23	620-BKGDS1A	344	
409	5/9/2012 7:37	184	199	-15	620-BKGDS1A	344	
410	5/9/2012 7:37	225	199	26	620-BKGDS1A	344	
411	5/9/2012 7:37	180	199	-19	620-BKGDS1A	344	
412	5/9/2012 7:37	189	199	-10	620-BKGDS1A	344	
413	5/9/2012 7:37	169	199	-30	620-BKGDS1A	344	
414	5/9/2012 7:37	200	199	1	620-BKGDS1A	344	
415	5/9/2012 7:38	167	199	-32	620-BKGDS1A	344	
416	5/9/2012 7:38	216	199	17	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
417	5/9/2012 7:38	249	199	50	620-BKGDS1A	344	
418	5/9/2012 7:38	241	199	42	620-BKGDS1A	344	
419	5/9/2012 7:38	221	199	22	620-BKGDS1A	344	
420	5/9/2012 7:38	231	199	32	620-BKGDS1A	344	
421	5/9/2012 7:38	231	199	32	620-BKGDS1A	344	
422	5/9/2012 7:38	270	199	71	620-BKGDS1A	344	
423	5/9/2012 7:39	251	199	52	620-BKGDS1A	344	
424	5/9/2012 7:39	252	199	53	620-BKGDS1A	344	
425	5/9/2012 7:39	202	199	3	620-BKGDS1A	344	
426	5/9/2012 7:39	244	199	45	620-BKGDS1A	344	
427	5/9/2012 7:39	228	199	29	620-BKGDS1A	344	
428	5/9/2012 7:39	196	199	-3	620-BKGDS1A	344	
429	5/9/2012 7:39	184	199	-15	620-BKGDS1A	344	
430	5/9/2012 7:39	224	199	25	620-BKGDS1A	344	
431	5/9/2012 7:39	249	199	50	620-BKGDS1A	344	
432	5/9/2012 7:40	214	199	15	620-BKGDS1A	344	
433	5/9/2012 7:40	189	199	-10	620-BKGDS1A	344	
434	5/9/2012 7:40	222	199	23	620-BKGDS1A	344	
435	5/9/2012 7:40	259	199	60	620-BKGDS1A	344	
436	5/9/2012 7:40	255	199	56	620-BKGDS1A	344	
437	5/9/2012 7:40	233	199	34	620-BKGDS1A	344	
438	5/9/2012 7:40	209	199	10	620-BKGDS1A	344	
439	5/9/2012 7:40	223	199	24	620-BKGDS1A	344	
440	5/9/2012 7:41	255	199	56	620-BKGDS1A	344	
441	5/9/2012 7:41	197	199	-2	620-BKGDS1A	344	
442	5/9/2012 7:41	229	199	30	620-BKGDS1A	344	
443	5/9/2012 7:41	285	199	86	620-BKGDS1A	344	
444	5/9/2012 7:41	238	199	39	620-BKGDS1A	344	
445	5/9/2012 7:41	178	199	-21	620-BKGDS1A	344	
446	5/9/2012 7:41	164	199	-35	620-BKGDS1A	344	
447	5/9/2012 7:41	183	199	-16	620-BKGDS1A	344	
448	5/9/2012 7:41	211	199	12	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
449	5/9/2012 7:42	195	199	-4	620-BKGDS1A	344	
450	5/9/2012 7:42	212	199	13	620-BKGDS1A	344	
451	5/9/2012 7:42	114	199	-85	620-BKGDS1A	344	
452	5/9/2012 7:42	191	199	-8	620-BKGDS1A	344	
453	5/9/2012 7:42	170	199	-29	620-BKGDS1A	344	
454	5/9/2012 7:42	155	199	-44	620-BKGDS1A	344	
455	5/9/2012 7:43	142	199	-57	620-BKGDS1A	344	
456	5/9/2012 7:43	208	199	9	620-BKGDS1A	344	
457	5/9/2012 7:43	174	199	-25	620-BKGDS1A	344	
458	5/9/2012 7:43	181	199	-18	620-BKGDS1A	344	
459	5/9/2012 7:43	172	199	-27	620-BKGDS1A	344	
460	5/9/2012 7:43	246	199	47	620-BKGDS1A	344	
461	5/9/2012 7:43	184	199	-15	620-BKGDS1A	344	
462	5/9/2012 7:43	245	199	46	620-BKGDS1A	344	
463	5/9/2012 7:44	229	199	30	620-BKGDS1A	344	
464	5/9/2012 7:44	183	199	-16	620-BKGDS1A	344	
465	5/9/2012 7:44	205	199	6	620-BKGDS1A	344	
466	5/9/2012 7:44	147	199	-52	620-BKGDS1A	344	
467	5/9/2012 7:44	178	199	-21	620-BKGDS1A	344	
468	5/9/2012 7:44	286	199	87	620-BKGDS1A	344	
469	5/9/2012 7:44	209	199	10	620-BKGDS1A	344	
470	5/9/2012 7:44	242	199	43	620-BKGDS1A	344	
471	5/9/2012 7:44	232	199	33	620-BKGDS1A	344	
472	5/9/2012 7:45	232	199	33	620-BKGDS1A	344	
473	5/9/2012 7:45	207	199	8	620-BKGDS1A	344	
474	5/9/2012 7:45	192	199	-7	620-BKGDS1A	344	
475	5/9/2012 7:45	214	199	15	620-BKGDS1A	344	
476	5/9/2012 7:45	222	199	23	620-BKGDS1A	344	
477	5/9/2012 7:45	196	199	-3	620-BKGDS1A	344	
478	5/9/2012 7:45	219	199	20	620-BKGDS1A	344	
479	5/9/2012 7:45	166	199	-33	620-BKGDS1A	344	
480	5/9/2012 7:46	170	199	-29	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
481	5/9/2012 7:46	165	199	-34	620-BKGDS1A	344	
482	5/9/2012 7:46	173	199	-26	620-BKGDS1A	344	
483	5/9/2012 7:46	177	199	-22	620-BKGDS1A	344	
484	5/9/2012 7:46	218	199	19	620-BKGDS1A	344	
485	5/9/2012 7:46	215	199	16	620-BKGDS1A	344	
486	5/9/2012 7:46	210	199	11	620-BKGDS1A	344	
487	5/9/2012 7:46	180	199	-19	620-BKGDS1A	344	
488	5/9/2012 7:46	235	199	36	620-BKGDS1A	344	
489	5/9/2012 7:47	243	199	44	620-BKGDS1A	344	
490	5/9/2012 7:47	141	199	-58	620-BKGDS1A	344	
491	5/9/2012 7:47	165	199	-34	620-BKGDS1A	344	
492	5/9/2012 7:47	173	199	-26	620-BKGDS1A	344	
493	5/9/2012 7:47	184	199	-15	620-BKGDS1A	344	
494	5/9/2012 7:47	207	199	8	620-BKGDS1A	344	
495	5/9/2012 7:47	204	199	5	620-BKGDS1A	344	
496	5/9/2012 7:47	145	199	-54	620-BKGDS1A	344	
497	5/9/2012 7:47	150	199	-49	620-BKGDS1A	344	
498	5/9/2012 7:48	209	199	10	620-BKGDS1A	344	
499	5/9/2012 7:48	217	199	18	620-BKGDS1A	344	
500	5/9/2012 7:48	203	199	4	620-BKGDS1A	344	
501	5/9/2012 7:48	91	199	-108	620-BKGDS1A	344	
502	5/9/2012 7:48	152	199	-47	620-BKGDS1A	344	
503	5/9/2012 7:48	155	199	-44	620-BKGDS1A	344	
504	5/9/2012 7:49	253	199	54	620-BKGDS1A	344	
505	5/9/2012 7:49	239	199	40	620-BKGDS1A	344	
506	5/9/2012 7:49	225	199	26	620-BKGDS1A	344	
507	5/9/2012 7:49	215	199	16	620-BKGDS1A	344	
508	5/9/2012 7:49	207	199	8	620-BKGDS1A	344	
509	5/9/2012 7:49	287	199	88	620-BKGDS1A	344	
510	5/9/2012 7:49	237	199	38	620-BKGDS1A	344	
511	5/9/2012 7:49	178	199	-21	620-BKGDS1A	344	
512	5/9/2012 7:49	121	199	-78	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
513	5/9/2012 7:50	144	199	-55	620-BKGDS1A	344	
514	5/9/2012 7:50	169	199	-30	620-BKGDS1A	344	
515	5/9/2012 7:50	175	199	-24	620-BKGDS1A	344	
516	5/9/2012 7:50	210	199	11	620-BKGDS1A	344	
517	5/9/2012 7:50	227	199	28	620-BKGDS1A	344	
518	5/9/2012 7:50	209	199	10	620-BKGDS1A	344	
519	5/9/2012 7:50	182	199	-17	620-BKGDS1A	344	
520	5/9/2012 7:50	188	199	-11	620-BKGDS1A	344	
521	5/9/2012 7:51	229	199	30	620-BKGDS1A	344	
522	5/9/2012 7:51	223	199	24	620-BKGDS1A	344	
523	5/9/2012 7:51	245	199	46	620-BKGDS1A	344	
524	5/9/2012 7:51	270	199	71	620-BKGDS1A	344	
525	5/9/2012 7:51	239	199	40	620-BKGDS1A	344	
526	5/9/2012 7:51	297	199	98	620-BKGDS1A	344	
527	5/9/2012 7:51	204	199	5	620-BKGDS1A	344	
528	5/9/2012 7:51	207	199	8	620-BKGDS1A	344	
529	5/9/2012 7:51	272	199	73	620-BKGDS1A	344	
530	5/9/2012 7:52	289	199	90	620-BKGDS1A	344	
531	5/9/2012 7:52	299	199	100	620-BKGDS1A	344	
532	5/9/2012 7:52	276	199	77	620-BKGDS1A	344	
533	5/9/2012 7:52	242	199	43	620-BKGDS1A	344	
534	5/9/2012 7:52	219	199	20	620-BKGDS1A	344	
535	5/9/2012 7:52	215	199	16	620-BKGDS1A	344	
536	5/9/2012 7:52	202	199	3	620-BKGDS1A	344	
537	5/9/2012 7:52	204	199	5	620-BKGDS1A	344	
538	5/9/2012 7:52	204	199	5	620-BKGDS1A	344	
539	5/9/2012 7:53	148	199	-51	620-BKGDS1A	344	
540	5/9/2012 7:53	175	199	-24	620-BKGDS1A	344	
541	5/9/2012 7:53	124	199	-75	620-BKGDS1A	344	
542	5/9/2012 7:53	181	199	-18	620-BKGDS1A	344	
543	5/9/2012 7:53	183	199	-16	620-BKGDS1A	344	
544	5/9/2012 7:53	258	199	59	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
545	5/9/2012 7:53	225	199	26	620-BKGDS1A	344	
546	5/9/2012 7:53	192	199	-7	620-BKGDS1A	344	
547	5/9/2012 7:54	136	199	-63	620-BKGDS1A	344	
548	5/9/2012 7:54	163	199	-36	620-BKGDS1A	344	
549	5/9/2012 7:54	137	199	-62	620-BKGDS1A	344	
550	5/9/2012 7:54	172	199	-27	620-BKGDS1A	344	
551	5/9/2012 7:54	122	199	-77	620-BKGDS1A	344	
552	5/9/2012 7:54	181	199	-18	620-BKGDS1A	344	
553	5/9/2012 7:55	215	199	16	620-BKGDS1A	344	
554	5/9/2012 7:55	208	199	9	620-BKGDS1A	344	
555	5/9/2012 7:55	158	199	-41	620-BKGDS1A	344	
556	5/9/2012 7:55	140	199	-59	620-BKGDS1A	344	
557	5/9/2012 7:55	130	199	-69	620-BKGDS1A	344	
558	5/9/2012 7:55	105	199	-94	620-BKGDS1A	344	
559	5/9/2012 7:55	219	199	20	620-BKGDS1A	344	
560	5/9/2012 7:55	190	199	-9	620-BKGDS1A	344	
561	5/9/2012 7:55	138	199	-61	620-BKGDS1A	344	
562	5/9/2012 7:56	163	199	-36	620-BKGDS1A	344	
563	5/9/2012 7:56	221	199	22	620-BKGDS1A	344	
564	5/9/2012 7:56	203	199	4	620-BKGDS1A	344	
565	5/9/2012 7:56	186	199	-13	620-BKGDS1A	344	
566	5/9/2012 7:56	217	199	18	620-BKGDS1A	344	
567	5/9/2012 7:56	220	199	21	620-BKGDS1A	344	
568	5/9/2012 7:56	171	199	-28	620-BKGDS1A	344	
569	5/9/2012 7:56	191	199	-8	620-BKGDS1A	344	
570	5/9/2012 7:57	225	199	26	620-BKGDS1A	344	
571	5/9/2012 7:57	255	199	56	620-BKGDS1A	344	
572	5/9/2012 7:57	263	199	64	620-BKGDS1A	344	
573	5/9/2012 7:57	238	199	39	620-BKGDS1A	344	
574	5/9/2012 7:57	207	199	8	620-BKGDS1A	344	
575	5/9/2012 7:57	246	199	47	620-BKGDS1A	344	
576	5/9/2012 7:57	214	199	15	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
577	5/9/2012 7:57	174	199	-25	620-BKGDS1A	344	
578	5/9/2012 7:57	170	199	-29	620-BKGDS1A	344	
579	5/9/2012 7:58	175	199	-24	620-BKGDS1A	344	
580	5/9/2012 7:58	184	199	-15	620-BKGDS1A	344	
581	5/9/2012 7:58	197	199	-2	620-BKGDS1A	344	
582	5/9/2012 7:58	195	199	-4	620-BKGDS1A	344	
583	5/9/2012 7:58	226	199	27	620-BKGDS1A	344	
584	5/9/2012 7:58	224	199	25	620-BKGDS1A	344	
585	5/9/2012 7:58	195	199	-4	620-BKGDS1A	344	
586	5/9/2012 7:58	168	199	-31	620-BKGDS1A	344	
587	5/9/2012 7:59	204	199	5	620-BKGDS1A	344	
588	5/9/2012 7:59	208	199	9	620-BKGDS1A	344	
589	5/9/2012 7:59	193	199	-6	620-BKGDS1A	344	
590	5/9/2012 7:59	140	199	-59	620-BKGDS1A	344	
591	5/9/2012 7:59	194	199	-5	620-BKGDS1A	344	
592	5/9/2012 7:59	189	199	-10	620-BKGDS1A	344	
593	5/9/2012 7:59	184	199	-15	620-BKGDS1A	344	
594	5/9/2012 7:59	169	199	-30	620-BKGDS1A	344	
595	5/9/2012 7:59	211	199	12	620-BKGDS1A	344	
596	5/9/2012 8:00	180	199	-19	620-BKGDS1A	344	
597	5/9/2012 8:00	177	199	-22	620-BKGDS1A	344	
598	5/9/2012 8:00	177	199	-22	620-BKGDS1A	344	
599	5/9/2012 8:00	215	199	16	620-BKGDS1A	344	
600	5/9/2012 8:00	232	199	33	620-BKGDS1A	344	
601	5/9/2012 8:00	114	199	-85	620-BKGDS1A	344	
602	5/9/2012 8:01	171	199	-28	620-BKGDS1A	344	
603	5/9/2012 8:01	178	199	-21	620-BKGDS1A	344	
604	5/9/2012 8:01	151	199	-48	620-BKGDS1A	344	
605	5/9/2012 8:01	189	199	-10	620-BKGDS1A	344	
606	5/9/2012 8:01	193	199	-6	620-BKGDS1A	344	
607	5/9/2012 8:01	178	199	-21	620-BKGDS1A	344	
608	5/9/2012 8:01	231	199	32	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
609	5/9/2012 8:01	236	199	37	620-BKGDS1A	344	
610	5/9/2012 8:01	227	199	28	620-BKGDS1A	344	
611	5/9/2012 8:02	180	199	-19	620-BKGDS1A	344	
612	5/9/2012 8:02	181	199	-18	620-BKGDS1A	344	
613	5/9/2012 8:02	211	199	12	620-BKGDS1A	344	
614	5/9/2012 8:02	187	199	-12	620-BKGDS1A	344	
615	5/9/2012 8:02	256	199	57	620-BKGDS1A	344	
616	5/9/2012 8:02	168	199	-31	620-BKGDS1A	344	
617	5/9/2012 8:02	134	199	-65	620-BKGDS1A	344	
618	5/9/2012 8:02	221	199	22	620-BKGDS1A	344	
619	5/9/2012 8:03	234	199	35	620-BKGDS1A	344	
620	5/9/2012 8:03	231	199	32	620-BKGDS1A	344	
621	5/9/2012 8:03	190	199	-9	620-BKGDS1A	344	
622	5/9/2012 8:03	179	199	-20	620-BKGDS1A	344	
623	5/9/2012 8:03	153	199	-46	620-BKGDS1A	344	
624	5/9/2012 8:03	191	199	-8	620-BKGDS1A	344	
625	5/9/2012 8:03	175	199	-24	620-BKGDS1A	344	
626	5/9/2012 8:03	149	199	-50	620-BKGDS1A	344	
627	5/9/2012 8:03	205	199	6	620-BKGDS1A	344	
628	5/9/2012 8:04	238	199	39	620-BKGDS1A	344	
629	5/9/2012 8:04	225	199	26	620-BKGDS1A	344	
630	5/9/2012 8:04	210	199	11	620-BKGDS1A	344	
631	5/9/2012 8:04	197	199	-2	620-BKGDS1A	344	
632	5/9/2012 8:04	170	199	-29	620-BKGDS1A	344	
633	5/9/2012 8:04	230	199	31	620-BKGDS1A	344	
634	5/9/2012 8:04	227	199	28	620-BKGDS1A	344	
635	5/9/2012 8:04	195	199	-4	620-BKGDS1A	344	
636	5/9/2012 8:05	202	199	3	620-BKGDS1A	344	
637	5/9/2012 8:05	212	199	13	620-BKGDS1A	344	
638	5/9/2012 8:05	164	199	-35	620-BKGDS1A	344	
639	5/9/2012 8:05	146	199	-53	620-BKGDS1A	344	
640	5/9/2012 8:05	207	199	8	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
641	5/9/2012 8:05	197	199	-2	620-BKGDS1A	344	
642	5/9/2012 8:05	191	199	-8	620-BKGDS1A	344	
643	5/9/2012 8:05	180	199	-19	620-BKGDS1A	344	
644	5/9/2012 8:05	215	199	16	620-BKGDS1A	344	
645	5/9/2012 8:06	151	199	-48	620-BKGDS1A	344	
646	5/9/2012 8:06	193	199	-6	620-BKGDS1A	344	
647	5/9/2012 8:06	288	199	89	620-BKGDS1A	344	
648	5/9/2012 8:06	237	199	38	620-BKGDS1A	344	
649	5/9/2012 8:06	255	199	56	620-BKGDS1A	344	
650	5/9/2012 8:06	272	199	73	620-BKGDS1A	344	
651	5/9/2012 8:07	110	199	-89	620-BKGDS1A	344	
652	5/9/2012 8:07	114	199	-85	620-BKGDS1A	344	
653	5/9/2012 8:07	158	199	-41	620-BKGDS1A	344	
654	5/9/2012 8:07	131	199	-68	620-BKGDS1A	344	
655	5/9/2012 8:07	172	199	-27	620-BKGDS1A	344	
656	5/9/2012 8:07	188	199	-11	620-BKGDS1A	344	
657	5/9/2012 8:07	252	199	53	620-BKGDS1A	344	
658	5/9/2012 8:08	177	199	-22	620-BKGDS1A	344	
659	5/9/2012 8:08	186	199	-13	620-BKGDS1A	344	
660	5/9/2012 8:08	178	199	-21	620-BKGDS1A	344	
661	5/9/2012 8:08	188	199	-11	620-BKGDS1A	344	
662	5/9/2012 8:08	164	199	-35	620-BKGDS1A	344	
663	5/9/2012 8:08	153	199	-46	620-BKGDS1A	344	
664	5/9/2012 8:08	202	199	3	620-BKGDS1A	344	
665	5/9/2012 8:08	207	199	8	620-BKGDS1A	344	
666	5/9/2012 8:09	218	199	19	620-BKGDS1A	344	
667	5/9/2012 8:09	215	199	16	620-BKGDS1A	344	
668	5/9/2012 8:09	199	199	0	620-BKGDS1A	344	
669	5/9/2012 8:09	211	199	12	620-BKGDS1A	344	
670	5/9/2012 8:09	174	199	-25	620-BKGDS1A	344	
671	5/9/2012 8:09	162	199	-37	620-BKGDS1A	344	
672	5/9/2012 8:09	221	199	22	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
673	5/9/2012 8:09	213	199	14	620-BKGDS1A	344	
674	5/9/2012 8:09	203	199	4	620-BKGDS1A	344	
675	5/9/2012 8:10	164	199	-35	620-BKGDS1A	344	
676	5/9/2012 8:10	223	199	24	620-BKGDS1A	344	
677	5/9/2012 8:10	176	199	-23	620-BKGDS1A	344	
678	5/9/2012 8:10	202	199	3	620-BKGDS1A	344	
679	5/9/2012 8:10	143	199	-56	620-BKGDS1A	344	
680	5/9/2012 8:10	153	199	-46	620-BKGDS1A	344	
681	5/9/2012 8:10	152	199	-47	620-BKGDS1A	344	
682	5/9/2012 8:10	203	199	4	620-BKGDS1A	344	
683	5/9/2012 8:10	227	199	28	620-BKGDS1A	344	
684	5/9/2012 8:11	231	199	32	620-BKGDS1A	344	
685	5/9/2012 8:11	226	199	27	620-BKGDS1A	344	
686	5/9/2012 8:11	247	199	48	620-BKGDS1A	344	
687	5/9/2012 8:11	217	199	18	620-BKGDS1A	344	
688	5/9/2012 8:11	169	199	-30	620-BKGDS1A	344	
689	5/9/2012 8:11	188	199	-11	620-BKGDS1A	344	
690	5/9/2012 8:11	165	199	-34	620-BKGDS1A	344	
691	5/9/2012 8:11	183	199	-16	620-BKGDS1A	344	
692	5/9/2012 8:12	196	199	-3	620-BKGDS1A	344	
693	5/9/2012 8:12	202	199	3	620-BKGDS1A	344	
694	5/9/2012 8:12	216	199	17	620-BKGDS1A	344	
695	5/9/2012 8:12	145	199	-54	620-BKGDS1A	344	
696	5/9/2012 8:12	170	199	-29	620-BKGDS1A	344	
697	5/9/2012 8:12	119	199	-80	620-BKGDS1A	344	
698	5/9/2012 8:12	154	199	-45	620-BKGDS1A	344	
699	5/9/2012 8:12	166	199	-33	620-BKGDS1A	344	
700	5/9/2012 8:12	201	199	2	620-BKGDS1A	344	
701	5/9/2012 8:13	132	199	-67	620-BKGDS1A	344	
702	5/9/2012 8:13	111	199	-88	620-BKGDS1A	344	
703	5/9/2012 8:13	169	199	-30	620-BKGDS1A	344	
704	5/9/2012 8:13	181	199	-18	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
705	5/9/2012 8:13	151	199	-48	620-BKGDS1A	344	
706	5/9/2012 8:13	170	199	-29	620-BKGDS1A	344	
707	5/9/2012 8:14	124	199	-75	620-BKGDS1A	344	
708	5/9/2012 8:14	168	199	-31	620-BKGDS1A	344	
709	5/9/2012 8:14	156	199	-43	620-BKGDS1A	344	
710	5/9/2012 8:14	161	199	-38	620-BKGDS1A	344	
711	5/9/2012 8:14	233	199	34	620-BKGDS1A	344	
712	5/9/2012 8:14	203	199	4	620-BKGDS1A	344	
713	5/9/2012 8:14	225	199	26	620-BKGDS1A	344	
714	5/9/2012 8:14	192	199	-7	620-BKGDS1A	344	
715	5/9/2012 8:15	113	199	-86	620-BKGDS1A	344	
716	5/9/2012 8:15	216	199	17	620-BKGDS1A	344	
717	5/9/2012 8:15	195	199	-4	620-BKGDS1A	344	
718	5/9/2012 8:15	158	199	-41	620-BKGDS1A	344	
719	5/9/2012 8:15	185	199	-14	620-BKGDS1A	344	
720	5/9/2012 8:15	161	199	-38	620-BKGDS1A	344	
721	5/9/2012 8:15	204	199	5	620-BKGDS1A	344	
722	5/9/2012 8:15	202	199	3	620-BKGDS1A	344	
723	5/9/2012 8:15	193	199	-6	620-BKGDS1A	344	
724	5/9/2012 8:16	193	199	-6	620-BKGDS1A	344	
725	5/9/2012 8:16	163	199	-36	620-BKGDS1A	344	
726	5/9/2012 8:16	169	199	-30	620-BKGDS1A	344	
727	5/9/2012 8:16	202	199	3	620-BKGDS1A	344	
728	5/9/2012 8:16	189	199	-10	620-BKGDS1A	344	
729	5/9/2012 8:16	229	199	30	620-BKGDS1A	344	
730	5/9/2012 8:16	211	199	12	620-BKGDS1A	344	
731	5/9/2012 8:16	264	199	65	620-BKGDS1A	344	
732	5/9/2012 8:16	229	199	30	620-BKGDS1A	344	
733	5/9/2012 8:17	254	199	55	620-BKGDS1A	344	
734	5/9/2012 8:17	233	199	34	620-BKGDS1A	344	
735	5/9/2012 8:17	182	199	-17	620-BKGDS1A	344	
736	5/9/2012 8:17	201	199	2	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
737	5/9/2012 8:17	253	199	54	620-BKGDS1A	344	
738	5/9/2012 8:17	243	199	44	620-BKGDS1A	344	
739	5/9/2012 8:17	221	199	22	620-BKGDS1A	344	
740	5/9/2012 8:17	281	199	82	620-BKGDS1A	344	
741	5/9/2012 8:18	212	199	13	620-BKGDS1A	344	
742	5/9/2012 8:18	225	199	26	620-BKGDS1A	344	
743	5/9/2012 8:18	208	199	9	620-BKGDS1A	344	
744	5/9/2012 8:18	205	199	6	620-BKGDS1A	344	
745	5/9/2012 8:18	186	199	-13	620-BKGDS1A	344	
746	5/9/2012 8:18	182	199	-17	620-BKGDS1A	344	
747	5/9/2012 8:18	192	199	-7	620-BKGDS1A	344	
748	5/9/2012 8:18	184	199	-15	620-BKGDS1A	344	
749	5/9/2012 8:18	194	199	-5	620-BKGDS1A	344	
750	5/9/2012 8:19	239	199	40	620-BKGDS1A	344	
751	5/9/2012 8:19	109	199	-90	620-BKGDS1A	344	
752	5/9/2012 8:19	226	199	27	620-BKGDS1A	344	
753	5/9/2012 8:19	205	199	6	620-BKGDS1A	344	
754	5/9/2012 8:19	227	199	28	620-BKGDS1A	344	
755	5/9/2012 8:19	247	199	48	620-BKGDS1A	344	
756	5/9/2012 8:20	248	199	49	620-BKGDS1A	344	
757	5/9/2012 8:20	179	199	-20	620-BKGDS1A	344	
758	5/9/2012 8:20	194	199	-5	620-BKGDS1A	344	
759	5/9/2012 8:20	169	199	-30	620-BKGDS1A	344	
760	5/9/2012 8:20	161	199	-38	620-BKGDS1A	344	
761	5/9/2012 8:20	177	199	-22	620-BKGDS1A	344	
762	5/9/2012 8:20	204	199	5	620-BKGDS1A	344	
763	5/9/2012 8:20	200	199	1	620-BKGDS1A	344	
764	5/9/2012 8:21	216	199	17	620-BKGDS1A	344	
765	5/9/2012 8:21	177	199	-22	620-BKGDS1A	344	
766	5/9/2012 8:21	219	199	20	620-BKGDS1A	344	
767	5/9/2012 8:21	200	199	1	620-BKGDS1A	344	
768	5/9/2012 8:21	200	199	1	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
769	5/9/2012 8:21	233	199	34	620-BKGDS1A	344	
770	5/9/2012 8:21	255	199	56	620-BKGDS1A	344	
771	5/9/2012 8:21	229	199	30	620-BKGDS1A	344	
772	5/9/2012 8:21	182	199	-17	620-BKGDS1A	344	
773	5/9/2012 8:22	169	199	-30	620-BKGDS1A	344	
774	5/9/2012 8:22	165	199	-34	620-BKGDS1A	344	
775	5/9/2012 8:22	142	199	-57	620-BKGDS1A	344	
776	5/9/2012 8:22	176	199	-23	620-BKGDS1A	344	
777	5/9/2012 8:22	189	199	-10	620-BKGDS1A	344	
778	5/9/2012 8:22	143	199	-56	620-BKGDS1A	344	
779	5/9/2012 8:22	157	199	-42	620-BKGDS1A	344	
780	5/9/2012 8:22	142	199	-57	620-BKGDS1A	344	
781	5/9/2012 8:23	150	199	-49	620-BKGDS1A	344	
782	5/9/2012 8:23	219	199	20	620-BKGDS1A	344	
783	5/9/2012 8:23	300	199	101	620-BKGDS1A	344	
784	5/9/2012 8:23	229	199	30	620-BKGDS1A	344	
785	5/9/2012 8:23	255	199	56	620-BKGDS1A	344	
786	5/9/2012 8:23	192	199	-7	620-BKGDS1A	344	
787	5/9/2012 8:23	242	199	43	620-BKGDS1A	344	
788	5/9/2012 8:23	298	199	99	620-BKGDS1A	344	
789	5/9/2012 8:23	235	199	36	620-BKGDS1A	344	
790	5/9/2012 8:24	248	199	49	620-BKGDS1A	344	
791	5/9/2012 8:24	226	199	27	620-BKGDS1A	344	
792	5/9/2012 8:24	212	199	13	620-BKGDS1A	344	
793	5/9/2012 8:24	240	199	41	620-BKGDS1A	344	
794	5/9/2012 8:24	195	199	-4	620-BKGDS1A	344	
795	5/9/2012 8:24	226	199	27	620-BKGDS1A	344	
796	5/9/2012 8:24	238	199	39	620-BKGDS1A	344	
797	5/9/2012 8:24	225	199	26	620-BKGDS1A	344	
798	5/9/2012 8:25	213	199	14	620-BKGDS1A	344	
799	5/9/2012 8:25	202	199	3	620-BKGDS1A	344	
800	5/9/2012 8:25	203	199	4	620-BKGDS1A	344	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -153
Avg: -3
Max: 101
St Dev: 39

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m^2

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228694 Probe Serial #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	168
2	10/13/2011 15:13	176
3	10/13/2011 15:14	169
4	10/13/2011 15:15	178
5	10/13/2011 15:16	162
6	10/13/2011 15:17	168
7	10/13/2011 15:19	198
8	10/13/2011 15:20	190
9	10/13/2011 15:21	169
10	10/13/2011 15:22	282
11	10/13/2011 15:23	192
12	10/13/2011 15:25	230
13	10/13/2011 15:26	196
14	10/13/2011 15:27	165
15	10/13/2011 15:28	291
16	10/13/2011 15:30	147
17	10/13/2011 15:31	166
18	10/13/2011 15:32	168
19	10/13/2011 15:33	290
20	10/13/2011 15:35	284

Gamma Mean Background (cpm): 199

Standard Deviation: 48

Gamma 3σ Investigation Level (cpm): 344

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499		
Instrument Calibration Due Date:	1/15/2013	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	6/22/2012	6	Collected at Surface 0" depth
2	6/29/2012	5	
3	7/31/2012	5	
4	7/31/2012	5	
5	7/31/2012	5	
6	7/31/2012	5	
7	7/31/2012	5	
8	7/31/2012	6	
9	7/31/2012	5	
10	7/31/2012	5	
11	7/31/2012	5	
12	7/31/2012	5	
13	7/31/2012	5	
14	7/31/2012	5	
15	7/31/2012	5	
16	7/31/2012	5	
17	7/31/2012	5	
18	7/31/2012	5	
19	7/31/2012	5	
20	7/31/2012	5	
21	7/31/2012	5	
22	7/31/2012	6	
23	7/31/2012	6	
24	7/31/2012	6	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Exposure Rate Summary (µR/hr)	Min:	5.00
	Avg:	5.21
	Max:	6.00
	St Dev:	0.41

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02485

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [redacted]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0023-F001-01	6/22/2012	0920	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr	Surface 0" depth	[redacted]
03707-S0023-F001-02	6/22/2012	0925	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr	Wall 12" depth	[redacted]
03707-S0023-F001-03	6/22/2012	0930	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr	Bottom 24" depth	[redacted]

Relinquished by: (signature) J. Rolfe	Date 6-22-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1030	Company C&T	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOLER/SEAL:
Company	Time	Company	

SAMPLING COMMENTS
707-S0023
Characterization

ED_004747_00010904-00233

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

237562

Chain-of-Custody Record

BFS 02492

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	
Project Location: HUNTERS POINT	Project Number: 4044-0007				
Sampler Name: RZohensky	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0023-F002-01	6/29/2012	1310	1		S		☑	☑	☐	On-Site Gamma & Off-Site Total Sr	for 707-SU22-SP33	

Relinquished by: (signature) RZohensky	Date 6.29.12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS: 707-S0023 Post remediation
Company RSRS	Time 15:30	Company CIT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

238359
BFS 02522

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [illegible]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0023-F003-01	7/31/2012	0800	1		S		☑	☐	☐			
03707-S0023-F004-01	7/31/2012	0805	1		S		☑	☐	☐			

Relinquished by: (signature)	Date	Received by: (signature)
Company: RSRS	Time: 1256	Company: C&T
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS:

COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS:
707-S0023
Biased

ED_004747_00010904-00235

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

238360
BFS 02523

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. Rolfe	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	I	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0023-F005-01	7/31/2012	0810	1		S		☑	☐	☐			
03707-S0023-F006-01	7/31/2012	0815	1		S		☑	☐	☐			
03707-S0023-F007-01	7/31/2012	0820	1		S		☑	☐	☐			
03707-S0023-F008-01	7/31/2012	0825	1		S		☑	☐	☐			
03707-S0023-F009-01	7/31/2012	0830	1		S		☑	☐	☐			
03707-S0023-F010-01	7/31/2012	0835	1		S		☑	☐	☐			
03707-S0023-F011-01	7/31/2012	0840	1		S		☑	☐	☐			
03707-S0023-F012-01	7/31/2012	0845	1		S		☑	☐	☐			
03707-S0023-F013-01	7/31/2012	0850	1		S		☑	☐	☐			
03707-S0023-F014-01	7/31/2012	0920	1		S		☑	☐	☐			
03707-S0023-F015-01	7/31/2012	0925	1		S		☑	☐	☐			
03707-S0023-F016-01	7/31/2012	0930	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 7-31-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1256	*Company* CAT	SAMPLING COMMENTS: 707-S0023 Systematic
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

ED_004747_00010904-00236

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

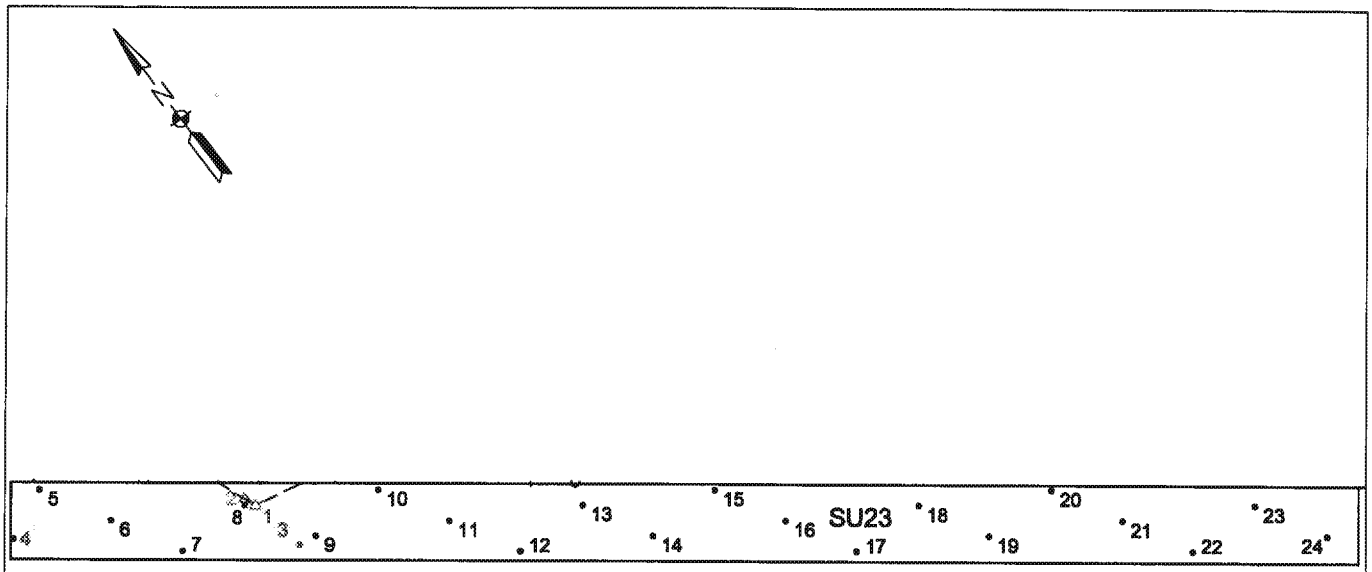
238361
BFS 02524

Project Name: Radiological Site Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
03707-S0023-F017-01	7/31/2012	0935	1		S		☑	☐	☐			
03707-S0023-F018-01	7/31/2012	0940	1		S		☑	☐	☐			
03707-S0023-F019-01	7/31/2012	0945	1		S		☑	☐	☐			
03707-S0023-F020-01	7/31/2012	0950	1		S		☑	☐	☐	DUP		
03707-S0023-F021-01	7/31/2012	0955	1		S		☑	☐	☐			
03707-S0023-F022-01	7/31/2012	1000	1		S		☑	☐	☐			
03707-S0023-F023-01	7/31/2012	1005	1		S		☑	☐	☐			
03707-S0023-F024-01	7/31/2012	1010	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	Date 7-31-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	Time 1256	Company C&T	SAMPLING COMMENTS: 707 S0023 Systematic
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00237



SU23

LEGEND:

△ 1	CHARACTERIZATION 1 SAMPLE 1
△ 2	POST REMEDIATION 1 SAMPLE 2
⊠ 3	BIASED SAMPLES 3–4
• 5	SYSTEMATIC 1 SAMPLES 5–24
– – – – – –	PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:40

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG
PLOT/UPDATE: OCT 18 2012 14:34:57

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

BUILDING 707
SURVEY UNIT 23

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: June 22, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 2; no activity above the release criteria was identified.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 23. A total of six pothole characterization gamma static measurements were logged with maximum measurements of 223 cpm (FIDLER) and 5,548 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team performed investigative survey activities for the tennis court area. A total of 10 biased gamma static measurements were logged with a maximum measurement of 6,272 cpm. A total of 1,100 alpha/beta scan readings and 10 alpha/beta static measurements were also logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limit. In addition, 10 swipe samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 5 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 7,076 cpm. In addition, 41 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Units 15 and 19; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were completed for Trench Unit No. 246 by the HPNS Team.
- The RSOR provided the HPNS Team with survey results for the pipe sections removed from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U and detailed in Survey No. HPS-PEPIPE-061912-053. Because no activity above the release criteria was identified, these 11 pipe sections were released and transferred to the recycling stockpiles.
- The RSOR provided the HPNS Team with survey results for the pipe located in trench segments 07-E36-38-1F, 07-E36-38-8E, and 07-E36-38-8F and detailed in Survey No. HPS-PEPIPE-061912-052. No activity above the release criteria was identified. These pipes will remain in place due to their proximity to Building 606 and the active SFPD sewer and telecommunication lines.
- The RSOR provided the HPNS Team with survey results for the Trench Unit No. 308 concrete pipe bedding debris removed from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U (Survey No. HPS-A-TU308-001). Because no activity above the release criteria was identified, the concrete debris was released and prepared for transfer to the recycling stockpiles.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: June 29, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 11 (07500SA-S0022-F011-01) with ^{137}Cs at 0.1628 pCi/g
  - Sample Point 38 (07500SA-S0022-F038-01) with ^{137}Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ^{137}Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ^{137}Cs at 0.1338 pCi/g
- Sample Point 35 (07500SA-S0023-F035-01) with ^{137}Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ^{137}Cs at 0.1210 pCi/g

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ^{137}Cs contamination as follows:
  - Sample Point 7 (07500SA-S0024-F007-01) with ^{137}Cs at 0.1434 pCi/g
  - Sample Point 11 (07500SA-S0024-F011-01) with ^{137}Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: July 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team completed excavation of the remaining tank pit concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The tank pit measures approximately 10 feet in width, 30 feet in length, and 8 feet in depth. A sump pump measuring 1 cubic foot was identified at the base of the structure. Due to the presence of the cracked vault floor, a sample was collected from the soil beneath the concrete surface and submitted to the on-site laboratory for analysis
- During radiological surface scanning of the removed soil and debris, 170 linear feet of 1.5 inch diameter utility piping, 1 sump filter, 2 metal valves, and 4 cubic yards of soil indicated the presence of elevated gamma readings. The HPNS Team transferred these items to LLRW bin ERRU000159T1 for off-site disposal. In addition, a waste characterization sample was collected and submitted to the on-site laboratory for analysis.
- Perimeter fencing was installed around the exposed tank pit by the HPNS Team.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 22 – A total of 40 systematic gamma static measurements were logged with the maximum measurements recorded at 240 cpm (FIDLER) and 5,563 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 23 – A total of 4 biased and 40 systematic gamma static measurements were logged with the maximum measurements recorded at 286 cpm (FIDLER) and 5,730 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 23 and 24

- The HPNS Team provided the RASO with the following:
  - Total strontium analytical results for the 10 additional 12-inch deep pothole excavations around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23); no activity above the release criteria was identified.
  - Total strontium analytical results for the characterization sample collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.
  - Total strontium analytical results for the post-remediation samples collected from Class 1 Survey Unit 22. Characterization and remediation will be performed due to the presence of ^{90}Sr activity above the release criteria at Sample Point 40 (1.29 pCi/g).
  - Isotopic plutonium analytical results for the elevated ^{90}Sr samples collected from Class 1 Survey Units 21 and 22; no further contamination was identified.
  - Off-site analytical results for the systematic samples collected from Class 1 Survey Unit 14; no activity above the release criteria was identified.

Shacks 79 and 80

- The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified.

500 Series Area

- Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 15 by the HPNS Team and placed in LLRW bin ERRU000159T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 15. A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,811 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Approximately 855 tons of asphalt near Building 411was ground and recycled by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

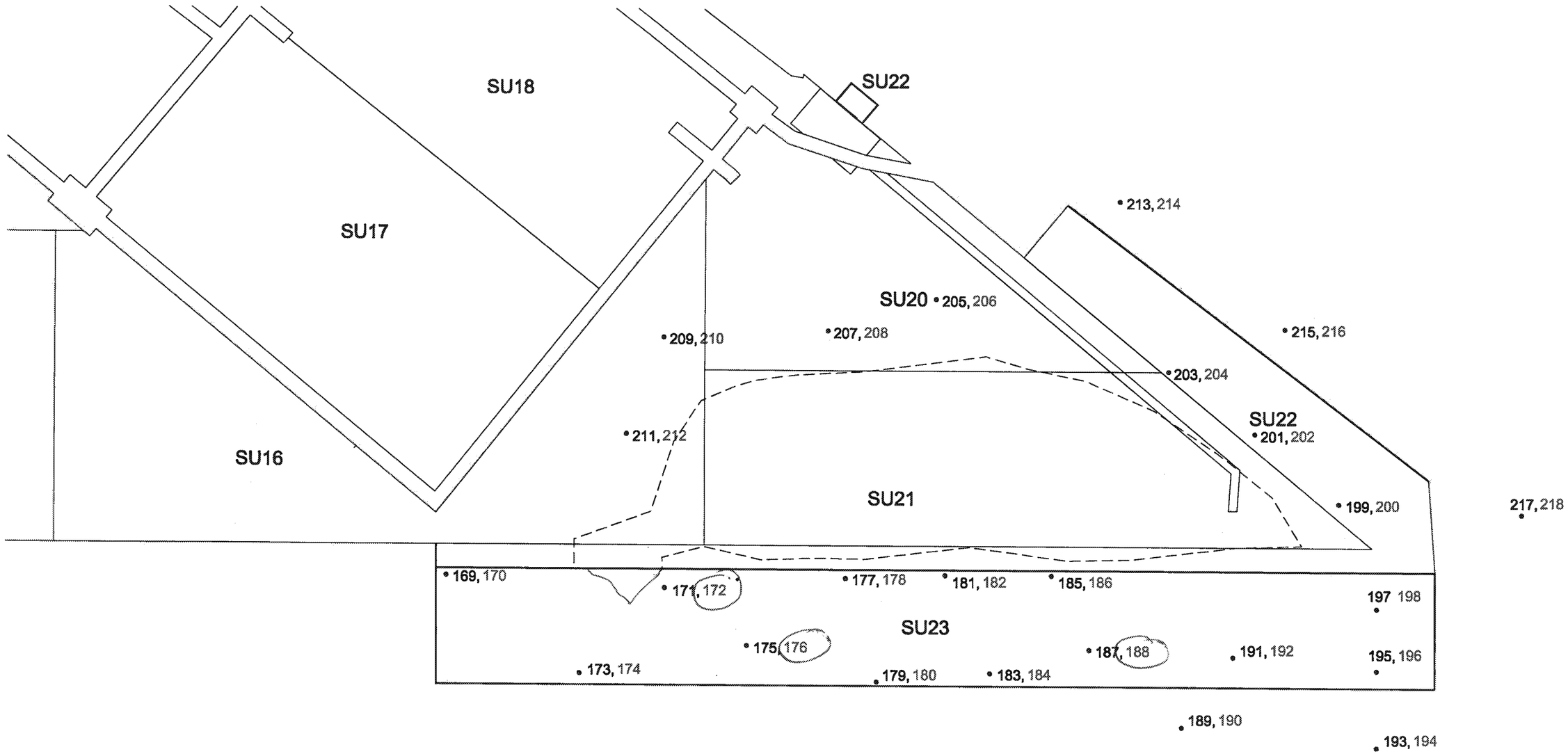
Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
707	23	1	Characterization	03707-S0023-F001-01	22-Jun-12	Jeff Rolfe	1.694	0.1951	0.007346	0.07147	0.1061					
707	23	1	Characterization	03707-S0023-F001-02	22-Jun-12	Jeff Rolfe	14.75	0.6692	0.009165	0.4078	0.0557					
707	23	1	Characterization	03707-S0023-F001-03	22-Jun-12	Jeff Rolfe	12.13	0	0.01222	0.3852	0.4531					
707	23	2	Post-Remediation	03707-S0023-F002-01	29-Jun-12	Jeff Rolfe	0.5844	0.2833	-0.008165	0.08046	0.1025					
707	23	3	Biased	03707-S0023-F003-01	31-Jul-12	Jeff Rolfe	1.756	0.04966	-0.006497	0.03644	0.06158					
707	23	4	Biased	03707-S0023-F004-01	31-Jul-12	Jeff Rolfe	0.8618	0.01362	-0.0003545	0.06616	0.08767					
707	23	5	Systematic	03707-S0023-F005-01	31-Jul-12	Jeff Rolfe	1.213	-0.02511	-0.0002466	0.1061	0.164	1.17	0.0928	0.00264	0.0928	0.108
707	23	6	Systematic	03707-S0023-F006-01	31-Jul-12	Jeff Rolfe	0.4905	0.0006188	-0.0009267	0.03598	0.01855	0.995	-0.0542	-0.00991	-0.0542	0.0884
707	23	7	Systematic	03707-S0023-F007-01	31-Jul-12	Jeff Rolfe	0.662	0.2775	0.006401	0.07263	0.03902	1.29	0.00443	-0.00116	0.00443	0.138
707	23	8	Systematic	03707-S0023-F008-01	31-Jul-12	Jeff Rolfe	1.595	0	0.004272	0.08312	0.1456	1.05	0.0111	-0.000157	0.0111	0.199
707	23	9	Systematic	03707-S0023-F009-01	31-Jul-12	Jeff Rolfe	1.223	0.1928	0.00195	0.005799	0.1048	0.838	0.107	0.0303	0.107	0.0516
707	23	10	Systematic	03707-S0023-F010-01	31-Jul-12	Jeff Rolfe	1.184	0.147	-0.004782	0.03401	0.04049	0.912	0.00681	-0.00794	0.00681	0.0377
707	23	11	Systematic	03707-S0023-F011-01	31-Jul-12	Jeff Rolfe	0.4131	0.1351	-0.0004251	0.01935	0.07443	1.09	0.0919	0	0.0919	0.149
707	23	12	Systematic	03707-S0023-F012-01	31-Jul-12	Jeff Rolfe	1.063	0.07044	0.003235	0.06188	0.02943	1.66	0.134	0.00937	0.134	0.0343
707	23	13	Systematic	03707-S0023-F013-01	31-Jul-12	Jeff Rolfe	1.106	0.08907	0	0.08436	0.1804	0.836	0.0707	-0.0427	0.0707	0.0445
707	23	14	Systematic	03707-S0023-F014-01	31-Jul-12	Jeff Rolfe	1.335	0.1835	0	0.04625	0.02271	1.25	0.244	0.0209	0.244	0.156
707	23	15	Systematic	03707-S0023-F015-01	31-Jul-12	Jeff Rolfe	1.054	0.1532	-0.0043	0.06963	0.002509	1.51	0.0964	-0.0102	0.0964	0.169
707	23	16	Systematic	03707-S0023-F016-01	31-Jul-12	Jeff Rolfe	1.244	0.281	0.007934	0.0603	0.1193	1.09	0.118	0.0288	0.118	0.142
707	23	17	Systematic	03707-S0023-F017-01	31-Jul-12	Jeff Rolfe	1.399	0	0.0007414	0.09382	0.0092	1.1	0.0337	-0.0591	0.0337	0.0687
707	23	18	Systematic	03707-S0023-F018-01	31-Jul-12	Jeff Rolfe	0.8512	0.1745	0.002656	0.07255	0.1202	1.83	0.0404	0	0.0404	0.0435
707	23	19	Systematic	03707-S0023-F019-01	31-Jul-12	Jeff Rolfe	1.945	0.1559	-0.001054	0.04154	0.03743	1.23	0.118	-0.0115	0.118	0.232
707	23	20	Systematic	03707-S0023-F020-01	31-Jul-12	Jeff Rolfe	0.9643	0.1013	0.001676	-0.01377	0.1472	1.69	0.0497	-0.00274	0.0497	0.154
707	23	21	Systematic	03707-S0023-F021-01	31-Jul-12	Jeff Rolfe	1.554	0.2222	-0.008005	0.04183	0.02195	0.517	0.0753	0	0.0753	0.26
707	23	22	Systematic	03707-S0023-F022-01	31-Jul-12	Jeff Rolfe	2.179	-0.1313	0.00807	0.07078	0.1304	1.46	0.108	-0.0403	0.108	0.179
707	23	23	Systematic	03707-S0023-F023-01	31-Jul-12	Jeff Rolfe	1.328	0.2999	-0.0001945	-0.01292	0.19	1.13	0.029	-0.00936	0.029	0.186
707	23	24	Systematic	03707-S0023-F024-01	31-Jul-12	Jeff Rolfe	1.164	-0.06465	0	0.04872	0.0482	2.03	0.23	-0.0119	0.23	0.215
707		169	Pothole	03AB707-169	10-May-12		11.73	0.6892	0.008231	0.1306	0.299					
707		170	Pothole	03AB707-170	10-May-12		14.29	0.8271	-0.003974	0.2622	0.226					
707		171	Pothole	03AB707-171	10-May-12		5.056	0.2544	0.009765	0.1417	0.1373					
707		172	Pothole	03AB707-172	10-May-12		1.337	0.1251	0	0	0.05066					
707		173	Pothole	03AB707-173	10-May-12		13.31	0.3867	0.01543	0.4078	0.3639					
707		174	Pothole	03AB707-174	10-May-12		7.476	0.2707	0.00009332	0.222	0.2851					
707		175	Pothole	03AB707-175	10-May-12		3.603	0.5217	0	0.1385	0.326					
707		176	Pothole	03AB707-176	10-May-12		1.554	0.03596	-0.0007961	0.1388	0.2265					
707		177	Pothole	03AB707-177	10-May-12		7.948	0.2398	0.01659	0.1131	0.1328					
707		178	Pothole	03AB707-178	10-May-12		11.8	0.581	0	0.02402	0.02987					
707		179	Pothole	03AB707-179	10-May-12		8.556	0.1057	0	0.1232	0.3432					
707		180	Pothole	03AB707-180	10-May-12		12.24	0.6034	-0.006764	0.1968	0.4117					
707		181	Pothole	03AB707-181	10-May-12		13.55	0.5263	-0.006977	0.1468	0.1471					
707		182	Pothole	03AB707-182	10-May-12		14.04	0.7872	-0.00573	0.1229	0.1259					
707		183	Pothole	03AB707-183	10-May-12		10.24	0.1303	0.0002656	0.01295	0.2287					
707		184	Pothole	03AB707-184	10-May-12		5.806	0.4077	0.003978	0.07186	0.08492					
707		185	Pothole	03AB707-185	10-May-12		9.658	0.1399	0.009304	0.1864	0.2125					
707		186	Pothole	03AB707-186	10-May-12		11.37	0.7648	0.0003812	0.2982	0.3492					
707		187	Pothole	03AB707-187	10-May-12		9.643	0.4836	-0.000411	0.3019	0.2283					
707		188	Pothole	03AB707-188	10-May-12		1.401	0	0	0.07647	0.02215					
707		189	Pothole	03AB707-189	10-May-12		12.28	0.09166	0.1105	0.3218	0.4684					
707		190	Pothole	03AB707-190	10-May-12		6.366	0.05524	0	0.1556	0.2617					
707		191	Pothole	03AB707-191	10-May-12		12.27	0.3083	0.01299	0.2367	0.2687					
707		192	Pothole	03AB707-192	10-May-12		9.801	0.8232	-0.005635	0.2789	0.4455					
707		193	Pothole	03AB707-193	10-May-12		8.286	0.3855	0.03178	0.3382	0.4147					
707		194	Pothole	03AB707-194	10-May-12		3.129	0.4213	-0.00858	0.1081	0.07574					
707		195	Pothole	03AB707-195	10-May-12		10.15	0.6962	0.001537	0.315	0.4151					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CDC Radiological Technician	On-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214
707		196	Pothole	03AB707-196	10-May-12		17.11	1.238	-0.01019	0.8515	0.7946					
707		197	Pothole	03AB707-197	10-May-12		13	0.7313	0.004389	0.229	0.2262					
707		198	Pothole	03AB707-198	10-May-12		18.08	0.8109	-0.005463	0.3764	0.6288					
707		199	Pothole	03AB707-199	10-May-12		21.55	0.08181	-0.0001313	0.3286	0.2575					
707		200	Pothole	03AB707-200	10-May-12		20.07	0.4834	0.2159	0.3433	0.3634					
707		201	Pothole	03AB707-201	10-May-12		14.84	0.8724	0.01297	0.3167	0.4492					
707		202	Pothole	03AB707-202	10-May-12		15.5	0.2258	0.0253	0.1285	0.442					
707		203	Pothole	03AB707-203	10-May-12		12.5	0.5636	0.003668	0.4393	0.3575					
707		204	Pothole	03AB707-204	10-May-12		13.23	0.7217	-0.0009544	0.4221	0.4995					
707		205	Pothole	03AB707-205	10-May-12		18.16	0.4581	0	0.514	0.561					
707		206	Pothole	03AB707-206	10-May-12		19.29	0.5096	0.01719	0.4148	0.5185					
707		207	Pothole	03AB707-207	10-May-12		10.5	0.6571	0.007032	0.7417	0.631					
707		208	Pothole	03AB707-208	10-May-12		11.15	0.876	-0.001485	0.522	0.4892					
707		209	Pothole	03AB707-209	10-May-12		14.08	0.6517	0	0.5036	0.5556					
707		210	Pothole	03AB707-210	10-May-12		13.66	0.4449	-0.006385	0.3569	0.4927					
707		211	Pothole	03AB707-211	10-May-12		12.2	0.635	0.007645	0.3254	0.3971					
707		212	Pothole	03AB707-212	10-May-12		12.97	0.3528	-0.0001886	0.1264	0.3173					
707		213	Pothole	03AB707-213	10-May-12		13.47	0.7134	0.03336	0.433	0.5992					
707		214	Pothole	03AB707-214	10-May-12		10.74	0.3129	0.007558	0.512	0.4923					
707		215	Pothole	03AB707-215	10-May-12		14.01	0.3673	0.03022	0.4466	0.566					
707		216	Pothole	03AB707-216	10-May-12		15.51	1.155	0.2096	0.4584	0.6364					
707		217	Pothole	03AB707-217	10-May-12		8.149	0.7831	0.01256	0.3079	0.3968					
707		218	Pothole	03AB707-218	10-May-12		11.29	0.617	0.00139	0.335	0.4658					
707		219	Pothole	03AB707-219	13-Jun-12		21.21	0.1934	0.01769	0.2642	0.157					
707		220	Pothole	03AB707-220	13-Jun-12		23.05	0.5164	-0.003408	0.1537	0.2385					
707		221	Pothole	03AB707-221	13-Jun-12		26.61	-0.02233	0.004797	0.1063	0.1665					
707		222	Pothole	03AB707-222	13-Jun-12		15.27	0.8346	0.1856	0.4146	0.444					
707		223	Pothole	03AB707-223	13-Jun-12		12.55	0.7268	0.01898	0.289	0.3934					
707		224	Pothole	03AB707-224	13-Jun-12		16.79	0.6025	0.1702	0.4383	0.4545					
707		225	Pothole	03AB707-225	29-Jun-12		0.9268	0.338	0	0.1112	0.1672					
707		226	Pothole	03AB707-226	29-Jun-12		2.728	0.5169	0.0006006	0.1374	0.1765					
707		227	Pothole	03AB707-227	29-Jun-12		0.5585	0	0	0.04905	0.09058					
707		228	Pothole	03AB707-228	29-Jun-12		0.7029	0.03241	-0.0002297	0.07772	0.07062					
707		229	Pothole	03AB707-229	29-Jun-12		12.54	0.62	0.003265	0.2246	0.4668					
707		230	Pothole	03AB707-230	29-Jun-12		9.233	0.4073	-0.007659	0.2151	0.3549					
707		231	Pothole	03AB707-231	16-Jul-12		12.45	0.6922	0	0.3813	0.3122					
707		232	Pothole	03AB707-232	16-Jul-12		12.07	0.7933	0.01893	0.2593	0.3459					
707		233	Pothole	03AB707-233	16-Jul-12		10.08	0.582	0.00003361	0.2593	0.3026					
707		234	Pothole	03AB707-234	16-Jul-12		11.89	-0.4507	0.01095	0.4277	0.308					
707		235	Pothole	03AB707-235	16-Jul-12		11.92	0.5279	0	0.4028	0.3068					
707		236	Pothole	03AB707-236	16-Jul-12		10.5	0.608	0.001672	0.3368	0.3754					
707		237	Pothole	03AB707-237	16-Jul-12		11.53	0.7752	0.009789	0.2121	0.2823					
707		238	Pothole	03AB707-238	16-Jul-12		10.89	-0.0004168	0.006362	0.299	0.3337					
707		239	Pothole	03AB707-239	16-Jul-12		10.43	0.3572	0.01566	0.3765	0.2583					
707		240	Pothole	03AB707-240	16-Jul-12		11.72	0.591	-0.0006379	0.375	0.3736					

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)



FIELD COPY

LEGEND:

BOUNDING SAMPLES 169-218

BOTTOM SAMPLES (169) @ 24" BELOW GROUND SURFACE

SIDEWALL SAMPLES (170) @ 12" BELOW GROUND SURFACE (ON WALL TOWARDS SU21)

– – – – – EXTENT OF REMEDITATION (18" to 24") BELOW GROUND SURFACE

15 0 15 30
(feet)

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

PARCEL E

BUILDING 707 TRIANGLE
BOUNDING SAMPLE LOCATIONS

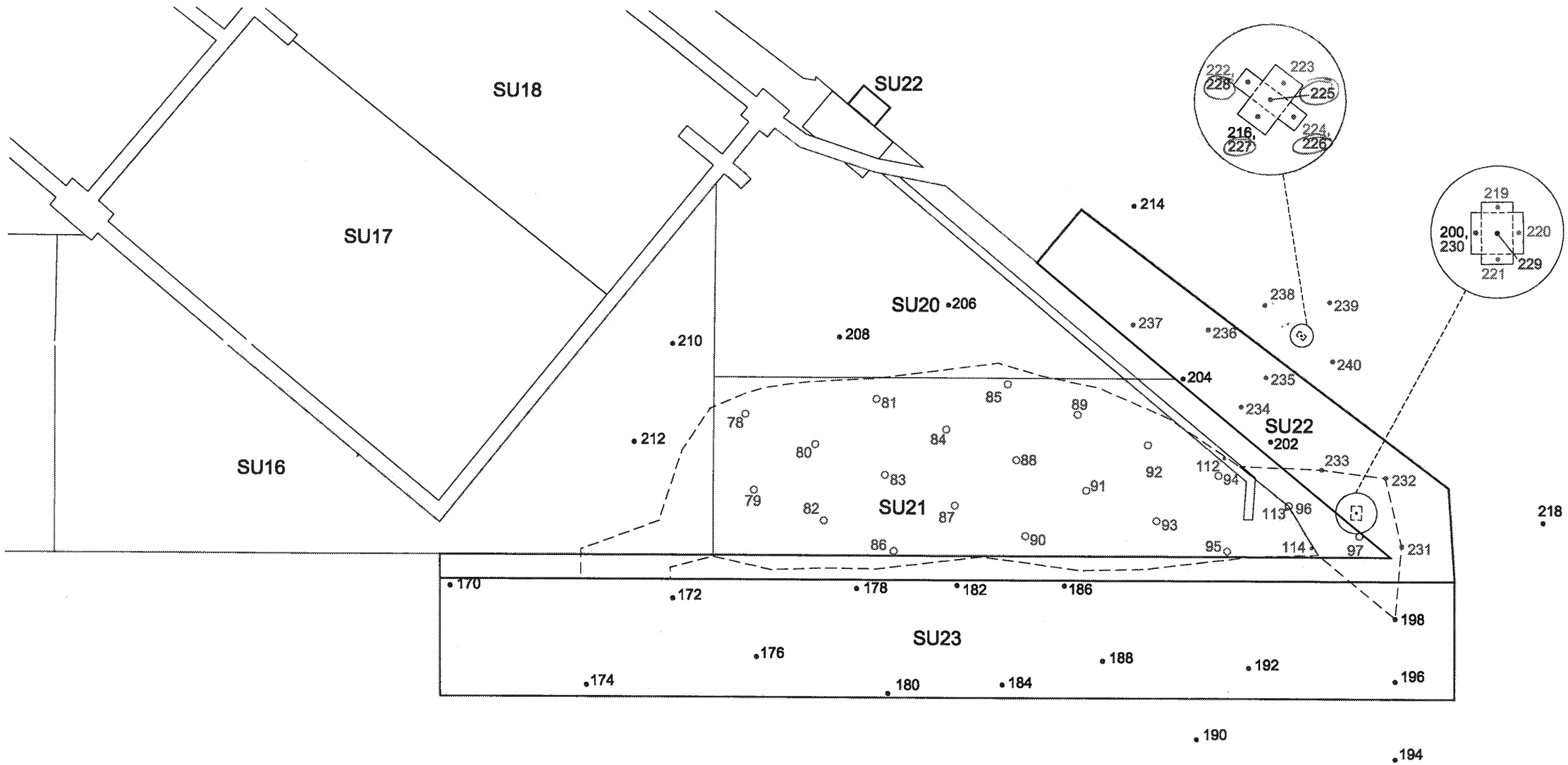
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CA

REVISION:
AUTHOR: A. CRABTREE
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC.

P:\CTO-03 CAD Files\DWG files\707 Survey Units\707_Survey _Pothole Survey.dwg

6/6/12



LEGEND:

SIDEWALL SAMPLES (170) @ 12" BELOW GROUND SURFACE (ON WALL TOWARDS SU21)

SIDEWALL SAMPLES (219) @ 12" BELOW GROUND SURFACE (ON WALL)

SU-21 SYSTEMATIC 78-91 @ 12"

POST-REMEDIATION SAMPLES 225-230

POST-REMEDIATION SAMPLES 112-114 @ 12"-18"

POTHOLE BOTTOM SAMPLES @ 12"

- - - - - EXTENT OF REMEDITATION (12" to 24") BELOW GROUND SURFACE

15 0 15 30
(feet)

RECORD COPY

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

PARCEL E

FORMER BUILDING 707 (SITE) TRIANGLE AREA
BOUNDING SAMPLE LOCATIONS

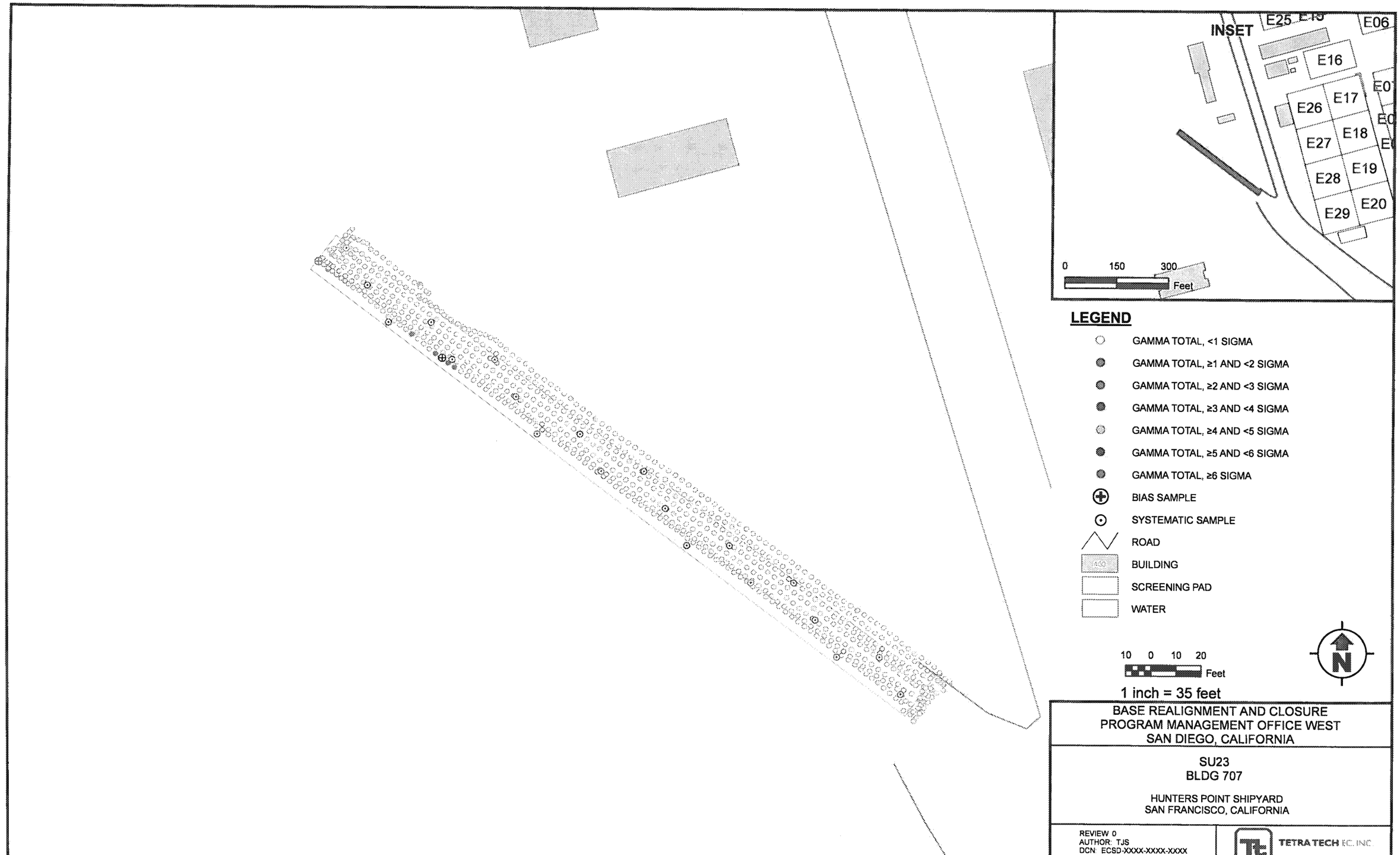
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CA

REVISION:
AUTHOR: A. CRABTREE
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC.

P:\CTO-03 CAD Files\DWG files\707 Survey Units\707_Survey _Pothole Survey_7-17-12.dwg

7/17/12



BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

SU23
BLDG 707

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW 0
AUTHOR: TJS
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: 707-SU23_2.mxd

TETRA TECH EC, INC

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
129	4/10/2012 11:38	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
130	4/10/2012 11:40	5375	5886	-511	621-BKGDS1A	7001	
131	4/10/2012 11:41	6449	5886	563	621-BKGDS1A	7001	
132	4/10/2012 11:42	6362	5886	476	621-BKGDS1A	7001	
133	4/10/2012 11:44	5862	5886	-24	621-BKGDS1A	7001	
134	4/10/2012 11:46	4827	5886	-1059	621-BKGDS1A	7001	
135	4/10/2012 12:39	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
136	4/10/2012 12:40	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
137	4/10/2012 12:41	6900	5886	1014	621-BKGDS1A	7001	
138	4/10/2012 12:43	6832	5886	946	621-BKGDS1A	7001	
139	4/10/2012 12:44	6958	5886	1072	621-BKGDS1A	7001	
140	4/10/2012 12:46	6016	5886	130	621-BKGDS1A	7001	
141	4/10/2012 12:47	6468	5886	582	621-BKGDS1A	7001	
142	4/10/2012 12:48	6965	5886	1079	621-BKGDS1A	7001	
143	4/10/2012 12:49	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
144	4/10/2012 12:50	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
145	4/10/2012 12:52	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
146	4/10/2012 12:53	5683	5886	-203	621-BKGDS1A	7001	
147	4/10/2012 12:55	6406	5886	520	621-BKGDS1A	7001	
148	4/10/2012 12:56	6588	5886	702	621-BKGDS1A	7001	
149	4/10/2012 12:57	6603	5886	717	621-BKGDS1A	7001	
150	4/10/2012 12:58	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
151	4/10/2012 13:00	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
152	4/10/2012 13:02	6487	5886	601	621-BKGDS1A	7001	
153	4/10/2012 13:03	6458	5886	572	621-BKGDS1A	7001	
154	4/10/2012 13:04	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
155	4/10/2012 13:05	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
156	4/10/2012 13:07	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
157	4/10/2012 13:08	[illegible]	5886	[illegible]	621-BKGDS1A	7001	
158	4/10/2012 13:24	6787	5886	901	621-BKGDS1A	7001	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -1237
Avg: 1391
Max: 4060
St Dev: 1142

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number

Gamma measurements > 3σ Investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	578-BKGDS1
Instrument Serial Number:	207505	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	2/24/2012	Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	12/12/2011	9	
2	12/12/2011	10	
3	12/12/2011	10	
4	12/12/2011	9	
5	12/12/2011	8	
6	12/12/2011	9	
7	12/12/2011	9	
8	12/12/2011	7	
9	12/12/2011	8	
10	12/12/2011	8	
11	12/12/2011	7	
12	12/12/2011	7	
13	12/12/2011	7	
14	12/12/2011	8	
15	12/12/2011	8	
16	12/12/2011	8	
17	12/12/2011	7	
18	12/12/2011	8	
19	12/12/2011	9	
20	12/12/2011	7	
21	12/12/2011	6	
22	12/12/2011	7	
23	12/12/2011	7	
24	12/12/2011	8	
25	12/12/2011	8	
26	12/12/2011	7	
27	12/12/2011	7	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	12/12/2011	8	
29	12/12/2011	8	
30	12/12/2011	8	
31	12/12/2011	8	
32	12/12/2011	7	
33	12/12/2011	7	
34	12/12/2011	9	
35	12/12/2011	9	
36	12/12/2011	8	
37	12/12/2011	8	
38	12/12/2011	6	
39	12/12/2011	9	
40	12/12/2011	9	
41	12/12/2011	9	
42	12/12/2011	8	
43	12/12/2011	7	
44	1/12/2012	7	
45	1/12/2012	7	
46	1/12/2012	7	
47	1/12/2012	8	
48	1/12/2012	8	
49	1/12/2012	8	
50	1/12/2012	8	
51	1/12/2012	8	
52	1/12/2012	8	
53	1/12/2012	8	
54	1/12/2012	10	
55	1/12/2012	10	
56	1/12/2012	9	
57	1/12/2012	9	
58	1/12/2012	9	
59	1/12/2012	10	
60	1/12/2012	10	
61	1/12/2012	10	
62	1/12/2012	9	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

2350 Identification #: 621 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 98613 Probe Serial #: 192584

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 621-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/28/2011 13:11	6579
2	10/28/2011 13:12	5806
3	10/28/2011 13:13	5810
4	10/28/2011 13:15	5708
5	10/28/2011 13:16	5928
6	10/28/2011 13:17	6468
7	10/28/2011 13:19	6385
8	10/28/2011 13:20	6664
9	10/28/2011 13:21	5974
10	10/28/2011 13:22	5682
11	10/28/2011 13:23	5896
12	10/28/2011 13:24	5890
13	10/28/2011 13:25	5313
14	10/28/2011 13:27	5811
15	10/28/2011 13:28	5835
16	10/28/2011 13:29	5626
17	10/28/2011 13:30	5476
18	10/28/2011 13:31	5758
19	10/28/2011 13:32	5698
20	10/28/2011 13:33	5403

Gamma Mean Background (cpm): 5886

Standard Deviation: 372

Gamma 3σ Investigation Level (cpm): 7001

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm): 5845

Standard Deviation: 386

Gamma 3σ Investigation Level (cpm): 7004

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	577-BKGDS1
Instrument Serial Number:	109970		
Instrument Calibration Due Date:	2/24/2012	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	5

Rdg #	Date	Exposure Rate (µR/hr)	Comments
63	1/19/2012	10	
64	1/19/2012	10	
65	1/19/2012	10	
66	1/19/2012	9	
67	1/19/2012	7	
68	1/19/2012	8	
69	1/19/2012	7	
70	1/19/2012	7	
71	2/2/2012	9	
72	2/2/2012	8	
73	2/2/2012	8	
74	2/2/2012	8	
75	2/2/2012	8	
76	2/2/2012	8	
77	2/2/2012	8	
78	2/2/2012	8	
79	2/2/2012	7	
80	2/2/2012	8	
81	2/2/2012	9	
82	2/2/2012	10	
83	2/2/2012	9	
84	2/2/2012	9	
85	2/2/2012	9	
86	2/2/2012	8	
87	2/2/2012	7	
88	2/2/2012	10	
89	2/2/2012	9	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Exposure Rate Summary (µR/hr)	Min:	6.00
	Avg:	8.13
	Max:	10.00
	St Dev:	1.03

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
90	2/2/2012	8	
91	2/2/2012	8	
92	2/2/2012	8	
93	2/2/2012	7	
94	2/2/2012	7	
95	2/2/2012	10	
96	2/2/2012	9	
97	2/2/2012	9	
98	2/2/2012	9	
99	2/2/2012	7	
100	2/2/2012	7	
101	2/2/2012	8	
102	2/2/2012	9	
103	2/2/2012	7	
104	2/2/2012	7	
105	2/2/2012	8	
106	2/2/2012	7	
107	2/2/2012	6	

Exposure Rate Summary (µR/hr)

Min: 6.00
Avg: 8.20
Max: 10.00
St Dev: 1.06

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/15/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
108	2/21/2012	9	
109	2/21/2012	9	
110	2/21/2012	9	
111	2/21/2012	9	
112	2/21/2012	9	
113	2/21/2012	10	
114	2/21/2012	10	
115	3/5/2012	8	
116	3/5/2012	8	
117	3/5/2012	8	
118	3/5/2012	8	
119	4/2/2012	7	
120	4/2/2012	7	
121	4/2/2012	7	
122	4/2/2012	7	
123	4/10/2012	8	
124	4/10/2012	8	
125	4/10/2012	7	
126	4/10/2012	7	
127	4/10/2012	8	
128	4/10/2012	7	
129	4/10/2012	8	
130	4/10/2012	8	
131	4/10/2012	7	
132	4/10/2012	7	
133	4/10/2012	7	
134	4/10/2012	8	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
135	4/10/2012	8	
136	4/10/2012	9	
137	4/10/2012	9	
138	4/10/2012	8	
139	4/10/2012	8	
140	4/10/2012	8	
141	4/10/2012	7	
142	4/10/2012	8	
143	4/10/2012	8	
144	4/10/2012	9	
145	4/10/2012	9	
146	4/10/2012	9	
147	4/10/2012	7	
148	4/10/2012	8	
149	4/10/2012	8	
150	4/10/2012	8	
151	4/10/2012	9	
152	4/10/2012	9	
153	4/10/2012	7	
154	4/10/2012	9	
155	4/10/2012	9	
156	4/10/2012	9	
157	4/10/2012	9	
158	4/10/2012	9	

Exposure Rate Summary (µR/hr)	
Min:	7.00
Avg:	8.16
Max:	10.00
St Dev:	0.86

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02155

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: J. ROLFE	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F001-01	12/12/2011	0750	1		S		☑	☐	☐			
07517-S0002-F002-01	12/12/2011	0755	1		S		☑	☐	☐			
07517-S0002-F003-01	12/12/2011	0800	1		S		☑	☐	☐			
07517-S0002-F004-01	12/12/2011	0805	1		S		☑	☐	☐			
07517-S0002-F005-01	12/12/2011	0810	1		S		☑	☐	☐			
07517-S0002-F006-01	12/12/2011	0815	1		S		☑	☐	☐			
07517-S0002-F007-01	12/12/2011	0820	1		S		☑	☐	☐			
07517-S0002-F008-01	12/12/2011	0825	1		S		☑	☐	☐			
07517-S0002-F009-01	12/12/2011	0830	1		S		☑	☐	☐			
07517-S0002-F010-01	12/12/2011	0835	1		S		☑	☐	☐			
07517-S0002-F011-01	12/12/2011	0840	1		S		☑	☐	☐			
07517-S0002-F012-01	12/12/2011	0845	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 12.12.11	*Received by: (signature)*
Company RSRS	*Time* 14:35	*Company* CET
Relinquished by: (signature)	*Date*	*Received by: (signature)*
Company	*Time*	*Company*
Relinquished by: (signature)	*Date*	*Received by: (signature)*
Company	*Time*	*Company*

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
Bldg 517 SITE
SU-2
BIASED 1-7
SYSTEMATIC 8-43

ED_004747_00010904-00261

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02156

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tomplins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. ROLFE	Airbill Number: N/A	ALPHA	
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F013-01	12/12/2011	0850	1		S		☑	☐	☐			
07517-S0002-F014-01	12/12/2011	0930	1		S		☑	☐	☐			
07517-S0002-F015-01	12/12/2011	0935	1		S		☑	☐	☐			
07517-S0002-F016-01	12/12/2011	0940	1		S		☑	☐	☐			
07517-S0002-F017-01	12/12/2011	0945	1		S		☑	☐	☐			
07517-S0002-F018-01	12/12/2011	0950	1		S		☑	☐	☐			
07517-S0002-F019-01	12/12/2011	0955	1		S		☑	☐	☐			
07517-S0002-F020-01	12/12/2011	1000	1		S		☑	☐	☐	DUP		
07517-S0002-F021-01	12/12/2011	1005	1		S		☑	☐	☐			
07517-S0002-F022-01	12/12/2011	1010	1		S		☑	☐	☐			
07517-S0002-F023-01	12/12/2011	1015	1		S		☑	☐	☐			
07517-S0002-F024-01	12/12/2011	1020	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 12.12.11	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 14:35	*Company* CEI	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00262

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02157

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J. ROLFE	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F025-01	12/12/2011	1025	1		S		☑	☐	☐			
07517-S0002-F026-01	12/12/2011	1030	1		S		☑	☐	☐			
07517-S0002-F027-01	12/12/2011	1035	1		S		☑	☐	☐			
07517-S0002-F028-01	12/12/2011	1040	1		S		☑	☐	☐			
07517-S0002-F029-01	12/12/2011	1045	1		S		☑	☐	☐			
07517-S0002-F030-01	12/12/2011	1050	1		S		☑	☐	☐			
07517-S0002-F031-01	12/12/2011	1055	1		S		☑	☐	☐			
07517-S0002-F032-01	12/12/2011	1100	1		S		☑	☐	☐			
07517-S0002-F033-01	12/12/2011	1105	1		S		☑	☐	☐			
07517-S0002-F034-01	12/12/2011	1110	1		S		☑	☐	☐			
07517-S0002-F035-01	12/12/2011	1115	1		S		☑	☐	☐			
07517-S0002-F036-01	12/12/2011	1120	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 12-12-11	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 14:35	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00263

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02158

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. ROLFE	Airbill Number: N/A	ALPHA	**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F037-01	12/12/2011	1125	1		S		☑	☐	☐			
07517-S0002-F038-01	12/12/2011	1130	1		S		☑	☐	☐			
07517-S0002-F039-01	12/12/2011	1135	1		S		☑	☐	☐			
07517-S0002-F040-01	12/12/2011	1140	1		S		☑	☐	☐			
07517-S0002-F041-01	12/12/2011	1245	1		S		☑	☐	☐			
07517-S0002-F042-01	12/12/2011	1250	1		S		☑	☐	☐			
07517-S0002-F043-01	12/12/2011	1255	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 12.12.11	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 14:35	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00264

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02183

Project Name: Radioloigcal Building Survey	PO Number: N/A	GAMMASPEC		LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90		LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F044-01	1/12/2012	0815	1		S		☑	☐	☐			
07517-S0002-F045-01	1/12/2012	0820	1		S		☑	☐	☐			
07517-S0002-F046-01	1/12/2012	0825	1		S		☑	☐	☐			
07517-S0002-F047-01	1/12/2012	0830	1		S		☑	☐	☐			
07517-S0002-F048-01	1/12/2012	0835	1		S		☑	☐	☐			
07517-S0002-F049-01	1/12/2012	0840	1		S		☑	☐	☐			
07517-S0002-F050-01	1/12/2012	0845	1		S		☑	☐	☐			
07517-S0002-F051-01	1/12/2012	0850	1		S		☑	☐	☐			
07517-S0002-F052-01	1/12/2012	0855	1		S		☑	☐	☐			
07517-S0002-F053-01	1/12/2012	0925	1		S		☑	☐	☐			
07517-S0002-F054-01	1/12/2012	0930	1		S		☑	☐	☐			
07517-S0002-F055-01	1/12/2012	0935	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 1-12-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1501	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
B519 SITE-AREA
SU-2
CHARACTERIZATION
44-62

ED_004747_00010904-00265

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02184

Project Name: Radioloigcal Building Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 4044-0007
Sampler Name: J. Rolfe	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F056-01	1/12/2012	0940	1		S		☑	☐	☐			
07517-S0002-F057-01	1/12/2012	0945	1		S		☑	☐	☐			
07517-S0002-F058-01	1/12/2012	0950	1		S		☑	☐	☐			
07517-S0002-F059-01	1/12/2012	0955	1		S		☑	☐	☐			
07517-S0002-F060-01	1/12/2012	1000	1		S		☑	☐	☐			
07517-S0002-F061-01	1/12/2012	1005	1		S		☑	☐	☐			
07517-S0002-F062-01	1/12/2012	1010	1		S		☑	☐	☐			

Relinquished by: (signature) Jeff Rolfe	*Date* 1-12-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1501	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00266

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02204

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: R Carhansky	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F063-01	1/19/2012	1400	1		S		☑	☐	☐			
07517-S0002-F064-01	1/19/2012	1405	1		S		☑	☐	☐			
07517-S0002-F065-01	1/19/2012	1410	1		S		☑	☐	☐			
07517-S0002-F066-01	1/19/2012	1415	1		S		☑	☐	☐			
07517-S0002-F067-01	1/19/2012	1420	1		S		☑	☐	☐			
07517-S0002-F068-01	1/19/2012	1425	1		S		☑	☐	☐			
07517-S0002-F069-01	1/19/2012	1430	1		S		☑	☐	☐			
07517-S0002-F070-01	1/19/2012	1435	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 1-19-12	Received by: (signature)
Company: RSLS	Time: 1520	Company: CET
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER/SEAL:

SAMPLING COMMENTS
Bldg 517 SITE
SU-2
POST-REMEDIATION
63-70

ED_004747_00010904-00267

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02242

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - RSRS
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F071-01	2/2/2012	0840	1		S		☑	☐	☐			
07517-S0002-F072-01	2/2/2012	0845	1		S		☑	☐	☐			
07517-S0002-F073-01	2/2/2012	0850	1		S		☑	☐	☐			
07517-S0002-F074-01	2/2/2012	0855	1		S		☑	☐	☐			
07517-S0002-F075-01	2/2/2012	0930	1		S		☑	☐	☐			
07517-S0002-F076-01	2/2/2012	0935	1		S		☑	☐	☐			
07517-S0002-F077-01	2/2/2012	0940	1		S		☑	☐	☐			
07517-S0002-F078-01	2/2/2012	0945	1		S		☑	☐	☐			
07517-S0002-F079-01	2/2/2012	0950	1		S		☑	☐	☐			
07517-S0002-F080-01	2/2/2012	0955	1		S		☑	☐	☐			
07517-S0002-F081-01	2/2/2012	1000	1		S		☑	☐	☐			
07517-S0002-F082-01	2/2/2012	1005	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 2-2-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1435	*Company* CT	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL

SAMPLING COMMENTS
BLDG 517 SITE
SU-2
BLADED 71
SYSTEMATIC 72-107

ED_004747_00010904-00268

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02243

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - RSRS
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F083-01	2/2/2012	1010	1		S		☑	☐	☐			
07517-S0002-F084-01	2/2/2012	1015	1		S		☑	☐	☐			
07517-S0002-F085-01	2/2/2012	1020	1		S		☑	☐	☐			
07517-S0002-F086-01	2/2/2012	1025	1		S		☑	☐	☐			
07517-S0002-F087-01	2/2/2012	1030	1		S		☑	☐	☐			
07517-S0002-F088-01	2/2/2012	1035	1		S		☑	☐	☐			
07517-S0002-F089-01	2/2/2012	1040	1		S		☑	☐	☐			
07517-S0002-F090-01	2/2/2012	1045	1		S		☑	☐	☐			
07517-S0002-F091-01	2/2/2012	1050	1		S		☑	☐	☐			
07517-S0002-F092-01	2/2/2012	1055	1		S		☑	☐	☐			
07517-S0002-F093-01	2/2/2012	1100	1		S		☑	☐	☐			
07517-S0002-F094-01	2/2/2012	1105	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 2-2-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1435	*Company* CT	SAMPLING COMMENTS
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE/DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

ED_004747_00010904-00269

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02244

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - RSRS
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F095-01	2/2/2012	1110	1		S		☑	☐	☐			
07517-S0002-F096-01	2/2/2012	1115	1		S		☑	☐	☐			
07517-S0002-F097-01	2/2/2012	1120	1		S		☑	☐	☐			
07517-S0002-F098-01	2/2/2012	1125	1		S		☑	☐	☐			
07517-S0002-F099-01	2/2/2012	1130	1		S		☑	☐	☐			
07517-S0002-F100-01	2/2/2012	1135	1		S		☑	☐	☐			
07517-S0002-F101-01	2/2/2012	1140	1		S		☑	☐	☐			
07517-S0002-F102-01	2/2/2012	1145	1		S		☑	☐	☐			
07517-S0002-F103-01	2/2/2012	1150	1		S		☑	☐	☐	DUP		
07517-S0002-F104-01	2/2/2012	1155	1		S		☑	☐	☐			
07517-S0002-F105-01	2/2/2012	1235	1		S		☑	☐	☐			
07517-S0002-F108-01	2/2/2012	1240	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 2-2-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1435	*Company* CET	SAMPLING COMMENTS
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE SAMP CONDITION COOLER SEAL

ED_004747_00010904-00270

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02245

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - RSRS
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A				**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F107-01	2/2/2012	1245	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	Date 2-2-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1436	Company CT	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS

ED_004747_00010904-00271

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02276

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0007			
Sampler Name: A. Smith	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F108-01	2/21/2012	1330	1		S		☑	☐	☐			
07517-S0002-F109-01	2/21/2012	1335	1		S		☑	☐	☐			
07517-S0002-F110-01	2/21/2012	1340	1		S		☑	☐	☐			
07517-S0002-F111-01	2/21/2012	1345	1		S		☑	☐	☐			
07517-S0002-F112-01	2/21/2012	1350	1		S		☑	☐	☐			
07517-S0002-F113-01	2/21/2012	1355	1		S		☑	☐	☐			
07517-S0002-F114-01	2/21/2012	1400	1		S		☑	☐	☐			

Relinquished by: (signature)	Date	Received by: (signature)
Company: RSRS	Time: 1528	Company: CT
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTIONS/COMMENTS

COMPOSITE DESCRIPTION

SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BLDG 517 SITE
S0-2
CHARACTERIZATION
108 - 114

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02291

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: RZoharsky	Airbill Number: N/A				**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F115-01	3/5/2012	1235	1		S		☑	☐	☐			
07517-S0002-F116-01	3/5/2012	1240	1		S		☑	☐	☐			
07517-S0002-F117-01	3/5/2012	1245	1		S		☑	☐	☐			
07517-S0002-F118-01	3/5/2012	1250	1		S		☑	☐	☐			

Relinquished by: (signature) RZoharsky	*Date* 3-5-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1529	*Company* CT	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: °C SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BLDG 517 SITE
SU-2
CHARACTERIZATION
115-118

ED_004747_00010904-00273

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02345

Project Name: Radioloigcal Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A				**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F119-01	4/2/2012	1450	1		S		☑	☐	☐			
07517-S0002-F120-01	4/2/2012	1455	1		S		☑	☐	☐			
07517-S0002-F121-01	4/2/2012	1500	1		S		☑	☐	☐			
07517-S0002-F122-01	4/2/2012	1505	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 4-2-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 15:45	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
BLDG 517 SITE
SU-2
POST-REMEDIATION
119-122

ED_004747_00010904-00274

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02358

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**
Project Location: HUNTERS POINT	Project Number: 4044-0007	LABORATORY ID:	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F123-01	4/10/2012	1130	1		S		☑	☐	☐			
07517-S0002-F124-01	4/10/2012	1135	1		S		☑	☐	☐			
07517-S0002-F125-01	4/10/2012	1140	1		S		☑	☐	☐			
07517-S0002-F126-01	4/10/2012	1145	1		S		☑	☐	☐			
07517-S0002-F127-01	4/10/2012	1150	1		S		☑	☐	☐			
07517-S0002-F128-01	4/10/2012	1155	1		S		☑	☐	☐			
07517-S0002-F129-01	4/10/2012	1235	1		S		☑	☐	☐			
07517-S0002-F130-01	4/10/2012	1240	1		S		☑	☐	☐			
07517-S0002-F131-01	4/10/2012	1245	1		S		☑	☐	☐			
07517-S0002-F132-01	4/10/2012	1250	1		S		☑	☐	☐			
07517-S0002-F133-01	4/10/2012	1255	1		S		☑	☐	☐			
07517-S0002-F134-01	4/10/2012	1300	1		S		☑	☐	☐			

Relinquished by: (signature) [signature]	*Date* 4-10-12	*Received by: (signature)* [signature]	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 16:10	*Company* C&T	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	*Time*	*Company*	

SAMPLING COMMENTS
BLDG 517 SITE
SO-2
SYSTEMATIC 125-158

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02359

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90	LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA	**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F135-01	4/10/2012	1305	1		S		☑	☐	☐			
07517-S0002-F136-01	4/10/2012	1310	1		S		☑	☐	☐			
07517-S0002-F137-01	4/10/2012	1315	1		S		☑	☐	☐			
07517-S0002-F138-01	4/10/2012	1320	1		S		☑	☐	☐			
07517-S0002-F139-01	4/10/2012	1325	1		S		☑	☐	☐			
07517-S0002-F140-01	4/10/2012	1330	1		S		☑	☐	☐			
07517-S0002-F141-01	4/10/2012	1335	1		S		☑	☐	☐			
07517-S0002-F142-01	4/10/2012	1340	1		S		☑	☐	☐			
07517-S0002-F143-01	4/10/2012	1345	1		S		☑	☐	☐			
07517-S0002-F144-01	4/10/2012	1350	1		S		☑	☐	☐			
07517-S0002-F145-01	4/10/2012	1355	1		S		☑	☐	☐	Dup		
07517-S0002-F146-01	4/10/2012	1400	1		S		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 4-10-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS:
Company RSRS	*Time* 16:10	*Company* C&T	SAMPLING COMMENTS:
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION:
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

ED_004747_00010904-00276

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02360

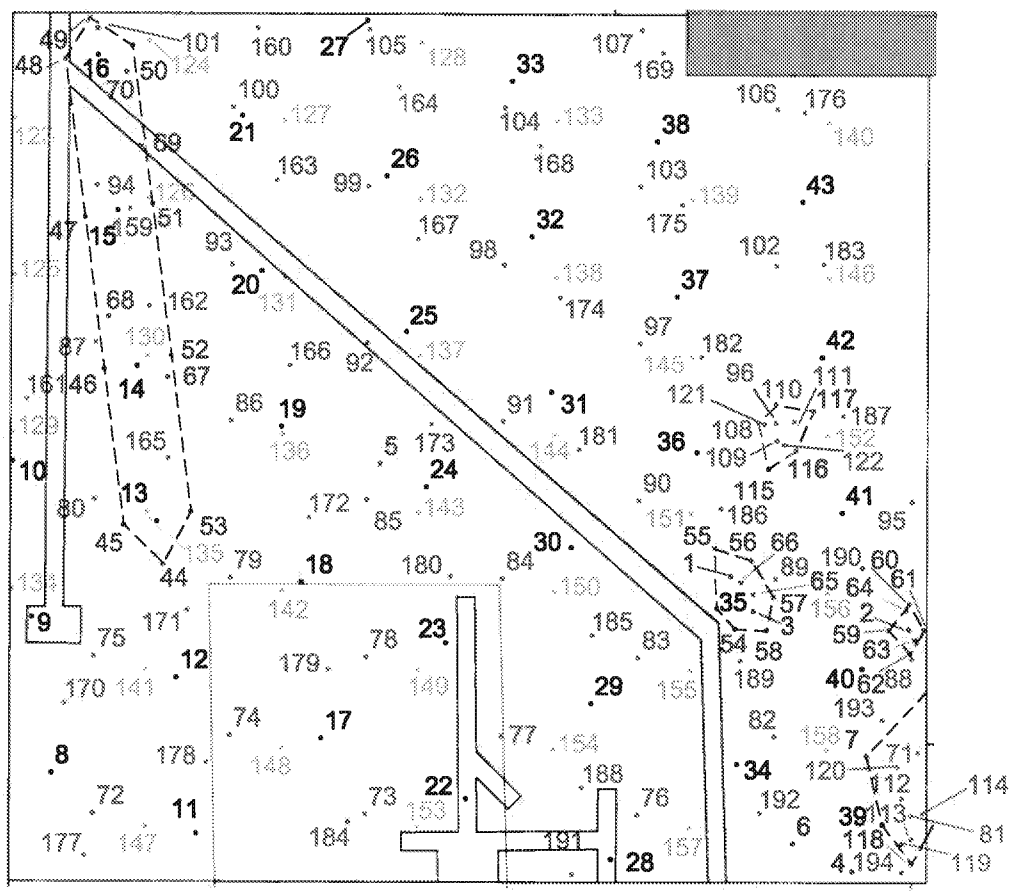
Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J - Rolfe	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F147-01	4/10/2012	1405	1		S		☑	☐	☐			
07517-S0002-F148-01	4/10/2012	1410	1		S		☑	☐	☐			
07517-S0002-F149-01	4/10/2012	1415	1		S		☑	☐	☐			
07517-S0002-F150-01	4/10/2012	1420	1		S		☑	☐	☐			
07517-S0002-F151-01	4/10/2012	1425	1		S		☑	☐	☐			
07517-S0002-F152-01	4/10/2012	1430	1		S		☑	☐	☐			
07517-S0002-F153-01	4/10/2012	1435	1		S		☑	☐	☐			
07517-S0002-F154-01	4/10/2012	1440	1		S		☑	☐	☐			
07517-S0002-F155-01	4/10/2012	1445	1		S		☑	☐	☐			
07517-S0002-F156-01	4/10/2012	1450	1		S		☑	☐	☐			
07517-S0002-F157-01	4/10/2012	1455	1		S		☑	☐	☐			
07517-S0002-F158-01	4/10/2012	1500	1		S		☑	☐	☐			

Relinquished by: (signature) J-Rolfe	Date 4-10-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 10:10 ~~16:10~~	Company C&T	SAMPLING COMMENTS
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

ED_004747_00010904-00277



1875.86 m^2

LEGEND:

- 1 BIASED 1 1–7
- 8 SYSTEMATIC 1 8–43
- 44 CHARACTERIZATION 1 44–62
- 63 POST–REMEDIATION 1 63–70
- 71 BIASED 2 71
- 72 SYSTEMATIC 2 72–107
- 108 CHARACTERIZATION 2 108–114
- 115 CHARACTERIZATION 3 115–118
- 119 POST–REMEDIATION 2 119–122
- 123 SYSTEMATIC 3 123–158
- 159 SYSTEMATIC 4 159–194
- CONCRETE
- REMEDIATED AREA
- FORMER BUILDING 517 SITE

SCALE 1:30

RECORD COPY

P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\500 SERIES\500 SERIES.DWG
PLOT/UPDATE: OCT 24 2012 11:51:43

HUNTERS POINT NAVAL SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

500 SERIES SURVEY UNITS
CLASS 1 SURVEY UNIT
517 SU-02

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From: Chiu, George
Sent: Friday, June 22, 2012 1:10 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02
Attachments: 07517-S0002 123 to 158 Off-Site Gamma.pdf; 07517-S0002 Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec and strontium results for the systematic samples from Building 517 Survey Unit 02.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George
Sent: Monday, April 23, 2012 1:17 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from Building 517 Survey Unit 02. Samples 125, 132, 142, 145, 145DUP, 149, 150, 152, 154, and 157 were recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for the Former Building 517 Site, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

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From: Chiu, George
Sent: Wednesday, April 18, 2012 4:56 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the revised post-remediation sampling results from Building 517 Survey Unit 02. Samples 119 and 120 were recounted for a longer duration in order to meet the Co-60 MDA requirement in the Sampling and Analysis Plan Revision 1.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George
Sent: Sunday, April 08, 2012 10:57 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Building 517 Survey Unit 02.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George
Sent: Sunday, March 18, 2012 11:14 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02. Samples 115, 117, and 118 were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George
Sent: Friday, March 02, 2012 1:25 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02. All samples were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with characterization/remediation around the following sample points due to radium-226 activity:

Sample ID	Ra-226 (pCi/g)
07517-S0002-F109-01	1.855
07517-S0002-F111-01	1.682
07517-S0002-F112-01	2.123

07517-S0002-F113-01	1.801
07517-S0002-F114-01	2.199

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George
Sent: Monday, February 20, 2012 8:42 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Building 517 Survey Unit 02. Samples 71, 77, 81, 82, 84 - 86, 88 - 93, 95 - 98, 101 - 104, and 103DUP were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with characterization/remediation around sample points 81 (1.647 pCi/g) and 96 (2.405 pCi/g) due to radium-226 activity.

George Chiu | Health Physicist
Direct: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
200 South Virginia St 8th Floor | Reno, NV 89501 | www.radsvcs.com

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From: Chiu, George
Sent: Sunday, January 29, 2012 4:49 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Building 517 Survey Unit 02. Samples 63, 64, 65, 66, 67, 69 and 70 were recounted for a longer duration at the direction of the laboratory manager.

Since the survey unit boundary was extended due to characterization/remediation, we will proceed with a gamma scan followed by the bias/systematic sampling of this survey unit.

George Chiu | Health Physicist
Direct: 415.216.2745 | Cell: 714.270.4009
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Radiological Survey & Remedial Services
200 South Virginia St 8th Floor | Reno, NV 89501 | www.radsvcs.com

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Think Green - Not every email needs to be printed.

From: Chiu, George
Sent: Thursday, January 26, 2012 12:22 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the revised bias, systematic, and characterization sampling results from Building 517 Survey Unit 02. Samples were recounted for a longer duration in order to meet the Co-60 MDA requirement in the Sampling and Analysis Plan Revision 1.

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From: Chiu, George
Sent: Tuesday, January 17, 2012 9:58 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02.

We will proceed with remediation followed by post-remediation sampling.

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From: Chiu, George
Sent: Friday, January 06, 2012 2:51 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Building 517 Survey Unit 02. Samples 01, 02, 03, 05, 13, 14, 15, 16, 25, and 42 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around the following sample points due to radium-226 activity:

Sample ID	Ra-226 (pCi/g)
07517-S0002-F001-01	1.793
07517-S0002-F002-01	1.729
07517-S0002-F003-01	1.838
07517-S0002-F013-01	3.803
07517-S0002-F014-01	2.481
07517-S0002-F015-01	2.046
07517-S0002-F016-01	1.784

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Think Green - Not every email needs to be printed.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: December 12, 2011	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 408 cubic yards of soil from Work Areas #34 and #35 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 02-C34-28-1C 27 linear feet completed
  - 02-C34-28-1D 39 linear feet completed
  - 02-C34-28-1K 59 linear feet completed
  - 02-C34-28-1L 66 linear feet completed
  - 02-C34-28-1M 60 linear feet completed
  - 02-C34-28-6C 6 linear feet completed
  - 02-C35-00-8A 10 linear feet completed
- A total of 257 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 10 linear feet not identified on the design drawings was completed by the HPNS Team.
- Manholes MH1045 and MH1047 and pipe sections excavated from trench segments 02-C34-28-1C, -1D, -1K, -1L, -1M, -6C, and 02-C35-00-8A were placed on plastic pending further activities.
- Survey activities were performed by the HPNS Team for excavated Manholes MH1011, MH1027, and MH1329 (Survey No. HPS-PCPIPE-121211-040). A total of 6 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with pipe survey results (Survey Nos. HPS-PCPIPE-120611-037 and HPS-PCPIPE-120711-038). No activity above the release criteria was identified.
- The HPNS Team continued paving along Lockwood Street and Spear Avenue over backfilled trench units in Work Areas #33 and #35.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: December 12, 2011	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY2 processing activities:
  - Towed array survey activities were performed for ES Unit 0621
  - Issued drawing to identify biased and systematic sample collection locations for ES Unit 0621.
- The HPNS Team performed the following RSY4 processing activities:
  - A total of 34 truckloads of material were received for processing.
  - ES Unit 0633 was prepared for upcoming towed array survey activities.
  - Collected 1 biased and 18 systematic soil samples from both ES Units 0615 and 0631 and submitted to the on-site laboratory for analysis.
  - Staged ES Units 0557 and 0616 in the stockpile area pending receipt of the off-site analytical results.
  - ES Units 0627 and 0632 were prepared for transfer to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- After evaluating the data, the RASO concurred with the following:
  - Transfer of ES Units 0606, 0607, and 0609 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.
  - Reuse of ES Unit 0581 as trench backfill.
  - Staging ES Units 0627 and 0632 pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 403
  - Swipe samples received for Protean counts: 154
  - Air samples received: 1
  - Samples analyzed by gamma spectroscopy: 112
  - Gamma spectroscopy samples recounted: 4
  - Protean swipe samples counted: 104
  - Protean air samples counted: 1
- A total of 729 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

Basewide Support

- Portal Monitor Activities
  - A total of 56 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 59 truckloads of material exited HPNS through the portal monitor with no alarms.
- Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.
- One incoming materials and equipment survey was performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: December 12, 2011	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Buildings 506, 507, 509, 510/510A, and 517 Sites, the Building 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- Soil grading activities were performed by the HPNS Team in preparation for upcoming gamma scan surveys.

Building 507 Site

- The HPNS Team performed exploratory excavations to identify the spatial extent of the building foundation and to estimate the volume of debris requiring removal.

Building 509 Site

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 2. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 7 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 9,464 cpm. In addition, 43 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 521

- The HPNS Team performed Class 1 survey activities for Survey Unit 6. A total of 200 alpha/beta scan readings were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated for Trench Unit No. 215 by the HPNS Team.
- The HPNS Team and the RASO concurred with backfilling Trench Unit No. 223.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: January 12, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities in Work Areas #31, #33, and #34. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued in Trench Unit No. 231 by the HPNS Team.
- The RSOR provided the HPNS Team with survey results for the excavated manhole detailed in Survey No. HPS-PCPIPE-010612-043 and pipe sections detailed in Survey No. HPS-PCPIPE-010612-044. Because no activity above the release criteria was identified, these manholes and pipe sections were released and staged for transfer to the DON non-LLRW waste contractor.
- The RSOR provided the HPNS Team with survey results for the pipe sections detailed in Survey No. HPS-PCPIPE-010912-045; no activity above the release criteria was identified. These pipe sections will remain in place due to proximity to the Building 208 foundation and Drydock Nos. 2 and 3.
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 237; no activity above the release criteria was identified.
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 238. Characterization and remediation will be performed due to ^{226}Ra activity above the release criteria as follows:
  - Sample Point 8 (02-PCT-238-008) with ^{226}Ra at 1.784 pCi/g
  - Sample Point 10 (02-PCT-238-010) with ^{226}Ra at 1.894 pCi/g
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 234 along with a request for backfill concurrence.
- The HPNS Team continued swale and drain pipe installation and site restoration activities along previously backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: January 12, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - ES Units 0422 and 0628 were staged in the stockpile areas pending receipt of the off-site analytical results.
  - Began transfer of ES Unit 0633 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The on-site analytical data for ES Unit 0630 was submitted to the RASO for review with a request for concurrence to stage the material pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 43
  - Swipe samples received for Protean counts: 94
  - Air samples received: 6
  - Samples analyzed by gamma spectroscopy: 153
  - Gamma spectroscopy samples recounted: 5
  - Protean swipe samples counted: 22
  - Protean air samples counted: 6

- A total of 389 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 80 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
  - A total of 57 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 57 truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of five outgoing materials and equipment surveys were performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: January 12, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Buildings 510/510A, 517, and 520 Sites, the Building 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 510/510A Site

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 1.
- Approximately 120 cubic yards of asphalt and concrete was removed, scanned, and transferred to the Salvage Yard pending receipt of the Class 1 soil survey unit results.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 19 characterization gamma static measurements were logged with a maximum measurement of 9,558 cpm. In addition, 19 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is the process of reviewing these data.

Building 520 Site

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 5. Characterization and remediation will be performed due to ^{137}Cs contamination as follows:
  - Sample Point 5 (07520-S0005-F005-01) with ^{137}Cs at 0.2651 pCi/g
  - Sample Point 7 (07520-S0005-F007-01) with ^{137}Cs at 0.2606 pCi/g
  - Sample Point 9 (07520-S0005-F009-01) with ^{137}Cs at 0.2713 pCi/g
  - Sample Point 23 (07520-S0005-F023-01) with ^{137}Cs at 0.2491 pCi//g
  - Sample Point 24 (07520-S0005-F024-01) with ^{137}Cs at 0.1239 pCi/g

Building 521

- The HPNS Team continued Class 3 survey activities for Survey Unit 8. A total of 20 gamma static measurements were logged with a maximum measurement of 6,934 cpm. A total of 20 alpha/beta static measurements also were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. In addition, 20 swipe samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Survey activities were performed by the HPNS Team for excavated Manholes MH1256, MH1298, MH1299, MH1311, MH1312, MH1313, MH1314, MH1315, MH1316, MH1317, MH1318, MH1327, MH1328, and MH1330 (Survey No. HPS-PEPIPE-011212-042). A total of 28 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team continued pre-survey activities in Work Area #36 including the removal and sizing of metal rebar from concrete pads.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plan

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: January 19, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #33. Details of the work activities performed are provided in the sections below.

North Pier

- Pre-survey activities were continued by the HPNS Team including collection of reference area gamma static measurements from Building 270.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Soil compaction and testing was continued for previously backfilled areas of Trench Unit No. 231. Based on the results, backfill activities were completed by the HPNS Team in this trench unit.
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 227 along with a request for concurrence to backfill.
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: January 19, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - Issued drawing to identify characterization sample collection locations for ES Unit 0634.
  - Five biased soil samples were collected from ES Unit 0634 and submitted to the on-site laboratory for analysis.
  - ES Units 0550 and 0630 were staged in the stockpile area pending receipt of the off-site analytical results.
  - Began transfer of ES Unit 0615 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 120
  - Swipe samples received for Protean counts: 7
  - Air samples received: 5
  - Samples analyzed by gamma spectroscopy: 58
  - Gamma spectroscopy samples recounted: 41
- A total of 290 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 150 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
  - A total of 41 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of two incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: January 19, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team issued record drawings to identify the post-remediation sample collection locations in Class 1 Survey Unit 4.

Building 517 Site

- Approximately 34 cubic yards of soil was remediated from Survey Unit 2 and placed in LLRW bins GFLU001194T15, GFLU001237T18, and GFLU002048 for disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 9,946 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is the process of reviewing these data

500 Series Area

- The HPNS Team continued preparing the 500 Series Area for towed array survey activities including soil grading and removal of metal rebar from the concrete pad located in Survey Units 12 and 13.
- Approximately 12 cubic yards of asphalt from Survey Unit 8 was removed, scanned, and transferred to the Salvage Yard pending receipt of the Class 1 soil survey unit results.
- The HPNS Team performed gamma scan surveys over Survey Units 19 and 21.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 20 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,001 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 21 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 6,803 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 20 and 21.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Trench segment 07-E36-39-1K crushed pipe debris was placed in LLRW bin GFLU001111 for disposal.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plan

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: February 2, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 492 cubic yards of asphalt covering Survey Units 9, 10, and 11 was removed, scanned, and transferred to Drydock No. 4 pending receipt of the Class 1 survey unit results; no elevated scan readings were identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 264 cubic yards of soil from Work Area #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 02-C34-28-2P 40 linear feet completed
  - 02-C34-28-4B 34 linear feet completed
  - 02-C34-28-4E 116 linear feet completed
- A total of 190 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1007 and MH1009 excavated from trench segments 02-C34-28-2P and 02-C34-28-4E were placed on plastic pending further activities.
- A sediment sample was collected from excavated Manhole MH1007 (02-PCMH1007-060-01) and submitted to the on-site laboratory for analysis.
- Plastic pipe liner associated with trench segments 02-C34-28-2P, -4B, and -4E was placed in LLRW bin GFLU000262 for disposal.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: February 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 22 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0640.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 91
  - Swipe samples received for Protean counts: 7
  - Air samples received: 16
  - Samples analyzed by gamma spectroscopy: 93
  - Gamma spectroscopy samples recounted: 10
  - Protean swipe samples counted: 48
  - Protean air samples counted: 16
- A total of 343 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 35 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
  - A total of five empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 41 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: February 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 1 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 8,805 cpm. In addition, 37 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team continued soil grading and debris removal for the 500 Series Area in preparation for towed array survey activities.
- The HPNS Team performed towed array gamma scan surveys over Survey Unit 18.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 6 – A total of 4 biased gamma static measurements were logged with a maximum measurement of 7,710 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 8 – A total of 4 biased gamma static measurements were logged with a maximum measurement of 8,550 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 6 and 8.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Approximately 10 cubic yards of soil was remediated from Trench Unit No. 225 (trench segment 07-E36-14-1Q) by the HPNS Team and placed in LLRW bins BFLU000011, GFLU001149T17, and GFLU001237T18 for off-site disposal.
- Approximately 5 cubic yards of soil was remediated from Trench Unit No. 228 (trench segment 07-E36-14-1E) by the HPNS Team and placed in LLRW bin BFLU000011 for off-site disposal.

- A total of 23 investigative samples were collected from Trench Unit No. 241 by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for investigative sample collection in Trench Unit No. 241.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: February 21, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31 and #32. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team continued removing railroad ties and track and performing soil grading; metal track and wooden ties were sized and staged pending further activities.
- Survey activities were performed by the HPNS Team on metal railroad plates and rail spikes (Survey Nos. HPS-A-NPR-008 and HPS-A-NPR-009); a total of 108 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for metal rail plates and spikes, and wooden railroad ties detailed in Survey Nos. HPS-A-NPR-002, HPS-A-NPR-003, and HPS-A-NPR-004. Because no activity above the release criteria was identified, 108 items were released and prepared for transfer to the recycling stockpiles near Building 411.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 236 by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: February 21, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 32 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0618.
  - Collected 10 biased and 18 systematic soil samples from ES Unit 0642 and submitted to the on-site laboratory for analysis.
  - ES Unit 0639 was staged in the stockpile area pending receipt of the off-site analytical results.
  - Began transfer of ES Unit 0641 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0635 and a request for concurrence to use the material as trench backfill.
- After evaluating the data, the RASO concurred with the following:
  - Staging of ES Unit 0641 pending receipt of the off-site analytical data prior to transferring the material to the DON non-LLRW contractor for disposal at a CERCLA landfill.
  - Staging ES Unit 0636 pending receipt of the off-site analytical results.

Basewide Support

- One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 53
  - Swipe samples received for Protean counts: 72
  - Air samples received: 8
  - Samples analyzed by gamma spectroscopy: 71
  - Gamma spectroscopy samples recounted: 22
  - Protean air samples counted: 18
- A total of 280 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 137 samples were sent to TestAmerica St. Louis for analysis.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: February 21, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 7 characterization gamma static measurements were logged with a maximum measurement of 8,894 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 521

- Vent and drain surveys were performed by the HPNS Team for the furnace system and exhaust stacks; a total of 20 swipe sample were collected and submitted to the on-site laboratory for analysis (Survey No. HPS-VD-B521-001).

Shacks 79 and 80

- The HPNS Team provided the RASO with off-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 1. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 5 (077980-S0001-F005-01) with ^{137}Cs at 0.131 pCi/g
  - Sample Point 19 (077980-S0001-F019-01) with ^{137}Cs at 0.125 pCi/g

500 Series Area

- The HPNS Team excavated approximately 384 cubic yards of sand/soil material from Survey Units 12 and 13 and transferred the materials to RSY4 for further activities.
- Towed array gamma scan surveys were performed over Survey Units 15 and 16.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were competed for Trench Unit Nos. 217 and 224 by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 5, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 5.
- Perimeter fencing maintenance and reconfiguration activities were performed on the west end of Work Area #32 near Blandy Street.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated in Trench Unit No. 232 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 05, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 27 truckloads of material at RSY4 for processing.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 14
  - Swipe samples received for Protean counts: 85
  - Air samples received: 6
  - Samples analyzed by gamma spectroscopy: 60
  - Gamma spectroscopy samples recounted: 11
  - Protean swipe samples counted: 61
  - Protean air samples counted: 5
- A total of 249 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: March 5, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four characterization gamma static measurements were logged with a maximum measurement of 7,884 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team resumed excavation of the sand/soil from Survey Unit 13 and staged the material pending transfer to the RSY4 for processing.
- Towed array gamma scan surveys were performed over Survey Unit 2.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 3 – A biased gamma static measurements was logged with a measurement of 6,661 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 15 – A total of eight characterization gamma static measurements were logged with a maximum measurement of 6,077 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 3 and 15.
- The HPNS Team issued drawings to identify locations for biased sample collection in Class 1 Survey Unit 3 and locations for characterization sample collection in Class 1 Survey Unit 15.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 324 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-520-14-2A 35 linear feet completed
  - 07-520-14-2B 6 linear feet completed
  - 07-E36-00-4N 28 linear feet completed
  - 07-E36-00-4P 86 linear feet completed
  - 07-E36-00-4Q 65 linear feet completed
  - 07-E36-00-4T 3 linear feet completed
  - 07-E36-14-2A 28 linear feet completed
- A total of 251 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe excavated from trench segment 07-E36-00-4P were placed on plastic pending further activities.
- The HPNS Team investigated trench segments 07-520-14-2A and 07-520-14-2B for the presence of pipe. Although depicted on the design drawing, no pipe was found during these investigations
- A sediment sample was collected from pipe excavated from trench segment 07-E36-00-4P (07-PEPI-0026-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were completed for Trench Unit No. 235 by the HPNS Team.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 2, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #34 and #35. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 312 cubic yards of asphalt removed from Survey Unit 5 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the excavated manholes detailed in Survey Nos. HPS-PCPIPE-032812-047 and HPS-PCPIPE-032812-048. Because no activity above the release criteria was identified, these 22 manholes were released for transfer to the recycling stockpiles near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 37 truckloads of material were received for processing.
  - Began transfer of ES Unit 0653 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 5
  - Air samples received: 8
  - Samples analyzed by gamma spectroscopy: 66
  - Gamma spectroscopy samples recounted: 15
  - Protean swipe samples counted: 16
  - Protean air samples counted: 7
- A total of 127 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

Basewide Support

- Portal Monitor Activities
  - A total of 57 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 57 truckloads of material exited HPNS through the portal monitor with no alarms.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 506, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four post-remediation gamma static measurements were logged with a maximum measurement of 6,846 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team prepared Survey Unit 3 for additional towed array survey activities including the removal of asphalt exposed during perimeter fencing modifications.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 1.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 52 cubic yards of soil was remediated from Survey Units 1 and 3 by the HPNS Team and placed in LLRW bins ERRU000151, GFLU002020, and GFLU002136 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A systematic gamma static measurement was logged at 4,448 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 9, 17, 20, and 21; no further contamination was identified.

- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 1, 16, 17, 18, and 19.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 444 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-506-14-1C 12 linear feet completed
  - 07-E36-14-1C 32 linear feet completed
  - 07-E36-14-8S 2 linear feet completed
  - 07-E36-38-1Y 40 linear feet completed
  - 07-E36-38-1Z 6 linear feet completed
  - 07-E36-38-3E 72 linear feet completed
  - 07-E36-38-3H 30 linear feet completed
  - 07-E36-38-8B 2 linear feet completed
  - 07-E36-38-8C 4 linear feet completed
- A total of 192 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 8 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1270 was placed on plastic pending further activities.
- Perimeter fencing along west edge of Work Area #36 was reconfigured by the HPNS Team to facilitate upcoming survey activities.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 10, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities in Work Areas #33 and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the pipe sections detailed in Survey Nos. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050. Because no activity above the release criteria was identified, these 32 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 247.
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 10, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 44 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
  - ES Units 0658 and 0680 were prepared for upcoming towed array activities.
  - Issued drawings to identify biased, systematic, and remediation sample collection locations for ES Units 0626, 0652, 0655, 0659, 0674, and 0675.
  - A total of 6 biased and 18 systematic soil samples were collected from ES Unit 0659 and submitted to the on-site laboratory for analysis.
  - ES Unit 0656 was prepared for transfer to the stockpile area.
  - ES Unit 0654 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The off-site analytical data for ES Unit 0618 was submitted to the RASO for review. The RASO concurred with transferring the material to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
  - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 46 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 78
  - Swipe samples received for Protean counts: 9
  - Air samples received: 1
  - Samples analyzed by gamma spectroscopy: 85
  - Gamma spectroscopy samples recounted: 1
  - Protean swipe samples counted: 79
  - Protean air samples counted: 1
- A total of 92 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 114 samples were sent to TestAmerica St. Louis for analysis.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 10, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 8,515 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 2. Characterization and remediation will be performed due to the presence of ^{137}Cs activity above the release criteria at Sample Point 7 (0.17 pCi/g).
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, remediation and post-remediation sample collection will be performed.
- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Unit 17 and systematic sample collection locations s in Class 1 Survey Units 3 and 18.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 528 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:

- 07-E36-00-6X 15 linear feet completed
- 07-E36-00-6Y 44 linear feet completed
- 07-E36-00-6Z 50 linear feet completed
- 07-E36-00-8Y 34 linear feet completed
- 07-E36-00-8Z 24 linear feet completed
- 07-E36-00-9K 5 linear feet completed

- A total of 109 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 63 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manholes MH1280 and MH1281 were placed on plastic pending further activities.
- A sediment sample was collected from Manhole MH1281 (07-PEMH1281-012-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Crushed debris and Manhole MH1275 were placed in LLRW bin ERRU000161 for off-site disposal.
- Backfill activities were initiated for Trench Unit Nos. 225 and 228 by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g) K-40	Th-232	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	Th-232	Cs-137	Bi-214	Pb-214
517	2	1	Biased	07517-S0002-F001-01	12-Dec-11	14.57		-0.007908	0.9212	1.077					
517	2	2	Biased	07517-S0002-F002-01	12-Dec-11	13.7		0.00425	1.062	1.071					
517	2	3	Biased	07517-S0002-F003-01	12-Dec-11	13.38		-0.002816	1.084	1.148					
517	2	4	Biased	07517-S0002-F004-01	12-Dec-11	17.01	0.3222	-0.002556	0.6817	0.7362					
517	2	5	Biased	07517-S0002-F005-01	12-Dec-11	15.95	0.812	-0.008397	0.598	0.6132					
517	2	6	Biased	07517-S0002-F006-01	12-Dec-11	17.79	0.873	0.001905	0.4365	0.6143					
517	2	7	Biased	07517-S0002-F007-01	12-Dec-11	18.45	0.8882	-0.005043	0.4547	0.6017					
517	2	8	Systematic	07517-S0002-F008-01	12-Dec-11	17.03	1.035	-0.002108	0.7789	0.8703					
517	2	9	Systematic	07517-S0002-F009-01	12-Dec-11	17.42	0.9294	0	0.7386	0.855					
517	2	10	Systematic	07517-S0002-F010-01	12-Dec-11	18.23	0.7109	-0.01334	0.725	0.7229					
517	2	11	Systematic	07517-S0002-F011-01	12-Dec-11	11.44	0.5055	0.01442	0.5093	0.5747					
517	2	12	Systematic	07517-S0002-F012-01	12-Dec-11	12.87	0.6684	-0.01473	0.4262	0.5235					
517	2	13	Systematic	07517-S0002-F013-01	12-Dec-11	14.43		-0.01851	2.372	2.476					
517	2	14	Systematic	07517-S0002-F014-01	12-Dec-11	13.1		-0.008261	1.73	1.827					
517	2	15	Systematic	07517-S0002-F015-01	12-Dec-11	14.29		0.008713	1.223	1.353					
517	2	16	Systematic	07517-S0002-F016-01	12-Dec-11	14.2		0.005234	1.635	1.681					
517	2	17	Systematic	07517-S0002-F017-01	12-Dec-11	10.77	0.9704	-0.001129	0.3679	0.4878					
517	2	18	Systematic	07517-S0002-F018-01	12-Dec-11	10.61	0.3254	0.009511	0.2953	0.5098					
517	2	19	Systematic	07517-S0002-F019-01	12-Dec-11	8.391	0.3543	0.001006	0.3331	0.3603					
517	2	20	Systematic	07517-S0002-F020-01	12-Dec-11	12.85	0.9633	0.01818	0.5032	0.5961					
517	2	21	Systematic	07517-S0002-F021-01	12-Dec-11	11.3	0.6022	0.00649	0.2723	0.4389					
517	2	22	Systematic	07517-S0002-F022-01	12-Dec-11	12.79	0.5336	0.01837	0.4	0.4706					
517	2	23	Systematic	07517-S0002-F023-01	12-Dec-11	13.81	0.7092	0.003023	0.6197	0.6552					
517	2	24	Systematic	07517-S0002-F024-01	12-Dec-11	13.87	0.6536	0	0.6175	0.6384					
517	2	25	Systematic	07517-S0002-F025-01	12-Dec-11	13.06	0.7848	0.007467	0.4886	0.5995					
517	2	26	Systematic	07517-S0002-F026-01	12-Dec-11	14.2	0.8044	-0.00686	0.6267	0.6843					
517	2	27	Systematic	07517-S0002-F027-01	12-Dec-11	5.401	0.5599	0.0005004	0.2297	0.3371					
517	2	28	Systematic	07517-S0002-F028-01	12-Dec-11	14.96	0.803	0.001295	0.5735	0.6863					
517	2	29	Systematic	07517-S0002-F029-01	12-Dec-11	15.07	0.6499	0.007813	0.5731	0.7231					
517	2	30	Systematic	07517-S0002-F030-01	12-Dec-11	14.5	0.9282	-0.00711	0.6613	0.7377					
517	2	31	Systematic	07517-S0002-F031-01	12-Dec-11	13.39	0.4525	0.01404	0.6022	0.6795					
517	2	32	Systematic	07517-S0002-F032-01	12-Dec-11	13.94	0.6558	0	0.505	0.6031					
517	2	33	Systematic	07517-S0002-F033-01	12-Dec-11	15.14	0.6507	0.01023	0.6365	0.6129					
517	2	34	Systematic	07517-S0002-F034-01	12-Dec-11	14.28	0.8655	0.01559	0.4783	0.6695					
517	2	35	Systematic	07517-S0002-F035-01	12-Dec-11	13.46	0.8594	0.02176	0.4704	0.6135					
517	2	36	Systematic	07517-S0002-F036-01	12-Dec-11	15.13	1.224	0.017	0.6901	0.6915					
517	2	37	Systematic	07517-S0002-F037-01	12-Dec-11	10.93	0.5857	0.02068	0.2603	0.4721					
517	2	38	Systematic	07517-S0002-F038-01	12-Dec-11	11.2	1.008	0.009354	0.502	0.5702					
517	2	39	Systematic	07517-S0002-F039-01	12-Dec-11	14.1	0.2553	-0.0008586	0.4775	0.6164					
517	2	40	Systematic	07517-S0002-F040-01	12-Dec-11	17.67	1.151	0.01056	0.8249	0.8027					
517	2	41	Systematic	07517-S0002-F041-01	12-Dec-11	13.06	0.7284	0.01624	0.5635	0.6122					
517	2	42	Systematic	07517-S0002-F042-01	12-Dec-11	12.31	1.421	-0.006136	0.8049	1.147					
517	2	43	Systematic	07517-S0002-F043-01	12-Dec-11	17.19	0.6279	-0.00326	0.6542	0.6478					
517	2	44	Characterization	07517-S0002-F044-01	12-Jan-12	12.58	0.1509	-0.0005076	0.3232	0.4743					
517	2	45	Characterization	07517-S0002-F045-01	12-Jan-12	12.9	1.032	-0.005945	0.4594	0.3422					
517	2	46	Characterization	07517-S0002-F046-01	12-Jan-12	12.51	0.812	-0.001039	0.3153	0.3805					
517	2	47	Characterization	07517-S0002-F047-01	12-Jan-12	13.6	0.8205	0.002865	0.2352	0.415					
517	2	48	Characterization	07517-S0002-F048-01	12-Jan-12	13.38	0.4986	0.007744	0.4544	0.4378					
517	2	49	Characterization	07517-S0002-F049-01	12-Jan-12	12.22	0.4907	-0.001855	0.2837	0.4477					
517	2	50	Characterization	07517-S0002-F050-01	12-Jan-12	12.61	0.3725	0.002652	0.4365	0.3721					
517	2	51	Characterization	07517-S0002-F051-01	12-Jan-12	12.87	0.4867	0.006751	0.3444	0.3249					
517	2	52	Characterization	07517-S0002-F052-01	12-Jan-12	10	0.3728	0.006848	0.4545	0.356					

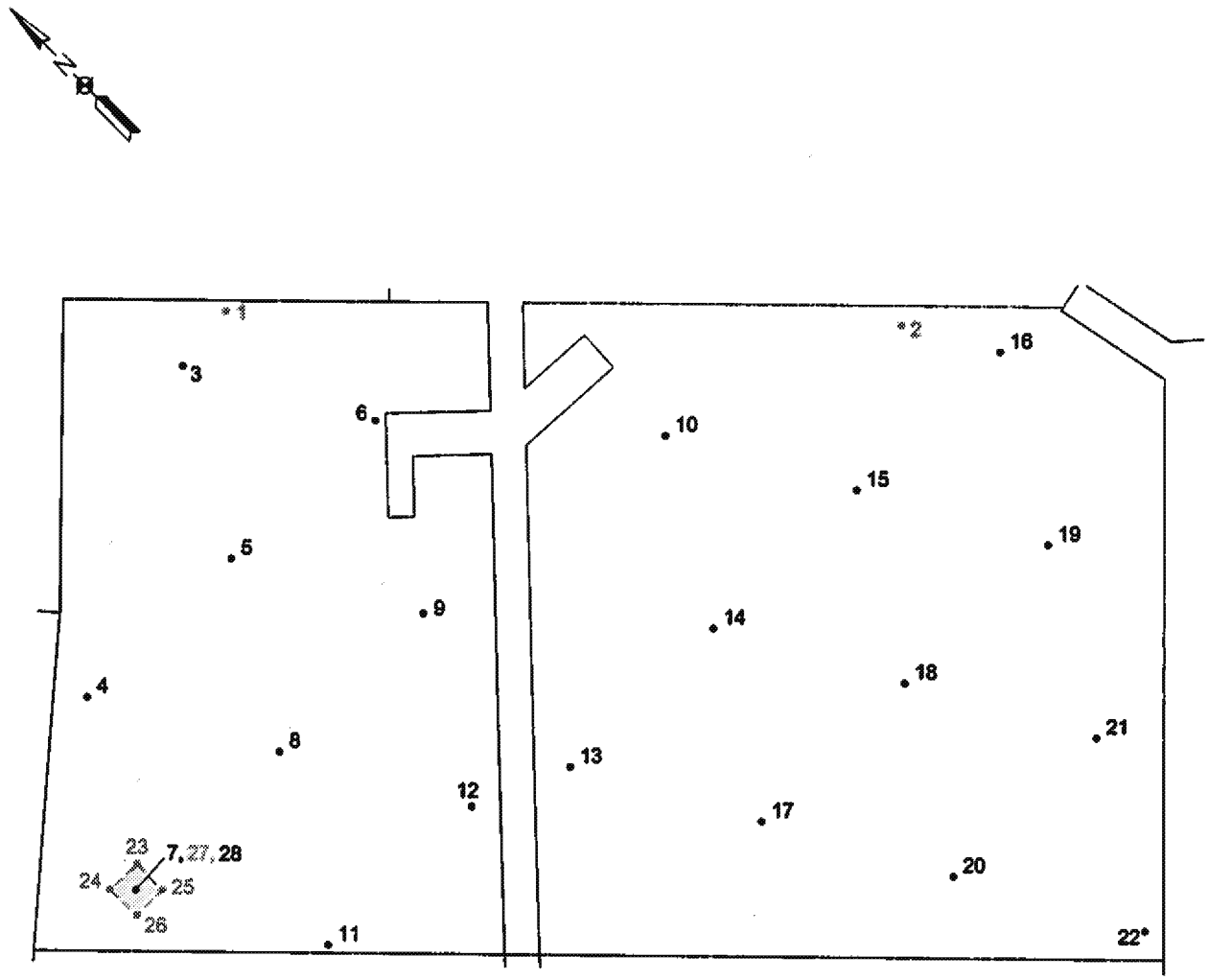
Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g) K-40	U-238	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	U-238	Cs-137	Bi-214	Pb-214
517	2	53	Characterization	07517-S0002-F053-01	12-Jan-12	12.82	0.4189	-0.0002569	0.2745	0.3755					
517	2	54	Characterization	07517-S0002-F054-01	12-Jan-12	12.99	0.6403	-0.0001639	0.3745	0.4417					
517	2	55	Characterization	07517-S0002-F055-01	12-Jan-12	13.62	0.8739	0.01389	0.3899	0.3661					
517	2	56	Characterization	07517-S0002-F056-01	12-Jan-12	11.25	1.044	0.0145	0.417	0.4298					
517	2	57	Characterization	07517-S0002-F057-01	12-Jan-12	8.638	0.4514	0.007671	0.4733	0.5121					
517	2	58	Characterization	07517-S0002-F058-01	12-Jan-12	8.042	0.8903	-0.01241	0.3288	0.3569					
517	2	59	Characterization	07517-S0002-F059-01	12-Jan-12	13.17	0.8123	0.002289	0.4208	0.5186					
517	2	60	Characterization	07517-S0002-F060-01	12-Jan-12	11.2	0.6652	-0.008311	0.4125	0.4069					
517	2	61	Characterization	07517-S0002-F061-01	12-Jan-12	12.24	0.6225	-0.009485	0.3635	0.374					
517	2	62	Characterization	07517-S0002-F062-01	12-Jan-12	12.51	0.8759	0.002594	0.3136	0.5255					
517	2	63	Post-Remediation	07517-S0002-F063-01	19-Jan-12	25.21	1.248	-0.00102	1.016	1.129					
517	2	64	Post-Remediation	07517-S0002-F064-01	19-Jan-12	26.09	1.27	0	1.004	1.114					
517	2	65	Post-Remediation	07517-S0002-F065-01	19-Jan-12	27.72	1.54	-0.005191	1.141	1.173					
517	2	66	Post-Remediation	07517-S0002-F066-01	19-Jan-12	28.69	0.6624	0	1.057	1.263					
517	2	67	Post-Remediation	07517-S0002-F067-01	19-Jan-12	17.62	0.7224	-0.007909	0.7074	0.6486					
517	2	68	Post-Remediation	07517-S0002-F068-01	19-Jan-12	13.23	0.6853	-0.01103	0.5062	0.5298					
517	2	69	Post-Remediation	07517-S0002-F069-01	19-Jan-12	18.79	0.3369	-0.002105	0.592	0.7131					
517	2	70	Post-Remediation	07517-S0002-F070-01	19-Jan-12	21.91	1.335	-0.0005678	0.7979	0.8523					
517	2	71	Biased	07517-S0002-F071-01	02-Feb-12	27.36	1.18	0.0008843	0.9202	1.134					
517	2	72	Systematic	07517-S0002-F072-01	02-Feb-12	12.37	0.5988	0.001802	0.3511	0.3574					
517	2	73	Systematic	07517-S0002-F073-01	02-Feb-12	8.529	0.6409	0	0.1934	0.412					
517	2	74	Systematic	07517-S0002-F074-01	02-Feb-12	8.629	0.5914	-0.0002751	0.472	0.6522					
517	2	75	Systematic	07517-S0002-F075-01	02-Feb-12	9.062	0.107	-0.01015	0.1096	0.02634					
517	2	76	Systematic	07517-S0002-F076-01	02-Feb-12	16.76	0.4228	-0.003298	0.5703	0.4841					
517	2	77	Systematic	07517-S0002-F077-01	02-Feb-12	8.756	1.022	0.004358	0.716	0.8057					
517	2	78	Systematic	07517-S0002-F078-01	02-Feb-12	10.3	1.132	0.003877	0.4553	0.4595					
517	2	79	Systematic	07517-S0002-F079-01	02-Feb-12	13.67	1.123	-0.0005814	0.7524	0.723					
517	2	80	Systematic	07517-S0002-F080-01	02-Feb-12	9.694	0.696	0	0.4316	0.3759					
517	2	81	Systematic	07517-S0002-F081-01	02-Feb-12	26.94		0.001182	0.7436	0.8743					
517	2	82	Systematic	07517-S0002-F082-01	02-Feb-12	25.36	0.9986	-0.009699	0.834	0.8177					
517	2	83	Systematic	07517-S0002-F083-01	02-Feb-12	28.97	1.093	-0.0001782	0.7573	0.7836					
517	2	84	Systematic	07517-S0002-F084-01	02-Feb-12	17.85	1.275	0.006366	0.7886	0.747					
517	2	85	Systematic	07517-S0002-F085-01	02-Feb-12	18.27	0.7943	-0.008896	0.7572	0.8525					
517	2	86	Systematic	07517-S0002-F086-01	02-Feb-12	19.19	1.239	0.003711	0.7582	0.757					
517	2	87	Systematic	07517-S0002-F087-01	02-Feb-12	6.014	0.3571	0	0.1645	0.23					
517	2	88	Systematic	07517-S0002-F088-01	02-Feb-12	24.48	1.138	-0.01157	0.8108	0.9014					
517	2	89	Systematic	07517-S0002-F089-01	02-Feb-12	28.55	1.451	-0.001202	1.019	1.042					
517	2	90	Systematic	07517-S0002-F090-01	02-Feb-12	27.31	1.3	0	0.9204	1.06					
517	2	91	Systematic	07517-S0002-F091-01	02-Feb-12	27.24	0.9802	-0.004081	0.8879	1.001					
517	2	92	Systematic	07517-S0002-F092-01	02-Feb-12	20.68	1.156	-0.01478	0.7378	0.9759					
517	2	93	Systematic	07517-S0002-F093-01	02-Feb-12	16.07	0.7407	0.004073	0.5896	0.7442					
517	2	94	Systematic	07517-S0002-F094-01	02-Feb-12	9.031	0.007786	-0.00002648	0.287	0.3863					
517	2	95	Systematic	07517-S0002-F095-01	02-Feb-12	25.21	1.563	-0.01944	1.139	1.172					
517	2	96	Systematic	07517-S0002-F096-01	02-Feb-12	29.66		-0.00113	1.104	1.134					
517	2	97	Systematic	07517-S0002-F097-01	02-Feb-12	27.53	1.181	0	1.03	1.139					
517	2	98	Systematic	07517-S0002-F098-01	02-Feb-12	17.31	1.114	-0.008361	0.7126	0.771					
517	2	99	Systematic	07517-S0002-F099-01	02-Feb-12	12.18	0.419	0.006857	0.2621	0.4367					
517	2	100	Systematic	07517-S0002-F100-01	02-Feb-12	8.392	0.5421	0.008547	0.2689	0.2503					
517	2	101	Systematic	07517-S0002-F101-01	02-Feb-12	12.66	0.4389	0.003127	0.3495	0.4427					
517	2	102	Systematic	07517-S0002-F102-01	02-Feb-12	24.57	1.06	0.00215	0.9674	1.008					
517	2	103	Systematic	07517-S0002-F103-01	02-Feb-12	15.58	0.8928	0.00979	0.602	0.7729					
517	2	104	Systematic	07517-S0002-F104-01	02-Feb-12	11.49	0.8024	0	0.4857	0.4944					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
						K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
517	2	105	Systematic	07517-S0002-F105-01	02-Feb-12	12.67	0.6982	0.02004	0.2328	0.5136					
517	2	106	Systematic	07517-S0002-F106-01	02-Feb-12	12.6	0.5822	-0.0001041	0.2716	0.4274					
517	2	107	Systematic	07517-S0002-F107-01	02-Feb-12	5.807	0.1645	0.000456	0.1925	0.3036					
517	2	108	Characterization	07517-S0002-F108-01	21-Feb-12	27.49	1.379	0	1.112	1.115					
517	2	109	Characterization	07517-S0002-F109-01	21-Feb-12	29.48		0.0008791	1.248	1.318					
517	2	110	Characterization	07517-S0002-F110-01	21-Feb-12	31.4	0.8928	0.009672	1.024	1.127					
517	2	111	Characterization	07517-S0002-F111-01	21-Feb-12	30.86		-0.001429	1.236	1.489					
517	2	112	Characterization	07517-S0002-F112-01	21-Feb-12	32.88		0	1.429	1.51					
517	2	113	Characterization	07517-S0002-F113-01	21-Feb-12	31.34		0.003509	1.149	1.253					
517	2	114	Characterization	07517-S0002-F114-01	21-Feb-12	31.92		-0.01804	1.345	1.267					
517	2	115	Characterization	07517-S0002-F115-01	05-Mar-12	11.28	0.57	0	0.3371	0.4649					
517	2	116	Characterization	07517-S0002-F116-01	05-Mar-12	10.63	0.585	0	0.4014	0.333					
517	2	117	Characterization	07517-S0002-F117-01	05-Mar-12	11.32	0.5169	0.002896	0.3455	0.3992					
517	2	118	Characterization	07517-S0002-F118-01	05-Mar-12	16.01	0.5566	0.1001	0.475	0.492					
517	2	119	Post-Remediation	07517-S0002-F119-01	02-Apr-12	12.19	0.8073	0.04502	0.3546	0.4939					
517	2	120	Post-Remediation	07517-S0002-F120-01	02-Apr-12	8.555	0.09381	0.01634	0.3212	0.3248					
517	2	121	Post-Remediation	07517-S0002-F121-01	02-Apr-12	9.352	0.4759	0.02841	0.2833	0.2486					
517	2	122	Post-Remediation	07517-S0002-F122-01	02-Apr-12	11.13	0.7225	0	0.4263	0.4153					
517	2	123	Systematic	07517-S0002-F123-01	10-Apr-12	1.565	0.3047	-0.003487	0.2004	0.1034	0.729	0.227	0.0154	0.227	0.121
517	2	124	Systematic	07517-S0002-F124-01	10-Apr-12	1.714	0.1986	-0.003474	0.07178	0.08444	2.04	0.187	0	0.187	0.199
517	2	125	Systematic	07517-S0002-F125-01	10-Apr-12	2.723	0.2228	-0.0004776	0.2718	0.1849	1.33	0.185	0.0161	0.185	0.19
517	2	126	Systematic	07517-S0002-F126-01	10-Apr-12	1.599	0.3641	0	0.07279	0.05369	1.79	0.164	-0.00139	0.164	0.214
517	2	127	Systematic	07517-S0002-F127-01	10-Apr-12	1.643	0.5215	0	0.06677	0.1747	1.84	0.183	0.00787	0.183	0.223
517	2	128	Systematic	07517-S0002-F128-01	10-Apr-12	1.916	0.218	-0.000169	0.1084	0.1425	2.18	0.172	-0.0000483	0.172	0.217
517	2	129	Systematic	07517-S0002-F129-01	10-Apr-12	1.948	0.07245	-0.005154	0.1083	0.1785	2.09	0.237	-0.0149	0.237	0.0989
517	2	130	Systematic	07517-S0002-F130-01	10-Apr-12	2.369	0.3549	0.01417	0.2324	0.1753	1.3	0.11	0.00865	0.11	0.214
517	2	131	Systematic	07517-S0002-F131-01	10-Apr-12	2.127	0.1196	-0.004853	0.1977	0.1774	1.03	0.328	-0.0243	0.328	0.283
517	2	132	Systematic	07517-S0002-F132-01	10-Apr-12	3.031	0.4146	0.0009916	0.1295	0.2585	1.06	0.044	0.00788	0.044	0.268
517	2	133	Systematic	07517-S0002-F133-01	10-Apr-12	1.628	0	-0.0005489	0.1309	0.1837	1.67	0.235	-0.013	0.235	0.211
517	2	134	Systematic	07517-S0002-F134-01	10-Apr-12	1.49	0.1983	0	0.021	0.2448	1.38	0.257	-0.00711	0.257	0.184
517	2	135	Systematic	07517-S0002-F135-01	10-Apr-12	0.7055	0.3107	0.01188	0.1015	0.05593	3.46	0.127	0.0122	0.127	0.22
517	2	136	Systematic	07517-S0002-F136-01	10-Apr-12	2.011	0.2813	-0.0001282	0.09571	0.1064	1.59	0.0664	0.00521	0.0664	0.0991
517	2	137	Systematic	07517-S0002-F137-01	10-Apr-12	1.575	0.6108	-0.003272	0.1106	0.1025	0.95	0.184	-0.00934	0.184	0.135
517	2	138	Systematic	07517-S0002-F138-01	10-Apr-12	0.9645	0.2614	-0.008344	0.09655	0.06224	1.68	0.114	-0.000225	0.114	0.174
517	2	139	Systematic	07517-S0002-F139-01	10-Apr-12	1.677	0.2239	-0.004593	0.1608	0.1358	1.97	0.0926	-0.00613	0.0926	0.254
517	2	140	Systematic	07517-S0002-F140-01	10-Apr-12	0.8011	0	0.005677	0.01267	0.1995	1.66	0.0685	-0.00757	0.0685	0.215
517	2	141	Systematic	07517-S0002-F141-01	10-Apr-12	1.43	0.1886	0.00003795	0.08116	0.1533	1.72	0.17	0.000585	0.17	0.17
517	2	142	Systematic	07517-S0002-F142-01	10-Apr-12	2.328	0.0495	0.005777	0.1717	0.2391	2.41	0.158	-0.0135	0.158	0.275
517	2	143	Systematic	07517-S0002-F143-01	10-Apr-12	1.657	0.2341	0	0.08333	0.1584	2.61	0.23	-0.0101	0.23	0.291
517	2	144	Systematic	07517-S0002-F144-01	10-Apr-12	1.365	0.1241	0.009164	0.0579	0.06569	0.807	-0.0693	0	-0.0693	0.287
517	2	145	Systematic	07517-S0002-F145-01	10-Apr-12	1.694	0.05659	-0.001156	0.1646	0.2325	1.82	0.151	0.00968	0.151	0.196
517	2	146	Systematic	07517-S0002-F146-01	10-Apr-12	2.04	0.3837	0	0.122	0.06929	1.88	0.192	-0.00757	0.192	0.22
517	2	147	Systematic	07517-S0002-F147-01	10-Apr-12	1.057	0.1451	-0.004289	-0.002028	0.08787	2.06	0.101	0.00815	0.101	0.248
517	2	148	Systematic	07517-S0002-F148-01	10-Apr-12	1.173	0.6242	0.003668	0.1546	0.1879	2.9	0.215	-0.0194	0.215	0.327
517	2	149	Systematic	07517-S0002-F149-01	10-Apr-12	2.391	0.5082	0.004344	0.08803	0.2183	2.01	0.246	0	0.246	0.156
517	2	150	Systematic	07517-S0002-F150-01	10-Apr-12	1.195	0.5208	0.001873	0.2224	0.2491	1.26	0.114	0.00776	0.114	0.258
517	2	151	Systematic	07517-S0002-F151-01	10-Apr-12	2.29	0.3266	0.001623	0.08394	0.1959	2.27	0.218	-0.00576	0.218	0.221
517	2	152	Systematic	07517-S0002-F152-01	10-Apr-12	1.595	0.3115	-0.004797	0.1819	0.1484	2.16	0.22	0.00564	0.22	0.233
517	2	153	Systematic	07517-S0002-F153-01	10-Apr-12	1.116	0.4554	0.01332	0.0892	0.09616	1.66	0.397	-0.00345	0.397	0.336
517	2	154	Systematic	07517-S0002-F154-01	10-Apr-12	2.453	0.1518	0	0.2079	0.1764	2.2	0.0978	-0.0154	0.0978	0.192
517	2	155	Systematic	07517-S0002-F155-01	10-Apr-12	1.327	0	-0.005852	0.1592	0.1841	1.5	0.251	0.006	0.251	0.216
517	2	156	Systematic	07517-S0002-F156-01	10-Apr-12	2.268	0.4993	-0.00005921	0.08584	0.1258	2.64	0.087	0.0171	0.087	0.206

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214
517	2	157	Systematic	07517-S0002-F157-01	10-Apr-12	1.749	0.4585	0.006668	0.2172	0.2189	1.09	0.268	-0.00811	0.268	0.219
517	2	158	Systematic	07517-S0002-F158-01	10-Apr-12	1.383	0	0	0.09365	0.1804	1.27	0.246	0.0165	0.246	0.252
517	2	159	Systematic	07517-S0002-F159-01	24-Oct-12	11.44	0.7173	0.01432	0.425	0.308					
517	2	160	Systematic	07517-S0002-F160-01	24-Oct-12	20.85	0.6151	0.03089	0.4153	0.6025					
517	2	161	Systematic	07517-S0002-F161-01	24-Oct-12	14.72	0.8078	-0.009389	0.5853	0.6378					
517	2	162	Systematic	07517-S0002-F162-01	24-Oct-12	11.46	0.483	0.002639	0.3899	0.4993					
517	2	163	Systematic	07517-S0002-F163-01	24-Oct-12	11.1	0.749	0.003549	0.443	0.5455					
517	2	164	Systematic	07517-S0002-F164-01	24-Oct-12	10.66	0.4646	0.0006247	0.3981	0.4759					
517	2	165	Systematic	07517-S0002-F165-01	24-Oct-12	7.291	0.602	-0.005257	0.3337	0.3551					
517	2	166	Systematic	07517-S0002-F166-01	24-Oct-12	20.34	0.8742	0.005631	0.646	0.7567					
517	2	167	Systematic	07517-S0002-F167-01	24-Oct-12	14.83	0.9636	0.006453	0.5181	0.614					
517	2	168	Systematic	07517-S0002-F168-01	24-Oct-12	15.21	1.012	-0.003672	0.6321	0.6532					
517	2	169	Systematic	07517-S0002-F169-01	24-Oct-12	9.947	0.8453	-0.009418	0.2748	0.3264					
517	2	170	Systematic	07517-S0002-F170-01	24-Oct-12	18.72	0.8567	-0.01032	0.7483	0.6929					
517	2	171	Systematic	07517-S0002-F171-01	24-Oct-12	7.946	1.117	0.009863	0.6485	0.7857					
517	2	172	Systematic	07517-S0002-F172-01	24-Oct-12	15.82	1.236	-0.002971	0.6715	0.735					
517	2	173	Systematic	07517-S0002-F173-01	24-Oct-12	11.91	0.5886	0.01488	0.4297	0.4092					
517	2	174	Systematic	07517-S0002-F174-01	24-Oct-12	16.49	0.9684	0.006546	0.582	0.6458					
517	2	175	Systematic	07517-S0002-F175-01	24-Oct-12	12.71	0.5473	0.006649	0.4167	0.5017					
517	2	176	Systematic	07517-S0002-F176-01	24-Oct-12	16.35	1.124	0.02842	0.6446	0.7164					
517	2	177	Systematic	07517-S0002-F177-01	24-Oct-12	20.48	0.5588	0.01017	0.5547	0.6909					
517	2	178	Systematic	07517-S0002-F178-01	24-Oct-12	9.944	0.2375	0	0.435	0.5057					
517	2	179	Systematic	07517-S0002-F179-01	24-Oct-12	9.242	1.597	0.003257	0.9948	1.023					
517	2	180	Systematic	07517-S0002-F180-01	24-Oct-12	11.25	0.9259	0.0007954	0.5406	0.6019					
517	2	181	Systematic	07517-S0002-F181-01	24-Oct-12	11.18	0.58	0.02216	0.4171	0.436					
517	2	182	Systematic	07517-S0002-F182-01	24-Oct-12	15.36	1.052	0.006488	0.5364	0.03713					
517	2	183	Systematic	07517-S0002-F183-01	24-Oct-12	17.61	0.9707	0	0.5341	0.6837					
517	2	184	Systematic	07517-S0002-F184-01	24-Oct-12	10.11	0.903	0	0.5694	0.5673					
517	2	185	Systematic	07517-S0002-F185-01	24-Oct-12	10.93	0.4182	0.00318	0.526	0.5372					
517	2	186	Systematic	07517-S0002-F186-01	24-Oct-12	13.69	1.228	0.01443	0.5627	0.6159					
517	2	187	Systematic	07517-S0002-F187-01	24-Oct-12	13.3	1.078	0.001909	0.4748	0.5424					
517	2	188	Systematic	07517-S0002-F188-01	24-Oct-12	19.36	1.012	0.0003739	0.5727	0.7429					
517	2	189	Systematic	07517-S0002-F189-01	24-Oct-12	20.1	1.323	0.007917	0.6425	0.7291					
517	2	190	Systematic	07517-S0002-F190-01	24-Oct-12	22.37	1.371	-0.009888	0.7374	0.7566					
517	2	191	Systematic	07517-S0002-F191-01	24-Oct-12	16.99	0.8318	0.007615	0.5318	0.5803					
517	2	192	Systematic	07517-S0002-F192-01	24-Oct-12	21.76	0.912	0	0.746	0.791					
517	2	193	Systematic	07517-S0002-F193-01	24-Oct-12	29.42		-0.01067	1.126	1.132					
517	2	194	Systematic	07517-S0002-F194-01	24-Oct-12	23.92	1.299	0.00429	0.6834	0.7908					

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

INSET
0
200
400
Feet
LEGEND
GAMMA TOTAL, <1 SIGMA
GAMMA TOTAL, ≥1 AND <2 SIGMA
GAMMA TOTAL, ≥2 AND <3 SIGMA
GAMMA TOTAL, ≥3 AND <4 SIGMA
GAMMA TOTAL, ≥4 AND <5 SIGMA
GAMMA TOTAL, ≥5 AND <6 SIGMA
GAMMA TOTAL, ≥6 SIGMA
BIAS SAMPLE
SYSTEMATIC SAMPLE
ROAD
BUILDING
SCREENING PAD
WATER
10
0
10
20
Feet
Scale: 1" = 20'
N
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
SU-02
Bldg 517
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA
REVIEW: 0
AUTHOR: TJS
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: 517-SU02.mxd
TETRA TECH EC, INC



SU-02
CLASS 1
844.72 m^2 (9092.45 ft^2)

LEGEND:

- 1 BIASED 1–2
- 3 SYSTEMATIC 3–22,28
- 23 CHARACTERIZATION 23–26
- 27 POST–REMEDIATION 27

REMEDIATION AREA

18 — SAMPLE POINT NUMBER/LOCATION

SURVEY UNIT

SCALE 1:20

RECORD COPY

P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\SHACK 79 AND 80\SHACK 79-80.DWG
PLOT/UPDATE: APR 24 2012 08:32:18

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

SHACKS 79/80
SURVEY UNIT 02

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 7980 Survey Unit: 2 Class: 1 Area: 844.72 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/4/2012 12:59	6475	5845	630	622-BKGDS1A	7004	
2	4/4/2012 13:00	6256	5845	411	622-BKGDS1A	7004	
3	4/4/2012 13:02	6656	5845	811	622-BKGDS1A	7004	
4	4/4/2012 13:03	6184	5845	339	622-BKGDS1A	7004	
5	4/4/2012 13:04	5730	5845	-115	622-BKGDS1A	7004	
6	4/4/2012 13:06	3559	5845	-2286	622-BKGDS1A	7004	
7	4/4/2012 13:07	4525	5845	-1320	622-BKGDS1A	7004	
8	4/4/2012 13:08	4128	5845	-1717	622-BKGDS1A	7004	
9	4/4/2012 13:09	4473	5845	-1372	622-BKGDS1A	7004	
10	4/4/2012 13:11	5532	5845	-313	622-BKGDS1A	7004	
11	4/4/2012 13:13	4710	5845	-1135	622-BKGDS1A	7004	
12	4/4/2012 13:14	3764	5845	-2081	622-BKGDS1A	7004	
13	4/4/2012 13:16	3549	5845	-2296	622-BKGDS1A	7004	
14	4/4/2012 13:17	3521	5845	-2324	622-BKGDS1A	7004	
15	4/4/2012 13:18	6110	5845	265	622-BKGDS1A	7004	
16	4/4/2012 13:20	5467	5845	-378	622-BKGDS1A	7004	
17	4/4/2012 13:21	3284	5845	-2561	622-BKGDS1A	7004	
18	4/4/2012 13:22	4884	5845	-961	622-BKGDS1A	7004	
19	4/4/2012 13:23	4780	5845	-1065	622-BKGDS1A	7004	
20	4/4/2012 13:25	5928	5845	83	622-BKGDS1A	7004	
21	4/4/2012 13:26	4987	5845	-858	622-BKGDS1A	7004	
22	4/4/2012 13:27	3724	5845	-2121	622-BKGDS1A	7004	
23	4/11/2012 8:30	3838	5845	-2007	622-BKGDS1A	7004	
24	4/11/2012 8:31	3481	5845	-2364	622-BKGDS1A	7004	
25	4/11/2012 8:32	3978	5845	-1867	622-BKGDS1A	7004	
26	4/11/2012 8:33	5325	5845	-520	622-BKGDS1A	7004	
27	4/18/2012 14:51	6330	5845	485	622-BKGDS1A	7004	
28	4/25/2012 10:08	6210	5845	365	622-BKGDS1A	7004	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 7980 Survey Unit: 2 Class: 1 Area: 844.72 m^2 Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -2561
Avg: -938
Max: 811
St Dev: 1101

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to Instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 7980 Survey Unit: 2 Class: 1 Area: 844.72 m²

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm): 5845

Standard Deviation: 386

Gamma 3σ Investigation Level (cpm): 7004

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 7980 Survey Unit: 2 Class: 1 Area: 844.72 m²

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499		
Instrument Calibration Due Date:	1/15/2013	Reference Area Background Location:	Parcel D-1 Reference
		Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	4/4/2012	7	
2	4/4/2012	7	
3	4/4/2012	7	
4	4/4/2012	7	
5	4/4/2012	6	
6	4/4/2012	6	
7	4/4/2012	6	
8	4/4/2012	6	
9	4/4/2012	6	
10	4/4/2012	7	
11	4/4/2012	5	
12	4/4/2012	5	
13	4/4/2012	6	
14	4/4/2012	6	
15	4/4/2012	7	
16	4/4/2012	8	
17	4/4/2012	6	
18	4/4/2012	6	
19	4/4/2012	7	
20	4/4/2012	4	
21	4/4/2012	6	
22	4/4/2012	6	
23	4/11/2012	5	
24	4/11/2012	6	
25	4/11/2012	6	
26	4/11/2012	7	
27	4/18/2012	7	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	4/25/2012	7	

Exposure Rate Summary (µR/hr)	
Min:	4.00
Avg:	6.25
Max:	8.00
St Dev:	0.84

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02378

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J- Rolfe	Airbill Number: N/A				**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F027-01	4/18/2012	1245	1		S1		☑	☐	☐			

Relinquished by: (signature) [signature]	Date 4-18-12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS: SHADES 79 & 80 SITE FSS 50-2 POST-REMEDIATION #27
Company RSRS	Time 1540	Company CT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02351

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**
Project Location: HUNTERS POINT	Project Number: 4044-0007	LABORATORY ID:	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F001-01	4/4/2012	1235	1		S1		☑	☐	☐			
077980-S0002-F002-01	4/4/2012	1238	1		S1		☑	☐	☐			
077980-S0002-F003-01	4/4/2012	1241	1		S1		☑	☐	☐			
077980-S0002-F004-01	4/4/2012	1244	1		S1		☑	☐	☐			
077980-S0002-F005-01	4/4/2012	1247	1		S1		☑	☐	☐			
077980-S0002-F006-01	4/4/2012	1250	1		S1		☑	☐	☐			
077980-S0002-F007-01	4/4/2012	1253	1		S1		☑	☐	☐			
077980-S0002-F008-01	4/4/2012	1256	1		S1		☑	☐	☐	DUP		
077980-S0002-F009-01	4/4/2012	1259	1		S1		☑	☐	☐			
077980-S0002-F010-01	4/4/2012	1302	1		S1		☑	☐	☐			
077980-S0002-F011-01	4/4/2012	1305	1		S1		☑	☐	☐			
077980-S0002-F012-01	4/4/2012	1308	1		S1		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	*Date* 4-4-12	*Received by: (signature)* [signature]	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1523	*Company* CT	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	*Time*	*Company*	

SAMPLING COMMENTS
SHACKS 79/80 SITE FSS
SU-2
BIASED 1-2
SYSTEMATIC 3-22

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02352

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007				LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A				Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F013-01	4/4/2012	1311	1		S1		☑	☐	☐			
077980-S0002-F014-01	4/4/2012	1314	1		S1		☑	☐	☐			
077980-S0002-F015-01	4/4/2012	1317	1		S1		☑	☐	☐			
077980-S0002-F016-01	4/4/2012	1320	1		S1		☑	☐	☐			
077980-S0002-F017-01	4/4/2012	1323	1		S1		☑	☐	☐			
077980-S0002-F018-01	4/4/2012	1326	1		S1		☑	☐	☐			
077980-S0002-F019-01	4/4/2012	1329	1		S1		☑	☐	☐			
077980-S0002-F020-01	4/4/2012	1332	1		S1		☑	☐	☐			
077980-S0002-F021-01	4/4/2012	1335	1		S1		☑	☐	☐			
077980-S0002-F022-01	4/4/2012	1338	1		S1		☑	☐	☐			

Relinquished by: (signature) J. Rolfe	Date 4-4-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1523	Company CT	SAMPLING COMMENTS
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

ED_004747_00010904-00335

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02361

Project Name: Radiological Building Survey	PO Number: N/A	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**
Project Location: HUNTERS POINT	Project Number: 4044-0007	LABORATORY ID:	
Sampler Name: J. Rolfe	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F023-01	4/11/2012	0830	1		S1		☑	☐	☐			
077980-S0002-F024-01	4/11/2012	0835	1		S1		☑	☐	☐			
077980-S0002-F025-01	4/11/2012	0840	1		S1		☑	☐	☐			
077980-S0002-F026-01	4/11/2012	0845	1		S1		☑	☐	☐			

Relinquished by: (signature) J.B. Rolfe	Date 4-11-12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	Time 1612	Company CT	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

SAMPLING COMMENTS
SHARES 79 & 80 SITE
SO-2
CHARACTERIZATION 23-26

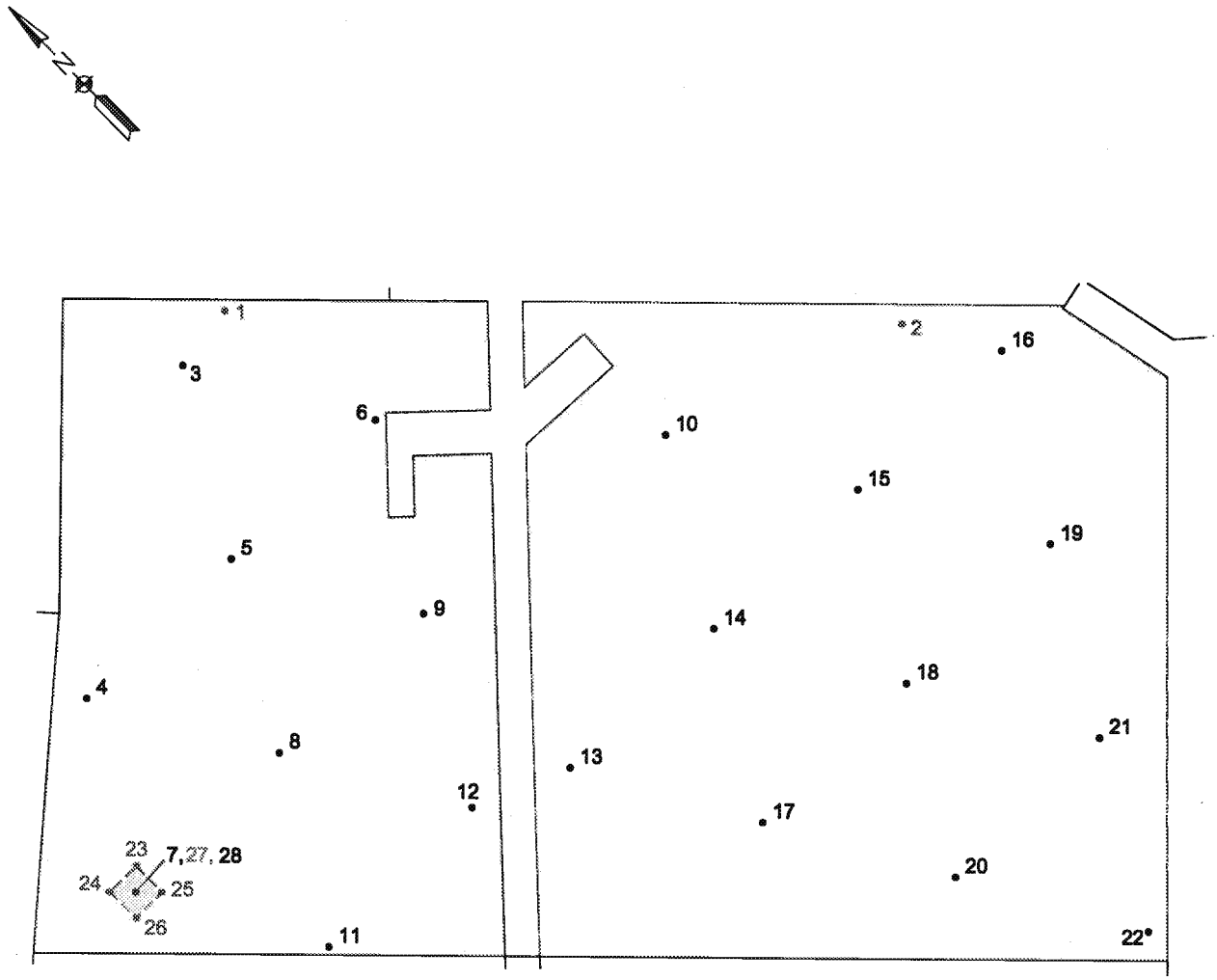
TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02387

Project Name: Radiological Building Survey		PO Number: N/A					GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section
Project Location: HUNTERS POINT		Project Number: 4044-0007									LABORATORY ID:	
Sampler Name: R Zahensky		Airbill Number: N/A										
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592										
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F028-01	4/25/2012	1045	1		S1		☑	☐	☐			

Relinquished by: (signature) R Zahensky	Date 4.25.12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS: SHARKS 79 & 80 SITE FSS SU-2 SYSTEMATIC #28
Company RSRS	Time 1522	Company CT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		



SU-02
CLASS 1
844.72 m^2 (9092.45 ft^2)

LEGEND:

- 1 BIASED 1–2
- 3 SYSTEMATIC 3–22,28
- 23 CHARACTERIZATION 23–26
- 27 POST–REMEDIATION 27

REMEDIATION AREA

18 — SAMPLE POINT NUMBER/LOCATION

SURVEY UNIT

SCALE 1:20

RECORD COPY

P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\SHACK 79 AND 80\SHACK 79-80.DWG
PLOT/UPDATE: APR 24 2012 08:32:18

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

SHACKS 79/80
SURVEY UNIT 02

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From: Chiu, George
Sent: Tuesday, June 05, 2012 1:40 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02
Attachments: 077980-S0002 003 to 006, 008 to 022, and 028 Off-Site Gamma.pdf; 077980-S0002 003 to 006, 008 to 022, and 028 Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec and strontium results for the systematic samples from Former Shack 79 and 80 Sites Survey Unit 02.

George Chiu | **Health Physicist**
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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Think Green - Not every email needs to be printed.

From: Chiu, George
Sent: Friday, May 04, 2012 1:15 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the replacement systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

According to the TSP for the Former Shack 79 and 80 Sites, 100% of the final systematic will be analyzed by gamma spectroscopy and for total strontium/strontium-90 at a DoD ELAP approved laboratory.

George Chiu | **Health Physicist**
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100 Washington Street Suite 200 | Reno, NV 89503
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From: Chiu, George
Sent: Wednesday, May 02, 2012 12:00 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample (07) with cesium-137 activity above the release criterion from Former Shack 79 and 80 Sites Survey Unit 02.

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From: Chiu, George
Sent: Monday, April 23, 2012 1:18 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Sample 27 was recounted for a longer duration at the direction of the laboratory manager.

We will proceed with taking a replacement systematic sample for sample 07.

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From: Chiu, George
Sent: Tuesday, April 17, 2012 9:49 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

We will proceed with remediation followed by post-remediation sampling.

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Think Green - Not every email needs to be printed.

From: Chiu, George
Sent: Tuesday, April 10, 2012 7:59 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Samples 01, 03, 06, 07, 09, and 22 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 07 (0.1700 pCi/g) due to cesium-137 activity.

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TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 4, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Area #32. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 114 cubic yards of asphalt removed from Survey Unit 6 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 4, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 53 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0673.
  - Issued drawing to identify biased sample collection locations for ES Unit 0671.
  - Two biased soil samples were collected from ES Unit 0626 and submitted to the on-site laboratory for analysis.
- The ES Unit 0656 on-site analytical data was submitted to the RASO for review with a request for concurrence to stage the material pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
  - A total of 70 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 70 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 58
  - Air samples received: 10
  - Samples analyzed by gamma spectroscopy: 79
  - Gamma spectroscopy samples recounted: 14
  - Protean air samples counted: 10
- A total of 120 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 4, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 5; no activity above the release criteria was identified.

Shacks 79 and 80

- Towed array gamma scan survey activities were performed by the HPNS Team over Survey Unit 3.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,655 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 46 cubic yards of soil was remediated from Survey Units 16 and 18 by the HPNS Team and placed in LLRW bins AWIU000148, AWIU000162, AWIU000286, and AWIU000296 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 3 – A total of 10 post-remediation gamma static measurements were logged with a maximum measurement of 6,878 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis.

- Survey Unit 18 – A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,621 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 3 and 18.
- The HPNS Team provided the RASO with on-site analytical and survey results for the systematic samples collected from Class 1 Survey Unit 15. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 54 (07500SA-S0015-F054-01) with ^{137}Cs at 0.1554 pCi/g
  - Sample Point 58 (07500SA-S0015-F058-01) with ^{137}Cs at 0.2167 pCi/g
  - Sample Point 64 (07500SA-S0015-F064-01) with ^{137}Cs at 0.1307 pCi/g
  - Sample Point 68 (07500SA-S0015-F068-01) with ^{137}Cs at 0.5159 pCi/g
  - Sample Point 80 (07500SA-S0015-F080-01) with ^{137}Cs at 0.2028 pCi/g
  - Sample Point 82 (07500SA-S0015-F082-01) with ^{137}Cs at 0.1932 pCi/g
  - Sample Point 83 (07500SA-S0015-F083-01) with ^{137}Cs at 0.1937 pCi/g
  - Sample Point 85 (07500SA-S0015-F085-01) with ^{137}Cs at 0.234 pCi/g

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 636 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-38-3F 5 linear feet completed
  - 07-E36-38-3G 5 linear feet completed
  - 07-E36-38-3H 90 linear feet completed
  - 07-E36-38-3I 24 linear feet completed
  - 07-E36-38-3J 26 linear feet completed
  - 07-E36-38-3P 5 linear feet completed
  - 07-E36-38-3Q 25 linear feet completed
  - 07-E36-38-3R 60 linear feet completed
- A total of 240 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1275 and MH1276 and pipes excavated from trench segment 07-E36-38-3I were placed on plastic pending further activities.
- A total of two sediment samples were collected from excavated Manholes MH1275 (07-PEMH1275-009-01) and MH1276 (07-PEMH1276-010-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 11, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Buildings 203, 211, 231, and 253, and Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated pipe sections (Survey No. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- A total of 18 systematic samples were collected from Trench Unit No. 247 (associated with Building 203) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Trench Unit No. 242. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 238 (associated with Buildings 211, 231, and 253).
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 11, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 62 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
  - Collected soil samples and submitted to the on-site laboratory for analysis as follows:
    - 18 systematic soil samples from ES Unit 0626
    - 9 biased and 18 systematic soil samples from ES Unit 0652
    - 16 biased and 18 systematic soil samples from ES Unit 0655
    - 4 biased and 18 systematic soil samples from ES Unit 0674
    - 7 biased and 18 systematic soil samples from ES Unit 0675
  - Remediated approximately 31 cubic yards of soil from ES Unit 0626 and placed the material in LLRW bins pending off-site disposal by the DON radiological waste contractor.
  - ES Unit 0656 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the following:
  - On-site analytical data for ES Units 0673 and 0677 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.
  - On-site analytical data for ES Unit 0657 and a request for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
  - A total of 48 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 172
  - Air samples received: 9
  - Samples analyzed by gamma spectroscopy: 76
  - Gamma spectroscopy samples recounted: 5
  - Protean air samples counted: 10
- A total of 194 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 11, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 2 – A total of four characterization gamma static measurements were logged with a maximum measurement of 5,325 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 3 – A total of two biased and twenty systematic gamma static measurements were logged with a maximum measurement of 5,745 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 2 and 3.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 3.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 3. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,895 cpm.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Class 1 Survey Unit 16. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 744 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-00-6R 100 linear feet completed

- 07-E36-00-6S 30 linear feet completed
- 07-E36-00-6U 66 linear feet completed
- 07-E36-00-6V 10 linear feet completed
- 07-E36-00-6W 21 linear feet completed
- 07-E36-00-6X 25 linear feet completed

- A total of 252 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1282 was placed on plastic pending further activities.
- Backfill activities were completed for Trench Unit No. 225 by the HPNS Team.
- Backfill activities were continued for Trench Unit No. 228 by the HPNS Team.
- The HPNS Team provided the RASO with the on-site analytical results for the systematic samples collected from Trench Unit No. 245; no activity above the release criteria was identified.
- The HPNS Team conducted storm water pollution prevention activities in Parcel E.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 18, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and 34. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 216 cubic yards of soil from Work Areas #32 and #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 02-C32-00-1G 35 linear feet completed
  - 02-C34-28-4T 20 linear feet completed
  - 02-C34-28-4Y 38 linear feet completed
  - 02-C34-28-5Y 20 linear feet completed
- A total of 113 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe sections excavated from trench segments 02-C32-00-1G and 02-C34-28-4Y were placed on plastic pending further activities.
- A sediment sample was collected from pipe excavated from trench segment 02-C32-00-1G (02-PCPI-0011-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Site restoration activities were conducted over previously backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 18, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY3 processing activities:
  - Towed array survey activities were performed for ES Units 0685 and 0688.
  - ES Units 0686 and 0687 was prepared for upcoming towed array activities.
- The HPNS Team performed the following RSY4 processing activities:
  - A total of 18 truckloads of material were received for processing.
  - ES Unit 0645 was prepared for upcoming towed array activities.
  - Issued drawings to identify biased, characterization, and systematic sample collection locations for ES Units 0626, 0658, 0676, and 0680.
  - ES Units 0652 and 0694 were staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- Following data reviews, the RASO concurred with staging ES Units 0652, 0659, 0674, and 0675 pending receipt of the off-site analytical data prior to transferring the materials to the DON non-LLRW contractor for disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
  - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 45 truckloads of material exited HPNS through the portal monitor with no alarms.
- One incoming materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 64
  - Swipe samples received for Protean counts: 13
  - Air samples received: 11
  - Samples analyzed by gamma spectroscopy: 98
  - Gamma spectroscopy samples recounted: 2
  - Protean swipe samples counted: 13
  - Protean air samples counted: 11
- A total of 88 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 18, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team provided the RASO with revised on-site analytical results for the post-remediation samples collected from Class 1 Survey Unit 2. Samples 119 and 120 were recounted for a longer duration to meet the ^{60}Co MDA requirement. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A post-remediation gamma static measurement was logged at 6,330 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 15 cubic yards of soil was remediated from Class 1 Survey Units 17 and 18 by the HPNS Team and placed in LLRW bins AWIU000263 and GFLU002055 for off-site disposal.
- Towed array gamma scan surveys were performed over Survey Unit 13.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 13 – A total of 356 gamma scan readings were logged with a maximum reading of 6,994 cpm.

- Survey Unit 15 – A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 6,968 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 17 – A total of two post-remediation gamma static measurements were logged with a maximum measurement of 6,692 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 5,977 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data generated for Survey Units 13, 15, 17, and 19.
- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 3. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Units 16 and 18; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 15 and 18 and for biased and systematic sample collection in Class 1 Survey Unit 14.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 25, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 7; no further contamination was identified.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 2; no activity above the release criteria was identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Pipes and debris from trench segments 02-C33-00-3P, 02-C33-29-1D, -1W, -1X, -8E, 02-C34-28-3T, -4Z, -8B, and -8U were placed by the HPNS Team in LLRW bin AWIU000201 for off-site disposal.
- The HPNS Team provided the RASO with analytical results for the sediment sample collected from excavated Manhole MH1333 (02-PCMH1333-062-01). Because ^{137}Cs contamination was identified at 0.3499 pCi/g, this manhole will be disposed of as LLRW.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 25, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team issued a drawing to identify biased and systematic sample collection locations for ES Unit 0689 in RSY3.
- The HPNS Team performed the following RSY4 processing activities:
  - A total of 41 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0691.
  - Issued drawings to identify biased and systematic sample collection locations for ES Units 0681, 0684 and 0694.
- Following data reviews, the RASO concurred with transferring ES Units 0642 and 0644 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

- One incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 65
  - Swipe samples received for Protean counts: 8
  - Air samples received: 12
  - Samples analyzed by gamma spectroscopy: 86
  - Gamma spectroscopy samples recounted: 7
  - Protean swipe samples counted: 48
  - Protean air samples counted: 12
- A total of 322 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 25, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided below.

Building 520 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 5. Characterization and remediation will be continued due to the presence of ^{90}Sr contamination as follows:
  - Sample Point 56 (07520-S0005-F056-01) with ^{90}Sr at 1.19 pCi/g
  - Sample Point 57 (07520-S0005-F057-01) with ^{90}Sr at 0.894 pCi/g
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 5.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A replacement systematic gamma static measurement was logged at 6,209 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with on-site analytical and survey results for the replacement systematic samples collected from Class 1 Survey Unit 1. Because no activity above the release criteria was identified, the 18 systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 1; no further contamination was identified.

500 Series Area

- The HPNS Team removed fencing surrounding the tennis courts in preparation for towed array surveys in Class 2 Survey Unit 22.
- The HPNS Team performed Class 1 survey activities as follows:

- Survey Unit 13 – A total of two characterization gamma static measurements were logged with a maximum measurement of 6,848 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 16 – A total of three characterization gamma static measurements were logged with a maximum measurement of 6,475 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 18 – A characterization gamma static measurement was logged with a measurement of 5,715 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 – A characterization gamma static measurement was logged with a measurement of 4,575 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis
- Survey Unit 21 – A total of two characterization gamma static measurements were logged with a maximum measurement of 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 13, 16, 18, 19, and 21.
- The HPNS Team provided the RASO with on-site analytical results for the systematic samples collected from Class 1 Survey Unit 19. Characterization and remediation will be continued due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 54 (07500SA-S0019-F054-01) with ^{137}Cs at 0.1153 pCi/g
  - Sample Point 68 (07500SA-S0019-F068-01) with ^{137}Cs at 0.1556 pCi/g
  - Sample Point 74 (07500SA-S0019-F074-01) with ^{137}Cs at 0.1468 pCi/g
  - Sample Point 75 (07500SA-S0019-F074-01) with ^{137}Cs at 0.1645 pCi/g
- The HPNS Team provided the RASO with on-site analytical results for the characterization and post-remediation samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, a replacement systematic soil sample will be collected for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 16 and 17; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Units 5, 6, 13, 15, 19, and 20.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

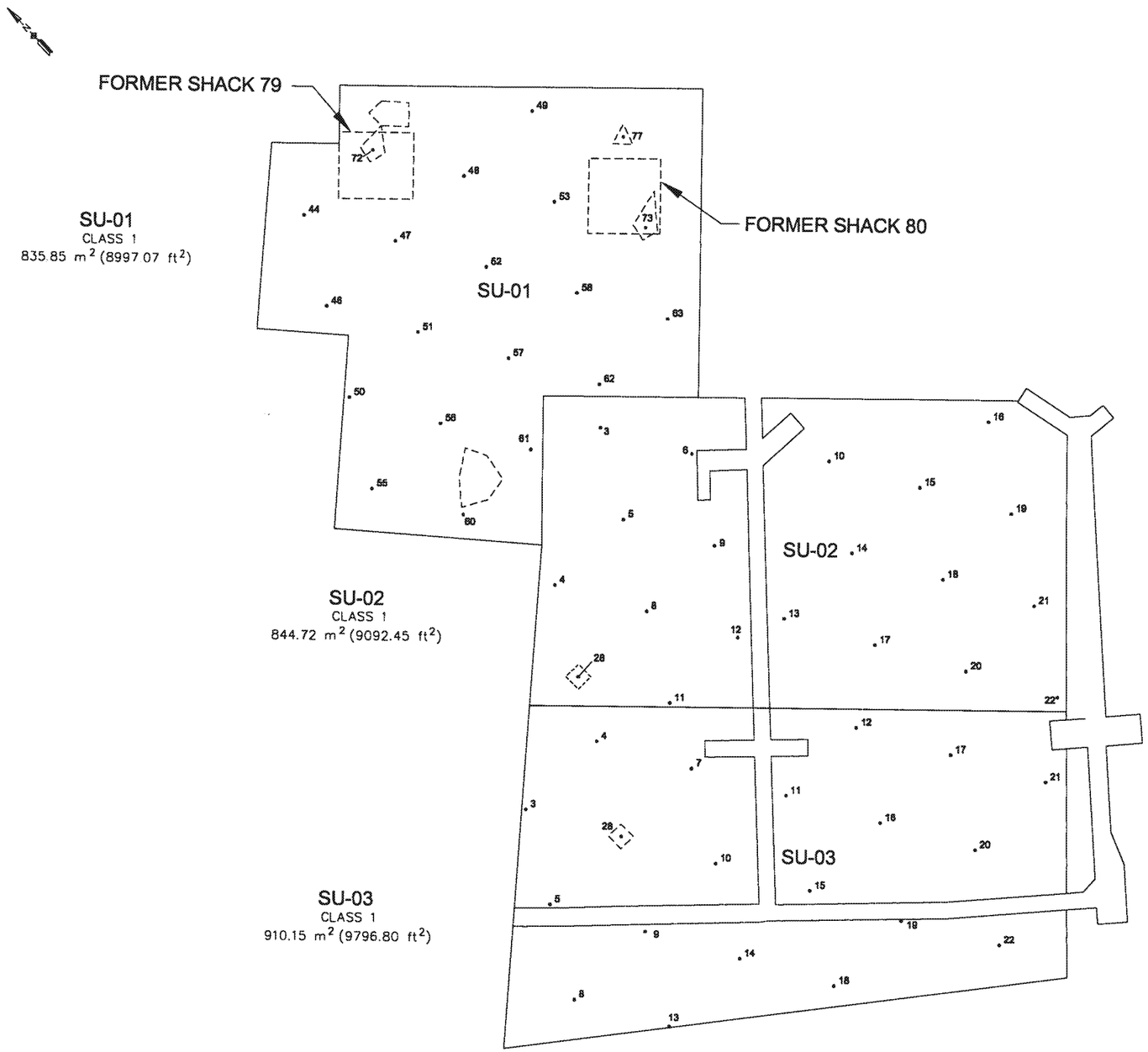
- The HPNS Team excavated approximately 492 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-509-38-3T 9 linear feet completed
  - 07-509-38-3U 8 linear feet completed

- 07-509-38-8A 11 linear feet completed
- 07-E36-38-3J 11 linear feet completed
- 07-E36-38-3S 110 linear feet completed
- 07-E36-38-3T 29 linear feet completed
- 07-E36-38-3U 27 linear feet completed
- 07-E36-39-1D 103 linear feet completed
- 07-E36-39-1E 7 linear feet completed
- 07-E36-39-1F 3 linear feet completed
- 07-E36-39-8B 90 linear feet completed
- 07-E36-39-8C 4 linear feet completed
- 07-E36-39-8D 4 linear feet completed
- 07-E36-39-8E 10 linear feet completed

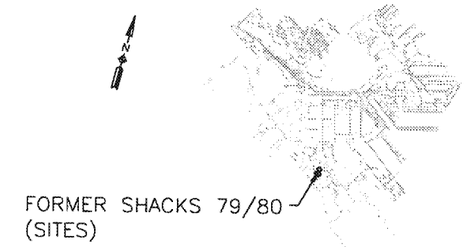
- A total of 307 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 119 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH1301, MH1302, MH1303, and MH1326 along with pipes excavated from trench segments 07-509-38-3T, -8A, 07-E36-38-3T, 07-E36-39-8B, and -8D were placed on plastic pending further activities.
- Sediment samples were collected from excavated Manholes MH1302 (07-PEMH1302-013-01) and MH1303 (07-PEMH1303-014-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report



FORMER SHACKS 79/80 (SITES) PLAN VIEW



KEY PLAN

LEGEND

- FORMER SHACKS 79/80
- SURVEY UNIT
- *3 SYSTEMATIC SAMPLES

15 0 15 30
(feet)

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FINAL STATUS SURVEY

FORMER SHACKS 79/80 (SITES)

FIGURE 4-1

CLASS 1 SURVEY UNITS

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA

REVISION:
AUTHOR: A.CRABTREE
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC.

P:\CTO-07 CAD Files (Rad EMAC)\DWG Files\Shack 79 and 80\Shack 79-80 Figure 4-1.dwg

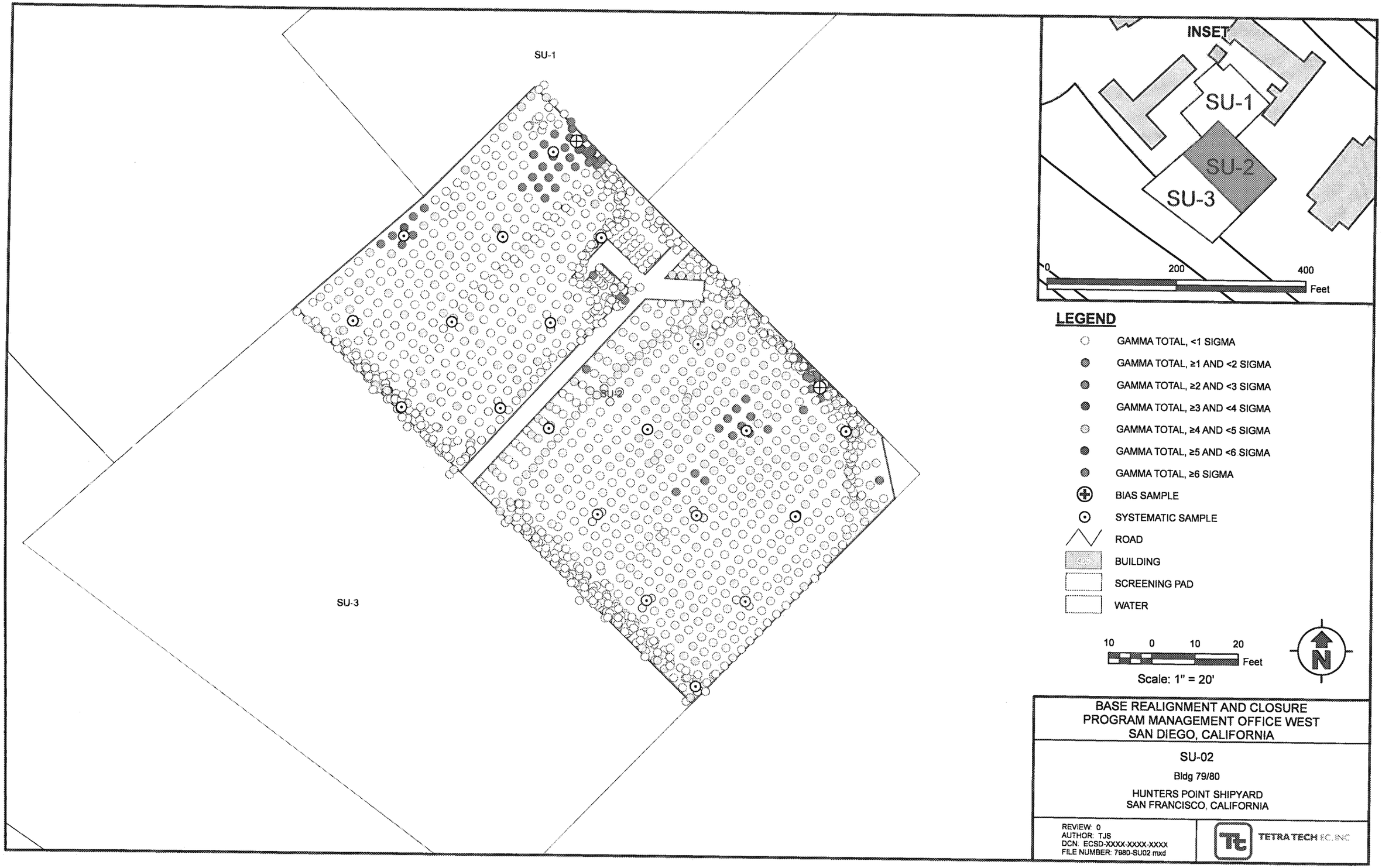
10/11/12

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	1	1	Biased	077980-S0001-F001-01	15-Dec-11	Jeff Rolfe	25.2	0.9137	0	0.5347	0.6151					
7980	1	2	Biased	077980-S0001-F002-01	15-Dec-11	Jeff Rolfe	24.41	0.279	0.02947	0.6561	0.6959					
7980	1	3	Biased	077980-S0001-F003-01	15-Dec-11	Jeff Rolfe	29.42	0.6357	0.0005157	0.6442	0.7351					
7980	1	4	Systematic	077980-S0001-F004-01	15-Dec-11	Jeff Rolfe	3.995	0.178	-0.007648	0.2281	0.212	4.9	0.387	-0.00721	0.387	0.364
7980	1	5	Systematic	077980-S0001-F005-01	15-Dec-11	Jeff Rolfe	13.73	0.8166	0.04719	0.5112	0.514	14.2	0.739	0.131	0.739	0.769
7980	1	6	Systematic	077980-S0001-F006-01	15-Dec-11	Jeff Rolfe	4.331	0.5291	0.009105	0.3656	0.3297	3.62	0.389	-0.014	0.389	0.409
7980	1	7	Systematic	077980-S0001-F007-01	15-Dec-11	Jeff Rolfe	12.45	0.4843	0.02396	0.2668	0.6064	11.8	0.664	-0.03	0.664	0.631
7980	1	8	Systematic	077980-S0001-F008-01	15-Dec-11	Jeff Rolfe	9.152	0.7749	0.0242	0.3992	0.5419	5.96	0.891	0.0297	0.891	0.783
7980	1	9	Systematic	077980-S0001-F009-01	15-Dec-11	Jeff Rolfe	11.53	0.751	0.009291	0.4401	0.371	10.2	0.436	0	0.436	0.731
7980	1	10	Systematic	077980-S0001-F010-01	15-Dec-11	Jeff Rolfe	6.653	0.3414	0.01244	0.4375	0.4691	6.45	0.606	0.0151	0.606	0.65
7980	1	11	Systematic	077980-S0001-F011-01	15-Dec-11	Jeff Rolfe	10.72	0.4464	0.02122	0.3691	0.5004	7.49	0.597	0.00442	0.597	0.496
7980	1	12	Systematic	077980-S0001-F012-01	15-Dec-11	Jeff Rolfe	7.606	0.6311	0.03228	0.5624	0.5477	8.26	0.717	0.0397	0.717	0.556
7980	1	13	Systematic	077980-S0001-F013-01	15-Dec-11	Jeff Rolfe	3.15	0.4215	0	0.2474	0.3316	4.3	0.229	0.0111	0.229	0.247
7980	1	14	Systematic	077980-S0001-F014-01	15-Dec-11	Jeff Rolfe	10.12	0.4843	0	0.2827	0.355	9.18	0.453	0.0118	0.453	0.472
7980	1	15	Systematic	077980-S0001-F015-01	15-Dec-11	Jeff Rolfe	11.79	0.9344	0.01548	0.353	0.5071	13	0.76	0.00284	0.76	0.652
7980	1	16	Systematic	077980-S0001-F016-01	15-Dec-11	Jeff Rolfe	11.67	0.2692	0	0.2766	0.3067	9.6	0.625	0.0324	0.625	0.59
7980	1	17	Systematic	077980-S0001-F017-01	15-Dec-11	Jeff Rolfe	12.7	0.7933	0.007186	0.3407	0.4346	11.9	0.56	0	0.56	0.519
7980	1	18	Systematic	077980-S0001-F018-01	15-Dec-11	Jeff Rolfe	5.5	0.5534	0.005923	0.328	0.2337	5.95	0.458	0.00712	0.458	0.421
7980	1	19	Systematic	077980-S0001-F019-01	15-Dec-11	Jeff Rolfe	14.87	0.5224	0.08356	0.3634	0.5333	15.7	0.618	0.125	0.618	0.692
7980	1	20	Systematic	077980-S0001-F020-01	15-Dec-11	Jeff Rolfe	13.53	0.3428	0.0226	0.4357	0.3494	11.4	0.724	0.0485	0.724	0.759
7980	1	21	Systematic	077980-S0001-F021-01	15-Dec-11	Jeff Rolfe	18.9	1.173	0.01484	0.5403	0.5734	19.7	0.611	0.00842	0.611	0.843
7980	1	22	Systematic	077980-S0001-F022-01	15-Dec-11	Jeff Rolfe	10.6	0	0.03294	0.3811	0.4016	10.6	0.554	0.0285	0.554	0.539
7980	1	23	Systematic	077980-S0001-F023-01	15-Dec-11	Jeff Rolfe	9.804	0.4546	0.02828	0.3792	0.4024	8.59	0.455	0.0367	0.455	0.45
7980	1	24	Characterization	077980-S0001-F024-01	22-Feb-12	Rick Zahensky	12	0.594	0.07655	0.4369	0.6784					
7980	1	25	Characterization	077980-S0001-F025-01	22-Feb-12	Rick Zahensky	11.37	0.3717	0.06263	0.2895	0.5293					
7980	1	26	Characterization	077980-S0001-F026-01	22-Feb-12	Rick Zahensky	12.41	0.2002	0.1966	0.4688	0.5256					
7980	1	27	Characterization	077980-S0001-F027-01	22-Feb-12	Rick Zahensky	12.45	0.8052	0.06098	0.565	0.6447					
7980	1	28	Characterization	077980-S0001-F028-01	22-Feb-12	Rick Zahensky	17.44	0.9192	0.2127	0.5008	0.5147					
7980	1	29	Characterization	077980-S0001-F029-01	22-Feb-12	Rick Zahensky	14.19	0.6014	-0.0068	0.6479	0.771					
7980	1	30	Characterization	077980-S0001-F030-01	22-Feb-12	Rick Zahensky	20.13	0.9259	0.1712	0.5637	0.6508					
7980	1	31	Characterization	077980-S0001-F031-01	22-Feb-12	Rick Zahensky	19.44	0.9207	0.2058	0.6565	0.6507					
7980	1	32	Characterization	077980-S0001-F032-01	01-Mar-12	Rick Zahensky	19.22	1.177	-0.005728	0.8194	0.8552					
7980	1	33	Characterization	077980-S0001-F033-01	01-Mar-12	Rick Zahensky	19.11	1.045	-0.008283	0.8789	0.9538					
7980	1	34	Characterization	077980-S0001-F034-01	01-Mar-12	Rick Zahensky	18.54	0.7263	-0.009133	0.6511	0.7469					
7980	1	35	Characterization	077980-S0001-F035-01	01-Mar-12	Rick Zahensky	18.77	0.9042	0.00485	0.6933	0.8001					
7980	1	36	Characterization	077980-S0001-F036-01	01-Mar-12	Rick Zahensky	19.42	0.973	-0.005097	0.8762	0.8229					
7980	1	37	Characterization	077980-S0001-F037-01	01-Mar-12	Rick Zahensky	20.07	1.297	0	0.8428	0.9045					
7980	1	38	Characterization	077980-S0001-F038-01	01-Mar-12	Rick Zahensky	18.69	1.115	0.002846	0.8979	0.9326					
7980	1	39	Post-Remediation	077980-S0001-F039-01	19-Mar-12	Jeff Rolfe	9.357	0.4125	0	0.2115	0.3684					
7980	1	40	Post-Remediation	077980-S0001-F040-01	19-Mar-12	Jeff Rolfe	10.03	0.5296	-0.006999	0.2807	0.3167					
7980	1	41	Post-Remediation	077980-S0001-F041-01	19-Mar-12	Jeff Rolfe	9.906	0.6091	0.0004201	0.3704	0.3246					
7980	1	42	Post-Remediation	077980-S0001-F042-01	19-Mar-12	Jeff Rolfe	8.002	0.9139	-0.003948	0.3481	0.3471					
7980	1	43	Post-Remediation	077980-S0001-F043-01	19-Mar-12	Jeff Rolfe	9.565	1.055	-0.001767	0.3963	0.3762					
7980	1	44	Systematic	077980-S0001-F044-01	27-Mar-12	Jeff Rolfe	15.44	1.198	0.05202	0.7115	0.8557					
7980	1	45	Systematic	077980-S0001-F045-01	27-Mar-12	Jeff Rolfe	14.87	1.11	0.2188	0.4101	0.481					
7980	1	46	Systematic	077980-S0001-F046-01	27-Mar-12	Jeff Rolfe	16.17	0.9619	0.02137	0.6985	0.837	13	0.616	0.0518	0.616	0.674
7980	1	47	Systematic	077980-S0001-F047-01	27-Mar-12	Jeff Rolfe	14.42	1.208	-0.001148	0.4215	0.643					
7980	1	48	Systematic	077980-S0001-F048-01	27-Mar-12	Jeff Rolfe	12.16	0.6543	0.01664	0.5025	0.4611	13.8	0.77	0.0136	0.77	0.888
7980	1	49	Systematic	077980-S0001-F049-01	27-Mar-12	Jeff Rolfe	13.64	0.9049	0.02921	0.5865	0.6316	12.8	0.645	0.0275	0.645	0.715
7980	1	50	Systematic	077980-S0001-F050-01	27-Mar-12	Jeff Rolfe	5.624	0.5366	-0.008329	0.1328	0.3165	7.57	0.644	0.0399	0.644	0.578
7980	1	51	Systematic	077980-S0001-F051-01	27-Mar-12	Jeff Rolfe	14.53	1.283	0.01952	0.5703	0.5986	10.6	0.676	0.0244	0.676	0.744
7980	1	52	Systematic	077980-S0001-F052-01	27-Mar-12	Jeff Rolfe	12.78	0.9157	0.02375	0.4409	0.4984	4.06	0.543	-0.00252	0.543	0.376
7980	1	53	Systematic	077980-S0001-F053-01	27-Mar-12	Jeff Rolfe	6.957	0.4753	0.0004446	0.2417	-0.00006399	12.3	0.604	0.0183	0.604	0.702
												11.9	0.505	0.0121	0.505	0.654
												5.94	0.489	0.0126	0.489	0.323

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
7980	1	54	Systematic	077980-S0001-F054-01	27-Mar-12	Jeff Rolfe	8.22	0.5953	0.01421	0.2937	0.3236	5.81	0.443	0.00816	0.443	0.563
7980	1	55	Systematic	077980-S0001-F055-01	27-Mar-12	Jeff Rolfe	19.21	1.048	-0.004932	0.6646	0.6805	17	0.701	-0.0128	0.701	0.923
7980	1	56	Systematic	077980-S0001-F056-01	27-Mar-12	Jeff Rolfe	12.4	0.5392	0.02224	0.5477	0.6347	13.5	0.705	-0.011	0.705	0.7
7980	1	57	Systematic	077980-S0001-F057-01	27-Mar-12	Jeff Rolfe	10.55	0.5062	0.03709	0.483	0.4386	8.93	0.54	0.0162	0.54	0.556
7980	1	58	Systematic	077980-S0001-F058-01	27-Mar-12	Jeff Rolfe	25.26	1.138	0.01915	0.6524	0.6986	21.6	0.781	0.00471	0.781	0.901
7980	1	59	Systematic	077980-S0001-F059-01	27-Mar-12	Jeff Rolfe	13.45	0.6035	0.1169	0.6062	0.616					
7980	1	60	Systematic	077980-S0001-F060-01	27-Mar-12	Jeff Rolfe	20.23	0.7575	0.07492	0.4957	0.6598	17.2	0.623	0.107	0.623	0.699
7980	1	61	Systematic	077980-S0001-F061-01	27-Mar-12	Jeff Rolfe	13.08	0.7307	0.02712	0.431	0.5529	12.9	0.644	0.0431	0.644	0.56
7980	1	62	Systematic	077980-S0001-F062-01	27-Mar-12	Jeff Rolfe	22.52	0.9163	0.0117	0.6034	0.7355	21.8	0.722	0.00271	0.722	0.835
7980	1	63	Systematic	077980-S0001-F063-01	27-Mar-12	Jeff Rolfe	13.99	0.5582	0.01908	0.2921	0.4789	11	0.628	0.0401	0.628	0.553
7980	1	64	Characterization	077980-S0001-F064-01	03-Apr-12	Jeff Rolfe	8.604	-0.05862	0.01311	0.3911	0.3022					
7980	1	65	Characterization	077980-S0001-F065-01	03-Apr-12	Jeff Rolfe	11.48	0.5624	0	0.4904	0.467					
7980	1	66	Characterization	077980-S0001-F066-01	03-Apr-12	Jeff Rolfe	11.19	0.6287	0.01801	0.3388	0.4469					
7980	1	67	Characterization	077980-S0001-F067-01	03-Apr-12	Jeff Rolfe	14.1	1.16	0.00106	0.6877	0.6105					
7980	1	68	Characterization	077980-S0001-F068-01	03-Apr-12	Jeff Rolfe	17.91	1.218	0.01234	0.4406	0.4634					
7980	1	69	Characterization	077980-S0001-F069-01	03-Apr-12	Jeff Rolfe	15.26	0.9631	0.001534	0.6553	0.7328					
7980	1	70	Post-Remediation	077980-S0001-F070-01	06-Apr-12	Anthony Smith	10.72	0.486	0.008305	0.1595	0.2334					
7980	1	71	Post-Remediation	077980-S0001-F071-01	06-Apr-12	Anthony Smith	9.331	0.782	-0.01113	0.2341	0.3407					
7980	1	72	Systematic	077980-S0001-F072-01	20-Apr-12	Jeff Rolfe	8.851	0.7155	-0.006107	0.3015	0.3346	4.81	0.236	-0.0185	0.236	0.39
7980	1	73	Systematic	077980-S0001-F073-01	20-Apr-12	Jeff Rolfe	6.258	0.3147	-0.0006957	0.3098	0.4072	4.99	0.341	-0.0107	0.341	0.483
7980	1	74	Characterization	077980-S0001-F074-01	02-Jul-12	Rick Zahensky										
7980	1	75	Characterization	077980-S0001-F075-01	02-Jul-12	Rick Zahensky										
7980	1	76	Characterization	077980-S0001-F076-01	02-Jul-12	Rick Zahensky										
7980	1	77	Systematic	077980-S0001-F077-01	02-Jul-12	Rick Zahensky	9.909	0.5944	0.003967	0.3627	0.431	7.31	0.429	-0.0281	0.429	0.45
7980	2	1	Biased	077980-S0002-F001-01	04-Apr-12	Jeff Rolfe	0.1279	-0.003034	0.0126	0.03288	-0.03844					
7980	2	2	Biased	077980-S0002-F002-01	04-Apr-12	Jeff Rolfe	0.103	-0.1327	0	0.02184	0					
7980	2	3	Systematic	077980-S0002-F003-01	04-Apr-12	Jeff Rolfe	0.3878	-0.0372	0.00251	-0.004521	-0.01145	0.983	0.0858	0	0.0858	0.0542
7980	2	4	Systematic	077980-S0002-F004-01	04-Apr-12	Jeff Rolfe	22.55	0.6674	0.04442	0.5596	0.5689	19.9	0.691	0.0539	0.691	0.702
7980	2	5	Systematic	077980-S0002-F005-01	04-Apr-12	Jeff Rolfe	0.06615	0.09367	0.0007372	0.04911	0.01359	-0.223	0.0484	0.0203	0.0484	0.191
7980	2	6	Systematic	077980-S0002-F006-01	04-Apr-12	Jeff Rolfe	0.2476	0.09348	0	0.03269	0.07683	0.222	0.101	0	0.101	0.173
7980	2	7	Systematic	077980-S0002-F007-01	04-Apr-12	Jeff Rolfe	20.41	0.7453	0.17	0.4747	0.5835					
7980	2	8	Systematic	077980-S0002-F008-01	04-Apr-12	Jeff Rolfe	4.202	0.6336	0.03166	0.1495	0.1021	4.43	0.202	0.0457	0.202	0.368
7980	2	9	Systematic	077980-S0002-F009-01	04-Apr-12	Jeff Rolfe	0.3656	-0.2169	-0.003176	0.04424	0.03832	0.0912	0.0333	0	0.0333	0.0439
7980	2	10	Systematic	077980-S0002-F010-01	04-Apr-12	Jeff Rolfe	0.2749	0.0815	0	0	0.04786	0.974	0.101	0.00421	0.101	0.164
7980	2	11	Systematic	077980-S0002-F011-01	04-Apr-12	Jeff Rolfe	0.6615	0.1123	0	0.04404	0.04351	0.506	0.182	0.0251	0.182	0.202
7980	2	12	Systematic	077980-S0002-F012-01	04-Apr-12	Jeff Rolfe	1.009	0.143	-0.002017	0.0339	-0.004279	0.349	0.156	-0.00527	0.156	0.0869
7980	2	13	Systematic	077980-S0002-F013-01	04-Apr-12	Jeff Rolfe	0.3326	-0.0274	0	0.05052	0	-0.347	0.0589	0.0301	0.0589	0.041
7980	2	14	Systematic	077980-S0002-F014-01	04-Apr-12	Jeff Rolfe	0.7109	-0.03862	0.0009595	0.0001165	0.07237	0.145	0.0957	0.0136	0.0957	0.167
7980	2	15	Systematic	077980-S0002-F015-01	04-Apr-12	Jeff Rolfe	0.347	0	0	0.04571	0.04693	0.421	0.026	0.016	0.026	0.0571
7980	2	16	Systematic	077980-S0002-F016-01	04-Apr-12	Jeff Rolfe	1.633	0.2212	0.01027	0.09416	0.06213	1.78	0.279	-0.0207	0.279	0.108
7980	2	17	Systematic	077980-S0002-F017-01	04-Apr-12	Jeff Rolfe	0.6001	-0.1453	0.01705	0.08369	0.04676	-0.291	0.216	0.0123	0.216	0.145
7980	2	18	Systematic	077980-S0002-F018-01	04-Apr-12	Jeff Rolfe	0.6679	0.5089	-0.003346	0.1169	0.152	2.23	0.206	-0.00142	0.206	0.122
7980	2	19	Systematic	077980-S0002-F019-01	04-Apr-12	Jeff Rolfe	0.6165	0.1342	0.003088	0.01697	0.1077	1.13	0.13	-0.0119	0.13	0.265
7980	2	20	Systematic	077980-S0002-F020-01	04-Apr-12	Jeff Rolfe	0.3956	0	0.002755	0.04995	0.01351	0.746	0.013	0.00978	0.013	0.066
7980	2	21	Systematic	077980-S0002-F021-01	04-Apr-12	Jeff Rolfe	0.659	0	0.01147	-0.02188	-0.006443	0.585	0.209	0.0121	0.209	0.0824
7980	2	22	Systematic	077980-S0002-F022-01	04-Apr-12	Jeff Rolfe	0.3496	0.002615	0.002154	-0.02011	-0.0306	0.177	0.0892	0	0.0892	0.177
7980	2	23	Characterization	077980-S0002-F023-01	11-Apr-12	Jeff Rolfe	0.09809	0.4546	0.0002043	0.02788	-0.0314					
7980	2	24	Characterization	077980-S0002-F024-01	11-Apr-12	Jeff Rolfe	0.04134	0.0894	0.008776	0.02346	0.01893					
7980	2	25	Characterization	077980-S0002-F025-01	11-Apr-12	Jeff Rolfe	0.02219	0	-0.001612	0.002061	0.001059					
7980	2	26	Characterization	077980-S0002-F026-01	11-Apr-12	Jeff Rolfe	0.3205	0.01241	-0.003908	0.01277	-0.0301					
7980	2	27	Post-Remediation	077980-S0002-F027-01	18-Apr-12	Jeff Rolfe	-0.573	-0.2674	-0.002725	0.02335	0.002588					
7980	2	28	Systematic	077980-S0002-F028-01	25-Apr-12	Rick Zahensky	8.63	0.7232	0.006906	0.3929	0.4034	6.15	0.363	-0.0197	0.363	0.332
7980	3	1	Biased	077980-S0003-F001-01	11-Apr-12	Anthony Smith	11.02	1.313	0.04653	0.3236	0.4077					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	3	2	Biased	077980-S0003-F002-01	11-Apr-12	Anthony Smith	20.53	0.4321	0	0.6139	0.5619	1.36	0.0623	0.0066	0.0623	0.312
7980	3	3	Systematic	077980-S0003-F003-01	11-Apr-12	Anthony Smith	2.327	0.6625	0.016	0	0.08321	14.7	0.559	0.0614	0.559	0.703
7980	3	4	Systematic	077980-S0003-F004-01	11-Apr-12	Anthony Smith	16.68	0.5168	0.08785	0.2324	0.4176	9.68	0.268	-0.00179	0.268	0.458
7980	3	5	Systematic	077980-S0003-F005-01	11-Apr-12	Anthony Smith	9.376	0.355	0.01312	0.3131	0.4078	15.2	0.49	0.119	0.49	0.551
7980	3	6	Systematic	077980-S0003-F006-01	11-Apr-12	Anthony Smith	17.21	0.4707	0.07664	0.336	0.3993	1.49	0.29	-0.00263	0.29	0.11
7980	3	7	Systematic	077980-S0003-F007-01	11-Apr-12	Anthony Smith	2.063	0.4687	0.01285	-0.01275	0.2298	7.51	0.432	0.0306	0.432	0.393
7980	3	8	Systematic	077980-S0003-F008-01	11-Apr-12	Anthony Smith	8.403	0.3923	0.01992	0.2231	0.3474	13	0.608	0.0248	0.608	0.601
7980	3	9	Systematic	077980-S0003-F009-01	11-Apr-12	Anthony Smith	16.3	1.04	0.04546	0.4853	0.5774	12.5	0.484	0.0304	0.484	0.788
7980	3	10	Systematic	077980-S0003-F010-01	11-Apr-12	Anthony Smith	14.67	0.6822	0.01961	0.3365	0.5222	12.3	0.453	0.0455	0.453	0.695
7980	3	11	Systematic	077980-S0003-F011-01	11-Apr-12	Anthony Smith	11.86	0.6482	0.006625	0.3019	0.4352	3.11	0.173	0.029	0.173	0.248
7980	3	12	Systematic	077980-S0003-F012-01	11-Apr-12	Anthony Smith	4.921	0.1965	0	0.08739	0.07117	10.9	0.376	0.0256	0.376	0.597
7980	3	13	Systematic	077980-S0003-F013-01	11-Apr-12	Anthony Smith	10.95	0.7956	0.005949	0.3818	0.4547	15	0.546	0.0553	0.546	0.666
7980	3	14	Systematic	077980-S0003-F014-01	11-Apr-12	Anthony Smith	17.07	1.078	0.04792	0.4632	0.5057	14.1	0.538	-0.0137	0.538	0.665
7980	3	15	Systematic	077980-S0003-F015-01	11-Apr-12	Anthony Smith	16.72	0.5496	-0.0005035	0.5319	0.5479	8.36	0.435	0.0173	0.435	0.606
7980	3	16	Systematic	077980-S0003-F016-01	11-Apr-12	Anthony Smith	7.97	0.8494	0	0.3031	0.3233	0.361	0.0364	0.000975	0.0364	0.11
7980	3	17	Systematic	077980-S0003-F017-01	11-Apr-12	Anthony Smith	0.5878	0.09573	0	0.06269	0.04347	10.8	0.62	-0.00109	0.62	0.662
7980	3	18	Systematic	077980-S0003-F018-01	11-Apr-12	Anthony Smith	11.94	0.5192	0.009367	0.5287	0.5466	8.31	0.453	0.0299	0.453	0.628
7980	3	19	Systematic	077980-S0003-F019-01	11-Apr-12	Anthony Smith	13.63	0.3115	0.01601	0.4486	0.2559	4.16	0.259	0.0012	0.259	0.332
7980	3	20	Systematic	077980-S0003-F020-01	11-Apr-12	Anthony Smith	5.444	0.4733	0.011	0.1841	0.2449	6.41	0.356	0	0.356	0.421
7980	3	21	Systematic	077980-S0003-F021-01	11-Apr-12	Anthony Smith	6.698	0.5513	0.005566	0.2974	0.1757	4.51	0.274	0.0159	0.274	0.41
7980	3	22	Systematic	077980-S0003-F022-01	11-Apr-12	Anthony Smith	5.148	0.6437	0.00008576	0.1843	0.3832					
7980	3	23	Characterization	077980-S0003-F023-01	23-May-12	Rick Zahensky	10.25	0.4833	-0.005974	0.503	0.6777					
7980	3	24	Characterization	077980-S0003-F024-01	23-May-12	Rick Zahensky	9.074	0.5956	0	0.5058	0.5089					
7980	3	25	Characterization	077980-S0003-F025-01	23-May-12	Rick Zahensky	9.162	0.5792	0	0.4378	0.5702					
7980	3	26	Characterization	077980-S0003-F026-01	23-May-12	Rick Zahensky	11.31	0.6039	-0.01034	0.5651	0.6842					
7980	3	27	Post-Remediation	077980-S0003-F027-01	29-May-12	Rick Zahensky	9.589	0.8554	0.007865	0.3286	0.5534					
7980	3	28	Systematic	077980-S0003-F028-01	06-Jun-12	Rick Zahensky	9.771	0.3344	0.005558	0.3884	0.4679	9.18	0.427	-0.0185	0.427	0.41

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

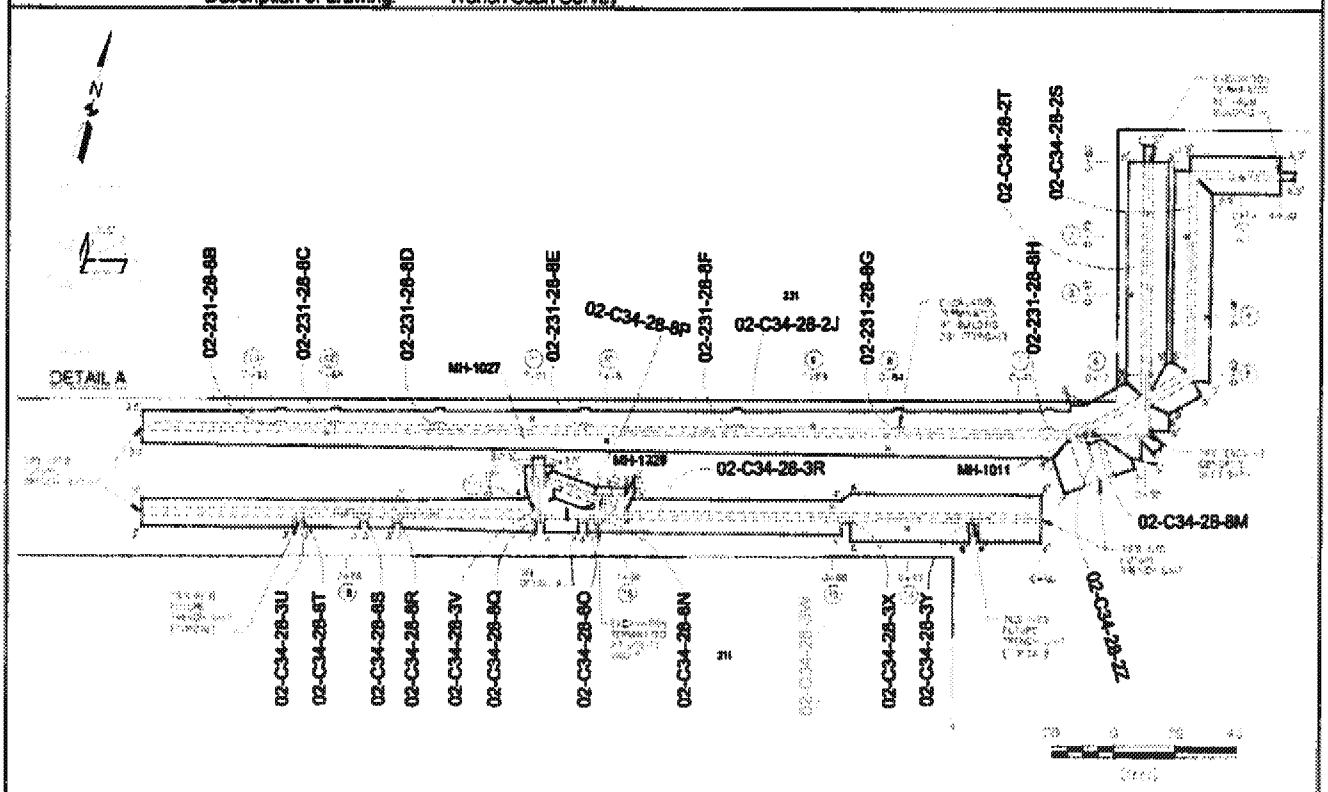

SU-1
SU-2
SU-3
INSET
SU-1
SU-2
SU-3
0
200
400
Feet
LEGEND
GAMMA TOTAL, <1 SIGMA
GAMMA TOTAL, ≥1 AND <2 SIGMA
GAMMA TOTAL, ≥2 AND <3 SIGMA
GAMMA TOTAL, ≥3 AND <4 SIGMA
GAMMA TOTAL, ≥4 AND <5 SIGMA
GAMMA TOTAL, ≥5 AND <6 SIGMA
GAMMA TOTAL, ≥6 SIGMA
BIAS SAMPLE
SYSTEMATIC SAMPLE
ROAD
BUILDING
SCREENING PAD
WATER
10
0
10
20
Feet
Scale: 1" = 20'
N
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
SU-02
Bldg 79/80
HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA
REVIEW: 0
AUTHOR: TJS
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: 7980-SU02 mxd
TETRA TECH EC, INC

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
11/18/2011	07:30	Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-234								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	117563 215116	8/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.59 - 7.26 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings.

* denotes highest radiation reading on contact

LAW denotes large area massinn wipe

Δ denotes static location.

* Unless Otherwise Noted

All readings in μR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-234

SURVEYOR: R. Roberson

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Fixed + Removable (NET)			Removable (NET)		Comments
	Contact	1 Meter	Gamma (cpm)	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
1			5133					
2			5409					
3			5501					
4			5376					
5			5280					
6			5276					
7			5603					
8			5333					
9			5270					
10			5602					
11			5447					
12			5391					
13			5184					
14			5331					
15			5502					
16			5310					
17			5666					
18			5213					

Reviewer:

Date:

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RegNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR 8.313	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 9.562	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 7.160	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 8.149	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 1.368	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 4.169	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.052	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.153	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.285	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.626	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR -0.262	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.684	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.856	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.279	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.927	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 1.809	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.661	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 3.276	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00327

Project Name: Parcel C Trench Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 4044-0002
Sampler Name: J. Cunningham	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-234-001	11/18/2011	1005	1		S		☑	☐	☐			[redacted]
02-PCT-234-002	11/18/2011	1010	1		S		☑	☐	☐			[redacted]
02-PCT-234-003	11/18/2011	1015	1		S		☑	☐	☐			[redacted]
02-PCT-234-004	11/18/2011	1020	1		S		☑	☐	☐			[redacted]
02-PCT-234-005	11/18/2011	1025	1		S		☑	☐	☐			[redacted]
02-PCT-234-006	11/18/2011	1030	1		S		☑	☐	☐			[redacted]
02-PCT-234-007	11/18/2011	1035	1		S		☑	☐	☐			[redacted]
02-PCT-234-008	11/18/2011	1040	1		S		☑	☐	☐			[redacted]
02-PCT-234-009	11/18/2011	1045	1		S		☑	☐	☐			[redacted]
02-PCT-234-010	11/18/2011	1050	1		S		☑	☐	☐			[redacted]
02-PCT-234-011	11/18/2011	1055	1		S		☑	☐	☐			[redacted]
02-PCT-234-012	11/18/2011	1100	1		S		☑	☐	☐			[redacted]

Relinquished by: (signature) [signature]	Date 11-18-11	Received by: (signature) [signature]
Company R.S.R.S.	Time 1345	Company C&T
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

[illegible]

[illegible]

SAMPLE CONDITION [illegible]
TEMPERATURE: SAMPLE CONDITION: COOLER SEAL

SAMPLING COMPANY: TC 234 Systematic 1-18

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00328

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMA SPEC	SR90	ALPHA
Project Location: HUNTERS POINT	Project Number: 4044-0002			
Sampler Name: [illegible]	Airbill Number: N/A			
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.

LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	QC	1	2	3	COMMENTS	LOCATION	SAMPLE ID
02-PCT-234-013	11/18/2011	1105	1		S		✓					
02-PCT-234-014	11/18/2011	1110	1		S		✓					
02-PCT-234-015	11/18/2011	1115	1		S		✓					
02-PCT-234-016	11/18/2011	1120	1		S		✓					
02-PCT-234-017	11/18/2011	1125	1		S		✓					
02-PCT-234-018	11/18/2011	1130	1		S		✓					

Relinquished by: (signature) [illegible]	Date 11-18-11	Received by: (signature) [illegible]	LABORATORY INSTRUCTIONS/COMMENTS
Company: PBLS	Time 1345	Company: CET	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

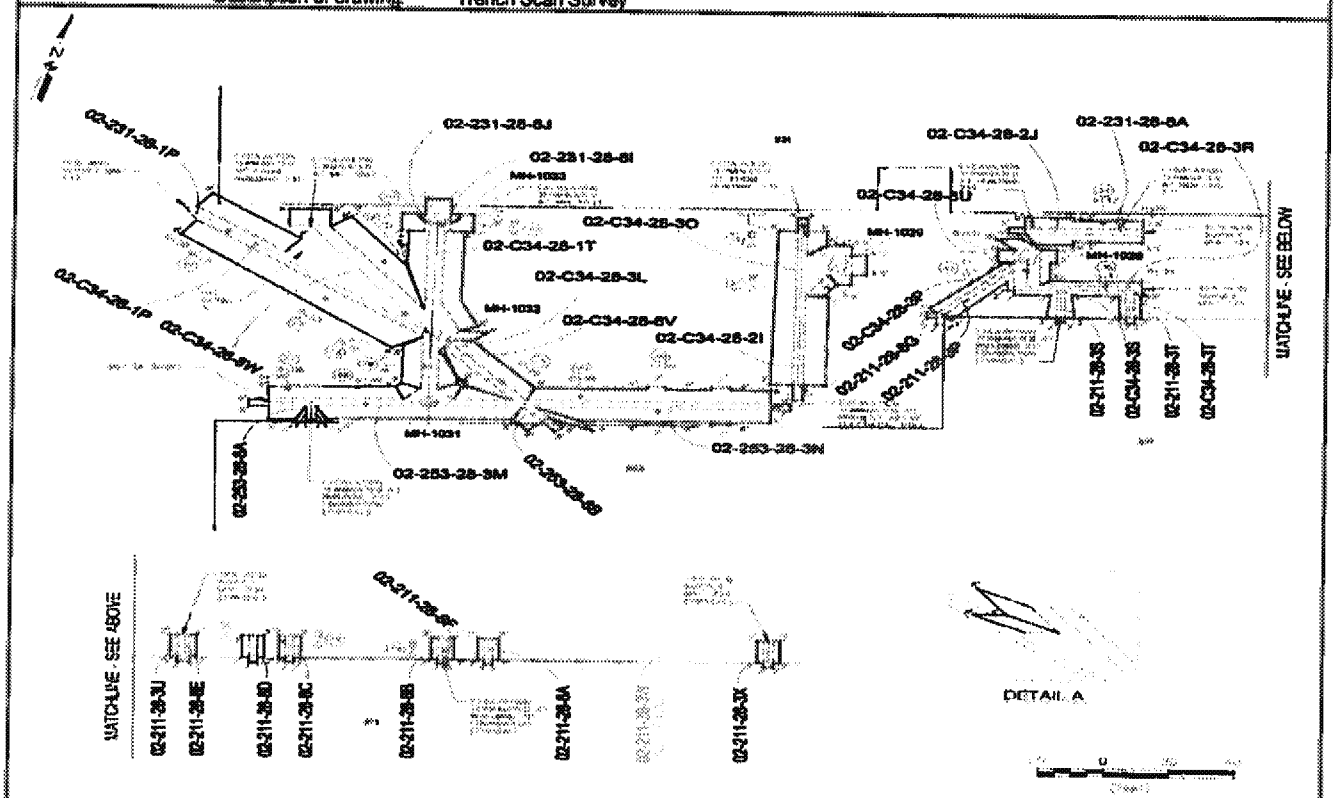
SAMPLING COMMENTS

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
4/12/2012	08:30	Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-238								
Location: Parcel C								
Surveyor: J. Cunningham								
Reviewed By: (Print & Sign)		2350-1 44-10	117563 215116	6/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.14 - 7.37 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings.

* denotes highest radiation reading on contact

LAW denotes large area masslinn wipe

Δ denotes static location

* Unless Otherwise Noted

All readings in μR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-238

SURVEYOR: J. Cunningham

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
18			5340					
19			5113					
20			5374					
21			5252					
22			5461					
23			5312					
24			5103					
25			5355					
26			5292					
27			5220					
28			5437					
29			5148					
30			5359					
31			5273					
32			5422					
33			5329					
34			5237					
35			5343					

Reviewer:

Date:

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RecNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9228	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.190	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.277	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.8266	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.0756	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.447	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 5.541	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.453	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.029	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9447	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9184	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.674	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.518	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.8516	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.492	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.8519	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.103	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.6327	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00373

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY ID:
Sampler Name: Joe Cunningham	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-238-018	4/12/2012	1000	1		S		☑	☐	☐			
02-PCT-238-019	4/12/2012	1005	1		S		☑	☐	☐			
02-PCT-238-020	4/12/2012	1010	1		S		☑	☐	☐	DUP		
02-PCT-238-021	4/12/2012	1015	1		S		☑	☐	☐			
02-PCT-238-022	4/12/2012	1020	1		S		☑	☐	☐			
02-PCT-238-023	4/12/2012	1025	1		S		☑	☐	☐			
02-PCT-238-024	4/12/2012	1030	1		S		☑	☐	☐			
02-PCT-238-025	4/12/2012	1035	1		S		☑	☐	☐			
02-PCT-238-026	4/12/2012	1040	1		S		☑	☐	☐			
02-PCT-238-027	4/12/2012	1045	1		S		☑	☐	☐			
02-PCT-238-028	4/12/2012	1050	1		S		☑	☐	☐			
02-PCT-238-029	4/12/2012	1055	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 041212	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: ARCS	Time: 1130	Company: CET	SAMPLE DISPOSAL:
Relinquished by: (signature)	Date	Received by: (signature)	COMMENTS/REMARKS:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (CHECK ONE): NORMAL CONDITION / SAMPLE CONDITION / COMMENTS:
Company	Time	Company	

ED_004747_00010904-00377

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00374

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY ID:
Sampler Name: Joe Cunningham	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-238-030	4/12/2012	1100	1		S		☑	☐	☐			
02-PCT-238-031	4/12/2012	1105	1		S		☑	☐	☐			
02-PCT-238-032	4/12/2012	1116	1		S		☑	☐	☐			
02-PCT-238-033	4/12/2012	1115	1		S		☑	☐	☐			
02-PCT-238-034	4/12/2012	1120	1		S		☑	☐	☐			
02-PCT-238-035	4/12/2012	1125	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 041212	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: TTSRS	Time: 1130	Company: CET	SAMPLING COMMENTS:
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT AT LABORATORY:
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER #:

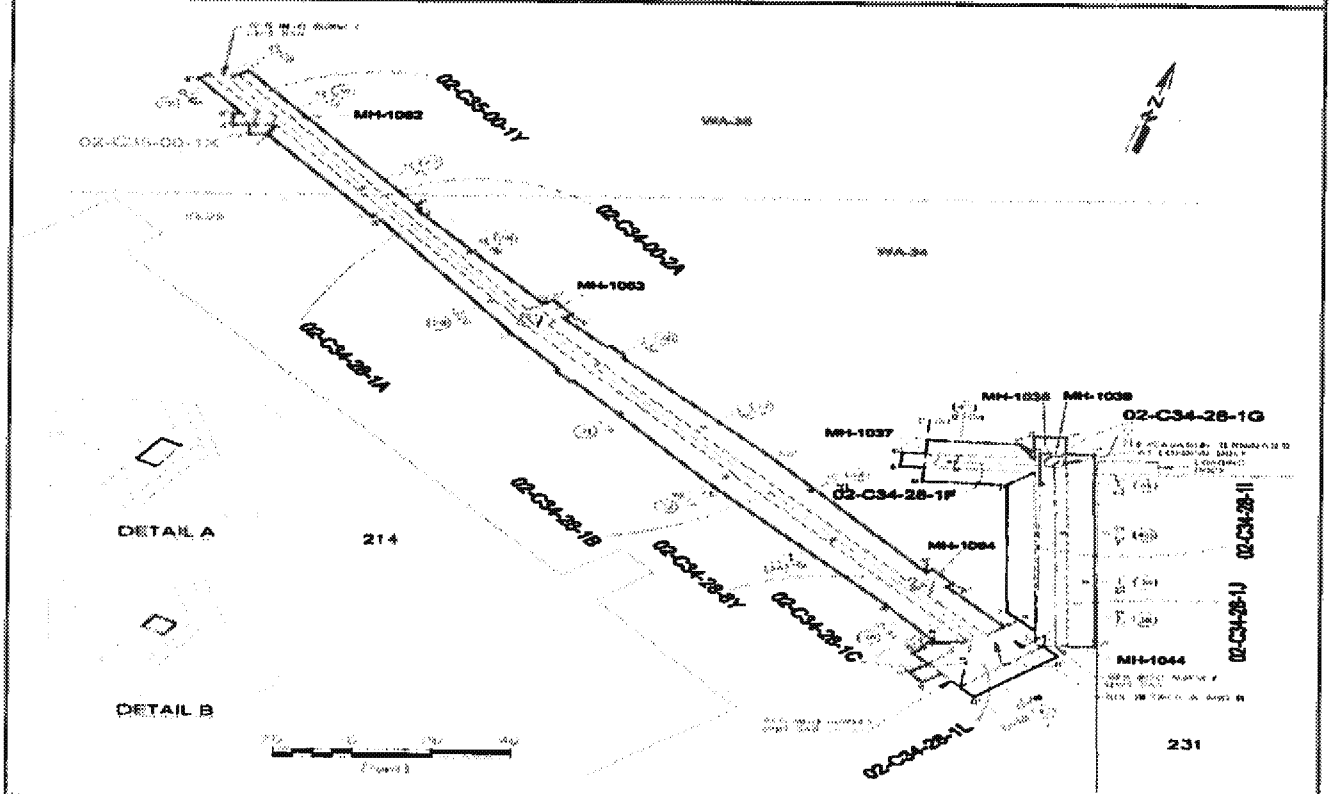
ED_004747_00010904-00378

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
4/17/2012	10:00	Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-242								
Location: Parcel C								
Surveyor: J. Cunningham								
Reviewed By: (Print & Sign)		2350-1 44-10	117583 215116	6/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.73 - 7.67 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings

* denotes highest radiation reading on contact

LAW denotes large area massinn wipe

Δ denotes static location.

\+ Unless Otherwise Noted

All readings in μR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-242

SURVEYOR: J. Cunningham

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
25			5318					
26			5455					
27			5138					
28			5371					
29			5480					
30			5266					
31			5229					
32			5110					
33			5586					
34			5363					
35			5236					
36			5150					
37			5194					
38			5440					
39			5219					
40			5301					
41			5175					
42			5488					

Reviewer:

Date:

23501D	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	Rectum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.893	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.075	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9[illegible]	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.658	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.044	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.063	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.658	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.589	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.532	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.153	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC 2.257	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.068	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.4508	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.998	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.250	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.316	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.6316	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.4606	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00375

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY #:
Sampler Name: J. Cunningham	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-242-025	4/17/2012	1300	1		S1		☑	☐	☐			
02-PCT-242-026	4/17/2012	1303	1		S1		☑	☐	☐			
02-PCT-242-027	4/17/2012	1306	1		S1		☑	☐	☐			
02-PCT-242-028	4/17/2012	1309	1		S1		☑	☐	☐			
02-PCT-242-029	4/17/2012	1312	1		S1		☑	☐	☐			
02-PCT-242-030	4/17/2012	1315	1		S1		☑	☐	☐			
02-PCT-242-031	4/17/2012	1318	1		S1		☑	☐	☐	DUP		
02-PCT-242-032	4/17/2012	1321	1		S1		☑	☐	☐			
02-PCT-242-033	4/17/2012	1324	1		S1		☑	☐	☐			
02-PCT-242-034	4/17/2012	1327	1		S1		☑	☐	☐			
02-PCT-242-035	4/17/2012	1330	1		S1		☑	☐	☐			
02-PCT-242-036	4/17/2012	1333	1		S1		☑	☐	☐			

Relinquished by: (signature)	Date: 4.17.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: DPSPS	Time: 1530	Company: C&T	SAMPLING COMMENTS:
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION RECEIPT INFORMATION: TEMPERATURE: SAMPLE CONDITION: DOCUMENTED
Company	Time	Company	

ED_004747_00010904-00383

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00376

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	
Sampler Name: J. Cunningham	Airbill Number: N/A	ALPHA	
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [redacted]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-242-037	4/17/2012	1336	1		S1		☑	☐	☐			[redacted]
02-PCT-242-038	4/17/2012	1339	1		S1		☑	☐	☐			[redacted]
02-PCT-242-039	4/17/2012	1342	1		S1		☑	☐	☐			[redacted]
02-PCT-242-040	4/17/2012	1345	1		S1		☑	☐	☐			[redacted]
02-PCT-242-041	4/17/2012	1348	1		S1		☑	☐	☐			[redacted]
02-PCT-242-042	4/17/2012	1351	1		S1		☑	☐	☐			[redacted]

Relinquished by: (signature)	Date 4.17.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS: [redacted]
Company [redacted]	Time 1530	Company C&T	SAMPLE COMMENTS: [redacted]
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION: [redacted]
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: [redacted] SAMPLE CONDITION: [redacted]
Company	Time	Company	

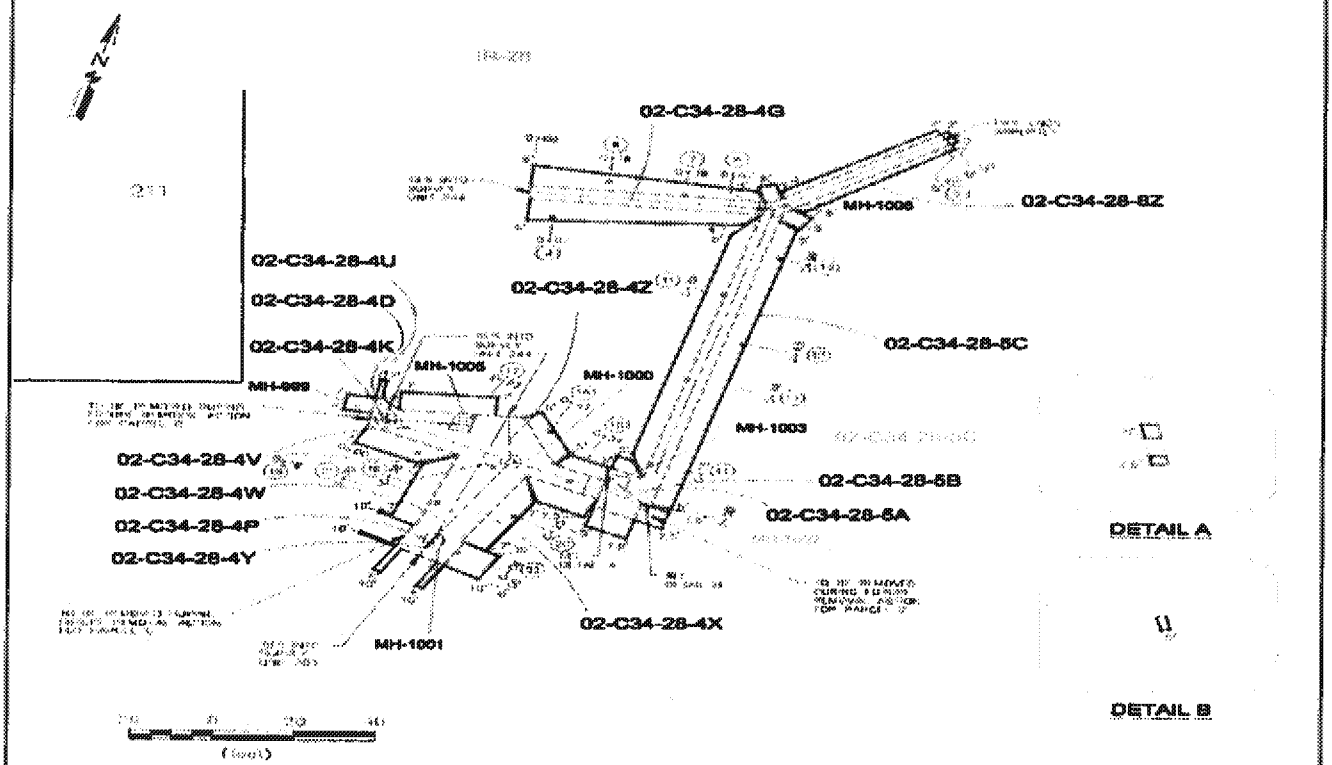
ED_004747_00010904-00384

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
5/22/2012	09:30	Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-302								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	120588 81878	10/16/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 2.77 - 5.98 Kcpm

3 sigma investigation level for 2350-1 Instrument is 7638 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings

* denotes highest radiation reading on contact

LAW denotes large area masslinn wipe

Δ denotes static location.

* Unless Otherwise Noted

All readings in μR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-302

SURVEYOR: R. Roberson

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
5			5831					
6			5945					
7			5796					
8			6003					
9			5781					
10			5847					
11			5955					
12			5720					
13			5874					
14			5613					
15			5701					
16			5863					
17			5911					
18			5734					
19			5950					
20			5863					
21			5701					
22			5822					

Reviewer:

Date:

599	116S1A		JC	S	GST	PCT	242	F	[illegible]	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	1	JC	10.44	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	2	JC	11.84	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	3	JC	12.01	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	4	JC	10.77	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.624	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.740	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.180	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RdgNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	3[illegible]	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	[illegible]/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00383

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY ID:
Sampler Name: J. Cunningham	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-302-005	5/22/2012	1000	1		S1		☑	☐	☐			
02-PCT-302-006	5/22/2012	1003	1		S1		☑	☐	☐			
02-PCT-302-007	5/22/2012	1006	1		S1		☑	☐	☐			
02-PCT-302-008	5/22/2012	1009	1		S1		☑	☐	☐			
02-PCT-302-009	5/22/2012	1012	1		S1		☑	☐	☐			
02-PCT-302-010	5/22/2012	1015	1		S1		☑	☐	☐			
02-PCT-302-011	5/22/2012	1018	1		S1		☑	☐	☐	DUP		
02-PCT-302-012	5/22/2012	1021	1		S1		☑	☐	☐			
02-PCT-302-013	5/22/2012	1024	1		S1		☑	☐	☐			
02-PCT-302-014	5/22/2012	1027	1		S1		☑	☐	☐			
02-PCT-302-015	5/22/2012	1030	1		S1		☑	☐	☐			
02-PCT-302-016	5/22/2012	1033	1		S1		☑	☐	☐			

Relinquished by: (signature)	Date: 5.22.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: RSRS	Time: 14:15	Company: CET	SAMPLING COMMENTS:
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

ED_004747_00010904-00389

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00384

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY ID: [illegible]
Sampler Name: J. Cunningham	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
02-PCT-302-017	5/22/2012	1036	1		S1		☑	☐	☐			
02-PCT-302-018	5/22/2012	1039	1		S1		☑	☐	☐			
02-PCT-302-019	5/22/2012	1042	1		S1		☑	☐	☐			
02-PCT-302-020	5/22/2012	1045	1		S1		☑	☐	☐			
02-PCT-302-021	5/22/2012	1048	1		S1		☑	☐	☐			
02-PCT-302-022	5/22/2012	1057	1		S1		☑	☐	☐			

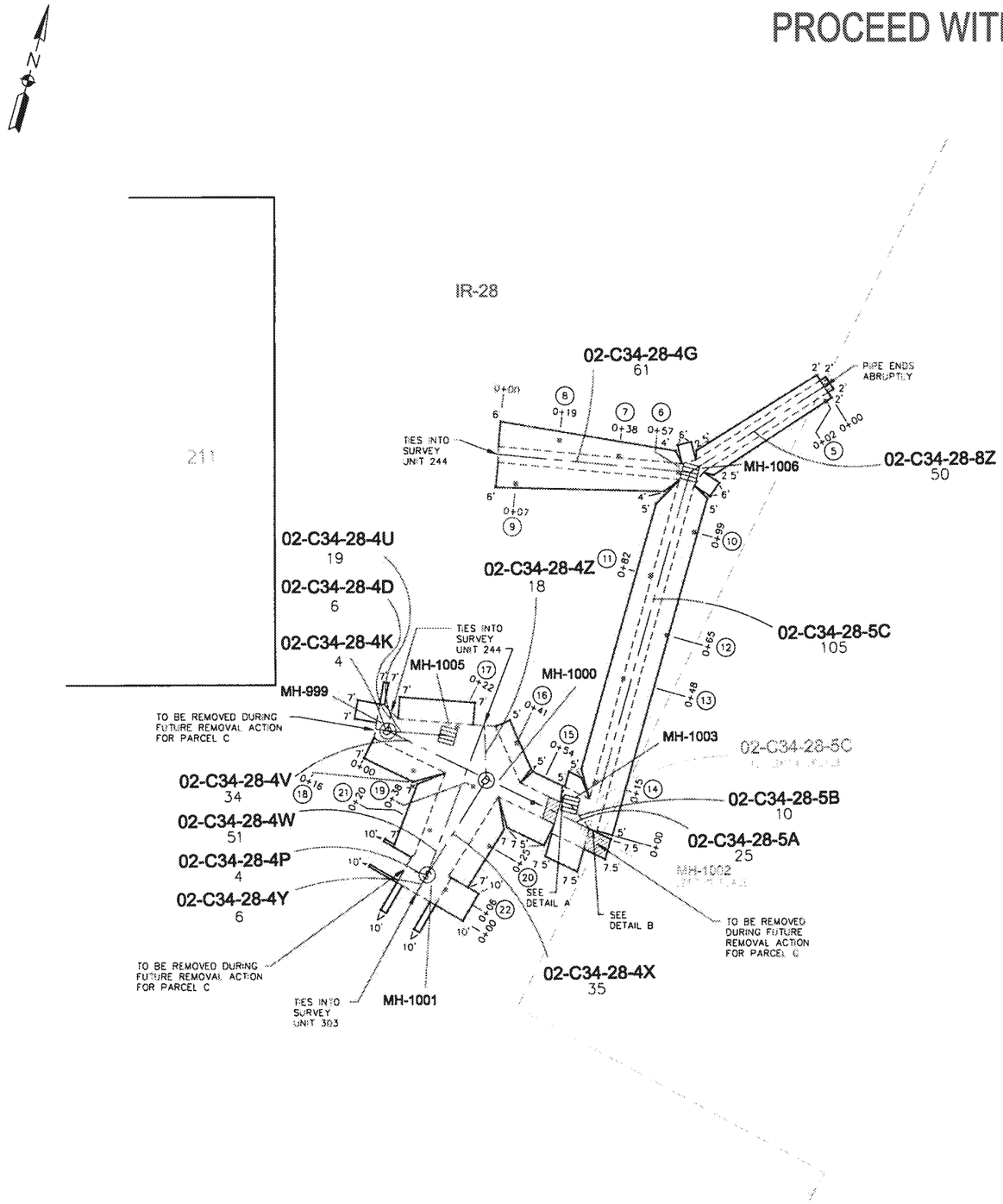
Relinquished by: (signature)	Date 5.22.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company TTS	Time 14:15	Company CET	SAMPLING COMMENTS:
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY):
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

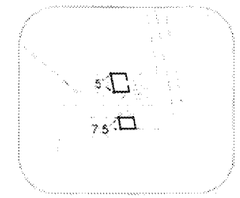
ED_004747_00010904-00390

TU 302

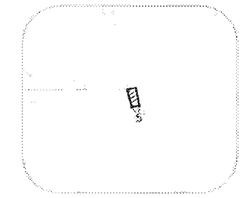
Located in Parcel C
05/08/12: Issued drawing to identify locations for investigative sample collection (1-4)
05/09/12: Performed walkover survey to identify scan range
05/09/12: Collected 4 investigative samples (1-4)
05/17/12: No activity above the release criteria was identified in the investigative samples (1-4)
05/17/12: Issued drawing to identify locations for systematic sample collection (5-22)
05/22/12: Collected 18 systematic samples (5-22)
05/28/12: No activity above the release criteria was identified
05/31/12: Issued Figures 1-1/3-1 for Internal Draft SUPR
07/10/12: The RSO provided the RASO with the Internal Draft SUPR and requested for concurrence to backfill.
07/12/12: RASO concurs on backfilling the trench
07/16/12: Backfilling initiated with 48 cubic yards of Mills Peninsula import soils
07/17/12: Backfilling continued with 432 cubic yards of Mills Peninsula import soils
07/18/12: Backfilling completed with 144 cubic yards of Mills Peninsula import soils
08/07/12: CBD used Engineer's volume estimate of 550 cubic yards backfilled instead of field estimate of 624 cubic yards.

PROCEED WITH SAMPLING

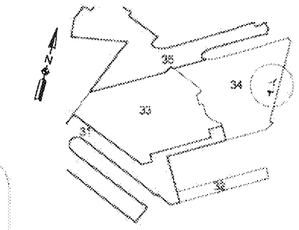




DETAIL A

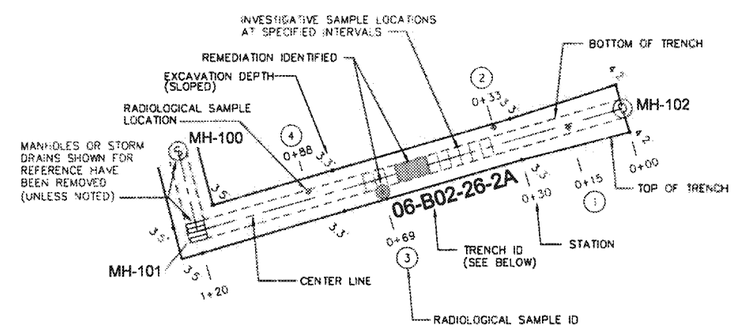


DETAIL B



KEY PLAN

LEGEND



TRENCH ID

XX-XXX-XX-XX #

- SEGMENT NO
- IR SITE ID, 00 IF NON-IR SITE
- PIPE LENGTH REMOVED
- WORK/BLDG AREA
- CTO OR TO NUMBER

IR BOUNDARY
PARCEL BOUNDARY
WORK AREA BOUNDARY
EP EXTRANEOUS PIPE
140 IMPACTED BUILDING
140 NON-IMPACTED BUILDING
CONCRETE
ROCK

SURFACE AREA = 550 SQUARE METERS
TOTAL LENGTH OF TRENCH = 368 L.F.
TOTAL LENGTH OF PIPE = 428 L.F.
BACKFILL QUANTITY = 618 CUBIC YARDS

20 0 20 40
(feet)

SYSTEMATIC SAMPLES 5-22

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

PARCEL C
SURVEY UNIT 302, AREA 34

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CA

REVISION: -
AUTHOR: DMACK
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC

P:\CTO-02 CAD Files (Rad EMAC)\DWG Files\Survey Units\SU302_5-22_05-17-12.dwg

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CDC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
PCT	302	1	Investigative	02-PCT-302-001	9-May-12	Joe Cunningham	10.44	0.6771	0.006485	0.4463	0.445					
PCT	302	2	Investigative	02-PCT-302-002	9-May-12	Joe Cunningham	11.84	1.021	0.001174	0.5159	0.565					
PCT	302	3	Investigative	02-PCT-302-003	9-May-12	Joe Cunningham	12.01	1.056	0.01849	0.5321	0.4782					
PCT	302	4	Investigative	02-PCT-302-004	9-May-12	Joe Cunningham	10.77	0.928	0.01786	0.5633	0.7558					
PCT	302	5	Systematic	02-PCT-302-005	22-May-12	Joe Cunningham		-0.01469	0.01446	0.03351	0.1391		0.167	0.0247	0.167	0.17
PCT	302	6	Systematic	02-PCT-302-006	22-May-12	Joe Cunningham		-0.1275	0.001969	0.02143	0.07385		0.0463	-0.00357	0.0463	0.127
PCT	302	7	Systematic	02-PCT-302-007	22-May-12	Joe Cunningham		0.3231	0.01077	0.04333	0.061		0.0234	0.0097	0.0234	0.16
PCT	302	8	Systematic	02-PCT-302-008	22-May-12	Joe Cunningham		0.05238	0	0.02773	0.07599		0.209	0	0.209	0.0249
PCT	302	9	Systematic	02-PCT-302-009	22-May-12	Joe Cunningham		0.02926	-0.003704	0.05798	0.07943		0.164	0.0123	0.164	0.159
PCT	302	10	Systematic	02-PCT-302-010	22-May-12	Joe Cunningham		0.2709	0	0.06214	0.0467		0.124	0.0194	0.124	0.242
PCT	302	11	Systematic	02-PCT-302-011	22-May-12	Joe Cunningham		-0.02643	-0.00472	0.07261	0.04614		0.23	0.00677	0.23	0.179
PCT	302	12	Systematic	02-PCT-302-012	22-May-12	Joe Cunningham		0.03933	0	0.06572	0.05792		0.0818	-0.0157	0.0818	0.0958
PCT	302	13	Systematic	02-PCT-302-013	22-May-12	Joe Cunningham		-0.02867	0	-0.06331	0.1845		0.181	-0.001	0.181	0.0745
PCT	302	14	Systematic	02-PCT-302-014	22-May-12	Joe Cunningham		-0.00745	-0.00332	0.04801	0.01714		0.0962	0	0.0962	0.0675
PCT	302	15	Systematic	02-PCT-302-015	22-May-12	Joe Cunningham		0.1659	-0.009553	0.07832	0.08339		-0.0329	-0.000153	-0.0329	0.188
PCT	302	16	Systematic	02-PCT-302-016	22-May-12	Joe Cunningham		0.03742	-0.000001871	0	0.05151		0.0957	-0.0125	0.0957	0.135
PCT	302	17	Systematic	02-PCT-302-017	22-May-12	Joe Cunningham		0.3881	0.005208	0.09374	0.1305		0.28	0.0112	0.28	0.236
PCT	302	18	Systematic	02-PCT-302-018	22-May-12	Joe Cunningham		-0.07401	0	0.04524	0.1874		0.0616	0	0.0616	0.262
PCT	302	19	Systematic	02-PCT-302-019	22-May-12	Joe Cunningham		-0.151	0.002022	0.03047	0.09509		0.0523	-0.00244	0.0523	0.0813
PCT	302	20	Systematic	02-PCT-302-020	22-May-12	Joe Cunningham		0.5844	0.0004525	-0.005864	0.0317		0.0348	-0.00987	0.0348	0.1
PCT	302	21	Systematic	02-PCT-302-021	22-May-12	Joe Cunningham		0.01699	0.01134	0.09316	0.05436		0.275	0.0192	0.275	0.125
PCT	302	22	Systematic	02-PCT-302-022	22-May-12	Joe Cunningham		0.1714	0.01792	-0.00854	0.008091		0.102	0.0161	0.102	0.29
E20	642	1	Biased	04-PE-E0642-01	21-Feb-12	Marie Winder	9.777		0.002965	1.112	1.231					
E20	642	2	Biased	04-PE-E0642-02	21-Feb-12	Marie Winder	10.11		-0.004565	1.1	1.092					
E20	642	3	Biased	04-PE-E0642-03	21-Feb-12	Marie Winder	7.521	0.748	-0.008032	0.9372	0.9988					
E20	642	4	Biased	04-PE-E0642-04	21-Feb-12	Marie Winder	8.709		0.002631	1.153	1.212					
E20	642	5	Biased	04-PE-E0642-05	21-Feb-12	Marie Winder	7.071		0.01186	1.023	1.115					
E20	642	6	Biased	04-PE-E0642-06	21-Feb-12	Marie Winder	10.29	0.8462	-0.003166	0.8751	0.9221					
E20	642	7	Biased	04-PE-E0642-07	21-Feb-12	Marie Winder	9.247	1.196	0.01865	0.895	1.072					
E20	642	8	Biased	04-PE-E0642-08	21-Feb-12	Marie Winder	9.189	0.9857	-0.00146	1.082	1.21					
E20	642	9	Biased	04-PE-E0642-09	21-Feb-12	Marie Winder	10.36	0.7627	0	0.7617	0.8926					
E20	642	10	Biased	04-PE-E0642-10	21-Feb-12	Marie Winder	10.11		0.002623	1.182	1.342					
E20	642	11	Systematic	04-PE-E0642-11	21-Feb-12	Marie Winder	8.969	0.7551	-0.007591	0.684	0.7395					
E20	642	12	Systematic	04-PE-E0642-12	21-Feb-12	Marie Winder	9.489	0.9683	0.001427	0.7564	0.8397					
E20	642	13	Systematic	04-PE-E0642-13	21-Feb-12	Marie Winder	8.773	0.5134	0.005011	0.6593	0.764					
E20	642	14	Systematic	04-PE-E0642-14	21-Feb-12	Marie Winder	10.09	1.25	0.00003886	0.8811	0.8787					
E20	642	15	Systematic	04-PE-E0642-15	21-Feb-12	Marie Winder	11.93	1.01	0.01054	0.7806	0.7864					
E20	642	16	Systematic	04-PE-E0642-16	21-Feb-12	Marie Winder	10.11	1.297	0.004751	0.5521	0.7028					
E20	642	17	Systematic	04-PE-E0642-17	21-Feb-12	Marie Winder	8.545	1.214	0.0004183	0.7789	0.96					
E20	642	18	Systematic	04-PE-E0642-18	21-Feb-12	Marie Winder	11.1	0.9683	-0.0001923	0.6024	0.6267					
E20	642	19	Systematic	04-PE-E0642-19	21-Feb-12	Marie Winder	11.37	0.7214	0	0.6835	0.672					
E20	642	20	Systematic	04-PE-E0642-20	21-Feb-12	Marie Winder	9.938	1.143	-0.01274	1.054	1.1					
E20	642	21	Systematic	04-PE-E0642-21	21-Feb-12	Marie Winder	9.767	1.317	0	0.9975	0.935					
E20	642	22	Systematic	04-PE-E0642-22	21-Feb-12	Marie Winder	10.88	1.119	0.002148	0.8411	0.8891					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CCC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
E20	642	23	Systematic	04-PE-E0642-23	21-Feb-12	Marie Winder	11.46	1.292	-0.0001891	0.5196	0.8283					
E20	642	24	Systematic	04-PE-E0642-24	21-Feb-12	Marie Winder	5.022	1.322	0.001215	0.7593	0.9259					
E20	642	25	Systematic	04-PE-E0642-25	21-Feb-12	Marie Winder	12.77	0.4422	0.0009493	0.8085	0.7719					
E20	642	26	Systematic	04-PE-E0642-26	21-Feb-12	Marie Winder	10.68	0.8757	-0.002949	0.8006	0.6686					
E20	642	27	Systematic	04-PE-E0642-27	21-Feb-12	Marie Winder	8.643	1.151	0.001585	0.9153	0.8994					
E20	642	28	Systematic	04-PE-E0642-28	21-Feb-12	Marie Winder	9.903	0.73	-0.01572	0.8297	0.8301					
E20	642	29	Characterization	04-PE-E0642-29	7-Mar-12	Marie Winder	8.92	0.8794	-0.01208	0.715	0.6964					
E20	642	30	Characterization	04-PE-E0642-30	7-Mar-12	Marie Winder	9.645	1.353	0.00731	1.095	1.072					
E20	642	31	Characterization	04-PE-E0642-31	7-Mar-12	Marie Winder	12.21	1.066	0	0.8007	0.9408					
E20	642	32	Characterization	04-PE-E0642-32	7-Mar-12	Marie Winder	11.72		-0.003195	0.9274	1.107					
E20	642	33	Characterization	04-PE-E0642-33	15-Mar-12	Marie Winder	11.31	1.36	0.001964	0.7773	0.8268					
E09	643	1	Biased	04-PE-E0643-01	20-Feb-12	Marie Winder	10.14	1.187	0.008094	1.235	1.398					
E09	643	2	Biased	04-PE-E0643-02	20-Feb-12	Marie Winder	10.7	0.8059	-0.004474	1.133	1.125					
E09	643	3	Biased	04-PE-E0643-03	20-Feb-12	Marie Winder	19.73	0.6708	0.003788	0.5641	0.6531					
E09	643	4	Biased	04-PE-E0643-04	20-Feb-12	Marie Winder	14.63	1.148	0	0.6827	0.7243					
E09	643	5	Biased	04-PE-E0643-05	20-Feb-12	Marie Winder	12.47	1.26	0	0.4997	0.868					
E09	643	6	Biased	04-PE-E0643-06	20-Feb-12	Marie Winder	12.13	0.8072	-0.0004388	0.9502	0.9927					
E09	643	7	Biased	04-PE-E0643-07	20-Feb-12	Marie Winder	15.49	0.4838	-0.0005377	0.6015	0.6568					
E09	643	8	Systematic	04-PE-E0643-08	20-Feb-12	Marie Winder	11.25	0.5491	-0.006964	0.6838	0.6991					
E09	643	9	Systematic	04-PE-E0643-09	20-Feb-12	Marie Winder	9.882	0.9414	0.01758	0.5653	0.6673					
E09	643	10	Systematic	04-PE-E0643-10	20-Feb-12	Marie Winder	8.452	1.005	-0.006508	0.7258	0.8101					
E09	643	11	Systematic	04-PE-E0643-11	20-Feb-12	Marie Winder	10.56	0.9259	0.0002606	0.6431	0.6809					
E09	643	12	Systematic	04-PE-E0643-12	20-Feb-12	Marie Winder	12.18	0.4745	0.0003576	0.7328	0.7305					
E09	643	13	Systematic	04-PE-E0643-13	20-Feb-12	Marie Winder	11.11	0.9431	0.0006881	0.4984	0.6299					
E09	643	14	Systematic	04-PE-E0643-14	20-Feb-12	Marie Winder	9.423	1.01	-0.0008747	0.9459	0.8425					
E09	643	15	Systematic	04-PE-E0643-15	20-Feb-12	Marie Winder	11.24	0.8587	0.01661	0.7565	0.8942					
E09	643	16	Systematic	04-PE-E0643-16	20-Feb-12	Marie Winder	11.69	0.8246	0.01832	0.6853	0.7188					
E09	643	17	Systematic	04-PE-E0643-17	20-Feb-12	Marie Winder	11.89	1.164	-0.004481	0.5077	0.7386					
E09	643	18	Systematic	04-PE-E0643-18	20-Feb-12	Marie Winder	17.13	0.7488	-0.002082	0.4123	0.5256					
E09	643	19	Systematic	04-PE-E0643-19	20-Feb-12	Marie Winder	12.15	0.6749	-0.008129	0.4863	0.6155					
E09	643	20	Systematic	04-PE-E0643-20	20-Feb-12	Marie Winder	17.26	0.8191	-0.00006842	0.3564	0.506					
E09	643	21	Systematic	04-PE-E0643-21	20-Feb-12	Marie Winder	14.13	0.6001	0.001012	0.6683	0.6165					
E09	643	22	Systematic	04-PE-E0643-22	20-Feb-12	Marie Winder	19.83	0.621	0.007129	0.5636	0.4354					
E09	643	23	Systematic	04-PE-E0643-23	20-Feb-12	Marie Winder	11.89	1.117	0.006237	0.5256	0.5102					
E09	643	24	Systematic	04-PE-E0643-24	20-Feb-12	Marie Winder	11.91	1.348	0.001702	0.747	0.7316					
E09	643	25	Systematic	04-PE-E0643-25	20-Feb-12	Marie Winder	11.4	1.205	-0.007337	1.144	1.153					
E08	644	1	Biased	04-PE-E0644-01	28-Feb-12	Marie Winder	8.338	1.406	0.000004147	1.136	1.305					
E08	644	2	Biased	04-PE-E0644-02	28-Feb-12	Marie Winder	8.883	1.108	0.0009373	1.163	1.356					
E08	644	3	Biased	04-PE-E0644-03	28-Feb-12	Marie Winder	6.732	1.257	0	1.004	1.155					
E08	644	4	Biased	04-PE-E0644-04	28-Feb-12	Marie Winder	8.767		-0.004904	1.116	1.284					
E08	644	5	Biased	04-PE-E0644-05	28-Feb-12	Marie Winder	8.543		0	1.165	1.324					
E08	644	6	Biased	04-PE-E0644-06	28-Feb-12	Marie Winder	8.129	1.19	-0.01024	1.133	1.204					
E08	644	7	Biased	04-PE-E0644-07	28-Feb-12	Marie Winder	10.43	1.334	0.00918	1.115	1.267					
E08	644	8	Biased	04-PE-E0644-08	28-Feb-12	Marie Winder	8.522		0.002086	1.165	1.307					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CDC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)			
							K-40	Th-232	Cs-137	Bi-214	Pb-214	K-40	Th-232	Cs-137	Bi-214	Pb-214
E08	644	9	Biased	04-PE-E0644-09	28-Feb-12	Marie Winder	9.135	1.038	0.001309	1.1	1.244					
E08	644	10	Biased	04-PE-E0644-10	28-Feb-12	Marie Winder	8.259	0.814	0.001332	0.8247	0.9353					
E08	644	11	Biased	04-PE-E0644-11	28-Feb-12	Marie Winder	7.992		-0.009793	1.361	1.54					
E08	644	12	Biased	04-PE-E0644-12	28-Feb-12	Marie Winder	8.946	0.8375	0.005088	0.8749	0.9432					
E08	644	13	Biased	04-PE-E0644-13	28-Feb-12	Marie Winder	8.655	0.6721	0	0.667	0.9609					
E08	644	14	Biased	04-PE-E0644-14	28-Feb-12	Marie Winder	8.359	1.325	0.003308	1.118	1.177					
E08	644	15	Systematic	04-PE-E0644-15	28-Feb-12	Marie Winder	9.005	1.127	-0.00005525	0.8938	0.9698					
E08	644	16	Systematic	04-PE-E0644-16	28-Feb-12	Marie Winder	9.698		0	1.053	1.056					
E08	644	17	Systematic	04-PE-E0644-17	28-Feb-12	Marie Winder	8.569		0.01279	1.261	1.466					
E08	644	18	Systematic	04-PE-E0644-18	28-Feb-12	Marie Winder	9.201	1.275	0.009044	0.747	0.9634					
E08	644	19	Systematic	04-PE-E0644-19	28-Feb-12	Marie Winder	10.46	0.8392	0.007498	0.8023	0.8587					
E08	644	20	Systematic	04-PE-E0644-20	28-Feb-12	Marie Winder	9.944	1.056	0.008981	0.7784	0.8405					
E08	644	21	Systematic	04-PE-E0644-21	28-Feb-12	Marie Winder	6.756	0.8875	-0.001482	0.9662	1.046					
E08	644	22	Systematic	04-PE-E0644-22	28-Feb-12	Marie Winder	8.938		0	0.8319	1.044					
E08	644	23	Systematic	04-PE-E0644-23	28-Feb-12	Marie Winder	9.148	1.428	-0.0002595	1.175	1.362					
E08	644	24	Systematic	04-PE-E0644-24	28-Feb-12	Marie Winder	10.35	0.996	0.00223	0.8824	0.988					
E08	644	25	Systematic	04-PE-E0644-25	28-Feb-12	Marie Winder	8.924	0.5089	-0.001003	0.8721	0.916					
E08	644	26	Systematic	04-PE-E0644-26	28-Feb-12	Marie Winder	9.717	0.5526	0.01115	0.6506	0.6031					
E08	644	27	Systematic	04-PE-E0644-27	28-Feb-12	Marie Winder	10.05	0.6068	-0.008682	0.7451	0.7236					
E08	644	28	Systematic	04-PE-E0644-28	28-Feb-12	Marie Winder	6.947	1.179	0.0116	0.803	0.9065					
E08	644	29	Systematic	04-PE-E0644-29	28-Feb-12	Marie Winder	9.349	0.7631	0.001247	0.7629	0.7469					
E08	644	30	Systematic	04-PE-E0644-30	28-Feb-12	Marie Winder	14.04	0.417	0.007556	0.5378	0.6637					
E08	644	31	Systematic	04-PE-E0644-31	28-Feb-12	Marie Winder	9.113	0.6804	-0.0005737	0.6288	0.764					
E08	644	32	Systematic	04-PE-E0644-32	28-Feb-12	Marie Winder	7.507	1.297	0.01065	0.8579	0.6753					
E08	644	33	Characterization	04-PE-E0644-33	15-Mar-12	Marie Winder	10.79	0.6663	0.007039	0.6736	0.6624					
E08	644	34	Characterization	04-PE-E0644-34	15-Mar-12	Marie Winder	8.413	1.193	0.003763	0.7782	0.971					
E08	644	35	Characterization	04-PE-E0644-35	15-Mar-12	Marie Winder	7.831	1.145	0.001159	0.9242	0.9778					
E08	644	36	Characterization	04-PE-E0644-36	15-Mar-12	Marie Winder	8.545	1.137	-0.008324	0.783	0.9059					
E07	645	1	Biased	04-PE-E0645-01	24-Apr-12	Jeff Rolfe	8.659	1.024	-0.001956	1.032	1.096					
E07	645	2	Biased	04-PE-E0645-02	24-Apr-12	Jeff Rolfe	10.62	1.419	0.001324	0.9855	1.203					
E07	645	3	Biased	04-PE-E0645-03	24-Apr-12	Jeff Rolfe	8.617		-0.0002162	1.167	1.404					
E07	645	4	Biased	04-PE-E0645-04	24-Apr-12	Jeff Rolfe	11.95	0.9436	0.01012	0.4337	0.5964					
E07	645	5	Biased	04-PE-E0645-05	24-Apr-12	Jeff Rolfe	11.05	0.9386	-0.0002399	0.6464	0.7524					
E07	645	6	Biased	04-PE-E0645-06	24-Apr-12	Jeff Rolfe	9.966	1.268	0.002277	0.7404	0.8226					
E07	645	7	Biased	04-PE-E0645-07	24-Apr-12	Jeff Rolfe	10.23	0.9073	-0.0104	0.8124	0.8685					
E07	645	8	Systematic	04-PE-E0645-08	24-Apr-12	Jeff Rolfe	9.759	1.232	0	0.8063	0.9867					
E07	645	9	Systematic	04-PE-E0645-09	24-Apr-12	Jeff Rolfe	9.209	1.269	0.007185	1.025	1.184					
E07	645	10	Systematic	04-PE-E0645-10	24-Apr-12	Jeff Rolfe	9.5	1.269	0.009418	0.9847	1.066					
E07	645	11	Systematic	04-PE-E0645-11	24-Apr-12	Jeff Rolfe	9.57	0.7431	0	0.7789	0.7793					
E07	645	12	Systematic	04-PE-E0645-12	24-Apr-12	Jeff Rolfe	8.879	1.339	-0.01317	0.9731	1.289					
E07	645	13	Systematic	04-PE-E0645-13	24-Apr-12	Jeff Rolfe	12.05	0.596	0.008873	0.5815	0.6293					
E07	645	14	Systematic	04-PE-E0645-14	24-Apr-12	Jeff Rolfe	9.815	1.018	0.01082	0.8161	1.055					
E07	645	15	Systematic	04-PE-E0645-15	24-Apr-12	Jeff Rolfe	9.879	0.75	-0.009951	0.7509	0.909					
E07	645	16	Systematic	04-PE-E0645-16	24-Apr-12	Jeff Rolfe	9.852	0.5512	0	0.5	0.7552					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	CCC Radiological Technician	On-Site Laboratory (pCi/g) K-40	Th-232	Cs-137	Bi-214	Pb-214	Off-Site Laboratory (pCi/g) K-40	Th-232	Cs-137	Bi-214	Pb-214
E07	645	17	Systematic	04-PE-E0645-17	24-Apr-12	Jeff Rolfe	9.587	1.224	0.01352	0.6607	0.6848					
E07	645	18	Systematic	04-PE-E0645-18	24-Apr-12	Jeff Rolfe	11.19	0.8239	-0.001084	0.6204	0.8041					
E07	645	19	Systematic	04-PE-E0645-19	24-Apr-12	Jeff Rolfe	9.853	0.5957	-0.001048	0.5756	0.6929					
E07	645	20	Systematic	04-PE-E0645-20	24-Apr-12	Jeff Rolfe	12.81	0.7474	0.0125	0.5136	0.4787					
E07	645	21	Systematic	04-PE-E0645-21	24-Apr-12	Jeff Rolfe	9.45	0.8164	0.00155	0.4253	0.624					
E07	645	22	Systematic	04-PE-E0645-22	24-Apr-12	Jeff Rolfe	11.16	0.8517	-0.005392	0.4125	0.6129					
E07	645	23	Systematic	04-PE-E0645-23	24-Apr-12	Jeff Rolfe	13.33	0.8521	0	0.5497	0.7227					
E07	645	24	Systematic	04-PE-E0645-24	24-Apr-12	Jeff Rolfe	10.99	0.7246	0.01499	0.6088	0.4824					
E07	645	25	Systematic	04-PE-E0645-25	24-Apr-12	Jeff Rolfe	11.56	0.6383	-0.009513	0.6611	0.7273					
E07	645	26	Characterization	04-PE-E0645-26	7-May-12	Marie Winder	8.846		0.01385	0.9045	1.041					
E07	645	27	Characterization	04-PE-E0645-27	7-May-12	Marie Winder	8.932	1.286	-0.007502	0.9762	1.097					
E07	645	28	Characterization	04-PE-E0645-28	7-May-12	Marie Winder	9.209	1.252	0	0.7861	0.824					
E07	645	29	Characterization	04-PE-E0645-29	11-May-12	Marie Winder	8.143		0.01615	1.137	1.278					
E07	645	30	Characterization	04-PE-E0645-30	11-May-12	Marie Winder	9.664	1.207	0.004073	0.7972	0.9242					
E07	645	31	Characterization	04-PE-E0645-31	18-May-12	Marie Winder	9.615	0.6586	0.01424	0.9295	1.053					
E07	645	32	Characterization	04-PE-E0645-32	18-May-12	Marie Winder	9.856	0.9581	-0.0108	0.3984	0.8761					
E19	691	1	Biased	04-PE-E0691-01	27-Apr-12	Marie Winder	11.42	0.5216	-0.001318	0.2918	0.4437					
E19	691	2	Biased	04-PE-E0691-02	27-Apr-12	Marie Winder	13.63	0.6136	0	0.343	0.2736					
E19	691	3	Systematic	04-PE-E0691-03	27-Apr-12	Marie Winder	9.223	0.8276	0.004735	0.468	0.4789					
E19	691	4	Systematic	04-PE-E0691-04	27-Apr-12	Marie Winder	10.37	0.7319	0.009413	0.4226	0.396					
E19	691	5	Systematic	04-PE-E0691-05	27-Apr-12	Marie Winder	10.94	0.5759	0.01835	0.3179	0.2949					
E19	691	6	Systematic	04-PE-E0691-06	27-Apr-12	Marie Winder	10.52	0.8873	0.01685	0.3787	0.3828					
E19	691	7	Systematic	04-PE-E0691-07	27-Apr-12	Marie Winder	12.82	0.3752	0.001928	0.2875	0.4257					
E19	691	8	Systematic	04-PE-E0691-08	27-Apr-12	Marie Winder	10.29	0.5444	0.002688	0.395	0.4011					
E19	691	9	Systematic	04-PE-E0691-09	27-Apr-12	Marie Winder	10.05	0.2719	0.006117	0.4152	0.4421					
E19	691	10	Systematic	04-PE-E0691-10	27-Apr-12	Marie Winder	13.51	1.128	0.008372	0.2934	0.3993					
E19	691	11	Systematic	04-PE-E0691-11	27-Apr-12	Marie Winder	11.74	0.3808	0.009345	0.2491	0.3485					
E19	691	12	Systematic	04-PE-E0691-12	27-Apr-12	Marie Winder	12.78	0.1083	-0.001786	0.01412	0.3935					
E19	691	13	Systematic	04-PE-E0691-13	27-Apr-12	Marie Winder	10.37	0	0.0002353	0.2806	0.3421					
E19	691	14	Systematic	04-PE-E0691-14	27-Apr-12	Marie Winder	12.41	0.2256	0.005948	0.3214	0.469					
E19	691	15	Systematic	04-PE-E0691-15	27-Apr-12	Marie Winder	10.54	0.7034	0.0006072	0.1817	0.2721					
E19	691	16	Systematic	04-PE-E0691-16	27-Apr-12	Marie Winder	12.64	0.1694	0	0.2648	0.3564					
E19	691	17	Systematic	04-PE-E0691-17	27-Apr-12	Marie Winder	8.039	0.5271	-0.0447	0.2092	0.3019					
E19	691	18	Systematic	04-PE-E0691-18	27-Apr-12	Marie Winder	12.81	0.2364	0.001157	0.39	0.2714					
E19	691	19	Systematic	04-PE-E0691-19	27-Apr-12	Marie Winder	11.01	0.4375	0	0.399	0.3193					
E19	691	20	Systematic	04-PE-E0691-20	27-Apr-12	Marie Winder	9.848	0.6194	0.01099	0.3178	0.3537					
E11	693	1	Biased	04-PE-E0693-01	24-Apr-12	Anthony Smith	10.25	1.027	0.0006993	0.8814	0.8847					
E11	693	2	Biased	04-PE-E0693-02	24-Apr-12	Anthony Smith	10.28	0.5294	0.007548	0.6713	0.6729					
E11	693	3	Biased	04-PE-E0693-03	24-Apr-12	Anthony Smith	9.942	0.8699	-0.00798	0.8012	0.9899					
E11	693	4	Biased	04-PE-E0693-04	24-Apr-12	Anthony Smith	10.99	1.374	0.004395	0.6647	0.667					
E11	693	5	Biased	04-PE-E0693-05	24-Apr-12	Anthony Smith	10.73	0.947	-0.003895	0.6488	0.7013					
E11	693	6	Biased	04-PE-E0693-06	24-Apr-12	Anthony Smith	9.629	0.7903	0.01272	0.7558	0.9325					
E11	693	7	Biased	04-PE-E0693-07	24-Apr-12	Anthony Smith	10.73	1.155	-0.0001435	0.926	1.052					
E11	693	8	Systematic	04-PE-E0693-08	24-Apr-12	Anthony Smith	10.24	0.5115	0.01144	0.6164	0.5788					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
E11	693	9	Systematic	04-PE-E0693-09	24-Apr-12	Anthony Smith	10.92	0.4133	0.01087	0.3187	0.503					
E11	693	10	Systematic	04-PE-E0693-10	24-Apr-12	Anthony Smith	10.31	1.338	0.01523	0.4785	0.5214					
E11	693	11	Systematic	04-PE-E0693-11	24-Apr-12	Anthony Smith	10.72	0.4259	0.01231	0.3547	0.4473					
E11	693	12	Systematic	04-PE-E0693-12	24-Apr-12	Anthony Smith	10.61	0.6146	0.02235	0.3334	0.5176					
E11	693	13	Systematic	04-PE-E0693-13	24-Apr-12	Anthony Smith	11.38	0.5131	0.01199	0.5798	0.6619					
E11	693	14	Systematic	04-PE-E0693-14	24-Apr-12	Anthony Smith	12.17	0.5977	0.001776	0.4368	0.7337					
E11	693	15	Systematic	04-PE-E0693-15	24-Apr-12	Anthony Smith	7.931	1.037	0.006561	0.7728	0.8283					
E11	693	16	Systematic	04-PE-E0693-16	24-Apr-12	Anthony Smith	7.963	0.7701	0.002913	0.578	0.6613					
E11	693	17	Systematic	04-PE-E0693-17	24-Apr-12	Anthony Smith	10	0.8577	0.01198	0.5866	0.6778					
E11	693	18	Systematic	04-PE-E0693-18	24-Apr-12	Anthony Smith	11.28	0.9163	0.01309	0.6664	0.7133					
E11	693	19	Systematic	04-PE-E0693-19	24-Apr-12	Anthony Smith	13.53	0.8076	0.01283	0.5062	0.6525					
E11	693	20	Systematic	04-PE-E0693-20	24-Apr-12	Anthony Smith	10.37	1.266	0.007697	0.7124	0.7932					
E11	693	21	Systematic	04-PE-E0693-21	24-Apr-12	Anthony Smith	8.877	1.009	-0.008686	0.63	0.6624					
E11	693	22	Systematic	04-PE-E0693-22	24-Apr-12	Anthony Smith	10.51	0.3598	0.01141	0.5688	0.6172					
E11	693	23	Systematic	04-PE-E0693-23	24-Apr-12	Anthony Smith	8.058	0.7641	-0.002274	0.649	0.7244					
E11	693	24	Systematic	04-PE-E0693-24	24-Apr-12	Anthony Smith	9.748	0.6598	0.01433	0.4658	0.5373					
E11	693	25	Systematic	04-PE-E0693-25	24-Apr-12	Anthony Smith	10.48	0.976	0.003956	0.3183	0.5567					

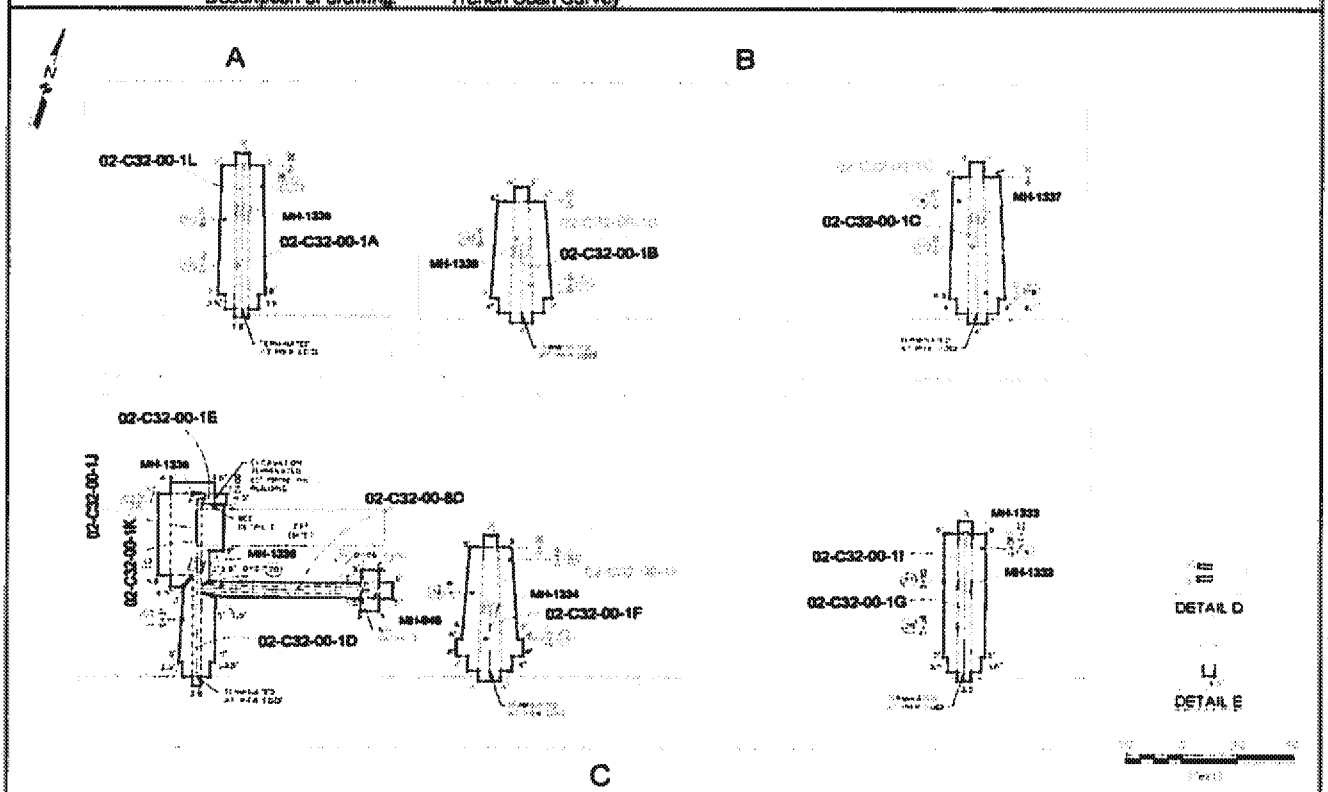
Highlighted Activities: K-40 ≤ 3.0 ; Ra-226 ≥ 1.485 (On-site) & 1.625 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date: 5/31/2012	Time: 12:40	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-304								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	120588 81878	10/16/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.28 - 5.85 Kcpm

3 sigma investigation level for 2350-1 Instrument is 7638 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

/ # denotes contact / 1 meter radiation readings.

* denotes highest radiation reading on contact

LAW denotes large area massimn wipe

Δ denotes static location.

* Unless Otherwise Noted

All readings in μR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-304

SURVEYOR: R. Roberson

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
11			5107					
12			5033					
13			5266					
14			5119					
15			5270					
16			5099					
17			5221					
18			5319					
19			5001					
20			5177					
21			5306					
22			5100					
23			5061					
24			5421					
25			5393					
26			5803					
27			5150					
28			5241					

Reviewer:

Date:

599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TSI 00591

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	SR90	ALPHA	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002				LABORATORY: [redacted]
Sampler Name: J. Cunningham	Airbill Number: N/A				
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592				

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-304-001	5/21/2012	1100	1		S1		☑	☐	☐			[redacted]
02-PCT-304-002	5/21/2012	1103	1		S1		☑	☐	☐			[redacted]
02-PCT-304-003	5/21/2012	1106	1		S1		☑	☐	☐			[redacted]
02-PCT-304-004	5/21/2012	1109	1		S1		☑	☐	☐			[redacted]
02-PCT-304-005	5/21/2012	1112	1		S1		☑	☐	☐			[redacted]
02-PCT-304-006	5/21/2012	1115	1		S1		☑	☐	☐			[redacted]
02-PCT-304-007	5/21/2012	1118	1		S1		☑	☐	☐			[redacted]
02-PCT-304-008	5/21/2012	1121	1		S1		☑	☐	☐			[redacted]
02-PCT-304-009	5/21/2012	1124	1		S1		☑	☐	☐			[redacted]
02-PCT-304-010	5/21/2012	1127	1		S1		☑	☐	☐			[redacted]

Relinquished by: (signature) [signature]	*Date* 05/21/12	*Received by: (signature)* [signature]	[redacted]
Company R.S.R.S.	*Time* 1341	*Company* CT	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	[redacted]
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	[redacted]
Company	*Time*	*Company*	

ED_004747_00010904-00401

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00385

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	LABORATORY #
Sampler Name: Roy Robertson	Airbill Number: N/A	ALPHA	Project Information Section
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-304-011	5/31/2012	1240	1		S1		☑	☐	☐			
02-PCT-304-012	5/31/2012	1245	1		S1		☑	☐	☐			
02-PCT-304-013	5/31/2012	1250	1		S1		☑	☐	☐			
02-PCT-304-014	5/31/2012	1255	1		S1		☑	☐	☐			
02-PCT-304-015	5/31/2012	1300	1		S1		☑	☐	☐			
02-PCT-304-016	5/31/2012	1305	1		S1		☑	☐	☐			
02-PCT-304-017	5/31/2012	1310	1		S1		☑	☐	☐			
02-PCT-304-018	5/31/2012	1315	1		S1		☑	☐	☐			
02-PCT-304-019	5/31/2012	1320	1		S1		☑	☐	☐			
02-PCT-304-020	5/31/2012	1325	1		S1		☑	☐	☐	DUP		
02-PCT-304-021	5/31/2012	1330	1		S1		☑	☐	☐			
02-PCT-304-022	5/31/2012	1335	1		S1		☑	☐	☐			

Relinquished by: (signature)	Date: 5-31-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: RSRS	Time: 16:44	Company: C&T	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (BY LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

SAMPLING COMMENTS:

ED_004747_00010904-00402

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00386

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	
Sampler Name: Ray Robeson	Airbill Number: N/A	ALPHA	
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY [illegible]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
02-PCT-304-023	5/31/2012	1340	1		S1		☑	☐	☐			
02-PCT-304-024	5/31/2012	1345	1		S1		☑	☐	☐			
02-PCT-304-025	5/31/2012	1350	1		S1		☑	☐	☐			
02-PCT-304-026	5/31/2012	1355	1		S1		☑	☐	☐			
02-PCT-304-027	5/31/2012	1400	1		S1		☑	☐	☐			
02-PCT-304-028	5/31/2012	1405	1		S1		☑	☐	☐			

Relinquished by: (signature) [illegible]	Date: 5-31-12	Received by: (signature) [illegible]	LABORATORY INSTRUCTIONS/COMMENTS: [illegible]
Company: RSRS	Time: 10:44	Company: CET	SAMPLE COMMENTS: [illegible]
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION: [illegible]
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT BY LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOL/INTACT
Company	Time	Company	

ED_004747_00010904-00403