



SITE CERTIFICATION SUMMARY

This Site Certification Summary provides information about the **Jersey City, New Jersey, Site**. The U.S. Department of Energy Office of Legacy Management is responsible for long-term stewardship of the site under the **Formerly Utilized Sites Remedial Action Program**.

Site Description and History

The Jersey City, New Jersey, Site (formerly known as the Kellex/Pierpont site and as the Kellex Laboratory site) is located at the intersection of New Jersey Route 440 and Kellogg Street. The site consisted of approximately 43 acres with more than 20 buildings and included Lots 1-G, 1-J, 1-L, 1-M, and 1-N of Block 1288A. The Kellex Corporation operated the site between 1943 and 1952 to design and construct the first gaseous diffusion uranium-enrichment plant under a Manhattan Engineer District (MED) contract. Work for the MED and its successor agency, the U.S. Atomic Energy Commission, continued until July 1952 and included research and development of PUREX fuel reprocessing and component testing with uranium hexafluoride as well as development and use of uranium processing and recovery techniques. The Kellex operations were centered on Building 11, which contained laboratories, offices, weighing facilities, toilets, change rooms, and a shielded counting room. In 1953, Building 11 was demolished, leaving only the concrete pad. A shopping center and townhomes were constructed on portions of the site.

Site Remediation Timeline

June 25, 1953 — The Vitro Corporation of America prepared a contamination status report that detailed the findings of a radiation survey of Building 11 undertaken by the Kellex Laboratory.

October 21, 1976 — Representatives from Oak Ridge Operations Office and Oak Ridge National Laboratory (ORNL) conducted a site visit and screening survey.

March 28 to 30, 1977 — ORNL performed a comprehensive survey of a portion of the Jersey City site.

March through August 1979 — Additional radiological characterization was done for the site.

July 1979 through January 1980 — Decontamination activities were conducted at the site.

September 14, 1979 — Lots 1-L and 1-M were certified as complying with state-approved radiological criteria.

1981 — The U.S. Department of Energy (DOE) completed remedial action with the removal of the remaining contaminated soil and debris from the site.

1982 — ORNL conducted a post-remedial action survey on a portion of the site.

May 23, 1983 — The New Jersey Department of Environmental Protection concurred with the DOE finding that the Jersey City site complied with applicable remedial action criteria.

September 13, 1983 — DOE issued the Statement of Certification for the Jersey City site.

Certification Docket Contents

The [Certification Docket](#) references the published reports that contain information supporting the certification of the site's radiological condition and contains other unpublished references and correspondence supporting the site's certification. DOE determined that the radiological conditions at the former Kellex Laboratory site are consistent with radiological guidelines and standards determined to apply to this site, and that unrestricted use of this site will not result in any measurable radiological hazard to the general public.

Remedial Action

DOE performed remedial activities at the Jersey City site in the late 1970s and early 1980s as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). Three isolated areas near the former Kellex Laboratory were identified as having levels of radioactivity above background in the 1977 survey (Areas 1-3). Seven additional areas with elevated radioactivity were identified during the 1979 surveys and decontamination activities (Areas 4-10). See the [Fact Sheet](#) for details.

Post-Remediation Sampling

During and after site remediation, DOE conducted surveys to confirm that no residual radioactive material above DOE standards remains at the site. To document the location of post-cleanup radiation measurements and residual radionuclide concentrations, a grid system was established in Areas 1-9. Each area was excavated, and soil samples were taken. Soil samples were also taken in Area 10, which was excavated but not gridded. In Areas 1-3, gamma exposure rates were measured 1 meter above the ground, and beta-gamma dose rates were measured at 1 centimeter (cm) above the ground at each grid point. In Areas 4-10, gamma exposure rates were measured 1 meter above the ground, and beta-gamma dose rates were measured at 1 cm above the ground within the center of each grid block. In addition, each grid block was scanned at a height of 0-10 cm from the surface to measure an average gamma exposure rate.

In Areas 1-3, the maximum observed radium-226 (Ra-226) concentration was 3.0 picocuries per gram (pCi/g) for sample area K-65 (in Area 3), which was below the 5 pCi/g upper limit for radionuclides in soil. In Areas 4-10, the observed Ra-226 concentrations greater than the 5 pCi/g criteria occurred in samples KT13B (9.1 pCi/g) and KT13B1 (13 pCi/g) taken from Area 10. However, as stated in the post-remedial action report, “the area [was] believed to meet the criteria for Ra-226 in soil averaged over a 100 square meter (m²) area.” Areas 6A, 6B, 6F, 6G, 6I, 6J, 8, and 10 contained some elevated concentrations of uranium-238 (U-238), but these areas did not exceed the guideline value of 40 pCi/g of U-238 in the top 20 cm of soil averaged over a 400 m² area.

For more detailed results of the post-remediation sampling, see the [Site Certification Data Summary Worksheet](#) on pages 3-15. For a detailed map of the site and sampling locations, see the [Site Overview Map](#) on page 17.

Current Site Conditions

The post-remedial action report states the following: “Based upon the results of the post-remedial action survey performed by ORNL, it appears that the remedial action was successful in reducing radioactive contamination on the site to criteria values established at the time of the post-remedial action survey.” All surveyed areas were released for unrestricted use. DOE has been responsible for long-term stewardship of the Jersey City site since 1983. The stewardship requirements and protocols are captured in the FUSRAP Long-Term Surveillance and Maintenance Plan, which is available on the DOE Office of Legacy Management website (www.energy.gov/lm/jersey-city-new-jersey-site).



ADDITIONAL INFORMATION

Documents related to FUSRAP activities at the Jersey City, New Jersey, Site are available on the LM website at lmpublicsearch.lm.doe.gov/SitePages/default.aspx?sitename=Jersey_City.

For other information on site history or current long-term stewardship activities, please contact us at:

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Jersey City, New Jersey, Site Certification Data Summary Worksheet

Forty tables referenced in the Jersey City Certification Docket provide the evidence used to certify the site as clean.

When the tables refer to the "Post-Remedial Action Survey", that is the ORNL report "Results of the Post Remedial Action Survey of Areas 4 Through 10 at the Former Kellex Site in Jersey City, New Jersey" (September 1983).

When the tables refer to the "Certification Docket," that is the DOE report "Certification Docket for the Former Kellex Corporation, Jersey City, New Jersey" (undated).

Reference the two tables below for the radiological criteria that apply to the Jersey City Site

Decontamination Criteria for Real Property Contaminated with Radium	
Letter from George J. Tyler, Director of the New Jersey Division of Environmental Quality, to William E. Mott, Director of the U.S. DOE Division of Environmental Control Technology - May 29, 1979	
Exposure Conditions	Guideline Value
Ra-226 concentration in the first 2 to 3 meters of soil (including background)	5 pCi/g
External gamma exposure rate (including background)	170 mr/year

A Summary of Applicable Radiation Guidelines for the Former Kellex Site				
Table 1 in the Post-Remedial Action Survey				
	Mode of Exposure	Exposure Conditions	Guideline Value	Guideline Source
1	External gamma radiation ^a	Continuous exposure to individual in general population (whole body)	60 µR/h	U.S. Nuclear Regulatory Commission (NRC) - Standards for Protection Against Radiation (10 CFR 20.105)
2	Surface alpha contamination ^a	²²⁶ Ra contamination fixed on surfaces	100 dpm/100 cm ²	NRC Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for By-Product, Source, or Special Nuclear Material (adapted from NRC Reg. Guide 1.86)
		Removable ²²⁶ Ra contamination	20 dpm/100 cm ²	
3	Surface beta contamination ^a	Removable beta-gamma emitters	1000 dpm/100 cm ²	Same as number 2
4	Beta-gamma dose rates ^a	Average dose rate on an area no greater than 1 m ²	0.20 mrad/h	Same as number 2
		Maximum dose rate in any 100 cm ² area	1.0 mrad/h	
5	Exposure to radon ^a	Maximum permissible concentration of ²²² Rn in air in unrestricted areas	3.0 pCi/L	NRC 10 CFR 20.103, Appendix B, Table II
6	Radionuclides in water ^a	Maximum contaminant level for combined ²²⁶ Ra and ²²⁸ Ra in drinking water	5 pCi/L	EPA Interim Standards 40 CFR 141.15
		Maximum permissible concentration of the following radionuclides in water for unrestricted areas		NRC 10 CFR 20.103, Appendix B, Table II
		²²⁶ Ra	30 pCi/L	
		²³⁸ U	40,000 pCi/L	
		²³⁰ Th	2,000 pCi/L	
		²¹⁰ Pb	100 pCi/L	
7	Uranium concentration in soil	Average concentration of ²³⁸ U in the top 20 cm of soil averaged over 400 m ² (including background)	40 pCi/g	DOE letter from William E. Mott to Department of Environmental Protection, State of New Jersey, dated June 13, 1980

^aThis appendix contains a complete listing of standard.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 1			
Table 1 in the Certification Docket			
Grid Point	Gamma exposure rate 1 m above grid point (μR/h)	Beta gamma dose rate at 1 cm at grid point (mrad/hr)	Grid block scan average gamma exposure rate (μR/hr) 0-3 in. above surface
A1	6.9	0.01	8.0
A2	7.2	0.01	6.6
A3	7.7	0.01	6.6
A4	8.8	0.01	5.3
A5	6.1	0.01	6.6
A6	7.2	0.01	6.6
A7	6.1	0.01	--
B1	7.2	0.02	8.0
B2	7.4	0.01	8.0
B3	6.6	0.02	9.3
B4	7.2	0.01	8.0
B5	6.6	0.02	8.0
B6	6.1	0.01	8.0
B7	6.1	0.02	8.0
C1	7.7	0.01	8.0
C2	8.5	0.02	9.3
C3	8.0	0.02	10.7
C4	8.0	0.01	10.7
C5	7.2	0.02	9.3
C6	6.6	0.02	8.0
C7	6.1	0.02	8.0
D1	6.6	0.01	8.0
D2	8.5	0.02	10.7
D3	8.8	0.02	12.0
D4	8.5	0.01	10.7
D5	7.4	0.02	10.7
D6	7.2	0.02	9.3
D7	6.1	0.01	8.0
E1	8.8	0.01	8.0
E2	7.5	0.02	10.7
E3	9.9	0.02	10.7
E4	8.5	0.01	10.7
E5	8.0	0.02	10.7
E6	6.7	0.01	10.7
E7	7.5	0.02	9.3
F1	8.5	0.01	8.0
F2	8.0	0.02	9.3
F3	8.8	0.02	9.3
F4	8.8	0.02	9.3
F5	6.7	0.01	9.3
F6	7.2	0.02	8.0
F7	7.2	0.02	8.0
G1	7.5	0.02	--
G2	8.0	0.02	--
G3	8.0	0.02	--
G4	8.5	0.02	--
G5	8.0	0.01	--
G6	7.5	0.01	--
G7	6.7	0.02	--

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 2			
Table 2 in the Certification Docket			
Grid Point	Gamma exposure rate 1 m above grid point (μR/h)	Beta gamma dose rate at 1 cm at grid point (mrad/hr)	Grid block scan average gamma exposure rate (μR/hr) 0-3 in. above surface
A1	9.3	0.01	8.0
A2	8.0	0.01	9.3
A3	9.3	0.02	9.3
A4	8.0	0.02	10.7
A5	9.3	0.02	10.7
A6	8.0	0.02	9.3
A7	8.0	0.02	8.0
A8	8.0	0.02	--
B1	9.3	0.02	8.0
B2	9.3	0.02	8.5
B3	9.3	0.02	9.3
B4	9.3	0.02	10.7
B5	8.0	0.02	10.7
B6	8.0	0.02	8.5
B7	8.0	0.02	7.5
B8	8.0	0.02	--
C1	9.3	0.02	10.7
C2	9.3	0.02	10.7
C3	9.3	0.02	9.3
C4	9.3	0.02	9.3
C5	9.3	0.02	8.5
C6	8.5	0.02	8.0
C7	8.0	0.02	8.0
C8	8.0	0.02	--
D1	8.5	0.02	9.3
D2	10.1	0.02	9.3
D3	9.3	0.02	10.7
D4	9.3	0.02	8.5
D5	8.5	0.02	8.8
D6	8.5	0.02	8.0
D7	8.5	0.02	7.5
D8	7.5	0.02	--
E1	9.3	0.02	8.0
E2	10.7	0.02	8.5
E3	10.7	0.02	9.3
E4	9.3	0.02	10.7
E5	9.3	0.02	10.7
E6	9.3	0.02	8.0
E7	8.5	0.02	7.5
E8	7.5	0.02	--
F1	8.0	0.02	10.7
F2	9.3	0.02	12.0
F3	10.7	0.02	16.0
F4	9.3	0.02	12.0
F5	12.0	0.02	12.0
F6	10.1	0.02	10.7
F7	9.3	0.02	8.5
F8	8.0	0.02	--
G1	9.3	0.02	9.9
G2	10.1	0.02	9.3
G3	8.5	0.02	9.3
G4	8.5	0.02	9.3
G5	9.3	0.02	10.7
G6	10.7	0.02	9.3
G7	9.3	0.02	6.7
G8	8.0	0.02	--
H1	10.7	0.02	10.7
H2	9.3	0.02	10.7
H3	10.1	0.02	13.3
H4	10.7	0.02	12.0
H5	6.7	0.02	9.3
H6	9.3	0.02	9.3
H7	8.5	0.02	9.3
H8	7.5	0.02	--
I1	10.7	0.02	10.7
I2	10.7	0.02	9.3
I3	10.1	0.02	9.3
I4	10.7	0.02	9.3
I5	9.3	0.02	8.5
I6	8.5	0.02	8.5
I7	8.0	0.02	8.0
I8	8.0	0.02	--
J1	10.7	0.02	--
J2	9.3	0.02	--
J3	9.3	0.02	--
J4	8.5	0.02	--
J5	9.3	0.02	--
J6	7.5	0.02	--
J7	6.7	0.02	--
J8	8.0	0.02	--

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 3			
Table 3 in the Certification Docket			
Grid Point	Gamma exposure rate 1 m above grid point (μR/h)	Beta gamma dose rate at 1 cm at grid point (mrad/hr)	Grid block scan average gamma exposure rate (μR/hr) 0-3 in. above surface
A1	9.3	0.02	9.3
A2	9.3	0.02	9.3
A3	9.6	0.02	12.0
A4	10.7	0.01	12.0
A5	12.0	0.02	9.3
A6	9.9	0.02	9.3
A7	8.8	0.02	8.0
A8	8.8	0.01	--
B1	10.1	0.02	13.3
B2	10.1	0.02	9.3
B3	12.5	0.02	12.0
B4	11.5	0.01	16.0
B5	13.3	0.02	17.3
B6	11.2	0.02	10.7
B7	9.9	0.01	9.3
B8	9.9	0.01	--
C1	10.1	0.01	10.7
C2	12.5	0.02	13.3
C3	12.8	0.02	13.3
C4	12.5	0.01	12.0
C5	12.8	0.01	13.3
C6	12.5	0.02	10.7
C7	10.7	0.01	9.3
C8	9.3	0.02	--
D1	9.3	0.02	10.7
D2	12.0	0.02	14.7
D3	12.5	0.02	12.0
D4	12.5	0.01	10.7
D5	11.2	0.01	9.3
D6	10.1	0.01	9.3
D7	10.1	0.01	8.0
D8	8.8	0.02	--
E1	10.1	0.02	9.3
E2	10.1	0.02	10.7
E3	9.9	0.02	9.3
E4	11.5	0.02	9.3
E5	9.3	0.02	8.0
E6	10.1	0.02	8.0
E7	9.9	0.02	8.0
E8	8.8	0.01	--
F1	8.8	0.02	--
F2	9.3	0.02	--
F3	8.8	0.01	--
F4	9.3	0.01	--
F5	10.7	0.02	--
F6	9.3	0.02	--
F7	9.9	0.02	--
F8	9.3	0.02	--

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Former Kellex Laboratory: Jersey City, New Jersey			
Results of Soil Samples from Decontaminated Area 1			
Table 4 in the Certification Docket			
Sample No.	²²⁶ Ra (pCi/g)	²³² Th (pCi/g)	²³⁸ U (pCi/g)
K-68 ^a (composite)	0.63	1.5	0.64
K-69	<0.99	4.4	0.60
K-70	<0.13	12	0.53
K-71	<0.74	8.2	0.71
K-72	0.85	1.4	0.85
K-73	0.80	4.1	0.74
K-83 ^b (post K-70)	0.73	5.14	0.72
K-84 ^c (post K-71)	0.56	2.6	0.60
^a Composite sample from grid points.			
^b Sample after recleaning at K-70.			
^c Sample after recleaning at K-71.			

Former Kellex Laboratory: Jersey City, New Jersey			
Results of Soil Samples from Decontaminated Area 2			
Table 5 in the Certification Docket			
Sample No.	²²⁶ Ra (pCi/g)	²³² Th (pCi/g)	²³⁸ U (pCi/g)
K-54	0.99	1.3	0.92
K-55 ^a (composite)	0.90	1.0	0.74
K-56	0.82	0.94	0.79
K-57	0.70	1.3	0.76
K-58	1.5	1.2	0.77
K-59	0.92	1.0	0.85
K-60	0.78	0.97	0.83
K-61	1.2	1.2	0.93
K-62	2.1	2.2	2.0
^a Composite sample from grid points.			

Former Kellex Laboratory: Jersey City, New Jersey			
Results of Soil Samples from Decontaminated Area 3			
Table 6 in the Certification Docket			
Sample No.	²²⁶ Ra (pCi/g)	²³² Th (pCi/g)	²³⁸ U (pCi/g)
K-63 ^a (composite)	1.4	1.1	1.3
K-64	1.0	0.94	2.2
K-65	3.0	2.1	3.9
K-66	2.5	1.8	3.0
K-67	0.74	0.95	0.75
^a Composite sample from grid points.			

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 4			
Table 3 in the Post-Remedial Action Survey			
	Grid point measurements		Grid block scan
Grid Point	Gamma exposure rate 1 m (μR/h)	Beta-gamma dose rate at 1 cm (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	7	0.02	10
A2	7	0.02	10
A3	6	0.01	10
A4	6	0.01	10
A5	6	0.02	10
A6	7	0.02	10
A7	7	0.02	10
B1	7	0.02	10
B2	7	0.02	10
B3	7	0.01	10
B4	8	0.02	10
B5	8	0.02	10
B6	8	0.02	10
B7	8	0.02	10
C1	7	0.02	10
C2	7	0.02	10
C3	8	0.02	10
C4	9	0.02	10
C5	8	0.02	10
C6	9	0.03	10
C7	9	0.02	10
D1	8	0.02	10
D2	8	0.02	10
D3	8	0.01	10
D4	8	0.01	10
D5	8	0.02	10
D6	8	0.01	10
D7	9	0.01	10
E1	7	0.02	10
E2	6	0.01	10
E3	6	0.02	10
E4	7	0.01	10
E5	8	0.01	10
E6	7	0.02	10
E7	8	0.02	10

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 5			
Table 4 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.01	10
A2	8	0.01	11
A3	8	0.01	10
B1	8	0.01	10
B2	8	0.02	13
B3	8	0.01	9
C1	8	0.01	10
C2	8	0.02	13
C3	8	0.01	9

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6A			
Table 5 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	7	0.02	10
A2	7	0.02	10
A3	8	0.01	9
A4	7	0.02	8

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6B			
Table 6 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.01	10
B1	8	0.01	10

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6C			
Table 7 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.03	10
A2	8	0.02	9
B1	8	0.01	8
B2	8	0.01	8

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6D			
Table 8 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	10	0.01	10
A2	9	0.01	10
A3	8	0.01	10
A4	8	0.01	11
A5	9	0.01	11
B1	8	0.01	11
B2	9	0.01	10
B3	9	0.01	10
B4	9	0.01	9
B5	9	0.01	11
C1	8	0.01	10
C2	9	0.01	10
C3	9	0.02	11
C4	9	0.02	9
C5	9	0.01	10
D1	9	0.01	11
D2	10	0.01	10
D3	9	0.01	11
D4	9	0.01	9
D5	11	0.01	9
E1	9	0.02	10
E2	9	0.01	10
E3	9	0.01	11
E4	9	0.02	10
E5	9	0.01	10

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Former Kellex Laboratory: Jersey City, New Jersey			
Trench Survey of Decontaminated Area 6D			
Table 9 in the Post-Remedial Action Survey			
Trench	Average gamma exposure rate at surface (μR/h)	Maximum gamma exposure rate at surface (μR/h)	Maximum beta-gamma dose rate (mrad/h)
#1	9	10	0.01
#2	9	13	0.02
#3	10	40 ^b	0.2

^bThe north end of trench scanned 24-40 μR/h.

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6E			
Table 10 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	9	0.01	10
A2	7	0.01	10
B1	9	0.01	9
B2	8	0.02	9

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6G			
Table 12 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.01	10
A2	9	0.01	10
A3	9	0.01	10
B1	9	0.02	8
B2	9	0.01	10
B3	9	0.01	11
C1	8	0.01	10
C2	9	0.01	9
C3	9	0.01	9

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 6H			
Table 13 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.01	10
A2	7	0.02	10
B1	7	0.01	10
B2	7	0.01	10

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Grid Survey for Decontaminated Area 6I			
Table 14 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	7	0.02	8
A2	7	0.01	8
A3	7	0.01	7
B1	7	0.01	8
B2	7	0.01	7
B3	7	0.01	7

Jersey City, New Jersey, Site Certification Data Summary Worksheet

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Grid Survey for Decontaminated Area 6J

Table 15 in the Post-Remedial Action Survey

	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	9	0.01	9
A2	9	0.02	10

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Grid Survey for Decontaminated Area 9

Table 18 in the Post-Remedial Action Survey

	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	8	0.01	10
A2	7	0.01	10
A3	8	0.01	10
A4	8	0.01	10
B1	8	0.01	10
B2	7	0.01	10
B3	8	0.01	10
B4	9	0.01	10
C1	7	0.01	10
C2	7	0.01	10
C3	7	0.01	10
C4	8	0.01	10

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Grid Survey for Decontaminated Area 7

Table 16 in the Post-Remedial Action Survey

	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	9	0.02	10
A2	8	0.02	9
A3	9	0.02	9
A4	8	0.02	9
A5	7	0.01	9
A6	7	0.01	9
A7	8	0.02	8
A8	8	0.02	9
A9	8	0.02	9
A10	8	0.02	9
B1	8	0.02	10
B2	8	0.01	10
B3	7	0.02	9
B4	7	0.02	10
B5	8	0.02	10
B6	7	0.02	10
B7	7	0.02	8
B8	8	0.01	10
B9	8	0.01	11
B10	8	0.02	10
C1	8	0.02	8
C2	8	0.02	10
C3	8	0.03	11
C4	8	0.02	9
C5	8	0.02	10
C6	8	0.02	10
C7	7	0.02	9
C8	8	0.01	10
C9	8	0.01	9
C10	8	0.02	10
D1	9	0.01	11
D2	8	0.01	10
D3	8	0.02	10
D4	8	0.02	10
D5	9	0.01	10
D6	8	0.01	10
D7	7	0.01	9
D8	8	0.01	9
D9	7	0.01	9
D10	8	0.01	9
E1	8	0.02	10
E2	9	0.02	11
E3	9	0.03	9
E4	8	0.02	12
E5	7	0.02	9
E6	7	0.02	8
E7	7	0.02	8
E8	8	0.02	8
E9	8	0.02	11
E10	9	0.02	12
F1	9	0.02	11
F2	9	0.02	11
F3	8	0.02	10
F4	8	0.02	10
F5	7	0.02	9
F6	7	0.01	8
F7	7	0.02	8
F8	8	0.01	9
F9	8	0.02	10
F10	9	0.02	12

	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
G1	9	0.02	11
G2	9	0.02	11
G3	9	0.02	11
G4	8	0.02	10
G5	8	0.02	10
G6	8	0.02	11
G7	7	0.02	9
G8	8	0.02	10
G9	8	0.01	11
G10	9	0.02	13
H1	9	0.02	11
H2	8	0.02	11
H3	9	0.02	11
H4	9	0.02	11
H5	8	0.02	12
H6	9	0.03	10
H7	8	0.01	10
H8	8	0.02	10
H9	9	0.02	12
H10	9	0.03	11
I1	8	0.01	10
I2	8	0.02	12
I3	9	0.02	12
I4	8	0.02	12
I5	8	0.02	13
I6	9	0.02	12
I7	8	0.02	11
I8	9	0.03	12
I9	9	0.02	12
I10	8	0.02	12
J1	8	0.02	9
J2	7	0.02	11
J3	8	0.02	11
J4	8	0.02	12
J5	9	0.02	11
J6	8	0.02	11
J7	7	0.02	11
J8	8	0.02	10
J9	8	0.02	10
J10	8	0.02	10

Walls of pits inside grid blocks			
D3		0.02	13
D4		0.02	13
D5		0.02	13
D6		0.02	13
D7		0.01	12
D8		0.02	11
D9		0.02	14
E3		0.02	12
E9		0.02	12
F3-F4		0.02	12
F9		0.03	12
G4		0.02	12
G5		0.02	13
G9		0.02	12
H6		0.02	11
H7		0.02	12
H8		0.02	13
H9		0.03	11

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Former Kellex Laboratory: Jersey City, New Jersey			
Grid Survey for Decontaminated Area 8			
Table 17 in the Post-Remedial Action Survey			
	Grid block measurements		Grid block scan
Grid Block	Gamma exposure rate at 1 m above center (μR/h)	Beta-gamma dose rate at 1 cm above center (mrad/hr)	Average gamma exposure rate 0-3 in. above surface (μR/hr)
A1	7	0.02	11
A2	7	0.02	11
A3	7	0.02	11
A4	7	0.02	11
A5	6	0.02	11
A6	7	0.02	11
A7	7	0.02	11
A8	7	0.02	11
A9	7	0.02	11
A10	6	0.01	11
B1	7	0.01	11
B2	7	0.03	11
B3	8	0.02	11
B4	7	0.01	11
B5	7	0.01	11
B6	7	0.02	11
B7	8	0.02	11
B8	7	0.02	11
B9	6	0.01	11
B10	7	0.01	11
C1	7	0.01	11
C2	8	0.01	11
C3	8	0.01	11
C4	7	0.01	11
C5	8	0.02	11
C6	8	0.02	11
C7	8	0.02	11
C8	8	0.02	11
C9	8	0.02	11
C10	7	0.01	11
D1	7	0.02	11
D2	8	0.01	11
D3	8	0.01	11
D4	7	0.02	11
D5	8	0.01	11
D6	8	0.02	11
D7	8	0.01	11
D8	8	0.01	11
D9	8	0.02	11
D10	8	0.02	11

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 4

Table 19 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-46	A1-A6, B1-B6, C1-C6, D1-D6	Composite	0-8	1.5	2.6 ± 0.3	1.3 ± 0.08

^aThe composite was comprised of aliquots of soil from each grid block indicated, and mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 5

Table 20 in the Post-Remedial Action Survey

Sample ^a Number	Grid block location	Sample Type	Depth (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-390	E2 (trench)	Biased ^c	0-30	1.5	1.9 ± 5	2.0 ± 7.2
K-391	E2 (trench)	Biased	30-60	2.2	2.4 ± 0.1	2.7 ± 0.2
K-392	E2 (trench)	Biased	60-183	1.7	2.4 ± 0.3	1.7 ± 0.2
K-393	E2 (trench)	Biased	183-732	1.7	1.6 ± 5.1	1.3 ± 0.7

^aSamples were taken from the same location at different depths.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cSamples were taken from locations showing maximum gamma exposure rates.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6A

Table 21 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-355	A1	Composite	0-8	2.2	1.4 ± 0.08	2.3 ± 0.09
K-356	A2	Composite	0-8	1.6	1.4 ± 0.03	3.2 ± 0.06
K-357	A3	Composite	0-8	8.3	1.2 ± 0.6	2.8 ± 0.3
K-358	A4	Composite	0-8	2.1	1.5 ± 1	3.6 ± 0.8

^aThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6B

Table 22 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-367	A1	Composite	0-8	16	d	d
K-368	B2	Composite	0-8	13	d	d

^aThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^dAnalysis for this radionuclide was not performed.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6C

Table 23 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-380	A1	Composite	0-8	9.5	d	d
K-381	A2	Composite	0-8	1.8	d	d
K-382	B1	Composite	0-8	1.5	d	d
K-383	B2	Composite	0-8	8.9	d	d

^aThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^dAnalysis for this radionuclide was not performed.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6D

Table 24 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-384	A1	Biased ^c	0-8	2.6	d	d
K-385	A4	Biased	0-8	2.8	d	d
K-386	B1	Biased	0-8	15	d	d
K-387	B4	Biased	0-8	4.3	d	d
K-388	B5	Biased	0-8	4.8	d	d
K-389	D1	Biased	0-8	12	d	d
K-399	Trench #1	Composite ^e	0-8	3.3	1.5 ± 0.03	1.5 ± 0.06
K-401	Trench #2	Composite	0-8	30	1.2 ± 0.08	1.1 ± 0.03
K-403	Trench #3	Composite	0-8	7.8	1.3 ± 0.4	1.6 ± 0.13
K-405	Trench #3 (north end)	Biased	0-8	140	d	d

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cSamples were taken from locations showing elevated gamma measurements

^dAnalysis for this radionuclide was not performed.

^eComposite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6E

Table 25 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-342	A2	Biased ^c	0-8	24	d	d
K-188	A1, A2, B1, B2	Composite ^e	0-8	12	2.1 ± 0.06	1.9 ± 0.2

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cSamples were taken from locations showing elevated gamma measurements.

^dAnalysis for this radionuclide was not performed.

^eComposite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6F

Table 26 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-409	A1-A3, B1-B3, C1-C3	Composite ^c	0-8	21	d	d
K-378	B2	Biased ^e	0-8	70	d	d
K-379	B3	Biased	0-8	50	d	d

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^dAnalysis for this radionuclide was not performed.

^eSamples were taken from location showing elevated gamma measurements.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6G

Table 27 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-345	A1	Composite ^c	0-8	70	d	d
K-346	A2	Composite	0-8	5.3	d	d
K-347	A3	Composite	0-8	12	d	d
K-348	B1	Composite	0-8	1.7	d	d
K-349	B2	Composite	0-8	20	d	d
K-350	B3	Composite	0-8	20	d	d
K-351	C1	Composite	0-8	24	d	d
K-352	C2	Composite	0-8	13	d	d
K-353	C3	Composite	0-8	7.6	d	d
K-343	A1	Biased ^e	0-8	60	d	d
K-344	A2	Biased	0-8	50	d	d

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^dAnalysis for this radionuclide was not performed.

^eSamples were taken from location showing elevated gamma measurements.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6H

Table 28 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-166	A1, A2, B1, B2	Composite	0-8	11	1.3 ± 0.04	1.3 ± 0.04

^aThe composite was comprised of aliquots of soil from each grid block indicated, and mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6I

Table 29 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample ^a Type	Depth ^b (cm)	Radionuclide concentration (pCi/g) ^c		
				²³⁸ U	²²⁶ Ra	²³² Th
K-361	A1	Composite	0-8	5.7	1.6 ± 0.09	1.7 ± 0.3
K-362	A2	Composite	0-8	2.7	1.2 ± 0.05	1.3 ± 0.1
K-363	A3	Composite	0-8	1.3	0.84 ± 0.02	0.91 ± 0.09
K-364	B1	Composite	0-8	11	1.6 ± 0.04	1.7 ± 0.06
K-365	B2	Composite	0-8	3	6.6 ± 0.3	1.2 ± 0.2
K-366	B3	Composite	0-8	1.1	0.69 ± 0.1	0.86 ± 0.06

^aThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^bA depth of 0-8 cm was considered a surface sample.

^cIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 6J

Table 30 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-184	A1, A2	Composit ^c	0-8	5.2	d	d
K-354	A1	Biased ^e	0-8	41	d	d

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^dAnalysis for this radionuclide was not performed.

^eSamples were taken from location showing elevated gamma measurements.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 7

Table 31 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-100	A1-A10, B1-B10, C1-C10	Composite ^c	0-8	9.4	e	e
K-101	A1	Systematic ^d	0-8	4.4	e	e
K-102	A2	Systematic	0-8	3.3	e	e
K-103	A3	Systematic	0-8	1.9	e	e
K-104	A4	Systematic	0-8	5.4	e	e
K-105	B1	Systematic	0-8	14	e	e
K-106	B2	Systematic	0-8	2.6	e	e
K-107	B3	Systematic	0-8	13	e	e
K-108	B4	Systematic	0-8	27	e	e
K-109	C1	Systematic	0-8	5.2	e	e
K-110	C2	Systematic	0-8	1.3	e	e
K-111	C3	Systematic	0-8	5.4	e	e
K-112	C4	Systematic	0-8	2.4	e	e

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

^dApproximately 400 g of soil were taken from the center of each grid block.

^eAnalysis for this radionuclide was not performed.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 8						
Table 32 in the Post-Remedial Action Survey						
Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-114	A1-A5, D1-D5	Composite ^c	0-8	16.3	0.9 ± 0.048	1.0 ± 0.056
K-115	A6-A10, D6-D10	Composite	0-8	15.5	0.9 ± 0.04	0.9 ± 0.04
K-116	A1	Systematic ^d	0-8	16.2	e	e
K-339	A2	Systematic	0-8	1.1	e	e
K-118	A3	Systematic	0-8	34.7	e	e
K-119	A4	Systematic	0-8	10.6	e	e
K-120	A5	Systematic	0-8	30.7	e	e
K-121	A6	Systematic	0-8	7.7	e	e
K-122	A7	Systematic	0-8	25.2	e	e
K-340	A8	Systematic	0-8	51 ^f	e	e
K-124	A9	Systematic	0-8	20.2	e	e
K-125	A10	Systematic	0-8	1.1	e	e
K-126	B1	Systematic	0-8	34.3	e	e
K-127	B2	Systematic	0-8	8.4	e	e
K-128	B3	Systematic	0-8	12.5	e	e
K-129	B4	Systematic	0-8	19.6	e	e
K-130	B5	Systematic	0-8	7.7	e	e
K-131	B6	Systematic	0-8	21.7	e	e
K-132	B7	Systematic	0-8	22.9	e	e
K-133	B8	Systematic	0-8	12.8	e	e
K-134	B9	Systematic	0-8	2.1	e	e
K-135	B10	Systematic	0-8	0.6	e	e
K-136	C1	Systematic	0-8	4.2	e	e
K-137	C2	Systematic	0-8	5.1	e	e
K-138	C3	Systematic	0-8	4.9	e	e
K-139	C4	Systematic	0-8	13.6	e	e
K-140	C5	Systematic	0-8	5.9	e	e
K-141	C6	Systematic	0-8	9.8	e	e
K-341	C7	Systematic	0-8	14.7	e	e
K-143	C8	Systematic	0-8	7.3	e	e
K-144	C9	Systematic	0-8	10.5	e	e
K-145	C10	Systematic	0-8	3.0	e	e
K-146	D1	Systematic	0-8	4.9	e	e
K-147	D2	Systematic	0-8	2.6	e	e
K-148	D3	Systematic	0-8	5.3	e	e
K-149	D4	Systematic	0-8	16.6	e	e
K-150	D5	Systematic	0-8	3.0	e	e
K-151	D6	Systematic	0-8	3.8	e	e
K-152	D7	Systematic	0-8	10.4	e	e
K-153	D8	Systematic	0-8	4.9	e	e
K-154	D9	Systematic	0-8	1.5	e	e
K-155	D10	Systematic	0-8	2.3	e	e
K-157	B2, C2, D2 (within trench)	Biased ^g	0-8	15.4	1.0 ± 0.04	1.06 ± 0.06
K-160	A5, B5, C5, D5 (within trench)	Biased	0-8	19.3	1.0 ± 0.04	1.02 ± 0.04

^aA depth of 0-8 cm was considered a surface sample.
^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).
^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.
^dApproximately 400 g of soil were taken from the center of each grid block.
^eAnalysis for this radionuclide was not performed.
^fContaminated soil probably spilled over into the sampling area during excavation.
^gSamples were taken from locations showing elevated gamma exposure rates.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 9

Table 33 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth ^a (cm)	Radionuclide concentration (pCi/g) ^b		
				²³⁸ U	²²⁶ Ra	²³² Th
K-98	A1-A4, B1-B4, C1-C4	Compositec	0-8	1	1.7 ± 0.04	1.2 ± 0.06

^aA depth of 0-8 cm was considered a surface sample.

^bIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^cThe composite was comprised of aliquots of soil from each grid block indicated; aliquots were mixed into a single homogeneous sample.

Results of soil samples taken during the 1979 post remedial action radiological survey at Area 10

Table 34 in the Post-Remedial Action Survey

Sample Number	Grid block location	Sample Type	Depth (cm)	Radionuclide concentration (pCi/g) ^a		
				²³⁸ U	²²⁶ Ra	²³² Th
KT13A ^b	7+15, 520R	Biased ^c	0-30	1.6	1.7 ± 0.05	1.6 ± 0.07
KT13B	7+15, 520R	Biased	30-46	4.6	9.1 ± 0.2	4.05 ± 0.1
KT13B1	7+15, 520R	Biased	30-46	5.2	13 ± 0.3	4.9 ± 0.1
KT13C	7+15, 520R	Biased	182	0.55	0.52 ± 0.04	0.66 ± 0.04
K395	7+21, 520R	Biased	91	0.4	0.5 ± 0.06	0.6 ± 0.08
K396	7+15, 526R	Biased	91	1.09	1.04 ± 0.1	0.76 ± 0.1
K397	7+9, 520R	Biased	91	0.91	0.6 ± 0.09	0.72 ± 0.06
K398	7+15, 514	Biased	91	2.7	2.6 ± 0.05	2.4 ± 8

^aIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^bSamples were taken from the same location at different depths.

^cSamples were taken from locations showing maximum gamma exposure rates.

Radionuclide concentrations in water samples taken November 1979

Table 35 in the Post-Remedial Action Survey

Sample	Radionuclide concentrations (pCi/L) ^a			
	²¹⁰ Pb	²²⁶ Ra	²³⁰ Th	²³⁸ U
KW5	<4.5 × 10 ⁻³	<5 × 10 ⁻⁴	4.5 × 10 ⁻⁵ ± 4.5 × 10 ⁻⁵	1 ± 1
KW6	4.5 × 10 ⁻³ ± 0.01	<5 × 10 ⁻⁴	<4.5 × 10 ⁻⁵	2 ± 2
KW7	4.5 × 10 ⁻³ ± 0.01	<5 × 10 ⁻⁴	4 × 10 ⁻⁴ ± 4 × 10 ⁻⁴	2 × 10 ⁻⁴ ± 2 × 10 ⁻⁴
RCGW ^b	100	30c	2,000	40,000

^aIndicated errors associated with these concentrations are two standard deviations (95% confidence level).

^bRadionuclide concentration guideline values for ground water taken from 10 CFR 20.

^cThe EPA drinking water standard for radium is 5 pCi/L, including ²²⁶Ra and ²²⁸Ra.

Jersey City, New Jersey, Site Certification Data Summary Worksheet

Summary of soil data collected during post decontamination activities at the former Kellex Laboratory site

Table 36 in the Post-Remedial Action Survey

Area	Sample	Grid block location	Average radionuclide concentration (pCi/g)			Maximum ²³⁸ U concentration (pCi/g)
			²³⁸ U	²²⁶ Ra	²³² Th	
4	K-46	A-E	1.5	2.6	1.3	1.5
5	K-391	Trench E2	1.8	2.1	1.9	2.2
6A	K-357	A3	3.6	1.4	3	8.3
6B	K-367	A1	14.5	b	b	16
6C	K-380	A1	5.4	b	b	9.5
6D	K-386	B1	6.9	b	b	15
6D	K-399	Trench #1	3.3	1.5	1.5	1.5
6D	K-401	Trench #2	30	1.2	1.1	30 ^a
6D	K-403	Trench #3	7.8	1.3	1.6	140 ^a
6E	K-188	A-B	12	2.1	1.9	12 ^a
6F	K-378	B2	21	b	b	70
6G	K-345	A1	19.2	b	b	70
6H	K-166	A-C	11	1.3	1.3	11a
6I	K-364	B1	4.1	2.1	1.3	11
6J	K-354	A1	5.2	b	b	40
7	K-108	B4	7.1	b	b	30
8	K-340	A8	12	b	b	50
9	K-338	B4	1.03	1.7	1.2	1.1
10	KT13B1	7+15, 520R	2.1	3.6	1.9	5.2

^aOnly one sample was taken in area.

^bAnalysis of radionuclide concentration was not performed.

Jersey City, New Jersey, Site Map



NJ-440 & Kellogg Street
Jersey City, NJ 07305



U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
Navarro Research & Engineering, Inc.
Under DOE Contract Number DE-LM0000421

Jersey City, NJ, Site

- ③ Remediated Areas
- FUSRAP Site Boundary
- Original Site Boundary

DATE PREPARED:
January 9, 2019

FILE NAME:
JEC_DELIVERABLE

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