

Appendix B: Dosimeter Measurements and Locations



Table B-1. Results of environmental radiation measurements at Auxiliary Reactor Area (ARA) and Critical Infrastructure Test Range Complex (CITRC) (2023).

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
ARA ^b I&II O-1	65	73
PBF ^c SPERT O-1	60	70

- a. Millirem (mrem) in ambient dose equivalent.
- b. Auxiliary Reactor Area (ARA).
- c. Power Burst Facility Special Power Excursion Reactor Test (PBF SPERT).

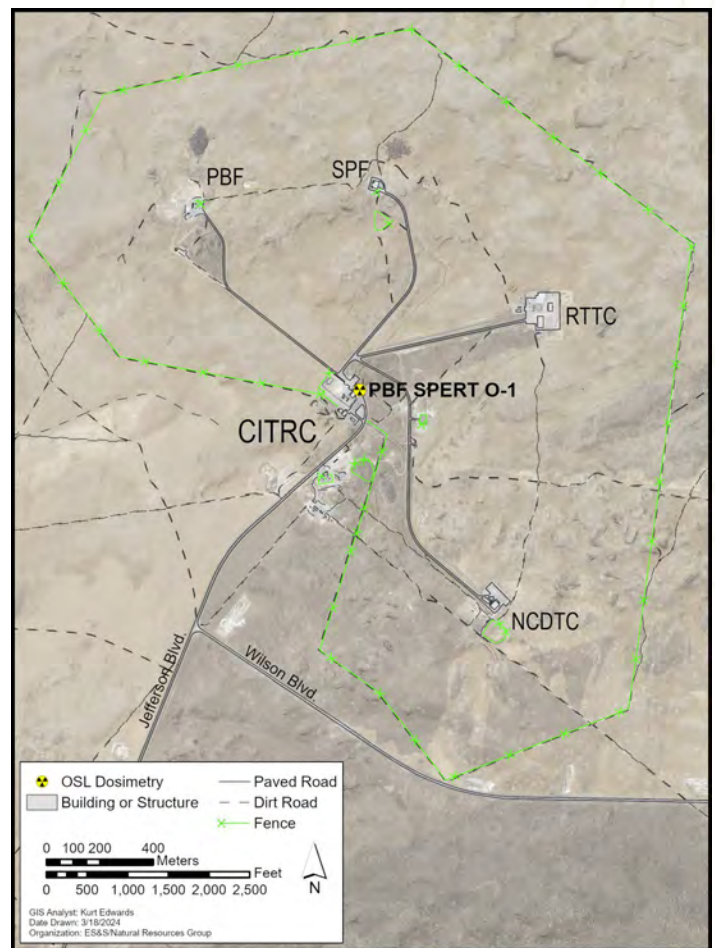
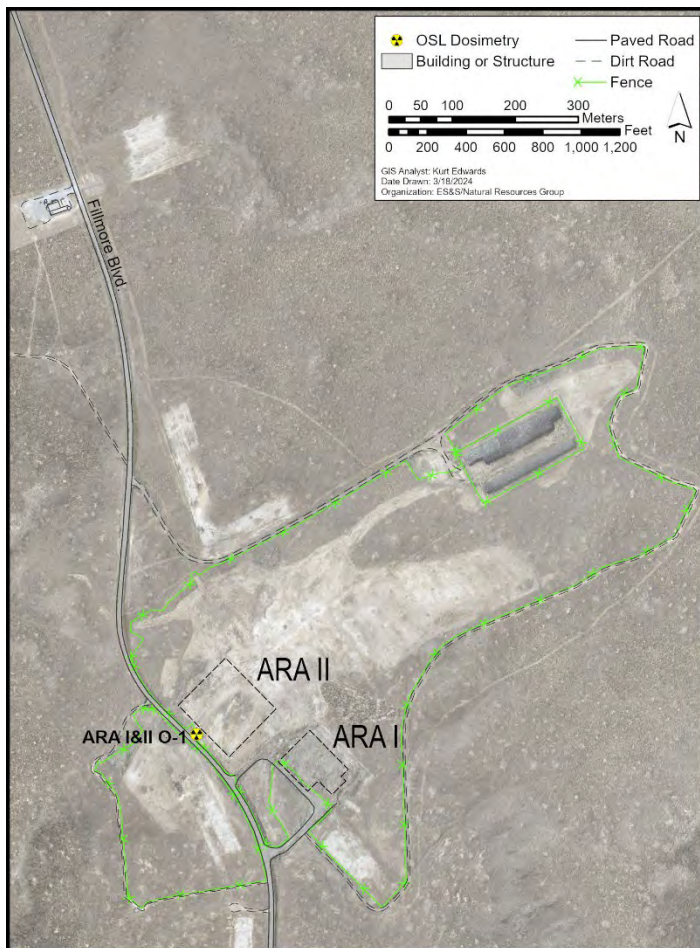


Figure B-1. Environmental radiation measurements at Auxiliary Reactor Area (ARA) and Critical Infrastructure Test Range Complex (CITRC) (2023).



Table B-2. Results of environmental radiation measurements at Advanced Test Reactor (ATR) Complex and Remote-Handled Low-Level Waste Disposal Facility (RHLLW) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
RHLLW ^b O-1	67	64	TRA O-14	53	69
RHLLW O-2	54	75	TRA O-15	63	70
RHLLW O-3	63	69	TRA O-16	61	73
RHLLW O-4	65	72	TRA O-17	58	72
RHLLW O-5	60	64	TRA O-18	62	75
RHLLW O-6	56	64	TRA O-19	62	77
TRA ^c O-1	67	75	TRA O-20	58	77
TRA O-6	63	74	TRA O-21	64	62
TRA O-7	67	79	TRA O-22	63	64
TRA O-8	62	84	TRA O-23	64	76
TRA O-9	60	91	TRA O-24	67	70
TRA O-10	131	139	TRA O-25	57	70
TRA O-11	112	123	TRA O-26	62	78
TRA O-12	68	72	TRA O-27	65	66
TRA O-13	58	80	TRA O-28	62	73

- a. Millirem (mrem) in ambient dose equivalent.
 b. Remote-Handled Low-Level Waste (RHLLW).
 c. Test Reactor Area (TRA).

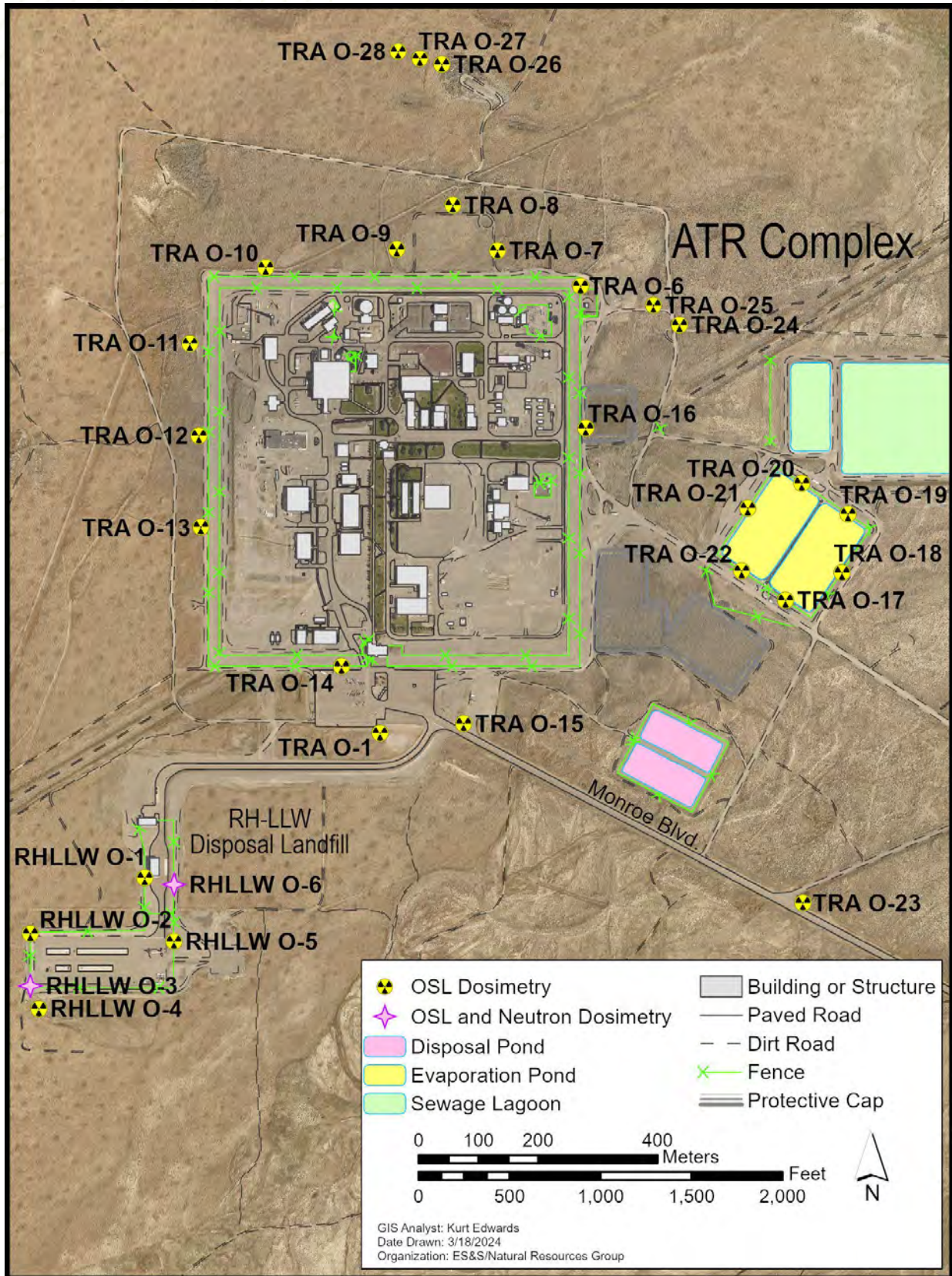


Figure B-2. Environmental radiation measurements at Advanced Test Reactor (ATR) Complex and Remote-Handled Low-Level Waste Disposal Facility (RHLLW) (2023).



Table B-3. Results of environmental radiation measurements at Central Facilities Area (CFA) and Lincoln Boulevard (2023).

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
CFA ^b O-1	62	73
LincolnBlvd ^c O-1	58	61

- a. Millirem (mrem) in ambient dose equivalent.
- b. Central Facilities Area (CFA).
- c. Lincoln Boulevard (LincolnBlvd).

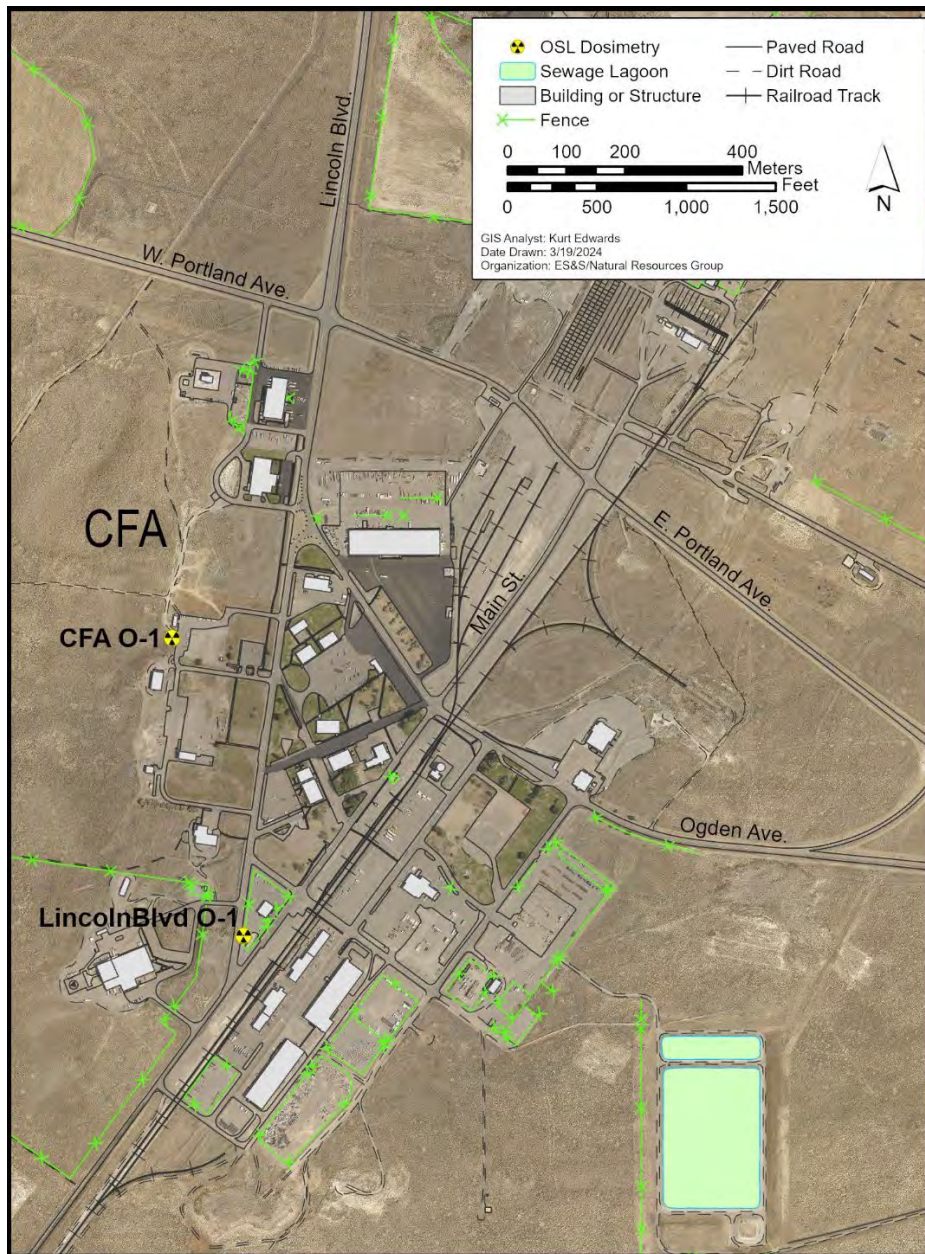


Figure B-3. Environmental radiation measurements at Central Facilities Area (CFA) and Lincoln Boulevard (2023).



Table B-4. Results of environmental radiation measurements at Idaho Nuclear Technology and Engineering Center (INTEC) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
ICPP ^b O-9	67	100	ICPP O-26	65	78
ICPP O-14	lost ^c	126	ICPP O-27	180	210
ICPP O-15	178	165	ICPP O-28	176	177
ICPP O-17	66	73	ICPP O-30	196	217
ICPP O-19	82	96	TreeFarm O-1	100	122
ICPP O-20	256	315	TreeFarm O-2	78	87
ICPP O-21	90	96	TreeFarm O-3	81	96
ICPP O-22	79	81	TreeFarm O-4	106	132
ICPP O-25	80	106			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Chemical Processing Plant (ICPP).
- c. Dosimeter missing from the sample site.

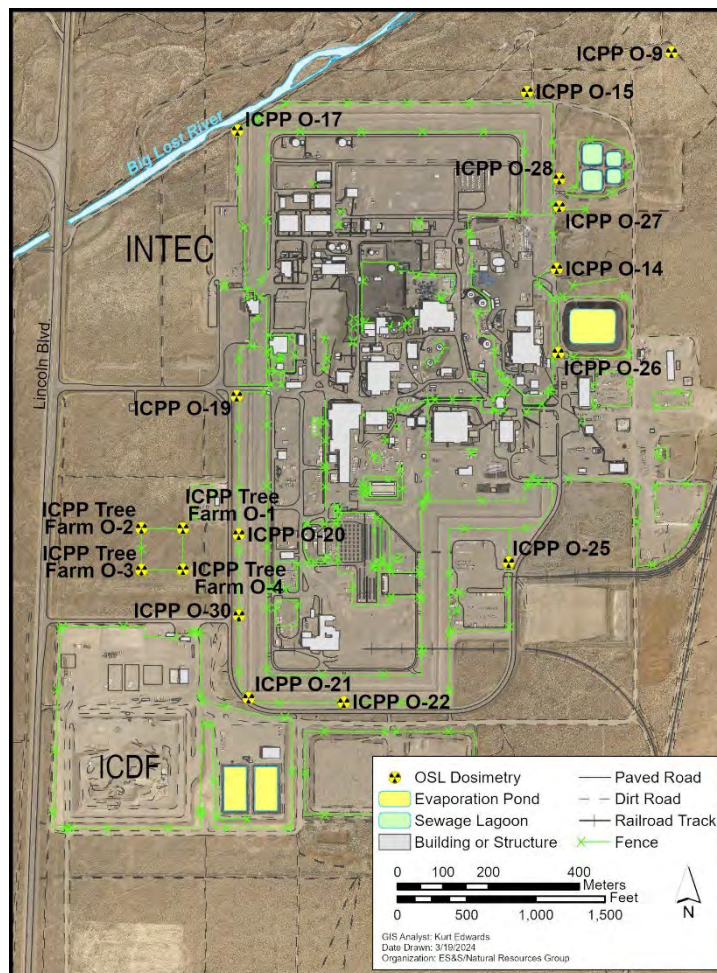


Figure B-4. Environmental radiation measurements at Idaho Nuclear Technology and Engineering Center (INTEC) (2023).



Table B-5. Results of environmental radiation measurements at Idaho National Laboratory Research Center Complex (IRC) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
IF ^b -603N O-1	61	54	IF-670N O-31 ^c	49	56
IF-603E O-2	49	47	IF-670E O-32	53	48
IF-603S O-3	51	48	IF-670S O-33	58	55
IF-603W O-4	53	62	IF-670D O-34	55	54
IF-627 O-30	48	54	IF-670W O-35	65	53
IF-638N O-1	47	60	IF-689 O-7	57	61
IF-638E O-2	53	53	IF-689 O-8	46	51
IF-638S O-3	66	57	IF-IRC ^d O-39	55	53
IF-638W O-4	50	55			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).
- c. IF-670 locations fall sampling occurred on 10/2/2023 when INL moved out of the building.
- d. INL Research Center (IRC).

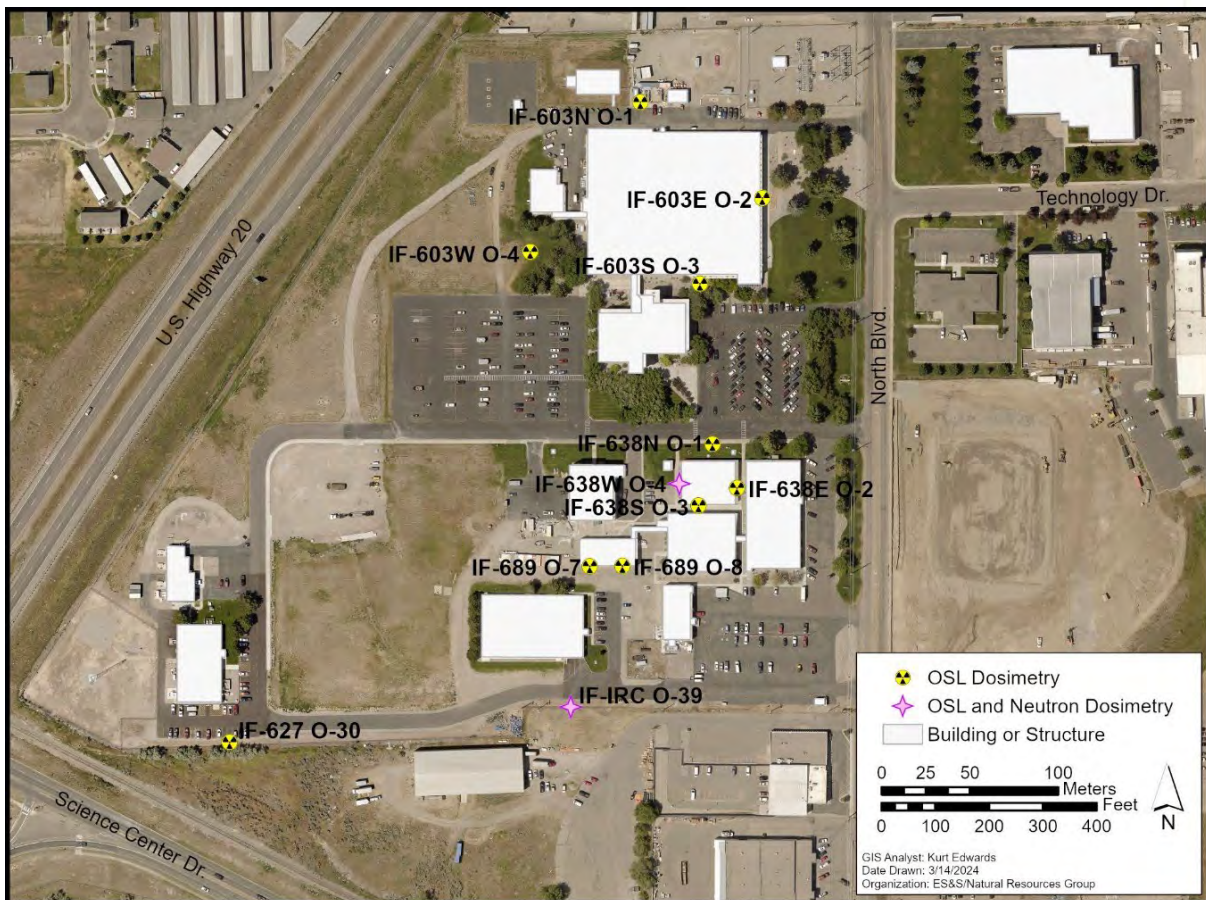


Figure B-5. Environmental radiation measurements at Idaho National Laboratory Research Center Complex (IRC) (2023).



Table B-6. Results of environmental radiation measurements at Materials and Fuels Complex (MFC) and Transient Reactor Test (TREAT) Facility (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
ANL ^b O-7	56	62	ANL O-24	57	66
ANL O-8	61	59	ANL O-25	59	82
ANL O-12	52	54	ANL O-26	73	89
ANL O-14	56	58	TREAT ^c O-1	54	56
ANL O-15	60	lost ^d	TREAT O-2	62	69
ANL O-16	61	66	TREAT O-3	58	60
ANL O-18	60	63	TREAT O-4	62	67
ANL O-19	50	59	TREAT O-5	54	63
ANL O-20	65	73	TREAT O-6	53	73
ANL O-21	55	69	TREAT O-7	45	74
ANL O-22	63	80	TREAT O-8	56	63
ANL O-23	78	87			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Argonne National Laboratory (ANL).
- c. Transient Reactor Test (TREAT) Facility.
- d. Dosimeter missing from the sample site.

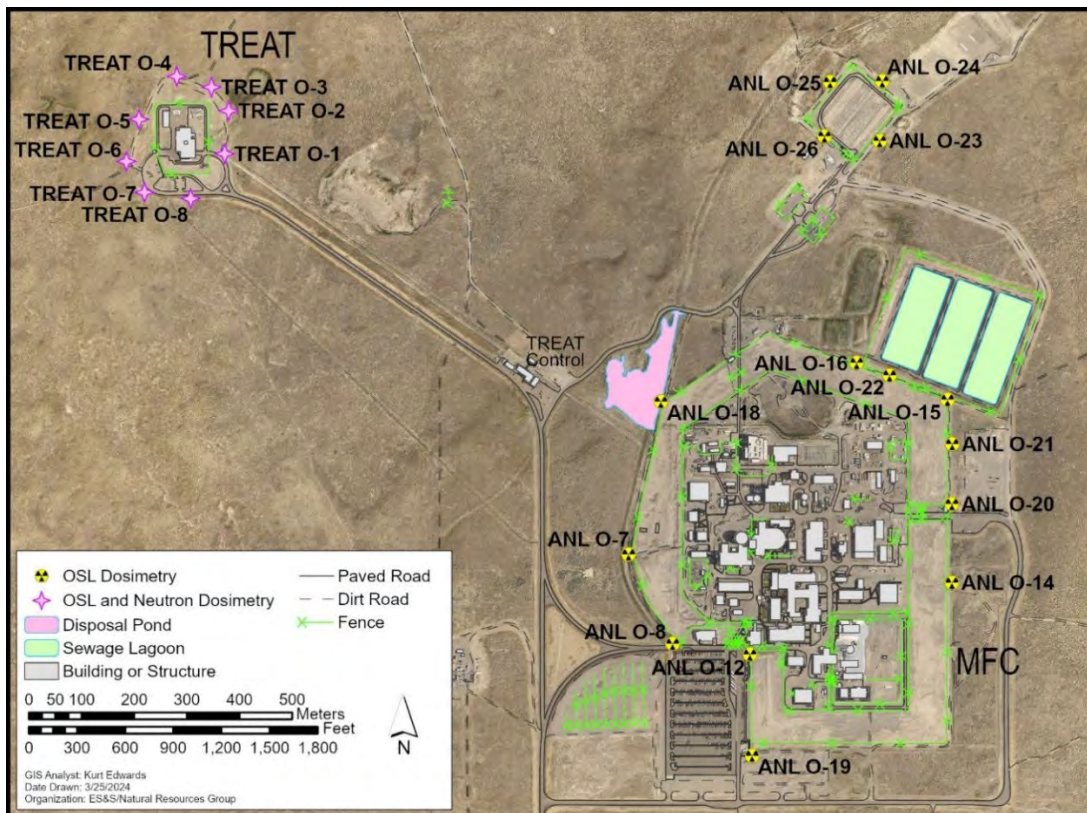


Figure B-6. Environmental radiation measurements at Materials and Fuels Complex (MFC) and Transient Reactor Test (TREAT) Facility (2023).



Table B-7. Results of environmental radiation measurements at Naval Reactors Facility (NRF) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
NRF ^b O-11	66	77	NRF O-25	new location	78
NRF O-16	55	69	NRF O-26	new location	75
NRF O-18	64	64	NRF O-27	new location	60
NRF O-19	58	74	NRF O-28	new location	75
NRF O-20	63	68	NRF O-29	new location	62
NRF O-21	61	location end	NRF O-30	new location	66
NRF O-22	61	location end	NRF O-31	new location	76
NRF O-23	50	location end	NRF O-32	new location	73
NRF O-24	56	location end			

a. Millirem (mrem) in ambient dose equivalent.
 b. Naval Reactors Facility (NRF).

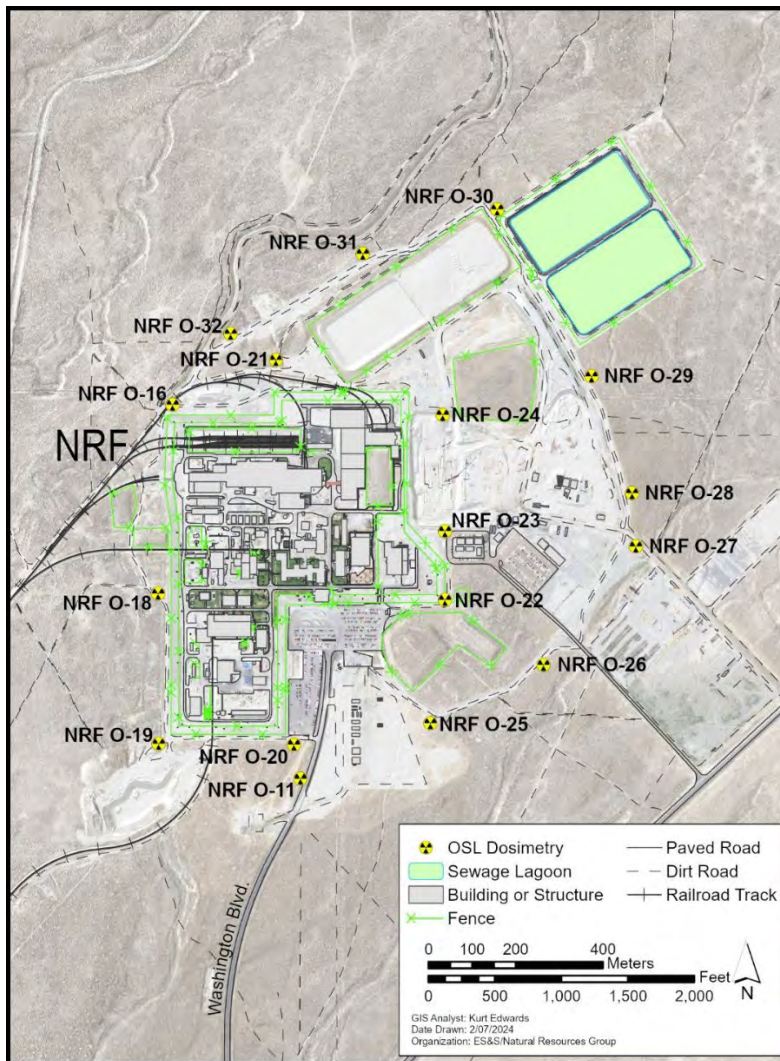


Figure B-7. Environmental radiation measurements at Naval Reactors Facility (NRF) (2023).



Table B-8. Results of environmental radiation measurements at IF-675 Portable Isotopic Neutron Spectroscopy (PINS) Laboratory (2023).

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
IF ^b -675E O-31	49	51
IF-675D O-33	57	54
IF-675S O-34	53	lost ^c
IF-675W O-35	56	45

- a. Millirem (mrem) in ambient dose equivalent.
 b. Idaho Falls (IF).
 c. Dosimeter missing from the sample site.

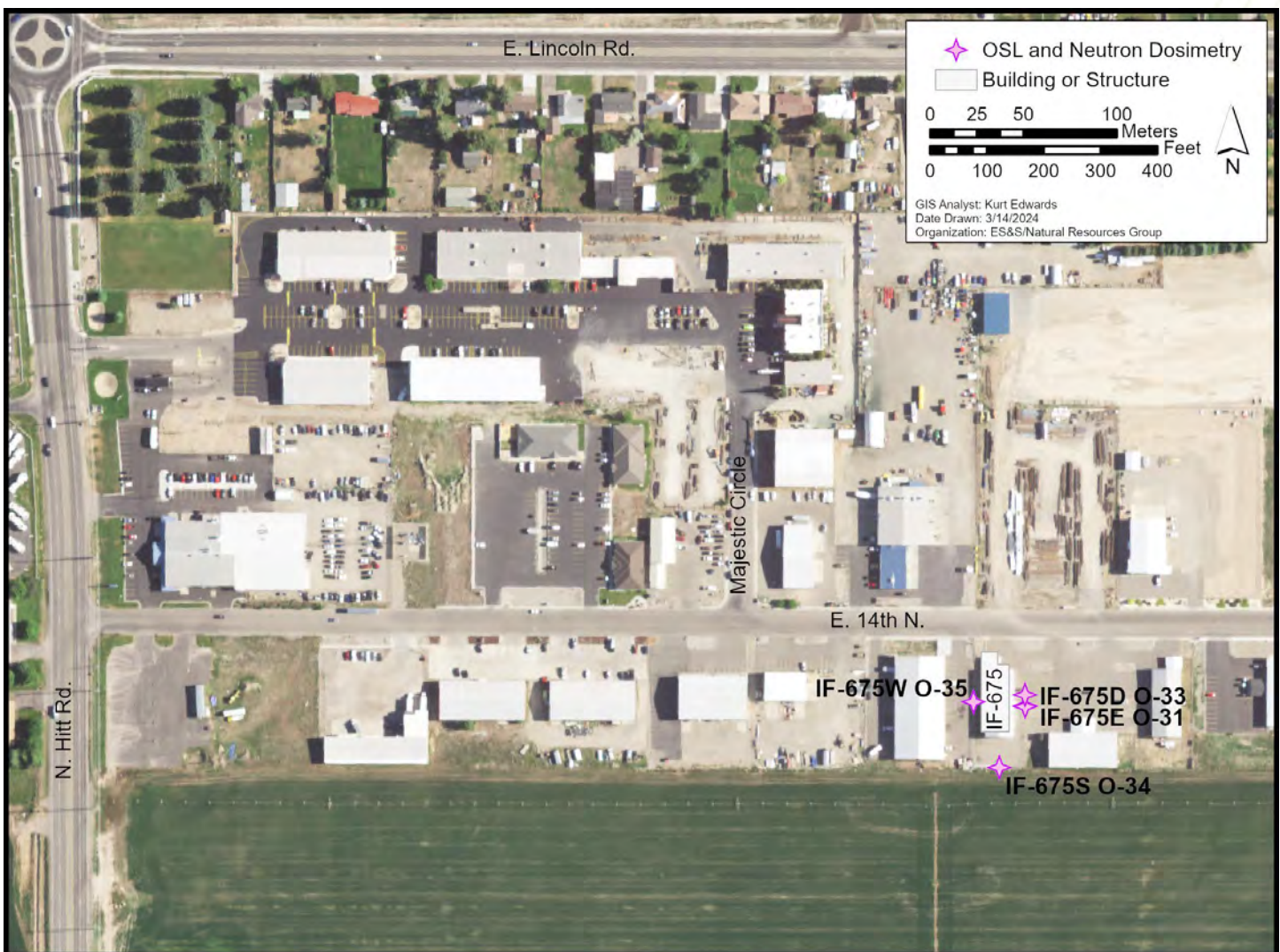


Figure B-8. Environmental radiation measurements at IF-675 Portable Isotopic Neutron Spectroscopy (PINS) Laboratory (2023).



Table B-9. Results of environmental radiation measurements at Radioactive Waste Management Complex (RWMC) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
RWMC ^b O-3A	63	71	RWMC O-25A	58	57
RWMC O-5A	49	63	RWMC O-27A	60	60
RWMC O-7A	56	64	RWMC O-29A	57	63
RWMC O-9A	79	83	RWMC O-39	56	78
RWMC O-11A	61	75	RWMC O-41	109	113
RWMC O-13A	75	88	RWMC O-43	61	62
RWMC O-19A	51	68	RWMC O-46	57	70
RWMC O-21A	60	63	RWMC O-47	55	61
RWMC O-23A	68	73			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Radioactive Waste Management Complex (RWMC).

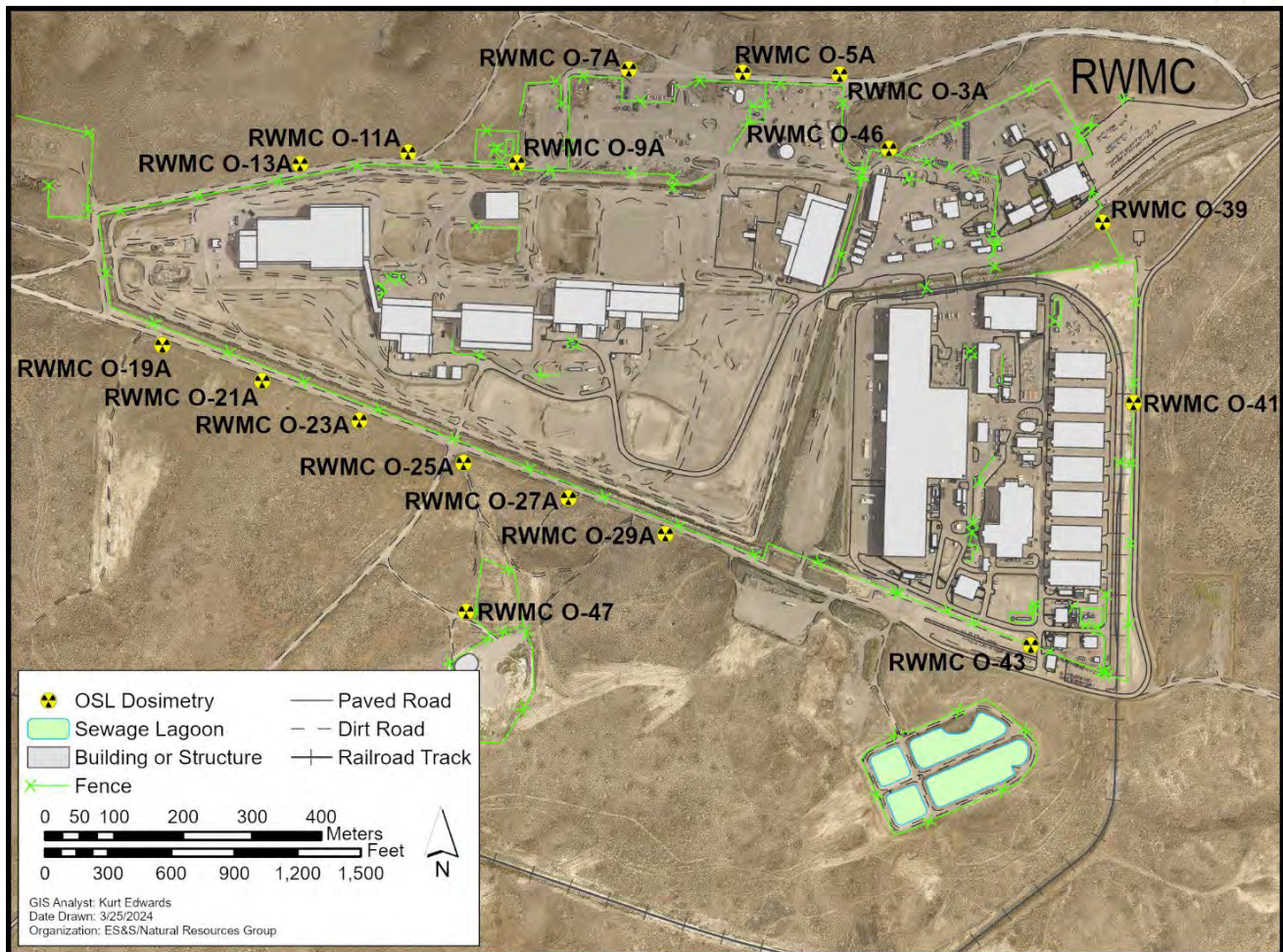


Figure B-9. Environmental radiation measurements at Radioactive Waste Management Complex (RWMC) (2023).



Table B-10. Results of environmental radiation measurements at Specific Manufacturing Capability (SMC) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
TAN LOFT ^b O-6	66	69	TAN LOFT O-10	64	69
TAN LOFT O-7	61	69	TAN LOFT O-11	62	66
TAN LOFT O-8	59	71	TAN LOFT O-12	54	61
TAN LOFT O-9	52	50	TAN LOFT O-13	60	65

- a. Millirem (mrem) in ambient dose equivalent.
- b. Test Area North, Loss-of-Fluid Test (TAN LOFT).

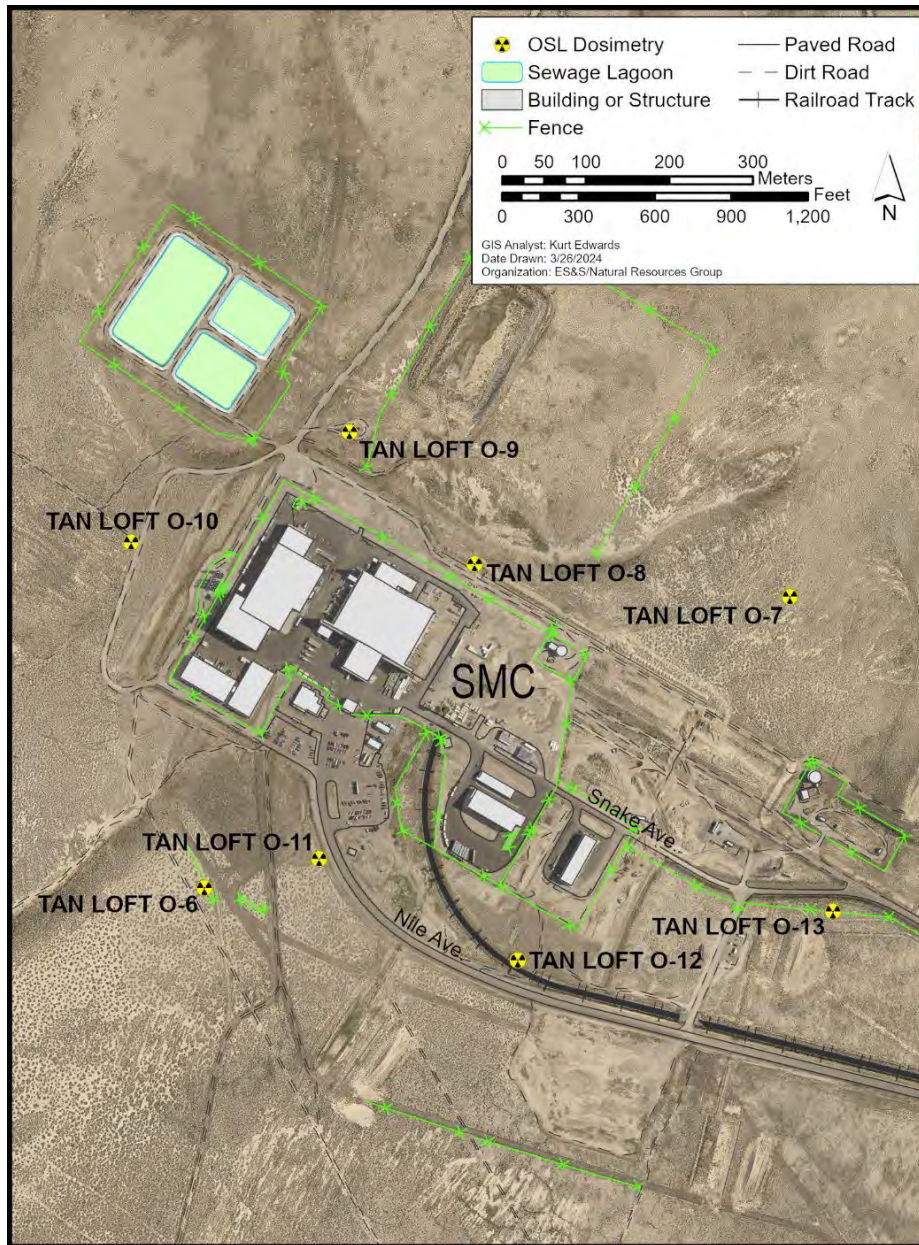


Figure B-10. Environmental radiation measurements at Specific Manufacturing Capability (SMC) (2023).



Table B-11. Results of environmental radiation measurements at sitewide locations (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
EFS ^b O-1	64	69	Hwy33 T17 O-3	48	61
Gate4 O-1	62	54	LincolnBlvd ^d O-3	62	68
Haul E O-1	55	61	LincolnBlvd O-5	65	72
Haul W O-2	66	59	LincolnBlvd O-9	63	80
Hwy ^c 20 Mile O-266	49	59	LincolnBlvd O-15	66	75
Hwy20 Mile O-270	51	75	LincolnBlvd O-25	59	62
Hwy20 Mile O-276	60	68	Main Gate O-1	60	66
Hwy22 T28 O-1	50	51	Rest ^e O-1	61	58
Hwy28 N2300 O-2	50	57	VanB ^f O-1	59	60

- a. Millirem (mrem) in ambient dose equivalent.
- b. Experimental Field Station (EFS).
- c. Highway (Hwy).
- d. Lincoln Boulevard (LincolnBlvd).
- e. Rest Area Highway 26 (Rest)
- f. Van Buren (VanB).

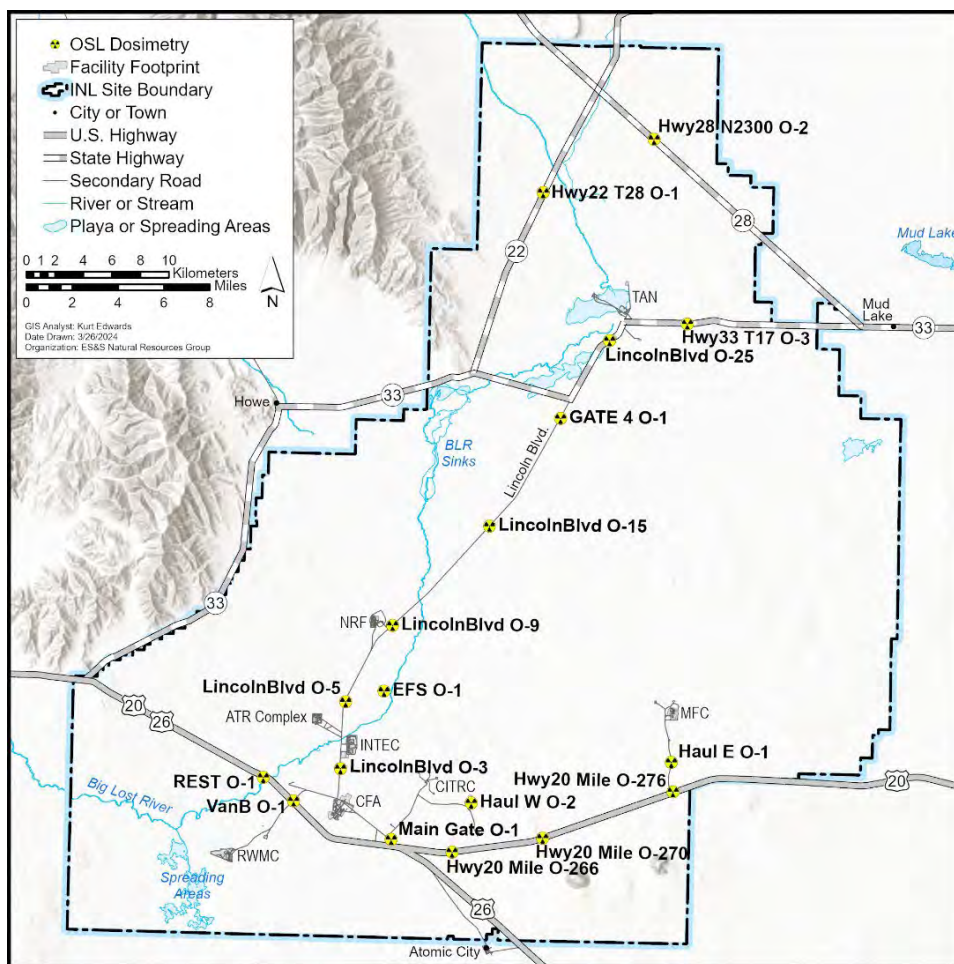


Figure B-11. Environmental radiation measurements at sitewide locations (2023).



Table B-12. Environmental radiation measurements at regional locations (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
Aberdeen E-1	56	56	Minidoka E-1	51	62
Arco E-1	53	location end	Monteview E-1	56	location end
Arco O-1	47	56	Monteview O-4	69	57
Atomic City E-1	63	62	Mountain View E-1	55	location end
Atomic City O-2	56	61	Mud Lake E-1	58	location end
Blackfoot O-9	58	56	Mud Lake O-5	65	71
Blue Dome E-1	45	55	Reno Ranch E-1	53	location end
Craters ^b E-1	49	location end	Reno Ranch O-6	53	57
Craters O-7	48	62	Roberts E-1	64	location end
Dubois E-1	52	57	RobNOAA ^e	55	60
Howe E-1	60	location end	RRL ³ O-1	60	71
Howe O-3	53	57	RRL5 O-1	73	85
Idaho Falls E-1	56	location end	RRL6 O-1	54	67
Idaho Falls O-10	57	61	RRL17 O-1	56	61
IF ^c -IDA O-38	43	47	RRL24 O-1	56	52
Jackson E-1	54	56	Sugar City E-1	67	87

a. Millirem (mrem) in ambient dose equivalent.

b. Craters of Moon (Craters).

c. Idaho Falls (IF).

d. Roberts National Oceanic and Atmospheric Administration (RobNOAA).

e. Resident Receptor Location (RRL).

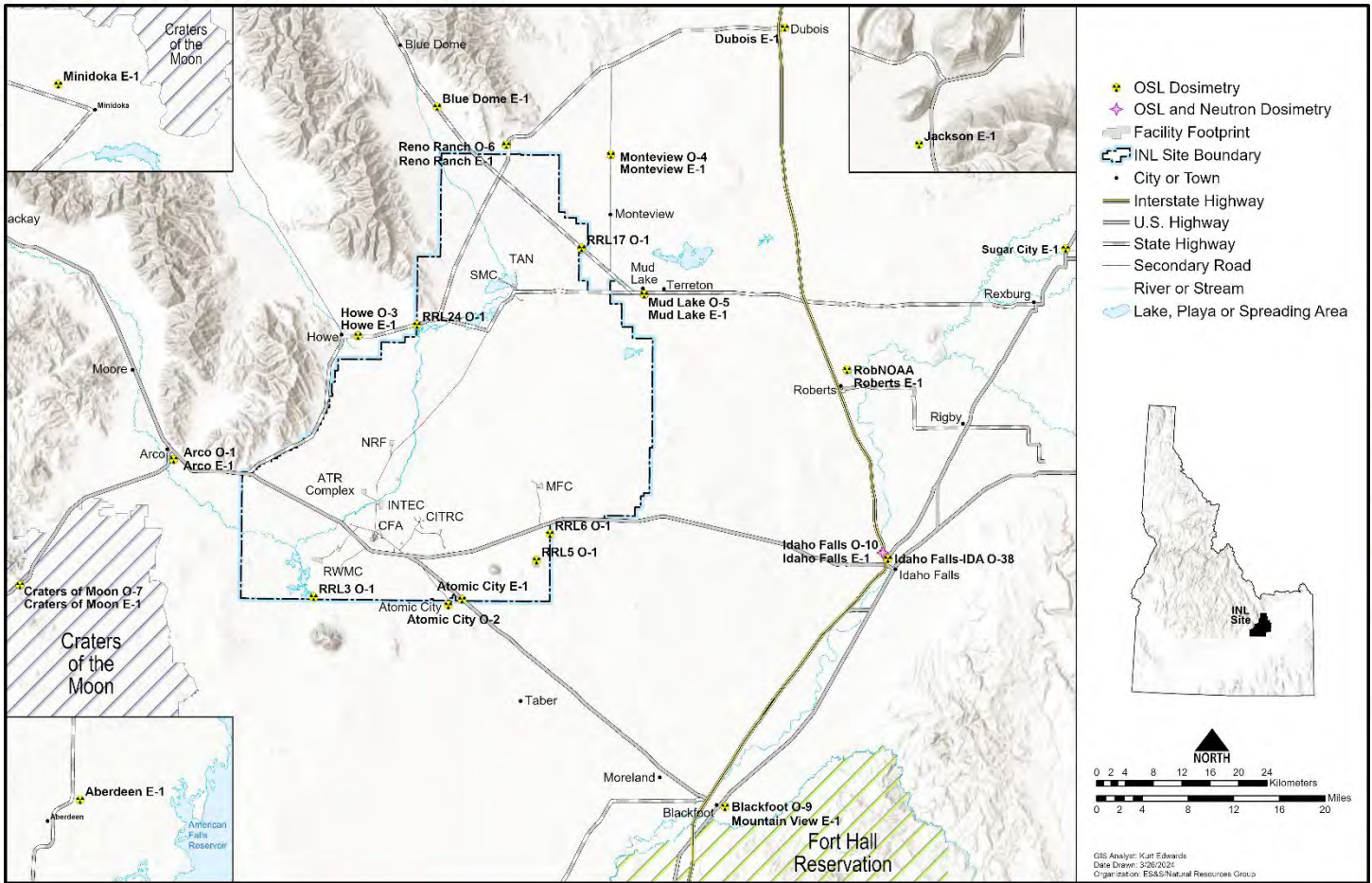


Figure B-12. Environmental radiation measurements at regional locations (2023).



Table B-13. Results of environmental radiation measurements at Willow Creek Building (WCB) and Center for Advanced Energy Studies (CAES) (2023).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023		NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
IF ^b -616N O-36	51	48	IF-665 O-4	57	54
IF-665 O-1	50	56	IF-665 O-5	54	58
IF-665 O-2	53	57	IF-665W O-37	49	54
IF-665 O-3	56	57			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).



Figure B-13. Environmental radiation measurements at Willow Creek Building (WCB) and Center for Advanced Energy Studies (CAES) (2023).



Table B-14. Results of environmental radiation measurements at Experimental Breeder Reactor-I (EBR-I) (2023).

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
EBR1 ^b O-1	58	57
EBR1 O-2	71	82
EBR1 O-3	297	265

a. Millirem (mrem) in ambient dose equivalent.
 b. Experimental Breeder Reactor I (EBR-I).

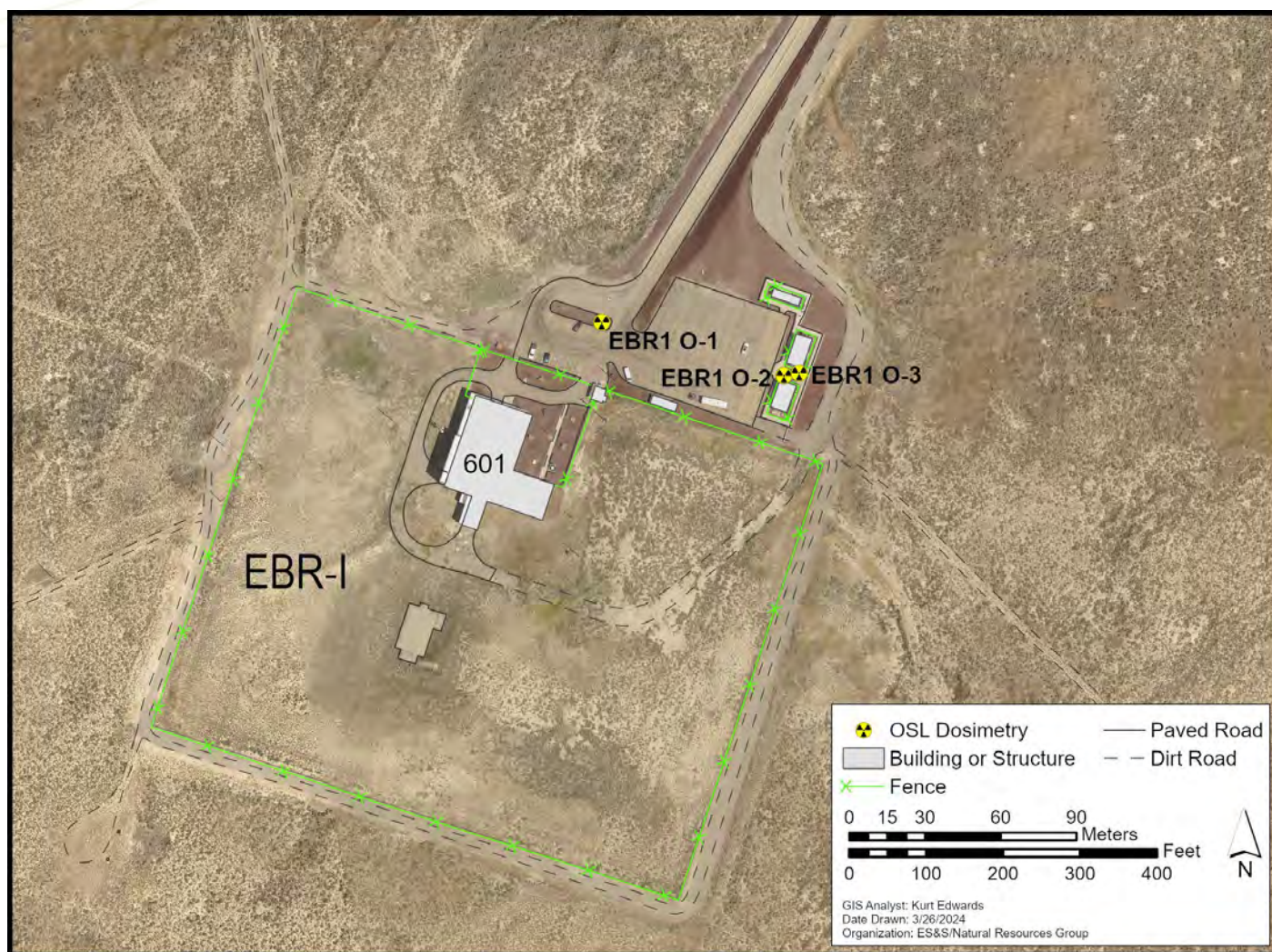


Figure B-14. Environmental radiation measurements at Experimental Breeder Reactor-I (EBR-I) (2023).



Table B-15. Results of environmental radiation measurements at Energy Innovation Laboratory (EIL) (2023).

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
IF ^b -688B O-1	49	54
IF-688B O-2	53	45

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).



Figure B-15. Environmental radiation measurements at Energy Innovation Laboratory (EIL) (2023).



Table B-16. Results of environmental radiation measurements at Lindsay Building IF-695 (2023). Previously the building number was IF-652A.

LOCATION	mrem ^a	
	NOV. 2022 – APRIL 2023	MAY 2023 – OCT. 2023
IF-652A ^b O-1	71	61
IF-652A O-2	60	65
IF-652A O-3	lost ^c	75
IF-652A O-4	65	77

- a. Millirem (mrem) in ambient dose equivalent.
 b. Idaho Falls (IF).
 c. Dosimeter missing from the sample site.

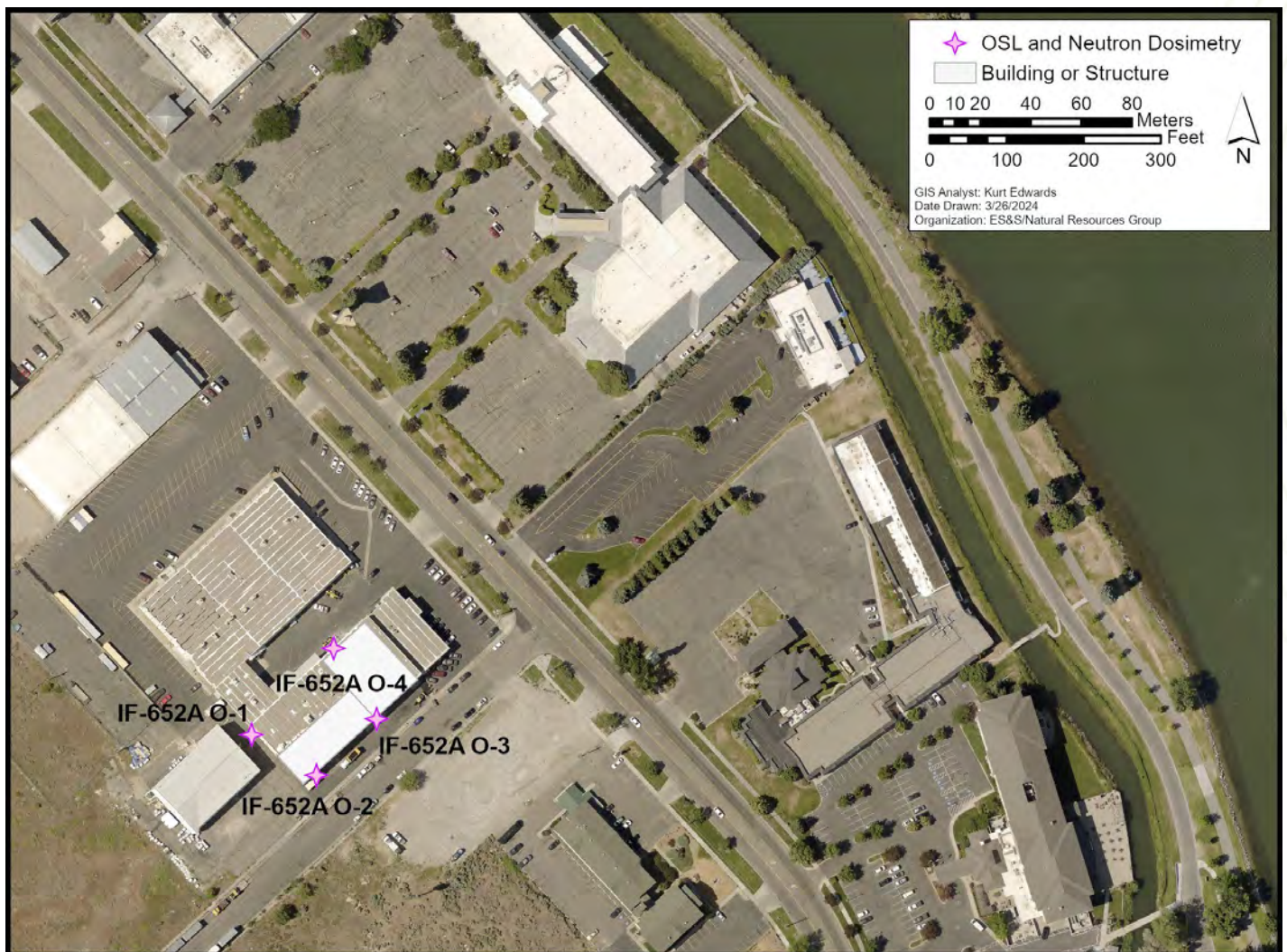


Figure B-16. Environmental radiation measurements at Lindsay Building IF-695 (2023). Previously the building number was IF-652A.