Table 4-1

Summary of Monitoring Well Construction Details
Phase IV Remedial Investigation

Well Name	Status	Location	Date Completed	Designation	Ground Surface Elevation (ft)	Measuring Point Elev. (ft)	Northing (ASARCO Grid)	Easting (ASARCO Grid)	Total Depth Drilled (ft bgs)	Total Depth Cased (ft)	Casing Size (ID) (in)	Screened Interval (ft bgs)	Static Water Level (ft bmp)
MONITORING WELLS													
EP-54		Northwest corner of Acid Plant	2/9/1994	Phase I and Diesel #2	3785.87	3787.37	-812.62	125.25	80	80	2"	60-80	69.25
EP-55		200' West of EPS2	2/9/1994	Phase I and Diesel #2	3785.73	3788.23	-1112.4	268.72	62	59	4"	39-59	54.35
EP-56		South of GPS house	2/9/1994	Phase I and Diesel #2	3770.09	3772.09	-1966.3	908.55	58	58	4"	38-58	48.92
EP-57		Old Smelter Town	1/16/1994	Phase I and Diesel #2	3722	3723.32	-1409.36	-38.35	30	30	4"	10.0-30	9.17
EP-58		Old Smelter Town	6/16/1994	Phase I and Diesel #2	3725.17	3726.67	-1116.4	-142.06	30	28	4"	8.0-28	13.98
EP-59		Old Smelter Town	1/17/1994	Phase I and Diesel #2		3728.37	-707.57	-210.82	30	20	4"	10.0-20	13.20
EP-60		Old Smelter Town	1/17/1994	Phase I and Diesel #2	3721	3722.52	-1800.39	77.57	20	17	4"	5.0-20	9.22
EP-61		None Given	1/18/1994	Phase I and Diesel #2	3721.35	3722.95	-1195.64	-343.73	20	17	4"	7.0-17	10.23
EP-62		Old Smelter Town	1/25/1994	Phase I and Diesel #2	3719.04	3720.64	-1254.12	-501.22	25	17	4"	7.0-17	7.62
EP-63		Old Smelter Town	1/26/1994	Phase I and Diesel #2	3717.92	3719.52	-1067.57	-202.12	20	17.7	4"	7.7-17.7	6.95
EP-64		Old Smelter Town	1/25/1994	Phase I and Diesel #2	3722.4	3724	-1027.26	-408.45	20	15	4"	5.0-15	10.45
EP-65		Old Smelter Town	1/27/1994	Phase I and Diesel #2	3719.79	3721.39	-1410.82	-289.02	20	16	4"	6.4-16	8.52
EP-66		Old Smelter Town	1/27/1994	Phase I and Diesel #2	3721.28	3722.88	-2023.8	-1.2	20	16.4	4"	6.4-16.4	10.37
EP-67		Truck Staging Area	5/28/1997	Phase I	3759.07	3761.07	-3826.48	2540.87	59	57.3	4"	37.3-57.3	41.72
EP-68		South end of employees parking	5/29/1997	Phase I	3781.76	3783.76	-3096.9	2147.37	82	82	4"	62-82	65.10
EP-69	ABANDONED	East of Scale House	5/29/1997	Phase I	3779.06	3779.06	-2542.51	1593.28	65	55	4"	45-55	DRY
EP-70		Northwest of Rubber Lake	5/30/1997	Phase I	3775		-4057.34	2335.23	55	50	4"	40-50	DRY
EP-70R		70' West of EP-70	6/12/1997	Phase I	3775.67	3777.67	-4088.82	2314.41	75	75	4"	60-75	61.95
EP-71		Central Rail Yard	5/31/1997	Phase I	3758.11		-4427.65	2669.77	33	32	4"	22-32	DRY
EP-71R		Near Gate 18	6/11/1997	Phase I	3763.19	3765.19	-4377.08	2508.11	65	65	4"	45-65	50.22
EP-72		East Central Storage Yard	6/1/1997	Phase I	3773.83		-3836.68	2193.72	55	54	4"	44-54	DRY
EP-72R		East Central Storage Yard	6/1/1997	Phase I	3776.5	3778.5	-3828.04	2185.06	75	75	4"	55-75	61.70
EP-73		East of Acid Plant 2	6/1/1997	Phase I	3787.45	3789.45	-778.2	338.92	80	80	4"	60-80	71.10
EP-74	ABANDONED	Lead Works	6/2/1997	Phase I	3775.89	3775.89	-2269.78	787.16	72	72	4"	52-72	52.55
EP-75		Boneyard	6/3/1997	Phase I	3815	3815	-971.17	1194.27	71	71	4"	61-71	56.22
EP-76		Boneyard	6/3/1997	Phase I	3818.25	3818.25	-890.28	1331.14	64	64	4"	44-64	50.20
EP-77		North of Pond 5	6/4/1997	Phase I	3773.78	3776.78	-2044.86	1172.98	55	55	4"	45-55	41.10
EP-78		Near Pond on Parker Bros.	6/4/1997	Phase I	3770.96	3773.46	-176.31	1299.08	45	44.42	4"	34.42-44.42	33.05
EP-79		Southwest of Cemetary	6/5/1997	Phase I	3791.94	3793.94	351.37	1130.86	55	54	4"	39-54	47.01
EP-80		ASARCO Annex 2	6/6/1997	Phase I	3724.09	3726.59	308.16	-338.68	26.5	24	4"	9.0-24	11.13
EP-81		Parker Bros. Entrance	6/6/1997	Phase I	3731.59	3734.09	33.79	22.01	28	26	4"	11.0-26	18.42

Table 4-1

Summary of Monitoring Well Construction Details
Phase IV Remedial Investigation

Well Name	Status	Location	Date Completed	Designation	Ground Surface Elevation (ft)	Measuring Point Elev. (ft)	Northing (ASARCO Grid)	Easting (ASARCO Grid)	Total Depth Drilled (ft bgs)	Total Depth Cased (ft)	Casing Size (ID) (in)	Screened Interval (ft bgs)	Static Water Level (ft btmp)
MONITORING WELLS													
EP-82		East of Plant; West of I-10, South of Parker Brothers	6/10/1997	Phase I	3771.15	3773.65	-842.81	1914.44	32	30	4"	15-30	16.92
EP-83		200' North of # Bridge	6/11/1997	Phase I	3800.61	3803.61	359.07	2222.33	50	50	4"	35-50	27.91
EP-84		1000' East of I-10	6/11/1997	Phase I	3794.41	3797.41	411.85	3406.03	20	13.5	4"	3.5-13.5	8.38
EP-85		In Arroyo due North of Cadmium Bldg.	6/12/1997	Phase I	3739.41	3741.91	-361.19	660.21	25	25	4"	10.0-25	15.49
EP-86		Slag pile North of Cemetary	6/13/1997	Phase I	3817.99	3819.99	1775.17	1418.86	70.5	70.5	4"	30.5-70.5	48.83
EP-87	ABANDONED	North Arroyo	6/16/1997	Phase I	3816.67	3818.17	1631.2	2873.66	13.5	13.5	4"	3.5-13.5	DRY
EP-88		North of Pond #6	6/17/1997	Phase I	3774.54	3776.54	-1539.89	1519.6	40	40	4"	25-40	28.53
EP-89		Abandoned Guard Shack	6/18/1997	Phase I	3732.23	3734.73	-4275.91	2984.52	40	40	4"	20-40	15.01
EP-90		Lead Works	12/8/1997	Phase I	3778.08	3777.83	-2365.05	775.08	72	72	4"	52-72	52.55
EP-93		East of I-10, center of Terrace	7/21/1999	Phase II	3853.99	3855.99	1223.7	2832.24	62	57	4"	37-57	49.00
EP-94		East of I-10, on west toe of Terrace	7/26/1999	Phase II	3829	3831	841.15	2561.97	65	65	4"	45-65	54.00
EP-95		East of I-10, center of North Arroyo	10/20/1999	Phase II	3800.21	3802.21	1326.49	2251.66	67	60	4"	35-60	46.00
EP-96		East of I-10, east side of Terrace	7/20/1999	Phase II	3871.26	3873.26	1520.64	3284.61	62	62	4"	42-62	60.00
EP-97		East of I-10, center of South Arroyo, in pasture area.	8/4/1999	Phase II	3789.09	3792.09	411.34	2980.03	13	12.5	4"	2.5-12.5	5.50
EP-98		East of I-10, northwest edge of South Arroyo, on slag area	8/9/1999	Phase II	3787.92	3789.92	476.51	2504.92	27	27	4"	7.0-27	14.00
EP-99		Slag Pour area, north end of boneyard	8/12/1999	Phase II	3799.92	3802.92	-647.2	884.12	77	72.5	4"	57.5-72.5	67.00
EP-100		10 feet south of Medford Sump	9/28/1999	Phase II	3774.99	3776.99	-1409.94	281.49	60	52	4"	32-52	38.00
EP-101		West of Sample Mill Area Unloading Building	9/30/1999	Phase II	3777.32	3780.32	-2635.2	650.84	82	72	4"	52-72	59.00
EP-102		5 ft. south of Sample Mill Area Sump	10/4/1999	Phase II	3772.28	3774.28	-2659.55	789.54	72	72	4"	52-72	59.00
EP-103		Center of overhead conveyor btwn defumper & bedding bldg.	10/5/1999	Phase II	3776.71	3778.71	-2614.43	1039.7	72	71	4"	51-71	54.00
EP-104		30' E, and 50' S of southwest corner of bedding bldg	10/7/1999	Phase II	3777.71	3779.71	-2882.42	1462.56	77	72	4"	52-72	65.00
EP-105		125' NW of Northeast corner of unloading bldg	10/8/1999	Phase II	3778.22	3780.22	-2963.6	1664.78	77	74	4"	44-74	52.00
EP-106		30' NW of Plant Flag Pole at entrance	10/18/1999	Phase II	3778.4	3780.4	-2790.08	1768.41	80	80	4"	50-80	60.00
EP-107		50' W and 250' S of Southeast corner of unloading building	10/12/1999	Phase II	3780.71	3782.71	-3369.69	1998.1	80	79	4"	59-79	67.00
EP-108		Center-line of ephemerial pond, approx. 400' E of railroad tracks	10/14/1999	Phase II	3771.89	3774.89	89.68	1537.52	42	40	4"	20-40	20.00
EP-109		South of #9 gate roadway, 200' E of railroad tracks	10/15/1999	Phase II	3774.67	3776.67	-432.72	1709.68	42	42	4"	17-42	21.00
EP-110		N side of plant entrance roadway, 30' NE of plant RR bridge spur	10/18/1999	Phase II	3720.03	3722.03	-4440.81	3062.28	25	25	4"	5.0-25	10.00
EP-111		525' NE of Old pump house on Rio Grande flood plain	10/27/1999	Phase II	3713.57	3716.57	-2606.94	189.79	20	18	4"	3.0-18	6.50
EP-112		1400' NW of Old Pump house on Rio Grande flood plain	10/27/1999	Phase II	3715.35	3718.35	-1952.94	-347.5	20	18	4"	3.0-18	6.50
EP-113		2300' NW of Old Pump house on Rio Grande flood plain	10/28/1999	Phase II	3715.8	3718.8	-1255.6	-922.68	20	17.5	4"	2.5-17.5	7.00

Table 4-1

Summary of Monitoring Well Construction Details
Phase IV Remedial Investigation

Well Name	Status	Location	Date Completed	Designation	Ground Surface Elevation (ft)	Measuring Point Elev. (ft)	Northing (ASARCO Grid)	Easting (ASARCO Grid)	Total Depth Drilled (ft bgs)	Total Depth Cased (ft)	Casing Size (ID) (in)	Screened Interval (ft bgs)	Static Water Level (ft bmp)
MONITORING WELLS													
EP-114		Front Slope, by RR tracks, below Acid Mist Precipitator	11/15/1999	Phase II	3726.64	3728.64	-1004.79	55.82	29	28.5	4"	8.5-28.5	12.50
EP-115		Front Slope, by RR tracks, below Medford Sump	11/16/1999	Phase II	3729.09	3728.59	-1411.18	164.97	25	15	4"	10.0-15	12.50
EP-116		Front Slope, by RR tracks, below former rosasters	11/16/1999	Phase II	3725.14	3724.64	-2016.89	356.86	25	25	4"	5.0-25	11.50
EP-117		Front Slope, by RR tracks, below Old Baghouse	11/17/1999	Phase II	3726.96	3726.46	-2299.88	415.44	30	28	4"	8.0-28	14.00
EP-118		Front Slope, by RR tracks, below Sample Mill Area	11/17/1999	Phase II	3726.71	3726.21	-2827.8	596.64	36	36	4"	6.0-36	18.50
EP-119		NW corner of Smeltertown	4/2/2001	Phase III	3722.88	3725.88			20	20	4"	5.0-20	10.23
EP-120		Arroyo West of Ephemeral Pond	4/9/2001	Phase III	3777.05	3780.05			34	33	4"	13-33	19.99
EP-121		Arroyo West of Ephemeral Pond	4/12/2001	Phase III	3776.72	3779.72			27	27	4"	7.0-27	13.99
EP-122		West of Paisano, North of IBWC	4/12/2001	Phase III	3724.95	3727.95			20	20	4"	5.0-20	12.90
EP-123		North of Ephemeral Pond	4/18/2001	Phase III	3785.6	3788.6			51	50.5	4"	30.5-50.5	43.17
EP-124		Southeast of Pond 6	4/21/2001	Phase III	3771.33	3774.33			41	41	4"	31-41	34.40
EP-125		North of Bulk Acid Storage Area	4/24/2001	Phase III	3779.35	3782.35			56	55	4"	35-55	34.12
EP-126		North of Bulk Acid Storage Area	4/26/2001	Phase III	3776.79	3779.79			44	43	4"	28-43	31.68
EP-127		Bank of Rio Grande	4/27/2001	Phase III	3715.63	3718.63			20	18	4"	3.0-18	6.67
EP-128		North of IBWC Pump House	4/27/2001	Phase III	3713.97	3716.97			20	20	4"	5.0-20	5.80
EP-129		South Arroyo, East of I-10	5/3/2001	Phase III	3810.9	3813.9			40	35	4"	15-35	20.50
EP-130		Copper Plant area, close to fence	5/29/2001	Phase III	3775.73	3778.73			82	80	4"	60-80	64.00
EP-131		South of Converter Bldg	5/30/2001	Phase III	3769.14	3772.14			72	70	4"	50-70	54.30
EP-132		South corner of Smeltertown	6/4/2001	Phase III	3721.61	3724.61			25	25	4"	5-25	7.00
EP-133		Rio Grande Flood Plain	10/28/2002	Phase IV		3718.24			14	14	4"	4-14	8.30
EP-134		Rio Grande Flood Plain	10/29/2002	Phase IV		3719.84			20	20	4"	5-20	6.00
EP-135		Rio Grande Flood Plain	10/29/2002	Phase IV		3723.45			25	25	4"	10-25	10.00
EP-136		Rio Grande Flood Plain	10/29/2002	Phase IV		3718.59			20	20	4"	4-20	10.00
EP-137		Rio Grande Flood Plain	10/28/2002	Phase IV		3718.2			15	15	4"	5-14	10.00

Table 4-2

Summary of Groundwater Sample Results for Phase IV RI Monitoring Wells
Phase IV Remedial Investigation

GENERAL CHEMISTRY

Site	Date	WL ft	O_2 F	pH F	pH L	SC L	SC F	TDS	TSS	Tur	T F	Ca	Mg	Na	K	HCO3	CO3	SO4	Cl	F	N
			mg/l			umhos/cm		mg/l	mg/l	ntu	°F	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
EP-133	12/18/2002	8.83	1	7.03	7.7	4820	5160	3580	25	56	21.5	231	60	873	54	451	2	1685	557	2.8	0.22
EP-134	12/18/2002	9.32	1.1	6.49	7.6	5100	5490	3748	142	126	20.3	240	76	865	54	362	2	1933	569	2.9	0.1
EP-135	12/17/2002	12.15	3.4	6.5	7.5	8750	9220	7212	142	95	27	637	201	1383	18	326	2	3066	1407	2.3	72
EP-136	12/18/2002	7.74	2.6	6.98	7.6	6560	7150	4894	22	40	18.3	323	146	1057	99	616	2	2426	684	2.2	0.1
EP-137	12/18/2002	8.15	2.2	6.91	7.6	4560	4990	3370	124	100	18.7	160	77	833	28	293	2	1456	575	1.7	11

METAL ANALYSIS

Site	Date	As D	As T	Cd D	Cd T	Cr D	Cr T	Cu D	Cu T	Fe D	Fe T	Pb D	Pb T	Se D	Se T	Zn D	Zn T
		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
EP-133	12/18/2002	2.2	2.1	<0.005	0.005	<0.01	<0.01	<0.025	<0.025	1.9	2.4	<0.003	0.006	0.15	0.14	0.04	0.026
EP-134	12/18/2002	0.8	0.89	<0.005	0.005	<0.01	<0.01	<0.025	0.027	0.13	3.2	<0.003	0.025	0.019	0.028	0.05	0.052
EP-135	12/17/2002	2.7	3	<0.005	0.005	<0.01	<0.01	<0.025	<0.025	<0.1	3.2	<0.003	0.003	0.21	0.2	0.072	0.064
EP-136	12/18/2002	0.1	0.09	<0.005	0.005	<0.01	<0.01	<0.025	<0.025	1.5	2	<0.003	0.004	0.012	0.017	0.047	0.042
EP-137	12/18/2002	0.77	0.77	0.016	0.054	<0.01	<0.01	<0.025	0.026	0.15	2.7	<0.003	0.025	0.49	0.46	0.12	0.18

Note
(F) = Field
(L) = Laboratory
D = Dissolved
T = Total
ntu = nephelometric turbidity units
N = Nitrate + Nitrite

Table 4-3

Statistical Summary of Current Site Water Quality Parameters
November of 2002 Groundwater/Surface Water Monitoring and Sampling Event
Phase IV Remedial Investigation

	WL ft	O_2 F	pH F	pH L	SC L	SC F	TDS	TSS	Tur	T F	Ca	Mg	Na	K	HCO3	SO4	Cl	F	N
		mg/l			umhos/cm		mg/l	mg/l	ntu	°F	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Groundwater																			
Number of Samples	99	64	64	65	65	64	65	65	53	64	65	65	65	65	65	65	65	65	65
Maximum	72.1	8.3	7.96	8.1	17300	17950	15928	3016	200	233	1011	802	3028	540	2090	10516	5305	9	178
Average	33.4125253	2.8359375	7.24547	7.627692	5613.54	5753.594	4115.6769	217.6523	49.28	26.10313	231.6	96.98462	912.87692	66.52615	516.2769	1969.83	648.1846	3.10769	19.2723
Standard Deviation	22.87287	2.08550304	0.35895	0.251562	2916.59	2951.475	2501.213	624.0717	67.093	26.36421	172.6482	109.6164	446.8722	83.54172	341.3693	1499.75	644.8939	1.65825	37.3041
Surface Water																			
Number of Samples		13	5	13	13	13	13	13	11	13	13	13	13	13	13	13	13	13	13
Maximum		16	8.51	8.1	2500	2540	1684	57	247	16.5	126	35	376	16	307	598	355	0.93	2.8
Average		8.59923077	7.996	7.961538	2163.31	1854.077	1434.2308	22.76923	37.976	14.33846	117.92308	29.69231	301.07692	12.64615	300.6923	493.769	283.5385	0.85846	1.57692
Standard Deviation		3.18391913	0.74593	0.104391	204.099	648.9166	158.8328	11.79798	70.096	2.299833	5.9506518	3.250247	43.132473	2.479454	5.266001	58.4967	32.8167	0.0546	0.55551

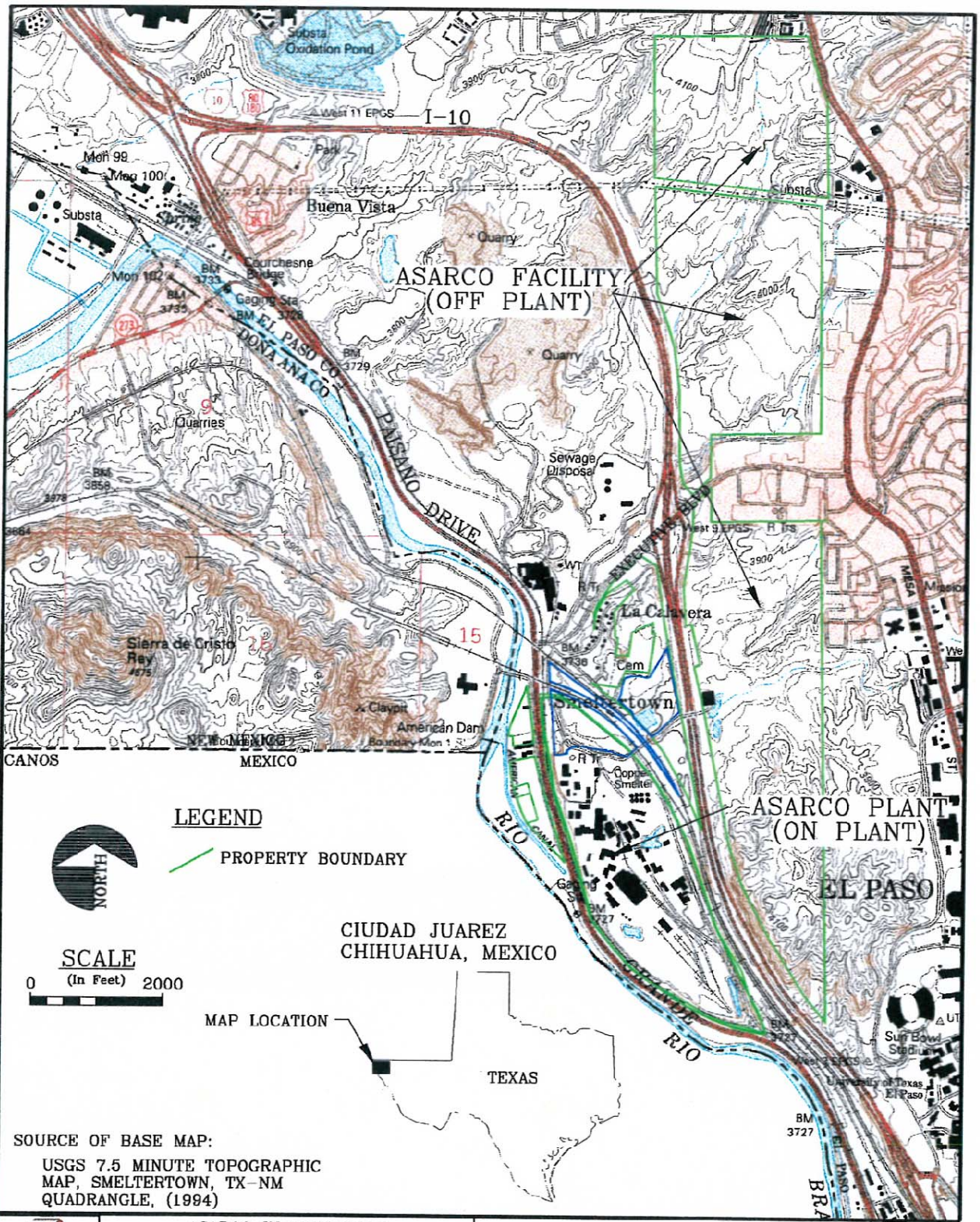
Site	Date	As D	As T	Cd D	Cd T	Cr D	Cr T	Cu D	Cu T	Fe D	Fe T	Pb D	Pb T	Se D	Se T	Zn D	Zn T
		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
	Groundwater																
	Number of Samples	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
	Maximum	318	316	1.9	1.8	0.0057	0.99	2	25	48	101	0.012	6.2	4	4.4	8.8	24
	Average	7.67135385	8.22793846	0.06764	0.097731	0.00502	0.022352	0.0528231	0.442269	1.0552	4.915954	0.0018846	0.121015	0.3041846	0.315685	0.373415	0.76977
	Standard Deviation	39.3649427	2/8/1900	0.24793	0.285943	9.1E-05	0.122113	0.2480981	3.097072	5.9374	14.07811	0.0017293	0.769492	0.6761571	0.729389	1.503819	3.30958
	Surface Water																
	Number of Samples	13	1/13/1900	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	Maximum	0.022	0.024	0.0025	0.0025	0.025	0.016	0.025	0.025	0.1	0.68	0.003	0.003	0.005	0.005	0.02	0.02
	Average	0.0105	1/0/1900	0.0025	0.0025	0.00723	0.010692	0.025	0.025	0.1	0.345385	0.003	0.003	0.005	0.005	0.02	0.02
	Standard Deviation	0.0076947	1/0/1900	6.7E-11	6.72E-11	0.00589	0.001797	5.377E-10	5.38E-10	2E-09	0.137696	3.361E-11	3.36E-11	1.344E-10	1.34E-10	5.38E-10	5.4E-10

Table 4-4

Statistical Summary of Total and Dissolved Arsenic Concentrations
Rio Grande Monitoring Stations
Phase IV Remedial Investigation

	Cumulative Sampling Data (1997 through December 2002)						Last Sampling Event (November 2002)	
	Dissolved As			Total As			Dissolved As	Total As
Stations	# of Samples	Max.	# Samples > MCL	# of Samples	Max.	# Samples > MCL	Max.	Max.
SEP-2	19	0.018	4	17	0.024	6	0.017	0.018
SEP-4	16	0.022	3	14	0.024	6	0.022	0.024
SEP-9	15	0.011	1	13	0.011	1	bldl	bldl
SEP-10	17	0.01	1	14	0.019	5	0.009	0.01
SEP-11	17	0.015	1	14	0.014	3	0.008	0.008
SEP-12	15	0.018	2	14	0.02	6	0.018	0.02
SEP-13	16	0.022	2	16	0.024	4	0.002	0.024

Note
All results are in mg/l
MCL = Maximum Contaminat Limit (0.01 mg/l)
bldl = below laboratory detection limits



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EL PASO COPPER SMELTER
PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

PROJECT VICINITY MAP

FIGURE 1-1

Drawing Name: I:\1247\RI phase IV\1247v201u400.dwg Last Modified: Jul 24, 2003 - 9:27am Plotted on: Jul 24, 2003 - 9:29am by WEDDY

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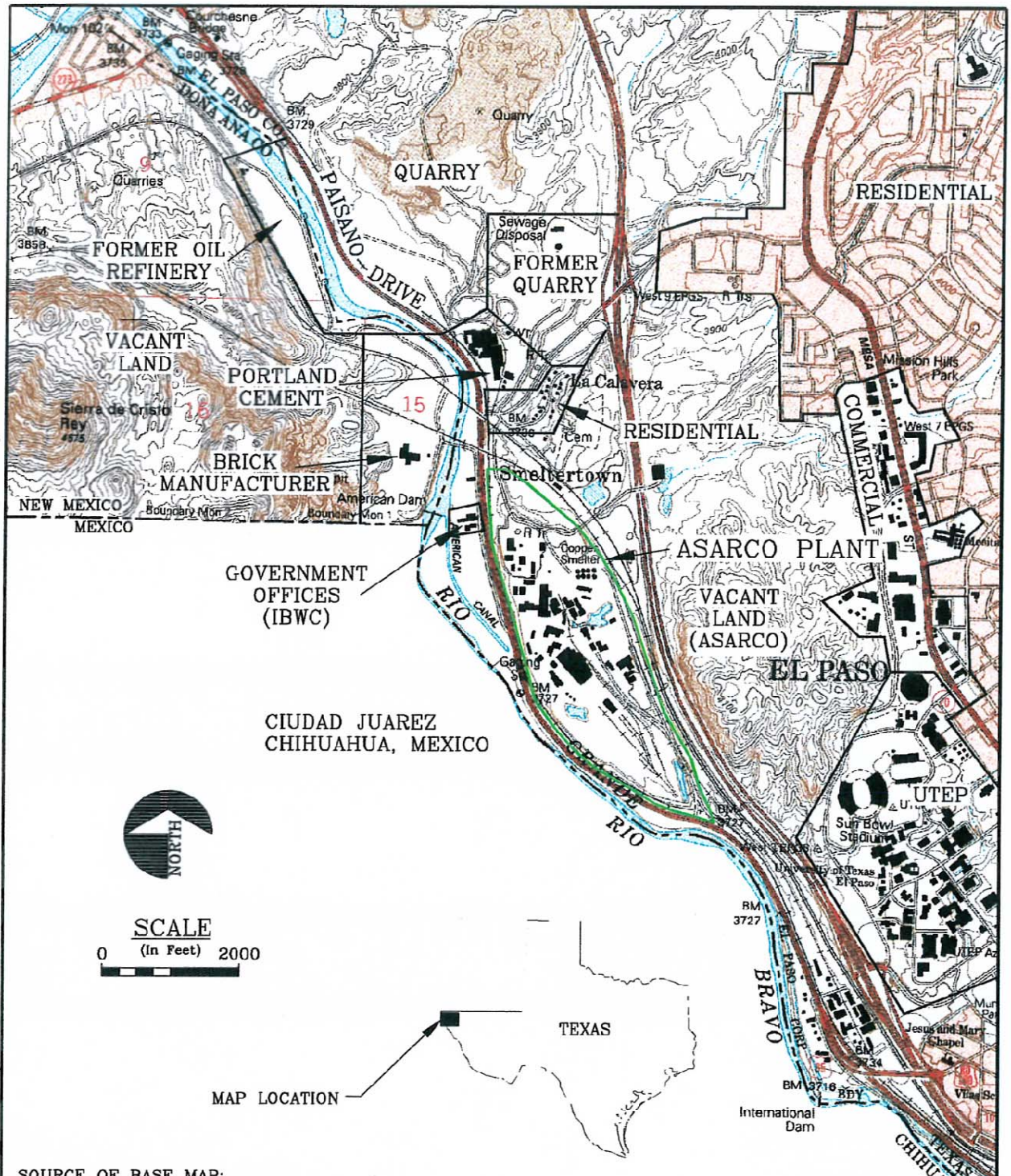

SOURCE OF BASE MAP:

USGS 7.5 MINUTE TOPOGRAPHIC MAP, SMELTERTOWN, TX-NM QUADRANGLE, (1994)

ASARCO Consulting, Inc.	ASARCO INCORPORATED EL PASO COPPER SMELTER REMEDIAL INVESTIGATION REPORT EL PASO, TEXAS	**ADJACENT LAND USE**	**FIGURE** **1-2**

Drawing Name: I:\1247\RI phase IV\1247v201u414.dwg Last Modified: Jul 24, 2003 - 2:30pm Plotted on: Jul 31, 2003 - 7:24am by MEDDY

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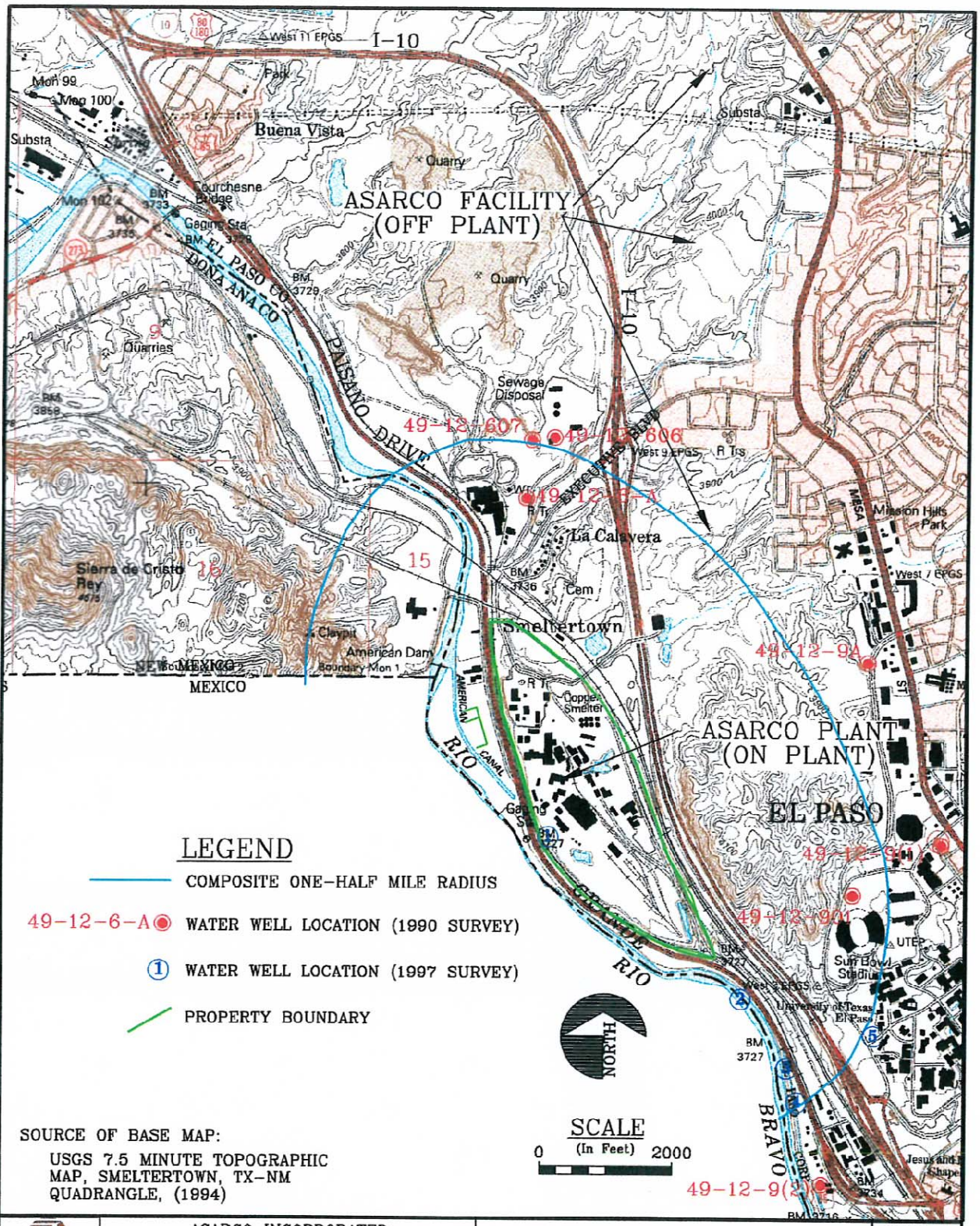

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

WATER WELL INVENTORY MAP

FIGURE 1-3

Drawing Name: i:\1247\RI phase IV\1247v201u415.dwg Last Modified: Jul 29, 2003 - 10:34am Plotted on: Jul 31, 2003 - 7:29am by MEDDY

UPDATE TIME: 10:00
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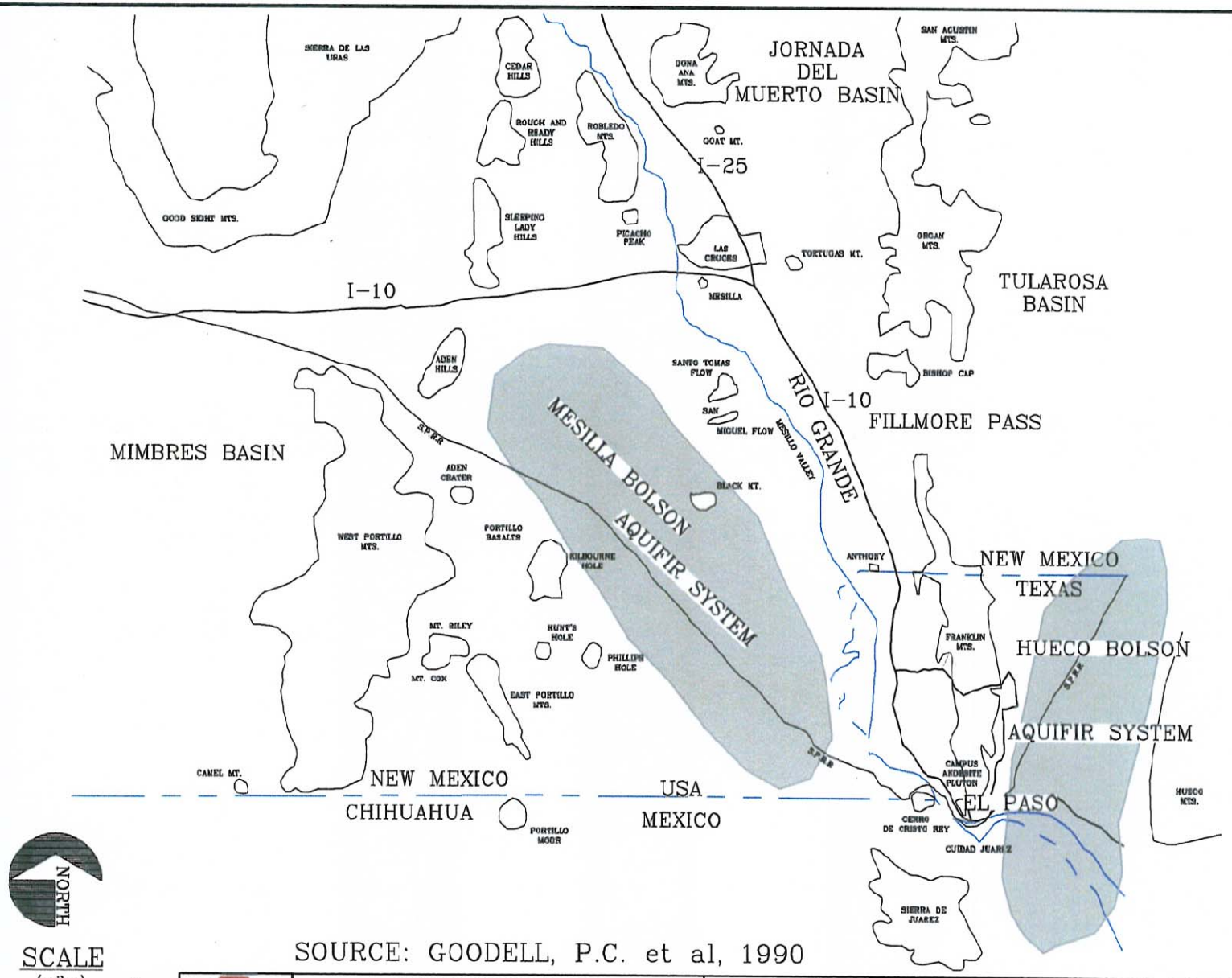

SOURCE: GOODELL, P.C. et al, 1990

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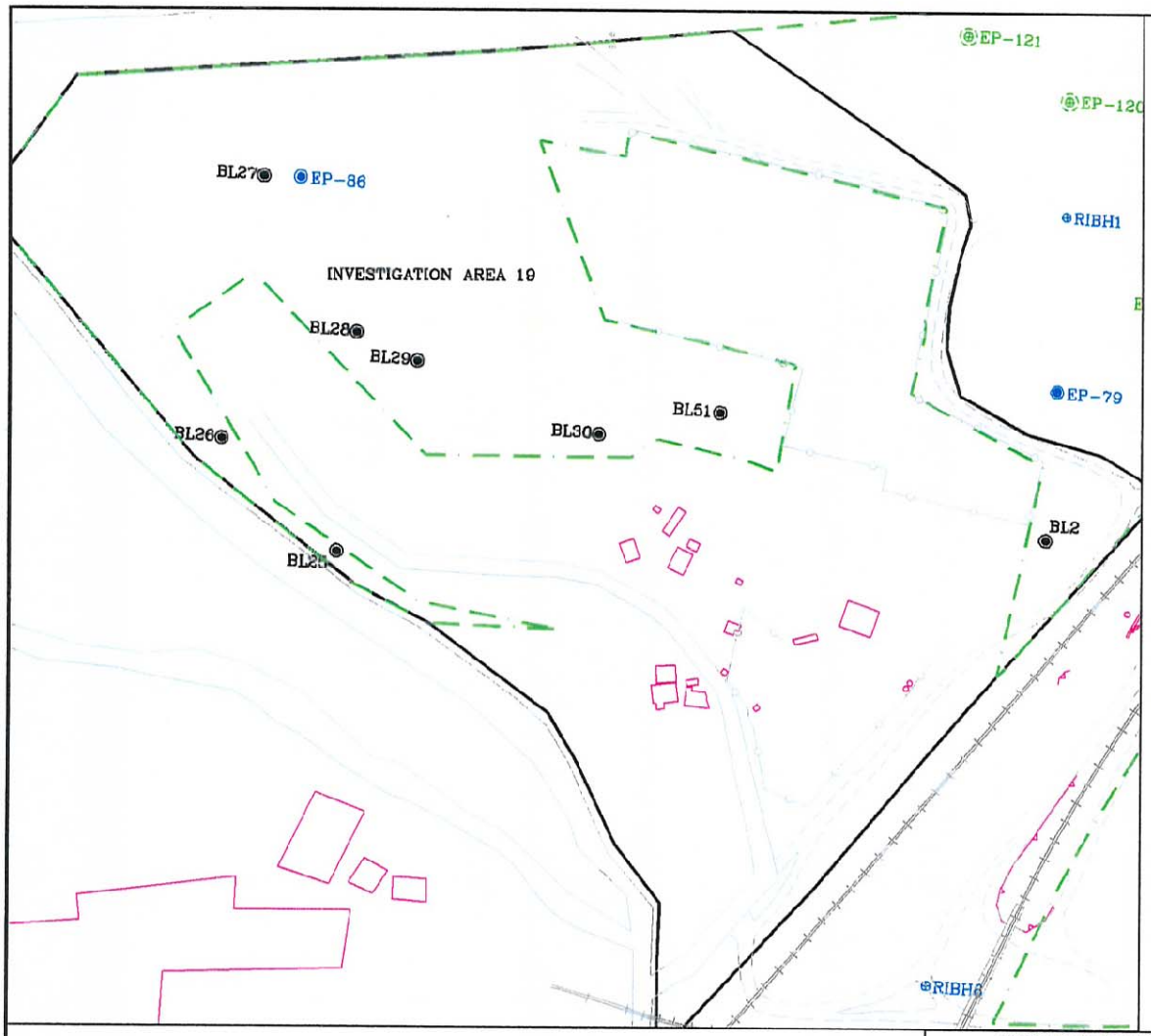
PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

PHYSIOGRAPHIC MAP OF THE EL PASO AREA

FIGURE 1-4

Drawing Name: I:\1247\RI phase IV\1247v201u416.dwg Last Modified: Aug 04, 2003 – 11:15am Plotted on: Aug 04, 2003 – 11:42am by MEDDY

1247V2011416



NORTH

SCALE
0 (In Feet) 200'
APPROXIMATE

LEGEND

- EP-120 — PHASE III WELL LOCATION
- EP-79 — PHASE I AND PHASE II WELL LOCATION
- BL2 — BASELINE INVESTIGATION LOCATION
- RIBH1 — PHASE I BOREHOLE LOCATION
- PROPERTY BOUNDARY
- INVESTIGATION AREA BOUNDARY

NOTE: PLEASE REFER TO EXHIBIT 1 FOR INVESTIGATION AREA LOCATION

ASARCO INCORPORATED
EL PASO COPPER SMELTER
PHASE III REMEDIAL INVESTIGATION
EL PASO, TEXAS

INVESTIGATION AREA 19
(LA CALAVERA AREA)
SOIL SAMPLING LOCATIONS

FIGURE
2-1

Hydroanalysis, Inc.

Drawing Name: E:\1247\RI phase III\1247v201u419.dwg Last Modified: Jul 31, 2003 - 7:53am Plotted on: Jul 31, 2003 - 7:54am by MEDDY

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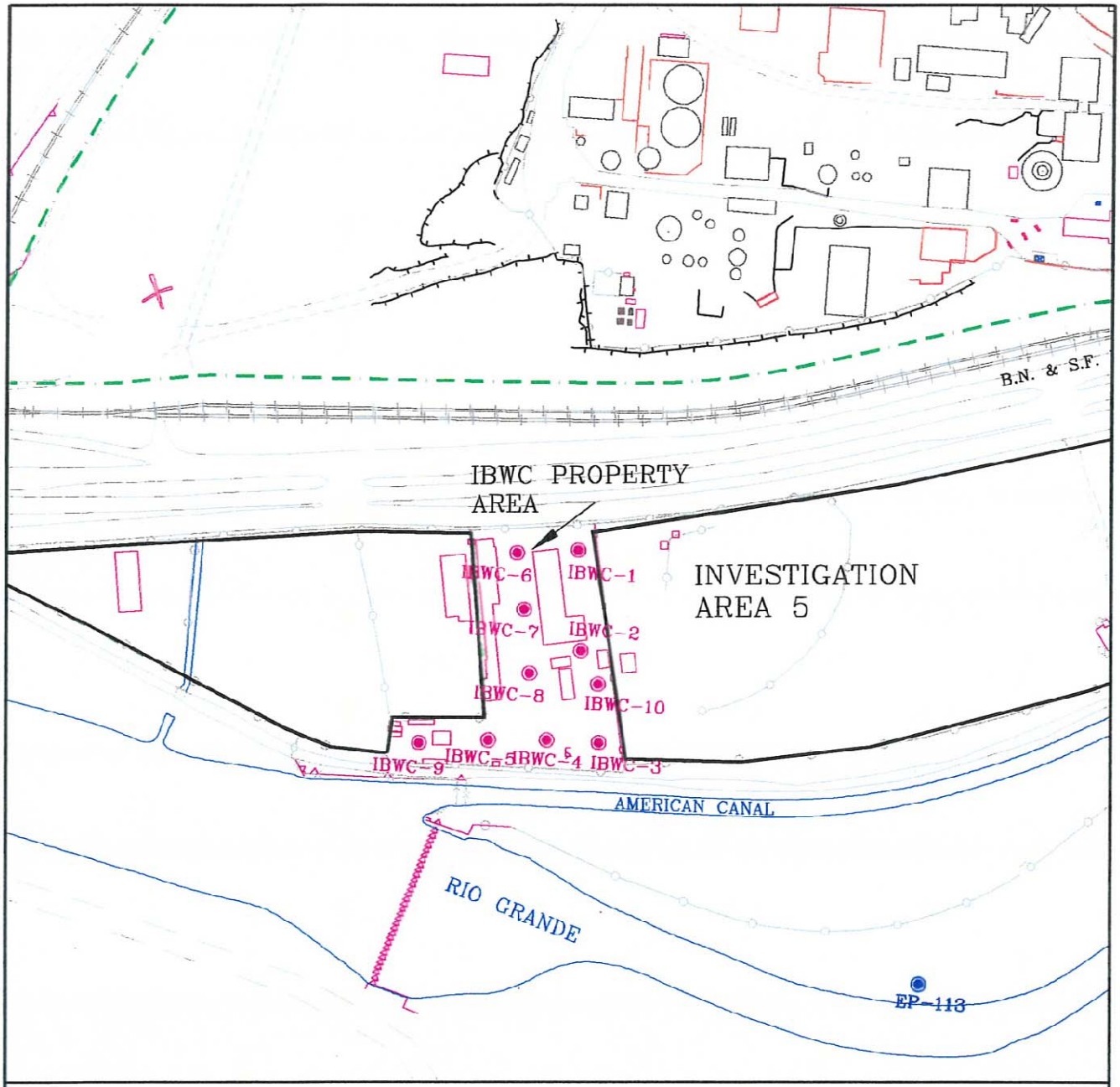

NORTH

SCALE
0 (In Feet) 250
APPROXIMATE

LEGEND

IBWC-1 — PROPOSED PHASE IV BOREHOLE LOCATION

EP-112 — EXISTING MONITOR WELL LOCATION

PROPERTY BOUNDARY

INVESTIGATION AREA BOUNDARY

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REMEDIAL INVESTIGATION REPORT
EL PASO, TEXAS

IBWC AMERICAN DAM
FIELD OFFICE

FIGURE
2-2

UPDATE TIME: 3:00
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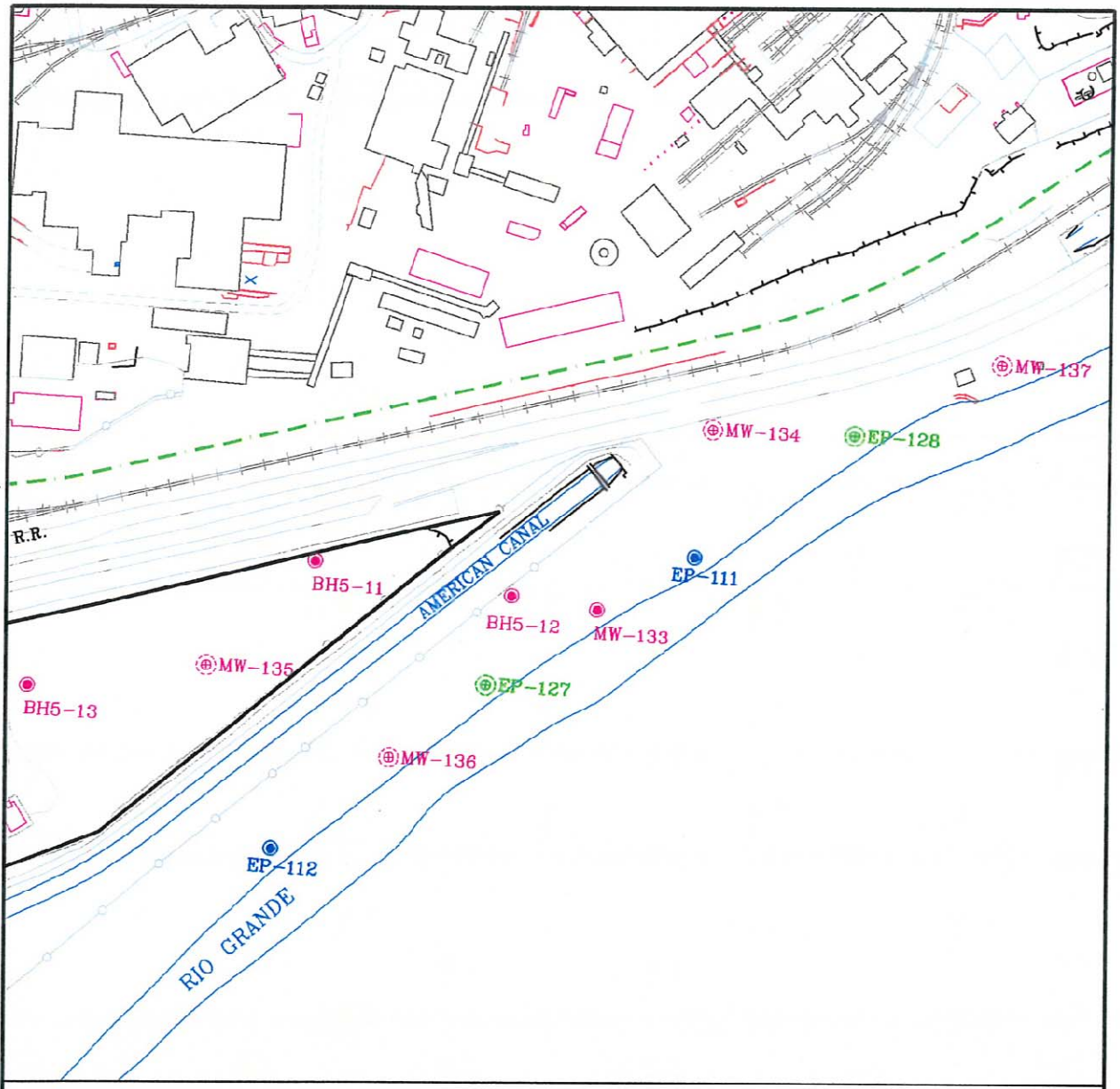
Drawing Name: I:\247\1247V201U420.dwg Last Modified: Thu Jul 31 09:37:37 2003 By: MEDY



NORTH

SCALE
0 (in Feet) 250
APPROXIMATE

LEGEND

MW-133 — PROPOSED PHASE IV BOREHOLE LOCATION

EP-112 — EXISTING MONITOR WELL LOCATION

PROPERTY BOUNDARY

INVESTIGATION AREA BOUNDARY

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REMEDIAL INVESTIGATION REPORT
EL PASO, TEXAS

FLOOD PLAIN OF THE RIO GRANDE

FIGURE 2-3

Drawing Name: i:\1247\RI phase IV\1247v201u421.dwg Last Modified: Jul 29, 2003 - 2:42pm Plotted on: Jul 31, 2003 - 7:40am by MEDDY

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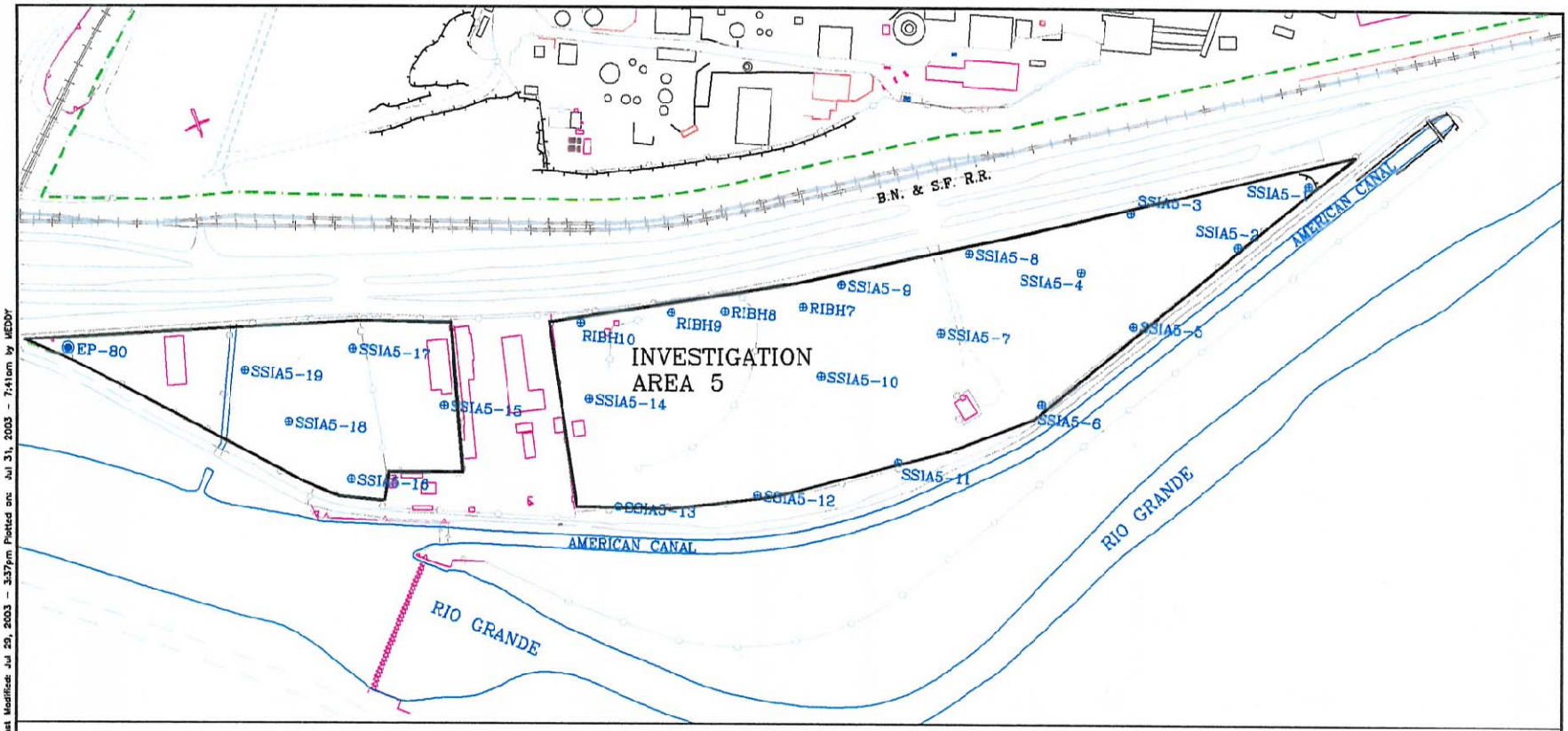

NORTH

SCALE
0 (In Feet) 200
APPROXIMATE

LEGEND

- EP-80 — PHASE I WELL LOCATION
- SSIA5-10 — PHASE I BOREHOLE LOCATION
- PROPERTY BOUNDARY
- INVESTIGATION AREA BOUNDARY

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

INVESTIGATION AREA 5
PHASE I SOIL SAMPLING LOCATIONS

FIGURE
2-4

Drawing Name: i:\1247\ti phase IV\1247v201u422.dwg Last Modified: Jul 29, 2003 - 3:57pm Plotted on: Jul 31, 2003 - 7:41am by MEDbr

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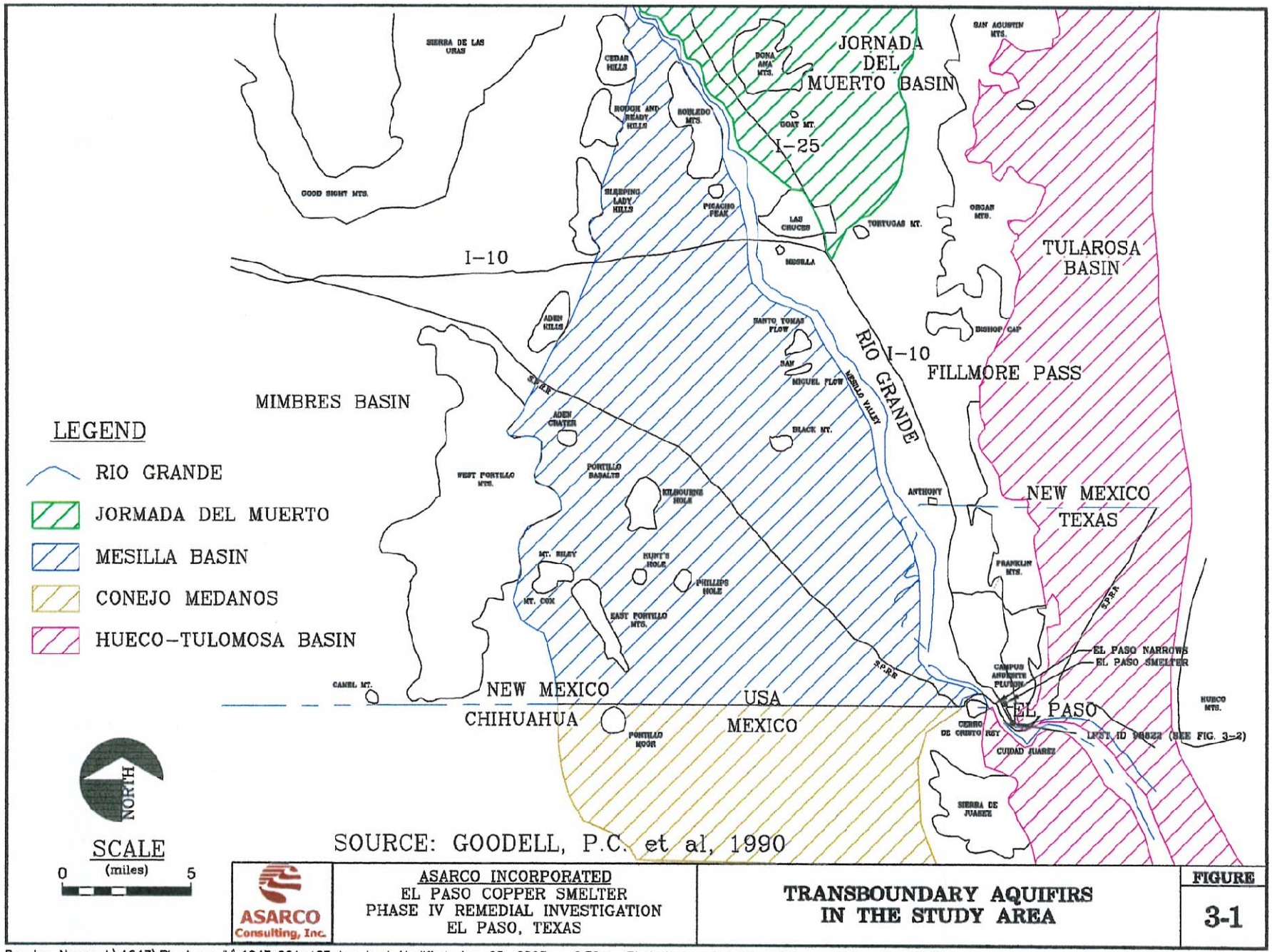

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TRANSBOUNDARY AQUIFIRS IN THE STUDY AREA

FIGURE
3-1

Drawing Name: I:\1247\RI phase IV\1247v201u425.dwg Last Modified: Aug 05, 2003 - 6:52am Plotted on: Oct 15, 2003 - 10:50am by MEDDY

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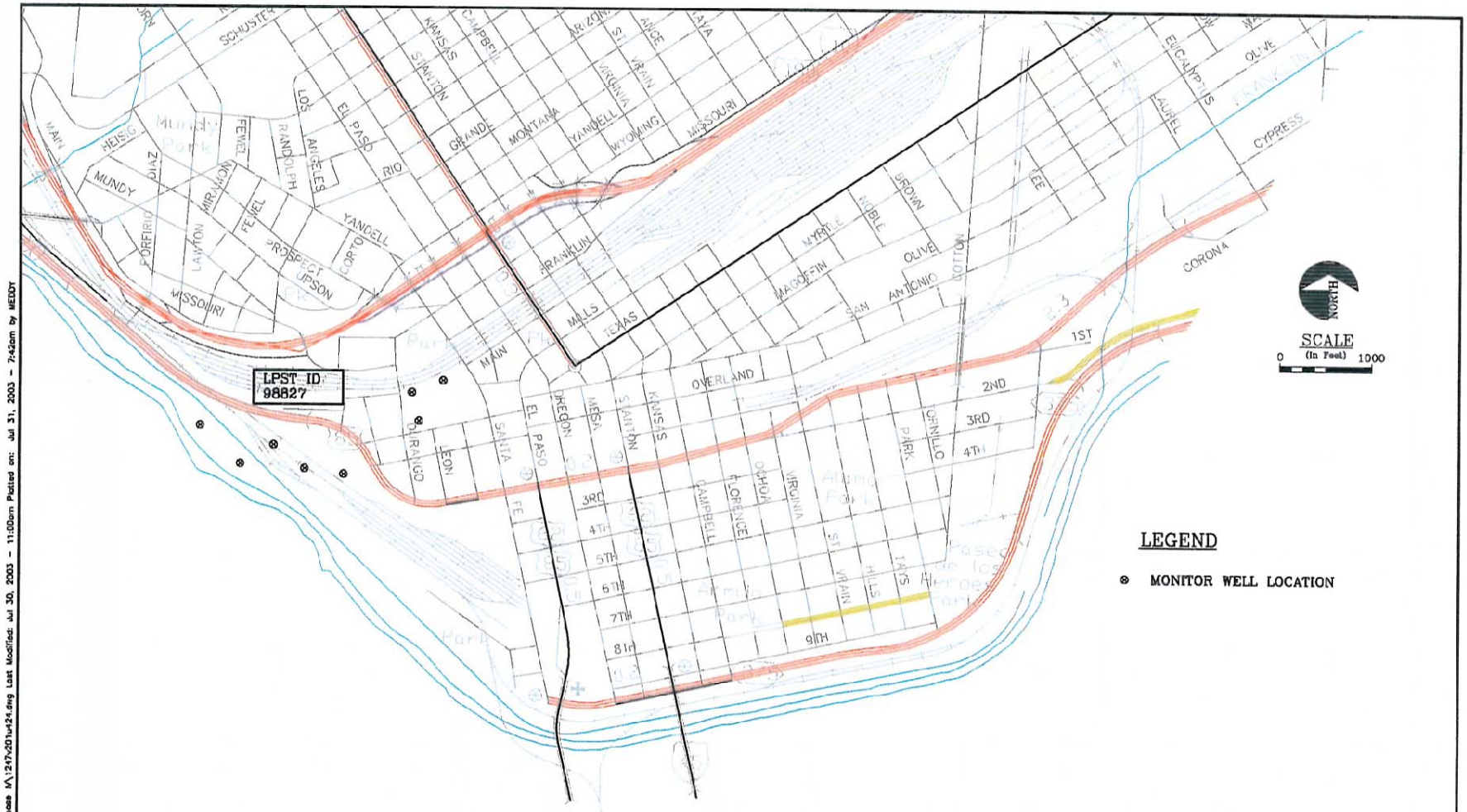

ASARCO Consulting, Inc.	ASARCO INCORPORATED EL PASO COPPER SMELTER PHASE IV REMEDIAL INVESTIGATION EL PASO, TEXAS	SITE LOCATION MAP SUN METRO FLEET MAINTENANCE FACILITY, LPST ID 98827	FIGURE 3-2

Drawing Name: i:\1247\RI phase IV\1247v201u424.dwg Last Modified: Jul 30, 2003 - 11:00am Plotted on: Jul 31, 2003 - 7:42am by MEDDY

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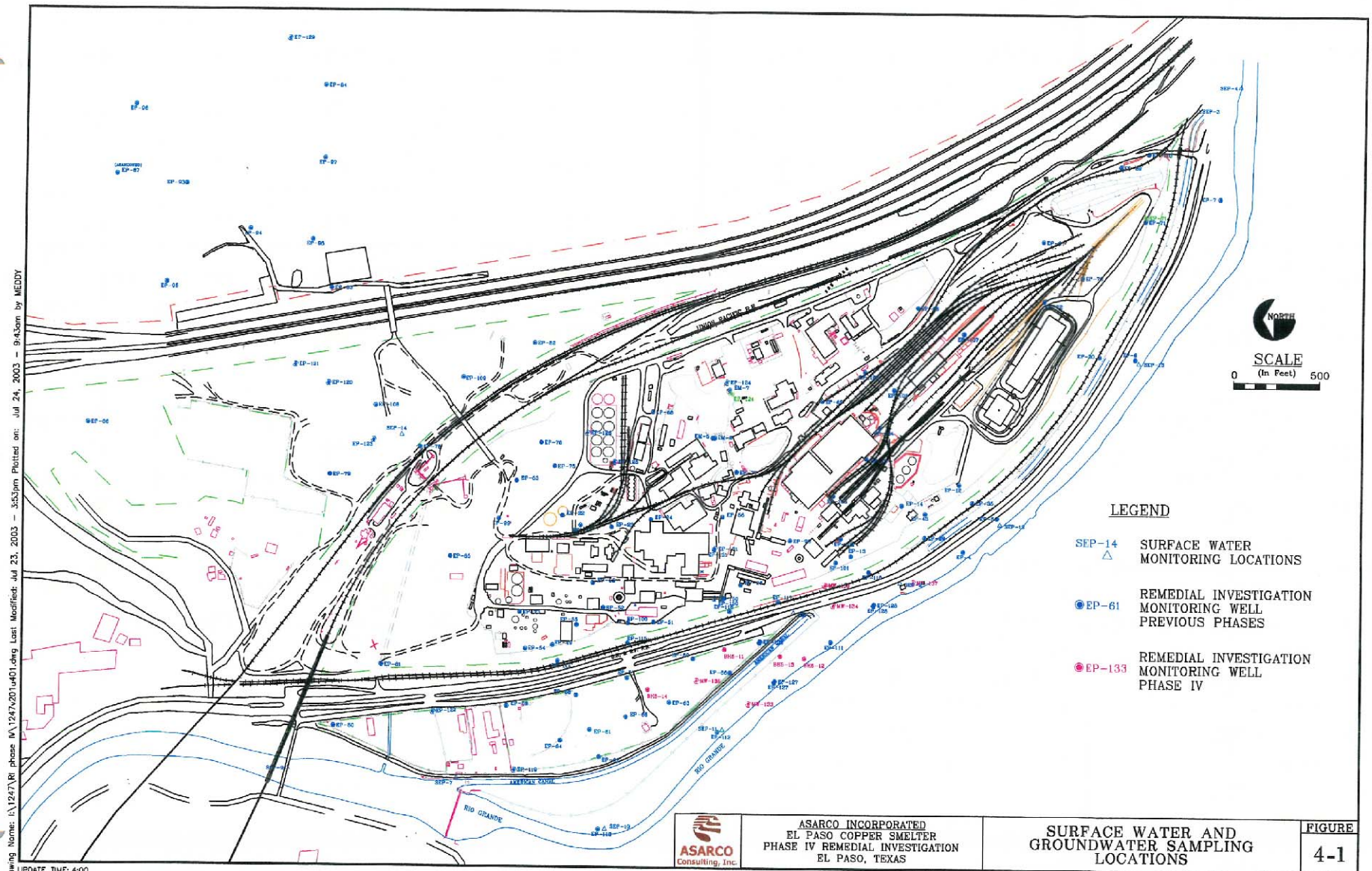
1247V201U424



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

SURFACE WATER AND GROUNDWATER SAMPLING LOCATIONS

FIGURE 4-1

Drawing Name: i:\1247\RI phase IV\1247v201u401.dwg Last Modified: Jul 23, 2003 - 3:53pm Plotted on: Jul 24, 2003 - 9:43am by MEDDY

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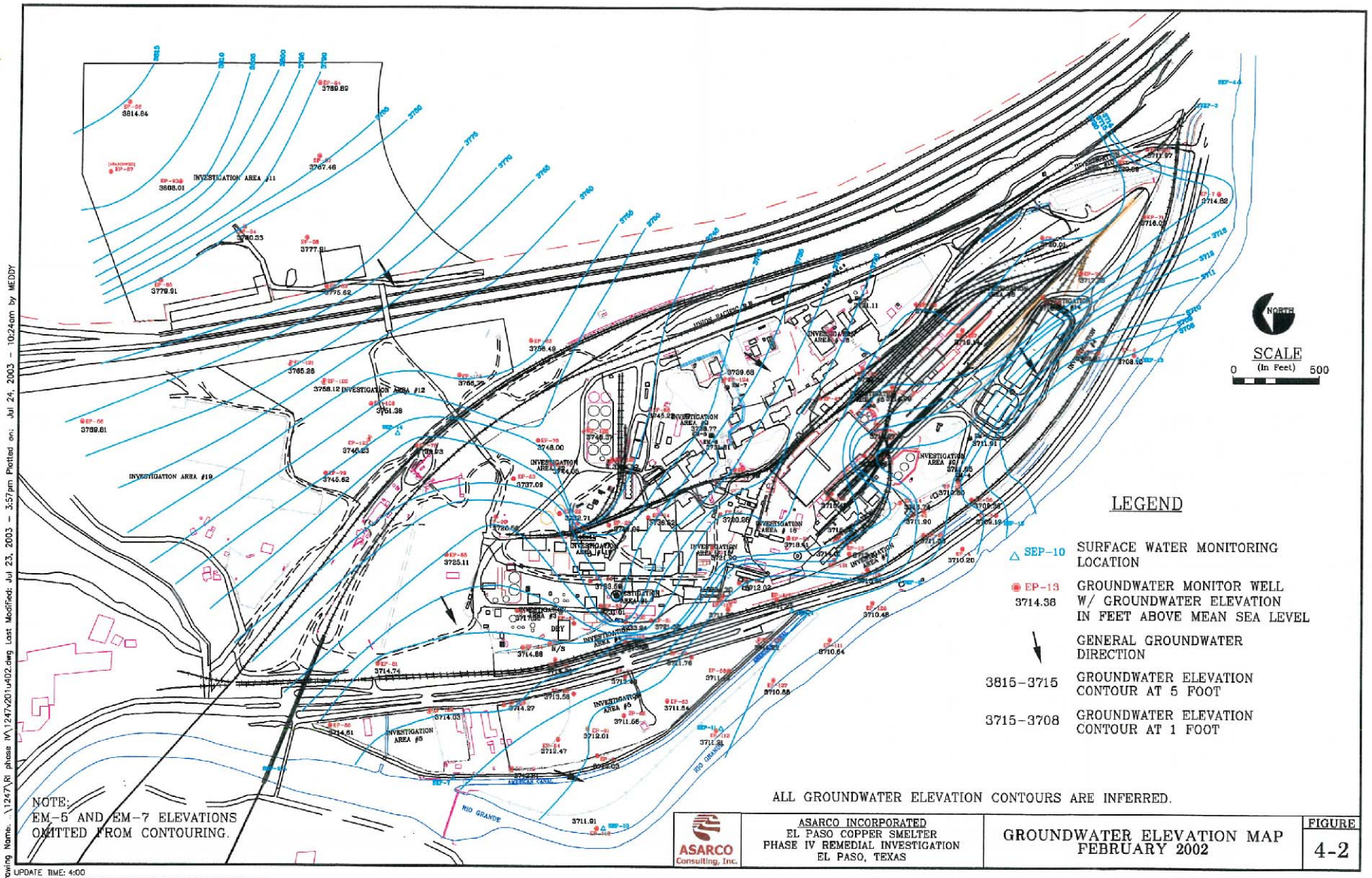

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

GROUNDWATER ELEVATION MAP FEBRUARY 2002

FIGURE 4-2

Drawing Name: \1247\RI phase IV\1247v201u402.dwg Last Modified: Jul 23, 2003 - 3:57pm Plotted on: Jul 24, 2003 - 10:24am by MEDDY

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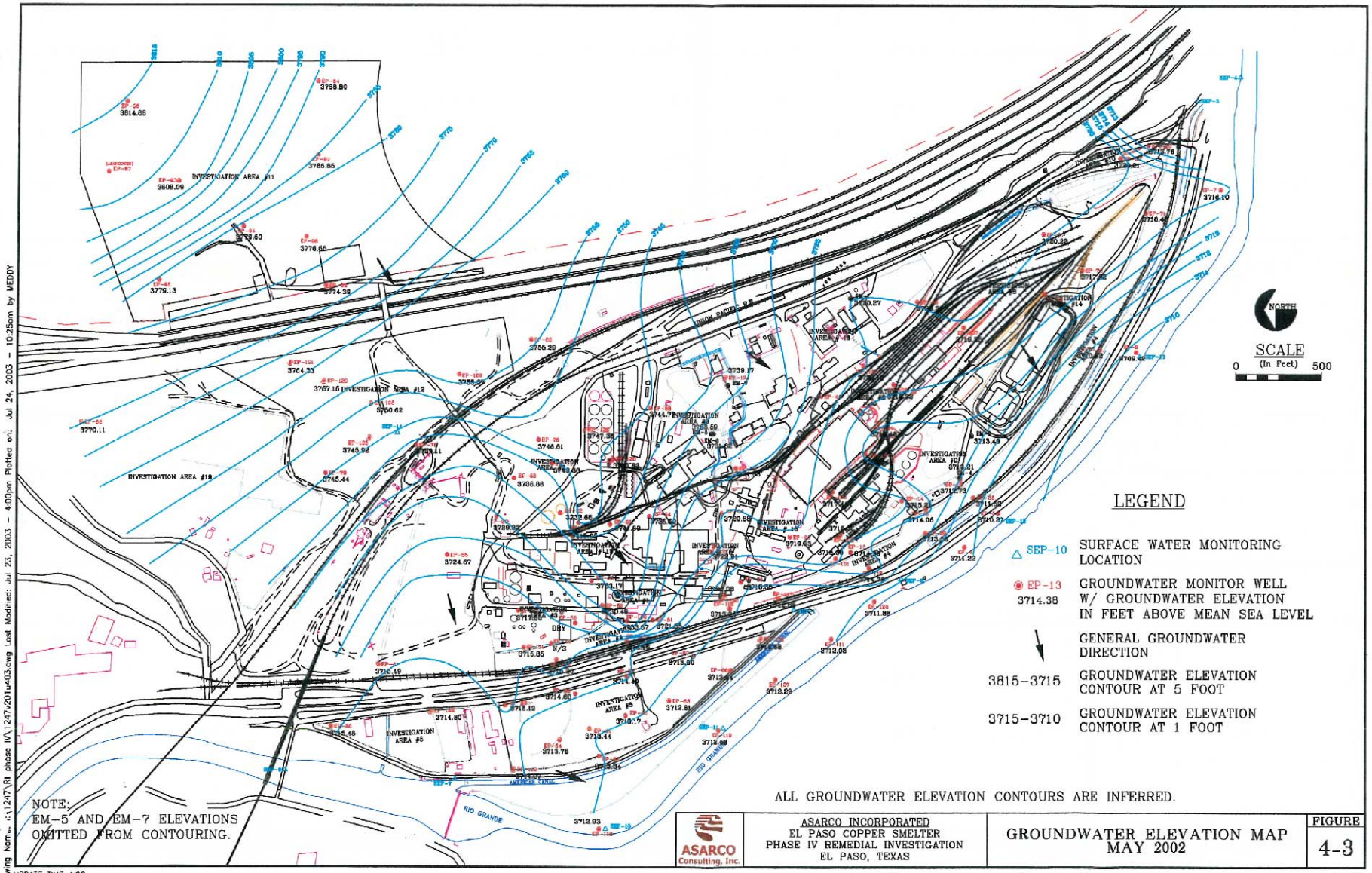

NOTE:
EM-5 AND EM-7 ELEVATIONS OMITTED FROM CONTOURING.

ALL GROUNDWATER ELEVATION CONTOURS ARE INFERRED.

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

GROUNDWATER ELEVATION MAP
MAY 2002

FIGURE
4-3

Drawing Name: c:\1247\RI phase IV\1247v201u403.dwg Last Modified: Jul 23, 2003 - 4:00pm Plotted on: Jul 24, 2003 - 10:25am by MEDDY

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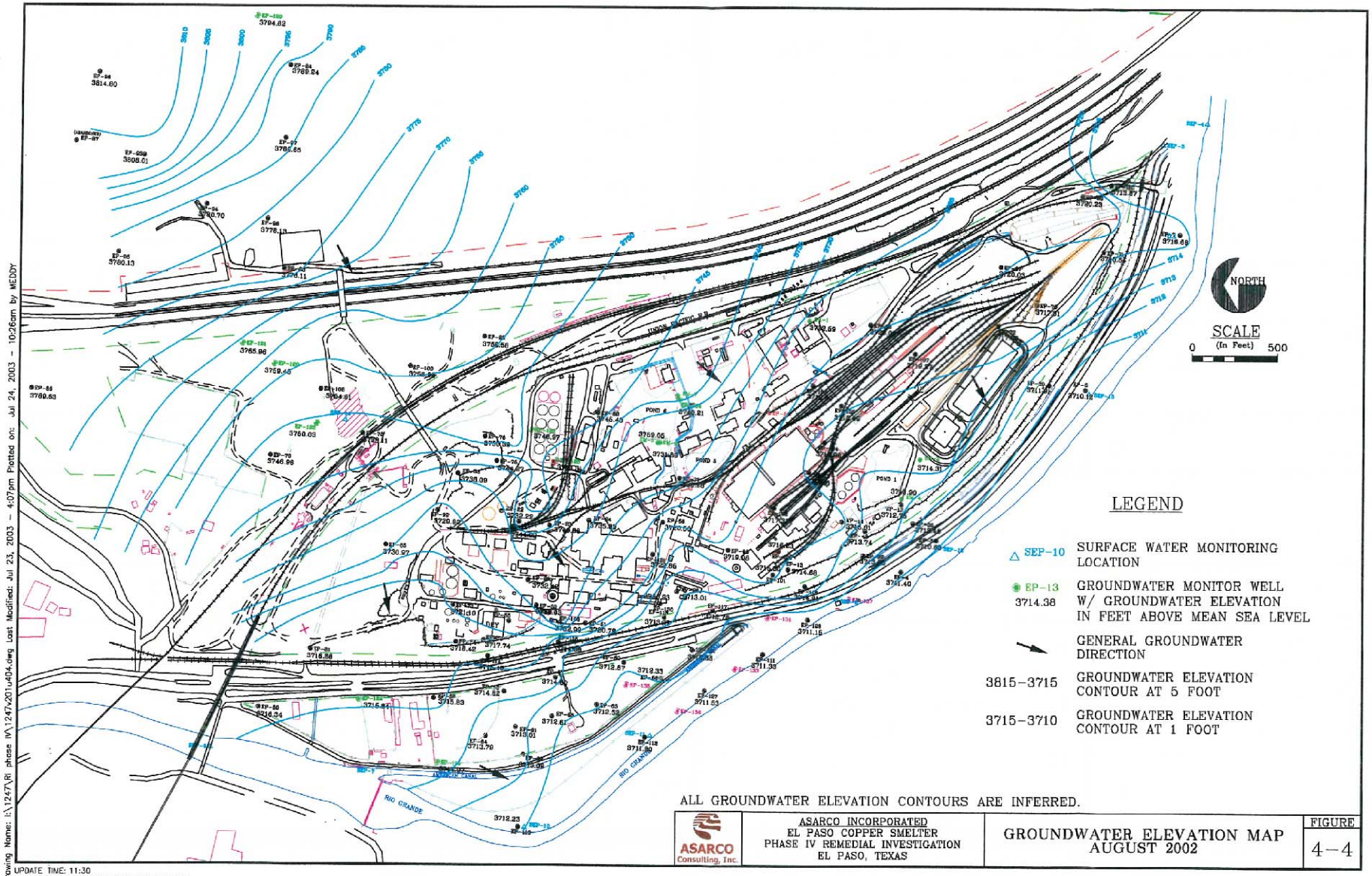

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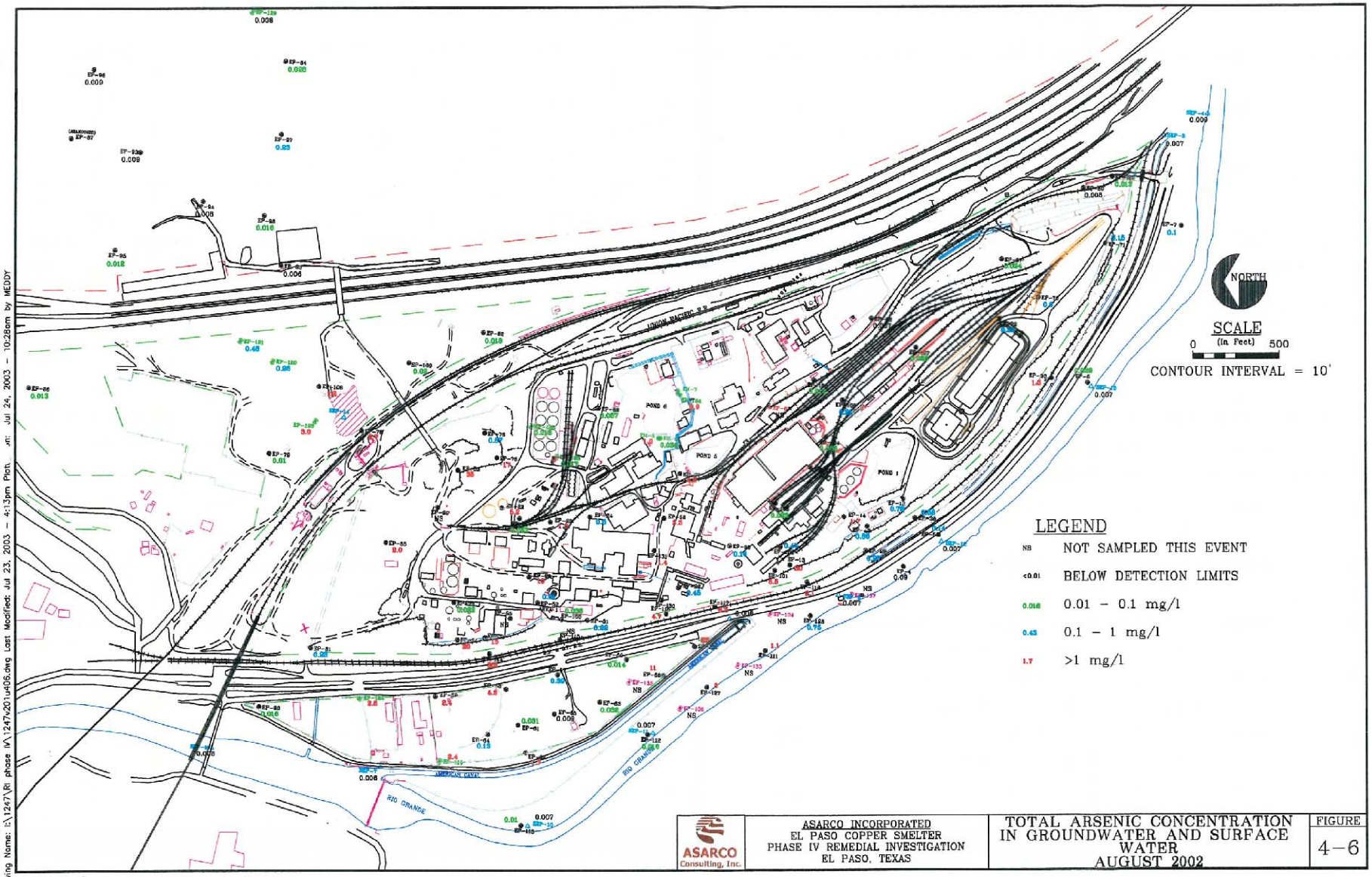
1247V201U404



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL ARSENIC CONCENTRATION IN GROUNDWATER AND SURFACE WATER
AUGUST 2002

FIGURE
4–6

Drawing Name: i:\1247\RI phase IV\1247v201u406.dwg Last Modified: Jul 23, 2003 - 4:13pm Plot: on: Jul 24, 2003 - 10:28am by MEDDY

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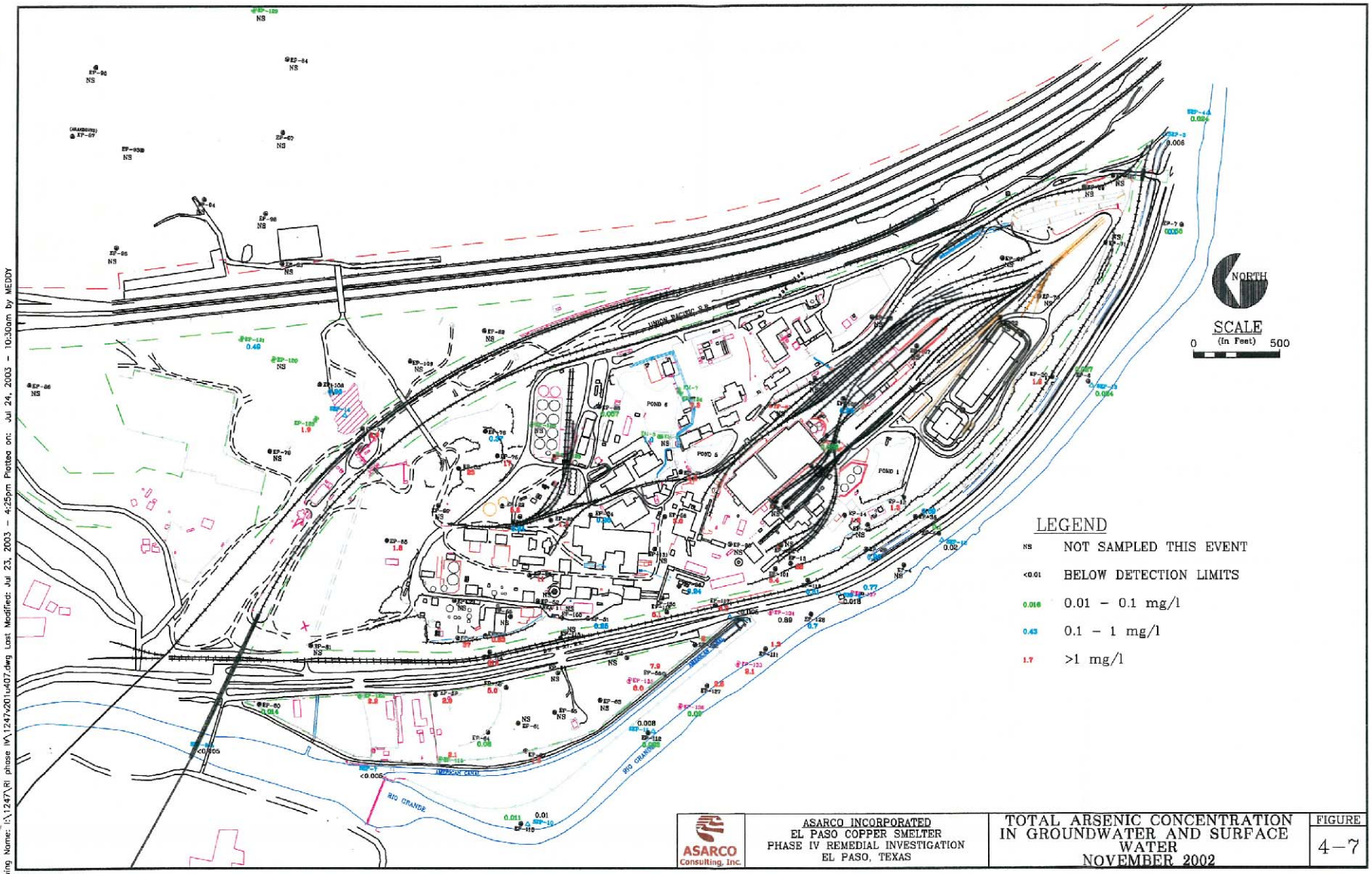
1247v201U406



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL ARSENIC CONCENTRATION IN GROUNDWATER AND SURFACE WATER NOVEMBER 2002

FIGURE 4–7

Drawing Name: I:\1247\RI phase IV\1247v201u407.dwg Last Modified: Jul 23, 2003 - 4:25pm Plotted on: Jul 24, 2003 - 10:30am by MEDDY

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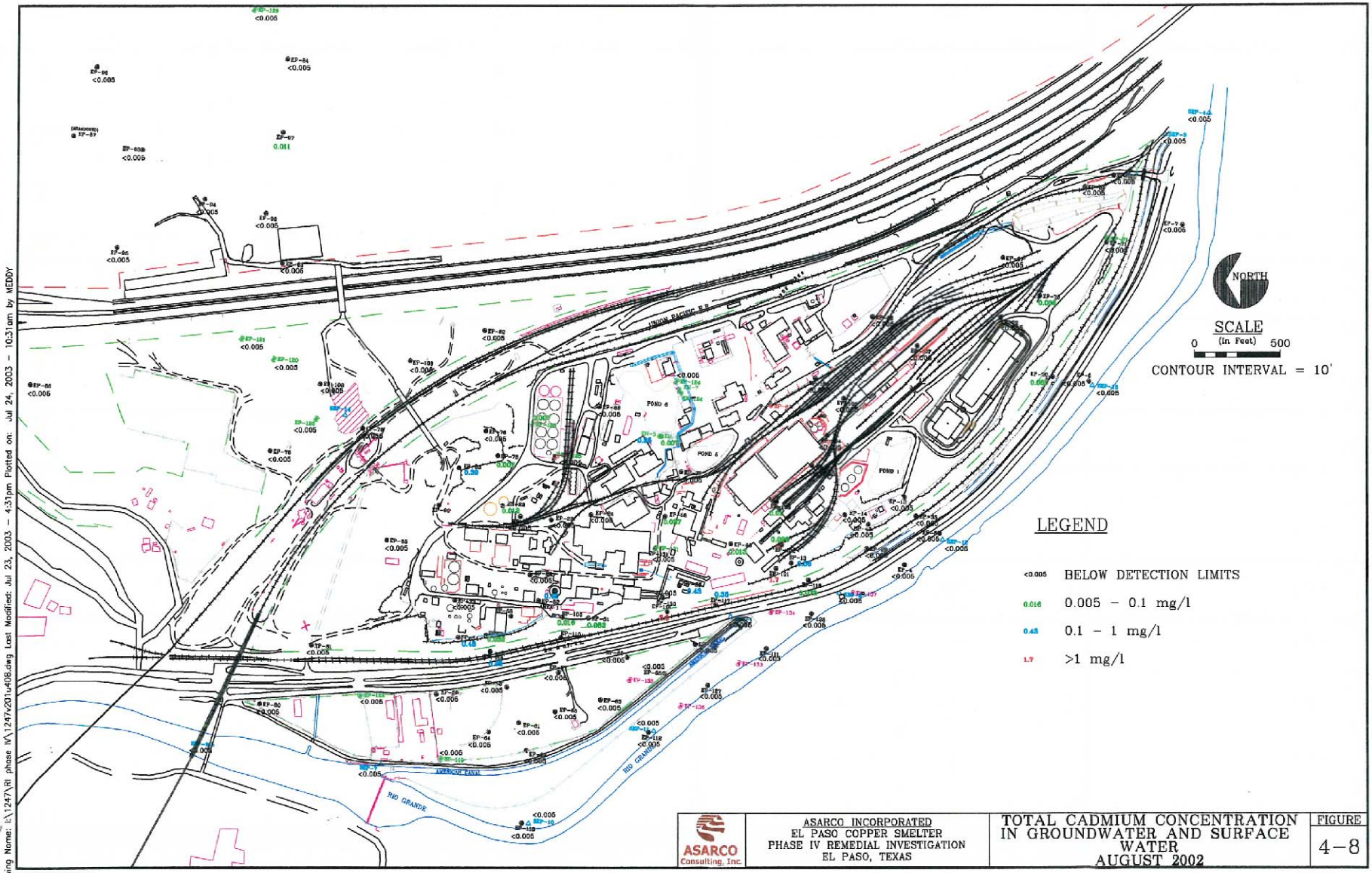

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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL CADMIUM CONCENTRATION IN GROUNDWATER AND SURFACE WATER
AUGUST 2002

FIGURE 4–8

Drawing Name: I:\1247\Ri phase IV\1247v201u408.dwg Last Modified: Jul 23, 2003 – 4:31pm Plotted on: Jul 24, 2003 – 10:31am by MEDDY

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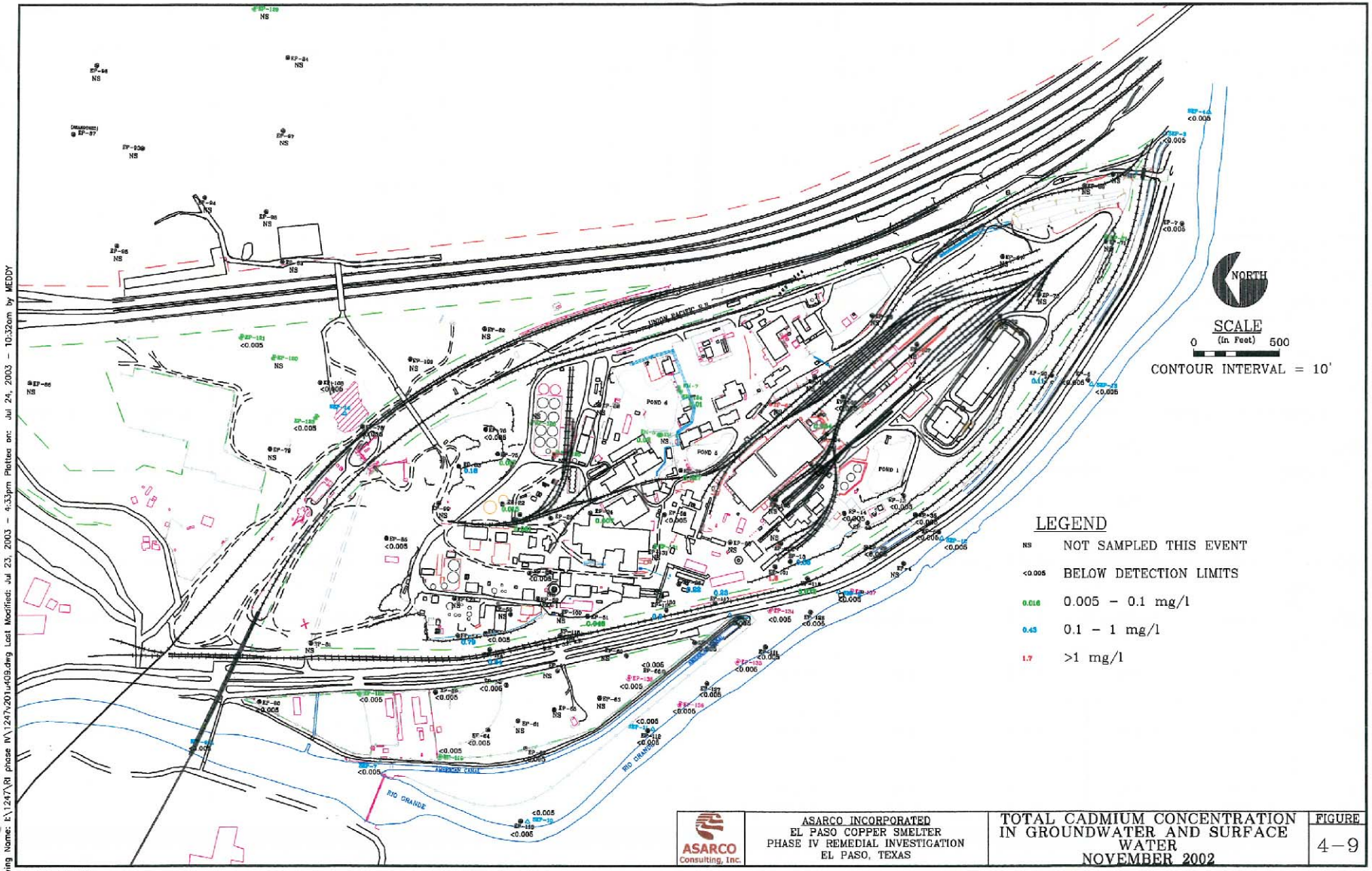
1247V201U408



Drawing Name: E:\1247\RI phase IV\1247v201u409.dwg Last Modified: Jul 23, 2003 - 4:33pm Plotted on: Jul 24, 2003 - 10:32am by MEDDY

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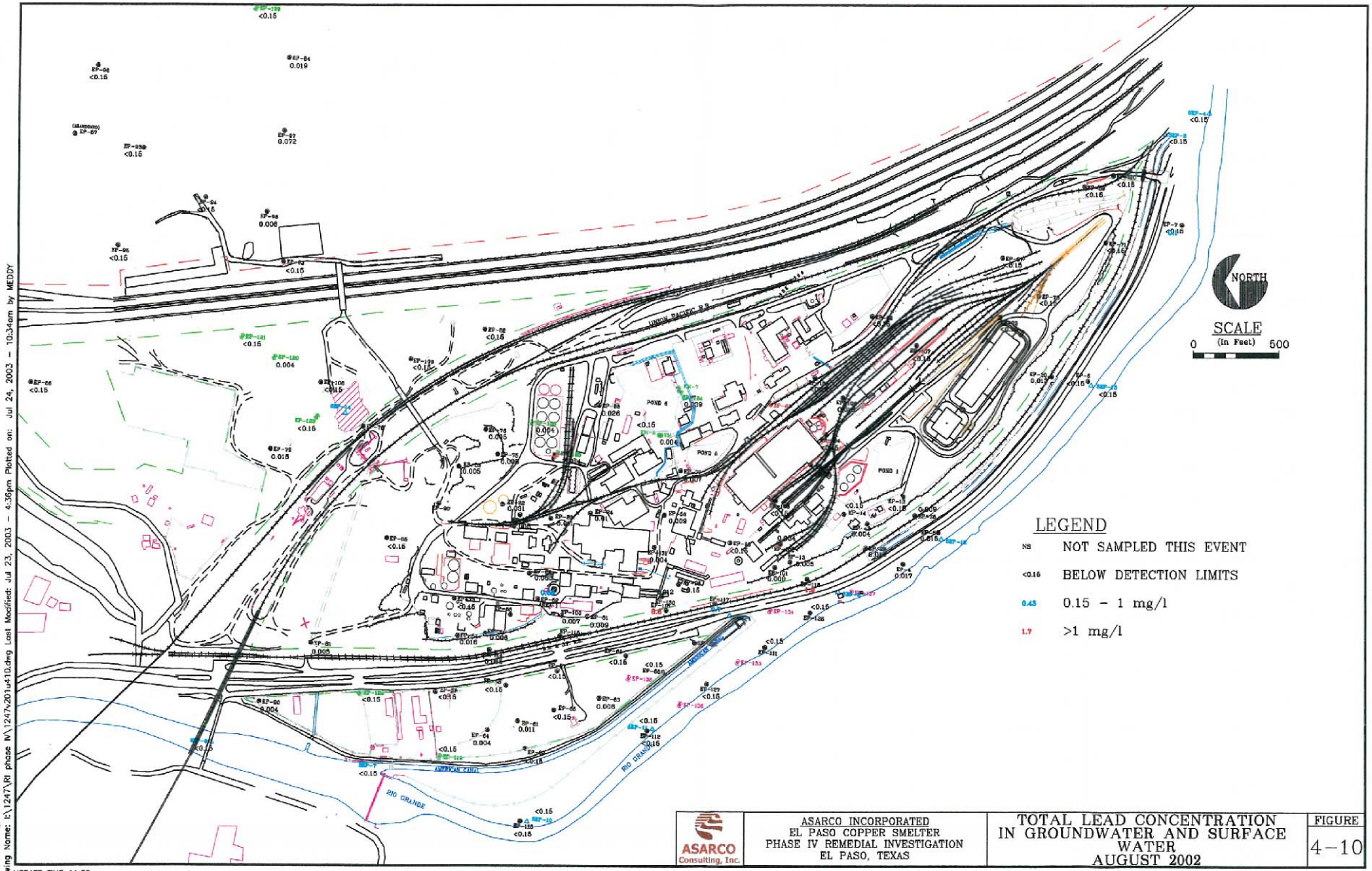
1247V201U409



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL LEAD CONCENTRATION IN GROUNDWATER AND SURFACE WATER
AUGUST 2002

FIGURE 4-10

Drawing Name: I:\1247\RI phase IV\1247v201u410.dwg Last Modified: Jul 23, 2003 - 4:36pm Plotted on: Jul 24, 2003 - 10:34am by MEDOY

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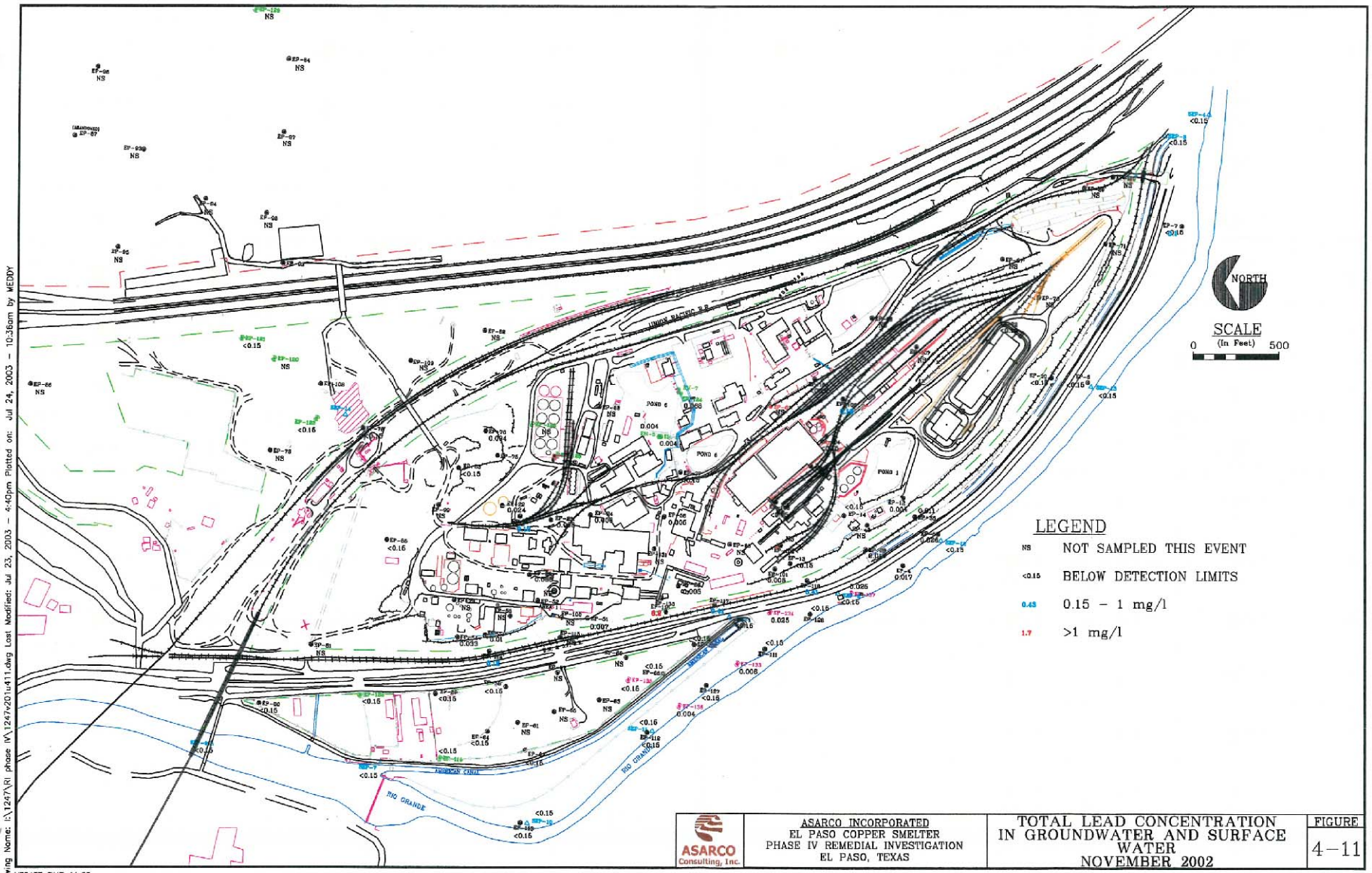
1247V201U410



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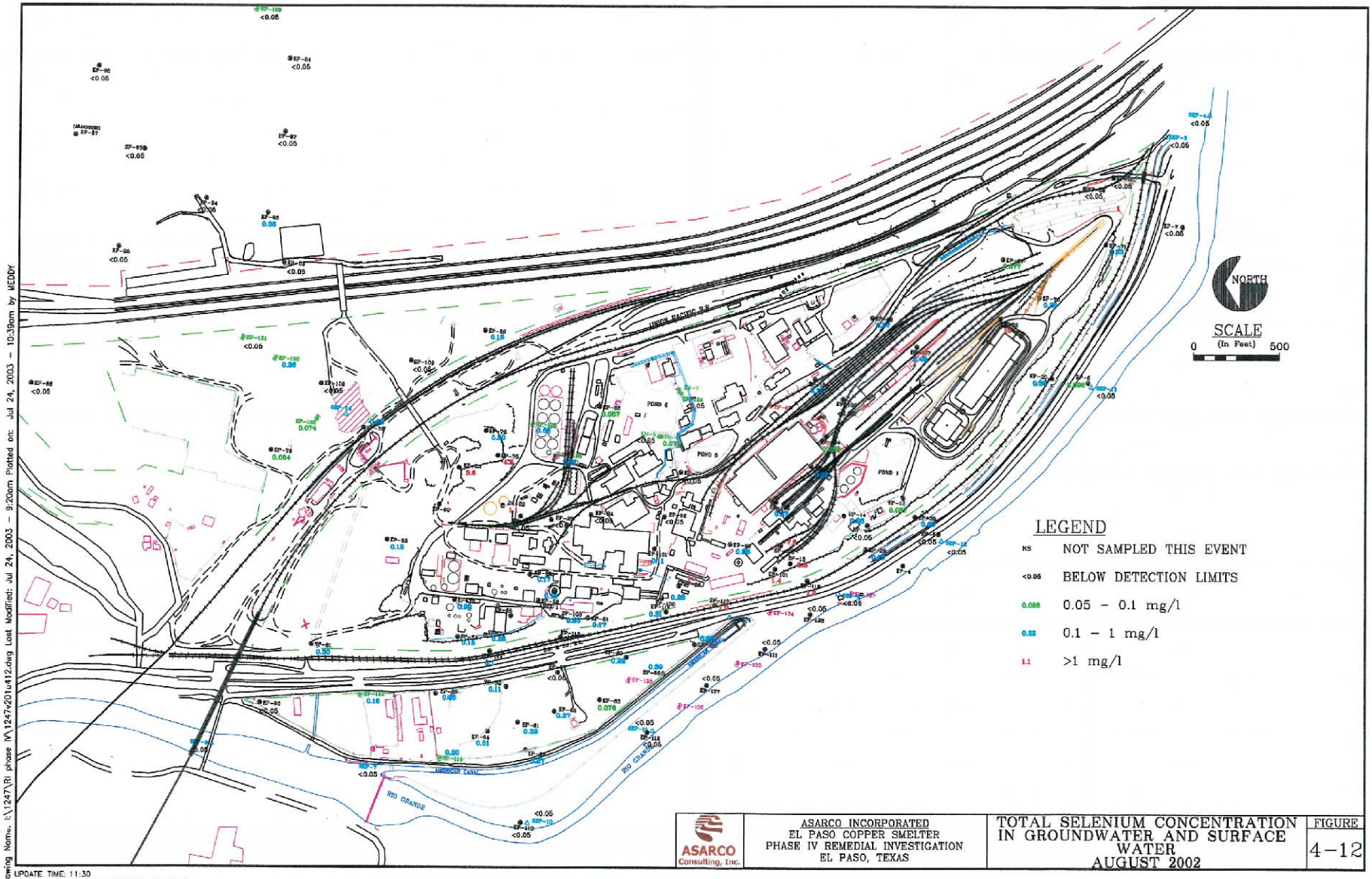
1247V201U411



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL SELENIUM CONCENTRATION IN GROUNDWATER AND SURFACE WATER
AUGUST 2002

FIGURE
4-12

Drawing Name: i:\1247\RI phase IV\1247v201u412.dwg Last Modified: Jul 24, 2003 - 9:20am Plotted on: Jul 24, 2003 - 10:39am by MEDDY

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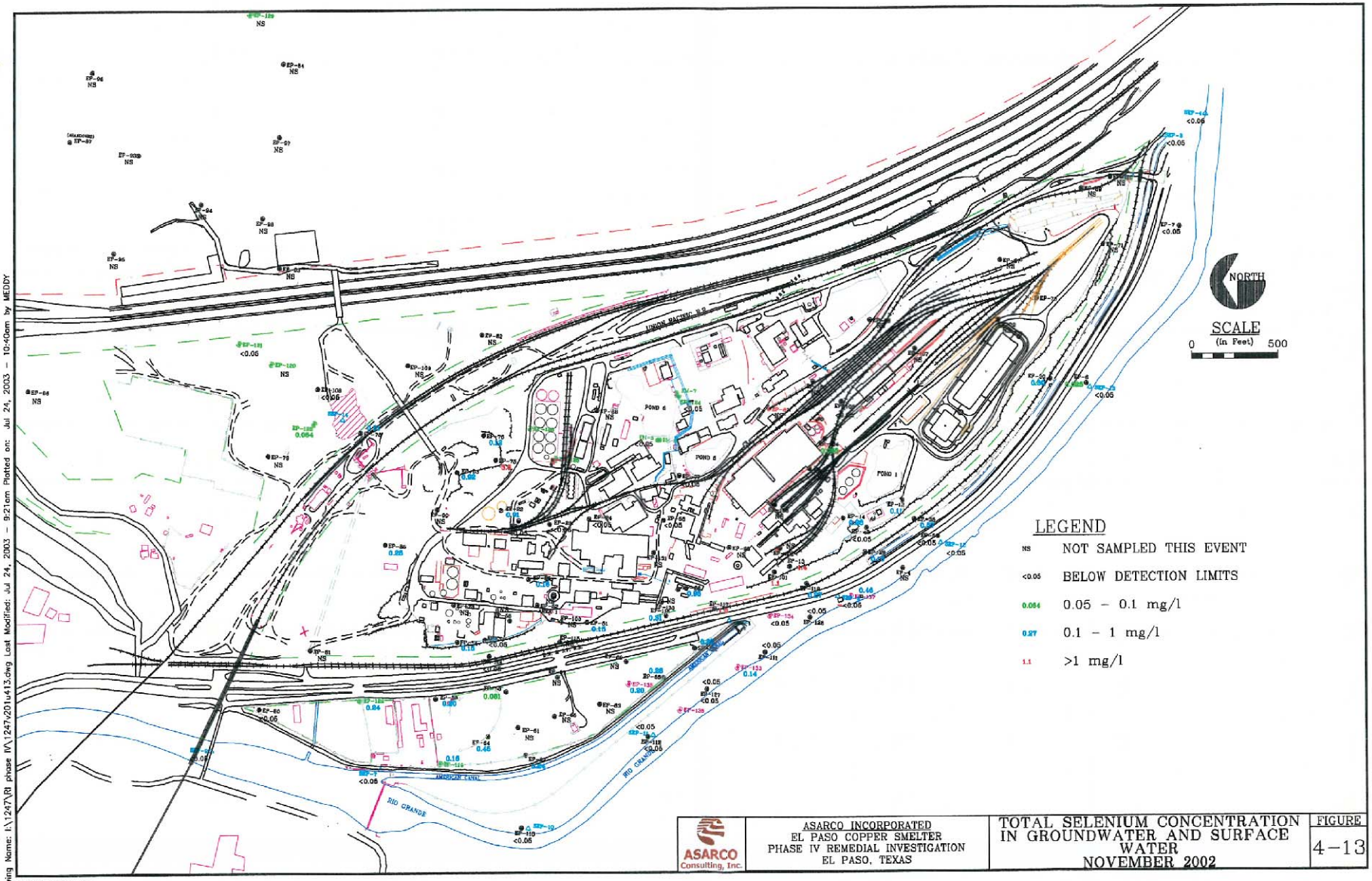
1247V201U412



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PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

TOTAL SELENIUM CONCENTRATION IN GROUNDWATER AND SURFACE WATER
NOVEMBER 2002

FIGURE 4-13

Drawing Name: I:\1247\RI phase IV\1247v201u413.dwg Last Modified: Jul 24, 2003 - 9:21am Plotted on: Jul 24, 2003 - 10:40am by MEDDY

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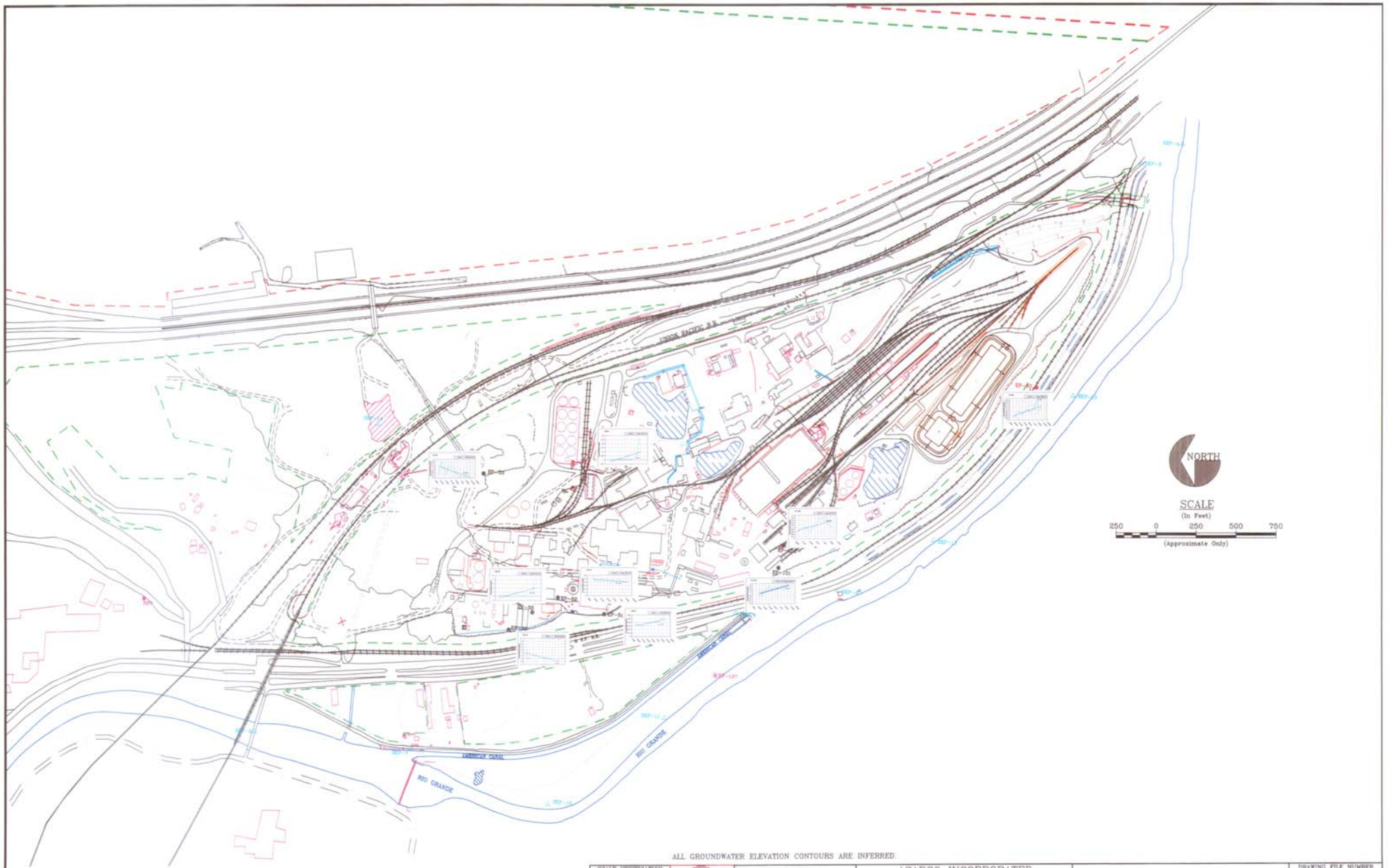
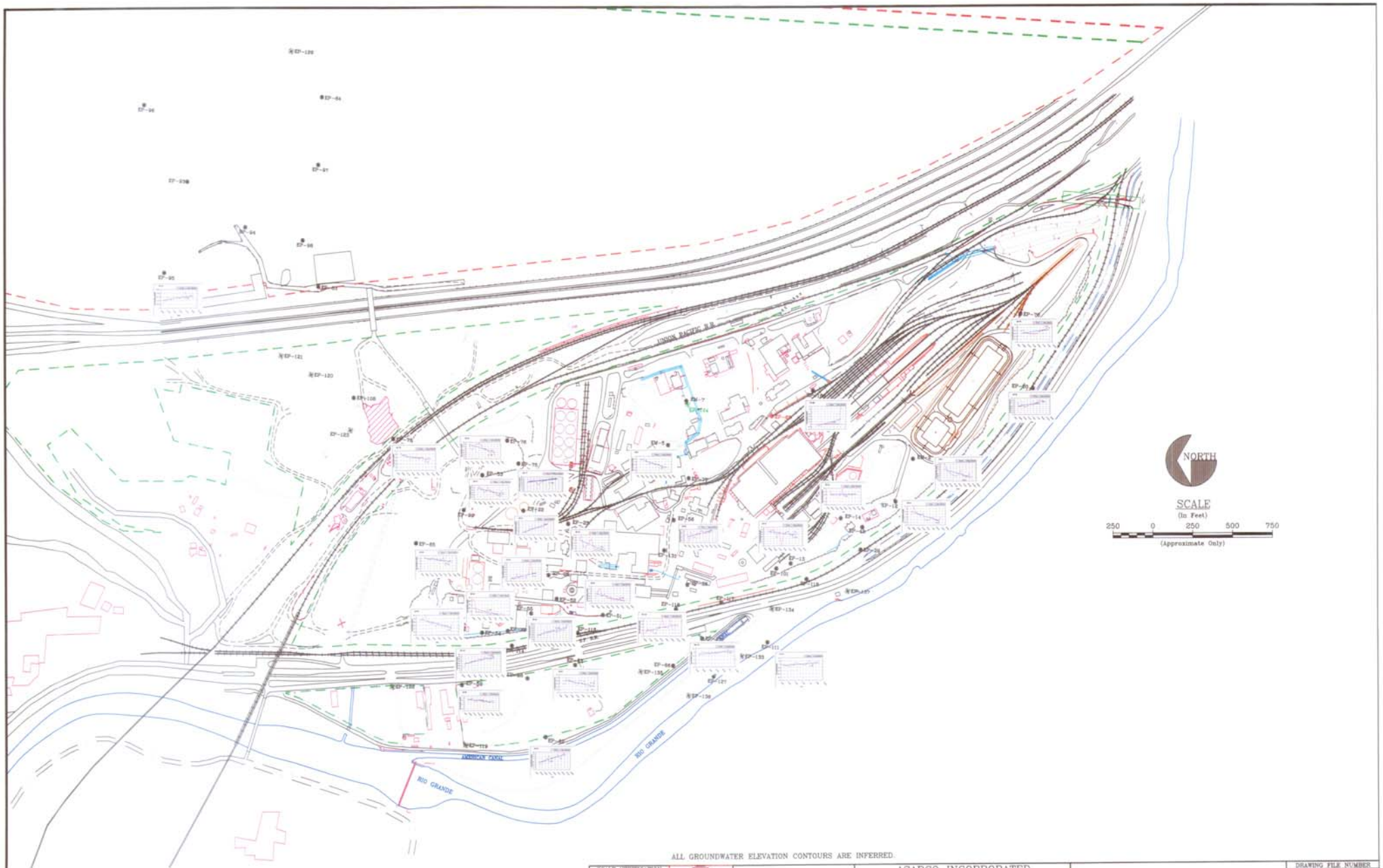


ALL GROUNDWATER ELEVATION CONTOURS ARE INFERRED.

SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ASARCO Consulting, Inc.	Tucson, Arizona 85705 (520) N. 7th Ave. (520) 798-7800	ASARCO INCORPORATED EL PASO COPPER SMELTER PHASE IV REMEDIAL INVESTIGATION EL PASO, TEXAS	CADMIUM TREND MAP	DRAWING FILE NUMBER TUC 1247v201u313 AUTOCAD REL. 00A DRAWING (DWG) EXHIBIT 4



ALL GROUNDWATER ELEVATION CONTOURS ARE INFERRED.

SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ASARCO Consulting, Inc.	Tucson, Arizona 85705 1565 N. 7th Ave. (520) 798-7900	ASARCO INCORPORATED EL PASO COPPER SMELTER PHASE IV REMEDIAL INVESTIGATION EL PASO, TEXAS	ARSENIC TREND MAP	DRAWING FILE NUMBER TUC 1247v201u310 AUTOCAD REL. 200 DRAWING (DWG) EXHIBIT 3

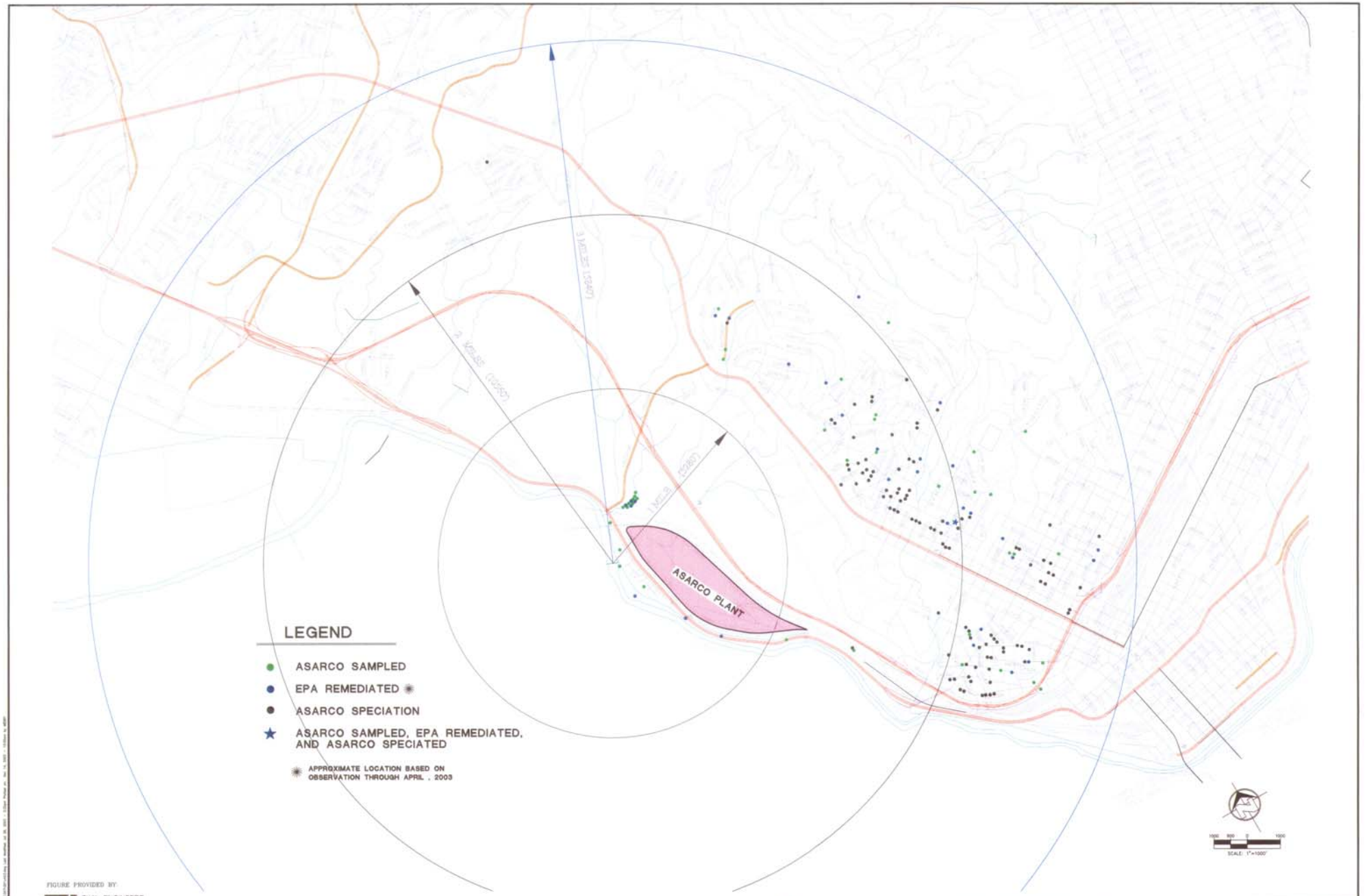


FIGURE PROVIDED BY:

SLI ENGINEERING, INC.
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

ASARCO Consulting, Inc.

Tucson, Arizona 85705

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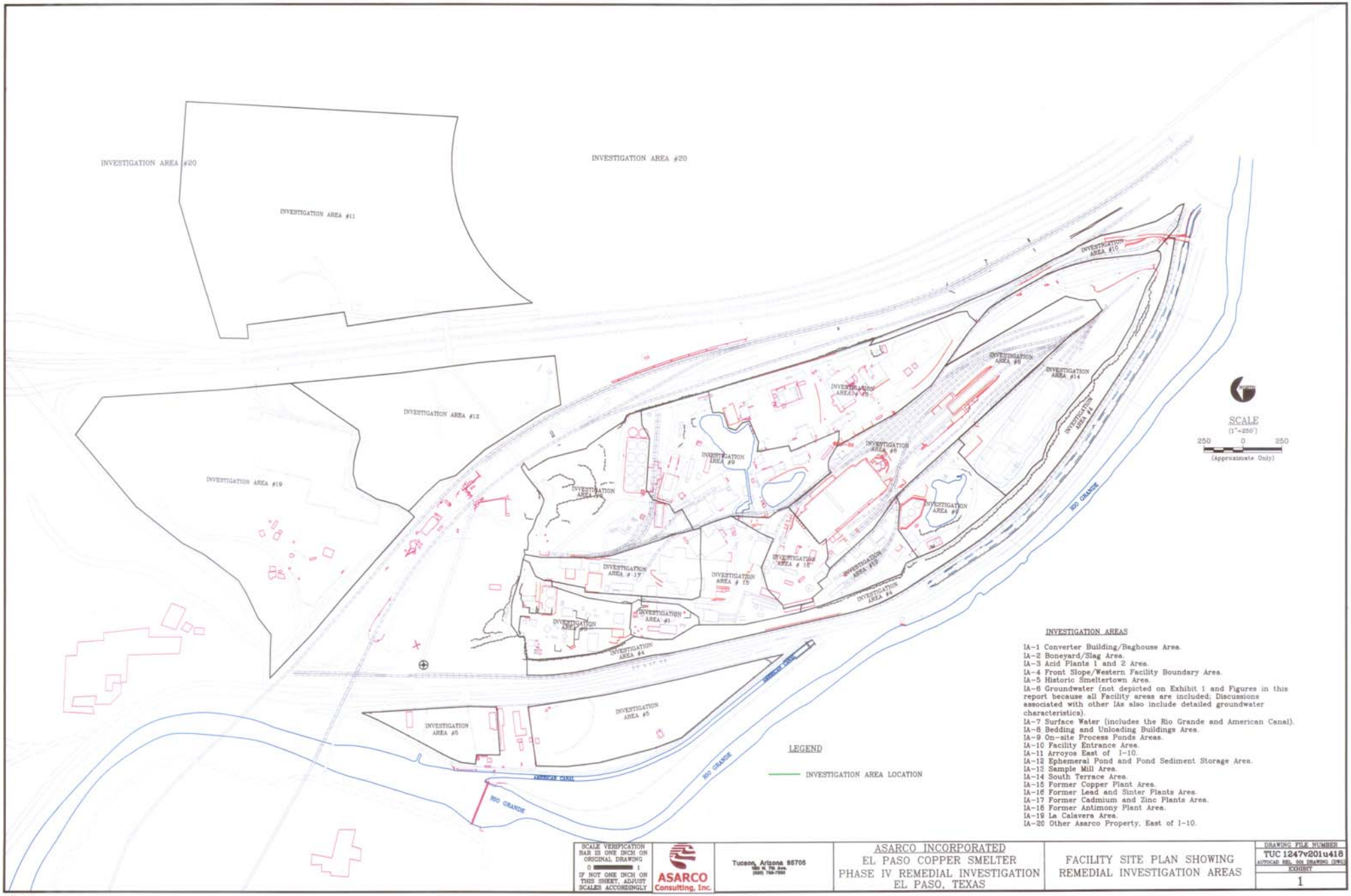
EL PASO COPPER SMELTER
PHASE IV REMEDIAL INVESTIGATION
EL APSO, TEXAS

RESIDENTIAL SOIL
SAMPLING LOCATIONS

DRAWING FILE NUMBER
TUC
AUTOCAD REL. OR DRAWING (DWG)
EXHIBIT
2



INVESTIGATION AREAS

IA-1 Converter Building/Baghouse Area.
IA-2 Boneyard/Slag Area.
IA-3 Acid Plants 1 and 2 Area.
IA-4 Front Slope/Western Facility Boundary Area.
IA-5 Historic Smeltertown Area.
IA-6 Groundwater (not depicted on Exhibit 1 and Figures in this report because all Facility areas are included; Discussions associated with other IAs also include detailed groundwater characteristics).
IA-7 Surface Water (includes the Rio Grande and American Canal).
IA-8 Bedding and Unloading Buildings Area.
IA-9 On-site Process Ponds Areas.
IA-10 Facility Entrance Area.
IA-11 Arroyos East of I-10.
IA-12 Ephemeral Pond and Pond Sediment Storage Area.
IA-13 Sample Mill Area.
IA-14 South Terrace Area.
IA-15 Former Copper Plant Area.
IA-16 Former Lead and Sinter Plants Area.
IA-17 Former Cadmium and Zinc Plants Area.
IA-18 Former Antimony Plant Area.
IA-19 La Calavera Area.
IA-20 Other Asarco Property, East of I-10.

SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING
0 1
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

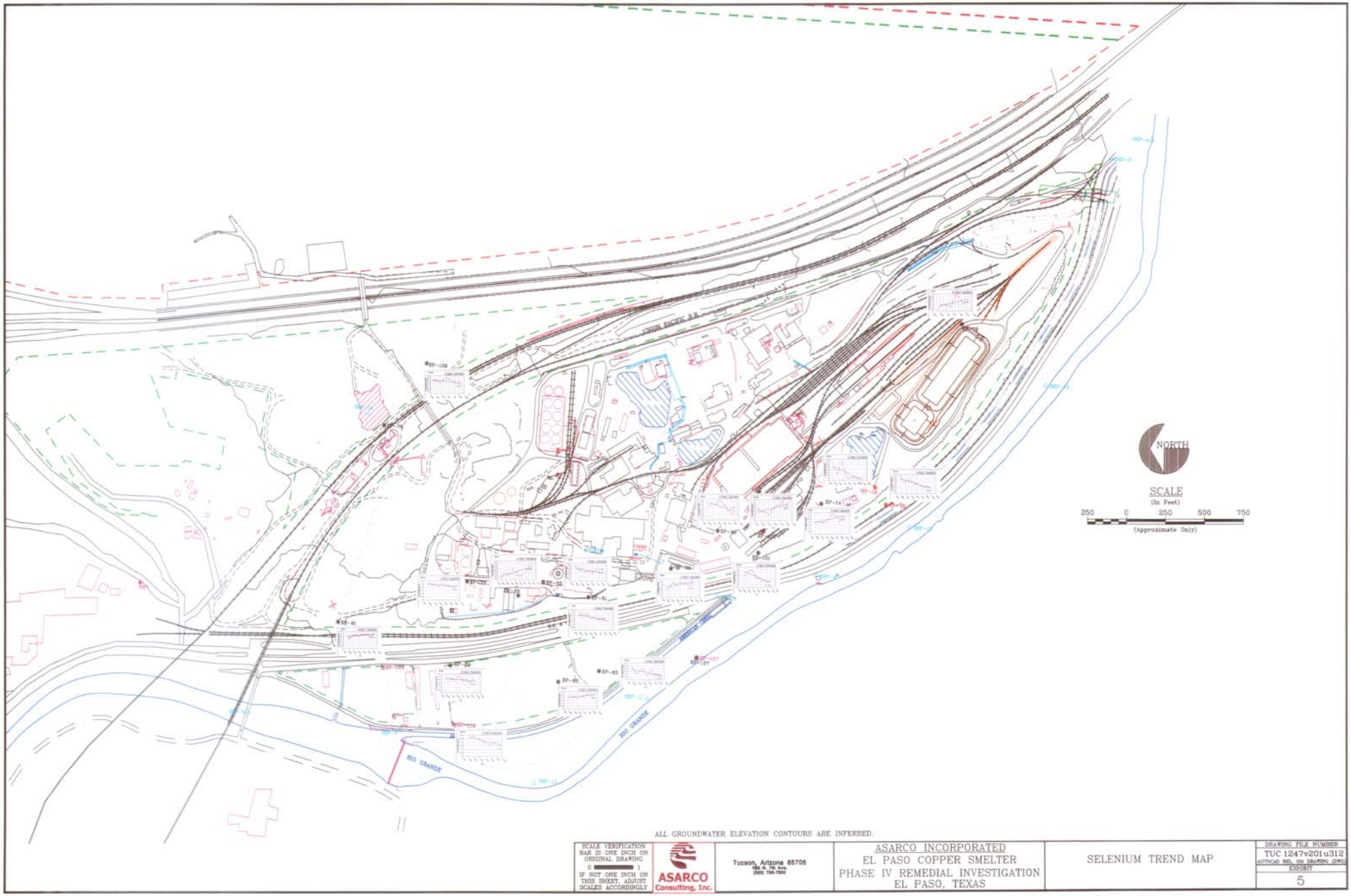
ASARCO Consulting, Inc.

Tucson, Arizona 85705
(520) 798-7565

ASARCO INCORPORATED
EL PASO COPPER SMELTER
PHASE IV REMEDIAL INVESTIGATION
EL PASO, TEXAS

FACILITY SITE PLAN SHOWING
REMEDIAL INVESTIGATION AREAS

DRAWING FILE NUMBER
TUC 1247v201u418
AUTOCAD REL. 200 DRAWING (DWG)
EXHIBIT
1



ALL GROUNDWATER ELEVATION CONTOURS ARE INFERRED.

SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ASARCO Consulting, Inc.	Tucson, Arizona 85705 1565 N. 7th Ave. (520) 798-7500	ASARCO INCORPORATED EL PASO COPPER SMELTER PHASE IV REMEDIAL INVESTIGATION EL PASO, TEXAS	SELENIUM TREND MAP	DRAWING FILE NUMBER TUC 1247v201u312 AUTOCAD REL. 200 DRAWING (DWG) EXHIBIT 5