

TABLES

TABLE 3-1
Outfall 008 ISRA Area Excavation Summary
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Area	ISRA COCs ^a	Collocated RCRA Risk Drivers ^b	Planned Excavation Graded Area ^c (acres)	Planned Excavation Volume ^d (cubic yards)	Actual Excavation Surface Area ^e (acres)	Actual <i>In Situ</i> Excavation Volume ^f (cubic yards)	Actual <i>Ex Situ</i> Excavation Volume ^g (cubic yards)	Backfill Volume ^h (cubic yards)	Maximum Depth ⁱ (feet)	Average Depth ⁱ (feet)	Number of Waste Characterization Soil Samples ^j	Total Number of Confirmation Soil Samples ^k	Number of Sidewall Soil Samples ^l	Number of Floor Soil Samples ^m	Number of RWQCB Split Soil Samples ⁿ	Waste Classification ^p
CYN-1	lead	none	0.03	110	0.022	72	94	78	3.0	2.0	4	2	2	0	1	non-hazardous
DRG-1	dioxins	none	0.03	90	0.035	122	159	46	4.5	2.1	4	5	3	2	0	non-hazardous
HVS-1	dioxins lead	cadmium zinc	0.08	260	0.084	214	278	73	3.8	1.6	6	9	3	6	2	non-hazardous
HVS-2A	lead	none	0.25	810	0.30	1653	2149	471	5.5	3.5	8	49	16	33	2	non-hazardous
HVS-2B-1	copper lead	arsenic cadmium	0.01	40	0.021	108	140	111	5.6	3.2	3 *	9	6	3	4	non-hazardous
HVS-2B-2	copper lead	arsenic cadmium	0.06	180	0.053	286	372	298	4.8	3.4	4	11	6	5	2	non-hazardous
HVS-2C	lead	cadmium zinc	0.09	280	0.11	277	360	237	3.6	1.6	4	9	6	3	2	non-hazardous
HVS-2D	lead	none	added during field work	added during field work	0.013	33	43	37	2.7	1.6	1 *	1	1	0	1	non-hazardous
HVS-3	dioxins	none	0.27	890	0.27	1056	1373	927	7.8	2.4	9 *	29	12	17	4	non-hazardous
HVS-4	dioxins	none	0.04	60	0.039	214	278	241	5.2	3.4	4	8	4	4	2	non-hazardous
Pipeline Trench	none	none	added during field work	added during field work	0.011	28	36	22	3.4	1.5	1 *	4	0	4	4	non-hazardous
Soil Borrow Area	none	none	added during field work	added during field work	0.71	2276	2959	--	5.1	2.0	39 †	0	0	0	0	N/A

Notes:

^a ISRA COCs are those constituents in surface water that have resulted in exceedances of NPDES permit limits and benchmark limits at Outfall 008 since August 2004, including sample data collected for monitoring before the NPDES permit limits/benchmarks were established in 2006 for Outfall 008.

^b Collocated RCRA risk drivers are those chemicals present at each ISRA Area that contribute to unacceptable human risks and ecological risks within the Outfall 008 and 009 watersheds, as presented in the RFI Group reports.

^c Planned graded area of each excavation, as provided in the grading permit application submitted to Ventura County (July 2009).

^d Planned volume of each excavation, as provided in the grading permit application submitted to Ventura County (July 2009).

^e Actual surface area of each excavation, determined from the post-excavation topographic survey (Sage, 2009).

^f Actual *in situ* volume of each excavation, calculated by subtracting the post-excavation topographic survey (Sage, 2009) from the pre-excavation topographic survey (Sage, 2009). The actual *in situ* excavation volume of the Soil Borrow Area was calculated by subtracting the post-restoration topographic survey (Sage, 2009) from the post-excavation topographic survey (Sage, 2009)

^g Actual *ex situ* volume of each excavation, calculated by multiplying the actual *in situ* excavation volume by an expansion factor of 30%.

^h Backfill volume of each excavation, calculated by subtracting the post-excavation topographic survey (Sage, 2009) from the post-restoration topographic survey (Sage, 2009).

ⁱ Maximum and average depths of each excavation, calculated from the post-excavation topographic survey (Sage, 2009).

^j Number of soil samples collected within the boundaries of each excavation, for purposes of characterization of soil for waste certifications submitted to landfills. Waste characterization samples were collected *in situ*, except where indicated.

^k Total number of soil samples collected after ISRA excavation was conducted, for purposes of confirming that Soil Remediation Goals for ISRA COCs had been met, per the Final ISRA Work Plan (MWH, 2009).

^l Number of confirmation soil samples collected from the sidewall of the excavation; includes samples at the excavation sidewall that were originally collected as data gap samples.

^m Number of confirmation soil samples collected from the floor of the excavation.

ⁿ Number of confirmation soil samples of which RWQCB collected split samples for analysis at a separate laboratory.

^p Classification of waste as hazardous or non-hazardous. Waste certifications are provided in Appendix B.

* *Ex situ* waste characterization samples were collected from a stockpile of soil removed from ISRA Area HVS-2B-1, and from a stockpile of soil removed from ISRA Area HVS-2D, HVS-3, and the pipeline trench. These *ex situ* samples are included in the number of total waste characterization samples above,

† Represents the number of *in situ* samples in the soil borrow area, used for local fill source characterization.

Acronyms:

COC - Constituent of Concern

CYN - Canyon RFI Site

HVS - Happy Valley South RFI Site

ISRA - Interim Source Removal Action

N/A - Not applicable

NPDES - National Pollutant Discharge Elimination System

RCRA - Resource Conservation and Recovery Act

RFI - RCRA Facility Investigation

RWQCB - Los Angeles Regional Water Quality Control Board

TABLE 3-2
Outfall 009 ISRA Area Excavation Summary
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Area	ISRA COCs ^a	Collocated RCRA Risk Drivers ^b	Planned Excavation Graded Area ^c (acres)	Planned Excavation Volume ^d (cubic yards)	Actual Excavation Surface Area ^e (acres)	Actual <i>In Situ</i> Excavation Volume ^f (cubic yards)	Actual <i>Ex Situ</i> Excavation Volume ^g (cubic yards)	Backfill Volume ^h (cubic yards)	Maximum Depth ⁱ (feet)	Average Depth ⁱ (feet)	Number of Waste Characterization Soil Samples ^j	Total Number of Confirmation Soil Samples ^k	Number of Sidewall Soil Samples ^l	Number of Floor Soil Samples ^m	Number of RWQCB Split Soil Samples ⁿ	Waste Classification ^p
A2LF-1	dioxins	none	0.020	85	0.011	31	40	0	3	2	4	3	1	2	3	non-hazardous
A2LF-3	lead	none	0.016	68	0.030	108	140	0	5	2	4	4	2	2	4	hazardous [†]

Notes:

^a ISRA COCs are those constituents in surface water that have resulted in exceedances of NPDES permit limits and benchmark limits at Outfall 008 since August 2004, including sample data collected for monitoring before the NPDES permit limits/ benchmarks were established in 2006 for Outfall 008.

^b Collocated RCRA risk drivers are those chemicals present at each ISRA Area that contribute to unacceptable human risks and ecological risks within the Outfall 008 and 009 watersheds, as presented in the RFI Group reports.

^c Planned area of each excavation.

^d Planned volume of each excavation.

^e Actual surface area of each excavation, determined from GPS measurements of the excavation boundary.

^f Actual *in situ* volume of each excavation, calculated by dividing the *ex situ* excavation volume by an expansion factor of 1.3.

^g Actual *ex situ* volume of each excavation, estimated according to the number of soil bins filled with excavated soil.

^h Backfill volume is zero because the excavations were restored by recontouring without backfill.

ⁱ Maximum and average depths of each excavation, estimated from field observations.

^j Number of soil samples collected within the boundaries of each excavation, for purposes of characterization of soil for waste certifications submitted to landfills. Waste characterization samples were collected *in situ*, except where indicated.

^k Total number of soil samples collected after ISRA excavation was conducted, for purposes of confirming that Soil Remediation Goals for ISRA COCs had been met, per the Final ISRA Work Plan (MWH, 2009).

^l Number of confirmation soil samples collected from the sidewall of the excavation; includes samples at the excavation sidewall that were originally collected as data gap samples.

^m Number of confirmation soil samples collected from the floor of the excavation.

ⁿ Number of confirmation soil samples of which RWQCB collected split samples for analysis at a separate laboratory.

^p Classification of waste as hazardous or non-hazardous. Waste certifications are provided in Appendix B.

[†] Soils from A2LF-3 were classified as hazardous because they may exceed the Title 22 threshold for lead.

Acronyms:

COC - Constituent of Concern

CYN - Canyon RFI Site

HVS - Happy Valley South RFI Site

ISRA - Interim Source Removal Action

N/A - Not applicable

NPDES - National Pollutant Discharge Elimination System

RCRA - Resource Conservation and Recovery Act

RFI - RCRA Facility Investigation

RWQCB - Los Angeles Regional Water Quality Control Board