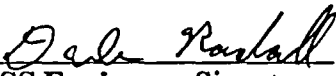
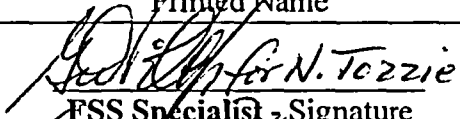
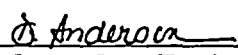
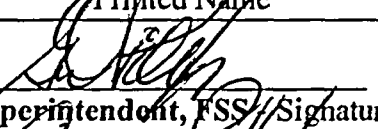



MAINE YANKEE
FINAL STATUS SURVEY RELEASE RECORD
FR-1000 FOXBIRD ISLAND
SURVEY UNIT 1

Prepared By:	<div style="text-align: center;"><u></u> FSS Engineer - Signature</div> <div style="text-align: center;"><u>Dale Randall</u> Printed Name</div>	Date: <u>8-11-04</u>
Reviewed By:	<div style="text-align: center;"><u></u> FSS Specialist - Signature</div> <div style="text-align: center;"><u>George Pillsbury</u> Printed Name</div>	Date: <u>11/16/04</u>
Reviewed By:	<div style="text-align: center;"><u></u> Independent Reviewer - Signature</div> <div style="text-align: center;"><u>D. ANDERSON</u> Printed Name</div>	Date: <u>12/3/04</u>
Approved By:	<div style="text-align: center;"><u></u> Superintendent, FSS - Signature</div> <div style="text-align: center;"><u>George Pillsbury</u> Printed Name</div>	Date: <u>12/7/04</u>
Approved By:	<div style="text-align: center;"><u></u> FSS, MOP - Signature</div> <div style="text-align: center;"><u>James R. Parker</u> Printed Name</div>	Date: <u>12/7/04</u>

**MAINE YANKEE
FINAL STATUS SURVEY RELEASE RECORD
FR-1000 FOXBIRD ISLAND
SURVEY UNIT 1**

A. SURVEY UNIT DESCRIPTION

Foxbird Island lies just off the southern end of the Bailey peninsula. After plant construction, it was connected to the mainland peninsula by two earthen dikes that formed the east and west dike walls of the Forebay. In addition to the island itself, the Foxbird Island area includes all of the land areas immediately to the south of the plant's radiologically Restricted Area (RA). The area also surrounds the Forebay. The Forebay is not included, as it received a complete FSS within survey package FR0400. The area is bordered to the North by a portion of the RA called the "West Side Yard", which will receive an FSS in package FR0100¹.

Two large diameter fiberglass pipes traverse the Island. These buried pipes are connected to the Forebay with the submerged thermal diffuser system located to the south of the Island in Montsweag Bay. The pipes were isolated by inserting the stop logs for the duration of the Forebay remediation project and are now buried, at the Forebay end, under several feet of fill material. The pipes rest on bedrock, are not under pressure, and no leakage has been reported.

Some gravel and riprap material, originating from the lowering of the Forebay dikes, was stored for a brief period along the road at the north end of the island. Prior to placement, the material was surveyed and found to be acceptable for storage.

The Forebay remediation, FSS, and final environmental restoration were completed prior to the commencement of this survey. The portion of the survey unit lying north of Foxbird Island was made up of a compacted gravel fill material containing some small rocks or boulders.

The island is made up of wooded and open areas with many instances of boulders and exposed rock ledge, particularly along the shorelines. An access road runs along the top of the East dike of the Forebay and continues down the island. The road terminates near the southern tip of the area. The majority of open space on the island is located along this road corridor, which extends a considerable distance to the west of the access road.

The survey unit is located just northeast of coordinates 405,500 N and 623,000 E using Maine State Coordinate System (West Zone) NAD 1927. Map FR 1000 SITE displays the survey unit and its relation to the Maine Yankee site. All maps referenced in this release record are provided in Attachment 1 unless otherwise noted. The total survey unit comprises approximately 51,700 m² in area.

¹ FR1000 is designed to encompass only Class 3 areas. The footprint of FR0100 covers all areas for which higher FSS classifications are appropriate.

B. SURVEY UNIT DESIGN INFORMATION

The area was designated a Class 3 land survey unit per the LTP (Table 5-1C). The area had had a very low probability of containing any plant-derived residual contamination, as it was not located within the protected area and few industrial activities were undertaken within the survey unit.

The survey unit design parameters are shown in Table 1. Given a relative shift of 3.0, it was determined that 14 direct measurements were required for the Sign Test. Measurement locations were randomly determined and are illustrated on the map FR 1000-01a (Attachment 1).

During the remediation of the Forebay, an enclosed “radioactive material area” was established over a small area at the North end of the of the survey unit. The area contained the self-contained process skid for Forebay sediment remediation. This area processed volumes of very low specific activity materials (waste from the Forebay vacuuming operations) that were made into a non-dispersible waste form. The area was extensively monitored throughout its operations and following completion of remediation, and had no history of leakage. To compensate for these activities, the scanning efforts focused on locations on or near the access road and included the process skid location.

Scan grids of 1 m by 10 m were established², as indicated on survey maps FR 1000-01b through FR 1000-01m. One percent to 10% scan coverage of the area was required. To meet this requirement, 595 1-meter wide “scan lanes” were made along the site access road. This produced approximately 5,850 m² of scan area, exceeding the 10% requirement. The survey instruments used, their MDCs, and alarm setpoints, are provided in Attachment 2.

Background values were established for the scan measurements, based on local scaler values in the survey unit. It was initially planned that one background value would be used for scanning. After receiving a very high percentage of grids alarming and a number of grids with low background, multiple scan alarm setpoints were established, from multiple background evaluations, on a more local basis. These background values were used to establish scan alarm setpoints, and to confirm the scan MDCs used were appropriate.

Since the new backgrounds and setpoints were established in mid-survey, some grid blocks had already been completed, and did not benefit from a more appropriate localized setpoint.

² A limited number of scan grids were 1 x 6m, as shown in Attachment 1.

TABLE 1**SURVEY UNIT DESIGN PARAMETERS**

Survey Unit	Design Criteria	Basis
Area	51,700 m ²	No limit for Class 3 Area
Number of Direct Measurements Required	14	Based on an adjusted LBGR of 3.51 pCi/g, sigma of 0.23 pCi/g ³ and a relative shift of 3.0. Type I = Type II = 0.05
Sample Area	N/A	Class 3 Area
Sample Grid Spacing	N/A	Class 3 Area
Scan Grid Area	1 m x 10 m	Class 3 Area
Area Factor	N/A	Class 3 Area
Scan Survey Area	5,850 m ²	Class 3 Area ~ 10%
Background		
SPA-3 (scan)	Average background +1000 cpm.	DI 6-150, EC-009-01, LTP Section 5
Scan Investigation Level	3 sigma of Background plus Background See Table 2-2	EC-009-01 (MY) (Reference 2)
DCGL	4.2 pCi/g	LTP, Rev 3, Section 6.7
Design DCGL _{EMC}	N/A	Class 3 Area

C. SURVEY RESULTS

As required, 14 direct soil measurements were made and the results are presented in Table 2. All direct measurements were below the DCGL. A total of 315 grids had alarms for investigation. So an extensive and exhaustive investigation survey was required. The investigations performed are discussed further in Section D.

³ Design sigma based on characterization data from Foxbird Island, R1000, LTP Table 5-1C.

TABLE 2
DIRECT MEASUREMENTS

Sample Number	Co-60 (pCi/g)	Uncertainty	Cs-137 (pCi/g)	Uncertainty	Unitized Value of Unity Rule
FR1000-1-S001	< 2.88E-02		1.70E+00	1.36E-01	4.24E-01
FR1000-1-S002	< 2.44E-02		2.93E-01	2.87E-02	8.58E-02
FR1000-1-S003	< 2.72E-02		8.49E-02	1.76E-02	3.81E-02
FR1000-1-S004	< 2.22E-02		1.41E-02	8.52E-03	1.80E-02
FR1000-1-S005	< 2.47E-02		4.61E-01	4.10E-02	1.26E-01
FR1000-1-S006	< 2.35E-02		4.43E-01	3.66E-02	1.21E-01
FR1000-1-S007	< 2.56E-02		2.50E-02	1.36E-02	2.28E-02
FR1000-1-S008	< 3.01E-02		1.28E-01	2.39E-02	5.03E-02
FR1000-1-S009	< 3.38E-02		1.12E+00	8.11E-02	2.89E-01
FR1000-1-S010	< 2.85E-02		1.77E-01	2.19E-02	6.09E-02
FR1000-1-S011	< 2.81E-02		3.75E-01	3.37E-02	1.08E-01
FR1000-1-S012	< 2.55E-02		< 2.62E-02		2.30E-02
FR1000-1-S013	< 3.10E-02		2.82E-02	1.56E-02	2.71E-02
FR1000-1-S014	2.28E-02	1.27E-02	4.70E-02	1.66E-02	2.62E-02
Mean	2.69E-02		3.52E-01		1.01E-01
Median	2.64E-02		1.53E-01		5.56E-02
Standard Deviation	3.37E-03		4.89E-01		1.17E-01
Range	2.22E-02 to 3.38E-02		1.41E-02 to 1.70E00		1.80E-02 to 4.24E-01

“<” indicates MDA value. Bold indicates positive detection value.

D. SURVEY UNIT INVESTIGATIONS PERFORMED AND RESULTS

The investigations generally involved media sampling at the highest count rate location within a given grid. All sample results were well below the DCGL, and were in the range of established background for positive Cs-137 results. However, three investigation samples did contain trace amounts of Co-60 (i.e., < 0.04 pCi/g). These came from locations believed to have been used as storage locations for riprap material during the Forebay remediation project. The results of the investigations are presented in Attachment 3 (Table 3-1).

E. SURVEY UNIT DATA ASSESSMENT

An analysis of the direct sample measurement results, including the mean, median, standard deviation, and sample result range, are provided in Table 2. The soil sampling results yielded results consistent with fallout levels of Cs-137 for undisturbed soil. One sample had detectable Co-60 at a very low level. It is believed that riprap from the Forebay was the source of contamination.

The mean and median activities were less than the DCGL. The highest reported value for Cesium-137 was less than 40.4% of the DCGL. However, this particular sample (S001) came from a wooded area with undisturbed soils, where a higher activity of distributed background Cesium-137 activity is expected. This is also true for sample 9. In addition, all results were below the action levels in LTP Table 5-8. Therefore, no further investigations or any reclassifications are required.

For illustrative purposes, as indicated in LTP Section 5.9.3, a simplified general retrospective dose estimate can be calculated from the average residual contamination level by subtracting the established mean fallout Cs-137 background value (0.19 pCi/g)⁴ for disturbed soil from the survey unit sample mean activity (0.352 pCi/g). The result is a net value of 0.162 pCi/g. Considering the contribution from Co-60, the total annual dose rate would be 0.57 mrem/y. However, for purposes of demonstrating compliance with the radiological criteria for license termination and the enhanced State Criteria, background activity is not subtracted from the soil sample analysis activity values.

F. ADDITIONAL DATA EVALUATION

Attachment 4 provides additional data evaluation associated with this Survey Unit, including relevant statistical information. Based on survey unit direct measurement data, this attachment provides the Sign Test Summary, Quantile Plot, Histogram, and Retrospective Power Curve.

1. The Sign Test Summary provides an overall summary of design input and resulting calculated values used to determine the required number (N) of direct measurements (per LTP Section 5.4.2). The Sign Test Summary is a separate statistical analysis that also calculates the mean, median, and standard deviation of the direct measurements.

The critical value and the result of the Sign Test are provided in the Sign Test Summary table, as well as a listing of the key release criteria. As is shown in the table, all of the key release criteria, except for the total standard deviation exceeding the design sigma are met. An adequate number of samples was taken to meet the Sign Test so no additional samples are required.

⁴ See Attachment E to Maine Yankee Procedure PMP 6.7.8 (Reference 4).

2. The Quantile Plot was generated from direct measurement data listed in Table 2. The data set and plot are consistent with expectations for a Class 3 survey unit. All of the measurements are well below the DCGLs of 4.2 pCi/g and 1.52 pCi/g for Cs-137 and Co-60, respectively.
3. A Histogram Plot was also developed based on the direct measurement values. This plot shows that the direct data were essentially a log normal distribution with two outliers.
4. A Retrospective Power Curve was constructed, based on FSS results. The curve shows that this survey unit having a mean residual activity at a small fraction of the DCGL has a high probability ("power") of meeting the release criteria. Thus, it can be concluded that the direct measurement data support rejection of the null hypothesis, providing high confidence that the survey unit satisfied the release criteria and that the data quality objectives were met.

G. CHANGES IN INITIAL SURVEY UNIT ASSUMPTIONS ON EXTENT OF RESIDUAL ACTIVITY

The survey was designed as a Class 3 area; the FSS results were consistent with that classification. As discussed earlier, the direct measurement sample standard deviation was higher than the design sigma, however, no additional measurements were required.

H. LTP CHANGES SUBSEQUENT TO SURVEY UNIT FSS

The FSS of Survey Unit 1 was designed and performed per the criteria of LTP Rev. 3. There were no subsequent LTP changes with potential impact to this FSS requiring evaluation.

I. CONCLUSION

The FSS of this survey unit was designed based on the LTP designation as a Class 3 area. The survey design parameters are presented in Table 1. The required number of direct measurements was determined for the Sign Test in accordance with the LTP. As presented in Table 2, all direct measurements were less than the unitized DCGL.

A Sign Test Summary analysis demonstrated that the Sign Test criteria were satisfied. The direct measurement sigma was determined to be greater than that used for design. However, the relative shift used for design is unaffected, thus indicating that a sufficient number of samples was taken.

The Retrospective Power Curve shown in Attachment 4 confirmed that sufficient samples were taken to support rejection of the null hypothesis, providing high confidence that the survey unit satisfied the release criteria and the data quality objectives were met. Attachment 4 also revealed that direct measurement data represented essentially a normal distribution, with two outliers.

The scan survey design for this survey unit was developed in accordance with the LTP and exceeded that document's guideline of scanning 1-10 percent of the total area, for a Class 3 survey. In general, investigation of scan alarms detected only areas within typical background ranges for Cs-137. The maximum sample result was at approximately 5% of the DCGL. Three scan alarm samples, collected in the vicinity of a material storage area⁵, contained trace quantities of Co-60. Given the location of the samples, and the scope of the scanning and investigation effort, it is felt that these results (the highest Co-60 value was less than 3% of the DCGL) bear no impact on the conclusion and do not warrant a reclassification of the area.

It is concluded that FR1000 Survey Unit 1 meets the release criteria of 10CFR20.1402 and the State of Maine enhanced criteria.

J. REFERENCES

1. Initial Characterization Survey and Historical Site Assessment, Maine Yankee letter to the NRC, MN-01-038, dated October 1, 2001
2. Maine Yankee Engineering Calculation, EC-009-01
3. Maine Yankee License Termination Plan, Revision 2, Maine Yankee letter to the NRC, MN-01-032, August 13, 2001
4. Approach for Dealing with Background Radioactivity for Maine Yankee Final Status Surveys, Attachment E to Maine Yankee Procedure PMP 6.7.8, FSS Data Processing and Reporting
5. Maine Yankee License Termination Plan, Revision 3, Maine Yankee letter to the NRC, MN-02-048, dated October 15, 2002
6. Maine Yankee License Termination Plan, Revision 3 Addenda, Maine Yankee letter to the NRC, MN-02-061, dated November 26, 2002
7. Proposed License Amendment Related to Changes in the Activated Concrete Remediation Plans, Maine Yankee letter to the NRC, MN-03-049, dated September 11, 2003
8. Issuance of License Amendment No. 170, NRC letter to Maine Yankee, dated February 18, 2004

⁵ As discussed in Section A, this area was used to store materials in support of the remediation of the Forebay. The materials were surveyed as they were removed from the upper elevations of the dike walls and passed an aggregate measurement scan.

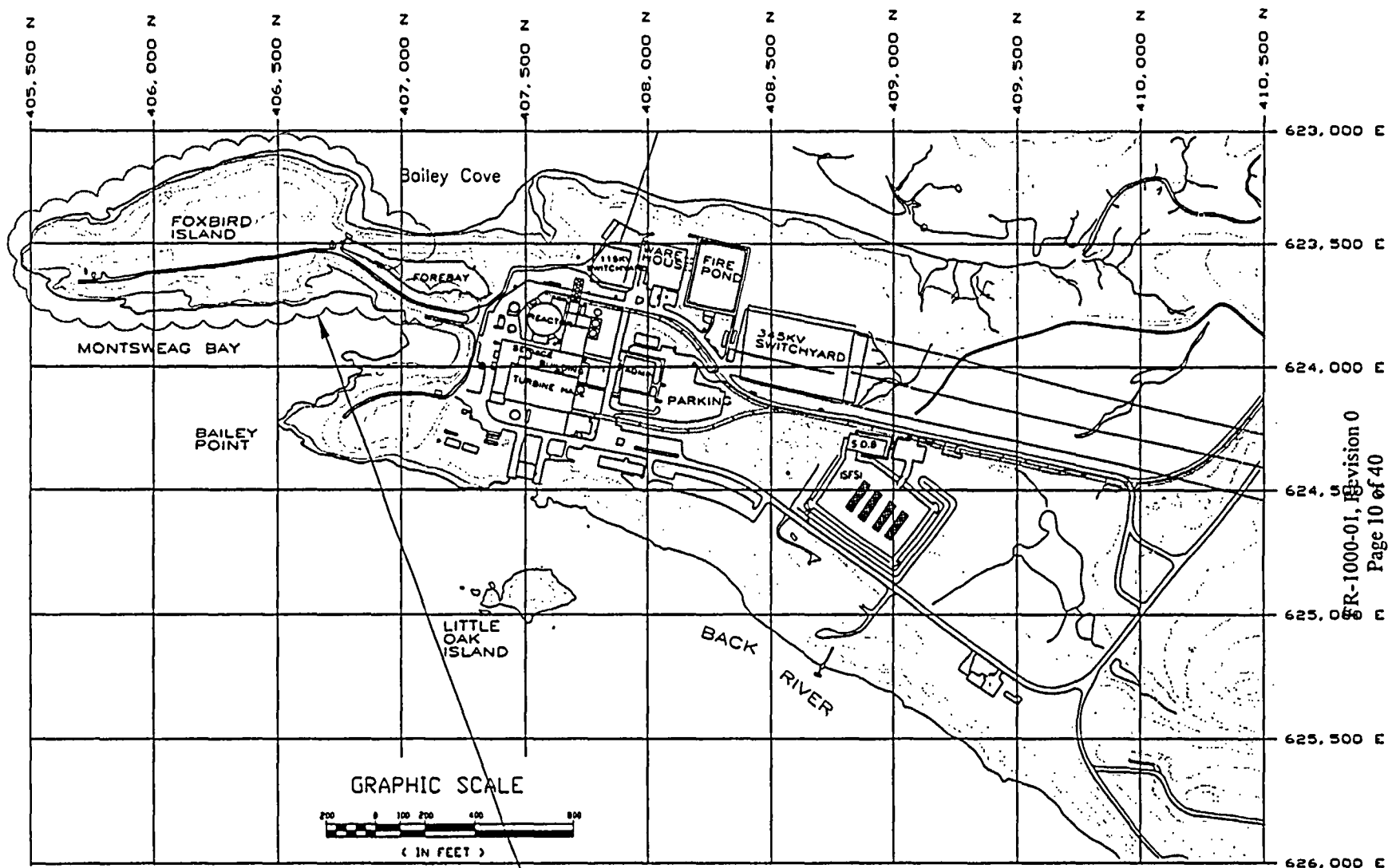
Attachment 1
Survey Unit Maps

Survey Type: ☐ Characterization

☐ Turnover

☒ Final Status Survey

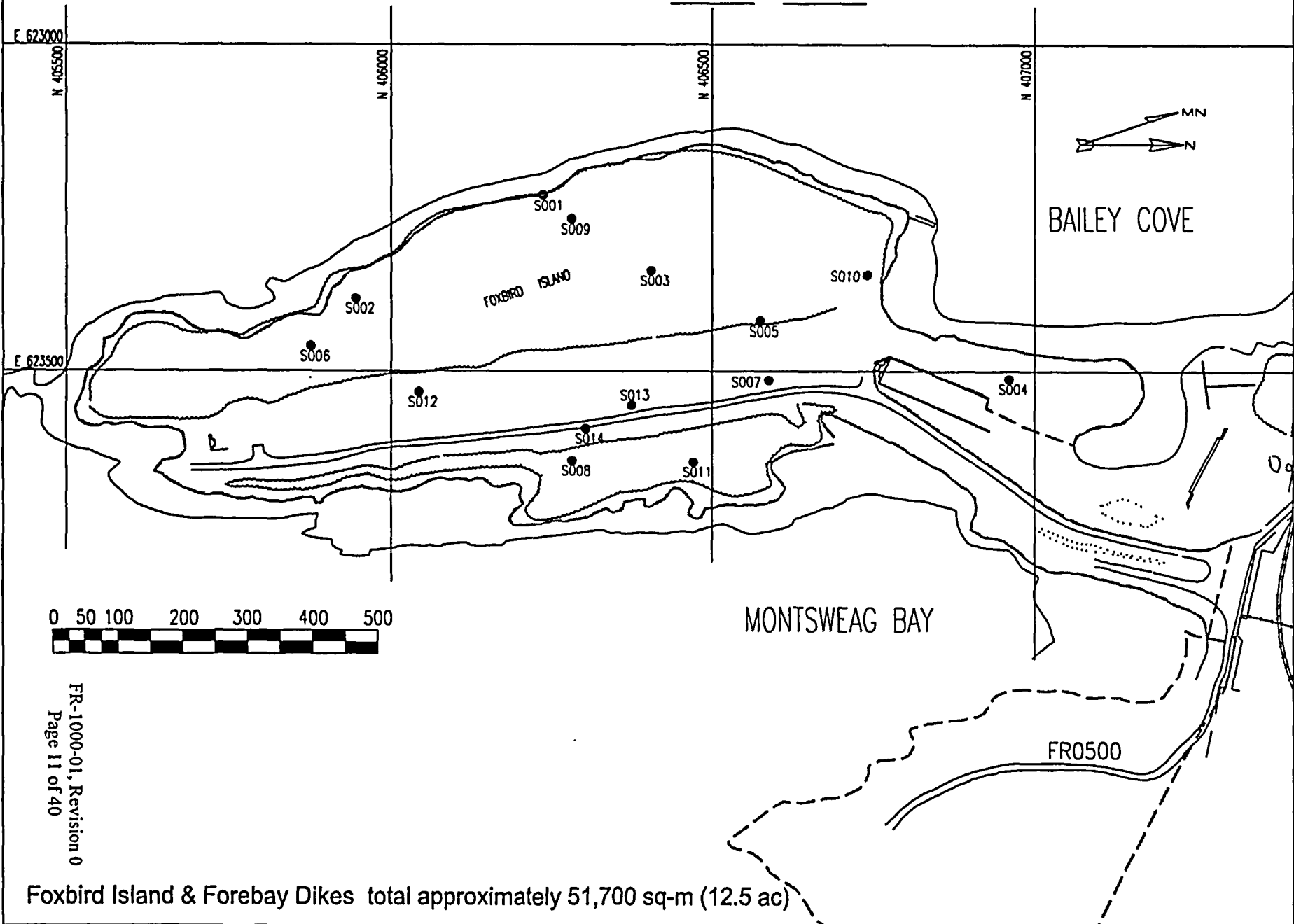
Survey Area Name: Foxbird Island



SURVEY AREA, FR 1000

Note: Grid based on Maine State Coordinate System
(West Zone) NAD 1927

Final Status Survey FR 1000: Foxbird Island & Forebay Dikes Direct Points S001 - S014



0 50 100 200 300 400 500

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S001 - S075

Block #1 (6m x 25m)	
S001	S002
S003	S004
S005	S006
S007	S008
S009	S010
S011	S012
S013	S014
S015	S016
S017	S018
S019	S020
S021	S022
S023	S024
S025	

Block #2 (10m x 50m)	
S026	S027
S028	S029
S030	S031
S032	S033
S034	S035
S036	S037
S038	S039
S040	S041
S042	S043
S044	S045
S046	S047
S048	S049
S050	S051
S052	S053
S054	S055
S056	S057
S058	S059
S060	S061
S062	S063
S064	S065
S066	S067
S068	S069
S070	S071
S072	S073
S074	S075

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S076 - S125

S076	S075
S078	S077
S080	S079
S082	S081
S084	S083
S086	S085
S088	S087
S090	S089
S092	S091
S094	S093
S096	S095
S098	S097
S100	S099
S102	S101
S104	S103
S106	S105
S108	S107
S110	S109
S112	S111
S114	S113
S116	S115
S118	S117
S120	S119
S122	S121
S124	S123
S125	

Block #3
(10m x 50m)

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S126 - S175

S126	S125
S128	S127
S130	S129
S132	S131
S134	S133
S136	S135
S138	S137
S140	S139
S142	S141
S144	S143
S146	S145
S148	S147
S150	S149
S152	S151
S154	S153
S156	S155
S158	S157
S160	S159
S162	S161
S164	S163
S166	S165
S168	S167
S170	S169
S172	S171
S174	S173
S175	

Block #4
(10m x 50m)

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S176 - S225**

Block #5
(10m x 50m)

S176	
S177	
S178	
S179	
S180	
S181	
S182	
S183	
S184	
S185	
S186	
S187	
S188	
S189	
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S220	
S221	
S222	
S223	
S224	
S225	

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S226 - S325**

S276	S226
S277	S227
S278	S228
S279	S229
S280	S230
S281	S231
S282	S232
S283	S233
S284	S234
S285	S235
S286	S236
S287	S237
S288	S238
S289	S239
S290	S240
S291	S241
S292	S242
S293	S243
S294	S244
S295	S245
S296	S246
S297	S247
S298	S248
S299	S249
S300	S250
S301	S251
S302	S252
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S304	S254
S305	S255
S306	S256
S307	S257
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S309	S259
S310	S260
S311	S261
S312	S262
S313	S263
S314	S264
S315	S265
S316	S266
S317	S267
S318	S268
S319	S269
S320	S270
S321	S271
S322	S272
S323	S273
S324	S274
S325	S275

Block #6
(20m x 50m)

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S326 - S375**

S324	S325	S275
	S326	S327
	S328	S329
	S330	S331
	S332	S333
	S334	S335
	S336	S337
	S338	S339
	S340	S341
	S342	S343
	S344	S345
	S346	S347
	S348	S349
	S350	S351
	S352	S353
	S354	S355
	S356	S357
	S358	S359
	S360	S361
	S362	S363
	S364	S365
	S366	S367
	S368	S369
	S370	S371
	S372	S373
	S374	S375

Block #7
(10m x 50m)

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S376 - S425**

Block #8
(10m x 50m)

S376	
	S377
S378	
	S379
S380	
	S381
S382	
	S383
S384	
	S385
S386	
	S387
S388	
	S389
S390	
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	S419
S420	
	S421
S422	
	S423
S424	
	S425

Maine Yankee
Decommissioning Team

Maine Yankee Decommissioning Project Survey Form

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Map ID #: FR 1000-01i
Revised : 4/19/04

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S426 - S475**

Block #9
(10m x 50m)

S425	
S426	
S427	
S428	
S429	
S430	
S431	
S432	
S433	
S434	
S435	
S436	
S437	
S438	
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S470	
S471	
S472	
S473	
S474	
S475	

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S476 - S525**

*Block #10
(10m x 50m)*

S476	S477
S478	S479
S480	S481
S482	S483
S484	S485
S486	S487
S488	S489
S490	S491
S492	S493
S494	S495
S496	S497
S498	S499
S500	S501
S502	S503
S504	S505
S506	S507
S508	S509
S510	S511
S512	S513
S514	S515
S516	S517
S518	S519
S520	S521
S522	S523
S524	S525

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey Survey Area Name: Foxbird Island

~~Final Status Survey~~
~~FR 1000: Foxbird Island & Forebay Dikes~~
~~Survey Scans S526 - S575~~

Block #11
(10m x 50m)

S526	S527
S528	S529
S530	S531
S532	S533
S534	S535
S536	S537
S538	S539
S540	S541
S542	S543
S544	S545
S546	S547
S548	S549
S550	S551
S552	S553
S554	S555
S556	S557
S558	S559
S560	S561
S562	S563
S564	S565
S566	S567
S568	S569
S570	S571
S572	S573
S574	S575

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans S576 - S595

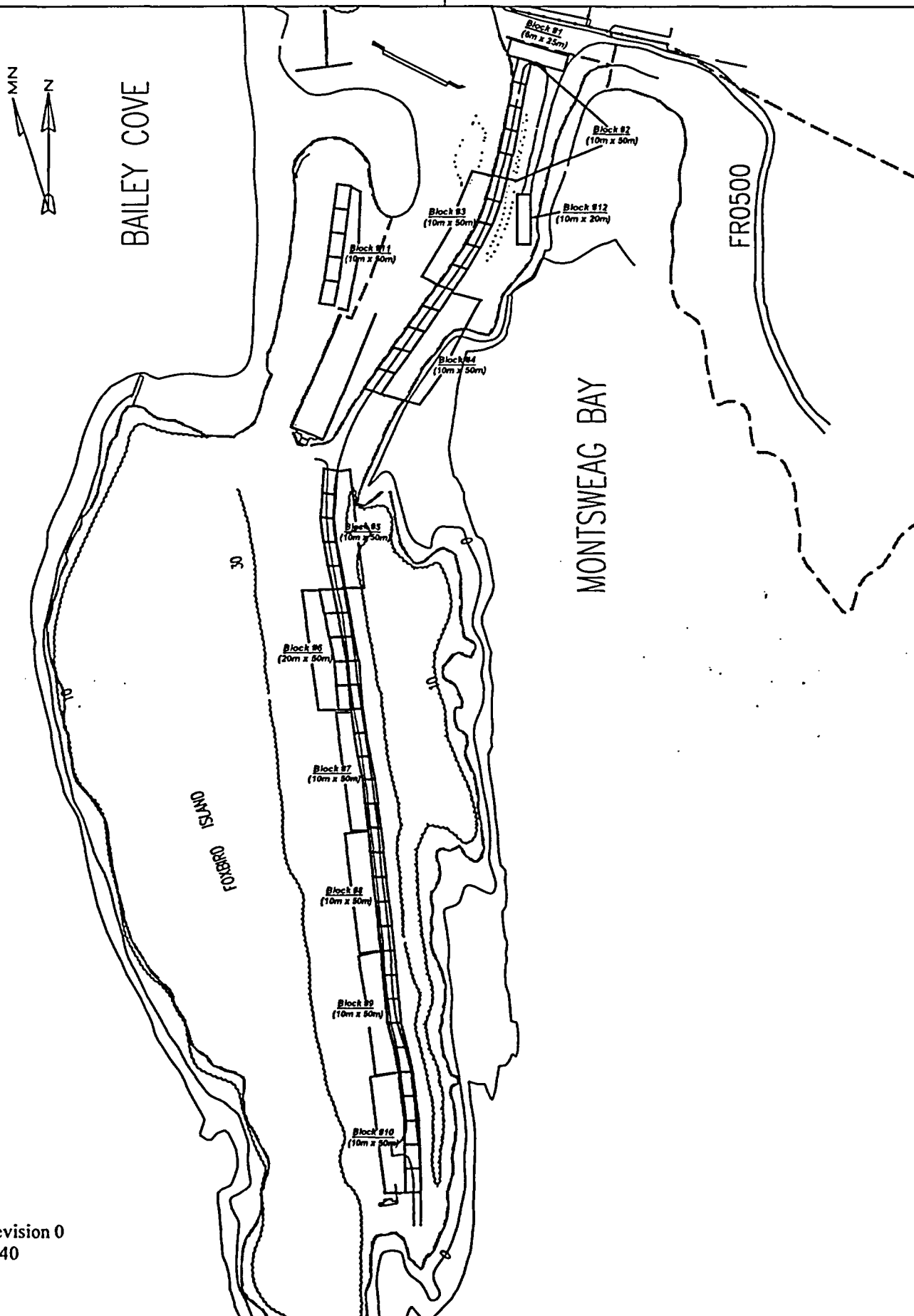
S576	
	S577
S578	
	S579
S580	
	S581
S582	
	S583
S584	
	S585
S586	
	S587
S588	
	S589
S590	
	S591
S592	
	S593
S594	
	S595

Block #12
(10m x 20m)

Survey Type: ☐ Characterization ☐ Turnover ☒ Final Status Survey

Survey Area Name: Foxbird Island

**Final Status Survey
FR 1000: Foxbird Island & Forebay Dikes
Survey Scans Plan View**



Attachment 2

Survey Unit Instrumentation

TABLE 2-1**INSTRUMENT INFORMATION**

E-600 S/N	Probe S/N (type)
1641	2255 (SPA-3)
1645	726560 (SPA-3)
1929	726561 (SPA-3)
2490	2254 (SPA-3)
2490	725328 (SPA-3)
2491	2254 (SPA-3)
2617	2254 (SPA-3)
2617	2255 (SPA-3)
2618	2055 (SPA-3)
2619	2255 (SPA-3)
2619	726554 (SPA-3)
2620	2055 (SPA-3)
2620	725890 (SPA-3)
2620	726554 (SPA-3)
2621	725890 (SPA-3)
2488	725328 (SPA-3)
2621	726560 (SPA-3)

HPGe Detectors for Lab Analysis of Volumetric Samples

Detector Number	MDC (pCi/g)
FSS-1	0.04 - 0.11
FSS-2	0.04 - 0.11

TABLE 2-2

INSTRUMENT SCAN MDC, DCGL, AND INVESTIGATION LEVEL

Detector	SPA-3	Comments
Scan MDC (pCi/g)	5.9	Design Scan MDC, LTP Table 5-6 (Reference 6)
DCGL (pCi/g)	4.2	Approved DCGL for land areas outside the Restricted Area, LTP Section 6.7 (Reference 6)
Investigation Level (Alarm setpoint)	12,160 cpm	All grids except as noted below
	14,615 cpm	Block 1, All grids
	14,215 cpm	Block 2, All grids
	12,735 cpm	Block 3, All grids
	13,135 cpm	Block 4, All grids
	10,600 cpm	Block 5, Grids S222, S224, S225
	10,600 cpm	Block 9, Grids S462, S463, S464, S466
	12,100 cpm	Block 10, Grid S488
	15,065 cpm	Block 12, All Grids

Attachment 3

Investigation Table

TABLE 3-1
INVESTIGATION TABLE

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S001SS0000	< 4.69E-02	N/A	< 4.78E-02	N/A
XR100013S002SS0000	< 4.71E-02	N/A	< 4.60E-02	N/A
XR100013S003SS0000	< 4.13E-02	N/A	4.72E-02	2.28E-02
XR100013S018SS0000	< 2.53E-02	N/A	4.05E-02	1.26E-02
XR100013S037SS0000	< 4.71E-02	N/A	< 4.57E-02	N/A
XR100013S038SS0000	< 5.01E-02	N/A	< 5.18E-02	N/A
XR100013S039SS0000	< 5.81E-02	N/A	< 6.47E-02	N/A
XR100013S040SS0000	< 6.29E-02	N/A	< 5.95E-02	N/A
XR100013S041SS0000	< 6.90E-02	N/A	< 6.38E-02	N/A
XR100013S042SS0000	< 5.84E-02	N/A	< 5.89E-02	N/A
XR100013S047SS0000	< 5.22E-02	N/A	< 5.12E-02	N/A
XR100013S070SS0000	< 4.85E-02	N/A	< 4.82E-02	N/A
XR100013S086SS0000	< 4.20E-02	N/A	< 4.58E-02	N/A
XR100013S087SS0000	< 5.46E-02	N/A	< 5.76E-02	N/A
XR100013S088SS0000	< 4.98E-02	N/A	< 5.25E-02	N/A
XR100013S089SS0000	< 4.41E-02	N/A	< 4.52E-02	N/A
XR100013S090SS0000	< 4.51E-02	N/A	< 4.54E-02	N/A
XR100013S091SS0000	< 5.36E-02	N/A	< 5.64E-02	N/A
XR100013S092SS0000	< 4.08E-02	N/A	3.74E-02	2.16E-02
XR100013S093SS0000	< 5.28E-02	N/A	5.48E-02	2.50E-02
XR100013S094SS0000	< 4.57E-02	N/A	< 4.93E-02	N/A
XR100013S095SS0000	< 2.89E-02	N/A	2.78E-02	1.39E-02
XR100013S096SS0000	< 1.94E-02	N/A	1.34E-02	7.12E-03
XR100013S098SS0000	< 5.66E-02	N/A	< 5.61E-02	N/A
XR100013S099SS0000	< 5.15E-02	N/A	< 5.50E-02	N/A
XR100013S101SS0000	< 4.80E-02	N/A	< 4.58E-02	N/A
XR100013S103SS0000	< 5.37E-02	N/A	< 4.99E-02	N/A
XR100013S119SS0000	< 4.60E-02	N/A	< 4.10E-02	N/A
XR100013S120SS0000	< 5.35E-02	N/A	< 5.33E-02	N/A
XR100013S124SS0000	< 4.62E-02	N/A	< 5.35E-02	N/A
XR100013S153SS0000	< 5.48E-02	N/A	< 6.00E-02	N/A
XR100013S156SS0000	< 5.77E-02	N/A	< 5.64E-02	N/A
XR100013S157SS0000	< 5.93E-02	N/A	< 5.78E-02	N/A
XR100013S164SS0000	< 6.12E-02	N/A	< 5.93E-02	N/A
XR100013S173SS0000	< 5.55E-02	N/A	< 5.43E-02	N/A
XR100013S175SS0000	< 5.61E-02	N/A	< 4.78E-02	N/A
XR100013S176SS0000	< 4.42E-02	N/A	< 4.45E-02	N/A
XR100013S177SS0000	< 3.94E-02	N/A	< 4.09E-02	N/A
XR100013S178SS0000	< 4.64E-02	N/A	< 4.51E-02	N/A
XR100013S179SS0000	< 4.03E-02	N/A	< 3.83E-02	N/A
XR100013S183SS0000	< 4.08E-02	N/A	< 4.18E-02	N/A
XR100013S199SS0000	< 3.98E-02	N/A	< 4.40E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S203SS0000	< 4.47E-02	N/A	< 4.59E-02	N/A
XR100013S204SS0000	< 4.13E-02	N/A	< 4.39E-02	N/A
XR100013S205SS0000	< 3.74E-02	N/A	5.26E-02	2.69E-02
XR100013S207SS0000	< 4.26E-02	N/A	< 4.29E-02	N/A
XR100013S210SS0000	< 2.51E-02	N/A	1.19E-01	1.29E-02
XR100013S211SS0000	< 2.59E-02	N/A	< 2.60E-02	N/A
XR100013S212SS0000	< 4.85E-02	N/A	< 4.88E-02	N/A
XR100013S213SS0000	< 5.94E-02	N/A	< 6.09E-02	N/A
XR100013S213SS0DUP	< 5.99E-02	N/A	< 6.00E-02	N/A
XR100013S214SS0000	< 5.16E-02	N/A	< 5.25E-02	N/A
XR100013S215SS0000	< 6.79E-02	N/A	< 6.06E-02	N/A
XR100013S216SS0000	< 5.11E-02	N/A	< 6.13E-02	N/A
XR100013S216SS0DUP	< 5.62E-02	N/A	< 5.99E-02	N/A
XR100013S217SS0000	< 6.20E-02	N/A	< 6.00E-02	N/A
XR100013S218SS0000	< 5.29E-02	N/A	< 5.24E-02	N/A
XR100013S219SS0000	< 5.90E-02	N/A	< 5.90E-02	N/A
XR100013S220SS0000	< 4.53E-02	N/A	< 4.25E-02	N/A
XR100013S222SS0000	< 6.67E-02	N/A	< 6.54E-02	N/A
XR100013S223SS0000	< 6.20E-02	N/A	< 6.02E-02	N/A
XR100013S224SS0000	< 2.35E-02	N/A	2.91E-02	1.56E-02
XR100013S225SS0000	< 2.36E-02	N/A	2.78E-02	6.84E-02
XR100013S226SS0000	< 5.76E-02	N/A	< 5.90E-02	N/A
XR100013S227SS0000	< 6.00E-02	N/A	< 5.42E-02	N/A
XR100013S228SS0000	< 2.36E-02	N/A	2.08E-02	1.20E-02
XR100013S229SS0000	< 2.37E-02	N/A	5.56E-02	1.31E-02
XR100013S230SS0000	< 5.48E-02	N/A	< 5.25E-02	N/A
XR100013S231SS0000	< 5.16E-02	N/A	< 5.14E-02	N/A
XR100013S232SS0000	< 2.59E-02	N/A	3.71E-02	7.63E-03
XR100013S232SS0DUP	< 5.48E-02	N/A	< 6.48E-02	N/A
XR100013S233SS0000	< 2.40E-02	N/A	4.18E-02	1.38E-02
XR100013S234SS0000	< 2.58E-02	N/A	< 2.62E-02	N/A
XR100013S235SS0000	< 2.56E-02	N/A	2.88E-02	6.94E-03
XR100013S236SS0000	< 2.53E-02	N/A	7.04E-02	2.02E-02
XR100013S237SS0000	< 5.71E-02	N/A	6.28E-02	3.14E-02
XR100013S238SS0000	< 2.23E-02	N/A	1.54E-02	1.69E-02
XR100013S239SS0000	< 2.52E-02	N/A	< 2.66E-02	N/A
XR100013S240SS0000	< 2.45E-02	N/A	5.28E-02	1.49E-02
XR100013S241SS0000	< 2.57E-02	N/A	3.06E-02	1.28E-02
XR100013S242SS0000	< 2.51E-02	N/A	3.77E-02	2.25E-02
XR100013S243SS0000	< 5.05E-02	N/A	< 4.99E-02	N/A
XR100013S244SS0000	< 2.64E-02	N/A	2.58E-02	1.23E-02
XR100013S245SS0000	< 2.48E-02	N/A	< 2.44E-02	N/A
XR100013S246SS0000	< 4.74E-02	N/A	< 4.58E-02	N/A
XR100013S247SS0000	< 2.59E-02	N/A	3.49E-02	7.91E-03
XR100013S248SS0000	< 2.37E-02	N/A	6.02E-02	2.76E-02
XR100013S249SS0000	< 4.96E-02	N/A	< 5.05E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S250SS0000	< 2.61E-02	N/A	1.92E-02	6.54E-03
XR100013S251SS0000	< 2.56E-02	N/A	2.39E-02	6.87E-03
XR100013S252SS0000	< 2.59E-02	N/A	5.57E-02	2.98E-02
XR100013S253SS0000	< 2.63E-02	N/A	3.55E-02	1.45E-02
XR100013S254SS0000	< 2.59E-02	N/A	7.05E-02	1.54E-02
XR100013S255SS0000	< 2.59E-02	N/A	4.00E-02	1.32E-02
XR100013S256SS0000	< 6.64E-02	N/A	4.57E-02	2.74E-02
XR100013S257SS0000	< 2.52E-02	N/A	3.85E-02	1.39E-02
XR100013S258SS0000	< 3.56E-02	N/A	4.39E-02	1.38E-02
XR100013S260SS0000	< 2.21E-02	N/A	1.72E-02	8.57E-03
XR100013S261SS0000	< 2.60E-02	N/A	< 2.51E-02	N/A
XR100013S262SS0000	< 4.68E-02	N/A	< 4.13E-02	N/A
XR100013S263SS0000	< 2.41E-02	N/A	< 2.47E-02	N/A
XR100013S264SS0000	< 2.53E-02	N/A	< 2.41E-02	N/A
XR100013S271SS0000	< 2.58E-02	N/A	5.21E-02	2.76E-02
XR100013S273SS0000	< 2.60E-02	N/A	2.66E-02	1.36E-02
XR100013S276SS0000	< 2.53E-02	N/A	< 2.40E-02	N/A
XR100013S277SS0000	< 2.55E-02	N/A	< 2.73E-02	N/A
XR100013S278SS0000	< 7.25E-02	N/A	< 7.42E-02	N/A
XR100013S279SS0000	< 8.93E-02	N/A	9.33E-02	3.37E-02
XR100013S283SS0000	3.83E-02	1.76E-02	7.07E-02	1.75E-02
XR100013S284SS0000	< 2.59E-02	N/A	1.91E-02	1.10E-02
XR100013S285SS0000	< 2.64E-02	N/A	3.38E-02	7.26E-03
XR100013S286SS0000	< 5.60E-02	N/A	< 5.17E-02	N/A
XR100013S287SS0000	< 2.53E-02	N/A	3.10E-02	7.38E-03
XR100013S288SS0000	< 5.91E-02	N/A	< 5.81E-02	N/A
XR100013S289SS0000	< 2.62E-02	N/A	2.28E-02	1.22E-02
XR100013S290SS0000	< 2.61E-02	N/A	2.38E-02	1.19E-02
XR100013S291SS0000	< 2.56E-02	N/A	4.24E-02	2.58E-02
XR100013S292SS0000	< 2.58E-02	N/A	3.95E-02	1.30E-02
XR100013S293SS0000	< 2.54E-02	N/A	4.23E-02	1.40E-02
XR100013S294SS0000	< 2.60E-02	N/A	8.52E-02	2.93E-02
XR100013S295SS0000	< 2.60E-02	N/A	3.43E-02	7.79E-03
XR100013S297SS0000	< 2.59E-02	N/A	< 2.47E-02	N/A
XR100013S302SS0000	< 2.61E-02	N/A	< 2.67E-02	N/A
XR100013S306SS0000	< 2.54E-02	N/A	< 2.74E-02	N/A
XR100013S307SS0000	< 2.58E-02	N/A	3.09E-02	2.23E-02
XR100013S308SS0000	< 5.97E-02	N/A	< 6.21E-02	N/A
XR100013S309SS0000	< 2.54E-02	N/A	3.38E-02	1.38E-02
XR100013S311SS0000	< 2.55E-02	N/A	3.41E-02	1.40E-02
XR100013S313SS0000	< 2.63E-02	N/A	3.27E-02	1.45E-02
XR100013S314SS0000	< 2.55E-02	N/A	2.98E-02	1.23E-02
XR100013S315SS0000	< 2.61E-02	N/A	3.08E-02	7.58E-03
XR100013S317SS0000	< 2.61E-02	N/A	2.99E-02	1.31E-02
XR100013S321SS0000	< 2.59E-02	N/A	3.26E-02	1.92E-02
XR100013S323SS0000	< 2.40E-02	N/A	3.06E-02	1.79E-02

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S326SS0000	< 2.57E-02	N/A	3.41E-02	1.57E-02
XR100013S327SS0000	< 2.59E-02	N/A	7.08E-02	1.49E-02
XR100013S328SS0000	< 2.58E-02	N/A	6.76E-02	9.80E-03
XR100013S329SS0000	< 2.41E-02	N/A	5.48E-02	1.38E-02
XR100013S330SS0000	< 2.50E-02	N/A	4.73E-02	1.38E-02
XR100013S331SS0000	< 2.56E-02	N/A	6.25E-02	1.97E-02
XR100013S332SS0000	< 2.61E-02	N/A	6.01E-02	1.33E-02
XR100013S333SS0000	< 2.45E-02	N/A	5.57E-02	1.47E-02
XR100013S334SS0000	< 2.62E-02	N/A	2.76E-02	1.26E-02
XR100013S335SS0000	< 2.60E-02	N/A	2.46E-02	1.35E-02
XR100013S336SS0000	< 2.55E-02	N/A	4.60E-02	8.65E-03
XR100013S337SS0000	< 2.53E-02	N/A	3.07E-02	1.46E-02
XR100013S340SS0000	< 6.04E-02	N/A	5.42E-02	2.89E-02
XR100013S341SS0000	< 2.49E-02	N/A	8.12E-02	2.83E-02
XR100013S342S0000A	< 2.38E-02	N/A	7.11E-02	9.33E-03
XR100013S342S0000B	< 3.35E-02	N/A	9.61E-02	1.20E-02
XR100013S343SS0000	< 2.52E-02	N/A	4.27E-02	1.33E-02
XR100013S345SS0000	< 2.72E-02	N/A	6.15E-02	9.62E-03
XR100013S346SS0000	< 2.28E-02	N/A	3.85E-02	1.39E-02
XR100013S346SS0DUP	< 6.62E-02	N/A	< 7.08E-02	N/A
XR100013S347SS0000	< 2.41E-02	N/A	1.11E-01	1.69E-02
XR100013S348SS0000	< 2.57E-02	N/A	4.81E-02	1.33E-02
XR100013S349SS0000	< 2.57E-02	N/A	6.75E-02	1.33E-02
XR100013S350SS0000	< 2.36E-02	N/A	6.10E-02	2.50E-02
XR100013S351SS0000	< 2.44E-02	N/A	5.97E-02	2.67E-02
XR100013S352SS0000	< 5.96E-02	N/A	5.56E-02	2.90E-02
XR100013S353SS0000	< 2.39E-02	N/A	3.52E-02	1.23E-02
XR100013S354SS0000	< 2.45E-02	N/A	4.28E-02	1.40E-02
XR100013S356SS0000	< 5.98E-02	N/A	6.08E-02	3.19E-02
XR100013S358SS0000	< 2.26E-02	N/A	4.87E-02	8.12E-03
XR100013S359SS0000	< 2.52E-02	N/A	3.44E-02	1.48E-02
XR100013S360SS0000	< 2.41E-02	N/A	4.75E-02	8.33E-03
XR100013S361SS0000	< 2.45E-02	N/A	3.73E-02	2.95E-02
XR100013S362SS0000	< 2.53E-02	N/A	3.85E-02	2.42E-02
XR100013S363SS0000	< 2.44E-02	N/A	1.99E-02	1.20E-02
XR100013S363SS0DUP	< 6.11E-02	N/A	< 6.08E-02	N/A
XR100013S364SS0000	< 6.49E-02	N/A	< 5.99E-02	N/A
XR100013S365SS0000	< 2.66E-02	N/A	< 2.71E-02	N/A
XR100013S366SS0000	< 2.48E-02	N/A	< 2.61E-02	N/A
XR100013S367SS0000	< 2.44E-02	N/A	3.49E-02	7.09E-03
XR100013S368SS0000	< 6.04E-02	N/A	< 6.10E-02	N/A
XR100013S369SS0000	< 2.41E-02	N/A	2.26E-02	1.22E-02
XR100013S370SS0000	< 2.50E-02	N/A	2.29E-02	1.05E-02
XR100013S371SS0000	< 2.75E-02	N/A	< 2.84E-02	N/A
XR100013S372SS0000	< 6.06E-02	N/A	< 7.07E-02	N/A
XR100013S374SS0000	< 6.73E-02	N/A	< 6.74E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S375SS0000	< 2.53E-02	N/A	5.39E-02	1.40E-02
XR100013S375SS0DUP	< 3.81E-02	N/A	4.28E-02	1.83E-02
XR100013S376SS0000	< 2.60E-02	N/A	4.28E-02	1.33E-02
XR100013S376SS0DUP	< 6.31E-02	N/A	< 6.79E-02	N/A
XR100013S377SS0000	< 2.63E-02	N/A	6.07E-02	1.50E-02
XR100013S378SS0000	< 2.65E-02	N/A	6.04E-02	1.48E-02
XR100013S379SS0000	< 2.60E-02	N/A	4.22E-02	1.40E-02
XR100013S380SS0000	< 2.37E-02	N/A	3.44E-02	1.16E-02
XR100013S381SS0000	< 2.84E-02	N/A	1.33E-01	1.88E-02
XR100013S381SS0DUP	< 5.14E-02	N/A	1.24E-01	3.59E-02
XR100013S382SS0000	< 2.37E-02	N/A	5.42E-02	1.26E-02
XR100013S383SS0000	< 2.36E-02	N/A	2.99E-02	1.30E-02
XR100013S384SS0000	3.01E-02	9.66E-03	6.04E-02	8.33E-03
XR100013S385SS0000	4.37E-02	1.47E-02	5.61E-02	1.43E-02
XR100013S386SS0000	< 2.56E-02	N/A	3.90E-02	1.35E-02
XR100013S387SS0000	< 2.41E-02	N/A	4.74E-02	7.85E-03
XR100013S388SS0000	< 5.77E-02	N/A	< 6.92E-02	N/A
XR100013S389SS0000	< 2.41E-02	N/A	5.65E-02	2.54E-02
XR100013S390SS0000	< 2.40E-02	N/A	1.56E-02	1.49E-02
XR100013S390SS0DUP	< 5.51E-02	N/A	< 5.96E-02	N/A
XR100013S391SS0000	< 2.61E-02	N/A	3.57E-02	1.45E-02
XR100013S392SS0000	< 2.63E-02	N/A	5.04E-02	1.75E-02
XR100013S393SS0000	< 2.81E-02	N/A	2.44E-02	1.92E-02
XR100013S394SS0000	< 2.69E-02	N/A	< 2.86E-02	N/A
XR100013S396SS0000	< 2.72E-02	N/A	2.87E-02	7.93E-03
XR100013S397SS0000	< 6.60E-02	N/A	< 6.04E-02	N/A
XR100013S398SS0000	< 2.57E-02	N/A	2.70E-02	1.35E-02
XR100013S399SS0000	< 6.78E-02	N/A	< 6.25E-02	N/A
XR100013S400SS0000	< 2.94E-02	N/A	< 2.97E-02	N/A
XR100013S401SS0000	< 3.00E-02	N/A	< 3.19E-02	N/A
XR100013S401SS0DUP	< 5.18E-02	N/A	< 5.24E-02	N/A
XR100013S402SS0000	< 2.89E-02	N/A	4.28E-02	8.97E-03
XR100013S403SS0000	< 2.71E-02	N/A	< 2.81E-02	N/A
XR100013S404SS0000	< 5.47E-02	N/A	< 5.51E-02	N/A
XR100013S405SS0000	< 3.04E-02	N/A	< 3.06E-02	N/A
XR100013S406SS0000	< 2.83E-02	N/A	< 2.90E-02	N/A
XR100013S407SS0000	< 3.10E-02	N/A	< 3.14E-02	N/A
XR100013S408SS0000	< 2.64E-02	N/A	2.79E-02	6.92E-03
XR100013S409SS0000	< 6.81E-02	N/A	< 6.50E-02	N/A
XR100013S409SS0DUP	< 5.30E-02	N/A	< 5.05E-02	N/A
XR100013S410SS0000	< 3.00E-02	N/A	< 2.79E-02	N/A
XR100013S411SS0000	< 2.82E-02	N/A	2.99E-02	7.80E-03
XR100013S412SS0000	< 2.70E-02	N/A	< 2.76E-02	N/A
XR100013S413SS0000	< 6.38E-02	N/A	< 6.61E-02	N/A
XR100013S414SS0000	< 2.80E-02	N/A	< 2.85E-02	N/A
XR100013S415SS0000	< 7.34E-02	N/A	< 7.77E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S416SS0000	< 2.67E-02	N/A	< 2.82E-02	N/A
XR100013S417SS0000	< 3.01E-02	N/A	< 2.85E-02	N/A
XR100013S418SS0000	< 2.88E-02	N/A	< 2.92E-02	N/A
XR100013S419SS0000	< 6.20E-02	N/A	< 6.63E-02	N/A
XR100013S420SS0000	< 3.15E-02	N/A	2.26E-02	2.08E-02
XR100013S421SS0000	< 2.93E-02	N/A	2.18E-02	1.20E-02
XR100013S422SS0000	< 7.61E-02	N/A	< 6.70E-02	N/A
XR100013S423SS0000	< 3.06E-02	N/A	< 2.96E-02	N/A
XR100013S424SS0000	< 5.93E-02	N/A	< 6.62E-02	N/A
XR100013S425SS0000	< 3.10E-02	N/A	< 3.09E-02	N/A
XR100013S426SS0000	< 3.14E-02	N/A	< 3.14E-02	N/A
XR100013S427SS0000	< 3.74E-02	N/A	< 3.39E-02	N/A
XR100013S428SS0000	< 5.53E-02	N/A	< 5.30E-02	N/A
XR100013S429SS0000	< 2.58E-02	N/A	2.55E-02	7.16E-03
XR100013S430SS0000	< 2.80E-02	N/A	< 2.99E-02	N/A
XR100013S431SS0000	< 3.00E-02	N/A	2.13E-02	7.61E-03
XR100013S432SS0000	< 3.00E-02	N/A	< 3.06E-02	N/A
XR100013S433SS0000	< 6.41E-02	N/A	< 6.09E-02	N/A
XR100013S434SS0000	< 7.14E-02	N/A	< 7.13E-02	N/A
XR100013S435SS0000	< 2.54E-02	N/A	< 2.55E-02	N/A
XR100013S436SS0000	< 2.30E-02	N/A	< 2.38E-02	N/A
XR100013S437SS0000	< 6.35E-02	N/A	< 6.76E-02	N/A
XR100013S438SS0000	< 2.66E-02	N/A	< 2.70E-02	N/A
XR100013S439SS0000	< 5.31E-02	N/A	< 5.21E-02	N/A
XR100013S455SS0000	< 2.63E-02	N/A	1.06E-01	1.74E-02
XR100013S458SS0000	< 2.39E-02	N/A	3.98E-02	7.87E-03
XR100013S461SS0000	< 2.69E-02	N/A	2.07E-02	1.11E-02
XR100013S462SS0000	< 2.44E-02	N/A	2.11E-02	1.07E-02
XR100013S463SS0000	< 2.49E-02	N/A	2.67E-02	7.37E-03
XR100013S464SS0000	< 6.20E-02	N/A	< 5.52E-02	N/A
XR100013S465SS0000	< 2.80E-02	N/A	< 2.69E-02	N/A
XR100013S466SS0000	< 2.44E-02	N/A	3.41E-02	7.45E-03
XR100013S477SS0000	< 5.91E-02	N/A	< 5.43E-02	N/A
XR100013S478SS0000	< 2.61E-02	N/A	2.17E-02	1.46E-02
XR100013S488SS0000	< 2.46E-02	N/A	< 2.80E-02	N/A
XR100013S505SS0000	< 2.45E-02	N/A	2.92E-02	1.22E-02
XR100013S507SS0000	< 2.51E-02	N/A	1.99E-02	6.51E-03
XR100013S508SS0000	< 2.66E-02	N/A	< 2.70E-02	N/A
XR100013S509SS0000	< 2.48E-02	N/A	3.38E-02	1.21E-02
XR100013S510SS0000	< 2.95E-02	N/A	< 2.84E-02	N/A
XR100013S511SS0000	< 2.57E-02	N/A	3.38E-02	7.84E-03
XR100013S512SS0000	< 2.65E-02	N/A	3.08E-02	7.48E-03
XR100013S513SS0000	< 2.67E-02	N/A	3.22E-02	1.53E-02
XR100013S515SS0000	< 6.65E-02	N/A	< 6.37E-02	N/A
XR100013S517SS0000	< 2.66E-02	N/A	2.39E-02	7.56E-03
XR100013S518SS0000	< 2.92E-02	N/A	< 2.95E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S519SS0000	< 7.26E-02	N/A	< 6.98E-02	N/A
XR100013S526SS0000	< 4.55E-02	N/A	< 4.58E-02	N/A
XR100013S527SS0000	< 4.87E-02	N/A	< 4.94E-02	N/A
XR100013S528SS0000	< 4.98E-02	N/A	< 5.06E-02	N/A
XR100013S529SS0000	< 6.20E-02	N/A	< 6.29E-02	N/A
XR100013S530SS0000	< 4.59E-02	N/A	< 4.51E-02	N/A
XR100013S531SS0000	< 5.17E-02	N/A	< 4.97E-02	N/A
XR100013S532SS0000	< 4.90E-02	N/A	< 4.67E-02	N/A
XR100013S533SS0000	< 4.57E-02	N/A	< 5.05E-02	N/A
XR100013S534SS0000	< 5.21E-02	N/A	< 4.86E-02	N/A
XR100013S535SS0000	< 4.57E-02	N/A	< 5.01E-02	N/A
XR100013S536SS0000	< 4.63E-02	N/A	< 5.06E-02	N/A
XR100013S537SS0000	< 5.78E-02	N/A	< 5.95E-02	N/A
XR100013S538SS0000	< 4.87E-02	N/A	3.54E-02	1.43E-02
XR100013S539SS0000	< 5.24E-02	N/A	< 5.18E-02	N/A
XR100013S540SS0000	< 3.89E-02	N/A	< 4.65E-02	N/A
XR100013S541SS0000	< 4.00E-02	N/A	< 4.65E-02	N/A
XR100013S542SS0000	< 5.22E-02	N/A	< 4.77E-02	N/A
XR100013S543SS0000	< 5.16E-02	N/A	< 4.74E-02	N/A
XR100013S545SS0000	< 4.22E-02	N/A	< 4.37E-02	N/A
XR100013S546SS0000	< 4.16E-02	N/A	< 4.51E-02	N/A
XR100013S547SS0000	< 4.45E-02	N/A	< 4.29E-02	N/A
XR100013S548SS0000	< 4.72E-02	N/A	< 4.37E-02	N/A
XR100013S549SS0000	< 4.70E-02	N/A	< 4.84E-02	N/A
XR100013S550SS0000	< 4.50E-02	N/A	< 4.85E-02	N/A
XR100013S551SS0000	< 4.58E-02	N/A	< 5.00E-02	N/A
XR100013S552SS0000	< 5.46E-02	N/A	< 4.71E-02	N/A
XR100013S553SS0000	< 3.24E-02	N/A	2.44E-02	1.51E-02
XR100013S554SS0000	< 5.15E-02	N/A	< 4.66E-02	N/A
XR100013S555SS0000	< 4.65E-02	N/A	< 5.17E-02	N/A
XR100013S556SS0000	< 4.87E-02	N/A	< 4.98E-02	N/A
XR100013S557SS0000	< 4.77E-02	N/A	< 5.30E-02	N/A
XR100013S558SS0000	< 2.41E-02	N/A	2.38E-02	1.01E-02
XR100013S559SS0000	< 3.91E-02	N/A	< 4.14E-02	N/A
XR100013S560SS0000	< 3.76E-02	N/A	< 4.05E-02	N/A
XR100013S561SS0000	< 5.27E-02	N/A	< 4.78E-02	N/A
XR100013S562SS0000	< 4.50E-02	N/A	< 4.81E-02	N/A
XR100013S563SS0000	< 4.07E-02	N/A	< 4.24E-02	N/A
XR100013S564SS0000	< 4.28E-02	N/A	< 4.58E-02	N/A
XR100013S565SS0000	< 3.97E-02	N/A	< 4.44E-02	N/A
XR100013S566SS0000	< 4.30E-02	N/A	< 4.47E-02	N/A
XR100013S567SS0000	< 5.05E-02	N/A	< 4.93E-02	N/A
XR100013S568SS0000	< 4.50E-02	N/A	< 4.76E-02	N/A
XR100013S569SS0000	< 4.12E-02	N/A	< 3.92E-02	N/A
XR100013S570SS0000	< 4.32E-02	N/A	< 4.16E-02	N/A
XR100013S571SS0000	< 3.98E-02	N/A	< 3.73E-02	N/A

Sample Location	Co-60 pCi/g	Uncertainty pCi/g	Cs-137 pCi/g	Uncertainty pCi/g
XR100013S572SS0000	< 5.88E-02	N/A	< 5.51E-02	N/A
XR100013S574SS0000	< 3.31E-02	N/A	< 3.59E-02	N/A
XR100013S575SS0000	< 4.46E-02	N/A	< 4.02E-02	N/A
XR100013S576SS0000	< 4.92E-02	N/A	< 4.42E-02	N/A
XR100013S577SS0000	< 5.47E-02	N/A	< 5.69E-02	N/A
XR100013S578SS0000	< 4.61E-02	N/A	< 4.84E-02	N/A
XR100013S579SS0000	< 5.58E-02	N/A	< 5.80E-02	N/A
XR100013S580SS0000	< 4.78E-02	N/A	< 5.02E-02	N/A
XR100013S594SS0000	< 4.75E-02	N/A	< 4.85E-02	N/A

NOTE: The sample location corresponds to the grid number.

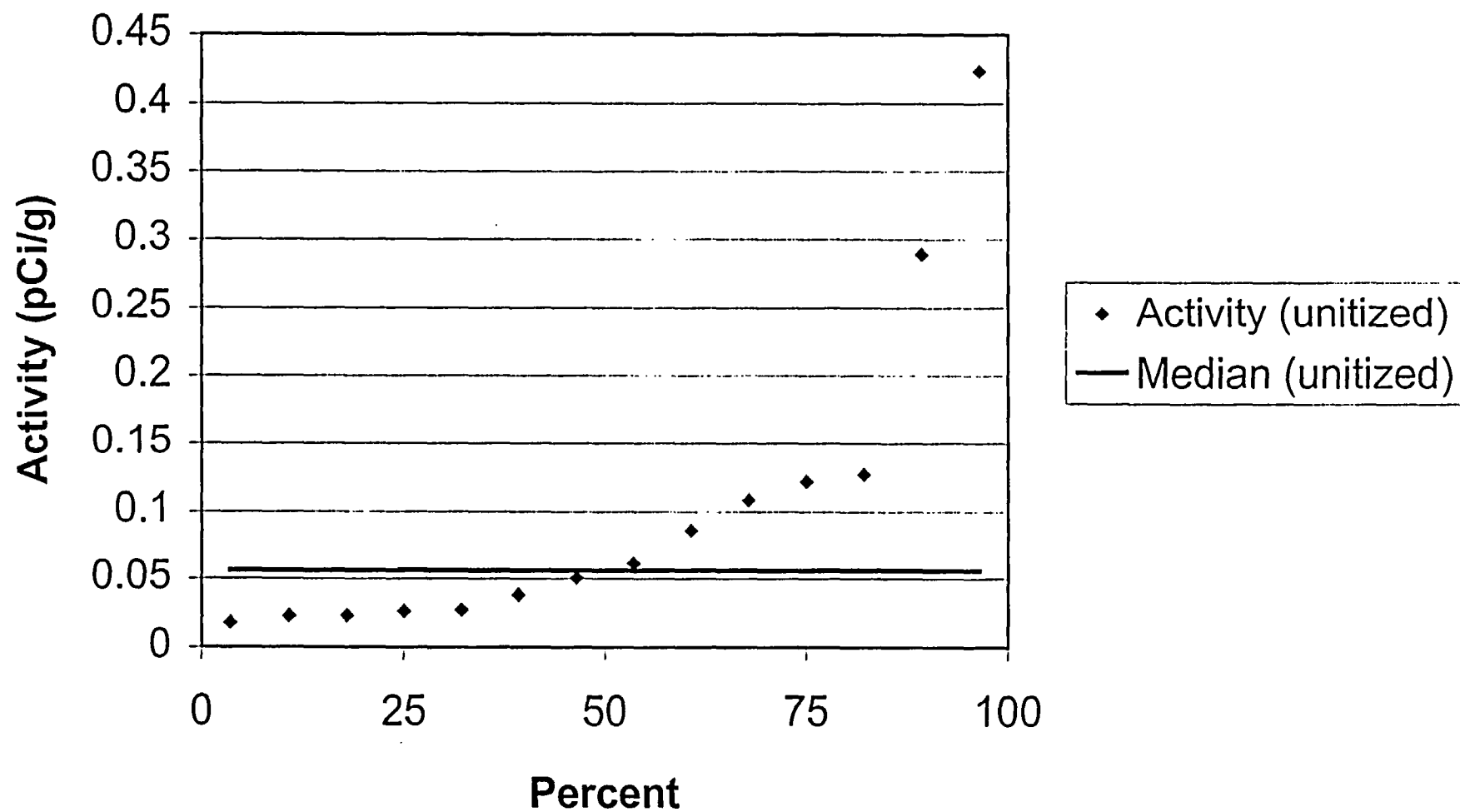
Attachment 4

Statistical Data

Survey Package FR-1000 Unit 1 UNITY Soil Sign Test Summary

Evaluation Input Values		Comments
Survey Package:	FR-1000	Foxbird Island
Survey Unit:	01	
Evaluator:	GP	
DCGL _w :	1.00E+00	Unitized
DCGL _{emc} :	N/A	
LBGR:	5.00E-01	
Sigma:	1.14E-01	
Type I error:	0.05	
Type II error:	0.05	
Nuclide:	UNITY	
Soil Type:	N/A	
Calculated Values		Comments
Z _{1-α} :	1.645	
Z _{1-β} :	1.645	
Sign p:	0.99865	
Calculated Relative Shift:	4.3	
Relative Shift Used:	3.0	Uses 3.0 if Relative Shift is >3
N-Value:	11	
N-Value+20%:	14	
Sample Data Values		Comments
Number of Samples:	14	
Median:	5.56E-02	
Mean:	1.01E-01	
Net Sample Standard Deviation:	1.17E-01	
Total Standard Deviation:	1.17E-01	SRSS
Maximum:	4.24E-01	
Sign Test Results		Comments
Adjusted N Value:	14	
S+ Value:	14	
Critical Value:	10	
Sign test results:	Pass	
Criteria Satisfaction		Comments
Sufficient samples collected:	Pass	
Maximum value <DCGL _w :	Pass	
Median value <DCGL _w :	Pass	
Mean value <DCGL _w :	Pass	
Maximum value <DCGL _{emc} :	Pass	
Total Standard Deviation <=Sigma:	Investigate	See section F of the Release Record
Criteria comparison results:	Investigate	See section I of the Release Record
Final Status		Comments
The survey unit passes all conditions:	Investigate	The SU passes

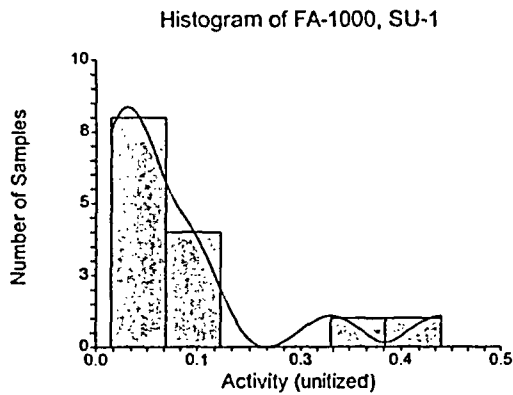
FR-1000 SU-1 Quantile Plot



One-Sample T-Test Report

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Database
Variable C2

Plots Section



One-Sample T-Test Power Analysis

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Chart Section

