AP - 001

STAGE 1 & 2 REPORTS

DATE:

Sept. 22, 1989

Date: September 22, 1989
Prepared by: Amy Childers Lewis
New Mexico Environmental Improvement Division
Site Name: El Paso Products
Site Street Address: 3010 McNutt Rd
Sunland Park, Dona Ana County
New Mexico 88063
EPA ID: NMD980622757
TDD #: F-6-8205-43

I. INTRODUCTION

El Paso Products is an old oil refinery which is located on the border of New Mexico and Texas, near El Paso. Complaints from an adjacent land owner brought the site to our attention. El Paso Products Co. changed its name to Rexene Products Company, however, the site is referred to as El Paso Products.

A. Site Description/Site History

El Paso Products site (approximately 30 acres in area) is located adjacent to the Rio Grande, approximately two miles northwest of El Paso (see Fig 1). From the early 1930s until 1956 the site, known as the Brickland Refinery, was operated as a crude oil refinery and owned by Mr. McNutt. In 1956, El Paso Products purchased the property and operated the refinery until 1958. The property remained unoccupied from 1959 until 1967 when 2/3 of the land was leased to a transportation company for hauling grocery products, and the remaining 1/3 was leased to an auto salvage company. El Paso Products, now called Rexene Products Company, no longer subleases the land and the only authorized operation on site is the dismantling of buildings. The northern portion of the property is used for unauthorized dumping of construction debris (see photos 1,4, and 5).

On June 7, 1986 a train derailed adjacent to the property (see photo 7). One car carried approximately 100 drums of metatoluene diamine and another tanker carried butyl acrylate. Only one drum had a leak, which was insignificant, and the butyl acrylate tanker leaked at a rate of one gallon per hour. The spilled butyl acrylate formed a solid when spilled and no adverse impact to the environment was projected.

Several years ago, Rexene authorized dredgings from the Rio Grande to be deposited in the southern portion of the property.

B. Summary of the Preliminary Assessment

The Preliminary Assessment completed on June 17, 1982 identified the property owner and the activities present at the site. During the FIT inspection, no evidence of "improper handling/storage or disposal of wastes was observed." However, no samples were collected and very little information was included in the PA. Waste characteristics, route

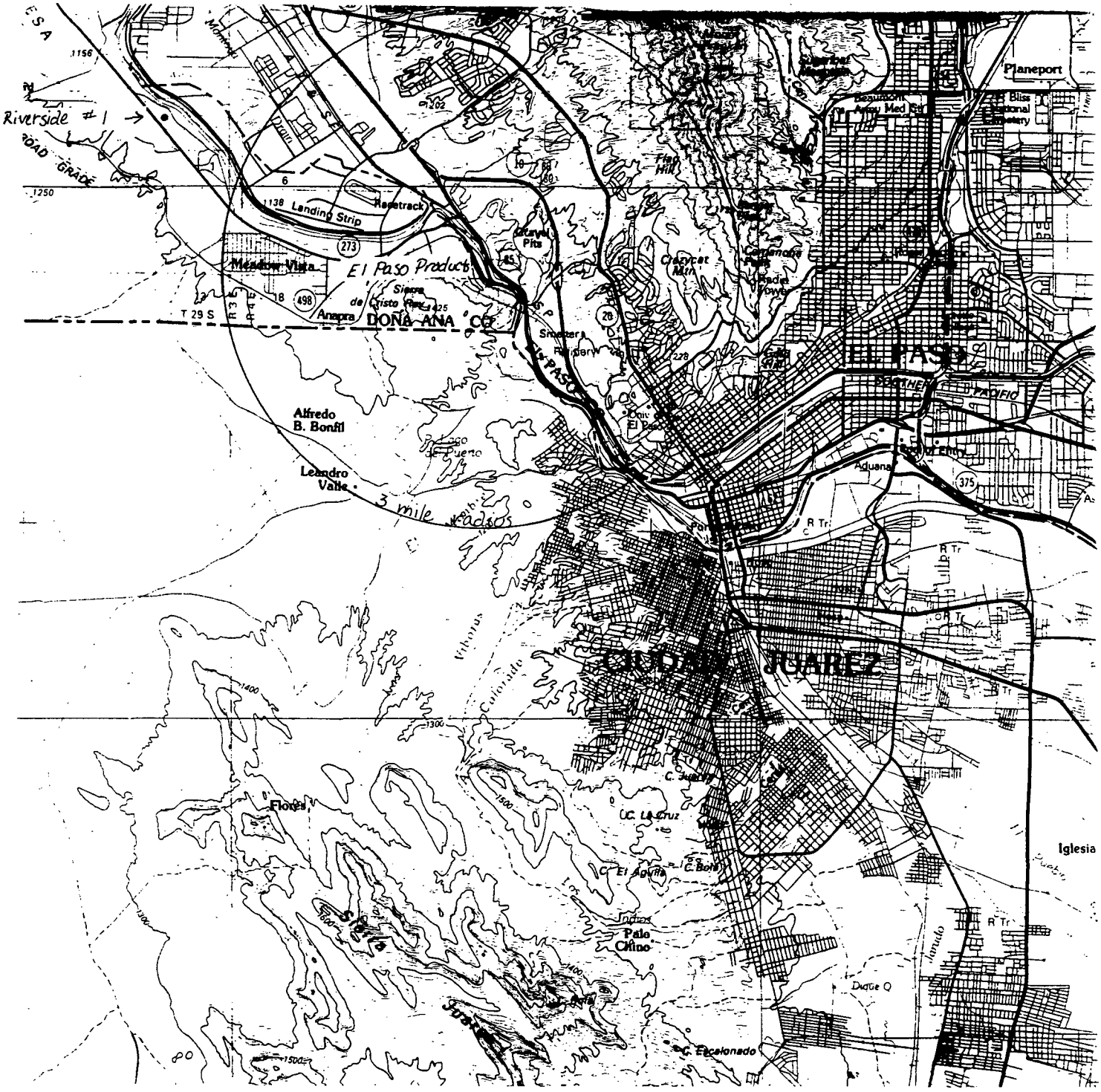


Fig 1. Location map of El Paso Products and vicinity.

characteristics, and targets were not defined for any migration pathway (see the Narrative Summary prepared March 29, 1989, which describes the data gaps.)

C. Goals of the Screening Site Inspection

The file on El Paso Products has been reopened due to complaints from an adjacent land owner who claims that his shade trees, healthy until a few years ago, have died. He also reported uncontrolled dumping on the old refinery property.

A primary goal of the Screening Site Inspection is to determine if the death of the trees on the adjacent property, or other environmental impacts are a result of hazardous waste disposal on the refinery property. The existence of a large population dependent on surface water, downstream of the site, warranted a thorough investigation of any hazardous substances that might be present on site.

D. Project Management / Key Personnel

The Screening Site Inspection was conducted by the New Mexico Environmental Improvement Division under the authority of a Multi-Site Cooperative Agreement with the United States Environmental Protection Agency, Region VI. The Superfund program at NMEID is managed by Steven J. Cary and the project manager for this site is Amy C. Lewis.

II. DATA COLLECTION

A. On Site Reconnaissance Inspection

On April 12, 1989 Amy Lewis and Paul Karas conducted a Reconnaissance Inspection. This inspection involved interviewing the adjacent land owner, Joe Canales, sampling the ground water beneath his property, and observing the old refinery property from the adjacent road.

Joe Canales has lived at 3314 McNutt Rd for the last ten years, and operates Pick-A-Part Auto Salvage on his property. Wrecked cars and miscellaneous equipment are stored on his property (see photo 6), but no continual discharge or storage of hazardous waste was evident on his property. Immediately south of his property, on the El Paso Products site, is extensive dumping of construction debris (see photos 1, 4 and 5).

Mr. Canales said his trees began dying about five years ago. He had several large cottonwood trees and had planted several ponderosa pine trees which have died. Mr Canales said that he observed the train derailment in 1986 and does not think it is responsible for killing his trees because they began to die prior to the derailment.

Mr. Canales does not have a well, but receives his water from a city system, as do most residents (according to Mr. Canales). This investigation has not determined how long residences have been supplied by a city system, and what the source or drinking water was prior to the system.

Two ground water samples were collected via hand auger holes (depth to water is less than three feet). One was located on the west side of his property and the other was located south of Mr Canales home, in the vicinity of the area used for dumping of construction debris (see Figure 4 and Photos 3 and 4). Both samples were collected "up stream", and most likely upgradient, of the refinery. These samples were collected as part of the reconnaissance inspection because they were easily obtainable and would answer the primary question concerning the site (i.e. are hazardous constituents in the ground water which may be responsible for the death of his trees?).

The samples were collected from the uncased auger holes using a PVC bailer. The samples were filtered for heavy metals analyses and general chemistry, and non-filtered for the aromatic and halogenated purgeables analysis. Total metals analysis was not run do to the high turbidity of the samples. Samples were submitted to the New Mexico Scientific Laboratory Division. Please refer to the NMEID Standard Operating Procedure for details on sample preservation and filtering. The depth to water was measured, as well as the conductivity and temperature.

Photos 1 and 2 show the current condition of the property.

Table 5 shows the analytical results of ground water samples collected from the auger holes. No aromatic or halogenated purgeables were detected in either sample. The water has a very high total dissolved solids concentration, ranging from 15,300 to 16,170 mg/L. The high salt concentration is predominately sodium

chloride. The ground adjacent to the river has a salt deposit on the surface throughout the Sunland Park - El Paso area (see Photo 6).

The El Paso Products site is surrounded with a chain link fence which is broken in some areas. Access on foot is subsequently not prohibited, however vehicular access requires unlocking property gates.

Review of air photos from 1946 and 1967 indicate the presence of lagoons which were used in the refinery process which may have contained hazardous wastes. These lagoons are not evident today because dredgings from the Rio Grande were deposited on the property, covering the lagoons. Several unidentified drums were on the old refinery property. Any waste present on site are not contained with respect to surface water, since several outfalls drain the property, and probably not with respect to ground water either, since depth to water is less than 3 feet.

Due to high salinity, ground water is not used in the near vicinity of the site. However, the Rio Grande supplies 80,000 people with drinking water in El Paso. The intake is located 0.8 miles downstream of the El Paso Products site.

The maximally exposed individual to wastes on site would be a worker who is dismantling buildings on site and elsewhere and using the yard to store bricks.

Figure 3 shows a detailed layout of the site. The Environmental Improvement Division has requested that Rexene provide historic maps of the site which will be sent in the near future.

B. Sampling Inspection

Sampling at El Paso Products site was conducted June 27, 1989 by Amy Lewis and Sheryl Sinclair and on July 18, 1989 by Amy Lewis and Randy Merker. Dan Smith, Environmental Regulatory Affairs Director for Rexene Products, Co., was present during both sampling inspections and Jeff Richardson of IT corporation (consultant to Rexene) was present during the second sampling inspection. Rexene split samples with EID on the July 18, 1989 inspection.

The sampling objective was primarily focused on identifying a hazardous waste on site. Wastes were sampled and their volumes estimated. Ground water was sampled in the vicinity of the site to identify a release. Surface water was not sampled because it was thought that contaminants from the site would only enter surface water during a flood event. However, if the Rio Grande is a gaining stream next to the El Paso Products site, then contaminants in ground water could enter surface water.

Figure 4 is a map of the El Paso Products site showing the sample locations. Site A is located near the southern outfall to the Rio Grande. The soil sample was collected from 6 to 8 inch depth by augering. The sample was black and oily and smelled like refinery waste. This area was chosen to be sampled because it is in the vicinity of large lagoons which appear on air photos. The auger was cleaned after each use with soapy water,

Table 1. Inspection Participants

	Reconaisance Visit	Sampling Visit	
Date	April 12, 1989	June 27, 1989	July 18, 1989
Inspection Participants	Amy Lewis Paul Karas	Amy Lewis Sheryl Sinclair	Amy Lewis Randy Merker
Site representatives	Joe Canales adjacent land owner	Dan Smith, Director Environmental Regulatory Affairs Rexene Products (formerly El Paso) Products	Dan Smith, Rexene Jeff Richardson, IT Corporation

Table 2 Data Collected for Data Gaps

Data Gap	Data Collected
Waste Characteristics	Soil/sludge at Site A, B, C, + D (for background)
Release to ground water	Water sample from uncased auger holes 1,2,3,4, +5

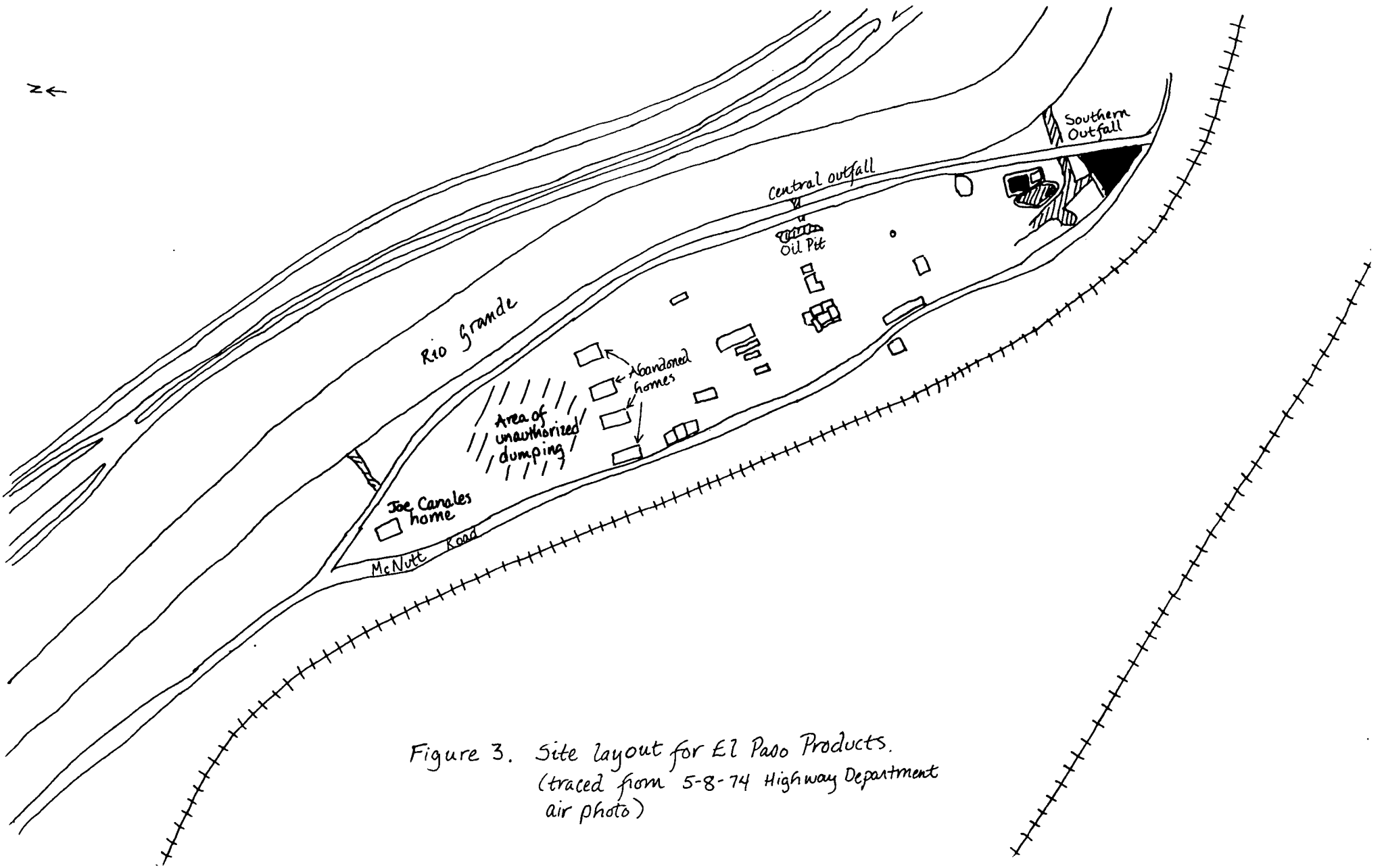


Figure 3. Site layout for El Paso Products. (traced from 5-8-74 Highway Department air photo)

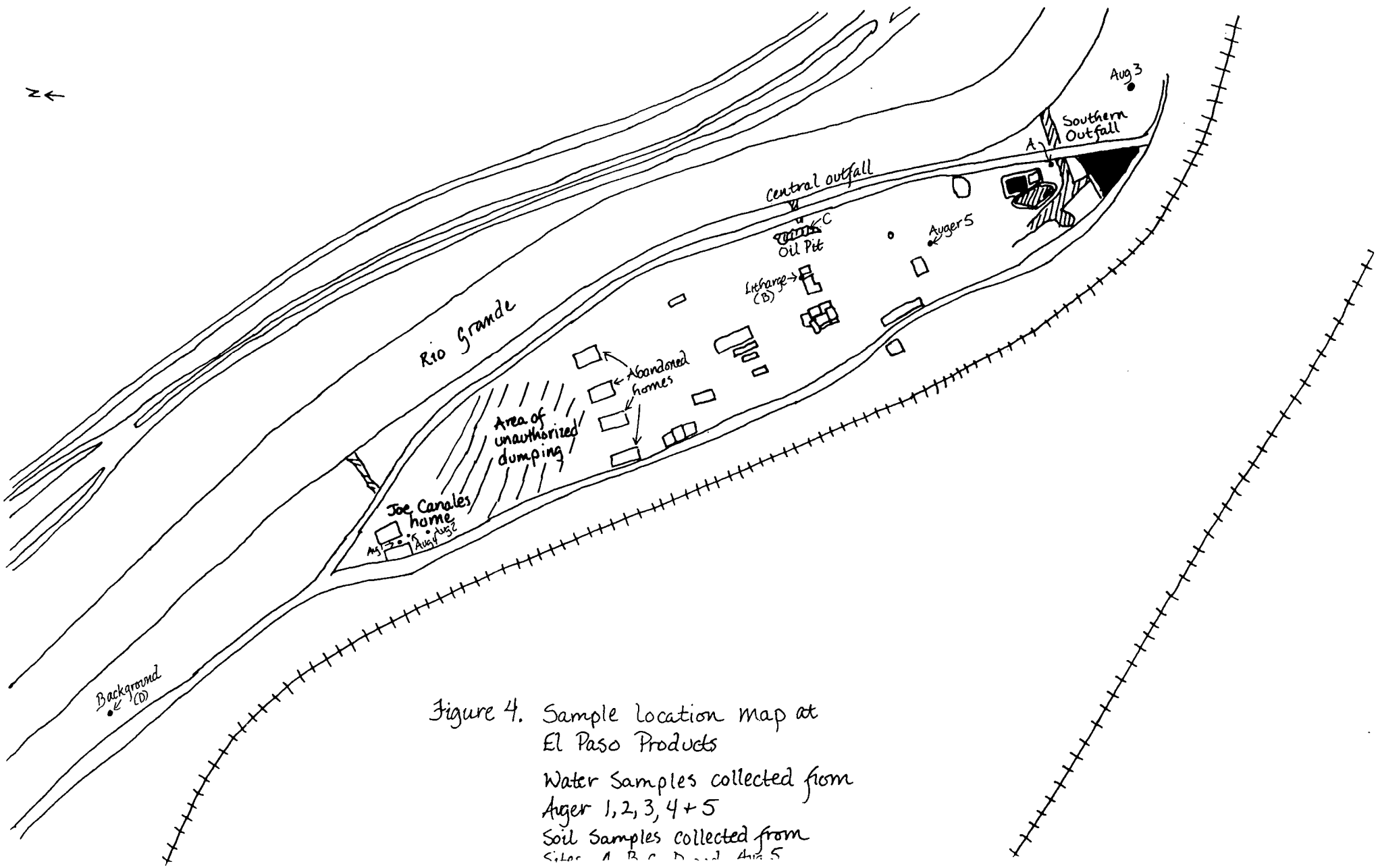


Figure 4. Sample location map at El Paso Products

Water Samples collected from Auger 1, 2, 3, 4 + 5

Soil Samples collected from Sites A, B, C, D and Aug 5

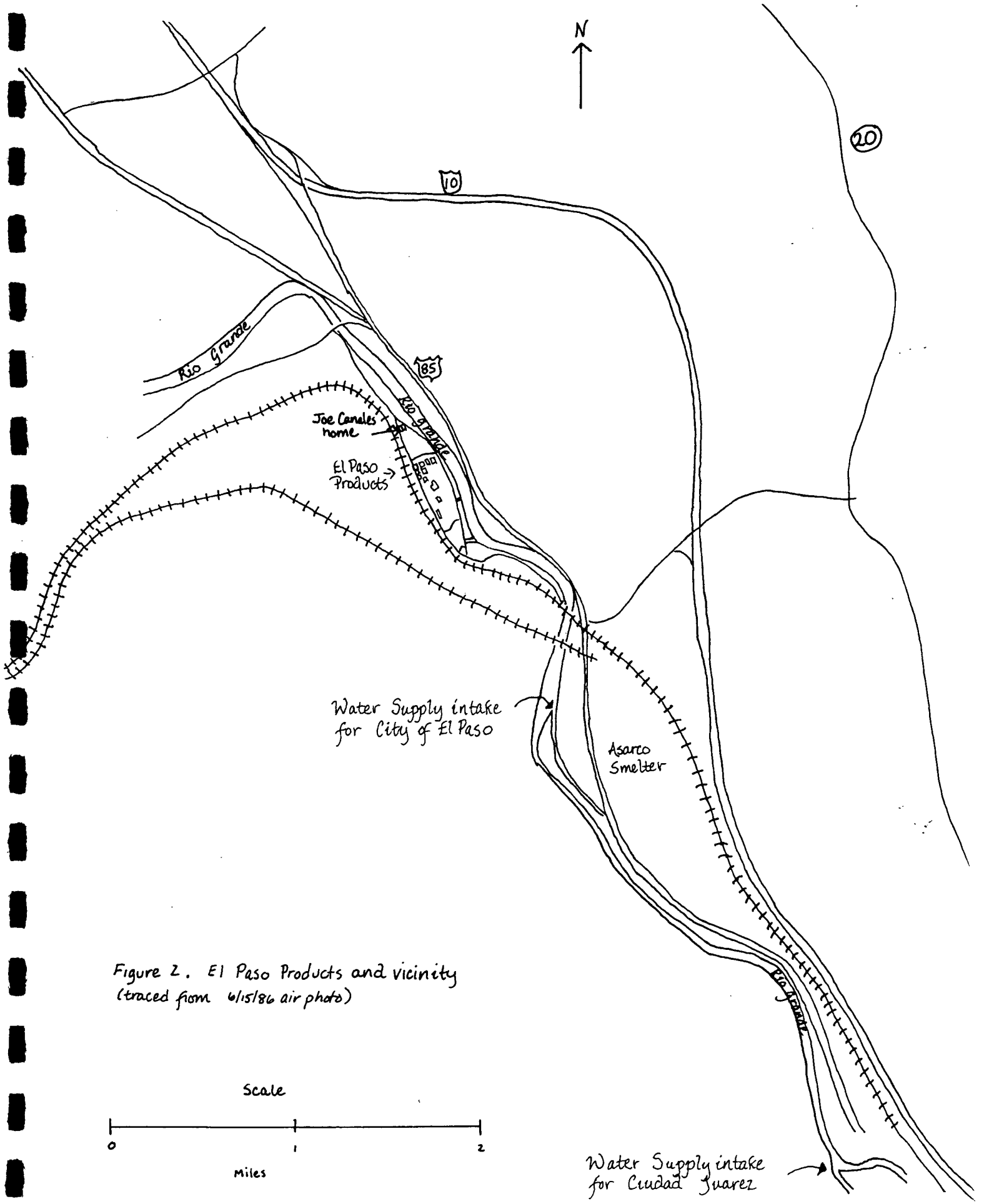


Figure 2. El Paso Products and vicinity (traced from 6/15/86 air photo)

denatured ethanol and deionized water.

Site B is the area on the east side of what may have been the litharge tower, or area where lead oxide was added to petroleum to extract sulfur. The sample was collected from the surface soils with a clean trowel. The soil/material was very green and in some areas appeared oily.

Site C is a large pit, approximately 100 feet by 50 feet (depth unknown) containing very viscous oil. The oil was in a molten state during both site inspections, aided by the outside temperature of 105 degrees F. A composite was collected from the surface of the oil using a disposable plastic scoop.

Site D, the background sample, was collected north of El Paso Products and Joe Canales property as shown on Figure 4. The sample was collected from the soil surface with a disposable scoop.

Samples A, B, C, and D were analyzed for heavy metals and organics by the NM Scientific Laboratory Division (SLD) for samples collected June 27, 1989 and for EPA priority pollutant metals, cyanide, phenols, volatile and semivolatile organics on the July 18, 1989 samples by Analytical Technology Laboratory (AT).

Water samples from auger holes one and two were collected during the reconnaissance visit in April, 1989 as described above.

A soil and water sample were collected from auger hole # 3, which is located to the south of the El Paso Products site. Augering was slow and difficult due to large rocks and hard clay. At a depth of 5.4 feet water was encountered in a sand layer. The water immediately rose to 2.6' below ground surface. The water smelled like crude petroleum. The sample was analyzed for EPA priority pollutant metals, cyanide, phenols,volatile and semivolatile organics by AT and for nitrogen species and general chemistry by the SLD. The sample for metals analyses was filtered.

A water sample was collected from auger hole # 4, located on Joe Canales property, approximately thirty feet south of auger hole # 1. The hole was augered to a 5.9 foot depth and depth to water was 3.4 feet. The sample was analyzed for EPA priority pollutant metals, cyanide, phenols, PCB's, volatile and semi-volatile organics. The sample for heavy metals was filtered.

Two soil and one water samples were collected from auger hole # 5, located south of the process area. The first soil sample, labeled auger 5, was collected from a depth of 2 to 4 feet and consisted of a hard black oily layer. The second soil sample, labeled auger 5B, was collected from a depth of 8 feet and consisted of brown oil and gray clay. Water was encountered at a depth of 5 feet, and later rose to an elevation of 3.8 feet below ground surface. Several attempts were made to measure the thickness of floating product using color cut, but no distinct zone was detected. Soil and water samples were analyzed for EPA priority pollutant metals, cyanide, phenols, PCB's, volatile and semi-volatile organic compounds by AT. The sample for metals was not filtered because the oil would contaminate filter.

Water samples from auger holes 3,4, and 5 were collected

using clean pvc bailers.

Samples were wrapped in bubble-wrap, packed with ice and mailed by federal express to the laboratory.

Sample splits, collected by Rexene were submitted to IT laboratory. The samples collected by Rexene were not true splits, however an attempt was made to collect comparable samples.

III. ANALYTICAL RESULTS

Tables 3 through 13 summarize the results of water and soil samples collected at El Paso Products.

Results from the metals analyses of water samples indicate that ground water beneath the site may be contaminated with mercury, lead, and chromium. In auger # 5, located south of the process area, 1.2 ppb mercury was detected in ground water. However, the sample was very turbid and was not filtered due to the amount of oil in the water, and therefore, the metals may be natural constituents of the suspended material. Arsenic, cadmium, and copper were detected in augers 3,4, and 5. Auger # 4 is located north (and most likely upgradient) of the site, and therefore, these metals may be a natural constituent in the water (which has a poor quality in general, see Table 3). The concentrations detected in auger 5 were much higher than augers 3 and 4, which probably reflects the fact that the water samples from auger 3 and 4 were filtered and the sample from auger 5 was not. The metal results are shown in Table 4.

Results from the organic analyses of water samples indicate that several organic compounds have contaminated the ground water. This comes as no surprise since the water appeared contaminated with oil during sampling. Augers 3 and 5 showed cyanide at 0.02 mg/L, two times the detection limit. The blank showed a concentration of 0.01 mg/l, which is at the detection limit. No other compounds were detected in auger 3, even though the sample appeared and smelled contaminated with organics. Compounds detected in Auger 5 include:

2-Methylnaphthalene (270 ppb)
Fluorene (36ppb)
Phenanthrene (54 ppb)
pyrene (28 ppb)
trimethyl dodecane (800 ppb)
trimethyldecane (600 ppb)
methylated hydrocarbons C13 (800 ppb)
Branched hydrocarbons C16 (1000 ppb)
Hydrocarbons C10-C26 (100,000 ppb)
Benzene (80 ppb)
Toluene (30 ppb)
Ethylbenzene (50 ppb)
Total Xylenes (100 ppb)
Hydrocarbon C6 (200 ppb)
Hydrocarbon C10 (400 ppb)
Hydrocarbon C8 (200 ppb)
Oxygenated hydrocarbon C7 (200 ppb)
Hydrocarbon C9 (500 ppb)
Hydrocarbon C7 (200 ppb)
Hydrocarbon C11 (300 ppb)

The blank sample, from Santa Fe, shows low concentrations of acetone, chloroform, 2-Butanone (MEK) and dibromochloromethane. The acetone and MEK are probably lab contaminants and chloroform and dibromochloromethane are contaminants in the Santa Fe water supply which are not removed during deionization. The organic

Table 3. General chemistry results of water samples collected at El Paso Products.

Sample Location	Type	Date	Lab	Sample Prep	DTW (Feet)	Cond 25 C	TDS	NO3	Ca	Mg	Na	K (mg/L)	HCO3	Cl	SO4
Auger Hole #1	water	12-Apr-89	SLD	F	2.7	17,500	15,300		916	486	3446	87	525	5400	2845
Auger Hole #2	water	12-Apr-89	SLD	F	2.7	12,885	16,170		960	456	3440	62	675	6320	2800
Auger Hole #3	water	18-Jul-89	SLD/AT	F	2.6	5000	4392	0.09	440	131	698	14	428	301	2263
Auger Hole #4	water	18-Jul-89	AT	F	3.4	8150									
Auger Hole #5	water	18-Jul-89	AT	NF	3.8	3500									

Table 4. Heavy Metals results of water samples collected at El Paso Products. (continued)

Sample Location	Type	Date	Lab	Sample Prep	Mo	Ni	Si	Ag	Sr	Sn (mg/L)	Va	Zn	As	Se	Hg
Auger Hole #1	water	12-Apr-89	SLD	F	0.1	<0.1	24	<0.1	20	2.9	<0.1	<0.1	0.006	<0.005	<0.0005
Auger Hole #2	water	12-Apr-89	SLD	F	<0.1	<0.1	20	<0.1	21	2.9	<0.1	<0.1	0.009	<0.005	<0.0005
Auger Hole #3	water	18-Jul-89	AT	F		0.04		0.013		0.08		0.062	0.019	0.005	<0.0002
	water	18-Jul-89	IT			0.14		<0.1			0.4	0.95	0.34	<0.005	0.0015
Auger Hole #4	water	18-Jul-89	AT	F		0.11		0.04		0.03		0.044	0.029	0.01	<0.0002
	water	18-Jul-89	IT			36		<0.01		<0.03	68	16	1.5	<0.05	0.005
Auger Hole #5	water	18-Jul-89	AT	NF		0.89		0.06		0.1		1.88	0.62	<0.016	0.0012
	water	18-Jul-89	IT			0.3		<0.01			0.58	1.1	0.39	<0.005	0.0004
Blank	water	18-Jul-89	AT	NF		<0.03		<0.01		0.02		0.013	<0.002	<0.002	<0.0002

Table 4. Heavy Metals results of water samples collected at El Paso Products.

Sample Location	Type	Date	Lab	Sample Prep	Al	Ba	B	Cd	Ca (ICAP)	Cr	Co	Cu	Fe	Pb	Mg (ICAP)	Mn
											(mg/L)					
Auger Hole #1	water	12-Apr-89	SLD	F	<0.1	<0.1	<0.1	<0.1	820	<0.1	<0.05	<0.1	<0.1	<0.1	440	2.1
Auger Hole #2	water	12-Apr-89	SLD	F	<0.1	<0.1	1.3	<0.1	810	<0.1	<0.05	<0.1	<0.1	<0.1	420	13
Auger Hole #3	water	18-Jul-89	AT	F				0.012		<0.02		0.032		<0.01		
	water	18-Jul-89	IT		220	4.5		0.01	3200	0.15	<0.02	0.87	190		340	13
Auger Hole #4	water	18-Jul-89	AT	F				0.026		<0.02		0.047		<0.01		
	water	18-Jul-89	IT		4500	68		<0.06	26000	33	0.6	45	5800		3000	120
Auger Hole #5	water	18-Jul-89	AT	NF				0.042		0.42		1.2		1.3		
	water	18-Jul-89	IT		300	8.6		<0.006	2100	0.26	0.2	0.55	380		270	20
Blank	water	18-Jul-89	AT	NF				<0.005		<0.02		0.013		<0.01		

(continued)

data from water samples is presented in Tables 5, 6, and 7. Table 12 summarizes the organic compounds detected in the ground water.

Results of metals analyses on soils indicates very high concentrations of mercury (720 ppm) at the litharge area, (site B). Mercury was also detected (0.63 ppm) in the soils at the southern outfall (site A) and in soils from Auger #3 (0.030 ppm). Other metals detected in concentrations significantly above back ground are cadmium, chromium, copper, lead, zinc and arsenic. Table 8 list the results of soil metals analyses. The high concentration of lead in the oil pit and in the southern outfall indicates that, waste deposited on site may include leaded tank bottom sludges, API separator sludge, or slop oil emulsion solids (listed hazardous wastes).

Organic compounds detected in wastes onsite include:

Cyanide	(1.3 -3.3 ppm)
phenolics	(2.9 - 33 ppm)
2-methylphenol	(0.25 ppm)
naphthalene	(0.3 ppm)
2 methylnaphthalene	(0.71 ppm)
diethylphthalate	(0.26 ppm)
pentachlorophenol	(0.25 ppm)
phenanthrene	(0.2 ppm)
pyrene	(0.18 ppm)
benzo(K)fluoranthene	(0.22 ppm)
benzene	(0.12 - 2.6 ppm)
toluene	(0.19 - 16 ppm)
ethylbenzene	(0.23 - 13 ppm)
total xylenes	(0.2 - 11.40 ppm)
Hydrocarbon C10	(0.1 - 30 ppm)
Hydrocarbon C8	(7.00 ppm)
Hydrocarbon C9	(4 - 50 ppm)
Hydrocarbon C11	(2 ppm)
Oxygenated Hydrocarbon C12	(0.10 ppm)
Oxygenated Hydrocarbon C16	(20 ppm)
Oxygenated Hydrocarbon C3	(3 ppm)
Oxygenated Hydrocarbon C10	(2 ppm)
1, 4 Dimethylbenzene	(3.6 - 6.7 ppm)
1, 3 Dimethylbenzene	(0.25 - 22 ppm)
1, 2 Dimethylbenzene	(0.36 - 13 ppm)

The organic compounds and metals detected in the soil and water samples are common constituents detected in refinery wastes. Appendix 1 lists the types and concentrations of constituents in listed wastes from refineries. Table 13 summarizes the organic compounds detected in soils and sludges on site.

Table 5. Volatile organic results of water samples collected at El Paso Products. Concentrations in ug/L.

Sample	Auger #1	Auger #2	Auger #3	Auger #4	Auger #5	Auger B (blank)
Type	Water	Water	Water	Water	Water	Water
Date	12-Apr-89	12-Apr-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Lab	SLD	SLD	AT	AT	AT	AT
Aromatic purgeables	<1	<1				
Halogenated Purgeables	<0.5	<0.5				
Chloromethane			<10	<10	<250	<10
Bromomethane			<10	<10	<250	<10
Vinyl Chloride			<1	<1	<25	<1
Chloroethane			<1	<1	<25	<1
Methylene Chloride			<5	<5	<125	<5
Acetone			<10	<10	<250	21
Carbon Disulfide			<1	<1	<25	<1
1,1-Dichloroethene			<1	<1	<25	<1
1,1-Dichloroethene			<1	<1	<25	<1
1,2-Dichloroethene			<1	<1	<25	<1
Chloroform			<1	<1	<25	1.00
1,2-Dichloroethene (total)			<1	<1	<25	<1
2-Butanone (MEK)			<10	<10	<250	10.00
1,1,1-Trichloroethene			<1	<1	<25	<1
Carbon Tetrachloride			<1	<1	<25	<1
Vinyl Acetate			<10	<10	<250	<10
Bromodichloromethane			<1	<1	<25	<1
1,1,2,2-Tetrachloroethane			<1	<1	<25	<1
1,2-Dichloropropane			<1	<1	<25	<1
Trans-1,3,-Dichloropropane			<1	<1	<25	<1
Trichloroethene			<1	<1	<25	<1
Dibromochloromethane			<1	<1	<25	1.00
1,1,2-Trichloroethane			<1	<1	<25	<1
Benzene			<1	<1	80.00	<1
CIS-1,3-Dichloropropene			<1	<1	<25	<1
2-Chloroethylvinylether			<10	<10	<250	<10
Bromoform			<5	<5	<125	<5
2-Hexanone (MBK)			<10	<10	<250	<10
4-Methyl-2-Pentanone(MIBK)			<10	<10	<250	<10
Tetrachloroethene			<1	<1	<25	<1
Toluene			<1	<1	30.00	<1
Chlorobenzene			<1	<1	<25	<1
Ethylbenzene			<1	<1	50.00	<1
Styrene			<1	<1	<25	<1
Total Xylenes			<1	<1	100.00	<1
(additional volatiles)						
Hydrocarbon C6					200.00	
Hydrocarbon C10					400.00	
Hydrocarbon C8					200.00	
Oxygenated Hydrocarbon C7					200.00	
Hydrocarbon C9					500.00	
Hydrocarbon C7					200.00	
Hydrocarbon C11					300.00	
Hydrocarbon C9					300.00	

Table 6. Analytical results of Pesticides, PCB's, CN, and Phenolics.

Sample	Auger #3	Auger #4	Auger #5	Auger B (blank)
Type	Water	Water	Water	Water
Date	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Analytical Lab	AT	AT	AT	AT
Cyanide, Total	20	<10	20	10
Phenolics, Total	<20	<20	<20	<20
Aldrin	<0.5	<0.05	<0.05	<0.05
Alpha-BHC	<0.5	<0.05	<0.05	<0.05
Beta-BHC	<0.5	<0.05	<0.05	<0.05
Gamma-BHC	<0.5	<0.05	<0.05	<0.05
Delta-BHC	<0.5	<0.05	<0.05	<0.05
Chlorodane	<5.0	<0.5	<5.0	<0.5
4,4'-DDD	<1.0	<1.0	<1.0	<0.1
4,4'-DDE	<1.0	<1.0	<1.0	<0.1
4,4'-DDT	<1.0	<1.0	<1.0	<0.1
Dieldrin	<1.0	<1.0	<1.0	<1.0
Endosulfan I	<0.5	<0.05	<0.5	<0.05
Endosulfan II	<1.0	<0.1	<1.0	<0.1
Endosulfan Sulfate	<1.0	<0.1	<1.0	<0.1
Endrin	<1.0	<0.1	<1.0	<0.1
Endrin Aldehyde	<1.0	<0.1	<1.0	<0.1
Endrin Ketone	<1.0	<0.1	<1.0	<0.1
Heptachlor	<0.5	<0.05	<0.5	<0.05
Heptachlor Epoxide	<0.5	<0.05	<0.5	<0.05
Methoxychlor	<5.0	<0.5	<5.0	<0.5
Toxaphene	<10.0	<1.0	<10.0	<1.0
Aroclor 1016	<5.0	<0.5	<5.0	<0.5
Aroclor 1221	<5.0	<0.5	<5.0	<0.5
Aroclor 1232	<5.0	<0.5	<5.0	<0.5
Aroclor 1242	<5.0	<0.5	<5.0	<0.5
Aroclor 1248	<5.0	<0.5	<5.0	<0.5
Aroclor 1254	<5.0	<0.5	<5.0	<0.5
Aroclor 1260	<5.0	<0.5	<5.0	<5.0

Concentrations in ug/L

Table 7. Semi-Volatile Organic analyses of water samples. Concentrations in ug/L.

Sample	Auger #3	Auger #4	Auger #5	Auger B (blank)
Type	Water	Water	Water	Water
Date	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Lab	AT	AT	AT	AT
N-Nitrosodimethylamine	<10	<10	<100	<10
Phenol	<10	<10	<100	<10
Aniline	<10	<10	<100	<10
BIS (2-Chloroethyl) Ether	<10	<10	<100	<10
2-Chlorophenol	<10	<10	<100	<10
1,3-Diclorobenzene	<10	<10	<100	<10
1,4-Diclorobenzene	<10	<10	<100	<10
Benzyl Alchohol	<10	<10	<100	<10
1,2-Diclorobenzene	<10	<10	<100	<10
2-Methylphenol	<10	<10	<100	<10
BIS(2-Chloroisopropyl)Ether	<10	<10	<100	<10
4-Methylphenol	<10	<10	<100	<10
N-Nitroso-Di-N-Propylamine	<10	<10	<100	<10
Hexachloroethane	<10	<10	<100	<10
Nitrobenzene	<10	<10	<100	<10
Isophorone	<10	<10	<100	<10
2-Nitrophenol	<10	<10	<100	<10
2,4-Diethylphenol	<10	<10	<100	<10
Benzoic Acid	<50	<50	<500	<50
BIS(2-Chloroethoxy)Methane	<10	<10	<100	<10
2,4-Dichlorophenol	<10	<10	<100	<10
1,2,4,-Trichlorobenzene	<10	<10	<100	<10
Naphthalene	<10	<10	<500	<10
4-Chloroanaline	<10	<10	<100	<10
Hexachlorobutadiene	<10	<10	<100	<10
4-Chloro-3-Methylphenol	<10	<10	<100	<10
2-Methylnaphthalene	<10	<10	270.00	<10
Hexachlorocylclopentadiene	<10	<10	<100	<10
2,4,6-Trichlorocyclophenol	<10	<10	<100	<10
2,4,5-Trichlorocyclophenol	<50	<50	<500	<50
2-Chloronaphthalene	<10	<10	<100	<10
2-Nitroanaline	<50	<50	<500	<50
Dimethylphthalate	<10	<10	<100	<10
Acenaphthylene	<10	<10	<100	<10
3-Nitroanaline	<50	<50	<500	<50
Acenaphthene	<10	<10	<100	<10
2,4-Dinitrophenol	<50	<50	<500	<50
4-Nitrophenol	<50	<50	<500	<50
Dibenzofuran	<10	<10	<100	<10
2,4-Dinitrotoluene	<10	<10	<100	<10
2,6-Dinitrotoluene	<10	<10	<100	<10
Diethylphthalate	<10	<10	<100	<10
4-Chlorophenyl-Phenylether	<10	<10	<100	<10

Continued next page

Table 7. Semi-Volatile Organic analyses of water samples. Concentrations in ug/L. (continued)

Sample	Auger #3	Auger #4	Auger #5	Auger B (blank)
Type	Water	Water	Water	Water
Date	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Lab	AT	AT	AT	AT
Flourene	<10	<10	36.00	<10
4-Nitroanaline	<50	<50	<500	<50
4,6-Dinitro-2-Methylphenol	<50	<50	<500	<50
N-Nitrosodiphenylamine	<10	<10	<100	<10
4-Bromophenyl-phenylether	<10	<10	<100	<10
Hexachlorobenzene	<10	<10	<100	<10
Pentachlorophenol	<50	<50	<500	<50
Phenanthrene	<10	<10	54.00	<10
Anthracene	<10	<10	<100	<10
Di-N-Butylphthalate	<10	<10	<100	<10
Floranthene	<10	<10	<100	<10
Benzidine	<100	<100	<1000	<100
Pyrene	<10	<10	28.00	<10
Butylbenzylphthalate	<10	<10	<100	<10
3,3'-Dichlorobenzidine	<20	<20	<200	<20
Benzo(a)Anthracene	<10	<10	<100	<10
BIS(2-Ethylhexyl)Phthalate	<10	<10	<100	<10
Crysene	<10	<10	<100	<10
Di-N-Octylphthalate	<10	<10	<100	<10
Benzo(b)Floranthene	<10	<10	<100	<10
Benzo(k)Floranthene	<10	<10	<100	<10
Benzo(a)Pyrene	<10	<10	<100	<10
Indeno(1,2,3-cd)Pyrene	<10	<10	<100	<10
Dibenzo(a,h)Anthracene	<10	<10	<100	<10
Benzo(g,h,i)Perylene	<10	<10	<100	<10
(Additional Semi-Volitales)				
Trimethyl Dodecane			800.00	
Trimethyl Decane			600.00	
Methylated Hydrocarbons C13			800.00	
Branched Hydrocarbons C16			1000.00	
Hydrocarbons C10 -C26			100000.00	

Table 8. Heavy Metals results of soil/sludge samples collected at El Paso Products. (Continued)

Sample Location	Type	Date	Lab	Ni	Si	Ag	Sr	Sn	Va	Zn	As	Se	Hg
								(mg/kg)					
Auger Hole #3	soil	18-Jul-89	AT	6		<1.0		2		12.6	1.3	<0.2	0.03
	soil	18-Jul-89	IT								0.48 mg/L		<0.0002 mg/L
Auger Hole #5	soil	18-Jul-89	AT	14		<1.0		<1		27.3	4.8	<0.2	<0.02
	soil	18-Jul-89	IT								0.008 mg/L		<0.0002 mg/L
Auger Hole #5b	soil	18-Jul-89	AT	13		<1.0		2		19.5	2.7	<0.2	<0.02
	soil	18-Jul-89	IT										
Southern Outfall (A)	soil	27-Jun-89	SLD	7	82	<5	120	11	10	640	32	1.0	0.63
	soil	18-Jul-89	AT	12		1.1		4		121	22	0.2	0.09
	soil	18-Jul-89	IT										
Litharge (B)	soil	27-Jun-89	SLD	530	180	<5	79	22	8	470	52	0.5	720
	soil	18-Jul-89	AT	471		1.7		3		924	160	1.9	30
	soil	18-Jul-89	IT										
Litharge, Composite	soil	18-Jul-89	IT										
Oil Pit (C)	soil	27-Jun-89	SLD	53	130	<5	48	11	42	39	[illegible]	?	<0.05
	soil	18-Jul-89	AT	53		5.6		8		79	31	<4	<0.04
	soil	18-Jul-89	IT								0.52 mg/L		0.0074 mg/L
Background (D)	soil	27-Jun-89	SLD	6	170	<5	130	<5	16	130	1.4	0.4	<0.05
	soil	18-Jul-89	AT	11		1.2		7		254	71	0.8	0.05
	soil	18-Jul-89	IT										

Table 8. Heavy Metals results of soil/sludge samples collected at El Paso Products.

Sample Location	Type	Date	Lab	Al	Ba	B	Cd	Ca (ICAP)	Cr	Co	Cu	Fe	Pb	Mg (ICAP)	Mn	Mo
									(mg/kg)							
Auger Hole #3	soil	18-Jul-89	AT				1.0		<2		8.4		26			
	soil	18-Jul-89	IT						<0.9				7			
Auger Hole #5	soil	18-Jul-89	AT				0.8		5		13.8		19			
	soil	18-Jul-89	IT						6.1				8			
Auger Hole #5b	soil	18-Jul-89	AT				1		4		14.9		24			
	soil	18-Jul-89	IT						6.2				16			
Southern Outfall (A)	soil	27-Jun-89	SLD	6130	110	9	50	30200	17	2.5	1210	7560	4000	4210	120	<5
	soil	18-Jul-89	AT				6.1		4		391		550			
	soil	18-Jul-89	IT						6.2				400			
Litharge (B)	soil	27-Jun-89	SLD	4350	66	<5	<5	61600	51	8	101000	43000	910	3350	180	<5
	soil	18-Jul-89	AT				8.4		43		85000		576			
	soil	18-Jul-89	IT						5				1100			
Litharge, Composite	soil	18-Jul-89	IT						94				820			
Oil Pit (C)	soil	27-Jun-89	SLD	870	33	<5	<5	60500	140	<2.5	380	26900	2390	1800	130	20
	soil	18-Jul-89	AT				1.8		130		172		2240			
	soil	18-Jul-89	IT						150				24			
Background (D)	soil	27-Jun-89	SLD	7230	77	5	<5	25700	9	3.1	130	7830	150	6650	50	<5
	soil	18-Jul-89	AT				4.2		3		291		182			
	soil	18-Jul-89	IT						4.3				160			

(Continued next page)

Table 9. Organic analyses of soil samples collected at El Paso Products. Concentrations in ug/g.

Sample	Auger #3	Auger #5	Auger 5B	Southern Outfall (A)	Southern Outfall (A)	Litharge B	Litharge B	Oil Pit C	Oil Pit C	Background D	Background D
Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date	18-Jul-89	18-Jul-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89
Lab	AT	AT	AT	SLD	AT	SLD	AT	SLD	AT	SLD	AT
Chloromethane	<0.50	<5.0	<0.50		<0.50		<5.0		<10.0		<0.50
Bromomethane	<0.50	<5.0	<0.50		<0.50		<5.0		<10.0		<0.50
Vinyl Chloride	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Chloroethane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Methylene Chloride	<0.3	<3.0	<0.3		<0.3		<3.0		<6.0		<0.3
Acetone	<0.05	<5.0	<0.5		<0.5		<5.0		<10.0		<0.5
Carbon Disulfide	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,1-Dichloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,1-Dichloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,2-Dichloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Chloroform	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,2-Dichloroethene (total)	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
2-Butanone (MEK)	<0.5	<5.0	<0.5		<0.5		<5.0		<10		<0.5
1,1,1-Trichloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Carbon Tetrachloride	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Vinyl Acetate	<0.5	<5.0	<0.5		<0.5		<5.0		<10		<0.5
Bromodichloromethane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,1,2,2-Tetrachloroethane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,2-Dichloropropane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Trans-1,3,-Dichloropropane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Trichloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Dibromochloromethane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
1,1,2-Trichloroethane	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Benzene	<0.05	0.6	<0.05	0.12	<0.05		0.6	2.60	<1.0		<0.05
CIS-1,3-Dichloropropene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
2-Chloroethylvinylether	<0.5	<5.0	<0.5		<0.5		<5.0		<10		<0.05
Bromoform	<0.3	<3.0	<0.3		<0.3		<3.0		<6.0		<0.3

Continued next page

Table 9. Organic analyses of soil samples collected at El Paso Products. Concentrations in ug/g. (Continued)

Sample	Auger #3	Auger #5	Auger 5B	Southern Outfall (A)	Southern Outfall (A)	Litharge B	Litharge B	Oil Pit C	Oil Pit C	Background D	Background D
Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date	18-Jul-89	18-Jul-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89	27-Jun-89	18-Jul-89
Lab	AT	AT	AT	SLD	AT	SLD	AT	SLD	AT	SLD	AT
2-Hexanone (MBK)	<0.5	<5.0	<0.5		<0.5		<5.0		<10		<0.5
4-Methyl-2-Pentanone(MIBK)	<0.5	<5.0	<0.5		<0.5		<5.0		<10		<0.5
Tetrachloroethene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Toluene	<0.05	0.70	<0.05	0.19	0.06	0.25	<0.5	16.00	1.30	T	<0.05
Chlorobenzene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Ethylbenzene	<0.05	6.80	<0.05	3.30	0.23		<0.5	13.00	1.70		<0.05
Styrene	<0.05	<0.5	<0.05		<0.05		<0.5		<1.0		<0.05
Total Xylenes	<0.05	11.40	0.20		0.89		<0.5		6.30		<0.05
(additional volatiles)											
Hydrocarbon C6											
Hydrocarbon C10		30.00			5.00						0.10
Hydrocarbon C8		7.00									
Oxygenated Hydrocarbon C7											
Hydrocarbon C9		50.00			4.00						
Hydrocarbon C7											
Hydrocarbon C11					2.00						
Hydrocarbon C9		10.00							5.00		
Oxygenated Hydrocarbon C12	0.10										
Oxygenated Hydrocarbon C16		20.00									
Oxygenated Hydrocarbon C3									3.00		
Oxygenated Hydrocarbon C10									2.00		
1,4 Dimethylbenzene				3.60		T		6.70			
1,3 Dimethylbenzene				6.60		0.25		22.00			
1,2 Dimethylbenzene				3.00		0.36		13.00			
aliphatic compounds				10.00		10.00		10.00			
benzenoid compounds				7.00		6.00		7.00			

Table 10. Pesticides, PCB's, Cyanide, and Phenolic analyses of soil samples collected at El Paso Products. Concentrations in ug/g.

Sample	Auger #3	Auger #5	Auger 5B	Southern Outfall (A)	Litharge B	Oil Pit C	Background D
Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Lab	AT	AT	AT	AT	AT	AT	AT
Cyanide, Total	<1.0	<1.0	3.30	1.90	1.30	<1.0	<1.0
Phenolics, Total	<2.0	<2.0	<2.0	11.00	2.90	33.00	<2.0
Aldrin	<0.005	<0.300	<0.030	<3.0	<0.050	<15.0	<0.030
Alpha-BHC	<0.005	<0.300	<0.030	<3.0	<0.050	<15.0	<0.030
Beta-BHC	<0.005	<0.300	<0.030	<3.0	<0.050	<15.0	<0.030
Gamma-BHC	<0.005	<0.300	<0.030	<3.0	<0.050	<15.0	<0.030
Delta-BHC	<0.005	<0.300	<0.030	<3.0	<0.050	<15.0	<0.030
Chlorodane	<0.05	<3.0	<0.300	<30.0	<0.500	<150	<0.300
4,4'-DDD	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
4,4'-DDE	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
4,4'-DDT	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Dieldrin	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endosulfan I	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endosulfan II	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endosulfan Sulfate	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endrin	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endrin Aldehyde	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Endrin Ketone	<0.01	<0.6	<0.06	<6.0	<0.1	<30	<0.06
Heptachlor	<0.005	<0.300	<0.03	<3.0	<0.05	<15.0	<0.03
Heptachlor Epoxide	<0.005	<0.300	<0.03	<3.0	<0.05	<15.0	<0.03
Methoxychlor	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Toxaphene	<0.1	<6.0	<0.6	<60	<1.0	<300	<0.6
Aroclor 1016	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1221	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1232	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1242	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1248	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1254	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30
Aroclor 1260	<0.05	<3.0	<0.30	<30.0	<0.5	<150	<0.30

Table 11. Semi-Volatile Organic analyses of soil samples collected at El Paso Products. Concentrations in ug/g.

Sample	Auger #3	Auger #5	Auger 5B	Southern Outfall (A)	Litharge B	Oil Pit C	Background D
Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89	18-Jul-89
Lab	AT	AT	AT	AT	AT	AT	AT
N-Nitrosodimethylamine	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Phenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Aniline	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
BIS (2-Chloroethyl) Ether	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2-Chlorophenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
1,3-Diclorobenzene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
1,4-Diclorobenzene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Benzyl Alchohol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
1,2-Diclorobenzene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2-Methylphenol	<0.17	<10.2	<0.17	<102.0	0.25	<10.2	<1.02
BIS(2-Chloroisopropyl)Ether	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
4-Methylphenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
N-Nitroso-Di-N-Propylamine	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Hexachloroethane	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Nitrobenzene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Isophorone	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2-Nitrophenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4-Diethylphenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Benzoic Acid	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
BIS(2-Chloroethoxy)Methane	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4-Dichlorophenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
1,2,4,-Trichlorobenzene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Naphthalene	<0.17	<10.2	0.3	<102.0	<0.17	<10.2	<1.02
4-Chloroanaline	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Hexachlorobutadiene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
4-Chloro-3-Methylphenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2-Methylnaphthalene	<0.17	<10.2	0.71	<102.0	<0.17	<10.2	<1.02
Hexachlorocylclopentadiene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4,6-Trichlorocyclophenol	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4,5-Trichlorocyclophenol	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
2-Chloronaphthalene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2-Nitroanaline	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
Dimethylphthalate	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Acenaphthylene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
3-Nitroanaline	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
Acenaphthene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4-Dinitrophenol	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
4-Nitrophenol	<0.85	<51	<0.85	<510	<0.85	<51	<5.10
Dibenzofuran	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,4-Dinitrotoluene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
2,6-Dinitrotoluene	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02
Diethylphthalate	<0.17	<10.2	<0.17	<102.0	0.26	<10.2	<1.02
4-Chlorophenyl-Phenylether	<0.17	<10.2	<0.17	<102.0	<0.17	<10.2	<1.02

Continued next page

Table 12. List of substances detected at El Paso Products, as analyzed by Analytical Technologies (AT) and International Technology (IT) laboratories.

Sample Location			Auger #3	Auger #4	Auger #5	Blank
Sample type			water	water	water	water
	Lab	units				
Cyanide	AT	(mg/L):(mg/kg)	0.02	<	0.02	0.01
	IT	(mg/L):(mg/kg)	NA	NA	NA	NA
Phenolics, Total	AT	(mg/L):(mg/kg)	<	<	<	<
	IT	(mg/L):(mg/kg)	NA	NA	NA	NA
Benzene	AT	(ug/L):(mg/kg)	<	<	80.00	<
	IT	(ug/L):(mg/kg)	<	<	130.00	<
Toluene	AT	(ug/L):(mg/kg)	<	<	30.00	<
	IT	(ug/L):(mg/kg)	<	<	<25	<
Ethylbenzene	AT	(ug/L):(mg/kg)	<	<	50.00	<
	IT	(ug/L):(mg/kg)	<	<	<25	<
Total Xylenes	AT	(ug/L):(mg/kg)	<	<	100.00	<
	IT	(ug/L):(mg/kg)	<	<	<25	<
2-Methylphenol	AT	(ug/L):(mg/kg)	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<
Naphthalene	AT	(ug/L):(mg/kg)	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<
2-Methylnaphthalene	AT	(ug/L):(mg/kg)	<	<	270.00	<
	IT	(ug/L):(mg/kg)	<	<	<80	<
Diethylphthalate	AT	(ug/L):(mg/kg)	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<
Fluorene	AT	(ug/L):(mg/kg)	<	<	36.00	<
	IT	(ug/L):(mg/kg)	<	<	<80	<
Pentachlorophenol	AT	(ug/L):(mg/kg)	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<
Phenanthrene	AT	(ug/L):(mg/kg)	<	<	54.00	<
	IT	(ug/L):(mg/kg)	<	<	<80	<
Pyrene	AT	(ug/L):(mg/kg)	<	<	28.00	<
	IT	(ug/L):(mg/kg)	<	<	<80	<
Benzo(k)Floranthene	AT	(ug/L):(mg/kg)	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<

< means below detection limits, NA means not analyzed.

(Continued next page)

Table 12. List of substances detected at El Paso Products, as analyzed by Analytical Technologies (AT) and International Technology (IT) laboratories.

(Continued)

Sample Location			Auger #3	Auger #4	Auger #5	Blank
Sample type			water	water	water	water
Trimethyl Dodecane	AT	(ug/L):(mg/kg)		<	800.00	<
	IT	(ug/L):(mg/kg)		NA	NA	<
Trimethyl Decane	AT	(ug/L):(mg/kg)		<	600.00	<
	IT	(ug/L):(mg/kg)		NA	NA	<
1,4, Dimethylbenzene	AT	(ug/L):(mg/kg)		NA	NA	NA
	IT	(ug/L):(mg/kg)		NA	NA	NA
1,3, Dimethylbenzene	SLD	(ug/L):(mg/kg)		NA	NA	NA
	IT	(ug/L):(mg/kg)		NA	NA	NA
1,2, Dimethylbenzene	SLD	(ug/L):(mg/kg)		NA	NA	NA
	IT	(ug/L):(mg/kg)				
Di-n-octylphthalate	SLD	(ug/L):(mg/kg)		NA	NA	NA

Table 13. List of substances detected at El Paso Products, as analyzed by Analytical Technologies (AT) and International Technology (IT) laboratories.

Sample Location			Auger #3	Auger #5	Auger #5B	Litharge	Oil Pit	Southern Outfall
Sample type			soil	soil	soil	soil	soil	soil
	Lab	units						
Cyanide	AT	(mg/L):(mg/kg)	<	<	3.30	1.30	<	1.90
	IT	(mg/L):(mg/kg)	NA	NA	NA	NA	NA	NA
Phenolics, Total	AT	(mg/L):(mg/kg)	<	<	<	2.90	33.00	11.00
	IT	(mg/L):(mg/kg)	NA	NA	NA	NA	NA	NA
Benzene	AT	(ug/L):(mg/kg)	<	0.60	<	0.60	2.60	0.12
	IT	(ug/L):(mg/kg)	<	<3.1	<	<0.005	2.80	<0.63
Toluene	AT	(ug/L):(mg/kg)	<	0.70	<	0.25	16.00	0.19
	IT	(ug/L):(mg/kg)	<	<3.1	<	<0.005	5.40	
Ethylbenzene	AT	(ug/L):(mg/kg)	<	6.80	<	<	13.00	3.30
	IT	(ug/L):(mg/kg)	<	5.30	<	0.01	4.10	3.00
Total Xylenes	AT	(ug/L):(mg/kg)	<	11.40	0.20	<	6.30	0.89
	IT	(ug/L):(mg/kg)	<	9.70	<0.63	0.56	13.00	12.00
2-Methylphenol	AT	(ug/L):(mg/kg)	<	<	<	0.25	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<250	<	<
Naphthalene	AT	(ug/L):(mg/kg)	<	<	0.30	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<10	<	<	<
2-Methylnaphthalene	AT	(ug/L):(mg/kg)	<	<	0.71	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<10	<	<	<
Diethylphthalate	AT	(ug/L):(mg/kg)	<	<	<	0.26	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<1.7	<	<
Fluorene	AT	(ug/L):(mg/kg)	<	<	<	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<	<	<	<
Pentachlorophenol	AT	(ug/L):(mg/kg)	TR	<	<	0.25	<	<
	IT	(ug/L):(mg/kg)	<50	<	<	<8.4	<	<
Phenanthrene	AT	(ug/L):(mg/kg)	<	<	0.20	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<10	<	<	<
Pyrene	AT	(ug/L):(mg/kg)	<	<	0.18	<	<	<
	IT	(ug/L):(mg/kg)	<	<	<10	<	<	<
Benzo(k)Floranthene	AT	(ug/L):(mg/kg)	<	<	<	<	0.22	<
	IT	(ug/L):(mg/kg)	<	<	<	<	<600	<

< means below detection limits, NA means not analyzed.

(Continued next page)

Table 13. List of substances detected at El Paso Products, as analyzed by Analytical Technologies (AT) and International Technology (IT) laboratories.

(Continued)

Sample Location			Auger #3	Auger #5	Auger #5B	Litharge	Oil Pit	Southern Outfall
Sample type			soil	soil	soil	soil	soil	soil
Trimethyl Dodecane	AT	(ug/L):(mg/kg)	NA	NA	NA	NA	NA	NA
	IT	(ug/L):(mg/kg)	NA	NA	NA	NA	NA	NA
Trimethyl Decane	AT	(ug/L):(mg/kg)	NA	NA	NA	NA	NA	NA
	IT	(ug/L):(mg/kg)	NA	NA	NA	NA	NA	NA
1,4, Dimethylbenzene	AT	(ug/L):(mg/kg)	<	<	<	TR	6.70	3.60
	IT	(ug/L):(mg/kg)						
1,3, Dimethylbenzene	SLD	(ug/L):(mg/kg)	<	<	<	0.25	22.00	6.60
	IT	(ug/L):(mg/kg)						
1,2, Dimethylbenzene	SLD	(ug/L):(mg/kg)	<	<	<	0.36	13.00	3.00
	IT	(ug/L):(mg/kg)						
Di-n-octylphthalate	SLD	(ug/L):(mg/kg)	NA	NA	NA	3.40	NA	NA
	IT							

IV. SUMMARY OF SOURCE CHARACTERISTICS/PATHWAY CHARACTERISTICS/TARGETS.

A. Source/Waste Characteristics

The volume of waste on site is not precisely known. The following estimates are based on site measurements, air photo analysis, and a best guess.

Volume of waste in the oil pit:

dimensions of pit 150 X 50 feet
depth = unknown, guess of 2 feet

150 X 50 X 2 feet = 10,000 ft^3 = 370 yrd^3

Volume of waste in southern portion of property (shown as lagoons on historic air photos):

360 feet X 214 feet X 1 foot thick (conservative guess) = 77,059 ft^3

2,854 yrd^3

The volume of waste around the litharge area does not appear to be very high and was not evaluated.

The total volume of waste on site is at least 3,220 cubic yards.

The following CERCLA substances detected on site are presented with their toxicity and persistence rating.

	Toxicity	Persistence	total
Cadmium	3	3	18
Chromium			15 - 18
Copper	3	3	18
Lead	3	3	18
Zinc	3	3	18
Arsenic	3	3	18
Mercury	3	3	18
Benzene	3	1	
Benzo(k)Fluoranthene	3		
Diethyl-o-phthalate	3	3	18
Ethylbenzene	1-2	1	
Cyanide			12
2-Methylnaphthalene	1	1	
2-Methylphenol	3		
Napthalene	3	1	
Pentachlorophenol	3	3	18
Phenanthrene	3	2	
Phenol	3	1	
Pyrene	3		
Xylene	2	1	
Fluorene			
Methylated pyridine			12

B. Air Pathway Targets

No attempt was made to evaluate the air migration pathway during the sampling event. However, sample "D", the background soil sample, has relatively high concentrations of copper, lead, zinc, and arsenic. Aside from the levels of metals detected at the litharge area, the metals in the oil pit and lagoons are not likely to be transported by air. The Asarco Smelter, located downstream 1/2 mile may have some impact on background metals in soils in the area. See photos 4, 19 and 21 which show the proximity of the ASARCO Smelter stack to the site.

The population residing within 1/4 mile of the site, is Joe Canales and his family. Within 1/2 mile of the site an unidentified operation (brick manufacturer?) is included. No residences, other than Joe Canales, are known to be present. Within one mile of the site the population is probably between 101-1000 and within 4 miles, the population is probably over 10,000 people.

Distance	Estimated population
0 - 1/4	5
0 - 1/2	5 + workers
0 - 1	101 - 1000
0 - 4	> 10,000

C. Ground Water Pathway/Targets

An observed release to ground water has been documented. With three feet to ground water and no containment of wastes, this is not surprising.

However, due to the (unexplained) poor quality of water in the vicinity of the site, ground water is not used. The high salinity may be due to brine disposal, however, the brine was probably discharged directly to the river. In addition, hydrologic reports for the area discuss local pockets of high TDS ground water in the area (references 1,2, and 5). To EID's knowledge, no wells exist within 1 mile of the site. The closest community well identified is located 4 miles north of the site, as shown on Figure 1. This well serves 735 people (personnel communication with Robert Gallegos, Program Manager, Drinking water section, EID). The city of El Paso wells do not appear to be within 3 miles of the site (personal communication with Fernando Rico, Texas Department of Health, El Paso). Appendix II is a list of El Paso water supply wells, with location by street name. Water supply to residences prior to the current system needs to be investigated.

D. Surface Water Route Pathway/Targets

No attempt was made to detect an observed release to surface water. The likelihood of a release is very high, due to engineered outfalls, and the distance to the Rio Grande, which is approximately 50 feet. The waste is not contained or covered in the oil pit. The wastes deposited in the lagoons on the southern portion of the property are not diked, but are covered with river dredgings.

Surface water from the Rio Grande is used for drinking by the City of El Paso. The surface water intake is approximately 0.8 miles down stream from the site. (See Figure 2) This water serves 20% of the population of El Paso, or 80,000 people. Another intake about three miles downstream serves Ciudad Juarez, however, the use of the water was not investigated.

E. Onsite Exposure Targets

The population that is potentially in contact with the wastes on site include Joe Canales and his family, a worker who is using the property to store bricks and to dismantle the building on site, and transients who appear to be using some of the abandoned buildings (evidence of hypodermic needles and empty cans of dog food).

V. CONCLUSIONS

Results of soil and water samples indicates the presence of many CERLCA substances on site, some of which have migrated to ground water and may have migrated to surface water. The wastes in the oil pit and in the southern portion of the property are chemically different, but both could be listed wastes from refineries, such as:

K048	Dissolved air floatation (DAF) float
K049	Slop oil emulsion solids
K050	Heat exchanger bundle cleaning sludge
K051	API separator sludge
K052	Tank bottoms (leaded)

A large population (80,000) uses surface water as a drinking water source. No ground water targets have been identified.

Presently, the data gaps for this site are:

1. no observed release to surface water
   - need to sample Rio Grande
2. no ground water users identified within three miles
   - need to locate El Paso City wells on map
   - need to investigate historical use of water in the area
   - need to go door to door in the area to determine existence of private wells.

LIST OF REFERENCES

1. Conover, C.S., 1954. "Ground-Water Conditions in the Rincon and Mesilla Valleys and Adjacent Areas in New Mexico." Geological Survey Water-Supply Paper 1230.

2. King, et al., 1971. "Geology and Ground-Water Resources of Central and Western Dona Ana County, New Mexico." WRRI Hydrologic Report 1.

3. Kottlowski, F.E. and Lemone, D.V., 1969. "Border Stratigraphy Symposium." Bureau of Mines and Mineral Resources, Circular 104.

4. Pierce, S.T., 1989. "Intensive Water Quality Survey of the Rio Grande in the Vicinity of Las Cruces, New Mexico." New Mexico Environmental Improvement Division Report EID/SWQ-8817.

5. Wilson, et al., 1981. "Water Resources of the Rincon and Mesilla Valleys and adjacent areas, New Mexico." New Mexico State Engineer Technical Report 43.

Photo 1. Lewis 890412
North half of El Paso Products Site. Rio Grande borders the east side of the property. Joe Canales' home appears in the left side of the photo. Note the recent dumping of construction debris south of Canales home.

Photo 2. Lewis 890412
South half of the El Paso Products Site. Piles of debris are bricks from dismantled buildings.

Photo 3. Lewis 890412
Auger hole #1 located adjacent to the Canales home approximately where trees had died.

Photo 4. Lewis 890412
Looking South at Paul Karas augering hole #2 in area of recent dumping.

Photo 5. Lewis 890412
Looking east at recent dumping of construction debris.

Photo 6. Lewis 890412
Looking north at Joe Canales (center) at his home. Note salt deposit on surface of the land.

Photo 7. Lewis 890412
Remains of train derailment of car that carried flower pots. Located on west side of El Paso Products.

Photo 8. Lewis 890627
Stacks of canned tomatoes which are presumably left from the company that hauled grocery products.

Photo 9. Lewis 890627
Empty cardboard drums which once contained caustic soda.

Photo 10. Lewis 890627
Rashig rings used in tower packing located
in the base of a building foundation.

Photo 11. Sinclair 890627

Amy Lewis and Dan Smith collecting soil sample from Site A, southern outfall to Rio Grande.

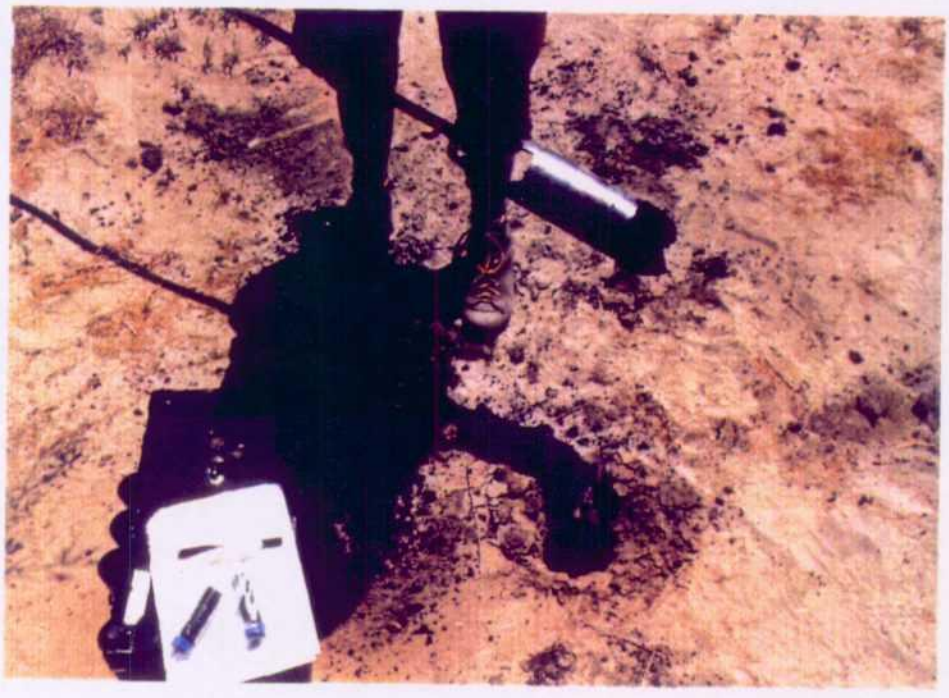


Photo 12. Sinclair 890627

Auger bucket full of oil saturated soil.

Photo 13. Sinclair 890627

Looking south at Amy Lewis collecting soil sample at Site B, the litharge area.

Photo 14. Sinclair 890627

Amy Lewis collecting soil sample B. Note green color of soil.

Photo 15. Lewis 890627
Oil pit located on the east-central side of El Paso Products property.

Photo 16. Lewis 890627
Looking west onto El Paso Products site at oil pit in center, outfall drainage to Rio Grande in foreground, and abandoned buildings in background.

Photo 17. Sinclair 890627
Amy Lewis collecting sample from oil pit, Site C.

Photo 18. Lewis 890627
Looking north at oil pit
and Sheryl Sinclair standing
at north end of pit.

Photo 19. Sinclair 890627
Looking south at Amy Lewis
collecting upgradient soil
sample.

Photo 20. Lewis 890627

Looking east at outfall to Rio Grande.

Photo 21. Lewis 890627

Looking north at in-take of Rio Grande water for the City of El Paso water supply. Note ASARCO tower on the right.

April 12, 1989
Paul Karas, Amy Lewis

2:00 3314 McNutt Rd, Talked to Joe Canales
Bought place 10 years ago, was a residential
Gabriel Sadillo lived here for 20 years
before. He now lives in El Paso.
5 years ago trees started to die.

Construction debris has been dumped
on El Paso Products land, south of
Canales property

Canales saw the train derail in
1986, two tanks had liquid - 250'
south of property. Fire department
told him to evacuate for 6-8 hours.
Trees started to die before the train
derailment

Joe Canales buys, sells + trades used
equipment at flea markets.

Rick-A-Part Auto salvage

2 April 12, 1989 Paul Karas & Hay Lewis

Aug 1 Augered hole on west side of Canales home.

Cond = 160 x 100 = 16,000 umhos

Temp = 21°C

DTW = 4' - 1.3 = 2.7'

16:30 El Paso Products

Aug 2 DTW = 2.7'

Cond = 11,500 umhos

Temp = 20°C

located 650 ~~north~~ paces south of Canales home property (ditch which runs west to east

~~7:00~~ 1

5:30 Walked on road + railroad tracks, took pictures.

6:00 departed site

June 27, 1989 Sunny, hot

Sheryl Sinclair, Amy Lewis

9:00 Met Dan Smith at Site

- Dredgings from river were deposited in the southern portion of the property which filled in lagoons a few years ago.

||

- pitch (heavy oil(s)) from "cracking", distilling

The ethyl building handled tetraethyl lead – a gasoline additive to bring octane level up

lead oxide was used to remove sulfur (1 H barge)

4 houses were present in the area north of the guard hut, that were the homes of people who operated the refinery

4

June 27, 1989

Site "A"

11:15 Soil Sample - Composite from 6-8 inch auger hole : ~~3.5 ft~~ depth

~~Photo #9, Army Levis sampling~~

South end of property, 10 yards ~~from~~ West of River Levee in a depression - drainage to rio grande.

Photo #10 Army Levis sampling

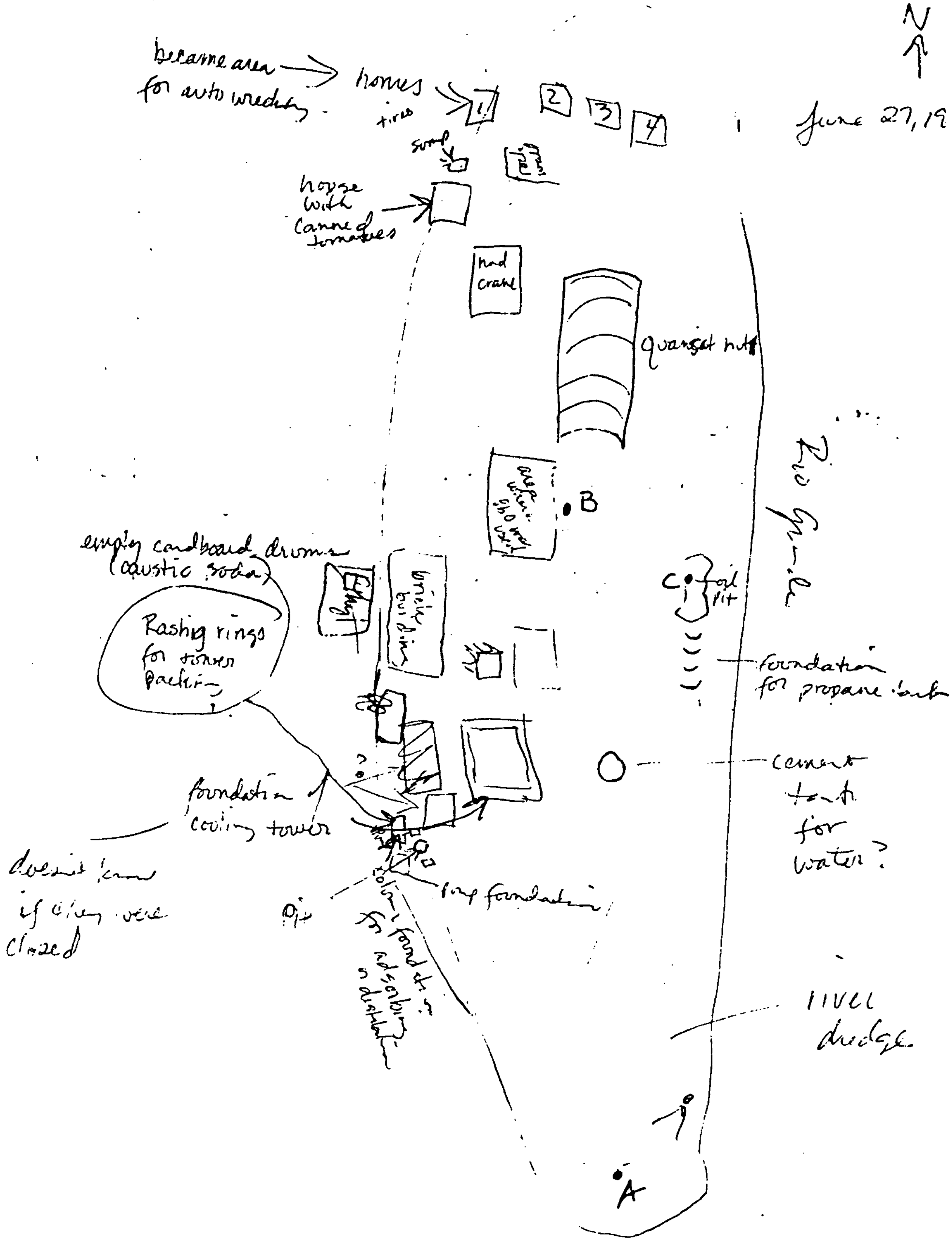
Photo #11 - black substance found in subsurface

Soil smelled very strongly of hydrocarbons - black oily tar.

~~Cl~~ Cleaned auger with soapy water, deionized ethanol + DI and paper towels.

12:25 Site "B" (Lithorge) Soil Sample - composite in area where a lead oxide may have been used to extract sulfer(?) from petroleum. The soil was green (Cu?) and black (petroleum?) Sample was taken on east side of a concrete tower.

June 27, 1989


N
became area for auto wrecking
homes
tires
sump
1
2
3
4
house with canned tomatoes
hand crane
Quonset hut
Rio Grande
B
C
oil pit
empty cardboard drums (caustic soda)
Rashig rings for tower packing
brick building
foundation for propane tanks
cement tank for water?
foundation cooling tower
doesn't know if they were closed
pump foundation
river dredge
A

6

June 27, 1989

photo # 12 - looking South at Site "B", ASARCO tower in background

photo #13 - green & black soil @ Site B

1300 Site "C" waste Sample - oily substance, possibly crankcase oil, spread on ground about 5 yards west of River levee (Rio Grande) near center of property and telephone poles

photo 14 & 15 Ally Lewis Edgeley

Site C is

66 paces (my pace is 2.5 feet)
by 19 paces

the worst looking area was 37 paces long

1330 Tried to auger a hole south of the property in order to sample ground water downstream (downgradient?) of old refinery. We tried several locations but were stopped about 1.5' by a hard layer (and 105°F temperature)

June 27, 1989

Dan Smith left the site while we were augering because he had to catch his flight.

1430 We gave up augering and left site
1530 Talked to Fernando Ricc on telephone
1615 Came back to site, collected background sample, Site D

Amy Lewis

8

July 18, 1989

Partly Cloudy + warm

7am Randy Meeker and Amy Lewis arrive at El Paso Products. Began to auger down gradient gw location.

We got ice at 6:30 and put in bags for samples. Dan Smith/Pixene with Jeff Richardson/IT

Border auto salvage

Auger #3

Randy augered down through rocks, sand + clay. At about 5.4 feet he hit water and the sand was gray-black and smelled like crude petroleum. The water level rose to 2.6' below ~~water~~ ground surface => so water is under confining condition

Conductivity = ~~5~~ 5000 micromhos

Temp = ? I forgot

Filtered sample for metals, general chemistry and nitrogen species.

July 18, 1989

10:00 Met Joe Canale, began augering on his property about 30' South of Auger hole #1
Auger #4
3.4' = DTW hole is 5.9' deep.

Cond = 8500
T = 27°F

Filtered one sample for metals.

11:30 Began augering #5, on property, south of process area. At 2', hit hard black layer.

0-2 fill sand some clay
2-4 black, hard oil collected sample (Auger 5)
4-8 gray, slightly sandy - moist - water or oil? at 5'
8.2 brown oil and gray clay (natural condition)
collected sample → called Auger 5B
appears to be one foot of floating product

Cond = 5000 } measured at 1500
Temp = 45°C }

5 - 1.20 = 3.8' DTW Static water under confining condition. First hit water at 5', then rose to 3.8.

Used color cut, but transition showed up in some place → seems to be an emulsion.

10

7/18/89

2:10 Dan + Jeff not back from lunch. We decided to take some soil samples.

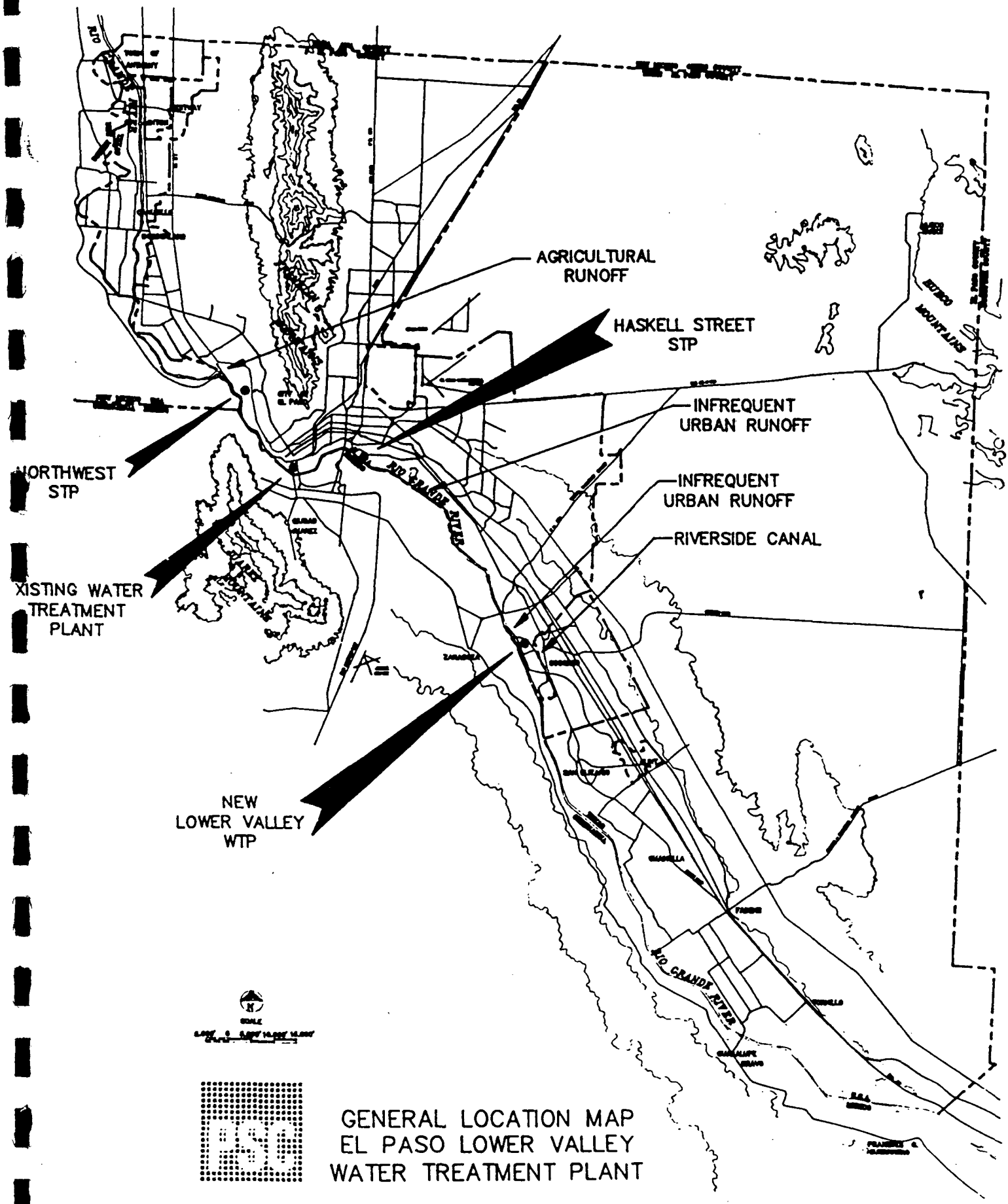
1415 Collected lithargé sample. Randy dug up dirt and a strong sweet ~~gas~~ smell~~ing~~ came from ~~the~~ green-black soil on east side of lithargé tank. (same spot as 'B' on 6/27/89)

1430 Oil Pit, collected soil (oil) sample (same as 'C' on 6/27
Black oil in pits on east side of property

1500 Collected waste sample on south end of property near outfall → sample called southern outfall (same as 'A' on 6/27/89)

1515 collected upgradient soil sample, north of Canales home.

Amy Lewis

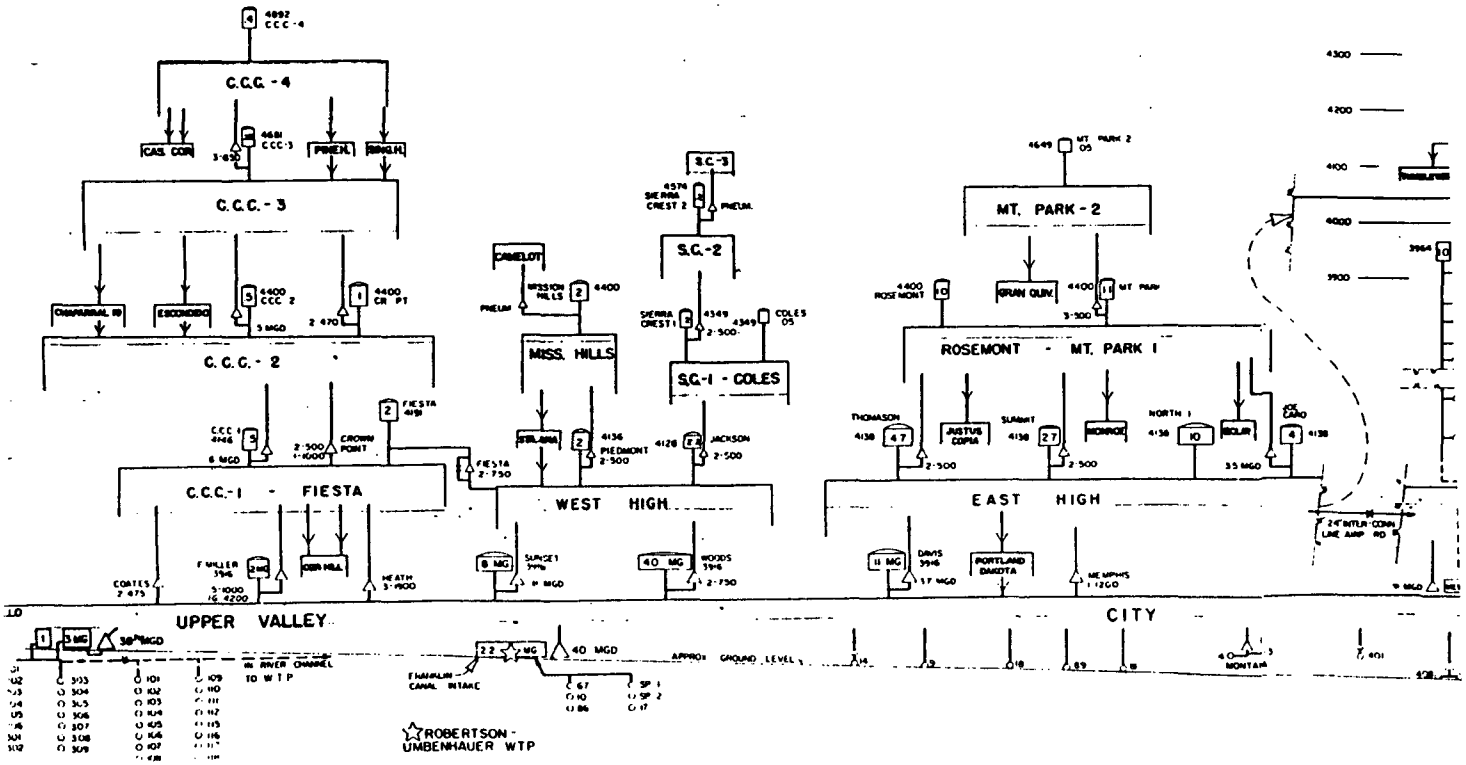


GENERAL LOCATION MAP
EL PASO LOWER VALLEY
WATER TREATMENT PLANT

ATTACHMENT NO. 1

SCHEMATIC OF

EL PASO WATER UTILITIES WATER SYSTE



CITY OF EL PASO WELLS

GROUND WATER PRODUCTION DATA

Designation	Depth	Production GPM	Location	Auxiliary Power
WELL 003A		Not Connected	Chelsea ½ blk N of Yandell	None
WELL 004		Abandoned ✓	Yandell ½ blk E of Radford	
WELL 009A	960	985 A	Luna & Pera	
WELL 010A	640	678 C	Florence ½ blk S of Sixth St.	
WELL 012	774	851 ✓	Fred Wilson 3/4 mi. W of Airport Rd.	
WELL 014	465	Not Connected ✓	Olive ½ blk W of Palm	
>WELL 014A	960	564	Piedras & San Antonio	
WELL 015A	1120	1681 A	Airport Rd. & Fred Wilson	
WELL 016A	1026	1757 C	3/4 mi. E of Airport Rd. & Fred Wilson	
WELL 017	713	1073 C	San Antonio & Tornillo	
WELL 018A	788	625 C	Dunne ½ blk E of Hadlock	
WELL 019	867	1425 ✓	Airport Rd. & Haan Rd.	
WELL 020	917	894 ✓	Railroad Dr. 1 mi. N of Fred Wilson	
WELL 021	860	1050 ✓	Diana & Hercules	
WELL 022	754	659 ✓	Airport parking lot by Hilton Inn	
WELL 023	814	1101 ✓	Diana & Hondo Pass	
WELL 024	790	1192 ✓	Antonio & Gschwind	
WELL 025	832	1110 ✓	Woodrow Bean T-MT & Electric	
WELL 026	830	1132 ✓	Donald 1 blk. W of Rushing	
WELL 027	836	1136 ✓	Woodrow Bean T-MT ½ blk W of Dyer	
WELL 028	727	1070 ✓	Donald & McCombs	
WELL 029	766	1420 ✓	McCombs & Sean Haggerty	
WELL 030	983	1029 ✓	Airport reservoir	
WELL 031	730	1008 ✓	1 mi. E of well 52	
WELL 032	657	1170 ✓	McCombs 1 mi. N of Sean Haggerty	
WELL 033	1126	820 ✓	War Rd. ½ blk N of Sun Valley	
WELL 034	752	903 ✓	1 mi. E of well 32	
WELL 035	699	1378 ✓	1 mi. E of well 36	
WELL 036	690	1461 ✓	McCombs 2 mi. N of Sean Haggerty	
WELL 037	896	1534 ✓	Aiport Rd. by EP Natural Gas hanger	
WELL 038	722	1624 ✓	Cosmos & Catnip by Ele Co Sub Station	
WELL 039	753	1319 ✓	E of Mesa plant	
WELL 040	826	1525 ✓	½ blk W of Dyer & Angora Loop South	
WELL 041	515	2241 ✓	1 mi. W of well 42	
WELL 042	671	3010 ✓	McCombs 3 mi. N of Sean Haggerty	
WELL 043	570	2137 ✓	1 mi. W of well 32	
WELL 044	769	2748 ✓	2 mi. E of well 32	

Designation	Depth	Production GPM	Location	Auxiliary Power
WELL 045	830	1401	Mattox 3 blks N of Montana	NONE
WELL 046	746	1194	Carnegie & Derick ½ blk E & ½ blk N	
WELL 047	600	555	Montana & Firestone	
WELL 048	635	1042	Wedgewood & Lockerbie	
WELL 049	838	1298	Viscount & Sunmount	
WELL 050	748	1357	Hawkins 1 blk S of Viscount	
WELL 051	1037	1258	Grouse 1 blk E of Dyer	
WELL 052	1153	780	War Rd 1 mi. N of well 33	
WELL 053	870	Not Connected	FM2637 3/4 mi. E of McCombs	
WELL 055	1160	1141	Diana & Andes	
WELL 056	670	1252	2 mi. E of well 36	
WELL 062	950	2469	Railroad & Grouse	GAS ENGINE
WELL 063	791	1106	Sam Moore 1 blk N of Mayflower	
WELL 064	810	1031	Edgemere ½ blk W of Hawkins	NONE
WELL 065	480	598	NW cor Eastwood reservoir	
WELL 066	930	1149	Boeing ½ blk E of Beech	
WELL 067	730	672	Charles 1 blk N of Bandera, by water plant	
WELL 068	545	597	Janway 1 blk N of Springwood	
WELL 069	540	719	Candlewood ½ blk E of Sumac	
WELL 070	561	639	Yarbrough ½ blk N of Allway	
WELL 071	555	856	Yarbrough & Karen	
WELL 072	700	304	Montana ½ blk W of Limerick	
WELL 073	360	462	Carpenter & Yarbrough	
WELL 074	960	1640	Airport Rd. & Haan Rd. 2 mi. E	
WELL 075	1060	1418	Airport Rd. & Haan Rd. 1&½ mi. E	
WELL 076	1045	1527	Airport Rd. & Haan Rd. 1 mi. E	
WELL 077	1024	1425	Airport Rd. & Haan Rd. ½ mi. E	
WELL 078	950	1320	Airport Rd. & Haan Rd. 2&½ mi. E	
WELL 079	942	1120	Airport Rd. & Haan Rd. 3 mi. E	
WELL 080	955	1103	Airport Rd. & Haan Rd. 3&½ mi. E	
WELL 081	872	729	Delta & De Vargas	
WELL 082	510	580	Carolina & Alameda	
WELL 083	460	480	Mansfield ½ blk W of Riverside	
WELL 084	434	642	Ladera & Carolina	
WELL 085	560	581	S End of La Paz	
WELL 086	855	1040	Cotton & Fifth	
WELL 087	499	Not Connected	Alameda & Vocational	
WELL 088	421	Not Connected	Yarbrough & Floyd	
WELL 089	866	Not Connected	NE cor Delta Sewage Plant	
WELL 090	800	Not Connected	Airport well field	

Designation	Depth	Production GPM	Location	Auxiliary Power
WELL 091	900	1400 A	Airport well field	NONE
WELL 092	900	1400 A	Airport well field	
WELL 093	900	1400 A	Airport well field	
WELL 094	900	1400 A	Airport well field	
A WELL 095	870	1336	Airport well field	
A WELL 097	660	1405	Airport well field	
A WELL 098	658	1376	Airport well field	
WELL 101	122	667 ✓	Levee Rd. ½ mi. N of Canutillo Booster Sta	
WELL 102	160	1081 ✓	Levee Rd. 3/4 mi. N of Canutillo Booster Sta	
WELL 103	150	1410 ✓	Levee Rd. 1&¼ mi. N of Canutillo Booster Sta	
WELL 104	155	932 ✓	Bosque Rd. ½ mi. N of well 302&1 blk W	
WELL 105	155	549 ✓	Bosque Rd. 1 blk W of well 302	
WELL 106	160	825 ✓	1 blk W of Canutillo Booster Sta	
WELL 107	203	885 ✓	NW cor of Canutillo Booster Sta	
WELL 108	200	830 ✓	Bosque Rd. 3/4 mi. N of Canutillo Booster Sta	
WELL 109	156	898 ✓	1 blk S of well 104	
WELL 110	170	915 ✓	Bosque Rd. ½ mi. N of well 302 & ½ blk E	
WELL 111	201	826 ✓	Bosque Rd. ½ mi. W of well 302	
WELL 112	201	821 ✓	Bosque Rd. ½ mi. W of well 302	
WELL 115	200	446 ✓	Levee Rd. ½ mi. S of Vinton Rd.	
WELL 116	221	493 ✓	Levee Rd. 1 mi. S of Vinton Rd.	
WELL 117	219	963 ✓	Bosque Rd. 1 mi. S of Vinton Rd.	
WELL 118	210	920 ✓	½ blk E of Canutillo Booster Sta	
WELL 201	1060	2248 ✓	Bosque Rd. 3/4 mi. S of Vinton Rd.	
WELL 202	1090	1502 ✓	Bosque Rd. & Vinton Rd.	
WELL 203	1149	2075 ✓	1 blk W of Bosque Rd. & Vinton Rd. & ½ mi. N	
WELL 204	950	1709 ✓	½ mi. E of well 203	
WELL 205	900	1786 ✓	Levee Rd. ¼ mi. S of Vinton Rd.	
WELL 206	1200	2190 ✓	1 blk W of Vinton Rd. & Bosque Rd. & 1 mi. N	
WELL 301	550	1948 ✓	Bosque Rd. & Vinton Rd.	
WELL 302	454	1597 ✓	Bosque Rd. 3/4 mi. N of Canutillo Booster Sta	
WELL 303	550	1708 ✓	Bosque Rd. 3/4 mi. W of well 302	
WELL 304	400	1933 ✓	Levee Rd. ¼ mi. S of Vinton Rd.	
WELL 305	404	1549 ✓	Bosque Rd. ½ mi. N of well 302 & ½ mi. W	
WELL 306	461	1741 ✓	Bosque Rd. 3/4 mi. S of Vinton Rd.	
WELL 307	440	1268 ✓	Levee Rd. 1 mi. S of Vinton Rd.	
WELL 308	277	1188 ✓	1 blk W of Bosque Rd. & Vinton Rd. & ½ mi. N	
WELL 309	506	2250 ✓	1 blk W of Bosque Rd. & Vinton Rd. & 1 mi. N	
WELL 401	477	385 ✓	Clark ½ blk S of Cleveland	
WELL 402		Abandoned ✓	North Loop ½ blk W of Bucher	

	Designation	Depth	Production GPM	Location	Auxiliary Power
	WELL 403	886	446 ✓	Lafayette ½ blk S of Yermoland	None
	WELL 404	219	321 ✓	Pendale 1 blk E of Kastrin	
	WELL 405	490	516 ✓	Ameca & Parral	
	WELL 406	555	559 ✓	Gateway E 1 blk E of Giles	
	WELL 407	610	499 ✓	Benson ½ blk S of Gateway E	
	WELL 408	770	932 ✓	Glenwood & Flower	
	WELL 408A	249	542 ✗	Glenwood & Flower	
	WELL 409	655	692 ✓	2 blks S of Cielo Vista Reservoir	
	WELL 410	762	790 ✓	Roswell ½ blk S of Gateway E	
	WELL 411	670	674 ✓	Kilmaltie & Catnip	
	WELL 412	323	491 ✓	Gateway E 1 blk E of Lafayett	
	WELL 413	692	634 ✓	SE cor of Ascarate Park	
	WELL 414	510	1400 ✗	Ysleta Sewage Plant	
A	WELL 415	350	577	Lafayette & San Paulo	
A	WELL 416	555	386	Independence 3 blks E of Yarbrough	
A	WELL 417	555	547	Independence E of Yarbrough	
A	WELL 418	460	Not Connected	Porche 1 blk S of Knights	
A	WELL 419	500	521	Milby 1 blk S of Bernadine	
A	WELL 420	632	592	Balsam & Carolina	
A	WELL 421	564	592	Mimosa & Carolina	
A	WELL 422	567	732	Stiles E of Dodge	
	WELL SP1	807	668 ✓	First St. 600' N of Delta	
	WELL SP2	760	617 ✓	By RR tracks S of Delta E of Coles	

Wells dropped since last year

57 Sect. 16 Blk 80
59 Sect 21 Blk 80
61 Sect 7 Blk 80

34 duplicate? Sect 19 Blk 80

14 duplicate 2202 E. San Antonio Ave.

An "A" in the "Designation" column means an added well since last year

An "A" or "C" in the "Production gpm" column indicates an added or change value.

AnalyticalTechnologies, Inc. 2113 S. 48th Street Suite 107 Tempe, AZ 85282 (602) 438-1530

- 7.89

AUGUST 18, 1989

NEW MEXICO ENVIRONMENTAL
IMPROVEMENT DIVISION
1190 ST. FRANCIS DRIVE
SANTA FE, NM 87503

Accession: 907608

Date Received: 07-20-89

Attention: AMY LEWIS

Project: EL PASO PRODUCTS, #570759.5702

Note: DUE TO EQUIPMENT FAILURE ARSENIC, LEAD, ANTIMONY, SELENIUM, AND THALLIUM ANALYSES WERE PERFORMED BY ATI - SAN DIEGO FOR ATI SAMPLES 90760801, 04, 07, 08, 10, 11; ANTIMONY AND SELENIUM ANALYSES WERE PERFORMED BY ATI - SAN DIEGO FOR ATI SAMPLE 90760809. ONE CONTAINER FOR AUGER 5 SLUDGE WAS BROKEN IN TRANSIT; HOWEVER, ENOUGH SAMPLE WAS PROVIDED IN OTHER CONTAINERS TO PERFORM ALL ANALYSES REQUESTED.

Jane Humphress Foote
Jane Humphress Foote
Project Manager

Robert V. Woods
Robert V. Woods
Laboratory Manager

RVW:rlm
MM-24

Note: Samples will be disposed of within 30 days unless otherwise notified.

Analytico Technologies, Inc

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV. DATE RECEIVED : 07/20/89
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS REPORT DATE : 08/18/89
ATI I.D. : 907608

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	AUGER 3 (SLUDGE)	NON-AQUEOUS	07/18/89
02	AUGER 3 (WATER)	AQUEOUS	07/18/89
03	AUGER 4 (WATER)	AQUEOUS	07/18/89
04	AUGER 5 (SLUDGE)	NON-AQUEOUS	07/18/89
05	AUGER 5 (WATER)	AQUEOUS	07/18/89
06	AUGER B (WATER)	AQUEOUS	07/18/89
07	AUGER 5B (SLUDGE)	NON-AQUEOUS	07/18/89
08	LITHARGE (SLUDGE)	NON-AQUEOUS	07/18/89
09	OIL PIT (SLUDGE)	NON-AQUEOUS	07/18/89
10	SOUTHERN OUTFALL (SLUDGE)	NON-AQUEOUS	07/18/89
11	BACKGROUND	NON-AQUEOUS	07/18/89

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	4
NON-AQUEOUS	7

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from th date of this report. If an extended storage period is required, please contac our sample control department before the scheduled disposal date.

Analytical Technologies, Inc

GENERAL CHEMISTRY RESULTS

ATI I.D. : 907608

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV. DATE RECEIVED : 07/20/8
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS REPORT DATE : 08/18/8

PARAMETER	UNITS	02	03	05	06
CYANIDE, TOTAL	MG/L	0.02	<0.01	0.02	0.01
PHENOLICS, TOTAL	MG/L	<0.02	<0.02	<0.02	<0.02

Analytical Technologies, Inc

GENERAL CHEMISTRY RESULTS

ATI I.D. : 907608

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

DATE RECEIVED : 07/20/89
REPORT DATE : 08/18/89

PARAMETER	UNITS	01	04	07	08	09
CYANIDE, TOTAL	MG/KG	<1.0	<1.0	3.3	1.3	<1.0
PHENOLICS, TOTAL	MG/KG	<2.0	<2.0	<2.0	2.9	33

Analytical Technologies, Inc

GENERAL CHEMISTRY RESULTS

ATI I.D. : 907608

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

DATE RECEIVED : 07/20/89
REPORT DATE : 08/18/89

PARAMETER	UNITS	10	11
CYANIDE, TOTAL	MG/KG	1.9	<1.0
PHENOLICS, TOTAL	MG/KG	11	<2.0

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS ATI I.D. : 907608

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CYANIDE, TOTAL	MG/L	90764003	0.02	<0.01	NA	NA	NA	NA
CYANIDE, TOTAL	MG/L	90764007	<0.01	NA	NA	0.094	0.100	94
CYANIDE, TOTAL	MG/KG	90760811	<1.0	<1.0	NA	9.2	10.0	92
PHENOLICS, TOTAL	MG/L	90756101	<0.02	<0.02	NA	NA	NA	NA
PHENOLICS, TOTAL	MG/L	90760806	<0.02	NA	NA	0.114	0.100	114
PHENOLICS, TOTAL	MG/KG	90760811	<2.0	<2.0	NA	10.8	10.0	108

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 10$$

Analytical Technologies, Inc

METALS RESULTS

ATI I.D. : 907608

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

DATE RECEIVED : 07/20/89
REPORT DATE : 08/18/89

PARAMETER	UNITS	02	03	05	06
SILVER	MG/L	0.013	0.040	0.060	<0.010
ARSENIC	MG/L	0.019	0.029	0.62	<0.002
BERYLLIUM	MG/L	<0.005	<0.005	0.042	<0.005
CADMIUM	MG/L	0.012	0.026	0.042	<0.005
CHROMIUM	MG/L	<0.02	<0.02	0.42	<0.02
COPPER	MG/L	0.032	0.047	1.20	0.013
MERCURY	MG/L	<0.0002	<0.0002	0.0012	<0.0002
NICKEL	MG/L	0.04	0.11	0.89	<0.03
LEAD	MG/L	<0.01	<0.01	1.3	<0.01
ANTIMONY	MG/L	0.08	0.03	0.10	0.02
SELENIUM	MG/L	0.005	0.010	<0.016	<0.002
THALLIUM	MG/L	<0.02	<0.1	<0.04	<0.02
ZINC	MG/L	0.062	0.044	1.88	0.013

Analytical Technologies, Inc

METALS RESULTS

ATI I.D. : 907608

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

DATE RECEIVED : 07/20/8
REPORT DATE : 08/18/8

PARAMETER	UNITS	01	04	07	08	09
SILVER	MG/KG	<1.0	<1.0	<1.0	1.7	5.6
ARSENIC	MG/KG	1.3	4.8	2.7	160	31
BERYLLIUM	MG/KG	<0.5	<0.5	0.6	<0.5	<1.0
CADMIUM	MG/KG	1.0	0.8	1.0	8.4	1.8
CHROMIUM	MG/KG	<2	5	4	43	130
COPPER	MG/KG	8.4	13.8	14.9	85000	172
MERCURY	MG/KG	0.03	<0.02	<0.02	30	<0.04
NICKEL	MG/KG	6	14	13	471	53
LEAD	MG/KG	26	19	24	576	2240
ANTIMONY	MG/KG	2	<1	2	3	8
SELENIUM	MG/KG	<0.2	<0.2	<0.2	1.9	<4
THALLIUM	MG/KG	-	<2	<2	<2	<1.0
ZINC	MG/KG	12.6	27.3	19.5	924	79

METALS RESULTS

ATI I.D. : 907608

ENV. IMPROVEMENT DIV.

DATE RECEIVED : 07/20/89

2

UCTS

REPORT DATE : 08/18/89

	UNITS	10	11
	MG/KG	1.1	1.2
	MG/KG	22	71
	MG/KG	<0.5	<0.5
	MG/KG	6.1	4.2
	MG/KG	4	3
	MG/KG	391	291
	MG/KG	0.09	0.050
	MG/KG	12	11
	MG/KG	550	182
	MG/KG	4	7
	MG/KG	0.2	0.8
	MG/KG	<2	<2
	MG/KG	121	254

TROL

ATI I.D. : 907608

DUP. RESULT	RPD		SPIKED SAMPLE	SPIKE CONC	% REC
0.041	2		0.529	0.500	98
<1.0	NA		26.0	25.0	104
2.2	9		27.6	25.0	101
0.029	0		0.067	0.050	76
2.7	0		13	10	103
31	0		80	50	98
<0.005	NA		0.456	0.500	91
<0.5	NA		23.4	25.0	94
0.025	4		0.274	0.250	99
2.5	4		27.3	25.0	10(
2.4	8		28.2	25.0	10?
0.10	10		0.29	0.20	10(
<0.02	NA		0.72	1.00	*
23	4		40	20	90
<2	NA		200	200	10(
0.049	4		0.527	0.500	96
85400	0.5		132000	50000	94
<0.0002	NA		0.0050	0.0050	10(
0.03	0		0.56	0.50	10(
0.055	10		0.325	0.250	11(
20	40	*	75	50	90
0.11	0		1.19	1.25	86
10	0		120	125	88
<0.01	NA		0.21	0.25	84
180	0		445	250	10(
0.03	0		0.25	0.25	90
7	0		28	25	84
4	29		100	100	97
0.010	0		0.051	0.050	82
0.7	13		6.2	5.0	10(
0.3	29		5.9	5.0	11
<0.1	NA		1.4	2.5	56
<2	NA		42	50	84
<0.5	NA		STDA	CC=	.9
0.047	7		0.220	0.200	88
86.1	3		132	50.0	97
35	3		56	20	10(

.t)

-- X 100

ılt - Duplicate Result)

---------- X 1(

Average Result

:erference

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760802

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER 3 (WATER)	DATE ANALYZED	: 07/28/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
ALDRIN	<0.5
ALPHA BHC	<0.5
BETA BHC	<0.5
GAMMA BHC (LINDANE)	<0.5
DELTA BHC	<0.5
CHLORDANE	<5.0
4,4'-DDD	<1.0
4,4'-DDE	<1.0
4,4'-DDT	<1.0
DIELDRIN	<1.0
ENDOSULFAN I	<0.5
ENDOSULFAN II	<1.0
ENDOSULFAN SULFATE	<1.0
ENDRIN	<1.0
ENDRIN ALDEHYDE	<1.0
ENDRIN KETONE	<1.0
HEPTACHLOR	<0.5
HEPTACHLOR EPOXIDE	<0.5
METHOXYCHLOR	<5.0
TOXAPHENE	<10.0
AROCLOR 1016	<5.0
AROCLOR 1221	<5.0
AROCLOR 1232	<5.0
AROCLOR 1242	<5.0
AROCLOR 1248	<5.0
AROCLOR 1254	<5.0
AROCLOR 1260	<5.0
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	80

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760803

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/89
CLIENT I.D.	: AUGER 4 (WATER)	DATE ANALYZED	: 07/28/89
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
ALDRIN	<0.05
ALPHA BHC	<0.05
BETA BHC	<0.05
GAMMA BHC (LINDANE)	<0.05
DELTA BHC	<0.05
CHLORDANE	<0.5
4,4'-DDD	<0.1
4,4'-DDE	<0.1
4,4'-DDT	<0.1
DIELDRIN	<0.1
ENDOSULFAN I	<0.05
ENDOSULFAN II	<0.1
ENDOSULFAN SULFATE	<0.1
ENDRIN	<0.1
ENDRIN ALDEHYDE	<0.1
ENDRIN KETONE	<0.1
HEPTACHLOR	<0.05
HEPTACHLOR EPOXIDE	<0.05
METHOXYCHLOR	<0.5
TOXAPHENE	<1.0
AROCLOR 1016	<0.5
AROCLOR 1221	<0.5
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	82

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760805

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER 5 (WATER)	DATE ANALYZED	: 07/28/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
ALDRIN	<0.5
ALPHA BHC	<0.5
BETA BHC	<0.5
GAMMA BHC (LINDANE)	<0.5
DELTA BHC	<0.5
CHLORDANE	<5.0
4,4'-DDD	<1.0
4,4'-DDE	<1.0
4,4'-DDT	<1.0
DIELDRIN	<1.0
ENDOSULFAN I	<0.5
ENDOSULFAN II	<1.0
ENDOSULFAN SULFATE	<1.0
ENDRIN	<1.0
ENDRIN ALDEHYDE	<1.0
ENDRIN KETONE	<1.0
HEPTACHLOR	<0.5
HEPTACHLOR EPOXIDE	<0.5
METHOXYCHLOR	<5.0
TOXAPHENE	<10.0
AROCLOR 1016	<5.0
AROCLOR 1221	<5.0
AROCLOR 1232	<5.0
AROCLOR 1242	<5.0
AROCLOR 1248	<5.0
AROCLOR 1254	<5.0
AROCLOR 1260	<5.0
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	77

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760806

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER B (WATER)	DATE ANALYZED	: 07/28/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
ALDRIN	<0.05
ALPHA BHC	<0.05
BETA BHC	<0.05
GAMMA BHC (LINDANE)	<0.05
DELTA BHC	<0.05
CHLORDANE	<0.5
4,4'-DDD	<0.1
4,4'-DDE	<0.1
4,4'-DDT	<0.1
DIELDRIN	<0.1
ENDOSULFAN I	<0.05
ENDOSULFAN II	<0.1
ENDOSULFAN SULFATE	<0.1
ENDRIN	<0.1
ENDRIN ALDEHYDE	<0.1
ENDRIN KETONE	<0.1
HEPTACHLOR	<0.05
HEPTACHLOR EPOXIDE	<0.05
METHOXYCHLOR	<0.5
TOXAPHENE	<1.0
AROCLOR 1016	<0.5
AROCLOR 1221	<0.5
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5

SURROGATE PERCENT RECOVERIES

ISODRIN (%)	80

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	ATI I.D.	: 907608
PROJECT #	: 570759.5702	DATE EXTRACTED	: 07/25/8
PROJECT NAME	: EL PASO PRODUCTS	DATE ANALYZED	: 07/28/8
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
ALDRIN	<0.05
ALPHA BHC	<0.05
BETA BHC	<0.05
GAMMA BHC (LINDANE)	<0.05
DELTA BHC	<0.05
CHLORDANE	<0.5
4,4'-DDD	<0.1
4,4'-DDE	<0.1
4,4'-DDT	<0.1
DIELDRIN	<0.1
ENDOSULFAN I	<0.05
ENDOSULFAN II	<0.1
ENDOSULFAN SULFATE	<0.1
ENDRIN	<0.1
ENDRIN ALDEHYDE	<0.1
ENDRIN KETONE	<0.1
HEPTACHLOR	<0.05
HEPTACHLOR EPOXIDE	<0.05
METHOXYCHLOR	<0.5
TOXAPHENE	<1.0
AROCLOR 1016	<0.5
AROCLOR 1221	<0.5
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5

SURROGATE PERCENT RECOVERIES

ISODRIN (%)	83

Analytical Technologies, Inc

QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 608)

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

REF. I.D. : 90899904
DATE ANALYZED : 07/28/89
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPI
GAMMA BHC	ND	2.0	1.9	95	1.8	90	5
HEPTACHLOR	ND	2.0	1.8	90	1.8	90	0
ALDRIN	ND	2.0	1.9	95	1.9	95	0
DIELDRIN	ND	2.0	2.2	110	2.0	100	10
ENDRIN	ND	2.0	2.4	120	2.1	105	13
DDT	ND	2.0	2.4	120	2.2	110	9

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760801

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: AUGER 3 (SLUDGE)	DATE ANALYZED	: 07/31/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
ALDRIN	<0.005
ALPHA - BHC	<0.005
BETA - BHC	<0.005
GAMMA - BHC	<0.005
DELTA - BHC	<0.005
CHLORDANE	<0.05
4,4'-DDD	<0.01
4,4'-DDE	<0.01
4,4'-DDT	<0.01
DIELDRIN	<0.01
ENDOSULFAN I	<0.01
ENDOSULFAN II	<0.01
ENDOSULFAN SULFATE	<0.01
ENDRIN	<0.01
ENDRIN ALDEHYDE	<0.01
ENDRIN KETONE	<0.01
HEPTACHLOR	<0.005
HEPTACHLOR EPOXIDE	<0.005
METHOXYCHLOR	<0.05
TOXAPHENE	<0.1
AROCLOR 1016	<0.05
AROCLOR 1221	<0.05
AROCLOR 1232	<0.05
AROCLOR 1242	<0.05
AROCLOR 1248	<0.05
AROCLOR 1254	<0.05
AROCLOR 1260	<0.05
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	90

Analytical Technologies, Inc

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760804

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: AUGER 5 (SLUDGE)	DATE ANALYZED	: 08/02/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 60

COMPOUNDS	RESULTS
ALDRIN	<0.300
ALPHA - BHC	<0.300
BETA - BHC	<0.300
GAMMA - BHC	<0.300
DELTA - BHC	<0.300
CHLORDANE	<3.0
4,4'-DDD	<0.6
4,4'-DDE	<0.6
4,4'-DDT	<0.6
DIELDRIN	<0.6
ENDOSULFAN I	<0.6
ENDOSULFAN II	<0.6
ENDOSULFAN SULFATE	<0.6
ENDRIN	<0.6
ENDRIN ALDEHYDE	<0.6
ENDRIN KETONE	<0.6
HEPTACHLOR	<0.300
HEPTACHLOR EPOXIDE	<0.300
METHOXYCHLOR	<3.0
TOXAPHENE	<6.0
AROCLOR 1016	<3.0
AROCLOR 1221	<3.0
AROCLOR 1232	<3.0
AROCLOR 1242	<3.0
AROCLOR 1248	<3.0
AROCLOR 1254	<3.0
AROCLOR 1260	<3.0
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	130

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760807

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/89
CLIENT I.D.	: AUGER 5B (SLUDGE)	DATE ANALYZED	: 08/02/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 6

COMPOUNDS	RESULTS
ALDRIN	<0.030
ALPHA - BHC	<0.030
BETA - BHC	<0.030
GAMMA - BHC	<0.030
DELTA - BHC	<0.030
CHLORDANE	<0.30
4,4'-DDD	<0.06
4,4'-DDE	<0.06
4,4'-DDT	<0.06
DIELDRIN	<0.06
ENDOSULFAN I	<0.06
ENDOSULFAN II	<0.06
ENDOSULFAN SULFATE	<0.06
ENDRIN	<0.06
ENDRIN ALDEHYDE	<0.06
ENDRIN KETONE	<0.06
HEPTACHLOR	<0.030
HEPTACHLOR EPOXIDE	<0.030
METHOXYCHLOR	<0.30
TOXAPHENE	<0.6
AROCLOR 1016	<0.30
AROCLOR 1221	<0.30
AROCLOR 1232	<0.30
AROCLOR 1242	<0.30
AROCLOR 1248	<0.30
AROCLOR 1254	<0.30
AROCLOR 1260	<0.30
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	101

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GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760808

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/89
CLIENT I.D.	: LITHARGE (SLUDGE)	DATE ANALYZED	: 08/02/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
ALDRIN	<0.050
ALPHA - BHC	<0.050
BETA - BHC	<0.050
GAMMA - BHC	<0.050
DELTA - BHC	<0.050
CHLORDANE	<0.5
4,4'-DDD	<0.1
4,4'-DDE	<0.1
4,4'-DDT	<0.1
DIELDRIN	<0.1
ENDOSULFAN I	<0.1
ENDOSULFAN II	<0.1
ENDOSULFAN SULFATE	<0.1
ENDRIN	<0.1
ENDRIN ALDEHYDE	<0.1
ENDRIN KETONE	<0.1
HEPTACHLOR	<0.050
HEPTACHLOR EPOXIDE	<0.050
METHOXYCHLOR	<0.5
TOXAPHENE	<1.0
AROCLOR 1016	<0.5
AROCLOR 1221	<0.5
AROCLOR 1232	<0.5
AROCLOR 1242	<0.5
AROCLOR 1248	<0.5
AROCLOR 1254	<0.5
AROCLOR 1260	<0.5

SURROGATE PERCENT RECOVERIES

ISODRIN (%)	82

Y - RESULTS

ATI I.D. : 90760809

'S (EPA 8080)

T DIV.

DATE SAMPLED	: 07/18/89
DATE RECEIVED	: 07/20/89
DATE EXTRACTED	: 07/26/89
DATE ANALYZED	: 08/02/89
UNITS	: MG/KG
DILUTION FACTOR	: 3000

RESULTS
<15.0
<15.0
<15.0
<15.0
<15.0
<150
<30
<30
<30
<30
<30
<30
<30
<30
<30
<30
<15.0
<15.0
<150
<300
<150
<150
<150
<150
<150
<150
<150

**

sample, result was not attainable

TOGRAPHY - RESULTS

ATI I.D. : 90760810

AND PCB'S (EPA 8080)

MPROVEMENT DIV.

(SLUDGE)

DATE SAMPLED	: 07/18/89
DATE RECEIVED	: 07/20/89
DATE EXTRACTED	: 07/26/89
DATE ANALYZED	: 08/02/89
UNITS	: MG/KG
DILUTION FACTOR	: 600

RESULTS
<3.00
<3.00
<3.00
<3.00
<3.00
<30.0
<6.0
<6.0
<6.0
<6.0
<6.0
<6.0
<6.0
<6.0
<6.0
<6.0
<3.00
<3.00
<30.0
<60
<30.0
<30.0
<30.0
<30.0
<30.0
<30.0
<30.0

RIES

**

of the sample, result was not attainable

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GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 90760811

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/89
CLIENT I.D.	: BACKGROUND	DATE ANALYZED	: 08/02/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 6

COMPOUNDS	RESULTS
ALDRIN	<0.030
ALPHA - BHC	<0.030
BETA - BHC	<0.030
GAMMA - BHC	<0.030
DELTA - BHC	<0.030
CHLORDANE	<0.30
4,4'-DDD	<0.06
4,4'-DDE	<0.06
4,4'-DDT	<0.06
DIELDRIN	<0.06
ENDOSULFAN I	<0.06
ENDOSULFAN II	<0.06
ENDOSULFAN SULFATE	<0.06
ENDRIN	<0.06
ENDRIN ALDEHYDE	<0.06
ENDRIN KETONE	<0.06
HEPTACHLOR	<0.030
HEPTACHLOR EPOXIDE	<0.030
METHOXYCHLOR	<0.30
TOXAPHENE	<0.6
AROCLOR 1016	<0.30
AROCLOR 1221	<0.30
AROCLOR 1232	<0.30
AROCLOR 1242	<0.30
AROCLOR 1248	<0.30
AROCLOR 1254	<0.30
AROCLOR 1260	<0.30
SURROGATE PERCENT RECOVERIES	
ISODRIN (%)	82

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	ATI I.D.	: 907608
PROJECT #	: 570759.5702	DATE EXTRACTED	: 07/26/8
PROJECT NAME	: EL PASO PRODUCTS	DATE ANALYZED	: 07/31/8
CLIENT I.D.	: REAGENT BLANK	UNITS	: MG/KG
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
ALDRIN	<0.005
ALPHA - BHC	<0.005
BETA - BHC	<0.005
GAMMA - BHC	<0.005
DELTA - BHC	<0.005
CHLORDANE	<0.05
4,4'-DDD	<0.01
4,4'-DDE	<0.01
4,4'-DDT	<0.01
DIELDRIN	<0.01
ENDOSULFAN I	<0.01
ENDOSULFAN II	<0.01
ENDOSULFAN SULFATE	<0.01
ENDRIN	<0.01
ENDRIN ALDEHYDE	<0.01
ENDRIN KETONE	<0.01
HEPTACHLOR	<0.005
HEPTACHLOR EPOXIDE	<0.005
METHOXYCHLOR	<0.05
TOXAPHENE	<0.1
AROCLOR 1016	<0.05
AROCLOR 1221	<0.05
AROCLOR 1232	<0.05
AROCLOR 1242	<0.05
AROCLOR 1248	<0.05
AROCLOR 1254	<0.05
AROCLOR 1260	<0.05

SURROGATE PERCENT RECOVERIES

ISODRIN (%)	81

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QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

REF. I.D. : 90899903
DATE ANALYZED : 07/31/89
SAMPLE MATRIX : NON-AQUEOU
UNITS : MG/KG

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
GAMMA BHC	ND	0.067	0.051	76	0.045	67	13
HEPTACHLOR	ND	0.067	0.053	79	0.047	70	12
ALDRIN	ND	0.067	0.050	75	0.046	69	8
DIELDRIN	ND	0.067	0.062	93	0.057	85	8
ENDRIN	ND	0.067	0.065	97	0.060	90	8
DDT	ND	0.067	0.074	110	0.069	103	7

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Analytico Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760802

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: N/A
CLIENT I.D.	: AUGER 3 (WATER)	DATE ANALYZED	: 07/24/89
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%)	114
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	105

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ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760802

ADDITIONAL MAJOR COMPOUNDS	RESULTS
NO ADDITIONAL COMPOUNDS	

RESULTS

ATI I.D. : 90760803

ROVEMENT DIV.

DATE SAMPLED	: 07/18/89
DATE RECEIVED	: 07/20/89
DATE EXTRACTED	: N/A
DATE ANALYZED	: 07/24/89
UNITS	: UG/L
DILUTION FACTOR	: 1

RESULTS
<10
<10
<1
<1
<5
<10
<1
<1
<1
<1
<1
<1
<10
<1
<1
<10
<1
<1
<1
<1
<1
<1
<1
<1
<1
<10
<5
<10
<10
<1
<1
<1
<1
<1
<1

IES

110
96
104

OMPOUNDS

ATI I.D. : 90760803

RESULTS

Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 90760805

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: N/A
CLIENT I.D.	: AUGER 5 (WATER)	DATE ANALYZED	: 07/25/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 25

COMPOUNDS	RESULTS
CHLOROMETHANE	<250
BROMOMETHANE	<250
VINYL CHLORIDE	<25
CHLOROETHANE	<25
METHYLENE CHLORIDE	<125
ACETONE	<250
CARBON DISULFIDE	<25
1,1-DICHLOROETHENE	<25
1,1-DICHLOROETHANE	<25
1,2-DICHLOROETHENE (TOTAL)	<25
CHLOROFORM	<25
1,2-DICHLOROETHANE	<25
2-BUTANONE (MEK)	<250
1,1,1-TRICHLOROETHANE	<25
CARBON TETRACHLORIDE	<25
VINYL ACETATE	<250
BROMODICHLOROMETHANE	<25
1,1,2,2-TETRACHLOROETHANE	<25
1,2-DICHLOROPROPANE	<25
TRANS-1,3-DICHLOROPROPENE	<25
TRICHLOROETHENE	<25
DIBROMOCHLOROMETHANE	<25
1,1,2-TRICHLOROETHANE	<25
BENZENE	80
CIS-1,3-DICHLOROPROPENE	<25
2-CHLOROETHYLVINYLETHER	<250
BROMOFORM	<125
2-HEXANONE (MBK)	<250
4-METHYL-2-PENTANONE (MIBK)	<250
TETRACHLOROETHENE	<25
TOLUENE	30
CHLOROBENZENE	<25
ETHYLBENZENE	50
STYRENE	<25
TOTAL XYLENES	100
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%)	98
BROMOFLUOROBENZENE (%)	108
TOLUENE-D8 (%)	91

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ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760805

ADDITIONAL MAJOR COMPOUNDS	RESULTS
HYDROCARBON C6	200
HYDROCARBON C10	400
HYDROCARBON C8	200
OXYGENATED HYDROCARBON C7	200
HYDROCARBON C9	500
HYDROCARBON C10	400
HYDROCARBON C7	200
HYDROCARBON C11	300
HYDROCARBON C9	300

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760806

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: N/A
CLIENT I.D.	: AUGER B (WATER)	DATE ANALYZED	: 07/24/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	21
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	115
BROMOFLUOROBENZENE (%)	96
TOLUENE-D8 (%)	105

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760806

ADDITIONAL MAJOR COMPOUNDS	RESULTS
NO ADDITIONAL COMPOUNDS	

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	ATI I.D.	: 907608
PROJECT #	: 570759.5702	DATE EXTRACTED	: 07/24/8
PROJECT NAME	: EL PASO PRODUCTS	DATE ANALYZED	: 07/24/8
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	TR
ACETONE	TR
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	102
BROMOFLUOROBENZENE (%)	106
TOLUENE-D8 (%)	101

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	ATI I.D.	: 907608
PROJECT #	: 570759.5702	DATE EXTRACTED	: 07/25/8
PROJECT NAME	: EL PASO PRODUCTS	DATE ANALYZED	: 07/25/8
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	TR
ACETONE	TR
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	97
BROMOFLUOROBENZENE (%)	110
TOLUENE-D8 (%)	98

Analytical Technologies, Inc

QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : VOLATILE ORGANICS (EPA 624)

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

REF. I.D. : 90899901
DATE ANALYZED : 07/25/89
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPI
1,1-DICHLOROETHENE	ND	50	47	94	47	94	0
TRICHLOROETHENE	ND	50	46	92	49	98	6
CHLOROBENZENE	ND	50	45	90	47	94	4
TOLUENE	ND	50	43	86	46	92	7
BENZENE	ND	50	46	92	48	96	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

TR - Compound detected at an unquantifiable trace level

Analytico Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760801

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/89
CLIENT I.D.	: AUGER 3 (SLUDGE)	DATE ANALYZED	: 07/25/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%)	99
BROMOFLUOROBENZENE (%)	106
TOLUENE-D8 (%)	96

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760801

ADDITIONAL MAJOR COMPOUNDS	RESULTS
OXYGENATED HYDROCARBON C12	0.1

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760804

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/89
CLIENT I.D.	: AUGER 5 (SLUDGE)	DATE ANALYZED	: 07/25/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
CHLOROMETHANE	<5.0
BROMOMETHANE	<5.0
VINYL CHLORIDE	<0.5
CHLOROETHANE	<0.5
METHYLENE CHLORIDE	<3.0
ACETONE	<5.0
CARBON DISULFIDE	<0.5
1,1-DICHLOROETHENE	<0.5
1,1-DICHLOROETHANE	<0.5
1,2-DICHLOROETHENE (TOTAL)	<0.5
CHLOROFORM	<0.5
1,2-DICHLOROETHANE	<0.5
2-BUTANONE (MEK)	<5.0
1,1,1-TRICHLOROETHANE	<0.5
CARBON TETRACHLORIDE	<0.5
VINYL ACETATE	<5.0
BROMODICHLOROMETHANE	<0.5
1,1,2,2-TETRACHLOROETHANE	<0.5
1,2-DICHLOROPROPANE	<0.5
TRANS-1,3-DICHLOROPROPENE	<0.5
TRICHLOROETHENE	<0.5
DIBROMOCHLOROMETHANE	<0.5
1,1,2-TRICHLOROETHANE	<0.5
BENZENE	0.6
CIS-1,3-DICHLOROPROPENE	<0.5
2-CHLOROETHYLVINYLETHER	<5.0
BROMOFORM	<3.0
2-HEXANONE (MBK)	<5.0
4-METHYL-2-PENTANONE (MIBK)	<5.0
TETRACHLOROETHENE	<0.5
TOLUENE	0.7
CHLOROBENZENE	<0.5
ETHYLBENZENE	6.8
STYRENE	<0.5
TOTAL XYLENES	11.4

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	103
BROMOFLUOROBENZENE (%)	129
TOLUENE-D8 (%)	92

:OMPOUNDS

ATI I.D. : 90760804

RESULTS
7
30
10
10
30
10
50
20

S - RESULTS

ATI I.D. : 90760807

0)

MPROVEMENT DIV.

DATE SAMPLED	: 07/18/89
DATE RECEIVED	: 07/20/89
DATE EXTRACTED	: 07/20/89
DATE ANALYZED	: 07/26/89
UNITS	: MG/KG
DILUTION FACTOR	: 1

RESULTS
<0.50
<0.50
<0.05
<0.05
<0.3
<0.50
<0.05
<0.05
<0.05
<0.05
<0.05
<0.05
<0.50
<0.05
<0.05
<0.50
<0.05
<0.05
<0.05
<0.05
<0.05
<0.05
<0.05
<0.05
<0.05
<0.50
<0.3
<0.50
<0.50
<0.05
<0.05
<0.05
<0.05
<0.05
0.2

RIES

114
113
98

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GCMS - RESULTS

ATI I.D. : 90760808

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/89
CLIENT I.D.	: LITHARGE (SLUDGE)	DATE ANALYZED	: 07/25/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
CHLOROMETHANE	<5.0
BROMOMETHANE	<5.0
VINYL CHLORIDE	<0.5
CHLOROETHANE	<0.5
METHYLENE CHLORIDE	<3.0
ACETONE	<5.0
CARBON DISULFIDE	<0.5
1,1-DICHLOROETHENE	<0.5
1,1-DICHLOROETHANE	<0.5
1,2-DICHLOROETHENE (TOTAL)	<0.5
CHLOROFORM	<0.5
1,2-DICHLOROETHANE	<0.5
2-BUTANONE (MEK)	<5.0
1,1,1-TRICHLOROETHANE	<0.5
CARBON TETRACHLORIDE	<0.5
VINYL ACETATE	<5.0
BROMODICHLOROMETHANE	<0.5
1,1,2,2-TETRACHLOROETHANE	<0.5
1,2-DICHLOROPROPANE	<0.5
TRANS-1,3-DICHLOROPROPENE	<0.5
TRICHLOROETHENE	<0.5
DIBROMOCHLOROMETHANE	<0.5
1,1,2-TRICHLOROETHANE	<0.5
BENZENE	<0.5
CIS-1,3-DICHLOROPROPENE	<0.5
2-CHLOROETHYLVINYLETHER	<5.0
BROMOFORM	<3.0
2-HEXANONE (MBK)	<5.0
4-METHYL-2-PENTANONE (MIBK)	<5.0
TETRACHLOROETHENE	<0.5
TOLUENE	<0.5
CHLOROBENZENE	<0.5
ETHYLBENZENE	<0.5
STYRENE	<0.5
TOTAL XYLENES	<0.5
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%)	102
BROMOFLUOROBENZENE (%)	116
TOLUENE-D8 (%)	97

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760809

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/8
CLIENT I.D.	: OIL PIT (SLUDGE)	DATE ANALYZED	: 07/25/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 20

COMPOUNDS	RESULTS
CHLOROMETHANE	<10.0
BROMOMETHANE	<10.0
VINYL CHLORIDE	<1.0
CHLOROETHANE	<1.0
METHYLENE CHLORIDE	<6.0
ACETONE	<10.0
CARBON DISULFIDE	<1.0
1,1-DICHLOROETHENE	<1.0
1,1-DICHLOROETHANE	<1.0
1,2-DICHLOROETHENE (TOTAL)	<1.0
CHLOROFORM	<1.0
1,2-DICHLOROETHANE	<1.0
2-BUTANONE (MEK)	<10.0
1,1,1-TRICHLOROETHANE	<1.0
CARBON TETRACHLORIDE	<1.0
VINYL ACETATE	<10.0
BROMODICHLOROMETHANE	<1.0
1,1,2,2-TETRACHLOROETHANE	<1.0
1,2-DICHLOROPROPANE	<1.0
TRANS-1,3-DICHLOROPROPENE	<1.0
TRICHLOROETHENE	<1.0
DIBROMOCHLOROMETHANE	<1.0
1,1,2-TRICHLOROETHANE	<1.0
BENZENE	<1.0
CIS-1,3-DICHLOROPROPENE	<1.0
2-CHLOROETHYLVINYLETHER	<10.0
BROMOFORM	<6.0
2-HEXANONE (MBK)	<10.0
4-METHYL-2-PENTANONE (MIBK)	<10.0
TETRACHLOROETHENE	<1.0
TOLUENE	1.3
CHLOROBENZENE	<1.0
ETHYLBENZENE	1.7
STYRENE	<1.0
TOTAL XYLENES	6.3
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%)	107
BROMOFLUOROBENZENE (%)	123
TOLUENE-D8 (%)	98

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760809

ADDITIONAL MAJOR COMPOUNDS	RESULTS
OXYGENATED HYDROCARBON C3	3
HYDROCARBON C9	5
OXYGENATED HYDROCARBON C10	2

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760810

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/8
CLIENT I.D.	: SOUTHERN OUTFALL (SLUDGE)	DATE ANALYZED	: 07/27/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	0.06
CHLOROBENZENE	<0.05
ETHYLBENZENE	0.23
STYRENE	<0.05
TOTAL XYLENES	0.89

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	111
BROMOFLUOROBENZENE (%)	96
TOLUENE-D8 (%)	99

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760810

ADDITIONAL MAJOR COMPOUNDS	RESULTS
HYDROCARBON C9	4
HYDROCARBON C9	2
HYDROCARBON C10	2
HYDROCARBON C9	3
HYDROCARBON C11	2
HYDROCARBON C10	5
HYDROCARBON C10	3

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760811

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/20/8
CLIENT I.D.	: BACKGROUND	DATE ANALYZED	: 07/25/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	<0.3
ACETONE	<0.50
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (M1BK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	108
BROMOFLUOROBENZENE (%)	106
TOLUENE-D8 (%)	98

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ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760811

ADDITIONAL MAJOR COMPOUNDS	RESULTS
HYDROCARBON C10	0.1

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

		ATI I.D.	: 907608
CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE EXTRACTED	: 07/20/8
PROJECT #	: 570759.5702	DATE ANALYZED	: 07/25/8
PROJECT NAME	: EL PASO PRODUCTS	UNITS	: MG/KG
CLIENT I.D.	: REAGENT BLANK	DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	TR
ACETONE	TR
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	97
BROMOFLUOROBENZENE (%)	103
TOLUENE-D8 (%)	96

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

		ATI I.D.	: 907608
CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE EXTRACTED	: 07/20/8
PROJECT #	: 570759.5702	DATE ANALYZED	: 07/26/8
PROJECT NAME	: EL PASO PRODUCTS	UNITS	: MG/KG
CLIENT I.D.	: REAGENT BLANK	DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	TR
ACETONE	TR
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	89
BROMOFLUOROBENZENE (%)	104
TOLUENE-D8 (%)	94

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	ATI I.D.	: 907608
PROJECT #	: 570759.5702	DATE EXTRACTED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE ANALYZED	: 07/27/8
CLIENT I.D.	: REAGENT BLANK	UNITS	: MG/KG
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<0.50
BROMOMETHANE	<0.50
VINYL CHLORIDE	<0.05
CHLOROETHANE	<0.05
METHYLENE CHLORIDE	TR
ACETONE	TR
CARBON DISULFIDE	<0.05
1,1-DICHLOROETHENE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
CHLOROFORM	<0.05
1,2-DICHLOROETHANE	<0.05
2-BUTANONE (MEK)	<0.50
1,1,1-TRICHLOROETHANE	<0.05
CARBON TETRACHLORIDE	<0.05
VINYL ACETATE	<0.50
BROMODICHLOROMETHANE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
1,2-DICHLOROPROPANE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
TRICHLOROETHENE	<0.05
DIBROMOCHLOROMETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
BENZENE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
2-CHLOROETHYLVINYLETHER	<0.50
BROMOFORM	<0.3
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
CHLOROBENZENE	<0.05
ETHYLBENZENE	<0.05
STYRENE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	105
BROMOFLUOROBENZENE (%)	94
TOLUENE-D8 (%)	97

Analytical Technologies, Inc

QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	REF. I.D.	: 90760801
PROJECT #	: 570759.5702	DATE ANALYZED	: 07/26/89
PROJECT NAME	: EL PASO PRODUCTS	SAMPLE MATRIX	: NON-AQUEC
		UNITS	: MG/KG

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RP
1,1-DICHLOROETHENE	ND	2.5	2.9	116	2.9	116	0
TRICHLOROETHENE	ND	2.5	2.9	116	2.7	108	7
CHLOROBENZENE	ND	2.5	2.8	112	2.8	112	0
TOLUENE	ND	2.5	2.9	116	2.9	116	0
BENZENE	ND	2.5	3.1	124	3.1	124	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

TR - Compound detected at an unquantifiable trace level

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760802

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER 3 (WATER)	DATE ANALYZED	: 07/31/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10
PHENOL	<10
ANILINE	<10
BIS(2-CHLOROETHYL)ETHER	<10
2-CHLOROPHENOL	<10
1,3-DICHLOROBENZENE	<10
1,4-DICHLOROBENZENE	<10
BENZYL ALCOHOL	<10
1,2-DICHLOROBENZENE	<10
2-METHYLPHENOL	<10
BIS(2-CHLOROISOPROPYL)ETHER	<10
4-METHYLPHENOL	<10
N-NITROSO-DI-N-PROPYLAMINE	<10
HEXACHLOROETHANE	<10
NITROBENZENE	<10
ISOPHORONE	<10
2-NITROPHENOL	<10
2,4-DIMETHYLPHENOL	<10
BENZOIC ACID	<50
BIS(2-CHLOROETHOXY)METHANE	<10
2,4-DICHLOROPHENOL	<10
1,2,4-TRICHLOROBENZENE	<10
NAPHTHALENE	<10
4-CHLOROANILINE	<10
HEXACHLOROBUTADIENE	<10
4-CHLORO-3-METHYLPHENOL	<10
2-METHYLNAPHTHALENE	<10
HEXACHLOROCYCLOPENTADIENE	<10
2,4,6-TRICHLOROPHENOL	<10
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<10
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<10
ACENAPHTHYLENE	<10
3-NITROANILINE	<50
ACENAPHTHENE	<10
2,4-DINITROPHENOL	<50
4-NITROPHENOL	<50
DIBENZOFURAN	<10
2,4-DINITROTOLUENE	<10
2,6-DINITROTOLUENE	<10

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760802

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<10
4-CHLOROPHENYL-PHENYLETHER	<10
FLUORENE	<10
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<10
4-BROMOPHENYL-PHENYLETHER	<10
HEXACHLOROBENZENE	<10
PENTACHLOROPHENOL	<50
PHENANTHRENE	<10
ANTHRACENE	<10
DI-N-BUTYLPHTHALATE	<10
FLUORANTHENE	<10
BENZIDINE	<100
PYRENE	<10
BUTYLBENZYLPHTHALATE	<10
3,3'-DICHLOROBENZIDINE	<20
BENZO(a)ANTHRACENE	<10
BIS(2-ETHYLHEXYL)PHTHALATE	<10
CHRYSENE	<10
DI-N-OCTYLPHTHALATE	<10
BENZO(b)FLUORANTHENE	<10
BENZO(k)FLUORANTHENE	<10
BENZO(a)PYRENE	<10
INDENO(1,2,3-cd)PYRENE	<10
DIBENZO(a,h)ANTHRACENE	<10
BENZO(g,h,i)PERYLENE	<10

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	57
2-FLUOROBIPHENYL (%)	68
TERPHENYL (%)	87
PHENOL-D5 (%)	45
2-FLUOROPHENOL (%)	40
2,4,6-TRIBROMOPHENOL (%)	66

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760802

ADDITIONAL MAJOR COMPOUNDS	RESULTS
NO ADDITIONAL COMPOUNDS	

Analytico Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760803

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/89
CLIENT I.D.	: AUGER 4 (WATER)	DATE ANALYZED	: 07/31/89
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10
PHENOL	<10
ANILINE	<10
BIS(2-CHLOROETHYL)ETHER	<10
2-CHLOROPHENOL	<10
1,3-DICHLOROBENZENE	<10
1,4-DICHLOROBENZENE	<10
BENZYL ALCOHOL	<10
1,2-DICHLOROBENZENE	<10
2-METHYLPHENOL	<10
BIS(2-CHLOROISOPROPYL)ETHER	<10
4-METHYLPHENOL	<10
N-NITROSO-DI-N-PROPYLAMINE	<10
HEXACHLOROETHANE	<10
NITROBENZENE	<10
ISOPHORONE	<10
2-NITROPHENOL	<10
2,4-DIMETHYLPHENOL	<10
BENZOIC ACID	<50
BIS(2-CHLOROETHOXY)METHANE	<10
2,4-DICHLOROPHENOL	<10
1,2,4-TRICHLOROBENZENE	<10
NAPHTHALENE	<10
4-CHLOROANILINE	<10
HEXACHLOROBUTADIENE	<10
4-CHLORO-3-METHYLPHENOL	<10
2-METHYLNAPHTHALENE	<10
HEXACHLOROCYCLOPENTADIENE	<10
2,4,6-TRICHLOROPHENOL	<10
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<10
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<10
ACENAPHTHYLENE	<10
3-NITROANILINE	<50
ACENAPHTHENE	<10
2,4-DINITROPHENOL	<50
4-NITROPHENOL	<50
DIBENZOFURAN	<10
2,4-DINITROTOLUENE	<10
2,6-DINITROTOLUENE	<10

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760803

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<10
4-CHLOROPHENYL-PHENYLETHER	<10
FLUORENE	<10
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<10
4-BROMOPHENYL-PHENYLETHER	<10
HEXACHLOROBENZENE	<10
PENTACHLOROPHENOL	<50
PHENANTHRENE	<10
ANTHRACENE	<10
DI-N-BUTYLPHTHALATE	<10
FLUORANTHENE	<10
BENZIDINE	<100
PYRENE	<10
BUTYLBENZYLPHTHALATE	<10
3,3'-DICHLOROBENZIDINE	<20
BENZO(a)ANTHRACENE	<10
BIS(2-ETHYLHEXYL)PHTHALATE	<10
CHRYSENE	<10
DI-N-OCTYLPHTHALATE	<10
BENZO(b)FLUORANTHENE	<10
BENZO(k)FLUORANTHENE	<10
BENZO(a)PYRENE	<10
INDENO(1,2,3-cd)PYRENE	<10
DIBENZO(a,h)ANTHRACENE	<10
BENZO(g,h,i)PERYLENE	<10

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	57
2-FLUOROBIPHENYL (%)	63
TERPHENYL (%)	80
PHENOL-D5 (%)	50
2-FLUOROPHENOL (%)	54
2,4,6-TRIBROMOPHENOL (%)	58

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760803

ADDITIONAL MAJOR COMPOUNDS	RESULTS
NO ADDITIONAL COMPOUNDS	

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760805

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER 5 (WATER)	DATE ANALYZED	: 08/01/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 10

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<100
PHENOL	<100
ANILINE	<100
BIS(2-CHLOROETHYL)ETHER	<100
2-CHLOROPHENOL	<100
1,3-DICHLOROBENZENE	<100
1,4-DICHLOROBENZENE	<100
BENZYL ALCOHOL	<100
1,2-DICHLOROBENZENE	<100
2-METHYLPHENOL	<100
BIS(2-CHLOROISOPROPYL)ETHER	<100
4-METHYLPHENOL	<100
N-NITROSO-DI-N-PROPYLAMINE	<100
HEXACHLOROETHANE	<100
NITROBENZENE	<100
ISOPHORONE	<100
2-NITROPHENOL	<100
2,4-DIMETHYLPHENOL	<100
BENZOIC ACID	<500
BIS(2-CHLOROETHOXY)METHANE	<100
2,4-DICHLOROPHENOL	<100
1,2,4-TRICHLOROBENZENE	<100
NAPHTHALENE	110
4-CHLOROANILINE	<100
HEXACHLOROBUTADIENE	<100
4-CHLORO-3-METHYLPHENOL	<100
2-METHYLNAPHTHALENE	270
HEXACHLOROCYCLOPENTADIENE	<100
2,4,6-TRICHLOROPHENOL	<100
2,4,5-TRICHLOROPHENOL	<500
2-CHLORONAPHTHALENE	<100
2-NITROANILINE	<500
DIMETHYLPHTHALATE	<100
ACENAPHTHYLENE	<100
3-NITROANILINE	<500
ACENAPHTHENE	<100
2,4-DINITROPHENOL	<500
4-NITROPHENOL	<500
DIBENZOFURAN	<100
2,4-DINITROTOLUENE	<100
2,6-DINITROTOLUENE	<100

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760805

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<100
4-CHLOROPHENYL-PHENYLETHER	<100
FLUORENE	36
4-NITROANILINE	<500
4,6-DINITRO-2-METHYLPHENOL	<500
N-NITROSODIPHENYLAMINE	<100
4-BROMOPHENYL-PHENYLETHER	<100
HEXACHLOROBENZENE	<100
PENTACHLOROPHENOL	<500
PHENANTHRENE	54
ANTHRACENE	<100
DI-N-BUTYLPHTHALATE	<100
FLUORANTHENE	<100
BENZIDINE	<1000
PYRENE	28
BUTYLBENZYLPHTHALATE	<100
3,3'-DICHLOROBENZIDINE	<200
BENZO(a)ANTHRACENE	<100
BIS(2-ETHYLHEXYL)PHTHALATE	<100
CHRYSENE	<100
DI-N-OCTYLPHTHALATE	<100
BENZO(b)FLUORANTHENE	<100
BENZO(k)FLUORANTHENE	<100
BENZO(a)PYRENE	<100
INDENO(1,2,3-cd)PYRENE	<100
DIBENZO(a,h)ANTHRACENE	<100
BENZO(g,h,i)PERYLENE	<100

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	51
2-FLUOROBIPHENYL (%)	88
TERPHENYL (%)	97
PHENOL-D5 (%)	68
2-FLUOROPHENOL (%)	65
2,4,6-TRIBROMOPHENOL (%)	83

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760805

ADDITIONAL MAJOR COMPOUNDS	RESULTS
TRIMETHYL DECANE	600
TRIMETHYL DODECANE	800
METHYLATED HYDROCARBONS C13	800
BRANCHED HYDROCARBONS C16	1000
HYDROCARBONS C10-C26	100000

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760806

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/25/8
CLIENT I.D.	: AUGER B (WATER)	DATE ANALYZED	: 07/31/8
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10
PHENOL	<10
ANILINE	<10
BIS(2-CHLOROETHYL)ETHER	<10
2-CHLOROPHENOL	<10
1,3-DICHLOROBENZENE	<10
1,4-DICHLOROBENZENE	<10
BENZYL ALCOHOL	<10
1,2-DICHLOROBENZENE	<10
2-METHYLPHENOL	<10
BIS(2-CHLOROISOPROPYL)ETHER	<10
4-METHYLPHENOL	<10
N-NITROSO-DI-N-PROPYLAMINE	<10
HEXACHLOROETHANE	<10
NITROBENZENE	<10
ISOPHORONE	<10
2-NITROPHENOL	<10
2,4-DIMETHYLPHENOL	<10
BENZOIC ACID	<50
BIS(2-CHLOROETHOXY)METHANE	<10
2,4-DICHLOROPHENOL	<10
1,2,4-TRICHLOROBENZENE	<10
NAPHTHALENE	<10
4-CHLOROANILINE	<10
HEXACHLOROBUTADIENE	<10
4-CHLORO-3-METHYLPHENOL	<10
2-METHYLNAPHTHALENE	<10
HEXACHLOROCYCLOPENTADIENE	<10
2,4,6-TRICHLOROPHENOL	<10
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<10
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<10
ACENAPHTHYLENE	<10
3-NITROANILINE	<50
ACENAPHTHENE	<10
2,4-DINITROPHENOL	<50
4-NITROPHENOL	<50
DIBENZOFURAN	<10
2,4-DINITROTOLUENE	<10
2,6-DINITROTOLUENE	<10

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760806

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<10
4-CHLOROPHENYL-PHENYLETHER	<10
FLUORENE	<10
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<10
4-BROMOPHENYL-PHENYLETHER	<10
HEXACHLOROBENZENE	<10
PENTACHLOROPHENOL	<50
PHENANTHRENE	<10
ANTHRACENE	<10
DI-N-BUTYLPHTHALATE	<10
FLUORANTHENE	<10
BENZIDINE	<100
PYRENE	<10
BUTYLBENZYLPHTHALATE	<10
3,3'-DICHLOROBENZIDINE	<20
BENZO(a)ANTHRACENE	<10
BIS(2-ETHYLHEXYL)PHTHALATE	<10
CHRYSENE	<10
DI-N-OCTYLPHTHALATE	<10
BENZO(b)FLUORANTHENE	<10
BENZO(k)FLUORANTHENE	<10
BENZO(a)PYRENE	<10
INDENO(1,2,3-cd)PYRENE	<10
DIBENZO(a,h)ANTHRACENE	<10
BENZO(g,h,i)PERYLENE	<10
SURROGATE PERCENT RECOVERIES	
NITROBENZENE-D5 (%)	77
2-FLUOROBIPHENYL (%)	89
TERPHENYL (%)	93
PHENOL-D5 (%)	69
2-FLUOROPHENOL (%)	70
2,4,6-TRIBROMOPHENOL (%)	71

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

		ATI I.D.	: 907608
CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE EXTRACTED	: 07/25/8
PROJECT #	: 570759.5702	DATE ANALYZED	: 08/01/8
PROJECT NAME	: EL PASO PRODUCTS	UNITS	: UG/L
CLIENT I.D.	: REAGENT BLANK	DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10
PHENOL	<10
ANILINE	<10
BIS(2-CHLOROETHYL)ETHER	<10
2-CHLOROPHENOL	<10
1,3-DICHLOROBENZENE	<10
1,4-DICHLOROBENZENE	<10
BENZYL ALCOHOL	<10
1,2-DICHLOROBENZENE	<10
2-METHYLPHENOL	<10
BIS(2-CHLOROISOPROPYL)ETHER	<10
4-METHYLPHENOL	<10
N-NITROSO-DI-N-PROPYLAMINE	<10
HEXACHLOROETHANE	<10
NITROBENZENE	<10
ISOPHORONE	<10
2-NITROPHENOL	<10
2,4-DIMETHYLPHENOL	<10
BENZOIC ACID	<50
BIS(2-CHLOROETHOXY)METHANE	<10
2,4-DICHLOROPHENOL	<10
1,2,4-TRICHLOROBENZENE	<10
NAPHTHALENE	<10
4-CHLOROANILINE	<10
HEXACHLOROBUTADIENE	<10
4-CHLORO-3-METHYLPHENOL	<10
2-METHYLNAPHTHALENE	<10
HEXACHLOROCYCLOPENTADIENE	<10
2,4,6-TRICHLOROPHENOL	<10
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<10
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<10
ACENAPHTHYLENE	<10
3-NITROANILINE	<50
ACENAPHTHENE	<10
2,4-DINITROPHENOL	<50
4-NITROPHENOL	<50
DIBENZOFURAN	<10
2,4-DINITROTOLUENE	<10
2,6-DINITROTOLUENE	<10
DIETHYLPHTHALATE	<10
4-CHLOROPHENYL-PHENYLETHER	<10

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Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

ATI I.D. : 907608

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

COMPOUNDS	RESULTS
FLUORENE	<10
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<10
4-BROMOPHENYL-PHENYLETHER	<10
HEXACHLOROBENZENE	<10
PENTACHLOROPHENOL	<50
PHENANTHRENE	<10
ANTHRACENE	<10
DI-N-BUTYLPHTHALATE	<10
FLUORANTHENE	<10
BENZIDINE	<100
PYRENE	<10
BUTYLBENZYLPHTHALATE	<10
3,3'-DICHLOROBENZIDINE	<20
BENZO(a)ANTHRACENE	<10
BIS(2-ETHYLHEXYL)PHTHALATE	<10
CHRYSENE	<10
DI-N-OCTYLPHTHALATE	<10
BENZO(b)FLUORANTHENE	<10
BENZO(k)FLUORANTHENE	<10
BENZO(a)PYRENE	<10
INDENO(1,2,3-cd)PYRENE	<10
DIBENZO(a,h)ANTHRACENE	<10
BENZO(g,h,i)PERYLENE	<10

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	39
2-FLUOROBIPHENYL (%)	55
TERPHENYL (%)	88
PHENOL-D5 (%)	36
2-FLUOROPHENOL (%)	38
2,4,6-TRIBROMOPHENOL (%)	61

Analytical Technologies, Inc

QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : SEMI-VOLATILE ORGANICS (EPA 625)

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

REF. I.D. : 90899904
DATE ANALYZED : 07/31/89
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPI
1,2,4-TRICHLOROBENZENE	ND	50	43	86	43	86	0
ACENAPHTHENE	ND	50	33	66	34	68	3
2,4-DINITROTOLUENE	ND	50	35	70	38	76	8
PYRENE	ND	50	51	102	56	112	9
N-NITROSO-DI-N-PROPYLAMINE	ND	50	29	58	32	64	10
1,4-DICHLOROBENZENE	ND	50	36	72	33	66	9
PENTACHLOROPHENOL	ND	100	88	88	100	100	13
PHENOL	ND	100	76	76	78	78	3
2-CHLOROPHENOL	ND	100	79	79	80	80	1
4-CHLORO-3-METHYLPHENOL	ND	100	75	75	80	80	6
4-NITROPHENOL	ND	100	65	65	64	64	2

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760801

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/
CLIENT I.D.	: AUGER 3 (SLUDGE)	DATE ANALYZED	: 08/01/
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	<0.17
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	<0.17
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	<0.17
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANINLINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760801

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<0.17
4-CHLOROPHENYL-PHENYLETHER	<0.17
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	TR
PHENANTHRENE	<0.17
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	<0.17
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	<0.17
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	<0.17
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	<0.17
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZO(a,h)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	69
2-FLUOROBIPHENYL (%)	69
TERPHENYL (%)	98
PHENOL-D5 (%)	68
2-FLUOROPHENOL (%)	57
2,4,6-TRIBROMOPHENOL (%)	74

TR - Compound detected at an unquantifiable trace level

Analytico Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760801

ADDITIONAL MAJOR COMPOUNDS	RESULTS
MOLECULAR SULFUR	0.30
OXYGENATED HYDROCARBON C10	0.30

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760804

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/89
CLIENT I.D.	: AUGER 5 (SLUDGE)	DATE ANALYZED	: 08/01/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 60

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10.2
PHENOL	<10.2
ANILINE	<10.2
BIS(2-CHLOROETHYL)ETHER	<10.2
2-CHLOROPHENOL	<10.2
1,3-DICHLOROBENZENE	<10.2
1,4-DICHLOROBENZENE	<10.2
BENZYL ALCOHOL	<10.2
1,2-DICHLOROBENZENE	<10.2
2-METHYLPHENOL	<10.2
BIS(2-CHLOROISOPROPYL)ETHER	<10.2
4-METHYLPHENOL	<10.2
N-NITROSO-DI-N-PROPYLAMINE	<10.2
HEXACHLOROETHANE	<10.2
NITROBENZENE	<10.2
ISOPHORONE	<10.2
2-NITROPHENOL	<10.2
2,4-DIMETHYLPHENOL	<10.2
BENZOIC ACID	<51.0
BIS(2-CHLOROETHOXY)METHANE	<10.2
2,4-DICHLOROPHENOL	<10.2
1,2,4-TRICHLOROBENZENE	<10.2
NAPHTHALENE	<10.2
4-CHLOROANILINE	<10.2
HEXACHLOROBUTADIENE	<10.2
4-CHLORO-3-METHYLPHENOL	<10.2
2-METHYLNAPHTHALENE	<10.2
HEXACHLOROCYCLOPENTADIENE	<10.2
2,4,6-TRICHLOROPHENOL	<10.2
2,4,5-TRICHLOROPHENOL	<51.0
2-CHLORONAPHTHALENE	<10.2
2-NITROANILINE	<51.0
DIMETHYLPHTHALATE	<10.2
ACENAPHTHYLENE	<10.2
3-NITROANINLINE	<51.0
ACENAPHTHENE	<10.2
2,4-DINITROPHENOL	<51.0
4-NITROPHENOL	<51.0
DIBENZOFURAN	<10.2
2,4-DINITROTOLUENE	<10.2
2,6-DINITROTOLUENE	<10.2

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760804

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<10.2
4-CHLOROPHENYL-PHENYLETHER	<10.2
FLUORENE	<10.2
4-NITROANILINE	<51.0
4,6-DINITRO-2-METHYLPHENOL	<51.0
N-NITROSODIPHENYLAMINE	<10.2
4-BROMOPHENYL-PHENYLETHER	<10.2
HEXACHLOROBENZENE	<10.2
PENTACHLOROPHENOL	<51.0
PHENANTHRENE	<10.2
ANTHRACENE	<10.2
DI-N-BUTYLPHTHALATE	<10.2
FLUORANTHENE	<10.2
BENZIDINE	<102.0
PYRENE	<10.2
BUTYLBENZYLPHTHALATE	<10.2
3,3-DICHLOROBENZIDINE	<20.4
BENZO(a)ANTHRACENE	<10.2
BIS(2-ETHYLHEXYL)PHTHALATE	<10.2
CHRYSENE	<10.2
DI-N-OCTYLPHTHALATE	<10.2
BENZO(b)FLUORANTHENE	<10.2
BENZO(k)FLUORANTHENE	<10.2
BENZO(a)PYRENE	<10.2
INDENO(1,2,3-cd)PYRENE	<10.2
DIBENZO(a,h)ANTHRACENE	<10.2
BENZO(g,h,i)PERYLENE	<10.2

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	78
2-FLUOROBIPHENYL (%)	67
TERPHENYL (%)	86
PHENOL-D5 (%)	73
2-FLUOROPHENOL (%)	59
2,4,6-TRIBROMOPHENOL (%)	78

Arco/Arco Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760804

ADDITIONAL MAJOR COMPOUNDS	RESULTS
BRANCHED HYDROCARBONS C13	500
BRANCHED HYDROCARBONS C16	200
HYDROCARBONS C10-C16	8000

Analytico Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760807

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: AUGER 5B (SLUDGE)	DATE ANALYZED	: 08/01/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	<0.17
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	0.30
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	0.71
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANINLINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760807

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<0.17
4-CHLOROPHENYL-PHENYLETHER	<0.17
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	<0.85
PHENANTHRENE	0.20
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	<0.17
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	0.18
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	<0.17
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	<0.17
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZO(a,h)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	77
2-FLUOROBIPHENYL (%)	101
TERPHENYL (%)	60
PHENOL-D5 (%)	54
2-FLUOROPHENOL (%)	45
2,4,6-TRIBROMOPHENOL (%)	74

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760807

ADDITIONAL MAJOR COMPOUNDS	RESULTS
BRANCHED HYDROCARBONS C10	5
OXYGENATED HYDROCARBONS C10	1
BRANCHED HYDROCARBONS C13	5
BRANCHED HYDROCARBONS C16	10
AROMATIC HYDROCARBON C11	1
BRANCHED HYDROCARBON C19	7
BRANCHED HYDROCARBON C20	3
HYDROCARBONS C10-C20	300

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760808

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: LITHARGE (SLUDGE)	DATE ANALYZED	: 08/01/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	0.25
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	<0.17
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	<0.17
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANINLINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17

(CONTINUED NEXT PAGE)

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760808

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	0.26
4-CHLOROPHENYL-PHENYLETHER	<0.17
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	0.25
PHENANTHRENE	<0.17
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	<0.17
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	<0.17
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	<0.17
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	0.22
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZO(a,h)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17
SURROGATE PERCENT RECOVERIES	
NITROBENZENE-D5 (%)	72
2-FLUOROBIPHENYL (%)	74
TERPHENYL (%)	75
PHENOL-D5 (%)	20
2-FLUOROPHENOL (%)	24
2,4,6-TRIBROMOPHENOL (%)	77

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760808

ADDITIONAL MAJOR COMPOUNDS	RESULTS
METHYLATED PYRIDINES	20
BRANCHED PYRIDINES	20
HYDROCARBONS C10-C20	100

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760809

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: OIL PIT (SLUDGE)	DATE ANALYZED	: 08/01/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 60

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<10.2
PHENOL	<10.2
ANILINE	<10.2
BIS(2-CHLOROETHYL)ETHER	<10.2
2-CHLOROPHENOL	<10.2
1,3-DICHLOROBENZENE	<10.2
1,4-DICHLOROBENZENE	<10.2
BENZYL ALCOHOL	<10.2
1,2-DICHLOROBENZENE	<10.2
2-METHYLPHENOL	<10.2
BIS(2-CHLOROISOPROPYL)ETHER	<10.2
4-METHYLPHENOL	<10.2
N-NITROSO-DI-N-PROPYLAMINE	<10.2
HEXACHLOROETHANE	<10.2
NITROBENZENE	<10.2
ISOPHORONE	<10.2
2-NITROPHENOL	<10.2
2,4-DIMETHYLPHENOL	<10.2
BENZOIC ACID	<51.0
BIS(2-CHLOROETHOXY)METHANE	<10.2
2,4-DICHLOROPHENOL	<10.2
1,2,4-TRICHLOROBENZENE	<10.2
NAPHTHALENE	<10.2
4-CHLOROANILINE	<10.2
HEXACHLOROBUTADIENE	<10.2
4-CHLORO-3-METHYLPHENOL	<10.2
2-METHYLNAPHTHALENE	<10.2
HEXACHLOROCYCLOPENTADIENE	<10.2
2,4,6-TRICHLOROPHENOL	<10.2
2,4,5-TRICHLOROPHENOL	<51.0
2-CHLORONAPHTHALENE	<10.2
2-NITROANILINE	<51.0
DIMETHYLPHTHALATE	<10.2
ACENAPHTHYLENE	<10.2
3-NITROANINLINE	<51.0
ACENAPHTHENE	<10.2
2,4-DINITROPHENOL	<51.0
4-NITROPHENOL	<51.0
DIBENZOFURAN	<10.2
2,4-DINITROTOLUENE	<10.2
2,6-DINITROTOLUENE	<10.2

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760809

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<10.2
4-CHLOROPHENYL-PHENYLETHER	<10.2
FLUORENE	<10.2
4-NITROANILINE	<51.0
4,6-DINITRO-2-METHYLPHENOL	<51.0
N-NITROSODIPHENYLAMINE	<10.2
4-BROMOPHENYL-PHENYLETHER	<10.2
HEXACHLOROBENZENE	<10.2
PENTACHLOROPHENOL	<51.0
PHENANTHRENE	<10.2
ANTHRACENE	<10.2
DI-N-BUTYLPHTHALATE	<10.2
FLUORANTHENE	<10.2
BENZIDINE	<102.0
PYRENE	<10.2
BUTYLBENZYLPHTHALATE	<10.2
3,3-DICHLOROBENZIDINE	<20.4
BENZO(a)ANTHRACENE	<10.2
BIS(2-ETHYLHEXYL)PHTHALATE	<10.2
CHRYSENE	<10.2
DI-N-OCTYLPHTHALATE	<10.2
BENZO(b)FLUORANTHENE	<10.2
BENZO(k)FLUORANTHENE	<10.2
BENZO(a)PYRENE	<10.2
INDENO(1,2,3-cd)PYRENE	<10.2
DIBENZO(a,h)ANTHRACENE	<10.2
BENZO(g,h,i)PERYLENE	<10.2

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	32
2-FLUOROBIPHENYL (%)	35
TERPHENYL (%)	74
PHENOL-D5 (%)	11
2-FLUOROPHENOL (%)	19 *
2,4,6-TRIBROMOPHENOL (%)	45

* Result out of limits due to sample matrix interference

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ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760809

ADDITIONAL MAJOR COMPOUNDS	RESULTS
HYDROCARBONS C12-C16	200

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760810

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/8
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/8
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/8
CLIENT I.D.	: SOUTHERN OUTFALL (SLUDGE)	DATE ANALYZED	: 08/01/8
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 600

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<102.0
PHENOL	<102.0
ANILINE	<102.0
BIS(2-CHLOROETHYL)ETHER	<102.0
2-CHLOROPHENOL	<102.0
1,3-DICHLOROBENZENE	<102.0
1,4-DICHLOROBENZENE	<102.0
BENZYL ALCOHOL	<102.0
1,2-DICHLOROBENZENE	<102.0
2-METHYLPHENOL	<102.0
BIS(2-CHLOROISOPROPYL)ETHER	<102.0
4-METHYLPHENOL	<102.0
N-NITROSO-DI-N-PROPYLAMINE	<102.0
HEXACHLOROETHANE	<102.0
NITROBENZENE	<102.0
ISOPHORONE	<102.0
2-NITROPHENOL	<102.0
2,4-DIMETHYLPHENOL	<102.0
BENZOIC ACID	<510.0
BIS(2-CHLOROETHOXY)METHANE	<102.0
2,4-DICHLOROPHENOL	<102.0
1,2,4-TRICHLOROBENZENE	<102.0
NAPHTHALENE	<102.0
4-CHLOROANILINE	<102.0
HEXACHLOROBUTADIENE	<102.0
4-CHLORO-3-METHYLPHENOL	<102.0
2-METHYLNAPHTHALENE	<102.0
HEXACHLOROCYCLOPENTADIENE	<102.0
2,4,6-TRICHLOROPHENOL	<102.0
2,4,5-TRICHLOROPHENOL	<510.0
2-CHLORONAPHTHALENE	<102.0
2-NITROANILINE	<510.0
DIMETHYLPHTHALATE	<102.0
ACENAPHTHYLENE	<102.0
3-NITROANINLINE	<510.0
ACENAPHTHENE	<102.0
2,4-DINITROPHENOL	<510.0
4-NITROPHENOL	<510.0
DIBENZOFURAN	<102.0
2,4-DINITROTOLUENE	<102.0
2,6-DINITROTOLUENE	<102.0

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760810

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<102.0
4-CHLOROPHENYL-PHENYLETHER	<102.0
FLUORENE	<102.0
4-NITROANILINE	<510.0
4,6-DINITRO-2-METHYLPHENOL	<510.0
N-NITROSODIPHENYLAMINE	<102.0
4-BROMOPHENYL-PHENYLETHER	<102.0
HEXACHLOROBENZENE	<102.0
PENTACHLOROPHENOL	<510.0
PHENANTHRENE	<102.0
ANTHRACENE	<102.0
DI-N-BUTYLPHTHALATE	<102.0
FLUORANTHENE	<102.0
BENZIDINE	<1020
PYRENE	<102.0
BUTYLBENZYLPHTHALATE	<102.0
3,3-DICHLOROBENZIDINE	<204.0
BENZO(a)ANTHRACENE	<102.0
BIS(2-ETHYLHEXYL)PHTHALATE	<102.0
CHRYSENE	<102.0
DI-N-OCTYLPHTHALATE	<102.0
BENZO(b)FLUORANTHENE	<102.0
BENZO(k)FLUORANTHENE	<102.0
BENZO(a)PYRENE	<102.0
INDENO(1,2,3-cd)PYRENE	<102.0
DIBENZO(a,h)ANTHRACENE	<102.0
BENZO(g,h,i)PERYLENE	<102.0

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	70
2-FLUOROBIPHENYL (%)	108
TERPHENYL (%)	129
PHENOL-D5 (%)	42
2-FLUOROPHENOL (%)	61
2,4,6-TRIBROMOPHENOL (%)	91

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760810

ADDITIONAL MAJOR COMPOUNDS	RESULTS
HYDROCARBONS C10-C16	7000

Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760811

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE SAMPLED	: 07/18/89
PROJECT #	: 570759.5702	DATE RECEIVED	: 07/20/89
PROJECT NAME	: EL PASO PRODUCTS	DATE EXTRACTED	: 07/26/89
CLIENT I.D.	: BACKGROUND	DATE ANALYZED	: 08/01/89
SAMPLE MATRIX	: NON-AQUEOUS	UNITS	: MG/KG
		DILUTION FACTOR	: 6

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<1.02
PHENOL	<1.02
ANILINE	<1.02
BIS(2-CHLOROETHYL)ETHER	<1.02
2-CHLOROPHENOL	<1.02
1,3-DICHLOROBENZENE	<1.02
1,4-DICHLOROBENZENE	<1.02
BENZYL ALCOHOL	<1.02
1,2-DICHLOROBENZENE	<1.02
2-METHYLPHENOL	<1.02
BIS(2-CHLOROISOPROPYL)ETHER	<1.02
4-METHYLPHENOL	<1.02
N-NITROSO-DI-N-PROPYLAMINE	<1.02
HEXACHLOROETHANE	<1.02
NITROBENZENE	<1.02
ISOPHORONE	<1.02
2-NITROPHENOL	<1.02
2,4-DIMETHYLPHENOL	<1.02
BENZOIC ACID	<5.10
BIS(2-CHLOROETHOXY)METHANE	<1.02
2,4-DICHLOROPHENOL	<1.02
1,2,4-TRICHLOROBENZENE	<1.02
NAPHTHALENE	<1.02
4-CHLOROANILINE	<1.02
HEXACHLOROBUTADIENE	<1.02
4-CHLORO-3-METHYLPHENOL	<1.02
2-METHYLNAPHTHALENE	<1.02
HEXACHLOROCYCLOPENTADIENE	<1.02
2,4,6-TRICHLOROPHENOL	<1.02
2,4,5-TRICHLOROPHENOL	<5.10
2-CHLORONAPHTHALENE	<1.02
2-NITROANILINE	<5.10
DIMETHYLPHTHALATE	<1.02
ACENAPHTHYLENE	<1.02
3-NITROANINLINE	<5.10
ACENAPHTHENE	<1.02
2,4-DINITROPHENOL	<5.10
4-NITROPHENOL	<5.10
DIBENZOFURAN	<1.02
2,4-DINITROTOLUENE	<1.02
2,6-DINITROTOLUENE	<1.02

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Analytical Technologies, Inc

GCMS - RESULTS

ATI I.D. : 90760811

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<1.02
4-CHLOROPHENYL-PHENYLETHER	<1.02
FLUORENE	<1.02
4-NITROANILINE	<5.10
4,6-DINITRO-2-METHYLPHENOL	<5.10
N-NITROSODIPHENYLAMINE	<1.02
4-BROMOPHENYL-PHENYLETHER	<1.02
HEXACHLOROBENZENE	<1.02
PENTACHLOROPHENOL	<5.10
PHENANTHRENE	<1.02
ANTHRACENE	<1.02
DI-N-BUTYLPHTHALATE	<1.02
FLUORANTHENE	<1.02
BENZIDINE	<10.2
PYRENE	<1.02
BUTYLBENZYLPHTHALATE	<1.02
3,3-DICHLOROBENZIDINE	<2.04
BENZO(a)ANTHRACENE	<1.02
BIS(2-ETHYLHEXYL)PHTHALATE	<1.02
CHRYSENE	<1.02
DI-N-OCTYLPHTHALATE	<1.02
BENZO(b)FLUORANTHENE	<1.02
BENZO(k)FLUORANTHENE	<1.02
BENZO(a)PYRENE	<1.02
INDENO(1,2,3-cd)PYRENE	<1.02
DIBENZO(a,h)ANTHRACENE	<1.02
BENZO(g,h,i)PERYLENE	<1.02

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	71
2-FLUOROBIPHENYL (%)	80
TERPHENYL (%)	101
PHENOL-D5 (%)	64
2-FLUOROPHENOL (%)	62
2,4,6-TRIBROMOPHENOL (%)	85

Analytical Technologies, Inc

ADDITIONAL MAJOR COMPOUNDS

ATI I.D. : 90760811

ADDITIONAL MAJOR COMPOUNDS	RESULTS
NO ADDITIONAL COMPOUNDS	-

Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

		ATI I.D.	: 907608
CLIENT	: NEW MEXICO ENV. IMPROVEMENT DIV.	DATE EXTRACTED	: 07/26/89
PROJECT #	: 570759.5702	DATE ANALYZED	: 07/31/89
PROJECT NAME	: EL PASO PRODUCTS	UNITS	: MG/KG
CLIENT I.D.	: REAGENT BLANK	DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	<0.17
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	<0.17
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	<0.17
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANINLINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17
DIETHYLPHTHALATE	<0.17
4-CHLOROPHENYL-PHENYLETHER	<0.17

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Analytical Technologies, Inc

GCMS - RESULTS

REAGENT BLANK

ATI I.D. : 907608

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	<0.85
PHENANTHRENE	<0.17
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	<0.17
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	<0.17
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	TR
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	<0.17
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZO(a,h)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	75
2-FLUOROBIPHENYL (%)	92
TERPHENYL (%)	91
PHENOL-D5 (%)	72
2-FLUOROPHENOL (%)	70
2,4,6-TRIBROMOPHENOL (%)	75

Analytical Technologies, Inc

QUALITY CONTROL DATA

ATI I.D. : 907608

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT : NEW MEXICO ENV. IMPROVEMENT DIV.
PROJECT # : 570759.5702
PROJECT NAME : EL PASO PRODUCTS

REF. I.D. : 90899902
DATE ANALYZED : 07/31/89
SAMPLE MATRIX : NON-AQUEOU
UNITS : MG/KG

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
1,2,4-TRICHLOROBENZENE	ND	100	94	94	93	93	1
ACENAPHTHENE	ND	100	88	88	93	93	6
2,4-DINITROTOLUENE	ND	100	83	83	88	88	6
PYRENE	ND	100	89	89	93	93	4
N-NITROSO-DI-N-PROPYLAMINE	ND	100	74	74	73	73	1
1,4-DICHLOROBENZENE	ND	100	79	79	78	78	1
PENTACHLOROPHENOL	ND	50	60	120	62	124	2
PHENOL	ND	50	50	100	51	102	2
2-CHLOROPHENOL	ND	50	51	102	49	98	4
4-CHLORO-3-METHYLPHENOL	ND	50	52	104	3	106	2
4-NITROPHENOL	ND	50	42	894	47	94	11

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

TR - Compound detected at an unquantifiable trace level