RCRA FACILITY INVESTIGATION REPORT

VOLUME III of III

Prepared For

Encycle/Texas, Inc., Corpus Christi, Texas

August 13, 2002

ARCADIS

APPENDICES

APPENDIX H

ASARCO

September 26, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (41), forty one soil samples collected June 15, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 16, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-001	15-JUN-00	B-50 (2-2.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			AS	6.	ppm	MDK	15-AUG-00	6010
			CD	<1.	ppm	MDK	15-AUG-00	6010
			CN-	<0.04	ppm	DC	07-JUL-00	335.2
			CR	17.*	ppm	MDK	15-AUG-00	6010
			CU	12.	ppm	MDK	15-AUG-00	6010
			HG	<0.05*	ppm	EH	07-JUL-00	7471
			MN	373.	ppm	MDK	15-AUG-00	6010
			NI	13.*	ppm	MDK	15-AUG-00	6010
			PB	16.	ppm	MDK	15-AUG-00	6010
			SB	3.*	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			TL	2.	ppm	MDK	15-AUG-00	6010
			ZN	160.	ppm	MDK	15-AUG-00	6010
L001019-002	15-JUN-00	B-50 (5.5)	CR	15.*	ppm	MDK	15-AUG-00	6010
			MN	334.	ppm	MDK	15-AUG-00	6010
			SB	2.*	ppm	MDK	15-AUG-00	6010
			TL	1.	ppm	MDK	15-AUG-00	6010
			ZN	48.	ppm	MDK	15-AUG-00	6010
L001019-003	15-JUN-00	B-50 (8.5)	CR	11.*	ppm	MDK	15-AUG-00	6010
			SB	1.*	ppm	MDK	15-AUG-00	6010
			ZN	58.	ppm	MDK	15-AUG-00	6010
L001019-004	15-JUN-00	B-50 (11.5)	SB	2.*	ppm	MDK	15-AUG-00	6010
			ZN	30.	ppm	MDK	15-AUG-00	6010
L001019-005	15-JUN-00	B-50 (12.5-13)	SB	2.*	ppm	MDK	15-AUG-00	6010
			ZN	486.	ppm	MDK	15-AUG-00	6010
L001019-006	15-JUN-00	B-49 (2-2.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			AS	6.	ppm	MDK	15-AUG-00	6010
			CD	2.	ppm	MDK	15-AUG-00	6010
			CO	<5.	ppm	MDK	15-AUG-00	6010
			CR	15.*	ppm	MDK	15-AUG-00	6010
			CU	24.	ppm	MDK	15-AUG-00	6010
			HG	<0.05*	ppm	EH	07-JUL-00	7471
			MN	255.	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-006	15-JUN-00	B-49 (2-2.5)	NI	8.*	ppm	MDK	15-AUG-00	6010
			PB	64.	ppm	MDK	15-AUG-00	6010
			SB	2.*	ppm	MDK	15-AUG-00	6010
			SN	8.	ppm	MDK	15-AUG-00	6010
			ZN	775.	ppm	MDK	15-AUG-00	6010
L001019-007	15-JUN-00	B-49 (5.5)	CR	15.*	ppm	MDK	15-AUG-00	6010
			CU	7.	ppm	MDK	15-AUG-00	6010
			HG	<0.05*	ppm	EH	07-JUL-00	7471
			PB	10.	ppm	MDK	15-AUG-00	6010
			SB	2.*	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			ZN	54.	ppm	MDK	15-AUG-00	6010
L001019-008	15-JUN-00	B-49 (8.5)	CR	14.*	ppm	MDK	15-AUG-00	6010
			SB	2.*	ppm	MDK	15-AUG-00	6010
			ZN	73.	ppm	MDK	15-AUG-00	6010
L001019-009	15-JUN-00	B-49 (11.5)	SB	1.*	ppm	MDK	15-AUG-00	6010
			ZN	50.	ppm	MDK	15-AUG-00	6010
L001019-010	15-JUN-00	B-49 (14-14.5)	SB	<0.8*	ppm	MDK	15-AUG-00	6010
			ZN	39.	ppm	MDK	15-AUG-00	6010
L001019-011	15-JUN-00	B-52 (2-2.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			CR	13.*	ppm	MDK	15-AUG-00	6010
			ZN	70.	ppm	MDK	15-AUG-00	6010
L001019-012	15-JUN-00	B-52 (5.5)	ZN	44.	ppm	MDK	15-AUG-00	6010
L001019-013	15-JUN-00	B-52 (8.5)	ZN	57.	ppm	MDK	15-AUG-00	6010
L001019-014	15-JUN-00	B-52 (11.5)	ZN	59.	ppm	MDK	15-AUG-00	6010
L001019-015	15-JUN-00	B-52 (14.5-15)	ZN	25.	ppm	MDK	15-AUG-00	6010
L001019-016	15-JUN-00	B-69 (2-2.5)	BI	<4.	ppm	MDK	15-AUG-00	6010
			CD	27.	ppm	MDK	15-AUG-00	6010
			CO	7.	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-016	15-JUN-00	B-69 (2-2.5)	CR	11.*	ppm	MDK	15-AUG-00	6010
			CU	51.	ppm	MDK	15-AUG-00	6010
			MN	872.	ppm	MDK	15-AUG-00	6010
			NI	11.*	ppm	MDK	15-AUG-00	6010
			SE	<0.8	ppm	MDK	15-AUG-00	6010
			ZN	29520.	ppm	MDK	25-SEP-00	6010
L001019-017	15-JUN-00	B-69 (5.5)	CD	54.	ppm	MDK	15-AUG-00	6010
			CU	16.	ppm	MDK	15-AUG-00	6010
			MN	2200.	ppm	MDK	15-AUG-00	6010
			ZN	74080.	ppm	MDK	25-SEP-00	6010
L001019-018	15-JUN-00	B-69 (8.5)	CD	2.	ppm	MDK	15-AUG-00	6010
			MN	269.	ppm	MDK	15-AUG-00	6010
			ZN	779.	ppm	MDK	15-AUG-00	6010
L001019-019	15-JUN-00	B-69 (11.5)	ZN	273.	ppm	MDK	15-AUG-00	6010
L001019-020	15-JUN-00	B-69 (14.5)	ZN	2340.	ppm	MDK	15-AUG-00	6010
L001019-021	15-JUN-00	B-69 (15.6-16)	ZN	26790.	ppm	MDK	25-SEP-00	6010
L001019-022	15-JUN-00	B-67 (2-2.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			BI	<4.	ppm	MDK	15-AUG-00	6010
			CD	<1.	ppm	MDK	15-AUG-00	6010
			CU	8.	ppm	MDK	15-AUG-00	6010
			HG	<0.05*	ppm	EH	07-JUL-00	7471
			MN	349.	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			ZN	103.	ppm	MDK	15-AUG-00	6010
L001019-023	15-JUN-00	B-67 (5.5)	ZN	180.	ppm	MDK	15-AUG-00	6010
L001019-024	15-JUN-00	B-67 (8.5)	ZN	138.	ppm	MDK	15-AUG-00	6010
L001019-025	15-JUN-00	B-67 (11.5-12.5)	ZN	73.	ppm	MDK	15-AUG-00	6010
L001019-026	15-JUN-00	B-51 (2-2.5)	AG	3.	ppm	MDK	15-AUG-00	6010
			AS	32.	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-026	15-JUN-00	B-51 (2-2.5)	CD	24.	ppm	MDK	15-AUG-00	6010
			CN-	2.3	ppm	DC	07-JUL-00	335.2
			CO	6.	ppm	MDK	15-AUG-00	6010
			CR	104.*	ppm	MDK	15-AUG-00	6010
			CU	477.	ppm	MDK	15-AUG-00	6010
			HG	1.7*	ppm	EH	07-JUL-00	7471
			MN	682.	ppm	MDK	15-AUG-00	6010
			NI	15.*	ppm	MDK	15-AUG-00	6010
			PB	647.	ppm	MDK	15-AUG-00	6010
			SB	11.*	ppm	MDK	15-AUG-00	6010
			SN	54.	ppm	MDK	15-AUG-00	6010
			ZN	11940.	ppm	MDK	25-SEP-00	6010
L001019-027	15-JUN-00	B-51 (5.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			AS	6.	ppm	MDK	15-AUG-00	6010
			CD	<1.	ppm	MDK	15-AUG-00	6010
			CN-	<0.04	ppm	DC	07-JUL-00	335.2
			CR	16.*	ppm	MDK	15-AUG-00	6010
			CU	13.	ppm	MDK	15-AUG-00	6010
			HG	<0.05*	ppm	EH	07-JUL-00	7471
			MN	344.	ppm	MDK	15-AUG-00	6010
			PB	14.	ppm	MDK	15-AUG-00	6010
			SB	<0.8*	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			ZN	138.	ppm	MDK	15-AUG-00	6010
L001019-028	15-JUN-00	B-51 (8.5)	CR	13.*	ppm	MDK	15-AUG-00	6010
			ZN	57.	ppm	MDK	15-AUG-00	6010
L001019-029	15-JUN-00	B-51 (11.5)	ZN	54.	ppm	MDK	15-AUG-00	6010
L001019-030	15-JUN-00	B-51 (12.5-13)	ZN	327.	ppm	MDK	15-AUG-00	6010
L001019-031	15-JUN-00	B-45 (2-2.5)	AS	8.	ppm	MDK	15-AUG-00	6010
			CD	36.	ppm	MDK	15-AUG-00	6010
			CN-	<0.04	ppm	DC	07-JUL-00	335.2
			CO	11.	ppm	MDK	15-AUG-00	6010
			CR	19.*	ppm	MDK	15-AUG-00	6010
			CU	37.	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-031	15-JUN-00	B-45 (2-2.5)	HG	0.11*	ppm	EH	07-JUL-00	7471
			NI	35.*	ppm	MDK	15-AUG-00	6010
			SE	<0.8	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			TL	8.	ppm	MDK	15-AUG-00	6010
			ZN	965.	ppm	MDK	15-AUG-00	6010
L001019-032	15-JUN-00	B-45 (5.5)	CD	<1.	ppm	MDK	15-AUG-00	6010
			CO	<5.	ppm	MDK	15-AUG-00	6010
			CR	12.*	ppm	MDK	15-AUG-00	6010
			CU	56.	ppm	MDK	15-AUG-00	6010
			HG	1.8*	ppm	EH	07-JUL-00	7471
			NI	8.*	ppm	MDK	15-AUG-00	6010
			TL	4.	ppm	MDK	15-AUG-00	6010
			ZN	197.	ppm	MDK	15-AUG-00	6010
L001019-033	15-JUN-00	B-45 (8.5)	CU	50.	ppm	MDK	15-AUG-00	6010
			HG	0.17	ppm	EH	12-JUL-00	7471
			MOIST.	17.	%	MJF	11-JUL-00	GRAV.
			TL	3.	ppm	MDK	15-AUG-00	6010
			ZN	434.	ppm	MDK	15-AUG-00	6010
L001019-034	15-JUN-00	B-45 (11.5)	CU	<5.	ppm	MDK	15-AUG-00	6010
			HG	<0.05	ppm	EH	12-JUL-00	7471
			MOIST.	14.	%	MJF	11-JUL-00	GRAV.
			TL	1.	ppm	MDK	15-AUG-00	6010
			ZN	186.	ppm	MDK	15-AUG-00	6010
L001019-035	15-JUN-00	B-45 (13-14)	ZN	228.	ppm	MDK	15-AUG-00	6010
L001019-036	15-JUN-00	B-44 (2-2.5)	AG	1.	ppm	MDK	15-AUG-00	6010
			AS	10.	ppm	MDK	15-AUG-00	6010
			CD	17.	ppm	MDK	15-AUG-00	6010
			CO	7.	ppm	MDK	15-AUG-00	6010
			CR	20.*	ppm	MDK	15-AUG-00	6010
			CU	55.	ppm	MDK	15-AUG-00	6010
			HG	0.30*	ppm	EH	07-JUL-00	7471
			MN	256.	ppm	MDK	15-AUG-00	6010
			NI	10.*	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001019-036	15-JUN-00	B-44 (2-2.5)	PB	95.	ppm	MDK	15-AUG-00	6010
			SB	3.*	ppm	MDK	15-AUG-00	6010
			SE	2.	ppm	MDK	15-AUG-00	6010
			SN	12.	ppm	MDK	15-AUG-00	6010
			TL	1.	ppm	MDK	15-AUG-00	6010
			ZN	1810.	ppm	MDK	15-AUG-00	6010
L001019-037	15-JUN-00	B-44 (5.5)	AG	1.	ppm	MDK	15-AUG-00	6010
			AS	9.	ppm	MDK	15-AUG-00	6010
			CD	8.	ppm	MDK	15-AUG-00	6010
			CR	14.*	ppm	MDK	15-AUG-00	6010
			CU	39.	ppm	MDK	15-AUG-00	6010
			HG	0.19*	ppm	EH	07-JUL-00	7471
			PB	77.	ppm	MDK	15-AUG-00	6010
			SB	3.*	ppm	MDK	15-AUG-00	6010
			SE	<0.8	ppm	MDK	15-AUG-00	6010
			SN	12.	ppm	MDK	15-AUG-00	6010
			ZN	2280.	ppm	MDK	15-AUG-00	6010
L001019-038	15-JUN-00	B-44 (8.5)	AG	<0.5	ppm	MDK	15-AUG-00	6010
			CD	2.	ppm	MDK	15-AUG-00	6010
			CU	18.	ppm	MDK	15-AUG-00	6010
			HG	<0.05	ppm	EH	12-JUL-00	7471
			MOIST.	13.	%	MJF	11-JUL-00	GRAV.
			PB	21.	ppm	MDK	15-AUG-00	6010
			SB	2.*	ppm	MDK	15-AUG-00	6010
			SN	<5.	ppm	MDK	15-AUG-00	6010
			ZN	433.	ppm	MDK	15-AUG-00	6010
L001019-039	15-JUN-00	B-44 (11.5)	CU	<5.	ppm	MDK	15-AUG-00	6010
			SB	1.*	ppm	MDK	15-AUG-00	6010
			ZN	32.	ppm	MDK	15-AUG-00	6010
L001019-040	15-JUN-00	B-44 (14.5)	SB	<0.8*	ppm	MDK	15-AUG-00	6010
			ZN	18.	ppm	MDK	15-AUG-00	6010
L001019-041	15-JUN-00	B-44 (15-16)	ZN	22.	ppm	MDK	15-AUG-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001019

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-1		Matrix Spike	AG	102	%Recovery	MDK	15-AUG-00		6010
			AS	94	%Recovery	MDK	15-AUG-00		6010
			BA	94	%Recovery	MDK	15-AUG-00		6010
			BI	98	%Recovery	MDK	15-AUG-00		6010
			CD	92	%Recovery	MDK	15-AUG-00		6010
			CN-	92	%Recovery	DC	07-JUL-00		335.2
			CO	93	%Recovery	MDK	15-AUG-00		6010
			CR	99	%Recovery	MDK	15-AUG-00		6010
			CU	108	%Recovery	MDK	15-AUG-00		6010
			HG	112	%Recovery	EH	07-JUL-00		7471
			MN	91	%Recovery	MDK	15-AUG-00		6010
			NI	94	%Recovery	MDK	15-AUG-00		6010
			PB	94	%Recovery	MDK	15-AUG-00		6010
			SB	60*	%Recovery	MDK	15-AUG-00		6010
			SE	80	%Recovery	MDK	15-AUG-00		6010
			SN	96	%Recovery	MDK	15-AUG-00		6010
			TL	85	%Recovery	MDK	15-AUG-00		6010
			V	98	%Recovery	MDK	15-AUG-00		6010
			ZN	92	%Recovery	MDK	15-AUG-00		6010
WG000726-2		Prep Blank	AG	<0.5	ppm	MDK	15-AUG-00		6010
			AS	<5.0	ppm	MDK	15-AUG-00		6010
			BA	<5.0	ppm	MDK	15-AUG-00		6010
			BI	<4.0	ppm	MDK	15-AUG-00		6010
			CD	<1.0	ppm	MDK	15-AUG-00		6010
			CN-	<0.04	ppm	DC	07-JUL-00		335.2
			CO	<5.0	ppm	MDK	15-AUG-00		6010
			CR	<5.0	ppm	MDK	15-AUG-00		6010
			CU	<5.0	ppm	MDK	15-AUG-00		6010
			HG	<0.05	ppm	EH	07-JUL-00		7471
			MN	<5.0	ppm	MDK	15-AUG-00		6010
			NI	<5.0	ppm	MDK	15-AUG-00		6010
			PB	<5.0	ppm	MDK	15-AUG-00		6010
			SB	<0.8	ppm	MDK	15-AUG-00		6010
			SE	<0.8	ppm	MDK	15-AUG-00		6010
			SN	<5.0	ppm	MDK	15-AUG-00		6010
			TL	<1.0	ppm	MDK	15-AUG-00		6010
			V	<5.0	ppm	MDK	15-AUG-00		6010
			ZN	<5.0	ppm	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-3		Lab Control Sample	AG	97	%Recovery	MDK	15-AUG-00		6010
			AS	100	%Recovery	MDK	15-AUG-00		6010
			BA	101	%Recovery	MDK	15-AUG-00		6010
			BI	94	%Recovery	MDK	15-AUG-00		6010
			CD	98	%Recovery	MDK	15-AUG-00		6010
			CN-	89	%Recovery	DC	07-JUL-00		335.2
			CO	98	%Recovery	MDK	15-AUG-00		6010
			CR	102	%Recovery	MDK	15-AUG-00		6010
			CU	104	%Recovery	MDK	15-AUG-00		6010
			HG	124**	%Recovery	EH	07-JUL-00		7471
			MN	104	%Recovery	MDK	15-AUG-00		6010
			NI	102	%Recovery	MDK	15-AUG-00		6010
			PB	98	%Recovery	MDK	15-AUG-00		6010
			SB	161**	%Recovery	MDK	15-AUG-00		6010
			SE	86	%Recovery	MDK	15-AUG-00		6010
			SN	111	%Recovery	MDK	15-AUG-00		6010
			TL	102	%Recovery	MDK	15-AUG-00		6010
			V	102	%Recovery	MDK	15-AUG-00		6010
			ZN	94	%Recovery	MDK	15-AUG-00		6010
WG000726-4		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	15-AUG-00		6010
			AS	3.1	% RPD	MDK	15-AUG-00		6010
			BA	1.6	% RPD	MDK	15-AUG-00		6010
			BI	3.2	% RPD	MDK	15-AUG-00		6010
			CD	3.6	% RPD	MDK	15-AUG-00		6010
			CN-	<1	% RPD	DC	07-JUL-00		335.2
			CO	1.2	% RPD	MDK	15-AUG-00		6010
			CR	<1	% RPD	MDK	15-AUG-00		6010
			CU	1.1	% RPD	MDK	15-AUG-00		6010
			HG	28***	% RPD	EH	07-JUL-00		7471
			MN	<1	% RPD	MDK	15-AUG-00		6010
			NI	2.6	% RPD	MDK	15-AUG-00		6010
			PB	3.5	% RPD	MDK	15-AUG-00		6010
			SB	8.1	% RPD	MDK	15-AUG-00		6010
			SE	3.3	% RPD	MDK	15-AUG-00		6010
			SN	4.6	% RPD	MDK	15-AUG-00		6010
			TL	<1	% RPD	MDK	15-AUG-00		6010
			V	<1	% RPD	MDK	15-AUG-00		6010
			ZN	<1	% RPD	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-5		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000726-6		Matrix Spike	AG	100	%Recovery	MDK	15-AUG-00		6010
			AS	92	%Recovery	MDK	15-AUG-00		6010
			BA	94	%Recovery	MDK	15-AUG-00		6010
			BI	96	%Recovery	MDK	15-AUG-00		6010
			CD	90	%Recovery	MDK	15-AUG-00		6010
			CO	92	%Recovery	MDK	15-AUG-00		6010
			CR	106	%Recovery	MDK	15-AUG-00		6010
			CU	108	%Recovery	MDK	15-AUG-00		6010
			MN	105	%Recovery	MDK	15-AUG-00		6010
			NI	95	%Recovery	MDK	15-AUG-00		6010
			PB	85	%Recovery	MDK	15-AUG-00		6010
			SB	62*	%Recovery	MDK	15-AUG-00		6010
			SE	79	%Recovery	MDK	15-AUG-00		6010
			SN	95	%Recovery	MDK	15-AUG-00		6010
			TL	84	%Recovery	MDK	15-AUG-00		6010
			V	101	%Recovery	MDK	15-AUG-00		6010
			ZN	81	%Recovery	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-7		Prep Blank	AG	<0.5	ppm	MDK	15-AUG-00		6010
			AS	<5.0	ppm	MDK	15-AUG-00		6010
			BA	<5.0	ppm	MDK	15-AUG-00		6010
			BI	<4.0	ppm	MDK	15-AUG-00		6010
			CD	<1.0	ppm	MDK	15-AUG-00		6010
			CO	<5.0	ppm	MDK	15-AUG-00		6010
			CR	<5.0	ppm	MDK	15-AUG-00		6010
			CU	<5.0	ppm	MDK	15-AUG-00		6010
			HG	<0.05	ppm	EH	12-JUL-00		7471
			MN	<5.0	ppm	MDK	15-AUG-00		6010
			NI	<5.0	ppm	MDK	15-AUG-00		6010
			PB	<5.0	ppm	MDK	15-AUG-00		6010
			SB	<0.8	ppm	MDK	15-AUG-00		6010
			SE	<0.8	ppm	MDK	15-AUG-00		6010
			SN	<5.0	ppm	MDK	15-AUG-00		6010
			TL	1.5	ppm	MDK	15-AUG-00		6010
			V	<5.0	ppm	MDK	15-AUG-00		6010
			ZN	<5.0	ppm	MDK	15-AUG-00		6010
WG000726-8		Lab Control Sample	AG	98	%Recovery	MDK	15-AUG-00		6010
			AS	102	%Recovery	MDK	15-AUG-00		6010
			BA	98	%Recovery	MDK	15-AUG-00		6010
			BI	92	%Recovery	MDK	15-AUG-00		6010
			CD	98	%Recovery	MDK	15-AUG-00		6010
			CO	98	%Recovery	MDK	15-AUG-00		6010
			CR	99	%Recovery	MDK	15-AUG-00		6010
			CU	104	%Recovery	MDK	15-AUG-00		6010
			HG	103	%Recovery	EH	12-JUL-00		7471
			MN	103	%Recovery	MDK	15-AUG-00		6010
			NI	101	%Recovery	MDK	15-AUG-00		6010
			PB	99	%Recovery	MDK	15-AUG-00		6010
			SB	150*	%Recovery	MDK	15-AUG-00		6010
			SE	88	%Recovery	MDK	15-AUG-00		6010
			SN	111	%Recovery	MDK	15-AUG-00		6010
			TL	103	%Recovery	MDK	15-AUG-00		6010
			V	103	%Recovery	MDK	15-AUG-00		6010
			ZN	95	%Recovery	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-9		Matrix Spike Duplicate	AG	<1	% RPD	MDK	15-AUG-00		6010
			AS	1.3	% RPD	MDK	15-AUG-00		6010
			BA	3.8	% RPD	MDK	15-AUG-00		6010
			BI	2.4	% RPD	MDK	15-AUG-00		6010
			CD	<1	% RPD	MDK	15-AUG-00		6010
			CO	<1	% RPD	MDK	15-AUG-00		6010
			CR	<1	% RPD	MDK	15-AUG-00		6010
			CU	<1	% RPD	MDK	15-AUG-00		6010
			MN	<1	% RPD	MDK	15-AUG-00		6010
			NI	1.4	% RPD	MDK	15-AUG-00		6010
			PB	17	% RPD	MDK	15-AUG-00		6010
			SB	2.4	% RPD	MDK	15-AUG-00		6010
			SE	<1	% RPD	MDK	15-AUG-00		6010
			SN	1.7	% RPD	MDK	15-AUG-00		6010
			TL	<1	% RPD	MDK	15-AUG-00		6010
			V	<1	% RPD	MDK	15-AUG-00		6010
			ZN	<1	% RPD	MDK	15-AUG-00		6010
WG000726-11		Matrix Spike	AG	94	%Recovery	MDK	15-AUG-00		6010
			AS	89	%Recovery	MDK	15-AUG-00		6010
			BA	93	%Recovery	MDK	15-AUG-00		6010
			BI	94	%Recovery	MDK	15-AUG-00		6010
			CD	90	%Recovery	MDK	15-AUG-00		6010
			CO	93	%Recovery	MDK	15-AUG-00		6010
			CR	284*	%Recovery	MDK	15-AUG-00		6010
			CU	104	%Recovery	MDK	15-AUG-00		6010
			MN	99	%Recovery	MDK	15-AUG-00		6010
			NI	128*	%Recovery	MDK	15-AUG-00		6010
			PB	90	%Recovery	MDK	15-AUG-00		6010
			SB	78	%Recovery	MDK	15-AUG-00		6010
			SE	76	%Recovery	MDK	15-AUG-00		6010
			SN	93	%Recovery	MDK	15-AUG-00		6010
			TL	84	%Recovery	MDK	15-AUG-00		6010
			V	95	%Recovery	MDK	15-AUG-00		6010
			ZN	87	%Recovery	MDK	15-AUG-00		6010
WG000726-12		Prep Blank	AG	<0.5	ppm	MDK	15-AUG-00		6010
			AS	<5.0	ppm	MDK	15-AUG-00		6010
			BA	<5.0	ppm	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-12		Prep Blank	BI	<4.0	ppm	MDK	15-AUG-00		6010
			CD	<1.0	ppm	MDK	15-AUG-00		6010
			CO	<5.0	ppm	MDK	15-AUG-00		6010
			CR	<5.0	ppm	MDK	15-AUG-00		6010
			CU	<5.0	ppm	MDK	15-AUG-00		6010
			MN	<5.0	ppm	MDK	15-AUG-00		6010
			NI	<5.0	ppm	MDK	15-AUG-00		6010
			PB	<5.0	ppm	MDK	15-AUG-00		6010
			SB	<0.8	ppm	MDK	15-AUG-00		6010
			SE	<0.8	ppm	MDK	15-AUG-00		6010
			SN	<5.0	ppm	MDK	15-AUG-00		6010
			TL	1.5	ppm	MDK	15-AUG-00		6010
			V	<5.0	ppm	MDK	15-AUG-00		6010
			ZN	<5.0	ppm	MDK	15-AUG-00		6010
WG000726-13		Lab Control Sample	AG	95	%Recovery	MDK	15-AUG-00		6010
			AS	101	%Recovery	MDK	15-AUG-00		6010
			BA	100	%Recovery	MDK	15-AUG-00		6010
			BI	91	%Recovery	MDK	15-AUG-00		6010
			CD	98	%Recovery	MDK	15-AUG-00		6010
			CO	96	%Recovery	MDK	15-AUG-00		6010
			CR	102	%Recovery	MDK	15-AUG-00		6010
			CU	105	%Recovery	MDK	15-AUG-00		6010
			MN	102	%Recovery	MDK	15-AUG-00		6010
			NI	99	%Recovery	MDK	15-AUG-00		6010
			PB	97	%Recovery	MDK	15-AUG-00		6010
			SB	152**	%Recovery	MDK	15-AUG-00		6010
			SE	88	%Recovery	MDK	15-AUG-00		6010
			SN	110	%Recovery	MDK	15-AUG-00		6010
			TL	108	%Recovery	MDK	15-AUG-00		6010
			V	104	%Recovery	MDK	15-AUG-00		6010
			ZN	92	%Recovery	MDK	15-AUG-00		6010
WG000726-14		Matrix Spike Duplicate	AG	1.4	% RPD	MDK	15-AUG-00		6010
			AS	<1	% RPD	MDK	15-AUG-00		6010
			BA	2.1	% RPD	MDK	15-AUG-00		6010
			BI	<1	% RPD	MDK	15-AUG-00		6010
			CD	1.7	% RPD	MDK	15-AUG-00		6010
			CO	2.1	% RPD	MDK	15-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000726

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000726-14		Matrix Spike Duplicate	CR	7.5	% RPD	MDK	15-AUG-00		6010
			CU	3.4	% RPD	MDK	15-AUG-00		6010
			MN	4.3	% RPD	MDK	15-AUG-00		6010
			NI	4.5	% RPD	MDK	15-AUG-00		6010
			PB	<1	% RPD	MDK	15-AUG-00		6010
			SB	2	% RPD	MDK	15-AUG-00		6010
			SE	<1	% RPD	MDK	15-AUG-00		6010
			SN	<1	% RPD	MDK	15-AUG-00		6010
			TL	2.7	% RPD	MDK	15-AUG-00		6010
			V	1.5	% RPD	MDK	15-AUG-00		6010
			ZN	3.3	% RPD	MDK	15-AUG-00		6010
WG000726-15		Duplicate	MOIST.	1.5	% RPD	MJF	11-JUL-00		GRAV.

* Spikes outside acceptance limits due to matrix interference.
** LCS is within ERA (244), 95% confidence interval.
*** Duplicate spike recovery for Hg was out of range due to non-homogeneity of sample.

Approved

Reviewer

ASARCO

September 26, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (24), twenty four soil samples collected between June 27, and June 29, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 30, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-001	27-JUN-00	B118 (0-0.5)	AG	1.	ppm	MDK	02-SEP-00		6010
			AS	8.	ppm	MDK	02-SEP-00		6010
			BA	155.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	33.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	41.*	ppm	MDK	02-SEP-00		6010
			HG	0.63*	ppm	EH	17-JUL-00		7471
			MN	556.	ppm	MDK	02-SEP-00		6010
			MOIST.	15.	%	MJF	17-JUL-00		GRAV.
			PB	102.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	2.	ppm	MDK	02-SEP-00		6010
			SN	6.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	15.	ppm	MDK	02-SEP-00		6010
			ZN	3855.	ppm	MDK	02-SEP-00		6010
L001061-002	27-JUN-00	B118 (2-2.5)	AG	1.	ppm	MDK	02-SEP-00		6010
			AS	5.	ppm	MDK	02-SEP-00		6010
			BA	508.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	9.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	5.	ppm	MDK	02-SEP-00		6010
			CR	13.	ppm	MDK	02-SEP-00		6010
			CU	19.*	ppm	MDK	02-SEP-00		6010
			HG	0.06*	ppm	EH	17-JUL-00		7471
			MN	379.	ppm	MDK	02-SEP-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			PB	42.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	20.	ppm	MDK	02-SEP-00		6010
			ZN	953.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-003	27-JUN-00	B118 (5.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	259.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	8.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	259.	ppm	MDK	02-SEP-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			PB	11.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	26.	ppm	MDK	02-SEP-00		6010
			ZN	86.	ppm	MDK	02-SEP-00		6010
L001061-004	27-JUN-00	B118 (8.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	5.	ppm	MDK	02-SEP-00		6010
			BA	254.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	<5.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	12.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	432.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			PB	16.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	184.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-005	27-JUN-00	B118 (11.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	311.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	11.	ppm	MDK	02-SEP-00		6010
			CU	12.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	434.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	25.	ppm	MDK	02-SEP-00		6010
			ZN	57.	ppm	MDK	02-SEP-00		6010
L001061-006	27-JUN-00	B118 (14.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	6.	ppm	MDK	02-SEP-00		6010
			BA	307.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	716.	ppm	MDK	02-SEP-00		6010
			MOIST.	22.	%	MJF	17-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	27.	ppm	MDK	02-SEP-00		6010
			ZN	60.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-007	27-JUN-00	B118 (17.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	122.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	500.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	14.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	78.	ppm	MDK	02-SEP-00		6010
L001061-008	27-JUN-00	B118 (18-18.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	185.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	9.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	205.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	9.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	19.	ppm	MDK	02-SEP-00		6010
			ZN	36.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-009	28-JUN-00	B127 (0-0.5)	AG	1.	ppm	MDK	02-SEP-00		6010
			AS	13.	ppm	MDK	02-SEP-00		6010
			BA	325.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	55.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	38.*	ppm	MDK	02-SEP-00		6010
			HG	0.31*	ppm	EH	17-JUL-00		7471
			MN	397.	ppm	MDK	02-SEP-00		6010
			MOIST.	16.	%	MJF	17-JUL-00		GRAV.
			PB	82.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	2.	ppm	MDK	02-SEP-00		6010
			SN	6.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	41.	ppm	MDK	02-SEP-00		6010
			ZN	3193.	ppm	MDK	02-SEP-00		6010
L001061-010	28-JUN-00	B127 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	350.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	<5.	ppm	MDK	02-SEP-00		6010
			CR	10.	ppm	MDK	02-SEP-00		6010
			CU	8.*	ppm	MDK	02-SEP-00		6010
			HG	0.31*	ppm	EH	17-JUL-00		7471
			MN	256.	ppm	MDK	02-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			PB	10.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	30.	ppm	MDK	02-SEP-00		6010
			ZN	110.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-011	28-JUN-00	B127 (5.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	272.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	3.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	11.	ppm	MDK	02-SEP-00		6010
			CU	11.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	437.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	13.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	7.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	172.	ppm	MDK	02-SEP-00		6010
L001061-012	28-JUN-00	B127 (8.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	320.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	12.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	451.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	13.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	1.	ppm	MDK	02-SEP-00		6010
			V	28.	ppm	MDK	02-SEP-00		6010
			ZN	104.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-013	28-JUN-00	B127 (11.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	6.	ppm	MDK	02-SEP-00		6010
			BA	261.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	17.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	794.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	33.	ppm	MDK	02-SEP-00		6010
			ZN	76.	ppm	MDK	02-SEP-00		6010
L001061-014	28-JUN-00	B127 (14.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	355.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	274.	ppm	MDK	02-SEP-00		6010
			MOIST.	24.	%	MJF	17-JUL-00		GRAV.
			PB	11.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	59.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-015	28-JUN-00	B127 (17.2-18)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	270.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	<5.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	10.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	231.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			PB	11.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	20.	ppm	MDK	02-SEP-00		6010
			ZN	41.	ppm	MDK	02-SEP-00		6010
L001061-016	29-JUN-00	B124 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	6.	ppm	MDK	02-SEP-00		6010
			BA	298.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	24.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	16.	ppm	MDK	02-SEP-00		6010
			CU	22.*	ppm	MDK	02-SEP-00		6010
			HG	0.33*	ppm	EH	17-JUL-00		7471
			MN	450.	ppm	MDK	02-SEP-00		6010
			MOIST.	17.	%	MJF	17-JUL-00		GRAV.
			PB	39.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	24.	ppm	MDK	02-SEP-00		6010
			ZN	1500.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-017	29-JUN-00	B124 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	294.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	16.	ppm	MDK	02-SEP-00		6010
			CU	11.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	432.	ppm	MDK	02-SEP-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	33.	ppm	MDK	02-SEP-00		6010
			ZN	122.	ppm	MDK	02-SEP-00		6010
L001061-018	29-JUN-00	B124 (5.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	5.	ppm	MDK	02-SEP-00		6010
			BA	258.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	5.	ppm	MDK	02-SEP-00		6010
			CR	9.	ppm	MDK	02-SEP-00		6010
			CU	7.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	320.	ppm	MDK	02-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			PB	10.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	24.	ppm	MDK	02-SEP-00		6010
			ZN	132.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-019	29-JUN-00	B124 (8.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	313.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	507.	ppm	MDK	02-SEP-00		6010
			MOIST.	22.	%	MJF	17-JUL-00		GRAV.
			PB	13.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	34.	ppm	MDK	02-SEP-00		6010
			ZN	76.	ppm	MDK	02-SEP-00		6010
L001061-020	29-JUN-00	B124 (11.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	6.	ppm	MDK	02-SEP-00		6010
			BA	309.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	16.	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	390.	ppm	MDK	02-SEP-00		6010
			MOIST.	22.	%	MJF	17-JUL-00		GRAV.
			PB	14.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	32.	ppm	MDK	02-SEP-00		6010
			ZN	118.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-021	29-JUN-00	B124 (14.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	250.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	12.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	485.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			PB	10.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	26.	ppm	MDK	02-SEP-00		6010
			ZN	64.	ppm	MDK	02-SEP-00		6010
L001061-022	29-JUN-00	B124 (17.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	204.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	15.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	353.	ppm	MDK	02-SEP-00		6010
			MOIST.	24.	%	MJF	17-JUL-00		GRAV.
			PB	13.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	31.	ppm	MDK	02-SEP-00		6010
			ZN	62.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001061-023	29-JUN-00	B124 (20.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	455.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	13.	ppm	MDK	02-SEP-00		6010
			CU	15.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	266.	ppm	MDK	02-SEP-00		6010
			MOIST.	22.	%	MJF	17-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	6.	ppm	MDK	02-SEP-00		6010
			V	28.	ppm	MDK	02-SEP-00		6010
			ZN	64.	ppm	MDK	02-SEP-00		6010
L001061-024	29-JUN-00	B124 (23.5-24)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	888.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	5.	ppm	MDK	02-SEP-00		6010
			CR	8.	ppm	MDK	02-SEP-00		6010
			CU	8.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	17-JUL-00		7471
			MN	221.	ppm	MDK	02-SEP-00		6010
			MOIST.	17.	%	MJF	17-JUL-00		GRAV.
			PB	8.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	2.	ppm	MDK	02-SEP-00		6010
			V	18.	ppm	MDK	02-SEP-00		6010
			ZN	36.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001061

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000796

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000796-1		Matrix Spike	AG	112	%Recovery	MDK	02-SEP-00		6010
			AS	92	%Recovery	MDK	02-SEP-00		6010
			BA	106	%Recovery	MDK	02-SEP-00		6010
			BI	105	%Recovery	MDK	02-SEP-00		6010
			CD	86	%Recovery	MDK	02-SEP-00		6010
			CN-	88	%Recovery	DC	10-JUL-00		335.2
			CO	96	%Recovery	MDK	02-SEP-00		6010
			CR	116	%Recovery	MDK	02-SEP-00		6010
			CU	137*	%Recovery	MDK	02-SEP-00		6010
			HG	SR>4SA	%Recovery	EH	17-JUL-00		7471
			MN	118	%Recovery	MDK	02-SEP-00		6010
			PB	92	%Recovery	MDK	02-SEP-00		6010
			SB	69*	%Recovery	MDK	02-SEP-00		6010
			SE	72*	%Recovery	MDK	02-SEP-00		6010
			SN	97	%Recovery	MDK	02-SEP-00		6010
			TL	86	%Recovery	MDK	02-SEP-00		6010
			V	113	%Recovery	MDK	02-SEP-00		6010
			ZN	105	%Recovery	MDK	02-SEP-00		6010
WG000796-2		Prep Blank	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.0	ppm	MDK	02-SEP-00		6010
			BA	<5.0	ppm	MDK	02-SEP-00		6010
			BI	<4.0	ppm	MDK	02-SEP-00		6010
			CD	<1.0	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	<5.0	ppm	MDK	02-SEP-00		6010
			CR	<5.0	ppm	MDK	02-SEP-00		6010
			CU	<5.0	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	17-JUL-00		7471
			MN	<5.0	ppm	MDK	02-SEP-00		6010
			PB	<5.0	ppm	MDK	02-SEP-00		6010
			SB	<0.8	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.0	ppm	MDK	02-SEP-00		6010
			TL	1.4	ppm	MDK	02-SEP-00		6010
			V	<5.0	ppm	MDK	02-SEP-00		6010
			ZN	<5.0	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000796

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000796-3		Lab Control Sample	AG	96	%Recovery	MDK	02-SEP-00		6010
			AS	85	%Recovery	MDK	02-SEP-00		6010
			BA	96	%Recovery	MDK	02-SEP-00		6010
			BI	86	%Recovery	MDK	02-SEP-00		6010
			CD	87	%Recovery	MDK	02-SEP-00		6010
			CN-	102	%Recovery	DC	10-JUL-00		335.2
			CO	98	%Recovery	MDK	02-SEP-00		6010
			CR	97	%Recovery	MDK	02-SEP-00		6010
			CU	113	%Recovery	MDK	02-SEP-00		6010
			HG	91	%Recovery	EH	17-JUL-00		7471
			MN	96	%Recovery	MDK	02-SEP-00		6010
			PB	103	%Recovery	MDK	02-SEP-00		6010
			SB	129**	%Recovery	MDK	02-SEP-00		6010
			SE	75**	%Recovery	MDK	02-SEP-00		6010
			SN	102	%Recovery	MDK	02-SEP-00		6010
			TL	86	%Recovery	MDK	02-SEP-00		6010
			V	104	%Recovery	MDK	02-SEP-00		6010
			ZN	90	%Recovery	MDK	02-SEP-00		6010
WG000796-4		Duplicate	CN-	<1	% RPD	DC	10-JUL-00		335.2
			MOIST.	6.3	% RPD	MJF	17-JUL-00		GRAV.
WG000796-5		Matrix Spike Duplicate	AG	2.9	% RPD	MDK	02-SEP-00		6010
			AS	<1	% RPD	MDK	02-SEP-00		6010
			BA	1.9	% RPD	MDK	02-SEP-00		6010
			BI	<1	% RPD	MDK	02-SEP-00		6010
			CD	<1	% RPD	MDK	02-SEP-00		6010
			CO	1.3	% RPD	MDK	02-SEP-00		6010
			CR	<1	% RPD	MDK	02-SEP-00		6010
			CU	4.3	% RPD	MDK	02-SEP-00		6010
			HG	23***	% RPD	EH	17-JUL-00		7471
			MN	1.9	% RPD	MDK	02-SEP-00		6010
			PB	<1	% RPD	MDK	02-SEP-00		6010
			SB	4	% RPD	MDK	02-SEP-00		6010
			SE	1.1	% RPD	MDK	02-SEP-00		6010
			SN	<1	% RPD	MDK	02-SEP-00		6010
			TL	1.5	% RPD	MDK	02-SEP-00		6010
			V	<1	% RPD	MDK	02-SEP-00		6010
			ZN	<1	% RPD	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000796

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000796-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000796-7		Matrix Spike	AG	108	%Recovery	MDK	02-SEP-00		6010
			AS	90	%Recovery	MDK	02-SEP-00		6010
			BA	100	%Recovery	MDK	02-SEP-00		6010
			BI	102	%Recovery	MDK	02-SEP-00		6010
			CD	86	%Recovery	MDK	02-SEP-00		6010
			CN-	90	%Recovery	DC	10-JUL-00		335.2
			CO	94	%Recovery	MDK	02-SEP-00		6010
			CR	114	%Recovery	MDK	02-SEP-00		6010
			CU	135*	%Recovery	MDK	02-SEP-00		6010
			HG	85	%Recovery	EH	17-JUL-00		7471
			MN	123	%Recovery	MDK	02-SEP-00		6010
			PB	95	%Recovery	MDK	02-SEP-00		6010
			SB	51*	%Recovery	MDK	02-SEP-00		6010
			SE	71*	%Recovery	MDK	02-SEP-00		6010
			SN	96	%Recovery	MDK	02-SEP-00		6010
			TL	85	%Recovery	MDK	02-SEP-00		6010
			V	107	%Recovery	MDK	02-SEP-00		6010
			ZN	106	%Recovery	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000796

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000796-8		Prep Blank	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.0	ppm	MDK	02-SEP-00		6010
			BA	<5.0	ppm	MDK	02-SEP-00		6010
			BI	<4.0	ppm	MDK	02-SEP-00		6010
			CD	<1.0	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	10-JUL-00		335.2
			CO	<5.0	ppm	MDK	02-SEP-00		6010
			CR	<5.0	ppm	MDK	02-SEP-00		6010
			CU	<5.0	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	17-JUL-00		7471
			MN	<5.0	ppm	MDK	02-SEP-00		6010
			PB	<5.0	ppm	MDK	02-SEP-00		6010
			SB	<0.8	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.0	ppm	MDK	02-SEP-00		6010
			TL	1.7	ppm	MDK	02-SEP-00		6010
			V	<5.0	ppm	MDK	02-SEP-00		6010
			ZN	<5.0	ppm	MDK	02-SEP-00		6010
WG000796-9		Lab Control Sample	AG	97	%Recovery	MDK	02-SEP-00		6010
			AS	91	%Recovery	MDK	02-SEP-00		6010
			BA	120	%Recovery	MDK	02-SEP-00		6010
			BI	97	%Recovery	MDK	02-SEP-00		6010
			CD	93	%Recovery	MDK	02-SEP-00		6010
			CN-	96	%Recovery	DC	10-JUL-00		335.2
			CO	103	%Recovery	MDK	02-SEP-00		6010
			CR	102	%Recovery	MDK	02-SEP-00		6010
			CU	116	%Recovery	MDK	02-SEP-00		6010
			HG	94	%Recovery	EH	17-JUL-00		7471
			MN	107	%Recovery	MDK	02-SEP-00		6010
			PB	102	%Recovery	MDK	02-SEP-00		6010
			SB	132**	%Recovery	MDK	02-SEP-00		6010
			SE	75**	%Recovery	MDK	02-SEP-00		6010
			SN	108	%Recovery	MDK	02-SEP-00		6010
			TL	91	%Recovery	MDK	02-SEP-00		6010
			V	103	%Recovery	MDK	02-SEP-00		6010
			ZN	90	%Recovery	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000796

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000796-10		Duplicate	CN-	<1	% RPD	DC	11-JUL-00		335.2
			MOIST.	2.8	% RPD	MJF	17-JUL-00		GRAV.
WG000796-11		Matrix Spike Duplicate	AG	1.8	% RPD	MDK	02-SEP-00		6010
			AS	2.7	% RPD	MDK	02-SEP-00		6010
			BA	<1	% RPD	MDK	02-SEP-00		6010
			BI	2.9	% RPD	MDK	02-SEP-00		6010
			CD	3.2	% RPD	MDK	02-SEP-00		6010
			CO	2.7	% RPD	MDK	02-SEP-00		6010
			CR	<1	% RPD	MDK	02-SEP-00		6010
			CU	1.4	% RPD	MDK	02-SEP-00		6010
			HG	7.9	% RPD	EH	17-JUL-00		7471
			MN	<1	% RPD	MDK	02-SEP-00		6010
			PB	1.1	% RPD	MDK	02-SEP-00		6010
			SB	<1	% RPD	MDK	02-SEP-00		6010
			SE	3.6	% RPD	MDK	02-SEP-00		6010
			SN	3.2	% RPD	MDK	02-SEP-00		6010
			TL	5.9	% RPD	MDK	02-SEP-00		6010
			V	<1	% RPD	MDK	02-SEP-00		6010
			ZN	<1	% RPD	MDK	02-SEP-00		6010

* Spikes outside acceptance limits due to matrix interference.
** LCS is within ERA (245), 95% confidence interval.
*** Duplicate Spike recovery for Hg was out of range due to non-homogeneity of spiked sample.

Approved

Reviewer

ASARCO

September 26, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (10), ten soil samples Collected between June 28, and June 29, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 30, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-001	28-JUN-00	B86 (0-0.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	6.	ppm	MDK	11-AUG-00		6010
			BA	222.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	10.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	10.	ppm	MDK	11-AUG-00		6010
			CR	11.	ppm	MDK	11-AUG-00		6010
			CU	27.	ppm	MDK	11-AUG-00		6010
			HG	0.051	ppm	EH	18-JUL-00		7471
			MN	276.	ppm	MDK	11-AUG-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			NI	8.	ppm	MDK	11-AUG-00		6010
			PB	27.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	2.	ppm	MDK	11-AUG-00		6010
			V	21.	ppm	MDK	11-AUG-00		6010
			ZN	658.	ppm	MDK	11-AUG-00		6010
L001063-002	28-JUN-00	B88 (0-0.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	10.	ppm	MDK	11-AUG-00		6010
			BA	488.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	1255.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	31.	ppm	MDK	11-AUG-00		6010
			CR	102.	ppm	MDK	11-AUG-00		6010
			CU	178.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	357.	ppm	MDK	11-AUG-00		6010
			MOIST.	11.	%	MJF	17-JUL-00		GRAV.
			NI	51.	ppm	MDK	11-AUG-00		6010
			PB	30.	ppm	MDK	11-AUG-00		6010
			SB	<0.8*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	<1.	ppm	MDK	11-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-002	28-JUN-00	B88 (0-0.5)	V	13.	ppm	MDK	11-AUG-00		6010
			ZN	2440.	ppm	MDK	11-AUG-00		6010
L001063-003	28-JUN-00	B56 (0-0.5)	AG	4.	ppm	MDK	11-AUG-00		6010
			AS	<5.	ppm	MDK	11-AUG-00		6010
			BA	211.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	6.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	36.	ppm	MDK	11-AUG-00		6010
			CR	16.	ppm	MDK	11-AUG-00		6010
			CU	10.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	385.	ppm	MDK	11-AUG-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			NI	11.	ppm	MDK	11-AUG-00		6010
			PB	10.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	1.	ppm	MDK	11-AUG-00		6010
			V	20.	ppm	MDK	11-AUG-00		6010
			ZN	215.	ppm	MDK	11-AUG-00		6010
L001063-004	28-JUN-00	DUPLICATE 34 (0-0.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	10.	ppm	MDK	11-AUG-00		6010
			BA	221.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	2440.	ppm	MDK	11-AUG-00		6010
			CN-	0.15	ppm	DC	11-JUL-00		335.2
			CO	43.	ppm	MDK	11-AUG-00		6010
			CR	59.	ppm	MDK	11-AUG-00		6010
			CU	188.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	529.	ppm	MDK	11-AUG-00		6010
			MOIST.	16.	%	MJF	17-JUL-00		GRAV.
			NI	36.	ppm	MDK	11-AUG-00		6010
			PB	26.	ppm	MDK	11-AUG-00		6010
			SB	<0.8*	ppm	MDK	11-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-004	28-JUN-00	DUPLICATE 34 (0-0.5)	SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	<1.	ppm	MDK	11-AUG-00		6010
			V	12.	ppm	MDK	11-AUG-00		6010
			ZN	5292.	ppm	MDK	11-AUG-00		6010
L001063-005	28-JUN-00	DUPLICATE 35 (8.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	7.	ppm	MDK	11-AUG-00		6010
			BA	307.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	18.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	11.	ppm	MDK	11-AUG-00		6010
			CR	20.	ppm	MDK	11-AUG-00		6010
			CU	12.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	528.	ppm	MDK	11-AUG-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			NI	15.	ppm	MDK	11-AUG-00		6010
			PB	13.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	<1.	ppm	MDK	11-AUG-00		6010
			V	41.	ppm	MDK	11-AUG-00		6010
			ZN	132.	ppm	MDK	11-AUG-00		6010
L001063-006	28-JUN-00	DUPLICATE 36 (11.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	6.	ppm	MDK	11-AUG-00		6010
			BA	255.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	3.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	11-AUG-00		6010
			CR	15.	ppm	MDK	11-AUG-00		6010
			CU	11.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	777.	ppm	MDK	11-AUG-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-006	28-JUN-00	DUPLICATE 36 (11.5)	NI	14.	ppm	MDK	11-AUG-00		6010
			PB	11.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	8.	ppm	MDK	11-AUG-00		6010
			V	30.	ppm	MDK	11-AUG-00		6010
			ZN	73.	ppm	MDK	11-AUG-00		6010
L001063-007	29-JUN-00	DUPLICATE 37 (2-2.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	<5.	ppm	MDK	11-AUG-00		6010
			BA	310.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	2.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	11-AUG-00		6010
			CR	21.	ppm	MDK	11-AUG-00		6010
			CU	11.	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	408.	ppm	MDK	11-AUG-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			NI	15.	ppm	MDK	11-AUG-00		6010
			PB	11.	ppm	MDK	11-AUG-00		6010
			SB	<0.8*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	2.	ppm	MDK	11-AUG-00		6010
			V	41.	ppm	MDK	11-AUG-00		6010
			ZN	141.	ppm	MDK	11-AUG-00		6010
L001063-008	29-JUN-00	DUPLICATE 38 (5.5)	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	<5.	ppm	MDK	11-AUG-00		6010
			BA	288.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	3.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	11-AUG-00		6010
			CR	18.	ppm	MDK	11-AUG-00		6010
			CU	9.	ppm	MDK	11-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-008	29-JUN-00	DUPLICATE 38 (5.5)	HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	369.	ppm	MDK	11-AUG-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			NI	16.	ppm	MDK	11-AUG-00		6010
			PB	11.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	3.	ppm	MDK	11-AUG-00		6010
			V	37.	ppm	MDK	11-AUG-00		6010
			ZN	210.	ppm	MDK	11-AUG-00		6010
L001063-009	29-JUN-00	DUPLICATE 39 (0-0.5)	AG	15.	ppm	MDK	11-AUG-00		6010
			AS	56.	ppm	MDK	11-AUG-00		6010
			BA	241.	ppm	MDK	11-AUG-00		6010
			BI	5.	ppm	MDK	11-AUG-00		6010
			CD	447.	ppm	MDK	11-AUG-00		6010
			CN-	0.13	ppm	DC	11-JUL-00		335.2
			CO	53.	ppm	MDK	11-AUG-00		6010
			CR	23.	ppm	MDK	11-AUG-00		6010
			CU	626.	ppm	MDK	11-AUG-00		6010
			HG	0.31	ppm	EH	18-JUL-00		7471
			MN	14270.	ppm	MDK	11-AUG-00		6010
			MOIST.	14.	%	MJF	17-JUL-00		GRAV.
			NI	41.	ppm	MDK	11-AUG-00		6010
			PB	1070.	ppm	MDK	11-AUG-00		6010
			SB	15.*	ppm	MDK	11-AUG-00		6010
			SE	1.	ppm	MDK	11-AUG-00		6010
			SN	42.	ppm	MDK	11-AUG-00		6010
			TL	<1.	ppm	MDK	11-AUG-00		6010
			V	9.	ppm	MDK	11-AUG-00		6010
			ZN	44310.	ppm	MDK	25-SEP-00		6010
L001063-010	29-JUN-00	B92 (0-0.5)	AG	1.	ppm	MDK	11-AUG-00		6010
			AS	<5.	ppm	MDK	11-AUG-00		6010
			BA	162.	ppm	MDK	11-AUG-00		6010
			BI	<4.	ppm	MDK	11-AUG-00		6010
			CD	5.	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001063-010	29-JUN-00	B92 (0-0.5)	CO	63.	ppm	MDK	11-AUG-00		6010
			CR	25.	ppm	MDK	11-AUG-00		6010
			CU	17.	ppm	MDK	11-AUG-00		6010
			HG	0.20	ppm	EH	18-JUL-00		7471
			MN	340.	ppm	MDK	11-AUG-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			NI	22.	ppm	MDK	11-AUG-00		6010
			PB	17.	ppm	MDK	11-AUG-00		6010
			SB	1.*	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.	ppm	MDK	11-AUG-00		6010
			TL	2.	ppm	MDK	11-AUG-00		6010
			V	23.	ppm	MDK	11-AUG-00		6010
			ZN	290.	ppm	MDK	11-AUG-00		6010

(*) Quality control data indicates a possible bias. See QC report for details.

Vince Keller
Approved

Vince Keller
Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000712

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000712-1		Matrix Spike	AG	103	%Recovery	MDK	11-AUG-00		6010
			AS	92	%Recovery	MDK	11-AUG-00		6010
			BA	94	%Recovery	MDK	11-AUG-00		6010
			BI	95	%Recovery	MDK	11-AUG-00		6010
			CD	90	%Recovery	MDK	11-AUG-00		6010
			CN-	90	%Recovery	DC	11-JUL-00		335.2
			CO	94	%Recovery	MDK	11-AUG-00		6010
			CR	90	%Recovery	MDK	11-AUG-00		6010
			CU	116	%Recovery	MDK	11-AUG-00		6010
			HG	79	%Recovery	EH	18-JUL-00		7471
			MN	81	%Recovery	MDK	11-AUG-00		6010
			NI	91	%Recovery	MDK	11-AUG-00		6010
			PB	91	%Recovery	MDK	11-AUG-00		6010
			SB	59*	%Recovery	MDK	11-AUG-00		6010
			SE	77	%Recovery	MDK	11-AUG-00		6010
			SN	92	%Recovery	MDK	11-AUG-00		6010
			TL	81	%Recovery	MDK	11-AUG-00		6010
			V	88	%Recovery	MDK	11-AUG-00		6010
			ZN	79	%Recovery	MDK	11-AUG-00		6010
WG000712-2		Prep Blank	AG	<0.5	ppm	MDK	11-AUG-00		6010
			AS	<5.0	ppm	MDK	11-AUG-00		6010
			BA	<5.0	ppm	MDK	11-AUG-00		6010
			BI	<4.0	ppm	MDK	11-AUG-00		6010
			CD	<1.0	ppm	MDK	11-AUG-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	<5.0	ppm	MDK	11-AUG-00		6010
			CR	<5.0	ppm	MDK	11-AUG-00		6010
			CU	<5.0	ppm	MDK	11-AUG-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	<5.0	ppm	MDK	11-AUG-00		6010
			NI	<5.0	ppm	MDK	11-AUG-00		6010
			PB	<5.0	ppm	MDK	11-AUG-00		6010
			SB	<0.8	ppm	MDK	11-AUG-00		6010
			SE	<0.8	ppm	MDK	11-AUG-00		6010
			SN	<5.0	ppm	MDK	11-AUG-00		6010
			TL	1.6	ppm	MDK	11-AUG-00		6010
			V	<5.0	ppm	MDK	11-AUG-00		6010
			ZN	<5.0	ppm	MDK	11-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000712

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000712-3		Lab Control Sample	AG	101	%Recovery	MDK	11-AUG-00		6010
			AS	97	%Recovery	MDK	11-AUG-00		6010
			BA	102	%Recovery	MDK	11-AUG-00		6010
			BI	92	%Recovery	MDK	11-AUG-00		6010
			CD	99	%Recovery	MDK	11-AUG-00		6010
			CN-	96	%Recovery	DC	11-JUL-00		335.2
			CO	102	%Recovery	MDK	11-AUG-00		6010
			CR	104	%Recovery	MDK	11-AUG-00		6010
			CU	112	%Recovery	MDK	11-AUG-00		6010
			HG	100	%Recovery	EH	18-JUL-00		7471
			MN	110	%Recovery	MDK	11-AUG-00		6010
			NI	100	%Recovery	MDK	11-AUG-00		6010
			PB	95	%Recovery	MDK	11-AUG-00		6010
			SB	149**	%Recovery	MDK	11-AUG-00		6010
			SE	85	%Recovery	MDK	11-AUG-00		6010
			SN	109	%Recovery	MDK	11-AUG-00		6010
			TL	101	%Recovery	MDK	11-AUG-00		6010
			V	106	%Recovery	MDK	11-AUG-00		6010
			ZN	97	%Recovery	MDK	11-AUG-00		6010
WG000712-4		Matrix Spike Duplicate	AG	<1	% RPD	MDK	11-AUG-00		6010
			AS	<1	% RPD	MDK	11-AUG-00		6010
			BA	<1	% RPD	MDK	11-AUG-00		6010
			BI	1.1	% RPD	MDK	11-AUG-00		6010
			CD	<1	% RPD	MDK	11-AUG-00		6010
			CO	<1	% RPD	MDK	11-AUG-00		6010
			CR	<1	% RPD	MDK	11-AUG-00		6010
			CU	<1	% RPD	MDK	11-AUG-00		6010
			HG	16	% RPD	EH	18-JUL-00		7471
			MN	<1	% RPD	MDK	11-AUG-00		6010
			NI	<1	% RPD	MDK	11-AUG-00		6010
			PB	<1	% RPD	MDK	11-AUG-00		6010
			SB	<1	% RPD	MDK	11-AUG-00		6010
			SE	<1	% RPD	MDK	11-AUG-00		6010
			SN	1.1	% RPD	MDK	11-AUG-00		6010
			TL	1.9	% RPD	MDK	11-AUG-00		6010
			V	<1	% RPD	MDK	11-AUG-00		6010
			ZN	<1	% RPD	MDK	11-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000712

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000712-5		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.050	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm	MDK	11-AUG-00		6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000712-6		Duplicate	CN-	<1	% RPD	DC	11-JUL-00		335.2
			MOIST.	<1	% RPD	MJF	17-JUL-00		GRAV.

*Spike outside acceptance limits due to matrix interference
** LCS for Sb is within ERA (244), 95% confidence interval

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CL000642001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Be, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass w/ teflon lined lid			Remarks	Total
B86	0-0.5	S	6/28/00 925		1								1
B86	2-2.5		927		1	HOLD							1
B86	5.5		933		1	HOLD							1
B86	8.5		937		1	HOLD							1
B86	11.5		940		1	HOLD							1
B86	14.5		955		1	HOLD							1
B86	16-16.5		1005		1	HOLD							1
B88	0-0.5		1025		1								1
B88	2-2.5		1028		1	HOLD							1
B88	5.5		1033		1	HOLD							1
B88	8.5		1040		1	HOLD							1
B88	11.5		1042		1	HOLD							1
B88	14.5		1048		1	HOLD							1
B88	17-17.5	S	1100		1	HOLD							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 14

Relinquished by: Bruce Hanley	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact?	
Received by: [illegible]	Organization: ASARCO	Date 6/30/00	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

B86, B88 - RUN (0-0.5) - HOLD ALL OTHER DEPTHS UNTILL NOTIFIED BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC0006420001

Project Location Encycle, Corpus Christi TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL-Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	(8 oz glass w/teflon lined lid)				Remarks	Total
B56 0-0.5	S	6/28/00 1315		1									1
B56 2-2.5		1317		1	HOLD								1
B56 5.5		1320		1	HOLD								1
B56 8.5		1325		1	HOLD								1
B56 11.5		1327		1	HOLD								1
B56 14.5-15.5	S	1335		1	HOLD								1
FIELD BLANK	L	1300		2									2
EQUIPMENT 34	L	1430		2									2
EQUIPMENT 35	L	1520		2									2
EQUIPMENT 36	L	1600		2									2
DUPLICATE 34 (0-0.5)	S	—		1									1
DUPLICATE 35 (8.5)	S	—		1									1
DUPLICATE 36 (11.5)	S	—		1									1

1) metals — HNO_3

2) CN — NaOH

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 17

Relinquished by: Bryan Honey	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact?	
Received by: [illegible]	Organization: TSHeco	Date 6/30/00	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

B56- RUN (0-0.5) - HOLD ALL OTHER DEPTHS UNTILL NOTIFIED BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier FedEx SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 5 of 5

Project Number/Name [illegible]

Project Location [illegible]

Laboratory [illegible]

Project Manager [illegible]

Sampler(s)/Affiliation [illegible] ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	[illegible]	[illegible]	[illegible]				Remarks	Total
[illegible]	S	[illegible]		1							1
[illegible]		[illegible]		1							1
[illegible]		[illegible]		1		[illegible]					1
[illegible]		[illegible]		1							1
[illegible]		[illegible]		1							1
[illegible]		[illegible]		1							1
[illegible]		[illegible]		1							1
[illegible]		1505		1	[illegible]						1
[illegible]		[illegible]		1	[illegible]						
[illegible]		[illegible]		1	[illegible]						
[illegible]		[illegible]			[illegible]						
[illegible]		[illegible]			[illegible]						
[illegible]		[illegible]			[illegible]						1
17.5		1530		1	HOLD						1
B128 20.5		1555		1	HOLD						1
B126 23.7-24	S	1600		1	HOLD						1

Total No. of Bottles/Containers 1/16

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [illegible]	Organization: [illegible]	Date / /	Time [illegible]	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 6/30/00	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: [illegible]

* (B129 will be shipped next day 6/29/00)

Delivery Method: ☐ In Person ☐ Common Carrier _____ SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

September 26, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (10), ten soil samples collected June 30, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 6, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001038-001	30-JUN-00	B121 (0-0.5)	AG	5.	ppm	MDK	02-SEP-00		6010
			AS	18.	ppm	MDK	02-SEP-00		6010
			BA	282.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	98.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	35.	ppm	MDK	02-SEP-00		6010
			CU	89.*	ppm	MDK	02-SEP-00		6010
			HG	8.8*	ppm	EH	13-JUL-00		7471
			MN	691.	ppm	MDK	02-SEP-00		6010
			MOIST.	18.	%	MJF	11-JUL-00		GRAV.
			PB	167.	ppm	MDK	02-SEP-00		6010
			SB	4.*	ppm	MDK	02-SEP-00		6010
			SE	18.*	ppm	MDK	02-SEP-00		6010
			SN	10.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	6973.	ppm	MDK	02-SEP-00		6010
L001038-002	30-JUN-00	B121 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	206.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	12.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	9.	ppm	MDK	02-SEP-00		6010
			CR	20.	ppm	MDK	02-SEP-00		6010
			CU	19.*	ppm	MDK	02-SEP-00		6010
			HG	0.21*	ppm	EH	13-JUL-00		7471
			MN	563.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			PB	26.	ppm	MDK	02-SEP-00		6010
			SB	5.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	42.	ppm	MDK	02-SEP-00		6010
			ZN	720.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001038-003	30-JUN-00	B121 (5.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	166.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	6.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	17.	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	0.15*	ppm	EH	13-JUL-00		7471
			MN	299.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			PB	17.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	34.	ppm	MDK	02-SEP-00		6010
			ZN	418.	ppm	MDK	02-SEP-00		6010
L001038-004	30-JUN-00	B121 (8.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	265.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	3.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	431.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			PB	16.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	29.	ppm	MDK	02-SEP-00		6010
			ZN	224.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001038-005	30-JUN-00	B121 (11.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	6.	ppm	MDK	02-SEP-00		6010
			BA	326.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	12.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	996.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			PB	17.	ppm	MDK	02-SEP-00		6010
			SB	4.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	30.	ppm	MDK	02-SEP-00		6010
			ZN	100.	ppm	MDK	02-SEP-00		6010
L001038-006	30-JUN-00	B121 (14.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	8.	ppm	MDK	02-SEP-00		6010
			BA	397.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	13.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	548.	ppm	MDK	02-SEP-00		6010
			MOIST.	22.	%	MJF	11-JUL-00		GRAV.
			PB	15.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	6.	ppm	MDK	02-SEP-00		6010
			TL	7.	ppm	MDK	02-SEP-00		6010
			V	30.	ppm	MDK	02-SEP-00		6010
			ZN	114.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001038-007	30-JUN-00	B121 (17.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	9.	ppm	MDK	02-SEP-00		6010
			BA	48.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	13.	ppm	MDK	02-SEP-00		6010
			CU	13.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	301.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	11-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	3.	ppm	MDK	02-SEP-00		6010
			V	30.	ppm	MDK	02-SEP-00		6010
			ZN	61.	ppm	MDK	02-SEP-00		6010
L001038-008	30-JUN-00	B121 (19.7-20)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	192.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	5.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	9.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	265.	ppm	MDK	02-SEP-00		6010
			MOIST.	19.	%	MJF	11-JUL-00		GRAV.
			PB	11.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	25.	ppm	MDK	02-SEP-00		6010
			ZN	65.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001038-009	30-JUN-00	DUPLICATE 40 8:48	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	266.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	13.	ppm	MDK	02-SEP-00		6010
			CU	11.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	284.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	11-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	4.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	27.	ppm	MDK	02-SEP-00		6010
			ZN	156.	ppm	MDK	02-SEP-00		6010
L001038-010	30-JUN-00	DUPLICATE 41 9:07	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	8.	ppm	MDK	02-SEP-00		6010
			BA	43.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MN	295.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			PB	14.	ppm	MDK	02-SEP-00		6010
			SB	4.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.	ppm	MDK	02-SEP-00		6010
			V	30.	ppm	MDK	02-SEP-00		6010
			ZN	68.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001038

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000778

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000778-1		Matrix Spike	AG	109	%Recovery	MDK	02-SEP-00		6010
			AS	88	%Recovery	MDK	02-SEP-00		6010
			BA	96	%Recovery	MDK	02-SEP-00		6010
			BI	103	%Recovery	MDK	02-SEP-00		6010
			CD	81	%Recovery	MDK	02-SEP-00		6010
			CN-	86	%Recovery	DC	11-JUL-00		335.2
			CO	93	%Recovery	MDK	02-SEP-00		6010
			CR	113	%Recovery	MDK	02-SEP-00		6010
			CU	132*	%Recovery	MDK	02-SEP-00		6010
			HG	SR>4SA	%Recovery	EH	13-JUL-00		7471
			MN	SR>4SA	%Recovery	MDK	02-SEP-00		6010
			PB	88	%Recovery	MDK	02-SEP-00		6010
			SB	43*	%Recovery	MDK	02-SEP-00		6010
			SE	70*	%Recovery	MDK	02-SEP-00		6010
			SN	92	%Recovery	MDK	02-SEP-00		6010
			TL	84	%Recovery	MDK	02-SEP-00		6010
			V	107	%Recovery	MDK	02-SEP-00		6010
			ZN	103	%Recovery	MDK	02-SEP-00		6010
WG000778-2		Prep Blank	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.0	ppm	MDK	02-SEP-00		6010
			BA	<5.0	ppm	MDK	02-SEP-00		6010
			BI	<4.0	ppm	MDK	02-SEP-00		6010
			CD	<1.0	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	11-JUL-00		335.2
			CO	<5.0	ppm	MDK	02-SEP-00		6010
			CR	<5.0	ppm	MDK	02-SEP-00		6010
			CU	<5.0	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	13-JUL-00		7471
			MN	<5.0	ppm	MDK	02-SEP-00		6010
			PB	<5.0	ppm	MDK	02-SEP-00		6010
			SB	1.0	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.0	ppm	MDK	02-SEP-00		6010
			TL	1.3	ppm	MDK	02-SEP-00		6010
			V	<5.0	ppm	MDK	02-SEP-00		6010
			ZN	<5.0	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000778

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000778-3		Lab Control Sample	AG	95	%Recovery	MDK	02-SEP-00		6010
			AS	86	%Recovery	MDK	02-SEP-00		6010
			BA	104	%Recovery	MDK	02-SEP-00		6010
			BI	98	%Recovery	MDK	02-SEP-00		6010
			CD	88	%Recovery	MDK	02-SEP-00		6010
			CN-	90	%Recovery	DC	11-JUL-00		335.2
			CO	98	%Recovery	MDK	02-SEP-00		6010
			CR	96	%Recovery	MDK	02-SEP-00		6010
			CU	111	%Recovery	MDK	02-SEP-00		6010
			HG	102	%Recovery	EH	13-JUL-00		7471
			MN	97	%Recovery	MDK	02-SEP-00		6010
			PB	89	%Recovery	MDK	02-SEP-00		6010
			SB	112	%Recovery	MDK	02-SEP-00		6010
			SE	73**	%Recovery	MDK	02-SEP-00		6010
			SN	102	%Recovery	MDK	02-SEP-00		6010
			TL	89	%Recovery	MDK	02-SEP-00		6010
			V	100	%Recovery	MDK	02-SEP-00		6010
			ZN	89	%Recovery	MDK	02-SEP-00		6010
WG000778-4		Duplicate	CN-	<1	% RPD	DC	11-JUL-00		335.2
			MOIST.	9.8	% RPD	MJF	11-JUL-00		GRAV.
WG000778-5		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	02-SEP-00		6010
			AS	<1	% RPD	MDK	02-SEP-00		6010
			BA	3.6	% RPD	MDK	02-SEP-00		6010
			BI	<1	% RPD	MDK	02-SEP-00		6010
			CD	1.1	% RPD	MDK	02-SEP-00		6010
			CO	2.5	% RPD	MDK	02-SEP-00		6010
			CR	3.8	% RPD	MDK	02-SEP-00		6010
			CU	1.4	% RPD	MDK	02-SEP-00		6010
			HG	32***	% RPD	EH	13-JUL-00		7471
			MN	3.7	% RPD	MDK	02-SEP-00		6010
			PB	1.2	% RPD	MDK	02-SEP-00		6010
			SB	3.1	% RPD	MDK	02-SEP-00		6010
			SE	<1	% RPD	MDK	02-SEP-00		6010
			SN	<1	% RPD	MDK	02-SEP-00		6010
			TL	2	% RPD	MDK	02-SEP-00		6010
			V	2.8	% RPD	MDK	02-SEP-00		6010
			ZN	2.6	% RPD	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000778

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000778-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Sb, Cu, and Se is within ERA (245), 95% confidence interval.
*** Duplicate Spike recovery for Hg was out of range due to non-homogeneity of spiked sample.

Approved

Reviewer

ASARCO

September 27, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (14), forteen soil samples collected June 29, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 30, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-001	29-JUN-00	B140 (0-0.5)	AG	2.	ppm	MDK	02-SEP-00		6010
			BA	210.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	38.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	15.*	ppm	MDK	02-SEP-00		6010
			HG	2.6*	ppm	EH	13-JUL-00		7471
			MOIST.	8.2	%	MJF	11-JUL-00		GRAV.
			SB	6.*	ppm	MDK	02-SEP-00		6010
			SE	3.*	ppm	MDK	02-SEP-00		6010
			SN	12.	ppm	MDK	02-SEP-00		6010
			TL	<4.**	ppm	MDK	02-SEP-00		6010
			V	17.	ppm	MDK	02-SEP-00		6010
L001002-002	29-JUN-00	B140 (2-2.5)	AG	2.	ppm	MDK	02-SEP-00		6010
			AS	30.	ppm	MDK	02-SEP-00		6010
			BA	248.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	28.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	22.	ppm	MDK	02-SEP-00		6010
			CR	61.*	ppm	MDK	02-SEP-00		6010
			CU	266.*	ppm	MDK	02-SEP-00		6010
			HG	2.2*	ppm	EH	13-JUL-00		7471
			MOIST.	14.	%	MJF	11-JUL-00		GRAV.
			PB	371.	ppm	MDK	02-SEP-00		6010
			SB	9.*	ppm	MDK	02-SEP-00		6010
			SE	3.*	ppm	MDK	02-SEP-00		6010
			SN	31.	ppm	MDK	02-SEP-00		6010
			TL	<10.**	ppm	MDK	02-SEP-00		6010
			V	13.	ppm	MDK	02-SEP-00		6010
			ZN	7989.	ppm	MDK	02-SEP-00		6010
L001002-003	29-JUN-00	B140 (5-5.5)	AG	21.	ppm	MDK	02-SEP-00		6010
			AS	253.	ppm	MDK	02-SEP-00		6010
			BA	603.	ppm	MDK	02-SEP-00		6010
			BI	10.	ppm	MDK	02-SEP-00		6010
			CD	42.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-003	29-JUN-00	B140 (5-5.5)	CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	16.	ppm	MDK	02-SEP-00		6010
			CR	32.*	ppm	MDK	02-SEP-00		6010
			CU	2350.*	ppm	MDK	02-SEP-00		6010
			HG	1.3*	ppm	EH	13-JUL-00		7471
			MN	10990.	ppm	MDK	02-SEP-00		6010
			MOIST.	38.	%	MJF	11-JUL-00		GRAV.
			PB	4212.	ppm	MDK	02-SEP-00		6010
			SB	87.*	ppm	MDK	02-SEP-00		6010
			SE	31.*	ppm	MDK	02-SEP-00		6010
			SN	516.	ppm	MDK	02-SEP-00		6010
			TL	<10.**	ppm	MDK	02-SEP-00		6010
			V	16.	ppm	MDK	02-SEP-00		6010
			ZN	74690.	ppm	MDK	26-SEP-00		6010
L001002-004	29-JUN-00	B141 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	156.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	5.	ppm	MDK	02-SEP-00		6010
			CR	16.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MOIST.	6.3	%	MJF	11-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.*	ppm	MDK	02-SEP-00		6010
			V	12.	ppm	MDK	02-SEP-00		6010
L001002-005	29-JUN-00	B141 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	623.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	15.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-005	29-JUN-00	B141 (2-2.5)	SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<2.**	ppm	MDK	02-SEP-00		6010
			V	25.	ppm	MDK	02-SEP-00		6010
L001002-006	29-JUN-00	B141 (5-5.6)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	234.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	<5.	ppm	MDK	02-SEP-00		6010
			CR	11.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MOIST.	18.	%	MJF	11-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<2.**	ppm	MDK	02-SEP-00		6010
			V	20.	ppm	MDK	02-SEP-00		6010
L001002-007	29-JUN-00	B141 (8-8.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	9.	ppm	MDK	02-SEP-00		6010
			BA	86.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	16.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	11.	ppm	MDK	02-SEP-00		6010
			CR	24.*	ppm	MDK	02-SEP-00		6010
			CU	195.*	ppm	MDK	02-SEP-00		6010
			HG	0.068*	ppm	EH	13-JUL-00		7471
			MN	787.	ppm	MDK	02-SEP-00		6010
			MOIST.	17.	%	MJF	11-JUL-00		GRAV.
			PB	12.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<4.**	ppm	MDK	02-SEP-00		6010
			V	6.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-008	29-JUN-00	B142 0-0.5()	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	151.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	<5.	ppm	MDK	02-SEP-00		6010
			CR	10.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MOIST.	6.5	%	MJF	11-JUL-00		GRAV.
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	8.*	ppm	MDK	02-SEP-00		6010
			V	10.	ppm	MDK	02-SEP-00		6010
L001002-009	29-JUN-00	B142 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	229.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010
			CR	16.*	ppm	MDK	02-SEP-00		6010
			HG	<0.05*	ppm	EH	13-JUL-00		7471
			MOIST.	21.	%	MJF	11-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	2.*	ppm	MDK	02-SEP-00		6010
			V	28.	ppm	MDK	02-SEP-00		6010
L001002-010	29-JUN-00	B142 (6-6.5)	AG	11.	ppm	MDK	02-SEP-00		6010
			BA	181.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	97.	ppm	MDK	02-SEP-00		6010
			CN-	0.08	ppm	DC	12-JUL-00		335.2
			CO	10.	ppm	MDK	02-SEP-00		6010
			CR	21.*	ppm	MDK	02-SEP-00		6010
			HG	0.74*	ppm	EH	13-JUL-00		7471
			MOIST.	13.	%	MJF	12-JUL-00		GRAV.
			SB	10.*	ppm	MDK	02-SEP-00		6010
			SE	11.*	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-010	29-JUN-00	B142 (6-6.5)	SN	38.	ppm	MDK	02-SEP-00		6010
			TL	<40.**	ppm	MDK	02-SEP-00		6010
			V	6.	ppm	MDK	02-SEP-00		6010
L001002-011	29-JUN-00	B143 (0-0.5)	AG	35.	ppm	MDK	02-SEP-00		6010
			BA	480.	ppm	MDK	02-SEP-00		6010
			BI	6.	ppm	MDK	02-SEP-00		6010
			CN-	0.30	ppm	DC	12-JUL-00		335.2
			CO	46.	ppm	MDK	02-SEP-00		6010
			CR	48.*	ppm	MDK	02-SEP-00		6010
			HG	1.9*	ppm	EH	13-JUL-00		7471
			MOIST.	11.	%	MJF	12-JUL-00		GRAV.
			SB	28.*	ppm	MDK	02-SEP-00		6010
			SE	6.*	ppm	MDK	02-SEP-00		6010
			SN	50.	ppm	MDK	02-SEP-00		6010
			TL	<20.**	ppm	MDK	02-SEP-00		6010
			V	7.	ppm	MDK	02-SEP-00		6010
L001002-012	29-JUN-00	B143 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	181.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	25.*	ppm	MDK	02-SEP-00		6010
			HG	0.052*	ppm	EH	13-JUL-00		7471
			MOIST.	26.	%	MJF	12-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.*	ppm	MDK	02-SEP-00		6010
			V	21.	ppm	MDK	02-SEP-00		6010
L001002-013	29-JUN-00	B143 (5-5.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			BA	117.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	9.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	7.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001002-013	29-JUN-00	B143 (5-5.5)	CR	18.*	ppm	MDK	02-SEP-00		6010
			CU	20.*	ppm	MDK	02-SEP-00		6010
			HG	0.28*	ppm	EH	13-JUL-00		7471
			MOIST.	28.	%	MJF	12-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<15.**	ppm	MDK	02-SEP-00		6010
			V	14.	ppm	MDK	02-SEP-00		6010
			ZN	1400.	ppm	MDK	02-SEP-00		6010
L001002-014	29-JUN-00	B143 (6-6.5)	AG	4.	ppm	MDK	02-SEP-00		6010
			BA	58.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	209.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	38.	ppm	MDK	02-SEP-00		6010
			CR	19.*	ppm	MDK	02-SEP-00		6010
			CU	14.*	ppm	MDK	02-SEP-00		6010
			HG	0.20*	ppm	EH	13-JUL-00		7471
			MN	15240.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	12-JUL-00		GRAV.
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	4.*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<5.**	ppm	MDK	02-SEP-00		6010
			V	8.	ppm	MDK	02-SEP-00		6010
			ZN	34500.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001002

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Detection limits on Tl were elevated on some samples due to matrix interference.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000777

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000777-1		Matrix Spike	AG	98	%Recovery	MDK	02-SEP-00		6010
			AS	86	%Recovery	MDK	02-SEP-00		6010
			BA	96	%Recovery	MDK	02-SEP-00		6010
			BI	99	%Recovery	MDK	02-SEP-00		6010
			CD	83	%Recovery	MDK	02-SEP-00		6010
			CN-	86	%Recovery	DC	12-JUL-00		335.2
			CO	93	%Recovery	MDK	02-SEP-00		6010
			CR	236*	%Recovery	MDK	02-SEP-00		6010
			CU	131*	%Recovery	MDK	02-SEP-00		6010
			HG	SR>4SA	%Recovery	EH	13-JUL-00		7471
			MN	108	%Recovery	MDK	02-SEP-00		6010
			PB	89	%Recovery	MDK	02-SEP-00		6010
			SB	71*	%Recovery	MDK	02-SEP-00		6010
			SE	68*	%Recovery	MDK	02-SEP-00		6010
			SN	93	%Recovery	MDK	02-SEP-00		6010
			TL	87	%Recovery	MDK	02-SEP-00		6010
			V	98	%Recovery	MDK	02-SEP-00		6010
			ZN	87	%Recovery	MDK	02-SEP-00		6010
WG000777-2		Prep Blank	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.0	ppm	MDK	02-SEP-00		6010
			BA	<5.0	ppm	MDK	02-SEP-00		6010
			BI	<4.0	ppm	MDK	02-SEP-00		6010
			CD	<1.0	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	<5.0	ppm	MDK	02-SEP-00		6010
			CR	<5.0	ppm	MDK	02-SEP-00		6010
			CU	<5.0	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	13-JUL-00		7471
			MN	<5.0	ppm	MDK	02-SEP-00		6010
			PB	<5.0	ppm	MDK	02-SEP-00		6010
			SB	<0.8	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.0	ppm	MDK	02-SEP-00		6010
			TL	1.4***	ppm	MDK	02-SEP-00		6010
			V	<5.0	ppm	MDK	02-SEP-00		6010
			ZN	<5.0	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000777

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000777-3		Lab Control Sample	AG	98	%Recovery	MDK	02-SEP-00		6010
			AS	84	%Recovery	MDK	02-SEP-00		6010
			BA	113	%Recovery	MDK	02-SEP-00		6010
			BI	95	%Recovery	MDK	02-SEP-00		6010
			CD	89	%Recovery	MDK	02-SEP-00		6010
			CN-	84	%Recovery	DC	12-JUL-00		335.2
			CO	98	%Recovery	MDK	02-SEP-00		6010
			CR	97	%Recovery	MDK	02-SEP-00		6010
			CU	114	%Recovery	MDK	02-SEP-00		6010
			HG	132**	%Recovery	EH	13-JUL-00		7471
			MN	100	%Recovery	MDK	02-SEP-00		6010
			PB	92	%Recovery	MDK	02-SEP-00		6010
			SB	112	%Recovery	MDK	02-SEP-00		6010
			SE	73**	%Recovery	MDK	02-SEP-00		6010
			SN	102	%Recovery	MDK	02-SEP-00		6010
			TL	87	%Recovery	MDK	02-SEP-00		6010
			V	102	%Recovery	MDK	02-SEP-00		6010
			ZN	94	%Recovery	MDK	02-SEP-00		6010
WG000777-4		Duplicate	CN-	<1	% RPD	DC	12-JUL-00		335.2
WG000777-5		Matrix Spike Duplicate	AG	<1	% RPD	MDK	02-SEP-00		6010
			AS	<1	% RPD	MDK	02-SEP-00		6010
			BA	<1	% RPD	MDK	02-SEP-00		6010
			BI	<1	% RPD	MDK	02-SEP-00		6010
			CD	2.1	% RPD	MDK	02-SEP-00		6010
			CO	1.5	% RPD	MDK	02-SEP-00		6010
			CR	1.8	% RPD	MDK	02-SEP-00		6010
			CU	1.5	% RPD	MDK	02-SEP-00		6010
			HG	1.2	% RPD	EH	13-JUL-00		7471
			MN	<1	% RPD	MDK	02-SEP-00		6010
			PB	1.2	% RPD	MDK	02-SEP-00		6010
			SB	5.3	% RPD	MDK	02-SEP-00		6010
			SE	1.1	% RPD	MDK	02-SEP-00		6010
			SN	<1	% RPD	MDK	02-SEP-00		6010
			TL	<1	% RPD	MDK	02-SEP-00		6010
			V	<1	% RPD	MDK	02-SEP-00		6010
			ZN	<1	% RPD	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000777

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000777-6		Reporting Limit	AG	0.050	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Hg and Se is within ERA (244 and 245), 95% confidence intervals.
*** Prep. Blank for Tl was greater than reporting limit. Tl results near reporting limit may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 5 of 1

Project Number/Name [illegible]

Project Location [illegible]

Laboratory [illegible]

Project Manager [illegible]

Sampler(s)/Affiliation [illegible]

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Remarks	Total
[illegible]	S	[illegible] 1113		X			X				1
[illegible]	S	1115		X	X						1
[illegible]	S	1150		X	X	X					1
[illegible]	S			X							
[illegible]	S			X							
[illegible]	S			X			X				
[illegible]	S			X				X			
[illegible]	S			X							1
[illegible]	S			X							1
[illegible]	S	✓		X			X				1
[illegible]											

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers [illegible]

Relinquished by: [illegible]	Organization: [illegible]	Date [illegible]	Time [illegible]	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 6/30/00	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: [illegible]

Delivery Method: ☐ In Person ☒ Common Carrier [illegible] SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers

Relinquished by: _____	Organization: _____	Date ___/___/___	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date 6/30/00	Time _____	Yes No N/A
Relinquished by: _____	Organization: _____	Date ___/___/___	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date ___/___/___	Time _____	Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☒ Common Carrier _____ (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AC 05 0597

ASARCO

September 27, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (49), forty nine soil samples collected between June 27, and June 29, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 30, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001062

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001062-001	27-JUN-00	B119 (0-0.5)	AG	0.8	ppm	MDK	06-SEP-00	6010
			CD	10.	ppm	MDK	06-SEP-00	6010
			CR	12.	ppm	MDK	06-SEP-00	6010
			CU	23.	ppm	MDK	06-SEP-00	6010
			HG	0.12*	ppm	EH	19-JUL-00	7471
			MN	178.	ppm	MDK	06-SEP-00	6010
			MOIST.	11.	%	DC	19-JUL-00	GRAV.
			SB	2.9*	ppm	MDK	06-SEP-00	6010
			SE	<0.8*	ppm	MDK	06-SEP-00	6010
			ZN	784.	ppm	MDK	06-SEP-00	6010
L001062-002	27-JUN-00	B119 (2-2.5)	AG	<0.5	ppm	MDK	06-SEP-00	6010
			CU	11.	ppm	MDK	06-SEP-00	6010
			HG	<0.05*	ppm	EH	19-JUL-00	7471
			MN	321.	ppm	MDK	06-SEP-00	6010
			MOIST.	18.	%	DC	19-JUL-00	GRAV.
			SB	2.9*	ppm	MDK	06-SEP-00	6010
			ZN	40.	ppm	MDK	06-SEP-00	6010
L001062-003	27-JUN-00	B119 (5.5)	SB	2.9*	ppm	MDK	06-SEP-00	6010
			ZN	105.	ppm	MDK	06-SEP-00	6010
L001062-004	27-JUN-00	B119 (8.5)	SB	3.9*	ppm	MDK	06-SEP-00	6010
			ZN	53.	ppm	MDK	06-SEP-00	6010
L001062-005	27-JUN-00	B119 (11.5)	SB	3.6*	ppm	MDK	06-SEP-00	6010
			ZN	54.	ppm	MDK	06-SEP-00	6010
L001062-006	27-JUN-00	B119 (14.5)	MN	798.	ppm	MDK	06-SEP-00	6010
			SB	3.4*	ppm	MDK	06-SEP-00	6010
			ZN	59.	ppm	MDK	06-SEP-00	6010
L001062-007	27-JUN-00	B119 (17.5)	SB	2.7*	ppm	MDK	06-SEP-00	6010
			ZN	538.	ppm	MDK	06-SEP-00	6010
L001062-008	27-JUN-00	B119 (19.7-20)	SB	2.2*	ppm	MDK	06-SEP-00	6010
			ZN	46.	ppm	MDK	06-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001062

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001062-034	29-JUN-00	B126 (5.5)	SB	2.5*	ppm	MDK	06-SEP-00	6010
			ZN	44.	ppm	MDK	06-SEP-00	6010
L001062-035	29-JUN-00	B126 (8.5)	SB	2.8*	ppm	MDK	06-SEP-00	6010
			ZN	56.	ppm	MDK	06-SEP-00	6010
L001062-036	29-JUN-00	B126 (11.5)	CR	14.	ppm	MDK	06-SEP-00	6010
			SB	2.1*	ppm	MDK	06-SEP-00	6010
			ZN	54.	ppm	MDK	06-SEP-00	6010
L001062-037	29-JUN-00	B126 (14.5)	SB	2.2*	ppm	MDK	06-SEP-00	6010
			ZN	61.	ppm	MDK	06-SEP-00	6010
L001062-038	29-JUN-00	B126 (17.5)	CR	13.	ppm	MDK	06-SEP-00	6010
			SB	2.6*	ppm	MDK	06-SEP-00	6010
			ZN	51.	ppm	MDK	06-SEP-00	6010
L001062-039	29-JUN-00	B126 (20.5)	SB	2.6*	ppm	MDK	06-SEP-00	6010
			TL	<1.*	ppm	MDK	06-SEP-00	6010
			ZN	59.	ppm	MDK	06-SEP-00	6010
L001062-040	29-JUN-00	B126 (23.5-24)	SB	3.1*	ppm	MDK	06-SEP-00	6010
			TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	51.	ppm	MDK	06-SEP-00	6010
L001062-041	28-JUN-00	B128 (0-0.5)	AG	1.1	ppm	MDK	06-SEP-00	6010
			CD	19.	ppm	MDK	06-SEP-00	6010
			CR	16.	ppm	MDK	06-SEP-00	6010
			HG	0.58*	ppm	EH	19-JUL-00	7471
			MN	445.	ppm	MDK	06-SEP-00	6010
			MOIST.	13.	%	DC	19-JUL-00	GRAV.
			SB	3.5*	ppm	MDK	06-SEP-00	6010
			SE	2.4*	ppm	MDK	06-SEP-00	6010
			V	16.	ppm	MDK	06-SEP-00	6010
			ZN	1560.	ppm	MDK	06-SEP-00	6010
L001062-042	28-JUN-00	B128 (2-2.5)	HG	<0.05*	ppm	EH	19-JUL-00	7471
			MOIST.	14.	%	DC	19-JUL-00	GRAV.
			SB	2.8*	ppm	MDK	06-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001062

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001062-042	28-JUN-00	B128 (2-2.5)	ZN	49.	ppm	MDK	06-SEP-00	6010
L001062-043	28-JUN-00	B128 (5.5)	SB	2.5*	ppm	MDK	06-SEP-00	6010
			TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	128.	ppm	MDK	06-SEP-00	6010
L001062-044	28-JUN-00	B128 (8.5)	CD	<1.	ppm	MDK	06-SEP-00	6010
			CO	8.	ppm	MDK	06-SEP-00	6010
			CR	13.	ppm	MDK	06-SEP-00	6010
			SB	2.6*	ppm	MDK	06-SEP-00	6010
			V	33.	ppm	MDK	06-SEP-00	6010
			ZN	53.	ppm	MDK	06-SEP-00	6010
L001062-045	28-JUN-00	B128 (11.5)	CR	14.	ppm	MDK	06-SEP-00	6010
			MN	453.	ppm	MDK	06-SEP-00	6010
			SB	2.8*	ppm	MDK	06-SEP-00	6010
			TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	58.	ppm	MDK	06-SEP-00	6010
L001062-046	28-JUN-00	B128 (14.5)	SB	2.2*	ppm	MDK	06-SEP-00	6010
			ZN	44.	ppm	MDK	06-SEP-00	6010
L001062-047	28-JUN-00	B128 (17.5)	SB	3.5*	ppm	MDK	06-SEP-00	6010
			ZN	64.	ppm	MDK	06-SEP-00	6010
L001062-048	28-JUN-00	B128 (20.5)	SB	2.8*	ppm	MDK	06-SEP-00	6010
			ZN	47.	ppm	MDK	06-SEP-00	6010
L001062-049	28-JUN-00	B128 (23.7-24)	SB	2.4*	ppm	MDK	06-SEP-00	6010
			ZN	45.	ppm	MDK	06-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-1		Matrix Spike	AG	112	%Recovery	MDK	06-SEP-00		6010
			AS	87	%Recovery	MDK	06-SEP-00		6010
			BA	95	%Recovery	MDK	06-SEP-00		6010
			BI	104	%Recovery	MDK	06-SEP-00		6010
			CD	84	%Recovery	MDK	06-SEP-00		6010
			CO	91	%Recovery	MDK	06-SEP-00		6010
			CR	114	%Recovery	MDK	06-SEP-00		6010
			CU	122	%Recovery	MDK	06-SEP-00		6010
			HG	128*	%Recovery	EH	19-JUL-00		7471
			MN	119	%Recovery	MDK	06-SEP-00		6010
			NI	94	%Recovery	MDK	06-SEP-00		6010
			PB	91	%Recovery	MDK	06-SEP-00		6010
			SB	54*	%Recovery	MDK	06-SEP-00		6010
			SE	71*	%Recovery	MDK	06-SEP-00		6010
			SN	96	%Recovery	MDK	06-SEP-00		6010
			TL	83	%Recovery	MDK	06-SEP-00		6010
			V	105	%Recovery	MDK	06-SEP-00		6010
			ZN	102	%Recovery	MDK	06-SEP-00		6010
WG000797-2		Prep Blank	AG	<0.50	ppm	MDK	06-SEP-00		6010
			AS	<5.0	ppm	MDK	06-SEP-00		6010
			BA	<5.0	ppm	MDK	06-SEP-00		6010
			BI	<4.0	ppm	MDK	06-SEP-00		6010
			CD	<1.0	ppm	MDK	06-SEP-00		6010
			CO	<5.0	ppm	MDK	06-SEP-00		6010
			CR	<5.0	ppm	MDK	06-SEP-00		6010
			CU	<5.0	ppm	MDK	06-SEP-00		6010
			HG	<0.05	ppm	EH	19-JUL-00		7471
			MN	<5.0	ppm	MDK	06-SEP-00		6010
			NI	<5.0	ppm	MDK	06-SEP-00		6010
			PB	<5.0	ppm	MDK	06-SEP-00		6010
			SB	<0.8	ppm	MDK	06-SEP-00		6010
			SE	<0.8	ppm	MDK	06-SEP-00		6010
			SN	<5.0	ppm	MDK	06-SEP-00		6010
			TL	2.6***	ppm	MDK	06-SEP-00		6010
			V	<5.0	ppm	MDK	06-SEP-00		6010
			ZN	<5.0	ppm	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-3		Lab Control Sample	AG	109	%Recovery	MDK	06-SEP-00		6010
			AS	96	%Recovery	MDK	06-SEP-00		6010
			BA	111	%Recovery	MDK	06-SEP-00		6010
			BI	102	%Recovery	MDK	06-SEP-00		6010
			CD	103	%Recovery	MDK	06-SEP-00		6010
			CO	106	%Recovery	MDK	06-SEP-00		6010
			CR	104	%Recovery	MDK	06-SEP-00		6010
			CU	119	%Recovery	MDK	06-SEP-00		6010
			HG	107	%Recovery	EH	19-JUL-00		7471
			MN	102	%Recovery	MDK	06-SEP-00		6010
			NI	108	%Recovery	MDK	06-SEP-00		6010
			PB	105	%Recovery	MDK	06-SEP-00		6010
			SB	127**	%Recovery	MDK	06-SEP-00		6010
			SE	85	%Recovery	MDK	06-SEP-00		6010
			SN	112	%Recovery	MDK	06-SEP-00		6010
			TL	98	%Recovery	MDK	06-SEP-00		6010
			V	111	%Recovery	MDK	06-SEP-00		6010
			ZN	113	%Recovery	MDK	06-SEP-00		6010
WG000797-5		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	06-SEP-00		6010
			AS	<1	% RPD	MDK	06-SEP-00		6010
			BA	<1	% RPD	MDK	06-SEP-00		6010
			BI	<1	% RPD	MDK	06-SEP-00		6010
			CD	<1	% RPD	MDK	06-SEP-00		6010
			CO	1.5	% RPD	MDK	06-SEP-00		6010
			CR	1.3	% RPD	MDK	06-SEP-00		6010
			CU	1.9	% RPD	MDK	06-SEP-00		6010
			MN	1.5	% RPD	MDK	06-SEP-00		6010
			NI	<1	% RPD	MDK	06-SEP-00		6010
			PB	<1	% RPD	MDK	06-SEP-00		6010
			SB	1.2	% RPD	MDK	06-SEP-00		6010
			SE	<1	% RPD	MDK	06-SEP-00		6010
			SN	<1	% RPD	MDK	06-SEP-00		6010
			TL	2.9	% RPD	MDK	06-SEP-00		6010
			V	<1	% RPD	MDK	06-SEP-00		6010
			ZN	<1	% RPD	MDK	06-SEP-00		6010
WG000797-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-6		Reporting Limit	BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000797-7		Matrix Spike	AG	113	%Recovery	MDK	06-SEP-00		6010
			AS	90	%Recovery	MDK	06-SEP-00		6010
			BA	92	%Recovery	MDK	06-SEP-00		6010
			BI	106	%Recovery	MDK	06-SEP-00		6010
			CD	82	%Recovery	MDK	06-SEP-00		6010
			CO	89	%Recovery	MDK	06-SEP-00		6010
			CR	100	%Recovery	MDK	06-SEP-00		6010
			CU	124	%Recovery	MDK	06-SEP-00		6010
			MN	98	%Recovery	MDK	06-SEP-00		6010
			NI	89	%Recovery	MDK	06-SEP-00		6010
			PB	90	%Recovery	MDK	06-SEP-00		6010
			SB	45*	%Recovery	MDK	06-SEP-00		6010
			SE	70*	%Recovery	MDK	06-SEP-00		6010
			SN	97	%Recovery	MDK	06-SEP-00		6010
			TL	83	%Recovery	MDK	06-SEP-00		6010
			V	104	%Recovery	MDK	06-SEP-00		6010
			ZN	97	%Recovery	MDK	06-SEP-00		6010
WG000797-8		Prep Blank	AG	<0.50	ppm	MDK	06-SEP-00		6010
			AS	<5.0	ppm	MDK	06-SEP-00		6010
			BA	<5.0	ppm	MDK	06-SEP-00		6010
			BI	<4.0	ppm	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-8		Prep Blank	CD	<1.0	ppm	MDK	06-SEP-00		6010
			CO	<5.0	ppm	MDK	06-SEP-00		6010
			CR	<5.0	ppm	MDK	06-SEP-00		6010
			CU	<5.0	ppm	MDK	06-SEP-00		6010
			MN	<5.0	ppm	MDK	06-SEP-00		6010
			NI	<5.0	ppm	MDK	06-SEP-00		6010
			PB	<5.0	ppm	MDK	06-SEP-00		6010
			SB	<0.8	ppm	MDK	06-SEP-00		6010
			SE	<0.8	ppm	MDK	06-SEP-00		6010
			SN	<5.0	ppm	MDK	06-SEP-00		6010
			TL	1.9***	ppm	MDK	06-SEP-00		6010
			V	<5.0	ppm	MDK	06-SEP-00		6010
			ZN	<5.0	ppm	MDK	06-SEP-00		6010
WG000797-9		Lab Control Sample	AG	106	%Recovery	MDK	06-SEP-00		6010
			AS	94	%Recovery	MDK	06-SEP-00		6010
			BA	107	%Recovery	MDK	06-SEP-00		6010
			BI	105	%Recovery	MDK	06-SEP-00		6010
			CD	95	%Recovery	MDK	06-SEP-00		6010
			CO	105	%Recovery	MDK	06-SEP-00		6010
			CR	106	%Recovery	MDK	06-SEP-00		6010
			CU	115	%Recovery	MDK	06-SEP-00		6010
			MN	96	%Recovery	MDK	06-SEP-00		6010
			NI	103	%Recovery	MDK	06-SEP-00		6010
			PB	115	%Recovery	MDK	06-SEP-00		6010
			SB	133**	%Recovery	MDK	06-SEP-00		6010
			SE	81	%Recovery	MDK	06-SEP-00		6010
			SN	113	%Recovery	MDK	06-SEP-00		6010
			TL	96	%Recovery	MDK	06-SEP-00		6010
			V	115	%Recovery	MDK	06-SEP-00		6010
			ZN	92	%Recovery	MDK	06-SEP-00		6010
WG000797-11		Matrix Spike Duplicate	AG	<1	% RPD	MDK	06-SEP-00		6010
			AS	3.8	% RPD	MDK	06-SEP-00		6010
			BA	<1	% RPD	MDK	06-SEP-00		6010
			BI	4.1	% RPD	MDK	06-SEP-00		6010
			CD	4.2	% RPD	MDK	06-SEP-00		6010
			CO	3.5	% RPD	MDK	06-SEP-00		6010
			CR	3.8	% RPD	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-11		Matrix Spike Duplicate	CU	1.8	% RPD	MDK	06-SEP-00		6010
			MN	<1	% RPD	MDK	06-SEP-00		6010
			NI	3.9	% RPD	MDK	06-SEP-00		6010
			PB	3.7	% RPD	MDK	06-SEP-00		6010
			SB	4.7	% RPD	MDK	06-SEP-00		6010
			SE	3.8	% RPD	MDK	06-SEP-00		6010
			SN	4.5	% RPD	MDK	06-SEP-00		6010
			TL	6.8	% RPD	MDK	06-SEP-00		6010
			V	<1	% RPD	MDK	06-SEP-00		6010
			ZN	<1	% RPD	MDK	06-SEP-00		6010
WG000797-13		Matrix Spike	AG	117	%Recovery	MDK	06-SEP-00		6010
			AS	92	%Recovery	MDK	06-SEP-00		6010
			BA	98	%Recovery	MDK	06-SEP-00		6010
			BI	111	%Recovery	MDK	06-SEP-00		6010
			CD	84	%Recovery	MDK	06-SEP-00		6010
			CO	92	%Recovery	MDK	06-SEP-00		6010
			CR	106	%Recovery	MDK	06-SEP-00		6010
			CU	123	%Recovery	MDK	06-SEP-00		6010
			MN	95	%Recovery	MDK	06-SEP-00		6010
			NI	93	%Recovery	MDK	06-SEP-00		6010
			PB	93	%Recovery	MDK	06-SEP-00		6010
			SB	51*	%Recovery	MDK	06-SEP-00		6010
			SE	72*	%Recovery	MDK	06-SEP-00		6010
			SN	99	%Recovery	MDK	06-SEP-00		6010
			TL	86	%Recovery	MDK	06-SEP-00		6010
			V	106	%Recovery	MDK	06-SEP-00		6010
			ZN	98	%Recovery	MDK	06-SEP-00		6010
WG000797-14		Prep Blank	AG	<0.50	ppm	MDK	06-SEP-00		6010
			AS	<5.0	ppm	MDK	06-SEP-00		6010
			BA	<5.0	ppm	MDK	06-SEP-00		6010
			BI	<4.0	ppm	MDK	06-SEP-00		6010
			CD	<1.0	ppm	MDK	06-SEP-00		6010
			CO	<5.0	ppm	MDK	06-SEP-00		6010
			CR	<5.0	ppm	MDK	06-SEP-00		6010
			CU	<5.0	ppm	MDK	06-SEP-00		6010
			MN	<5.0	ppm	MDK	06-SEP-00		6010
			NI	<5.0	ppm	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-14		Prep Blank	PB	<5.0	ppm	MDK	06-SEP-00		6010
			SB	<0.8	ppm	MDK	06-SEP-00		6010
			SE	<0.8	ppm	MDK	06-SEP-00		6010
			SN	<5.0	ppm	MDK	06-SEP-00		6010
			TL	1.8	ppm	MDK	06-SEP-00		6010
			V	<5.0	ppm	MDK	06-SEP-00		6010
			ZN	<5.0	ppm	MDK	06-SEP-00		6010
WG000797-15		Lab Control Sample	AG	109	%Recovery	MDK	06-SEP-00		6010
			AS	96	%Recovery	MDK	06-SEP-00		6010
			BA	107	%Recovery	MDK	06-SEP-00		6010
			BI	102	%Recovery	MDK	06-SEP-00		6010
			CD	100	%Recovery	MDK	06-SEP-00		6010
			CO	107	%Recovery	MDK	06-SEP-00		6010
			CR	105	%Recovery	MDK	06-SEP-00		6010
			CU	120	%Recovery	MDK	06-SEP-00		6010
			MN	108	%Recovery	MDK	06-SEP-00		6010
			NI	104	%Recovery	MDK	06-SEP-00		6010
			PB	104	%Recovery	MDK	06-SEP-00		6010
			SB	129**	%Recovery	MDK	06-SEP-00		6010
			SE	84	%Recovery	MDK	06-SEP-00		6010
			SN	115	%Recovery	MDK	06-SEP-00		6010
			TL	96	%Recovery	MDK	06-SEP-00		6010
			V	114	%Recovery	MDK	06-SEP-00		6010
			ZN	95	%Recovery	MDK	06-SEP-00		6010
WG000797-17		Matrix Spike Duplicate	AG	2.8	% RPD	MDK	06-SEP-00		6010
			AS	4	% RPD	MDK	06-SEP-00		6010
			BA	3	% RPD	MDK	06-SEP-00		6010
			BI	3.1	% RPD	MDK	06-SEP-00		6010
			CD	2.7	% RPD	MDK	06-SEP-00		6010
			CO	3.5	% RPD	MDK	06-SEP-00		6010
			CR	5.9	% RPD	MDK	06-SEP-00		6010
			CU	3.7	% RPD	MDK	06-SEP-00		6010
			MN	1.2	% RPD	MDK	06-SEP-00		6010
			NI	3.7	% RPD	MDK	06-SEP-00		6010
			PB	3.7	% RPD	MDK	06-SEP-00		6010
			SB	11	% RPD	MDK	06-SEP-00		6010
			SE	3.4	% RPD	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000797

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000797-17		Matrix Spike Duplicate	SN	1.9	% RPD	MDK	06-SEP-00		6010
			TL	1.6	% RPD	MDK	06-SEP-00		6010
			V	3.9	% RPD	MDK	06-SEP-00		6010
			ZN	2.8	% RPD	MDK	06-SEP-00		6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Sb is within ERA (245), 95% confidence interval.
*** Tl Prep. Blank greater than reporting limit. Results near reporting limit may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 5

Project Number/Name CC000642001

Project Location Encycle Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, [illegible], Se, Ag	Tl, Sn, V, Zn	(8 oz glass w/teflon lined lid)			Remarks	Total
B118	0-0.5	S	6/27/00 1532		1								1
B118	2-2.5		1535		1								1
B118	5.5		1538		1								1
B118	8.5		1543		1								1
B118	11.5		1545		1								1
B118	14.5		1550		1								1
B118	17.5		1600		1								1
B118	18-18.5		1605		1								1
B119	0-0.5		1620		1								1
B119	2-2.5		1622		1								1
B119	5.5		1625		1								1
B119	8.5		1630		1								1
B119	11.5		1633		1								1
B119	14.5		1635		1								1
B119	17.5		6/27/00 1650		1								1
B119	19.7-20	S	6/27/00 1655		1								1

HOLD

Total No. of Bottles/Containers 1/16

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Bryan Harvey	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact? Yes No N/A
Received by: [illegible]	Organization: ASARCO	Date 6/30/00	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: STEP OUT BORINGS B118, B119, B120 - RUN ALL DEPTHS FOR B118 - HOLD ALL DEPTHS FOR B119, B120 UNTIL NOTIFIED, BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 5

Project Number/Name C0006420001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Be, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Se, Ag, Tl, Sn, V, Zn (8 oz glass w/teflon lined lid)						Remarks	Total
B120	0-0.5	S	6/28/00 835		1							1
B120	2-2.5		837		1							1
B120	5.5		840		1							1
B120	8.5		845		1		HOLD					1
B120	11.5		848		1							1
B120	14.5		850		1							1
B120	17.5		855		1							1
B120	20.3-21	S	6/28/00 910		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 8

Relinquished by: Bryan Harvey	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact?	
Received by: [signature]	Organization: ASARCO	Date 6/30/00	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

See Page #1

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0587

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 2

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers

Relinquished by: _____	Organization: _____	Date _____	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date 6/30/00	Time _____	Yes	No N/A
Relinquished by: _____	Organization: _____	Date ___/___/___	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date ___/___/___	Time _____	Yes	No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☑ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

AG 05 0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 14

Relinquished by: _____	Organization: _____	Date ___/___/___	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date 6/30/00	Time _____	Yes	No N/A
Relinquished by: _____	Organization: _____	Date ___/___/___	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date ___/___/___	Time _____	Yes	No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☑ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

AG 05 0592

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 3 of 6

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total
23 B.H. 7.6.00											
	L										

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 15

					Seal Intact?
Relinquished by: _____	Organization: _____	Date 6/30/00	Time _____		
Received by: _____	Organization: _____	Date 6/30/00	Time _____		Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☐ Common Carrier _____ (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total
	S										1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 1

Relinquished by: _____	Organization: _____	Date __/__/__	Time _____	Seal Intact?
Received by: [illegible]	Organization: SHRCO	Date 6/30/00	Time _____	Yes No N/A
Relinquished by: _____	Organization: _____	Date __/__/__	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date __/__/__	Time _____	Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☑ Common Carrier 1 (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0587

ASARCO

September 29, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (17), seventeen soil samples collected on June 12, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 13, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001026

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001026-001	12-JUN-00	B-103 (2-2.5)	AG	<0.5	ppm	MDK	06-SEP-00	6010
			AS	5.	ppm	MDK	06-SEP-00	6010
			CD	5.	ppm	MDK	06-SEP-00	6010
			CO	<5.	ppm	MDK	06-SEP-00	6010
			CR	12.	ppm	MDK	06-SEP-00	6010
			CU	11.	ppm	MDK	06-SEP-00	6010
			HG	<0.05	ppm	VPK	07-JUL-00	7471
			MN	253.	ppm	MDK	06-SEP-00	6010
			PB	18.	ppm	MDK	06-SEP-00	6010
			SB	<0.8*	ppm	MDK	06-SEP-00	6010
			SE	<0.8*	ppm	MDK	06-SEP-00	6010
			SN	<5.	ppm	MDK	06-SEP-00	6010
			TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	333.	ppm	MDK	06-SEP-00	6010
L001026-002	12-JUN-00	B-103 (5.5)	CD	<1.	ppm	MDK	06-SEP-00	6010
			ZN	57.	ppm	MDK	06-SEP-00	6010
L001026-003	12-JUN-00	B-103 (8.5)	ZN	199.	ppm	MDK	06-SEP-00	6010
L001026-004	12-JUN-00	B-103 (11.5)	ZN	65.	ppm	MDK	06-SEP-00	6010
L001026-005	12-JUN-00	B-103 (14.5)	ZN	79.	ppm	MDK	06-SEP-00	6010
L001026-006	12-JUN-00	B-103 (15-15.5)	ZN	35.	ppm	MDK	06-SEP-00	6010
L001026-007	12-JUN-00	B-102 (2-2.5)	AG	<0.5	ppm	MDK	06-SEP-00	6010
			AS	<5.	ppm	MDK	06-SEP-00	6010
			CD	3.	ppm	MDK	06-SEP-00	6010
			CO	<5.	ppm	MDK	06-SEP-00	6010
			CR	10.	ppm	MDK	06-SEP-00	6010
			CU	10.	ppm	MDK	06-SEP-00	6010
			HG	<0.05	ppm	VPK	07-JUL-00	7471
			MN	254.	ppm	MDK	06-SEP-00	6010
			NI	7.	ppm	MDK	06-SEP-00	6010
			PB	13.	ppm	MDK	06-SEP-00	6010
			SB	<0.8*	ppm	MDK	06-SEP-00	6010
			SE	<0.8*	ppm	MDK	06-SEP-00	6010
			SN	<5.	ppm	MDK	06-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001026

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001026-007	12-JUN-00	B-102 (2-2.5)	TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	217.	ppm	MDK	06-SEP-00	6010
L001026-008	12-JUN-00	B-102 (5.5)	ZN	102.	ppm	MDK	06-SEP-00	6010
L001026-009	12-JUN-00	B-102 (8.5)	ZN	60.	ppm	MDK	06-SEP-00	6010
L001026-010	12-JUN-00	B-102 (11.5)	ZN	34.	ppm	MDK	06-SEP-00	6010
L001026-011	12-JUN-00	B-102 (14.5)	ZN	39.	ppm	MDK	06-SEP-00	6010
L001026-012	12-JUN-00	B-102 (14.8-15.3)	ZN	20.	ppm	MDK	06-SEP-00	6010
L001026-013	12-JUN-00	B-101 (2-2.5)	AG	<0.5	ppm	MDK	06-SEP-00	6010
			AS	6.	ppm	MDK	06-SEP-00	6010
			BI	<4.	ppm	MDK	06-SEP-00	6010
			CD	3.	ppm	MDK	06-SEP-00	6010
			CO	<5.	ppm	MDK	06-SEP-00	6010
			CR	9.	ppm	MDK	06-SEP-00	6010
			CU	11.	ppm	MDK	06-SEP-00	6010
			HG	<0.05	ppm	VPK	07-JUL-00	7471
			MN	222.	ppm	MDK	06-SEP-00	6010
			NI	7.	ppm	MDK	06-SEP-00	6010
			PB	16.	ppm	MDK	06-SEP-00	6010
			SB	<0.8*	ppm	MDK	06-SEP-00	6010
			SE	<0.8*	ppm	MDK	06-SEP-00	6010
			SN	<5.	ppm	MDK	06-SEP-00	6010
			TL	2.*	ppm	MDK	06-SEP-00	6010
			ZN	495.	ppm	MDK	06-SEP-00	6010
L001026-014	12-JUN-00	B-101 (5.5)	TL	2.*	ppm	MDK	06-SEP-00	6010
			ZN	56.	ppm	MDK	06-SEP-00	6010
L001026-015	12-JUN-00	B-101 (8.5)	TL	1.*	ppm	MDK	06-SEP-00	6010
			ZN	81.	ppm	MDK	06-SEP-00	6010
L001026-016	12-JUN-00	B-101 (11.5)	ZN	99.	ppm	MDK	06-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001026

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001026-017	12-JUN-00	B-101 (14.5-15)	ZN	30.	ppm	MDK	06-SEP-00	6010

(*) Quality control data indicates a possible bias. See QC report for details.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000795

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000795-1		Matrix Spike	AG	106	%Recovery	MDK	06-SEP-00		6010
			AS	93	%Recovery	MDK	06-SEP-00		6010
			BA	91	%Recovery	MDK	06-SEP-00		6010
			BI	100	%Recovery	MDK	06-SEP-00		6010
			CD	86	%Recovery	MDK	06-SEP-00		6010
			CO	89	%Recovery	MDK	06-SEP-00		6010
			CR	105	%Recovery	MDK	06-SEP-00		6010
			CU	117	%Recovery	MDK	06-SEP-00		6010
			HG	110	%Recovery	VPK	07-JUL-00		7471
			MN	100	%Recovery	MDK	06-SEP-00		6010
			NI	92	%Recovery	MDK	06-SEP-00		6010
			PB	92	%Recovery	MDK	06-SEP-00		6010
			SB	55*	%Recovery	MDK	06-SEP-00		6010
			SE	73*	%Recovery	MDK	06-SEP-00		6010
			SN	96	%Recovery	MDK	06-SEP-00		6010
			TL	82	%Recovery	MDK	06-SEP-00		6010
			V	102	%Recovery	MDK	06-SEP-00		6010
			ZN	100	%Recovery	MDK	06-SEP-00		6010
WG000795-2		Prep Blank	AG	<0.50	ppm	MDK	06-SEP-00		6010
			AS	<5.0	ppm	MDK	06-SEP-00		6010
			BA	<5.0	ppm	MDK	06-SEP-00		6010
			BI	<4.0	ppm	MDK	06-SEP-00		6010
			CD	<5.0	ppm	MDK	06-SEP-00		6010
			CO	<5.0	ppm	MDK	06-SEP-00		6010
			CR	<5.0	ppm	MDK	06-SEP-00		6010
			CU	<5.0	ppm	MDK	06-SEP-00		6010
			HG	<0.05	ppm	VPK	07-JUL-00		7471
			MN	<5.0	ppm	MDK	06-SEP-00		6010
			NI	<5.0	ppm	MDK	06-SEP-00		6010
			PB	<5.0	ppm	MDK	06-SEP-00		6010
			SB	<0.8	ppm	MDK	06-SEP-00		6010
			SE	<0.8	ppm	MDK	06-SEP-00		6010
			SN	<5.0	ppm	MDK	06-SEP-00		6010
			TL	3.2***	ppm	MDK	06-SEP-00		6010
			V	<5.0	ppm	MDK	06-SEP-00		6010
			ZN	<5.0	ppm	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000795

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000795-3		Lab Control Sample	AG	97	%Recovery	MDK	06-SEP-00		6010
			AS	91	%Recovery	MDK	06-SEP-00		6010
			BA	113	%Recovery	MDK	06-SEP-00		6010
			BI	94	%Recovery	MDK	06-SEP-00		6010
			CD	92	%Recovery	MDK	06-SEP-00		6010
			CO	96	%Recovery	MDK	06-SEP-00		6010
			CR	96	%Recovery	MDK	06-SEP-00		6010
			CU	107	%Recovery	MDK	06-SEP-00		6010
			HG	110	%Recovery	VPK	07-JUL-00		7471
			MN	92	%Recovery	MDK	06-SEP-00		6010
			NI	97	%Recovery	MDK	06-SEP-00		6010
			PB	94	%Recovery	MDK	06-SEP-00		6010
			SB	131**	%Recovery	MDK	06-SEP-00		6010
			SE	78**	%Recovery	MDK	06-SEP-00		6010
			SN	104	%Recovery	MDK	06-SEP-00		6010
			TL	89	%Recovery	MDK	06-SEP-00		6010
			V	104	%Recovery	MDK	06-SEP-00		6010
			ZN	82	%Recovery	MDK	06-SEP-00		6010
WG000795-5		Matrix Spike Duplicate	AG	2.3	% RPD	MDK	06-SEP-00		6010
			AS	3.4	% RPD	MDK	06-SEP-00		6010
			BA	<1	% RPD	MDK	06-SEP-00		6010
			BI	1.8	% RPD	MDK	06-SEP-00		6010
			CD	3.4	% RPD	MDK	06-SEP-00		6010
			CO	2.5	% RPD	MDK	06-SEP-00		6010
			CR	3.3	% RPD	MDK	06-SEP-00		6010
			CU	5.7	% RPD	MDK	06-SEP-00		6010
			HG	5.3	% RPD	VPK	07-JUL-00		7471
			MN	1.6	% RPD	MDK	06-SEP-00		6010
			NI	4	% RPD	MDK	06-SEP-00		6010
			PB	2.6	% RPD	MDK	06-SEP-00		6010
			SB	12	% RPD	MDK	06-SEP-00		6010
			SE	3.6	% RPD	MDK	06-SEP-00		6010
			SN	3.1	% RPD	MDK	06-SEP-00		6010
			TL	<1	% RPD	MDK	06-SEP-00		6010
			V	<1	% RPD	MDK	06-SEP-00		6010
			ZN	2	% RPD	MDK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000795

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000795-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	5.0	ppm				6010
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Sb & Se is within ERA (245), 95% confidence interval.
*** Prep. Blank for Tl was greater than reporting limit. Results near reporting limit may be subject to bias.

Approved

Reviewer

ASARCO

October 2, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (7), seven soil samples collected on July 10, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 11, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001093

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001093-001	10-JUL-00	B55 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	224.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	<1.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	6.	ppm	MDK	02-SEP-00		6010
			CR	14.	ppm	MDK	02-SEP-00		6010
			CU	9.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	415.	ppm	MDK	02-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			NI	9.	ppm	MDK	02-SEP-00		6010
			PB	8.	ppm	MDK	02-SEP-00		6010
			SB	1.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	<1.*	ppm	MDK	02-SEP-00		6010
			V	21.	ppm	MDK	02-SEP-00		6010
			ZN	28.	ppm	MDK	02-SEP-00		6010
L001093-002	10-JUL-00	B90 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	38.	ppm	MDK	02-SEP-00		6010
			BA	100.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	731.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	81.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	914.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	381.	ppm	MDK	02-SEP-00		6010
			MOIST.	23.	%	MJF	17-JUL-00		GRAV.
			NI	68.	ppm	MDK	02-SEP-00		6010
			PB	47.	ppm	MDK	02-SEP-00		6010
			SB	4.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	3.*	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001093

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001093-002	10-JUL-00	B90 (0-0.5)	V	12.	ppm	MDK	02-SEP-00		6010
			ZN	14890.	ppm	MDK	29-SEP-00		6010
L001093-003	10-JUL-00	B91 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	7.	ppm	MDK	02-SEP-00		6010
			BA	110.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	781.	ppm	MDK	02-SEP-00		6010
			CN-	0.12	ppm	DC	12-JUL-00		335.2
			CO	49.	ppm	MDK	02-SEP-00		6010
			CR	64.	ppm	MDK	02-SEP-00		6010
			CU	401.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	283.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			NI	466.	ppm	MDK	02-SEP-00		6010
			PB	40.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	5.	ppm	MDK	02-SEP-00		6010
			TL	3.*	ppm	MDK	02-SEP-00		6010
			V	15.	ppm	MDK	02-SEP-00		6010
			ZN	8794.	ppm	MDK	02-SEP-00		6010
L001093-004	10-JUL-00	B89 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	11.	ppm	MDK	02-SEP-00		6010
			BA	114.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	749.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	50.	ppm	MDK	02-SEP-00		6010
			CR	12.	ppm	MDK	02-SEP-00		6010
			CU	876.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	251.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			NI	31.	ppm	MDK	02-SEP-00		6010
			PB	27.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001093

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001093-004	10-JUL-00	B89 (0-0.5)	SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	5.*	ppm	MDK	02-SEP-00		6010
			V	14.	ppm	MDK	02-SEP-00		6010
			ZN	11430.	ppm	MDK	29-SEP-00		6010
L001093-005	10-JUL-00	DUPLICATE 42 (5.5-6)	AG	11.	ppm	MDK	02-SEP-00		6010
			AS	165.	ppm	MDK	02-SEP-00		6010
			BA	280.	ppm	MDK	02-SEP-00		6010
			BI	6.	ppm	MDK	02-SEP-00		6010
			CD	153.	ppm	MDK	02-SEP-00		6010
			CN-	0.17	ppm	DC	12-JUL-00		335.2
			CO	51.	ppm	MDK	02-SEP-00		6010
			CR	31.	ppm	MDK	02-SEP-00		6010
			CU	5872.	ppm	MDK	02-SEP-00		6010
			HG	7.5	ppm	EH	18-JUL-00		7471
			MN	5084.	ppm	MDK	02-SEP-00		6010
			MOIST.	21.	%	MJF	17-JUL-00		GRAV.
			NI	68.	ppm	MDK	02-SEP-00		6010
			PB	1570.	ppm	MDK	02-SEP-00		6010
			SB	32.*	ppm	MDK	02-SEP-00		6010
			SE	7.*	ppm	MDK	02-SEP-00		6010
			SN	45.	ppm	MDK	02-SEP-00		6010
			TL	<25.**	ppm	MDK	02-SEP-00		6010
			V	14.	ppm	MDK	02-SEP-00		6010
			ZN	19580.	ppm	MDK	29-SEP-00		6010
L001093-006	10-JUL-00	DUPLICATE 43 (2.3-3)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.	ppm	MDK	02-SEP-00		6010
			BA	68.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	2.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	8.	ppm	MDK	02-SEP-00		6010
			CR	18.	ppm	MDK	02-SEP-00		6010
			CU	27.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	86.	ppm	MDK	02-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001093

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001093-006	10-JUL-00	DUPLICATE 43 (2.3-3)	NI	9.	ppm	MDK	02-SEP-00		6010
			PB	9.	ppm	MDK	02-SEP-00		6010
			SB	2.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	4.*	ppm	MDK	02-SEP-00		6010
			V	<5.	ppm	MDK	02-SEP-00		6010
			ZN	98.	ppm	MDK	02-SEP-00		6010
L001093-007	10-JUL-00	DUPLICATE 44 (0-0.5)	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	24.	ppm	MDK	02-SEP-00		6010
			BA	117.	ppm	MDK	02-SEP-00		6010
			BI	<4.	ppm	MDK	02-SEP-00		6010
			CD	800.	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	95.	ppm	MDK	02-SEP-00		6010
			CR	15.	ppm	MDK	02-SEP-00		6010
			CU	898.	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	482.	ppm	MDK	02-SEP-00		6010
			MOIST.	20.	%	MJF	17-JUL-00		GRAV.
			NI	30.	ppm	MDK	02-SEP-00		6010
			PB	29.	ppm	MDK	02-SEP-00		6010
			SB	3.*	ppm	MDK	02-SEP-00		6010
			SE	<0.8*	ppm	MDK	02-SEP-00		6010
			SN	<5.	ppm	MDK	02-SEP-00		6010
			TL	4.*	ppm	MDK	02-SEP-00		6010
			V	16.	ppm	MDK	02-SEP-00		6010
			ZN	16490.	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001093

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Tl detection limit elevated due to matrix effect.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000798

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000798-1		Matrix Spike	AG	103	%Recovery	MDK	02-SEP-00		6010
			AS	90	%Recovery	MDK	02-SEP-00		6010
			BA	98	%Recovery	MDK	02-SEP-00		6010
			BI	103	%Recovery	MDK	02-SEP-00		6010
			CD	82	%Recovery	MDK	02-SEP-00		6010
			CN-	90	%Recovery	DC	12-JUL-00		335.2
			CO	95	%Recovery	MDK	02-SEP-00		6010
			CR	110	%Recovery	MDK	02-SEP-00		6010
			CU	150*	%Recovery	MDK	02-SEP-00		6010
			HG	78	%Recovery	EH	18-JUL-00		7471
			MN	120	%Recovery	MDK	02-SEP-00		6010
			NI	98	%Recovery	MDK	02-SEP-00		6010
			PB	93	%Recovery	MDK	02-SEP-00		6010
			SB	60*	%Recovery	MDK	02-SEP-00		6010
			SE	72*	%Recovery	MDK	02-SEP-00		6010
			SN	99	%Recovery	MDK	02-SEP-00		6010
			TL	89	%Recovery	MDK	02-SEP-00		6010
			V	104	%Recovery	MDK	02-SEP-00		6010
WG000798-2		Prep Blank	AG	<0.5	ppm	MDK	02-SEP-00		6010
			AS	<5.0	ppm	MDK	02-SEP-00		6010
			BA	<5.0	ppm	MDK	02-SEP-00		6010
			BI	<4.0	ppm	MDK	02-SEP-00		6010
			CD	<1.0	ppm	MDK	02-SEP-00		6010
			CN-	<0.04	ppm	DC	12-JUL-00		335.2
			CO	<5.0	ppm	MDK	02-SEP-00		6010
			CR	<5.0	ppm	MDK	02-SEP-00		6010
			CU	<5.0	ppm	MDK	02-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	<5.0	ppm	MDK	02-SEP-00		6010
			NI	<5.0	ppm	MDK	02-SEP-00		6010
			PB	<5.0	ppm	MDK	02-SEP-00		6010
			SB	<0.8	ppm	MDK	02-SEP-00		6010
			SE	<0.8	ppm	MDK	02-SEP-00		6010
			SN	<5.0	ppm	MDK	02-SEP-00		6010
			TL	2.2***	ppm	MDK	02-SEP-00		6010
			V	<5.0	ppm	MDK	02-SEP-00		6010
			ZN	<5.0	ppm	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000798

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000798-3		Lab Control Sample	AG	98	%Recovery	MDK	02-SEP-00		6010
			AS	91	%Recovery	MDK	02-SEP-00		6010
			BA	113	%Recovery	MDK	02-SEP-00		6010
			BI	100	%Recovery	MDK	02-SEP-00		6010
			CD	92	%Recovery	MDK	02-SEP-00		6010
			CN-	96	%Recovery	DC	12-JUL-00		335.2
			CO	101	%Recovery	MDK	02-SEP-00		6010
			CR	103	%Recovery	MDK	02-SEP-00		6010
			CU	117	%Recovery	MDK	02-SEP-00		6010
			HG	103	%Recovery	EH	18-JUL-00		7471
			MN	103	%Recovery	MDK	02-SEP-00		6010
			NI	102	%Recovery	MDK	02-SEP-00		6010
			PB	97	%Recovery	MDK	02-SEP-00		6010
			SB	134**	%Recovery	MDK	02-SEP-00		6010
			SE	76**	%Recovery	MDK	02-SEP-00		6010
			SN	110	%Recovery	MDK	02-SEP-00		6010
			TL	94	%Recovery	MDK	02-SEP-00		6010
			V	104	%Recovery	MDK	02-SEP-00		6010
			ZN	89	%Recovery	MDK	02-SEP-00		6010
WG000798-4		Duplicate	CN-	<1	% RPD	DC	12-JUL-00		335.2
			MOIST.	7.7	% RPD	MJF	17-JUL-00		GRAV.
WG000798-5		Matrix Spike Duplicate	AG	2.7	% RPD	MDK	02-SEP-00		6010
			AS	1.4	% RPD	MDK	02-SEP-00		6010
			BA	1.7	% RPD	MDK	02-SEP-00		6010
			BI	<1	% RPD	MDK	02-SEP-00		6010
			CD	1	% RPD	MDK	02-SEP-00		6010
			CO	2.6	% RPD	MDK	02-SEP-00		6010
			CR	1.6	% RPD	MDK	02-SEP-00		6010
			CU	1.8	% RPD	MDK	02-SEP-00		6010
			HG	13	% RPD	EH	18-JUL-00		7471
			MN	1.1	% RPD	MDK	02-SEP-00		6010
			NI	<1	% RPD	MDK	02-SEP-00		6010
			PB	<1	% RPD	MDK	02-SEP-00		6010
			SB	1.3	% RPD	MDK	02-SEP-00		6010
			SE	2.4	% RPD	MDK	02-SEP-00		6010
			SN	<1	% RPD	MDK	02-SEP-00		6010
			TL	<1	% RPD	MDK	02-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000798

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000798-5		Matrix Spike Duplicate	V	1.5	% RPD	MDK	02-SEP-00		6010
			ZN	1.3	% RPD	MDK	29-SEP-00		6010
WG000798-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.040	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.050	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
**LCS for Sb & Se is within ERA (245), 95% confidence intervals.
*** Tl Prep. Blank reading was greater than reporting limit
Results near reporting limit may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 5

Project Number/Name CC000642.0001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Kem Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Be, Bi; Cd, Cr, Co, Cu, CN, Pb; Mn, Hg, Ni, Se, Ag; Tl, Sn, V, Zn (8 oz glass w/Teflon lined lid)						Remarks	Total
BSS 0-0.5	S	7/10/00 910		1							1
BSS 2-2.5		913		1	HOLD						1
BSS 5.5		917		1	HOLD						1
BSS 8.5		930		1	HOLD						1
BSS 11.5		935		1	HOLD						1
BSS 12-17.5	S	937		1	HOLD						1
FIELD BLANK	L	1100		2		1) Metals w/HNO3					2
EQUIPMENT 42	L	1200		2							2
EQUIPMENT 43	L	1500		2		2) CN w/ NaOH					2
EQUIPMENT 44	L	1600		2							2
DUPLICATE 42 BH53(5.5-6)	S	1000		1							1
DUPLICATE 43 BH54(2.3-3)	S	1053		1							1
DUPLICATE 44 B-89(0-0.5)	S	1520		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 17

					Seal Intact?
Relinquished by: Bernadette Harley	Organization: ARCADIS	Date 7/10/00	Time 1800		
Received by: Glover	Organization: ASARCO	Date 7/11/00	Time 1130		(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks:

BSS RUN 0-0.5, HOLD ALL other depths until notified by ARCADIS.

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ASARCO

October 4, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached is a modified analytical report for our batch # L001064 which was sent to you on September 27, 2000.

Ni and associated QC report for sample # 7 was added upon your request.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001064

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001064-001	28-JUN-00	B86 (2-2.5)	CO	7.	ppm	MDK	02-SEP-00	6010
			SB	2.*	ppm	MDK	02-SEP-00	6010
			TL	<1.*	ppm	MDK	02-SEP-00	6010
			ZN	132.	ppm	MDK	02-SEP-00	6010
L001064-002	28-JUN-00	B86 (5.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	49.	ppm	MDK	02-SEP-00	6010
L001064-003	28-JUN-00	B86 (8.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	42.	ppm	MDK	02-SEP-00	6010
L001064-004	28-JUN-00	B86 (11.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	51.	ppm	MDK	02-SEP-00	6010
L001064-005	28-JUN-00	B86 (14.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	30.	ppm	MDK	02-SEP-00	6010
L001064-006	28-JUN-00	B86 (16-16.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	24.	ppm	MDK	02-SEP-00	6010
L001064-007	28-JUN-00	B88 (2-2.5)	CD	12.	ppm	MDK	02-SEP-00	6010
			CO	8.	ppm	MDK	02-SEP-00	6010
			CR	17.	ppm	MDK	02-SEP-00	6010
			CU	20.*	ppm	MDK	02-SEP-00	6010
			MN	502.*	ppm	MDK	02-SEP-00	6010
			NI	12.8	ppm	MDK	02-SEP-00	6010
			ZN	93.	ppm	MDK	02-SEP-00	6010
L001064-008	28-JUN-00	B88 (5.5)	CD	10.	ppm	MDK	02-SEP-00	6010
			CR	13.	ppm	MDK	02-SEP-00	6010
			CU	13.*	ppm	MDK	02-SEP-00	6010
			MN	346.*	ppm	MDK	02-SEP-00	6010
			ZN	74.	ppm	MDK	02-SEP-00	6010
L001064-009	28-JUN-00	B88 (8.5)	CD	11.	ppm	MDK	02-SEP-00	6010
			ZN	183.	ppm	MDK	02-SEP-00	6010
L001064-010	28-JUN-00	B88 (11.5)	CD	2.	ppm	MDK	02-SEP-00	6010
			ZN	52.	ppm	MDK	02-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001064

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001064-011	28-JUN-00	B88 (14.5)	ZN	75.	ppm	MDK	02-SEP-00	6010
L001064-012	28-JUN-00	B88 (17-17.5)	ZN	28.	ppm	MDK	02-SEP-00	6010
L001064-013	28-JUN-00	B56 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00	6010
			CO	7.	ppm	MDK	02-SEP-00	6010
			CR	12.	ppm	MDK	02-SEP-00	6010
			MN	260.*	ppm	MDK	02-SEP-00	6010
			SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	95.	ppm	MDK	02-SEP-00	6010
L001064-014	28-JUN-00	B56 (5.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	34.	ppm	MDK	02-SEP-00	6010
L001064-015	28-JUN-00	B56 (8.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	37.	ppm	MDK	02-SEP-00	6010
L001064-016	28-JUN-00	B56 (11.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	33.	ppm	MDK	02-SEP-00	6010
L001064-017	28-JUN-00	B56 (14.5-15.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	37.	ppm	MDK	02-SEP-00	6010
L001064-018	29-JUN-00	B92 (2-2.5)	AG	<0.5	ppm	MDK	02-SEP-00	6010
			CO	6.	ppm	MDK	02-SEP-00	6010
			CR	16.	ppm	MDK	02-SEP-00	6010
			HG	<0.05	ppm	EH	19-JUL-00	7471
			MN	394.*	ppm	MDK	02-SEP-00	6010
			MOIST.	22.	%	DC	19-JUL-00	GRAV.
			SB	2.*	ppm	MDK	02-SEP-00	6010
			TL	<1.*	ppm	MDK	02-SEP-00	6010
			ZN	108.	ppm	MDK	02-SEP-00	6010
L001064-019	29-JUN-00	B92 (5.5)	CR	11.	ppm	MDK	02-SEP-00	6010
			MN	322.*	ppm	MDK	02-SEP-00	6010
			SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	38.	ppm	MDK	02-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001064

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001064-020	29-JUN-00	B92 (8.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	38.	ppm	MDK	02-SEP-00	6010
L001064-021	29-JUN-00	B92 (11.5)	SB	2.*	ppm	MDK	02-SEP-00	6010
			ZN	54.	ppm	MDK	02-SEP-00	6010
L001064-022	29-JUN-00	B92 (14-14.5)	SB	1.*	ppm	MDK	02-SEP-00	6010
			ZN	28.	ppm	MDK	02-SEP-00	6010

(*) Quality control data indicates a possible bias. See QC report for details.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000960

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000960-1		Matrix Spike	NI	103	%Recovery	MDK	02-SEP-00		6010
WG000960-2		Prep Blank	NI	<5.0	ppm	MDK	02-SEP-00		6010
WG000960-3		Lab Control Sample	NI	99	%Recovery	MDK	02-SEP-00		6010
WG000960-5		Matrix Spike Duplicate	NI	5.5	% RPD	MDK	02-SEP-00		6010
WG000960-6		Reporting Limit	NI	5.0	ppm				6010

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 3 of 5

Project Number/Name CL000642.0001

Project Location Bayside, Corpus Christi, TX

Laboratory ARCADIS, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	(8 oz glass w/ Teflon lined lid)			Remarks	Total
B86	0-0.5	S	6/28/00 925		1								1
B86	2-2.5		927		1	HOLD							1
B86	5.5		933		1	HOLD							1
B86	8.5		937		1	HOLD							1
B86	11.5		940		1	HOLD							1
B86	14.5		955		1	HOLD							1
B86	16-16.5		1005		1	HOLD							1
B88	0-0.5		1025		1								1
B88	2-2.5		1028		1	HOLD							1
B88	5.5		1033		1	HOLD							1
B88	8.5		1040		1	HOLD							1
B88	11.5		1042		1	HOLD							1
B88	14.5		1048		1	HOLD							1
B88	17-17.5	S	1100		1	HOLD							1

Total No. of Bottles/ Containers 14

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Bunny Hanley	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact? (Yes) No N/A
Received by: Courier	Organization: FedEx	Date 6/30/00	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: B86, B88 - RUN (0-0.5) - HOLD ALL OTHER DEPTHS UNTIL NOTIFIED BY ARCADIS

Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name: CL0006420001

Project Location: Encycle, Corpus Christi TX

Laboratory: ASARCO, Salt Lake City, UT

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL-Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	(8 oz glass w/teflon lined lid)				Remarks	Total
B56 0-0.5	S	6/28/00 1315		1									1
B56 2-2.5		1317		1	HOLD								1
B56 5.5		1320		1	HOLD								1
B56 8.5		1325		1	HOLD								1
B56 11.5		1327		1	HOLD								1
B56 14.5-15.5	S	1335		1	HOLD								1
FIELD BLANK	L	1300		2									2
EQUIPMENT 34	L	1430		2									2
EQUIPMENT 35	L	1520		2									2
EQUIPMENT 36	L	1600		2									2
DUPLICATE 34 (0-0.5)	S	—		1									1
DUPLICATE 35 (8.5)	S	—		1									1
DUPLICATE 36 (11.5)	S	—		1									1

1) metals — HNO_3

2) CN — NaOH

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 17

Relinquished by: [signature]	Organization: ARCADIS	Date 6/28/00	Time 1830	Seal Intact?	
Received by: [signature]	Organization: TSARCO	Date 6/30/00	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

B56- RUN (0-0.5) - HOLD ALL OTHER DEPTHS UNTILL NOTIFIED BY ARCADIS

Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 6

Project Number/Name CC000624.0001

Project Location Corpus Christi, TX

Laboratory ASARCO Salt Lake City UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL Sb, Ti, Be, Ba; Cd, Cr, Co, Cu, CN, Pb; Mn, Hg, Se, Ag; Tl, Sn, V, Zn (8 oz glass w/teflon lined lid)	Remarks	Total
B129	0-0.5	S	6/29/00 935		1 HOLD		1
B129	2-2.5		940		1 HOLD		1
B129	5.5		815		1 HOLD		1
B129	8.5		850		1 HOLD		1
B129	11.5		855		1 HOLD		1
B129	14-14.5		900		1 HOLD		1
B92	0-0.5		915		1		1
B92	2-2.5		917		1 HOLD		1
B92	5.5		922		1 HOLD		1
B92	8.5		927		1 HOLD		1
B92	11.5		930		1 HOLD		1
B92	14-14.5	S	6/29/00 935		1 HOLD		1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 12

Relinquished by: Bryan Hannon	Organization: ARCADIS	Date 6/29/00	Time 1800	Seal Intact?		
Received by: Kathy	Organization: ASARCO	Date 6/30/00	Time	Yes	No	N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?		
Received by:	Organization:	Date / /	Time	Yes	No	N/A

Special Instructions/Remarks:

B129 - HOLD ALL depths until notified by ARCADIS (Point of step out borehole set B127, B128, B129)

B92 - RUN (0-0.5) - HOLD the other depths until notified by ARCADIS

Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

ASARCO

October 4, 2000

Mr. Ken Brandner
ARCADIS, Geraghty & Miller

Please find attached amended results of SPLP (EPA method 1312) analyses performed on selected bore-hole samples taken in conjunction with the **Encycle Remediation** project. Related quality control data is also included. This report replaces that submitted on July 28, 2000.

These amended results reflect the addition of a manganese (MN) analysis to the suite of parameters previously reported for sample B143 (6-6.5).

If you have any questions regarding the handling or analysis of these samples, please feel free to call me at (801) 263-5243.

Sincerely,

Michael J. Fabbi
Process and Materials
Technician

MJF
Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001067

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001067-001	29-JUN-00	B140 (0-0.5)	(SPLP)	CD	<0.050	ppm	VPK	25-JUL-00		6010
L001067-002	29-JUN-00	B140 (2-2.5)	(SPLP)	AS	<0.10	ppm	VPK	25-JUL-00		6010
				CD	<0.050	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				PB	<0.10	ppm	VPK	25-JUL-00		6010
				ZN	0.19	ppm	VPK	25-JUL-00		6010
L001067-003	29-JUN-00	B140 (5-5.5)	(SPLP)	AS	<0.10	ppm	VPK	25-JUL-00		6010
				CD	<0.050	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				MN	0.47	ppm	VPK	25-JUL-00		6010
				PB	<0.10	ppm	VPK	25-JUL-00		6010
				ZN	0.27	ppm	VPK	25-JUL-00		6010
L001067-004	29-JUN-00	B141 (5-5.6)	(SPLP)	CD	<0.050	ppm	VPK	25-JUL-00		6010
L001067-005	29-JUN-00	B141 (8-8.5)	(SPLP)	AS	<0.10	ppm	VPK	25-JUL-00		6010
				CD	<0.050	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				MN	2.0	ppm	VPK	25-JUL-00		6010
				PB	<0.10	ppm	VPK	25-JUL-00		6010
L001067-006	29-JUN-00	B142 (6-6.5)	(SPLP)	CD	0.15	ppm	VPK	25-JUL-00		6010
L001067-007	29-JUN-00	B143 ()2-2.5	(SPLP)	AS	<0.10	ppm	VPK	25-JUL-00		6010
L001067-008	29-JUN-00	B143 (5-5.5)	(SPLP)	CD	<0.050	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				ZN	0.16	ppm	VPK	25-JUL-00		6010
L001067-009	29-JUN-00	B143 (6-6.5)	(SPLP)	CD	0.062	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				MN	28.	ppm	VPK	25-JUL-00		6010
				ZN	19.	ppm	VPK	25-JUL-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001067

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000644

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000644-1		Matrix Spike	L001067-001	AS	93.	%Recovery	VPK	25-JUL-00		6010
				CD	94.	%Recovery	VPK	25-JUL-00		6010
				CU	96.	%Recovery	VPK	25-JUL-00		6010
				MN	95.	%Recovery	VPK	25-JUL-00		6010
				PB	96.	%Recovery	VPK	25-JUL-00		6010
				ZN	96.	%Recovery	VPK	25-JUL-00		6010
WG000644-2		Prep Blank		AS	<0.10	ppm	VPK	25-JUL-00		6010
				CD	<0.050	ppm	VPK	25-JUL-00		6010
				CU	<0.10	ppm	VPK	25-JUL-00		6010
				MN	<0.10	ppm	VPK	25-JUL-00		6010
				PB	<0.10	ppm	VPK	25-JUL-00		6010
				ZN	<0.10	ppm	VPK	25-JUL-00		6010
WG000644-3		Lab Control Sample	EEICQ-7/19	AS	92.	%Recovery	VPK	25-JUL-00		6010
				CD	96.	%Recovery	VPK	25-JUL-00		6010
				CU	96.	%Recovery	VPK	25-JUL-00		6010
				MN	96.	%Recovery	VPK	25-JUL-00		6010
				PB	100.	%Recovery	VPK	25-JUL-00		6010
				ZN	103.	%Recovery	VPK	25-JUL-00		6010
WG000644-4		Matrix Spike Duplicate	L001067-001	AS	2.1	% RPD	VPK	25-JUL-00		6010
				CD	1.1	% RPD	VPK	25-JUL-00		6010
				CU	<1.0	% RPD	VPK	25-JUL-00		6010
				MN	1.1	% RPD	VPK	25-JUL-00		6010
				PB	1.0	% RPD	VPK	25-JUL-00		6010
				ZN	<1.0	% RPD	VPK	25-JUL-00		6010
WG000644-5		Reporting Limit		AS	0.10	ppm				6010
				CD	0.050	ppm				6010
				CU	0.10	ppm				6010
				MN	0.10	ppm				6010
				PB	0.10	ppm				6010
				ZN	0.10	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000644

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Vince Kelly
Approved

Vince Kelly
Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC000647 0001

Project Location Encycle Corpus Christi, TX

Laboratory ASARCO Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL-SPLP Sb, Ba, Bi, Cr, Co, CN, Hg, Se, Ag, Tl, Sn, V	TOTAL-SPLP As, Cd, Cu, Pb, Zn	TOTAL-SPLP Mn	TOTAL-SPLP Cd	TOTAL-SPLP As, Cd, Cu, Mn, Pb		Remarks	Total
B140 (0-0.5)	S	6/29/00 1443		X			X				1
B140 (2-2.5)	S	1445		X	X						1
B140 (5-5.5)	S	1450		X	X	X					1
B141 (0-0.5)	S			X							1
B141 (2-2.5)	S			X							1
B141 (5-5.6)	S			X			X				1
B141 (8-8.5)	S			X				X			1
B142 (0-0.5)	S			X							1
B142 (2-2.5)	S			X							1
B142 (6-6.5)	S			X			X				1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 10

Relinquished by: [signature]	Organization: ARCADIS	Date 6/29/00	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 6/30/00	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

See Table 7 in RFI as backup - CALL Ken to discuss before Running 361-883-1353

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 6 of 6

Project Number/Name CC0006420001

Project Location Encycle Corpus Christi TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL-SPLP - Sb, Ba, Bi, Cr, Co, CN, Hg, Se, Ag, Tl, Sd, Pb	TOTAL-SPLP - Cd, Cu, Zn	TOTAL-SPLP Cd, Cu, Zn, Mn	TOTAL-SPLP As			Remarks	Total
B143 0-0.5	S	6/29/00 1615		X							1
B143 2-2.5	S	1618		X			X				1
B143 5-5.5	S	1625		X	X						1
B143 6-6.5	S	1627		X		X					1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 4

Relinquished by: [signature]	Organization: ARCADIS	Date 6/29/00	Time 1800	Seal Intact? Yes No N/A
Received by: [signature]	Organization: ASARCO	Date 6/30/00	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: See Page 5 for directions

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC000642001

Project Location Encycle Corpus Christi TX

Laboratory ASARCO, Salt Lake City UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BA / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass jar w/ teflon lined lid			Remarks	Total
B143 (2-2.5)	S	7/10/00 1137		1	~~HOLD~~ HCO	7.11.00						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 1

Relinquished by: [signature]	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

HOLD UNTIL NOTIFIED BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (16), sixteen soil samples collected on July 11, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 13, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001114

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001114-001	11-JUL-00	B148(0-0.5)	AG	1.	ppm	MDK	07-SEP-00	6010
			CR	13.	ppm	MDK	07-SEP-00	6010
			CU	42.	ppm	MDK	07-SEP-00	6010
			MN	510.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SE	<0.8	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	337.	ppm	MDK	07-SEP-00	6010
L001114-002	11-JUL-00	B148(2-2.5)	AG	4.	ppm	MDK	07-SEP-00	6010
			AS	24.	ppm	MDK	07-SEP-00	6010
			CD	69.	ppm	MDK	07-SEP-00	6010
			CR	13.	ppm	MDK	07-SEP-00	6010
			CU	218.	ppm	MDK	07-SEP-00	6010
			MN	1270.*	ppm	MDK	07-SEP-00	6010
			PB	219.	ppm	MDK	07-SEP-00	6010
			SB	2.*	ppm	MDK	07-SEP-00	6010
			SE	18.	ppm	MDK	07-SEP-00	6010
			SN	8.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	4594.	ppm	MDK	07-SEP-00	6010
L001114-003	11-JUL-00	B148(5-5.5)	AG	3.	ppm	MDK	07-SEP-00	6010
			AS	11.	ppm	MDK	07-SEP-00	6010
			CD	18.	ppm	MDK	07-SEP-00	6010
			CU	50.	ppm	MDK	07-SEP-00	6010
			PB	105.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SE	35.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	3000.	ppm	MDK	07-SEP-00	6010
L001114-004	11-JUL-00	B149(0-0.5)	AG	2.	ppm	MDK	07-SEP-00	6010
			CU	42.	ppm	MDK	07-SEP-00	6010
			MN	351.*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	326.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001114

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001114-005	11-JUL-00	B149(2-2.5)	AG	<0.5	ppm	MDK	07-SEP-00	6010
			AS	5.	ppm	MDK	07-SEP-00	6010
			CD	10.	ppm	MDK	07-SEP-00	6010
			CU	14.	ppm	MDK	07-SEP-00	6010
			MN	216.*	ppm	MDK	07-SEP-00	6010
			PB	23.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SE	2.	ppm	MDK	07-SEP-00	6010
			SN	<5.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	272.	ppm	MDK	07-SEP-00	6010
L001114-006	11-JUL-00	B149(5-5.5)	AG	<0.5	ppm	MDK	07-SEP-00	6010
			AS	<5.	ppm	MDK	07-SEP-00	6010
			CD	2.	ppm	MDK	07-SEP-00	6010
			CU	10.	ppm	MDK	07-SEP-00	6010
			PB	11.	ppm	MDK	07-SEP-00	6010
			SE	<0.8	ppm	MDK	07-SEP-00	6010
			TL	<1.*	ppm	MDK	07-SEP-00	6010
			ZN	76.	ppm	MDK	07-SEP-00	6010
L001114-007	11-JUL-00	B160(0-0.5	AG	14.	ppm	MDK	07-SEP-00	6010
			AS	11.	ppm	MDK	07-SEP-00	6010
			CD	94.	ppm	MDK	07-SEP-00	6010
			CR	14.	ppm	MDK	07-SEP-00	6010
			CU	315.	ppm	MDK	07-SEP-00	6010
			MN	423.*	ppm	MDK	07-SEP-00	6010
			PB	787.	ppm	MDK	07-SEP-00	6010
			SB	3.*	ppm	MDK	07-SEP-00	6010
			SE	168.	ppm	MDK	07-SEP-00	6010
			SN	7.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	4379.	ppm	MDK	07-SEP-00	6010
L001114-008	11-JUL-00	B160(2-2.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SE	21.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	980.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001114

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001114-009	11-JUL-00	B161(0-0.5)	AG	211.	ppm	MDK	07-SEP-00	6010
			CD	166.	ppm	MDK	07-SEP-00	6010
			CU	1640.	ppm	MDK	07-SEP-00	6010
			MN	442.*	ppm	MDK	07-SEP-00	6010
			PB	9746.	ppm	MDK	07-SEP-00	6010
			SB	19.*	ppm	MDK	07-SEP-00	6010
			SE	1620.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	4993.	ppm	MDK	07-SEP-00	6010
L001114-010	11-JUL-00	B161(2-2.5)	SE	363.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	1150.	ppm	MDK	07-SEP-00	6010
L001114-011	11-JUL-00	B145(0-0.5)	CR	15.	ppm	MDK	07-SEP-00	6010
			MN	357.*	ppm	MDK	07-SEP-00	6010
			SB	1.*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	654.	ppm	MDK	07-SEP-00	6010
L001114-012	11-JUL-00	B145(2-2.5)	AG	4.	ppm	MDK	07-SEP-00	6010
			CU	43.	ppm	MDK	07-SEP-00	6010
			SB	1.*	ppm	MDK	07-SEP-00	6010
			ZN	508.	ppm	MDK	07-SEP-00	6010
L001114-013	11-JUL-00	B145(5.2-6)	CR	15.	ppm	MDK	07-SEP-00	6010
			CU	351.	ppm	MDK	07-SEP-00	6010
			SB	3.*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			V	15.	ppm	MDK	07-SEP-00	6010
			ZN	7965.	ppm	MDK	07-SEP-00	6010
L001114-014	11-JUL-00	B146(0-0.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			MN	349.*	ppm	MDK	07-SEP-00	6010
			SB	1.*	ppm	MDK	07-SEP-00	6010
			TL	<1.*	ppm	MDK	07-SEP-00	6010
			ZN	394.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001114

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001114-015	11-JUL-00	B146(2-2.5)	AG	9.	ppm	MDK	07-SEP-00	6010
			CU	83.	ppm	MDK	07-SEP-00	6010
			SB	1.*	ppm	MDK	07-SEP-00	6010
			ZN	2030.	ppm	MDK	07-SEP-00	6010
L001114-016	11-JUL-00	B146(5.2-6)	CR	15.	ppm	MDK	07-SEP-00	6010
			CU	57.	ppm	MDK	07-SEP-00	6010
			SB	1.*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	1010.	ppm	MDK	07-SEP-00	6010

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Tl detection limit on most samples was elevated due to matrix interference.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000804

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000804-1		Matrix Spike	AG	103	%Recovery	MDK	07-SEP-00		6010
			AS	96	%Recovery	MDK	07-SEP-00		6010
			BA	96	%Recovery	MDK	07-SEP-00		6010
			BI	96	%Recovery	MDK	07-SEP-00		6010
			CD	105	%Recovery	MDK	07-SEP-00		6010
			CO	94	%Recovery	MDK	07-SEP-00		6010
			CR	113	%Recovery	MDK	07-SEP-00		6010
			CU	120	%Recovery	MDK	07-SEP-00		6010
			MN	131*	%Recovery	MDK	07-SEP-00		6010
			NI	97	%Recovery	MDK	07-SEP-00		6010
			PB	88	%Recovery	MDK	07-SEP-00		6010
			SB	60*	%Recovery	MDK	07-SEP-00		6010
			SE	82	%Recovery	MDK	07-SEP-00		6010
			SN	95	%Recovery	MDK	07-SEP-00		6010
			TL	85	%Recovery	MDK	07-SEP-00		6010
			V	100	%Recovery	MDK	07-SEP-00		6010
			ZN	85	%Recovery	MDK	07-SEP-00		6010
WG000804-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	1.6***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000804-3		Lab Control Sample	AG	101	%Recovery	MDK	07-SEP-00		6010
			AS	96	%Recovery	MDK	07-SEP-00		6010
			BA	108	%Recovery	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000804

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000804-3		Lab Control Sample	BI	95	%Recovery	MDK	07-SEP-00		6010
			CD	98	%Recovery	MDK	07-SEP-00		6010
			CO	101	%Recovery	MDK	07-SEP-00		6010
			CR	101	%Recovery	MDK	07-SEP-00		6010
			CU	105	%Recovery	MDK	07-SEP-00		6010
			MN	103	%Recovery	MDK	07-SEP-00		6010
			NI	101	%Recovery	MDK	07-SEP-00		6010
			PB	95	%Recovery	MDK	07-SEP-00		6010
			SB	122*	%Recovery	MDK	07-SEP-00		6010
			SE	89	%Recovery	MDK	07-SEP-00		6010
			SN	104	%Recovery	MDK	07-SEP-00		6010
			TL	94	%Recovery	MDK	07-SEP-00		6010
			V	107	%Recovery	MDK	07-SEP-00		6010
			ZN	88	%Recovery	MDK	07-SEP-00		6010
WG000804-5		Matrix Spike Duplicate	AG	<1	% RPD	MDK	07-SEP-00		6010
			AS	3.4	% RPD	MDK	07-SEP-00		6010
			BA	1.6	% RPD	MDK	07-SEP-00		6010
			BI	<1	% RPD	MDK	07-SEP-00		6010
			CD	5	% RPD	MDK	07-SEP-00		6010
			CO	2.5	% RPD	MDK	07-SEP-00		6010
			CR	2.1	% RPD	MDK	07-SEP-00		6010
			CU	<1	% RPD	MDK	07-SEP-00		6010
			MN	3.7	% RPD	MDK	07-SEP-00		6010
			NI	2.3	% RPD	MDK	07-SEP-00		6010
			PB	<1	% RPD	MDK	07-SEP-00		6010
			SB	2.9	% RPD	MDK	07-SEP-00		6010
			SE	3.5	% RPD	MDK	07-SEP-00		6010
			SN	1.1	% RPD	MDK	07-SEP-00		6010
			TL	1.9	% RPD	MDK	07-SEP-00		6010
			V	2.2	% RPD	MDK	07-SEP-00		6010
			ZN	<1	% RPD	MDK	07-SEP-00		6010
WG000804-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000804

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000804-6		Reporting Limit	CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Sb was within ERA (245), 95% confidence interval.
*** Tl Prep. Blank was above reporting limit.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC000642 0001

Project Location Encycle Corpus Christi TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

	Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, B, Cd, Cr, Co, Cu, Cn, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass w/ teflon lined lid			Remarks	Total
a	B147	0-0.5	S	11/7/00 1520			1						1
a	B147	2-2.5		1522			1						1
a	B147	3.7-4		1525			1						1
H	B148	0-0.5		1530			1						1
↓	B148	2-2.5		1534			1		HOLD				1
	B148	5-5.5		1538			1						1
	B149	0-0.5		1545			1						1
	B149	2-2.5		1547			1		HOLD				1
	B149	5-5.5	S	1555			1						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 9

Relinquished by: Bryan Harvey	Organization: ARCADIS	Date 7 / 12 / 00	Time 1800	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

B147 - RUN ALL DEPTHS — B148, B149 - HOLD ALL DEPTHS UNTIL NOTIFIED BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name C1000642C001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

	Sample ID/Location		Matrix	Date/Time Sampled	Lab ID							Remarks	Total
a	B159	0-0.5	S	7/11/00 1015		1							1
a	B159	2-2.5		1017		1							1
H	B160	0-0.5		1020		1	HOLD						1
H	B160	2-2.5		1022		1							1
H	B161	0-0.5		1030		1	HOLD						1
H	B161	2-2.5		1033		1							1
a	B144	0-0.5		1440		1							1
a	B144	2-2.5		1443		1							1
a	B144	(5.2-6)		1450		1							1
H	B145	(0-0.5)		1455		1							1
H	B145	(2-2.5)		1458		1	HOLD						1
H	B145	(5.2-6)		1500		1							1
H	B146	0-0.5		1505		1							1
H	B146	2-2.5		1508		1	HOLD						1
H	B146	(5.2-6)	S	1512		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 15

Relinquished by: [signature]	Organization: ARCADIS	Date 7/12/00	Time 1800	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

B159 - RUN ALL DEPTHS - B160, B161 - HOLD ALL UNTIL NOTIFIED BY ARCADIS

B144 - RUN ALL DEPTHS - B145, B146 - HOLD ALL UNTIL NOTIFIED BY ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fedex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0597

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (7), five soil samples collected on July 11, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 13, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001112

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001112-001	11-JUL-00	B73 (2-2.5)	CO	7.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SN	<5.	ppm	MDK	07-SEP-00	6010
			ZN	220.	ppm	MDK	07-SEP-00	6010
L001112-002	11-JUL-00	B73 (5.5)	ZN	44.	ppm	MDK	07-SEP-00	6010

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Tl detection limit was elevated on one sample due to matrix interference.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000803

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000803-1		Matrix Spike	AG	107	%Recovery	MDK	07-SEP-00		6010
			AS	96	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010
			BI	98	%Recovery	MDK	07-SEP-00		6010
			CD	92	%Recovery	MDK	07-SEP-00		6010
			CO	100	%Recovery	MDK	07-SEP-00		6010
			CR	99	%Recovery	MDK	07-SEP-00		6010
			CU	110	%Recovery	MDK	07-SEP-00		6010
			MN	87	%Recovery	MDK	07-SEP-00		6010
			NI	95	%Recovery	MDK	07-SEP-00		6010
			PB	92	%Recovery	MDK	07-SEP-00		6010
			SB	49*	%Recovery	MDK	07-SEP-00		6010
			SE	82	%Recovery	MDK	07-SEP-00		6010
			SN	97	%Recovery	MDK	07-SEP-00		6010
			TL	85	%Recovery	MDK	07-SEP-00		6010
			V	97	%Recovery	MDK	07-SEP-00		6010
			ZN	94	%Recovery	MDK	07-SEP-00		6010
WG000803-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	1.3***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000803-3		Lab Control Sample	AG	99	%Recovery	MDK	07-SEP-00		6010
			AS	96	%Recovery	MDK	07-SEP-00		6010
			BA	111	%Recovery	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000803

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000803-3		Lab Control Sample	BI	94	%Recovery	MDK	07-SEP-00		6010
			CD	95	%Recovery	MDK	07-SEP-00		6010
			CO	93	%Recovery	MDK	07-SEP-00		6010
			CR	99	%Recovery	MDK	07-SEP-00		6010
			CU	104	%Recovery	MDK	07-SEP-00		6010
			MN	94	%Recovery	MDK	07-SEP-00		6010
			NI	100	%Recovery	MDK	07-SEP-00		6010
			PB	96	%Recovery	MDK	07-SEP-00		6010
			SB	131**	%Recovery	MDK	07-SEP-00		6010
			SE	87	%Recovery	MDK	07-SEP-00		6010
			SN	109	%Recovery	MDK	07-SEP-00		6010
			TL	93	%Recovery	MDK	07-SEP-00		6010
			V	109	%Recovery	MDK	07-SEP-00		6010
			ZN	94	%Recovery	MDK	07-SEP-00		6010
WG000803-5		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	07-SEP-00		6010
			AS	<1	% RPD	MDK	07-SEP-00		6010
			BA	2.6	% RPD	MDK	07-SEP-00		6010
			BI	<1	% RPD	MDK	07-SEP-00		6010
			CD	<1	% RPD	MDK	07-SEP-00		6010
			CO	<1	% RPD	MDK	07-SEP-00		6010
			CR	4	% RPD	MDK	07-SEP-00		6010
			CU	<1	% RPD	MDK	07-SEP-00		6010
			MN	1.6	% RPD	MDK	07-SEP-00		6010
			NI	<1	% RPD	MDK	07-SEP-00		6010
			PB	<1	% RPD	MDK	07-SEP-00		6010
			SB	12	% RPD	MDK	07-SEP-00		6010
			SE	1	% RPD	MDK	07-SEP-00		6010
			SN	<1	% RPD	MDK	07-SEP-00		6010
			TL	2.8	% RPD	MDK	07-SEP-00		6010
			V	4.1	% RPD	MDK	07-SEP-00		6010
			ZN	3.6	% RPD	MDK	07-SEP-00		6010
WG000803-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000803

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000803-6		Reporting Limit	CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spike for Sb was outside acceptance limits due to matrix interference.
** LCS for Sb was within ERA (245), 95% confidence interval.
*** Tl Prep. Blank was greater than reporting limit. Tl results near reporting limit may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 3

Project Number/Name CC000042.0001

Project Location Ingleside, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ASARCO

	Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Be, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	(8 oz glass w/ Teflon lid)	Remarks	Total
S	B73	0-0.5	S	7/11/00 825		1			1
H	B73	2-2.5		828		1 HOLD			1
	B73	5.5		835		1 HOLD			1
	B73	8.5		840		1 HOLD			1
	B73	11.5		844		1 HOLD			1
	B73	14.5		850		1 HOLD			1
	B73	17.5		900		1 HOLD			1
H	B73	20.5-21	S	915		1 HOLD			1
	FIELD BLANK		L	900		2			2
	EQUIPMENT 45		L	1300		2			2
	EQUIPMENT 46		L	1500		2			2
S	DUPLICATE 45 (B159	2-2.5)	S	1017		1			1
S	DUPLICATE 46 (B144	5.2-6)	S	7/11/00 1450		1			1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 16

					Seal Intact?
Relinquished by: Bryan Kinney	Organization: ARCADIS	Date 7/12/00	Time 1800		
Received by: Heather	Organization: ASARCO	Date 7/13/00	Time 11:00	(Yes) No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: B73- Run (0-0.5) - HOLD all other depths until notified by Arcadis

Delivery Method: ☐ In Person ☒ Common Carrier Fedex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (33), thirty three soil samples collected between June 21, and June 22, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on June 22, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001165

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001165-001	21-JUN-00	B80 (0-0.5)	CD	82.	ppm	MDK	07-SEP-00	6010
			CO	8.	ppm	MDK	07-SEP-00	6010
			CR	16.	ppm	MDK	07-SEP-00	6010
			MN	652.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	6729.	ppm	MDK	07-SEP-00	6010
L001165-002	21-JUN-00	B80 (2-2.5)	MN	406.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	86.	ppm	MDK	07-SEP-00	6010
L001165-003	21-JUN-00	B80 (5.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			MN	375.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			V	32.	ppm	MDK	07-SEP-00	6010
			ZN	52.	ppm	MDK	07-SEP-00	6010
L001165-004	21-JUN-00	B80 (8.5)	SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	59.	ppm	MDK	07-SEP-00	6010
L001165-005	21-JUN-00	B80 (11.5)	SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	63.	ppm	MDK	07-SEP-00	6010
L001165-006	21-JUN-00	B80 (14.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	51.	ppm	MDK	07-SEP-00	6010
L001165-007	21-JUN-00	B80 (17.5-18)	CR	7.	ppm	MDK	07-SEP-00	6010
			MN	566.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	31.	ppm	MDK	07-SEP-00	6010
L001165-008	21-JUN-00	B81 (0-0.5)	CD	6.	ppm	MDK	07-SEP-00	6010
			CR	15.	ppm	MDK	07-SEP-00	6010
			MN	210.*	ppm	MDK	07-SEP-00	6010
			ZN	623.	ppm	MDK	07-SEP-00	6010
L001165-009	21-JUN-00	B81 (2-2.5)	MN	293.*	ppm	MDK	07-SEP-00	6010
			ZN	56.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001165

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001165-010	21-JUN-00	B81 (5.5)	ZN	44.	ppm	MDK	07-SEP-00	6010
L001165-011	21-JUN-00	B81 (8.5)	ZN	42.	ppm	MDK	07-SEP-00	6010
L001165-012	21-JUN-00	B81 (11.5)	ZN	48.	ppm	MDK	07-SEP-00	6010
L001165-013	21-JUN-00	B81 (14.5)	ZN	48.	ppm	MDK	07-SEP-00	6010
L001165-014	21-JUN-00	B81 (17.5)	ZN	59.	ppm	MDK	07-SEP-00	6010
L001165-015	21-JUN-00	B81 (20.7-21)	ZN	51.	ppm	MDK	07-SEP-00	6010
L001165-016	21-JUN-00	B83 (0-0.5)	BI	<4.	ppm	MDK	07-SEP-00	6010
			CD	273.	ppm	MDK	07-SEP-00	6010
			CO	11.	ppm	MDK	07-SEP-00	6010
			CR	25.	ppm	MDK	07-SEP-00	6010
			CU	359.	ppm	MDK	07-SEP-00	6010
			MN	3384.*	ppm	MDK	07-SEP-00	6010
			NI	30.	ppm	MDK	07-SEP-00	6010
			SB	2.3*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	38770.	ppm	MDK	05-OCT-00	6010
L001165-017	21-JUN-00	B83 (2-2.5)	CD	21.	ppm	MDK	07-SEP-00	6010
			CR	19.	ppm	MDK	07-SEP-00	6010
			MN	517.*	ppm	MDK	07-SEP-00	6010
			NI	17.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	2829.	ppm	MDK	07-SEP-00	6010
L001165-018	21-JUN-00	B83 (5.5)	AG	<0.5	ppm	MDK	07-SEP-00	6010
			CD	1.	ppm	MDK	07-SEP-00	6010
			CR	13.	ppm	MDK	07-SEP-00	6010
			MN	378.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	151.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001165

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001165-019	21-JUN-00	B83 (8.5)	CD	2.	ppm	MDK	07-SEP-00	6010
			CR	13.	ppm	MDK	07-SEP-00	6010
			MN	348.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	190.	ppm	MDK	07-SEP-00	6010
L001165-020	21-JUN-00	B83 (11.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			V	31.	ppm	MDK	07-SEP-00	6010
			ZN	64.	ppm	MDK	07-SEP-00	6010
L001165-021	21-JUN-00	B83 (14.5)	MN	397.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	57.	ppm	MDK	07-SEP-00	6010
L001165-022	21-JUN-00	B83 (17.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			V	32.	ppm	MDK	07-SEP-00	6010
			ZN	68.	ppm	MDK	07-SEP-00	6010
L001165-023	21-JUN-00	B83 (20.5)	CD	<1.	ppm	MDK	07-SEP-00	6010
			CR	15.	ppm	MDK	07-SEP-00	6010
			MN	360.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	62.	ppm	MDK	07-SEP-00	6010
L001165-024	21-JUN-00	B83 (23.5-24)	CD	<1.	ppm	MDK	07-SEP-00	6010
			CR	13.	ppm	MDK	07-SEP-00	6010
			MN	254.*	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			ZN	77.	ppm	MDK	07-SEP-00	6010
L001165-025	22-JUN-00	B84 (0-0.5)	AG	11.3	ppm	MDK	07-SEP-00	6010
			CD	92.	ppm	MDK	07-SEP-00	6010
			CO	12.	ppm	MDK	07-SEP-00	6010
			CR	45.	ppm	MDK	07-SEP-00	6010
			CU	646.	ppm	MDK	07-SEP-00	6010
			MN	4274.*	ppm	MDK	07-SEP-00	6010
			NI	39.	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001165

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001165-025	22-JUN-00	B84 (0-0.5)	SB	5.8*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	22850.	ppm	MDK	05-OCT-00	6010
L001165-026	22-JUN-00	B84 (2-2.5)	CD	3.	ppm	MDK	07-SEP-00	6010
			CR	15.	ppm	MDK	07-SEP-00	6010
			MN	476.*	ppm	MDK	07-SEP-00	6010
			TL	2.*	ppm	MDK	07-SEP-00	6010
			ZN	211.	ppm	MDK	07-SEP-00	6010
L001165-027	22-JUN-00	B84 (5.5)	ZN	58.	ppm	MDK	07-SEP-00	6010
L001165-028	22-JUN-00	B84 (8.5)	ZN	75.	ppm	MDK	07-SEP-00	6010
L001165-029	22-JUN-00	B84 (11.5)	ZN	44.	ppm	MDK	07-SEP-00	6010
L001165-030	22-JUN-00	B84 (14.5)	ZN	58.	ppm	MDK	07-SEP-00	6010
L001165-031	22-JUN-00	B84 (17.5)	ZN	54.	ppm	MDK	07-SEP-00	6010
L001165-032	22-JUN-00	B84 (20.5)	CR	12.	ppm	MDK	07-SEP-00	6010
			ZN	51.	ppm	MDK	07-SEP-00	6010
L001165-033	22-JUN-00	B84 (23.5-24)	CR	9.	ppm	MDK	07-SEP-00	6010
			ZN	39.	ppm	MDK	07-SEP-00	6010

(*) Quality control data indicates a possible bias. See qc report for details.
(**) Detection limits changed due to matrix effect.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000805

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000805-1		Matrix Spike	AG	105	%Recovery	MDK	07-SEP-00		6010
			AS	90	%Recovery	MDK	07-SEP-00		6010
			BA	92	%Recovery	MDK	07-SEP-00		6010
			BI	101	%Recovery	MDK	07-SEP-00		6010
			CD	85	%Recovery	MDK	07-SEP-00		6010
			CO	90	%Recovery	MDK	07-SEP-00		6010
			CR	104	%Recovery	MDK	07-SEP-00		6010
			CU	115	%Recovery	MDK	07-SEP-00		6010
			MN	108	%Recovery	MDK	07-SEP-00		6010
			NI	91	%Recovery	MDK	07-SEP-00		6010
			PB	91	%Recovery	MDK	07-SEP-00		6010
			SB	52*	%Recovery	MDK	07-SEP-00		6010
			SE	71*	%Recovery	MDK	07-SEP-00		6010
			SN	97	%Recovery	MDK	07-SEP-00		6010
			TL	82	%Recovery	MDK	07-SEP-00		6010
			V	104	%Recovery	MDK	07-SEP-00		6010
			ZN	97	%Recovery	MDK	07-SEP-00		6010
WG000805-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<1.3***	ppm	MDK	07-SEP-00		6010
			SE	<1.***	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	2.7***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000805-3		Lab Control Sample	AG	97	%Recovery	MDK	07-SEP-00		6010
			AS	93	%Recovery	MDK	07-SEP-00		6010
			BA	107	%Recovery	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000805

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000805-3		Lab Control Sample	BI	96	%Recovery	MDK	07-SEP-00		6010
			CD	91	%Recovery	MDK	07-SEP-00		6010
			CO	98	%Recovery	MDK	07-SEP-00		6010
			CR	96	%Recovery	MDK	07-SEP-00		6010
			CU	103	%Recovery	MDK	07-SEP-00		6010
			MN	93	%Recovery	MDK	07-SEP-00		6010
			NI	97	%Recovery	MDK	07-SEP-00		6010
			PB	93	%Recovery	MDK	07-SEP-00		6010
			SB	120	%Recovery	MDK	07-SEP-00		6010
			SE	76**	%Recovery	MDK	07-SEP-00		6010
			SN	106	%Recovery	MDK	07-SEP-00		6010
			TL	91	%Recovery	MDK	07-SEP-00		6010
			V	108	%Recovery	MDK	07-SEP-00		6010
			ZN	92	%Recovery	MDK	07-SEP-00		6010
WG000805-5		Matrix Spike Duplicate	AG	<1	% RPD	MDK	07-SEP-00		6010
			AS	2.8	% RPD	MDK	07-SEP-00		6010
			BA	3	% RPD	MDK	07-SEP-00		6010
			BI	<1	% RPD	MDK	07-SEP-00		6010
			CD	3.5	% RPD	MDK	07-SEP-00		6010
			CO	2.7	% RPD	MDK	07-SEP-00		6010
			CR	1.8	% RPD	MDK	07-SEP-00		6010
			CU	1.3	% RPD	MDK	07-SEP-00		6010
			MN	<1	% RPD	MDK	07-SEP-00		6010
			NI	2.6	% RPD	MDK	07-SEP-00		6010
			PB	2.6	% RPD	MDK	07-SEP-00		6010
			SB	4.9	% RPD	MDK	07-SEP-00		6010
			SE	3	% RPD	MDK	07-SEP-00		6010
			SN	3.2	% RPD	MDK	07-SEP-00		6010
			TL	<1	% RPD	MDK	07-SEP-00		6010
			V	1.4	% RPD	MDK	07-SEP-00		6010
			ZN	3.2	% RPD	MDK	07-SEP-00		6010
WG000805-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000805

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000805-6		Reporting Limit	CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000805-7		Matrix Spike	AG	108	%Recovery	MDK	07-SEP-00		6010
			AS	91	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010
			BI	104	%Recovery	MDK	07-SEP-00		6010
			CD	84	%Recovery	MDK	07-SEP-00		6010
			CO	91	%Recovery	MDK	07-SEP-00		6010
			CR	111	%Recovery	MDK	07-SEP-00		6010
			CU	123	%Recovery	MDK	07-SEP-00		6010
			MN	127*	%Recovery	MDK	07-SEP-00		6010
			NI	92	%Recovery	MDK	07-SEP-00		6010
			PB	92	%Recovery	MDK	07-SEP-00		6010
			SB	66*	%Recovery	MDK	07-SEP-00		6010
			SE	70*	%Recovery	MDK	07-SEP-00		6010
			SN	97	%Recovery	MDK	07-SEP-00		6010
			TL	83	%Recovery	MDK	07-SEP-00		6010
			V	113	%Recovery	MDK	07-SEP-00		6010
			ZN	106	%Recovery	MDK	07-SEP-00		6010
WG000805-8		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000805

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000805-8		Prep Blank	NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<1.3***	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	3.1***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000805-9		Lab Control Sample	AG	93	%Recovery	MDK	07-SEP-00		6010
			AS	93	%Recovery	MDK	07-SEP-00		6010
			BA	105	%Recovery	MDK	07-SEP-00		6010
			BI	94	%Recovery	MDK	07-SEP-00		6010
			CD	91	%Recovery	MDK	07-SEP-00		6010
			CO	99	%Recovery	MDK	07-SEP-00		6010
			CR	94	%Recovery	MDK	07-SEP-00		6010
			CU	102	%Recovery	MDK	07-SEP-00		6010
			MN	121**	%Recovery	MDK	07-SEP-00		6010
			NI	96	%Recovery	MDK	07-SEP-00		6010
			PB	92	%Recovery	MDK	07-SEP-00		6010
			SB	113	%Recovery	MDK	07-SEP-00		6010
			SE	78**	%Recovery	MDK	07-SEP-00		6010
			SN	105	%Recovery	MDK	07-SEP-00		6010
			TL	90	%Recovery	MDK	07-SEP-00		6010
			V	104	%Recovery	MDK	07-SEP-00		6010
			ZN	87	%Recovery	MDK	07-SEP-00		6010
WG000805-11		Matrix Spike Duplicate	AG	2.4	% RPD	MDK	07-SEP-00		6010
			AS	1	% RPD	MDK	07-SEP-00		6010
			BA	4.1	% RPD	MDK	07-SEP-00		6010
			BI	1	% RPD	MDK	07-SEP-00		6010
			CD	1.1	% RPD	MDK	07-SEP-00		6010
			CO	<1	% RPD	MDK	07-SEP-00		6010
			CR	2.3	% RPD	MDK	07-SEP-00		6010
			CU	<1	% RPD	MDK	07-SEP-00		6010
			MN	4.4	% RPD	MDK	07-SEP-00		6010
			NI	<1	% RPD	MDK	07-SEP-00		6010
			PB	1.5	% RPD	MDK	07-SEP-00		6010
			SB	21****	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000805

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000805-11		Matrix Spike Duplicate	SE	2.1	% RPD	MDK	07-SEP-00		6010
			SN	1.1	% RPD	MDK	07-SEP-00		6010
			TL	4.3	% RPD	MDK	07-SEP-00		6010
			V	2.3	% RPD	MDK	07-SEP-00		6010
			ZN	1.9	% RPD	MDK	07-SEP-00		6010

* Spikes outside acceptance limits due to matrix interference.
** LCS's are within ERA (245), 95% confidence interval.
*** Prep. blank readings were different than reporting limit Results near reporting limit may be subject to bias.
**** Duplicate Spike recovery for Sb was outside acceptance limits due to matrix interference.

Approved

Reviewer

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (23), twenty three soil samples collected on July 10, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 11, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001094

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001094-001	10-JUL-00	B55 (2-2.5)	MN	524.	ppm	MDK	07-SEP-00	6010
			SB	2.2*	ppm	MDK	07-SEP-00	6010
L001094-002	10-JUL-00	B55 (5.5)	MN	232.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
L001094-006	10-JUL-00	B90 (2-2.5)	AS	6.	ppm	MDK	07-SEP-00	6010
			CD	116.	ppm	MDK	07-SEP-00	6010
			CO	54.	ppm	MDK	07-SEP-00	6010
			CR	23.	ppm	MDK	07-SEP-00	6010
			CU	22.	ppm	MDK	07-SEP-00	6010
			MN	623.	ppm	MDK	07-SEP-00	6010
			NI	117.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	3390.*	ppm	MDK	07-SEP-00	6010
L001094-007	10-JUL-00	B90 (5.5)	CD	45.	ppm	MDK	07-SEP-00	6010
			CO	13.	ppm	MDK	07-SEP-00	6010
			CR	12.	ppm	MDK	07-SEP-00	6010
			CU	10.	ppm	MDK	07-SEP-00	6010
			MN	281.	ppm	MDK	07-SEP-00	6010
			NI	17.	ppm	MDK	07-SEP-00	6010
			TL	<1.*	ppm	MDK	07-SEP-00	6010
			ZN	1120.*	ppm	MDK	07-SEP-00	6010
L001094-008	10-JUL-00	B90 (8.5)	CD	8.	ppm	MDK	07-SEP-00	6010
			CO	7.	ppm	MDK	07-SEP-00	6010
			ZN	222.*	ppm	MDK	07-SEP-00	6010
L001094-009	10-JUL-00	B90 (11.5)	CD	<1.	ppm	MDK	07-SEP-00	6010
			ZN	37.*	ppm	MDK	07-SEP-00	6010
L001094-012	10-JUL-00	B91 (2-2.5)	CD	1971.	ppm	MDK	07-SEP-00	6010
			CO	523.	ppm	MDK	07-SEP-00	6010
			CR	10.	ppm	MDK	07-SEP-00	6010
			CU	12.	ppm	MDK	07-SEP-00	6010
			NI	55.	ppm	MDK	07-SEP-00	6010
			TL	<1.**	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001094

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001094-012	10-JUL-00	B91 (2-2.5)	ZN	63510.*	ppm	MDK	05-OCT-00	6010
L001094-013	10-JUL-00	B91 (5.5)	CD	17.	ppm	MDK	07-SEP-00	6010
			CO	11.	ppm	MDK	07-SEP-00	6010
			NI	11.	ppm	MDK	07-SEP-00	6010
			ZN	401.*	ppm	MDK	07-SEP-00	6010
L001094-014	10-JUL-00	B91 (8.5)	CD	1.	ppm	MDK	07-SEP-00	6010
			CO	6.	ppm	MDK	07-SEP-00	6010
			ZN	63.*	ppm	MDK	07-SEP-00	6010
L001094-018	10-JUL-00	B89 (2-2.5)	AS	6.	ppm	MDK	07-SEP-00	6010
			CD	86.	ppm	MDK	07-SEP-00	6010
			CO	70.	ppm	MDK	07-SEP-00	6010
			CR	11.	ppm	MDK	07-SEP-00	6010
			CU	12.	ppm	MDK	07-SEP-00	6010
			MN	577.	ppm	MDK	07-SEP-00	6010
			NI	36.	ppm	MDK	07-SEP-00	6010
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	2490.*	ppm	MDK	07-SEP-00	6010
L001094-019	10-JUL-00	B89 (5.5)	CD	6.	ppm	MDK	07-SEP-00	6010
			CO	8.	ppm	MDK	07-SEP-00	6010
			MN	347.	ppm	MDK	07-SEP-00	6010
			NI	11.	ppm	MDK	07-SEP-00	6010
			TL	<1.*	ppm	MDK	07-SEP-00	6010
			ZN	178.*	ppm	MDK	07-SEP-00	6010
L001094-020	10-JUL-00	B89 (8.5)	CD	3.	ppm	MDK	07-SEP-00	6010
			ZN	102.*	ppm	MDK	07-SEP-00	6010
L001094-021	10-JUL-00	B89 (11.5)	ZN	69.*	ppm	MDK	07-SEP-00	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001094

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Detection limits elevated due to matrix effect.
(***) Tl result may be subject to bias at reporting limit of 1.0 ppm.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000799

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000799-1		Matrix Spike	AG	107	%Recovery	MDK	07-SEP-00		6010
			AS	88	%Recovery	MDK	07-SEP-00		6010
			BA	93	%Recovery	MDK	07-SEP-00		6010
			BI	104	%Recovery	MDK	07-SEP-00		6010
			CD	88	%Recovery	MDK	07-SEP-00		6010
			CO	91	%Recovery	MDK	07-SEP-00		6010
			CR	102	%Recovery	MDK	07-SEP-00		6010
			CU	114	%Recovery	MDK	07-SEP-00		6010
			MN	107	%Recovery	MDK	07-SEP-00		6010
			NI	92	%Recovery	MDK	07-SEP-00		6010
			PB	94	%Recovery	MDK	07-SEP-00		6010
			SB	57*	%Recovery	MDK	07-SEP-00		6010
			SE	74*	%Recovery	MDK	07-SEP-00		6010
			SN	100	%Recovery	MDK	07-SEP-00		6010
			TL	85	%Recovery	MDK	07-SEP-00		6010
			V	105	%Recovery	MDK	07-SEP-00		6010
			ZN	95	%Recovery	MDK	07-SEP-00		6010
WG000799-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	2.0****	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000799-3		Lab Control Sample	AG	96	%Recovery	MDK	07-SEP-00		6010
			AS	89	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000799

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000799-3		Lab Control Sample	BI	100	%Recovery	MDK	07-SEP-00		6010
			CD	89	%Recovery	MDK	07-SEP-00		6010
			CO	96	%Recovery	MDK	07-SEP-00		6010
			CR	94	%Recovery	MDK	07-SEP-00		6010
			CU	103	%Recovery	MDK	07-SEP-00		6010
			MN	98	%Recovery	MDK	07-SEP-00		6010
			NI	93	%Recovery	MDK	07-SEP-00		6010
			PB	93	%Recovery	MDK	07-SEP-00		6010
			SB	119	%Recovery	MDK	07-SEP-00		6010
			SE	76**	%Recovery	MDK	07-SEP-00		6010
			SN	104	%Recovery	MDK	07-SEP-00		6010
			TL	88	%Recovery	MDK	07-SEP-00		6010
			V	108	%Recovery	MDK	07-SEP-00		6010
			ZN	88	%Recovery	MDK	07-SEP-00		6010
WG000799-5		Matrix Spike Duplicate	AG	<1	% RPD	MDK	07-SEP-00		6010
			AS	1	% RPD	MDK	07-SEP-00		6010
			BA	<1	% RPD	MDK	07-SEP-00		6010
			BI	1.3	% RPD	MDK	07-SEP-00		6010
			CD	1.1	% RPD	MDK	07-SEP-00		6010
			CO	<1	% RPD	MDK	07-SEP-00		6010
			CR	1.2	% RPD	MDK	07-SEP-00		6010
			CU	1.5	% RPD	MDK	07-SEP-00		6010
			MN	1.6	% RPD	MDK	07-SEP-00		6010
			NI	<1	% RPD	MDK	07-SEP-00		6010
			PB	<1	% RPD	MDK	07-SEP-00		6010
			SB	25***	% RPD	MDK	07-SEP-00		6010
			SE	<1	% RPD	MDK	07-SEP-00		6010
			SN	<1	% RPD	MDK	07-SEP-00		6010
			TL	4.3	% RPD	MDK	07-SEP-00		6010
			V	<1	% RPD	MDK	07-SEP-00		6010
			ZN	1.1	% RPD	MDK	07-SEP-00		6010
WG000799-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000799

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000799-6		Reporting Limit	CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010
WG000799-7		Matrix Spike	AG	108	%Recovery	MDK	07-SEP-00		6010
			AS	99	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010
			BI	106	%Recovery	MDK	07-SEP-00		6010
			CD	90	%Recovery	MDK	07-SEP-00		6010
			CO	95	%Recovery	MDK	07-SEP-00		6010
			CR	111	%Recovery	MDK	07-SEP-00		6010
			CU	116	%Recovery	MDK	07-SEP-00		6010
			MN	125	%Recovery	MDK	07-SEP-00		6010
			NI	96	%Recovery	MDK	07-SEP-00		6010
			PB	97	%Recovery	MDK	07-SEP-00		6010
			SB	44*	%Recovery	MDK	07-SEP-00		6010
			SE	78	%Recovery	MDK	07-SEP-00		6010
			SN	101	%Recovery	MDK	07-SEP-00		6010
			TL	86	%Recovery	MDK	07-SEP-00		6010
			V	111	%Recovery	MDK	07-SEP-00		6010
			ZN	104	%Recovery	MDK	07-SEP-00		6010
WG000799-8		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			MN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000799

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000799-8		Prep Blank	NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<2****	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	3.1****	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000799-9		Lab Control Sample	AG	97	%Recovery	MDK	07-SEP-00		6010
			AS	94	%Recovery	MDK	07-SEP-00		6010
			BA	102	%Recovery	MDK	07-SEP-00		6010
			BI	95	%Recovery	MDK	07-SEP-00		6010
			CD	94	%Recovery	MDK	07-SEP-00		6010
			CO	99	%Recovery	MDK	07-SEP-00		6010
			CR	96	%Recovery	MDK	07-SEP-00		6010
			CU	106	%Recovery	MDK	07-SEP-00		6010
			MN	99	%Recovery	MDK	07-SEP-00		6010
			NI	97	%Recovery	MDK	07-SEP-00		6010
			PB	99	%Recovery	MDK	07-SEP-00		6010
			SB	114	%Recovery	MDK	07-SEP-00		6010
			SE	78**	%Recovery	MDK	07-SEP-00		6010
			SN	108	%Recovery	MDK	07-SEP-00		6010
			TL	89	%Recovery	MDK	07-SEP-00		6010
			V	108	%Recovery	MDK	07-SEP-00		6010
			ZN	125**	%Recovery	MDK	07-SEP-00		6010
WG000799-11		Matrix Spike Duplicate	AG	3.6	% RPD	MDK	07-SEP-00		6010
			AS	6.4	% RPD	MDK	07-SEP-00		6010
			BA	5.6	% RPD	MDK	07-SEP-00		6010
			BI	3.7	% RPD	MDK	07-SEP-00		6010
			CD	6.5	% RPD	MDK	07-SEP-00		6010
			CO	6.7	% RPD	MDK	07-SEP-00		6010
			CR	5.6	% RPD	MDK	07-SEP-00		6010
			CU	4.1	% RPD	MDK	07-SEP-00		6010
			MN	<1	% RPD	MDK	07-SEP-00		6010
			NI	4.6	% RPD	MDK	07-SEP-00		6010
			PB	3.3	% RPD	MDK	07-SEP-00		6010
			SB	19	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000799

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000799-11		Matrix Spike Duplicate	SE	6.4	% RPD	MDK	07-SEP-00		6010
			SN	6.2	% RPD	MDK	07-SEP-00		6010
			TL	3.4	% RPD	MDK	07-SEP-00		6010
			V	5.6	% RPD	MDK	07-SEP-00		6010
			ZN	5.6	% RPD	MDK	07-SEP-00		6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Se & Zn is within ERA (245), 95% confidence interval.
*** Duplicate Spike recovery for Sb was out of range due to non-homogeneity of spiked sample.
**** Blanks were greater than reporting limits. Results near reporting limits may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 5

Project Number/Name CC000642001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Saltlake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass w/teflon lined lid				Remarks	Total
B55 0-0.5	S	7/10/00 910		1									1
B55 2-2.5		913		1	HOLD								1
B55 5.5		917		1	HOLD								1
B55 8.5		930		1	HOLD								1
B55 11.5		935		1	HOLD								1
B55 12-12.5	S	937		1	HOLD								1
FIELD BLANK	L	1400		2		1) Metals w/HNO3							2
EQUIPMENT 42	L	1200		2									2
EQUIPMENT 43	L	1500		2		2) CN w/ NaOH							2
EQUIPMENT 44	L	1600		2									2
DUPLICATE 42 B153(5.5-6)	S	1000		1									1
DUPLICATE 43 B156(2.3-3)	S	1053		1									1
DUPLICATE 44 B-89(0-0.5)	S	1520		1									1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 17

Relinquished by: Bruce Harley	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

B55 RUN 0-0.5, HOLD All other depths until notified by ARCADIS.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 5

Project Number/Name CC000642000

Project Location Encycle Corpus Christi TX

Laboratory ASARCO Salt Lake City

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL-Sb, As, Ba, Be	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass w/ Mon lined lid			Remarks	Total
B153 (0-0.5)	S	7/10/00 955		1								1
B153 (2-2.5)	S	957		1								1
B153 (5.5-6.0)	S	1000		1								1
B154 (0-0.5)	S	1012		1	HOLD							1
B154 (2-2.5)	S	1015		1	HOLD							1
B154 (4.7-5.5)	S	1020		1	HOLD							1
B155 (0-0.5)	S	1030		1	HOLD							1
B155 (2-2.5)	S	1033		1	HOLD							1
B155 (3-3.5)	S	1035		1	HOLD							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 9

Relinquished by: Buquettoney	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: Mottley	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Step out Boring → RUN ALL OF B153 - HOLD B154 & B155 until notified by ARCADIS

Delivery Method: ☑ In Person ☒ Common Carrier Fed EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 3 of 5

Project Number/Name CC0001A20001

Project Location Encycle Corpus Christi TX

Laboratory ASARCO / Salt Lake City UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz g/cs w/ Teflon lined lid			Remarks	Total
B156 (0-0.5)	S	7/10/00 1050		1								1
B156 (2.3-3)		1053		1								1
B157 (0-0.5)		1105		1	HOLD							1
B157 (2.3-3)		1108		1	HOLD							1
B158 (0-0.5)		1115		1	HOLD							1
B158 (2.3-3)		1119		1	HOLD							1
B114 (0-0.5)		1435		1								1
B114 (2-2.5)		1440		1								1
B114 (5.5)		1443		1								1
B114 (8.5)		1450		1								1
B114 (11.5)		1452		1								1
B114 (14-14.5)	S	✓ 1455		1								1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 12

Relinquished by: Bayatthany	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 7/11/00	Time 1130	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Step out Boring RUN all B156 - HOLD B157, B158 until notified by ARCADIS

* RUN ALL OF B114

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 4 of 5

Project Number/Name (10000142.0001

Project Location Ensyle Corpus Christi, TX

Laboratory ASARCO, Salt Lake City UT

Project Manager Ken Brandmeyer

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, B; Cd, Cr, Cu, Fe, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn; 8 oz glass jar w/Teflon lined lid	Remarks	Total
B90 (0-0.5)	S	7/10/00 1310		1		1
B90 (2-2.5)		1315		1 HOLD		1
B90 (5.5)		1320		1 HOLD		1
B90 (8.5)		1325		1 HOLD		1
B90 (11.5)		1327		1 HOLD		1
B90 (14.5)		1330		1 HOLD		1
B90 (17-18)		1340		1 HOLD		1
B91 (0-0.5)		1350		1 [redacted] (BH)		1
B91 (2-2.5)		1354		1 HOLD		1
B91 (5.5)		1357		1 HOLD		1
B91 (8.5)		1405		1 HOLD		1
B91 (11.5)		1407		1 HOLD		1
B91 (14.5)		1415		1 HOLD		1
B91 (16-16.5)	S	V 1416		1 HOLD		1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 14

					Seal Intact?
Relinquished by: Brandmeyer Courier	Organization: ARCADIS	Date 7/10/00	Time 1800		
Received by:	Organization: Asarco	Date 7/11/00	Time 1130		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks:

B90 & B91 Run (0-0.5) - HOLD All other depths until notified by ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC0006#20001

Project Location Encycle Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass jar w/ Kalon lined lid			Remarks	Total
B89 (0-0.5)	S	7/10/00 1520		1								1
B89 (2-2.5)		1524		1	HOLD							1
B89 (5.5)		1530		1	HOLD							1
B89 (8.5)		1535		1	HOLD							1
B89 (11.5)		1540		1	HOLD							1
B89 (14.5)		1545		1	HOLD							1
B89 (15.3-16)	S	1548		1	HOLD							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 7

Relinquished by: Bryan Henry	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: Mottola	Organization: ASARCO	Date 7/11/00	Time 1136	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Run B89 (0-0.5) - HOLD all other depths until notified by ARCADIS

Delivery Method: ☐ In Person ☑ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (11), eleven soil samples collected on July 10, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 11, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-001	10-JUL-00	B153 (0-0.5)	AG	0.6	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	625.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	7.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	<5.	ppm	MDK	07-SEP-00		6010
			CR	9.	ppm	MDK	07-SEP-00		6010
			CU	15.	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	259.	ppm	MDK	07-SEP-00		6010
			MOIST.	11.	%	MJF	17-JUL-00		GRAV.
			NI	6.	ppm	MDK	07-SEP-00		6010
			PB	11.	ppm	MDK	07-SEP-00		6010
			SB	0.9*	ppm	MDK	07-SEP-00		6010
			SE	1.1*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<1.*	ppm	MDK	07-SEP-00		6010
			V	18.	ppm	MDK	07-SEP-00		6010
			ZN	184.	ppm	MDK	07-SEP-00		6010
L001096-002	10-JUL-00	B153 (2-2.5)	AG	2.8	ppm	MDK	07-SEP-00		6010
			AS	26.	ppm	MDK	07-SEP-00		6010
			BA	293.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	39.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	13.	ppm	MDK	07-SEP-00		6010
			CU	245.	ppm	MDK	07-SEP-00		6010
			HG	1.5	ppm	EH	18-JUL-00		7471
			MN	803.	ppm	MDK	07-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			NI	10.	ppm	MDK	07-SEP-00		6010
			PB	283.	ppm	MDK	07-SEP-00		6010
			SB	3.3*	ppm	MDK	07-SEP-00		6010
			SE	2.6*	ppm	MDK	07-SEP-00		6010
			SN	7.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-002	10-JUL-00	B153 (2-2.5)	V	24.	ppm	MDK	07-SEP-00		6010
			ZN	3126.	ppm	MDK	07-SEP-00		6010
L001096-003	10-JUL-00	B153 (5.5-6.0)	AG	9.2	ppm	MDK	07-SEP-00		6010
			AS	82.	ppm	MDK	07-SEP-00		6010
			BA	313.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	253.	ppm	MDK	07-SEP-00		6010
			CN-	0.11	ppm	DC	13-JUL-00		335.2
			CO	66.	ppm	MDK	07-SEP-00		6010
			CR	18.	ppm	MDK	07-SEP-00		6010
			CU	2584.	ppm	MDK	07-SEP-00		6010
			HG	23.	ppm	EH	18-JUL-00		7471
			MN	7285.	ppm	MDK	07-SEP-00		6010
			MOIST.	22.	%	MJF	17-JUL-00		GRAV.
			NI	56.	ppm	MDK	07-SEP-00		6010
			PB	1040.	ppm	MDK	07-SEP-00		6010
			SB	11.6*	ppm	MDK	07-SEP-00		6010
			SE	2.9*	ppm	MDK	07-SEP-00		6010
			SN	29.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	21.	ppm	MDK	07-SEP-00		6010
			ZN	17320.	ppm	MDK	05-OCT-00		6010
L001096-004	10-JUL-00	B156 (0-0.5)	AG	2.3	ppm	MDK	07-SEP-00		6010
			AS	30.	ppm	MDK	07-SEP-00		6010
			BA	182.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	23.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	8.	ppm	MDK	07-SEP-00		6010
			CR	13.	ppm	MDK	07-SEP-00		6010
			CU	520.	ppm	MDK	07-SEP-00		6010
			HG	0.10	ppm	EH	18-JUL-00		7471
			MN	487.	ppm	MDK	07-SEP-00		6010
			MOIST.	12.	%	MJF	17-JUL-00		GRAV.
			NI	12.	ppm	MDK	07-SEP-00		6010
			PB	157.	ppm	MDK	07-SEP-00		6010
			SB	2.8*	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-004	10-JUL-00	B156 (0-0.5)	SE	1.0*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	22.	ppm	MDK	07-SEP-00		6010
			ZN	2200.	ppm	MDK	07-SEP-00		6010
L001096-005	10-JUL-00	B156 (2.3-3)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	99.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	1.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	15.	ppm	MDK	07-SEP-00		6010
			CU	8.	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	191.	ppm	MDK	07-SEP-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			NI	8.	ppm	MDK	07-SEP-00		6010
			PB	6.	ppm	MDK	07-SEP-00		6010
			SB	<0.8*	ppm	MDK	07-SEP-00		6010
			SE	1.3*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	7.	ppm	MDK	07-SEP-00		6010
			ZN	51.	ppm	MDK	07-SEP-00		6010
L001096-006	10-JUL-00	B114 (0-0.5)	AG	1.3	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	88.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	9.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	14.	ppm	MDK	07-SEP-00		6010
			CR	11.	ppm	MDK	07-SEP-00		6010
			CU	21.	ppm	MDK	07-SEP-00		6010
			HG	8.1	ppm	EH	18-JUL-00		7471
			MN	228.	ppm	MDK	07-SEP-00		6010
			MOIST.	14.	%	MJF	17-JUL-00		GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-006	10-JUL-00	B114 (0-0.5)	NI	8.	ppm	MDK	07-SEP-00		6010
			PB	37.	ppm	MDK	07-SEP-00		6010
			SB	<0.8*	ppm	MDK	07-SEP-00		6010
			SE	1.4*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<1.*	ppm	MDK	07-SEP-00		6010
			V	16.	ppm	MDK	07-SEP-00		6010
			ZN	589.	ppm	MDK	07-SEP-00		6010
L001096-007	10-JUL-00	B114 (2-2.5)	AG	2.4	ppm	MDK	07-SEP-00		6010
			AS	11.	ppm	MDK	07-SEP-00		6010
			BA	208.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	94.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	10.	ppm	MDK	07-SEP-00		6010
			CR	13.	ppm	MDK	07-SEP-00		6010
			CU	82.	ppm	MDK	07-SEP-00		6010
			HG	15.	ppm	EH	18-JUL-00		7471
			MN	553.	ppm	MDK	07-SEP-00		6010
			MOIST.	19.	%	MJF	17-JUL-00		GRAV.
			NI	14.	ppm	MDK	07-SEP-00		6010
			PB	150.	ppm	MDK	07-SEP-00		6010
			SB	1.9*	ppm	MDK	07-SEP-00		6010
			SE	1.8*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	9.*	ppm	MDK	07-SEP-00		6010
			V	32.	ppm	MDK	07-SEP-00		6010
			ZN	2170.	ppm	MDK	07-SEP-00		6010
L001096-008	10-JUL-00	B114 (5.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	6.	ppm	MDK	07-SEP-00		6010
			BA	268.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	5.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	12.	ppm	MDK	07-SEP-00		6010
			CU	17.	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-008	10-JUL-00	B114 (5.5)	HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	318.	ppm	MDK	07-SEP-00		6010
			MOIST.	25.	%	MJF	17-JUL-00		GRAV.
			NI	10.	ppm	MDK	07-SEP-00		6010
			PB	19.	ppm	MDK	07-SEP-00		6010
			SB	1.1*	ppm	MDK	07-SEP-00		6010
			SE	0.8*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	3.*	ppm	MDK	07-SEP-00		6010
			V	33.	ppm	MDK	07-SEP-00		6010
			ZN	320.	ppm	MDK	07-SEP-00		6010
L001096-009	10-JUL-00	B114 (8.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	6.	ppm	MDK	07-SEP-00		6010
			BA	300.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	3.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	10.	ppm	MDK	07-SEP-00		6010
			CU	10.	ppm	MDK	07-SEP-00		6010
			HG	0.080	ppm	EH	18-JUL-00		7471
			MN	368.	ppm	MDK	07-SEP-00		6010
			MOIST.	18.	%	MJF	17-JUL-00		GRAV.
			NI	9.	ppm	MDK	07-SEP-00		6010
			PB	13.	ppm	MDK	07-SEP-00		6010
			SB	1.2*	ppm	MDK	07-SEP-00		6010
			SE	<0.8*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	2.*	ppm	MDK	07-SEP-00		6010
			V	30.	ppm	MDK	07-SEP-00		6010
			ZN	144.	ppm	MDK	07-SEP-00		6010
L001096-010	10-JUL-00	B114 (11.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	257.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	<1.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001096-010	10-JUL-00	B114 (11.5)	CO	5.	ppm	MDK	07-SEP-00		6010
			CR	9.	ppm	MDK	07-SEP-00		6010
			CU	7.	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	291.	ppm	MDK	07-SEP-00		6010
			MOIST.	17.	%	MJF	17-JUL-00		GRAV.
			NI	7.	ppm	MDK	07-SEP-00		6010
			PB	8.	ppm	MDK	07-SEP-00		6010
			SB	0.9*	ppm	MDK	07-SEP-00		6010
			SE	<0.8*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	2.*	ppm	MDK	07-SEP-00		6010
			V	24.	ppm	MDK	07-SEP-00		6010
			ZN	41.	ppm	MDK	07-SEP-00		6010
L001096-011	10-JUL-00	B114 (14-14.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	177.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	<1.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	<5.	ppm	MDK	07-SEP-00		6010
			CR	5.	ppm	MDK	07-SEP-00		6010
			CU	<5.	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	193.	ppm	MDK	07-SEP-00		6010
			MOIST.	17.	%	MJF	17-JUL-00		GRAV.
			NI	<5.	ppm	MDK	07-SEP-00		6010
			PB	<5.	ppm	MDK	07-SEP-00		6010
			SB	0.9*	ppm	MDK	07-SEP-00		6010
			SE	<0.8*	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	2.*	ppm	MDK	07-SEP-00		6010
			V	14.	ppm	MDK	07-SEP-00		6010
			ZN	24.	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001096

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Detection limits for some Tl results were elevated due to matrix interference.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000801

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000801-1		Matrix Spike	AG	116	%Recovery	MDK	07-SEP-00		6010
			AS	95	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010
			BI	106	%Recovery	MDK	07-SEP-00		6010
			CD	84	%Recovery	MDK	07-SEP-00		6010
			CO	90	%Recovery	MDK	07-SEP-00		6010
			CR	123	%Recovery	MDK	07-SEP-00		6010
			CU	121	%Recovery	MDK	07-SEP-00		6010
			HG	90	%Recovery	EH	18-JUL-00		7471
			MN	114	%Recovery	MDK	07-SEP-00		6010
			NI	93	%Recovery	MDK	07-SEP-00		6010
			PB	92	%Recovery	MDK	07-SEP-00		6010
			SB	56*	%Recovery	MDK	07-SEP-00		6010
			SE	74*	%Recovery	MDK	07-SEP-00		6010
			SN	97	%Recovery	MDK	07-SEP-00		6010
			TL	81	%Recovery	MDK	07-SEP-00		6010
			V	108	%Recovery	MDK	07-SEP-00		6010
			ZN	106	%Recovery	MDK	07-SEP-00		6010
WG000801-2		Prep Blank	AG	<0.50	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	13-JUL-00		335.2
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	18-JUL-00		7471
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	3.3***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000801

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000801-3		Lab Control Sample	AG	95	%Recovery	MDK	07-SEP-00		6010
			AS	85	%Recovery	MDK	07-SEP-00		6010
			BA	96	%Recovery	MDK	07-SEP-00		6010
			BI	95	%Recovery	MDK	07-SEP-00		6010
			CD	87	%Recovery	MDK	07-SEP-00		6010
			CN-	90	%Recovery	DC	13-JUL-00		335.2
			CO	95	%Recovery	MDK	07-SEP-00		6010
			CR	93	%Recovery	MDK	07-SEP-00		6010
			CU	102	%Recovery	MDK	07-SEP-00		6010
			HG	100	%Recovery	EH	18-JUL-00		7471
			MN	95	%Recovery	MDK	07-SEP-00		6010
			NI	92	%Recovery	MDK	07-SEP-00		6010
			PB	90	%Recovery	MDK	07-SEP-00		6010
			SB	113	%Recovery	MDK	07-SEP-00		6010
			SE	72**	%Recovery	MDK	07-SEP-00		6010
			SN	100	%Recovery	MDK	07-SEP-00		6010
			TL	87	%Recovery	MDK	07-SEP-00		6010
			V	105	%Recovery	MDK	07-SEP-00		6010
			ZN	87	%Recovery	MDK	07-SEP-00		6010
WG000801-4		Duplicate	MOIST.	1.2	% RPD	MJF	17-JUL-00		GRAV.
WG000801-5		Matrix Spike Duplicate	AG	4.3	% RPD	MDK	07-SEP-00		6010
			AS	2.2	% RPD	MDK	07-SEP-00		6010
			BA	2.3	% RPD	MDK	07-SEP-00		6010
			BI	3	% RPD	MDK	07-SEP-00		6010
			CD	2.3	% RPD	MDK	07-SEP-00		6010
			CO	2.5	% RPD	MDK	07-SEP-00		6010
			CR	4.2	% RPD	MDK	07-SEP-00		6010
			CU	3	% RPD	MDK	07-SEP-00		6010
			HG	<1	% RPD	EH	18-JUL-00		7471
			MN	2.6	% RPD	MDK	07-SEP-00		6010
			NI	2.8	% RPD	MDK	07-SEP-00		6010
			PB	2.7	% RPD	MDK	07-SEP-00		6010
			SB	11	% RPD	MDK	07-SEP-00		6010
			SE	1.7	% RPD	MDK	07-SEP-00		6010
			SN	2.7	% RPD	MDK	07-SEP-00		6010
			TL	<1	% RPD	MDK	07-SEP-00		6010
			V	3.6	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000801

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000801-5		Matrix Spike Duplicate	ZN	1.8	% RPD	MDK	07-SEP-00		6010
WG000801-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.050	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Se is within ERA (245), 95% confidence interval.
*** Prep. Blank for Tl was above detection limit. Results near reporting limit may be subject to bias.

Approved

Reviewer

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (1), one soil sample collected on July 11, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 13, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001110

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001110-001	11-JUL-00	B73 (0-0.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	80.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	2.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	13.	ppm	MDK	07-SEP-00		6010
			CR	12.*	ppm	MDK	07-SEP-00		6010
			CU	8.	ppm	MDK	07-SEP-00		6010
			HG	<0.05*	ppm	EH	19-JUL-00		7471
			MN	201.	ppm	MDK	07-SEP-00		6010
			MOIST.	18.	%	DC	19-JUL-00		GRAV.
			NI	11.	ppm	MDK	07-SEP-00		6010
			PB	15.	ppm	MDK	07-SEP-00		6010
			SB	0.9*	ppm	MDK	07-SEP-00		6010
			SE	<0.8*	ppm	MDK	07-SEP-00		6010
			SN	9.	ppm	MDK	07-SEP-00		6010
			TL	<1.*	ppm	MDK	07-SEP-00		6010
			V	15.	ppm	MDK	07-SEP-00		6010
			ZN	251.	ppm	MDK	07-SEP-00		6010

(*) Quality control data indicates a possible bias. See QC report for details.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000782

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000782-1		Matrix Spike	AG	106	%Recovery	MDK	07-SEP-00		6010
			AS	92	%Recovery	MDK	07-SEP-00		6010
			BA	104	%Recovery	MDK	07-SEP-00		6010
			BI	104	%Recovery	MDK	07-SEP-00		6010
			CD	89	%Recovery	MDK	07-SEP-00		6010
			CN-	100	%Recovery	DC	14-JUL-00		335.2
			CO	101	%Recovery	MDK	07-SEP-00		6010
			CR	133*	%Recovery	MDK	07-SEP-00		6010
			CU	116	%Recovery	MDK	07-SEP-00		6010
			HG	105	%Recovery	EH	19-JUL-00		7471
			MN	98	%Recovery	MDK	07-SEP-00		6010
			NI	99	%Recovery	MDK	07-SEP-00		6010
			PB	95	%Recovery	MDK	07-SEP-00		6010
			SB	56*	%Recovery	MDK	07-SEP-00		6010
			SE	72*	%Recovery	MDK	07-SEP-00		6010
			SN	99	%Recovery	MDK	07-SEP-00		6010
			TL	88	%Recovery	MDK	07-SEP-00		6010
			V	107	%Recovery	MDK	07-SEP-00		6010
			ZN	98	%Recovery	MDK	07-SEP-00		6010
WG000782-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	19-JUL-00		7471
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	2.3***	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000782

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000782-3		Lab Control Sample	AG	104	%Recovery	MDK	07-SEP-00		6010
			AS	92	%Recovery	MDK	07-SEP-00		6010
			BA	100	%Recovery	MDK	07-SEP-00		6010
			BI	100	%Recovery	MDK	07-SEP-00		6010
			CD	92	%Recovery	MDK	07-SEP-00		6010
			CN-	84	%Recovery	DC	14-JUL-00		335.2
			CO	101	%Recovery	MDK	07-SEP-00		6010
			CR	99	%Recovery	MDK	07-SEP-00		6010
			CU	109	%Recovery	MDK	07-SEP-00		6010
			HG	121**	%Recovery	EH	19-JUL-00		7471
			MN	97	%Recovery	MDK	07-SEP-00		6010
			NI	100	%Recovery	MDK	07-SEP-00		6010
			PB	97	%Recovery	MDK	07-SEP-00		6010
			SB	106	%Recovery	MDK	07-SEP-00		6010
			SE	78	%Recovery	MDK	07-SEP-00		6010
			SN	110	%Recovery	MDK	07-SEP-00		6010
			TL	94	%Recovery	MDK	07-SEP-00		6010
			V	109	%Recovery	MDK	07-SEP-00		6010
			ZN	90	%Recovery	MDK	07-SEP-00		6010
WG000782-4		Duplicate	CN-	<1	% RPD	DC	14-JUL-00		335.2
			MOIST.	23	% RPD	DC	19-JUL-00		GRAV.
WG000782-5		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	07-SEP-00		6010
			AS	1.1	% RPD	MDK	07-SEP-00		6010
			BA	<1	% RPD	MDK	07-SEP-00		6010
			BI	<1	% RPD	MDK	07-SEP-00		6010
			CD	1.9	% RPD	MDK	07-SEP-00		6010
			CO	6.4	% RPD	MDK	07-SEP-00		6010
			CR	2	% RPD	MDK	07-SEP-00		6010
			CU	2.1	% RPD	MDK	07-SEP-00		6010
			MN	1.1	% RPD	MDK	07-SEP-00		6010
			NI	1.6	% RPD	MDK	07-SEP-00		6010
			PB	1.4	% RPD	MDK	07-SEP-00		6010
			SB	2.6	% RPD	MDK	07-SEP-00		6010
			SE	<1	% RPD	MDK	07-SEP-00		6010
			SN	1.2	% RPD	MDK	07-SEP-00		6010
			TL	1.3	% RPD	MDK	07-SEP-00		6010
			V	1.8	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000782

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000782-5		Matrix Spike Duplicate	ZN	1.6	% RPD	MDK	07-SEP-00		6010
WG000782-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spikes outside acceptance limits due to matrix interference.
** LCS for Hg is based on ERA (244), certified total concentration.
*** Tl prep. Blank result was greater than reporting limit. Sample Tl result may be subject to bias.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 3

Project Number/Name CC000642 0001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ASARCO

ANALYSIS / METHOD / SIZE

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	8 oz gross w/ Hot Ion Inert Ind					Remarks	Total
S	B73 0-0.5	S	7/11/00 825		1							1
H	B73 2-2.5		828		1	HOLD						1
	B73 5.5		835		1	HOLD						1
	B73 8.5		840		1	HOLD						1
	B73 11.5		844		1	HOLD						1
	B73 14.5		850		1	HOLD						1
	B73 17.5		900		1	HOLD						1
H	B73 20.5-21	S	915		1	HOLD						1
	FIELD BLANK	L	900		2							2
	EQUIPMENT 45	L	1300		2							2
	EQUIPMENT 46	L	1500		2							2
S	DUPLICATE 45 (B159 2-2.5)	S	1017		1							1
S	DUPLICATE 46 (B144 5.2-6)	S	7/11/00 1450		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 16

Relinquished by: Bryan Hanley	Organization: Arcadis	Date 7/12/00	Time 1800	Seal Intact?	
Received by: [signature]	Organization: ASARCO	Date 7/13/00	Time 11:00	(Yes) No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

B73 - Run (0-0.5) - HOLD all other depths until notified by Arcadis

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (10), ten soil samples collected on July 10, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 11, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001095

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001095-001	10-JUL-00	B154 (0-0.5)	AG	3.5	ppm	MDK	07-SEP-00	6010
			MOIST.	9.6	%	DC	19-JUL-00	GRAV.
			SB	<0.8*	ppm	MDK	07-SEP-00	6010
			SE	2.7*	ppm	MDK	07-SEP-00	6010
			ZN	618.	ppm	MDK	07-SEP-00	6010
L001095-002	10-JUL-00	B154 (2-2.5)	AG	3.3	ppm	MDK	07-SEP-00	6010
			AS	12.	ppm	MDK	07-SEP-00	6010
			CD	13.	ppm	MDK	07-SEP-00	6010
			CU	163.	ppm	MDK	07-SEP-00	6010
			HG	2.3*	ppm	EH	19-JUL-00	7471
			MN	562.*	ppm	MDK	07-SEP-00	6010
			MOIST.	21.	%	DC	19-JUL-00	GRAV.
			PB	411.	ppm	MDK	07-SEP-00	6010
			SB	3.1*	ppm	MDK	07-SEP-00	6010
			SE	23.5*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	2470.	ppm	MDK	07-SEP-00	6010
L001095-003	10-JUL-00	B154 (4.7-5.5)	AG	7.6	ppm	MDK	07-SEP-00	6010
			AS	86.	ppm	MDK	07-SEP-00	6010
			BI	<4.	ppm	MDK	07-SEP-00	6010
			CD	15.	ppm	MDK	07-SEP-00	6010
			CO	8.	ppm	MDK	07-SEP-00	6010
			CR	30.	ppm	MDK	07-SEP-00	6010
			CU	796.	ppm	MDK	07-SEP-00	6010
			HG	7.5*	ppm	EH	19-JUL-00	7471
			MN	4915.*	ppm	MDK	07-SEP-00	6010
			MOIST.	25.	%	DC	19-JUL-00	GRAV.
			NI	10.	ppm	MDK	07-SEP-00	6010
			PB	2920.	ppm	MDK	07-SEP-00	6010
			SB	95.9*	ppm	MDK	07-SEP-00	6010
			SE	11.3*	ppm	MDK	07-SEP-00	6010
			SN	526.	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	34140.	ppm	MDK	05-OCT-00	6010
L001095-004	10-JUL-00	B155 (0-0.5)	AG	3.1	ppm	MDK	07-SEP-00	6010
			MOIST.	7.5	%	DC	19-JUL-00	GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001095

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L001095-007	10-JUL-00	B157 (0-0.5)	SE	<0.8*	ppm	MDK	07-SEP-00	6010
			TL	4.*	ppm	MDK	07-SEP-00	6010
			ZN	285.	ppm	MDK	07-SEP-00	6010
L001095-008	10-JUL-00	B157 (2.3-3)	CU	<5.	ppm	MDK	07-SEP-00	6010
			MOIST.	15.	%	DC	19-JUL-00	GRAV.
			SB	0.9*	ppm	MDK	07-SEP-00	6010
			SE	0.9*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	35.	ppm	MDK	07-SEP-00	6010
L001095-009	10-JUL-00	B158 (0-0.5)	HG	4.5*	ppm	EH	19-JUL-00	7471
			MOIST.	6.1	%	DC	19-JUL-00	GRAV.
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	5255.	ppm	MDK	07-SEP-00	6010
L001095-010	10-JUL-00	B158 (2.3-3)	MOIST.	18.	%	DC	19-JUL-00	GRAV.
			SB	0.8*	ppm	MDK	07-SEP-00	6010
			SE	1.0*	ppm	MDK	07-SEP-00	6010
			TL	<5.**	ppm	MDK	07-SEP-00	6010
			ZN	58.	ppm	MDK	07-SEP-00	6010

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Detection limits for Sb & Tl were elevated due to matrix interference.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000800

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000800-1		Matrix Spike	AG	109	%Recovery	MDK	07-SEP-00		6010
			AS	95	%Recovery	MDK	07-SEP-00		6010
			BA	95	%Recovery	MDK	07-SEP-00		6010
			BI	104	%Recovery	MDK	07-SEP-00		6010
			CD	89	%Recovery	MDK	07-SEP-00		6010
			CO	92	%Recovery	MDK	07-SEP-00		6010
			CR	116	%Recovery	MDK	07-SEP-00		6010
			CU	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			HG	SR>4SA	%Recovery	EH	19-JUL-00		7471
			MN	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			NI	95	%Recovery	MDK	07-SEP-00		6010
			PB	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			SB	52*	%Recovery	MDK	07-SEP-00		6010
			SE	75	%Recovery	MDK	07-SEP-00		6010
			SN	99	%Recovery	MDK	07-SEP-00		6010
			TL	84	%Recovery	MDK	07-SEP-00		6010
			V	110	%Recovery	MDK	07-SEP-00		6010
			ZN	115	%Recovery	MDK	07-SEP-00		6010
WG000800-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	19-JUL-00		7471
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	1.1****	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	4.2****	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000800

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000800-3		Lab Control Sample	AG	96	%Recovery	MDK	07-SEP-00		6010
			AS	91	%Recovery	MDK	07-SEP-00		6010
			BA	156**	%Recovery	MDK	07-SEP-00		6010
			BI	98	%Recovery	MDK	07-SEP-00		6010
			CD	91	%Recovery	MDK	07-SEP-00		6010
			CO	99	%Recovery	MDK	07-SEP-00		6010
			CR	95	%Recovery	MDK	07-SEP-00		6010
			CU	104	%Recovery	MDK	07-SEP-00		6010
			HG	122**	%Recovery	EH	19-JUL-00		7471
			MN	93	%Recovery	MDK	07-SEP-00		6010
			NI	96	%Recovery	MDK	07-SEP-00		6010
			PB	93	%Recovery	MDK	07-SEP-00		6010
			SB	120	%Recovery	MDK	07-SEP-00		6010
			SE	77**	%Recovery	MDK	07-SEP-00		6010
			SN	107	%Recovery	MDK	07-SEP-00		6010
			TL	97	%Recovery	MDK	07-SEP-00		6010
			V	106	%Recovery	MDK	07-SEP-00		6010
			ZN	86	%Recovery	MDK	07-SEP-00		6010
WG000800-4		Duplicate	MOIST.	<1	% RPD	DC	19-JUL-00		GRAV.
WG000800-5		Matrix Spike Duplicate	AG	1.7	% RPD	MDK	07-SEP-00		6010
			AS	<1	% RPD	MDK	07-SEP-00		6010
			BA	1.8	% RPD	MDK	07-SEP-00		6010
			BI	1.7	% RPD	MDK	07-SEP-00		6010
			CD	1.6	% RPD	MDK	07-SEP-00		6010
			CO	1.8	% RPD	MDK	07-SEP-00		6010
			CR	1	% RPD	MDK	07-SEP-00		6010
			CU	4	% RPD	MDK	07-SEP-00		6010
			HG	2.3	% RPD	EH	19-JUL-00		7471
			MN	22***	% RPD	MDK	07-SEP-00		6010
			NI	2.8	% RPD	MDK	07-SEP-00		6010
			PB	2	% RPD	MDK	07-SEP-00		6010
			SB	6.5	% RPD	MDK	07-SEP-00		6010
			SE	1.3	% RPD	MDK	07-SEP-00		6010
			SN	1.3	% RPD	MDK	07-SEP-00		6010
			TL	<1	% RPD	MDK	07-SEP-00		6010
			V	<1	% RPD	MDK	07-SEP-00		6010
			ZN	2.5	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000800

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000800-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.050	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Sb spike is outside acceptance limits due to matrix interference.
** LCS for Ba is within total concentration value, while that for Hg & Se is within ERA (245), 95% confidence interval.
*** Mn Duplicate Spike recovery is out of range due to non-homogeneity of spiked sample.
**** Prep. blanks exceeded reporting limits.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 5

Project Number/Name CC000642001

Project Location Encycle, Corpus Christi, TX

Laboratory ASARCO, Saltlake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (8 oz glass w/teflon lined lid)						Remarks	Total
BSS 0-0.5	S	7/10/00 910		1							1
BSS 2-2.5		913		1	HOLD						1
BSS 5.5		917		1	HOLD						1
BSS 8.5		930		1	HOLD						1
BSS 11.5		935		1	HOLD						1
BSS 12-12.5	S	937		1	HOLD						1
FIELD BLANK	L	1400		2		1) Metals w/HNO3					2
EQUIPMENT 42	L	1200		2							2
EQUIPMENT 43	L	1500		2		2) CN w/ NaOH					2
EQUIPMENT 44	L	1600		2							2
DUPLICATE 42 B153(5.5-6)	S	1000		1							1
DUPLICATE 43 B156(2.3-3)	S	1053		1							1
DUPLICATE 44 B-89(0-0.5)	S	1520		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 17

Relinquished by: Bruce Haney	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 7/11/00	Time 1130	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

BSS RUN 0-0.5, HOLD All other depths until notified by ARCADIS.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC000642000

Project Location Encycle Corpus Christi TX

Laboratory ASARCO Salt Lake City

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Be, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (8 oz glass w/ Non lined lid)						Remarks	Total
B153 (0-0.5)	S	7/10/00 955		1							1
B153 (2-2.5)	S	957		1							1
B153 (5.5-6.0)	S	1000		1							1
B154 (0-0.5)	S	1012		1	HOLD						1
B154 (2-2.5)	S	1015		1	HOLD						1
B154 (4.7-5.5)	S	1020		1	HOLD						1
B155 (0-0.5)	S	1030		1	HOLD						1
B155 (2-2.5)	S	1033		1	HOLD						1
B155 (3-3.5)	S	1035		1	HOLD						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 9

Relinquished by: [signature]	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?	
Received by: [signature]	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: Step out Boring → RUN ALL of B153 - HOLD B154 & B155 until notified by ARCADIS

Delivery Method: ☒ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name CC0001A2001

Project Location Encycle Corpus Christi TX

Laboratory ASARCO / Salt Lake City UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass w/lemon lined lid			Remarks	Total
B156 (0-0.5)	S	7/10/00 1050		1								1
B156 (2.3-3)		1053		1								1
B157 (0-0.5)		1105		1	HOLD							1
B157 (2.3-3)		1108		1	HOLD							1
B158 (0-0.5)		1115		1	HOLD							1
B158 (2.3-3)		1119		1	HOLD							1
B114 (0-0.5)		1435		1								1
B114 (2-2.5)		1440		1								1
B114 (5.5)		1443		1								1
B114 (8.5)		1450		1								1
B114 (11.5)		1452		1								1
B114 (14-14.5)	S	1455		1								1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 12

Relinquished by: Bugattany	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Step out Boring RUN all B156 — HOLD B157, B158 until notified by ARCADIS

* RUN ALL OF B114

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 4 of 5

Project Number/Name CL000642 0001

Project Location Encycle Corpus Christi, TX

Laboratory ASARCO, Salt Lake City UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location		Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	8 oz glass jar w/ Teflon lined lid				Remarks	Total
B90	(0-0.5)	S	7/10/00 1310		1									1
B90	(2-2.5)		1315		1	HOLD								1
B90	(5.5)		1320		1	HOLD								1
B90	(8.5)		1325		1	HOLD								1
B90	(11.5)		1327		1	HOLD								1
B90	(14.5)		1330		1	HOLD								1
B90	(17-18)		1340		1	HOLD								1
B91	(0-0.5)		1350		1	BH								1
B91	(2-2.5)		1354		1	HOLD								1
B91	(5.5)		1357		1	HOLD								1
B91	(8.5)		1405		1	HOLD								1
B91	(11.5)		1407		1	HOLD								1
B91	(14.5)		1415		1	HOLD								1
B91	(16-16.5)	S	1418		1	HOLD								1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 14

Relinquished by: [signature]	Organization: ARCADIS	Date 7/10/00	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 7/11/00	Time 1130	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:
B90 & B91 RUN (0-0.5) - HOLD All other depths until notified by ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

CHAIN-OF-CUSTODY RECORD

Page 5 of 5

ADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

ct Number/Name CC000642.0001

ct Location Encycle Corpus Christi, TX

oratory ASARCO, Salt Lake City, UT

ect Manager Ken Brantner

npler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	6 oz glass jar w/Teflon lined lid	Remarks	Total
B89 (0-2.5)	S	7/10/00 1520		1	1		1
B89 (2-2.5)		1521		1	HOLD		1
B89 (5.5)		1530		1	HOLD		1
B89 (8.5)		1535		1	HOLD		1
B89 (11.5)		1540		1	HOLD		1
B89 (14.5)		1545		1	HOLD		1
B89 (15.5-16)	S	1548					

Total No. of Bottles/ Containers 7

Sample Matrix: L = Liquid; S = Solid; A = Air

				Seal Intact?
Relinquished by: Bryan Kelly	Organization: ARCADIS	Date 7/10/00	Time 1800	(Yes) No N/A
Received by: Morrison	Organization: ASARCO	Date 7/11/00	Time 1130	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Instructions/Remarks: Hold all other depths until notified by ARCADIS

☐ Lab Courier ☐ Other _____

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (10), ten soil samples collected on July 11, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 13, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-001	11-JUL-00	B159 (0-0.5)	AG	3.	ppm	MDK	07-SEP-00		6010
			AS	21.	ppm	MDK	07-SEP-00		6010
			BA	285.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	35.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	17.	ppm	MDK	07-SEP-00		6010
			CU	169.	ppm	MDK	07-SEP-00		6010
			HG	4.0*	ppm	MDK	19-JUL-00		7471
			MN	558.	ppm	MDK	07-SEP-00		6010
			MOIST.	9.2	%	DC	19-JUL-00		GRAV.
			NI	11.	ppm	MDK	07-SEP-00		6010
			PB	250.	ppm	MDK	07-SEP-00		6010
			SB	3.*	ppm	MDK	07-SEP-00		6010
			SE	2.	ppm	MDK	07-SEP-00		6010
			SN	13.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	18.	ppm	MDK	07-SEP-00		6010
			ZN	3762.	ppm	MDK	07-SEP-00		6010
L001111-002	11-JUL-00	B159 (2-2.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	255.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	1.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	7.	ppm	MDK	07-SEP-00		6010
			CR	28.	ppm	MDK	07-SEP-00		6010
			CU	8.	ppm	MDK	07-SEP-00		6010
			HG	0.27*	ppm	MDK	19-JUL-00		7471
			MN	110.	ppm	MDK	07-SEP-00		6010
			MOIST.	22.	%	DC	19-JUL-00		GRAV.
			NI	16.	ppm	MDK	07-SEP-00		6010
			PB	13.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-002	11-JUL-00	B159 (2-2.5)	V	15.	ppm	MDK	07-SEP-00		6010
			ZN	129.	ppm	MDK	07-SEP-00		6010
L001111-003	11-JUL-00	DUPLICATE 45 (2-2.5)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	135.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	2.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	8.	ppm	MDK	07-SEP-00		6010
			CR	38.	ppm	MDK	07-SEP-00		6010
			CU	8.	ppm	MDK	07-SEP-00		6010
			HG	<0.05*	ppm	MDK	19-JUL-00		7471
			MN	83.	ppm	MDK	07-SEP-00		6010
			MOIST.	17.	%	DC	19-JUL-00		GRAV.
			NI	20.	ppm	MDK	07-SEP-00		6010
			PB	13.	ppm	MDK	07-SEP-00		6010
			SB	<0.8*	ppm	MDK	07-SEP-00		6010
			SE	1.	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	13.	ppm	MDK	07-SEP-00		6010
			ZN	107.	ppm	MDK	07-SEP-00		6010
L001111-004	11-JUL-00	B144 (0-0.5	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	7.	ppm	MDK	07-SEP-00		6010
			BA	303.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	4.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	8.	ppm	MDK	07-SEP-00		6010
			CR	16.	ppm	MDK	07-SEP-00		6010
			CU	23.	ppm	MDK	07-SEP-00		6010
			HG	0.072*	ppm	MDK	19-JUL-00		7471
			MN	472.	ppm	MDK	07-SEP-00		6010
			MOIST.	22.	%	DC	19-JUL-00		GRAV.
			NI	12.	ppm	MDK	07-SEP-00		6010
			PB	55.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-004	11-JUL-00	B144 (0-0.5	SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	29.	ppm	MDK	07-SEP-00		6010
			ZN	519.	ppm	MDK	07-SEP-00		6010
L001111-005	11-JUL-00	B144 (2-2.5)	AG	1.	ppm	MDK	07-SEP-00		6010
			AS	5.	ppm	MDK	07-SEP-00		6010
			BA	289.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	2.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	<5.	ppm	MDK	07-SEP-00		6010
			CR	13.	ppm	MDK	07-SEP-00		6010
			CU	21.	ppm	MDK	07-SEP-00		6010
			HG	<0.05*	ppm	MDK	19-JUL-00		7471
			MN	286.	ppm	MDK	07-SEP-00		6010
			MOIST.	18.	%	DC	19-JUL-00		GRAV.
			NI	9.	ppm	MDK	07-SEP-00		6010
			PB	53.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<1.	ppm	MDK	07-SEP-00		6010
			V	25.	ppm	MDK	07-SEP-00		6010
			ZN	159.	ppm	MDK	07-SEP-00		6010
L001111-006	11-JUL-00	B144 (5.2-6)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.	ppm	MDK	07-SEP-00		6010
			BA	211.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	3.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	5.	ppm	MDK	07-SEP-00		6010
			CR	16.	ppm	MDK	07-SEP-00		6010
			CU	20.	ppm	MDK	07-SEP-00		6010
			HG	<0.05*	ppm	MDK	19-JUL-00		7471
			MN	180.	ppm	MDK	07-SEP-00		6010
			MOIST.	44.	%	DC	19-JUL-00		GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-006	11-JUL-00	B144 (5.2-6)	NI	13.	ppm	MDK	07-SEP-00		6010
			PB	23.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	4.	ppm	MDK	07-SEP-00		6010
			V	36.	ppm	MDK	07-SEP-00		6010
			ZN	203.	ppm	MDK	07-SEP-00		6010
L001111-007	11-JUL-00	DUPLICATE 46 (5.2-6)	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	6.	ppm	MDK	07-SEP-00		6010
			BA	309.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	4.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	15.	ppm	MDK	07-SEP-00		6010
			CU	34.	ppm	MDK	07-SEP-00		6010
			HG	<0.05*	ppm	MDK	19-JUL-00		7471
			MN	205.	ppm	MDK	07-SEP-00		6010
			MOIST.	44.	%	DC	19-JUL-00		GRAV.
			NI	12.	ppm	MDK	07-SEP-00		6010
			PB	29.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	2.	ppm	MDK	07-SEP-00		6010
			V	34.	ppm	MDK	07-SEP-00		6010
			ZN	323.	ppm	MDK	07-SEP-00		6010
L001111-008	11-JUL-00	B147 (0-0.5)	AG	2.	ppm	MDK	07-SEP-00		6010
			AS	14.	ppm	MDK	07-SEP-00		6010
			BA	198.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	10.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	6.	ppm	MDK	07-SEP-00		6010
			CR	21.	ppm	MDK	07-SEP-00		6010
			CU	174.	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-008	11-JUL-00	B147 (0-0.5)	HG	0.22*	ppm	MDK	19-JUL-00		7471
			MN	664.	ppm	MDK	07-SEP-00		6010
			MOIST.	11.	%	DC	19-JUL-00		GRAV.
			NI	11.	ppm	MDK	07-SEP-00		6010
			PB	94.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	1.	ppm	MDK	07-SEP-00		6010
			SN	<5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	24.	ppm	MDK	07-SEP-00		6010
			ZN	754.	ppm	MDK	07-SEP-00		6010
L001111-009	11-JUL-00	B147 (2-2.5)	AG	2.	ppm	MDK	07-SEP-00		6010
			AS	12.	ppm	MDK	07-SEP-00		6010
			BA	292.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	17.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	5.	ppm	MDK	07-SEP-00		6010
			CR	17.	ppm	MDK	07-SEP-00		6010
			CU	103.	ppm	MDK	07-SEP-00		6010
			HG	2.0*	ppm	MDK	19-JUL-00		7471
			MN	569.	ppm	MDK	07-SEP-00		6010
			MOIST.	17.	%	DC	19-JUL-00		GRAV.
			NI	12.	ppm	MDK	07-SEP-00		6010
			PB	292.	ppm	MDK	07-SEP-00		6010
			SB	1.*	ppm	MDK	07-SEP-00		6010
			SE	10.	ppm	MDK	07-SEP-00		6010
			SN	75.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	19.	ppm	MDK	07-SEP-00		6010
			ZN	1230.	ppm	MDK	07-SEP-00		6010
L001111-010	11-JUL-00	B147 (3.7-4)	AG	46.	ppm	MDK	07-SEP-00		6010
			AS	33.	ppm	MDK	07-SEP-00		6010
			BA	148.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	78.	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001111

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001111-010	11-JUL-00	B147 (3.7-4)	CO	<5.	ppm	MDK	07-SEP-00		6010
			CR	11.	ppm	MDK	07-SEP-00		6010
			CU	362.	ppm	MDK	07-SEP-00		6010
			HG	363.*	ppm	MDK	19-JUL-00		7471
			MN	549.	ppm	MDK	07-SEP-00		6010
			MOIST.	23.	%	DC	19-JUL-00		GRAV.
			NI	10.	ppm	MDK	07-SEP-00		6010
			PB	831.	ppm	MDK	07-SEP-00		6010
			SB	4.*	ppm	MDK	07-SEP-00		6010
			SE	641.	ppm	MDK	07-SEP-00		6010
			SN	5.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	12.	ppm	MDK	07-SEP-00		6010
			ZN	9900.	ppm	MDK	07-SEP-00		6010

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Tl detection limit was elevated on some samples due to matrix interference.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000802

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000802-1		Matrix Spike	AG	110	%Recovery	MDK	07-SEP-00		6010
			AS	100	%Recovery	MDK	07-SEP-00		6010
			BA	94	%Recovery	MDK	07-SEP-00		6010
			BI	101	%Recovery	MDK	07-SEP-00		6010
			CD	93	%Recovery	MDK	07-SEP-00		6010
			CN-	100	%Recovery	DC	14-JUL-00		335.2
			CO	94	%Recovery	MDK	07-SEP-00		6010
			CR	118	%Recovery	MDK	07-SEP-00		6010
			CU	112	%Recovery	MDK	07-SEP-00		6010
			HG	SR>4SA	%Recovery	MDK	19-JUL-00		7471
			MN	109	%Recovery	MDK	07-SEP-00		6010
			NI	99	%Recovery	MDK	07-SEP-00		6010
			PB	92	%Recovery	MDK	07-SEP-00		6010
			SB	60*	%Recovery	MDK	07-SEP-00		6010
			SE	84	%Recovery	MDK	07-SEP-00		6010
			SN	98	%Recovery	MDK	07-SEP-00		6010
			TL	87	%Recovery	MDK	07-SEP-00		6010
			V	104	%Recovery	MDK	07-SEP-00		6010
			ZN	98	%Recovery	MDK	07-SEP-00		6010
WG000802-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CN-	<0.04	ppm	DC	14-JUL-00		335.2
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	MDK	19-JUL-00		7471
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	<1.0	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010
			ZN	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000802

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000802-3		Lab Control Sample	AG	96	%Recovery	MDK	07-SEP-00		6010
			AS	96	%Recovery	MDK	07-SEP-00		6010
			BA	100	%Recovery	MDK	07-SEP-00		6010
			BI	95	%Recovery	MDK	07-SEP-00		6010
			CD	95	%Recovery	MDK	07-SEP-00		6010
			CN-	84	%Recovery	DC	14-JUL-00		335.2
			CO	100	%Recovery	MDK	07-SEP-00		6010
			CR	98	%Recovery	MDK	07-SEP-00		6010
			CU	103	%Recovery	MDK	07-SEP-00		6010
			HG	121**	%Recovery	MDK	19-JUL-00		7471
			MN	104	%Recovery	MDK	07-SEP-00		6010
			NI	99	%Recovery	MDK	07-SEP-00		6010
			PB	95	%Recovery	MDK	07-SEP-00		6010
			SB	128**	%Recovery	MDK	07-SEP-00		6010
			SE	88	%Recovery	MDK	07-SEP-00		6010
			SN	105	%Recovery	MDK	07-SEP-00		6010
			TL	90	%Recovery	MDK	07-SEP-00		6010
			V	107	%Recovery	MDK	07-SEP-00		6010
			ZN	87	%Recovery	MDK	07-SEP-00		6010
WG000802-4		Duplicate	CN-	<1	% RPD	DC	14-JUL-00		335.2
			MOIST.	4.8	% RPD	DC	19-JUL-00		GRAV.
WG000802-5		Matrix Spike Duplicate	AG	1.1	% RPD	MDK	07-SEP-00		6010
			AS	<1	% RPD	MDK	07-SEP-00		6010
			BA	<1	% RPD	MDK	07-SEP-00		6010
			BI	<1	% RPD	MDK	07-SEP-00		6010
			CD	<1	% RPD	MDK	07-SEP-00		6010
			CO	<1	% RPD	MDK	07-SEP-00		6010
			CR	1.5	% RPD	MDK	07-SEP-00		6010
			CU	<1	% RPD	MDK	07-SEP-00		6010
			HG	46***	% RPD	MDK	19-JUL-00		7471
			MN	<1	% RPD	MDK	07-SEP-00		6010
			NI	<1	% RPD	MDK	07-SEP-00		6010
			PB	<1	% RPD	MDK	07-SEP-00		6010
			SB	1.6	% RPD	MDK	07-SEP-00		6010
			SE	<1	% RPD	MDK	07-SEP-00		6010
			SN	<1	% RPD	MDK	07-SEP-00		6010
			TL	<1	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000802

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000802-5		Matrix Spike Duplicate	V	<1	% RPD	MDK	07-SEP-00		6010
			ZN	<1	% RPD	MDK	07-SEP-00		6010
WG000802-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.040	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

* Spike for Sb was outside acceptance limits due to matrix interference.
** LCS for Sb was within ERA (245), 95% confidence interval and for Hg it was based on ERA (244) total concentration.
*** Duplicate Spike recovery for Hg was out of range due to non-homogeneity of spiked sample.

Approved

Reviewer

ASARCO

December 15, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the amended SPLP results for seven core samples collected June 13 through June 23, 2000 in association with the Encycle Project. The field identification now includes the boring depths.

If you need further information please call (801) 263 5243.

Sincerely,

for

Mike Fabbi
Process and Materials
Technician

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001790

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001790-001	13-JUN-00	B-37 (0-0.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	0.13	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	<0.10	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	<0.10	ppm	MDK	01-NOV-00		6010
				NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	1.3	ppm	MJF	02-NOV-00		7950
L001790-002	20-JUN-00	B-61 (0-0.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	<0.10	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	1.5	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	0.58	ppm	MDK	01-NOV-00		6010
				NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	29.	ppm	MDK	01-NOV-00		6010
L001790-003	20-JUN-00	B-64 (2-2.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	<0.10	ppm	MDK	01-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001790

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001790-003	20-JUN-00	B-64 (2-2.5')	(SPLP)	BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	1.0	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	0.36	ppm	MDK	01-NOV-00		6010
				NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	16.	ppm	MDK	01-NOV-00		6010
L001790-004	21-JUN-00	B-82 (5.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	<0.10	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	1.7	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	2.6	ppm	MDK	01-NOV-00		6010
				NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	20.	ppm	MDK	01-NOV-00		6010
L001790-005	12-JUN-00	B-97 (2-2.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	<0.10	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	15.	ppm	MDK	01-NOV-00		6010
				CO	0.53	ppm	MDK	01-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001790

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001790-005	12-JUN-00	B-97 (2-2.5')	(SPLP)	CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	1.4	ppm	MDK	01-NOV-00		6010
				NI	0.24	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	64.	ppm	MDK	01-NOV-00		6010
L001790-006	23-JUN-00	B-105 (0-0.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	0.11	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	5.3	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	13.	ppm	MDK	01-NOV-00		6010
				NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	0.83	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	750.	ppm	MJF	02-NOV-00		7950
L001790-007	22-JUN-00	B-113 (0-0.5')	(SPLP)	AG	<0.050	ppm	MDK	01-NOV-00		6010
				AS	<0.10	ppm	MDK	01-NOV-00		6010
				BA	0.14	ppm	MDK	01-NOV-00		6010
				BI	<0.10	ppm	MDK	01-NOV-00		6010
				CD	2.1	ppm	MDK	01-NOV-00		6010
				CO	<0.10	ppm	MDK	01-NOV-00		6010
				CR	<0.10	ppm	MDK	01-NOV-00		6010
				CU	<0.10	ppm	MDK	01-NOV-00		6010
				MN	<0.10	ppm	MDK	01-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001790

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001790-007	22-JUN-00	B-113 (0-0.5')	(SPLP)	NI	<0.10	ppm	MDK	01-NOV-00		6010
				PB	<0.10	ppm	MDK	01-NOV-00		6010
				SB	<0.10	ppm	MDK	01-NOV-00		6010
				SE	<0.10	ppm	MDK	01-NOV-00		6010
				SN	<0.10	ppm	MDK	01-NOV-00		6010
				TL	<0.10	ppm	MDK	01-NOV-00		6010
				V	<0.10	ppm	MDK	01-NOV-00		6010
				ZN	14.	ppm	MDK	01-NOV-00		6010

Approved

Reviewer

ASARCO

FEB 13 2001

...iller

February 02,2001

Mr. Ken Brandner
ARCADIS Geraghty & Miller, Inc.

Dear Sir:

Please find attached the analytical results and associated quality control data for soil boring samples collected in association with the Encycle/Texas RFI investigation. Samples were collected on January 15 and 16, 2001 and received by the lab on January 17,2001.

Sincerely,

Duane Coble
Laboratory Tech.

CC:GRStanga (w/attach.)
RCMarcus (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010068

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L010068-002	15-JAN-01	B49A (2-2.5)		HG	0.12	ppm	MO	25-JAN-01	7471
L010068-003	15-JAN-01	B49A (5.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010068-008	15-JAN-01	B50A (2-2.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
				HG	0.05	ppm	MO	25-JAN-01	7471
L010068-009	15-JAN-01	B50A (5.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
				HG	<.05	ppm	MO	25-JAN-01	7471
L010068-010	15-JAN-01	B50A (8.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010068-013	15-JAN-01	DUPLICATE 48	B51 (8.5)	CN-	<.04	ppm	DC	23-JAN-01	335.2
				HG	<.05	ppm	MO	25-JAN-01	7471
L010068-015	15-JAN-01	B51A (2-2.5)		CN-	4.2	ppm	DC	23-JAN-01	335.2
				HG	1.3	ppm	MO	25-JAN-01	7471
L010068-016	15-JAN-01	B51A (5.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
				HG	<.05	ppm	MO	25-JAN-01	7471
L010068-017	15-JAN-01	B51A (8.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010068-018	15-JAN-01	B51A (11.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010068-020	16-JAN-01	B160A (0-0.5)		HG	39.	ppm	MO	25-JAN-01	7471
L010068-021	16-JAN-01	B160A (2-2.5)		HG	1.2	ppm	MO	02-FEB-01	7471
L010068-022	16-JAN-01	B161A (0-0.5)		HG	213.	ppm	MO	25-JAN-01	7471
L010068-023	16-JAN-01	B161A (2-2.5)		HG	2.5	ppm	MO	25-JAN-01	7471
L010068-025	16-JAN-01	B53A (2-2.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010068-026	16-JAN-01	B53A (5.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010068-031	16-JAN-01	DUPLICATE 49	53A (5.5)	HG	<.05	ppm	MO	25-JAN-01	7471

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010068

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L010068-033	16-JAN-01	B67A (2-2.5)		HG	<.05	ppm	MO	02-FEB-01	7471
L010068-034	16-JAN-01	B67A (5.5)		HG	<.05	ppm	MO	02-FEB-01	7471
L010068-038	16-JAN-01	B60A (2-2.5)		HG	0.26	ppm	MO	02-FEB-01	7471
L010068-039	16-JAN-01	B60A (5.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010068-043	16-JAN-01	B35A (2-2.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010068-044	16-JAN-01	B35A (5.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010068-049	16-JAN-01	DUPLICATE 50	B35A (5.5)	CN-	<.04	ppm	DC	23-JAN-01	335.2

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010069

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010069-001	15-JAN-01	EQUIPMENT BLANK #48	CN-	<.008	ppm	DC	19-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010069-002	15-JAN-01	FIELD BLANK #48	CN-	<.008	ppm	DC	19-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010069-003	16-JAN-01	EQUIPMENT BLANK #49	CN-	<.008	ppm	DC	19-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010069-004	16-JAN-01	FIELD BLANK #49	CN-	<.008	ppm	DC	19-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010069-005	16-JAN-01	EQUIPMENT BLANK #50	CN-	<.008	ppm	DC	19-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010083

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L010083-002	17-JAN-01	B85A (2-2.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010083-003	17-JAN-01	B85A (5.5)		HG	<.05	ppm	MO	02-FEB-01	7471
L010083-009	17-JAN-01	B101A (2-2.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010083-010	17-JAN-01	B101A (5.5)		CN-	<.04	ppm	DC	23-JAN-01	335.2
L010083-015	17-JAN-01	B104A (2-2.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010083-016	17-JAN-01	B104A (5.5)		HG	<.05	ppm	MO	25-JAN-01	7471
L010083-021	17-JAN-01	DUPLICATE 51	(B85 A (5.5)	HG	<.05	ppm	MO	25-JAN-01	7471

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010084

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010084-001	17-JAN-01	FIELD BLANK 50	CN-	<.008	ppm	DC	23-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010084-002	17-JAN-01	EQUIPMENT 51	CN-	<.008	ppm	DC	23-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1
L010084-003	17-JAN-01	EQUIPMENT 52	CN-	<.008	ppm	DC	23-JAN-01	14	335.2
			HG	<.0005	ppm	MO	29-JAN-01	28	245.1

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010063

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010063-1		Matrix Spike	CN-	76	%Recovery	DC	19-JAN-01		335.2
			HG	104	%Recovery	MO	29-JAN-01		245.1
WG010063-2		Prep Blank	CN-	<.008	ppm	DC	19-JAN-01		335.2
			HG	<0.0005	ppm	MO	29-JAN-01		245.1
WG010063-3		Lab Control Sample	CN-	97	%Recovery	DC	19-JAN-01		335.2
			HG	111	%Recovery	MO	29-JAN-01		245.1
WG010063-5		Matrix Spike Duplicate	CN-	10.	% RPD	DC	19-JAN-01		335.2
			HG	1.4	% RPD	MO	29-JAN-01		245.1
WG010063-6		Reporting Limit	CN-	.008	ppm				335.2
			HG	0.0005	ppm	MO	29-JAN-01		245.1

QC DATA ASSOCIATED WITH L010069.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010074

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010074-1		Matrix Spike	CN-	84	%Recovery	DC	23-JAN-01		335.2
			HG	104	%Recovery	MO	29-JAN-01		245.1
WG010074-2		Prep Blank	CN-	<.008	ppm	DC	23-JAN-01		335.2
			HG	<0.0005	ppm	MO	29-JAN-01		245.1
WG010074-3		Lab Control Sample	CN-	96	%Recovery	DC	23-JAN-01		335.2
			HG	111	%Recovery	MO	29-JAN-01		245.1
WG010074-5		Matrix Spike Duplicate	CN-	10.	% RPD	DC	23-JAN-01		335.2
			HG	<1	% RPD	MO	29-JAN-01		245.1
WG010074-6		Reporting Limit	CN-	.008	ppm				335.2
			HG	0.0005	ppm	MO	29-JAN-01		245.1

QC DATA ASSOCIATED WITH L010084.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010073

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010073-1		Matrix Spike	CN-	84	%Recovery	DC	23-JAN-01		335.2
			HG	97	%Recovery	MO	25-JAN-01		7471
WG010073-2		Prep Blank	CN-	<.02	ppm	DC	23-JAN-01		335.2
			HG	<.05	ppm	MO	25-JAN-01		7471
WG010073-3		Lab Control Sample	CN-	96	%Recovery	DC	23-JAN-01		335.2
			HG	105	%Recovery	MO	25-JAN-01		7471
WG010073-5		Matrix Spike Duplicate	CN-	10.	% RPD	DC	23-JAN-01		335.2
			HG	2.4	% RPD	MO	25-JAN-01		7471
WG010073-6		Reporting Limit	CN-	.02	ppm	DC	23-JAN-01		335.2
			HG	.050	ppm	MO	25-JAN-01		7471

QC DATA ASSOCIATED WITH L010083.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010064

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010064-1		Matrix Spike	CN-	76	%Recovery	DC	19-JAN-01		335.2
			HG	94	%Recovery	MO	25-JAN-01		7471
WG010064-2		Prep Blank	CN-	<.02	ppm	DC	19-JAN-01		335.2
			HG	<0.05	ppm	MO	25-JAN-01		7471
WG010064-3		Lab Control Sample	CN-	97	%Recovery	DC	19-JAN-01		335.2
			HG	104	%Recovery	MO	25-JAN-01		7471
WG010064-5		Matrix Spike Duplicate	CN-	10.	% RPD	DC	19-JAN-01		335.2
			HG	<1	% RPD	MO	25-JAN-01		7471
WG010064-6		Reporting Limit	CN-	.02	ppm				335.2
			HG	.050	ppm	MO	25-JAN-01		7471
WG010064-7		Matrix Spike	CN-	84	%Recovery	DC	23-JAN-01		335.2
			HG	SR>4xSA	%Recovery	MO	25-JAN-01		7471
WG010064-8		Prep Blank	CN-	<.02	ppm	DC	23-JAN-01		335.2
			HG	<0.05	ppm	MO	25-JAN-01		7471
WG010064-9		Lab Control Sample	CN-	96	%Recovery	DC	23-JAN-01		335.2
			HG	104	%Recovery	MO	25-JAN-01		7471
WG010064-11		Matrix Spike Duplicate	CN-	10.	% RPD	DC	23-JAN-01		335.2
			HG	<1	% RPD	MO	25-JAN-01		7471

QC DATA ASSOCIATED WITH L010068

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No._____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 2

Project Number/Name Encycle RFI

Project Location Corpus Christi, TX

Laboratory ASPECO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH/ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: CN-	Hg					Remarks	Total
B49A (0-0.5)	S	1/15/01 1307		HOLD	X						1
B49A (2-2.5)	S	1310			X						1
B49A (5.5)	S	1320			X						1
B49A (8.5)	S	1325			X						1
B49A (11.5)	S	1327			X						1
B49A (14-14.5)	S	1335			X						1
B50A (0-0.5)	S	1243		HOLD							1
B50A (2-2.5)	S	1245		X	X						1
B50A (5.5)	S	1248		X	X						1
B50A (8.5)	S	1252		X	X						1
B50A (11.5)	S	1255		X	X						1
B50A (12.5-13)	S	1300		X	X						1
DUPLICATE 48 B51 (8.5)	S	1400		X	X						1
FIELD BLANK 48	L	1500		X	X						2
EQUIPMENT BLANK 48	L	1/15/01 1505		X	X						2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 17

					Seal Intact?
Relinquished by: Bryant Hall	Organization: ARCADIS	Date 1/16/01	Time 1615		
Received by: J Mortensen	Organization: ASPECO	Date 1/17/01	Time 1100		(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: ON ICE.
Results to Ken 361-883-1353

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex ☐ Lab Courier ☐ Other

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of 2

Project Number/Name Enable RFI

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: CN-	Hg					Remarks	Total
B51A (0-0.5)	S	1/15/01 1355									1
B51A (2-2.5)	S	1357		X	X						1
B51A (5.5)	S	1401		X	X						1
B51A (8.5)	S	1408		X	X						1
B51A (11.5)	S	1410		X	X						1
B51A (12.5-13)	S	1/15/01 1415		X	X						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 6

					Seal Intact?
Relinquished by: Bryan Hall	Organization: ARCADIS	Date 1/16/01	Time 1615		
Received by: J Montgomery	Organization: ASARCO	Date 1/17/01	Time 1100		Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A

Special Instructions/Remarks: See Page #1

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 3

Project Number/Name Encycle RFI
Project Location Corpus Christi, TX
Laboratory ASARCO
Project Manager Ken Brandner
Sampler(s)/Affiliation BH/ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	CN-	Hg					Remarks	Total
				ANALYSIS / METHOD / SIZE							
B160A (0-0.5)	S	1/16/01 922			X						1
B160A (2-7.5)	S	924			X						1
B161A (0-0.5)	S	933			X						1
B161A (2-7.5)	S	935			X						1
B53A (0-0.5)	S	1030		HOLD							1
B53A (2-2.5)	S	1033			X						1
B53A (5.5)	S	1035			X						1
B53A (8.5)	S	1039			X						1
B53A (11.5)	S	1041			X						1
B53A (14.5)	S	1045			X						1
B53A (17.5-18)	S	1049			X						1
DUPLICATE 49 [B53A (5.5)]	S	1035		X	X						1
FIELD BLANK 49	L	1100		X	X						2
EQUIPMENT BLANK 49	L	1/16/01 1050		X	X						2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 16

					Seal Intact?
Relinquished by: [signature]	Organization: ARCADIS	Date 1/16/01	Time 1615		
Received by: [signature]	Organization: ASARCO	Date 1/17/01	Time 1102		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks:
Results TO Ken - 361-883-1353 - ON ICE - RUN METHODS PER RFI

Delivery Method: ☐ In Person ☒ Common Carrier Fed EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 3

Project Number/Name: Encycle RFI

Project Location: Corpus Christi TX

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location		Matrix	Date/Time Sampled		Lab ID	CN-	Hg					Remarks	Total
B67A	(0-0.5)	S	1/16/01	1145		HOLD							1
B67A	(2-2.5)	S		1147			X						1
B67A	(5.5)	S		1152			X						1
B67A	8.5	S		1158			X						1
B67A	(11.5-12.5)	S		1200			X						1
B60A	(0-0.5)	S		1340		HOLD							1
B60A	(2-2.5)	S		1342			X						1
B60A	(5.5)	S		1347			X						1
B60A	(8.5)	S		1354			X						1
B60A	(10-11)	S		1356			X						1
B35A	(0-0.5)	S		1420		HOLD							1
B35A	(2-2.5)	S		1422		X							1
B35A	(5.5)	S		1427		X							1
B35A	(8.5)	S	1/16/01	1430		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 14

Relinquished by: [signature]	Organization: ARCADIS	Date 1/16/01	Time 1615	Seal Intact?	
Received by: [signature]	Organization: ASARCO	Date 1/17/01	Time 1100	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks:

See Page #1

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, TX

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	CN	Hg					Remarks	Total
B35A (11.5)	S	1/16/01 1440		X							1
B35A (14.5)	S	1 1444		X							1
B35A (16.5-17)	S	1/16/01 1455		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 3

Relinquished by: [signature]	Organization: ARCADIS	Date 1/16/01	Time 1615	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 1/19/01	Time 1030	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Samples received 1.17.01

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 3 of 3

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, TX

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: CN	Hg					Remarks	Total
B35A (11.5)	S	1/16/01 1440		X							1
B35A (14.5)	S	1/16/01 1444		X							1
B35A (16.5-17)	S	1/16/01 1455		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers

Relinquished by: [signature]	Organization: ARCADIS	Date 1/16/01	Time _____	Seal Intact?	
Received by: [signature]	Organization: ASARCO	Date 1/17/01	Time 1100	(Yes) No N/A	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A	

Special Instructions/Remarks: See Pg #1

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 08-0597

Figure G-4

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 2

Project Number/Name: Encycle RFI
Project Location: Corpus Christi TX
Laboratory: ASARCO
Project Manager: Ken Brandner
Sampler(s)/Affiliation: BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: CN-	Hg	Remarks	Total
B85A (0-0.5)	S	1/17/01 830		HOLD			1
B85A (2-2.5)	S	833			X		1
B85A (5.5)	S	839			X		1
B85A (8.5)	S	846			X		1
B85A (11.5)	S	849			X		1
B85A (14.5)	S	856			X		1
B85A (17.5-18)	S	907			X		1
B101A (0-0.5)	S	935		HOLD			1
B101A (2-2.5)	S	937		X			1
B101A (5.5)	S	945		X			1
B101A (8.5)	S	950		X			1
B101A (11.5)	S	952		X			1
B101A (14.5-15)	S	1/17/01 957		X			1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 13

					Seal Intact?
Relinquished by: [signature]	Organization: ARCADIS	Date 1/17/01	Time 1630		
Received by: [signature]	Organization: ASARCO	Date 1/19/01	Time 1030		Yes (No) N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: ON ICE
EPA methods set out in RFI workplan
RESULTS TO Ken Brandner

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of 2

Project Number/Name Encycle RFI
Project Location Corpus Christi, TX
Laboratory ASMCO
Project Manager Ken Brandner
Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: CN	Hg						Remarks	Total
B104A (6-6.5)	S	1/17/01 1015			X							1
B104A (2-2.5)	S	1017			X							1
B104A (5.5)	S	1025			X							1
B104A (8.5)	S	1033			X							1
B104A (11.5)	S	1035			X							1
B104A (14.5)	S	1040			X							1
B104A (15.5-16)	S	1042			X							1
DUPLICATE-51 (B85A-5.5)	S	839		X	X							1
FIELD BLANK - 50	L	1000		X	X							2
EQUIPMENT BLANK-51	L	1/17/01 1010		X	X							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 12

Relinquished by: Ken Brandner	Organization: ARCADIS	Date 1/17/00	Time 1630	Seal Intact?	
Received by: Richard	Organization: ASMCO	Date 1/19/01	Time 1030	Yes	No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes	No N/A

Special Instructions/Remarks: See Pg 1 Sample depths taken from sample bottle, Richard 1.19.01

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010055

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010055-001	15-JAN-01	B-174 (2.5-3.5)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	245.	ppm	EH	19-JAN-01		6010
			CR	7.8	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	17.	ppm	EH	19-JAN-01		6010
L010055-002	15-JAN-01	B-174 (6-7)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	87.	ppm	EH	19-JAN-01		6010
			CR	11.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	7.7	ppm	EH	19-JAN-01		6010
L010055-003	15-JAN-01	B-175 (3-4)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	132.	ppm	EH	19-JAN-01		6010
			CR	7.5	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	16.	ppm	EH	19-JAN-01		6010
L010055-004	15-JAN-01	B-175 (6-7)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	134.	ppm	EH	19-JAN-01		6010
			CR	6.4	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	9.3	ppm	EH	19-JAN-01		6010
L010055-005	15-JAN-01	B-176 (2.5-3.5)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	307.	ppm	EH	19-JAN-01		6010
			CR	10.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	16.	ppm	EH	19-JAN-01		6010
L010055-006	15-JAN-01	B-176 (5-6)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	81.	ppm	EH	19-JAN-01		6010
			CR	17.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010055

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010055-006	15-JAN-01	B-176 (5-6)	TL	<1.0	ppm	CH	23-JAN-01		6020
			V	9.9	ppm	EH	19-JAN-01		6010
L010055-007	15-JAN-01	B-177 (2.5-3.5)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	639.	ppm	EH	19-JAN-01		6010
			CR	9.4	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	25.	ppm	EH	19-JAN-01		6010
L010055-008	15-JAN-01	B-177 (5-6)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	57.	ppm	EH	19-JAN-01		6010
			CR	14.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	12.	ppm	EH	19-JAN-01		6010
L010055-009	15-JAN-01	B-178 (2.5-3.5)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	241.	ppm	EH	19-JAN-01		6010
			CR	11.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	28.	ppm	EH	19-JAN-01		6010
L010055-010	15-JAN-01	B-178 (5-6)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	45.	ppm	EH	19-JAN-01		6010
			CR	19.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	7.4	ppm	EH	19-JAN-01		6010
L010055-011	15-JAN-01	B-179 (2.5-3.5)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	504.	ppm	EH	19-JAN-01		6010
			CR	9.5	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	16.	ppm	EH	19-JAN-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010055

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010055-012	15-JAN-01	B-179 (7-8)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	43.	ppm	EH	19-JAN-01		6010
			CR	22.	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	7.4	ppm	EH	19-JAN-01		6010
L010055-013	15-JAN-01	DUP #47 B175 (6-7)	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	150.	ppm	EH	19-JAN-01		6010
			CR	7.1	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	9.5	ppm	EH	19-JAN-01		6010

Spike recovery for Sb indicated a potential low bias. This is a function of EPA method 3050 digestion.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010057

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010057-1		Matrix Spike	AG	104	%Recovery	EH	19-JAN-01		6010
			BA	85	%Recovery	EH	19-JAN-01		6010
			CR	88	%Recovery	EH	19-JAN-01		6010
			SB	49*	%Recovery	EH	19-JAN-01		6010
			TL	95	%Recovery	CH	23-JAN-01		6020
			V	88	%Recovery	EH	19-JAN-01		6010
WG010057-2		Prep Blank	AG	<0.5	ppm	EH	19-JAN-01		6010
			BA	<5.0	ppm	EH	19-JAN-01		6010
			CR	<5.0	ppm	EH	19-JAN-01		6010
			SB	<0.8	ppm	EH	19-JAN-01		6010
			TL	<1.0	ppm	CH	23-JAN-01		6020
			V	<5.0	ppm	EH	19-JAN-01		6010
WG010057-3		Lab Control Sample	AG	107	%Recovery	EH	19-JAN-01		6010
			BA	99	%Recovery	EH	19-JAN-01		6010
			CR	98	%Recovery	EH	19-JAN-01		6010
			SB	119	%Recovery	EH	19-JAN-01		6010
			TL	102	%Recovery	CH	23-JAN-01		6020
			V	101	%Recovery	EH	19-JAN-01		6010
WG010057-5		Matrix Spike Duplicate	AG	2.8	% RPD	EH	19-JAN-01		6010
			BA	3	% RPD	EH	19-JAN-01		6010
			CR	2.4	% RPD	EH	19-JAN-01		6010
			SB	4.9	% RPD	EH	19-JAN-01		6010
			TL	<1	% RPD	CH	23-JAN-01		6020
			V	3.5	% RPD	EH	19-JAN-01		6010
WG010057-6		Reporting Limit	AG	0.50	ppm				6010
			BA	5.0	ppm				6010
			CR	5.0	ppm				6010
			SB	0.8	ppm				6010
			TL	1.0	ppm				6020
			V	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010057

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Sb spike was outside acceptance limits .This is a function of the EPA method 3050 digestion.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010056

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010056-001	15-JAN-01	EQUIP BLANK #47	AG	<0.005	ppm	MDK	17-JAN-01	180	6010
			BA	<0.050	ppm	MDK	17-JAN-01	180	6010
			CR	<0.010	ppm	MDK	17-JAN-01	180	6010
			SB	<0.050	ppm	MDK	17-JAN-01	180	6010
			TL	<0.002	ppm	CH	19-JAN-01	180	6020M
			V	<0.050	ppm	MDK	17-JAN-01		6010
L010056-002	15-JAN-01	FIELD BLANK #47	AG	<0.005	ppm	MDK	17-JAN-01	180	6010
			BA	<0.050	ppm	MDK	17-JAN-01	180	6010
			CR	<0.010	ppm	MDK	17-JAN-01	180	6010
			SB	<0.050	ppm	MDK	17-JAN-01	180	6010
			TL	<0.002	ppm	CH	19-JAN-01	180	6020M
			V	<0.050	ppm	MDK	17-JAN-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010056

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010056-1		Matrix Spike	AG	88	%Recovery	MDK	17-JAN-01		6010
			BA	101	%Recovery	MDK	17-JAN-01		6010
			CR	101	%Recovery	MDK	17-JAN-01		6010
			SB	94	%Recovery	MDK	17-JAN-01		6010
			TL	99	%Recovery	CH	19-JAN-01		6020M
			V	99	%Recovery	MDK	17-JAN-01		6010
WG010056-2		Prep Blank	AG	<0.005	ppm	MDK	17-JAN-01		6010
			BA	<0.050	ppm	MDK	17-JAN-01		6010
			CR	<0.010	ppm	MDK	17-JAN-01		6010
			SB	<0.050	ppm	MDK	17-JAN-01		6010
			TL	<0.002	ppm	CH	19-JAN-01		6020M
			V	<0.050	ppm	MDK	17-JAN-01		6010
WG010056-3		Lab Control Sample	AG	92	%Recovery	MDK	17-JAN-01		6010
			BA	97	%Recovery	MDK	17-JAN-01		6010
			CR	97	%Recovery	MDK	17-JAN-01		6010
			SB	93	%Recovery	MDK	17-JAN-01		6010
			TL	98	%Recovery	CH	19-JAN-01		6020M
			V	96	%Recovery	MDK	17-JAN-01		6010
WG010056-5		Matrix Spike Duplicate	AG	2.2	% RPD	MDK	17-JAN-01		6010
			BA	<1	% RPD	MDK	17-JAN-01		6010
			CR	<1	% RPD	MDK	17-JAN-01		6010
			SB	2.4	% RPD	MDK	17-JAN-01		6010
			TL	<1	% RPD	CH	19-JAN-01		6020M
			V	<1	% RPD	MDK	17-JAN-01		6010
WG010056-6		Reporting Limit	AG	0.005	ppm				6010
			BA	0.050	ppm				6010
			CR	0.010	ppm				6010
			SB	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010056

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: ENCYCLE RFI

Project Location: CORPUS CHRISTI, TX

Laboratory: ASARCO

Project Manager: KEN BRANDER

Sampler(s)/Affiliation: BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, Ba, Cr, Tl, Va, Silver	8-oz glass Jar w/ Teflon lined lid					Remarks	Total
B-174 (2.5-3.5)	S	1/15/01 920		X							1
B-174 (6-7)	S	925		X							1
B-175 (3-4)	S	855		X							1
B-175 (6-7)	S	900		X							1
B-176 (2.5-3.5)	S	940		X							1
B-176 (5-6)	S	952		X							1
B-177 (2.5-3.5)	S	1007		X							1
B-177 (5-6)	S	1015		X							1
B-178 (2.5-3.5)	S	1035		X							1
B-178 (5-6)	S	1040		X							1
B-179 (2.5-3.5)	S	1052		X							1
B-179 (7-8)	S	1100		X							1
DUPLICATE #47 B-175 (6-7)	S	900		X							1
EQUIPMENT BLANK #47	L	1100		X						w/ HNO_3 metals & NaOH	2
FIELD BLANK #47	L	1/15/01 1105		X						w/ HNO_3 metals & NaOH	2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 17

Relinquished by: [signature]	Organization: ARCADIS	Date 1/15/01	Time 1530	Seal Intact? Yes No N/A
Received by: [signature]	Organization: ASARCO	Date 1/16/01	Time 1000	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks:

Results to Ken - 361-883-1353

Packed w/ 30lb ice

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

December 19, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (2), two soil samples collected on November 08, 2001, in association with the Encycle RFI project and received by the laboratory on November 09, 2001.

The samples were digested, as received, in accordance with EPA method 7471 for Hg cold vapor atomic absorption spectrometric analysis.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2453 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011541

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011541-001	08-NOV-01	B134A (2-2.5)	HG	0.070	ppm	MO	13-NOV-01	7471
			MOIST.	19.	%	AKH	13-NOV-01	GRAV.
L011541-002	08-NOV-01	B134A (5.5)	HG	<0.05	ppm	MO	13-NOV-01	7471
			MOIST.	20.	%	AKH	13-NOV-01	GRAV.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011080-1		Matrix Spike	HG	SR>4SA	%Recovery	MO	13-NOV-01	7471
WG011080-2		Prep Blank	HG	<0.05	ppm	MO	13-NOV-01	7471
WG011080-3		Lab Control Sample	HG	102	%Recovery	MO	13-NOV-01	7471
WG011080-4		Matrix Spike Duplicate	HG	19	% RPD	MO	13-NOV-01	7471
WG011080-5		Duplicate	MOIST.	1.1	% RPD	AKH	13-NOV-01	GRAV.
WG011080-6		Reporting Limit	HG	0.05	ppm			7471

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Encycle RFI

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Hg						Remarks	Total
B134A (2-2.5)	S	11/8/01 1125		X							1
B134A (5.5)	S	11/8/01 1130		HOLD							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 2

Relinquished by: [signature]	Organization: ARCADIS	Date 11/8/01	Time 1830	Seal Intact?	Yes No N/A
Received by: _____	Organization: _____	Date / /	Time _____		
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: [signature]	Organization: _____	Date 11/9/01	Time 10:00		Yes No N/A

Special Instructions/Remarks: Follow COC - Seperate Report.

If Hg is about Background Conc for (2-2.5) RUN (5.5).

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05 0597

ASARCO

January 2, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for four (4) soil samples collected on November 6, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 8, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy. The results were reported on a dry weight basis.

The samples were digested as received in accordance with EPA method 7471, and analyzed using cold vapor atomic absorption spectroscopy for Hg. The results are reported on an as received basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated · 3422 South 700 West · Salt Lake City, Utah 84119-4191 · (801) 262-2453 · FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011528

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011528-001	06-NOV-01	B-182 (0-0.5)	AG	<0.5	ppm	EH	04-JAN-01	6010
			BI	4.7	ppm	EH	04-JAN-01	6010
			CD	<1.0	ppm	EH	04-JAN-01	6010
			CR	14	ppm	EH	04-JAN-01	6010
			CU	9.9	ppm	EH	04-JAN-01	6010
			HG	<.05	ppm	MO	15-NOV-01	7471
			MN	309	ppm	EH	04-JAN-01	6010
			MOIST.	21	%	AH	08-NOV-01	GRAV.
			SN	<5.0	ppm	EH	04-JAN-01	6010
L011528-002	06-NOV-01	B-182 (2-2.5)	CR	17	ppm	EH	04-JAN-01	6010
L011528-004	06-NOV-01	B-183 (2-2.5)	CR	16	ppm	EH	04-JAN-01	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011068

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011068-1		Matrix Spike	AG	113	%Recovery	EH	04-JAN-01	6010
			BI	106	%Recovery	EH	04-JAN-01	6010
			CD	98	%Recovery	EH	04-JAN-01	6010
			CR	108	%Recovery	EH	04-JAN-01	6010
			CU	99	%Recovery	EH	04-JAN-01	6010
			HG	*SR >4X SA	%Recovery	MO	15-NOV-01	7471
			MN	90	%Recovery	EH	04-JAN-01	6010
			SN	105	%Recovery	EH	04-JAN-01	6010
WG011068-2		Prep Blank	AG	<0.5	ppm	EH	04-JAN-01	6010
			BI	<4	ppm	EH	04-JAN-01	6010
			CD	<1	ppm	EH	04-JAN-01	6010
			CR	<5	ppm	EH	04-JAN-01	6010
			CU	<5	ppm	EH	04-JAN-01	6010
			HG	<.05	ppm	MO	15-NOV-01	7471
			MN	<5	ppm	EH	04-JAN-01	6010
			SN	<5	ppm	EH	04-JAN-01	6010
WG011068-3		Lab Control Sample	AG	**155	%Recovery	EH	04-JAN-01	6010
			BI	101	%Recovery	EH	04-JAN-01	6010
			CD	102	%Recovery	EH	04-JAN-01	6010
			CR	109	%Recovery	EH	04-JAN-01	6010
			CU	112	%Recovery	EH	04-JAN-01	6010
			HG	103	%Recovery	MO	15-NOV-01	7471
			MN	111	%Recovery	EH	04-JAN-01	6010
			SN	106	%Recovery	EH	04-JAN-01	6010
WG011068-5		Matrix Spike Duplicate	AG	1.0	% RPD	EH	04-JAN-01	6010
			BI	3.7	% RPD	EH	04-JAN-01	6010
			CD	<1.0	% RPD	EH	04-JAN-01	6010
			CR	<1.0	% RPD	EH	04-JAN-01	6010
			CU	2.9	% RPD	EH	04-JAN-01	6010
			HG	<1.0	% RPD	MO	15-NOV-01	7471
			MN	<1.0	% RPD	EH	04-JAN-01	6010
			MOIST.	4.3	% RPD	AH	08-NOV-01	GRAV.
			SN	1.2	% RPD	EH	04-JAN-01	6010
WG011068-6		Reporting Limit	AG	0.5	ppm			
			BI	4	ppm			

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011068

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011068-6		Reporting Limit	CD	1	ppm			
			CR	5	ppm			
			CU	5	ppm			
			HG	.05	ppm			
			MN	5	ppm			
			SN	5	ppm			

* SR >4X SA; therefore spike not evaluated.
** Silver LCS results were within the Certified range of the QC standard used.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: Bryan Hurley / Arcadis

FACILITY 1

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Bi, Cd, Cr, Cu, Mn, Hg, Ag, Sn	TOTAL - Cr					Remarks	Total
B-182 (0-0.5)	S	11/6/01 920		X							1
B-182 (2-2.5)	S	922			X						1
B-183 (0-0.5)	S	930		X							1
B-183 (2-2.5)	S	935			X						1
FIELD BLANK	L	11/6/01 1130		X HNO3							1
EQUIPMENT BLANK	L	11/6/01 1135		X HNO3							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 6

Relinquished by: [signature]	Organization: Arcadis	Date 11/6/01	Time	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

January 14, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for two (2) soil samples collected on November 7, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 8, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy. The results were reported on a dry weight basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011526

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011526-001	07-NOV-01	B 180 (0-0.5)	CO	5.3	ppm	EH	04-JAN-01	6010
			CR	16	ppm	EH	04-JAN-01	6010
			NI	11	ppm	EH	04-JAN-01	6010
L011526-002	07-NOV-01	B 181 (0-0.5)	CO	5.6	ppm	EH	04-JAN-01	6010
			CR	8.3	ppm	EH	04-JAN-01	6010
			NI	5.2	ppm	EH	04-JAN-01	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011066

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011066-1		Matrix Spike	CO	102	%Recovery	EH	04-JAN-01	6010
			CR	107	%Recovery	EH	04-JAN-01	6010
			NI	103	%Recovery	EH	04-JAN-01	6010
WG011066-2		Prep Blank	CO	<5	ppm	EH	04-JAN-01	6010
			CR	<5	ppm	EH	04-JAN-01	6010
			NI	<5	ppm	EH	04-JAN-01	6010
WG011066-3		Lab Control Sample	CO	104	%Recovery	EH	04-JAN-01	6010
			CR	109	%Recovery	EH	04-JAN-01	6010
			NI	106	%Recovery	EH	04-JAN-01	6010
WG011066-4		Matrix Spike Duplicate	CO	<1.0	% RPD	EH	04-JAN-01	6010
			CR	1.0	% RPD	EH	04-JAN-01	6010
			NI	<1.0	% RPD	EH	04-JAN-01	6010
WG011066-5		Reporting Limit	CO	5	ppm			
			CR	5	ppm			
			NI	5	ppm			

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: Bryan Harvey / Arcadis

Old Casting Building

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Cr, Co, Ni						Remarks	Total
B 180 (0-0.5)	S	11/6/01 840		X							1
B 181 (0-0.5)	S	11/6/01 850		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 2

Relinquished by: [signature]	Organization: Arcadis	Date 11/7/01	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/08/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

January 23, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for six (6) soil samples collected on November 8, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 9, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy and inductively coupled argon plasma mass spectroscopy. The results are reported on a dry weight basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011540

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011540-001	08-NOV-01	B194 0-0.5	AG	<0.5	ppm	EH	08-JAN-01	6010
			AS	<5	ppm	EH	08-JAN-01	6010
			BA	513	ppm	EH	08-JAN-01	6010
			BI	4.7	ppm	EH	08-JAN-01	6010
			CD	3.8	ppm	EH	08-JAN-01	6010
			CO	13	ppm	EH	08-JAN-01	6010
			CR	14	ppm	EH	08-JAN-01	6010
			CU	12	ppm	EH	08-JAN-01	6010
			MN	208	ppm	EH	08-JAN-01	6010
			PB	8.6	ppm	EH	08-JAN-01	6010
			SB	* <0.8	ppm	MF	18-JAN-01	6020
			V	32	ppm	EH	08-JAN-01	6010
L011540-002	08-NOV-01	B194 2-2.5	BA	321	ppm	EH	08-JAN-01	6010
			MN	272	ppm	EH	08-JAN-01	6010
			SB	* <0.8	ppm	MF	18-JAN-01	6020
L011540-003	08-NOV-01	B194 5.5	SB	* <0.8	ppm	MF	18-JAN-01	6020
L011540-004	08-NOV-01	B194 8.5	SB	* <0.8	ppm	MF	18-JAN-01	6020
L011540-005	08-NOV-01	B194 11.5	SB	* <0.8	ppm	MF	18-JAN-01	6020
L011540-006	08-NOV-01	B194 13-14	SB	* <0.8	ppm	MF	18-JAN-01	6020

* QC Data indicate a possible bias with antimony.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011079

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011079-1		Matrix Spike	AG	111	%Recovery	EH	08-JAN-01	6010
			AS	106	%Recovery	EH	18-JAN-01	6010
			BA	77	%Recovery	EH	08-JAN-01	6010
			BI	108	%Recovery	EH	08-JAN-01	6010
			CD	104	%Recovery	EH	08-JAN-01	6010
			CO	108	%Recovery	EH	08-JAN-01	6010
			CR	113	%Recovery	EH	08-JAN-01	6010
			CU	103	%Recovery	EH	08-JAN-01	6010
			MN	120	%Recovery	EH	08-JAN-01	6010
			PB	107	%Recovery	EH	08-JAN-01	6010
			SB	* 43	%Recovery	MF	18-JAN-01	6020
			V	118	%Recovery	EH	08-JAN-01	6010
WG011079-2		Prep Blank	AG	<0.5	ppm	EH	08-JAN-01	6010
			AS	<5	ppm	EH	08-JAN-01	6010
			BA	<5	ppm	EH	08-JAN-01	6010
			BI	<4	ppm	EH	08-JAN-01	6010
			CD	<1	ppm	EH	08-JAN-01	6010
			CO	<5	ppm	EH	08-JAN-01	6010
			CR	<5	ppm	EH	08-JAN-01	6010
			CU	<5	ppm	EH	08-JAN-01	6010
			MN	<5	ppm	EH	08-JAN-01	6010
			PB	<5	ppm	EH	08-JAN-01	6010
			SB	<0.8	ppm	MF	18-JAN-01	6020
			V	<5	ppm	EH	08-JAN-01	6010
WG011079-3		Lab Control Sample	AG	** 134	%Recovery	EH	08-JAN-01	6010
			AS	92	%Recovery	EH	08-JAN-01	6010
			BA	97	%Recovery	EH	08-JAN-01	6010
			BI	97	%Recovery	EH	08-JAN-01	6010
			CD	92	%Recovery	EH	08-JAN-01	6010
			CO	92	%Recovery	EH	08-JAN-01	6010
			CR	95	%Recovery	EH	08-JAN-01	6010
			CU	97	%Recovery	EH	08-JAN-01	6010
			MN	98	%Recovery	EH	08-JAN-01	6010
			PB	92	%Recovery	EH	08-JAN-01	6010
			SB	122	%Recovery	MF	18-JAN-01	6020
			V	106	%Recovery	EH	08-JAN-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011079

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011079-5		Matrix Spike Duplicate	AG	2.7	% RPD	EH	08-JAN-01	6010
			AS	<1.0	% RPD	EH	08-JAN-01	6010
			BA	4.6	% RPD	EH	18-JAN-01	6010
			BI	<1.0	% RPD	EH	08-JAN-01	6010
			CD	<1.0	% RPD	EH	08-JAN-01	6010
			CO	<1.0	% RPD	EH	08-JAN-01	6010
			CR	<1.0	% RPD	EH	08-JAN-01	6010
			CU	<1.0	% RPD	EH	08-JAN-01	6010
			MN	<1.0	% RPD	EH	08-JAN-01	6010
			PB	<1.0	% RPD	EH	08-JAN-01	6010
			SB	<1.0	% RPD	MF	18-JAN-01	6020
			V	1.0	% RPD	EH	08-JAN-01	6010
WG011079-6		Reporting Limit	AG	0.5	ppm			
			AS	5	ppm			
			BA	5	ppm			
			BI	4	ppm			
			CD	1	ppm			
			CO	5	ppm			
			CR	5	ppm			
			CU	5	ppm			
			MN	5	ppm			
			PB	5	ppm			
			SB	0.8	ppm			
			V	5	ppm			

* QC Data indicate a possible bias with antimony.
** The silver LCS values were within the certified range for QC standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name: Muncle RFI
Project Location: Corpus Christi, TX
Laboratory: ASARCO
Project Manager: Ken Brancher
Sampler(s)/Affiliation: BH / ARCADIS

Building C

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Sb, As, Ba, B, Cd, Cr, Co, Cu, Pb, Mn, Ag, V	Sb, Ba, Mn	Sb				Remarks	Total
B194 0-0.5	S	11/8/01 1435		X							1
B194 2-2.5	S	1437			X						1
B194 5.5	S	1440				X					1
B194 8.5	S	1445				X					1
B194 11.5	S	1448				X					1
B194 13-14	S	1455				X					1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 6

					Seal Intact?
Relinquished by: Bryant Hall	Organization: ARCADIS	Date 11/8/01	Time 1830		
Received by: _____	Organization: _____	Date / /	Time _____		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: Fleming	Organization: _____	Date 11/9/01	Time 0800		Yes No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AC-05-0507

ASARCO

January 23, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for five (5) soil samples collected on November 6, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 8, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy and inductively coupled argon plasma mass spectroscopy. The results are reported on a dry weight basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011527

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011527-001	06-NOV-01	B184 (0-0.5)	MN	9576	ppm	EH	04-JAN-01	6010
			SB	* 571	ppm	EH	04-JAN-01	6010
L011527-002	06-NOV-01	B184 (2-2.5)	MN	323	ppm	EH	04-JAN-01	6010
			SB	* <0.8	ppm	MF	18-JAN-01	6020
L011527-003	06-NOV-01	B185 (0-0.5)	MN	265	ppm	EH	04-JAN-01	6010
			SB	* <0.8	ppm	MF	18-JAN-01	6020
L011527-004	06-NOV-01	B185 (2-2.5)	MN	204	ppm	EH	04-JAN-01	6010
			SB	* <0.8	ppm	MF	18-JAN-01	6020
L011527-005	06-NOV-01	DUP B184 (0-0.5)	MN	10340	ppm	EH	04-JAN-01	6010
			SB	* 606	ppm	EH	04-JAN-01	6010

* QC Data indicate possible bias with the antimony results.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011067

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011067-1		Matrix Spike	MN	107	%Recovery	EH	04-JAN-01	6010
			SB	* 48	%Recovery	MF	18-JAN-01	6020
WG011067-2		Prep Blank	MN	<5	ppm	EH	04-JAN-01	6010
			SB	<0.8	ppm	MF	04-JAN-01	6020
WG011067-3		Lab Control Sample	MN	111	%Recovery	EH	04-JAN-01	6010
			SB	** 160	%Recovery	MF	18-JAN-01	6020
WG011067-4		Matrix Spike Duplicate	MN	1.0	% RPD	EH	04-JAN-01	6010
			SB	5.5	% RPD	MF	18-JAN-01	6020
WG011067-5		Reporting Limit	MN	5	ppm			
			SB	0.8	ppm			
WG011067-6		Matrix Spike	SB	* 68	%Recovery	EH	04-JAN-02	6010
WG011067-7		Prep Blank	SB	<0.8	ppm	EH	04-JAN-02	6010
WG011067-8		Lab Control Sample	SB	121	%Recovery	EH	04-JAN-02	6010
WG011067-9		Matrix Spike Duplicate	SB	4.7	% RPD	EH	04-JAN-02	6010

* QC Data indicate possible bias with the antimony results.
** Antimony is within the Certified range of the QC standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: Bryan Haney / ARCADIS

ANALYSIS / METHOD / SIZE

Numbered Bins

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, Mn						Remarks	Total
B184 (0-0.5)	S	11/6/01 950		X							1
B184 (2-2.5)	S	955		X							1
B185 (0-0.5)	S	1005		X							1
B185 (2-2.5)	S	1010		X							1
DUPLICATE B184 (0-0.5)	S	950		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 5

Relinquished by: Bryan Haney	Organization: ARCADIS	Date 11/7/01	Time 1800	Seal Intact?
Received by: Hortensen	Organization: ASARCO	Date 11/8/01	Time 1002	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fedex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

January 24, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for twelve (12) soil samples collected on November 6, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 8, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy and inductively coupled argon plasma mass spectroscopy. The results are reported on a dry weight basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011530

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011530-001	06-NOV-01	B186 (0-0.5)	AG	<.5	ppm	EH	08-JAN-02	6010
			CD	1.7	ppm	EH	08-JAN-02	6010
			CR	<5	ppm	EH	08-JAN-02	6010
			CU	14	ppm	EH	08-JAN-02	6010
			HG	<.05	ppm	MO	15-NOV-01	7471
			MOIST.	6.9	%	AH	08-NOV-01	GRAV.
			PB	7.6	ppm	EH	08-JAN-02	6010
			SB	* <0.8	ppm	MF	18-JAN-02	6020
			SE	* <0.8	ppm	MF	18-JAN-02	6020
L011530-002	06-NOV-01	B186 (2-2.5)	CD	<1	ppm	EH	08-JAN-02	6010
			CU	14	ppm	EH	08-JAN-02	6010
			SB	* <0.8	ppm	MF	18-JAN-02	6020
L011530-003	06-NOV-01	B186 (5.5)	SB	* <0.8	ppm	MF	18-JAN-02	6020
L011530-004	06-NOV-01	B186 (8.5)	SB	* <0.8	ppm	MF	18-JAN-02	6020
L011530-005	06-NOV-01	B186 (11.5)	SB	* <0.8	ppm	MF	18-JAN-02	6020
L011530-006	06-NOV-01	B186 (11.7-12.5)	SB	* <0.8	ppm	MF	18-JAN-02	6020

* QC Data indicate possible bias with the antimony and selenium results.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011069

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011069-1		Matrix Spike	AG	113	%Recovery	EH	08-JAN-02	6010
			CD	99	%Recovery	EH	08-JAN-02	6010
			CR	110	%Recovery	EH	08-JAN-02	6010
			CU	109	%Recovery	EH	08-JAN-02	6010
			HG	*SR>4X SA	%Recovery	MO	15-NOV-01	7471
			PB	105	%Recovery	EH	08-JAN-02	6010
			SB	** 38	%Recovery	MF	18-JAN-01	6020
			SE	** 72	%Recovery	MF	18-JAN-01	6020
WG011069-2		Prep Blank	AG	<0.5	ppm	EH	08-JAN-02	6010
			CD	<1	ppm	EH	08-JAN-02	6010
			CR	<5	ppm	EH	08-JAN-02	6010
			CU	<5	ppm	EH	08-JAN-02	6010
			HG	<0.05	ppm	MO	15-NOV-01	7471
			PB	<5	ppm	EH	08-JAN-02	6010
			SB	<0.8	ppm	MF	18-JAN-01	6020
			SE	<0.8	ppm	MF	18-JAN-01	6020
WG011069-3		Lab Control Sample	AG	*** 134	%Recovery	EH	08-JAN-02	6010
			CD	92	%Recovery	EH	08-JAN-02	6010
			CR	95	%Recovery	EH	08-JAN-02	6010
			CU	97	%Recovery	EH	08-JAN-02	6010
			HG	103	%Recovery	MO	15-NOV-01	7471
			PB	92	%Recovery	EH	08-JAN-02	6010
			SB	121	%Recovery	MF	18-JAN-02	6020
			SE	75	%Recovery	MF	18-JAN-02	6020
WG011069-4		Duplicate	MOIST.	18	% RPD	AH	08-NOV-01	GRAV.
WG011069-5		Matrix Spike Duplicate	AG	2.6	% RPD	EH	08-JAN-02	6010
			CD	1.7	% RPD	EH	08-JAN-02	6010
			CR	1.8	% RPD	EH	08-JAN-02	6010
			CU	<1.0	% RPD	EH	08-JAN-02	6010
			HG	<1.0	% RPD	MO	15-NOV-01	7471
			PB	1.6	% RPD	EH	08-JAN-02	6010
			SB	** 23.1	% RPD	MF	18-JAN-02	6020
			SE	<1.0	% RPD	MF	18-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011069

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011069-6		Reporting Limit	AG	0.5	ppm			
			CD	1.0	ppm			
			CR	5.0	ppm			
			CU	5.0	ppm			
			HG	0.05	ppm			
			PB	5.0	ppm			
			SB	0.8	ppm			
			SE	0.8	ppm			

* SR>4X SA; therefore spike was not evaluated.
** QC Data indicate possible bias with antimony and selenium results.
*** Silver is within the certified range for the QC Standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH / ARCADIS

FACILITY 3

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Sb, Cd, Cr, Cu, Pb, Hg, Se, Ag		Sb, Cd, Cu		Sb		Remarks	Total
B186 (0-0.5)	S	11/6/01 1045		X							1
B186 (2-2.5)	S	1050				X					1
B186 (5.5)	S	1052						X			1
B186 (8.5)	S	1055						X			1
B186 (11.5)	S	1058						X			1
B186 (11.7-12.5)	S	1105						X			1
B-187 (0-0.5)	S	1120		X							1
B-187 (2-2.5)	S	1123				X					1
B-187 (5.5)	S	1127						X			1
B-187 (8.5)	S	1130						X			1
B-187 (11.5)	S	1135						X			1
B-187 (11.7-12.5)	S	1140						X			1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 12

Relinquished by: [signature]	Organization: ARCADIS	Date 11/7/01	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow C.O.C.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

FEB 0 4 2002

January 29, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for seven (7) soil samples collected on November 7, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 8, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy and inductively coupled argon plasma mass spectroscopy. The results are reported on a dry weight basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011531

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011531-001	07-NOV-01	B195 (0-0.5)	CO	26	ppm	EH	24-JAN-02	6010
L011531-007	07-NOV-01	DUP B195 (0-0.5)	CO	22	ppm	EH	24-JAN-02	6010

* QC Data indicate possible bias with the antimony results.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011078

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011078-1		Matrix Spike	AG	118	%Recovery	EH	24-JAN-02	6010
			AS	101	%Recovery	EH	24-JAN-02	6010
			BA	115	%Recovery	EH	24-JAN-02	6010
			BI	105	%Recovery	EH	24-JAN-02	6010
			CD	97	%Recovery	EH	24-JAN-02	6010
			CO	102	%Recovery	EH	24-JAN-02	6010
			CR	110	%Recovery	EH	24-JAN-02	6010
			CU	99	%Recovery	EH	24-JAN-02	6010
			MN	110	%Recovery	EH	24-JAN-02	6010
			PB	102	%Recovery	EH	24-JAN-02	6010
			SB	* 45	%Recovery	MF	28-JAN-02	6020
			V	115	%Recovery	EH	24-JAN-02	6010
WG011078-2		Prep Blank	AG	<0.5	ppm	EH	24-JAN-02	6010
			AS	<5	ppm	EH	24-JAN-02	6010
			BA	<5	ppm	EH	24-JAN-02	6010
			BI	<4	ppm	EH	24-JAN-02	6010
			CD	<1	ppm	EH	24-JAN-02	6010
			CO	<5	ppm	EH	24-JAN-02	6010
			CR	<5	ppm	EH	24-JAN-02	6010
			CU	<5	ppm	EH	24-JAN-02	6010
			MN	<5	ppm	EH	24-JAN-02	6010
			PB	<5	ppm	EH	24-JAN-02	6010
			SB	<0.8	ppm	MF	28-JAN-02	6020
			V	<5	ppm	EH	24-JAN-02	6010
WG011078-3		Lab Control Sample	AG	** 141	%Recovery	EH	24-JAN-02	6010
			AS	100	%Recovery	EH	24-JAN-02	6010
			BA	106	%Recovery	EH	24-JAN-02	6010
			BI	97	%Recovery	EH	24-JAN-02	6010
			CD	99	%Recovery	EH	24-JAN-02	6010
			CO	100	%Recovery	EH	24-JAN-02	6010
			CR	105	%Recovery	EH	24-JAN-02	6010
			CU	100	%Recovery	EH	24-JAN-02	6010
			MN	109	%Recovery	EH	24-JAN-02	6010
			PB	97	%Recovery	EH	24-JAN-02	6010
			SB	** 135	%Recovery	MF	28-JAN-02	6020
			V	114	%Recovery	EH	24-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011078

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011078-4		Matrix Spike Duplicate	AG	<1.0	% RPD	EH	24-JAN-02	6010
			AS	1.0	% RPD	EH	24-JAN-02	6010
			BA	<1.0	% RPD	EH	24-JAN-02	6010
			BI	2.6	% RPD	EH	24-JAN-02	6010
			CD	<1.0	% RPD	EH	24-JAN-02	6010
			CO	<1.0	% RPD	EH	24-JAN-02	6010
			CR	1.1	% RPD	EH	24-JAN-02	6010
			CU	<1.0	% RPD	EH	24-JAN-02	6010
			MN	<1.0	% RPD	EH	24-JAN-02	6010
			PB	<1.0	% RPD	EH	24-JAN-02	6010
			SB	4.4	% RPD	MF	28-JAN-02	6020
			V	<1.0	% RPD	EH	24-JAN-02	6010
WG011078-5		Reporting Limit	AG	0.5	ppm			
			AS	5	ppm			
			BA	5	ppm			
			BI	4	ppm			
			CD	1	ppm			
			CO	5	ppm			
			CR	5	ppm			
			CU	5	ppm			
			MN	5	ppm			
			PB	5	ppm			
			SB	0.8	ppm			
			V	5	ppm			

* QC Data indicate possible bias with antimony results.
** Antimony and silver LCS results are within the certified range for the QC Standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Encycle RF-1

Project Location Corpus Christi, Texas

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Building C

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ag, V	Sb, Ba, Mn	Sb				Remarks	Total
B195 (0-0.5)	S	11/7/01 1030		X							1
B195 (2-2.5)	S	1033			X						1
B195 (5.5)	S	1040				X					1
B195 (8.5)	S	1045				X					1
B195 (11.5)	S	1048				X					1
B195 (13-14)	S	1055				X					1
DUPLICATE	S	1030		X							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 7

Relinquished by: Bryan Harvey	Organization: ARCADIS	Date 11/8/01	Time 1800	Seal Intact?	
Received by: [illegible]	Organization: ASARCO	Date 11/8/01	Time 1000	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

FEB 0 4 2002

ASARCO

January 31, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for thirty-nine (39) soil samples collected on November 8, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 9, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy and inductively coupled argon plasma mass spectroscopy. The results were reported on a dry weight basis.

The samples were digested as received in accordance with EPA method 7471, and analyzed using cold vapor atomic absorption spectroscopy for Hg. The results are reported on an as received basis.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011543

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011543-001	08-NOV-01	B196 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	15	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-002	08-NOV-01	B196 (2-2.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-003	08-NOV-01	B196 (5.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-004	08-NOV-01	B196 (8.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-005	08-NOV-01	B196 (11.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-006	08-NOV-01	B196 (14.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-007	08-NOV-01	B196 (17.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-008	08-NOV-01	B197 (0-0.5)	MN	440	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020
L011543-009	08-NOV-01	B197 (2-2.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020
L011543-010	08-NOV-01	B197 (5.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	28-JAN-02	6020
L011543-011	08-NOV-01	B197 (8.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	28-JAN-02	6020
L011543-012	08-NOV-01	B197 (11.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-013	08-NOV-01	B197 (14.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-014	08-NOV-01	B197 (15-16)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-015	08-NOV-01	B198 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	12	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011543

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011543-016	08-NOV-01	B198 (2-2.5)	CR	14	ppm	EH	18-JAN-02	6010
L011543-017	08-NOV-01	B199 (0-0.5)	AG	0.57	ppm	EH	18-JAN-02	6010
			CD	12	ppm	EH	18-JAN-02	6010
			CO	7.1	ppm	EH	18-JAN-02	6010
			CR	9.1	ppm	EH	18-JAN-02	6010
			CU	38	ppm	EH	29-JAN-02	6010
			HG	0.24	ppm	MO	16-NOV-01	7471
			MOIST.	4.2	%	AH	13-NOV-01	GRAV.
			NI	7.9	ppm	EH	18-JAN-02	6010
			PB	49	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			SE	*<0.8	ppm	MF	28-JAN-02	6020
L011543-018	08-NOV-01	B199 (2-2.5)	CO	9.5	ppm	EH	18-JAN-02	6010
			CR	<5	ppm	EH	18-JAN-02	6010
L011543-019	08-NOV-01	DUP B199 (0-0.5)	AG	0.67	ppm	EH	18-JAN-02	6010
			CD	12	ppm	EH	18-JAN-02	6010
			CO	5.9	ppm	EH	18-JAN-02	6010
			CR	8.3	ppm	EH	18-JAN-02	6010
			CU	33	ppm	EH	29-JAN-02	6010
			HG	0.21	ppm	MO	16-NOV-01	7471
			MOIST.	4.4	%	AH	13-NOV-01	GRAV.
			NI	7.2	ppm	EH	18-JAN-02	6010
			PB	45	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			SE	*<0.8	ppm	MF	28-JAN-02	6020
L011543-020	08-NOV-01	B200 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CO	9.9	ppm	EH	18-JAN-02	6010
			CR	8.7	ppm	EH	18-JAN-02	6010
			HG	0.05	ppm	MO	16-NOV-01	7471
			MOIST.	3.4	%	AH	13-NOV-01	GRAV.
			NI	7.0	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-021	08-NOV-01	B201 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	12	ppm	EH	18-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011543

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011543-021	08-NOV-01	B201 (0-0.5)	HG	<.05	ppm	MO	16-NOV-01	7471
			MOIST.	6.8	%	AH	13-NOV-01	GRAV.
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-022	08-NOV-01	B201 (2-2.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	8.2	ppm	EH	18-JAN-02	6010
			HG	<.05	ppm	MO	16-NOV-01	7471
			MOIST.	12.9	%	AH	13-NOV-01	GRAV.
L011543-023	08-NOV-01	B202 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			BA	136	ppm	EH	18-JAN-02	6010
			CR	18	ppm	EH	18-JAN-02	6010
			NI	9.4	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	28-JAN-02	6020
			V	<5	ppm	EH	18-JAN-02	6010
L011543-024	08-NOV-01	B202 (2-2.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			BA	620	ppm	EH	18-JAN-02	6010
			CR	20	ppm	EH	18-JAN-02	6010
			NI	11	ppm	EH	18-JAN-02	6010
			TL	<1	ppm	MF	28-JAN-02	6020
L011543-025	08-NOV-01	B203 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	15	ppm	EH	18-JAN-02	6010
			HG	<.05	ppm	MO	16-NOV-01	7471
			MOIST.	14.1	%	AH	13-NOV-01	GRAV.
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020
L011543-026	08-NOV-01	B203 (2-2.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			HG	<.05	ppm	MO	16-NOV-01	7471
			MOIST.	9.6	%	AH	13-NOV-01	GRAV.
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-027	08-NOV-01	B203 (5.5)	AG	0.54	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011543

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011543-028	08-NOV-01	B203 (8.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-029	08-NOV-01	B203 (11-12)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-030	08-NOV-01	B204 (0-0.5)	AG	<0.5	ppm	EH	18-JAN-02	6010
			CR	20	ppm	EH	18-JAN-02	6010
			MN	365	ppm	EH	18-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-031	08-NOV-01	B204 (2-2.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-032	08-NOV-01	B204 (5.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-033	08-NOV-01	B204 (8.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-034	08-NOV-01	B204 (11.5)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-035	08-NOV-01	B204 (13-14)	SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-036	08-NOV-01	B205 (0-0.5)	AG	<0.5	ppm	EH	19-JAN-02	6010
			CR	13	ppm	EH	19-JAN-02	6010
			MN	407	ppm	EH	19-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020
L011543-037	08-NOV-01	B205 (2-2.5)	AG	<0.5	ppm	EH	19-JAN-02	6010
			CR	15	ppm	EH	19-JAN-02	6010
			MN	315	ppm	EH	19-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020
L011543-038	08-NOV-01	B205 (5.5)	CR	15	ppm	EH	19-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
L011543-039	08-NOV-01	DUP B205 (0-0.5)	AG	<0.5	ppm	EH	19-JAN-02	6010
			CR	13	ppm	EH	19-JAN-02	6010
			MN	431	ppm	EH	19-JAN-02	6010
			SB	*<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	30-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011543

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

* QC Data indicate possible bias with antimony and selenium results.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011082

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011082-1		Matrix Spike	AG	108	%Recovery	EH	18-JAN-02	6010
			BA	105	%Recovery	EH	18-JAN-02	6010
			CD	96	%Recovery	EH	18-JAN-02	6010
			CO	98	%Recovery	EH	18-JAN-02	6010
			CR	102	%Recovery	EH	18-JAN-02	6010
			CU	105	%Recovery	EH	18-JAN-02	6010
			HG	75	%Recovery	MO	16-NOV-01	7471
			MN	99	%Recovery	EH	18-JAN-02	6010
			NI	100	%Recovery	EH	18-JAN-02	6010
			PB	101	%Recovery	EH	18-JAN-02	6010
			SB	*62	%Recovery	MF	28-JAN-02	6020
			SE	*69	%Recovery	MF	28-JAN-02	6020
			TL	97	%Recovery	MF	28-JAN-02	6020
			V	104	%Recovery	EH	18-JAN-02	6010
WG011082-2		Prep Blank	AG	<0.5	ppm	EH	18-JAN-02	6010
			BA	<5	ppm	EH	18-JAN-02	6010
			CD	<1	ppm	EH	18-JAN-02	6010
			CO	<5	ppm	EH	18-JAN-02	6010
			CR	<5	ppm	EH	18-JAN-02	6010
			CU	<5	ppm	EH	18-JAN-02	6010
			HG	<.05	ppm	MO	16-NOV-01	7471
			MN	<5	ppm	EH	18-JAN-02	6010
			NI	<5	ppm	EH	18-JAN-02	6010
			PB	<5	ppm	EH	18-JAN-02	6010
			SB	<0.8	ppm	MF	28-JAN-02	6020
			SE	<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	28-JAN-02	6020
			V	<5	ppm	EH	18-JAN-02	6010
WG011082-3		Lab Control Sample	AG	**145	%Recovery	EH	18-JAN-02	6010
			BA	104	%Recovery	EH	18-JAN-02	6010
			CD	100	%Recovery	EH	18-JAN-02	6010
			CO	98	%Recovery	EH	18-JAN-02	6010
			CR	102	%Recovery	EH	18-JAN-02	6010
			CU	110	%Recovery	EH	29-JAN-02	6010
			HG	102	%Recovery	MO	16-NOV-01	7471
			MN	100	%Recovery	EH	18-JAN-02	6010
			NI	101	%Recovery	EH	18-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011082

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011082-3		Lab Control Sample	PB	102	%Recovery	EH	18-JAN-02	6010
			SB	112	%Recovery	MF	28-JAN-02	6020
			SE	75	%Recovery	MF	28-JAN-02	6020
			TL	93	%Recovery	MF	28-JAN-02	6020
			V	104	%Recovery	EH	18-JAN-02	6010
WG011082-4		Duplicate	HG	<1.0	% RPD	MO	16-NOV-01	7471
			MOIST.	8.1	% RPD	AH	13-NOV-01	GRAV.
WG011082-5		Matrix Spike Duplicate	AG	<1.0	% RPD	EH	18-JAN-02	6010
			BA	1.8	% RPD	EH	18-JAN-02	6010
			CD	<1.0	% RPD	EH	18-JAN-02	6010
			CO	<1.0	% RPD	EH	18-JAN-02	6010
			CR	1.0	% RPD	EH	18-JAN-02	6010
			CU	1.8	% RPD	EH	18-JAN-02	6010
			HG	3.4	% RPD	MO	16-NOV-01	7471
			MN	<1.0	% RPD	EH	18-JAN-02	6010
			NI	1.0	% RPD	EH	18-JAN-02	6010
			PB	<1.0	% RPD	EH	18-JAN-02	6010
			SB	<1.0	% RPD	MF	28-JAN-02	6020
			SE	2.9	% RPD	MF	28-JAN-02	6020
			TL	<1.0	% RPD	MF	28-JAN-02	6020
			V	<1.0	% RPD	EH	18-JAN-02	6010
WG011082-6		Reporting Limit	AG	0.5	ppm			
			BA	5	ppm			
			CD	1	ppm			
			CO	5	ppm			
			CR	5	ppm			
			CU	5	ppm			
			HG	0.05	ppm			
			MN	<5	ppm			
			NI	5	ppm			
			PB	5	ppm			
			SB	0.8	ppm			
			SE	0.8	ppm			
			TL	1	ppm			
			V	5	ppm			

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project)

Batch No: WG011082

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011082-7		Matrix Spike	SB	*41	%Recovery	MF	28-JAN-02	6020
			TL	107	%Recovery	MF	28-JAN-02	6020
WG011082-8		Prep Blank	SB	<0.8	ppm	MF	28-JAN-02	6020
			TL	<1	ppm	MF	28-JAN-02	6020
WG011082-9		Lab Control Sample	SB	**151	%Recovery	MF	28-JAN-02	6020
			TL	93	%Recovery	MF	28-JAN-02	6020
WG011082-11		Matrix Spike Duplicate	SB	3.5	% RPD	MF	28-JAN-02	6020
			TL	<1.0	% RPD	MF	28-JAN-02	6020

* QC Data indicate possible bias with antimony and selenium results.
** Antimony and silver are within the certified range for the QC Standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Encyclopedia RFI

Project Location: Corpus Christi, TX

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH / ARCADIS

ANALYSIS / METHOD / SIZE

Grain Elev

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Ag, Cr, Sb	Sb		Sb, Mn, Tl	Tl, Sb	Sb	Remarks	Total
B196 (0-0.5)	S	11/8/01 900		X							1
B196 (2-2.5)	S	903			X						1
B196 (5.5)	S	905			X						1
B196 (8.5)	S	910			X						1
B196 (11.5)	S	915			X						1
B196 (14.5)	S	920			X						1
B196 (17.5)	S	925			X						1
B197 (0-0.5)	S	943					X				1
B197 (2-2.5)	S	945						X			1
B197 (5.5)	S	950						X			1
B197 (8.5)	S	955						X			1
B197 (11.5)	S	958							X		1
B197 (14.5)	S	1003							X		1
B197 (15-16)	S	1005							X		1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 14

Relinquished by: [signature]	Organization: ARCADIS	Date 11/8/01	Time 1830	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by: [signature]	Organization:	Date 11/9/01	Time 10:00	

Special Instructions/Remarks: Follow C.O.C

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name: Enagle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Sb, Cr, Ag	Cr	Ag, Cd, Co, Cr, Cu, Hg, Ni, Pb, Sb, Se	Cr, Co	Sb, Cr, Co, Hg, Ni, Ag		Grain Elev Remarks	Total
B198 (0-0.5)	S	11/8/01 1015		X							1
B198 (2-2.5)	S	1017			X						1
B199 (0-0.5)	S	1030				X					1
B199 (2-2.5)	S	1033					X				1
DUPLICATE B199 (0-0.5)	S	1030				X					1
B200 (0-0.5)	S	1045						X			1
FIELD BLANK	L	1045				X					1
EQUIPMENT BLANK	L	1050				X					1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 8

Relinquished by: Rajan Hanny	Organization: ARCADIS	Date 11/8/01	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by: [signature]	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date 11/9/01	Time 10:00	

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Enfield RFI

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Ag, Cr, Hg, Sb	Ag, Cr, Hg	Ag, Ba, Cr, N, Sb, Tl, V	Ba, Cr, N, Ag, Tl	Hg, Sb, Cr, Ag, Tl	Hg, Sb, Ag	Sb, Ag	Sb	Remarks	Grain Elev	Total
B201 (0-0.5)	S	11/8/01 1055		X										1
B201 (2-2.5)	S	1056			X									1
B202 (0-0.5)	S	1110				X								1
B202 (2-2.5)	S	1115					X							1
B203 (0-0.5)	S	1135						X						1
B203 (2-2.5)	S	1140							X					1
B203 (5.5)	S	1143								X				1
B203 (8.5)	S	1145									X			1
B203 (11-12)	S	1148									X			1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 9

Relinquished by: Bryan Hanny	Organization: ARCADIS	Date 11/8/01	Time 1830	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	(Yes) No N/A	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: [illegible]	Organization: _____	Date 11/9/01	Time 1000	Yes No N/A	

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Encycle BFI

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Grain Elev

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Ag, Cr, Mn, Sb	Sb	Sb, Cr, Mn, Ag, Tl	Cr, Sb			Remarks	Total
B204 (0-0.5)	S	11/8/01 1325		X							1
B204 (2-2.5)	S	1330			X						1
B204 (5.5)	S	1335			X						1
B204 (8.5)	S	1340			X						1
B204 (11.5)	S	1345			X						1
B204 (13-14)	S	1348			X						1
B205 (0-0.5)	S	1405				X					1
B205 (2-2.5)	S	1410				X					1
B205 (5.5)	S	1415					X				1
DUPLICATE B205 (0-0.5)	S	1405				X					1
FIELD BLANK-2	L	1130				X					1
EQUIPMENT BLANK-2	L	1135				X					1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 12

					Seal Intact?
Relinquished by: Bryan Hruby	Organization: ARCADIS	Date 11/8/01	Time 1830		
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: Fedex	Organization: _____	Date 11/9/01	Time 1000		Yes No N/A

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05 0597

ASARCO

FEB 0 7 2002

February 4, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and associated quality control data for thirty-seven (37) soil samples collected on November 5, 2001, in association with the Encycle Project # CC 000643.0001. The laboratory received the samples November 6, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy. The results were reported on a dry weight basis.

The samples were digested as received in accordance with EPA method 7471, and analyzed using cold vapor atomic absorption spectroscopy for Hg. The results are reported on an as received basis.

For the CN- the samples were distilled and analyzed according to EPA methods 335.2.

If you need further information, please call (801) 263-5208.

Sincerely,

Mary Collier
Chemical Technician

CC: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-001	05-NOV-01	B171 0-0.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	9.1	ppm	EH	12-DEC-01	6010
			BA	*283	ppm	EH	12-DEC-01	6010
			BI	11	ppm	EH	12-DEC-01	6010
			CD	3.4	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	8.5	ppm	EH	12-DEC-01	6010
			CR	20	ppm	EH	12-DEC-01	6010
			CU	46	ppm	EH	12-DEC-01	6010
			HG	0.07	ppm	MO	13-NOV-01	7471
			MN	480	ppm	EH	12-DEC-01	6010
			MOIST.	18	%	AH	08-NOV-01	GRAV.
			NI	14	ppm	EH	12-DEC-01	6010
			PB	57	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	8.6	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	40	ppm	EH	12-DEC-01	6010
			ZN	496	ppm	EH	12-DEC-01	6010
L011508-002	05-NOV-01	B171 2-2.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	7.2	ppm	EH	12-DEC-01	6010
			BA	*277	ppm	EH	12-DEC-01	6010
			BI	10	ppm	EH	12-DEC-01	6010
			CD	<1.0	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	9.0	ppm	EH	12-DEC-01	6010
			CR	22	ppm	EH	12-DEC-01	6010
			CU	11	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	13-NOV-01	7471
			MN	569	ppm	EH	12-DEC-01	6010
			MOIST.	23	%	AH	08-NOV-01	GRAV.
			NI	15	ppm	EH	12-DEC-01	6010
			PB	13	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	5.6	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-002	05-NOV-01	B171 2-2.5	V	46	ppm	EH	12-DEC-01	6010
			ZN	67	ppm	EH	12-DEC-01	6010
L011508-003	05-NOV-01	B171 3.8-4.2	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	8.5	ppm	EH	12-DEC-01	6010
			BA	*280	ppm	EH	12-DEC-01	6010
			BI	12	ppm	EH	12-DEC-01	6010
			CD	<1.0	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	8.8	ppm	EH	12-DEC-01	6010
			CR	20	ppm	EH	12-DEC-01	6010
			CU	16	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	13-NOV-01	7471
			MN	448	ppm	EH	12-DEC-01	6010
			MOIST.	27	%	AH	08-NOV-01	GRAV.
			NI	14	ppm	EH	12-DEC-01	6010
			PB	18	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	5.7	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	45	ppm	EH	12-DEC-01	6010
			ZN	108	ppm	EH	12-DEC-01	6010
L011508-004	05-NOV-01	B172 0-0.5	BI	6.3	ppm	EH	12-DEC-01	6010
			CR	23	ppm	EH	12-DEC-01	6010
			CU	155	ppm	EH	12-DEC-01	6010
			MN	679	ppm	EH	12-DEC-01	6010
			SN	15	ppm	EH	12-DEC-01	6010
			V	20	ppm	EH	12-DEC-01	6010
			ZN	3096	ppm	EH	12-DEC-01	6010
L011508-005	05-NOV-01	B172 1.8-2.3	BI	10	ppm	EH	12-DEC-01	6010
			CR	21	ppm	EH	12-DEC-01	6010
			MN	796	ppm	EH	12-DEC-01	6010
			V	25	ppm	EH	12-DEC-01	6010
			ZN	4305	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-006	05-NOV-01	B173 0-0.5	BI	6.3	ppm	EH	12-DEC-01	6010
			CR	13	ppm	EH	12-DEC-01	6010
			CU	64	ppm	EH	12-DEC-01	6010
			MN	476	ppm	EH	12-DEC-01	6010
			SN	22	ppm	EH	12-DEC-01	6010
			ZN	3234	ppm	EH	12-DEC-01	6010
L011508-007	05-NOV-01	B173 2-2.5	BI	6.7	ppm	EH	12-DEC-01	6010
			CR	14	ppm	EH	12-DEC-01	6010
			MN	373	ppm	EH	12-DEC-01	6010
			ZN	233	ppm	EH	12-DEC-01	6010
L011508-008	05-NOV-01	B173 2.8-3	BI	5.4	ppm	EH	12-DEC-01	6010
			CR	12	ppm	EH	12-DEC-01	6010
			MN	1279	ppm	EH	12-DEC-01	6010
			ZN	2195	ppm	EH	12-DEC-01	6010
L011508-009	05-NOV-01	B150 0-0.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	<5.0	ppm	EH	12-DEC-01	6010
			BA	*87	ppm	EH	12-DEC-01	6010
			BI	<4.0	ppm	EH	12-DEC-01	6010
			CD	6.6	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	<5.0	ppm	EH	12-DEC-01	6010
			CR	7.6	ppm	EH	12-DEC-01	6010
			CU	20	ppm	EH	12-DEC-01	6010
			HG	0.07	ppm	MO	13-NOV-01	7471
			MN	195	ppm	EH	12-DEC-01	6010
			MOIST.	11	%	AH	08-NOV-01	GRAV.
			NI	6.4	ppm	EH	12-DEC-01	6010
			PB	19	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	<5.0	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	14	ppm	EH	12-DEC-01	6010
			ZN	268	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-010	05-NOV-01	B150 2-2.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	5.9	ppm	EH	12-DEC-01	6010
			BA	*236	ppm	EH	12-DEC-01	6010
			BI	6.9	ppm	EH	12-DEC-01	6010
			CD	28	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	12	ppm	EH	12-DEC-01	6010
			CR	18	ppm	EH	12-DEC-01	6010
			CU	29	ppm	EH	12-DEC-01	6010
			HG	0.80	ppm	MO	09-NOV-01	7471
			MN	951	ppm	EH	12-DEC-01	6010
			MOIST.	25	%	AH	08-NOV-01	GRAV.
			NI	15	ppm	EH	12-DEC-01	6010
			PB	38	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	5.5	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	35	ppm	EH	12-DEC-01	6010
			ZN	791	ppm	EH	12-DEC-01	6010
L011508-011	05-NOV-01	B150 2.5-3	AG	17	ppm	EH	12-DEC-01	6010
			AS	39	ppm	EH	12-DEC-01	6010
			BA	*753	ppm	EH	12-DEC-01	6010
			BI	12	ppm	EH	12-DEC-01	6010
			CD	443	ppm	EH	12-DEC-01	6010
			CN-	0.18	ppm	DC	07-NOV-01	335.2
			CO	92	ppm	EH	12-DEC-01	6010
			CR	13	ppm	EH	12-DEC-01	6010
			CU	386	ppm	EH	12-DEC-01	6010
			HG	56.	ppm	MO	13-NOV-01	7471
			MN	9498	ppm	EH	21-DEC-01	6010
			MOIST.	26	%	AH	08-NOV-01	GRAV.
			NI	45	ppm	EH	12-DEC-01	6010
			PB	1390	ppm	EH	12-DEC-01	6010
			SB	*3.1	ppm	MF	18-JAN-02	6020
			SE	*28	ppm	MF	18-JAN-02	6020
			SN	11	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-011	05-NOV-01	B150 2.5-3	V	21	ppm	EH	12-DEC-01	6010
			ZN	23820	ppm	EH	21-DEC-01	6010
L011508-012	05-NOV-01	B151 0-0.5	AG	4.7	ppm	EH	12-DEC-01	6010
			CD	87	ppm	EH	12-DEC-01	6010
			CU	153	ppm	EH	12-DEC-01	6010
			HG	1.6	ppm	MO	30-NOV-01	7471
			MOIST.	20	%	AH	28-NOV-01	GRAV.
			ZN	4341	ppm	EH	12-DEC-01	6010
L011508-013	05-NOV-01	B151 1.5-2	AG	15	ppm	EH	12-DEC-01	6010
			AS	48	ppm	EH	12-DEC-01	6010
			BA	*526	ppm	EH	12-DEC-01	6010
			BI	10	ppm	EH	12-DEC-01	6010
			CD	281	ppm	EH	12-DEC-01	6010
			CO	76	ppm	EH	12-DEC-01	6010
			CR	23	ppm	EH	12-DEC-01	6010
			CU	612	ppm	EH	12-DEC-01	6010
			HG	5.1	ppm	MO	30-NOV-01	7471
			MN	2176	ppm	EH	12-DEC-01	6010
			MOIST.	29	%	AH	28-NOV-01	GRAV.
			NI	39	ppm	EH	12-DEC-01	6010
			PB	531	ppm	EH	12-DEC-01	6010
			SB	*0.91	ppm	MF	18-JAN-02	6020
			SE	*4.3	ppm	MF	18-JAN-02	6020
			SN	34	ppm	EH	12-DEC-01	6010
			ZN	12140	ppm	EH	21-DEC-01	6010
L011508-014	05-NOV-01	B152 0-0.5	AG	20	ppm	EH	12-DEC-01	6010
			CD	171	ppm	EH	12-DEC-01	6010
			CU	464	ppm	EH	12-DEC-01	6010
			HG	0.25	ppm	MO	29-NOV-01	7471
			MOIST.	18	%	AH	28-NOV-01	GRAV.
			ZN	27200	ppm	EH	26-DEC-01	6010
L011508-015	05-NOV-01	B152 1.5-2	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	<5.0	ppm	EH	12-DEC-01	6010
			BI	<4.0	ppm	EH	12-DEC-01	6010
			CD	1.5	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-015	05-NOV-01	B152 1.5-2	CO	<5.0	ppm	EH	12-DEC-01	6010
			CR	12	ppm	EH	12-DEC-01	6010
			CU	8.8	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	29-NOV-01	7471
			MN	225	ppm	EH	12-DEC-01	6010
			MOIST.	18	%	AH	28-NOV-01	GRAV.
			NI	8.0	ppm	EH	12-DEC-01	6010
			PB	18	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	5.5	ppm	EH	12-DEC-01	6010
			ZN	192	ppm	EH	12-DEC-01	6010
L011508-016	05-NOV-01	B162 0-0.5	AG	5.0	ppm	EH	12-DEC-01	6010
			AS	23	ppm	EH	12-DEC-01	6010
			BA	*580	ppm	EH	12-DEC-01	6010
			BI	7.3	ppm	EH	12-DEC-01	6010
			CD	74	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	10	ppm	EH	12-DEC-01	6010
			CR	18	ppm	EH	12-DEC-01	6010
			CU	135	ppm	EH	12-DEC-01	6010
			HG	0.56	ppm	MO	09-NOV-01	7471
			MN	470	ppm	EH	12-DEC-01	6010
			MOIST.	23	%	AH	08-NOV-01	GRAV.
			NI	15	ppm	EH	12-DEC-01	6010
			PB	349	ppm	EH	12-DEC-01	6010
			SB	*0.82	ppm	MF	18-JAN-02	6020
			SE	*1.0	ppm	MF	18-JAN-02	6020
			SN	15	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	35	ppm	EH	12-DEC-01	6010
			ZN	6653	ppm	EH	21-DEC-01	6010
L011508-017	05-NOV-01	B162 1-1.2	AG	1.3	ppm	EH	12-DEC-01	6010
			AS	11	ppm	EH	12-DEC-01	6010
			BA	*653	ppm	EH	12-DEC-01	6010
			BI	5.4	ppm	EH	12-DEC-01	6010
			CD	23	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-017	05-NOV-01	B162 1-1.2	CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	7.3	ppm	EH	12-DEC-01	6010
			CR	14	ppm	EH	12-DEC-01	6010
			CU	32	ppm	EH	12-DEC-01	6010
			HG	0.75	ppm	MO	09-NOV-01	7471
			MN	345	ppm	EH	12-DEC-01	6010
			MOIST.	26	%	AH	08-NOV-01	GRAV.
			NI	11	ppm	EH	12-DEC-01	6010
			PB	135	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	8.0	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	37	ppm	EH	12-DEC-01	6010
			ZN	1495	ppm	EH	12-DEC-01	6010
L011508-018	05-NOV-01	B163 0-0.5	AG	0.81	ppm	EH	12-DEC-01	6010
			AS	9.3	ppm	EH	12-DEC-01	6010
			BI	<4.0	ppm	EH	12-DEC-01	6010
			CD	19	ppm	EH	12-DEC-01	6010
			CO	7.8	ppm	EH	12-DEC-01	6010
			CR	11	ppm	EH	12-DEC-01	6010
			CU	31	ppm	EH	12-DEC-01	6010
			HG	0.07	ppm	MO	29-NOV-01	7471
			MN	762	ppm	EH	12-DEC-01	6010
			MOIST.	17	%	AH	28-NOV-01	GRAV.
			PB	100	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	7.1	ppm	EH	12-DEC-01	6010
			ZN	1178	ppm	EH	12-DEC-01	6010
L011508-019	05-NOV-01	B163 1-1.2	AG	2.8	ppm	EH	12-DEC-01	6010
			AS	12	ppm	EH	12-DEC-01	6010
			BI	<4.0	ppm	EH	12-DEC-01	6010
			CD	31	ppm	EH	12-DEC-01	6010
			CU	59	ppm	EH	12-DEC-01	6010
			HG	0.32	ppm	MO	28-NOV-01	7471
			MOIST.	24	%	AH	28-NOV-01	GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-019	05-NOV-01	B163 1-1.2	PB	136	ppm	EH	12-DEC-01	6010
			SN	7.2	ppm	EH	12-DEC-01	6010
			V	27	ppm	EH	12-DEC-01	6010
			ZN	2091	ppm	EH	12-DEC-01	6010
L011508-020	05-NOV-01	B164 0-0.5	AG	11	ppm	EH	12-DEC-01	6010
			CD	262	ppm	EH	12-DEC-01	6010
			MN	710	ppm	EH	12-DEC-01	6010
			ZN	10740	ppm	EH	21-DEC-01	6010
L011508-021	05-NOV-01	B164 1-1.2	AG	0.52	ppm	EH	12-DEC-01	6010
			AS	6.4	ppm	EH	12-DEC-01	6010
			CD	20	ppm	EH	12-DEC-01	6010
			CU	24	ppm	EH	12-DEC-01	6010
			HG	0.09	ppm	MO	29-NOV-01	7471
			MOIST.	18	%	AH	28-NOV-01	GRAV.
			PB	57	ppm	EH	12-DEC-01	6010
			ZN	769	ppm	EH	12-DEC-01	6010
L011508-022	05-NOV-01	B165 0-0.5	AG	2.2	ppm	EH	12-DEC-01	6010
			AS	32	ppm	EH	12-DEC-01	6010
			BA	*269	ppm	EH	12-DEC-01	6010
			BI	8.0	ppm	EH	12-DEC-01	6010
			CD	55	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	7.4	ppm	EH	12-DEC-01	6010
			CR	15	ppm	EH	12-DEC-01	6010
			CU	337	ppm	EH	12-DEC-01	6010
			HG	2.9	ppm	MO	13-NOV-01	7471
			MN	742	ppm	EH	21-DEC-01	6010
			MOIST.	15	%	AH	08-NOV-01	GRAV.
			NI	10	ppm	EH	12-DEC-01	6010
			PB	260	ppm	EH	12-DEC-01	6010
			SB	*1.3	ppm	MF	18-JAN-02	6020
			SE	*3.7	ppm	MF	18-JAN-02	6020
			SN	15	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	25	ppm	EH	12-DEC-01	6010
			ZN	6764	ppm	EH	21-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-023	05-NOV-01	B165 2-2.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	8.9	ppm	EH	12-DEC-01	6010
			BA	*256	ppm	EH	12-DEC-01	6010
			BI	7.9	ppm	EH	12-DEC-01	6010
			CD	1.4	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	8.9	ppm	EH	12-DEC-01	6010
			CR	18	ppm	EH	12-DEC-01	6010
			CU	21	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	13-NOV-01	7471
			MN	431	ppm	EH	21-DEC-01	6010
			MOIST.	23	%	AH	08-NOV-01	GRAV.
			NI	14	ppm	EH	12-DEC-01	6010
			PB	17	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	6.0	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	43	ppm	EH	12-DEC-01	6010
			ZN	137	ppm	EH	12-DEC-01	6010
L011508-024	05-NOV-01	B166 0-0.5	AG	2.2	ppm	EH	12-DEC-01	6010
			AS	22	ppm	EH	12-DEC-01	6010
			BI	7.2	ppm	EH	12-DEC-01	6010
			CD	29	ppm	EH	12-DEC-01	6010
			CR	13	ppm	EH	12-DEC-01	6010
			CU	170	ppm	EH	12-DEC-01	6010
			HG	1.4	ppm	MO	30-NOV-01	7471
			MN	559	ppm	EH	21-DEC-01	6010
			MOIST.	15	%	AH	28-NOV-01	GRAV.
			PB	285	ppm	EH	12-DEC-01	6010
			SB	*1.3	ppm	MF	18-JAN-02	6020
			SE	*1.6	ppm	MF	18-JAN-02	6020
			SN	14	ppm	EH	12-DEC-01	6010
			ZN	2621	ppm	EH	12-DEC-01	6010
L011508-025	05-NOV-01	B166 2-2.3	BI	6.4	ppm	EH	12-DEC-01	6010
			CR	18	ppm	EH	12-DEC-01	6010
			CU	353	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-025	05-NOV-01	B166 2-2.3	V	21	ppm	EH	12-DEC-01	6010
			ZN	3173	ppm	EH	12-DEC-01	6010
L011508-026	05-NOV-01	B167 0-0.5	AG	7.1	ppm	EH	12-DEC-01	6010
			AS	39	ppm	EH	12-DEC-01	6010
			BI	7.9	ppm	EH	12-DEC-01	6010
			CD	120	ppm	EH	12-DEC-01	6010
			CU	220	ppm	EH	12-DEC-01	6010
			HG	1.2	ppm	MO	30-NOV-01	7471
			MN	937	ppm	EH	21-DEC-01	6010
			MOIST.	22	%	AH	28-NOV-01	GRAV.
			PB	634	ppm	EH	12-DEC-01	6010
			SB	*2.2	ppm	MF	18-JAN-02	6020
			SE	*1.0	ppm	MF	18-JAN-02	6020
			SN	33	ppm	EH	12-DEC-01	6010
			ZN	11010	ppm	EH	21-DEC-01	6010
L011508-027	05-NOV-01	B167 2-2.3	BI	6.7	ppm	EH	12-DEC-01	6010
			CR	14	ppm	EH	12-DEC-01	6010
			CU	144	ppm	EH	12-DEC-01	6010
			ZN	10260	ppm	EH	21-DEC-01	6010
L011508-028	05-NOV-01	DUP B-165 0-0.5	AG	1.8	ppm	EH	12-DEC-01	6010
			AS	31	ppm	EH	12-DEC-01	6010
			BA	*295	ppm	EH	12-DEC-01	6010
			BI	8.6	ppm	EH	12-DEC-01	6010
			CD	45	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	7.6	ppm	EH	12-DEC-01	6010
			CR	14	ppm	EH	12-DEC-01	6010
			CU	248	ppm	EH	12-DEC-01	6010
			HG	3.2	ppm	MO	12-NOV-01	7471
			MN	766	ppm	EH	17-DEC-01	6010
			MOIST.	17	%	AH	08-NOV-01	GRAV.
			NI	11	ppm	EH	12-DEC-01	6010
			PB	248	ppm	EH	12-DEC-01	6010
			SB	*0.96	ppm	MF	18-JAN-02	6020
			SE	*3.5	ppm	MF	18-JAN-02	6020
			SN	13	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-028	05-NOV-01	DUP B-165 0-0.5	TL	<1	ppm	MF	30-JAN-02	6020
			V	26	ppm	EH	12-DEC-01	6010
			ZN	5304	ppm	EH	21-DEC-01	6010
L011508-029	05-NOV-01	B168 0-0.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	<5.0	ppm	EH	12-DEC-01	6010
			BA	*75	ppm	EH	12-DEC-01	6010
			BI	11	ppm	EH	12-DEC-01	6010
			CD	5.5	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	7.7	ppm	EH	12-DEC-01	6010
			CR	12	ppm	EH	12-DEC-01	6010
			CU	57	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	13-NOV-01	7471
			MN	257	ppm	EH	17-DEC-01	6010
			MOIST.	4.9	%	AH	08-NOV-01	GRAV.
			NI	9.7	ppm	EH	12-DEC-01	6010
			PB	44	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	6.5	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	11	ppm	EH	12-DEC-01	6010
			ZN	388	ppm	EH	12-DEC-01	6010
L011508-030	05-NOV-01	B168 2-2.5	AG	0.96	ppm	EH	12-DEC-01	6010
			AS	27	ppm	EH	12-DEC-01	6010
			BA	*273	ppm	EH	12-DEC-01	6010
			BI	8.4	ppm	EH	12-DEC-01	6010
			CD	6.3	ppm	EH	12-DEC-01	6010
			CN-	0.09	ppm	DC	07-NOV-01	335.2
			CO	8.6	ppm	EH	12-DEC-01	6010
			CR	18	ppm	EH	12-DEC-01	6010
			CU	34	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	13-NOV-01	7471
			MN	448	ppm	EH	17-DEC-01	6010
			MOIST.	23	%	AH	08-NOV-01	GRAV.
			NI	15	ppm	EH	12-DEC-01	6010
			PB	40	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-030	05-NOV-01	B168 2-2.5	SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	6.1	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	40	ppm	EH	12-DEC-01	6010
			ZN	492	ppm	EH	12-DEC-01	6010
L011508-031	05-NOV-01	B168 2.5-3.1	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	16	ppm	EH	12-DEC-01	6010
			BA	*344	ppm	EH	12-DEC-01	6010
			BI	11	ppm	EH	12-DEC-01	6010
			CD	4.4	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	8.8	ppm	EH	12-DEC-01	6010
			CR	21	ppm	EH	12-DEC-01	6010
			CU	110	ppm	EH	12-DEC-01	6010
			HG	0.09	ppm	MO	13-NOV-01	7471
			MN	387	ppm	EH	17-DEC-01	6010
			MOIST.	24	%	AH	08-NOV-01	GRAV.
			NI	15	ppm	EH	12-DEC-01	6010
			PB	58	ppm	EH	12-DEC-01	6010
			SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*<0.8	ppm	MF	18-JAN-02	6020
			SN	8.8	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	46	ppm	EH	12-DEC-01	6010
			ZN	653	ppm	EH	12-DEC-01	6010
L011508-032	05-NOV-01	B169 0-0.5	BI	<4.0	ppm	EH	12-DEC-01	6010
			CU	19	ppm	EH	12-DEC-01	6010
			ZN	953	ppm	EH	12-DEC-01	6010
L011508-033	05-NOV-01	B169 1-1.5	AG	5.8	ppm	EH	12-DEC-01	6010
			AS	16	ppm	EH	12-DEC-01	6010
			BI	<4.0	ppm	EH	12-DEC-01	6010
			CD	29	ppm	EH	12-DEC-01	6010
			CR	13	ppm	EH	12-DEC-01	6010
			CU	60	ppm	EH	12-DEC-01	6010
			MN	1091	ppm	EH	17-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-033	05-NOV-01	B169 1-1.5	PB	173	ppm	EH	12-DEC-01	6010
			SN	13	ppm	EH	12-DEC-01	6010
			V	21	ppm	EH	12-DEC-01	6010
			ZN	2677	ppm	EH	12-DEC-01	6010
L011508-034	05-NOV-01	B170 0-0.5	ZN	3349	ppm	EH	12-DEC-01	6010
L011508-035	05-NOV-01	B170 2-2.5	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	8.2	ppm	EH	12-DEC-01	6010
			CD	5.9	ppm	EH	12-DEC-01	6010
			CU	57	ppm	EH	12-DEC-01	6010
			MN	326	ppm	EH	17-DEC-01	6010
			PB	68	ppm	EH	12-DEC-01	6010
			SN	8.5	ppm	EH	12-DEC-01	6010
			ZN	805	ppm	EH	12-DEC-01	6010
L011508-036	05-NOV-01	B170 2.7-3	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	8.9	ppm	EH	12-DEC-01	6010
			CD	8.8	ppm	EH	12-DEC-01	6010
			CU	19	ppm	EH	12-DEC-01	6010
			MN	451	ppm	EH	17-DEC-01	6010
			PB	48	ppm	EH	12-DEC-01	6010
			SN	6.4	ppm	EH	12-DEC-01	6010
			ZN	781	ppm	EH	12-DEC-01	6010
L011508-037	05-NOV-01	DUP B150 0-0.5	AG	0.70	ppm	EH	12-DEC-01	6010
			AS	7.0	ppm	EH	12-DEC-01	6010
			BA	*192	ppm	EH	12-DEC-01	6010
			BI	4.0	ppm	EH	12-DEC-01	6010
			CD	23	ppm	EH	12-DEC-01	6010
			CN-	0.08	ppm	DC	07-NOV-01	335.2
			CO	7.5	ppm	EH	12-DEC-01	6010
			CR	11	ppm	EH	12-DEC-01	6010
			CU	50	ppm	EH	12-DEC-01	6010
			HG	0.41	ppm	MO	09-NOV-01	7471
			MN	368	ppm	EH	17-DEC-01	6010
			MOIST.	10	%	AH	08-NOV-01	GRAV.
			NI	9.4	ppm	EH	12-DEC-01	6010
			PB	51	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011508

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011508-037	05-NOV-01	DUP B150 0-0.5	SB	*<0.8	ppm	MF	18-JAN-02	6020
			SE	*0.89	ppm	MF	18-JAN-02	6020
			SN	6.0	ppm	EH	12-DEC-01	6010
			TL	<1	ppm	MF	30-JAN-02	6020
			V	17	ppm	EH	12-DEC-01	6010
			ZN	909	ppm	EH	12-DEC-01	6010

* QC data indicate possible bias for antimony, barium and selenium results.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011053

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011053-1		Matrix Spike	AG	105	%Recovery	EH	12-DEC-01	6010
			AS	107	%Recovery	EH	12-DEC-01	6010
			BA	**147	%Recovery	EH	12-DEC-01	6010
			BI	102	%Recovery	EH	12-DEC-01	6010
			CD	*SR>4X SA	%Recovery	EH	12-DEC-01	6010
			CN-	100	%Recovery	DC	07-NOV-01	335.2
			CO	102	%Recovery	EH	12-DEC-01	6010
			CR	113	%Recovery	EH	12-DEC-01	6010
			CU	86	%Recovery	EH	12-DEC-01	6010
			HG	*SR>4X SA	%Recovery	MO	09-NOV-01	7471
			MN	*SR>4X SA	%Recovery	EH	12-DEC-01	6010
			NI	104	%Recovery	EH	12-DEC-01	6010
			PB	108	%Recovery	EH	12-DEC-01	6010
			SB	***28	%Recovery	MF	18-JAN-02	6020
			SE	***68	%Recovery	MF	18-JAN-02	6020
			SN	105	%Recovery	EH	12-DEC-01	6010
			TL	81	%Recovery	MF	30-JAN-02	6020
			V	116	%Recovery	EH	12-DEC-01	6010
			ZN	*SR>4X SA	%Recovery	EH	12-DEC-01	6010
WG011053-2		Prep Blank	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	<5.0	ppm	EH	12-DEC-01	6010
			BA	<5.0	ppm	EH	12-DEC-01	6010
			BI	<5.0	ppm	EH	12-DEC-01	6010
			CD	<1.0	ppm	EH	12-DEC-01	6010
			CN-	<.05	ppm	DC	07-NOV-01	335.2
			CO	<5.0	ppm	EH	12-DEC-01	6010
			CR	<5.0	ppm	EH	12-DEC-01	6010
			CU	<5.0	ppm	EH	12-DEC-01	6010
			HG	<.05	ppm	MO	09-NOV-01	7471
			MN	<5.0	ppm	EH	12-DEC-01	6010
			NI	<5.0	ppm	EH	12-DEC-01	6010
			PB	<5.0	ppm	EH	12-DEC-01	6010
			SB	<0.8	ppm	MF	18-JAN-02	6020
			SE	<0.8	ppm	MF	18-JAN-02	6020
			SN	<5.0	ppm	EH	12-DEC-01	6010
			TL	<1.0	ppm	MF	30-JAN-02	6020
			V	<5.0	ppm	EH	12-DEC-01	6010
			ZN	<5.0	ppm	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011053

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011053-3		Lab Control Sample	AG	****139	%Recovery	EH	12-DEC-01	6010
			AS	104	%Recovery	EH	12-DEC-01	6010
			BA	108	%Recovery	EH	12-DEC-01	6010
			BI	102	%Recovery	EH	12-DEC-01	6010
			CD	103	%Recovery	EH	12-DEC-01	6010
			CN-	97	%Recovery	DC	07-NOV-01	335.2
			CO	104	%Recovery	EH	12-DEC-01	6010
			CR	105	%Recovery	EH	12-DEC-01	6010
			CU	96	%Recovery	EH	12-DEC-01	6010
			HG	97	%Recovery	MO	09-NOV-01	7471
			MN	112	%Recovery	EH	12-DEC-01	6010
			NI	104	%Recovery	EH	12-DEC-01	6010
			PB	100	%Recovery	EH	12-DEC-01	6010
			SB	****158	%Recovery	MF	18-JAN-02	6020
			SE	****74	%Recovery	MF	18-JAN-02	6020
			SN	107	%Recovery	EH	12-DEC-01	6010
			TL	92	%Recovery	MF	30-JAN-02	6020
			V	116	%Recovery	EH	12-DEC-01	6010
			ZN	98	%Recovery	EH	12-DEC-01	6010
WG011053-4		Duplicate	CN-	18	% RPD	DC	07-NOV-01	335.2
WG011053-5		Matrix Spike Duplicate	AG	2.5	% RPD	EH	12-DEC-01	6010
			AS	<1.0	% RPD	EH	12-DEC-01	6010
			BA	**54.8	% RPD	EH	12-DEC-01	6010
			BI	1.0	% RPD	EH	12-DEC-01	6010
			CD	2.9	% RPD	EH	12-DEC-01	6010
			CN-	<1.0	% RPD	DC	07-NOV-01	335.2
			CO	<1.0	% RPD	EH	12-DEC-01	6010
			CR	<1.0	% RPD	EH	12-DEC-01	6010
			CU	3.4	% RPD	EH	12-DEC-01	6010
			HG	7.6	% RPD	MO	09-NOV-01	7471
			MN	2.2	% RPD	EH	12-DEC-01	6010
			NI	<1.0	% RPD	EH	12-DEC-01	6010
			PB	<1.0	% RPD	EH	12-DEC-01	6010
			SB	2.8	% RPD	MF	18-JAN-02	6020
			SE	1.0	% RPD	MF	18-JAN-02	6020
			SN	1.7	% RPD	EH	12-DEC-01	6010
			TL	2.8	% RPD	MF	30-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011053

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011053-5		Matrix Spike Duplicate	V	<1.0	% RPD	EH	12-DEC-01	6010
			ZN	1.5	% RPD	EH	12-DEC-01	6010
WG011053-6		Reporting Limit	AG	0.5	ppm			
			AS	5.0	ppm			
			BA	5.0	ppm			
			BI	5.0	ppm			
			CD	1.0	ppm			
			CN-	.05	ppm			
			CO	5.0	ppm			
			CR	5.0	ppm			
			CU	5.0	ppm			
			HG	0.05	ppm			
			MN	5.0	ppm			
			NI	5.0	ppm			
			PB	5.0	ppm			
			SB	0.8	ppm			
			SE	0.8	ppm			
			SN	5.0	ppm			
			TL	1.0	ppm			
			V	5.0	ppm			
			ZN	5.0	ppm			
WG011053-7		Matrix Spike	AG	111	%Recovery	EH	12-DEC-01	6010
			AS	108	%Recovery	EH	12-DEC-01	6010
			BA	110	%Recovery	EH	12-DEC-01	6010
			BI	105	%Recovery	EH	12-DEC-01	6010
			CD	106	%Recovery	EH	12-DEC-01	6010
			CO	107	%Recovery	EH	12-DEC-01	6010
			CR	116	%Recovery	EH	12-DEC-01	6010
			CU	80	%Recovery	EH	12-DEC-01	6010
			MN	92	%Recovery	EH	21-DEC-01	6010
			NI	108	%Recovery	EH	12-DEC-01	6010
			PB	100	%Recovery	EH	12-DEC-01	6010
			SB	***29	%Recovery	MF	18-JAN-02	6020
			SE	***65	%Recovery	MF	18-JAN-02	6020
			SN	108	%Recovery	EH	12-DEC-01	6010
			TL	93	%Recovery	MF	30-JAN-02	6020
			V	119	%Recovery	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011053

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011053-7		Matrix Spike	ZN	*SR>4X SA	%Recovery	EH	12-DEC-01	6010
WG011053-8		Prep Blank	AG	<0.5	ppm	EH	12-DEC-01	6010
			AS	<5.0	ppm	EH	12-DEC-01	6010
			BA	<5.0	ppm	EH	12-DEC-01	6010
			BI	<5.0	ppm	EH	12-DEC-01	6010
			CD	<1.0	ppm	EH	12-DEC-01	6010
			CO	<5.0	ppm	EH	12-DEC-01	6010
			CR	<5.0	ppm	EH	12-DEC-01	6010
			CU	<5.0	ppm	EH	12-DEC-01	6010
			MN	<5.0	ppm	EH	21-DEC-01	6010
			NI	<5.0	ppm	EH	12-DEC-01	6010
			PB	<5.0	ppm	EH	12-DEC-01	6010
			SB	<0.8	ppm	MF	18-JAN-02	6020
			SE	<0.8	ppm	MF	18-JAN-02	6020
			SN	<5.0	ppm	EH	12-DEC-01	6010
			TL	<1.0	ppm	MF	30-JAN-02	6020
			V	<5.0	ppm	EH	12-DEC-01	6010
			ZN	<5.0	ppm	EH	12-DEC-01	6010
WG011053-9		Lab Control Sample	AG	****148	%Recovery	EH	12-DEC-01	6010
			AS	112	%Recovery	EH	12-DEC-01	6010
			BA	116	%Recovery	EH	12-DEC-01	6010
			BI	103	%Recovery	EH	12-DEC-01	6010
			CD	109	%Recovery	EH	12-DEC-01	6010
			CO	111	%Recovery	EH	12-DEC-01	6010
			CR	113	%Recovery	EH	12-DEC-01	6010
			CU	95	%Recovery	EH	12-DEC-01	6010
			MN	112	%Recovery	EH	21-DEC-01	6010
			NI	111	%Recovery	EH	12-DEC-01	6010
			PB	105	%Recovery	EH	12-DEC-01	6010
			SB	****159	%Recovery	MF	18-JAN-02	6020
			SE	81	%Recovery	MF	18-JAN-02	6020
			SN	112	%Recovery	EH	12-DEC-01	6010
			TL	100	%Recovery	MF	30-JAN-02	6020
			V	123	%Recovery	EH	12-DEC-01	6010
			ZN	104	%Recovery	EH	12-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011053

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011053-10		Duplicate	MOIST.	<1.0	% RPD	AH	08-NOV-01	GRAV.
WG011053-11		Matrix Spike Duplicate	AG	2.4	% RPD	EH	12-DEC-01	6010
			AS	2.3	% RPD	EH	12-DEC-01	6010
			BA	1.5	% RPD	EH	12-DEC-01	6010
			BI	1.8	% RPD	EH	12-DEC-01	6010
			CD	1.4	% RPD	EH	12-DEC-01	6010
			CO	2.6	% RPD	EH	12-DEC-01	6010
			CR	3.3	% RPD	EH	12-DEC-01	6010
			CU	3.1	% RPD	EH	12-DEC-01	6010
			MN	<1.0	% RPD	EH	17-DEC-01	6010
			NI	2.3	% RPD	EH	12-DEC-01	6010
			PB	2.4	% RPD	EH	12-DEC-01	6010
			SB	16.3	% RPD	MF	18-JAN-02	6020
			SE	*<0.8	% RPD	MF	18-JAN-02	6020
			SN	<1.0	% RPD	EH	12-DEC-01	6010
			TL	1.5	% RPD	MF	30-JAN-02	6020
			V	3.0	% RPD	EH	12-DEC-01	6010
			ZN	1.1	% RPD	EH	12-DEC-01	6010

* SR>4X SA; therefor spike not evaluated.
** Ba spike and spike duplicate outside control limits. Results may be subject to bias.
*** QC Data indicates a possible bias for the antimony and selenium results.
**** Antimony, selenium, silver and vanadium LCS values are within acceptance limits for QC Standard ERA 250.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of _____

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE - CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Haney ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	(8 oz GLASS JAR w/ TEFLON LINED LID				Remarks	Total
B171 (0-0.5)	S	1340 11/5/01		X	X								1
B171 (2-2.5)	S	1345		X	X								1
B171 (3.8-4.2)	S	1348		X	X								1
B172 (0-0.5)	S	1355		HOLD									1
B172 (1.8-2.3)	S	1358		HOLD									1
B173 (0-0.5)	S	1410		HOLD									1
B173 (2-2.5)	S	1415		HOLD									1
B173 (2.8-3)	S	1417		HOLD									1
B150 (0-0.5)	S	1500		X	X								1
B150 (2-2.5)	S	1505		X	X								1
B150 (2.5-3)	S	1510		X	X								1
B151 (0-0.5)	S	1520		HOLD									1
B151 (1.5-2)	S	1525		HOLD									1
B152 (0-0.5)	S	1530		HOLD									1
B152 (1.5-2)	S	1535		HOLD									1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 15

					Seal Intact?
Relinquished by: Bryan Haney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM		
Received by: [signature]	Organization: ASARCO	Date 11/6/01	Time 1002		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A

Special Instructions/Remarks:

RUN ALL B171 & B150 SAMPLES - HOLD ALL OTHERS UNTIL NOTIFIED BY ARCADIS (KEN BRANDNER)

Delivery Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of -

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE - CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Haney ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Be, Cd, Cr, Co, Cu, CN⁻, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	ANALYSIS / METHOD / SIZE: (8-oz glass jar w/Teflon lined lid)	Remarks	Total
B 162 (0-0.5)	S	915 11/5/01		X X			1
B162 (1-1.2)	S	925		X X			1
B163 (0-0.5)	S	930		HOLD			1
B163 (1-1.2)	S	935		HOLD			1
B164 (0-0.5)	S	SEE JAR		HOLD			1
B164 (1-1.2)	S	SEE JAR		HOLD			1
B-165 (0-0.5)	S	1040		X X			1
B-165 (2-2.5)	S	1045		X X			1
B-166 (0-0.5)	S	1015		HOLD			1
B-166 (2-2.3)	S	1020		HOLD			1
B-167 (0-0.5)	S	1055		HOLD			1
B-167 (2-2.3)	S	1100		HOLD			1
DUPLICATE B165 (0-0.5)	S	1040		X X			1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 13

				Seal Intact?
Relinquished by: Bryan Haney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM	
Received by: [illegible]	Organization: ASARCO	Date 11/6/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

RUN ALL B 162 & B 165 SAMPLES - HOLD ALL OTHERS UNTIL NOTIFIED BY ARCADIS (KEN BRANDNER)

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other SPECIFY

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 3 of ~

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Kinney / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Be, Ca, Cr, Co, Cu, CN⁻, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	ANALYSIS / METHOD / SIZE: 8-oz Glass Jar w/Teflon Lined Lid	Remarks	Total
B-168 (0-0.5)	S	1125 11/5/01		X X			1
B168 (2-2.5)	S	1130		X X			1
B168 (2.5-3.1)	S	1135		X X			1
B169 (0-0.5)	S	1145		HOLD			1
B169 (1-1.5)	S	1150		HOLD			1
B170 (0-0.5)	S	1200		HOLD			1
B170 (2-2.5)	S	1205		HOLD			1
B170 (2.7-3)	S	1208		HOLD			1
DUPLICATE B150(0-0.5)	S	1500		X X			1
* ~~MB B165(0-0.5)~~							
FIELD BLANK	L	1330		X X			2
EQUIPMENT BLANK	L	1335		X X			2
FIELD BLANK-2	L	1430		X X			2
EQUIPMENT BLANK-2	L	1435		X X			2
						Total No. of Bottles/ Containers	17

Sample Matrix: L = Liquid; S = Solid; A = Air

					Seal Intact?
Relinquished by: Bryan Kinney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM		
Received by: Patterson	Organization: ASARCO	Date 11/6/01	Time 1000		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A

Special Instructions/Remarks:

RUN ALL B-168 SAMPLES - HOLD ALL OTHERS (B169, B170) UNTIL NOTIFIED BY ARCADIS.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

AEC

AMERICAN ENVIRONMENTAL CONSULTANTS LABORATORY
3422 South 700 West Salt Lake City, Utah 84119-4191
(801) 261-1426 • FAX (801) 264-9838

FEB 0 7 2002

February 04,2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Dear Sir:

Please find attached the analytical results and associated quality control data for 32 soil samples collected November 06 and 07, 2001. The samples were received by the laboratory on November 08, 2001.

The samples were digested in accordance with EPA method 3050 and analyzed using inductively coupled argon plasma emission spectroscopy. The results were reported on a dry weight basis.

The samples were digested as received in accordance with EPA method 7471, and analyzed using cold vapor atomic absorption spectroscopy for Mercury. The results were reported on an as received basis.

The samples were distilled and analyzed for cyanide in accordance with EPA method 335.2.

Sincerely,

Duane Coble

Duane Coble
Environmental Lab
Technician

cc: GRStanga (w/attach.)

Printed on Recycled Paper

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011532

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011532-001	06-NOV-01	B188 (0-0.5)	AG	17.	ppm	EH	22-JAN-02	6010
			AS	80.	ppm	EH	22-JAN-02	6010
			BI	<5.	ppm	EH	22-JAN-02	6010
			CD	126.	ppm	EH	22-JAN-02	6010
			CN-	.090	ppm	DC	08-JAN-02	335.2
			CO	12.	ppm	EH	22-JAN-02	6010
			CR	945.	ppm	EH	22-JAN-02	6010
			CU	451.	ppm	EH	22-JAN-02	6010
			HG	4.36	ppm	MO	15-NOV-01	7471
			MN	427.	ppm	EH	22-JAN-02	6010
			MOIST.	16.4	%	AH	08-JAN-02	GRAV.
			PB	1758.	ppm	EH	22-JAN-02	6010
			SB	7.0*	ppm	MF	28-JAN-02	6020
			SE	6.7	ppm	MF	28-JAN-02	6020
			SN	28.	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	28.	ppm	EH	22-JAN-02	6010
L011532-002	06-NOV-01	B188 (2-2.5)	CD	244.	ppm	EH	22-JAN-02	6010
			CR	37.	ppm	EH	22-JAN-02	6010
			CU	29.	ppm	EH	22-JAN-02	6010
			MN	1207.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-003	06-NOV-01	B188 (5.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-004	06-NOV-01	B188 (8.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-005	06-NOV-01	B188 (10.5-11)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-006	06-NOV-01	DUP B188 (0-0.5)	AG	21.	ppm	EH	22-JAN-02	6010
			AS	113.	ppm	EH	22-JAN-02	6010
			BI	<5.	ppm	EH	22-JAN-02	6010
			CD	156.	ppm	EH	22-JAN-02	6010
			CN-	.16	ppm	DC	08-JAN-02	335.2
			CO	15.	ppm	EH	22-JAN-02	6010
			CR	1202.	ppm	EH	22-JAN-02	6010
			CU	574.	ppm	EH	22-JAN-02	6010
			HG	3.24	ppm	MO	15-NOV-01	7471

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011532

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011532-006	06-NOV-01	DUP B188 (0-0.5)	MN	544.	ppm	EH	22-JAN-02	6010
			MOIST.	17.	%	AH	08-JAN-02	GRAV.
			PB	2745.	ppm	EH	22-JAN-02	6010
			SB	8.6*	ppm	MF	28-JAN-02	6020
			SE	7.6	ppm	MF	01-FEB-02	6020
			SN	40.	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	27.	ppm	EH	22-JAN-02	6010
L011532-007	06-NOV-01	B189 (0-0.5)	AG	73.	ppm	EH	22-JAN-02	6010
			AS	170.	ppm	EH	22-JAN-02	6010
			CD	371.	ppm	EH	22-JAN-02	6010
			CO	10.	ppm	EH	22-JAN-02	6010
			CR	18.	ppm	EH	22-JAN-02	6010
			CU	687.	ppm	EH	22-JAN-02	6010
			HG	1.69	ppm	MO	15-NOV-01	7471
			MN	1008.	ppm	EH	22-JAN-02	6010
			MOIST.	20.1	%	AH	08-JAN-02	GRAV.
			PB	3510.	ppm	EH	22-JAN-02	6010
			SB	19.*	ppm	MF	28-JAN-02	6020
			SE	7.3	ppm	MF	01-FEB-02	6020
			SN	76.	ppm	EH	22-JAN-02	6010
L011532-008	06-NOV-01	B189 (2-2.5)	CD	<1.	ppm	EH	22-JAN-02	6010
			CR	12.	ppm	EH	22-JAN-02	6010
			CU	13.	ppm	EH	22-JAN-02	6010
			MN	387.	ppm	EH	22-JAN-02	6010
L011532-012	07-NOV-01	B190 (0-0.5)	AG	<.5	ppm	EH	22-JAN-02	6010
			AS	5.3	ppm	EH	22-JAN-02	6010
			BI	<5.	ppm	EH	22-JAN-02	6010
			CD	292.	ppm	EH	22-JAN-02	6010
			CN-	.070	ppm	DC	08-JAN-02	335.2
			CO	7.2	ppm	EH	22-JAN-02	6010
			CR	14.	ppm	EH	22-JAN-02	6010
			CU	19.	ppm	EH	22-JAN-02	6010
			HG	<.05	ppm	MO	15-NOV-01	7471
			MN	621.	ppm	EH	22-JAN-02	6010
			MOIST.	17.8	%	AH	08-JAN-02	GRAV.

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011532

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011532-012	07-NOV-01	B190 (0-0.5)	PB	61.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020
			SE	<.8	ppm	MF	28-JAN-02	6020
			SN	6.1	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	19.	ppm	EH	22-JAN-02	6010
L011532-013	07-NOV-01	B190 (2-2.5)	CD	90.	ppm	EH	22-JAN-02	6010
			CR	14.	ppm	EH	22-JAN-02	6010
			CU	14.	ppm	EH	22-JAN-02	6010
			MN	438.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-014	07-NOV-01	B190 (5.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-015	07-NOV-01	B190 (8.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-016	07-NOV-01	B190 (10.5-11)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-017	07-NOV-01	B191 (0-0.5)	CD	149.	ppm	EH	22-JAN-02	6010
			MN	454.	ppm	EH	22-JAN-02	6010
L011532-018	07-NOV-01	B191 (2-2.5)	CD	5.0	ppm	EH	22-JAN-02	6010
			MN	397.	ppm	EH	22-JAN-02	6010
L011532-022	07-NOV-01	B192 (0-0.5)	AG	1.6	ppm	EH	22-JAN-02	6010
			AS	12.	ppm	EH	22-JAN-02	6010
			BI	<5.	ppm	EH	22-JAN-02	6010
			CD	94.	ppm	EH	22-JAN-02	6010
			CN-	.080	ppm	DC	08-JAN-02	335.2
			CO	6.1	ppm	EH	22-JAN-02	6010
			CR	11.	ppm	EH	22-JAN-02	6010
			CU	60.	ppm	EH	22-JAN-02	6010
			HG	.43	ppm	MO	15-NOV-01	7471
			MN	537.	ppm	EH	22-JAN-02	6010
			MOIST.	16.5	%	AH	08-JAN-02	GRAV.
			PB	110.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020
			SE	<.8	ppm	MF	28-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011532

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011532-022	07-NOV-01	B192 (0-0.5)	SN	5.7	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	13.	ppm	EH	22-JAN-02	6010
L011532-023	07-NOV-01	B192 (2-2.5)	CD	24.	ppm	EH	22-JAN-02	6010
			CR	12.	ppm	EH	22-JAN-02	6010
			CU	16.	ppm	EH	22-JAN-02	6010
			MN	305.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-024	07-NOV-01	B192 (5.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-025	07-NOV-01	B192 (8.5)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-026	07-NOV-01	B192 (10.5-11)	SB	<.8*	ppm	MF	28-JAN-02	6020
L011532-027	07-NOV-01	B193 (0-0.5)	AG	3.7	ppm	EH	22-JAN-02	6010
			CD	73.	ppm	EH	22-JAN-02	6010
			CU	142.	ppm	EH	22-JAN-02	6010
			HG	4.13	ppm	MO	15-NOV-01	7471
			MN	596.	ppm	EH	22-JAN-02	6010
			MOIST.	19.	%	AH	08-JAN-02	GRAV.
			PB	270.	ppm	EH	22-JAN-02	6010
L011532-028	07-NOV-01	B193 (2-2.5)	CD	1.7	ppm	EH	22-JAN-02	6010
L011532-032	07-NOV-01	DUP B192 (0-0.5)	AG	1.1	ppm	EH	22-JAN-02	6010
			AS	9.9	ppm	EH	22-JAN-02	6010
			BI	<5.	ppm	EH	22-JAN-02	6010
			CD	99	ppm	EH	22-JAN-02	6010
			CN-	<.050	ppm	DC	08-JAN-02	335.2
			CO	6.1	ppm	EH	22-JAN-02	6010
			CR	11.	ppm	EH	22-JAN-02	6010
			CU	46.	ppm	EH	22-JAN-02	6010
			HG	.21	ppm	MO	15-NOV-01	7471
			MN	585.	ppm	EH	22-JAN-02	6010
			MOIST.	17.3	%	AH	08-JAN-02	GRAV.
			PB	62.	ppm	EH	22-JAN-02	6010
			SB	<.8*	ppm	MF	28-JAN-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011532

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011532-032	07-NOV-01	DUP B192 (0-0.5)	SE	<.8	ppm	MF	28-JAN-02	6020
			SN	5.2	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	14.	ppm	EH	22-JAN-02	6010

DIGESTION-3050
QC DATA INDICATE ANTIMONY RESULTS MAY BE SUBJECT TO BIAS.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011070

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011070-1		Matrix Spike	AG	120	%Recovery	EH	22-JAN-02	6010
			AS	103	%Recovery	EH	22-JAN-02	6010
			BI	106	%Recovery	EH	22-JAN-02	6010
			CD	107	%Recovery	EH	22-JAN-02	6010
			CN-	100	%Recovery	DC	08-JAN-02	335.2
			CO	105	%Recovery	EH	22-JAN-02	6010
			CR	sr>4xsa	%Recovery	EH	22-JAN-02	6010
			CU	sr>4xsa	%Recovery	EH	22-JAN-02	6010
			HG	117	%Recovery	MO	15-NOV-01	7471
			MN	sr>4xsa	%Recovery	EH	22-JAN-02	6010
			PB	sr>4xsa	%Recovery	EH	22-JAN-02	6010
			SB	52*	%Recovery	MF	28-JAN-02	6020
			SE	77	%Recovery	MF	28-JAN-02	6020
			SN	93	%Recovery	EH	22-JAN-02	6010
			TL	96	%Recovery	MF	28-JAN-02	6020
			V	115	%Recovery	EH	22-JAN-02	6010
WG011070-2		Prep Blank	AG	<.5	ppm	EH	22-JAN-02	6010
			AS	<5.	ppm	EH	22-JAN-02	6010
			BI	<4.	ppm	EH	22-JAN-02	6010
			CD	<1.	ppm	EH	22-JAN-02	6010
			CN-	<.05	ppm	DC	08-JAN-02	335.2
			CO	<5	ppm	EH	22-JAN-02	6010
			CR	<5	ppm	EH	22-JAN-02	6010
			CU	<5	ppm	EH	22-JAN-02	6010
			HG	<.05	ppm	MO	15-NOV-01	7471
			MN	<5	ppm	EH	22-JAN-02	6010
			PB	<5	ppm	EH	22-JAN-02	6010
			SB	<.8	ppm	MF	28-JAN-02	6020
			SE	<.8	ppm	MF	28-JAN-02	6020
			SN	<5.	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	<5	ppm	EH	22-JAN-02	6010
WG011070-3		Lab Control Sample	AG	125.	%Recovery	EH	22-JAN-02	6010
			AS	103	%Recovery	EH	22-JAN-02	6010
			BI	114	%Recovery	EH	22-JAN-02	6010
			CD	111	%Recovery	EH	22-JAN-02	6010
			CN-	76.	%Recovery	DC	08-JAN-02	335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011070

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011070-3		Lab Control Sample	CO	111	%Recovery	EH	22-JAN-02	6010
			CR	112	%Recovery	EH	22-JAN-02	6010
			CU	122	%Recovery	EH	22-JAN-02	6010
			HG	97	%Recovery	MO	15-NOV-01	7471
			MN	109	%Recovery	EH	22-JAN-02	6010
			PB	107	%Recovery	EH	22-JAN-02	6010
			SB	110	%Recovery	MF	28-JAN-02	6020
			SE	75	%Recovery	MF	28-JAN-02	6020
			SN	118	%Recovery	EH	22-JAN-02	6010
			TL	107	%Recovery	MF	28-JAN-02	6020
			V	119	%Recovery	EH	22-JAN-02	6010
WG011070-5		Matrix Spike Duplicate	AG	1.7	% RPD	EH	22-JAN-02	6010
			AS	2.2	% RPD	EH	22-JAN-02	6010
			BI	2.9	% RPD	EH	22-JAN-02	6010
			CD	<1	% RPD	EH	22-JAN-02	6010
			CN-	<1.	% RPD	DC	08-JAN-02	335.2
			CO	<1	% RPD	EH	22-JAN-02	6010
			CR	<1	% RPD	EH	22-JAN-02	6010
			CU	1.	% RPD	EH	22-JAN-02	6010
			HG	13.	% RPD	MO	15-NOV-01	7471
			MN	1.1	% RPD	EH	22-JAN-02	6010
			PB	1.3	% RPD	EH	22-JAN-02	6010
			SB	3.3	% RPD	MF	28-JAN-02	6020
			SE	2.1	% RPD	MF	28-JAN-02	6020
			SN	2.6	% RPD	EH	22-JAN-02	6010
			TL	<1.	% RPD	MF	28-JAN-02	6020
			V	<1	% RPD	EH	22-JAN-02	6010
WG011070-6		Reporting Limit	AG	.5	ppm	EH	22-JAN-02	6010
			AS	5.	ppm	EH	22-JAN-02	6010
			BI	4.	ppm	EH	22-JAN-02	6010
			CD	1.	ppm	EH	22-JAN-02	6010
			CN-	.05	ppm	DC	08-JAN-02	335.2
			CO	5.	ppm	EH	22-JAN-02	6010
			CR	5.	ppm	EH	22-JAN-02	6010
			CU	5.	ppm	EH	22-JAN-02	6010
			HG	.05	ppm	MO	15-NOV-01	7471
			MN	5.	ppm	EH	22-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011070

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011070-6		Reporting Limit	PB	5.	ppm	EH	22-JAN-02	6010
			SB	.8	ppm	MF	28-JAN-02	6020
			SE	.8	ppm	MF	28-JAN-02	6020
			SN	5.	ppm	EH	22-JAN-02	6010
			TL	1.	ppm	MF	28-JAN-02	6020
			V	5.	ppm	EH	22-JAN-02	6010
WG011070-7		Matrix Spike	AG	107	ppm	EH	22-JAN-02	6010
			AS	95	ppm	EH	22-JAN-02	6010
			BI	99	ppm	EH	22-JAN-02	6010
			CD	99	ppm	EH	22-JAN-02	6010
			CO	101	ppm	EH	22-JAN-02	6010
			CR	108	ppm	EH	22-JAN-02	6010
			CU	118	ppm	EH	22-JAN-02	6010
			MN	105	ppm	EH	22-JAN-02	6010
			PB	96	ppm	EH	22-JAN-02	6010
			SB	45*	ppm	MF	28-JAN-02	6020
			SN	104	ppm	EH	22-JAN-02	6010
			TL	96.	ppm	MF	28-JAN-02	6020
			V	111	ppm	EH	22-JAN-02	6010
WG011070-8		Prep Blank	AG	<.5	ppm	EH	22-JAN-02	6010
			AS	<5.	ppm	EH	22-JAN-02	6010
			BI	<4.	ppm	EH	22-JAN-02	6010
			CD	<1.	ppm	EH	22-JAN-02	6010
			CO	<5.	ppm	EH	22-JAN-02	6010
			CR	<5.	ppm	EH	22-JAN-02	6010
			CU	<5.	ppm	EH	22-JAN-02	6010
			MN	<5.	ppm	EH	22-JAN-02	6010
			PB	<5.	ppm	EH	22-JAN-02	6010
			SB	<.8	ppm	MF	28-JAN-02	6020
			SN	<5.	ppm	EH	22-JAN-02	6010
			TL	<1.	ppm	MF	28-JAN-02	6020
			V	<5.	ppm	EH	22-JAN-02	6010
WG011070-9		Lab Control Sample	AG	121.	ppm	EH	22-JAN-02	6010
			AS	104	ppm	EH	22-JAN-02	6010
			BI	100	ppm	EH	22-JAN-02	6010
			CD	110	ppm	EH	22-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011070

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011070-9		Lab Control Sample	CO	110	ppm	EH	22-JAN-02	6010
			CR	104	ppm	EH	22-JAN-02	6010
			CU	119	ppm	EH	22-JAN-02	6010
			MN	110	ppm	EH	22-JAN-02	6010
			PB	98	ppm	EH	22-JAN-02	6010
			SB	99	ppm	MF	28-JAN-02	6020
			SN	117	ppm	EH	22-JAN-02	6010
			TL	106.	ppm	MF	28-JAN-02	6020
			V	134	ppm	EH	22-JAN-02	6010
WG011070-11		Matrix Spike Duplicate	AG	<1	% RPD	EH	22-JAN-02	6010
			AS	<1	% RPD	EH	22-JAN-02	6010
			BI	2.	% RPD	EH	22-JAN-02	6010
			CD	<1	% RPD	EH	22-JAN-02	6010
			CO	<1	% RPD	EH	22-JAN-02	6010
			CR	1.3	% RPD	EH	22-JAN-02	6010
			CU	<1	% RPD	EH	22-JAN-02	6010
			MN	<1	% RPD	EH	22-JAN-02	6010
			PB	3.6	% RPD	EH	22-JAN-02	6010
			SB	6.1	% RPD	MF	28-JAN-02	6020
			SN	<1	% RPD	EH	22-JAN-02	6010
			TL	<1.	% RPD	MF	28-JAN-02	6020
			V	1.2	% RPD	EH	22-JAN-02	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 3

Project Number/Name Ensyclo RFI

Project Location Corpus Christi, Texas

Laboratory ARCADIS

Project Manager Ken Brantner

Sampler(s)/Affiliation BF (ARCADIS)

Boneyard

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Total - Sb, As, Ba, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Se, Ag, Ni, V	Total - Sb, Ca, Cr, Co, Cu	Total - Sb	Remarks	Total
B188 (0-0.5)	S	11/6/01 1345		X				1
B188 (2-2.5)	S	1348			X			1
B188 (5.5)	S	1350				X		1
B188 (8.5)	S	1400				X		1
B188 (10.5-11)	S	1403				X		1
DUPLICATE B188(0-0.5)	S	1345		X				1
B189 (0-0.5)	S	1430		X				1
B189 (2-2.5)	S	1433			X			1
B189 (5.5)	S	1437				X		1
B189 (8.5)	S	1445				X		1
B189 (10.5-11)	S	1450				X		1
FIELD BLANK-2	L	1415		X HNO3				2
EQUIPMENT BLANK-2	L	1420		X HNO3				2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 15

					Seal Intact?
Relinquished by: Bryan Frey	Organization: ARCADIS	Date 11/7/01	Time 1800		
Received by: [illegible]	Organization: [illegible]	Date 11/7/01	Time [illegible]		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: Follows C.O.C

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 3

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Burdner

Sampler(s)/Affiliation: B+J / ARCADIS

Boneyard

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total - Sb, As, Ba, Cd, Cr, Cu, Cu, Cr, Pb, Mn, Hg, Se, Ag, Tl, Sn, V		Total - Sb, Cd, Cr, Cu, Mn	Total - Sb			Remarks	Total
B190 (0-0.5)	S	11/7/01 800		X							1
B190 (2-2.5)	S	805				X					1
B190 (5.5)	S	810					X				1
B190 (8.5)	S	815					X				1
B190 (10.5-11)	S	818					X				1
B191 (0-0.5)	S	845		X							1
B191 (2-2.5)	S	848				X					1
B191 (5.5)	S	850					X				1
B191 (8.5)	S	855					X				1
B191 (10.5-11)	S	857					X				1
FIELD BLANK	L	930		X w/ NaOH, HNO_3							2
EQUIPMENT BLANK	L	935		X w/ NaOH, HNO_3							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 14

Relinquished by: [signature]	Organization: ARCADIS	Date 11/7/01	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow C.O.C.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Project Number/Name: Gracyle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Len Brandner

Sampler(s)/Affiliation: BF / ARCADIS

ANALYSIS / METHOD / SIZE

Boneyard

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL- Sb, As, Ba, Cd, Cr, Co, Cu, Cn, Pb, Mn, Hg, Se, Ag, Tl, Sn, V		TOTAL- Sb, Cd, Cr, Cu, Mn		TOTAL- Sb		Remarks	Total
B192 (0-0.5)	S	11/7/01 915		X							1
B192 (2-2.5)	S	920				X					1
B192 (5.5)	S	925						X			1
B192 (8.5)	S	935						X			1
B192 (10.5-11)	S	937						X			1
B193 (0-0.5)	S	950		X							1
B193 (2-2.5)	S	953				X					1
B193 (5.5)	S	1000						X			1
B193 (8.5)	S	1005						X			1
B193 (10.5-11)	S	1007						X			1
DUPLICATE B192 (0-0.5)	S	915		X							1
FIELD BLANK-2	L	1030		X							2
EQUIPMENT BLANK-2	L	1055		X							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 15

Relinquished by: [signature]	Organization: ARCADIS	Date 11/7/01	Time 1600	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Follow C.O.C

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

JUL - 2 2002

June 27, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (3), three soil samples collected on June 24, 2002, in association with the Asarco Encycle RFI Project, and received by the laboratory on June 25, 2002.

Please note that Hg was analyzed on the samples as received.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020486

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020486-001	24-JUN-02	B-148 (0-0.5)	HG	0.41	ppm	EH	26-JUN-02	7471
			MOIST.	25.	%	AKH	27-JUN-02	GRAV.
L020486-002	24-JUN-02	B-148 (2-2.5)	HG	13.	ppm	EH	26-JUN-02	7471
			MOIST.	13.	%	AKH	27-JUN-02	GRAV.
L020486-003	24-JUN-02	B-148 (5-5.5)	HG	34.	ppm	EH	26-JUN-02	7471
			MOIST.	21.	%	AKH	27-JUN-02	GRAV.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020418

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020418-1		Matrix Spike	HG	SR>4SA	%Recovery	EH	26-JUN-02	7471
WG020418-2		Prep Blank	HG	<0.05	ppm	EH	26-JUN-02	7471
WG020418-3		Lab Control Sample	HG	86	%Recovery	EH	26-JUN-02	7471
WG020418-4		Matrix Spike Duplicate	HG	17	% RPD	EH	26-JUN-02	7471
WG020418-5		Reporting Limit	HG	0.05	ppm			7471
WG020418-6		Duplicate	MOIST.	<1	% RPD	AKH	27-JUN-02	GRAV.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name ENCINO RFI

Project Location CORPUS CHRISTI

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Total Hg						Remarks	Total
BB-148 (0-0.5)	S	6/24/02 1400		X							1
B-148 (2-2.5)	S	1407		X							1
B-148 (5-5.5)	S	1420		X							1
B-149 (0-0.5)	S	1430		CALL							1
B-149 (2-2.5)	S	1435		CALL							1
B-149 (5-5.5)	S	6/24/02 1450		CALL							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 6

					Seal Intact?
Relinquished by: [signature]	Organization: ARCADIS	Date 6/24/02	Time 1530		
Received by: _____	Organization: _____	Date / /	Time _____		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 6/25/02	Time 1020		Yes No N/A

Special Instructions/Remarks:

- Results to Ken Brandner
- CALL ABOUT B-149
- ON ICE

Delivery Method: ☐ In Person ☒ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

JUL - 8 2002

July 1, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (3), three soil samples collected on June 24, 2002, in association with the Asarco Encycle RFI Project, and received by the laboratory on June 25, 2002.

Please note that Hg was analyzed on the samples as received.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L020506

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020506-001	24-JUN-02	B-149 (0-0.5)	HG	0.096	ppm	EH	01-JUL-02	7471
			MOIST.	12.	%	AKH	01-JUL-02	GRAV.
L020506-002	24-JUN-02	B-149 (2-2.5)	HG	0.64	ppm	EH	01-JUL-02	7471
			MOIST.	29.	%	AKH	01-JUL-02	GRAV.
L020506-003	24-JUN-02	B-149 (5-5.5)	HG	0.37	ppm	EH	01-JUL-02	7471
			MOIST.	10.	%	AKH	01-JUL-02	GRAV.

Samples digested in accordance with EPA 7471 on 6/28/02.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: WG020431

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020431-1		Matrix Spike	HG	SR>4SA	%Recovery	EH	01-JUL-02	7471
WG020431-2		Prep Blank	HG	<0.05	ppm	EH	01-JUL-02	7471
WG020431-3		Lab Control Sample	HG	90	%Recovery	EH	01-JUL-02	7471
WG020431-5		Matrix Spike Duplicate	HG	9.5	% RPD	EH	01-JUL-02	7471
WG020431-6		Reporting Limit	HG	0.050	ppm			7471

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name ENOYCLE RFI

Project Location CORPUS CHRISTI

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL Hg						Remarks	Total
B-148 (0-0.5)	S	6/24/02 1400		X							1
B-148 (2-2.5)	S	1407		X							1
B-148 (5-5.5)	S	1420		X							1
B-149 (0-0.5)	S	1430		CALL							1
B-149 (2-2.5)	S	1435		CALL							1
B-149 (5-5.5)	S	6/24/02 1450		CALL							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 6

Relinquished by: [illegible]	Organization: ARCADIS	Date 6/24/02	Time 1530	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 6/25/02	Time [illegible]	Yes No N/A

Special Instructions/Remarks:

- Results to Ken Brandner
- CALL ABOUT B-149
- ON ICE

Delivery Method: ☐ In Person ☒ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

4626

ASARCO

November 29, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (65), sixty five water Field and Equipment blank samples collected between June 12, and July 26, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory between June 13, and July 27, 2000.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001160

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001160-001	12-JUN-00	EQUIPMENT 1	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001160-002	12-JUN-00	EQUIPMENT 2	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	0.01	ppm	CH	27-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001160-003	12-JUN-00	EQUIPMENT 3	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001160

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001160-003	12-JUN-00	EQUIPMENT 3	BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

No CN- or Hg analyses were performed because samples were improperly preserved when received.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000637-1		Matrix Spike	AG	90	%Recovery	MDK	13-NOV-00		6010
			AS	100	%Recovery	CH	27-NOV-00		6020M
			BA	99	%Recovery	MDK	13-NOV-00		6010
			BI	100	%Recovery	MDK	13-NOV-00		6010
			CD	98	%Recovery	MDK	13-NOV-00		6010
			CO	99	%Recovery	MDK	13-NOV-00		6010
			CR	98	%Recovery	MDK	13-NOV-00		6010
			CU	95	%Recovery	MDK	13-NOV-00		6010
			MN	99	%Recovery	MDK	13-NOV-00		6010
			NI	94	%Recovery	MDK	13-NOV-00		6010
			PB	106	%Recovery	MDK	13-NOV-00		6010
			SB	100	%Recovery	CH	27-NOV-00		6020M
			SE	99	%Recovery	CH	27-NOV-00		6020M
			SN	104	%Recovery	MDK	13-NOV-00		6010
			TL	99	%Recovery	CH	27-NOV-00		6020M
			V	98	%Recovery	MDK	13-NOV-00		6010
			ZN	97	%Recovery	MDK	13-NOV-00		6010
WG000637-2		Prep Blank	AG	<0.005	ppm	MDK	13-NOV-00		6010
			AS	<0.005	ppm	CH	27-NOV-00		6020M
			BA	<0.05	ppm	MDK	13-NOV-00		6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00		6010
			CO	<0.05	ppm	MDK	13-NOV-00		6010
			CR	<0.01	ppm	MDK	13-NOV-00		6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			MN	<0.015	ppm	MDK	13-NOV-00		6010
			NI	<0.05	ppm	MDK	13-NOV-00		6010
			PB	<0.02	ppm	MDK	13-NOV-00		6010
			SB	<0.05	ppm	CH	27-NOV-00		6020M
			SE	<0.01	ppm	CH	27-NOV-00		6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00		6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00		6010
WG000637-3		Lab Control Sample	AG	95	%Recovery	MDK	13-NOV-00		6010
			AS	93	%Recovery	CH	27-NOV-00		6020M
			BA	100	%Recovery	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000637-3		Lab Control Sample	BI	95	%Recovery	MDK	13-NOV-00		6010
			CD	101	%Recovery	MDK	13-NOV-00		6010
			CO	98	%Recovery	MDK	13-NOV-00		6010
			CR	100	%Recovery	MDK	13-NOV-00		6010
			CU	97	%Recovery	MDK	13-NOV-00		6010
			MN	99	%Recovery	MDK	13-NOV-00		6010
			NI	80	%Recovery	MDK	13-NOV-00		6010
			PB	98	%Recovery	MDK	13-NOV-00		6010
			SB	92	%Recovery	CH	27-NOV-00		6020M
			SE	90	%Recovery	CH	27-NOV-00		6020M
			SN	98	%Recovery	MDK	13-NOV-00		6010
			TL	100	%Recovery	CH	27-NOV-00		6020M
			V	100	%Recovery	MDK	13-NOV-00		6010
			ZN	94	%Recovery	MDK	13-NOV-00		6010
WG000637-4		Matrix Spike Duplicate	AG	6.5	% RPD	MDK	13-NOV-00		6010
			AS	3	% RPD	CH	27-NOV-00		6020M
			BA	2.4	% RPD	MDK	13-NOV-00		6010
			BI	2	% RPD	MDK	13-NOV-00		6010
			CD	2	% RPD	MDK	13-NOV-00		6010
			CO	2.5	% RPD	MDK	13-NOV-00		6010
			CR	3	% RPD	MDK	13-NOV-00		6010
			CU	2.1	% RPD	MDK	13-NOV-00		6010
			MN	2	% RPD	MDK	13-NOV-00		6010
			NI	2.6	% RPD	MDK	13-NOV-00		6010
			PB	3.7	% RPD	MDK	13-NOV-00		6010
			SB	1.5	% RPD	CH	27-NOV-00		6020M
			SE	2	% RPD	CH	27-NOV-00		6020M
			SN	3.8	% RPD	MDK	13-NOV-00		6010
			TL	<1	% RPD	CH	27-NOV-00		6020M
			V	3.5	% RPD	MDK	13-NOV-00		6010
			ZN	2.4	% RPD	MDK	13-NOV-00		6010
WG000637-5		Reporting Limit	AG	0.005	ppm				6010
			AS	0.005	ppm				6020M
			BA	0.050	ppm				6010
			BI	0.050	ppm				6010
			CD	0.010	ppm				6010
			CO	0.050	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000637-5		Reporting Limit	CR	0.010	ppm				6010
			CU	0.050	ppm				6010
			MN	0.015	ppm				6010
			NI	0.050	ppm				6010
			PB	0.020	ppm				6010
			SB	0.050	ppm				6020M
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010
			ZN	0.050	ppm				6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-001	13-JUN-00	FIELD BLANK	Sample Time 1300	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-002	13-JUN-00	EQUIPMENT 4	Sample Time 1050	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-003	13-JUN-00	EQUIPMENT 5	Sample Time 1430	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-004	13-JUN-00	EQUIPMENT 6	Sample Time 1645	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-005	14-JUN-00	FIELD BLANK	Sample Time 930	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-006	14-JUN-00	EQUIPMENT 7	Sample Time1300	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-007	14-JUN-00	EQUIPMENT 8	Sample Time 1600	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	0.0006	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-008	15-JUN-00	EQUIPMENT 9	Sample Time 925	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	0.24	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-009	15-JUN-00	EQUIPMENT 10 Sample Time 1000	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	09-NOV-00	180	6010
			BI	<0.05	ppm	MDK	09-NOV-00		6010
			CD	<0.01	ppm	MDK	09-NOV-00	180	6010
			CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
			CO	<0.05	ppm	MDK	09-NOV-00	180	6010
			CR	<0.01	ppm	MDK	09-NOV-00	180	6010
			CU	<0.05	ppm	MDK	09-NOV-00		6010
			HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
			MN	<0.015	ppm	MDK	09-NOV-00	180	6010
			NI	<0.05	ppm	MDK	09-NOV-00	180	6010
			PB	<0.02	ppm	MDK	09-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	09-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	09-NOV-00		6010
			ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-010	15-JUN-00	EQUPIMENT 11 Sample Time 1505	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	09-NOV-00	180	6010
			BI	<0.05	ppm	MDK	09-NOV-00		6010
			CD	<0.01	ppm	MDK	09-NOV-00	180	6010
			CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
			CO	<0.05	ppm	MDK	09-NOV-00	180	6010
			CR	<0.01	ppm	MDK	09-NOV-00	180	6010
			CU	<0.05	ppm	MDK	09-NOV-00		6010
			HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
			MN	<0.015	ppm	MDK	09-NOV-00	180	6010
			NI	<0.05	ppm	MDK	09-NOV-00	180	6010
			PB	<0.02	ppm	MDK	09-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	09-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	09-NOV-00		6010
			ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-011	15-JUN-00	FIELD BLANK	Sample Time 1200	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-012	16-JUN-00	FIELD BLANK	Sample Time 930	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-013	16-JUN-00	EQUIPMENT 12	Sample Time 1200	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-014	16-JUN-00	EQUIPMENT 13	Sample Time 1400	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-015	16-JUN-00	EQUIPMENT 14	Sample Time 1505	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-016	19-JUN-00	FIELD BLANK	Sample Time 1100	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-017	19-JUN-00	EQUIPMENT 15	Sample Time 1110	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010
L000920-018	19-JUN-00	EQUIPMENT 16	Sample Time 1400	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	09-NOV-00	180	6010
				BI	<0.05	ppm	MDK	09-NOV-00		6010
				CD	<0.01	ppm	MDK	09-NOV-00	180	6010
				CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
				CO	<0.05	ppm	MDK	09-NOV-00	180	6010
				CR	<0.01	ppm	MDK	09-NOV-00	180	6010
				CU	<0.05	ppm	MDK	09-NOV-00		6010
				HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
				MN	<0.015	ppm	MDK	09-NOV-00	180	6010
				NI	<0.05	ppm	MDK	09-NOV-00	180	6010
				PB	<0.02	ppm	MDK	09-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	<0.05	ppm	MDK	09-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	09-NOV-00		6010
				ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: L000920

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000920-019	19-JUN-00	EQUIPMENT 17 Sample Time 1525	AG	<0.005	ppm	MDK	09-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	09-NOV-00	180	6010
			BI	<0.05	ppm	MDK	09-NOV-00		6010
			CD	<0.01	ppm	MDK	09-NOV-00	180	6010
			CN-	<0.004	ppm	DC	27-JUN-00	14	335.2
			CO	<0.05	ppm	MDK	09-NOV-00	180	6010
			CR	<0.01	ppm	MDK	09-NOV-00	180	6010
			CU	<0.05	ppm	MDK	09-NOV-00		6010
			HG	<0.0005	ppm	EH	30-JUN-00	28	245.1
			MN	<0.015	ppm	MDK	09-NOV-00	180	6010
			NI	<0.05	ppm	MDK	09-NOV-00	180	6010
			PB	<0.02	ppm	MDK	09-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	09-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	09-NOV-00		6010
			ZN	<0.05	ppm	MDK	09-NOV-00	180	6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: WG000493

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000493-1		Matrix Spike	AG	95	%Recovery	MDK	09-NOV-00		6010
			AS	102	%Recovery	CH	22-NOV-00		6020M
			BA	100	%Recovery	MDK	09-NOV-00		6010
			BI	97	%Recovery	MDK	09-NOV-00		6010
			CD	101	%Recovery	MDK	09-NOV-00		6010
			CN-	106	%Recovery	DC	27-JUN-00		335.2
			CO	102	%Recovery	MDK	09-NOV-00		6010
			CR	101	%Recovery	MDK	09-NOV-00		6010
			CU	96	%Recovery	MDK	09-NOV-00		6010
			HG	83	%Recovery	EH	30-JUN-00		245.1
			MN	100	%Recovery	MDK	09-NOV-00		6010
			NI	101	%Recovery	MDK	09-NOV-00		6010
			PB	96	%Recovery	MDK	09-NOV-00		6010
			SB	90	%Recovery	CH	22-NOV-00		6020M
			SE	98	%Recovery	CH	22-NOV-00		6020M
			SN	94	%Recovery	MDK	09-NOV-00		6010
			TL	95	%Recovery	CH	22-NOV-00		6020M
			V	100	%Recovery	MDK	09-NOV-00		6010
			ZN	97	%Recovery	MDK	09-NOV-00		6010
WG000493-2		Prep Blank	AG	<0.005	ppm	MDK	09-NOV-00		6010
			AS	<0.005	ppm	CH	22-NOV-00		6020M
			BA	<0.05	ppm	MDK	09-NOV-00		6010
			BI	<0.05	ppm	MDK	09-NOV-00		6010
			CD	<0.01	ppm	MDK	09-NOV-00		6010
			CN-	<0.004	ppm	DC	27-JUN-00		335.2
			CO	<0.05	ppm	MDK	09-NOV-00		6010
			CR	<0.01	ppm	MDK	09-NOV-00		6010
			CU	<0.05	ppm	MDK	09-NOV-00		6010
			HG	<0.0005	ppm	EH	30-JUN-00		245.1
			MN	<0.015	ppm	MDK	09-NOV-00		6010
			NI	<0.05	ppm	MDK	09-NOV-00		6010
			PB	<0.02	ppm	MDK	09-NOV-00		6010
			SB	<0.05	ppm	CH	22-NOV-00		6020M
			SE	<0.01	ppm	CH	22-NOV-00		6020M
			SN	<0.05	ppm	MDK	09-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00		6020M
			V	<0.05	ppm	MDK	09-NOV-00		6010
			ZN	<0.05	ppm	MDK	09-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: WG000493

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000493-3		Lab Control Sample	AG	94	%Recovery	MDK	09-NOV-00		6010
			AS	95	%Recovery	CH	22-NOV-00		6020M
			BA	96	%Recovery	MDK	13-NOV-00		6010
			BI	120	%Recovery	MDK	09-NOV-00		6010
			CD	101	%Recovery	MDK	09-NOV-00		6010
			CN-	106	%Recovery	DC	27-JUN-00		335.2
			CO	100	%Recovery	MDK	09-NOV-00		6010
			CR	98	%Recovery	MDK	09-NOV-00		6010
			CU	98	%Recovery	MDK	09-NOV-00		6010
			HG	92	%Recovery	EH	30-JUN-00		245.1
			MN	101	%Recovery	MDK	09-NOV-00		6010
			NI	99	%Recovery	MDK	09-NOV-00		6010
			PB	100	%Recovery	MDK	09-NOV-00		6010
			SB	81	%Recovery	CH	22-NOV-00		6020M
			SE	88	%Recovery	CH	22-NOV-00		6020M
			SN	86	%Recovery	MDK	09-NOV-00		6010
			TL	91	%Recovery	CH	22-NOV-00		6020M
			V	99	%Recovery	MDK	09-NOV-00		6010
			ZN	103	%Recovery	MDK	09-NOV-00		6010
WG000493-4		Matrix Spike Duplicate	AG	2.2	% RPD	MDK	09-NOV-00		6010
			AS	<1	% RPD	CH	22-NOV-00		6020M
			BA	<1	% RPD	MDK	09-NOV-00		6010
			BI	1	% RPD	MDK	09-NOV-00		6010
			CD	<1	% RPD	MDK	09-NOV-00		6010
			CO	<1	% RPD	MDK	09-NOV-00		6010
			CR	<1	% RPD	MDK	09-NOV-00		6010
			CU	<1	% RPD	MDK	09-NOV-00		6010
			HG	13	% RPD	EH	30-JUN-00		245.1
			MN	<1	% RPD	MDK	09-NOV-00		6010
			NI	2.4	% RPD	MDK	09-NOV-00		6010
			PB	6	% RPD	MDK	09-NOV-00		6010
			SB	1.1	% RPD	CH	22-NOV-00		6020M
			SE	2.1	% RPD	CH	22-NOV-00		6020M
			SN	1.8	% RPD	MDK	09-NOV-00		6010
			TL	<1	% RPD	CH	22-NOV-00		6020M
			V	1	% RPD	MDK	09-NOV-00		6010
			ZN	<1	% RPD	MDK	09-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Industrial Hygiene (OSHA/MSHA) (Project 8212)

Batch No: WG000493

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000493-5		Reporting Limit	AG	0.005	ppm				6010
			AS	0.005	ppm				6020M
			BA	0.05	ppm				6010
			BI	0.05	ppm				6010
			CD	0.010	ppm				6010
			CN-	0.004	ppm				335.2
			CO	0.050	ppm				6010
			CR	0.010	ppm				6010
			CU	0.050	ppm				6010
			HG	0.0005	ppm				245.1
			MN	0.015	ppm				6010
			NI	0.050	ppm				6010
			PB	0.020	ppm				6010
			SB	0.050	ppm				6020M
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010
			ZN	0.050	ppm				6010
WG000493-6		Duplicate	CN-	<1	% RPD	DC	27-JUN-00		335.2

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-001	20-JUN-00	EQUIPMENT 18 (1050)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-002	20-JUN-00	EQUIPMENT 19 (1200)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-003	20-JUN-00	EQUIPMENT 20 (1600)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-004	20-JUN-00	FIELD BLANK (1000)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-005	21-JUN-00	EQUIPMENT 21 (1200)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-006	21-JUN-00	EQUIPMENT 22 (1330)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-007	22-JUN-00	FIELD BLANK (1400)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-008	22-JUN-00	EQUIPMENT 23 (1155)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-009	22-JUN-00	EQUIPMENT 24 (1300)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-010	22-JUN-00	EQUIPMENT 25 (1600)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.11	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-011	22-JUN-00	FIELD BLANK (1100)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-012	23-JUN-00	EQUIPMENT 26 (930)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.11	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-013	23-JUN-00	EQUIPMENT 27 (1200)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.097	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-014	23-JUN-00	EQUIPMENT 28 (1205)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.081	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-015	23-JUN-00	FIELD BLANK (1050)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.092	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-016	26-JUN-00	FIELD BLANK (1500)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-017	26-JUN-00	EQUIPMENT 29 (1515)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-018	26-JUN-00	EQUIPMENT 30 (1530)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-019	27-JUN-00	EQUIPMENT 31 (920)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.080	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-020	27-JUN-00	EQUIPMENT 32 (1300)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.078	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L000984-021	27-JUN-00	EQUIPMENT 33 (1500)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.082	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M
L000984-022	27-JUN-00	FIELD BLANK (1305)	AG	<0.005	ppm	CH	11-NOV-00	180	6020M
			AS	<0.005	ppm	CH	11-NOV-00	180	6020M
			BA	<0.05	ppm	CH	11-NOV-00	180	6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00	180	6020M
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	CH	11-NOV-00	180	6020M
			CR	<0.01	ppm	CH	11-NOV-00	180	6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	CH	11-NOV-00	180	6020M
			NI	<0.05	ppm	CH	11-NOV-00	180	6020M
			PB	<0.02	ppm	CH	11-NOV-00	180	6020M
			SB	<0.05	ppm	CH	11-NOV-00	180	6020M
			SE	<0.01	ppm	CH	11-NOV-00	180	6020M
			SN	0.083	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00	180	6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00	180	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L000984

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

The Cn- analysis was past the holding time for the first eleven samples.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

(Project)

Batch No: WG001154

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001154-1		Matrix Spike	AG	97	%Recovery	CH	11-NOV-00		6020M
			AS	85	%Recovery	CH	11-NOV-00		6020M
			BA	93	%Recovery	CH	11-NOV-00		6020M
			BI	90	%Recovery	CH	11-NOV-00		6020M
			CD	87	%Recovery	CH	11-NOV-00		6020M
			CN-	96	%Recovery	DC	08-JUL-00		335.2
			CO	95	%Recovery	CH	11-NOV-00		6020M
			CR	97	%Recovery	CH	11-NOV-00		6020M
			CU	96	%Recovery	CH	11-NOV-00		6020M
			HG	98	%Recovery	EH	11-JUL-00		245.1
			MN	98	%Recovery	CH	11-NOV-00		6020M
			NI	100	%Recovery	CH	11-NOV-00		6020M
			PB	96	%Recovery	CH	11-NOV-00		6020M
			SB	90	%Recovery	CH	11-NOV-00		6020M
			SE	72	%Recovery	CH	11-NOV-00		6020M
			SN	111	%Recovery	CH	11-NOV-00		6020M
			TL	96	%Recovery	CH	11-NOV-00		6020M
			V	93	%Recovery	CH	11-NOV-00		6020M
			ZN	85	%Recovery	CH	11-NOV-00		6020M
WG001154-2		Prep Blank	AG	<0.005	ppm	CH	11-NOV-00		6020M
			AS	<0.005	ppm	CH	11-NOV-00		6020M
			BA	<0.05	ppm	CH	11-NOV-00		6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00		6020M
			CN-	<0.004	ppm	DC	08-JUL-00		335.2
			CO	<0.05	ppm	CH	11-NOV-00		6020M
			CR	<0.01	ppm	CH	11-NOV-00		6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00		245.1
			MN	<0.015	ppm	CH	11-NOV-00		6020M
			NI	<0.05	ppm	CH	11-NOV-00		6020M
			PB	<0.02	ppm	CH	11-NOV-00		6020M
			SB	<0.05	ppm	CH	11-NOV-00		6020M
			SE	<0.01	ppm	CH	11-NOV-00		6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00		6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

(Project)

Batch No: WG001154

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001154-3		Lab Control Sample	AG	95	%Recovery	CH	11-NOV-00		6020M
			AS	92	%Recovery	CH	11-NOV-00		6020M
			BA	102	%Recovery	CH	14-NOV-00		6020M
			BI	96	%Recovery	CH	11-NOV-00		6020M
			CD	92	%Recovery	CH	11-NOV-00		6020M
			CN-	90	%Recovery	DC	08-JUL-00		335.2
			CO	93	%Recovery	CH	11-NOV-00		6020M
			CR	95	%Recovery	CH	11-NOV-00		6020M
			CU	94	%Recovery	CH	11-NOV-00		6020M
			HG	97	%Recovery	EH	11-JUL-00		245.1
			MN	97	%Recovery	CH	11-NOV-00		6020M
			NI	95	%Recovery	CH	11-NOV-00		6020M
			PB	93	%Recovery	CH	11-NOV-00		6020M
			SB	77	%Recovery	CH	11-NOV-00		6020M
			SE	86	%Recovery	CH	11-NOV-00		6020M
			SN	93	%Recovery	CH	11-NOV-00		6020M
			TL	95	%Recovery	CH	11-NOV-00		6020M
			V	101	%Recovery	CH	11-NOV-00		6020M
			ZN	91	%Recovery	CH	11-NOV-00		6020M
WG001154-4		Matrix Spike Duplicate	AG	<1	% RPD	CH	11-NOV-00		6020M
			AS	1.2	% RPD	CH	11-NOV-00		6020M
			BA	1.7	% RPD	CH	11-NOV-00		6020M
			BI	2.7	% RPD	CH	11-NOV-00		6020M
			CD	<1	% RPD	CH	11-NOV-00		6020M
			CN-	4.2	% RPD	DC	08-JUL-00		335.2
			CO	1.6	% RPD	CH	11-NOV-00		6020M
			CR	<1	% RPD	CH	11-NOV-00		6020M
			CU	<1	% RPD	CH	11-NOV-00		6020M
			HG	1	% RPD	EH	11-JUL-00		245.1
			MN	<1	% RPD	CH	11-NOV-00		6020M
			NI	1.5	% RPD	CH	11-NOV-00		6020M
			PB	1	% RPD	CH	11-NOV-00		6020M
			SB	<1	% RPD	CH	11-NOV-00		6020M
			SE	<1	% RPD	CH	11-NOV-00		6020M
			SN	1.8	% RPD	CH	11-NOV-00		6020M
			TL	<1	% RPD	CH	11-NOV-00		6020M
			V	<1	% RPD	CH	11-NOV-00		6020M
			ZN	<1	% RPD	CH	11-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

(Project)

Batch No: WG001154

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001154-5		Reporting Limit	AG	0.005	ppm				6020M
			AS	0.005	ppm				6020M
			BA	0.050	ppm				6020M
			BI	0.050	ppm				6020M
			CD	0.010	ppm				6020M
			CN-	0.004	ppm				335.2
			CO	0.050	ppm				6020M
			CR	0.010	ppm				6020M
			CU	0.050	ppm				6020M
			HG	0.0005	ppm				245.1
			MN	0.015	ppm				6020M
			NI	0.050	ppm				6020M
			PB	0.020	ppm				6020M
			SB	0.050	ppm				6020M
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6020M
			TL	0.002	ppm				6020M
			V	0.050	ppm				6020M
			ZN	0.050	ppm				6020M
WG001154-6		Matrix Spike	AG	96	%Recovery	CH	11-NOV-00		6020M
			AS	86	%Recovery	CH	11-NOV-00		6020M
			BA	94	%Recovery	CH	11-NOV-00		6020M
			BI	87	%Recovery	CH	11-NOV-00		6020M
			CD	86	%Recovery	CH	11-NOV-00		6020M
			CN-	90	%Recovery	DC	08-JUL-00		335.2
			CO	94	%Recovery	CH	11-NOV-00		6020M
			CR	97	%Recovery	CH	11-NOV-00		6020M
			CU	96	%Recovery	CH	11-NOV-00		6020M
			HG	96	%Recovery	EH	11-JUL-00		245.1
			MN	98	%Recovery	CH	11-NOV-00		6020M
			NI	99	%Recovery	CH	11-NOV-00		6020M
			PB	93	%Recovery	CH	11-NOV-00		6020M
			SB	91	%Recovery	CH	11-NOV-00		6020M
			SE	77	%Recovery	CH	11-NOV-00		6020M
			SN	91	%Recovery	CH	11-NOV-00		6020M
			TL	95	%Recovery	CH	11-NOV-00		6020M
			V	95	%Recovery	CH	11-NOV-00		6020M
			ZN	84	%Recovery	CH	11-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

(Project)

Batch No: WG001154

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001154-7		Prep Blank	AG	<0.005	ppm	CH	11-NOV-00		6020M
			AS	<0.005	ppm	CH	11-NOV-00		6020M
			BA	<0.05	ppm	CH	11-NOV-00		6020M
			BI	<0.05	ppm	CH	11-NOV-00		6020M
			CD	<0.01	ppm	CH	11-NOV-00		6020M
			CN-	<0.004	ppm	DC	08-JUL-00		335.2
			CO	<0.05	ppm	CH	11-NOV-00		6020M
			CR	<0.01	ppm	CH	11-NOV-00		6020M
			CU	<0.05	ppm	CH	11-NOV-00		6020M
			HG	<0.0005	ppm	EH	11-JUL-00		245.1
			MN	<0.015	ppm	CH	11-NOV-00		6020M
			NI	<0.05	ppm	CH	11-NOV-00		6020M
			PB	<0.02	ppm	CH	11-NOV-00		6020M
			SB	<0.05	ppm	CH	11-NOV-00		6020M
			SE	<0.01	ppm	CH	11-NOV-00		6020M
			SN	<0.05	ppm	CH	11-NOV-00		6020M
			TL	<0.002	ppm	CH	11-NOV-00		6020M
			V	<0.05	ppm	CH	11-NOV-00		6020M
			ZN	<0.05	ppm	CH	11-NOV-00		6020M
WG001154-8		Lab Control Sample	AG	96	%Recovery	CH	11-NOV-00		6020M
			AS	92	%Recovery	CH	11-NOV-00		6020M
			BA	102	%Recovery	CH	14-NOV-00		6020M
			BI	94	%Recovery	CH	11-NOV-00		6020M
			CD	90	%Recovery	CH	11-NOV-00		6020M
			CN-	90	%Recovery	DC	08-JUL-00		335.2
			CO	96	%Recovery	CH	11-NOV-00		6020M
			CR	100	%Recovery	CH	11-NOV-00		6020M
			CU	92	%Recovery	CH	11-NOV-00		6020M
			HG	97	%Recovery	EH	11-JUL-00		245.1
			MN	101	%Recovery	CH	11-NOV-00		6020M
			NI	92	%Recovery	CH	11-NOV-00		6020M
			PB	93	%Recovery	CH	11-NOV-00		6020M
			SB	79	%Recovery	CH	11-NOV-00		6020M
			SE	86	%Recovery	CH	11-NOV-00		6020M
			SN	92	%Recovery	CH	11-NOV-00		6020M
			TL	92	%Recovery	CH	11-NOV-00		6020M
			V	101	%Recovery	CH	11-NOV-00		6020M
			ZN	92	%Recovery	CH	11-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

(Project)

Batch No: WG001154

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG001154-9		Matrix Spike Duplicate	AG	4.1	% RPD	CH	11-NOV-00		6020M
			AS	1.2	% RPD	CH	11-NOV-00		6020M
			BA	<1	% RPD	CH	11-NOV-00		6020M
			BI	2.3	% RPD	CH	11-NOV-00		6020M
			CD	2.3	% RPD	CH	11-NOV-00		6020M
			CN-	<1	% RPD	DC	08-JUL-00		335.2
			CO	<1	% RPD	CH	11-NOV-00		6020M
			CR	<1	% RPD	CH	11-NOV-00		6020M
			CU	<1	% RPD	CH	11-NOV-00		6020M
			HG	1.6	% RPD	EH	11-JUL-00		245.1
			MN	<1	% RPD	CH	11-NOV-00		6020M
			NI	1	% RPD	CH	11-NOV-00		6020M
			PB	1.1	% RPD	CH	11-NOV-00		6020M
			SB	<1	% RPD	CH	11-NOV-00		6020M
			SE	<1	% RPD	CH	11-NOV-00		6020M
			SN	<1	% RPD	CH	11-NOV-00		6020M
			TL	2.1	% RPD	CH	11-NOV-00		6020M
			V	1.6	% RPD	CH	11-NOV-00		6020M
			ZN	4.4	% RPD	CH	11-NOV-00		6020M

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001001

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001001-001	28-JUN-00	FIELD BLANK 1300	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001001-002	28-JUN-00	EQUIPMENT 34 1430	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.07	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001001

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001001-003	28-JUN-00	EQUIPMENT 35 1520	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.07	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001001-004	28-JUN-00	EQUIPMENT 36 1600	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.08	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001001

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001001-005	29-JUN-00	FIELD BLANK 1300	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.07	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001001-006	29-JUN-00	EQUIPMENT 37 1000	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001001

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001001-007	29-JUN-00	EQUIPMENT 38 1305	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.06	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001001-008	29-JUN-00	EQUIPMENT 39 1500	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	27-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	08-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	27-NOV-00	180	6020M
			SE	<0.01	ppm	CH	27-NOV-00	180	6020M
			SN	0.06	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001001

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000540

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000540-1		Matrix Spike	AG	96	%Recovery	MDK	13-NOV-00		6010
			AS	88	%Recovery	CH	27-NOV-00		6020M
			BA	101	%Recovery	MDK	13-NOV-00		6010
			BI	102	%Recovery	MDK	13-NOV-00		6010
			CD	100	%Recovery	MDK	13-NOV-00		6010
			CN-	90	%Recovery	DC	08-JUL-00		335.2
			CO	100	%Recovery	MDK	13-NOV-00		6010
			CR	100	%Recovery	MDK	13-NOV-00		6010
			CU	98	%Recovery	MDK	13-NOV-00		6010
			HG	100	%Recovery	EH	11-JUL-00		245.1
			MN	101	%Recovery	MDK	13-NOV-00		6010
			NI	98	%Recovery	MDK	13-NOV-00		6010
			PB	110	%Recovery	MDK	13-NOV-00		6010
			SB	97	%Recovery	CH	27-NOV-00		6020M
			SE	81	%Recovery	CH	27-NOV-00		6020M
			SN	85	%Recovery	MDK	13-NOV-00		6010
			TL	100	%Recovery	CH	27-NOV-00		6020M
			V	100	%Recovery	MDK	13-NOV-00		6010
			ZN	98	%Recovery	MDK	13-NOV-00		6010
WG000540-2		Prep Blank	AG	<0.005	ppm	MDK	13-NOV-00		6010
			AS	<0.005	ppm	CH	27-NOV-00		6020M
			BA	<0.05	ppm	MDK	13-NOV-00		6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00		6010
			CN-	<0.004	ppm	DC	08-JUL-00		335.2
			CO	<0.05	ppm	MDK	13-NOV-00		6010
			CR	<0.01	ppm	MDK	13-NOV-00		6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	11-JUL-00		245.1
			MN	<0.015	ppm	MDK	13-NOV-00		6010
			NI	<0.05	ppm	MDK	13-NOV-00		6010
			PB	<0.02	ppm	MDK	13-NOV-00		6010
			SB	<0.05	ppm	CH	27-NOV-00		6020M
			SE	<0.01	ppm	CH	27-NOV-00		6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	27-NOV-00		6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000540

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000540-3		Lab Control Sample	AG	94	%Recovery	MDK	13-NOV-00		6010
			AS	93	%Recovery	CH	27-NOV-00		6020M
			BA	101	%Recovery	MDK	13-NOV-00		6010
			BI	102	%Recovery	MDK	13-NOV-00		6010
			CD	97	%Recovery	MDK	13-NOV-00		6010
			CN-	90	%Recovery	DC	08-JUL-00		335.2
			CO	98	%Recovery	MDK	13-NOV-00		6010
			CR	96	%Recovery	MDK	13-NOV-00		6010
			CU	96	%Recovery	MDK	13-NOV-00		6010
			HG	99	%Recovery	EH	11-JUL-00		245.1
			MN	96	%Recovery	MDK	13-NOV-00		6010
			NI	80	%Recovery	MDK	13-NOV-00		6010
			PB	104	%Recovery	MDK	13-NOV-00		6010
			SB	91	%Recovery	CH	27-NOV-00		6020M
			SE	92	%Recovery	CH	27-NOV-00		6020M
			SN	97	%Recovery	MDK	13-NOV-00		6010
			TL	96	%Recovery	CH	27-NOV-00		6020M
			V	98	%Recovery	MDK	13-NOV-00		6010
			ZN	96	%Recovery	MDK	13-NOV-00		6010
WG000540-4		Matrix Spike Duplicate	AG	2.1	% RPD	MDK	13-NOV-00		6010
			AS	<1	% RPD	CH	27-NOV-00		6020M
			BA	<1	% RPD	MDK	13-NOV-00		6010
			BI	5.1	% RPD	MDK	13-NOV-00		6010
			CD	<1	% RPD	MDK	13-NOV-00		6010
			CO	<1	% RPD	MDK	13-NOV-00		6010
			CR	<1	% RPD	MDK	13-NOV-00		6010
			CU	1	% RPD	MDK	13-NOV-00		6010
			HG	2	% RPD	EH	11-JUL-00		245.1
			MN	<1	% RPD	MDK	13-NOV-00		6010
			NI	2.6	% RPD	MDK	13-NOV-00		6010
			PB	1.8	% RPD	MDK	13-NOV-00		6010
			SB	1.5	% RPD	CH	27-NOV-00		6020M
			SE	<1	% RPD	CH	27-NOV-00		6020M
			SN	1.2	% RPD	MDK	13-NOV-00		6010
			TL	<1	% RPD	CH	27-NOV-00		6020M
			V	1	% RPD	MDK	13-NOV-00		6010
			ZN	<1	% RPD	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000540

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000540-5		Reporting Limit	AG	0.005	ppm				6010
			AS	0.005	ppm				6020M
			BA	0.050	ppm				6010
			BI	0.050	ppm				6010
			CD	0.010	ppm				6010
			CN-	0.004	ppm				335.2
			CO	0.050	ppm				6010
			CR	0.010	ppm				6010
			CU	0.050	ppm				6010
			HG	0.0005	ppm				245.1
			MN	0.015	ppm				6010
			NI	0.050	ppm				6010
			PB	0.020	ppm				6010
			SB	0.050	ppm				6020M
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010
			ZN	0.050	ppm				6010
WG000540-6		Duplicate	CN-	<1	% RPD	DC	08-JUL-00		335.2

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001080-001	30-JUN-00	FIELD BLANK	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.08	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001080-002	30-JUN-00	EQUIPMENT 40 (900)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001080-003	30-JUN-00	EQUIPMENT 41 (1100)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001080-004	10-JUL-00	FIELD BLANK(1400)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001080-005	10-JUL-00	EQUIPMENT 42 (1200)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.10	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001080-006	10-JUL-00	EQUIPMENT 43 (1500)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.10	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001080-007	10-JUL-00	EQUIPMENT 44 (1600)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.09	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001080-008	11-JUL-00	FIELD BLANK (900)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	14-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.07	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001080-009	11-JUL-00	EQUIPMENT 45 (1300)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	14-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.06	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001080-010	11-JUL-00	EQUIPMENT 46 (1500)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
			AS	<0.005	ppm	CH	22-NOV-00	180	6020M
			BA	<0.05	ppm	MDK	13-NOV-00	180	6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00	180	6010
			CN-	<0.004	ppm	DC	14-JUL-00	14	335.2
			CO	<0.05	ppm	MDK	13-NOV-00	180	6010
			CR	<0.01	ppm	MDK	13-NOV-00	180	6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00	28	245.1
			MN	<0.015	ppm	MDK	13-NOV-00	180	6010
			NI	<0.05	ppm	MDK	13-NOV-00	180	6010
			PB	<0.02	ppm	MDK	13-NOV-00	180	6010
			SB	<0.05	ppm	CH	22-NOV-00	180	6020M
			SE	<0.01	ppm	CH	22-NOV-00	180	6020M
			SN	0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00	180	6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001080

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000575

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000575-1		Matrix Spike	AG	96	%Recovery	MDK	13-NOV-00		6010
			AS	93	%Recovery	CH	22-NOV-00		6020M
			BA	102	%Recovery	MDK	13-NOV-00		6010
			BI	100	%Recovery	MDK	13-NOV-00		6010
			CD	100	%Recovery	MDK	13-NOV-00		6010
			CN-	90	%Recovery	DC	12-JUL-00		335.2
			CO	102	%Recovery	MDK	13-NOV-00		6010
			CR	101	%Recovery	MDK	13-NOV-00		6010
			CU	98	%Recovery	MDK	13-NOV-00		6010
			HG	106	%Recovery	EH	17-JUL-00		245.1
			MN	101	%Recovery	MDK	13-NOV-00		6010
			NI	97	%Recovery	MDK	13-NOV-00		6010
			PB	107	%Recovery	MDK	13-NOV-00		6010
			SB	93	%Recovery	CH	22-NOV-00		6020
			SE	96	%Recovery	CH	20-NOV-00		6020M
			SN	97	%Recovery	MDK	13-NOV-00		6010
			TL	92	%Recovery	CH	22-NOV-00		6020M
			V	101	%Recovery	MDK	13-NOV-00		6010
			ZN	97	%Recovery	MDK	13-NOV-00		6010
WG000575-2		Prep Blank	AG	<0.005	ppm	MDK	13-NOV-00		6010
			AS	<0.005	ppm	CH	22-NOV-00		6020M
			BA	<0.05	ppm	MDK	13-NOV-00		6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00		335.2
			CO	<0.05	ppm	MDK	13-NOV-00		6010
			CR	<0.01	ppm	MDK	13-NOV-00		6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	17-JUL-00		245.1
			MN	<0.015	ppm	MDK	13-NOV-00		6010
			NI	<0.05	ppm	MDK	13-NOV-00		6010
			PB	<0.02	ppm	MDK	13-NOV-00		6010
			SB	<0.05	ppm	CH	22-NOV-00		6020
			SE	<0.01	ppm	CH	20-NOV-00		6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00		6020M
			V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000575

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000575-3		Lab Control Sample	AG	93	%Recovery	MDK	13-NOV-00		6010
			AS	101	%Recovery	CH	22-NOV-00		6020M
			BA	98	%Recovery	MDK	13-NOV-00		6010
			BI	96	%Recovery	MDK	13-NOV-00		6010
			CD	98	%Recovery	MDK	13-NOV-00		6010
			CN-	96	%Recovery	DC	12-JUL-00		335.2
			CO	100	%Recovery	MDK	13-NOV-00		6010
			CR	96	%Recovery	MDK	13-NOV-00		6010
			CU	96	%Recovery	MDK	13-NOV-00		6010
			HG	89	%Recovery	EH	17-JUL-00		245.1
			MN	97	%Recovery	MDK	13-NOV-00		6010
			NI	83	%Recovery	MDK	13-NOV-00		6010
			PB	105	%Recovery	MDK	13-NOV-00		6010
			SB	102	%Recovery	CH	22-NOV-00		6020
			SE	95	%Recovery	CH	20-NOV-00		6020M
			SN	99	%Recovery	MDK	13-NOV-00		6010
			TL	105	%Recovery	CH	22-NOV-00		6020M
			V	95	%Recovery	MDK	13-NOV-00		6010
			ZN	96	%Recovery	MDK	13-NOV-00		6010
WG000575-4		Matrix Spike Duplicate	AG	2.1	% RPD	MDK	13-NOV-00		6010
			AS	3.2	% RPD	CH	22-NOV-00		6020M
			BA	1.8	% RPD	MDK	13-NOV-00		6010
			BI	3.6	% RPD	MDK	13-NOV-00		6010
			CD	<1	% RPD	MDK	13-NOV-00		6010
			CO	2	% RPD	MDK	13-NOV-00		6010
			CR	1	% RPD	MDK	13-NOV-00		6010
			CU	2.6	% RPD	MDK	13-NOV-00		6010
			MN	2	% RPD	MDK	13-NOV-00		6010
			NI	<1	% RPD	MDK	13-NOV-00		6010
			PB	<1	% RPD	MDK	13-NOV-00		6010
			SB	<1	% RPD	CH	22-NOV-00		6020
			SE	4.3	% RPD	CH	20-NOV-00		6020M
			SN	<1	% RPD	MDK	13-NOV-00		6010
			TL	4.3	% RPD	CH	22-NOV-00		6020M
			V	2	% RPD	MDK	13-NOV-00		6010
			ZN	<1	% RPD	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000575

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000575-5		Reporting Limit	AG	0.005	ppm				6010
			AS	0.005	ppm				6020M
			BA	0.050	ppm				6010
			BI	0.050	ppm				6010
			CD	0.010	ppm				6010
			CN-	0.004	ppm				335.2
			CO	0.050	ppm				6010
			CR	0.010	ppm				6010
			CU	0.050	ppm				6010
			HG	0.0005	ppm				245.1
			MN	0.015	ppm				6010
			NI	0.05	ppm				6010
			PB	0.020	ppm				6010
			SB	0.050	ppm				6020
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010
			ZN	0.050	ppm				6010
WG000575-6		Duplicate	CN-	<1	% RPD	DC	12-JUL-00		335.2
			HG	<1	% RPD	EH	17-JUL-00		245.1

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001179

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001179-001	18-JUL-00	EQUIPMENT BLANK		AG	<0.005	ppm	MDK	13-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	13-NOV-00	180	6010
				BI	<0.05	ppm	MDK	13-NOV-00		6010
				CD	<0.01	ppm	MDK	13-NOV-00	180	6010
				CO	<0.05	ppm	MDK	13-NOV-00	180	6010
				CR	<0.01	ppm	MDK	13-NOV-00	180	6010
				CU	<0.05	ppm	MDK	13-NOV-00		6010
				FLASH PT.	>200.	deg f	AWL	04-AUG-00		1010
				HG	<0.0005	ppm	EH	01-AUG-00	28	245.1
				MN	<0.015	ppm	MDK	13-NOV-00	180	6010
				NI	<0.05	ppm	MDK	13-NOV-00	180	6010
				PB	<0.02	ppm	MDK	13-NOV-00	180	6010
				REAC CN-	<0.004	ppm	DC	28-JUL-00		9010
				REAC S=	<0.04	ppm	DC	27-JUL-00		9030
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	0.07	ppm	MDK	13-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	13-NOV-00		6010
				ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001179-002	26-JUL-00	EQUIPMENT BLANK	(1500)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	13-NOV-00	180	6010
				BI	<0.05	ppm	MDK	13-NOV-00		6010
				CD	<0.01	ppm	MDK	13-NOV-00	180	6010
				CO	<0.05	ppm	MDK	13-NOV-00	180	6010
				CR	<0.01	ppm	MDK	13-NOV-00	180	6010
				CU	<0.05	ppm	MDK	13-NOV-00		6010
				HG	<0.0005	ppm	EH	01-AUG-00	28	245.1
				MN	<0.015	ppm	MDK	13-NOV-00	180	6010
				NI	<0.05	ppm	MDK	13-NOV-00	180	6010
				PB	<0.02	ppm	MDK	13-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	0.09	ppm	MDK	13-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	13-NOV-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001179

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001179-002	26-JUL-00	EQUIPMENT BLANK	(1500)	ZN	<0.05	ppm	MDK	13-NOV-00	180	6010
L001179-003	26-JUL-00	FIELD BLANK	(1600)	AG	<0.005	ppm	MDK	13-NOV-00	180	6010
				AS	<0.005	ppm	CH	22-NOV-00	180	6020M
				BA	<0.05	ppm	MDK	13-NOV-00	180	6010
				BI	<0.05	ppm	MDK	13-NOV-00		6010
				CD	<0.01	ppm	MDK	13-NOV-00	180	6010
				CO	<0.05	ppm	MDK	13-NOV-00	180	6010
				CR	<0.01	ppm	MDK	13-NOV-00	180	6010
				CU	<0.05	ppm	MDK	13-NOV-00		6010
				HG	<0.0005	ppm	EH	01-AUG-00	28	245.1
				MN	<0.015	ppm	MDK	13-NOV-00	180	6010
				NI	<0.05	ppm	MDK	13-NOV-00	180	6010
				PB	<0.02	ppm	MDK	13-NOV-00	180	6010
				SB	<0.05	ppm	CH	22-NOV-00	180	6020M
				SE	<0.01	ppm	CH	22-NOV-00	180	6020M
				SN	0.08	ppm	MDK	13-NOV-00		6010
				TL	<0.002	ppm	CH	22-NOV-00	180	6020M
				V	<0.05	ppm	MDK	13-NOV-00		6010
				ZN	<0.05	ppm	MDK	13-NOV-00	180	6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000656

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000656-1		Matrix Spike	AG	91	%Recovery	MDK	13-NOV-00		6010
			AS	94	%Recovery	CH	22-NOV-00		6020M
			BA	101	%Recovery	MDK	13-NOV-00		6010
			BI	95	%Recovery	MDK	13-NOV-00		6010
			CD	102	%Recovery	MDK	13-NOV-00		6010
			CO	101	%Recovery	MDK	13-NOV-00		6010
			CR	100	%Recovery	MDK	13-NOV-00		6010
			CU	98	%Recovery	MDK	13-NOV-00		6010
			HG	93	%Recovery	EH	01-AUG-00		245.1
			MN	101	%Recovery	MDK	13-NOV-00		6010
			NI	98	%Recovery	MDK	13-NOV-00		6010
			PB	108	%Recovery	MDK	13-NOV-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	111	%Recovery	CH	22-NOV-00		6020M
			SE	76	%Recovery	CH	22-NOV-00		6020M
			SN	98	%Recovery	MDK	13-NOV-00		6010
			TL	114	%Recovery	CH	22-NOV-00		6020M
			V	100	%Recovery	MDK	13-NOV-00		6010
			ZN	102	%Recovery	MDK	13-NOV-00		6010
WG000656-2		Prep Blank	AG	<0.005	ppm	MDK	13-NOV-00		6010
			AS	<0.005	ppm	CH	22-NOV-00		6020M
			BA	<0.05	ppm	MDK	13-NOV-00		6010
			BI	<0.05	ppm	MDK	13-NOV-00		6010
			CD	<0.01	ppm	MDK	13-NOV-00		6010
			CO	<0.05	ppm	MDK	13-NOV-00		6010
			CR	<0.01	ppm	MDK	13-NOV-00		6010
			CU	<0.05	ppm	MDK	13-NOV-00		6010
			HG	<0.0005	ppm	EH	01-AUG-00		245.1
			MN	<0.015	ppm	MDK	13-NOV-00		6010
			NI	<0.05	ppm	MDK	13-NOV-00		6010
			PB	<0.02	ppm	MDK	13-NOV-00		6010
			REAC CN-	<0.004	ppm	DC	28-JUL-00		9010
			REAC S=	<0.04	ppm	DC	27-JUL-00		9030
			SB	<0.05	ppm	CH	22-NOV-00		6020M
			SE	<0.01	ppm	CH	22-NOV-00		6020M
			SN	<0.05	ppm	MDK	13-NOV-00		6010
			TL	<0.002	ppm	CH	22-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000656

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000656-2		Prep Blank	V	<0.05	ppm	MDK	13-NOV-00		6010
			ZN	<0.05	ppm	MDK	13-NOV-00		6010
WG000656-3		Lab Control Sample	AG	97	%Recovery	MDK	13-NOV-00		6010
			AS	99	%Recovery	CH	22-NOV-00		6020M
			BA	99	%Recovery	MDK	13-NOV-00		6010
			BI	102	%Recovery	MDK	13-NOV-00		6010
			CD	98	%Recovery	MDK	13-NOV-00		6010
			CO	99	%Recovery	MDK	13-NOV-00		6010
			CR	100	%Recovery	MDK	13-NOV-00		6010
			CU	97	%Recovery	MDK	13-NOV-00		6010
			HG	95	%Recovery	EH	01-AUG-00		245.1
			MN	98	%Recovery	MDK	13-NOV-00		6010
			NI	93	%Recovery	MDK	13-NOV-00		6010
			PB	115	%Recovery	MDK	13-NOV-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	106	%Recovery	CH	22-NOV-00		6020M
			SE	93	%Recovery	CH	22-NOV-00		6020M
			SN	99	%Recovery	MDK	13-NOV-00		6010
			TL	111	%Recovery	CH	22-NOV-00		6020M
			V	99	%Recovery	MDK	13-NOV-00		6010
			ZN	98	%Recovery	MDK	13-NOV-00		6010
WG000656-4		Matrix Spike Duplicate	AG	4.3	% RPD	MDK	13-NOV-00		6010
			AS	5.2	% RPD	CH	22-NOV-00		6020M
			BA	1.2	% RPD	MDK	13-NOV-00		6010
			BI	1.1	% RPD	MDK	13-NOV-00		6010
			CD	1.9	% RPD	MDK	13-NOV-00		6010
			CO	1.5	% RPD	MDK	13-NOV-00		6010
			CR	1	% RPD	MDK	13-NOV-00		6010
			CU	1.5	% RPD	MDK	13-NOV-00		6010
			HG	3.2	% RPD	EH	01-AUG-00		245.1
			MN	1.5	% RPD	MDK	13-NOV-00		6010
			NI	1.50	% RPD	MDK	13-NOV-00		6010
			PB	<1	% RPD	MDK	13-NOV-00		6010
			REAC CN-	<1	% RPD	DC	28-JUL-00		9010
			REAC S=	<1	% RPD	DC	27-JUL-00		9030
			SB	<1	% RPD	CH	22-NOV-00		6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000656

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000656-4		Matrix Spike Duplicate	SE	+/- PRDL	% RPD	CH	22-NOV-00		6020M
			SN	<1	% RPD	MDK	13-NOV-00		6010
			TL	<1	% RPD	CH	22-NOV-00		6020M
			V	1	% RPD	MDK	13-NOV-00		6010
			ZN	1.4	% RPD	MDK	13-NOV-00		6010
WG000656-5		Reporting Limit	AG	0.005	ppm				6010
			AS	0.005	ppm				6020M
			BA	0.050	ppm				6010
			BI	0.050	ppm				6010
			CD	0.010	ppm				6010
			CO	0.050	ppm				6010
			CR	0.010	ppm				6010
			CU	0.050	ppm				6010
			FLASH PT.	200.	deg f				1010
			HG	0.0005	ppm				245.1
			MN	0.015	ppm				6010
			NI	0.050	ppm				6010
			PB	0.020	ppm				6010
			REAC CN-	0.004	ppm				9010
			REAC S=	0.04	ppm				9030
			SB	0.050	ppm				6020M
			SE	0.010	ppm				6020M
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020M
			V	0.050	ppm				6010
			ZN	0.050	ppm				6010

Approved

Reviewer

ASARCO

December 18, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (2), two water samples collected on November 06, 2001, in association with the Encycle RFI project and received by the laboratory on November 08, 2001.

The samples were digested in accordance with EPA methods 3010 and 6020M for ICP and ICP-MS analyses respectively.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011529

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011529-001	06-NOV-01	FIELD BLANK	AG	<0.005	ppm	EH	29-NOV-01	6010
			BI	<0.050	ppm	EH	29-NOV-01	6010
			CD	<0.010	ppm	EH	29-NOV-01	6010
			CR	<0.010	ppm	EH	29-NOV-01	6010
			CU	<0.050	ppm	EH	29-NOV-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	29-NOV-01	6010
			SN	<0.050	ppm	EH	29-NOV-01	6010
L011529-002	06-NOV-01	EQUIPMENT BLANK	AG	<0.005	ppm	EH	29-NOV-01	6010
			BI	<0.050	ppm	EH	29-NOV-01	6010
			CD	<0.010	ppm	EH	29-NOV-01	6010
			CR	<0.010	ppm	EH	29-NOV-01	6010
			CU	<0.050	ppm	EH	29-NOV-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	29-NOV-01	6010
			SN	<0.050	ppm	EH	29-NOV-01	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011062

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011062-1		Matrix Spike	AG	96	%Recovery	EH	29-NOV-01	6010
			BI	97	%Recovery	EH	29-NOV-01	6010
			CD	97	%Recovery	EH	29-NOV-01	6010
			CR	101	%Recovery	EH	29-NOV-01	6010
			CU	109	%Recovery	EH	29-NOV-01	6010
			HG	100	%Recovery	MO	12-NOV-01	7470
			MN	101	%Recovery	EH	29-NOV-01	6010
			SN	109	%Recovery	EH	29-NOV-01	6010
WG011062-2		Prep Blank	AG	<0.005	ppm	EH	29-NOV-01	6010
			BI	<0.050	ppm	EH	29-NOV-01	6010
			CD	<0.010	ppm	EH	29-NOV-01	6010
			CR	<0.010	ppm	EH	29-NOV-01	6010
			CU	<0.050	ppm	EH	29-NOV-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	29-NOV-01	6010
			SN	<0.050	ppm	EH	29-NOV-01	6010
WG011062-3		Lab Control Sample	AG	101	%Recovery	EH	29-NOV-01	6010
			BI	97	%Recovery	EH	29-NOV-01	6010
			CD	97	%Recovery	EH	29-NOV-01	6010
			CR	101	%Recovery	EH	29-NOV-01	6010
			CU	106	%Recovery	EH	29-NOV-01	6010
			HG	100	%Recovery	MO	12-NOV-01	7470
			MN	101	%Recovery	EH	29-NOV-01	6010
			SN	102	%Recovery	EH	29-NOV-01	6010
WG011062-5		Matrix Spike Duplicate	AG	<1	% RPD	EH	29-NOV-01	6010
			BI	1.1	% RPD	EH	29-NOV-01	6010
			CD	1.8	% RPD	EH	29-NOV-01	6010
			CR	<1	% RPD	EH	29-NOV-01	6010
			CU	<1	% RPD	EH	29-NOV-01	6010
			HG	<1	% RPD	MO	12-NOV-01	7470
			MN	<1	% RPD	EH	29-NOV-01	6010
			SN	3.1	% RPD	EH	29-NOV-01	6010
WG011062-6		Reporting Limit	AG	0.005	ppm			6010
			BI	0.050	ppm			6010
			CD	0.010	ppm			6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011062

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011062-6		Reporting Limit	CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010
			SN	0.050	ppm			6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO

December 18, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (4), four water samples collected on November 05, 2001, in association with the Encycle RFI project and received by the laboratory on November 06, 2001.

The samples were digested in accordance with EPA methods 3010 and 6020M for ICP and ICP-MS analyses respectively.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011509

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011509-001	05-NOV-01	FIELD BLANK	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BA	<0.050	ppm	EH	04-DEC-01	6010
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	08-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			NI	<0.050	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	03-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
			ZN	<0.050	ppm	EH	04-DEC-01	6010
L011509-002	05-NOV-01	EQUIP BLANK	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BA	<0.050	ppm	EH	04-DEC-01	6010
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	08-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			NI	<0.050	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	03-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
			ZN	<0.050	ppm	EH	04-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011509

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011509-003	05-NOV-01	FIELD BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BA	<0.050	ppm	EH	04-DEC-01	6010
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	08-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			NI	<0.050	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	03-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
			ZN	<0.050	ppm	EH	04-DEC-01	6010
L011509-004	05-NOV-01	EQUIP BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BA	<0.050	ppm	EH	04-DEC-01	6010
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	08-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			NI	<0.050	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	03-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
			ZN	<0.050	ppm	EH	04-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011509

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALIST	DATE ANALYZED	METHOD

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011054

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011054-1		Matrix Spike	AG	95	%Recovery	EH	04-DEC-01	6010
			AS	83	%Recovery	MF	03-DEC-01	6020M
			BA	99	%Recovery	EH	04-DEC-01	6010
			BI	101	%Recovery	EH	04-DEC-01	6010
			CD	100	%Recovery	EH	04-DEC-01	6010
			CN-	100	%Recovery	DC	08-NOV-01	335.2
			CO	96	%Recovery	EH	04-DEC-01	6010
			CR	98	%Recovery	EH	04-DEC-01	6010
			CU	100	%Recovery	EH	04-DEC-01	6010
			HG	101	%Recovery	MO	12-NOV-01	7470
			MN	100	%Recovery	EH	04-DEC-01	6010
			NI	97	%Recovery	EH	04-DEC-01	6010
			PB	96	%Recovery	EH	04-DEC-01	6010
			SB	91	%Recovery	MF	03-DEC-01	6020M
			SE	75	%Recovery	MF	03-DEC-01	6020M
			SN	100	%Recovery	EH	04-DEC-01	6010
			TL	112	%Recovery	MF	03-DEC-01	6020M
			V	100	%Recovery	EH	04-DEC-01	6010
			ZN	92	%Recovery	EH	04-DEC-01	6010
WG011054-2		Prep Blank	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BA	<0.050	ppm	EH	04-DEC-01	6010
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	08-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			NI	<0.050	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	03-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
			ZN	<0.050	ppm	EH	04-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011054

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011054-3		Lab Control Sample	AG	98	%Recovery	EH	04-DEC-01	6010
			AS	89	%Recovery	MF	03-DEC-01	6020M
			BA	99	%Recovery	EH	04-DEC-01	6010
			BI	97	%Recovery	EH	04-DEC-01	6010
			CD	95	%Recovery	EH	04-DEC-01	6010
			CN-	76	%Recovery	DC	08-NOV-01	335.2
			CO	95	%Recovery	EH	04-DEC-01	6010
			CR	98	%Recovery	EH	04-DEC-01	6010
			CU	101	%Recovery	EH	04-DEC-01	6010
			HG	104	%Recovery	MO	12-NOV-01	7470
			MN	99	%Recovery	EH	04-DEC-01	6010
			NI	96	%Recovery	EH	04-DEC-01	6010
			PB	94	%Recovery	EH	04-DEC-01	6010
			SB	100	%Recovery	MF	03-DEC-01	6020M
			SE	82	%Recovery	MF	03-DEC-01	6020M
			SN	93	%Recovery	EH	04-DEC-01	6010
			TL	102	%Recovery	MF	03-DEC-01	6020M
			V	100	%Recovery	EH	04-DEC-01	6010
			ZN	91	%Recovery	EH	04-DEC-01	6010
WG011054-5		Matrix Spike Duplicate	AG	2.1	% RPD	EH	04-DEC-01	6010
			AS	1.8	% RPD	MF	03-DEC-01	6020M
			BA	2.6	% RPD	EH	04-DEC-01	6010
			BI	6.4	% RPD	EH	04-DEC-01	6010
			CD	1	% RPD	EH	04-DEC-01	6010
			CN-	<1	% RPD	DC	08-NOV-01	335.2
			CO	2.1	% RPD	EH	04-DEC-01	6010
			CR	2.7	% RPD	EH	04-DEC-01	6010
			CU	1.8	% RPD	EH	04-DEC-01	6010
			HG	<1	% RPD	MO	12-NOV-01	7470
			MN	2.7	% RPD	EH	04-DEC-01	6010
			NI	2.3	% RPD	EH	04-DEC-01	6010
			PB	1	% RPD	EH	04-DEC-01	6010
			SB	1.3	% RPD	MF	03-DEC-01	6020M
			SE	<1	% RPD	MF	03-DEC-01	6020M
			SN	6.9	% RPD	EH	04-DEC-01	6010
			TL	1.4	% RPD	MF	03-DEC-01	6020M
			V	3	% RPD	EH	04-DEC-01	6010
			ZN	2.8	% RPD	EH	04-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011054

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011054-6		Reporting Limit	AG	0.005	ppm			6010
			AS	0.005	ppm			6020M
			BA	0.050	ppm			6010
			BI	0.050	ppm			6010
			CD	0.010	ppm			6010
			CN-	0.004	ppm			335.2
			CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.050	ppm			6010
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020M
			V	0.050	ppm			6010
			ZN	0.050	ppm			6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 3

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE - CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Haney ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN, Pb	Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn	(8 oz GLASS JAR w/ TEFLON LINED LID)			Remarks	Total
B171 (0-0.5)	S	1340 11/5/01		X	X							1
B171 (2-2.5)	S	1345		X	X							1
B171 (3.8-4.2)	S	1348		X	X							1
B172 (0-0.5)	S	1355		HOLD								1
B172 (1.8-2.3)	S	1356		HOLD								1
B173 (0-0.5)	S	1410		HOLD								1
B173 (2-2.5)	S	1415		HOLD								1
B173 (2.8-3)	S	1417		HOLD								1
B150 (0-0.5)	S	1500		X	X							1
B150 (2-2.5)	S	1505		X	X							1
B150 (2.5-3)	S	1510		X	X							1
B151 (0-0.5)	S	1520		HOLD								1
B151 (1.5-2)	S	1525		HOLD								1
B152 (0-0.5)	S	1530		HOLD								1
B152 (1.5-2)	S	1535		HOLD								1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 15

				Seal Intact?
Relinquished by: Bryan Haney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM	
Received by: [signature]	Organization: ASARCO	Date 11/6/01	Time 1005	(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A

Special Instructions/Remarks:

RUN ALL B171 & B150 SAMPLES - HOLD ALL OTHERS UNTIL NOTIFIED BY ARCADIS (KEN BRANDNER)

Delivery Method: ☐ In Person ☒ Common Carrier FedEx (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of 3

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE - CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Haney ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Total - Sb, As, Ba, Bi	Cd, Cr, Co, Cu, CN⁻, Pb, Mn, Hg, Ni, Se, Ag	Tl, Sn, V, Zn (8-oz glass jar with Teflon lined lid)				Remarks	Total
B 162 (0-0.5)	S	915 11/5/01		X	X						1
B162 (1-1.2)	S	925		X	X						1
B163 (0-0.5)	S	930		HOLD							1
B163 (1-1.2)	S	935		HOLD							1
B164 (0-0.5)	S	SEE JAR		HOLD							1
B164 (1-1.2)	S	SEE JAR		HOLD							1
B-165 (0-0.5)	S	1040		X	X						1
B-165 (2-2.5)	S	1045		X	X						1
B-166 (0-0.5)	S	1015		HOLD							1
B-166 (2-2.3)	S	1020		HOLD							1
B-167 (0-0.5)	S	1055		HOLD							1
B-167 (2-2.3)	S	1100		HOLD							1
DUPLICATE B165 (0-0.5)	S	1040		X	X						1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 13

Relinquished by: Bryan Haney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM	Seal Intact?	
Received by: [illegible]	Organization: ASARCO	Date 11/6/01	Time 1000	(Yes) No N/A	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A	

Special Instructions/Remarks:

RUN ALL B 162 & B 165 SAMPLES - HOLD ALL OTHERS UNTIL NOTIFIED BY ARCADIS (KEN BRANDNER)

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of 3

Project Number/Name ENCYCLE RFI

Project Location ENCYCLE CORPUS CHRISTI, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Kinney / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL - Sb, As, Ba, Be, Ca, Cr, Co, Cu, CN⁻, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn	(8-oz Glass Jar w/Teflon Lined Lid)	Remarks	Total
B-168 (0-0.5)	S	1125 11/5/01		X X			1
B 168 (2-2.5)	S	1130		X X			1
B168 (2.5-3.1)	S	1135		X X			1
B 169 (0-0.5)	S	1145		HOLD			1
B169 (1-1.5)	S	1150		HOLD			1
B170 (0-0.5)	S	1200		HOLD			1
B170 (2-2.5)	S	1205		HOLD			1
B170 (2.7-3)	S	1208		HOLD			1
DUPLICATE B150(0-0.5)	S	1500		X X			1
~~B165(0-0.5) TM~~							
FIELD BLANK	L	1330		X X			2
EQUIPMENT BLANK	L	1335		X X			2
FIELD BLANK-2	L	1430		X X			2
EQUIPMENT BLANK-2	L	1435		X X			2
						Total No. of Bottles/ Containers	17

Sample Matrix: L = Liquid; S = Solid; A = Air

					Seal Intact?
Relinquished by: Bryan Kinney	Organization: ARCADIS	Date 11/5/01	Time 6:30 PM		
Received by: Montemayor	Organization: ASARCO	Date 11/6/01	Time 1000		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____		Yes No N/A

Special Instructions/Remarks:

RUN ALL B-168 SAMPLES - HOLD ALL OTHERS (B169, B170) UNTIL TENTIFIED BY ARCADIS.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05 05/97

ASARCO

December 19, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (6), six water samples collected on November 07, 2001, in association with the Encycle RFI project and received by the laboratory on November 08, 2001.

The samples were digested in accordance with EPA methods 3010 and 6020M for ICP and ICP-MS analyses respectively.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 2422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 263-8400 • FAX: (801) 251-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011533

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011533-001	06-NOV-01	FIELD BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
L011533-002	06-NOV-01	EQUIPMENT BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
L011533-003	06-NOV-01	FIELD BLANK	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011533

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011533-003	06-NOV-01	FIELD BLANK	CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
L011533-004	06-NOV-01	EQUIPMENT BLANK	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
L011533-005	06-NOV-01	FIELD BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011533

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011533-005	06-NOV-01	FIELD BLANK-2	PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
L011533-006	06-NOV-01	EQUIPMENT BLANK-2	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011071

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011071-1		Matrix Spike	AG	93	%Recovery	EH	04-DEC-01	6010
			AS	81	%Recovery	MF	03-DEC-01	6020M
			BI	95	%Recovery	EH	04-DEC-01	6010
			CD	95	%Recovery	EH	04-DEC-01	6010
			CN-	96	%Recovery	DC	09-NOV-01	335.2
			CO	95	%Recovery	EH	04-DEC-01	6010
			CR	98	%Recovery	EH	04-DEC-01	6010
			CU	101	%Recovery	EH	04-DEC-01	6010
			HG	101	%Recovery	MO	12-NOV-01	7470
			MN	100	%Recovery	EH	04-DEC-01	6010
			PB	94	%Recovery	EH	04-DEC-01	6010
			SB	90	%Recovery	MF	03-DEC-01	6020M
			SE	75	%Recovery	MF	03-DEC-01	6020M
			SN	96	%Recovery	EH	04-DEC-01	6010
			TL	88	%Recovery	MF	13-DEC-01	6020M
			V	100	%Recovery	EH	04-DEC-01	6010
WG011071-2		Prep Blank	AG	<0.005	ppm	EH	04-DEC-01	6010
			AS	<0.005	ppm	MF	03-DEC-01	6020M
			BI	<0.050	ppm	EH	04-DEC-01	6010
			CD	<0.010	ppm	EH	04-DEC-01	6010
			CN-	<0.004	ppm	DC	09-NOV-01	335.2
			CO	<0.050	ppm	EH	04-DEC-01	6010
			CR	<0.010	ppm	EH	04-DEC-01	6010
			CU	<0.050	ppm	EH	04-DEC-01	6010
			HG	<0.0005	ppm	MO	12-NOV-01	7470
			MN	<0.015	ppm	EH	04-DEC-01	6010
			PB	<0.050	ppm	EH	04-DEC-01	6010
			SB	<0.050	ppm	MF	03-DEC-01	6020M
			SE	<0.010	ppm	MF	03-DEC-01	6020M
			SN	<0.050	ppm	EH	04-DEC-01	6010
			TL	<0.002	ppm	MF	13-DEC-01	6020M
			V	<0.050	ppm	EH	04-DEC-01	6010
WG011071-3		Lab Control Sample	AG	98	%Recovery	EH	04-DEC-01	6010
			AS	88	%Recovery	MF	03-DEC-01	6020M
			BI	97	%Recovery	EH	04-DEC-01	6010
			CD	95	%Recovery	EH	04-DEC-01	6010
			CN-	103	%Recovery	DC	09-NOV-01	335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011071

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011071-3		Lab Control Sample	CO	95	%Recovery	EH	04-DEC-01	6010
			CR	98	%Recovery	EH	04-DEC-01	6010
			CU	101	%Recovery	EH	04-DEC-01	6010
			HG	100	%Recovery	MO	12-NOV-01	7470
			MN	99	%Recovery	EH	04-DEC-01	6010
			PB	96	%Recovery	EH	04-DEC-01	6010
			SB	97	%Recovery	MF	03-DEC-01	6020M
			SE	82	%Recovery	MF	03-DEC-01	6020M
			SN	93	%Recovery	EH	04-DEC-01	6010
			TL	83	%Recovery	MF	13-DEC-01	6020M
			V	100	%Recovery	EH	04-DEC-01	6010
WG011071-5		Matrix Spike Duplicate	AG	2.1	% RPD	EH	04-DEC-01	6010
			AS	1.2	% RPD	MF	03-DEC-01	6020M
			BI	<1	% RPD	EH	04-DEC-01	6010
			CD	1.7	% RPD	EH	04-DEC-01	6010
			CN-	4	% RPD	DC	09-NOV-01	335.2
			CO	<1	% RPD	EH	04-DEC-01	6010
			CR	<1	% RPD	EH	04-DEC-01	6010
			CU	1.1	% RPD	EH	04-DEC-01	6010
			HG	<1	% RPD	MO	12-NOV-01	7470
			MN	1	% RPD	EH	04-DEC-01	6010
			PB	<1	% RPD	EH	04-DEC-01	6010
			SB	<1	% RPD	MF	03-DEC-01	6020M
			SE	<1	% RPD	MF	03-DEC-01	6020M
			SN	1.1	% RPD	EH	04-DEC-01	6010
			TL	1.1	% RPD	MF	13-DEC-01	6020M
			V	<1	% RPD	EH	04-DEC-01	6010
WG011071-6		Reporting Limit	AG	0.005	ppm			6010
			AS	0.005	ppm			6020M
			BI	0.050	ppm			6010
			CD	0.010	ppm			6010
			CN-	0.004	ppm			335.2
			CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011071

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011071-6		Reporting Limit	PB	0.050	ppm			6010
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020M
			V	0.050	ppm			6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 3

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: BA / ARCADIS

Boneyard

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TOTAL - Sb, As, Bi, Cd, Cr, Co, Cu, CN - Pb, Mn, Hg, Se, Ag, Tl, Sn, V		TOTAL - Sb, Cd, Cr, Cu, Mn	TOTAL - Sb			Remarks	Total
B188 (0-0.5)	S	11/6/01 1345		X							1
B188 (2-2.5)	S	1348				X					1
B188 (5.5)	S	1350					X				1
B188 (8.5)	S	1400					X				1
B188 (10.5-11)	S	1403					X				1
DUPLICATE B188 (0-0.5)	S	1345		X							1
B189 (0-0.5)	S	1430		X							1
B189 (2-2.5)	S	1433				X					1
B189 (5.5)	S	1437					X				1
B189 (8.5)	S	1445					X				1
B189 (10.5-11)	S	1450					X				1
FIELD BLANK-2	L	1415		X HNO3 NaOH							2
EQUIPMENT BLANK-2	L	1420		X HNO3 NaOH							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 15

Relinquished by: Bryan Hoy	Organization: ARCADIS	Date 11/7/01	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks:

Follows C.O.C

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 3

Project Number/Name: Encycle RFI

Project Location: Corpus Christi, Texas

Laboratory: ASARCO

Project Manager: Ken Brandner

Sampler(s)/Affiliation: B+H / ARCADIS

ANALYSIS / METHOD / SIZE

Boneyard

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total - Sb, As, Ba, Cd, Cr, Co, Cu, Cr, Pb, Mn, Hg, Se, Ag, Tl, Sn, V		Total - Sb, Cd, Cr, Co, Mn	Total - Sb			Remarks	Total
B190 (0-0.5)	S	11/7/01 800		X							1
B190 (2-2.5)	S	805				X					1
B190 (5.5)	S	810					X				1
B190 (8.5)	S	815					X				1
B190 (10.5-11)	S	818					X				1
B191 (0-0.5)	S	845		X							1
B191 (2-2.5)	S	848				X					1
B191 (5.5)	S	850					X				1
B191 (8.5)	S	855					X				1
B191 (10.5-11)	S	857					X				1
FIELD BLANK	L	930		X w/ [illegible]							2
EQUIPMENT BLANK	L	935		X w/ [illegible]							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 14

Relinquished by: [signature]	Organization: ARCADIS	Date 11/7/01	Time 1800	Seal Intact?
Received by: [signature]	Organization: ASARCO	Date 11/8/01	Time 1000	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Follow C.O.C.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other _____

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 3 of 3

Project Number/Name Grayco RFI

Project Location Corpus Christi, Texas

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Boneyard

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: TOTAL- Sb, As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Hg, Se, Ag, Tl, Sn, V	TOTAL- Sb, Cd, Cr, Cu, Mn	TOTAL- Sb	Remarks	Total
B192 (0-0.5)	S	11/7/01 915		X				1
B192 (2-2.5)	S	920			X			1
B192 (5.5)	S	925				X		1
B192 (8.5)	S	935				X		1
B192 (10.5-11)	S	937				X		1
B193 (0-0.5)	S	950		X				1
B193 (2-2.5)	S	953			X			1
B193 (5.5)	S	1000				X		1
B193 (8.5)	S	1005				X		1
B193 (10.5-11)	S	1007				X		1
DUPLICATE B192(0-0.5)	S	915		X				1
FIELD BLANK-2	L	1030		X				2
EQUIPMENT BLANK-2	L	1055		X				2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 15

Relinquished by: Brandner	Organization: ARCADIS	Date 11/7/01	Time 1600	Seal Intact?	
Received by: Mortensen	Organization: ASARCO	Date 11/8/01	Time 1000	(Yes) No N/A	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A	

Special Instructions/Remarks: Follow C.O.C

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

December 19, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (4), four water samples collected on November 08, 2001, in association with the Encycle RFI project and received by the laboratory on November 09, 2001.

The samples were digested in accordance with EPA methods 3010 and 6020M for ICP and ICP-MS analyses respectively.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-3181 • (801) 262-2469 • FAX (801) 264-0194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011542

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011542-001	08-NOV-01	FIELD BLANK-2	AG	<0.005	ppm	EH	03-DEC-01	6010
			CR	<0.010	ppm	EH	03-DEC-01	6010
			MN	<0.015	ppm	EH	03-DEC-01	6010
			SB	<0.050	ppm	MF	04-DEC-01	6020M
			TL	<0.002	ppm	MF	19-DEC-01	6020M
L011542-002	08-NOV-01	EQUIPMENT BLANK-2	AG	<0.005	ppm	EH	03-DEC-01	6010
			CR	<0.010	ppm	EH	03-DEC-01	6010
			MN	<0.015	ppm	EH	03-DEC-01	6010
			SB	<0.050	ppm	MF	04-DEC-01	6020M
			TL	<0.002	ppm	MF	19-DEC-01	6020M
L011542-003	08-NOV-01	FIELD BLANK	AG	<0.005	ppm	EH	03-DEC-01	6010
			CD	<0.010	ppm	EH	03-DEC-01	6010
			CO	<0.050	ppm	EH	03-DEC-01	6010
			CR	<0.010	ppm	EH	03-DEC-01	6010
			CU	<0.050	ppm	EH	03-DEC-01	6010
			HG	<0.0005	ppm	MO	14-NOV-01	7470
			NI	<0.050	ppm	EH	03-DEC-01	6010
			PB	<0.050	ppm	EH	03-DEC-01	6010
			SB	<0.050	ppm	MF	04-DEC-01	6020M
			SE	<0.010	ppm	MF	04-DEC-01	6020M
L011542-004	08-NOV-01	EQUIPMENT BLANK	AG	<0.005	ppm	EH	03-DEC-01	6010
			CD	<0.010	ppm	EH	03-DEC-01	6010
			CO	<0.050	ppm	EH	03-DEC-01	6010
			CR	<0.010	ppm	EH	03-DEC-01	6010
			CU	<0.050	ppm	EH	03-DEC-01	6010
			HG	<0.0005	ppm	MO	14-NOV-01	7470
			NI	<0.050	ppm	EH	03-DEC-01	6010
			PB	<0.050	ppm	EH	03-DEC-01	6010
			SB	<0.050	ppm	MF	04-DEC-01	6020M
			SE	<0.010	ppm	MF	04-DEC-01	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011542

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011081

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011081-1		Matrix Spike	AG	97	%Recovery	EH	03-DEC-01	6010
			CD	96	%Recovery	EH	03-DEC-01	6010
			CO	95	%Recovery	EH	03-DEC-01	6010
			CR	98	%Recovery	EH	03-DEC-01	6010
			CU	98	%Recovery	EH	03-DEC-01	6010
			HG	100	%Recovery	MO	14-NOV-01	7470
			MN	100	%Recovery	EH	03-DEC-01	6010
			NI	100	%Recovery	EH	03-DEC-01	6010
			PB	95	%Recovery	EH	03-DEC-01	6010
			SB	112	%Recovery	MF	04-DEC-01	6020M
			SE	85	%Recovery	MF	04-DEC-01	6020M
			TL	101	%Recovery	MF	19-DEC-01	6020M
WG011081-2		Prep Blank	AG	<0.005	ppm	EH	03-DEC-01	6010
			CD	<0.010	ppm	EH	03-DEC-01	6010
			CO	<0.050	ppm	EH	03-DEC-01	6010
			CR	<0.010	ppm	EH	03-DEC-01	6010
			CU	<0.050	ppm	EH	03-DEC-01	6010
			HG	<0.0005	ppm	MO	14-NOV-01	7470
			MN	<0.015	ppm	EH	03-DEC-01	6010
			NI	<0.050	ppm	EH	03-DEC-01	6010
			PB	<0.050	ppm	EH	03-DEC-01	6010
			SB	<0.050	ppm	MF	04-DEC-01	6020M
			SE	<0.010	ppm	MF	04-DEC-01	6020M
			TL	<0.002	ppm	MF	19-DEC-01	6020M
WG011081-3		Lab Control Sample	AG	96	%Recovery	EH	03-DEC-01	6010
			CD	92	%Recovery	EH	03-DEC-01	6010
			CO	93	%Recovery	EH	03-DEC-01	6010
			CR	96	%Recovery	EH	03-DEC-01	6010
			CU	98	%Recovery	EH	03-DEC-01	6010
			HG	102	%Recovery	MO	14-NOV-01	7470
			MN	97	%Recovery	EH	03-DEC-01	6010
			NI	94	%Recovery	EH	03-DEC-01	6010
			PB	92	%Recovery	EH	03-DEC-01	6010
			SB	95	%Recovery	MF	04-DEC-01	6020M
			SE	87	%Recovery	MF	04-DEC-01	6020M
			TL	96	%Recovery	MF	19-DEC-01	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011081

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011081-5		Matrix Spike Duplicate	AG	2.1	% RPD	EH	03-DEC-01	6010
			CD	1.7	% RPD	EH	03-DEC-01	6010
			CO	1.1	% RPD	EH	03-DEC-01	6010
			CR	1	% RPD	EH	03-DEC-01	6010
			CU	1.2	% RPD	EH	03-DEC-01	6010
			HG	1	% RPD	MO	14-NOV-01	7470
			MN	1.4	% RPD	EH	03-DEC-01	6010
			NI	<1	% RPD	EH	03-DEC-01	6010
			PB	1.9	% RPD	EH	03-DEC-01	6010
			SB	<1	% RPD	MF	04-DEC-01	6020M
			SE	<1	% RPD	MF	04-DEC-01	6020M
			TL	1.4	% RPD	MF	19-DEC-01	6020M
WG011081-6		Reporting Limit	AG	0.005	ppm			6010
			CD	0.010	ppm			6010
			CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.050	ppm			6010
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			TL	0.002	ppm			6020M

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Encinal BF1

Project Location Corpus Christi, TX

Laboratory ASMCO

Project Manager Ken Brandmeyer

Sampler(s)/Affiliation BH / ARCADIS

Grain Elev

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Ag, Cr, Mn, Sb	Sb	Sb, Cr, Mn, Ag, Tl	Cr, Sb			Remarks	Total
B204 (0-0.5)	S	11/9/01 1325		X							1
B204 (2-2.5)	S	1330			X						1
B204 (5.5)	S	1335			X						1
B204 (8.5)	S	1340			X						1
B204 (11.5)	S	1345			X						1
B204 (13-14)	S	1350			X						1
B205 (0-0.5)	S	1405				X					1
B205 (2-2.5)	S	1410				X					1
B205 (5.5)	S	1415					X				1
DUPLICATE B205 (0-0.5)	S	1405				X					1
FIELD BLANK-2	L	1130				X					1
EQUIPMENT BLANK-2	L	1135				X					1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 12

Relinquished by: Benjamin Brown	Organization: ARCADIS	Date 11/8/01	Time 1830	Seal Intact?	
Received by: _____	Organization: _____	Date / /	Time _____	(Yes) No N/A	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?	
Received by: Fedex	Organization: _____	Date 11/9/01	Time 10a	Yes No N/A	

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Enwyle RFI

Project Location Corpus Christi, Texas

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

Grain Elev

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Sb, Cr, Ag	Cr	Ag, Cd, Co, Cr, Cu, Hg, Ni, Pb, Sb, Se	Cr, Co	Sb, Cr, Co, Hg, Ni, Ag	Remarks	Total
B198 (0-0.5)	S	11/8/01 1015		X						1
B198 (2-2.5)	S	1017			X					1
B199 (0-0.5)	S	1030				X				1
B199 (2-2.5)	S	1033					X			1
DUPLICATE B199 (0-0.5)	S	1030				X				1
B200 (0-0.5)	S	1045						X		1
FIELD BLANK	L	1045				X				1
EQUIPMENT BLANK	L	1050				X				1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 8

Relinquished by: Rajavi Mistry	Organization: ARCADIS	Date 11/8/01	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	(Yes) No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date 11/9/01	Time 10:00	Yes No N/A	

Special Instructions/Remarks: Follow COC

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

APPENDIX I

Appendix I

Laboratory Reports – Groundwater

ASARCO

September 11, 2000

Mr. Ken Brandner
Encycle-Corpus Christi,
Texas

Please find attached the analytical results for the water samples collected June 30, 2000 for Encycle/Texas Project. The samples received by the laboratory on July 06, 2000.

If you have any questions, I can be reached at 801-263-5268.

Sincerely,

Bilquis Dhedhy
Chemist

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001041

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001041-001	30-JUN-00	MW-3	BI	<0.050	ppm	VK	18-JUL-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CU	<0.050	ppm	VK	18-JUL-00		6010
			MN	1.7	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	0.065	ppm	VK	15-AUG-00		6010
			ZN	0.18	ppm	CH	04-AUG-00	180	6020
L001041-002	30-JUN-00	MW-6	BI	<0.050	ppm	VK	18-JUL-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CU	<0.050	ppm	VK	18-JUL-00		6010
			MN	0.46	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	0.014	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.065	ppm	CH	04-AUG-00	180	6020
L001041-003	30-JUN-00	MW-8	BI	<0.050	ppm	VK	18-JUL-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CU	<0.050	ppm	VK	18-JUL-00		6010
			MN	0.77	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	0.84	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.17	ppm	CH	04-AUG-00	180	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001041

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001041-004	30-JUN-00	MW-9	BI	<0.050	ppm	VK	18-JUL-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CU	<0.050	ppm	VK	18-JUL-00		6010
			MN	0.57	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	0.27	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	0.058	ppm	VK	15-AUG-00		6010
			ZN	0.30	ppm	CH	04-AUG-00	180	6020
L001041-005	30-JUN-00	MW-10	BI	<0.050	ppm	VK	18-JUL-00		6010
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CU	<0.050	ppm	VK	18-JUL-00		6010
			MN	1.9	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	0.14	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.62	ppm	CH	04-AUG-00	180	6020
L001041-006	30-JUN-00	MW-2	AG	<0.010	ppm	VK	15-AUG-00	180	6010
			AS	<0.005	ppm	CH	21-AUG-00	180	6020
			BA	0.081	ppm	VK	18-JUL-00	180	6010
			BI	<0.050	ppm	VK	18-JUL-00		6010
			CD	<0.005	ppm	CH	21-AUG-00	180	6020
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CR	<0.010	ppm	CH	21-AUG-00	180	6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00	28	245.1
			MN	2.9	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			PB	<0.020	ppm	CH	21-AUG-00	180	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001041

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001041-006	30-JUN-00	MW-2	SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.079	ppm	CH	04-AUG-00	180	6020
L001041-007	30-JUN-00	MW-4	AG	<0.010	ppm	VK	15-AUG-00	180	6010
			AS	<0.005	ppm	CH	21-AUG-00	180	6020
			BA	<0.050	ppm	VK	18-JUL-00	180	6010
			BI	<0.050	ppm	VK	15-AUG-00		6010
			CD	<0.005	ppm	CH	21-AUG-00	180	6020
			CN	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CR	<0.010	ppm	CH	21-AUG-00	180	6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00	28	245.1
			MN	1.4	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			PB	<0.020	ppm	CH	21-AUG-00	180	6020
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	0.016	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.063	ppm	CH	04-AUG-00	180	6020
L001041-008	30-JUN-00	MW-4 DUP	AG	<0.010	ppm	VK	15-AUG-00	180	6010
			AS	<0.005	ppm	CH	21-AUG-00	180	6020
			BA	<0.050	ppm	VK	18-JUL-00	180	6010
			BI	<0.050	ppm	VK	15-AUG-00		6010
			CD	<0.005	ppm	CH	21-AUG-00	180	6020
			CN	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CR	<0.010	ppm	CH	21-AUG-00	180	6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00	28	245.1
			MN	1.4	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001041

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001041-008	30-JUN-00	MW-4 DUP	PB	,0.020	ppm	CH	21-AUG-00	180	6020
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	0.016	ppm	CH	21-AUG-00	180	6020
			SN	0.10	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.061	ppm	CH	04-AUG-00	180	6020
L001041-009	30-JUN-00	MW-5	AG	0.019	ppm	VK	18-JUL-00	180	6010
			AS	0.023	ppm	CH	21-AUG-00	180	6020
			BA	<0.050	ppm	VK	18-JUL-00	180	6010
			BI	<0.050	ppm	VK	15-AUG-00		6010
			CD	0.006	ppm	CH	21-AUG-00	180	6020
			CN	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CR	<0.010	ppm	CH	21-AUG-00	180	6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00	28	245.1
			MN	19.	ppm	VK	18-JUL-00	180	6010
			NI	<0.050	ppm	VK	18-JUL-00	180	6010
			PB	<0.020	ppm	CH	21-AUG-00	180	6020
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	6.6	ppm	CH	04-AUG-00	180	6020
L001041-010	30-JUN-00	FIELD BLANK	AG	<0.010	ppm	VK	18-JUL-00	180	6010
			AS	<0.005	ppm	CH	21-AUG-00	180	6020
			BA	<0.050	ppm	VK	18-JUL-00	180	6010
			BI	<0.050	ppm	VK	18-JUL-00		6010
			CD	<0.005	ppm	CH	21-AUG-00	180	6020
			CN-	<0.004	ppm	DC	12-JUL-00	14	335.2
			CO	<0.050	ppm	VK	18-JUL-00	180	6010
			CR	<0.010	ppm	CH	21-AUG-00	180	6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00	28	245.1
			MN	<0.015	ppm	VK	18-JUL-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001041

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001041-010	30-JUN-00	FIELD BLANK	NI	<0.050	ppm	VK	18-JUL-00	180	6010
			PB	<0.020	ppm	CH	21-AUG-00	180	6020
			SB	<0.050	ppm	CH	04-AUG-00	180	6020
			SE	<0.010	ppm	CH	21-AUG-00	180	6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00	180	6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	0.077	ppm	CH	04-AUG-00	180	6020

Digestion Methods for totals --- 3010 and 6020.
* = low recovery due to matrix interference.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000623

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000623-1		Matrix Spike	AG	98	%Recovery	VK	18-JUL-00		6010
			AS	87	%Recovery	CH	21-AUG-00		6020
			BA	90	%Recovery	VK	18-JUL-00		6010
			BI	91	%Recovery	VK	18-JUL-00		6010
			CD	80	%Recovery	CH	21-AUG-00		6020
			CN-	90	%Recovery	DC	12-JUL-00		335.2
			CO	86	%Recovery	VK	18-JUL-00		6010
			CR	109	%Recovery	CH	21-AUG-00		6020
			CU	98	%Recovery	VK	18-JUL-00		6010
			HG	103	%Recovery	EH	08-AUG-00		245.1
			MN	88	%Recovery	VK	18-JUL-00		6010
			NI	87	%Recovery	VK	18-JUL-00		6010
			PB	87	%Recovery	CH	21-AUG-00		6020
			SB	100	%Recovery	CH	04-AUG-00		6020
			SE	76	%Recovery	CH	21-AUG-00		6020
			SN	89	%Recovery	VK	15-AUG-00		6010
			TL	86	%Recovery	CH	04-AUG-00		6020
			V	90	%Recovery	VK	15-AUG-00		6010
			ZN	70*	%Recovery	CH	04-AUG-00		6020
WG000623-2		Prep Blank	AG	<0.010	ppm	VK	18-JUL-00		6010
			AS	<0.005	ppm	CH	21-AUG-00		6020
			BA	<0.050	ppm	VK	18-JUL-00		6010
			BI	<0.050	ppm	VK	18-JUL-00		6010
			CD	<0.005	ppm	CH	21-AUG-00		6020
			CN-	<0.004	ppm	DC	12-JUL-00		335.2
			CO	<0.050	ppm	VK	18-JUL-00		6010
			CR	<0.010	ppm	CH	21-AUG-00		6020
			CU	<0.050	ppm	VK	18-JUL-00		6010
			HG	<0.50	ppb	EH	08-AUG-00		245.1
			MN	<0.015	ppm	VK	18-JUL-00		6010
			NI	<0.050	ppm	VK	18-JUL-00		6010
			PB	<0.020	ppm	CH	21-AUG-00		6020
			SB	<0.050	ppm	CH	04-AUG-00		6020
			SE	<0.010	ppm	CH	21-AUG-00		6020
			SN	<0.050	ppm	VK	15-AUG-00		6010
			TL	<0.002	ppm	CH	04-AUG-00		6020
			V	<0.050	ppm	VK	15-AUG-00		6010
			ZN	<0.050	ppm	CH	04-AUG-00		6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000623

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000623-3		Lab Control Sample	AG	92	%Recovery	VK	18-JUL-00		6010
			AS	106	%Recovery	CH	21-AUG-00		6020
			BA	96	%Recovery	VK	18-JUL-00		6010
			BI	100	%Recovery	VK	18-JUL-00		6010
			CD	100	%Recovery	CH	21-AUG-00		6020
			CN-	96	%Recovery	DC	12-JUL-00		335.2
			CO	95	%Recovery	VK	18-JUL-00		6010
			CR	114	%Recovery	CH	21-AUG-00		6020
			CU	95	%Recovery	VK	18-JUL-00		6010
			HG	95	%Recovery	EH	08-AUG-00		245.1
			MN	96	%Recovery	VK	18-JUL-00		6010
			NI	95	%Recovery	VK	18-JUL-00		6010
			PB	99	%Recovery	CH	21-AUG-00		6020
			SB	105	%Recovery	CH	04-AUG-00		6020
			SE	107	%Recovery	CH	21-AUG-00		6020
			SN	80	%Recovery	VK	15-AUG-00		6010
			TL	101	%Recovery	CH	04-AUG-00		6020
			V	78	%Recovery	VK	15-AUG-00		6010
			ZN	119	%Recovery	CH	04-AUG-00		6020
WG000623-4		Matrix Spike Duplicate	AG	7.4	% RPD	VK	15-AUG-00		6010
			AS	<1	% RPD	CH	21-AUG-00		6020
			BA	2.8	% RPD	VK	18-JUL-00		6010
			BI	<1	% RPD	VK	18-JUL-00		6010
			CD	1.3	% RPD	CH	21-AUG-00		6020
			CN-	<1	% RPD	DC	12-JUL-00		335.2
			CO	<1	% RPD	VK	18-JUL-00		6010
			CR	1.9	% RPD	CH	21-AUG-00		6020
			CU	2.6	% RPD	VK	18-JUL-00		6010
			HG	9.0	% RPD	EH	08-AUG-00		245.1
			MN	<1	% RPD	VK	18-JUL-00		6010
			NI	2.5	% RPD	VK	18-JUL-00		6010
			PB	1.6	% RPD	CH	21-AUG-00		6020
			SB	1.5	% RPD	CH	04-AUG-00		6020
			SE	3.1	% RPD	CH	21-AUG-00		6020
			SN	2.3	% RPD	VK	15-AUG-00		6010
			TL	1.7	% RPD	CH	04-AUG-00		6020
			V	4.5	% RPD	VK	15-AUG-00		6010
			ZN	11	% RPD	CH	04-AUG-00		6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000623

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000623-5		Reporting Limit	AG	0.010	ppm	VK	18-JUL-00		6010
			AS	0.005	ppm				6020
			BA	0.050	ppm				6010
			BI	0.050	ppm				6010
			CD	0.005	ppm				6020
			CN	0.004	ppm				335.2
			CO	0.050	ppm				6010
			CR	0.010	ppm				6020
			CU	0.050	ppm				6010
			HG	0.50	ppb				245.1
			MN	0.015	ppm				6010
			NI	0.050	ppm				6010
			PB	0.020	ppm				6020
			SB	0.050	ppm				6020
			SE	0.010	ppm				6020
			SN	0.050	ppm				6010
			TL	0.002	ppm				6020
			V	0.050	ppm				6010
			ZN	0.050	ppm				6020

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE						Remarks	Total
	L					1					2
						1					1
						1					2
						1					2
						1					2
	L					1			1		2
						1			1		2
						1			1		2
						1			1		2
						1			1		2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 20

Relinquished by: _____	Organization: _____	Date 07/05/2000	Time 08:05	Seal Intact?
Received by: _____	Organization: _____	Date __/__/__	Time _____	Yes No N/A
Relinquished by: _____	Organization: _____	Date __/__/__	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date __/__/__	Time _____	Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☑ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

AG 05-0597

ASARCO

October 24,2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Dear Sir:

Please find attached the analytical results and associated quality control data for twenty groundwater samples collected July 28, 2000 and August 17, 2000. The samples were received by the lab on August 01, and August 18, 2000.

Sincerely,

Duane Coble
Environmental Lab
Technician

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001212

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001212-001	28-JUL-00	MW-2	AG	.020	ppm	MDK	19-OCT-00	180	6010
			AS	*<.009	ppm	CH	12-SEP-00	180	6020
			BA	.069	ppm	MK	03-AUG-00	180	6010
			BI	*<.050	ppm	MK	03-AUG-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00	28	245.1
			MN	2.6	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.027	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010
L001212-002	28-JUL-00	MW-2 DUPLICATE	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.009	ppm	CH	12-SEP-00	180	6020
			BA	.072	ppm	MK	03-AUG-00	180	6010
			BI	*<.050	ppm	MK	03-AUG-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00	28	245.1
			MN	2.6	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.017	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	.005	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001212

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001212-003	28-JUL-00	MW-4	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.009	ppm	CH	12-SEP-00	180	6020
			BA	<.050	ppm	MK	03-AUG-00	180	6010
			BI	*<.050	ppm	MK	03-AUG-00		6010
			CD	.020	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00	28	245.1
			MN	1.1	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.030	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	.011	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010
L001212-004	28-JUL-00	MW-5	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.009	ppm	CH	12-SEP-00	180	6020
			BA	<.050	ppm	MK	03-AUG-00	180	6010
			BI	*<.050	ppm	MK	03-AUG-00		6010
			CD	.10	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00	28	245.1
			MN	20.	ppm	MK	03-AUG-00	180	6010
			NI	*.080	ppm	MK	03-AUG-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.039	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	.003	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	7.1	ppm	MK	03-AUG-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001212

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001212-005	28-JUL-00	MW-3	BI	*<.050	ppm	MK	03-AUG-00		6010
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	1.8	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.015	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	.063	ppm	MK	03-AUG-00		6010
			ZN	.073	ppm	MK	03-AUG-00	180	6010
L001212-006	28-JUL-00	MW-6	BI	*<.050	ppm	MK	03-AUG-00		6010
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.46	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.017	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010
L001212-007	28-JUL-00	MW-8	BI	*<.050	ppm	MK	03-AUG-00		6010
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.48	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*.031	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	.059	ppm	MK	03-AUG-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001212

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001212-008	28-JUL-00	MW-9	BI	*<.050	ppm	MK	03-AUG-00		6010
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.33	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			SB	.18	ppm	MK	03-AUG-00	180	6010
			SE	*.020	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03 AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010
L001212-009	28-JUL-00	MW-10	BI	*<.050	ppm	MK	03-AUG-00		6010
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	1.0	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			SB	.087	ppm	MK	03-AUG-00	180	6010
			SE	*.22	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	.11	ppm	MK	03-AUG-00	180	6010
L001212-010	28-JUL-00	FIELD BLANK	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.005	ppm	CH	12-SEP-00	180	6020
			BA	<.050	ppm	MK	03-AUG-00	180	6010
			BI	*<.050	ppm	MK	03-AUG-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	02-AUG-00	14	335.2
			CO	*<.050	ppm	MK	03-AUG-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00	28	245.1
			MN	<.015	ppm	MK	03-AUG-00	180	6010
			NI	*<.050	ppm	MK	03-AUG-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001212

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001212-010	28-JUL-00	FIELD BLANK	SB	<.050	ppm	MK	03-AUG-00	180	6010
			SE	*<.010	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	03-AUG-00		6010
			ZN	<.050	ppm	MK	03-AUG-00	180	6010

DIGESTION--3010
*SAMPLE RESULTS REFLECT POSSIBLE BIAS, SEE QUALITY CONTROL DATA.
Arsenic limit of detection elevated due to sample matrix.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000678

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000678-1		Matrix Spike	AG	114	%Recovery	MDK	19-OCT-00		6010
			AS	*78	%Recovery	CH	12-SEP-00		6020
			BA	80	%Recovery	MK	03-AUG-00		6010
			BI	*79	%Recovery	MK	03-AUG-00		6010
			CD	*75	%Recovery	CH	12-SEP-00		6020
			CN-	86	%Recovery	DC	02-AUG-00		335.2
			CO	*73	%Recovery	MK	03-AUG-00		6010
			CR	85	%Recovery	MDK	19-OCT-00		6010
			CU	81	%Recovery	CH	12-SEP-00		6020
			HG	98	%Recovery	EH	08-AUG-00		245.1
			MN	85	%Recovery	MK	03-AUG-00		6010
			NI	*76	%Recovery	MK	03-AUG-00		6010
			PB	80	%Recovery	CH	12-SEP-00		6020
			SB	88	%Recovery	MK	03-AUG-00		6010
			SE	*71	%Recovery	CH	12-SEP-00		6020
			SN	*74	%Recovery	MK	03-AUG-00		6010
			TL	80	%Recovery	CH	12-SEP-00		6020
			V	93	%Recovery	MK	03-AUG-00		6010
			ZN	86	%Recovery	MK	03-AUG-00		6010
WG000678-2		Prep Blank	AG	<.005	ppm	MDK	19-OCT-00		6010
			AS	<.008	ppm	CH	12-SEP-00		6020
			BA	<.05	ppm	MK	03-AUG-00		6010
			BI	<.05	ppm	MK	03-AUG-00		6010
			CD	<.01	ppm	CH	12-SEP-00		6020
			CN-	<.004	ppm	DC	02-AUG-00		335.2
			CO	<.05	ppm	MK	03-AUG-00		6010
			CR	<.01	ppm	MDK	19-OCT-00		6010
			CU	<.05	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	08-AUG-00		245.1
			MN	<.015	ppm	MK	03-AUG-00		6010
			NI	<.05	ppm	MK	03-AUG-00		6010
			PB	<.02	ppm	CH	12-SEP-00		6020
			SB	<.05	ppm	MK	03-AUG-00		6010
			SE	<.01	ppm	CH	12-SEP-00		6020
			SN	<.05	ppm	MK	03-AUG-00		6010
			TL	<.002	ppm	CH	12-SEP-00		6020
			V	<.05	ppm	MK	03-AUG-00		6010
			ZN	<.05	ppm	MK	03-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services Project 8201)

Batch No: WG000678

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000678-3		Lab Control Sample	AG	103	%Recovery	MDK	19-OCT-00		6010
			AS	87	%Recovery	CH	12-SEP-00		6020
			BA	97	%Recovery	MK	03-AUG-00		6010
			BI	105	%Recovery	MK	03-AUG-00		6010
			CD	87	%Recovery	CH	12-SEP-00		6020
			CN-	92	%Recovery	DC	02-AUG-00		335.2
			CO	99	%Recovery	MK	03-AUG-00		6010
			CR	97	%Recovery	MDK	19-OCT-00		6010
			CU	102	%Recovery	CH	12-SEP-00		6020
			HG	92	%Recovery	EH	08-AUG-00		245.1
			MN	96	%Recovery	MK	03-AUG-00		6010
			NI	99	%Recovery	MK	03-AUG-00		6010
			PB	95	%Recovery	CH	12-SEP-00		6020
			SB	93	%Recovery	MK	03-AUG-00		6010
			SE	80	%Recovery	CH	12-SEP-00		6020
			SN	101	%Recovery	MK	03-AUG-00		6010
			TL	93	%Recovery	CH	12-SEP-00		6020
			V	100	%Recovery	MK	03-AUG-00		6010
			ZN	97	%Recovery	MK	03-AUG-00		6010
WG000678-4		Matrix Spike Duplicate	AG	4	% RPD	MDK	19-OCT-00		6010
			AS	4.8	% RPD	CH	12-SEP-00		6020
			BA	1	% RPD	MK	03-AUG-00		6010
			BI	2.5	% RPD	MK	03-AUG-00		6010
			CD	2.2	% RPD	CH	12-SEP-00		6020
			CN-	<1	% RPD	DC	02-AUG-00		335.2
			CO	<1	% RPD	MK	03-AUG-00		6010
			CR	1	% RPD	MDK	19-OCT-00		6010
			CU	4.5	% RPD	CH	12-SEP-00		6020
			HG	7.8	% RPD	EH	08-AUG-00		245.1
			MN	2.8	% RPD	MK	03-AUG-00		6010
			NI	4.1	% RPD	MK	03-AUG-00		6010
			PB	4.	% RPD	CH	12-SEP-00		6020
			SB	2.3	% RPD	MK	03-AUG-00		6010
			SE	4.8	% RPD	CH	12-SEP-00		6020
			SN	3.0	% RPD	MK	03-AUG-00		6010
			TL	3.8	% RPD	CH	12-SEP-00		6020
			V	<1	% RPD	MK	03-AUG-00		6010
			ZN	<1	% RPD	MK	03-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000678

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000678-5		Reporting Limit	AG	.005	ppm				6010
			AS	.009	ppm				6020
			BA	.05	ppm				6010
			BI	.05	ppm				6010
			CD	.01	ppm				6020
			CN-	.004	ppm				335.2
			CO	.05	ppm				6010
			CR	.01	ppm				6010
			CU	.05	ppm				6020
			HG	.5	ppb				245.1
			MN	.015	ppm				6010
			NI	.05	ppm				6010
			PB	.02	ppm				6020
			SB	.05	ppm				6010
			SE	.01	ppm				6020
			SN	.05	ppm				6010
			TL	.002	ppm				6020
			V	.05	ppm				6010
			ZN	.05	ppm				6010

* SPIKE RECOVERY OUTSIDE CONTROL LIMIT.
MAY BE DUE TO MATRIX INTERFERENCE.

QC associated with batch L001212

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC00064 0001/Encycle RFI

Project Location Corpus Christi, TX

Laboratory ASARCO, St. Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation Adrian Garcia/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total Sb, As, Ba, Bi, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Tl, Sn, Va, Zn (1pt poly w/ HNO3)	Total cyanide (1 qt. poly w/ NaOH)		Total Sb, Bi, Co, Cu, Mn, Ni, Se, Tl, Sn, Va, Zn (1pt poly w/ HNO3)			Remarks	Total
MW-2	L	07-28-2000/ 11:00		1	1						2
MW-2 Duplicate	L	/11:15		1	1						2
MW-4	L	/10:30		1	1						2
MW-5	L	/10:45		1	1						2
MW-3		/12:30			1		1				2
MW-6		/11:45			1		1				2
MW-8		/12:00			1		1				2
MW-9		/11:30			1		1				2
MW-10		/12:15			1		1				2
Field Blank		/12:45		1	1						2

Total No. of Bottles/ Containers 20

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Adrian E. Garcia	Organization: ARCADIS	Date 07/31/2000	Time PM	Seal Intact? Yes No N/A
Received by: Mottley	Organization: ASARCO	Date 8/1/00	Time AM	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: Normal Turnaround Results to Ken Brandner of ARCADIS

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001329

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001329-001	17-AUG-00	MW2	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.008	ppm	CH	12-SEP-00	180	6020
			BA	.072	ppm	MK	06-SEP-00	180	6010
			BI	<.050	ppm	MK	06-SEP-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	06-SEP-00	28	245.1
			MN	3.1	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.024	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	06-SEP-00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010
L001329-002	17-AUG-00	MW4	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.008	ppm	CH	12-SEP-00	180	6020
			BA	.054	ppm	MK	06-SEP-00	180	6010
			BI	<.050	ppm	MK	06-SEP-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	06-SEP-00	28	245.1
			MN	1.2	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.022	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	.007	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	06-SEP-00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001329

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001329-003	17-AUG-00	MW5	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.008	ppm	CH	12-SEP-00	180	6020
			BA	.051	ppm	MK	06-SEP-00	180	6010
			BI	<.050	ppm	MK	06-SEP-00		6010
			CD	*.023	ppm	CH	12-SEP 00	180	6020
			CN	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	06-SEP-00	28	245.1
			MN	12.	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.030	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	.004	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	06-SEP-00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010
L001329-004	17-AUG-00	FIELD BLANK	AG	<.005	ppm	MDK	19-OCT-00	180	6010
			AS	*<.005	ppm	CH	12-SEP-00	180	6020
			BA	<.050	ppm	MK	06-SEP-00	180	6010
			BI	<.050	ppm	MK	06-SEP-00		6010
			CD	*<.010	ppm	CH	12-SEP-00	180	6020
			CN	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	06-SEP-00	28	245.1
			MN	<.015	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			PB	<.020	ppm	CH	12-SEP-00	180	6020
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*<.010	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	.006	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	06-SEP-00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001329

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001329-005	17-AUG-00	MW3	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	3.1	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.015	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	.066	ppm	MK	06-SEP-00		6010
			ZN	.12	ppm	MK	06-SEP-00	180	6010
L001329-006	17-AUG-00	MW6	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.43	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.034	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<.050	ppm	MK	06-SEP-00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010
L001329-007	17-AUG-00	MW8	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.62	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.025	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001329

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001329-007	17-AUG-00	MW8	V	<.050	ppm	MK	06-SEP-00		6010
			ZN	.097	ppm	MK	06-SEP-00	180	6010
L001329-008	17-AUG-00	MW9	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	.017	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.49	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	.052	ppm	MK	06-SEP-00	180	6010
			SE	*.029	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	.057	ppm	MK	06-SEP-00		6010
			ZN	.26	ppm	MK	06-SEP-00	180	6010
L001329-009	17-AUG-00	MW10	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	.020	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.90	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	<.050	ppm	MK	06-SEP-00	180	6010
			SE	*.21	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	.056	ppm	MK	06-SEP-00		6010
			ZN	.36	ppm	MK	06-SEP-00	180	6010
L001329-010	17-AUG-00	MW6 DUPLICATE	BI	<.050	ppm	MK	06-SEP-00		6010
			CN-	<.004	ppm	DC	29-AUG-00	14	335.2
			CO	*<.050	ppm	MK	06-SEP-00	180	6010
			CR	<.010	ppm	MDK	19-OCT-00	180	6010
			CU	<.050	ppm	CH	12-SEP-00		6020
			MN	.44	ppm	MK	06-SEP-00	180	6010
			NI	*<.050	ppm	MK	06-SEP-00	180	6010
			SB	<.050	ppm	MK	06-SEP-00	180	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001329

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001329-010	17-AUG-00	MW6 DUPLICATE	SE	*.026	ppm	CH	12-SEP-00	180	6020
			SN	*<.050	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00	180	6020
			V	<:050	ppm	MK	06-SEP 00		6010
			ZN	<.050	ppm	MK	06-SEP-00	180	6010

DIGESTION--3010
*SAMPLE RESULTS REFLECT POSSIBLE BIAS, SEE QUALITY CONTROL DATA.

Arsenic limit of detection elevated due to sample matrix.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000826

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000826-1		Matrix Spike	AG	113	%Recovery	MDK	19-OCT-00		6010
			AS	*79	%Recovery	CH	12-SEP-00		6020
			BA	86	%Recovery	MK	06-SEP-00		6010
			BI	88	%Recovery	MK	06-SEP-00		6010
			CD	*74	%Recovery	CH	12-SEP-00		6020
			CN	92	%Recovery	DC	29-AUG-00		335.2
			CO	*79	%Recovery	MK	06-SEP-00		6010
			CR	86	%Recovery	MDK	19-OCT-00		6010
			CU	83	%Recovery	CH	12-SEP-00		6020
			HG	104	%Recovery	EH	06-SEP-00		245.1
			MN	116	%Recovery	MK	06-SEP-00		6010
			NI	*79	%Recovery	MK	06-SEP-00		6010
			PB	87	%Recovery	CH	12-SEP-00		6020
			SB	97	%Recovery	MK	06-SEP-00		6010
			SE	*71	%Recovery	CH	12-SEP-00		6020
			SN	*74	%Recovery	MK	06-SEP-00		6010
			TL	88	%Recovery	CH	12-SEP-00		6020
			V	92	%Recovery	MK	06-SEP-00		6010
			ZN	91	%Recovery	MK	06-SEP-00		6010
WG000826-2		Prep Blank	AG	<.005	ppm	MDK	19-OCT-00		6010
			AS	<.008	ppm	CH	12-SEP-00		6020
			BA	<.05	ppm	MK	06-SEP-00		6010
			BI	<.05	ppm	MK	06-SEP-00		6010
			CD	<.01	ppm	CH	12-SEP-00		6020
			CN	<.004	ppm	DC	29-AUG-00		335.2
			CO	<.05	ppm	MK	06-SEP-00		6010
			CR	<.01	ppm	MDK	19-OCT-00		6010
			CU	<.05	ppm	CH	12-SEP-00		6020
			HG	<.5	ppb	EH	06-SEP-00		245.1
			MN	<.015	ppm	MK	06-SEP-00		6010
			NI	<.05	ppm	MK	06-SEP-00		6010
			PB	<.02	ppm	CH	12-SEP-00		6020
			SB	<.05	ppm	MK	06-SEP-00		6010
			SE	<.01	ppm	CH	12-SEP-00		6020
			SN	<.05	ppm	MK	06-SEP-00		6010
			TL	<.002	ppm	CH	12-SEP-00		6020
			V	<.05	ppm	MK	06-SEP-00		6010
			ZN	<.05	ppm	MK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000826

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000826 3		Lab Control Sample	AG	102	%Recovery	MDK	19-OCT-00		6010
			AS	104	%Recovery	CH	12-SEP-00		6020
			BA	99	%Recovery	MK	06-SEP-00		6010
			BI	99	%Recovery	MK	06-SEP-00		6010
			CD	102	%Recovery	CH	12-SEP-00		6020
			CN	84	%Recovery	DC	29-AUG-00		335.2
			CO	98	%Recovery	MK	06-SEP-00		6010
			CR	97	%Recovery	MDK	19-OCT-00		6010
			CU	100	%Recovery	CH	12-SEP-00		6020
			HG	102	%Recovery	EH	06-SEP-00		245.1
			MN	102	%Recovery	MK	06-SEP-00		6010
			NI	98	%Recovery	MK	06-SEP-00		6010
			PB	101	%Recovery	CH	12-SEP-00		6020
			SB	94	%Recovery	MK	06-SEP-00		6010
			SE	116	%Recovery	CH	12-SEP-00		6020
			SN	96	%Recovery	MK	06-SEP-00		6010
			TL	96	%Recovery	CH	12-SEP-00		6020
			V	91	%Recovery	MK	06-SEP-00		6010
			ZN	87	%Recovery	MK	06-SEP-00		6010
WG000826-5		Matrix Spike Duplicate	AG	3	% RPD	MDK	19-OCT-00		6010
			AS	2.4	% RPD	CH	12-SEP-00		6020
			BA	5.1	% RPD	MK	06-SEP-00		6010
			BI	3.3	% RPD	MK	06-SEP-00		6010
			CD	<1	% RPD	CH	12-SEP-00		6020
			CN-	<1	% RPD	DC	29-AUG-00		335.2
			CO	5.9	% RPD	MK	06-SEP-00		6010
			CR	2	% RPD	MDK	19-OCT-00		6010
			CU	3.1	% RPD	CH	12-SEP-00		6020
			HG	2.9	% RPD	EH	06-SEP-00		245.1
			MN	8.4	% RPD	MK	06-SEP-00		6010
			NI	5.9	% RPD	MK	06-SEP-00		6010
			PB	3.	% RPD	CH	12-SEP-00		6020
			SB	4.2	% RPD	MK	06-SEP-00		6010
			SE	2.0	% RPD	CH	12-SEP-00		6020
			SN	2.0	% RPD	MK	06-SEP-00		6010
			TL	3.1	% RPD	CH	12-SEP-00		6020
			V	3.9	% RPD	MK	06-SEP-00		6010
			ZN	2.7	% RPD	MK	06-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000826

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000826-6		Reporting Limit	AG	.005	ppm				6010
			AS	.008	ppm				6020
			BA	.05	ppm				6010
			BI	.05	ppm				6010
			CD	.01	ppm				6020
			CN	.004	ppm				335.2
			CO	.05	ppm				6010
			CR	.010	ppm				6010
			CU	.05	ppm				6020
			HG	.5	ppb				245.1
			MN	.015	ppm				6010
			NI	.05	ppm				6010
			PB	.02	ppm				6020
			SB	.05	ppm				6010
			SE	.01	ppm				6020
			SN	.050	ppm				6010
			TL	.002	ppm				6020
			V	.05	ppm				6010
			ZN	.05	ppm				6010

*- SPIKE RECOVERY OUTSIDE CONTROL LIMIT.
MAY BE DUE TO MATRIX INTERFERENCE.

QC associated with batch L001329

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name [illegible]

Project Location [illegible]

Laboratory [illegible]

Project Manager [illegible]

Sampler(s)/Affiliation [illegible]

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID								Remarks	Total
MW 2	L	8/14/15				1		1				2
MW 4		3:00				1		1				2
MW 5		3:05				1		1				2
Field Blank		4:30				1						1
MW 3		1:15				1		1				2
MW 6		3:30				1		1				2
MW 8		3:40				1		1				2
MW 9		3:20				1		1				2
MW 10		3:55				1		1				2
MW 6 Duplicate		3:30				1		1				2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 20

Relinquished by: [illegible]	Organization:	Date 8/14/15	Time 4:45	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Report to [illegible]

Delivery Method: ☐ In Person ☑ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

ASARCO

December 19,2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Dear Sir:

Please find attached the analytical results for 13 samples collected December 11, 2001. The samples were received by the laboratory on December 12, 2001.

Sincerely,

Duane Coble

Duane Coble
Environmental Lab
Technician

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-001	11-DEC-01	MW-7	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	.044	ppm	MF	17-DEC-01	6020
			BA	.085	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.10	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.16	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010
L011633-002	11-DEC-01	MW-11	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.12	ppm	EH	14-DEC-01	6010
			BI	.059	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	7.7	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	.015	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	.18	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-003	11-DEC-01	MW-13	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	.006	ppm	MF	17-DEC-01	6020
			BA	<.050	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	.14	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.20	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	.28	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010
L011633-004	11-DEC-01	MW-14	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	<.050	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.18	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	.067	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	.060	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-005	11-DEC-01	MW-15	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	.012	ppm	MF	17-DEC-01	6020
			BA	<.050	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	.23	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	2.0	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010
L011633-006	11-DEC-01	MW-16	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	<.050	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	.56	ppb	MO	17-DEC-01	245.1
			MN	<.050	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-007	11-DEC-01	MW-17	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.11	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.17	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	.081	ppm	EH	14-DEC-01	6010
L011633-008	11-DEC-01	MW-17 DUP	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	.013	ppm	MF	17-DEC-01	6020
			BA	.13	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.83	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	.084	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-009	11-DEC-01	MW-18	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.24	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	.041	ppm	EH	14-DEC-01	6010
			CU	.056	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.55	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	.039	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	.086	ppm	EH	14-DEC-01	6010
			ZN	.71	ppm	EH	14-DEC-01	6010
L011633-010	11-DEC-01	MW-19	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.20	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.83	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	.022	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	.086	ppm	EH	14-DEC-01	6010
			ZN	.11	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-011	11-DEC-01	MW-20	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.069	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	.029	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.36	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010
L011633-012	11-DEC-01	MW-21	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	.070	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	.51	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	.062	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011633

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011633-013	11-DEC-01	FIELD BLANK	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	<.050	ppm	EH	14-DEC-01	6010
			BI	<.050	ppm	EH	14-DEC-01	6010
			CD	<.010	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.050	ppm	EH	14-DEC-01	6010
			CR	<.010	ppm	EH	14-DEC-01	6010
			CU	<.050	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	<.050	ppm	EH	14-DEC-01	6010
			NI	<.050	ppm	EH	14-DEC-01	6010
			PB	<.020	ppm	EH	14-DEC-01	6010
			SB	<.050	ppm	EH	14-DEC-01	6010
			SE	<.010	ppm	MF	17-DEC-01	6020
			SN	<.050	ppm	EH	14-DEC-01	6010
			TL	<.002*	ppm	MF	17-DEC-01	6020
			V	<.050	ppm	EH	14-DEC-01	6010
			ZN	<.050	ppm	EH	14-DEC-01	6010

DIGESTION-3010
* Tl spike outside control limits. Results may be subject to bias.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011152

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011152-1		Matrix Spike	AG	105	%Recovery	EH	14-DEC-01	6010
			AS	107	%Recovery	MF	17-DEC-01	6020
			BA	92	%Recovery	EH	14-DEC-01	6010
			BI	101	%Recovery	EH	14-DEC-01	6010
			CD	89	%Recovery	EH	14-DEC-01	6010
			CN-	86	%Recovery	DC	13-DEC-01	335.2
			CO	89	%Recovery	EH	14-DEC-01	6010
			CR	95	%Recovery	EH	14-DEC-01	6010
			CU	105	%Recovery	EH	14-DEC-01	6010
			HG	100	%Recovery	MO	17-DEC-01	245.1
			MN	97	%Recovery	EH	14-DEC-01	6010
			NI	92	%Recovery	EH	14-DEC-01	6010
			PB	94	%Recovery	EH	14-DEC-01	6010
			SB	92	%Recovery	EH	14-DEC-01	6010
			SE	96	%Recovery	MF	17-DEC-01	6020
			SN	99	%Recovery	EH	14-DEC-01	6010
			TL	*131	%Recovery	MF	17-DEC-01	6020
			V	99	%Recovery	EH	14-DEC-01	6010
			ZN	92	%Recovery	EH	14-DEC-01	6010
WG011152-2		Prep Blank	AG	<.005	ppm	EH	14-DEC-01	6010
			AS	<.005	ppm	MF	17-DEC-01	6020
			BA	<.05	ppm	EH	14-DEC-01	6010
			BI	<.05	ppm	EH	14-DEC-01	6010
			CD	<.01	ppm	EH	14-DEC-01	6010
			CN-	<.004	ppm	DC	13-DEC-01	335.2
			CO	<.05	ppm	EH	14-DEC-01	6010
			CR	<.01	ppm	EH	14-DEC-01	6010
			CU	<.05	ppm	EH	14-DEC-01	6010
			HG	<.5	ppb	MO	17-DEC-01	245.1
			MN	<.015	ppm	EH	14-DEC-01	6010
			NI	<.05	ppm	EH	14-DEC-01	6010
			PB	<.02	ppm	EH	14-DEC-01	6010
			SB	<.05	ppm	EH	14-DEC-01	6010
			SE	<.01	ppm	MF	17-DEC-01	6020
			SN	<.05	ppm	EH	14-DEC-01	6010
			TL	<.002	ppm	MF	17-DEC-01	6020
			V	<.05	ppm	EH	14-DEC-01	6010
			ZN	<.05	ppm	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011152

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011152-3		Lab Control Sample	AG	100	%Recovery	EH	14-DEC-01	6010
			AS	96	%Recovery	MF	17-DEC-01	6020
			BA	100	%Recovery	EH	14-DEC-01	6010
			BI	109	%Recovery	EH	14-DEC-01	6010
			CD	98	%Recovery	EH	14-DEC-01	6010
			CN-	85	%Recovery	DC	13-DEC-01	335.2
			CO	98	%Recovery	EH	14-DEC-01	6010
			CR	99	%Recovery	EH	14-DEC-01	6010
			CU	101	%Recovery	EH	14-DEC-01	6010
			HG	98	%Recovery	MO	17-DEC-01	245.1
			MN	103	%Recovery	EH	14-DEC-01	6010
			NI	99	%Recovery	EH	14-DEC-01	6010
			PB	99	%Recovery	EH	14-DEC-01	6010
			SB	100	%Recovery	EH	14-DEC-01	6010
			SE	96	%Recovery	MF	17-DEC-01	6020
			SN	103	%Recovery	EH	14-DEC-01	6010
			TL	95	%Recovery	MF	17-DEC-01	6020
			V	101	%Recovery	EH	14-DEC-01	6010
			ZN	96	%Recovery	EH	14-DEC-01	6010
WG011152-5		Matrix Spike Duplicate	AG	2.9	% RPD	EH	14-DEC-01	6010
			AS	3.6	% RPD	MF	17-DEC-01	6020
			BA	2.0	% RPD	EH	14-DEC-01	6010
			BI	4.6	% RPD	EH	14-DEC-01	6010
			CD	<1	% RPD	EH	14-DEC-01	6010
			CN-	<1	% RPD	DC	13-DEC-01	335.2
			CO	2.2	% RPD	EH	14-DEC-01	6010
			CR	1.2	% RPD	EH	14-DEC-01	6010
			CU	4.5	% RPD	EH	14-DEC-01	6010
			HG	3.5	% RPD	MO	17-DEC-01	245.1
			MN	<1	% RPD	EH	14-DEC-01	6010
			NI	1.1	% RPD	EH	14-DEC-01	6010
			PB	<1	% RPD	EH	14-DEC-01	6010
			SB	2.1	% RPD	EH	14-DEC-01	6010
			SE	4.3	% RPD	MF	17-DEC-01	6020
			SN	<1	% RPD	EH	14-DEC-01	6010
			TL	1.6	% RPD	MF	17-DEC-01	6020
			V	2.0	% RPD	EH	14-DEC-01	6010
			ZN	3.1	% RPD	EH	14-DEC-01	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011152

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011152-6		Reporting Limit	AG	.005	ppm	EH	14-DEC-01	6010
			AS	.005	ppm	MF	17-DEC-01	6020
			BA	.05	ppm	EH	14-DEC-01	6010
			BI	.05	ppm	EH	14-DEC-01	6010
			CD	.01	ppm	EH	14-DEC-01	6010
			CN-	.004	ppm	DC	13-DEC-01	335.2
			CO	.05	ppm	EH	14-DEC-01	6010
			CR	.01	ppm	EH	14-DEC-01	6010
			CU	.05	ppm	EH	14-DEC-01	6010
			HG	.5	ppb	MO	17-DEC-01	245.1
			MN	.015	ppm	EH	14-DEC-01	6010
			NI	.05	ppm	EH	14-DEC-01	6010
			PB	.02	ppm	EH	14-DEC-01	6010
			SB	.05	ppm	EH	14-DEC-01	6010
			SE	.01	ppm	MF	17-DEC-01	6020
			SN	.05	ppm	EH	14-DEC-01	6010
			TL	.002	ppm	MF	17-DEC-01	6020
			V	.05	ppm	EH	14-DEC-01	6010
			ZN	.05	ppm	EH	14-DEC-01	6010

* Tl spike outside control limits. Results may be subject to

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO

January 24, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (1), one soil and ~~(2)~~, two water samples collected on December 27, 2001, in association with the Encycle Project # CC 000642.0002 and received by the laboratory on December 28, 2001

A portion of the soil sample was digested, as received, in accordance with EPA method 7471 for Hg cold vapor atomic absorption spectrometric analysis, and another portion was dried and digested in accordance with EPA method 3050 and analyzed using both an ICP and an ICP-MS spectrometers. The water samples were digested in accordance with EPA methods 3010 and 6020M for ICP and ICP-MS analyses respectively.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 1322 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2458 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011676

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011676-001	27-DEC-01	SOIL CUTTING COMP.	AG	4.8**	ppm	EH	09-JAN-02	6010
			AS	29.	ppm	EH	09-JAN-02	6010
			BA	285.	ppm	EH	09-JAN-02	6010
			BI	6.9	ppm	EH	09-JAN-02	6010
			CD	64.	ppm	EH	09-JAN-02	6010
			CN-	<0.05	ppm	DC	02-JAN-02	335.2
			CO	7.0	ppm	EH	09-JAN-02	6010
			CR	20.	ppm	EH	09-JAN-02	6010
			CU	226.	ppm	EH	09-JAN-02	6010
			HG	<0.05	ppm	MO	10-JAN-02	7471
			MN	540.	ppm	EH	09-JAN-02	6010
			MOIST.	3.7	%	AKH	09-JAN-02	GRAV.
			NI	18.	ppm	EH	09-JAN-02	6010
			PB	310.	ppm	EH	09-JAN-02	6010
			SB	<0.80*	ppm	MJF	18-JAN-02	6020
			SE	<0.80*	ppm	MJF	18-JAN-02	6020
			SN	8.3	ppm	EH	09-JAN-02	6010
			TL	11.	ppm	EH	09-JAN-02	6010
			V	30.**	ppm	EH	09-JAN-02	6010
			ZN	5194.	ppm	EH	09-JAN-02	6010

(*) Sb and Se spike recoveries were outside of control limits due to matrix interference.
(**) Ag and V laboratory control sample results are within ERA 249 acceptance limits.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011179

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011179-1		Matrix Spike	AG	101	%Recovery	EH	09-JAN-02	6010
			AS	103	%Recovery	EH	09-JAN-02	6010
			BA	111	%Recovery	EH	09-JAN-02	6010
			BI	108	%Recovery	EH	09-JAN-02	6010
			CD	100	%Recovery	EH	09-JAN-02	6010
			CN-	88	%Recovery	DC	02-JAN-02	335.2
			CO	104	%Recovery	EH	09-JAN-02	6010
			CR	113	%Recovery	EH	09-JAN-02	6010
			CU	121	%Recovery	EH	09-JAN-02	6010
			HG	110	%Recovery	MO	10-JAN-02	7471
			MN	111	%Recovery	EH	09-JAN-02	6010
			NI	107	%Recovery	EH	09-JAN-02	6010
			PB	95	%Recovery	EH	09-JAN-02	6010
			SB	55*	%Recovery	MJF	18-JAN-02	6020
			SE	68*	%Recovery	MJF	18-JAN-02	6020
			SN	109	%Recovery	EH	09-JAN-02	6010
			TL	100	%Recovery	EH	09-JAN-02	6010
			V	116	%Recovery	EH	09-JAN-02	6010
			ZN	SR>4SA	%Recovery	EH	09-JAN-02	6010
WG011179-2		Prep Blank	AG	<0.50	ppm	EH	09-JAN-02	6010
			AS	<5.0	ppm	EH	09-JAN-02	6010
			BA	<5.0	ppm	EH	09-JAN-02	6010
			BI	<4.0	ppm	EH	09-JAN-02	6010
			CD	<1.0	ppm	EH	09-JAN-02	6010
			CN-	<0.05	ppm	DC	02-JAN-02	335.2
			CO	<5.0	ppm	EH	09-JAN-02	6010
			CR	<5.0	ppm	EH	09-JAN-02	6010
			CU	<5.0	ppm	EH	09-JAN-02	6010
			HG	<0.05	ppm	MO	10-JAN-02	7471
			MN	<5.0	ppm	EH	09-JAN-02	6010
			NI	<5.0	ppm	EH	09-JAN-02	6010
			PB	<5.0	ppm	EH	09-JAN-02	6010
			SB	<0.8	ppm	MJF	18-JAN-02	6020
			SE	<0.8	ppm	MJF	18-JAN-02	6020
			SN	<5.0	ppm	EH	09-JAN-02	6010
			TL	<1.0	ppm	EH	09-JAN-02	6010
			V	<5.0	ppm	EH	09-JAN-02	6010
			ZN	<20	ppm	EH	09-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011179

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011179-3		Lab Control Sample	AG	73**	%Recovery	EH	09-JAN-02	6010
			AS	104	%Recovery	EH	09-JAN-02	6010
			BA	105	%Recovery	EH	09-JAN-02	6010
			BI	107	%Recovery	EH	09-JAN-02	6010
			CD	108	%Recovery	EH	09-JAN-02	6010
			CN-	76	%Recovery	DC	02-JAN-02	335.2
			CO	108	%Recovery	EH	09-JAN-02	6010
			CR	113	%Recovery	EH	09-JAN-02	6010
			CU	108	%Recovery	EH	09-JAN-02	6010
			HG	99	%Recovery	MO	10-JAN-02	7471
			MN	113	%Recovery	EH	09-JAN-02	6010
			NI	111	%Recovery	EH	09-JAN-02	6010
			PB	97	%Recovery	EH	09-JAN-02	6010
			SB	97	%Recovery	MJF	18-JAN-02	6020
			SE	82	%Recovery	MJF	18-JAN-02	6020
			SN	115	%Recovery	EH	09-JAN-02	6010
			TL	116	%Recovery	EH	09-JAN-02	6010
			V	149**	%Recovery	EH	09-JAN-02	6010
			ZN	104	%Recovery	EH	09-JAN-02	6010
WG011179-5		Matrix Spike Duplicate	AG	19	% RPD	EH	09-JAN-02	6010
			AS	1.5	% RPD	EH	09-JAN-02	6010
			BA	1	% RPD	EH	09-JAN-02	6010
			BI	<1	% RPD	EH	09-JAN-02	6010
			CD	3.7	% RPD	EH	09-JAN-02	6010
			CN-	<1	% RPD	DC	02-JAN-02	335.2
			CO	2.1	% RPD	EH	09-JAN-02	6010
			CR	2.4	% RPD	EH	09-JAN-02	6010
			CU	4.2	% RPD	EH	09-JAN-02	6010
			HG	2.2	% RPD	MO	10-JAN-02	7471
			MN	2.7	% RPD	EH	09-JAN-02	6010
			NI	2	% RPD	EH	09-JAN-02	6010
			PB	3.3	% RPD	EH	09-JAN-02	6010
			SB	1.8	% RPD	MJF	18-JAN-02	6020
			SE	<1	% RPD	MJF	18-JAN-02	6020
			SN	2.8	% RPD	EH	09-JAN-02	6010
			TL	2.1	% RPD	EH	09-JAN-02	6010
			V	2.7	% RPD	EH	09-JAN-02	6010
			ZN	2.1	% RPD	EH	09-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011179

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011179-6		Reporting Limit	AG	0.50	ppm			6010
			AS	5.0	ppm			6010
			BA	5.0	ppm			6010
			BI	4.0	ppm			6010
			CD	1.0	ppm			6010
			CN-	0.05	ppm			335.2
			CO	5.0	ppm			6010
			CR	5.0	ppm			6010
			CU	5.0	ppm			6010
			HG	0.05	ppm			7471
			MN	5.0	ppm			6010
			NI	5.0	ppm			6010
			PB	5.0	ppm			6010
			SB	0.80	ppm			6020
			SE	0.80	ppm			6020
			SN	5.0	ppm			6010
			TL	1.0	ppm			6010
			V	5.0	ppm			6010
			ZN	5.0	ppm			6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011675

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L011675-001	27-DEC-01	MW-12	AG	<0.050	ppm	EH	09-JAN-02	6010
			AS	0.023	ppm	MJF	22-JAN-02	6020M
			BA	0.11	ppm	EH	09-JAN-02	6010
			BI	<0.050	ppm	EH	09-JAN-02	6010
			CD	<0.010	ppm	EH	09-JAN-02	6010
			CN-	<0.004	ppm	DC	03-JAN-02	335.2
			CO	<0.050	ppm	EH	09-JAN-02	6010
			CR	<0.010	ppm	EH	09-JAN-02	6010
			CU	<0.050	ppm	EH	09-JAN-02	6010
			HG	<0.0005	ppm	MO	07-JAN-02	7470
			MN	0.13	ppm	EH	09-JAN-02	6010
			NI	<0.050	ppm	EH	09-JAN-02	6010
			PB	<0.020	ppm	EH	09-JAN-02	6010
			SB	<0.050	ppm	MJF	22-JAN-02	6020M
			SE	0.27	ppm	MJF	22-JAN-02	6020M
			SN	<0.050	ppm	EH	09-JAN-02	6010
			TL	<0.002	ppm	MJF	22-JAN-02	6020M
			ZN	0.092	ppm	MJF	09-JAN-02	6010
L011675-002	27-DEC-01	FIELD BLANK	AG	<0.050	ppm	EH	09-JAN-02	6010
			AS	<0.005	ppm	MJF	22-JAN-02	6020M
			BA	<0.050	ppm	EH	09-JAN-02	6010
			BI	<0.050	ppm	EH	09-JAN-02	6010
			CD	<0.010	ppm	EH	09-JAN-02	6010
			CN-	<0.004	ppm	DC	03-JAN-02	335.2
			CO	<0.050	ppm	EH	09-JAN-02	6010
			CR	<0.010	ppm	EH	09-JAN-02	6010
			CU	<0.050	ppm	EH	09-JAN-02	6010
			HG	<0.0005	ppm	MO	07-JAN-02	7470
			MN	<0.015	ppm	EH	09-JAN-02	6010
			NI	<0.050	ppm	EH	09-JAN-02	6010
			PB	<0.020	ppm	EH	09-JAN-02	6010
			SB	<0.050	ppm	MJF	22-JAN-02	6020M
			SE	<0.010	ppm	MJF	22-JAN-02	6020M
			SN	<0.050	ppm	EH	09-JAN-02	6010
			TL	<0.002	ppm	MJF	22-JAN-02	6020M

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011675

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011178

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011178-1		Matrix Spike	AG	110	%Recovery	EH	09-JAN-02	6010
			AS	78	%Recovery	MJF	22-JAN-02	6020M
			BA	100	%Recovery	EH	09-JAN-02	6010
			BI	106	%Recovery	EH	09-JAN-02	6010
			CD	98	%Recovery	EH	09-JAN-02	6010
			CN-	88	%Recovery	DC	03-JAN-02	335.2
			CO	99	%Recovery	EH	09-JAN-02	6010
			CR	102	%Recovery	EH	09-JAN-02	6010
			CU	111	%Recovery	EH	09-JAN-02	6010
			HG	105	%Recovery	MO	07-JAN-02	7470
			MN	104	%Recovery	EH	09-JAN-02	6010
			NI	101	%Recovery	EH	09-JAN-02	6010
			PB	98	%Recovery	EH	09-JAN-02	6010
			SB	98	%Recovery	MJF	22-JAN-02	6020M
			SE	89	%Recovery	MJF	22-JAN-02	6020M
			SN	103	%Recovery	EH	09-JAN-02	6010
			TL	100	%Recovery	MJF	22-JAN-02	6020M
WG011178-2		Prep Blank	AG	<0.050	ppm	EH	09-JAN-02	6010
			AS	<0.005	ppm	MJF	22-JAN-02	6020M
			BA	<0.050	ppm	EH	09-JAN-02	6010
			BI	<0.050	ppm	EH	09-JAN-02	6010
			CD	<0.010	ppm	EH	09-JAN-02	6010
			CN-	<0.004	ppm	DC	03-JAN-02	335.2
			CO	<0.050	ppm	EH	09-JAN-02	6010
			CR	<0.010	ppm	EH	09-JAN-02	6010
			CU	<0.050	ppm	EH	09-JAN-02	6010
			HG	<0.0005	ppm	MO	07-JAN-02	7470
			MN	<0.015	ppm	EH	09-JAN-02	6010
			NI	<0.050	ppm	EH	09-JAN-02	6010
			PB	<0.020	ppm	EH	09-JAN-02	6010
			SB	<0.050	ppm	MJF	22-JAN-02	6020M
			SE	<0.010	ppm	MJF	22-JAN-02	6020M
			SN	<0.050	ppm	EH	09-JAN-02	6010
			TL	<0.002	ppm	MJF	22-JAN-02	6020M
WG011178-3		Lab Control Sample	AG	94	%Recovery	EH	09-JAN-02	6010
			AS	93	%Recovery	MJF	22-JAN-02	6020M
			BA	100	%Recovery	EH	09-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011178

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011178-3		Lab Control Sample	BI	107	%Recovery	EH	09-JAN-02	6010
			CD	100	%Recovery	EH	09-JAN-02	6010
			CN-	76	%Recovery	DC	03-JAN-02	335.2
			CO	99	%Recovery	EH	09-JAN-02	6010
			CR	100	%Recovery	EH	09-JAN-02	6010
			CU	93	%Recovery	EH	09-JAN-02	6010
			HG	98	%Recovery	MO	07-JAN-02	7470
			MN	102	%Recovery	EH	09-JAN-02	6010
			NI	100	%Recovery	EH	09-JAN-02	6010
			PB	98	%Recovery	EH	09-JAN-02	6010
			SB	96	%Recovery	MJF	22-JAN-02	6020M
			SE	89	%Recovery	MJF	22-JAN-02	6020M
			SN	103	%Recovery	EH	09-JAN-02	6010
			TL	98	%Recovery	MJF	22-JAN-02	6020M
WG011178-5		Matrix Spike Duplicate	AG	3	% RPD	EH	09-JAN-02	6010
			AS	<1	% RPD	MJF	22-JAN-02	6020M
			BA	1.5	% RPD	EH	09-JAN-02	6010
			BI	<1	% RPD	EH	09-JAN-02	6010
			CD	<1	% RPD	EH	09-JAN-02	6010
			CN-	<1	% RPD	DC	03-JAN-02	335.2
			CO	1	% RPD	EH	09-JAN-02	6010
			CR	<1	% RPD	EH	09-JAN-02	6010
			CU	3.6	% RPD	EH	09-JAN-02	6010
			HG	1	% RPD	MO	07-JAN-02	7470
			MN	1.2	% RPD	EH	09-JAN-02	6010
			NI	1	% RPD	EH	09-JAN-02	6010
			PB	1.3	% RPD	EH	09-JAN-02	6010
			SB	1.5	% RPD	MJF	22-JAN-02	6020M
			SE	1.6	% RPD	MJF	22-JAN-02	6020M
			SN	<1	% RPD	EH	09-JAN-02	6010
			TL	<1	% RPD	MJF	22-JAN-02	6020M
WG011178-6		Reporting Limit	AG	0.050	ppm			6010
			AS	0.005	ppm			6020M
			BA	0.050	ppm			6010
			BI	0.050	ppm			6010
			CD	0.010	ppm			6010
			CN-	0.004	ppm			335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG011178

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG011178-6		Reporting Limit	CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.020	ppm			6010
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020M

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name CC000642-0000

Project Location Encycle, Corpus Christi

Laboratory ASARCO, Salt Lake City, Utah

Project Manager K. Brandner

Sampler(s)/Affiliation A. Garcia / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total Sb, As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Ni, Se, Ag, Tl, Sn	V, Zn (Equal pH w/ RNA)	Total Cyanide (Chloro pole)	[illegible]	Total Sb, As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Ni, Se, Ag, Tl, Sn, V, Zn and Total Cyanide (8 oz Glass)		Remarks	Total
MW-12	L	12-27-2001 16:00		1		1	1				2
~~Field Blank~~											
Soil cutting Comp	S	12-27-2001 16:30						2			2
Field Blank	L	12-27-2001 17:00		1		1				Hold for PM	2
										[illegible]	

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 16

Relinquished by: [signature]	Organization: ARCADIS	Date 12/27/2001	Time 18:20	Seal Intact?
Received by: [signature]	Organization: [illegible]	Date [illegible]	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Samples shipped [illegible] with [illegible] Time around. Results to K. Brandner

Delivery Method: ☐ In Person ☐ Common Carrier [illegible] SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

ASARCO

FEB 13 2002

February 06, 2002

Mr. Ken Brandner
ARCADIS GERAGHTY & MILLER, Inc.
711 North Carancahua, Suite 1700
Corpus Christi, Texas 78475-1801

Please find attached the analytical results for the water samples collected January 16th, 2002 for Encycle/Texas Project. The laboratory received the samples on January 17th, 2002.

If you have any questions, I can be reached at 801-263-5268.

Sincerely,

Bilquis Dhedhy
Chemist

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-001	16-JAN-02	MW-7	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.051	ppm	MF	04-FEB-02	6020M
			BA	0.062	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.17	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	<0.010*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010
L020028-002	16-JAN-02	MW-11	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.006	ppm	MF	04-FEB-02	6020M
			BA	0.066	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	0.039	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	6.2	ppm	EH	23-JAN-02	6010
			NI	0.053	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	<0.010*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	0.060	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-003	16-JAN-02	MW-12	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.032	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23 JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB 02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.071	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.40*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	0.062	ppm	EH	23-JAN-02	6010
L020028-004	16-JAN-02	MW-12 DUP	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.029	ppm	MF	04-FEB-02	6020M
			BA	0.16	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.21	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.31*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	0.054	ppm	MF	04-FEB-02	6020M
			ZN	0.19	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 820)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-005	16-JAN-02	MW-13	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.012	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.065	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.49*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010
L020028-006	16-JAN-02	MW-14	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.009	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.077	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.12*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	0.089	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-007	16-JAN-02	MW-15	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.027	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	2.7	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	<0.010*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010
L020028-008	16-JAN-02	MW-16	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	<0.005	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	<0.015	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.012*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-009	16-JAN-02	MW-17	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.026	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.50	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.011*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	0.069	ppm	EH	23-JAN-02	6010
L020028-010	16-JAN-02	MW-18	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	<0.005	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	<0.015	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.064*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	0.36	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-011	16-JAN-02	MW-19	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.005	ppm	MF	04-FEB-02	6020M
			BA	0.064	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.55	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.050*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	0.069	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010
L020028-012	16-JAN-02	MW-20	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	<0.005	ppm	MF	04-FEB-02	6020M
			BA	0.056	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	0.012	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.13	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.020*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020028-013	16-JAN-02	MW-21	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	0.010	ppm	MF	04-FEB-02	6020M
			BA	0.087	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	0.39	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	0.011*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	0.11	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010
L020028-014	16-JAN-02	FIELD BLANK	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	<0.005	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050*	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	<0.015	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	<0.010*	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020028

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

Digestion Method for totals -- 3010 and 6020M.
* = QC data indicates possible analytical bias.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020058

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020058-1		Matrix Spike	AG	113	%Recovery	EH	23-JAN-02	6010
			AS	109	%Recovery	MF	04-FEB-02	6020M
			BA	82	%Recovery	EH	23-JAN-02	6010
			BI	91	%Recovery	MF	05-FEB-02	6020M
			CD	95	%Recovery	MF	05-FEB-02	6020M
			CN-	82	%Recovery	DC	18-JAN-02	335.2
			CO	75	%Recovery	EH	23-JAN-02	6010
			CR	103	%Recovery	MF	04-FEB-02	6020M
			CU	92	%Recovery	MF	04-FEB-02	6020M
			HG	100	%Recovery	EH	30-JAN-02	245.1
			MN	SR>4XSA	%Recovery	EH	23-JAN-02	6010
			NI	83	%Recovery	EH	23-JAN-02	6010
			PB	102	%Recovery	MF	04-FEB-02	6020M
			SB	115	%Recovery	MF	04-FEB-02	6020M
			SE	107	%Recovery	MF	04-FEB-02	6020M
			SN	86	%Recovery	EH	23-JAN-02	6010
			TL	104	%Recovery	MF	05-FEB-02	6020M
			V	114	%Recovery	MF	04-FEB-02	6020M
			ZN	91	%Recovery	EH	23-JAN-02	6010
WG020058-2		Prep Blank	AG	<0.005	ppm	EH	23-JAN-02	6010
			AS	<0.005	ppm	MF	04-FEB-02	6020M
			BA	<0.050	ppm	EH	23-JAN-02	6010
			BI	<0.050	ppm	MF	05-FEB-02	6020M
			CD	<0.010	ppm	MF	05-FEB-02	6020M
			CN-	<0.004	ppm	DC	18-JAN-02	335.2
			CO	<0.050	ppm	EH	23-JAN-02	6010
			CR	<0.010	ppm	MF	04-FEB-02	6020M
			CU	<0.050	ppm	MF	04-FEB-02	6020M
			HG	<0.50	ppb	EH	30-JAN-02	245.1
			MN	<0.015	ppm	EH	23-JAN-02	6010
			NI	<0.050	ppm	EH	23-JAN-02	6010
			PB	<0.020	ppm	MF	04-FEB-02	6020M
			SB	<0.050	ppm	MF	04-FEB-02	6020M
			SE	<0.010	ppm	MF	04-FEB-02	6020M
			SN	<0.050	ppm	EH	23-JAN-02	6010
			TL	<0.002	ppm	MF	05-FEB-02	6020M
			V	<0.050	ppm	MF	04-FEB-02	6020M
			ZN	<0.050	ppm	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020058

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020058-3		Lab Control Sample	AG	95	%Recovery	EH	23-JAN-02	6010
			AS	117	%Recovery	MF	04-FEB-02	6020M
			BA	88	%Recovery	EH	23-JAN-02	6010
			BI	131*	%Recovery	MF	05-FEB-02	6020M
			CD	110	%Recovery	MF	05-FEB-02	6020M
			CN-	80	%Recovery	DC	18 JAN-02	335.2
			CO	91	%Recovery	EH	23-JAN-02	6010
			CR	107	%Recovery	MF	04-FEB-02	6020M
			CU	105	%Recovery	MF	04-FEB-02	6020M
			HG	95	%Recovery	EH	30-JAN-02	245.1
			MN	90	%Recovery	EH	23-JAN-02	6010
			NI	88	%Recovery	EH	23-JAN-02	6010
			PB	111	%Recovery	MF	04-FEB-02	6020M
			SB	109	%Recovery	MF	04-FEB-02	6020M
			SE	137*	%Recovery	MF	04-FEB-02	6020M
			SN	88	%Recovery	EH	23-JAN-02	6010
			TL	112	%Recovery	MF	05-FEB-02	6020M
			V	105	%Recovery	MF	04-FEB-02	6020M
			ZN	90	%Recovery	EH	23-JAN-02	6010
WG020058-5		Matrix Spike Duplicate	AG	<1	% RPD	EH	23-JAN-02	6010
			AS	2.3	% RPD	MF	04-FEB-02	6020M
			BA	<1	% RPD	EH	23-JAN-02	6010
			BI	<1	% RPD	MF	05-FEB-02	6020M
			CD	<1	% RPD	MF	05-FEB-02	6020M
			CN-	2.5	% RPD	DC	18-JAN-02	335.2
			CO	2.0	% RPD	EH	23-JAN-02	6010
			CR	<1	% RPD	MF	04-FEB-02	6020M
			CU	<1	% RPD	MF	04-FEB-02	6020M
			HG	3.0	% RPD	EH	30-JAN-02	245.1
			MN	1.4	% RPD	EH	23-JAN-02	6010
			NI	<1	% RPD	EH	23-JAN-02	6010
			PB	<1	% RPD	MF	04-FEB-02	6020M
			SB	1.4	% RPD	MF	04-FEB-02	6020M
			SE	3.1	% RPD	MF	04-FEB-02	6020M
			SN	1.0	% RPD	EH	23-JAN-02	6010
			TL	<1	% RPD	MF	05-FEB-02	6020M
			V	3.3	% RPD	MF	04-FEB-02	6020M
			ZN	<1	% RPD	EH	23-JAN-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020058

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020058-6		Reporting Limit	AG	0.005	ppm			6010
			AS	0.005	ppm			6020M
			BA	0.050	ppm			6010
			BI	0.050	ppm			6020M
			CD	0.010	ppm			6020M
			CN-	0.004	ppm			335.2
			CO	0.050	ppm			6010
			CR	0.010	ppm			6020M
			CU	0.050	ppm			6020M
			HG	0.50	ppb			245.1
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.020	ppm			6020M
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020M
			V	0.050	ppm			6020M
			ZN	0.050	ppm			6010

* = QC data indicates possible analytical bias.

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project Number/Name CC000642.0002.00001

Project Location Encycle/Texas, Corpus Christi

Laboratory ASARCO, Salt Lake City, Utah

Project Manager Ken Brandner

Sampler(s)/Affiliation Adrian Garcia/ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total Sb, As, Ba, Bi, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (500ml poly w/ HNO3)		Total Cyanide (1-liter poly w/ NaOH)				Remarks	Total
MW-7	L	01-16-2002 11:45		1		1					2
MW-11		08:00		1		1					2
MW-12		08:30		1		1					2
MW-12 Dup		08:30		1		1					2
MW-13		09:15		1		1					2
MW-14		09:30		1		1					2
MW-15		09:45		1		1					2
MW-16		10:00		1		1					2
MW-17		10:15		1		1					2
MW-18		10:30		1		1					2
MW-19		11:00		1		1					2
MW-20		11:15		1		1					2
MW-21		11:30		1		1					2
Field Blank		09:00		1		1					2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 28

Relinquished by: Adrian E. Garcia	Organization: ARCADIS	Date 01/16/2002	Time 15:00	Seal Intact?
Received by: Debbie Payne	Organization: FED EX	Date / /	Time	Yes No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by: [illegible]	Organization: ASARCO	Date 1/17/02	Time 11:00	Yes No N/A

Special Instructions/Remarks: Samples shipped in cooler w/ ice. Normal Turnaround. Results to Ken Brandner.

Delivery Method: ☐ In Person ☒ Common Carrier Fed-Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

FEB 2 6 2002

February 21, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (15), fifteen water samples collected on February 12, 2002, in association with the Asarco Encycle/Texas water project # CC000642.0002.00001, and received by the laboratory on February 13, 2002.

The samples were digested in accordance with EPA methods 3010 and 6020M, and analyzed using ICP, and ICP-MS spectrometry.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 262-3456 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-001	12-FEB-02	MW-11	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	0.066	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	0.061	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	7.3	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010
L020090-002	12-FEB-02	MW-12	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.035	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.064	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.38	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-003	12-FEB-02	MW-13	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.016	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.037	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.42	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010
L020090-004	12-FEB-02	MW-13 DUP.	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.017	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.043	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.44	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-005	12-FEB-02	MW-14	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.009	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.034	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.11	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	0.053	ppm	EH	20-FEB-02	6010
L020090-006	12-FEB-02	MW-15	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.018	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	3.1	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-007	12-FEB-02	MW-16	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	<0.015	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010
L020090-008	12-FEB-02	MW-17	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.024	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.46	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	0.16	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-009	12-FEB-02	MW-18	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.021	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.043	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	0.36	ppm	EH	20-FEB-02	6010
L020090-010	12-FEB-02	MW-19	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	0.068	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.44	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.032	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	0.071	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-011	12-FEB-02	MW-20	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.036	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	0.014	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010
L020090-012	12-FEB-02	MW-21	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.011	ppm	MJF	15-FEB-02	6020M
			BA	0.0840	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.24	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	0.11	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-013	12-FEB-02	MW-7	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	0.063	ppm	MJF	15-FEB-02	6020M
			BA	0.070	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	0.019	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010
L020090-014	12-FEB-02	FIELD BLANK	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	<0.015	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020090

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020090-015	12-FEB-02	TRIP BLANK	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	<0.015	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020100

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020100-1		Matrix Spike	AG	104	%Recovery	EH	20-FEB-02	6010
			AS	99	%Recovery	MJF	15-FEB-02	6020M
			BA	93	%Recovery	EH	20-FEB-02	6010
			BI	81	%Recovery	MJF	21-FEB-02	6020M
			CD	82	%Recovery	MJF	15-FEB-02	6020M
			CN-	92	%Recovery	DC	14-FEB-02	335.2
			CO	101	%Recovery	EH	20-FEB-02	6010
			CR	103	%Recovery	EH	20-FEB-02	6010
			CU	117	%Recovery	EH	20-FEB-02	6010
			HG	82	%Recovery	MO	15-FEB-02	7470
			MN	101	%Recovery	EH	20-FEB-02	6010
			NI	103	%Recovery	EH	20-FEB-02	6010
			PB	83	%Recovery	MJF	15-FEB-02	6020M
			SB	87	%Recovery	MJF	15-FEB-02	6020M
			SE	106	%Recovery	MJF	15-FEB-02	6020M
			SN	109	%Recovery	EH	20-FEB-02	6010
			TL	89	%Recovery	MJF	15-FEB-02	6020M
			V	102	%Recovery	EH	20-FEB-02	6010
			ZN	102	%Recovery	EH	20-FEB-02	6010
WG020100-2		Prep Blank	AG	<0.005	ppm	EH	20-FEB-02	6010
			AS	<0.005	ppm	MJF	15-FEB-02	6020M
			BA	<0.050	ppm	EH	20-FEB-02	6010
			BI	<0.050	ppm	MJF	21-FEB-02	6020M
			CD	<0.010	ppm	MJF	15-FEB-02	6020M
			CN-	<0.004	ppm	DC	14-FEB-02	335.2
			CO	<0.050	ppm	EH	20-FEB-02	6010
			CR	<0.010	ppm	EH	20-FEB-02	6010
			CU	<0.050	ppm	EH	20-FEB-02	6010
			HG	<0.0005	ppm	MO	15-FEB-02	7470
			MN	<0.015	ppm	EH	20-FEB-02	6010
			NI	<0.050	ppm	EH	20-FEB-02	6010
			PB	<0.020	ppm	MJF	15-FEB-02	6020M
			SB	<0.050	ppm	MJF	15-FEB-02	6020M
			SE	<0.010	ppm	MJF	15-FEB-02	6020M
			SN	<0.050	ppm	EH	20-FEB-02	6010
			TL	<0.002	ppm	MJF	15-FEB-02	6020M
			V	<0.050	ppm	EH	20-FEB-02	6010
			ZN	<0.050	ppm	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020100

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020100-3		Lab Control Sample	AG	85	%Recovery	EH	20-FEB-02	6010
			AS	94	%Recovery	MJF	15-FEB-02	6020M
			BA	102	%Recovery	EH	20-FEB-02	6010
			BI	102	%Recovery	MJF	21-FEB-02	6020M
			CD	98	%Recovery	MJF	15-FEB-02	6020M
			CN-	89	%Recovery	DC	14-FEB-02	335.2
			CO	95	%Recovery	EH	20-FEB-02	6010
			CR	96	%Recovery	EH	20-FEB-02	6010
			CU	105	%Recovery	EH	20-FEB-02	6010
			HG	107	%Recovery	MO	15-FEB-02	7470
			MN	95	%Recovery	EH	20-FEB-02	6010
			NI	97	%Recovery	EH	20-FEB-02	6010
			PB	105	%Recovery	MJF	15-FEB-02	6020M
			SB	100	%Recovery	MJF	15-FEB-02	6020M
			SE	94	%Recovery	MJF	15-FEB-02	6020M
			SN	100	%Recovery	EH	20-FEB-02	6010
			TL	105	%Recovery	MJF	15-FEB-02	6020M
			V	96	%Recovery	EH	20-FEB-02	6010
			ZN	94	%Recovery	EH	20-FEB-02	6010
WG020100-5		Matrix Spike Duplicate	AG	10	% RPD	EH	20-FEB-02	6010
			AS	<1	% RPD	MJF	15-FEB-02	6020M
			BA	1.8	% RPD	EH	20-FEB-02	6010
			BI	<1	% RPD	MJF	21-FEB-02	6020M
			CD	1.5	% RPD	MJF	15-FEB-02	6020M
			CN-	4.4	% RPD	DC	14-FEB-02	335.2
			CO	5.5	% RPD	EH	20-FEB-02	6010
			CR	6.5	% RPD	EH	20-FEB-02	6010
			CU	13	% RPD	EH	20-FEB-02	6010
			HG	4.4	% RPD	MO	15-FEB-02	7470
			MN	1.9	% RPD	EH	20-FEB-02	6010
			NI	4.7	% RPD	EH	20-FEB-02	6010
			PB	<1	% RPD	MJF	15-FEB-02	6020M
			SB	<1	% RPD	MJF	15-FEB-02	6020M
			SE	<1	% RPD	MJF	15-FEB-02	6020M
			SN	6.9	% RPD	EH	20-FEB-02	6010
			TL	<1	% RPD	MJF	15-FEB-02	6020M
			V	5.9	% RPD	EH	20-FEB-02	6010
			ZN	5.6	% RPD	EH	20-FEB-02	6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020100

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020100-6		Reporting Limit	AG	0.005	ppm			6010
			AS	0.005	ppm			6020M
			BA	0.050	ppm			6010
			BI	0.050	ppm			6020M
			CD	0.010	ppm			6020M
			CN-	0.004	ppm			335.2
			CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6010
			HG	0.0005	ppm			7470
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.020	ppm			6020M
			SB	0.050	ppm			6020M
			SE	0.010	ppm			6020M
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020M
			V	0.050	ppm			6010
			ZN	0.050	ppm			6010

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC000642.0002.00001

Project Location Encycle/Texas

Laboratory ASARCO

Project Manager K. Brandner

Sampler(s)/Affiliation A. Garcia / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Total Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (500mL poly w/ HNO3)	ANALYSIS / METHOD / SIZE: Total Cyanide (1 Liter poly w/ NaOH)	Remarks	Total
MW-11 -1	L	02-12-2002 09:00		1	1		2
MW-12 -2		09:30		1	1		2
MW-13 -3		10:00		1	1		2
MW-19 Dup. -4		10:30		1	1		2
MW-14 -5		11:00		1	1		2
MW-15 -6		11:30		1	1		2
MW-16 -7		12:00		1	1		2
MW-17 -8		13:00		1	1		2
MW-18 -9		13:30		1	1		2
MW-19 -10		14:00		1	1		2
MW-20 -11		14:30		1	1		2
MW-21 -12		15:00		1	1		2
MW-7 -13		15:30		1	1		2
Field Blank -14		16:00		1	1		2
Trip Blank -15		—		1	1		2
						Total No. of Bottles/ Containers	30

Sample Matrix: L = Liquid; S = Solid; A = Air

				Seal Intact?
Relinquished by: John E. Stone	Organization: ARCADIS	Date 02/12/2002	Time 16:00	
Received by: L. Naranjo	Organization: FEDEX	Date 02/12/2002	Time 16:00	(Yes) No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: Flores	Organization: ASARCO	Date 2/13/02	Time 1130	Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☒ Common Carrier Fed-Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

July 30, 2002

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (2), two water samples collected on July 19, 2002, in association with the Asarco Encycle Project # CC000742.0002, and received by the laboratory on July 23, 2002.

The samples were digested in accordance with EPA methods 3010 and 6020 for ICP and ICP-MS analyses respectively, and in accordance with EPA method 245.1 for Hg cold vapour analysis.

If you need further information, please call me at (801) 263 5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated • 3422 South 700 West • Salt Lake City, Utah 84119-4191 • (801) 252-2459 • FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020587

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
L020587-001	19-JUL-02	MW-18	AG	<0.005	ppm	MDK	25-JUL-02	6010
			AS	0.006	ppm	MDK	25-JUL-02	6020
			BA	<0.050	ppm	MDK	25-JUL-02	6010
			BI	<0.050	ppm	MDK	25-JUL-02	6010
			CD	<0.010	ppm	MDK	25-JUL-02	6020
			CN-	<0.004	ppm	VPK	29-JUL-02	335.2
			CO	<0.050	ppm	MDK	25-JUL-02	6010
			CR	<0.010	ppm	MDK	25-JUL-02	6010
			CU	<0.050	ppm	MDK	25-JUL-02	6020
			HG	<0.0005	ppm	EH	25-JUL-02	245.1
			MN	<0.015	ppm	MDK	25-JUL-02	6010
			NI	<0.050	ppm	MDK	25-JUL-02	6010
			PB	<0.020	ppm	MDK	25-JUL-02	6020
			SB	<0.050	ppm	MDK	25-JUL-02	6020
			SE	0.037	ppm	MDK	25-JUL-02	6020
			SN	<0.050	ppm	MDK	25-JUL-02	6010
			TL	<0.002	ppm	MDK	25-JUL-02	6020
			V	<0.050	ppm	MDK	25-JUL-02	6010
			ZN	0.42	ppm	MDK	25-JUL-02	6020
L020587-002	19-JUL-02	FIELD BLANK	AG	<0.005	ppm	MDK	25-JUL-02	6010
			AS	<0.005	ppm	MDK	25-JUL-02	6020
			BA	<0.050	ppm	MDK	25-JUL-02	6010
			BI	<0.050	ppm	MDK	25-JUL-02	6010
			CD	<0.010	ppm	MDK	25-JUL-02	6020
			CN-	<0.004	ppm	VPK	29-JUL-02	335.2
			CO	<0.050	ppm	MDK	25-JUL-02	6010
			CR	<0.010	ppm	MDK	25-JUL-02	6010
			CU	<0.050	ppm	MDK	25-JUL-02	6020
			HG	<0.0005	ppm	EH	25-JUL-02	245.1
			MN	<0.015	ppm	MDK	25-JUL-02	6010
			NI	<0.050	ppm	MDK	25-JUL-02	6010
			PB	<0.020	ppm	MDK	25-JUL-02	6020
			SB	<0.050	ppm	MDK	25-JUL-02	6020
			SE	<0.010	ppm	MDK	25-JUL-02	6020
			SN	<0.050	ppm	MDK	25-JUL-02	6010
			TL	<0.002	ppm	MDK	25-JUL-02	6020
			V	<0.050	ppm	MDK	25-JUL-02	6010
			ZN	<0.050	ppm	MDK	25-JUL-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L020587

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020517

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020517-1		Matrix Spike	AG	110	%Recovery	MDK	25-JUL-02	6010
			AS	95	%Recovery	MDK	25-JUL-02	6020
			BA	101	%Recovery	MDK	25-JUL-02	6010
			BI	117	%Recovery	MDK	25-JUL-02	6010
			CD	90	%Recovery	MDK	25-JUL-02	6020
			CO	104	%Recovery	MDK	25-JUL-02	6010
			CR	114	%Recovery	MDK	25-JUL-02	6010
			CU	97	%Recovery	MDK	25-JUL-02	6020
			HG	96	%Recovery	EH	25-JUL-02	245.1
			MN	103	%Recovery	MDK	25-JUL-02	6010
			NI	106	%Recovery	MDK	25-JUL-02	6010
			PB	98	%Recovery	MDK	25-JUL-02	6020
			SB	103	%Recovery	MDK	25-JUL-02	6020
			SE	90	%Recovery	MDK	25-JUL-02	6020
			SN	105	%Recovery	MDK	25-JUL-02	6010
			TL	102	%Recovery	MDK	25-JUL-02	6020
			V	108	%Recovery	MDK	25-JUL-02	6010
			ZN	99	%Recovery	MDK	25-JUL-02	6020
WG020517-2		Prep Blank	AG	<0.005	ppm	MDK	25-JUL-02	6010
			AS	<0.005	ppm	MDK	25-JUL-02	6020
			BA	<0.050	ppm	MDK	25-JUL-02	6010
			BI	<0.050	ppm	MDK	25-JUL-02	6010
			CD	<0.010	ppm	MDK	25-JUL-02	6020
			CN-	<0.004	ppm	VPK	29-JUL-02	335.2
			CO	<0.050	ppm	MDK	25-JUL-02	6010
			CR	<0.010	ppm	MDK	25-JUL-02	6010
			CU	<0.050	ppm	MDK	25-JUL-02	6020
			HG	<0.0005	ppm	EH	25-JUL-02	245.1
			MN	<0.015	ppm	MDK	25-JUL-02	6010
			NI	<0.050	ppm	MDK	25-JUL-02	6010
			PB	<0.020	ppm	MDK	25-JUL-02	6020
			SB	<0.050	ppm	MDK	25-JUL-02	6020
			SE	<0.010	ppm	MDK	25-JUL-02	6020
			SN	<0.050	ppm	MDK	25-JUL-02	6010
			TL	<0.002	ppm	MDK	25-JUL-02	6020
			V	<0.050	ppm	MDK	25-JUL-02	6010
			ZN	<0.050	ppm	MDK	25-JUL-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020517

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020517-3		Lab Control Sample	AG	97	%Recovery	MDK	25-JUL-02	6010
			AS	88	%Recovery	MDK	25-JUL-02	6020
			BA	101	%Recovery	MDK	25-JUL-02	6010
			BI	109	%Recovery	MDK	25-JUL-02	6010
			CD	90	%Recovery	MDK	25-JUL-02	6020
			CN-	93	%Recovery	VPK	29-JUL-02	335.2
			CO	102	%Recovery	MDK	25-JUL-02	6010
			CR	105	%Recovery	MDK	25-JUL-02	6010
			CU	98	%Recovery	MDK	25-JUL-02	6020
			HG	97	%Recovery	EH	25-JUL-02	245.1
			MN	101	%Recovery	MDK	25-JUL-02	6010
			NI	102	%Recovery	MDK	25-JUL-02	6010
			PB	96	%Recovery	MDK	25-JUL-02	6020
			SB	97	%Recovery	MDK	25-JUL-02	6020
			SE	75	%Recovery	MDK	25-JUL-02	6020
			SN	106	%Recovery	MDK	25-JUL-02	6010
			TL	96	%Recovery	MDK	25-JUL-02	6020
			V	101	%Recovery	MDK	25-JUL-02	6010
			ZN	83	%Recovery	MDK	25-JUL-02	6020
WG020517-4		Matrix Spike Duplicate	AG	5.6	% RPD	MDK	25-JUL-02	6010
			AS	<1	% RPD	MDK	25-JUL-02	6020
			BA	3.6	% RPD	MDK	25-JUL-02	6010
			BI	13	% RPD	MDK	25-JUL-02	6010
			CD	1.1	% RPD	MDK	25-JUL-02	6020
			CN-	<1	% RPD	VPK	29-JUL-02	335.2
			CO	2.8	% RPD	MDK	25-JUL-02	6010
			CR	4.3	% RPD	MDK	25-JUL-02	6010
			CU	<1	% RPD	MDK	25-JUL-02	6020
			HG	<1	% RPD	EH	25-JUL-02	245.1
			MN	<1	% RPD	MDK	25-JUL-02	6010
			NI	7.5	% RPD	MDK	25-JUL-02	6010
			PB	<1	% RPD	MDK	25-JUL-02	6020
			SB	<1	% RPD	MDK	25-JUL-02	6020
			SE	1.7	% RPD	MDK	25-JUL-02	6020
			SN	5.2	% RPD	MDK	25-JUL-02	6010
			TL	<1	% RPD	MDK	25-JUL-02	6020
			V	<1	% RPD	MDK	25-JUL-02	6010
			ZN	1.2	% RPD	MDK	25-JUL-02	6020

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG020517

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	METHOD
WG020517-6		Reporting Limit	AG	0.005	ppm			6010
			AS	0.005	ppm			6020
			BA	0.050	ppm			6010
			BI	0.050	ppm			6010
			CD	0.010	ppm			6020
			CN	0.004	ppm			335.2
			CO	0.050	ppm			6010
			CR	0.010	ppm			6010
			CU	0.050	ppm			6020
			HG	0.0005	ppm			245.1
			MN	0.015	ppm			6010
			NI	0.050	ppm			6010
			PB	0.020	ppm			6020
			SB	0.050	ppm			6020
			SE	0.010	ppm			6020
			SN	0.050	ppm			6010
			TL	0.002	ppm			6020
			V	0.050	ppm			6010
			ZN	0.050	ppm			6020

Unless otherwise noted results are not blank corrected.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name CC000742.0002

Project Location Corpus Christi, TX

Laboratory _____

Project Manager Ken Brandner

Sampler(s)/Affiliation Bryan Haney / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Total Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (1pt. poly w/HNO3)	ANALYSIS / METHOD / SIZE: Total Cyanide (1 liter poly w/NaOH)	Remarks	Total
MW-18	L	7/19/02 1610		X	X		2
Field Blank	L	7/19/02 1615		X	X		2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 4

Relinquished by: Bryan Haney	Organization: ARCADIS	Date 7/22/02	Time 1650	Seal Intact?		
Received by: _____	Organization: _____	Date / /	Time _____	(Yes) No N/A		
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?		
Received by: Flotten	Organization: ARCADIS	Date 7/23/02	Time _____	Yes No N/A		

Special Instructions/Remarks:

RUSH Call w/ Questions 361-883-1353

Delivery Method: ☐ In Person ☒ Common Carrier FedEx ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

APPENDIX J

Appendix J

TNRCC October 15, 2001 Letter

Robert J. Hust[illegible], *Chairman*
R. B. "Ralph" M[illegible]rquez, *Commissioner*
John M. Baker, *Commissioner*
Jeffrey A. Saitas, *Executive Director*

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

October 15, 2001

Mr. Richard Marcus
Divisional Environmental Manager
Encycle - Texas Inc.
P. O. Box 4767
Corpus Christi, TX 78469

Re: *RCRA Facility Investigation Background Soil Sampling Results* - July 19,2001
TNRCC SWR No. 30003
TNRCC Hazardous Waste Permit No. HW- 50221
EPA ID No. TXD008117186
Civil Action No. H-99-1136, Enf. ID No. 1017
Agreed Consent Decree Entered October 7, 1999

Dear Mr. Marcus:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed the above referenced report dated July 19, 2001. The TNRCC approves the revised background values at this time. Please reference these background concentrations when conducting your investigation.

An original and one copy of future plans and reports that are required to be submitted by the Consent Decree should be submitted to the TNRCC Waste Section of the Enforcement Division at the letterhead address using Mail Code MC-219. An additional copy should be submitted to the Waste Program Manager, TNRCC, Region 14 Office, 6300 Ocean Dr. Ste. 1200, Corpus Christi, TX 78412-5503. The facility name, location and identification number(s) in the TNRCC reference line above should be included with the submittal.

Questions concerning this letter should be directed to me at (512) 239-2350. Please use Mail Code 127 (MC-127) when responding by mail.

Sincerely,

Brad Wilkinson, Project Manager
Team I, Corrective Action Section
Remediation Division

BW/bw

cc: Waste Program Manager, TNRCC Region 14 Office, Corpus Christi

APPENDIX K

ARCADIS

Appendix K

Laboratory Reports – Storm Sewer System Excavated Soils

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010899

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010899-001	20-JUN-01	STORM DRAIN 38A	AG	6.2	ppm	EH	25-JUN-01		6010
			AS	50.	ppm	EH	25-JUN-01		6010
			BA	336.	ppm	EH	25-JUN-01		6010
			BI	7.4	ppm	EH	25-JUN-01		6010
			CD	55.	ppm	EH	25-JUN-01		6010
			CN-	1.0	ppm	DC	25-JUN-01		335.2
			CO	14.	ppm	EH	25-JUN-01		6010
			CR	35.	ppm	EH	25-JUN-01		6010
			CU	360.	ppm	EH	25-JUN-01		6010
			HG	6.1	ppm	MO	25-JUN-01		7470
			MN	930.	ppm	EH	25-JUN-01		6010
			NI	19.	ppm	EH	25-JUN-01		6010
			PB	1263.	ppm	EH	25-JUN-01		6010
			SB	21.	ppm	EH	25-JUN-01		6010
			SE	16.	ppm	EH	25-JUN-01		6010
			SN	129.	ppm	EH	25-JUN-01		6010
			TL	<1.0	ppm	MF	29-JUN-01		6020
			V	32.	ppm	EH	25-JUN-01		6010
			ZN	13330.	ppm	EH	25-JUN-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010594

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010594-1		Matrix Spike	AG	111	%Recovery	EH	25-JUN-01		6010
			AS	101	%Recovery	EH	25-JUN-01		6010
			BA	99	%Recovery	EH	25-JUN-01		6010
			BI	104	%Recovery	EH	25-JUN-01		6010
			CD	106	%Recovery	EH	25-JUN-01		6010
			CN-	82	%Recovery	DC	25-JUN-01		335.2
			CO	99	%Recovery	EH	25-JUN-01		6010
			CR	112	%Recovery	EH	25-JUN-01		6010
			CU	98	%Recovery	EH	25-JUN-01		6010
			HG	104	%Recovery	MO	25-JUN-01		7470
			MN	76	%Recovery	EH	25-JUN-01		6010
			NI	102	%Recovery	EH	25-JUN-01		6010
			PB	SR>4SA	%Recovery	EH	25-JUN-01		6010
			SB	97	%Recovery	EH	05-JUL-01		6010
			SE	86	%Recovery	EH	25-JUN-01		6010
			SN	104	%Recovery	EH	25-JUN-01		6010
			TL	94	%Recovery	MF	29-JUN-01		6020
			V	109	%Recovery	EH	25-JUN-01		6010
			ZN	SR>4SA	%Recovery	EH	25-JUN-01		6010
WG010594-2		Prep Blank	AG	<0.5	ppm	EH	25-JUN-01		6010
			AS	<5.0	ppm	EH	25-JUN-01		6010
			BA	<5.0	ppm	EH	25-JUN-01		6010
			BI	<4.0	ppm	EH	25-JUN-01		6010
			CD	<1.0	ppm	EH	25-JUN-01		6010
			CN-	<0.4	ppm	DC	25-JUN-01		335.2
			CO	<5.0	ppm	EH	25-JUN-01		6010
			CR	<5.0	ppm	EH	25-JUN-01		6010
			CU	<5.0	ppm	EH	25-JUN-01		6010
			HG	<0.5	ppm	MO	25-JUN-01		7470
			MN	<5.0	ppm	EH	25-JUN-01		6010
			NI	<5.0	ppm	EH	25-JUN-01		6010
			PB	<5.0	ppm	EH	25-JUN-01		6010
			SB	<0.8	ppm	EH	25-JUN-01		6010
			SE	<0.8	ppm	EH	25-JUN-01		6010
			SN	<5.0	ppm	EH	25-JUN-01		6010
			TL	<1.0	ppm	MF	29-JUN-01		6020
			V	<5.0	ppm	EH	25-JUN-01		6010
			ZN	<5.0	ppm	EH	25-JUN-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010594

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010594-3		Lab Control Sample	AG	108	%Recovery	EH	25-JUN-01		6010
			AS	100	%Recovery	EH	25-JUN-01		6010
			BA	95	%Recovery	EH	25-JUN-01		6010
			BI	99	%Recovery	EH	25-JUN-01		6010
			CD	100	%Recovery	EH	25-JUN-01		6010
			CO	102	%Recovery	EH	25-JUN-01		6010
			CR	102	%Recovery	EH	25-JUN-01		6010
			CU	108	%Recovery	EH	25-JUN-01		6010
			HG	93	%Recovery	MO	25-JUN-01		7470
			MN	98	%Recovery	EH	25-JUN-01		6010
			NI	104	%Recovery	EH	25-JUN-01		6010
			PB	101	%Recovery	EH	25-JUN-01		6010
			SB	125*	%Recovery	EH	25-JUN-01		6010
			SE	89	%Recovery	EH	25-JUN-01		6010
			SN	100	%Recovery	EH	25-JUN-01		6010
			TL	98	%Recovery	MF	29-JUN-01		6020
			V	116	%Recovery	EH	25-JUN-01		6010
			ZN	98	%Recovery	EH	25-JUN-01		6010
WG010594-4		Matrix Spike Duplicate	AG	2.3	% RPD	EH	25-JUN-01		6010
			AS	2.2	% RPD	EH	25-JUN-01		6010
			BA	1.4	% RPD	EH	25-JUN-01		6010
			BI	2.7	% RPD	EH	25-JUN-01		6010
			CD	2.9	% RPD	EH	25-JUN-01		6010
			CN-	2.9	% RPD	DC	25-JUN-01		335.2
			CO	1.2	% RPD	EH	25-JUN-01		6010
			CR	1	% RPD	EH	25-JUN-01		6010
			CU	4.5	% RPD	EH	25-JUN-01		6010
			HG	1.7	% RPD	MO	25-JUN-01		7470
			MN	1.2	% RPD	EH	25-JUN-01		6010
			NI	1.6	% RPD	EH	25-JUN-01		6010
			PB	1.3	% RPD	EH	25-JUN-01		6010
			SB	1.2	% RPD	EH	25-JUN-01		6010
			SE	<1	% RPD	EH	25-JUN-01		6010
			SN	2.1	% RPD	EH	25-JUN-01		6010
			TL	<1	% RPD	MF	29-JUN-01		6020
			V	1.2	% RPD	EH	25-JUN-01		6010
			ZN	1.3	% RPD	EH	25-JUN-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010594

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010594-6		Reporting Limit	AG	0.5	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.4	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.5	ppm				7470
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.8	ppm				6010
			SE	0.8	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6020
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

(*) LCS for Sb is within ERA 247 acceptance limits.

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name _____

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Ken Brandner / ARCADIS G&M

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total Sb, As, Br, Bi, Cd, Cr, Co, Cu, CN, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (2-8oz glass jars w/ Teflon-lined lids)						Remarks	Total
Storm Drain 38a	S	6/20/01 2:00		2							2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 2

Relinquished by: Ken Brandner	Organization: ARCADIS G&M, Inc	Date 6/20/01	Time PM	Seal Intact?
Received by: [signature]	Organization: ASARCO TSC Lab	Date 6/21/01	Time 1145A	(Yes) No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by:	Organization:	Date / /	Time	Yes No N/A

Special Instructions/Remarks: Samples shipped in cooler w/ice. Normal turnaround, results to Ken Brandner

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05 0597

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010967

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010967-001	02-JUL-01	STORM DRAIN 78A	AG	<0.5	ppm	EH	20-JUL-01		6010
			AS	6.0	ppm	EH	20-JUL-01		6010
			BA	265.	ppm	EH	20-JUL-01		6010
			BI	<4	ppm	EH	20-JUL-01		6010
			CD	4.5	ppm	EH	20-JUL-01		6010
			CN-	0.11	ppm	DC	06-JUL-01		335.2
			CO	6.7	ppm	EH	20-JUL-01		6010
			CR	15.	ppm	EH	20-JUL-01		6010
			CU	75.	ppm	EH	20-JUL-01		6010
			HG	<0.05	ppm	MO	10-JUL-01		7471
			MN	467.	ppm	EH	20-JUL-01		6010
			NI	13.	ppm	EH	20-JUL-01		6010
			PB	65.	ppm	EH	20-JUL-01		6010
			SB	<0.8	ppm	MF	26-JUL-01		6020
			SE	<0.8	ppm	MF	26-JUL-01		6020
			SN	<5.0	ppm	EH	20-JUL-01		6010
			TL	<1.0	ppm	MF	16-JUL-01		6020
			V	25.	ppm	EH	20-JUL-01		6010
			ZN	800.	ppm	EH	20-JUL-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010641

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010641-1		Matrix Spike	AG	107	%Recovery	EH	20-JUL-01		6010
			AS	103	%Recovery	EH	20-JUL-01		6010
			BA	104	%Recovery	EH	20-JUL-01		6010
			BI	108	%Recovery	EH	20-JUL-01		6010
			CD	102	%Recovery	EH	20-JUL-01		6010
			CN-	94	%Recovery	DC	06-JUL-01		335.2
			CO	103	%Recovery	EH	20-JUL-01		6010
			CR	110	%Recovery	EH	20-JUL-01		6010
			CU	114	%Recovery	EH	20-JUL-01		6010
			HG	89	%Recovery	MO	10-JUL-01		7471
			MN	119	%Recovery	EH	20-JUL-01		6010
			NI	104	%Recovery	EH	20-JUL-01		6010
			PB	104	%Recovery	EH	20-JUL-01		6010
			SB	110	%Recovery	MF	26-JUL-01		6020
			SE	103	%Recovery	MF	26-JUL-01		6020
			SN	104	%Recovery	EH	20-JUL-01		6010
			TL	93	%Recovery	MF	16-JUL-01		6020
			V	107	%Recovery	EH	20-JUL-01		6010
			ZN	106	%Recovery	EH	20-JUL-01		6010
WG010641-2		Prep Blank	AG	<0.5	ppm	EH	20-JUL-01		6010
			AS	<5.0	ppm	EH	20-JUL-01		6010
			BA	<5.0	ppm	EH	20-JUL-01		6010
			BI	<4.0	ppm	EH	20-JUL-01		6010
			CD	<1.0	ppm	EH	20-JUL-01		6010
			CN-	<0.04	ppm	DC	06-JUL-01		335.2
			CO	<5.0	ppm	EH	20-JUL-01		6010
			CR	<5.0	ppm	EH	20-JUL-01		6010
			CU	<5.0	ppm	EH	20-JUL-01		6010
			HG	<0.05	ppm	MO	10-JUL-01		7471
			MN	<5.0	ppm	EH	20-JUL-01		6010
			NI	<5.0	ppm	EH	20-JUL-01		6010
			PB	<5.0	ppm	EH	20-JUL-01		6010
			SB	<0.8	ppm	MF	26-JUL-01		6020
			SE	<0.8	ppm	MF	26-JUL-01		6020
			SN	<5.0	ppm	EH	20-JUL-01		6010
			TL	<1.0	ppm	MF	16-JUL-01		6020
			V	<5.0	ppm	EH	20-JUL-01		6010
			ZN	<5.0	ppm	EH	20-JUL-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010641

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010641-3		Lab Control Sample	AG	110	%Recovery	EH	20-JUL-01		6010
			AS	108	%Recovery	EH	20-JUL-01		6010
			BA	107	%Recovery	EH	20-JUL-01		6010
			BI	98	%Recovery	EH	20-JUL-01		6010
			CD	102	%Recovery	EH	20-JUL-01		6010
			CN-	96	%Recovery	DC	06-JUL-01		335.2
			CO	108	%Recovery	EH	20-JUL-01		6010
			CR	110	%Recovery	EH	20-JUL-01		6010
			CU	111	%Recovery	EH	20-JUL-01		6010
			HG	101	%Recovery	MO	10-JUL-01		7471
			MN	108	%Recovery	EH	20-JUL-01		6010
			NI	104	%Recovery	EH	20-JUL-01		6010
			PB	112	%Recovery	EH	20-JUL-01		6010
			SB	101	%Recovery	MF	26-JUL-01		6020
			SE	87	%Recovery	MF	26-JUL-01		6020
			SN	116	%Recovery	EH	20-JUL-01		6010
			TL	101	%Recovery	MF	16-JUL-01		6020
			V	116	%Recovery	EH	20-JUL-01		6010
			ZN	102	%Recovery	EH	20-JUL-01		6010
WG010641-4		Matrix Spike Duplicate	AG	<1	% RPD	EH	20-JUL-01		6010
			AS	<1	% RPD	EH	20-JUL-01		6010
			BA	1.5	% RPD	EH	20-JUL-01		6010
			BI	<1	% RPD	EH	20-JUL-01		6010
			CD	<1	% RPD	EH	20-JUL-01		6010
			CN-	<1	% RPD	DC	06-JUL-01		335.2
			CO	<1	% RPD	EH	20-JUL-01		6010
			CR	1.7	% RPD	EH	20-JUL-01		6010
			CU	3	% RPD	EH	20-JUL-01		6010
			HG	3.8	% RPD	MO	10-JUL-01		7471
			MN	1.2	% RPD	EH	20-JUL-01		6010
			NI	<1	% RPD	EH	20-JUL-01		6010
			PB	<1	% RPD	EH	20-JUL-01		6010
			SB	1.6	% RPD	MF	26-JUL-01		6020
			SE	1.2	% RPD	MF	26-JUL-01		6020
			SN	<1	% RPD	EH	20-JUL-01		6010
			TL	1.3	% RPD	MF	16-JUL-01		6020
			V	1.5	% RPD	EH	20-JUL-01		6010
			ZN	<1	% RPD	EH	20-JUL-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010641

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010641-6		Reporting Limit	AG	0.5	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.8	ppm				6020
			SE	0.8	ppm				6020
			SN	5.0	ppm				6010
			TL	1.0	ppm				6020
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name CC000643.0001

Project Location Corpus Christi, TX

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation Ken Brandner/ARCADIS G&M

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Total Sb, As, Ba, Be, Cd, Cr, Co, Cu, CN, Se, Pb, Mn, Hg, Ni, Se, Ag, Tl, Sn, V, Zn (8oz glass jar w/Teflon-lined lid)	Remarks	Total
Storm Drain 78a	S	7/2/01 3:45				2

ANALYSIS / METHOD / SIZE

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 2

					Seal Intact?
Relinquished by: Ken Brandner	Organization: ARCADIS G&M, Inc.	Date 7/2/01	Time PM		
Received by: FEDEX	Organization: ASARCO	Date 7/3/01	Time _____		(Yes) No N/A
Relinquished by: _____	Organization: _____	Date __/__/__	Time _____		Seal Intact?
Received by: _____	Organization: _____	Date __/__/__	Time _____		Yes No N/A

Special Instructions/Remarks: Samples Shipped in cooler with ice.
Normal Turnaround, results to Ken Brandner

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

AG 05-0597

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010988

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010988-001	06-JUL-01	STORM DRAIN 219	AG	28.	ppm	EH	20-JUL-01		6010
			AS	20.	ppm	EH	20-JUL-01		6010
			BA	440.	ppm	EH	20-JUL-01		6010
			BI	<4.0	ppm	EH	20-JUL-01		6010
			CD	33.	ppm	EH	20-JUL-01		6010
			CN-	<0.04	ppm	DC	16-JUL-01		335.2
			CO	18.	ppm	EH	20-JUL-01		6010
			CR	35.	ppm	EH	20-JUL-01		6010
			CU	350.	ppm	EH	20-JUL-01		6010
			HG	0.14	ppm	MO	16-JUL-01		7471
			MN	8108.	ppm	EH	20-JUL-01		6010
			NI	27.	ppm	EH	20-JUL-01		6010
			PB	4094.	ppm	EH	20-JUL-01		6010
			SB	3.1	ppm	MF	26-JUL-01		6020
			SE	1.3	ppm	MF	26-JUL-01		6020
			SN	14.	ppm	EH	20-JUL-01		6010
			TL	1.1	ppm	MF	17-JUL-01		6010
			V	25.	ppm	EH	20-JUL-01		6010
			ZN	15930.	ppm	EH	20-JUL-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010673

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010673-1		Matrix Spike	AG	107	%Recovery	EH	20-JUL-01		6010
			AS	110	%Recovery	EH	20-JUL-01		6010
			BA	116	%Recovery	EH	20-JUL-01		6010
			BI	113	%Recovery	EH	20-JUL-01		6010
			CD	105	%Recovery	EH	20-JUL-01		6010
			CN-	100	%Recovery	DC	16-JUL-01		335.2
			CO	106	%Recovery	EH	20-JUL-01		6010
			CR	125	%Recovery	EH	20-JUL-01		6010
			CU	SR>4SA	%Recovery	EH	20-JUL-01		6010
			HG	82	%Recovery	MO	16-JUL-01		7471
			MN	119	%Recovery	EH	20-JUL-01		6010
			NI	112	%Recovery	EH	20-JUL-01		6010
			PB	SR>4SA	%Recovery	EH	20-JUL-01		6010
			SB	101	%Recovery	MF	26-JUL-01		6020
			SE	81	%Recovery	MF	26-JUL-01		6020
			SN	115	%Recovery	EH	20-JUL-01		6010
			TL	96	%Recovery	MF	17-JUL-01		6010
			V	112	%Recovery	EH	20-JUL-01		6010
			ZN	SR>4SA	%Recovery	EH	20-JUL-01		6010
WG010673-2		Prep Blank	AG	<0.5	ppm	EH	20-JUL-01		6010
			AS	<5.0	ppm	EH	20-JUL-01		6010
			BA	<5.0	ppm	EH	20-JUL-01		6010
			BI	<4.0	ppm	EH	20-JUL-01		6010
			CD	<1.0	ppm	EH	20-JUL-01		6010
			CN-	<0.04	ppm	DC	16-JUL-01		335.2
			CO	<5.0	ppm	EH	20-JUL-01		6010
			CR	<5.0	ppm	EH	20-JUL-01		6010
			CU	<5.0	ppm	EH	20-JUL-01		6010
			HG	<0.05	ppm	MO	16-JUL-01		7471
			MN	<5.0	ppm	EH	20-JUL-01		6010
			NI	<5.0	ppm	EH	20-JUL-01		6010
			PB	<5.0	ppm	EH	20-JUL-01		6010
			SB	<0.8	ppm	MF	26-JUL-01		6020
			SE	<0.8	ppm	MF	26-JUL-01		6020
			SN	<5.0	ppm	EH	20-JUL-01		6010
			TL	<1.0	ppm	MF	17-JUL-01		6010
			V	<5.0	ppm	EH	20-JUL-01		6010
			ZN	<5.0	ppm	EH	20-JUL-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010673

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010673-3		Lab Control Sample	AG	110	%Recovery	EH	20-JUL-01		6010
			AS	108	%Recovery	EH	20-JUL-01		6010
			BA	107	%Recovery	EH	20-JUL-01		6010
			BI	98	%Recovery	EH	20-JUL-01		6010
			CD	102	%Recovery	EH	20-JUL-01		6010
			CN-	97	%Recovery	DC	16-JUL-01		335.2
			CO	108	%Recovery	EH	20-JUL-01		6010
			CR	110	%Recovery	EH	20-JUL-01		6010
			CU	111	%Recovery	EH	20-JUL-01		6010
			HG	87	%Recovery	MO	16-JUL-01		7471
			MN	108	%Recovery	EH	20-JUL-01		6010
			NI	104	%Recovery	EH	20-JUL-01		6010
			PB	112	%Recovery	EH	20-JUL-01		6010
			SB	125	%Recovery	MF	26-JUL-01		6020
			SE	94	%Recovery	MF	26-JUL-01		6020
			SN	116	%Recovery	EH	20-JUL-01		6010
			TL	98	%Recovery	MF	17-JUL-01		6010
			V	116	%Recovery	EH	20-JUL-01		6010
			ZN	102	%Recovery	EH	20-JUL-01		6010
WG010673-4		Matrix Spike Duplicate	AG	<1	% RPD	EH	20-JUL-01		6010
			AS	3.3	% RPD	EH	20-JUL-01		6010
			BA	3.1	% RPD	EH	20-JUL-01		6010
			BI	2.6	% RPD	EH	20-JUL-01		6010
			CD	<1	% RPD	EH	20-JUL-01		6010
			CN-	<1	% RPD	DC	16-JUL-01		335.2
			CO	<1	% RPD	EH	20-JUL-01		6010
			CR	1.2	% RPD	EH	20-JUL-01		6010
			CU	1.5	% RPD	EH	20-JUL-01		6010
			HG	18	% RPD	MO	16-JUL-01		7471
			MN	<1	% RPD	EH	20-JUL-01		6010
			NI	3.5	% RPD	EH	20-JUL-01		6010
			PB	2.5	% RPD	EH	20-JUL-01		6010
			SB	1.6	% RPD	MF	26-JUL-01		6020
			SE	2.6	% RPD	MF	26-JUL-01		6020
			SN	8.1	% RPD	EH	20-JUL-01		6010
			TL	<1	% RPD	MF	17-JUL-01		6010
			V	1.5	% RPD	EH	20-JUL-01		6010
			ZN	<1	% RPD	EH	20-JUL-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010673

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010673-6		Reporting Limit	AG	0.5	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.8	ppm				6020
			SE	0.8	ppm				6020
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name [illegible]

Project Location [illegible] TX

Laboratory ASARCO

Project Manager [illegible]

Sampler(s)/Affiliation [illegible]

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	[illegible]	[illegible]	[illegible]				Remarks	Total
[illegible]	S	7/6/01 1200				2					2

Total No. of Bottles/ Containers 2

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: ARCADIS	Date 7/9/01	Time 1700	Seal Intact? Yes No N/A
Received by: [signature]	Organization: ASARCO	Date 7/10/01	Time 1030	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: [illegible] chipped [illegible] [illegible] to [illegible]

Delivery Method: ☐ In Person ☒ Common Carrier [illegible] SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L011112

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L011112-001	31-JUL-01	STORM DRAIN 102	AG	1.1	ppm	EH	10-AUG-01		6010
			AS	15.	ppm	EH	10-AUG-01		6010
			BA	196.	ppm	EH	10-AUG-01		6010
			BI	<4.0	ppm	EH	10-AUG-01		6010
			CD	21.	ppm	EH	10-AUG-01		6010
			CN-	<0.04	ppm	DC	10-AUG-01		335.2
			CO	7.9	ppm	EH	10-AUG-01		6010
			CR	15.	ppm	EH	10-AUG-01		6010
			CU	89.	ppm	EH	10-AUG-01		6010
			HG	0.15	ppm	MO	10-AUG-01		7471
			MN	471.	ppm	EH	10-AUG-01		6010
			MOIST.	17.	%	AKH	06-AUG-01		GRAV.
			NI	16.	ppm	EH	10-AUG-01		6010
			PB	105.	ppm	EH	10-AUG-01		6010
			SB	<0.80	ppm	MF	21-AUG-01		6020
			SE	<0.80	ppm	MF	21-AUG-01		6020
			SN	<5.0	ppm	EH	10-AUG-01		6010
			TL	<1.0	ppm	MF	21-AUG-01		6020
			V	18.	ppm	EH	10-AUG-01		6010
			ZN	1166.	ppm	EH	10-AUG-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010757

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010757-1		Matrix Spike	AG	107	%Recovery	EH	10-AUG-01		6010
			AS	99	%Recovery	EH	10-AUG-01		6010
			BA	106	%Recovery	EH	10-AUG-01		6010
			BI	105	%Recovery	EH	10-AUG-01		6010
			CD	101	%Recovery	EH	10-AUG-01		6010
			CN-	90	%Recovery	DC	10-AUG-01		335.2
			CO	102	%Recovery	EH	10-AUG-01		6010
			CR	114	%Recovery	EH	10-AUG-01		6010
			CU	124	%Recovery	EH	10-AUG-01		6010
			HG	SR>4SA	%Recovery	MO	10-AUG-01		7471
			MN	112	%Recovery	EH	10-AUG-01		6010
			NI	103	%Recovery	EH	10-AUG-01		6010
			PB	102	%Recovery	EH	10-AUG-01		6010
			SB	80	%Recovery	MF	21-AUG-01		6020
			SE	75	%Recovery	MF	21-AUG-01		6020
			SN	101	%Recovery	EH	10-AUG-01		6010
			TL	98	%Recovery	MF	21-AUG-01		6020
			V	108	%Recovery	EH	10-AUG-01		6010
			ZN	96	%Recovery	EH	10-AUG-01		6010
WG010757-2		Prep Blank	AG	<0.50	ppm	EH	10-AUG-01		6010
			AS	<5.0	ppm	EH	10-AUG-01		6010
			BA	<5.0	ppm	EH	10-AUG-01		6010
			BI	<4.0	ppm	EH	10-AUG-01		6010
			CD	<1.0	ppm	EH	10-AUG-01		6010
			CN-	<0.04	ppm	DC	10-AUG-01		335.2
			CO	<5.0	ppm	EH	10-AUG-01		6010
			CR	<5.0	ppm	EH	10-AUG-01		6010
			CU	<5.0	ppm	EH	10-AUG-01		6010
			HG	<0.05	ppm	MO	10-AUG-01		7471
			MN	<5.0	ppm	EH	10-AUG-01		6010
			NI	<5.0	ppm	EH	10-AUG-01		6010
			PB	<5.0	ppm	EH	10-AUG-01		6010
			SB	<0.80	ppm	MF	21-AUG-01		6020
			SE	<0.80	ppm	MF	21-AUG-01		6020
			SN	<5.0	ppm	EH	10-AUG-01		6010
			TL	<1.0	ppm	MF	21-AUG-01		6020
			V	<5.0	ppm	EH	10-AUG-01		6010
			ZN	<5.0	ppm	EH	10-AUG-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010757

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010757-3		Lab Control Sample	AG	111	%Recovery	EH	10-AUG-01		6010
			AS	107	%Recovery	EH	10-AUG-01		6010
			BA	104	%Recovery	EH	10-AUG-01		6010
			BI	99	%Recovery	EH	10-AUG-01		6010
			CD	101	%Recovery	EH	10-AUG-01		6010
			CN-	93	%Recovery	DC	10-AUG-01		335.2
			CO	104	%Recovery	EH	10-AUG-01		6010
			CR	104	%Recovery	EH	10-AUG-01		6010
			CU	112	%Recovery	EH	10-AUG-01		6010
			HG	84	%Recovery	MO	10-AUG-01		7471
			MN	105	%Recovery	EH	10-AUG-01		6010
			NI	103	%Recovery	EH	10-AUG-01		6010
			PB	102	%Recovery	EH	10-AUG-01		6010
			SB	93	%Recovery	MF	21-AUG-01		6020
			SE	90	%Recovery	MF	21-AUG-01		6020
			SN	109	%Recovery	EH	10-AUG-01		6010
			TL	100	%Recovery	MF	21-AUG-01		6020
			V	110	%Recovery	EH	10-AUG-01		6010
			ZN	100	%Recovery	EH	10-AUG-01		6010
WG010757-5		Matrix Spike Duplicate	AG	1.3	% RPD	EH	10-AUG-01		6010
			AS	<1	% RPD	EH	10-AUG-01		6010
			BA	<1	% RPD	EH	10-AUG-01		6010
			BI	<1	% RPD	EH	10-AUG-01		6010
			CD	4.5	% RPD	EH	10-AUG-01		6010
			CN-	6.8	% RPD	DC	10-AUG-01		335.2
			CO	<1	% RPD	EH	10-AUG-01		6010
			CR	1.2	% RPD	EH	10-AUG-01		6010
			CU	<1	% RPD	EH	10-AUG-01		6010
			HG	<1	% RPD	MO	10-AUG-01		7471
			MN	<1	% RPD	EH	10-AUG-01		6010
			NI	<1	% RPD	EH	10-AUG-01		6010
			PB	<1	% RPD	EH	10-AUG-01		6010
			SB	5.9	% RPD	MF	21-AUG-01		6020
			SE	1	% RPD	MF	21-AUG-01		6020
			SN	<1	% RPD	EH	10-AUG-01		6010
			TL	<1	% RPD	MF	21-AUG-01		6020
			V	1.2	% RPD	EH	10-AUG-01		6010
			ZN	<1	% RPD	EH	10-AUG-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010757

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010757-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.04	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			SB	0.80	ppm				6020
			SE	0.80	ppm				6020
			SN	5.0	ppm				6010
			TL	1.0	ppm				6020
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

Approved

Reviewer

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name 80000643.0001

Project Location Corpus Christi, TX

Laboratory ARCADIS

Project Manager Ken Brandner

Sampler(s)/Affiliation Ken Brandner / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID								Remarks	Total
Storm Drain 102	S	7/31/01 14:00				2						2
Concrete Composite	S	7/31/01 14:20							2			2
Storm Drain 102 Sed.	S	7/31/01 14:30							2			2
Storm Drain 78 Sed.	S	7/31/01 14:50							2			2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 8

Relinquished by: Ken Brandner	Organization: ARCADIS	Date 7/31/01	Time PM	Seal Intact?	
Received by: [illegible]	Organization:	Date 8/1/01	Time 10 AM	Yes	No N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes	No N/A

Special Instructions/Remarks: Normal Turnaround. Fax results to Ken Brandner.

Delivery Method: ☐ In Person ☒ Common Carrier Federal Express SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

APPENDIX L

Appendix L

Laboratory Reports – Boneyard Soil and Wooden Railroad Tie Samples

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (6), six soil samples collected on July 26, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 27, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001193

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001193-001	26-JUL-00	BONEYARD COMP.1	AG	23.	ppm	MDK	16-SEP-00		6010
			AS	98.	ppm	MDK	16-SEP-00		6010
			BA	229.*	ppm	MDK	16-SEP-00		6010
			BI	12.	ppm	MDK	16-SEP-00		6010
			CD	131.*	ppm	MDK	16-SEP-00		6010
			CO	6.	ppm	MDK	16-SEP-00		6010
			CR	11.	ppm	MDK	16-SEP-00		6010
			CU	887.*	ppm	MDK	16-SEP-00		6010
			FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
			HG	0.11*	ppm	EH	01-AUG-00		7471
			MN	188.*	ppm	MDK	16-SEP-00		6010
			NI	32.*	ppm	MDK	16-SEP-00		6010
			PB	1840.*	ppm	MDK	16-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	34.	ppm	MDK	16-SEP-00		6010
			SE	2.	ppm	MDK	16-SEP-00		6010
			SN	21.	ppm	MDK	16-SEP-00		6010
			TL	<1.	ppm	MDK	16-SEP-00		6010
			V	<5.	ppm	MDK	16-SEP-00		6010
			ZN	14370.*	ppm	MDK	05-OCT-00		6010
L001193-002	26-JUL-00	BONEYARD COMP.2	AG	2.	ppm	MDK	16-SEP-00		6010
			AS	6.	ppm	MDK	16-SEP-00		6010
			BA	132.*	ppm	MDK	16-SEP-00		6010
			BI	<4.	ppm	MDK	16-SEP-00		6010
			CD	34.*	ppm	MDK	16-SEP-00		6010
			CO	6.	ppm	MDK	16-SEP-00		6010
			CR	9.	ppm	MDK	16-SEP-00		6010
			CU	218.*	ppm	MDK	16-SEP-00		6010
			FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
			HG	0.15*	ppm	EH	01-AUG-00		7471
			MN	60.*	ppm	MDK	16-SEP-00		6010
			NI	21.*	ppm	MDK	16-SEP-00		6010
			PB	523.*	ppm	MDK	16-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	3.	ppm	MDK	16-SEP-00		6010
			SE	1.	ppm	MDK	16-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001193

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001193-002	26-JUL-00	BONEYARD COMP.2	SN	10.	ppm	MDK	16-SEP-00		6010
			TL	1.	ppm	MDK	16-SEP-00		6010
			V	<5.	ppm	MDK	16-SEP-00		6010
			ZN	2430.*	ppm	MDK	16-SEP-00		6010
L001193-003	26-JUL-00	BONEYARD COMP.3	AG	6.	ppm	MDK	16-SEP-00		6010
			AS	8.	ppm	MDK	16-SEP-00		6010
			BA	47.*	ppm	MDK	16-SEP-00		6010
			BI	<4.	ppm	MDK	16-SEP-00		6010
			CD	93.*	ppm	MDK	16-SEP-00		6010
			CO	<5.	ppm	MDK	16-SEP-00		6010
			CR	<5.	ppm	MDK	16-SEP-00		6010
			CU	332.*	ppm	MDK	16-SEP-00		6010
			FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
			HG	0.45*	ppm	EH	01-AUG-00		7471
			MN	63.*	ppm	MDK	16-SEP-00		6010
			NI	9.*	ppm	MDK	16-SEP-00		6010
			PB	1470.*	ppm	MDK	16-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	3.	ppm	MDK	16-SEP-00		6010
			SE	1.	ppm	MDK	16-SEP-00		6010
			SN	8.	ppm	MDK	16-SEP-00		6010
			TL	<1.	ppm	MDK	16-SEP-00		6010
			V	<5.	ppm	MDK	16-SEP-00		6010
			ZN	3488.*	ppm	MDK	16-SEP-00		6010
L001193-004	26-JUL-00	BONEYARD COMP.4	AG	9.	ppm	MDK	16-SEP-00		6010
			AS	26.	ppm	MDK	16-SEP-00		6010
			BA	150.*	ppm	MDK	16-SEP-00		6010
			BI	5.	ppm	MDK	16-SEP-00		6010
			CD	784.*	ppm	MDK	16-SEP-00		6010
			CO	24.	ppm	MDK	16-SEP-00		6010
			CR	7.	ppm	MDK	16-SEP-00		6010
			CU	1460.*	ppm	MDK	16-SEP-00		6010
			FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
			HG	0.078*	ppm	EH	01-AUG-00		7471
			MN	155.*	ppm	MDK	16-SEP-00		6010
			NI	29.*	ppm	MDK	16-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001193

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001193-004	26-JUL-00	BONEYARD COMP.4		PB	2580.*	ppm	MDK	16-SEP-00		6010
				REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
				REAC S=	<1.5	ppm	DC	27-JUL-00		9030
				SB	9.	ppm	MDK	16-SEP-00		6010
				SE	1.	ppm	MDK	16-SEP-00		6010
				SN	16.	ppm	MDK	16-SEP-00		6010
				TL	2.	ppm	MDK	16-SEP-00		6010
				V	<5.	ppm	MDK	16-SEP-00		6010
				ZN	14330.*	ppm	MDK	05-OCT-00		6010
L001193-005	26-JUL-00	BONEYARD COMP.5		AG	4.	ppm	MDK	16-SEP-00		6010
				AS	14.	ppm	MDK	16-SEP-00		6010
				BA	139.*	ppm	MDK	16-SEP-00		6010
				BI	<4.	ppm	MDK	16-SEP-00		6010
				CD	149.*	ppm	MDK	16-SEP-00		6010
				CO	6.	ppm	MDK	16-SEP-00		6010
				CR	5.	ppm	MDK	16-SEP-00		6010
				CU	347.*	ppm	MDK	16-SEP-00		6010
				FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
				HG	0.12*	ppm	EH	01-AUG-00		7471
				MN	64.*	ppm	MDK	16-SEP-00		6010
				NI	27.*	ppm	MDK	16-SEP-00		6010
				PB	1140.*	ppm	MDK	16-SEP-00		6010
				REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
				REAC S=	<1.5	ppm	DC	27-JUL-00		9030
				SB	5.	ppm	MDK	16-SEP-00		6010
				SE	2.	ppm	MDK	16-SEP-00		6010
				SN	11.	ppm	MDK	16-SEP-00		6010
				TL	1.	ppm	MDK	16-SEP-00		6010
				V	<5.	ppm	MDK	16-SEP-00		6010
				ZN	4236*	ppm	MDK	16-SEP-00		6010
L001193-006	26-JUL-00	(BY) DUPLICATE	Composite 1	AG	1.	ppm	MDK	16-SEP-00		6010
				AS	6.	ppm	MDK	16-SEP-00		6010
				BA	42.*	ppm	MDK	16-SEP-00		6010
				BI	<4.	ppm	MDK	16-SEP-00		6010
				CD	27.*	ppm	MDK	16-SEP-00		6010
				CO	<5.	ppm	MDK	16-SEP-00		6010
				CR	<5.	ppm	MDK	16-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001193

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001193-006	26-JUL-00	(BY)DUPLICATE	Composite 1	CU	72.*	ppm	MDK	16-SEP-00		6010
				FLASH PT.	>200.	deg f	AWL	27-JUL-00		1010
				HG	<0.05*	ppm	EH	01-AUG-00		7471
				MN	46.*	ppm	MDK	16-SEP-00		6010
				NI	11.*	ppm	MDK	16-SEP-00		6010
				PB	129.*	ppm	MDK	16-SEP-00		6010
				REAC CN	<0.1	ppm	DC	28-JUL-00		9010
				REAC S=	<1.5	ppm	DC	27-JUL-00		9030
				SB	1.	ppm	MDK	16-SEP-00		6010
				SE	1.	ppm	MDK	16-SEP-00		6010
				SN	<5.	ppm	MDK	16-SEP-00		6010
				TL	2.	ppm	MDK	16-SEP-00		6010
				V	<5.	ppm	MDK	16-SEP-00		6010
				ZN	2030.*	ppm	MDK	16-SEP-00		6010

(*) Quality control data indicates a possible bias. See QC report for details.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000806

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000806-1		Matrix Spike	AG	76	%Recovery	MDK	16-SEP-00		6010
			AS	87	%Recovery	MDK	16-SEP-00		6010
			BA	95	%Recovery	MDK	16-SEP-00		6010
			BI	93	%Recovery	MDK	16-SEP-00		6010
			CD	122*	%Recovery	MDK	16-SEP-00		6010
			CO	93	%Recovery	MDK	16-SEP-00		6010
			CR	94	%Recovery	MDK	16-SEP-00		6010
			CU	SR>4SA	%Recovery	MDK	16-SEP-00		6010
			HG	67*	%Recovery	EH	01-AUG-00		7471
			MN	84	%Recovery	MDK	16-SEP-00		6010
			NI	97	%Recovery	MDK	16-SEP-00		6010
			PB	SR>4SA	%Recovery	MDK	16-SEP-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	85	%Recovery	MDK	16-SEP-00		6010
			SE	82	%Recovery	MDK	16-SEP-00		6010
			SN	91	%Recovery	MDK	16-SEP-00		6010
			TL	87	%Recovery	MDK	16-SEP-00		6010
			V	93	%Recovery	MDK	16-SEP-00		6010
			ZN	SR>4SA	%Recovery	MDK	16-SEP-00		6010
WG000806-2		Prep Blank	AG	<0.5	ppm	MDK	16-SEP-00		6010
			AS	<5.0	ppm	MDK	16-SEP-00		6010
			BA	<5.0	ppm	MDK	16-SEP-00		6010
			BI	<4.0	ppm	MDK	16-SEP-00		6010
			CD	<1.0	ppm	MDK	16-SEP-00		6010
			CO	<5.0	ppm	MDK	16-SEP-00		6010
			CR	<5.0	ppm	MDK	16-SEP-00		6010
			CU	<5.0	ppm	MDK	16-SEP-00		6010
			HG	<0.05	ppm	EH	01-AUG-00		7471
			MN	<5.0	ppm	MDK	16-SEP-00		6010
			NI	<5.0	ppm	MDK	16-SEP-00		6010
			PB	5.0	ppm	MDK	16-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	<0.8	ppm	MDK	16-SEP-00		6010
			SE	<0.8	ppm	MDK	16-SEP-00		6010
			SN	<5.0	ppm	MDK	16-SEP-00		6010
			TL	<1.0	ppm	MDK	16-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000806

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000806-2		Prep Blank	V	<5.0	ppm	MDK	16-SEP-00		6010
			ZN	<5.0	ppm	MDK	16-SEP-00		6010
WG000806-3		Lab Control Sample	AG	98	%Recovery	MDK	16-SEP-00		6010
			AS	89	%Recovery	MDK	16-SEP-00		6010
			BA	94	%Recovery	MDK	16-SEP-00		6010
			BI	93	%Recovery	MDK	16-SEP-00		6010
			CD	93	%Recovery	MDK	16-SEP-00		6010
			CO	96	%Recovery	MDK	16-SEP-00		6010
			CR	96	%Recovery	MDK	16-SEP-00		6010
			CU	105	%Recovery	MDK	16-SEP-00		6010
			HG	110	%Recovery	EH	01-AUG-00		7471
			MN	94	%Recovery	MDK	16-SEP-00		6010
			NI	98	%Recovery	MDK	16-SEP-00		6010
			PB	95	%Recovery	MDK	16-SEP-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	112	%Recovery	MDK	16-SEP-00		6010
			SE	86	%Recovery	MDK	16-SEP-00		6010
			SN	103	%Recovery	MDK	16-SEP-00		6010
			TL	88	%Recovery	MDK	16-SEP-00		6010
			V	103	%Recovery	MDK	16-SEP-00		6010
			ZN	91	%Recovery	MDK	16-SEP-00		6010
WG000806-5		Matrix Spike Duplicate	AG	14	% RPD	MDK	16-SEP-00		6010
			AS	9.4	% RPD	MDK	16-SEP-00		6010
			BA	22**	% RPD	MDK	16-SEP-00		6010
			BI	9.9	% RPD	MDK	16-SEP-00		6010
			CD	E	% RPD	MDK	16-SEP-00		6010
			CO	15	% RPD	MDK	16-SEP-00		6010
			CR	14	% RPD	MDK	16-SEP-00		6010
			CU	E	% RPD	MDK	16-SEP-00		6010
			MN	E	% RPD	MDK	16-SEP-00		6010
			NI	E	% RPD	MDK	16-SEP-00		6010
			PB	E	% RPD	MDK	16-SEP-00		6010
			REAC CN-	<1	% RPD	DC	28-JUL-00		9010
			REAC S=	<1	% RPD	DC	27-JUL-00		9030
			SB	12	% RPD	MDK	16-SEP-00		6010
			SE	8.8	% RPD	MDK	16-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000806

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000806-5		Matrix Spike Duplicate	SN	9.2	% RPD	MDK	16-SEP-00		6010
			TL	6	% RPD	MDK	16-SEP-00		6010
			V	9.7	% RPD	MDK	16-SEP-00		6010
			ZN	E	% RPD	MDK	16-SEP-00		6010
WG000806-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			REAC CN-	0.10	ppm				9010
			REAC S=	1.5	ppm				9030
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000806

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

* Spike outside acceptance limits due to matrix interference.
** Duplicate spike recovery for Ba was out of range due to non-homogeneity of spiked sample.
(E) Duplicate spikes were outside control limits.

Approved

Reviewer

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-01B

Field Sample ID:
L001193-001

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-02B

Field Sample ID:
L001193-002

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

Released by: Sue D. Sk
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-03B

Field Sample ID:
L001193-003

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-04B

Field Sample ID:
LQ01193-004

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-05B

Field Sample ID:
L001193-005

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released by: [signature]
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: July 26, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42112-06B

Field Sample ID:
L001193-006

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	7/28/00	1010	200	> 200

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-01A
Field Sample ID: **L001193-001**
Site ID: Encycle

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-02A
Field Sample ID: **L001193-002**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: Rue D. Gri

Laboratory Supervisor Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-03A
Field Sample ID: **L001193-003**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: Rae D. Sh

Laboratory Supervisor Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-04A
Field Sample ID: **L001193-004**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: Rue D. Gi

Laboratory Supervisor Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-05A
Field Sample ID: **L001193-005**
Site ID: Encycle

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

* Low surrogate recoveries observed. Re-extraction and analysis confirm primary analytical results.

Released by: Rue D. Siv

Laboratory Supervisor Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-06A
Field Sample ID: **L001193-006**
Site ID: Encycle

Analytical Results for TCLP **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: [signature]
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-07A
Field Sample ID: **Equipment Blank**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: Paul D. Skei
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-08A
Field Sample ID: **Field Blank**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Collected: July 26, 2000
Received: July 27, 2000

Contact: Vince Keller
Analyzed: August 7, 2000
Extracted: August 4, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L42112-09A
Field Sample ID: **Trip Blank**
Site ID: Encycle

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
Cyclohexanone	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: August 9, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

BLANK SUMMARY REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Lab Set ID: L42112
Project: Encycle

Analysis Requested: Semi Volatiles by SW 8270B

Method Blank ID: MB-2725

Analysis Date: August 7, 2000
Prep Date: August 4, 2000

Analytical Results — **Semi Volatile Organics by GC/MS**

Units: mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.05	< 0.050
2-Methylphenol	0.05	< 0.050
Cyclohexanone	0.05	< 0.050
2,4-Dinitrotoluene	0.05	< 0.050
2-Ethoxy Ethanol	0.25	< 0.25
Hexachlorobenzene	0.05	< 0.050
Hexachlorobutadiene	0.05	< 0.050
Hexachloroethane	0.05	< 0.050
Nitrobenzene	0.05	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.05	< 0.050
2,4,5-Trichlorophenol	0.05	< 0.050

Released by: Rue D. Gr
Laboratory Supervisor

Report Date: August 14, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ASARCO

October 5, 2000

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (5), five soil samples collected on July 18, 2000, in association with the Encycle Project # CC00064.0001 and received by the laboratory on July 20, 2000.

Please note that CN- and Hg were analyzed on the samples as received, while all other metals were analyzed on dried samples.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001177

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001177-001	18-JUL-00	BONEYARD COMP. 6	AG	28.6	ppm	MDK	07-SEP-00		6010
			AS	98.	ppm	MDK	07-SEP-00		6010
			BA	456.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	266.	ppm	MDK	07-SEP-00		6010
			CO	50.	ppm	MDK	07-SEP-00		6010
			CR	225.	ppm	MDK	07-SEP-00		6010
			CU	1420.	ppm	MDK	07-SEP-00		6010
			FLASH PT.	>200	deg f	AWL	08-AUG-00		1010
			HG	23.*	ppm	EH	20-JUL-00		7471
			MN	1360.	ppm	MDK	07-SEP-00		6010
			NI	194.	ppm	MDK	07-SEP-00		6010
			PB	2740.*	ppm	MDK	07-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	13.2*	ppm	MDK	07-SEP-00		6010
			SE	15.4*	ppm	MDK	07-SEP-00		6010
			SN	119.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	30.	ppm	MDK	07-SEP-00		6010
			ZN	27150.	ppm	MDK	05-OCT-00		6010
L001177-002	18-JUL-00	BONEYARD COMP. 7	AG	51.6	ppm	MDK	07-SEP-00		6010
			AS	200.	ppm	MDK	07-SEP-00		6010
			BA	541.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	714.	ppm	MDK	07-SEP-00		6010
			CO	48.	ppm	MDK	07-SEP-00		6010
			CR	86.	ppm	MDK	07-SEP-00		6010
			CU	1250.	ppm	MDK	07-SEP-00		6010
			FLASH PT.	>200	deg f	AWL	08-AUG-00		1010
			HG	3.5*	ppm	EH	20-JUL-00		7471
			MN	1240.	ppm	MDK	07-SEP-00		6010
			NI	65.	ppm	MDK	07-SEP-00		6010
			PB	21230.*	ppm	MDK	07-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	11.8*	ppm	MDK	07-SEP-00		6010
			SE	6.7*	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001177

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001177-002	18-JUL-00	BONEYARD COMP. 7	SN	66.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	22.	ppm	MDK	07-SEP-00		6010
			ZN	15230.	ppm	MDK	05-OCT-00		6010
L001177-003	18-JUL-00	BONEYARD COMP. 8	AG	8.7	ppm	MDK	07-SEP-00		6010
			AS	57.	ppm	MDK	07-SEP-00		6010
			BA	708.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	1623.	ppm	MDK	07-SEP-00		6010
			CO	47.	ppm	MDK	07-SEP-00		6010
			CR	354.	ppm	MDK	07-SEP-00		6010
			CU	3595.	ppm	MDK	07-SEP-00		6010
			FLASH PT.	>200	deg f	AWL	08-AUG-00		1010
			HG	9.3*	ppm	EH	20-JUL-00		7471
			MN	784.	ppm	MDK	07-SEP-00		6010
			NI	75.	ppm	MDK	07-SEP-00		6010
			PB	1200.*	ppm	MDK	07-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	8.4*	ppm	MDK	07-SEP-00		6010
			SE	6.0*	ppm	MDK	07-SEP-00		6010
			SN	36.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07 SEP-00		6010
			V	16.	ppm	MDK	07-SEP-00		6010
			ZN	16260.	ppm	MDK	05-OCT-00		6010
L001177-004	18-JUL-00	BONEYARD COMP. 9	AG	14.8	ppm	MDK	07-SEP-00		6010
			AS	160.	ppm	MDK	07-SEP-00		6010
			BA	355.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	588.	ppm	MDK	07-SEP-00		6010
			CO	78.	ppm	MDK	07-SEP-00		6010
			CR	64.	ppm	MDK	07-SEP-00		6010
			CU	1520.	ppm	MDK	07-SEP-00		6010
			FLASH PT.	>200	deg f	AWL	08-AUG-00		1010
			HG	2.1*	ppm	EH	20-JUL-00		7471
			MN	1390.	ppm	MDK	07-SEP-00		6010
			NI	91.	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001177

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001177-004	18-JUL-00	BONEYARD COMP. 9	PB	1720.*	ppm	MDK	07-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	16.1*	ppm	MDK	07-SEP-00		6010
			SE	6.1*	ppm	MDK	07-SEP-00		6010
			SN	99.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	17.	ppm	MDK	07-SEP-00		6010
			ZN	18860.	ppm	MDK	05-OCT-00		6010
L001177-005	18-JUL-00	DUPLICATE (COMP.8)	AG	62.7	ppm	MDK	07-SEP-00		6010
			AS	98.	ppm	MDK	07-SEP-00		6010
			BA	572.	ppm	MDK	07-SEP-00		6010
			BI	<4.	ppm	MDK	07-SEP-00		6010
			CD	2201.	ppm	MDK	07-SEP-00		6010
			CO	70.	ppm	MDK	07-SEP-00		6010
			CR	94.	ppm	MDK	07-SEP-00		6010
			CU	3877.	ppm	MDK	07-SEP-00		6010
			FLASH PT.	>200	deg f	AWL	08-AUG-00		1010
			HG	35.*	ppm	EH	20-JUL-00		7471
			MN	1170.	ppm	MDK	07-SEP-00		6010
			NI	85.	ppm	MDK	07-SEP-00		6010
			PB	1720.*	ppm	MDK	07-SEP-00		6010
			REAC CN	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	12.7*	ppm	MDK	07-SEP-00		6010
			SE	7.5*	ppm	MDK	07-SEP-00		6010
			SN	49.	ppm	MDK	07-SEP-00		6010
			TL	<5.**	ppm	MDK	07-SEP-00		6010
			V	26.	ppm	MDK	07-SEP-00		6010
			ZN	24090.	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001177

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Quality control data indicates a possible bias. See QC report for details.
(**) Tl reporting limits were elevated due to matrix interference.

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000788

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000788-1		Matrix Spike	AG	103	%Recovery	MDK	07-SEP-00		6010
			AS	88	%Recovery	MDK	07-SEP-00		6010
			BI	96	%Recovery	MDK	07-SEP-00		6010
			CD	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			CO	85	%Recovery	MDK	07-SEP-00		6010
			CR	123	%Recovery	MDK	07-SEP-00		6010
			CU	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			HG	SR>4SA	%Recovery	EH	20-JUL-00		7471
			MN	115	%Recovery	MDK	07-SEP-00		6010
			NI	92	%Recovery	MDK	07-SEP-00		6010
			PB	SR>4SA	%Recovery	MDK	07-SEP-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	73*	%Recovery	MDK	07-SEP-00		6010
			SE	69*	%Recovery	MDK	07-SEP-00		6010
			SN	90	%Recovery	MDK	07-SEP-00		6010
			TL	77	%Recovery	MDK	07-SEP-00		6010
			V	99	%Recovery	MDK	07-SEP-00		6010
			ZN	SR>4SA	%Recovery	MDK	05-OCT-00		6010
WG000788-2		Prep Blank	AG	<0.5	ppm	MDK	07-SEP-00		6010
			AS	<5.0	ppm	MDK	07-SEP-00		6010
			BA	<5.0	ppm	MDK	07-SEP-00		6010
			BI	<4.0	ppm	MDK	07-SEP-00		6010
			CD	<1.0	ppm	MDK	07-SEP-00		6010
			CO	<5.0	ppm	MDK	07-SEP-00		6010
			CR	<5.0	ppm	MDK	07-SEP-00		6010
			CU	<5.0	ppm	MDK	07-SEP-00		6010
			HG	<0.05	ppm	EH	20-JUL-00		7471
			MN	<5.0	ppm	MDK	07-SEP-00		6010
			NI	<5.0	ppm	MDK	07-SEP-00		6010
			PB	<5.0	ppm	MDK	07-SEP-00		6010
			REAC CN-	<0.1	ppm	DC	28-JUL-00		9010
			REAC S=	<1.5	ppm	DC	27-JUL-00		9030
			SB	<0.8	ppm	MDK	07-SEP-00		6010
			SE	<0.8	ppm	MDK	07-SEP-00		6010
			SN	<5.0	ppm	MDK	07-SEP-00		6010
			TL	4.8****	ppm	MDK	07-SEP-00		6010
			V	<5.0	ppm	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000788

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000788-2		Prep Blank	ZN	<5.0	ppm	MDK	07-SEP-00		6010
WG000788-3		Lab Control Sample	AG	101	%Recovery	MDK	07-SEP-00		6010
			AS	92	%Recovery	MDK	07-SEP-00		6010
			BA	104	%Recovery	MDK	07-SEP-00		6010
			BI	98	%Recovery	MDK	07-SEP-00		6010
			CD	92	%Recovery	MDK	07-SEP-00		6010
			CO	99	%Recovery	MDK	07-SEP-00		6010
			CR	97	%Recovery	MDK	07-SEP-00		6010
			CU	104	%Recovery	MDK	07-SEP-00		6010
			HG	120**	%Recovery	EH	20-JUL-00		7471
			MN	99	%Recovery	MDK	07-SEP-00		6010
			NI	97	%Recovery	MDK	07-SEP-00		6010
			PB	100	%Recovery	MDK	07-SEP-00		6010
			REAC CN-	96	%Recovery	DC	28-JUL-00		9010
			REAC S=	94	%Recovery	DC	27-JUL-00		9030
			SB	109	%Recovery	MDK	07-SEP-00		6010
			SE	79**	%Recovery	MDK	07-SEP-00		6010
			SN	108	%Recovery	MDK	07-SEP-00		6010
			TL	104	%Recovery	MDK	07-SEP-00		6010
			V	110	%Recovery	MDK	07-SEP-00		6010
			ZN	97	%Recovery	MDK	07-SEP-00		6010
WG000788-5		Matrix Spike Duplicate	AG	1.7	% RPD	MDK	07-SEP-00		6010
			AS	4.1	% RPD	MDK	07-SEP-00		6010
			BI	1.8	% RPD	MDK	07-SEP-00		6010
			CD	<1	% RPD	MDK	07-SEP-00		6010
			CO	4.5	% RPD	MDK	07-SEP-00		6010
			CR	14	% RPD	MDK	07-SEP-00		6010
			CU	2.6	% RPD	MDK	07-SEP-00		6010
			MN	1.5	% RPD	MDK	07-SEP-00		6010
			NI	14	% RPD	MDK	07-SEP-00		6010
			PB	28***	% RPD	MDK	07-SEP-00		6010
			REAC CN-	<1	% RPD	DC	28-JUL-00		9010
			REAC S=	<1	% RPD	DC	27-JUL-00		9030
			SB	26***	% RPD	MDK	07-SEP-00		6010
			SE	3.2	% RPD	MDK	07-SEP-00		6010
			SN	5.6	% RPD	MDK	07-SEP-00		6010
			TL	3.5	% RPD	MDK	07-SEP-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000788

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000788-5		Matrix Spike Duplicate	V	2.2	% RPD	MDK	07-SEP-00		6010
			ZN	1.7	% RPD	MDK	05-OCT-00		6010
WG000788-6		Reporting Limit	AG	0.50	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.05	ppm				7471
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				6010
			REAC CN	0.10	ppm				9010
			REAC S=	1.5	ppm				9030
			SB	0.80	ppm				6010
			SE	0.80	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000788

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

* Spikes outside acceptance limits due to matrix interference.
** LCS for Se was within ERA (245), 95% confidence interval and for Hg it was based on ERA (244) total concentration.
*** Duplicate spike recoveries were out of range due to non-homogeneity of spiked sample.
**** Tl blank was greater than reporting limit.

Approved

Reviewer

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 18, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42113-01A

Field Sample ID:
L001177-001

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	8/4/00	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: August 8, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: July 18, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42113-02A

Field Sample ID:
E001177-002

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	8/4/00	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: August 8, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: July 18, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42173-03A

Field Sample ID:
L001177-003

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	8/4/00	1010	200	>200

Released by: Paul D. Fi
Laboratory Supervisor

Report Date: August 8, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 18, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42113-04A

Field Sample ID:
L001177-004

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	8/4/00	1010	200	>200

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released by: _____
Laboratory Supervisor

Report Date: August 8, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Client: ASARCO, Inc.
Date Sampled: July 18, 2000
Project: Encycle

Contact: Vince Keller
Date Received: July 27, 2000

Lab Sample ID:
L42113-05A

Field Sample ID:
L001177-005

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	8/4/00	1010	200	>200

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Released by: _____
Laboratory Supervisor

Report Date: August 8, 2000

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ASARCO

RECEIVED
AUG 21 2000
ARCADIS Geraghty & Miller

August 15, 2000

Mr. Ken Brandner
ARCADIS, Geraghty & Miller

Please find attached the results of TCLP (EPA method 1311) analyses performed on eleven (11) "Boneyard Composite" samples taken in conjunction with the **Encycle Remediation** project. These samples consist of five (5) soils and six (6) woodchips.

If you have any questions regarding the handling or analysis of these samples, please feel free to call me at (801) 263-5243.

Sincerely,

Michael J. Fabbi
Process and Materials
Technician

MJF
Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001178

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001178-001	18-JUL-00	BONEYARD COMP. 6	(TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	0.54	ppm	MDK	10-AUG-00		6010
				CD	3.4	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	1.3	ppb	ESH	09-AUG-00		7470
				NI	0.34	ppm	MDK	10-AUG-00		6010
				PB	5.9	ppm	MDK	10-AUG-00		6010
				PH	8.1	pH	MJF	07-AUG-00		150.1
				SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	240.	ppm	MJF	14-AUG-00		7950
L001178-002	18-JUL-00	BONEYARD COMP. 7	(TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	0.27	ppm	MDK	10-AUG-00		6010
				CD	5.8	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	<0.5	ppb	ESH	09-AUG-00		7470
				NI	0.22	ppm	MDK	10-AUG-00		6010
				PB	8.5	ppm	MDK	10-AUG-00		6010
				PH	7.4	pH	MJF	07-AUG-00		150.1
				SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	300.	ppm	MJF	14-AUG-00		7950
L001178-003	18-JUL-00	BONEYARD COMP. 8	(TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	0.32	ppm	MDK	10-AUG-00		6010
				CD	22.	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	<0.5	ppb	ESH	09-AUG-00		7470
				NI	0.26	ppm	MDK	10-AUG-00		6010
				PB	7.9	ppm	MDK	10-AUG-00		6010
				PH	6.6	ppm	MJF	07-AUG-00		150.1

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001178

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001178-003	18-JUL-00	BONEYARD COMP. 8	(TCLP)	SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	340.	ppm	MJF	14-AUG-00		7950
L001178-004	18-JUL-00	BONEYARD COMP. 9	(TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	0.32	ppm	MDK	10-AUG-00		6010
				CD	7.2	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	<0.5	ppb	ESH	09-AUG-00		7470
				NI	0.47	ppm	MDK	10-AUG-00		6010
				PB	3.3	ppm	MDK	10-AUG-00		6010
				PH	8.3	ppm	MJF	07-AUG-00		150.1
				SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	260.	ppm	MDK	10-AUG-00		6010
L001178-005	18-JUL-00	DUPLICATE (COMP.8)	(TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	0.29	ppm	MDK	10-AUG-00		6010
				CD	20.	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	<0.5	ppb	ESH	09-AUG-00		7470
				NI	0.30	ppm	MDK	10-AUG-00		6010
				PB	7.3	ppm	MDK	10-AUG-00		6010
				PH	7.2	pH	MJF	07-AUG-00		150.1
				SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	350.	ppm	MJF	14-AUG-00		7950

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001178

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001194

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001194-001	26-JUL-00	BONEYARD COMPOSITE 1 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	<0.10	ppm	MDK	10-AUG-00		6010
			BA	0.45	ppm	MDK	10-AUG-00		6010
			CD	3.6	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.40	ppm	MDK	10-AUG-00		6010
			PB	23.	ppm	MDK	10-AUG-00		6010
			PH	4.9	pH	MJF	07-AUG-00		150.1
			SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	230.	ppm	MJF	14-AUG-00		7950
L001194-002	26-JUL-00	BONEYARD COMPOSITE 2 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	0.12	ppm	MDK	10-AUG-00		6010
			BA	0.55	ppm	MDK	10-AUG-00		6010
			CD	0.76	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.33	ppm	MDK	10-AUG-00		6010
			PB	6.0	ppm	MDK	10-AUG-00		6010
			PH	5.2	ppm	MDK	10-AUG-00		
			SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	58.	ppm	MDK	10-AUG-00		6010
L001194-003	26-JUL-00	BONEYARD COMPOSITE 3 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	0.10	ppm	MDK	10-AUG-00		6010
			BA	0.82	ppm	MDK	10-AUG-00		6010
			CD	1.0	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.22	ppm	MDK	10-AUG-00		6010
			PB	3.2	ppm	MDK	10-AUG-00		6010
			PH	4.9	pH	MJF	07-AUG-00		150.1

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001194

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001194-003	26-JUL-00	BONEYARD COMPOSITE 3 (TCLP)	SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	36.	ppm	MDK	10-AUG-00		6010
L001194-004	26-JUL-00	BONEYARD COMPOSITE 4 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	0.20	ppm	MDK	10-AUG-00		6010
			BA	0.39	ppm	MDK	10-AUG-00		6010
			CD	3.8	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.19	ppm	MDK	10-AUG-00		6010
			PB	6.2	ppm	MDK	10-AUG-00		6010
			PH	5.6	pH	MJF	07-AUG-00		150.1
			SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	107.	ppm	MDK	10-AUG-00		6010
L001194-005	26-JUL-00	BONEYARD COMPOSITE 5 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	<0.10	ppm	MDK	10-AUG-00		6010
			BA	0.46	ppm	MDK	10-AUG-00		6010
			CD	1.1	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.32	ppm	MDK	10-AUG-00		6010
			PB	2.1	ppm	MDK	10-AUG-00		6010
			PH	5.3	pH	MJF	07-AUG-00		150.1
			SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	32.	ppm	MDK	10-AUG-00		6010
L001194-006	26-JUL-00	(BY) DUPLICATE Composite 1 (TCLP)	AG	<0.050	ppm	MDK	10-AUG-00		6010
			AS	0.11	ppm	MDK	10-AUG-00		6010
			BA	0.32	ppm	MDK	10-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L001194

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L001194-006	26-JUL-00	(BY) DUPLICATE Composite 1 (TCLP)	CD	1.3	ppm	MDK	10-AUG-00		6010
			CR	<0.10	ppm	MDK	10-AUG-00		6010
			HG	<0.5	ppb	ESH	09-AUG-00		7470
			NI	0.17	ppm	MDK	10-AUG-00		6010
			PB	3.1	ppm	MDK	10 AUG-00		6010
			PH	5.2	pH	MJF	07-AUG-00		150.1
			SB	<0.10	ppm	MDK	10-AUG-00		6010
			SE	<0.10	ppm	MDK	10-AUG-00		6010
			TL	<0.10	ppm	MDK	10-AUG-00		6010
			V	<0.10	ppm	MDK	10-AUG-00		6010
			ZN	136.	ppm	MDK	10-AUG-00		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000722

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000722-1		Matrix Spike	L001194-001	AG	90.	%Recovery	MDK	10-AUG-00		6010
				AS	95.	%Recovery	MDK	10-AUG-00		6010
				BA	89.	%Recovery	MDK	10-AUG-00		6010
				CD	80.	%Recovery	MDK	10-AUG-00		6010
				CR	93.	%Recovery	MDK	10-AUG-00		6010
				HG	103.	%Recovery	ESH	09-AUG-00		7470
				NI	91.	%Recovery	MDK	10-AUG-00		6010
				PB	SR>4XSA	%Recovery	MDK	10-AUG-00		6010
				SB	90.	%Recovery	MDK	10-AUG-00		6010
				SE	82.	%Recovery	MDK	10-AUG-00		6010
				TL	84.	%Recovery	MDK	10-AUG-00		6010
				V	96.	%Recovery	MDK	10-AUG-00		6010
				ZN	SR>4XSA	%Recovery	MDK	10-AUG-00		6010
WG000722-2		Prep Blank		AG	<0.050	ppm	MDK	10-AUG-00		6010
				AS	<0.10	ppm	MDK	10-AUG-00		6010
				BA	<0.10	ppm	MDK	10-AUG-00		6010
				CD	<0.050	ppm	MDK	10-AUG-00		6010
				CR	<0.10	ppm	MDK	10-AUG-00		6010
				HG	<0.5	ppb	ESH	09-AUG-00		7470
				NI	<0.10	ppm	MDK	10-AUG-00		6010
				PB	<0.10	ppm	MDK	10-AUG-00		6010
				SB	<0.10	ppm	MDK	10-AUG-00		6010
				SE	<0.10	ppm	MDK	10-AUG-00		6010
				TL	<0.10	ppm	MDK	10-AUG-00		6010
				V	<0.10	ppm	MDK	10-AUG-00		6010
				ZN	<0.20	ppm	MDK	10-AUG-00		6010
WG000722-3		Lab Control Sample	EEICQ-7/19	AG	93.	%Recovery	MDK	10-AUG-00		6010
				AS	90.	%Recovery	MDK	10-AUG-00		6010
				BA	92.	%Recovery	MDK	10-AUG-00		6010
				CD	88.	%Recovery	MDK	10-AUG-00		6010
				CR	90.	%Recovery	MDK	10-AUG-00		6010
				HG	99.	%Recovery	MDK	10-AUG-00		
				NI	91.	%Recovery	MDK	10-AUG-00		6010
				PB	92.	%Recovery	MDK	10-AUG-00		6010
				SB	86.	%Recovery	MDK	10-AUG-00		6010
				SE	77.	%Recovery	MDK	10-AUG-00		6010
				TL	86.	%Recovery	MDK	10-AUG-00		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG000722

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG000722-3		Lab Control Sample	EEICQ-7/19	V	92.	%Recovery	MDK	10-AUG-00		6010
				ZN	97	%Recovery	MDK	10-AUG-00		6010
WG000722-4		Matrix Spike Duplicate	L001194-001	AG	3.3	% RPD	MDK	10-AUG-00		6010
				AS	5.4	% RPD	MDK	10-AUG-00		6010
				BA	2.3	% RPD	MDK	10-AUG-00		6010
				CD	3.7	% RPD	MDK	10-AUG-00		6010
				CR	3.3	% RPD	MDK	10-AUG-00		6010
				HG	6.0	% RPD	MDK	10-AUG-00		
				NI	3.4	% RPD	MDK	10-AUG-00		6010
				PB	<1.0	% RPD	MDK	10-AUG-00		6010
				SB	4.6	% RPD	MDK	10-AUG-00		6010
				SE	6.3	% RPD	MDK	10-AUG-00		6010
				TL	4.9	% RPD	MDK	10-AUG-00		6010
				V	3.2	% RPD	MDK	10-AUG-00		6010
				ZN	<1.0	% RPD	MDK	10-AUG-00		6010
WG000722-5		Reporting Limit		AG	0.050	ppm				6010
				AS	0.10	ppm				6010
				BA	0.10	ppm				6010
				CD	0.050	ppm				6010
				CR	0.10	ppm				6010
				HG	0.5	ppb				7470
				NI	0.10	ppm				6010
				PB	0.10	ppm				6010
				SB	0.10	ppm				6010
				SE	0.10	ppm				6010
				TL	0.10	ppm				6010
				V	0.10	ppm				6010
				ZN	0.20	ppm				6010

Approved

Reviewer

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC000647.0001

Project Location Encycle Corpus Christi, TX

Laboratory ASARCO, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TCLP Lead (SW1311/6010B)	Total Lead (SW6010B)	TCLP Solids (SW1311)				Remarks	Total
~~Boneyard composite 1~~	S	7/18/00 9AM		X	X	X	X			As per K Bracker	1
Boneyard composite 2	S	7/18/00 9AM		X	X	X	X			will dispose of and	1
~~Boneyard composite 3~~	S	7/18/00 11AM		X	X	X	X			sights will be resampled	1
~~Boneyard composite 4~~	S	7/18/00 11:15		X	X	X	X			7/20/00 VM	1
~~Boneyard composite 5~~	S	7/18/00 1PM		X	X	X	X				1
Boneyard composite 6	S	7/18/00 1330		X	X						1
Boneyard composite 7	S	7/18/00 1345		X	X						1
Boneyard composite 8	S	7/18/00 1400		X	X						1
Boneyard composite 9	S	7/18/00 1412		X	X						1
Duplicate (BY) (By comp 8)	S	7/18/00 1400		X	X						1
Equipment Blank (BY)	L	7/18/00 1100		X	X	X					2
Trip Blank	L	—		X	X	X				only for VOC as per K Bracker 7/20/00	1
~~Duplicate (BY) (By comp 9)~~	S	7/18/00 9AM		X	X	X	X				1
~~Equipment Blank (BY)~~	L	7/18/00 1100		X	X	X	X				2
										Total No. of Bottles/ Containers	11

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Morgan Brantley	Organization: ARCADIS	Date 7/19/00	Time 1730	Seal Intact?	
Received by: Mobley	Organization: ASARCO	Date 7/20/00	Time 1430	(Yes) No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: SEE ATTACHED TABLE G-1 for methods / holding times. Results to Ken Brandner Please Fax results after completion of these samples. Samples packed on ice.

Delivery Method: ☐ In Person ☑ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

1161

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC000642 0001

Project Location Encycle, Corpus Christi TX

Laboratory Asarco, Salt Lake City, UT

Project Manager Ken Brandner

Sampler(s)/Affiliation BH / Arcadis

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TCLP SVOCs (16 oz glass jar)	TCLP / TPH (16 oz glass jar)	Ignitability (6 oz glass jar)	Reactivity (6 oz glass jar)			Remarks	Total
Boneyard Composite 1	S	7/26/00 1340		1	1	1	1				4
Boneyard Composite 2	S	1515		1	1	1	1				4
Boneyard Composite 3	S	1450		1	1	1	1				4
Boneyard Composite 4	S	1430		1	1	1	1				4
Boneyard Composite 5	S	1405		1	1	1	1				4
(BY) Duplicate (comp 1)	S	1340		1	1	1	1				4
Equipment Blank	L	1600		1	1						2
Field Blank	L	1500		1	1						2
Trip Blank	L			1							

Total No. of Bottles/Containers [illegible]

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [signature]	Organization: Arcadis	Date 7/26/00	Time 1700	Seal Intact? Yes No N/A
Received by: [signature]	Organization: ASARCO	Date 7/27/00	Time 900	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: ON ICE - Results to Ken Brandner - Call with questions

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

ASARCO

JUN 0 8 2001

June 1, 2001

Mr. Ken Brandner
Arcadis Geraghty & Miller

Attached are the analytical results and quality control data for (5), five wood chip samples and (1), one equipment blank sample collected on May 07, 2001, in association with the Encycle Project # CC000642.0002 and received by the laboratory on May 08, 2001.

Included with these results are the flashpoint and TCLP semi-volatile organic analyses conducted by American West Analytical Laboratories.

The wood samples were digested in accordance with EPA method 3050, while the water sample was digested in accordance with EPA methods 3010 and 6020M.

If you need further information, please call (801) 263-5266.

Sincerely,

Adil Harami
Senior Chemist

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010637-001	07-MAY-01	BONEYARD COMP1A	AG	<0.5	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	19.	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	6.1	ppm	EH	25-MAY-01		6010
			CN-	<0.02	ppm	DC	10-MAY-01		335.2
			CO	<5.0	ppm	EH	25-MAY-01		6010
			CR	<5.0	ppm	EH	25-MAY-01		6010
			CU	22.	ppm	EH	25-MAY-01		6010
			FLASH PT.	COMPLETE	deg f	AWAL	22-MAY-01		
			HG	0.058	ppm	MO	22-MAY-01		7470
			MN	62.	ppm	EH	25-MAY-01		6010
			NI	6.4	ppm	EH	25-MAY-01		6010
			PB	28.	ppm	EH	25-MAY-01		6010
			REAC CN-	<0.10	ppm	DC	10-MAY-01		9010
			REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	1.5	ppm	EH	25-MAY-01		6010
			SE	2.3	ppm	EH	25-MAY-01		6010
			SEMI VOLAT	COMPLETE	mg/l	AWAL	22-MAY-01		
			SN	<5.0	ppm	EH	25-MAY-01		6010
			TL	1.9	ppm	EH	25-MAY-01		6010
			V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	343.	ppm	EH	25-MAY-01		6010
L010637-002	07-MAY-01	BONEYARD COMP2A	AG	0.80	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	10.	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	29.	ppm	EH	25-MAY-01		6010
			CN-	<0.02	ppm	DC	10-MAY-01		335.2
			CO	<5.0	ppm	EH	25-MAY-01		6010
			CR	<5.0	ppm	EH	25-MAY-01		6010
			CU	29.	ppm	EH	25-MAY-01		6010
			FLASH PT.	COMPLETE	deg f	AWAL	22-MAY-01		
			HG	0.062	ppm	MO	22-MAY-01		7470
			MN	74.	ppm	EH	25-MAY-01		6010
			NI	<5.0	ppm	EH	25-MAY-01		6010
			PB	78.	ppm	AKH	25-MAY-01		6010
			REAC CN-	<0.10	ppm	DC	10-MAY-01		9010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services Project 9201

Batch No: L010637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010637-002	07-MAY-01	BONEYARD COMP2A	REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	1.7	ppm	EH	25-MAY-01		6010
			SE	2.7	ppm	EH	25-MAY-01		6010
			SEMI VOLAT	COMPLETE	mg/l	AWAL	22-MAY-01		
			SN	<5.0	ppm	EH	25-MAY-01		6010
			TL	1.6	ppm	EH	25-MAY-01		6010
			V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	2781	ppm	EH	30-MAY-01		6010
L010637-003	07-MAY-01	BONEYARD COMP3A	AG	<0.5	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	25.	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	14.	ppm	EH	25-MAY-01		6010
			CN-	0.13	ppm	DC	10-MAY-01		335.2
			CO	<5.0	ppm	EH	25-MAY-01		6010
			CR	<5.0	ppm	EH	25-MAY-01		6010
			CU	14.	ppm	EH	25-MAY-01		6010
			FLASH PT	COMPLETE	deg f	AWAL	22-MAY-01		
			HG	0.054	ppm	MO	22-MAY-01		7470
			MN	160.	ppm	EH	25-MAY-01		6010
			NI	<5.0	ppm	EH	25-MAY-01		6010
			PB	49.	ppm	AKH	25-MAY-01		239.1
			REAC CN-	<0.10	ppm	DC	10-MAY-01		9010
			REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	<0.80	ppm	EH	25-MAY-01		6010
			SE	3.3	ppm	EH	25-MAY-01		6010
			SEMI VOLAT	COMPLETE	mg/l	AWAL	22-MAY-01		
			SN	<5.0	ppm	EH	25-MAY-01		6010
			TL	2.5	ppm	EH	25-MAY-01		6010
			V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	708.	ppm	EH	25-MAY-01		6010
L010637-004	07-MAY-01	BONEYARD COMP4A	AG	<0.5	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	46.	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	5.5	ppm	EH	25-MAY-01		6010
			CN-	<0.02	ppm	DC	10-MAY-01		335.2

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010637-004	07-MAY-01	BONEYARD COMP4A	CD	<5.0	ppm	EH	25-MAY-01		6010
			CR	16.0	ppm	EH	25-MAY-01		6010
			CU	23.	ppm	EH	25-MAY-01		6010
			FLASH PT.	COMPLETE	deg f	AWAL	22-MAY-01		
			HG	0.007	ppm	MO	22-MAY-01		7470
			MN	23.	ppm	EH	25-MAY-01		6010
			NI	8.1	ppm	EH	25-MAY-01		6010
			PB	68.	ppm	AKH	25-MAY-01		6010
			REAC CN	<0.10	ppm	DC	10-MAY-01		9010
			REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	<0.80	ppm	EH	25-MAY-01		6010
			SE	2.9	ppm	EH	25-MAY-01		6010
			SEMI VOLAT	COMPLETE	mg/l	AWAL	22-MAY-01		
			SN	<5.0	ppm	EH	25-MAY-01		6010
			TL	2.9	ppm	EH	25-MAY-01		6010
			V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	178.	ppm	EH	25-MAY-01		6010
L010637-005	07-MAY-01	BONEYARD COMP5A	AG	<0.5	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	11.	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	39.	ppm	EH	25-MAY-01		6010
			CN-	<0.02	ppm	DC	10-MAY-01		335.2
			CO	<5.0	ppm	EH	25-MAY-01		6010
			CR	<5.0	ppm	EH	25-MAY-01		6010
			CU	31.	ppm	EH	25-MAY-01		6010
			FLASH PT.	COMPLETE	deg f	AWAL	22-MAY-01		
			HG	<0.05	ppm	MO	22-MAY-01		7470
			MN	12.	ppm	EH	25-MAY-01		6010
			NI	<5.0	ppm	EH	25-MAY-01		6010
			PB	105.	ppm	AKH	25-MAY-01		6010
			REAC CN-	<0.10	ppm	DC	10-MAY-01		9010
			REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	<0.80	ppm	EH	25-MAY-01		6010
			SE	2.2	ppm	EH	25-MAY-01		6010
			SEMI VOLAT	COMPLETE	mg/l	AWAL	22-MAY-01		
			SN	<5.0	ppm	EH	25-MAY-01		6010
			TL	1.1	ppm	EH	25-MAY-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services Project 8201

Batch No: L010637

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010637-005	07-MAY-01	BONEYARD COMP5A	V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	1651.	ppm	EH	25-MAY-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010398 I

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010398-1		Matrix Spike							
			AG	87	%Recovery	EH	25-MAY-01		6010
			AS	92	%Recovery	EH	25-MAY-01		6010
			BA	93	%Recovery	EH	25-MAY-01		6010
			BI	92	%Recovery	EH	25-MAY-01		6010
			CD	SR>4SA	%Recovery	EH	25-MAY-01		6010
			CN-	90	%Recovery	DC	10-MAY-01		335.2
			CO	92	%Recovery	EH	25-MAY-01		6010
			CR	93	%Recovery	EH	25-MAY-01		6010
			CU	167*	%Recovery	EH	25-MAY-01		6010
			HG	95	%Recovery	MO	22-MAY-01		7470
			MN	102	%Recovery	EH	25-MAY-01		6010
			NI	94	%Recovery	EH	25-MAY-01		6010
			PB	139*	%Recovery	AKH	25-MAY-01		239.1
			REAC S=	82	%Recovery	DC	10-MAY-01		9030
			SB	88	%Recovery	EH	25-MAY-01		6010
			SE	83	%Recovery	EH	25-MAY-01		6010
			SN	96	%Recovery	EH	25-MAY-01		6010
			TL	92	%Recovery	EH	25-MAY-01		6010
			V	96	%Recovery	EH	25-MAY-01		6010
			ZN	SR>4SA	%Recovery	EH	25-MAY-01		6010
WG010398-2		Prep Blank							
			AG	<0.50	ppm	EH	25-MAY-01		6010
			AS	<5.0	ppm	EH	25-MAY-01		6010
			BA	<5.0	ppm	EH	25-MAY-01		6010
			BI	<4.0	ppm	EH	25-MAY-01		6010
			CD	<1.0	ppm	EH	25-MAY-01		6010
			CN-	<0.02	ppm	DC	10-MAY-01		335.2
			CO	<5.0	ppm	EH	25-MAY-01		6010
			CR	<5.0	ppm	EH	25-MAY-01		6010
			CU	<5.0	ppm	EH	25-MAY-01		6010
			HG	<0.05	ppm	MO	22-MAY-01		7470
			MN	<5.0	ppm	EH	25-MAY-01		6010
			NI	<5.0	ppm	EH	25-MAY-01		6010
			PB	<5.0	ppm	AKH	25-MAY-01		239.1
			REAC CN-	<0.10	ppm	DC	10-MAY-01		9010
			REAC S=	<1.5	ppm	DC	10-MAY-01		9030
			SB	<0.8	ppm	EH	25-MAY-01		6010
			SE	<0.8	ppm	EH	25-MAY-01		6010
			SN	<5.0	ppm	EH	25-MAY-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010398

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010398-2		Prep Blank	TL	<1.0	ppm	EH	25-MAY-01		6010
			V	<5.0	ppm	EH	25-MAY-01		6010
			ZN	<5.0	ppm	EH	25-MAY-01		6010
WG010398-3		Lab Control Sample	AG	108	%Recovery	EH	25-MAY-01		6010
			AS	100	%Recovery	EH	25-MAY-01		6010
			BA	108	%Recovery	EH	25-MAY-01		6010
			BI	95	%Recovery	EH	25-MAY-01		6010
			CD	97	%Recovery	EH	25-MAY-01		6010
			CN-	93	%Recovery	DC	10-MAY-01		335.2
			CO	101	%Recovery	EH	25-MAY-01		6010
			CR	110	%Recovery	EH	25-MAY-01		6010
			CU	108	%Recovery	EH	25-MAY-01		6010
			HG	96	%Recovery	MO	22-MAY-01		7470
			MN	104	%Recovery	EH	25-MAY-01		6010
			NI	102	%Recovery	EH	25-MAY-01		6010
			PB	104	%Recovery	AKH	25-MAY-01		239.1
			REAC S=	82	%Recovery	DC	10-MAY-01		9030
			SB	138**	%Recovery	EH	25-MAY-01		6010
			SE	86	%Recovery	EH	25-MAY-01		6010
			SN	110	%Recovery	EH	25-MAY-01		6010
			TL	102	%Recovery	EH	25-MAY-01		6010
			V	114	%Recovery	EH	25-MAY-01		6010
			ZN	100	%Recovery	EH	25-MAY-01		6010
WG010398-5		Matrix Spike Duplicate	AG	13	% RPD	EH	25-MAY-01		6010
			AS	<1	% RPD	EH	25-MAY-01		6010
			BA	5.4	% RPD	EH	25-MAY-01		6010
			BI	<1	% RPD	EH	25-MAY-01		6010
			CD	20	% RPD	EH	25-MAY-01		6010
			CN-	4.3	% RPD	DC	10-MAY-01		335.2
			CO	<1	% RPD	EH	25-MAY-01		6010
			CR	19	% RPD	EH	25-MAY-01		6010
			HG	20	% RPD	MO	22-MAY-01		7470
			MN	16	% RPD	EH	25-MAY-01		6010
			NI	2.1	% RPD	EH	25-MAY-01		6010
			REAC S=	<1	% RPD	DC	10-MAY-01		9030
			SB	4.3	% RPD	EH	25-MAY-01		6010
			SE	<1	% RPD	EH	25-MAY-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010399

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010398-5		Matrix Spike Duplicate	SN	2	% RPD	EH	25-MAY-01		6010
			TL	1.6	% RPD	EH	25-MAY-01		6010
			V	<1	% RPD	EH	25-MAY-01		6010
			ZN	63***	% RPD	EH	25-MAY-01		6010
WG010398-6		Reporting Limit	AG	0.5	ppm				6010
			AS	5.0	ppm				6010
			BA	5.0	ppm				6010
			BI	4.0	ppm				6010
			CD	1.0	ppm				6010
			CN-	0.020	ppm				335.2
			CO	5.0	ppm				6010
			CR	5.0	ppm				6010
			CU	5.0	ppm				6010
			HG	0.050	ppm				7470
			MN	5.0	ppm				6010
			NI	5.0	ppm				6010
			PB	5.0	ppm				239.1
			REAC CN-	0.10	ppm				9010
			REAC S=	1.5	ppm				9030
			SB	0.8	ppm				6010
			SE	0.8	ppm				6010
			SN	5.0	ppm				6010
			TL	1.0	ppm				6010
			V	5.0	ppm				6010
			ZN	5.0	ppm				6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010198

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

(*) Cu and Pb spikes were outside acceptance limits. Results may be subject to bias.
(**) Sb LCS result is within ERA 247 95% confidence interval.
(***) Zn MSD was outside acceptance limits. Resuls may be subject to bias.

Approved

Reviewer

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

ASARCO, Inc. 22-May-01

Project: Encycle/Cove

Lab Set ID: L45884

All analysis performed in accordance to NELAC protocols. Any questions regarding the results please feel free to call one of the following at (801) 263-8686 or (888) 263-8686:

Paul Ellingson
Laboratory Manager

Mark Broadhead
Inorganic & Metals Supervisor

Greg Hess
Organic Supervisor

Pat Noteboom
Project Coordinator

Peggy McNicol
QA Officer

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: May 7, 2001
Project: Encycle/Cove

Contact: Terrie Mortensen
Date Received: May 9, 2001

Lab Sample ID:
L45884-01B

Field Sample ID:
L010637-001

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	5/17/01	1010	200	>200

Released by: SOM
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

INORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Date Sampled: May 7, 2001
Project: Encycle/Cove

Contact: Terrie Mortensen
Date Received: May 9, 2001

Lab Sample ID:
L45884-02B

Field Sample ID:
L010637-002

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	5/18/01	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of this profession.

INORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Date Sampled: May 7, 2001
Project: Encycle/Cove

Contact: Terrie Mortensen
Date Received: May 9, 2001

Lab Sample ID:
L45884-03B

Field Sample ID:
L010637-003

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	5/18/01	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

INORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Date Sampled: May 7, 2001
Project: Encycle/Cove

Contact: Terrie Mortensen
Date Received: May 9, 2001

Lab Sample ID:
L45884-04B

Field Sample ID:
L010637-004

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	5/18/01	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the profession.

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

INORGANIC ANALYSIS REPORT

Client: ASARCO, Inc.
Date Sampled: May 7, 2001
Project: Encycle/Cove

Contact: Terrie Mortensen
Date Received: May 9, 2001

Lab Sample ID:
L45884-05B

Field Sample ID:
L010637-005

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	5/18/01	1010	200	>200

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Collected: May 7, 2001
Received: May 9, 2001

Contact: Terrie Mortensen
Analyzed: May 17, 2001
Extracted: May 16, 2001

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L45884-01A
Field Sample ID: **L010637-001**
Site ID: Encycle/Cove

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of this laboratory.

ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Collected: May 7, 2001
Received: May 9, 2001

Contact: Terrie Mortensen
Analyzed: May 17, 2001
Extracted: May 16, 2001

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L45884-02A
Field Sample ID: **L010637-002**
Site ID: Encycle/Cove

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001 Page 1 of 1

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Collected: May 7, 2001
Received: May 9, 2001

Contact: Terrie Mortensen
Analyzed: May 17, 2001
Extracted: May 16, 2001

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L45884-03A
Field Sample ID: **L010637-003**
Site ID: Encycle/Cove

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	**0.70**
2-Methylphenol	0.050	**0.30**
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

his report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection ith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on ntract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the

ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Collected: May 7, 2001
Received: May 9, 2001

Contact: Terrie Mortensen
Analyzed: May 17, 2001
Extracted: May 16, 2001

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L45884-04A
Field Sample ID: **L010637-004**
Site ID: Encycle/Cove

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	**0.14**
2-Methylphenol	0.050	**0.17**
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ORGANIC ANALYSIS REPORT

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: ASARCO, Inc.
Collected: May 7, 2001
Received: May 9, 2001

Contact: Terrie Mortensen
Analyzed: May 17, 2001
Extracted: May 16, 2001

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L45884-05A
Field Sample ID: **L010637-005**
Site ID: Encycle/Cove

Analytical Results for TCLP — **Semi Volatile Organics by GC/MS**

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001 Page 1 of 1

is report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection
th the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on
ntract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according

AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

BLANK SUMMARY REPORT

Client: ASARCO, Inc.
Lab Set ID: L45884
Project: Encycle/Cove

Analysis Requested: Semi Volatiles by SW 8270B

Method Blank ID: MB-5610

Analysis Date: May 16, 2001
Prep Date: May 16, 2001

Analytical Results — **Semi Volatile Organics by GC/MS**

Units: mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.05	< 0.050
2-Methylphenol	0.05	< 0.050
2,4-Dinitrotoluene	0.05	< 0.050
Hexachlorobenzene	0.05	< 0.050
Hexachlorobutadiene	0.05	< 0.050
Hexachloroethane	0.05	< 0.050
Nitrobenzene	0.05	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.05	< 0.050
2,4,5-Trichlorophenol	0.05	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: May 22, 2001

This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name CC000642.0002

Project Location Encyclo / Texas

Laboratory ASARCO

Project Manager Ken Brandner

Sampler(s)/Affiliation A. Garcia / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	TCLP SVOC's Ignitability Reactivity (32oz glass jar w/ Teflon Lid)	Corrosivity (32oz glass jar w/ Teflon Lid)	TCLP / Total Metals (18) (32 oz glass jar w/ Teflon Lid)	SVOCs (1 liter amber glass); Total metals (1 pt. poly w/ HNO_3); Ignitability, reactivity, corrosivity (1 pt. poly)			Remarks	Total
Boneyard Comp. 1A	S	05-07-2001 11:30		1		1					2
Boneyard Comp. 2A	S	14:00		1		1					2
Boneyard Comp. 3A	S	15:00		1		1					2
Boneyard Comp. 4A	S	15:30		1		1					2
Boneyard Comp. 5A	S	16:30		1		1					2
Equipment Blank	L	17:00						4			4

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 14

Relinquished by: Adrian E. Garcia	Organization: ARCADIS	Date 05/07/2001	Time 17:15	Seal Intact?	
Received by: L. A. Naranjo	Organization: FedEx	Date 5/7/01	Time 1718	Yes No N/A	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by: [illegible]	Organization: ASARCO	Date 5/8/01	Time 1030	Yes No N/A	

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☒ Common Carrier Fed-Ex (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

ASARCO

June 21,2001

Mr. Ken Brandner
Encycle Texas

Pursuant to your telephone request regarding the additional parameters please find attached the results of TCLP analyses for the Equipment Blank and Boneyard composites. The samples were collected May 07, 2001, and received by the laboratory on May 08, 2001.

Note that TCLP (Toxic Characteristic Leaching Procedure) analyses were performed according to EPA method 1311 and the extract digested according to EPA method 3010 prior to analysis by ICP-OES.

If you have any questions regarding the handling or analysis of the sample, please call me (801) 263-5296

Sincerely,

Maureen Ottley
Laboratory Technician

Attach.

cc: GRStanga (w/attach.)

ASARCO Incorporated 3422 South 700 West, Salt Lake City, Utah 84119-4191 (801) 262-2459 FAX (801) 261-2194

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010638

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010638-001	07-MAY-01	BONEYARD COMP 1A	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	0.28	ppm	ESH	17-MAY-01		6010
				CD	<0.05	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	0.14	ppm	ESH	17-MAY-01		6010
				PH	4.2	pH	MO	14-MAY-01		150.1
				SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	2.6	ppm	ESH	17-MAY-01		6010
L010638-002	07-MAY-01	BONEYARD COMP 2A	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	0.21	ppm	ESH	17-MAY-01		6010
				CD	0.39	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	1.4	ppm	ESH	17-MAY-01		6010
				PH	3.9	pH	MO	14-MAY-01		150.1
				SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	43	ppm	ESH	17-MAY-01		6010
L010638-003	07-MAY-01	BONEYARD COMP 3A	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	0.18	ppm	ESH	17-MAY-01		6010
				CD	0.13	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	0.51	ppm	ESH	17-MAY-01		6010
				PH	4.3	pH	MO	14-MAY-01		150.1

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010638

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010638-003	07-MAY-01	BONEYARD COMP 3A	TCLP	SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	8	ppm	ESH	17-MAY-01		6010
L010638-004	07-MAY-01	BONEYARD COMP 4A	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	0.22	ppm	ESH	17-MAY-01		6010
				CD	<0.05	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	0.14	ppm	ESH	17-MAY-01		6010
				PH	3.4	pH	MO	14-MAY-01		150.1
				SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	1.1	ppm	ESH	17-MAY-01		6010
L010638-005	07-MAY-01	BONEYARD COMP 5A	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	0.23	ppm	ESH	17-MAY-01		6010
				CD	0.62	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	0.35	ppm	ESH	17-MAY-01		6010
				PH	4.1	pH	MO	14-MAY-01		150.1
				SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	25	ppm	ESH	17-MAY-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010638

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010452

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010452-1		Matrix Spike	AG	102	%Recovery	ESH	17-MAY-01		6010
			AS	97	%Recovery	ESH	17-MAY-01		6010
			BA	97	%Recovery	ESH	17-MAY-01		6010
			CD	95	%Recovery	ESH	17-MAY-01		6010
			CR	101	%Recovery	ESH	17-MAY-01		6010
			HG	85	%Recovery	MO	16-MAY-01		7470
			NI	97	%Recovery	ESH	17-MAY-01		6010
			PB	100	%Recovery	ESH	17-MAY-01		6010
			SB	93	%Recovery	ESH	17-MAY-01		6010
			SE	82	%Recovery	ESH	17-MAY-01		6010
			TL	86	%Recovery	ESH	17-MAY-01		6010
			V	100	%Recovery	ESH	17-MAY-01		6010
			ZN	91	%Recovery	ESH	17-MAY-01		6010
WG010452-2		Prep Blank	AG	<0.05	ppm	ESH	17-MAY-01		6010
			AS	<0.10	ppm	ESH	17-MAY-01		6010
			BA	<0.10	ppm	ESH	17-MAY-01		6010
			CD	<0.05	ppm	ESH	17-MAY-01		6010
			CR	<0.10	ppm	ESH	17-MAY-01		6010
			HG	<0.50	ppb	MO	16-MAY-01		7470
			NI	<0.10	ppm	ESH	17-MAY-01		6010
			PB	<0.10	ppm	ESH	17-MAY-01		6010
			SB	<0.10	ppm	ESH	17-MAY-01		6010
			SE	<0.10	ppm	ESH	17-MAY-01		6010
			TL	<0.10	ppm	ESH	17-MAY-01		6010
			V	<0.10	ppm	ESH	17-MAY-01		6010
			ZN	<0.10	ppm	ESH	17-MAY-01		6010
WG010452-3		Lab Control Sample	AG	96	%Recovery	ESH	17-MAY-01		6010
			AS	90	%Recovery	ESH	17-MAY-01		6010
			BA	96	%Recovery	ESH	17-MAY-01		6010
			CD	92	%Recovery	ESH	17-MAY-01		6010
			CR	95	%Recovery	ESH	17-MAY-01		6010
			HG	107	%Recovery	MO	16-MAY-01		7470
			NI	93	%Recovery	ESH	17-MAY-01		6010
			PB	96	%Recovery	ESH	17-MAY-01		6010
			SB	91	%Recovery	ESH	17-MAY-01		6010
			SE	76	%Recovery	ESH	17-MAY-01		6010
			TL	89	%Recovery	ESH	17-MAY-01		6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: WG010452

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
WG010452-3		Lab Control Sample	V	96	%Recovery	ESH	17-MAY-01		6010
			ZN	92	%Recovery	ESH	17-MAY-01		6010
WG010452-5		Matrix Spike Duplicate	AG	1.02	% RPD	ESH	17-MAY-01		6010
			AS	<1	% RPD	ESH	17-MAY-01		6010
			BA	1.3	% RPD	ESH	17-MAY-01		6010
			CD	1.7	% RPD	ESH	17-MAY-01		6010
			CR	1.6	% RPD	ESH	17-MAY-01		6010
			HG	3.3	% RPD	MO	16-MAY-01		7470
			NI	1.5	% RPD	ESH	17-MAY-01		6010
			PB	2.4	% RPD	ESH	17-MAY-01		6010
			SB	1.5	% RPD	ESH	17-MAY-01		6010
			SE	1.0	% RPD	ESH	17-MAY-01		6010
			TL	1.9	% RPD	ESH	17-MAY-01		6010
			V	<1	% RPD	ESH	17-MAY-01		6010
			ZN	<1	% RPD	ESH	17-MAY-01		6010
WG010452-6		Reporting Limit	AG	0.05	ppm	ESH	17-MAY-01		6010
			AS	0.10	ppm	ESH	17-MAY-01		6010
			BA	0.10	ppm	ESH	17-MAY-01		6010
			CD	0.05	ppm	ESH	17-MAY-01		6010
			CR	0.10	ppm	ESH	17-MAY-01		6010
			HG	0.50	ppb	MO	16-MAY-01		7470
			NI	0.10	ppm	ESH	17-MAY-01		6010
			PB	0.10	ppm	ESH	17-MAY-01		6010
			SB	0.10	ppm		17-MAY-01		6010
			SE	0.10	ppm	ESH	17-MAY-01		6010
			TL	0.10	ppm	ESH	17-MAY-01		6010
			V	0.10	ppm	ESH	17-MAY-01		6010
			ZN	0.10	ppm	ESH	17-MAY-01		6010

Approved

Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Encycle/Texas

Technical Services (Project 8201)

Batch No: L010640

LAB NO	DATE COLLECTED	DESCRIPTION		PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L010640-001	07-MAY-01	EQUIP BLANK	TCLP	AG	<0.05	ppm	ESH	17-MAY-01		6010
				AS	<0.10	ppm	ESH	17-MAY-01		6010
				BA	<0.10	ppm	ESH	17-MAY-01		6010
				CD	<0.05	ppm	ESH	17-MAY-01		6010
				CR	<0.10	ppm	ESH	17-MAY-01		6010
				HG	<0.50	ppb	MO	16-MAY-01		7470
				NI	<0.10	ppm	ESH	17-MAY-01		6010
				PB	<0.10	ppm	ESH	17-MAY-01		6010
				PH	6.2	pH	MO	14-MAY-01		150.1
				SB	<0.10	ppm	ESH	17-MAY-01		6010
				SE	<0.10	ppm	ESH	17-MAY-01		6010
				TL	<0.10	ppm	ESH	17-MAY-01		6010
				V	<0.10	ppm	ESH	17-MAY-01		6010
				ZN	0.11	ppm	ESH	17-MAY-01		6010

Approved

Reviewer

APPENDIX M

ARCADIS

Appendix M

Laboratory Reports – Geotechnical Soil Samples

ANALYTICAL REPORT

JOB NUMBER: 202476

Prepared For:

ARCADIS / Geraghty and Miller, Inc.
711 North Carancahua, Suite 1700
Corpus Christi, TX 78475-1801

Attention: Ken Brandner

Date: 07/21/2000

Signature

7/21/00
Date

Name: Chip Meador

Title: Laboratory Director

Severn Trent Laboratories
1733 N. Padre Island Drive
Corpus Christi, TX 78408

PHONE: 361/289-2673
FAX..: 361/289-2471

SAMPLE INFORMATION
Date: 07/21/2000

Job Number.: 202476
Customer...: ARCADIS / Geraghty and Miller, Inc.
Attn.....: Ken Brandner

Project Number.....: 99999995
Customer Project ID....: CC0006420001
Project Description....: Walk in Projects

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
202476-1	GEOTECH 1 UNSATURATED	Soil	07/12/2000	08:30	07/12/2000	11:00
202476-2	GEOTECH 1 SATURATED	Soil	07/12/2000	08:45	07/12/2000	11:00
202476-3	GEOTECH 2 UNSATURATED	Soil	07/12/2000	09:00	07/12/2000	11:00
202476-4	GEOTECH 3 SATURATED	Soil	07/12/2000	09:30	07/12/2000	11:00

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of

LABORATORY TEST RESULTS

Job Number: 202476

Date: 07/21/2000

CUSTOMER: ARCADIS / Geraghty and Miller, Inc. PROJECT: CC0006420001 ATTN: Ken Brandner

Customer Sample ID: GEOTECH 1 UNSATURATED
Date Sampled.....: 07/12/2000
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202476-1
Date Received.....: 07/12/2000
Time Received.....: 11:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
ASTM D 2974	Fraction Organic Carbon	2.5	0.1	%	07/15/00	deh

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of

LABORATORY TEST RESULTS

Job Number: 202476 Date: 07/21/2000

CUSTOMER: ARCADIS / Geraghty and Miller, Inc. PROJECT: CC0006420001 ATTN: Ken Brandner

Customer Sample ID: GEOTECH 1 SATURATED
Date Sampled.....: 07/12/2000
Time Sampled.....: 08:45
Sample Matrix.....: Soil

Laboratory Sample ID: 202476-2
Date Received.....: 07/12/2000
Time Received.....: 11:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
ASTM D 2974	Fraction Organic Carbon	0.3	0.1	%	07/15/00	deh

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of

LABORATORY TEST RESULTS

Job Number: 202476

Date: 07/21/2000

CUSTOMER: ARCADIS / Geraghty and Miller, Inc. PROJECT: CC0006420001 ATTN: Ken Brandner

Customer Sample ID: GEOTECH 2 UNSATURATED
Date Sampled.....: 07/12/2000
Time Sampled.....: 09:00 -
Sample Matrix.....: Soil

Laboratory Sample ID: 202476-3
Date Received.....: 07/12/2000
Time Received.....: 11:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
ASTM D 2974	Fraction Organic Carbon	1.5	0.1	%	07/15/00	deh

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of

LABORATORY TEST RESULTS

Job Number: 202476

Date: 07/21/2000

CUSTOMER: ARCADIS / Geraghty and Miller, Inc. PROJECT: CC0006420001 ATTN: Ken Brandner

Customer Sample ID: GEOTECH 3 SATURATED
Date Sampled.....: 07/12/2000
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202476-4
Date Received.....: 07/12/2000
Time Received.....: 11:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
ASTM D 2974	Fraction Organic Carbon	1.3	0.1	%	07/15/00	deh

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of

QUALITY CONTROL RESULTS

Job Number.: 202476 Report Date.: 07/21/2000

CUSTOMER: ARCADIS / Geraghty and Miller, Inc. PROJECT: Walk in Projects ATTN: Ken Brandner

Test Method.....: ASTM D 2974 Batch.....: 48283 Analyst...: deh
Method Description.: Fraction Organic Carbon Units.....: % Test Code.: FOC
Parameter.....: Fraction Organic Carbon

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date	Time
MB		EX00509S	0							07/15/2000	0830
MD	202476-2		0.3541			0.3184	0.0357	A	0.1000	07/15/2000	0850

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of

Geotechnical Report

for

Severn Trent Laboratories, Inc.

ARCADIS / Geraghty & Miller, Inc.

STL 202476

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom; and for whose exclusive and confidential use; this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, proper operation, or profitableness of any oil, gas or mineral well or formation in connection with which such report is used or relied upon.

Core Lab
PETROLEUM SERVICES

Company : Severn Trent Laboratories, Inc.
Project : ARCADIS / Geraghty & Miller, Inc.
STL 202476

File Number : 57171-16228
Analyst : KS
Date : 20-Jul-2000

GEOTECHNICAL ANALYSIS RESULTS

LABORATORY IDENTIFICATION	SAMPLE IDENTIFICATION	PERMEABILITY (Intrinsic)			PERMEABILITY (K_{air})			POROSITY (Effective) (API RP40)	MOISTURE CONTENT[1] (D-2216)	DRY BULK DENSITY[2]
		md	cm/sec	cm^2	md	cm/sec	cm^2	%	%	gm/cc
16228-1	STL 202476-1 Geotech 1 (Unsaturated)	34.9	2.99E-05	3.44E-10	39.2	3.36E-05	3.87E-10	20.6	13.2	2.07
Sample Description: Sand, light brown, vfine grained, silty, vclayey, calcareous										

[1] Moisture Content (ASTM D-2216)

[2] Dry Bulk Density (API RP40)

Intrinsic Permeability (ASTM D-4525)

Core Lab
PETROLEUM SERVICES

CORE LABORATORIES, INC.

Company : Severn Trent Laboratories, Inc.
Project : ARCADIS / Geraghty & Miller, Inc.
STL 202476

File Number : 57171-16228
Analyst : KS
Date : 20-Jul-2000

GEOTECHNICAL ANALYSIS RESULTS

LABORATORY IDENTIFICATION	SAMPLE IDENTIFICATION	PERMEABILITY (Intrinsic)			PERMEABILITY (K_{air})			POROSITY (Effective) (API RP40)	MOISTURE CONTENT[1] (D-2216)	DRY BULK DENSITY[2]
		md	cm/sec	cm^2	md	cm/sec	cm^2	%	%	gm/cc
16228-2	STL 202476-2 Geotech 1 (Saturated)	Sample Disaggregated*			Sample Disaggregated*			36.6	21.8	1.67
Sample Description: Sand, tan, vfine-fine grained, silty, calcareous										

* Disaggregation of sample prohibited permeability determination

[1] Moisture Content (ASTM D-2216)

[2] Dry Bulk Density (API RP40)

Intrinsic Permeability (ASTM D-4525)

Core Lab
PETROLEUM SERVICES

CORE LABORATORIES, INC.

Company : Severn Trent Laboratories, Inc.
Project : ARCADIS / Geraghty & Miller, Inc.
STL 202476

File Number : 57171-16228
Analyst : KS
Date : 20-Jul-2000

GEOTECHNICAL ANALYSIS RESULTS

LABORATORY IDENTIFICATION	SAMPLE IDENTIFICATION	PERMEABILITY (Intrinsic)			PERMEABILITY (K_{air})			POROSITY (Effective) (API RP40)	MOISTURE CONTENT[1] (D-2216)	DRY BULK DENSITY[2]
		md	cm/sec	cm^2	md	cm/sec	cm^2	%	%	gm/cc
16228-3	STL 202476-3 Geotech 2 (Unsaturated)	156.	1.34E-04	1.54E-09	169.	1.45E-04	1.67E-09	26.4	15.0	1.93
Sample Description: Sand, brown-black, vfine grained, silty, clayey, calcareous, w/pebbles										

[1] Moisture Content (ASTM D-2216)

[2] Dry Bulk Density (API RP40)

Intrinsic Permeability (ASTM D-4525)

Core Lab
PETROLEUM SERVICES

CORE LABORATORIES, INC.

Company : Severn Trent Laboratories, Inc.
Project : ARCADIS / Geraghty & Miller, Inc.
STL 202476

File Number : 57171-16228
Analyst : KS
Date : 20-Jul-2000

GEOTECHNICAL ANALYSIS RESULTS

LABORATORY IDENTIFICATION	SAMPLE IDENTIFICATION	PERMEABILITY (Intrinsic)			PERMEABILITY (K_{air})			POROSITY (Effective) (API RP40)	MOISTURE CONTENT[1] (D-2216)	DRY BULK DENSITY[2]
		md	cm/sec	cm^2	md	cm/sec	cm^2	%	%	gm/cc
16228-4	STL 202476-4 Geotech 2 (Saturated)	28.9	2.48E-05	2.85E-10	35.6	3.05E-05	3.51E-10	28.6	20.7	2.03

Sample Description: Sand, tan, vfine grained, silty, clayey, calcareous, w/small pebbles

[1] Moisture Content (ASTM D-2216)

[2] Dry Bulk Density (API RP40)

Intrinsic Permeability (ASTM D-4525)

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/21/2000

(1) EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
(2) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III
(3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
(4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
(5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
(6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
(7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
(8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
(9) Hach Handbook of Water Analysis, 1979

Comments:
Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-OO" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

SAMPLE RESULT IDENTIFICATION

ND	= Not detected at a value greater than the reporting limit
TNTC	= Too numerous to count

BLANK QC SAMPLE IDENTIFICATION

MB	Method Blank
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS	Method (Matrix) Spike
MSD	Method (Matrix) Spike Duplicate
PDS	Post Digestion/Distillation Spike
SB	Spiked Blank
SBD	Spiked Blank Duplicate

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/21/2000

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate
DD	Digestion Duplicate
PDD	Post Digestion Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

SUBCONTRACT LABORATORIES

Severn Trent Laboratories:

Los Angeles, CA	*la	Houston, TX	*he
Aurora, CO	*au	North Canton, OH	*nc
Tampa, FL	*ta	Valparaiso, IN	*vp
Sacramento, CA	*sa		

Other:

Client provided data	*cp	Core Laboratories	*hp
Peak Analytical, Inc.	*pk	Jordan Laboratories	*jl
Enviro-Test Labs	*et		

EXPLANATION OF DATA FLAGS

B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.

D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.

E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.

I - Used to indicate matrix interference.

J - Indicates that a value is an estimate. It is used when a compound is determined to be present based on the mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.

X - Indicates that a surrogate recovery is outside the specified quality control limits.

Y - Used to identify a spike or spike duplicate recovery and spike duplicate is outside the specified quality control limits.

* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.

^ - Used to indicate that a standard is outside specified *quality control limits.*

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of

ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name _____

Project Location _____

Laboratory _____

Project Manager _____

Sampler(s)/Affiliation _____

ANALYSIS / METHOD / SIZE

203476

ars chilled

client delivered

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID							Remarks	Total
[illegible]	S	[illegible]		1							1
[illegible]	S	[illegible]		1							1
[illegible]	S	[illegible]		1							1
[illegible]	S	[illegible]		1							1

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 4

Relinquished by: [illegible]	Organization: [illegible]	Date 7/12/00	Time [illegible]	Seal Intact?
Received by: Emily C Bauer	Organization: SRC	Date 7/12/00	Time 1100	Yes No N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A

Special Instructions/Remarks: _____

Result to Ken Bandner - 883-1353

Delivery Method: ☒ In Person ☐ Common Carrier _____ ☐ Lab Courier ☐ Other _____

SPECIFY SPECIFY

AG 05 0597

Environmental
Geotechnical
Construction
Consulting • Engineering • Testing

PHONE: 361-854-4801 FAX: 361-854-6049

FACSIMILE TRANSMITTAL

TO: KEN BRANDNER FAX# 883 7565

COMPANY: ARCADIS G & M

FROM: JAMES WOJINSKI

TOTAL NUMBER OF PAGES: 2 (INCLUDING COVER SHEET)
IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CONTACT US AS SOON AS POSSIBLE AT THE ABOVE NUMBER

DATE: 9-12-00 TIME:

REMARKS: KEN THIS IS THE RESULT OF THE INTRINSIC PERMEABILITY TEST.

CONFIDENTIALITY NOTICE

The document accompanying this telecopy transmission contains confidential information which is legally privileged. The information is intended only for the use of the recipient named above. If you have received this telecopy in error, please notify us immediately by telephone to arrange for the return of the telecopied documents to us. You are hereby notified any disclosure, copying, distribution, or taking of any action in reliance on the contents of this telecopied information is strictly prohibited.

Project Name:	PSI - Corpus Christi, TX	Boring Number:	Geotech 1 (Saturated)
Project Number:		Sample Number:	202476-2
Date:	08/10/00	Depth (ft.) :	
		Classification:	Yellowish Brown Fine Sand (Remolded)

Falling Head Permeability Test Calculations

Ring + Soil =	107.43 (gms.)	Wet Soil + Tare =	90.5 gms.
Ring Weight =	0 (gms.)	Dry Soil + Tare =	79.38 gms.
Wet Density (γw) =	111.19 (pcf)	Tare Weight =	18.62 gms.
Dry Density (γd) =	93.99 (pcf)	Moisture Content =	18.3 %
Ht. Of Sample:	1.905 (cm)		
Diam. of Sample:	6.35 (cm)		
Area of Sample:	31.67 (cm^2)		
Area of Standpipe:	0.93 (cm^2)		

First Trial: 8/10/00

Initial	Final	Hi	Hf	Time	LOG(Hi/Hf)	K	K_20	Ave. K
0	46.50	81.5	35.0	205	0.367089564	0.000230697	0.000209934	2.10E-04

Second Trial: 8/10/00

Initial	Final	Hi	Hf	Time	LOG(Hi/Hf)	K	K_20	Ave. K
0.00	46.40	81.5	35.1	195	0.365850492	0.000241709	0.000219955	2.20E-04

Third Trial: 8/10/00

Initial	Final	Hi	Hf	Time	LOG(Hi/Hf)	K	K_20	Ave. K
0.00	46.10	81.5	35.4	182	0.362154347	0.000256358	0.000233285	2.33E-04

Fourth Trial: 8/10/00

Initial	Final	Hi	Hf	Time	LOG(Hi/Hf)	K	K_20	Ave. K
0.00	46.50	81.5	35.0	130	0.367089564	0.000363791	0.00033105	3.31E-04

Fifth Trial: 8/10/00

Initial	Final	Hi	Hf	Time	LOG(Hi/Hf)	K	K_20	Ave. K
0.00	46.00	81.5	35.5	168	0.360929256	0.000276781	0.000251871	2.52E-04

Average K of Five Trials; 2.49E-04 cm./sec.

APPENDIX N

Appendix N

TNRCC October 23, 2000 Letter

Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
John M. Baker, *Commissioner*
Jeffrey A. Saitas, *Executive Director*

RECEIVED
OCT 3 / 2000
ARC Law Company & Miller

cc: P. MANAK
K. FHUDY
√K. BRANDNER

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

October 23, 2000

Mr. Richard Marcus
Divisional Environmental Manager
Encycle - Texas Inc.
P. O. Box 4767
Corpus Christi, TX 78469

Re: *Annual Groundwater Quality Assessment Report*
East and West Lagoons
TNRCC SWR No. 30003
TNRCC Hazardous Waste Permit No. HW- 50221
EPA ID No. TXD008117186
Civil Action No. H-99-1136, Enf. ID No. 1017
Agreed Consent Decree Entered October 7, 1999

Dear Mr. Marcus:

The Texas Natural Resource Conservation Commission (TNRCC) has reviewed the above referenced report dated July 17, 2000. The report fulfills the reporting requirements of the approved *Closure Plan - East and West Lagooons*.

The TNRCC agrees with Encycle that the groundwater associated with the fill material adjacent to the Corpus Christi Ship Channel has an average total dissolved solids (TDS) concentrations of greater than 10,000 mg/L. The TDS demonstration only included wells that were located in the made land (fill) area, therefore, includes only that portion of the facility at this time.

An original and one copy of future reports should be submitted to the Corrective Action Section at the letterhead address using Mail Code MC-127. An additional copy should be submitted to Mr. Russell Lewis, Waste Program Manager, TNRCC, Region 14 Office, 6300 Ocean Drive, Ste. 150, Corpus Christi, TX 78412-5503. The facility name, location and identification number(s) in the TNRCC reference line above should be included with the report.

Questions concerning this letter should be directed to me at (512) 239-*2350*. Please use Mail Code 127 (MC-127) when responding by mail.

Sincerely,

Brad Wilkinson, Project Manager
Team I, Corrective Action Section
Remediation Division
Texas Natural Resource Conservation Commission

BW/bw

cc: Russell Lewis, Waste Program Manager, TNRCC Region 14 Office, Corpus Christi