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STAGE 1 & 2 REPORTS

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REXENE PRODUCTS CORPORATION
DALLAS, TEXAS

DRAFT

PHASE I SITE INVESTIGATION
FIELD INVESTIGATION REPORT FOR
OLD BRICKLAND REFINERY SITE
SUNLAND PARK, NEW MEXICO

PROJECT #604-9
AUGUST 1990

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I. INTRODUCTION

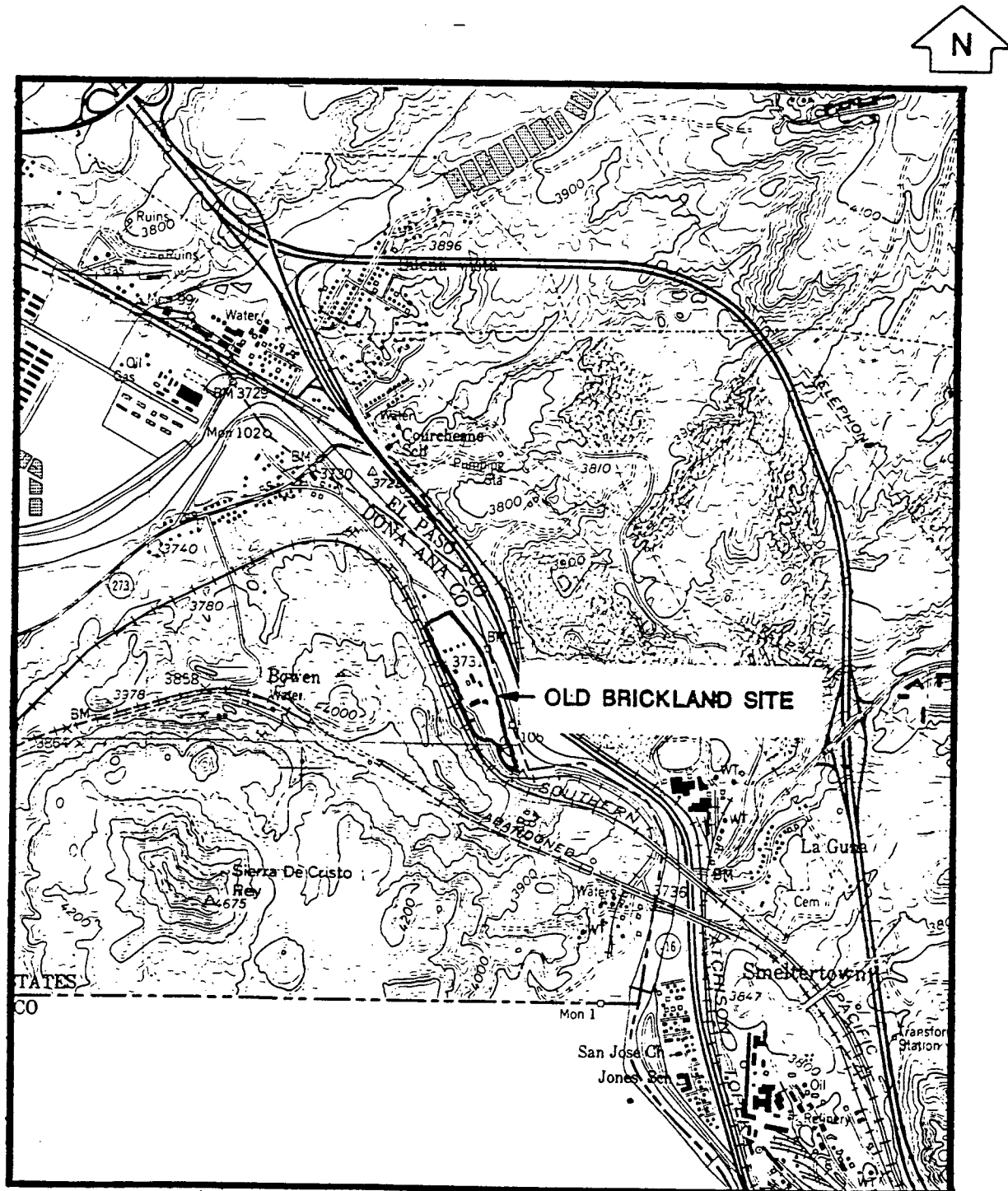
Eder Associates, PC (EA) was retained by Simpson Thacher & Bartlett, counsel to the Rexene Corporation (Rexene) to investigate the Brickland Refinery Site in Sunland Park, New Mexico. The investigation was performed in accordance with a January 1990 work plan, which was approved by the New Mexico Environmental Improvement Division (EID), Santa Fe.

The Brickland Refinery Site (Figure 1), which operated between 1933 and 1958 is presently a vacant land parcel. The EID inspected the site in April 1989 and found evidence of shallow subsurface and surface contamination, which EID attributed to the former petroleum refining operations. After a series of discussions with the EID, EA prepared a work plan to implement the data gathering and field operations requested by the EID. The work plan covered the compilation of background data on surface water, groundwater, soils, and refinery operations at Brickland and a scope-of-work for field investigation. The field investigation involved a soil-gas survey; soil borings and monitoring wells; and collecting soil samples from the ground surface, test pits, and the banks of the Rio Grande River.

The soil and water samples were analyzed for a list of constituents related to petroleum refining, to ambient soil chemistry and to water quality. The laboratory analyses included oil and grease (a petroleum screening parameter), volatile and semi-volatile organic compounds, Priority Pollutant metals. In addition, the water samples were analyzed for major anions and cations as a general water quality assessment screen.

FIGURE 1

OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO



SCALE 1"=2000'

USGS MAP SMELTERTOWN TEXAS NEW MEXICO QUAD

LOCATION MAP

This report includes the background data compilation presented in Appendix A, field logs of test pit excavations, soil borings and monitoring wells, soil gas data and groundwater flow data. Laboratory data were not available at the time this draft report was prepared and will be included in a supplementary report.

II. SITE HISTORY AND REFINERY OPERATIONS

Site History

The petroleum refinery at the Brickland site was constructed in 1933 and operated until 1955 by a series of business entities controlled by the McNutt family. Through several corporate transactions, the refinery was subsequently owned by the El Paso Natural Gas Products Company, which operated the refinery until 1958. Although refining operations ceased in 1958, a refinery products quality control laboratory operated on the Brickland site until 1964.

The Brickland site was apparently unused from 1964 until approximately 1968. From 1968 to 1989, portions of the site were leased to a number of parties. The terms of the various leases permitted the lessees to garage and service trucks, graze livestock, and store used bricks.

Refinery Operations

Refinery process flow diagrams and plot plans, supplemented by interviews of former workers at the Brickland refinery, indicate that the Brickland refinery contained the following processes. Crude oil was delivered to the tanker truck unloading racks in the central area of the refinery. Typical refinery operations in the 1950s included the following activities: removing salt and water from the crude feedstock in a "Petreco" de-salting unit, distilling crude in a single-column distillation unit; cracking the "heavy" (high boiling point) distillation products in a thermal cracking unit; polymerizing "light" (low boiling point) cracking products into gasoline boiling range fractions in a polymerization unit; reforming naphtha boiling range fractions of petroleum into a higher octane product in a Platformer unit (added in the early 1950s); filtering some petroleum fractions through a clay tower; treating gasoline and kerosene in treatment units; and blending tetra-ethyl lead into gasoline. Finished product was stored in tanks on the refinery site.

Process water for the refinery was pumped from the river at the southern end of the site and was used mainly for cooling. Water was stored in cooling towers and nearby holding ponds.

Additives

Process flow diagrams and plot plans supplemented by information from former Brickland refinery workers indicate the use of the following additives.

The Petreco de-salter may have used small quantities of an emulsion breaker as well as water. The polymerization unit used clay impregnated with small quantities of solid phosphoric acid as a catalyst. The Platformer unit used alumina impregnated with small amounts of platinum as a catalyst, as well as beds of alumina as a feed pre-wash.

The gasoline treatment process used a solution of copper, sulfuric acid and caustic soda. The treatment process for kerosene used caustic soda, lead, and sulfur. Tetra-ethyl lead was blended into finished gasoline to increase its octane rating. Unspecified additives were blended with diesel fuel.

Potassium di-chromate was used to inhibit slime buildup in cooling water. Small amounts of liquid phosphoric acid (a polymerization by-product) and other acids were also used to inhibit scaling and slime build-up. Mercury was not used as a product on process additive at the refinery.

Volume Refined

The refinery's crude oil capacity in 1958 was 4,000 barrels per calendar day, up from 3,000 barrels in 1950. For comparison, the crude capacity of the Esso refinery in Linden, New Jersey in 1958 was 168,000 barrels per calendar day. In 1958, the thermal cracking unit had a charge of 1,600 barrels per stream day, the Platformer had a

charge of 480 barrels of platformate per stream day, and the polymerization unit produced 65 barrels per stream day (The Oil and Gas Journal, March 24, 1958).

Wastes and Disposal Practices

Although it is difficult to determine the volume of waste generated by the refinery processes, the following information about the types of wastes generated and disposal practices was obtained or inferred from process flow diagrams and former refinery workers.

The de-salting unit generated wastewater containing brine and the emulsifying agents used in the process. This solution was pumped through underground pipes to holding pits at the southernmost end of the property. Waste solutions generated by the gasoline and kerosene treatment processes were disposed of in a similar manner. Tank bottoms were disposed of in the same pits. It appears that accumulated petroleum product in these pits was recovered. Accumulated residuals were periodically shoveled out manually and hauled off-site by truck for disposal.

Hard carbon "coke" that accumulated in heat exchange tubes in the crude distillation unit, and especially in the thermal cracker, was periodically removed with manually operated drills and air chisels. The coke was left in a powdery form on the ground.

The polymerization unit and platformer unit catalysts, as well as the alumina used as a pre-wash in the Platformer, required periodic replacement. Some of this material, especially the platinum-impregnated alumina, was sometimes sold to recyclers. Other catalysts, and clay used for petroleum filtration, were also replaced periodically and disposed of off-site by truck.

Location of Refinery Activities

Plot plans provided to the EID indicate the location of the refinery processes, product storage tanks, and waste pits.

Product Spills

Product spills described by former employees arose from leaks in product tanks and in the underground piping between refinery units. Leaking pipes and tanks were repaired or replaced as necessary. The refinery recovered leaked product by excavating small pits and removing the accumulated product with a vacuum pump. The recovered product was reprocessed or returned to storage depending on its condition. In addition to underground leakage, small leaks of petroleum product occasionally occurred in aboveground pipes near the tetra-ethyl lead house.

EA inquired about fires or explosions which might have been recorded by fire departments. The refinery was apparently not under the El Paso Fire Department's jurisdiction and Sunland Park does not have an organized Fire Department.

III. PREVIOUS STUDIES

In June and July 1989 the EID collected soil and groundwater samples at the site to investigate a complaint by a local resident who felt that contaminants from the site had killed some of his trees. The EID and Rexene split samples from the July sampling event and exchanged analytical results thereafter. EID prepared a draft report on its preliminary site investigation which was sent to USEPA Region VI (Dallas) for review. EID informed Rexene that the report contained a preliminary Hazardous Ranking System (HRS) score for the site. This draft report has not been made available to the public and no other formal reports concerning the site are known.

IV. GEOLOGY AND HYDROGEOLOGY

Sources of Information

Geologic information on the El Paso, Texas area was obtained from several sources: U.S. Geological Survey Water Supply Paper Nos. 141, 1230, 1426, and 1669-AA. Rio Grande water level elevations, flow rates, and water quality parameters were obtained from the Texas Water Development Board Report Nos. 300 and 324, and photocopied data sheets from the International Boundary and Water Commission (IBWC) historic data files. Data that was used to generate the map, "Wells Located Within 4-Mile Radius," were from the New Mexico State Engineer's Technical Report #43 and the Texas Department of Water Resources Report #246. References are summarized in Appendix A.

Physiography, Topography and Climate

The Site is located in Dona Ana County, on the southeastern border of New Mexico adjacent to El Paso, Texas on the fluvial terrace of the Rio Grand River in the vicinity of the United States-Mexico border.

The study area lies within the Mesilla Valley in the basin and range physiographic province of the United States. This area is characterized by subparallel north-trending mountain ranges separated by basins filled with alluvial material.

The lower Mesilla Valley is cut into unconsolidated deposits of LaMesa Bolson. The steep-walled valley slopes at the rate of 4.5 feet per mile from the town of Anthony to the gorge of the Rio Grande. At the south end of the valley, the Rio Grande flows through a narrow gorge between the Franklin Mountains and the Cerro de Muleros.

Climate in the lower Mesilla Valley is arid continental and is characterized by a wide range in temperature, low humidity, high evaporation and low precipitation. Precipitation in the area is

mostly in the form of rain; about one-half of total annual precipitation occurs from July-September. Rainfall during these three months usually is from brief, intense thunderstorms.

Winds are strongest during March, April and May, when wind direction is generally from the west-southwest and northwest. The prevailing winds are from the southeast during the summer months. The winds typically blow parallel through the valley.

Geologic Setting

The Mesilla Basin was formed by downward displacement relative to surrounding mountain uplifts and was concurrently filled with sediments and volcanic rocks from various sources. The Mesilla Basin extends from Robledo Mountain and the Dona Ana Mountains southward into Mexico and includes the nearly flat basin floor and piedmont slopes along the flanks of major mountain ranges. The course of the Rio Grande has been a major factor in the distribution of sediments in the study area and Mesilla Valley and adjacent areas are characterized by a thick sequence of alluvial material.

The Rio Grande probably did not assume its present course until middle Pleistocene time.

Various tectonic, geomorphic, hydrologic and climatic factors caused the river system to begin downcutting. The downcutting proceeded in stages, as shown by the valley border geomorphic terraces along the river. Between 25,000 and 10,000 years ago, the valley entrenchment reached a level that is represented by an erosion surface about 80 feet below and slightly wider than the present Rio Grande flood plain. Since that time, several minor cycles of backfilling and entrenchment have filled this channel with as much as 30 to 40 feet of basal gravel overlain by sand and clay.

River flow was probably much greater during the Pleistocene age than at present because of the greater precipitation at that time. Even within historic times, the river in flood stage covered the entire flood plain for weeks at a time and was as much as five miles wide in parts of the Mesilla Valley.

In the first decades of the 20th century, the dams and levees along the river were constructed and the river channel was straightened.

Geologic Units and Their Water Bearing Characteristics

The main body of sediments in the lower Mesilla Valley belong to the Santa Fe group of middle Miocene to Pleistocene age. More recent sediments overlie the Santa Fe group as outwash-fan deposits, windblown deposits, and alluvium laid down by the Rio Grande. The alluvium is derived from the erosion of the Santa Fe group and shows similar characteristics and it is difficult to determine the contact between the alluvium and the Santa Fe.

Consolidated rocks in and near the lower Mesilla Valley include igneous and sedimentary rocks. Most of the igneous rocks are pre-cambrian or tertiary; the sedimentary deposits are pre-tertiary. The obstruction of the lower end of the valley by andesite materially affects water quality in the valley because of its mineral salts. In general, the consolidated rocks in the lower Mesilla Valley are not a useable groundwater supply due to their low permeability.

Unconsolidated deposits in the lower Mesilla Valley consist of sand, gravel, clay, silt, caliche and conglomerate. The unconsolidated deposits contain what are referred to as shallow, medium and deep aquifers and, although these aquifers are discussed as separate water bearing units, tend to be hydraulically connected. The shallow aquifer consists of the shallow alluvial deposits and a part of the underlying Santa Fe group. The bulk of the Santa Fe group comprises the medium and deep aquifers.

The Santa Fe group underlies the lower Mesilla Valley and is exposed in nearly all the arroyos within the area. In the uplands east of the Rio Grande, the top of the Santa Fe, mostly coarse sand and gravel containing some caliche-cemented boulders is exposed. The coarse sediments are underlain by a thick series of reddish to brown silty clay, fine to medium sand or poorly consolidated sandstone, and thick-bedded conglomerate which, in turn, is underlain by a lower unit composed of unconsolidated fine to medium sand; the percentage of clay is lower than in the upper unit. The lower unit reaches a maximum thickness of at least 1,000 feet and thins to the south end of the valley near the site.

The upper unit of the Santa Fe, which contains the mid-depth aquifer and part of the shallow aquifer, is exposed in arroyos above the floodplain and in the valley bluffs and consists of alternating layers of varied thickness of fine to coarse sand, gravel, and reddish-brown silty clay. Locally the sand is cross-bedded, lenticular, and predominantly medium-grained. The clay is evenly bedded, indicating that clay layers may extend laterally for considerable distances.

The maximum thickness of the Santa Fe group in the lower Mesilla Valley is not known, however, some data shows that the thickness in the center of the basin may be greater than 2,000 feet.

The medium and deep aquifers of the Santa Fe group are the major sources of groundwater for public supply in the valley. Many wells obtain water from both the Santa Fe and the alluvium.

The post-Santa Fe group deposits (late Pleistocene and Holocene) that are of hydrologic significance are the floodplain alluvium deposits in the Rio Grande valley. Alluvium consists of poorly sorted sand, gravel, clay and silt. This alluvium is generally less than 80 feet thick but ranges in thickness from less than 50 to about 125 feet. The basal part of the floodplain alluvium is generally a layer of well-rounded silicious gravel ranging from 20 to more than 40 feet

thick. Overlying and interfingering with the gravel are lenses and layers of sand and clay.

Occurrence of Groundwater

Groundwater in the lower Mesilla Valley occurs in both unconfined and confined conditions. The general direction of groundwater flow in the uplands is toward the Rio Grande. The groundwater movement generally is toward the south, except where concentrated withdrawals have formed cones of depression that extend over large areas. The southward gradient of the water table in the alluvium is about four feet per mile, approximately the same as the river.

Groundwater in the lower Mesilla Valley is derived from direct infiltration of precipitation; by seepage from canals, laterals, and irrigation water applied to the land; by seepage from the Rio Grande; and by groundwater flow from the uplands.

Under non-pumping conditions, the Rio Grande is a gaining stream during most of the year. However, as a result of large scale pumping, the river temporarily becomes a losing stream where the water table is lower than the riverbed.

Generally the three aquifers function as a single hydrologic system, and water moves from one aquifer to another in response to a change in head. Since pumping is mainly from the medium and deep aquifers, water may move from the shallow to the deeper aquifers in reaction to localized vertical gradients. However, the geologic cross-section of the Rio Grande gorge several hundred feet away from the Brickland site indicates that the maximum depth to the bedrock in this area is 86 feet and it is not likely that the generalized inter-aquifer hydraulic connection has significance on the Brickland site.

Discharge of groundwater at the southern end of the Mesilla Valley mostly occurs as drain flow, evaporation, and transpiration. Evaporation and transpiration account for a significant loss of water due to the very shallow water table.

Water Level Fluctuations

Water levels measured wells in the lower Mesilla Valley fluctuate almost continuously, and the magnitude of the fluctuations is greater in the medium and deep aquifers than in the shallow. Fluctuations caused by changes in atmospheric pressure, loading and unloading the aquifer, earthquakes, and changes in the rates of natural recharge and discharge are generally smaller than those caused by pumping.

Hydrographs of five Mesilla Valley irrigation wells given in New Mexico State Engineer, Technical Report #43 (1981) show the depth to groundwater fluctuations during the 1950 to 1970 period range approximately from 4 to 12 feet. The lowest water table over the period of record occurred in 1957. The low water level is due to heavy pumpage and the less than normal volume of available surface water during the 1950s drought. The hydrographs show that the volume of groundwater stored in the floodplain alluvium is closely related to the volume of surface water used for irrigation in the preceding few years, and that, in general, there has been no material long-term decline in water levels or in the volume of storage in the Mesilla Valley.

Surface Water - Groundwater Relationship

The Rio Grande and a network of irrigation canals recharge the alluvial floodplain aquifers in the Mesilla Valley and drainage ditches convey discharges from the shallow groundwater system to the river. The configuration of the water table and the shallow groundwater quality are closely related to the volume of surface water in the Rio Grande and irrigation canals. Similarly, the volume and quality of base flow in the Rio Grande are closely related to groundwater conditions.

Almost all of the groundwater pumped for irrigation in the Mesilla Valley is from wells screened in the floodplain alluvium or upper part of the Santa Fe Group.

Groundwater Quality

Alluvial deposits in the study area contain moderately to highly mineralized water and groundwater quality varies areally and with depth.

The dissolved-solids concentration in groundwater in the southern part of the Mesilla Valley is generally much greater than in the northern part and eighty-one percent of the explain chemical analyses showed dissolved-solids concentrations exceeding 500 milligrams per liter. Concentrations of dissolved-solids in water samples from several wells on the east side of the valley exceeded 3,000 milligrams per liter.

Some representative data from groups of observation wells screened from 16-26 feet to 148-151 feet below the land surface showed decreasing dissolved-solids concentration with increasing depth. A special study on the variability in average specific conductances of the groundwater over time found no general trend in the shallow or the deeper aquifers.

Surface Water Quality

The concentration of dissolved constituents recorded at the El Paso stream-gaging station varies seasonally, depending on the volume of river flow. The average volume of flow in the spring and summer usually exceeds 40,000 acre-feet per month and the dissolved-solids concentration ranges from about 700 to 800 milligrams per liter. In the late fall and winter when much of the river flow at the El Paso stream-flow-gaging stations is derived from drain-discharge, the dissolved-solids concentration normally increases to a range of 1,000 to 2,000 milligrams per liter.

Soil Characteristics and Chemistry

The Rio Grande alluvium which overlies the older Hueco and Mesilla Bolson deposits within the upper and lower El Paso Valley consists of sand, gravel, clay and silt which are in part derived from the erosion and deposition of underlying Bolson deposits. Like the underlying Hueco and Mesilla Bolson deposits, the individual sediments layers and lenses are uniform in character and thickness cannot be correlated from one location to another. Information from soil borings indicates that the alluvium at the Mexican-American Dam is approximately 86 feet thick.

The lithology of these sands, gravels and clays is predominantly quartz monzonite, andesite and rhyolite. In areas where the water table is shallow the soils are commonly cemented with caliche deposits. As the water table fluctuates upward, these salts re-dissolve to some extent and create the highly mineralized water found near the water table.

El Paso Water Supply

The principal sources of groundwater within the El Paso area are: 1) the Hueco Bolson deposits in which fresh water occurs from a point near the Paso Del Norte to Ysleta; 2) the Mesilla Bolson deposits which underlie the Texas portion of the Mesilla Valley west of the Franklin Mountains; and 3) the Rio Grande alluvium which overlies the Hueco and Mesilla Bolson deposits in the upper and lower El Paso Valley.

The city also obtains approximately twenty percent of its water supply from the Rio Grande River. The city primarily uses river water during the summer months. The City of El Paso's water supply intake is located approximately 4 miles downstream of the Brickland site on the portion of the Rio Grande which is diverted into the American Canal.

Sunland Park Water Supply

The flood plain alluvium and the thick sequence of fluvial deposits of the Santa Fe Group provide the groundwater supply for Mesilla Valley wells which yield from a few to more than 3,000 gallons per minute and average about 1,500 gallons per minute. These wells are located several miles upgradient of the Brickland Refinery site.

The largest use of water in the study area is to irrigate crops growing in the Rio Grande and Mesilla Valleys and on adjacent slopes and terraces. The Rio Grande is used to supplement the irrigation only if the river stage is high enough to sustain all withdrawals. Wells located within a four mile radius of the site have been identified on Plate 1, with physical parameters such as; flow state coordinate number, depth and use identified in Table 1.

REXENE PRODUCTS CORPORATION
DALLAS, TEXAS

TABLE 1

INVENTORY DATA FOR WELLS LOCATED
WITHIN A FOUR-MILE RADIUS OF THE
OLD BRICKLAND REFINERY SITE
SUNLAND PARK, NEW MEXICO⁽¹⁾

EA Well No. (2)	New Mexico Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
1	28S.3E.1.36.344	Paul Harvey	100 R	SNTF	3,744	6.91	03-14-52	I
2	28S.3E.1.36.433	"	--	--	3,744	8.33	03-14-52	I
						7.53	01-15-53	
3	29S.3E.1.111	El Paso Electric Co.	155	AVMB SNTF	3,749	12.4	01-31-52	U
						14.1	01-15-53	
4	29S.3E.1.133	"	--	--	--	--	--	U
5	29S.3E.1.133a	"	144	--	3,797	--	--	M
6	29S.3E.1.341	"	201	SNTF	3,824	96.8	01-23-56	U
7	29S.3E.1.411	"	300 R	SNTF	--	--	--	U
8	29S.3E.1.411a	"	83 R	AVMB	3,780	--	--	U
9	29S.3E.1.414	"	232 R	SNTF	3,753	40.89	01-23-56	
10	29S.3E.1.431	"	178 R	SNTF	3,796	59	08-16-51	M
11	29S.3E.1.432	"	90 R	AVMB SNTF	3,773	43.77	01-23-56	U

Table 1 continued . . .

EA Well No. (2)	New Mexico Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
12	29S.3E.1.432a	"	166	AVMB SNTF	3,772	39.53	01-15-53	U
13	29S.3E.1.433	El Paso Electric Co.	181	AVMB SNTF	3,791	--	--	M
14	29S.3E.1.434	"	181	--	3,774	63.54	11-12-54	U
15	29S.3E.1.443	"	126 R	AVMB SNTF	3,762	--	--	M
16	29S.3E.12.212	"	294	SNTF	3,778	--	--	M
17	29S.3E.12.214	"	232 R	SNTF	3,790	--	--	U
18	29S.3E.12.222	"	161 R	SNTF	3,761	11	07-13-51	M
19	29S.3E.12.223	"	200 R	SNTF	3,787	46.3	09-04-51	M
20	29S.3E.12.223a	"	206 R	SNTF	3,785	70.12	01-23-56	U
21	29S.3E.12.231	A. S. + R.	--	--	3,810	--	--	U
22	29S.3E.12.234	"	--	--	3,840	--	--	U
23	29S.3E.12.341	J.A. Wilson	190 R	SNTF	3,910	--	--	H
24	29S.3E.12.421	Jose Ramirez	147 R	SNTF	3,800	--	--	H
25	29S.3E.12.422	McMillan	--	--	3,800	--	--	P
26	29S.3E.13.223	Crowder	450	SNTF	3,920	--	--	U
						--	--	
						188.0	07-31-75	
						176.75	07-31-75	

Table 1 continued . . .

EA Well No. (2)	New Mexico Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
27	29S.4E.6.334	F.A. McKnight	80 R	AVMB	3,737	6.15	01-15-53	II
28	29S.4E.7.111	L.D. McComas	72 R	AVMB	--	--	--	I
30	29S.3E.12.224	"	120	AVMB	3,760	17.3	09-04-51	M
				SNTF				
31	29S.4E.7.131	El Paso Electric	122 R	SNTF	3,758	26.0 R	07-05-51	U
32	29S.4E.7.131a	El Paso Electric	274 R	SNTF	3,778	55.6	01-15-57	M
33	29S.4E.7.134	"	103	SNTF	3,774	40.40	01-12-60	U
34	29S.4E.7.141	"	281 R	SNTF	3,736	--	--	U
35	29S.4E.7.143	"	162 R	SNTF	--	--	--	U
36	29S.4E.7.444	W.L. Arndell, Whitefield	--	--	3,785	--	--	H
37	29S.4E.8.212	El Paso Electric	60 R	AVMB	--	--	--	U
38	29S.4E.8.221	"	142 R	SNTF	--	6.0	07-02-52	U
39	29S.4E.8.311	"	246 R	SNTF	3,733	--	--	U
40	29S.4E.8.433	Andy Anderson	120 R	SNTF	3,775	--	--	H
41	29S.4E.9.113	El Paso Electric	282 R	SNTF	--	--	--	U
42	29S.4E.9.113a	"	60 R	AVMB	--	--	--	U
43	29S.4E.17.112	El Paso Electric	420 R	SNTF	3,769	39.31	01-15-53	U
44	29S.4E.17.121	Ben Salcido	86 R	AVMB	3,775	41.0	12-04-74	U
45	29S.4E.17.124	Ardovinos Bar & Restaurant	180 R	SNTF	3,800	--	--	P
46	29S.4E.17.322	ASARCO	163 R	SNTF	3,810	--	--	U
47	29S.4E.18.132	"	393 R	SNTF	3,860	--	--	U

Table 1 continued . . .

EA Well No. (2)	New Mexico Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
48	29S.4E.18.222	T. G. Posey	127 R	SNTF	3,790	--	--	H
49	29S.4E.18.222a	J. M. Elliott	123 R	SNTF	3,795	--	--	H
50	29S.4E.18.233	Anderson	200 R	SNTF	3,870	--	--	H, S
51	29S.4E.18.233a	Southern Pacific Railroad	--	--	3,860	--	--	H
52	29S.4E.18.411	Andy Anderson	240 R	SNTF	3,880	--	--	H, S
53	29S.4E.18.421	ASARCO	266 R	SNTF	3,850	--	--	U
54	29S.4E.9.113b	"	60 R	AVMB	--	--	--	U

Table 1 continued . . .

EA Well No. (2)	Texas Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
55	JL-49-12-201	City of El Paso	50	Qal Rg.	3,751	10.28	05-06-68	U
56	JL-49-13-725	City of El Paso	220	Qtal 6	3,742	8.09 114.25 119.45	06-25-76 06-07-76 03-21-77	U
57	JL-49-12-501	U.S. Bureau of Reclamation	20	Qal Rg.	3,735	6.5	01-00-46	U
58	JL-49-12-502	Yucca Council - Boy Scouts of America	48	Qal Rg.	3,740	9.1	03-17-53	I
59	JL-49-12-503	Farmer Independent Oil Company	550	Qtal 8	3,747	--	--	U
60	JL-49-12-510	L. D. McComas	--	--	3,741	7.75	06-10-52	U
61	JL-49-12-525	Erich Brandes	600	Qtal 8	3,745	Flowed	09-01-57	U
62	JL-49-12-601	City of El Paso	50	Qal Rg.	3,729	2.11	05-06-68	U
63	JL-49-12-602	George Harvey	1,690	Qtal 8	3,994	1.15	03-22-73	U
64	JL-49-12-603	Broadius-McGrath	502	Qtal 8	4,075	238.20	02-16-53	U
65	JL-49-12-604	--	660	Qtal 8	4,106	220.9	10-10-53	U
66	JL-49-12-606	Southwestern Portland Cement Company	140	Qtal 8	3,800	-- 49.0	-- 11-21-55	U H,M
67	JL-49-12-607	"	240	Qtal 8	3,800	46.0	do.	H,M
68	JL-49-13-701	El Paso Electric Company Well 4	320	Qtal 6	3,711	42.82 37.73	12-30-64 04-30-68	M

Table 1 continued . . .

EA Well No. (2)	Texas Well No.	Owner	Depth of Well (feet) (3)	Geologic Unit (4)	Altitude of Land Surface (feet)	Depth Below Land Surface (feet)	Date Measured	Use of Water (5)
69	JL-49-13-708	City of El Paso	52	Qal Rg.	3,708	8.00	04-23-33	U
						25.93	12-28-67	
70	JL-49-13-710	City of El Paso	730	Qtal 6	3,706	44.00	04-09-68	P
	Well 67					119.36	12-13-76	
71	JL-49-13-714	"	49	Qal Rg.	3,708	26.21	07-19-67	U
						37.75	04-09-70	
72	JL-49-13-715	"	49	Qtal 6	3,705	29.08	07-19-67	U
						44.23	07-02-75	
73	JL-49-13-719	City of El Paso	646	Qal Rg./	3,708	15.00	05-17-25	U
	Well 6			Qtal 6		16.80	12-11-40	
74	JL-49-13-720	El Paso Electric	252	Qal Rg./	3,709	7.30	08-20-35	M
	Well 2			Qtal 6		29.20	01-27-55	
75	JL-49-13-721	El Paso Electric	229	Qal Rg./	3,709	23.10	05-00-24	U
	Well 1			Qtal 6		29.74	01-27-55	
76	JL-49-13-722	El Paso Electric	394	Qtal 6	3,708	12.59	00-00-14	M
	Old Well 4					39.89	01-27-55	

Table 1 continued . . .

NOTE:

- (1) Excerpted from Water Resources of the Rincon and Mesilla Valleys and Adjacent Areas, New Mexico, by C.A. Wilson, et al, 1981 Technical Report 43, New Mexico State Engineer and Groundwater Development in the El Paso Region, Texas with Emphasis on the Lower El Paso Valley, by H.J. Alvarez and A.W. Buckner, 1980, Report 246 Texas Department of Water Resources.
- (2) Arbitrary number assigned by Eder Associates, refer to Plate 1.
- (3) R = Reported
- (4)
 - SNTF = Santa Fe Group
 - AVMB = Floodplain Alluvium
 - Qal Rg = Rio Grande Alluvium
 - Qtal 8 = Mesilla Bolson
 - Qtal 6 = Hueco Bolson
- (5)
 - I = Irrigation
 - P = Public Supply
 - M = Industrial or Manufacturing
 - U = Unused
 - H = Domestic
 - S = Stock

V. FIELD INVESTIGATION

The Phase I site investigation field work was performed in two separate field efforts: the first from late March to early April, 1990, and the second from July 17 to 21, 1990. The field work was performed as outlined in the EA January 1990 work plan as amended by EA's March 1990 letters to the EID. The field work involved the following activities: establishing site control, conducting magnetometer and soil gas surveys, sampling surface and subsurface soils, installing monitoring wells, drilling soil borings, and placing a new fence around sections of the site. The site work is described below.

Site Control

The Brickland Refinery property occupies approximately 42 acres, of which approximately 30 acres were used in the various refining operations. An aerial survey of the site performed by Sub Land Inc., El Paso, Texas, was used to generate a topographic map of the study area, including structures presently on site. Because only three above-grade structures remain on site, a location reference system was needed. The site was divided into seven study areas as described in the work plan. Each study area was then marked out with a series of points based on a 50 foot on center grid (Plate 2 indicates these control points). The grid points were physically marked out with numbered surveyors flags. All sampling and data collection points are referenced to the main site grid. The points were physically marked out with numbered surveyor's flags. The grid dimensions vary in study areas A and B because of the construction and demolition debris found in these areas.

Magnetometer Survey

An EG&G Geometrics Model G-856 magnetometer was used to compile total magnetic field intensity data on a grid with an approximate 50

foot spacing between data points. The data were processed and plotted using Golden Graphics SURFER software on an IBM PC computer.

A higher density regular spaced grid was generated using a Kriging algorithm and octant type search contained in SURFER. A conservative amount of automated and manual spline smoothing was performed. Data from areas C, D, E, F and G were plotted and contoured separately. Contour intervals are 1500, 2000, and 5000 gammas, respectively, for areas C, D/E, and F/G.

Prominent cultural features observed during data collection such as concrete pads, posts, poles, walls, and cooling tower foundations, were plotted on the isopleth maps (legend attached).

Areas A and B were not surveyed because of the larger volume of broken concrete and debris in these areas. Historical information indicates that refinery operations associated with buried metal and underground cable were not located in these areas, except for 2 product storage tanks located there in the mid 1950s.

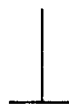
Area C Interpretation

The isopleth map showing study area C is presented in Figure 2. Anomalies correlate with concrete pads and walls in the Area C plot. Chainlink fences border the north, east, and west sides of the area. An anomaly at the south side of the area is probably associated with a pole just south of the survey area (see site control drawing for location). The only anomaly which cannot be related to a nearby cultural object was found just north of the northernmost concrete slab.

Area D/E Interpretation

The isopleth map for study areas D/E is shown in Figure 3. Significant data anomalies correlate with posts, poles, and concrete pads in the east, southeast, and central survey area. There are two unexplainable anomalies. 1) A magnetic low in the north-central

LEGEND



MASONRY WALL



POST OR POLE



CONCRETE PAD/BLDG FOUNDATION



TOWERS

- 1) The top (title side) of each map is North.
- 2) Map scales: Area C 1" = 50 feet
Area D/E 1" = 75 feet
Area F 1" = 80 feet

FIGURE 2

Area C Total Field Intensity Isopleth Map

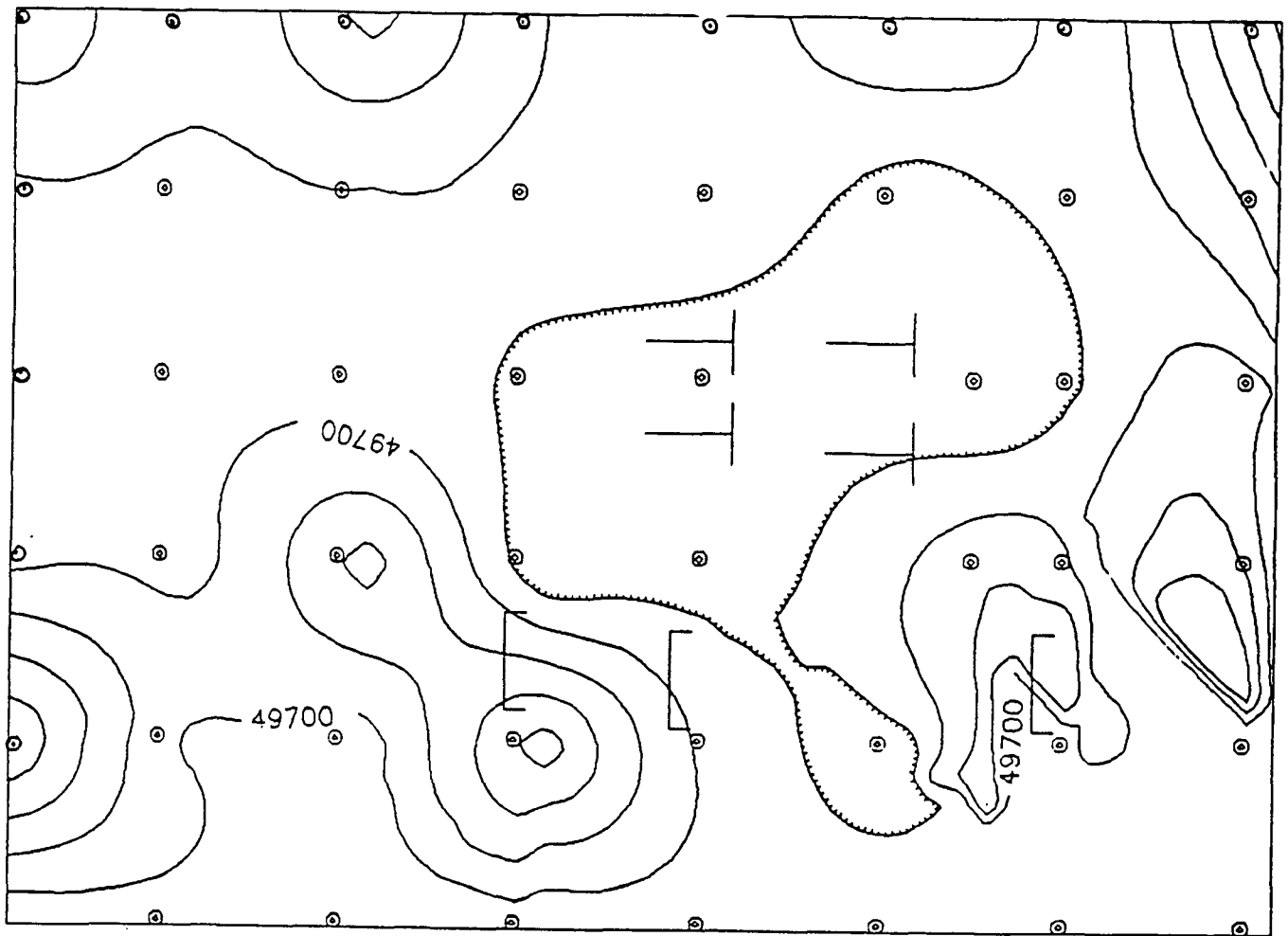
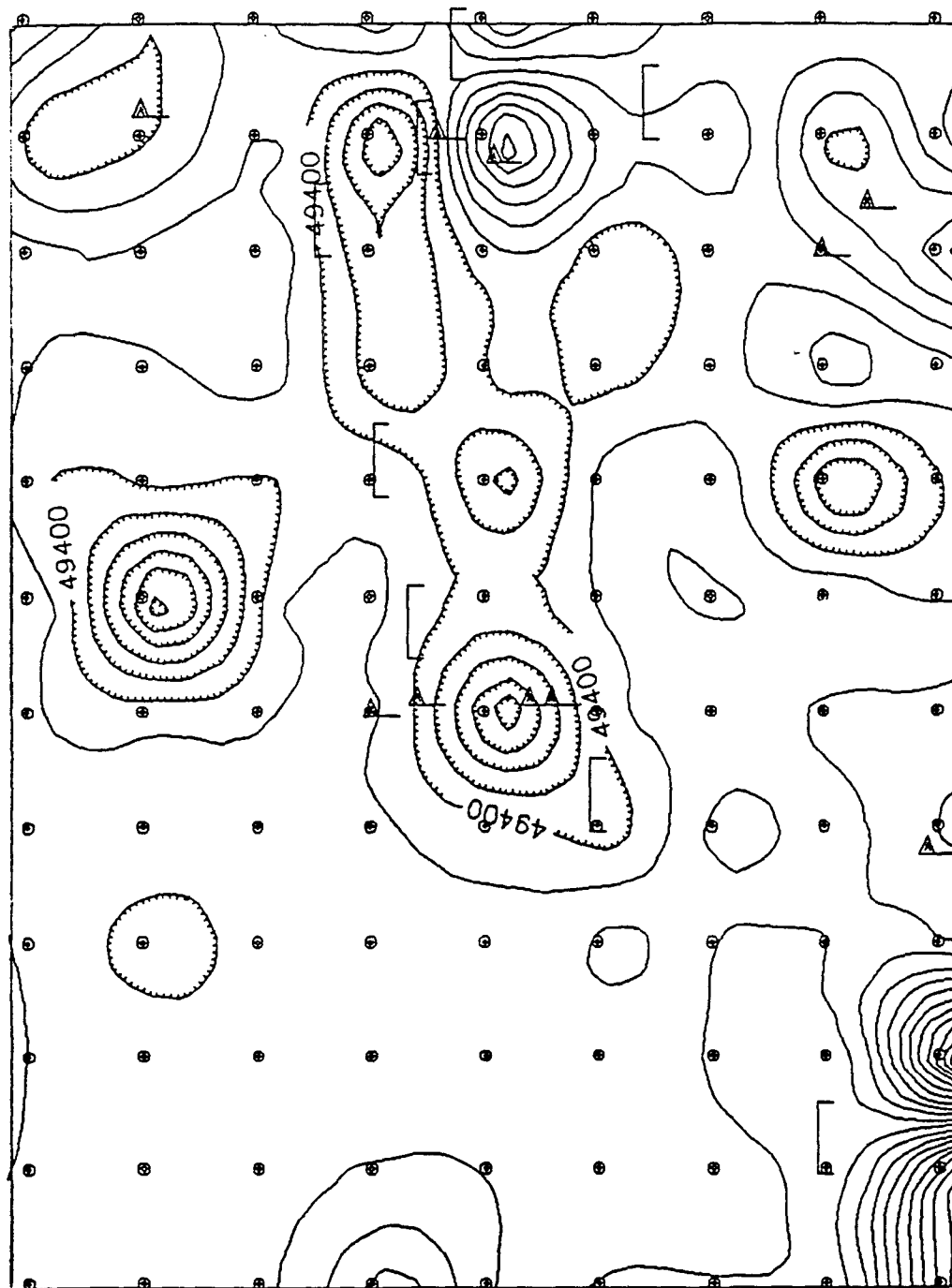


FIGURE 3

Area D/E Total Field Intensity Isopleth Map



portion of the area which might represent a buried metal object of considerable size, i.e., at least several feet across, and 2) a magnetic low between the central large concrete slab and the eastern area boundary. The lateral extent of this anomaly may indicate a large area of metal debris or east-west trending piping, it may also be due to the concrete pads and posts surrounding the area on the north, east, and west.

Area F/G Interpretation

The isopleth map of study areas F/G is shown in Figure 4. Significant anomalies were found around posts, poles, walls, and colling towers on the west side of the area. Anomalies with no nearby cultural features occur in the northwest, north-central and south-central portions of the survey area. The anomaly at the east side of the area may be due to a chainlink fence which borders the north and south sides of the area.

Soil Gas Survey

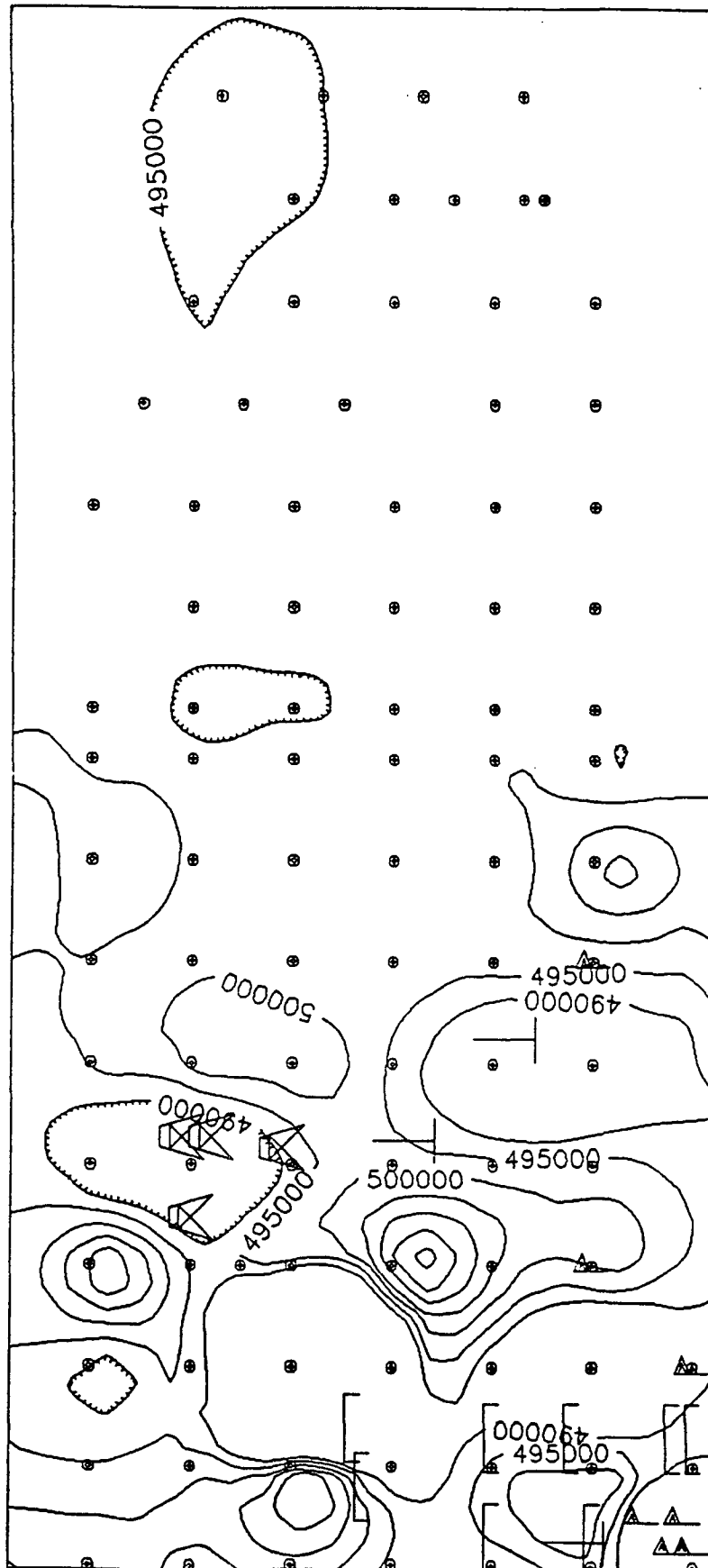
Between March 21-27 and April 2-4, 1990 soil gas samples from 129 locations throughout the site were analyzed to provide a general indication of subsurface contamination by volatile hydrocarbons. Soil gas was monitored with the Photovac TIP II at 15 locations with the TIP II and the Photovac 10S50 Portable Gas Chromatograph (PGC) at 20 locations, and with the PGC at 94 locations.

Methodology

Soil gas samples were taken at the magnetometer survey grid points (see Plate 3 for locations). The number and spacing of samples in each grid block was weighted according to the prior use of the area based on refinery blueprints, and aerial photographs. The greatest concentration of samples was from grid blocks D, E, and F.

FIGURE 4

Area F/G Total Field Intensity Isopleth Map



The Photovac TIP II was intend as a screening device to reduce the analytical load. If the TIP II reading was above a site-specific threshold which would provide approximately 50% rejection, a soil gas sample was taken in a Tedlar bag for analysis with the PGC. However, the high organic readings at many points made the TIP II screen unreliable because it was frequently saturated with organic compounds and took a long time to regenerate. The TIP II readings appeared to be erratic and it became apparent that in attempting to get reliable results with the TIP II, soil gas samples collected in the Tedlar bag after TIP II monitoring were no longer representative of the original concentrations. The TIP II screening was discontinued on March 23 and a Tedlar bag sample was taken from all subsequent probe locations. The amount of sample injected into the PGC is usually altered according to TIP screening results. Since these data were no longer available, the PGC technique also had to be adapted.

The soil gas survey was intended to identify areas of organic contamination by noting the magnitude of concentrations and it was not necessary to quantify the exact concentration of analytes at every sampling location. Preliminary PGC results showed that analyte concentration varied from a few tenths of a part-per-billion, to tens of parts-per-million and a standard injection volume and a standard instrument gain was selected to be used for all samples (100 ul and 5 ul respectively). The most contaminated samples would read offscale while the least contaminated samples would show few if any organic peaks. A number of highly contaminated samples also were rerun with 10 ul injections at a gain of 2 to provide some quantitative data on the maximum analyte concentrations.

The PGC analytes were benzene, toluene, meta-xylene, and ortho-xylene. These compounds were quantified with a commercially prepared certified gas standard (+/-2%) containing 10.6, 10.5, 10.0 and 10.2 ppm of the four analytes respectively.

50 ul of this mixture was injected as a continuous calibration standard after approximately every eight samples with excellent

reproducibility. The concentration of these analytes in samples is derived from the raw PGC data multiplied by the standard injection volume/sample injection volume; generally 0.5.

The PGC can only quantify compounds contained within the standard. Most samples however showed other organic peaks which are labelled "unknown" in the raw data, or the peaks were offscale masking the presence of some analytes. The most reliable basis for comparing the relative contamination of different samples was to sum the total area under the analytical curve of the sample chromatogram, add the "unknown" peak areas and divide this sum by the instrument gain to account for the few samples not run at a gain of 5. This calculation yields millivolts seconds (mVS) and these values appear in the "total unknown/gain" column on Table 2.

When the chromatograph reading was significantly offscale, the software integrator became somewhat unreliable, in that the calculated area under curves which appeared visually similar were sometimes quite different. This is the primary reason for the " " and ">>" values in Table 2. This occurred only with the most contaminated samples, i.e. samples with "total unknown/gain" values above 50. Considering the calculation problem, the most heavily contaminated samples cannot be ranked in any reliable manner and they should all simply be regarded as heavily contaminated. This is also the reason that 100 mVS was chosen as the highest value contour in Plate 3.

A summary of all soil gas results appears in Table 2, and the raw PGC data is presented in Appendix B.

The soil gas analysis reveals indicated that there are three major areas of high organic contamination:

- i) The western portion of grid block D plus the south-west corner of block C.
- ii) the south-west corner of block F and the north-west corner of block G.

OLD BRICKLAND REFINERY SITE, SUNLAND PARK, NEW MEXICO

TABLE 2

SOIL GAS SAMPLING RESULTS

SAMPLE #	DEPTH (FT)	TIP	DATE	PGC ANALYSIS			TOTAL	PGC RESULTS			TOTAL	SAMPLING COMMENTS	
		READING (PPM)	ANALYZED MAR/APR	RUN #	VOL	GAIN	UNKNOWN (in mVS)	BENZ	TOL (all values in ppm)	M-X	O-X		UNKNOWN / GAIN

AREA C													
2	4.0	3.5											
4	2.0	4.7											
6	4.0	6.7	21	10	100	100	15.64		0.03		0.02	0.16	
8	2.0	178.0	21	12	100	5	17.20				8.00	3.44	
10	1.0	13.0											
12	1.5	3.3											
18	3.5	10.3											
24	1.5	2.5											
30	3.5	2.7											
32	4.0	1.2											
34	4.0	2.3											
36	4.0	1.8											
42	0.8	451.0	21	5	100	2	66.47					33.24	black oily soil
44	4.0	149.0	21	4	100	2	848.10					424.05	black oily soil
46	4.0	1.5											
48	4.0	2.3											
AREA E													
49	2.0	>2000.0	22	5	100	2	0.15					0.08	HC odor
51	1.0	396.0	22	6	100	2	1.18					0.58	HC odor
53	1.5	709.0	22	7	100	5	17.49	18.70	0.10		0.99	3.50	HC odor
55	1.0	950.0	22	8	100	5	42.58				5.45	8.52	HC odor
57	1.5	103.0	22	9	100	5	12.08	2.50				2.42	HC odor
59	1.0	>2000.0	22	10 & 11	100	5	3125.00				45.70	625.00	black tar at depth
61	1.0		25	13	100	5	65.57					13.11	
63	2.5		25	14	100	5	3763.30	---	---	<<103.70		752.66	HC odor
73	1.5	548.0	22	22	100	5	39.28					7.86	HC odor
75	2.0	342.0	22	19	100	5	1.66	1.54				0.33	HC odor
77	2.0		22	21	100	5	72.94				4.71	14.59	HC odor
79	2.0	1230.0	22	17	100	5	10.95	10.94		3.27	3.37	2.19	HC odor
79-DUP	2.0	1230.0	22	18	100	5	11.94	10.88		0.54	2.08	2.39	HC odor
81	3.0	1620.0	22	14	100	5	76.37	22.60			<<122.00	15.27	HC odor
83	2.0	1478.0	22	15	100	5	1749.00	---	---		<<271.00	349.80	black tar at depth
85	2.0		25	15	100	5	3944.35	---	---			788.87	slight HC odor
87	2.0		25	16	100	5	1087.60	---	---			217.52	black stained soil
91	2.0		25	17 & 18	100	5	1.24	0.08				0.25	slight HC odor
95	1.0		25	19	100	5	0.08					0.02	
AREA D													
99	2.0		27	35	100	5	>838.40	---	---	---		>167.68	
103	1.5		25	20	100	5	107.91				4.68	21.58	slight HC odor
105	1.5	32.7											
107	2.0		23	21	100	5	26.05	45.96				5.21	
109	2.5		23	16	100	5	2065.30	---	---			413.06	at gas pump
115	4.0	570.0	23	4	100	5	104.65	---				20.93	
117	2.5		23	14	100	5	167.41	---				33.48	
117-DUP	2.5		23	15	100	5	20.63	40.79				4.13	
125	4.0	201.0	23	5	100	5	583.80					118.78	
127	3.0		23	10	100	5	3041.80	---	---			608.36	
129	3.0		27	5	100	5	1556.31	---	---			311.26	strong HC odor
133	1.0		23	23	100	5	43.03	41.33				8.61	
135	4.0	38.5	23	6	100	5	2.04	3.34				0.41	
137	3.0		23	9 & 12	100	5	2391.00	---	---			478.20	
139	2.5		27	6	100	5	>>257.00	---	---			>>51.40	strong HC odor
139-RE	2.5		27	7	10	2		555.00	ND	ND	ND		
141	1.0		25	22	100	5	1242.40	---	---			248.48	HC odor
141-DUP	1.0		25	23	100	5	91.60					18.32	

SAMPLE #	DEPTH (FT)	TIP READING (PPM)	DATE ANALYZED	GC ANALYSIS			TOTAL UNKNOWN (in mV)	BENZ	GC RESULTS (all values in ppm)			O-X	TOTAL UNKNOWN / GAIN	SAMPLING COMMENTS
		RUN #		VOL	GAIN	TOL			M-X					
145	4.0	355.0												
147	1.5	>2000.0	23	7	100	5	299.40	---	---				59.88	HC odor
149	1.5		25	24	100	5	609.24	---	---				121.85	HC odor
155	4.0	98.0												
157	1.5	>2000.0	23	8 & 11	100	5	2901.90	---	---	---	---		580.38	HC odor
AREA F														
159	1.0		26 I	7	100	5	1406.47	---	---				281.29	black HC staining
161	2.0		26 I	8	100	5	6600.00	---	---				1320.00	strong HC odor
163	2.0		26 I	9	100	5	1217.91	---	---	<<54.50			243.58	strong HC odor
165	2.0		26 I	11	100	5	301.60						60.32	
167	2.0		26 I	12	100	5	0.52			2.40			0.10	
169	3.0		26 I	13 & 15	100	5	-3000.00	---	---				-600.00	black tar + strong HC odor
169-RE	3.0		26 I	25	10	2		322.50	ND	ND	ND			black tar + strong HC odor
171	2.0		26 I	14	100	5	1674.40	---	---				334.88	black tar + strong HC odor
173	1.5		26 I	16	100	5	2103.70	---	---				420.74	black tar + strong HC odor
175	1.0		26 I	17	100	5	5922.00	---	---				1184.40	black tar + strong HC odor
177	1.0		26 I	21	100	5	2600.00	---	---				520.00	strong HC odor
179	1.5		26 I	22	100	5	>>450.00	---	---				>>90.00	strong HC odor
181	1.0		26 I	23	100	5	8200.00	---	---				1640.00	strong HC odor
181-RE	1.0		26 I	24	10	2				27.94	ND			strong HC odor
183	1.0		26 I	26	100	5	52.47	14.12					10.49	
185	1.0		26 I	27	100	5	818.18	---	---	20.40			163.84	black tar + strong HC odor
187	0.8		26 II	4 & 5	100	5	0.30	0.64					0.06	strong HC odor
189	1.5		26 II	6	100	5	9300.18	---	---				1860.04	slight HC odor
191	1.5		26 II	7	100	5	4900.99	---	---				980.20	slight HC odor
191-RE	1.5		26 II	21	10	2		875.00	77.00	51.00	ND			slight HC odor
191-DUP	1.5		26 II	8	100	5	2018.04	---	---	<<241.40			403.61	slight HC odor
193	1.5		26 II	9	100	5	-3000.00	---	---				-600.00	strong HC odor
195	1.5		26 II	10	100	5	1.16						0.23	HC odor
197	1.5		26 II	11	100	5	31.12	31.35					6.22	HC odor
199	2.0		26 II	12	100	5	696.14	---	---	<<139.00	<<120.00		139.23	HC odor
201	2.0		26 II	14 & 15	100	5	0.03			1.60			0.01	HC odor
203	2.0		26 II	16	100	5	2553.66	---	---				510.73	strong HC odor
205	1.5		26 II	17	100	5	831.28	---	---	19.70			166.26	strong HC odor
207	1.0		26 II	18	100	5	3027.97	---	---	<<134.50			605.59	strong HC odor
207-RE	1.0		26 II	20	10	2		ND	ND	ND	ND			strong HC odor
209	2.0		26 II	19	100	5	0.00						0.00	strong HC odor
211	3.0		27	8	100	5	0.03						0.01	clean
213	1.0		27	9	100	5	1814.76	---	---	<<304.00	<<279.00		362.95	strong HC odor
214	3.0		27	11	100	5	1802.03	---	---				360.41	
216	1.0		27	13	100	5	0.00						0.00	
218	1.5		27	14	100	5	81.19						16.24	dark red fluid + HC odor
AREA G														
220	2.0		27	15	100	5	2423.57	---	---	<<73.80			484.71	HC product + odor
222	1.5		27	16	100	5	0.00	0.25		3.09			0.00	black staining
224	2.5		27	19	100	5	1535.97	---	---	<<128.00			307.19	
224-RE	2.5		27	21	10	2		80.40	ND	ND	ND			
229	4.0		3	17	100	5	0.02						0.00	
229-DUP	4.0		3	20	100	5	0.00						0.00	
233	2.5		3	21	100	5	0.00						0.00	
235	2.5		27	22	100	5	2.02	0.93		3.70			0.40	
237	2.0		27	23	100	5	2734.00	---	---				546.80	
237-RE	2.0		27	31	10	2		ND	ND	ND	ND			
239	3.0		3	22	100	5	0.21						0.04	
242	2.0		3	23	100	5	0.04						0.01	
244	1.5		27	24	100	5	0.15						0.00	
246	1.0		27	26	100	5	0.03			2.45			0.03	
248	1.0		27	27	100	5	0.00						0.01	
250	3.5		3	24	100	5	0.00						0.00	
252	2.0		3	25	100	5	0.10			0.35			0.02	
254	1.0		3	18	100	5	247.00						49.40	0.5ft from surface tar
254-RE	1.0		3	19	50	2		ND	ND	2.56	ND			

SAMPLE #	DEPTH (FT)	TIP READING (PPM)	DATE ANALYZED	GC ANALYSIS			TOTAL UNKNOWN (in mVS)	BENZ	GC RESULTS (all values in ppm)			TOTAL UNKNOWN / GAIN	SAMPLING COMMENTS
				RUN #	VOL	GAIN	TOL		M-X	O-X			
256	1.0		27	29	100	10	0.38	0.23	0.26	1.95		0.00	
258	1.0		27	34	100	5	3.06			7.30	3.50	0.08	
263	4.0		3	27	100	5	0.14					0.03	
265	4.0		3	28	100	5	0.00					0.00	
AREA H													
267	3.0		4	10	100	5	0.04					0.01	
269	3.0		4	11	100	5	0.29	0.06				0.06	
270	3.0		4	12	100	5	0.32					0.06	
271	3.5		4	14	100	5	0.49					0.10	
AREA B													
280	2.5		3 i	8	100	5	0.78					0.16	
282	2.5		3 i	9	100	5	0.00					0.00	
284	2.5		3 i	11	100	5	3.11					0.62	
284-RE	2.5		3 i	20	100	20		3.51	0.40	4.06	1.12		
286	2.0		3 i	13	100	5	0.00					0.00	
297	2.0		3 i	14	100	5	0.06					0.01	
299	2.0		3 i	15	100	5	0.22					0.04	
301	2.5		3 ii	5	100	5	4.20					0.84	
303	3.0		3 ii	6	100	5	1.40					0.28	
312	2.0		3 i	16	100	5	0.00					0.00	
314	2.0		3 i	21	100	5	0.00					0.00	
316	2.0		3 i	23	100	5	0.23					0.05	
318	1.5		3 i	18	100	5	0.00					0.00	
AREA A													
325	1.5		3 i	17	100	5	0.27					0.05	
327	4.0		3 ii	7	100	5	1.00					0.20	
329	3.0		3 ii	8	100	5	0.21					0.04	
331	1.5		3 i	24	100	5	0.02					0.00	
337	3.0		3 ii	9	100	5	0.00					0.00	
339	3.5		3 ii	11	100	5	0.00					0.00	
341	2.0		3 ii	12	100	5	0.03					0.01	
348	2.5		3 ii	13	100	5	0.22					0.04	
351	3.5		3 ii	15	100	5	0.00					0.00	

Notes:

- DUP duplicate sample
- FE rerun at low sensitivity to quantify analytes
- ND not detected
- potential presence masked by offscale peaks or peak overlap
- > value greater than, instrument offscale (TIP)
- >>& value (very much) greater than, due to poor integration of offscale peaks (PGC)
- << value much less than, due to imperfect peak baseline
- approximate value

- iii) the majority of the rest of block F, encompassing its south-east, north-east, and north-west portion plus the southern edge of block E.

The highest reliable concentrations of the target analytes were 875 ppm benzene, 77 ppm toluene, 51 ppm meta-xylene, and 46 ppm ortho-xylene.

Chromatograms from samples collected in these areas and run at low injection volumes and low gain, namely samples D-139, F-169, F-181, F-191, F-207, G-224, and G-237, do not show significantly different organic signatures. The contamination in the three areas appears to consist mostly of high concentrations of many rapid eluting compounds with fewer slower eluting compounds.

This information was then used to guide the location of test pits and soil borings. The evident relationship between Plate 3 (soil gas results) and Plate 5 (visual product occurrence) shows that the soil gas analysis is an accurate screening technique.

Subsurface Sampling

The subsurface soil sampling strategy was intended to define current environmental conditions in a reliable manner without undue cost. Soil sampling locations were specified in the work plan, with minimums for each area. Observed subsurface conditions were used to develop an initial set of site wide contaminant maps.

The subsurface soil sampling program included test pits excavated with a backhoe, and soil boring by hand auger and power drill. All March/April sampling locations are shown on Plate 4. Additional soil sampling had to be done in July and these locations are shown on Plate 4A. Sampling locations were spaced along gridded transects to provide areal coverage of the site.

The locations of all underground utilities identified in the magnetometer study, from available site records and as marked out by local utilities were taken into consideration in developing the sampling program.

Soil samples from 2 to 5 adjacent sample locations were composited and analyzed for 13 priority pollutant metals to determine the specific metal constituents to be analyzed from individual samples collected at the time the composite was prepared. The individual soil samples were analyzed only for those metals found in the composite at or exceeding a pre-established level of concern.

Oil and grease samples were collected from each sampling location at a depth determined by the highest PID reading from that particular sampling location and/or from visual inspection. Samples for oil and grease analysis were collected in duplicate and the duplicate of 20 percent of the samples showing the highest concentration of oil and grease in laboratory analysis were analyzed for semi-volatile organics.

Volatile organic samples were collected only from locations characterized by significant contamination as indicated by high PID/visual screening. The results of the soil gas screen were used to establish the significant PID reading in a particular area (i.e., a reading of 100 ppm in Area C would be considered high but in Area F it would not merit the collection of a VOC sample).

Samples were collected and shipped in accord with a written protocol outlined in the work plan. All sample bottles were labeled with an identification code indicating the date and location of the sample and the required analysis. All pertinent sampling information, including a description of the soil horizons, unusual materials encountered, odor, and color at each sampling location was entered in the field logbook.

Test Pit Sampling

The major portion of the subsurface sampling program consisted of excavating 91 test pits. The depth of test pits ranged from 4 feet to 10 feet depending on the groundwater level and/or backhoe safe working depth. The test pits were excavated in varying levels of personnel protective equipment (PPE) depending on PID and soil gas readings in the area. The majority of the sampling activities required Level B, other sampling required Level C. The prevailing wind at the site was sufficient to allow personnel to stay upwind of the excavations.

The test pits yielded data on depth to groundwater and the type, depth and orientation of underground pipes and the existence of fill materials (including metal scrap and miscellaneous solid waste) in addition to the sampling information. These data were recorded on a log sheet (Appendix C). All test pits were photographed for visual recall and to show the varying nature of soil and groundwater contamination.

All test pits were visually checked for evidence of flowing water and oil (slicks, sheen, or floating product). Depth to standing water was measured from land surface before the pit was backfilled. The rate at which water entered the hole pit was noted as an rough indication of the relative permeability of the subsurface material. The pits were backfilled after they were sampled.

Whenever possible, clean soil was stored to one side of the test pit while discolored soil/fill was stored on the opposite side. The test pit was backfilled with the clean soil at the top.

The backhoe bucket was steam cleaned before each excavation to prevent cross-contamination.

Hand Auger Borings

Sampling locations covered with construction and demolition debris and not accessible to the backhoe in areas A and B were sampled manually using 3 inch diameter stainless steel bucket auger. A total of 5 borings were made in sampling locations A and B and another 6 borings were made off-site in 4 storm water outfalls located along the Rio Grande River bank. The borings were made to a depth ranging from 1 to 6 feet, depending on groundwater level. A physical description of each boring was noted in the field log book (Appendix C).

Soil samples from the on-site manual borings were composited for metals and oil and grease analysis, while a set of duplicate samples were held by the lab. Samples from the off-site borings were analyzed for semi-VOCs and the priority pollutant metals.

Prior to each soil boring the augers were cleaned by rinsing with tap water, Alconox and a double rinse with deionized water.

Soil Borings

Heaving sand forced a change in drilling method from the procedure outlined in the work plan and the monitoring wells were screened using prepackaged screen which was specially fabricated and shipped to the site as a complete subassembly. During the time it took to fabricate, ship and receive the wells screens, 24 borings were drilled in area D and 2 borings were drilled in area F to supplement the test pit subsurface sampling.

These borings were located on transects each with four borings crossing the area as indicated on Plate 4.

All borings were drilled to 10 feet, and soil was sampled continuously by advancing a decontaminated stainless steel split-spoon ahead of the augers. The lithology of each borehole was noted in the field log book and boring logs along with the result of the TIP II &

OVM head space screen and other information shown in Appendix D. The split-spoons were cleaned as described in the work plan.

A soil sample was retained from each 0-2' spoon sample. These samples were composited with similar samples along a transect and analyzed for 13 priority pollutant metals. A duplicate sample from each borehole was also sent to the laboratory and held in the selected unique event that it was necessary to analyze for individual metals in composites.

In each borehole, a duplicate of the soil sample that had showed the highest VOC concentration in the headspace screen was sent to the laboratory and analyzed for oil and grease. Another duplicate sample from the same depth was also sent to the laboratory and held for semi-VOC analysis based on the oil and grease data.

PPE utilized during boring placement varied between D, C and B with upgrades determined by constant air monitoring results. For several borings, Level B PPE consisting of PVC coated tyveks, overboots, appropriate gloves and air line supplied air system was used because of high work zone levels of petroleum hydrocarbons specifically benzene as recorded by EA Photovac Portable Gas Chromatograph and benzene specific Draeger detector tubes.

Monitoring Well Installation

Fifteen monitoring wells were installed during the field work at Brickland. Wells MW-4, MW-5, MW-7 and MW-8 were installed in accord with work plan procedures. Setting casing and screen in these wells was hindered by running sand which tended to lock the casing inside the hollow auger. To speed the well installation which was slowed to 1 well a day, prepacked well screen was substituted for the screen fabricated at the work site.

The prepacked well screen used at the site consists of an outer 5-1/2 inch diameter screen and an inner 3-1/2 inch diameter screen

separated by a prefilled sand pack. Diversified Well Products, Orange, California fabricated and air freighted 11 of these screens to El Paso within 3 days and the remaining wells were installed at a rate of 2 per day.

The monitoring well boreholes were sampled in accordance with the work plan, continuously to a depth of ten feet, then every five feet thereafter in the deeper wells in accord with the work plan. Boring logs for the wells are included in Appendix E along with construction logs. The work plan called for the 4 transects across the site with three shallow/deep well clusters in each transect. Well locations and the well numbering scheme is shown on Plate 4. The prepacked well screens were installed by augering to the maximum sampling depth, driving the split-spoon for the deepest soil sample and removing the augers from the hole. The lead auger was then fitted with a wooden plug. The augers were then advanced to a depth approximately 2 feet deeper than the required screen setting depth, at which time the screen and casing were used to drive the wood plug from the bottom of the augers. The augers were withdrawn from the hole, the screen was pulled back to the appropriate setting depth and the running sand was allowed to fill the void.

Soil samples taken during the installation of the monitoring well were screened for VOCs in sample container headspace in accord with the procedure described in the work plan. There was no visual contamination in soil samples from the boreholes of well nos. 1, 2, 3, 9 and 12, nor did the PID detect any ionizable vapor in the headspace, and no samples were sent to the lab for analysis. All other well borehole soil samples had elevated PID readings with visual evidence of petroleum hydrocarbon staining and were sent to the laboratory for oil and grease analysis. A duplicate sample also sent to the lab for semi-volatile analysis pending the results of the oil and grease analysis.

Water Level Data

Water level measurements were made in all monitoring wells on the refinery site. Surface water elevations were measured simultaneously in the Rio Grande River upstream and downstream of the site to determine groundwater and surface water interaction. These data were used to construct a groundwater contour map to illustrate the local groundwater flow regime.

River stage elevations made on April 13th and July 16th confirm the conclusion in the New Mexico State Engineer's Report #43 that the Rio Grande is a losing stream in the El Paso area for at least part of the year. The measurements taken on these dates reflect the river at a low stage (April 13th) and at a high stage (July 16th). The water level maps generated from these readings are presented in Figure Nos. 5 and 6.

The water-table gradient is shallow throughout much of the site, corresponding to the shallow gradient of the Rio Grande.

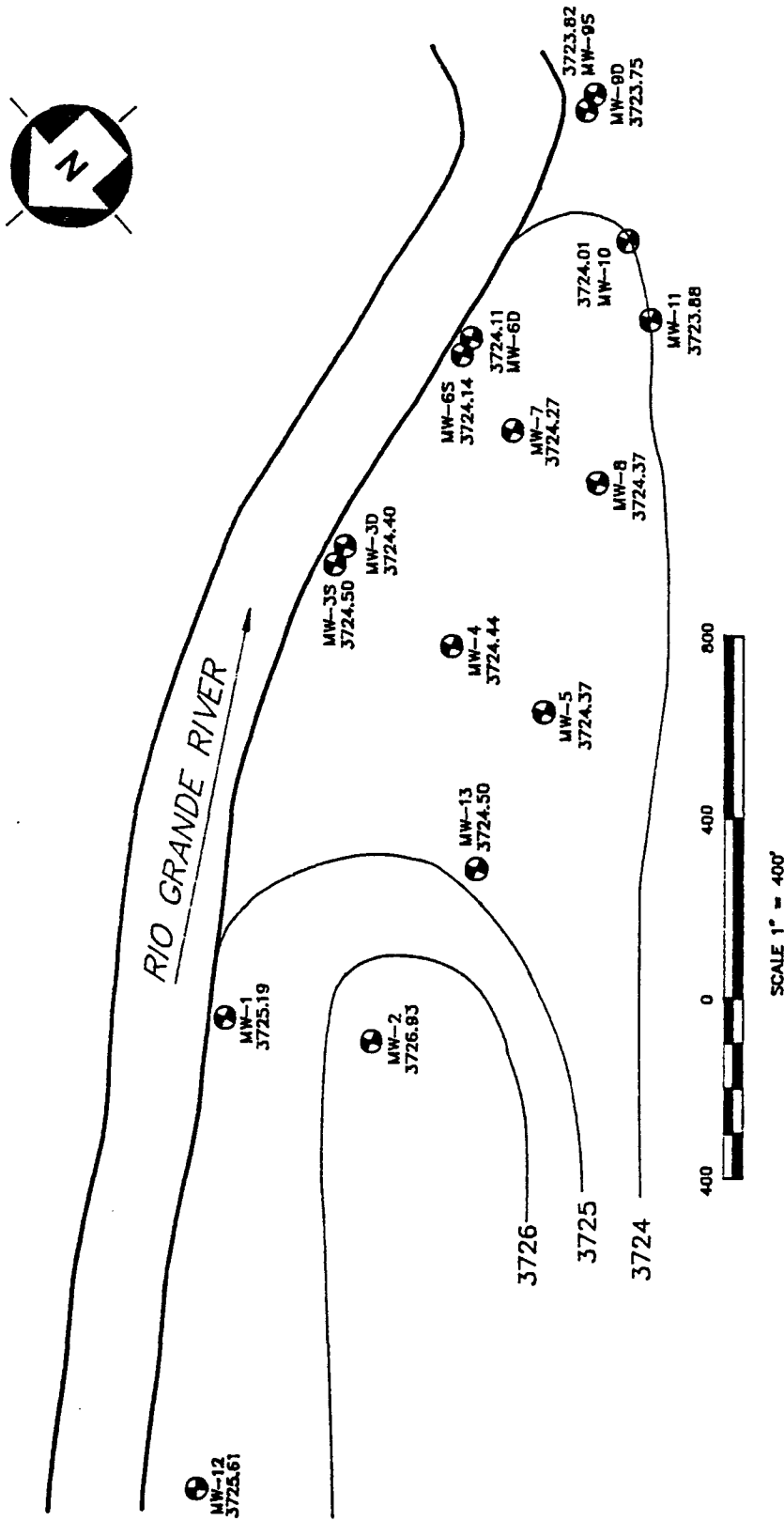
All measurements in the monitoring wells were taken with a chalked steel tapes which was decontaminated after each use.

Surface Soil Sampling

Nine surface soil samples were collected from three locations in a triangular pattern in work areas E, F, and G selected by EID. These samples were analyzed for total chromium, copper, lead, mercury and nickel in accord with the work plan addendum requested by EID.

Surface Water Sampling

The work plan addendum included the collection of three samples from the Rio Grande River to be analyzed for semi-volatile and volatile organics, 13 priority pollutant metals and major anions and cations. The samples were taken along the western bank of the river

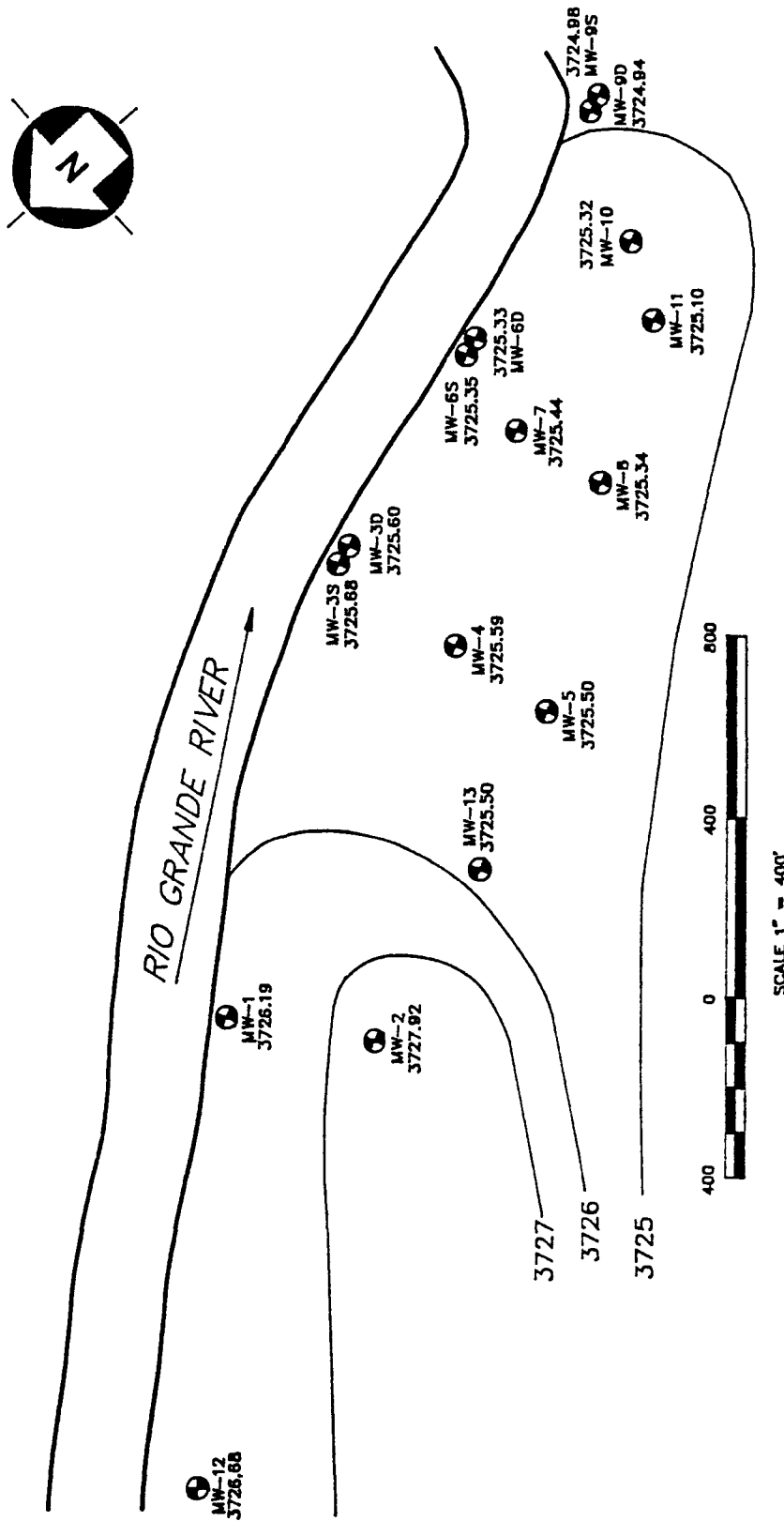


NOTE:

Groundwater Contours Were Generated From Water Level Elevations In Shallow Cluster Wells And From All Other Water Table Monitoring Wells Taken 4-13-90

**GROUNDWATER CONTOUR MAP
FOR PHASE I SITE INVESTIGATION
OF OLD BRICKLAND REFINERY SITE**

REXENE CORPORATION
SUNLAND PARK, NEW MEXICO



GROUNDWATER CONTOUR MAP FOR PHASE I SITE INVESTIGATION OF OLD BRICKLAND REFINERY SITE

REXENE CORPORATION
SUNLAND PARK, NEW MEXICO

immediately upstream of the site, at a location adjacent to monitoring well cluster 6 in the middle of the site, and immediately downstream of the site south of cluster 9.

Observed Subsurface Conditions - Groundwater

The test pits and soil borings provided visual evidence of petroleum residues. In some cases, the excavations showed signs of petroleum associated with groundwater seeps. These visual observations are detailed in the boring and test pit logs included in the Appendix and are summarized on Plate 5. The visual observations correlate well with the soil gas isoconcentration lines presented previously. The primary areas of floating product are in study areas D, E and F with product extending to the south in the direction of ground water flow. Appendix F includes photographs which illustrate various conditions of groundwater and soil detailed on the plates.

Contaminated Soil

The petroleum contaminated soil was divided into four roughly defined types based on visual observations during the test pit excavations and the test borings. The locations of test pits and borings are shown on Plate 4. The differences between types are apparently related to the characteristics of the soil and petroleum residues occurring over the site. The four types of contaminated soil identified on site are shown on Plate 6.

The first and most common soil type is an asphalt-like material, probably natural soil saturated with high viscosity petroleum product. This material is characterized by high to low plasticity and medium compactness. Its color ranged from black to gray to dark gray and it had a very strong petroleum odor. The depth at which the asphalt-like material was encountered ranges from ground surface to more than 120 inches at some locations.

A second type of soil is a coarse-grained organic material encountered during the excavation of test pits E-TP-42, E-TP-48 and boring B-HA-4. This material is not plastic, has loose to medium compactness, black color and a slight petroleum odor. The depth at which this material was encountered ranges from 7 to 28 inches.

The third soil category is a fine-grained organic material found in the test pit F-TP-49. This material appears to be "coke" which was cleaned out of the thermal cracker during refinery turnarounds. This is where the cracker was located and coke dust was reportedly left on the ground following cleaning. It was very compact, not plastic, with a greenish-dark gray color and very slight petroleum odor. This material was found at depth from 7 to 13 inches.

The fourth category is essentially a tar which covers the ground surface in some locations. It was found in test pits E-TP-25 and E-TP-29 intermixed with soil from 2 inches to approximately 60 inches in depth.

Photos have been included to show soil types.

Classification of Contaminated Soil

Sampling areas A & B were used for the bulk petroleum storage. Sampling location C is the area of four former residences. The soil found in contaminated areas A and C did not appear to be as concentrated as in other areas and extended generally from 24 to 48 inches below grade (Plate 7). This plate was prepared from visual observations detailed in Appendix D and C, soil boring and test pit logs.

Soil contamination by heavy petroleum residues was concentrated in Areas D and G. Area D included the refinery transportation center and Area G may have contained some portion of the cooling water lagoons and slop oil lagoons where heavy and crude residues were stored. Contaminated soil in large parts of these areas extends deeper than

120 inches below grade, the maximum working depth of the backhoe. The depth at which these soils were encountered was often deeper than 60 inches as a result of dredge spoils from the Rio Grande being placed on Area G by river dredging operations conducted by the Corp. of Engineers.

The north-western part of sampling area F was occupied by refinery process facilities and is mostly contaminated. Contaminated soil also extends deeper than 67 inches. The central part of this area is comparatively clean because it was generally covered by cooling water ponds which did not contain oil residues.

The major part of sampling area E (drum and tank storage area) exhibits moderate petroleum contamination. Contaminated soil in the eastern part of this area, close to the area F has contaminated soil extending deeper than 80 inches. Petroleum residues were generally not found below the cooling water pond areas because the soil, silt sand, and clay soil types are relatively impermeable.

Health and Safety Plan

Site work was done in various level of Personal Protective Equipment (PPE) determined by constant air monitoring. The work zone was monitored for VOC measured in parts-per-million calibration equivalents with the TIP II or OVM (provided by I.T. drilling services). Upgrades were made at 1 ppm and 5 ppm to level C and level B because of the presence benzene as recorded by the EA photovac Portable Gas Chromatograph and benzene specific Draeger detector tubes. For several borings, 2 wells and the majority of test pits dug in areas D, E, F and G, level B was required consisting of: PVC coated tyveks, overboots, appropriate gloves and a supplied air system.

APPENDIX A
BACKGROUND DATA

APPENDIX A: BACKGROUND DATA

Texas Water Commission Report Summary

Bulletin #6203 - March 1962

The purpose of the investigation was to determine the quantity and quality of groundwater available in the lower Mesilla Valley for the El Paso public supply and for industrial and irrigation use. Well records, drillers' logs, sample logs, water level measurements, and chemical analyses of water samples on which this report is based are provided in Tables 1 to 5. The report contains maps showing the location of wells, the altitude of water levels in various wells, the approximate decline of the water table, and hydrographs showing the fluctuations of water levels in selected wells. Aquifer tests were made at the sites of 15 wells to determine the hydraulic characteristics of the water-bearing formations in the valley. During the course of the investigation, the geology of the valley was studied and geologic sections were prepared. Diagrams and tables show the quality of samples of water from selected wells, the Rio Grande, and drains.

Observations on the Groundwater of the Grande Valley

Charles S. Schlichter, 1905

An investigation of the underflow of the Rio Grande was begun in the latter part of August, 1904 at the narrows of the Rio Grande, and approximately one mile downstream from the site, a few miles above El Paso, Texas, where the stream flows through a narrow gorge of limestone.

A brief reconnaissance by U.S.G.S. personnel in 1904 at the site of the proposed Mexican-American international dam indicated that there could be no underflow of any magnitude at this point. The distance between the walls of the gorge is less than 400 feet, and the test borings made by the Mexican Commission in 1897 seemed to indicate that the maximum depth to bedrock is 86 feet.

Groundwater underflow was determined to be minimal at this narrow portion of the pass. If there was a true underflow, a stream would undoubtedly flow perennially in the narrowest part of the gorge.

The report also concluded from field testing that the rapid increase in dissolved solids at a depth of about 40 feet indicates that the water below such depth is stagnant or without appreciable movement. Layers of fine silt were frequently met with in drilling the test wells, which probably accounts for the stagnant condition of the water below the 35-foot level. These layers of silt are undoubtedly imbricated in such a way that movement of the deeper groundwaters is impossible.

Groundwater Conditions in the Rincon and Mesilla Valley's and Adjacent Areas in New Mexico

Paper #1230, 1954

This report concluded:

1. The groundwater in the valley fill originates mainly from surface water and some from seepage from canals, river, excess water irrigatory land, but partly from groundwater from adjoining highlands, and occasionally, from precipitation upon the valley floor.
2. The quality of the shallow groundwater is suitable for irrigation purposes only.
3. Significantly pumping the shallow groundwater in the alluvium may cause the drains and canals to dry up.
4. Generally, deeper water in the Mesilla Valley supplies better water. The best water in the area is groundwater that occurs under the arroyo beds where the comparatively fresh storm waters from the hills and the mesas sink into the ground.

Quasi Three-Dimensional Modeling of Groundwater Flow in the Mesilla
Bolson, New Mexico and Texas
WRRRI Report #178, 1984

This report made the following conclusions about the hydrogeology of the Mesilla Bolson:

1. During the 25 years prior to the study, the groundwater in the basin has been in a virtual equilibrium or steady state. That is to say that recharge and withdrawal are approximately equal and no decline is observed.
2. The largest sources of subsurface water in the basin today are applied irrigation water and river and canal losses.
3. The annual quantity of water used to irrigate crops remains relatively constant.
4. Recharge from precipitation in mountainous basin boundaries comprises about 18 percent of all subsurface water volume. An estimated average of 30,000 acre-feet per year is derived from mountain front resources.
5. During an average year, evapotranspiration by crops and phreatophytes is the largest component of discharge of subsurface water.
6. Discharge of groundwater to drains and leakage between the shallow floodplain alluvium and Santa Fe Group aquifers, which occurs predominantly in a downward direction, is also a major mechanism of groundwater outflow.
7. Heavy pumpage in water wells in the Mesilla Valley have virtually no affect on the mountain front recharge areas.

Evaluation of Groundwater Resources in El Paso County, Texas
1990 Report #324
Texas Water Development Board

This study in El Paso County was conducted to address problems of overdraft and quality deterioration with respect to the Hueco Bolson, Mesilla Bolson, and the Rio Grande alluvium aquifers.

Water for irrigation use is obtained primarily from the Rio Grande. However, during years of inadequate surface-water supply, shallow wells in the Rio Grande alluvium are pumped to augment the diversions. Other water use in the county is dependent primarily on pumpage from the Hueco and Mesilla Bolson aquifers. Public supply represents 76 percent of the 1985 groundwater use, 91 percent of which was supplied to the City of El Paso.

The amount of fresh groundwater available on a perennial basis from the Hueco and Mesilla Bolson aquifers within El Paso County is approximately 6,000 and 18,000 acre-feet, respectively, which is the average annual effective recharge to the aquifers. Annual withdrawal by pumpage (107,078 acre-feet in 1985) exceeds this available quantity, thus resulting in areas of water-level decline.

This study also addresses the major problems that will be encountered as a direct result of the over-pumpage.

Summary of Hydrologic Information in the El Paso, Texas Area, with
Emphasis on Groundwater Studies, 1903-80, 1987
Texas Water Development Board
Report #300

The purpose of this report is to summarize the development of the water resources of the El Paso area, centering on the use of groundwater for municipal, military, and industrial supply within the City of El Paso-Fort Bliss Military Reservation and Ciudad Juarez metropolitan complex. Included are estimates of current withdrawals

and reserves of fresh groundwater and recent projections of future conditions. Due to availability of published reports that contain detailed aquifer descriptions and tabulations of data, no effort is made to duplicate the information in these publications.

Groundwater Development in the El Paso Region, Texas with Emphasis on the Lower El Paso Valley
Report #246 TDWR, 1980

The scope of this investigation was to: 1) review, update, and include previous work in the study area; 2) attempt to delineate areas of potential fresh groundwater development, primarily for irrigation; and 3) publish the results and conclusions of these studies to serve as a guide for (a) making recommendations concerning what future studies and management procedures might be advisable, and (b) developing and maintaining maximum benefits from the available groundwater resources in the lower El Paso Valley.

This report also contains locations of selected wells in the El Paso Valley area.

Water Resources of the Rincon and Mesilla Valleys and Adjacent Areas, New Mexico.: N.M.S.E.O
Technical Report #43, 1981

This report was designed to collect and analyze data on the water resources of the Rincon and Mesilla Valleys and adjacent areas in New Mexico.

Background information on the location and area, climate, well inventory and water quality studies are contained in this report. Specific information on the hydrogeology, groundwater, surface water, and uses of the water is also contained in the report.

A Groundwater Protection Strategy: The City of El Paso
Texas Water Commission, 1990

The Texas Water Commission (TWC) conducted an inventory of all the public drinking water wells in the City of El Paso, Texas. The report was designed to make recommendations on areas calculated to protect El Paso's public water supply wells.

A record of wells along with a location map is also contained in the report. Pathways of possible contamination were identified and documented for each well visited.

Flow of the Rio Grande and Related Data
IBWC Water Bulletin #57, 1987

This issue of the water bulletin contains flow data of the Rio Grande River from Elephant Butte Dam, New Mexico to the Gulf of Mexico from 1933 to 1987. Parameters recorded are mean daily discharge, extreme gage-feet, extreme second-feet, acre-feet, and flow rates in cubic meters per second. Water quality data and rainfall on the Rio Grande Watershed area with their respective locations, and climatological data is also included in the text.

American Smelting and Refinery Company (ASARCO), 1989

Since 1975, the Texas Air Control Board has ordered the American Smelting and Refinery Company (ASARCO) to implement pollution abatement devices to reduce emissions of sulfur dioxide (SO₂) and lead into the air. The files and reports obtained from Region VI EPA document ASARCO's compliance record with the Board Order and Court Order issued in 1975.

Results of soil sampling for lead and air emissions for SO₂ are reported as well as recommendations for cleanup.

Groundwater Resources of the Hueco Bolson Northeast of El Paso, Texas
USGS Paper #1426, 1956

This report attempts to determine the thickness and areal extent of the Bolson deposits underlying the Mesa which contain fresh water, the capacity of the Bolson deposits to absorb, store, and transmit water, and the chemical properties of the groundwater.

Wells used in this study are tabulated in the report and contain such information as driller's logs, well casing and screen data, yield and drawdown and depth to water.

Sampling and Analysis of Soil in the Vicinity of ASARCO in El Paso, Texas, 1990

On April 14, 1989, the Research Division Staff from the Texas Air Control Board was given approval by the Research and Monitoring Committee to begin soil sampling in the vicinity of ASARCO. The purpose of this sampling was to determine the impact ASARCO's emissions of heavy metals has on the surrounding areas.

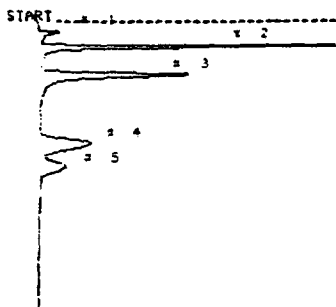
From the results of these soil analyses, background soil conditions were established for the Brickland Refinery Site in Sunland Park, New Mexico. The concentrations are as follows:

Arsenic:	20-40	parts	per	million
Lead:	200-400	"	"	"
Zinc:	200 -400	"	"	"
Cadmium:	10-20	"	"	"

The report also includes QA/QC procedures used during sampling to insure accurate test results.

APPENDIX B
SOIL GAS RAW DATA

PHOTOVAC



STOP # 450.0
SAMPLE LIBRARY 1 MAR 21 1990 14:32
ANALYSIS # 7 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID 10PPM STD
GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.4	45.3 AUS
UNKNOWN	2	38.4	3.3 US
UNKNOWN	3	83.5	3.3 US
UNKNOWN	4	150.7	2.8 US
m-XYLENE	5	227.4	7.603 PPM

PHOTOVAC

CALIBRATED PEAK 2, BENZENE

SAMPLE LIBRARY 1 MAR 21 1990 14:33
ANALYSIS # 7 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID 10PPM STD
GAIN 10 CALIBRATION

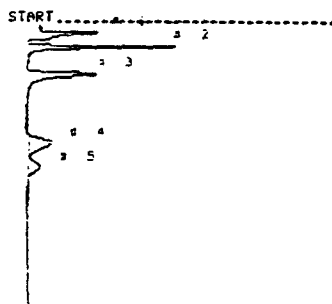
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.4	45.3 AUS
BENZENE	2	38.4	10.32 PPM
TOLUENE	3	83.5	11.34 PPM
m-XYLENE	4	150.7	15.64 PPM
o-XYLENE	5	227.4	20.70 PPM

PHOTOVAC

SAMPLE LIBRARY 1 MAR 21 1990 14:33
ANALYSIS # 7 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID 10PPM STD
GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.4	45.3 AUS
BENZENE	2	38.4	10.32 PPM
TOLUENE	3	83.5	10.34 PPM
m-XYLENE	4	150.7	10.34 PPM
o-XYLENE	5	227.4	10.34 PPM

PHOTOVAC



STOP # 450.0
SAMPLE LIBRARY 1 MAR 21 1990 14:45
ANALYSIS # 8 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID 10PPM STD
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.0	515.2 AUS
BENZENE	2	38.4	8.684 PPM
TOLUENE	3	83.2	3.423 PPM
m-XYLENE	4	183.7	3.453 PPM
o-XYLENE	5	226.2	3.576 PPM

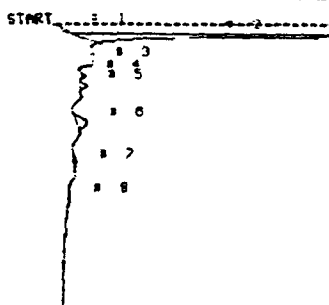
PHOTOVAC

CALIBRATED PEAK 2, BENZENE

SAMPLE LIBRARY 1 MAR 21 1990 15:12
ANALYSIS # 8 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID 10PPM STD
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.0	515.2 AUS
BENZENE	2	38.4	10.60 PPM
TOLUENE	3	83.2	10.31 PPM
m-XYLENE	4	183.7	10.34 PPM
o-XYLENE	5	226.2	10.18 PPM

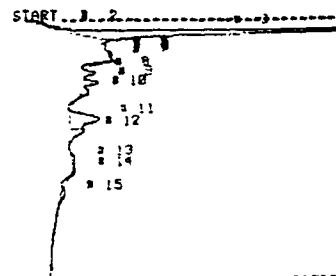
PHOTOVAC



STOP # 450.0
SAMPLE LIBRARY 1 MAR 21 1990 15:43
ANALYSIS # 5 FLOW 15 TEMP 40
INTERNAL TEMP 34 SOLID S2
GAIN 50 SAMPLE C-6

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	2	17.1	7.6 US
UNKNOWN	3	81.8	25.1 AUS
TOLUENE	4	82.8	37.53 PPM

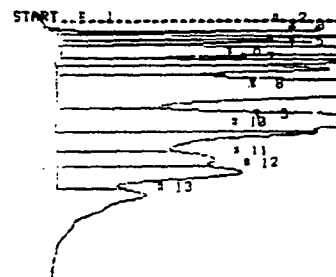
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 15:51
ANALYSIS # 10 FLOW 15 TEMP 40
INTERNAL TEMP 34 SOLID S2
GAIN 100 SAMPLE C-6

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	10.8	106.0 AUS
UNKNOWN	3	17.4	12.7 US
TOLUENE	8	81.7	58.82 PPM
UNKNOWN	9	86.7	205.3 AUS
UNKNOWN	10	111.7	238.0 AUS
UNKNOWN	11	154.0	1.7 US
UNKNOWN	12	170.7	562.4 AUS
o-XYLENE	13	217.8	434.3 PPM
o-XYLENE	14	233.8	40.18 PPM
UNKNOWN	15	271.8	64.0 AUS

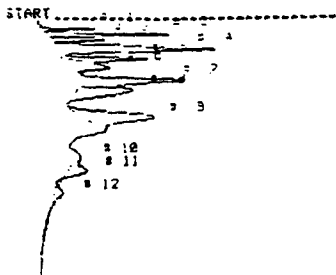
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 16:20
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 33 SOLID S2
GAIN 20 SAMPLE C-6

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	10.7	38.2 AUS
UNKNOWN	2	15.0	2.3 US
UNKNOWN	3	24.0	2.8 US
UNKNOWN	4	32.0	2.3 US
UNKNOWN	5	46.0	25.3 US
UNKNOWN	6	82.3	11.0 US
UNKNOWN	7	75.7	10.0 US
UNKNOWN	8	103.5	88.0 US
UNKNOWN	9	152.8	60.0 US
UNKNOWN	10	172.2	15.0 US
o-XYLENE	11	216.0	46.80 PPM
o-XYLENE	12	235.8	53.72 PPM

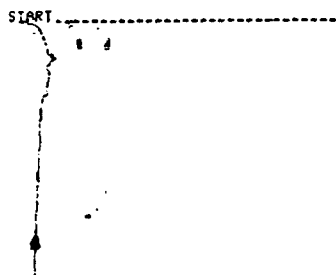
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 10:35
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S2
GAIN 5 SAMPLE C-8

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	15.8	320.3 µS
UNKNOWN	2	24.7	1.4 US
UNKNOWN	3	32.7	436.3 µS
UNKNOWN	4	49.3	4.4 US
UNKNOWN	5	62.9	1.2 US
UNKNOWN	6	75.7	372.7 µS
UNKNOWN	7	87.8	3.1 US
UNKNOWN	8	110.8	2.4 US
UNKNOWN	9	153.2	3.3 US
O-XYLENE	10	216.0	134 PPM
O-XYLENE	11	235.8	16.00 PPM
UNKNOWN	12	271.8	275.2 µS

PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 10:52
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 30 NO INJECTION
GAIN 100 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	25.8	570.5 µS
UNKNOWN	2	53.3	22.4 µS

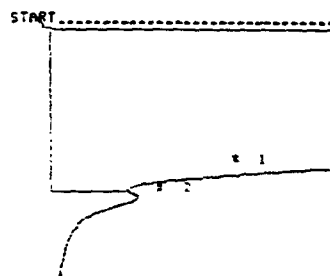
PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 18:14
ANALYSIS # 2 FLOW 15 TEMP 40
INTERNAL TEMP 28 NO INJECTION
GAIN 100 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.3	821.3 µS

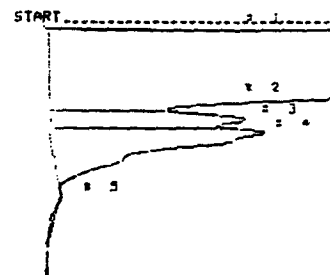
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 18:45
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 29 100UL S2
GAIN 10 SAMPLE C-44

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	121.1	10.5 KUS

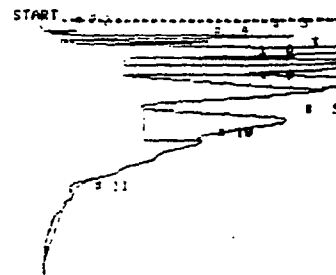
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 18:52
ANALYSIS # 4 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S2
GAIN 2 SAMPLE C-44

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	13.1	1.2 US

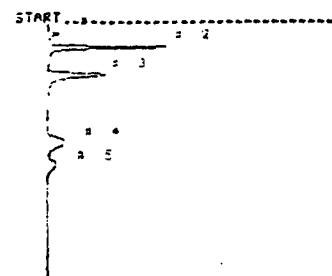
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 19:12
ANALYSIS # 5 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S2
GAIN 2 SAMPLE C-42

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	15.3	165.8 µS
UNKNOWN	3	25.3	3.2 US
UNKNOWN	4	33.1	1.3 US
UNKNOWN	5	42.5	18.1 US
UNKNOWN	6	63.1	6.9 US
UNKNOWN	7	72.1	19.2 US
UNKNOWN	8	86.2	13.2 US
UNKNOWN	9	156.8	13.4 US
m-XYLENE	10	183.2	135.8 PPM

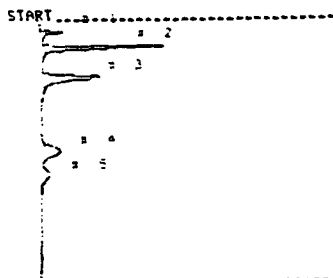
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 21 1990 19:18
ANALYSIS # 6 FLOW 15 TEMP 40
INTERNAL TEMP 30 50UL 10PPM STD
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.8	30.7 µS
BENZENE	2	38.8	3.830 PPM
TOLUENE	3	62.3	8.308 PPM
m-XYLENE	4	189.2	6.183 PPM
O-XYLENE	5	229.8	3.430 PPM

PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:14
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 31 SOL 10PPM STD
 GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.3	187.2 µS
UNKNOWN	2	42.3	1.8 US
UNKNOWN	3	88.8	1.5 US
UNKNOWN	4	282.8	388.3 µS
UNKNOWN	5	248.2	381.8 µS

PHOTOVAC

CALIBRATED PEAK 2: BENZENE

SAMPLE LIBRARY 1 MAR 22 1998 15:15
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 31 SOL 10PPM STD
 GAIN 5 CALIBRATION

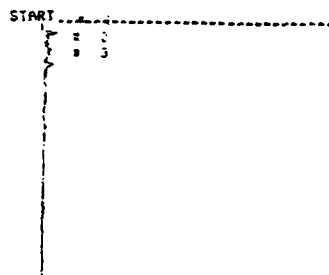
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.3	187.2 µS
BENZENE	2	42.3	18.88 PPM
TOLUENE	3	88.8	3.293 PPM
m-XYLENE	4	282.8	8.214 PPM
o-XYLENE	5	248.2	8.463 PPM

PHOTOVAC

SAMPLE LIBRARY 1 MAR 22 1998 15:17
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 31 SOL 10PPM STD
 GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.3	187.2 µS
BENZENE	2	42.3	18.88 PPM
TOLUENE	3	88.8	18.58 PPM
m-XYLENE	4	282.8	18.88 PPM
o-XYLENE	5	248.2	18.28 PPM

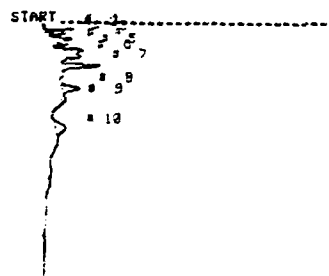
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:24
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 31 SOL 52
 GAIN 2 SAMPLE #49

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.2	41.8 µS
UNKNOWN	2	44.2	26.8 µS
UNKNOWN	3	88.1	82.3 µS

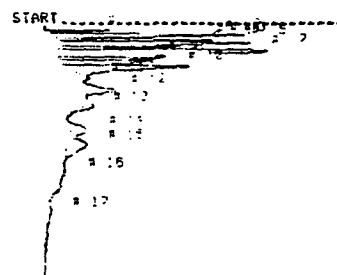
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:32
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 32 SOL 52
 GAIN 2 SAMPLE #51

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.4	142.5 µS
UNKNOWN	2	18.3	125.3 µS
UNKNOWN	3	25.2	38.3 µS
UNKNOWN	4	35.3	87.4 µS
UNKNOWN	5	44.8	188.5 µS
UNKNOWN	6	53.3	48.3 µS
UNKNOWN	7	87.8	538.5 µS
UNKNOWN	8	184.2	434.3 µS
UNKNOWN	9	119.8	132.8 µS
UNKNOWN	10	165.2	322.4 µS

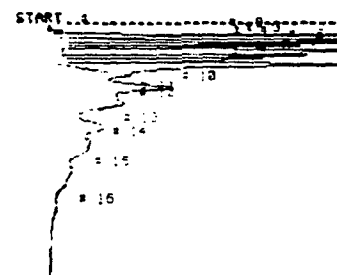
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:33
 ANALYSIS # 7 FLOW 15 TEMP 40
 INTERNAL TEMP 32 SOL 52
 GAIN 5 SAMPLE #53

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.5	347.1 µS
UNKNOWN	2	18.8	2.8 US
UNKNOWN	3	25.3	1.3 US
UNKNOWN	4	28.8	284.2 µS
UNKNOWN	5	38.1	2.2 US
UNKNOWN	6	35.3	1.4 US
BENZENE	7	43.3	37.43 PPM
UNKNOWN	8	53.3	1.4 US
UNKNOWN	9	53.1	1.7 US
UNKNOWN	10	67.8	2.3 US
TOLUENE	11	85.3	152.1 PPM
UNKNOWN	12	183.8	882.3 µS
UNKNOWN	13	123.2	253.3 µS
UNKNOWN	14	165.2	1.8 US
UNKNOWN	15	188.2	1.2 US
o-XYLENE	16	238.4	1.887 PPM

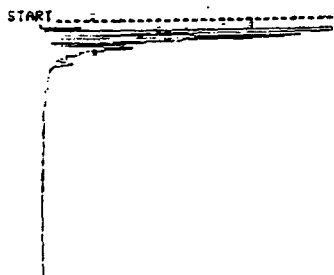
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:46
 ANALYSIS # 8 FLOW 15 TEMP 40
 INTERNAL TEMP 32 SOL 52
 GAIN 5 SAMPLE #55

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	36.7 µS
UNKNOWN	2	15.8	3.4 US
UNKNOWN	3	26.8	4.5 US
UNKNOWN	4	38.8	3.7 US
UNKNOWN	5	38.3	2.3 US
UNKNOWN	6	44.7	18.3 US
UNKNOWN	7	54.1	3.8 US
UNKNOWN	8	55.7	3.4 US
UNKNOWN	9	88.8	7.1 US
UNKNOWN	10	184.3	1.7 US
UNKNOWN	12	123.2	158.8 µS
UNKNOWN	13	165.2	1.3 US
UNKNOWN	14	188.2	223.8 µS
o-XYLENE	15	233.4	18.88 PPM
UNKNOWN	16	231.5	54.7 µS

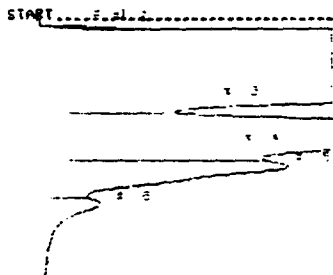
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 15:58
 ANALYSIS # 3 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE E-57

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.5	124.8 μS
UNKNOWN	2	18.9	5.4 US
UNKNOWN	3	25.4	3.3 US
UNKNOWN	4	25.9	2.1 US
UNKNOWN	5	35.2	838.2 μS
BENZENE	6	44.3	3.888 PPM
UNKNOWN	7	62.7	268.5 μS

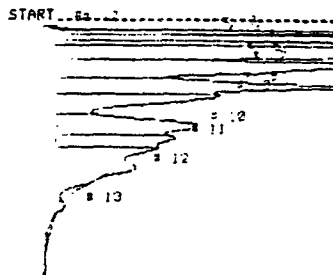
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 16:3
 ANALYSIS # 18 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE E-53

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.2	222.9 μS
UNKNOWN	2	13.3	388.6 μS
UNKNOWN	3	23.6	2.3 μS
UNKNOWN	4	178.8	225.3 US
O-XYLENE	5	231.8	248.4 PPM

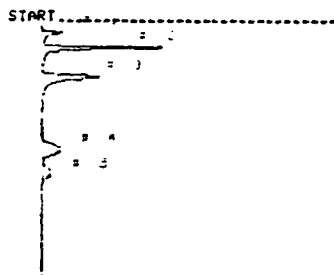
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 16:18
 ANALYSIS # 11 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 2 SAMPLE E-53

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.7	34.9 μS
UNKNOWN	2	14.4	62.2 μS
UNKNOWN	3	18.2	8.8 US
UNKNOWN	4	22.5	15.4 US
UNKNOWN	5	35.7	6.5 US
UNKNOWN	6	48.4	21.8 US
UNKNOWN	7	68.6	23.6 US
UNKNOWN	8	102.6	15.5 US
UNKNOWN	9	112.7	5.9 US
UNKNOWN	10	165.7	18.7 US
UNKNOWN	11	185.2	6.4 US
O-XYLENE	12	238.4	31.41 PPM

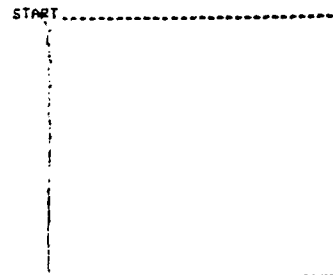
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 16:18
 ANALYSIS # 12 FLOW 15 TEMP 40
 INTERNAL TEMP 33 50UL 10PPM STD
 GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.8	54.8 μS
BENZENE	2	41.7	3.852 PPM
TOLUENE	3	88.8	3.521 PPM
m-XYLENE	4	208.4	3.521 PPM
O-XYLENE	5	237.8	18.36 PPM

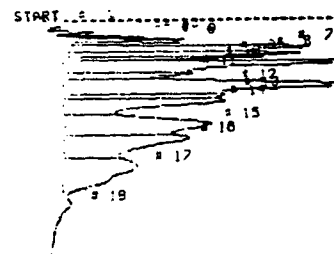
PHOTOVAC



STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 16:28
 ANALYSIS # 13 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE E-81

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

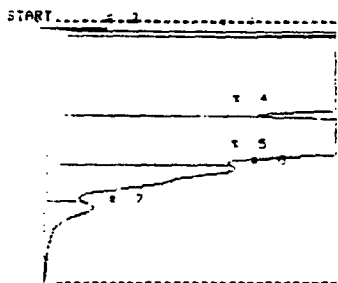


STOP # 488.8
 SAMPLE LIBRARY 1 MAR 22 1998 16:34
 ANALYSIS # 14 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE E-81

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.2	48.7 μS
UNKNOWN	2	18.1	357.8 μS
UNKNOWN	3	25.8	573.9 μS
UNKNOWN	4	28.4	518.1 μS
UNKNOWN	5	23.6	1.2 US
UNKNOWN	6	35.8	1.2 US
BENZENE	7	43.7	45.23 PPM
UNKNOWN	8	53.1	3.3 US
UNKNOWN	9	58.3	3.1 US
UNKNOWN	10	66.7	12.2 US
UNKNOWN	11	82.3	3.4 US
UNKNOWN	12	102.2	13.2 US
UNKNOWN	13	116.8	4.4 US
UNKNOWN	14	122.2	7.4 US
UNKNOWN	15	184.2	11.4 US
UNKNOWN	16	185.2	18.8 US
O-XYLENE	17	223.2	248.3 PPM
UNKNOWN	18	288.3	572.3 μS

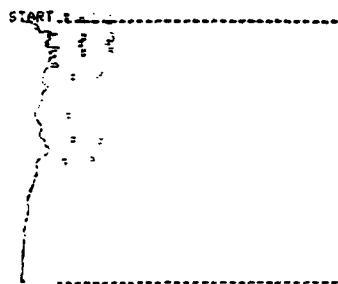
PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 16:47
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 33 100UL S2
GAIN 5 SAMPLE E-83

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.4	356.8 µS
UNKNOWN	2	14.0	328.3 µS
UNKNOWN	3	18.3	11.0 US
UNKNOWN	4	81.3	1.5 KUS
UNKNOWN	5	178.3	232.0 US
O-XYLENE	6	229.8	542.4 PPM
UNKNOWN	7	231.5	5.3 US

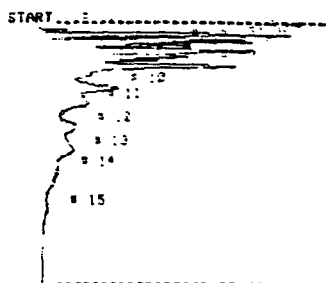
PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 16:50
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 33 100UL UZ AIR S2
GAIN 50 E-55 BAG PURGE

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	13.6	86.1 µS
UNKNOWN	2	18.1	48.4 µS
BENZENE	3	42.3	34.08 PPM
UNKNOWN	4	53.3	33.6 µS
UNKNOWN	5	67.1	177.8 µS
UNKNOWN	6	183.0	118.3 µS
UNKNOWN	7	184.2	172.1 µS
m-XYLENE	8	208.4	745.7 PPM
O-XYLENE	9	232.2	237.8 PPM

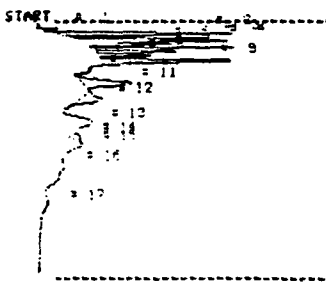
PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 17:5
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 33 100UL S2
GAIN 5

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.3	183.3 µS
UNKNOWN	2	18.2	2.0 US
UNKNOWN	3	25.1	514.2 µS
UNKNOWN	4	29.8	485.2 µS
UNKNOWN	5	35.0	511.2 µS
BENZENE	6	44.1	21.82 PPM
UNKNOWN	7	52.3	1.2 US
UNKNOWN	8	58.5	730.5 µS
UNKNOWN	9	67.3	2.4 US
UNKNOWN	10	103.0	1.1 US
UNKNOWN	11	127.2	523.0 µS
UNKNOWN	12	183.7	608.3 µS
m-XYLENE	13	198.7	6.558 PPM
O-XYLENE	14	238.4	6.743 PPM
UNKNOWN	15	258.7	128.4 µS

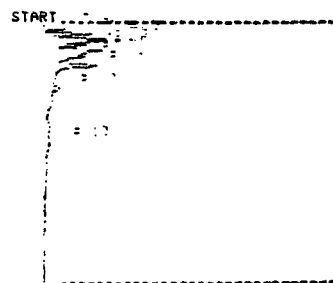
PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 17:13
ANALYSIS # 18 FLOW 15 TEMP 40
INTERNAL TEMP 33 100UL S2
GAIN 5 SAMPLE E-79-DUP

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.5	73.7 µS
UNKNOWN	2	18.4	1.2 US
UNKNOWN	3	25.2	276.1 µS
UNKNOWN	4	29.8	467.8 µS
UNKNOWN	5	35.2	448.3 µS
BENZENE	6	44.1	21.77 PPM
UNKNOWN	7	52.3	1.1 US
UNKNOWN	8	58.7	743.7 µS
UNKNOWN	9	67.3	2.5 US
UNKNOWN	10	103.3	1.4 US
UNKNOWN	11	127.0	868.0 µS
UNKNOWN	12	184.2	1.6 US
UNKNOWN	13	187.2	283.8 µS
m-XYLENE	14	198.2	1.632 PPM
O-XYLENE	15	238.4	4.139 PPM
UNKNOWN	17	283.3	148.7 µS

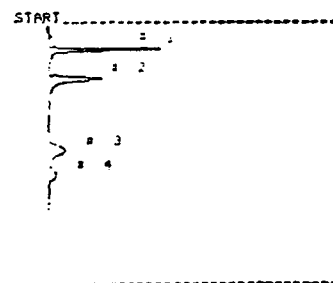
PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 17:21
ANALYSIS # 19 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE E-75

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.3	34.0 µS
UNKNOWN	2	18.2	361.4 µS
UNKNOWN	3	25.1	182.5 µS
UNKNOWN	4	29.8	88.1 µS
UNKNOWN	5	35.0	183.3 µS
BENZENE	6	44.3	3.823 PPM
UNKNOWN	7	52.3	34.1 µS
UNKNOWN	8	67.3	648.4 µS
UNKNOWN	9	183.3	128.7 µS
UNKNOWN	10	183.7	27.1 µS

PHOTOVAC



STOP # 428.8
SAMPLE LIBRARY 1 MAR 22 1999 17:28
ANALYSIS # 20 FLOW 15 TEMP 40
INTERNAL TEMP 32 50UL 10PPM STD
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.1	3.312 PPM
TOLUENE	2	88.3	3.182 PPM
m-XYLENE	3	281.8	8.333 PPM
O-XYLENE	4	238.2	8.338 PPM

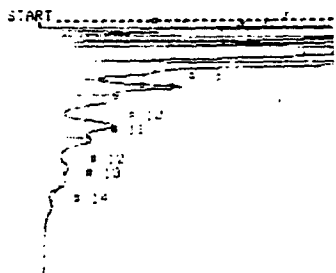
PHOTOVAC

CALIBRATED PEAK 1: BENZENE

SAMPLE LIBRARY 1 MAR 22 1999 17:23
ANALYSIS # 20 FLOW 15 TEMP 40
INTERNAL TEMP 32 50UL 10PPM STD
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.1	18.88 PPM

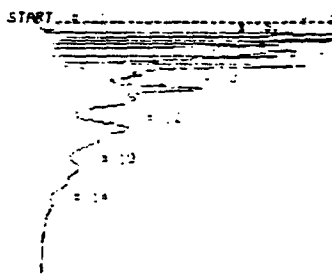
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 22 1990 17:30
ANALYSIS # 21 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE E-27

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	2.4 US
UNKNOWN	2	18.0	339.1 μS
UNKNOWN	3	20.2	4.5 US
UNKNOWN	4	23.0	2.8 US
UNKNOWN	5	25.2	4.0 US
UNKNOWN	6	48.2	31.8 US
UNKNOWN	7	67.3	14.7 US
UNKNOWN	8	103.0	4.8 US
UNKNOWN	9	118.3	2.7 US
UNKNOWN	10	164.7	2.8 US
UNKNOWN	11	185.7	1.2 US
D-MYLENE	12	229.8	9.428 PPM
UNKNOWN	13	252.1	85.3 μS
UNKNOWN	14	283.3	161.9 μS

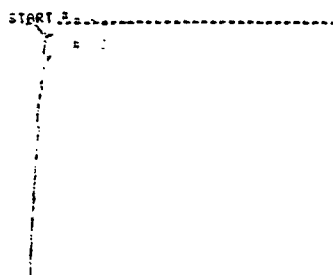
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 22 1990 17:44
ANALYSIS # 22 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-27

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.5	42.7 μS
UNKNOWN	2	18.1	2.3 US
UNKNOWN	3	25.0	5.8 US
UNKNOWN	4	29.7	2.9 US
UNKNOWN	5	35.3	3.8 US
UNKNOWN	6	44.7	6.7 US
UNKNOWN	7	53.3	5.4 US
UNKNOWN	8	67.5	5.1 US
UNKNOWN	9	87.3	134.3 μS
UNKNOWN	10	103.0	2.7 US
UNKNOWN	11	118.0	1.5 US
UNKNOWN	12	165.7	2.1 US
D-MYLENE	13	228.0	15.52 PPM

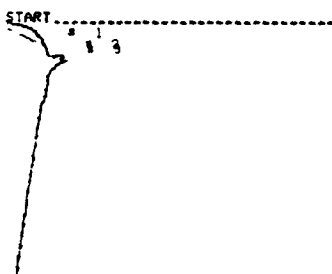
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STOP # 400.0
SAMPLE LIBRARY 1 MAR 22 1990 17:52
ANALYSIS # 23 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL U2 AIR S2
GAIN 50 STRINGE CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	8.6	27.8 μS
UNKNOWN	2	18.3	38.8 μS
UNKNOWN	3	53.3	24.1 μS

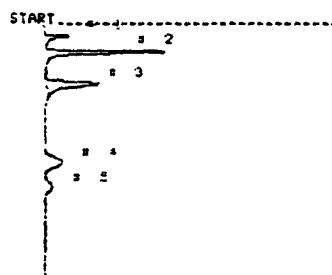
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 23 1990 13:55
ANALYSIS # 2 FLOW 15 TEMP 40
INTERNAL TEMP 31 NO INJECTION
GAIN 100 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	33.2	1.4 US
UNKNOWN	2	54.3	26.5 μS
UNKNOWN	3	60.1	53.4 μS

PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 23 1990 14:5
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 32 50UL 10PPM STD
GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	19.3	128.2 μS

PHOTOVAC

CALIBRATED PEAK 1 BENZENE

SAMPLE LIBRARY 1 MAR 23 1990 14:0
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 32 50UL 10PPM STD
GAIN 5 CALIBRATION

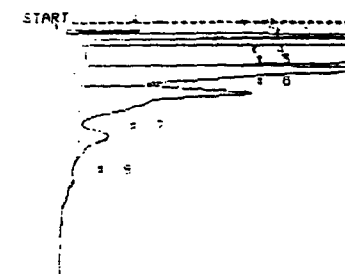
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	19.3	128.2 μS
BENZENE	2	44.7	11.45 PPM
TOLUENE	3	54.3	11.73 PPM
P-MYLENE	4	215.8	18.27 PPM
O-MYLENE	5	258.4	5.647 PPM

PHOTOVAC

SAMPLE LIBRARY 1 MAR 23 1990 14:10
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 32 50UL 10PPM STD
GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	19.3	128.2 μS
BENZENE	2	44.7	18.08 PPM
TOLUENE	3	54.8	18.58 PPM
P-MYLENE	4	215.8	8.335 PPM
O-MYLENE	5	258.4	18.20 PPM

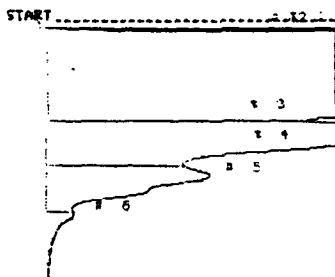
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 23 1990 14:18
ANALYSIS # 4 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE D-115

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.1	254.3 μS
UNKNOWN	2	19.3	11.4 US
UNKNOWN	3	29.5	15.7 US
UNKNOWN	4	48.8	33.4 US
UNKNOWN	5	72.5	24.2 US
UNKNOWN	6	111.1	13.4 US
UNKNOWN	7	177.7	2.1 US
UNKNOWN	8	245.0	35.2 μS

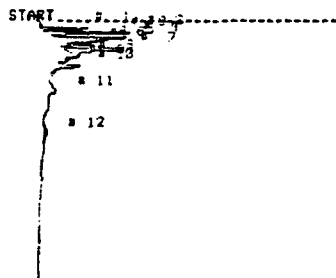
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:3
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE D-125

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	1.8 US
UNKNOWN	2	14.8	1.8 US
UNKNOWN	3	84.8	423.8 US
UNKNOWN	4	122.1	22.7 US
UNKNOWN	5	244.4	22.8 US

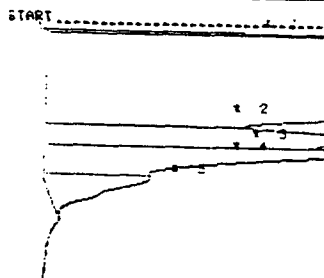
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:17
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE D-135

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	244.6 μUS
UNKNOWN	2	17.8	401.8 μUS
UNKNOWN	3	13.1	510.0 μUS
UNKNOWN	4	20.4	143.0 μUS
UNKNOWN	5	31.3	64.0 μUS
UNKNOWN	6	30.3	103.8 μUS
BENZENE	7	44.7	0.088 PPM
UNKNOWN	9	61.9	26.4 μUS
UNKNOWN	10	71.3	322.9 μUS
UNKNOWN	11	103.9	58.0 μUS
UNKNOWN	12	125.2	59.5 μUS

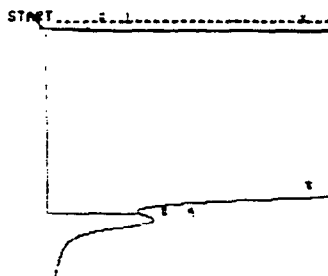
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:20
 ANALYSIS # 7 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL S2
 GAIN 5 SAMPLE D-147

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	13.9	0.0 US
UNKNOWN	2	82.3	209.0 US
UNKNOWN	3	178.4	46.7 US
UNKNOWN	4	137.0	20.5 US
UNKNOWN	5	240.9	10.2 US

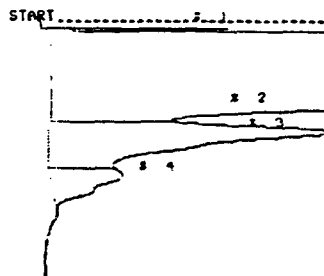
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:30
 ANALYSIS # 8 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-157

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	228.7 μUS
UNKNOWN	2	14.4	1.3 US
UNKNOWN	3	145.5	328.0 US

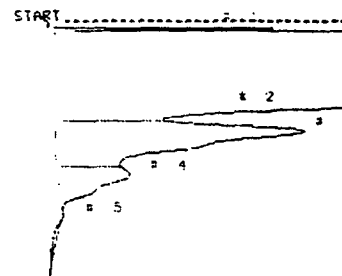
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:45
 ANALYSIS # 9 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-137

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	1.5 US
UNKNOWN	2	22.9	2.3 KUS
UNKNOWN	3	174.0	30.8 US
UNKNOWN	4	243.0	0.2 US

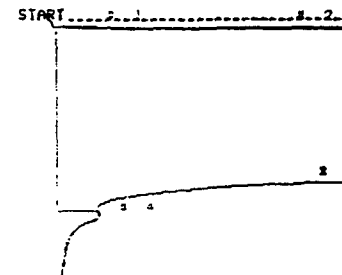
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 15:54
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-127

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.2	1.0 US
UNKNOWN	2	22.3	3.0 KUS
UNKNOWN	3	174.7	31.7 US
UNKNOWN	4	240.9	0.5 US

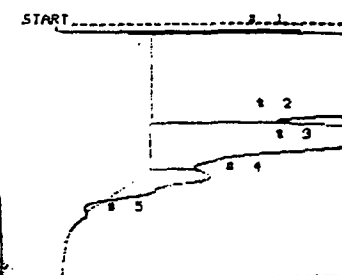
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:13
 ANALYSIS # 11 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2 RERUN
 GAIN 5 SAMPLE D-157

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.8	210.2 μUS
UNKNOWN	2	14.5	1.7 US
UNKNOWN	3	136.3	2.9 KUS

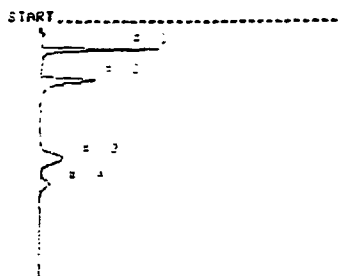
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:13
 ANALYSIS # 12 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2 RERUN
 GAIN 5 SAMPLE D-137

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	1.5 US
UNKNOWN	2	22.9	2.3 KUS
UNKNOWN	3	174.0	30.8 US
UNKNOWN	4	243.0	0.2 US

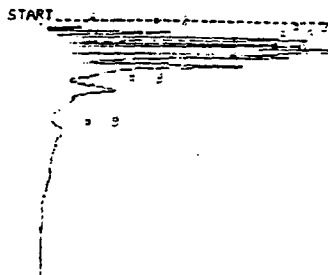
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:21
 ANALYSIS # 13 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	43.2	3,556 PPM
TOLUENE	2	32.8	3,170 PPM
m-XYLENE	3	214.2	12.41 PPM
p-XYLENE	4	254.2	13.81 PPM

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:33
 ANALYSIS # 15 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-117-DUP

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.8	208.0 μS
UNKNOWN	2	13.0	1.2 US
UNKNOWN	3	27.3	3.8 US
UNKNOWN	4	36.8	2.6 US
BENZENE	5	44.2	81.58 PPM
UNKNOWN	6	55.1	4.8 US
UNKNOWN	7	78.3	5.6 US
UNKNOWN	8	105.0	1.3 US
UNKNOWN	9	174.2	321.8 μS

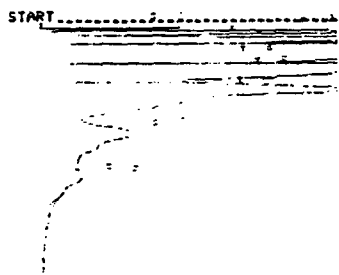
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 17:2
 ANALYSIS # 17 FLOW 15 TEMP 40
 INTERNAL TEMP 33 100UL U1 AIR S2
 GAIN 50 STRANGE CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	14.6	106.2 μS
UNKNOWN	2	13.0	36.0 μS
BENZENE	3	44.3	16.61 PPM
UNKNOWN	4	53.2	40.8 μS
UNKNOWN	6	136.4	63.6 μS
UNKNOWN	7	176.2	32.4 μS
p-XYLENE	8	213.6	1,063 PPM

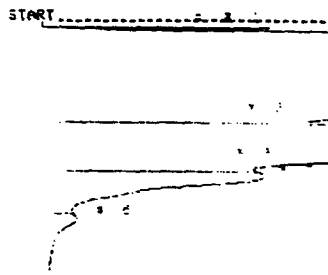
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:31
 ANALYSIS # 14 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-117

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.3	829.4 μS
UNKNOWN	2	18.3	7.5 US
UNKNOWN	3	28.2	18.8 US
UNKNOWN	4	48.4	22.3 US
UNKNOWN	5	74.1	32.8 US
UNKNOWN	6	107.3	25.2 US
UNKNOWN	7	174.2	4.0 US
UNKNOWN	8	242.3	686.0 μS

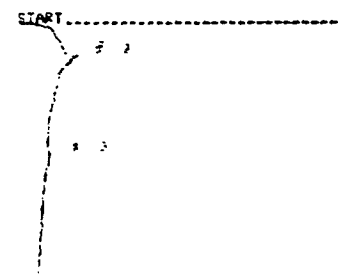
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 16:40
 ANALYSIS # 16 FLOW 15 TEMP 40
 INTERNAL TEMP 34 100UL S2
 GAIN 5 SAMPLE D-105

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.1	1.4 US
UNKNOWN	2	14.4	1.0 US
UNKNOWN	3	84.2	1.3 KUS
UNKNOWN	4	150.0	138.2 US
UNKNOWN	5	242.3	23.9 US

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 23 1990 17:11
 ANALYSIS # 18 FLOW 15 TEMP 40
 INTERNAL TEMP 33 NO INJECTION
 GAIN 100 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	53.2	2.5 US

PHOTOVAC

STOP # 37.4
 SAMPLE LIBRARY 1 MAR 23 1990 17:23
 ANALYSIS # 19 FLOW 15 TEMP 40
 INTERNAL TEMP 32 NO INJECTION
 GAIN 5 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.2	45.5 μS

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 23 1990 17:32
ANALYSIS # 20 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S2
GAIN 5 SAMPLE D-107

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	44.1	165.0 PPM

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 23 1990 17:39
ANALYSIS # 21 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE D-107

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.8	53.8 μ S
UNKNOWN	3	18.6	3.5 US
UNKNOWN	4	27.5	4.3 US
UNKNOWN	5	30.8	2.8 US
BENZENE	6	44.5	91.92 PPM
UNKNOWN	7	55.3	5.0 US
UNKNOWN	8	71.1	7.0 US
UNKNOWN	9	103.3	2.2 US
UNKNOWN	10	125.2	351.1 μ S
UNKNOWN	11	138.2	48.1 μ S

PHOTOVAC

START

STOP # 12.5
SAMPLE LIBRARY 1 MAR 23 1990 17:40
ANALYSIS # 22 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE D-107

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 23 1990 17:43
ANALYSIS # 23 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE D-133

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.3	167.4 μ S
UNKNOWN	2	18.7	8.5 US
UNKNOWN	3	28.8	16.5 US
UNKNOWN	4	30.8	3.5 US
BENZENE	5	45.1	82.86 PPM
UNKNOWN	6	55.1	3.4 US
UNKNOWN	7	61.5	2.7 US
UNKNOWN	8	71.1	6.2 US
UNKNOWN	9	103.3	1.2 US
UNKNOWN	12	126.2	264.2 μ S
UNKNOWN	13	135.2	22.8 μ S
UNKNOWN	14	245.1	75.2 μ S

PHOTOVAC

START

STOP # 31.5
SAMPLE LIBRARY 1 MAR 23 1990 17:49
ANALYSIS # 24 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 SAMPLE D-133

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC

START

STOP # 100.0
SAMPLE LIBRARY 1 MAR 23 1990 17:52
ANALYSIS # 25 FLOW 15 TEMP 40
INTERNAL TEMP 32 100UL S2
GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.5	12.92 PPM
TOLUENE	2	100.0	11.62 PPM
M-XYLENE	3	232.8	10.13 PPM
D-XYLENE	4	275.2	3.135 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 10:55
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 30 NO INJECTION
GAIN 100 COLUMN CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	53.7	3.2 US
UNKNOWN	2	69.7	34.0 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 11:14
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 SOL 100PPM STD
GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	47.5	1.3 US
UNKNOWN	2	100.0	1.6 US
UNKNOWN	3	232.8	585.5 μ S
UNKNOWN	4	275.2	263.0 μ S

PHOTOVAC

CALIBRATED PEAK 1, BENZENE

SAMPLE LIBRARY 1 MAR 25 1990 11:15
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 SOL 100PPM STD
GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.5	12.92 PPM
TOLUENE	2	100.0	11.62 PPM
M-XYLENE	3	232.8	10.13 PPM
D-XYLENE	4	275.2	3.135 PPM

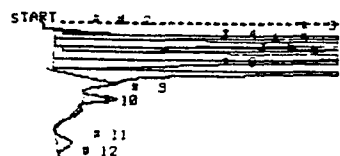
PHOTOVAC

SAMPLE LIBRARY 1 MAR 25 1990 11:10
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL STD
GAIN 5 CALIBRATION

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE	1	47.5	10.60 PPM
TOLUENE	2	100.3	10.50 PPM
m-XYLENE	3	232.8	3.335 PPM
p-XYLENE	4	275.2	10.20 PPM

PHOTOVAC

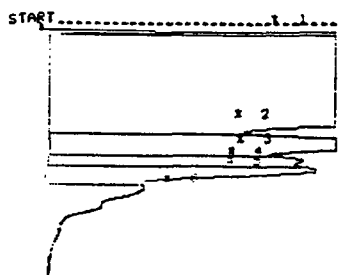


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 11:33
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S2
GAIN 5 SAMPLE E-01

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	13.0	107.0 μS
UNKNOWN	2	15.4	400.0 μS
UNKNOWN	3	15.3	5.3 US
UNKNOWN	4	30.5	10.2 US
UNKNOWN	5	40.0	5.0 US
UNKNOWN	6	50.5	13.5 US
UNKNOWN	7	58.9	8.2 US
UNKNOWN	8	70.2	0.9 US
UNKNOWN	9	110.3	951.4 μS
UNKNOWN	10	130.0	75.9 μS
UNKNOWN	11	180.7	814.4 μS
UNKNOWN	12	210.0	30.0 μS

PHOTOVAC

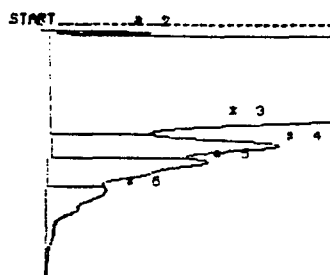


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 11:41
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-03

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	13.0	2.4 US
UNKNOWN	2	89.3	3.7 KUS
UNKNOWN	3	100.1	40.1 US
UNKNOWN	4	210.0	11.8 US
B-XYLENE	5	271.0	70.7 μS

PHOTOVAC

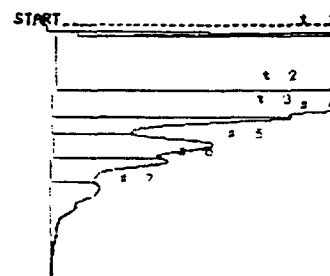


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 11:43
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-05

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	12.7	624.0 μS
UNKNOWN	2	15.6	632.5 μS
UNKNOWN	3	85.8	3.3 KUS
UNKNOWN	4	180.2	15.7 US
UNKNOWN	5	215.4	15.5 US
UNKNOWN	6	250.1	7.9 US

PHOTOVAC

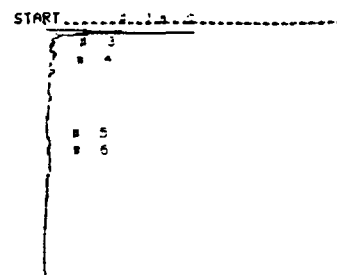


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 11:50
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-06 87

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	13.0	3.9 US
UNKNOWN	2	58.3	1.0 KUS
UNKNOWN	3	110.4	40.2 US
UNKNOWN	4	145.2	12.5 US
UNKNOWN	5	180.7	14.8 US
UNKNOWN	6	219.2	9.3 US
UNKNOWN	7	250.4	6.9 US

PHOTOVAC

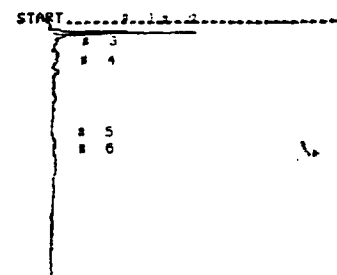


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 12:03
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-01

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	12.3	300.0 μS
UNKNOWN	2	15.3	782.3 μS
BENZENE	3	48.3	155.0 PPM
UNKNOWN	4	70.7	43.5 μS
UNKNOWN	5	150.2	30.7 μS

PHOTOVAC

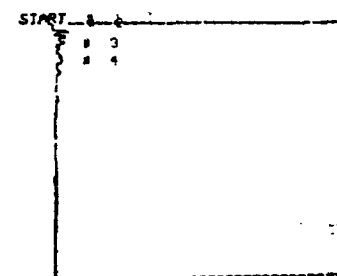


STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 12:11
ANALYSIS # 18 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2 REFLIN
GAIN 5 SAMPLE E-01

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	13.2	332.1 μS
UNKNOWN	2	15.5	803.4 μS
BENZENE	3	48.3	183.0 PPM
UNKNOWN	4	70.3	43.5 μS

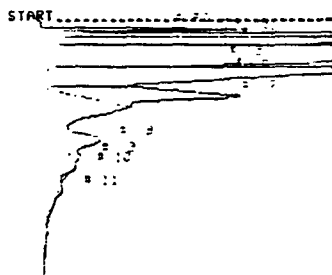
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 25 1990 12:13
ANALYSIS # 19 FLOW 15 TEMP 40
INTERNAL TEMP 31 100UL S2
GAIN 5 SAMPLE E-05

COMPOUND NAME PEAK R.T. AREA/PPM

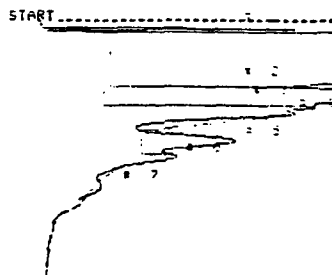
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 25 1990 12:23
 ANALYSIS # 20 FLOW 15 TEMP 40
 INTERNAL TEMP 31 100UL S2
 GAIN 5 SAMPLE 0-143

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	1.2 US
UNKNOWN	2	15.5	342.2 μUS
UNKNOWN	3	21.0	14.6 US
UNKNOWN	4	30.7	10.5 US
UNKNOWN	5	50.3	23.0 US
UNKNOWN	6	77.6	30.3 US
UNKNOWN	7	117.7	8.4 US
UNKNOWN	8	187.7	2.0 US
UNKNOWN	9	213.6	304.0 μUS
O-XYLENE	11	265.4	5.124 PPM

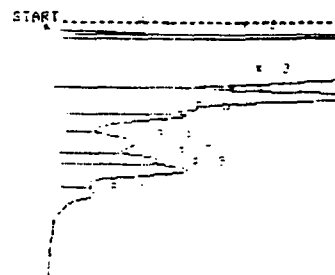
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 25 1990 12:44
 ANALYSIS # 22 FLOW 15 TEMP 40
 INTERNAL TEMP 31 100UL S2
 GAIN 5 SAMPLE 0-141

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	1.6 US
UNKNOWN	2	50.0	1.2 KUS
UNKNOWN	3	115.0	32.4 US
UNKNOWN	5	180.2	0.0 US
UNKNOWN	6	213.6	1.3 US
UNKNOWN	7	250.4	452.5 μUS

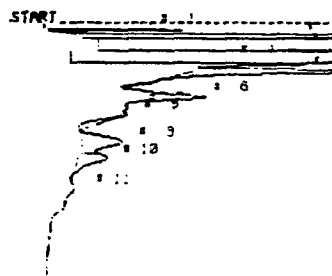
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 25 1990 13:06
 ANALYSIS # 24 FLOW 15 TEMP 40
 INTERNAL TEMP 31 100UL S2
 GAIN 5 SAMPLE 0-145

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	15.2	640.7 μUS
UNKNOWN	2	20.0	11.6 US
UNKNOWN	3	57.8	542.4 US
UNKNOWN	4	115.1	30.2 US
UNKNOWN	5	145.2	7.1 US
UNKNOWN	6	187.7	7.4 US
UNKNOWN	7	214.2	5.0 US
m-XYLENE	8	230.4	112.2 PPM
O-XYLENE	9	260.2	140.2 PPM

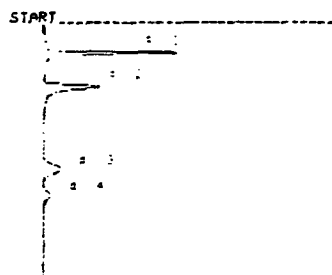
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 25 1990 12:53
 ANALYSIS # 23 FLOW 15 TEMP 40
 INTERNAL TEMP 31 100UL S2
 GAIN 5 SAMPLE 0-141-DUP

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.5	639.0 μUS
UNKNOWN	2	20.5	14.0 US
UNKNOWN	3	34.3	40.4 US
UNKNOWN	4	52.3	20.0 US
UNKNOWN	5	75.4	7.1 US
UNKNOWN	6	117.1	2.0 US
UNKNOWN	7	134.0	34.7 μUS
UNKNOWN	8	187.7	2.0 US
UNKNOWN	10	213.6	1.0 US
UNKNOWN	11	255.1	207.4 μUS

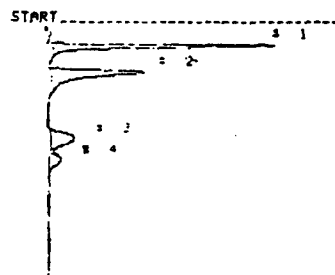
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 25 1990 12:36
 ANALYSIS # 21 FLOW 15 TEMP 40
 INTERNAL TEMP 31 50UL 10PPM STD
 GAIN 5 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.1	3.737 PPM
TOLUENE	2	100.0	3.320 PPM
m-XYLENE	3	230.4	5.304 PPM
O-XYLENE	4	272.4	10.02 PPM

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 15:39
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 22 50UL 10PPM STD
 GAIN 10 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	30.0	0.5 US
UNKNOWN	2	70.7	0.3 US
m-XYLENE	3	103.2	15.70 PPM
O-XYLENE	4	217.2	22.53 PPM

PHOTOVAC

CALIBRATED PEAK 1: BENZENE

SAMPLE LIBRARY 1 MAR 26 1990 15:42
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 22 50UL 10PPM STD
 GAIN 10 CALIB CHECK

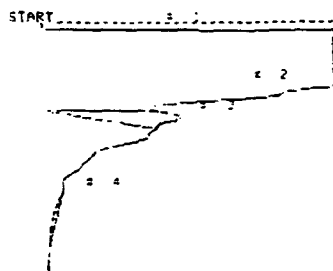
COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	30.0	10.30 PPM
TOLUENE	2	70.7	12.33 PPM
UNKNOWN	3	103.2	1.0 US

PHOTOVAC

SAMPLE LIBRARY 1 MAR 26 1990 15:46
ANALYSIS # 6 FLOW 15 TEMP 40
INTERNAL TEMP 22 100UL STD
GAIN 10 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	36.6	10.30 PPM
TOLUENE	2	78.7	10.50 PPM
m-XYLENE	3	183.2	3.335 PPM
p-XYLENE	4	212.2	10.70 PPM

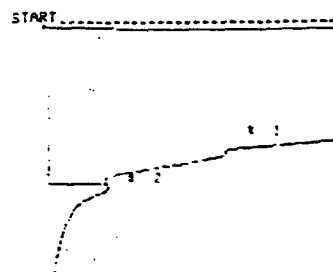
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 15:55
ANALYSIS # 7 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-159

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.0	570.7 AUS
UNKNOWN	2	57.3	1.4 KUS
UNKNOWN	3	140.0	5.3 US

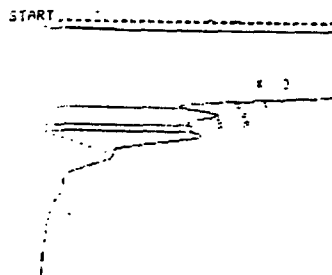
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:12
ANALYSIS # 9 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-161

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	33.6	6.6 KUS

PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:13
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-163

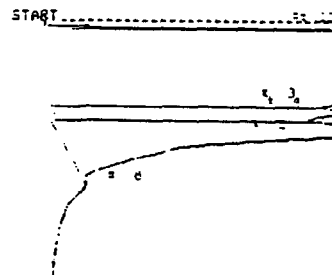
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	10.7	100.7 AUS
UNKNOWN	2	13.0	628.7 AUS
UNKNOWN	3	64.9	1.2 KUS
UNKNOWN	4	146.0	12.5 US
UNKNOWN	5	185.7	4.6 US
m-XYLENE	6	178.7	103.3 PPM

PHOTOVAC

START
STOP # 5.3
SAMPLE LIBRARY 1 MAR 26 1990 16:10
ANALYSIS # 10 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-163

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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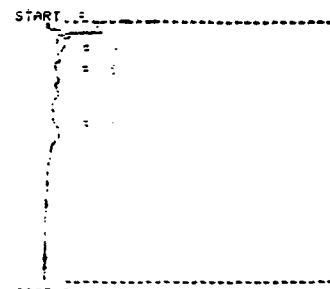
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:10
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-165

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.0	1.5 US
UNKNOWN	2	12.0	1.3 US
UNKNOWN	3	72.3	233.9 US
UNKNOWN	4	141.0	12.6 US
UNKNOWN	5	183.0	42.4 US

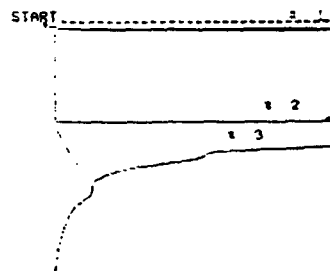
PHOTOVAC



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:25
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 22 100UL S3
GAIN 5 SAMPLE F-167

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	10.7	20.1 AUS
UNKNOWN	2	13.0	325.0 AUS
UNKNOWN	3	64.9	58.1 AUS
UNKNOWN	4	146.0	42.7 AUS
UNKNOWN	5	185.7	25.7 AUS
m-XYLENE	6	178.7	4.302 PPM

PHOTOVAC

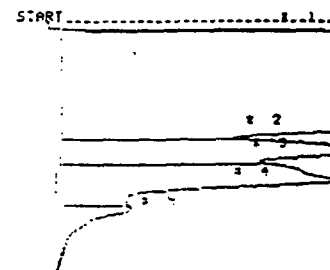


STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:33
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-163

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.1	1.4 US
TOLUENE	2	81.2	320.0 PPM
m-XYLENE	3	176.0	232.0 PPM

NOT TOLUENE OR m-XYL.
PEAK OVERLAP --
= PEAKING # 25

PHOTOVAC

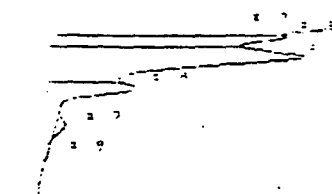


STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:41
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE F-167

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	13.5	1.6 US

PHOTOVAC

START



STOP # 422.0
SAMPLE LIBRARY 1 MAR 26 1990 16:48
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 23 SOL 100UL S3
GAIN 2 SAMPLE F-163

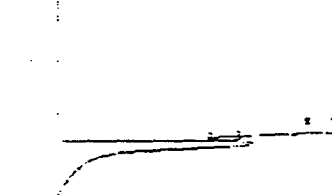
COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	18.1	1.3	US
UNKNOWN	2	22.2	812.6	μS
TOLUENE	3	80.3	823.3	PPM
UNKNOWN	4	148.0	11.5	US
m-XYLENE	5	179.7	869.1	PPM
o-XYLENE	6	226.8	490.3	PPM
UNKNOWN	7	285.1	435.2	μS

NOT TOLUENE!
PEAK OVERLAP...
SEE RUN #25

PHOTOVAC

START



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 16:50
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 23 SOL 100UL S3
GAIN 5 SAMPLE F-173

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	24.1	3.2	US
UNKNOWN	2	159.3	2.1	KUS

PHOTOVAC

START



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 17:4
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 22 SOL 100UL S3
GAIN 5 SAMPLE F-125

PHOTOVAC

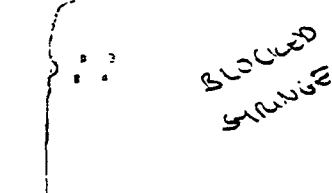
START

STOP # 86.5
SAMPLE LIBRARY 1 MAR 26 1990 17:6
ANALYSIS # 18 FLOW 15 TEMP 40
INTERNAL TEMP 23 SOL 100PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START



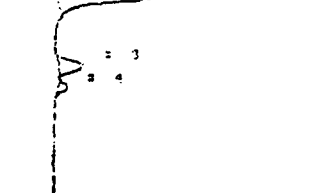
STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 17:17
ANALYSIS # 19 FLOW 15 TEMP 40
INTERNAL TEMP 23 SOL 100PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	38.8	831.2	μS
TOLUENE	2	82.6	1,804	PPM
m-XYLENE	3	186.2	2,448	PPM
o-XYLENE	4	221.4	508.3	PPB

PHOTOVAC

START



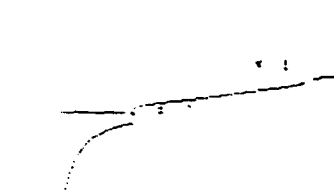
STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 17:26
ANALYSIS # 20 FLOW 15 TEMP 40
INTERNAL TEMP 23 SOL 100PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE	1	38.4	10.03	PPM
TOLUENE	2	81.7	10.05	PPM
m-XYLENE	3	186.2	8,854	PPM
o-XYLENE	4	228.0	6,222	PPM

PHOTOVAC

START



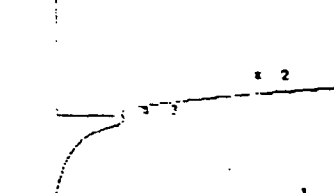
STOP # 420.0
SAMPLE LIBRARY 1 MAR 26 1990 17:30
ANALYSIS # 21 FLOW 15 TEMP 40
INTERNAL TEMP 22 SOL 100UL S3
GAIN 5 SAMPLE F-127

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	107.2	2.6	KUS
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PHOTOVAC

START



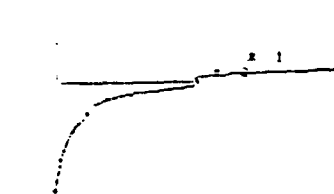
STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 17:40
ANALYSIS # 22 FLOW 15 TEMP 40
INTERNAL TEMP 22 SOL 100UL S3
GAIN 5 SAMPLE F-129

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.7	1.8	US
UNKNOWN	2	116.4	440.2	US

PHOTOVAC

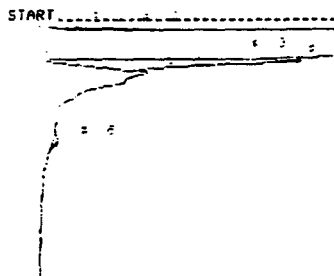
START



STOP # 400.0
SAMPLE LIBRARY 1 MAR 26 1990 17:51
ANALYSIS # 23 FLOW 15 TEMP 40
INTERNAL TEMP 22 SOL 100UL S3
GAIN 5 SAMPLE F-181

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

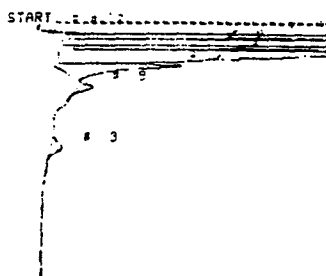


STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 17:53
 ANALYSIS # 24 FLOW 15 TEMP 40
 INTERNAL TEMP 22 100UL S3
 GAIN 2 SAMPLE F-181

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.5	280.8 AUS
UNKNOWN	2	15.1	559.8 AUS
BENZENE	3	37.0	100.1 PPM
UNKNOWN	4	85.3	2.1 US
UNKNOWN	5	85.0	135.2 AUS
n-XYLENE	6	180.2	5.587 PPM Vox

NOT BENZENE!!
 PEAK OVERLAP

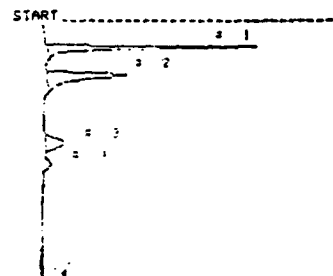
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 18:17
 ANALYSIS # 26 FLOW 15 TEMP 40
 INTERNAL TEMP 22 100UL S3
 GAIN 5 SAMPLE F-183

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	13.3	33.3 AUS
UNKNOWN	2	16.0	127.5 AUS
UNKNOWN	3	20.4	11.8 US
UNKNOWN	4	23.8	16.2 US
BENZENE	5	37.1	28.25 PPM
UNKNOWN	6	45.4	18.5 US
UNKNOWN	7	68.5	4.1 US
UNKNOWN	8	102.4	542.9 AUS
UNKNOWN	9	135.7	602.7 AUS

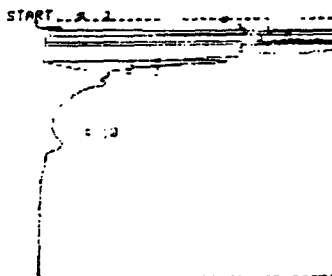
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 18:32
 ANALYSIS # 28 FLOW 15 TEMP 40
 INTERNAL TEMP 21 50UL 100PPM STD
 GAIN 10 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	41.7	3.4 US
UNKNOWN	2	85.0	2.8 US
n-XYLENE	3	131.7	0.214 PPM
O-XYLENE	4	225.0	4.624 PPM

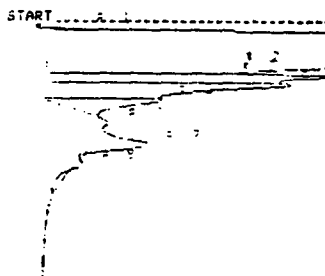
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 18:37
 ANALYSIS # 25 FLOW 15 TEMP 40
 INTERNAL TEMP 22 100UL S3
 GAIN 2 SAMPLE F-165

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	127.1 AUS
UNKNOWN	2	15.1	31.3 AUS
UNKNOWN	3	18.0	2.3 US
UNKNOWN	4	28.7	13.8 US
BENZENE	5	32.8	66.43 PPM
UNKNOWN	6	45.3	23.8 US
UNKNOWN	7	66.0	5.3 US
UNKNOWN	8	100.0	283.2 AUS
UNKNOWN	10	137.2	758.8 AUS

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 18:24
 ANALYSIS # 27 FLOW 15 TEMP 40
 INTERNAL TEMP 21 100UL S3
 GAIN 5 SAMPLE F-185

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.8	126.4 AUS
UNKNOWN	2	43.4	287.4 US
UNKNOWN	3	86.3	11.6 US
UNKNOWN	4	39.4	14.0 US
UNKNOWN	5	123.2	1.6 US
UNKNOWN	6	158.8	203.1 AUS
n-XYLENE	7	157.2	40.31 PPM

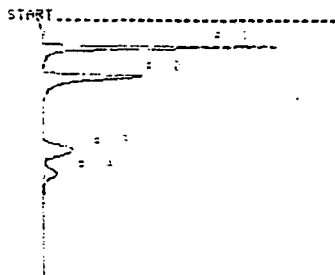
PHOTOVAC

CALIBRATED PEAK 1: BENZENE

SAMPLE LIBRARY 1 MAR 26 1990 18:35
 ANALYSIS # 28 FLOW 15 TEMP 40
 INTERNAL TEMP 21 50UL 100PPM STD
 GAIN 10 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	41.7	10.70 PPM
TOLUENE	2	85.0	0.313 PPM
UNKNOWN	3	131.7	1.0 US
UNKNOWN	4	225.0	710.0 AUS

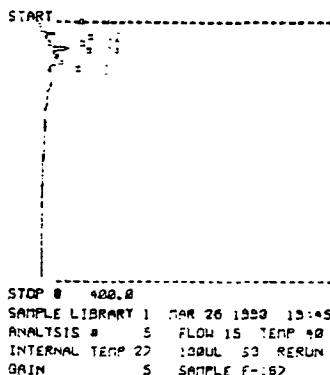
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 19:21
 ANALYSIS # 3 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.3	10.68 PPM
TOLUENE	2	89.3	9.633 PPM
m-XYLENE	3	203.4	9.244 PPM
p-XYLENE	4	240.9	8.670 PPM

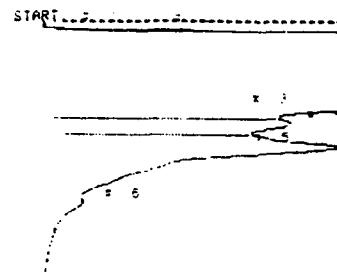
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 19:45
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 27 100UL 50 RERUN
 GAIN 5 SAMPLE F-167

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.0	27.8 μS
BENZENE	2	42.1	1.238 PPM
UNKNOWN	3	50.5	38.0 μS
UNKNOWN	4	64.5	238.4 μS

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 20:0
 ANALYSIS # 8 FLOW 15 TEMP 40
 INTERNAL TEMP 28 100UL 53
 GAIN 5 SAMPLE F-151-DUP

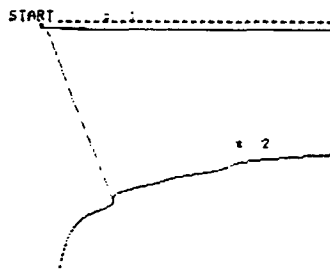
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.8	85.7 μS
UNKNOWN	2	14.5	850.1 μS
UNKNOWN	3	29.1	2.0 KUS
UNKNOWN	4	162.2	12.1 US
m-XYLENE	5	133.2	482.8 PPM

PHOTOVAC

SAMPLE LIBRARY 1 MAR 26 1990 19:23
 ANALYSIS # 3 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	42.3	10.68 PPM
TOLUENE	2	89.3	10.50 PPM
m-XYLENE	3	203.4	10.00 PPM
p-XYLENE	4	240.9	10.20 PPM

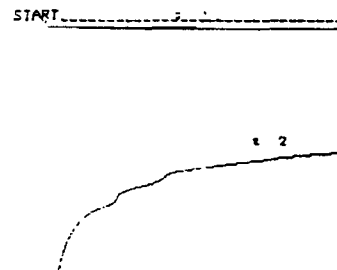
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 19:53
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 28 100UL 53
 GAIN 5 SAMPLE F-169

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.1	181.8 μS
UNKNOWN	2	112.0	3.3 KUS

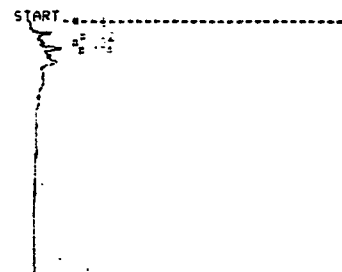
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 20:15
 ANALYSIS # 9 FLOW 15 TEMP 40
 INTERNAL TEMP 28 100UL 53
 GAIN 5 SAMPLE F-153

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.2	256.0 μS

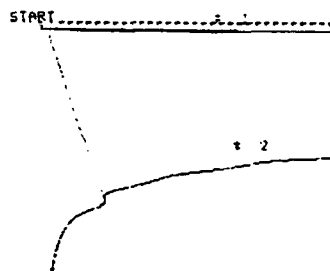
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 19:35
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 27 100UL 53
 GAIN 5 SAMPLE F-167

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.3	47.1 μS
BENZENE	2	42.3	1.272 PPM
UNKNOWN	3	50.5	40.8 μS
UNKNOWN	4	65.1	241.3 μS

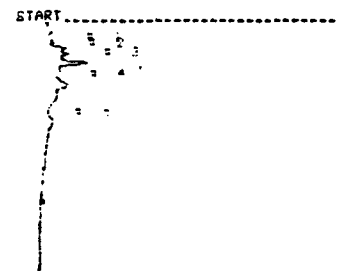
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 20:1
 ANALYSIS # 7 FLOW 15 TEMP 40
 INTERNAL TEMP 28 100UL 53
 GAIN 5 SAMPLE F-151

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	335.3 μS

PHOTOVAC

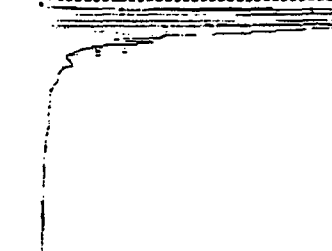


STOP # 400.0
 SAMPLE LIBRARY 1 MAR 26 1990 20:22
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 29 100UL 53
 GAIN 5 SAMPLE F-155

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	43.9	54.1 μS
UNKNOWN	2	52.9	52.8 μS

PHOTOVAC

START



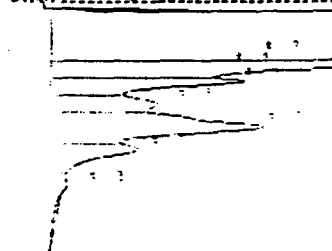
STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 20:30
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE F-197

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.2	148.8	μS
UNKNOWN	2	14.3	1.3	US
UNKNOWN	3	18.7	10.1	US
UNKNOWN	4	27.8	14.3	US
UNKNOWN	5	34.7	4.5	US
BENZENE	6	42.7	67.63	PPM
UNKNOWN	7	66.5	318.8	μS
UNKNOWN	8	101.2	255.8	μS

PHOTOVAC

START



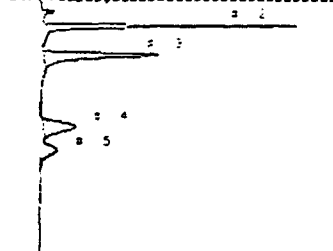
STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 22:37
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE F-133

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.3	494.3	μS
UNKNOWN	2	14.4	258.8	μS
UNKNOWN	3	53.1	654.8	US
UNKNOWN	4	58.3	22.8	US
UNKNOWN	5	128.8	11.1	US
UNKNOWN	6	162.2	7.8	US
m-XYLENE	7	157.7	273.2	PPM
p-XYLENE	8	233.4	233.3	PPM

PHOTOVAC

START



STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 28:45
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 30 50UL 10PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	18.3	31.7	μS
BENZENE	2	41.1	10.68	PPM
TOLUENE	3	86.8	18.44	PPM
m-XYLENE	4	152.2	11.34	PPM
p-XYLENE	5	234.6	12.54	PPM

PHOTOVAC

START



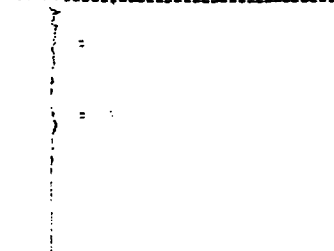
STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 20:54
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE F-201

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	18.3	34.6	μS
m-XYLENE	2	156.7	3.274	PPM

PHOTOVAC

START



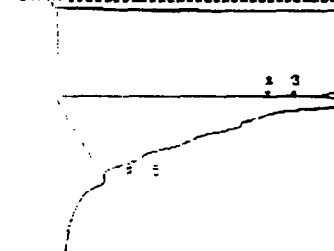
STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 21:13
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3 RERUN
GAIN 5 SAMPLE F-201

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	18.3	21.2	μS
m-XYLENE	3	156.2	1.472	PPM

PHOTOVAC

START



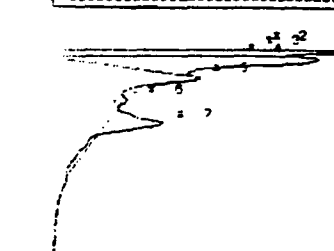
STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 21:18
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE F-203

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.5	251.8	μS
UNKNOWN	2	14.8	813.4	μS
UNKNOWN	3	73.6	2.5	μS
UNKNOWN	4	138.6	57.6	US

PHOTOVAC

START



STOP # 428.8
SAMPLE LIBRARY 1 MAR 26 1999 21:18
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE F-205

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	11.7	425.1	μS
UNKNOWN	2	44.5	863.5	US
UNKNOWN	3	80.8	8.4	US
UNKNOWN	4	91.8	12.5	US
UNKNOWN	5	125.6	133.2	μS

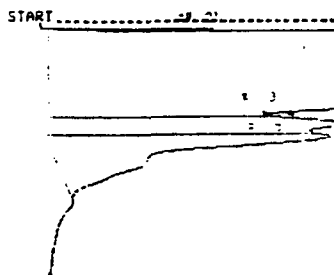
PHOTOVAC

SAMPLE LIBRARY 1 MAR 27 1990 10:21
ANALYSIS # 1 FLOW 15 TEMP 40
INTERNAL TEMP 22 52UL 10PPH STD
GAIN 10 CALIBRATION

COMPOUND NAME PEAK R.T. AREA/PPH

BENZENE	1	41.1	10.60 PPH
TOLUENE	2	87.1	10.50 PPH
m-XYLENE	3	133.2	10.00 PPH
p-XYLENE	4	234.6	10.20 PPH

PHOTOVAC

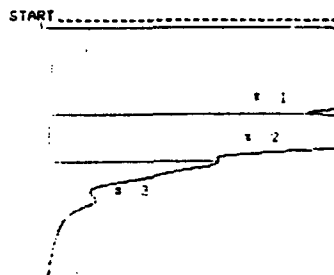


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 10:29
ANALYSIS # 5 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE D-123

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	12.2	997.1 μS
UNKNOWN	2	14.5	813.8 μS
UNKNOWN	3	27.5	1.5 μS
UNKNOWN	4	100.0	22.2 μS
UNKNOWN	5	102.2	32.3 μS

PHOTOVAC

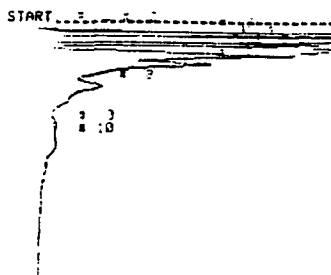


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 10:36
ANALYSIS # 6 FLOW 15 TEMP 40
INTERNAL TEMP 23 100UL S3
GAIN 5 SAMPLE D-133

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	26.4	136.5 μS
UNKNOWN	2	125.3	120.5 μS

PHOTOVAC

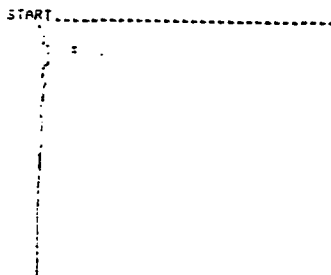


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 10:44
ANALYSIS # 7 FLOW 15 TEMP 40
INTERNAL TEMP 24 100UL S3 RERUN
GAIN 2 SAMPLE D-133

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	11.1	22.3 μS
UNKNOWN	2	13.7	457.9 μS
UNKNOWN	3	17.7	3.2 μS
UNKNOWN	4	28.4	11.6 μS
UNKNOWN	5	34.3	3.7 μS
BENZENE	6	42.1	111.4 PPH
UNKNOWN	7	65.3	1.5 μS
UNKNOWN	8	100.0	303.0 μS
UNKNOWN	9	102.2	122.6 μS

PHOTOVAC

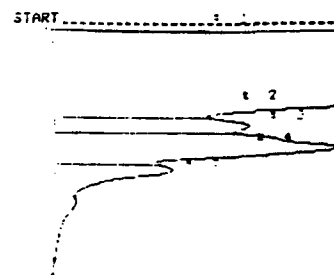


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 10:51
ANALYSIS # 9 FLOW 15 TEMP 40
INTERNAL TEMP 25 100UL S3
GAIN 5 SAMPLE F-211

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	65.9	32.8 μS
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PHOTOVAC

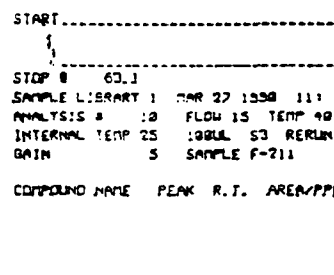


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 10:53
ANALYSIS # 9 FLOW 15 TEMP 40
INTERNAL TEMP 25 100UL S3
GAIN 5 SAMPLE F-213

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	11.3	256.6 μS
UNKNOWN	2	21.3	1.8 μS
UNKNOWN	3	100.2	14.0 μS
m-XYLENE	4	134.7	600.7 PPH
p-XYLENE	5	225.8	550.3 PPH

PHOTOVAC

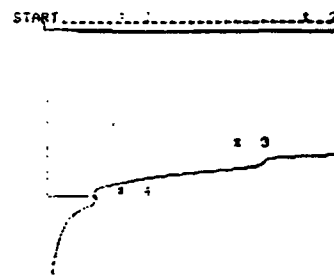


STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 11:11
ANALYSIS # 10 FLOW 15 TEMP 40
INTERNAL TEMP 25 100UL S3 RERUN
GAIN 5 SAMPLE F-211

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	11.1	330.3 μS
UNKNOWN	2	13.0	1.7 μS
UNKNOWN	3	112.4	1.8 μS

PHOTOVAC



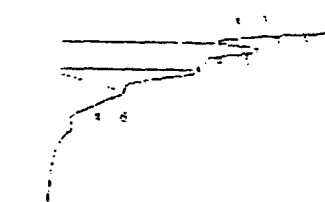
STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 11:18
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 26 100UL S3
GAIN 5 SAMPLE F-214

COMPOUND NAME PEAK R.T. AREA/PPH

UNKNOWN	1	11.1	330.3 μS
UNKNOWN	2	13.0	1.7 μS
UNKNOWN	3	112.4	1.8 μS

PHOTOVAC

START



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:03
 ANALYSIS # 15 FLOW 15 TEMP 40
 INTERNAL TEMP 26 100UL S3
 GAIN 5 SAMPLE G-220

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.3	378.7 μS
UNKNOWN	2	13.7	392.8 μS
UNKNOWN	3	23.4	2.4 μS
UNKNOWN	4	158.0	72.8 μS
n-XYLENE	5	181.2	142.7 PPM

PHOTOVAC

START



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:17
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 26 100UL S3
 GAIN 5 SAMPLE F-218

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

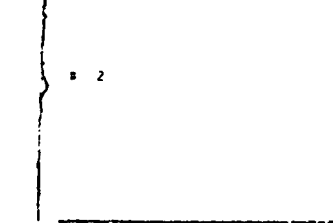


STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:25
 ANALYSIS # 14 FLOW 15 TEMP 40
 INTERNAL TEMP 26 100UL S3
 GAIN 5 SAMPLE F-218

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.4	387.3 μS
UNKNOWN	2	13.7	323.2 μS
UNKNOWN	3	18.6	15.1 μS
UNKNOWN	4	29.3	14.8 μS
UNKNOWN	5	48.4	23.0 μS
UNKNOWN	6	65.1	18.1 μS
UNKNOWN	7	100.0	8.2 μS
UNKNOWN	8	124.0	177.3 μS
UNKNOWN	9	158.8	1.2 μS

PHOTOVAC

START

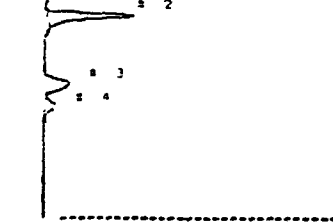


STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:40
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 27 100UL S3
 GAIN 5 SAMPLE G-222

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	11.1	501.8 PPB
n-XYLENE	2	134.2	6.192 PPM

PHOTOVAC

START



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:47
 ANALYSIS # 17 FLOW 15 TEMP 40
 INTERNAL TEMP 27 50UL 10PPM STD
 GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

SAMPLE LIBRARY 1 MAR 27 1990 11:49
 ANALYSIS # 17 FLOW 15 TEMP 40
 INTERNAL TEMP 27 50UL 10PPM STD
 GAIN 10 CALIB CHECK

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	11.5	10.22 PPM
TOLUENE	2	85.0	10.21 PPM
n-XYLENE	3	137.7	3.333 PPM
D-XYLENE	4	223.8	10.28 PPM

PHOTOVAC

START

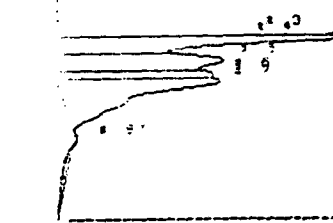


STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 11:50
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 27 100UL U2 AIR S3
 GAIN 5 G-220 BAG FLUSH

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

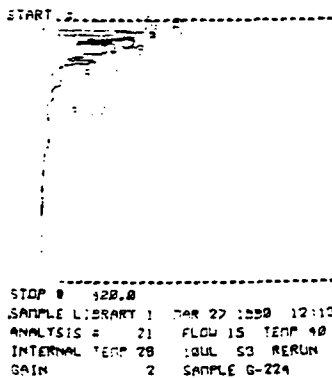
START



STOP # 400.0
 SAMPLE LIBRARY 1 MAR 27 1990 12:15
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 27 100UL S3
 GAIN 5 SAMPLE G-224

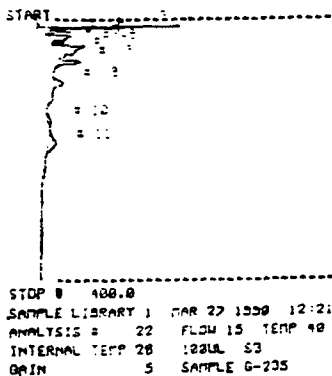
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.8	58.2 μS
UNKNOWN	2	13.6	715.7 μS
UNKNOWN	3	64.2	1.5 μS
UNKNOWN	4	121.4	18.2 μS
UNKNOWN	5	157.2	12.5 μS
UNKNOWN	6	178.7	6.5 μS
n-XYLENE	7	188.2	230.1 PPM

PHOTOVAC



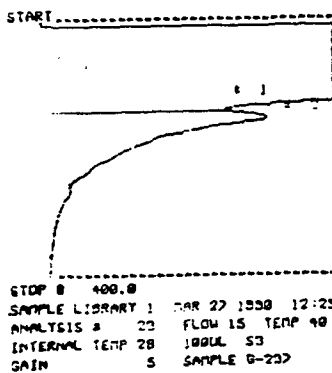
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	2	12.0	321.3 μS
UNKNOWN	3	25.5	342.0 μS
UNKNOWN	4	28.4	534.0 μS
UNKNOWN	5	33.0	273.3 μS
BENZENE	6	41.7	10.00 PPM
UNKNOWN	8	64.5	481.5 μS
UNKNOWN	9	88.5	328.7 μS

PHOTOVAC

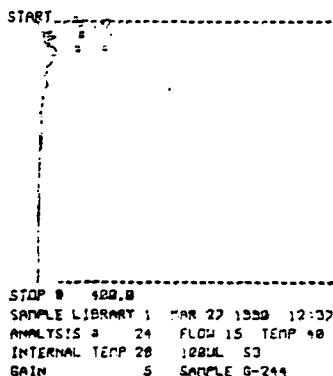


COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.2	842.3 μS
UNKNOWN	2	17.0	122.3 μS
UNKNOWN	3	25.0	143.3 μS
UNKNOWN	4	28.4	27.1 μS
UNKNOWN	5	33.0	81.1 μS
BENZENE	6	42.1	1.867 PPM
UNKNOWN	8	64.5	350.3 μS
UNKNOWN	9	88.0	335.0 μS
UNKNOWN	10	152.4	65.3 μS
m-XYLENE	11	131.7	2.427 PPM

PHOTOVAC

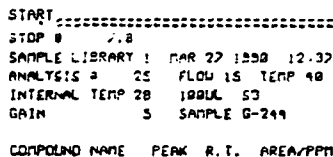


PHOTOVAC



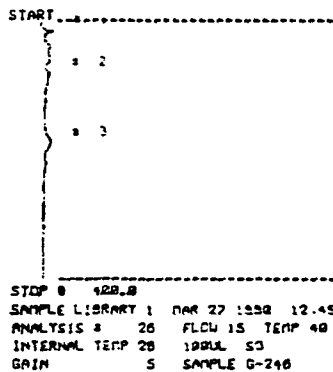
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.0	37.0 μS
UNKNOWN	2	25.4	68.5 μS
UNKNOWN	4	64.1	54.6 μS

PHOTOVAC



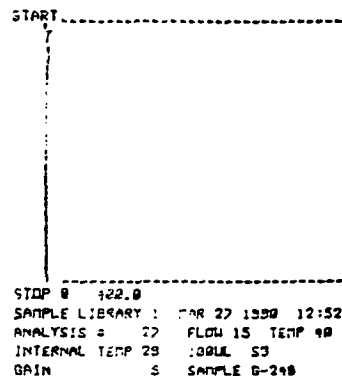
COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC



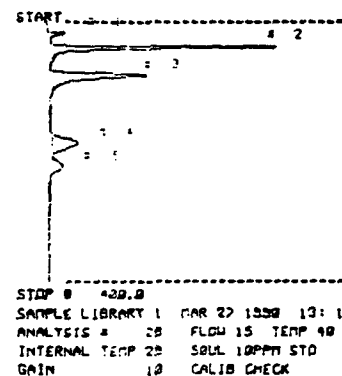
COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	23.4 μS
m-XYLENE	3	131.7	4.906 PPM

PHOTOVAC



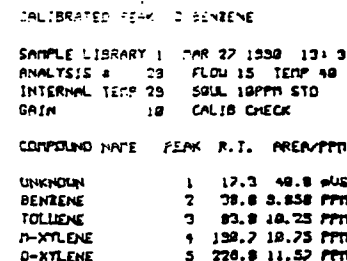
COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC



COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	12.3	48.8 μS
UNKNOWN	2	38.8	3.0 μS
TOLUENE	3	83.8	10.25 PPM
m-XYLENE	4	130.7	10.75 PPM
o-XYLENE	5	220.8	11.57 PPM

PHOTOVAC



COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 27 1990 13:11
ANALYSIS # 23 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 10 SAMPLE G-258

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.0	375.0 µS
BENZENE	2	38.3	462.4 PPB
TOLUENE	3	83.3	516.3 PPB
p-XYLENE	4	128.2	3,314 PPM

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 27 1990 13:37
ANALYSIS # 30 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 10 SAMPLE G-258

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.1	38.1 µS
BENZENE	2	38.6	168.3 PPB

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 13:50
ANALYSIS # 31 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 2 SAMPLE G-258-117

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	19.3	248.6 µS
UNKNOWN	2	16.6	2.3 US
UNKNOWN	3	24.4	2.2 US
UNKNOWN	4	33.1	2.2 US

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 MAR 27 1990 14:26
ANALYSIS # 33 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 2 SAMPLE G-258

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 27 1990 14:33
ANALYSIS # 34 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 5 SAMPLE G-258

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	17.5	38.5 µS
UNKNOWN	2	25.4	52.1 µS
UNKNOWN	3	28.3	82.4 µS
UNKNOWN	4	33.1	55.2 µS
UNKNOWN	5	41.5	651.3 µS
UNKNOWN	6	58.1	28.1 µS
UNKNOWN	7	55.3	45.3 µS
UNKNOWN	8	83.3	876.8 µS
UNKNOWN	9	88.2	838.1 µS
UNKNOWN	10	128.8	21.6 µS
UNKNOWN	11	133.2	456.8 µS
p-XYLENE	12	138.2	14.63 PPM
o-XYLENE	13	224.4	7.832 PPM
UNKNOWN	14	277.3	75.1 µS

PHOTOVAC

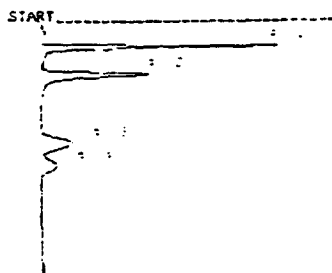
START

STOP # 420.0
SAMPLE LIBRARY 1 MAR 27 1990 14:40
ANALYSIS # 35 FLOW 15 TEMP 40
INTERNAL TEMP 28 100UL S3
GAIN 5 SAMPLE D-33

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	11.7	1.3 US
UNKNOWN	2	112.8	833.4 US
o-XYLENE	3	221.2	752.7 PPM

NO ...
PEAK OVERLAP.

PHOTOVAC



STOP 0 400.0
 SAMPLE LIBRARY 1 APR 2 1990 23:20
 ANALYSIS # 2 FLOW 15 TEMP 40
 INTERNAL TEMP 25 50UL 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	10.8	786.3	μS
UNKNOWN	2	81.2	2.3	US
UNKNOWN	3	188.2	2.3	US
UNKNOWN	4	224.4	869.8	μS

PHOTOVAC

CALIBRATED PEAK 1 BENZENE

SAMPLE LIBRARY 1 APR 2 1990 23:27
 ANALYSIS # 2 FLOW 15 TEMP 40
 INTERNAL TEMP 25 50UL 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE	1	10.8	11.31	PPM
TOLUENE	2	81.2 <th>11.72</th> <th>PPM</th>	11.72	PPM
m-XYLENE	3	188.2 <th>12.61</th> <th>PPM</th>	12.61	PPM
p-XYLENE	4	224.4 <th>18.82</th> <th>PPM</th>	18.82	PPM

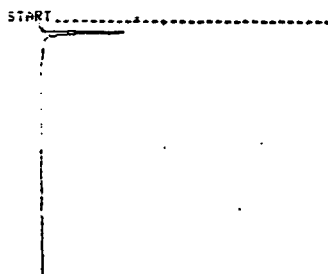
PHOTOVAC

SAMPLE LIBRARY 1 APR 2 1990 23:29
 ANALYSIS # 2 FLOW 15 TEMP 40
 INTERNAL TEMP 25 50UL 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE	1	10.8	10.60	PPM
TOLUENE	2	81.2 <th>10.50</th> <th>PPM</th>	10.50	PPM
m-XYLENE	3	188.2 <th>0.553</th> <th>PPM</th>	0.553	PPM
p-XYLENE	4	224.4 <th>10.28</th> <th>PPM</th>	10.28	PPM

PHOTOVAC

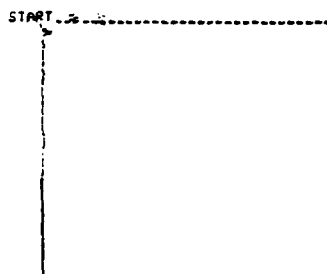


STOP 0 400.0
 SAMPLE LIBRARY 1 APR 2 1990 23:50
 ANALYSIS # 0 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE B-280

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	10.8	786.3	μS
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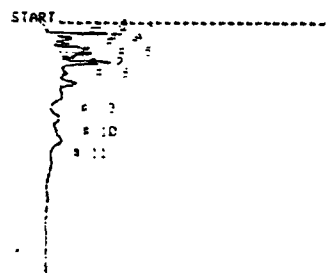
PHOTOVAC



STOP 0 400.0
 SAMPLE LIBRARY 1 APR 2 1990 23:57
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE B-282

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

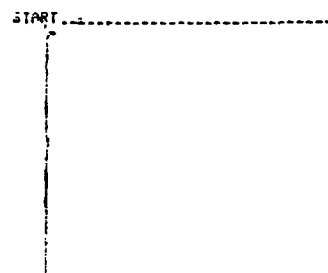


STOP 0 400.0
 SAMPLE LIBRARY 1 APR 3 1990 01:5
 ANALYSIS # 11 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE B-284

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	10.8	548.4	μS
UNKNOWN	2	73.4	72.8	μS
UNKNOWN	3	72.4	84.3	μS
UNKNOWN	4	49.2	737.6	μS
UNKNOWN	5	48.3	353.7	μS
UNKNOWN	6	62.1	723.4	μS
TOLUENE	7	75.3	774.5	PPM
UNKNOWN	8	55.8	252.3	μS
UNKNOWN	9	151.8	280.5	μS

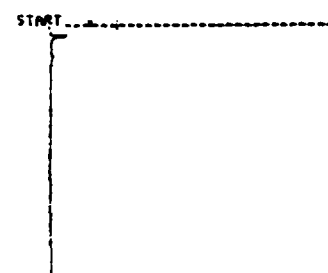
PHOTOVAC



STOP 0 400.0
 SAMPLE LIBRARY 1 APR 3 1990 01:14
 ANALYSIS # 13 FLOW 15 TEMP 40
 INTERNAL TEMP 30 100UL S3
 GAIN 5 SAMPLE B-286

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

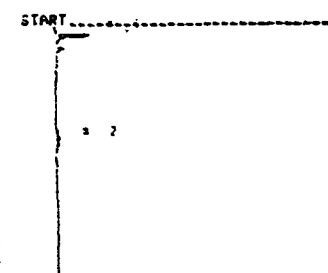


STOP 0 400.0
 SAMPLE LIBRARY 1 APR 3 1990 21:1
 ANALYSIS # 14 FLOW 15 TEMP 40
 INTERNAL TEMP 30 100UL S3
 GAIN 5 SAMPLE B-287

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	10.8	63.4	μS
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PHOTOVAC



STOP 0 400.0
 SAMPLE LIBRARY 1 APR 3 1990 21:3
 ANALYSIS # 15 FLOW 15 TEMP 40
 INTERNAL TEMP 30 100UL S3
 GAIN 5 SAMPLE B-289

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

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START
-----
STOP 0 100.0
SAMPLE LIBRARY 1 APR 3 1990 2:17
ANALYSIS 8 10 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE B-312

COMPOUND NAME PEAK R.I. AREA/PPM

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PHOTOVAC

```

START
-----
STEP #      22.0
SAMPLE LIBRARY :   APR 9 1990  2:35
ANALYSIS #      13   FLOW 15  TEMP 40
INTERNAL TEMP 21   130UL  53
GAIN          20   SAMPLE 8-318

COMPOUND NAME  PEAK  R.T.  AREA/PPM
UNKNOWN          1   16.3  229.0 PPM

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PHOTOVAC

[illegible]

PHOTOVAC

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STOP 0 400.0
SAMPLE LIBRARY 1 APR 3 1990 2:25
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 30 103UL SD
GAIN 5 SAMPLE A-325

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 16.4 272.7 PPM

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PHOTOVAC

START

STOP 8 400.0

SAMPLE LIBRARY 1 APR 3 1980 2:43

ANALYSIS # 20 FLOW 15 TEMP 40

INTERNAL TEMP 31 000UL 53

GAIN 20 SAMPLE B-204

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	12.6	134.4 μS
UNKNOWN	2	16.6	850.3 μS
UNKNOWN	3	24.2	825.7 μS
UNKNOWN	4	26.5	613.3 μS
UNKNOWN	5	31.0	770.0 μS
BENZENE	6	35.5	7.873 PPM
UNKNOWN	7	40.3	2.3 US
UNKNOWN	8	61.3	3.2 US
TOLUENE	9	70.1	803.0 PPM
UNKNOWN	10	94.6	1.5 US
UNKNOWN	11	125.3	21.0 μS
UNKNOWN	12	143.6	7.0 US
m-XYLENE	14	184.2	8.122 PPM
O-XYLENE	15	216.4	2.241 PPM
UNKNOWN	16	272.4	321.3 μS

PHOTOVAC

```

START 1100.0
-----
STOP 1100.0
SAMPLE LIBRARY 1 APR 3 1990 3: 7
ANALYSIS 2 23 FLOW 15 TEMP 40
INTERNAL TEMP 21 100UL 53
GAIN 5 SAMPLE B-310
-----
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 10.3 234.5 PPM

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PHOTOVAC

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START
-----
STOP @ 100.0
SAMPLE LIBRARY 1 APR 3 1959 2:32
ANALYSIS @ :0 FLOW 15 TEMP 49
INTERNAL TEMP 30 1000L 50
GAIN 5 SAMPLE B-318

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PHOTOVAC

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START -----
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GTOP 0 100.0
SAMPLE LIBRARY 1 APR 9 1968 2:51
ANALYSIS # 21 FLOW 15 TEMP 40
INTERNAL TEMP 30 1000L SO
GAIN 5 SAMPLE B-314

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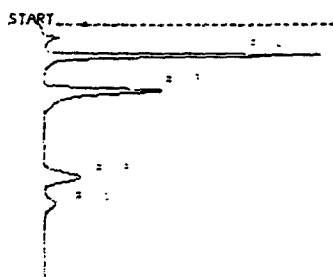
PHCTOVAC

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STOP 0 400.0
SAMPLE LIBRARY 1 APR 3 1950 3:19
ANALYSIS # 24 FLOW 15 TEMP 40
INTERNAL TEMP 31 1200L 53
GAIN 5 SAMPLE R-331

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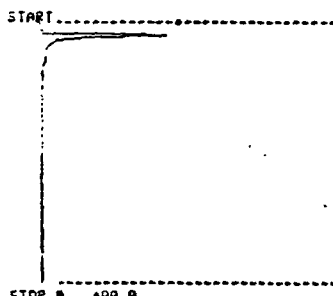
PHOTOVAC



STOP # 422.0
 SAMPLE LIBRARY 1 APR 3 1959 15:46
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 25 SOL 100PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.6	41.5 AUS
BENZENE	2	47.3	14.33 PPM
TOLUENE	3	103.0	10.50 PPM
m-XYLENE	4	238.0	10.34 PPM
p-XYLENE	5	281.1	6.218 PPM

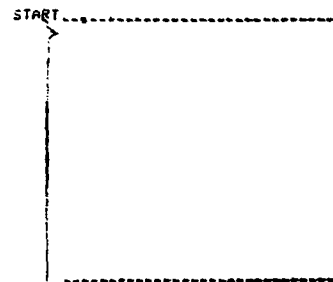
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 16:13
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE B-303

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.1	1.4 US

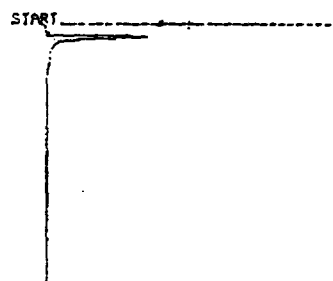
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 16:25
 ANALYSIS # 3 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE A-220 333

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 16:10
 ANALYSIS # 7 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE A-322

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.1	1.0 US

PHOTOVAC

STOP # 12.2
 SAMPLE LIBRARY 1 APR 3 1959 16:23
 ANALYSIS # 10 FLOW 15 TEMP 40
 INTERNAL TEMP 30 100UL S3
 GAIN 5 SAMPLE A-323

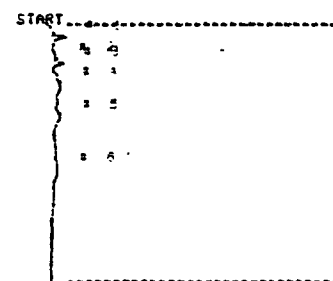
COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC

SAMPLE LIBRARY 1 APR 3 1959 15:46
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 25 SOL 100PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.6	41.5 AUS
BENZENE	2	47.3	14.33 PPM
TOLUENE	3	103.0	10.50 PPM
m-XYLENE	4	238.0	10.34 PPM
p-XYLENE	5	281.1	6.218 PPM

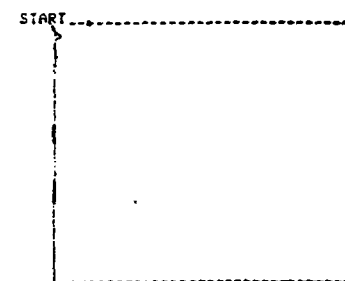
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 16:18
 ANALYSIS # 8 FLOW 15 TEMP 40
 INTERNAL TEMP 25 100UL S3
 GAIN 5 SAMPLE A-323

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.1	22.5 AUS

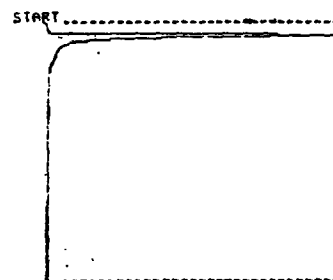
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 16:34
 ANALYSIS # 11 FLOW 15 TEMP 40
 INTERNAL TEMP 30 100UL S3
 GAIN 5 SAMPLE A-323

COMPOUND NAME	PEAK	R.T.	AREA/PPM
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PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 3 1959 15:56
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 30 SOL 100PPM STD
 GAIN 5 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	20.0	4.2 US

100UL
 SAMPLE 8-301

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 APR 3 1990 16:42
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-341

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.1 20.3 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 16:43
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-348

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.3 222.3 μ S

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 APR 3 1990 16:56
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 30 50UL 10PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.8 32.3 μ S
BENZENE 2 47.8 0.77 μ S

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 APR 3 1990 17: 5
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-351

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 71.3
SAMPLE LIBRARY 1 APR 3 1990 17: 7
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-225

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:14
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S1
GAIN 5 SAMPLE G-225

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.0 20.0 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:21
ANALYSIS # 18 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-254

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 17.0 1.2 μ S
UNKNOWN 2 20.0 4.2 μ S
UNKNOWN 3 31.0 22.0 μ S
UNKNOWN 4 40.1 4.2 μ S
UNKNOWN 5 55.3 41.2 μ S
UNKNOWN 6 66.2 6.0 μ S
UNKNOWN 7 78.0 26.0 μ S
UNKNOWN 8 120.4 27.0 μ S
UNKNOWN 9 153.2 11.1 μ S
UNKNOWN 10 215.0 2.0 μ S
O-XYLENE 11 235.2 32.07 PPM
O-XYLENE 12 273.1 132.8 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:30
ANALYSIS # 19 FLOW 15 TEMP 40
INTERNAL TEMP 30 50UL S3
GAIN 2 SAMPLE G-254

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 12.5 212.4 μ S
UNKNOWN 2 20.7 285.0 μ S
UNKNOWN 3 30.3 1.2 μ S
UNKNOWN 4 33.0 374.1 μ S
UNKNOWN 5 48.1 140.1 μ S
UNKNOWN 6 54.7 1.0 μ S
UNKNOWN 7 66.7 100.2 μ S
UNKNOWN 8 77.3 1.1 μ S
UNKNOWN 9 120.4 1.0 μ S
UNKNOWN 10 152.7 843.1 μ S
O-XYLENE 11 235.2 2.503 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 16:42
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-341

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.1 28.9 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 16:43
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-348

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.3 222.3 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 16:50
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL 100PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.0 32.3 μ S
BENZENE 2 47.3 5.223 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17: 5
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE A-351

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 72.5
SAMPLE LIBRARY 1 APR 3 1990 17: 7
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-223

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:11
ANALYSIS # 17 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S1
GAIN 5 SAMPLE G-223

COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 20.0 20.0 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:21
ANALYSIS # 18 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-254

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	17.0	1.2	US
UNKNOWN	2	20.0	4.2 <td>US</td>	US
UNKNOWN	3	31.0	22.0 <td>US</td>	US
UNKNOWN	4	40.1	4.2 <td>US</td>	US
UNKNOWN	5	55.3	11.2 <td>US</td>	US
UNKNOWN	6	66.2	6.6 <td>US</td>	US
UNKNOWN	7	70.0	20.0 <td>US</td>	US
UNKNOWN	8	120.4	27.0 <td>US</td>	US
UNKNOWN	9	153.2	11.1 <td>US</td>	US
UNKNOWN	10	219.0	7.0 <td>US</td>	US
O-XYLENE	11	235.2	52.02 <td>PPM</td>	PPM
O-XYLENE	12	273.1	132.0 <td>PPM</td>	PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:28
ANALYSIS # 19 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 2 SAMPLE G-254

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	12.0	212.4	μ S
UNKNOWN	2 <td>20.7 <td>285.0 <th>μS</th> </td></td>	20.7 <td>285.0 <th>μS</th> </td>	285.0 <th>μS</th>	μ S
UNKNOWN	3 <td>30.3 <td>1.2 <th>US</th> </td></td>	30.3 <td>1.2 <th>US</th> </td>	1.2 <th>US</th>	US
UNKNOWN	4 <td>37.0 <td>374.1 <th>μS</th> </td></td>	37.0 <td>374.1 <th>μS</th> </td>	374.1 <th>μS</th>	μ S
UNKNOWN	5 <td>40.1 <td>149.1 <th>μS</th> </td></td>	40.1 <td>149.1 <th>μS</th> </td>	149.1 <th>μS</th>	μ S
UNKNOWN	6 <td>54.7 <td>1.0 <th>US</th> </td></td>	54.7 <td>1.0 <th>US</th> </td>	1.0 <th>US</th>	US
UNKNOWN	7 <td>66.7 <td>160.2 <th>μS</th> </td></td>	66.7 <td>160.2 <th>μS</th> </td>	160.2 <th>μS</th>	μ S
UNKNOWN	8 <td>77.3 <td>1.0 <th>US</th> </td></td>	77.3 <td>1.0 <th>US</th> </td>	1.0 <th>US</th>	US
UNKNOWN	9 <td>120.4 <td>1.0 <th>US</th> </td></td>	120.4 <td>1.0 <th>US</th> </td>	1.0 <th>US</th>	US
UNKNOWN	10 <td>152.7 <td>843.1 <th>μS</th> </td></td>	152.7 <td>843.1 <th>μS</th> </td>	843.1 <th>μS</th>	μ S
O-XYLENE	11 <td>235.2 <td>2.503 <th>PPM</th> </td></td>	235.2 <td>2.503 <th>PPM</th> </td>	2.503 <th>PPM</th>	PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:37
ANALYSIS # 20 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-223-DUP

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 18:10
ANALYSIS # 23 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-242

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 20.2 26.3 µg

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 APR 3 1990 18:35
ANALYSIS # 26 FLOW 15 TEMP 40
INTERNAL TEMP 30 50UL 10PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE 1 47.5 8.620 PPM
TOLUENE 2 182.1 8.271 PPM
M-XYLENE 3 236.4 8.183 PPM
O-XYLENE 4 278.7 8.308 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 17:55
ANALYSIS # 21 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-233

COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 420.0
SAMPLE LIBRARY 1 APR 3 1990 18:18
ANALYSIS # 24 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-250

COMPOUND NAME PEAK R.T. AREA/PPM

M-XYLENE 1 222.2 228.4 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 18:45
ANALYSIS # 27 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-263

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 20.3 135.8 µg
BENZENE 2 47.7 196.0 PPM
M-XYLENE 3 232.8 523.4 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 18:13
ANALYSIS # 22 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-233

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 13.6 283.7 µg

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 18:25
ANALYSIS # 25 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3
GAIN 5 SAMPLE G-252

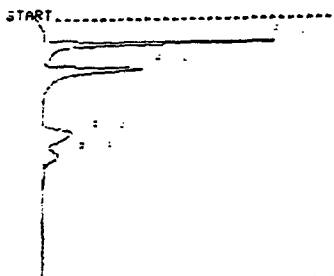
COMPOUND NAME PEAK R.T. AREA/PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 3 1990 18:50
ANALYSIS # 28 FLOW 15 TEMP 40
INTERNAL TEMP 30 100UL S3

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 4 1990 9:41
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 22 SQU 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	36.1	2.4 US
UNKNOWN	2	77.1	3.1 US
UNKNOWN	3	178.2	1.8 US
UNKNOWN	4	212.4	823.9 PPM

PHOTOVAC

CALIBRATED FOR: BENZENE

SAMPLE LIBRARY 1 APR 4 1990 9:42
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 22 SQU 10PPM STD
 GAIN 10 CALIBRATION

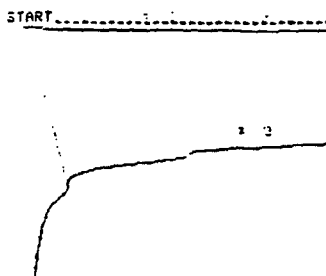
COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	36.1	8.812 PPM
TOLUENE	2	77.1	2.482 PPM
m-XYLENE	3	178.2	5.723 PPM
p-XYLENE	4	212.4	16.00 PPM

PHOTOVAC

SAMPLE LIBRARY 1 APR 4 1990 9:44
 ANALYSIS # 4 FLOW 15 TEMP 40
 INTERNAL TEMP 22 SQU 10PPM STD
 GAIN 10 CALIBRATION

COMPOUND NAME	PEAK	R.T.	AREA/PPM
BENZENE	1	36.1	10.00 PPM
TOLUENE	2	77.1	10.50 PPM
m-XYLENE	3	178.2	10.00 PPM
p-XYLENE	4	212.4	12.20 PPM

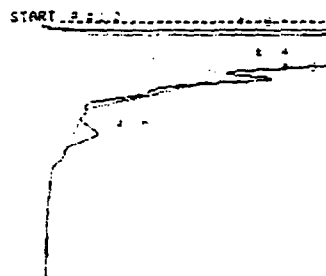
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 4 1990 9:52
 ANALYSIS # 5 FLOW 15 TEMP 40
 INTERNAL TEMP 23 SQU 53
 GAIN 5 B-12 AUGER AIR

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	18.2	581.9 PPM
UNKNOWN	2	12.6	1.6 US
UNKNOWN	3	188.5	162.0 US

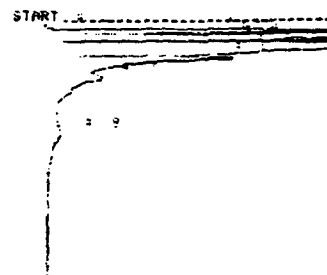
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 4 1990 10:00
 ANALYSIS # 6 FLOW 15 TEMP 40
 INTERNAL TEMP 24 SQU 53
 GAIN 2 B-12 AUGER AIR

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	2	12.4	78.3 PPM
UNKNOWN	3	16.5	11.5 US
UNKNOWN	4	14.2	66.4 US
UNKNOWN	5	85.8	1.3 US
m-XYLENE	6	176.2	45.59 PPM

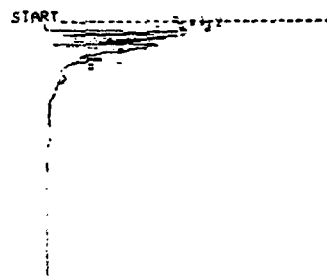
PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 4 1990 10:12
 ANALYSIS # 7 FLOW 15 TEMP 40
 INTERNAL TEMP 25 SQU 510UL
 GAIN 2 B-12 AUGER AIR

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	2	15.8	4.1 US
UNKNOWN	3	24.1	11.8 US
UNKNOWN	4	38.3	3.8 US
UNKNOWN	5	35.8	27.6 US
UNKNOWN	6	58.5	5.5 US
UNKNOWN	7	85.5	384.6 PPM
m-XYLENE	8	175.7	5.823 PPM

PHOTOVAC



STOP # 400.0
 SAMPLE LIBRARY 1 APR 4 1990 10:20
 ANALYSIS # 9 FLOW 15 TEMP 40
 INTERNAL TEMP 26 SQU 510UL
 GAIN 2 B-12 AUGER AIR

COMPOUND NAME	PEAK	R.T.	AREA/PPM
UNKNOWN	1	16.2	1.3 US
UNKNOWN	2	23.7	1.5 US
UNKNOWN	3	25.8	1.8 US
UNKNOWN	4	38.6	1.8 US
BENZENE	5	36.3	28.45 PPM
UNKNOWN	6	58.5	337.1 PPM
UNKNOWN	7	85.8	144.3 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 10:33
ANALYSIS # 3 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL UZ AIR S3
GAIN 5 STRINGE CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 15.0 39.5 μ S
BENZENE 2 26.8 160.2 PPB

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 11:12
ANALYSIS # 12 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL S3
GAIN 5 SAMPLE N-220

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 15.6 324.1 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 11:27
ANALYSIS # 15 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL S3
GAIN 2 0-21 TOPOF AUGER

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 3 15.2 4.2 μ S
UNKNOWN 4 23.2 8.3 μ S
UNKNOWN 5 23.7 2.3 μ S
BENZENE 6 35.2 284.4 PPM
UNKNOWN 7 57.1 3.8 μ S
UNKNOWN 8 87.4 474.4 μ S
N-XYLENE 9 172.2 18.58 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 10:41
ANALYSIS # 10 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL S3
GAIN 5 SAMPLE N-263

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 15.8 40.8 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 11:11
ANALYSIS # 13 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL 10PPM STD
GAIN 10 CALIB CHECK

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 15.0 35.3 μ S
BENZENE 2 35.2 8.348 PPM
TOLUENE 3 35.3 9.744 PPM
N-XYLENE 4 124.2 11.56 PPM
O-XYLENE 5 208.8 12.76 PPM

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 11:36
ANALYSIS # 16 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL S3
GAIN 2 0-21 TOPOF AUGER

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 16.4 1.8 μ S
UNKNOWN 2 23.3 919.8 μ S
UNKNOWN 3 38.0 180.4 μ S
BENZENE 5 36.3 4.633 PPM
UNKNOWN 6 58.1 34.2 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 10:51
ANALYSIS # 11 FLOW 15 TEMP 40
INTERNAL TEMP 27 100UL S3
GAIN 5 SAMPLE N-263

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN 1 15.6 253.9 μ S

PHOTOVAC

START

STOP # 400.0
SAMPLE LIBRARY 1 APR 4 1990 11:13
ANALYSIS # 14 FLOW 15 TEMP 40
INTERNAL TEMP 20 100UL S3
GAIN 5 SAMPLE N-221

COMPOUND NAME PEAK R.T. AREA/PPM

APPENDIX C
TEST PIT/HAND AUGER LOGS

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. C-TP-1

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

NO NOTICABLE ODOR OR STAINING

CONTRACTOR : IT CORPORATION

LOGGED BY: JOE HEANEY

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD	
		SPLIT SPOON				PIPE	CAP		
TYPE :								BACKHOE	
SIZE :									
HAMMER WT / FALL									
SURFACE ELEVATION :									
SURFACE CONDITIONS :									
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 8" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								SILTY CLAY, REDDISH - BROWN	
5									
		C-TP-1	24-48"	METALS				CLAY, GRAY	
10		C-TP-1	60"	SEMI-VOC'S				EDB @ 60"	
15									
20									

* SEMI-VOC'S - ANALYSIS FOR OIL & GREASE, HOLD FOR SEMI-VOLATILE ORGANICS

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REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. C-TP-2

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT

PIPE

CONTRACTOR : IT CORPORATION

LOGGED BY: JOE HEANEY

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0									
5							24"		
10							48"		

BORING



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2317 INTERNATIONAL LANE MADISON, W. 53704

REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. C-TP-4

CIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT, HNU READING IN THE PIT - 120 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL								
SURFACE ELEVATION :								
SURFACE CONDITIONS :								
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.
	OVA READINGS	SAMPLE				BLOWS / 8" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0		C-TP-4	6"	METALS				TOP SANDY SOIL
5							24"	SILTY CLAY, REDDISH-BROWN
10							48"	
								CLAY, GRAY ▼
		C-TP-4	70"	SEMI-VOC'S			72"	
15								
							96"	EOB @ 78"
20								



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REPORT

SHEET / OF /

BORING No. C-TP-5

PROJECT No : 604-9

PROJECT NAME & LOCATION: PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

FLOATING PRODUCT / SHEEN, HNU READING: IN THE PIT - 10-12ppm
IN THE PILE - 60ppm

DRILLER :

BIT

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

96".

20

TOP SANDY SOIL

SILTY CLAY,
REDDISH-BROWN

SILT, DARK GRAY

EOB @ 72"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. C-TP-6

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW HENGE

REMARKS : TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 12 ppm
IN THE PILE - 6 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER				HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%			
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY						
0		C-TP-6	6 "	METALS				TOP SANDY SOIL			
5							24 "	SILTY CLAY, REDDISH - BROWN			
10							48 "	SILT, DARK GRAY			
		C-TP-6	49 "	SEMI- VOC'S			50				
15							72 "	EOB @ 60 "			
20							96 "				

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. C-TP-8

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

FLOATING PRODUCT, HNU READING IN THE PIT - 3ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD	
		SPLIT SPOON				PIPE	CAP		
TYPE :								BACKHOE	
SIZE :									
HAMMER WT / FALL				BIT					
SURFACE ELEVATION :									
SURFACE CONDITIONS :									
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0		C-TP-8	6"	METALS				TOP SANDY SOIL	
								SILTY CLAY, BROWN	
5		C-TP-8-S	25"	SEMI-VOC'S			24" 23	ASPHALT LOOKING MATERIAL, BLACK	
							42	SILT, GRAY	
10		C-TP-8-D	43"	SEMI-VOC'S			48" 56	▼	
								EOB @ 60"	
15							72"		
20							96"		

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/28/90

DATE FINISHED : 3/28/90

BORING No. E-TP-9

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT, HNU READING : IN THE PIT - 20 PPM
IN THE PILE - 70 PPM

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD	
		SPLIT SPOON				PIPE	CAP		
TYPE :								BACKHOE	
SIZE :									
HAMMER WT / FALL				BIT					
SURFACE ELEVATION :									
SURFACE CONDITIONS :									
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								TOP SANDY SOIL	
								SILTY CLAY, BROWN WITH ASPHALT LOOKING MATERIAL, BLACK	
5		E-TP-9	28"	METALS			24"	SILT, GRAY	
							48"		
10		E-TP-9	50"	SEMI-VOC'S			53"	▼	
15							72"		
20							96"	EOB @ 60"	



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REPORT

SHEET / OF /

BORING No. *E-TP-10*

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

HNU READING: IN THE PIT - 6-7 ppm
IN THE PILE - 30 ppm

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA READINGS

TYPE
AND
No.

DEPTH
(FROM -
TO)

ANALYSIS
METALS

RECOVERY

[illegible]DEPTH
BELOW
GRADE

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

E-TP-10

6"

METALS

TOP SANDY SOIL

5

ETRID

54

SEMI-
KODIS

24" - 12

ASPHALT LOOKING MATERIAL, BLACK

SILTY CLAY, BROWN

ASPHALT LOOKING MATERIAL,
BLACK

35

SILT, GRAY TO DARK GRAY

48"

56

EOB @ 60"

72"

20

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. F-TP-34

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

VISIBLE SHEEN / FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TDP SANDY SOIL
							11"	
							24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH CLAY, BROWN
5		F-TP-34	20"	METALS				
							37"	
							48"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH FINE SILTY SAND, GRAY
10								
							67"	
							72"	
		F-TP-34	65"	SEMI-VOC'S				EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. F-TP-35

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
								CRASHED CONCRETE
		F-TP-35	16"	METALS			24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILTY SAND, GRAY
5								
							38	
							48"	SILTY SAND, GRAY, WITH SOME ASPHALT LOOKING MATERIAL, BLACK
10							54	
		F-TP-36	62"	SEMI-VOC'S			72"	
15								EOB @ 62"
							96"	
20								

REPORT

SHEET / OF /

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. *F-TP-36*

CLIENT: REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION: PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : *IT CORPORATION*

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FL. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE			BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS			
0							TOP SANDY SOIL
		F-TP36	12"	METALS		9	BITUMINOUS PAVEMENT
							ASPHALT LOOKING MATERIAL, BLACK
5						24"	
						26	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILTY SAND, GRAY AND CLAY, BROWN
						34	
						42	ASPHALT LOOKING MATERIAL, BLACK
						48"	SILTY SAND, GRAY
10		F-TP36	56"	SEMI- VOC'S			
						72"	▼ ---
15							EOB @ 72"
						96"	
20							

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 of 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-38

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							5	TOP SANDY SOIL
							24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SOME SILT, GRAY
5		F-TP-38	20"	METALS			30	SILT, GRAY
							48"	
10		F-TP-38	50"	SEMI-VOC'S VOC'S			50	▼
							72"	
15							96"	EOB @ 60"
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-39

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							2	TOP SANDY SOIL
							10	SILTY CLAY, BROWN
							18	ASPHALT LOOKING MATERIAL, BLACK
5		F-TP-39	20"	METALS			24"	SILT, GRAY, SLIGHTLY MIXED WITH SOME ASPHALT LOOKING MATERIAL, BLACK
							48"	
		F-TP-39	50"	SEMI- VOC'S			53	▼
10								EOB @ 60"
							72"	
15								
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-40

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
								SILTY CLAY, BROWN
		F-TP-40	16"	METALS			24"	ASPHALT LOOKING MATERIAL, BLACK, WITH FRAGMENTS OF RUBBER
5							28	SILT, GRAY
							48"	
10							62	
		F-TP-40	65"	SEMI- VOC'S			72"	
15								EDB @ 72"
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-41

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

5

10

15

20

F-TP-41

45"

METALS

F-TP-41

60"

SEMI-
VOL'S16
24"44
48"

58

72"

96"

TOP SANDY SOIL

SILTY CLAY, BROWN

ASPHALT LOCKING MATERIAL,
BLACK

SILT, GRAY

EOB@ 66"

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-42

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL					BIT			

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							7	TOP SANDY SOIL WITH CLAY, BROWN
		F-TP-42	15"	METALS			24"	COARSE - GRAINED ORGANIC MATERIAL, BLACK
5							28	SILT, GRAY
							48"	
10							55	
		F-TP-42	67"	SEMI-VOC'S VOC'S			72"	ECB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-43

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OYA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP SANDY SOIL
							14	CLAY, BROWN
		F-TP-43	16"	METALS			24"	ASPHALT LOOKING MATERIAL, BLACK
5								ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILT, GRAY
							37	
							48"	SILT, GRAY
							53	▼
10		F-TP-43	56"	SEMI-VOC'S				
							72"	
15								
							96"	
20								

EOB @ 60"

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-45

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							7	TOP SANDY SOIL WITH SOME CLAY, BROWN
								CLAY, BROWN, MIXED WITH ASPHALT LOOKING MATERIAL, BLACK
		E-TP-45	18"	METALS			24" 22	
5								SILT, GRAY, MIXED WITH ASPHALT LOOKING MATERIAL, BLACK
							40	
							48"	SILT, GRAY
							53	▼
10		E-TP-45	56"	SEMI-VOC'S				
							72"	
15								EOB @ 72"
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-46

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

SEEPAGE AT 61"

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							5	TOP SANDY SOIL WITH CLAY, BROWN
							15	ASPHALT LOOKING MATERIAL, BLACK
		E-TP-46	16"	METALS			24"	WEATHERED CONCRETE
5								ASPHALT LOOKING MATERIAL, BLACK
							48"	
10								
		E-TP-46	65"	SEMI-VOC'S			72"	
15								EOB @ 72"
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/8/90

DATE FINISHED : 4/8/90

BORING No. F-TP-49

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL								
				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL WITH SOME CLAY, BROWN
		F-TP49	9"	METALS			7	FINE-GRAINED WELL CEMENTED MATERIAL, GREENISH-DARK GRAY
							13	SILT, GRAY
							24"	
5								
							48"	
10								
		F-TP49	66"	SEMI- VOC'S			67	
							72"	
								EOB @ 72"
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/9/90

DATE FINISHED : 4/9/90

BORING No. F-TP-50

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							5	TOP SANDY SOIL
							24" 22	SILTY CLAY, DENSE, BROWN TO DARK BROWN
5		F-TP-50	16"	METALS				SILT, GRAY, MIXED WITH SOME ASPHALT LOOKING MATERIAL, BLACK
							40	
							48"	SILT, GRAY
10		F-TP-50	60"	SEMI- VOC'S				EOB @ 60"
							72"	
15								
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/9/90

DATE FINISHED : 4/9/90

BORING No. D-TP-52

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0							4	TOP SANDY SOIL	
							11	SAND AND GRAVEL	
							17	BROWNISH-BLACK CLAY	
							24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SOME SILT, GRAY	
5									
							42	SILTY CLAY, BROWN	
							48"		
		D-TP-52	54"	VOC'S					
		D-TP-52	54"	SEMI-VOC'S					
10								▼	
							72"	EOB @ 66"	
15									
							96"		
20									

EOB @ 66"

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4/9/90

DATE FINISHED : 4/9/90

BORING No. D-TP-54

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OYA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							7	TOP SANDY SOIL
							24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILTY CLAY, BROWN, AND GRAVEL
5							37	SILTY CLAY, DARK BROWN
							48"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH CLAY, DARK BROWN
10								SILTY CLAY, BROWN-GRAY, AND SILT
		D-TP-54	69"	VOC'S			72"	
		D-TP-54	69"	SEMI-VOC'S				EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/9/90

DATE FINISHED : 4/9/90

BORING No. F-TP-56

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							7	TOP SANDY SOIL
							18	SILTY CLAY, BLACKISH - BROWN
		F-TP-56	14"	METALS			24"	CLAY, REDDISH-BROWN
5							37	SILTY CLAY, REDDISH- BROWN TO GRAY
							48"	
							54	SILTY CLAY, GRAY
10							72"	
							75	
		F-TP-56	82"	SEMI- VOC'S				
15								EOB @ 84"
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. F-TP-57

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

SLIGHTLY VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL WITH SOME ROCK
		F-TP-57	14"	METALS			24"	SILT, YELLOWISH - BROWN
5							28"	
								SILTY CLAY, REDDISH - BROWN
							48"	
							46"	SILT, DARK GRAY
10		F-TP-57	55"	SEMI-VOC'S				
							72"	EOB @ 66"
15								
							96"	
20								

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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. F-TP-58

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

FLOATING PRODUCT

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM
TO)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

F-TP-58

15"

METALS

3

TOP SANDY SOIL

SILTY CLAY, BROWN

5

24"

27

ASPHALT LOOKING MATERIAL,
BLACK, MIXED WITH
SOME SILT, GRAY

44

48"

SILT, GRAY TO DARK
GRAY

10

72"

73

F-TP-58

80"

SEMI-
VOC'S

15

EOB @ 84"

96"

20

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. F-TP-60

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP SANDY SOIL
							24" 21	SILTY CLAY, DARK BROWN, WITH SOME GRAVEL AND COBBLES
5		F-TP-60	14"	METALS				FINE AND MEDIUM SILTY SAND, DARK BROWN TO GRAY, WITH SOME GRAVEL
							48"	
							52	CLAY, GRAY
10							67	
		F-TP-60	70"	SEMI-VOC'S			72"	EOB @ 72"
15								
							96"	
20								

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REPORT

SHEET 1 OF 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. A-TP-63

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								TOP SANDY SOIL	
5							16		
		A-TP-63	18"	METALS			24"	VERY FINE TO FINE SAND WITH SOME CLAY AND GRAVEL	
							30		
10							43	CLAY, REDDISH-BROWN TO DARK BROWN AND BLACKISH	
							48"	THIN LENSE OF FINE SAND	
								CLAY, REDDISH-DARK BROWN	
15							72"	▼	
							73		
		A-TP-63	86"	SEMI-VOC'S					
20							96"	EOB @ 90"	

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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. A-TP-64

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
							10	
		A-TP-64	15"	METALS			18	VERY FINE TO FINE SAND
							24"	CLAY, REDDISH TO DARK BROWN
5								
							48"	
							55	FINE SAND, DARK GRAY
10		A-TP-64	61"	SEMI-VOC'S			72"	EOB @ 66"
							96"	
15								
20								

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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. A-TP-65

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

5" THICK BLACK ORGANIC LAYER, POTENTIAL TANK SPILL

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
								FINE SAND
							24"	
5		A-TP-65	28"	METALS			26	FINE SAND WITH SOME GRAVEL
		A-TP-65	28"	VOC'S			31	ASPHALT LOOKING MATERIAL, BLACK
							48"	CLAY, REDDISH-BROWN
		A-TP-65	53"	SEMI-VOC'S			55	
10							61	
							72"	FINE SAND, DARK GRAY
								EOB @ 66"
							96"	
20								

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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. G-TP-66

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							3	TOP SANDY SOIL
								FINE SAND
							24"	
5		G-TP-66	30"	METALS			26	ASPHALT LOOKING MATERIAL, BLACK
								SILTY CLAY, BROWN TO DARK BROWN
							48"	
							54	ASPHALT LOOKING MATERIAL, BLACK
10							64	
							72"	SILTY CLAY, GRAY
15		G-TP-66	84"	SEMI- VOC'S				EOB @ 84"
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. G-TP-67

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
10)

ANALYSIS

RECOVERY

BLOWS / 8"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

5

10

15

20

G-TP-67

42"

METALS

G-TP-67

94"

SEMI-
VOC'S24"
2741
48"
5072"
79

96"

TOP SANDY SOIL

FINE SAND

CLAY, DARK BROWN,
WITH SOME COBBLESASPHALT LOOKING
MATERIAL, BLACK,
AND LANDFILL MATERIAL
SUCH AS WOOD, TIRES,
BOTTLES, CLOTHS, ETC.

EOB @ 96"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. G-TP-68

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
							16	
							24"	CLAY, BLACKISH-BROWN, WITH SOME COBBLES
5								SILTY CLAY, BROWN
							32	
		6-TP-68	42"	METALS				
							48"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SOME SILTY CLAY, GRAY
		6-TP-68	52"	VOC'S				
10		6-TP-68-1	52"	SEMI-VOC'S				
							72"	
								SILTY CLAY, GRAY
15								
		6-TP-68-2	94"	SEMI-VOC'S			96"	
								EOB @ 96"
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/29/90

DATE FINISHED : 3/29/90

BORING No. E-TP-12

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN, HNU READING IN THE PIT - 25 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
5		E-TP-12	30"	METALS, SEMI-VOL'S			24"	SILTY CLAY, REDDISH-BROWN TO GRAYEY-BROWN
							30"	
								ASPHALT LOOKING MATERIAL, BLACK
							48"	
10								CLAY, BROWN AND SILT, GRAY
							72"	EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/29/90

DATE FINISHED : 3/29/90

BORING No. E-TP-13

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 10 ppm
IN THE PILE - 30 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
		E-TP-13	12"	METALS			24"	CLAY, GRAY TO BROWN WITH SOME ASPHALT LOOKING MATERIAL, BLACK
5							32"	ASPHALT LOOKING MATERIAL, BLACK
							48"	SILT, BROWN TO GRAY
10		E-TP-13	54"	SEMI-VOC'S			57"	--- ▽ ---
							72"	EOB @ 60"
15								
20							96"	

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/29/90

DATE FINISHED : 3/29/90

BORING No. E-TP-14

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN/FLOATING PRODUCT, HNU READING : IN THE PIT - 20 PPM
IN THE PILE - 120 PPM

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
							18	SILTY CLAY, BROWN
		E-TP-14	17"	METALS			24"	ASPHALT LOOKING MATERIAL, BLACK
5							32	SILTY CLAY, BROWN
							48"	SILTY CLAY, BROWN TO GRAY
		E-TP-14	54"	SEMI-VOC'S			61	--- ▼ ---
10							72"	EOB @ 66"
15								
20							96"	

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REPORT

SHEET 1 of 1

DATE STARTED : 3/29/90

DATE FINISHED : 3/29/90

BORING No. E-TP-15

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 16 ppm
IN THE PILE - 64 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
		E-TP-15	8"	METALS				ASPHALT LOOKING MATERIAL, BLACK
								SILTY CLAY, BROWN TO GRAY
5							24"	
		E-TP-15	38"	SEMI- VOC'S			42"	
							48"	SILTY CLAY, GRAY
10								EOB @ 54"
							72"	
15								
							96"	
20								



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REPORT

SHEET / OF /

BORING No. *E-TP-17*

PROJECT No : 604-9

REMARKS: TEST PIT LOG

HNU READING: IN THE PIT - 18 ppm
IN THE PILE - 125 ppm

DRILLER :

DRILL RIG AND METHOD

PIPE

BIT

BACKHOF

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

20

4

24"

38

48"

72"

96⁴.

ASPHALT LOOKING MATERIAL,
BLACK

SILT, GRAY

ECB @ 48"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 3/29/90

DATE FINISHED : 3/29/90

BORING No. E-TP-19

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

HNU READING : IN THE PIT - 20 PPM
IN THE PILE - 180 PPM

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								
SIZE :								
HAMMER WT / FALL				BIT				BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0							8	TOP SANDY SOIL	
5							24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILT, GRAY	
		E-TP-19	32"	METALS			48"		
10		E-TP-19	56"	SEMI- VOC'S			53	▼	
							72"	EOB @ 60"	
15							96"		
20									

REPORT

EOB @ 60"

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 3/30/90

DATE FINISHED : 3/30/90

BORING No. E-TP-22

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 40 ppm
IN THE PILE - 120 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
		E-TP-22	13"	METALS			13	
		E-TP-22-1	13"	SEMI-VOC'S			24"	ASPHALT LOOKING MATERIAL, BLACK
5							33	
							48"	SILT, GRAY, MIXED WITH ASPHALT LOOKING MATERIAL, BLACK
		E-TP-22	47"	VOC'S			56	
10		E-TP-22-2	47"	SEMI-VOC'S				
								EOB @ 60"
							72"	
15								
20							96"	

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 3/30/90

DATE FINISHED : 3/30/90

BORING No. E-TP-24

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 90 ppm
IN THE PILE - 190 ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - 10)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL AND COBBLES
5							24"	SILTY CLAY, BROWN, MIXED WITH ASPHALT LOOKING MATERIAL, BLACK
		E-TP-24	23"	METALS			30"	
10							48"	SILTY CLAY, BROWN TO GRAY
15							67"	
		E-TP-24	62"	SEMI-VOC'S			72"	EOB @ 72"
20							96"	

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 3/30/90

DATE FINISHED : 3/30/90

BORING No. E-TP-26

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

VISIBLE SHEEN, BROKEN STEEL PIPES, HNU READING IN THE PILE-50ppm

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							6	TOP SANDY SOIL
							18	SILTY CLAY, BROWN
		E-TP-26	15"	METALS			24"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILT, GRAY
5							48"	
							53	SILTY CLAY, GRAY
10		E-TP-26	60"	SEMI-VOLDS			63	TO DARK GRAY
							72"	EOB @ 72"
15							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 3/30/90

DATE FINISHED : 3/30/90

BORING No. E-TP-27

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

VISIBLE SHEEN, HNU READING : IN THE PIT - 70 PPM
IN THE PILE - 150 PPM

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OYA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP SANDY SOIL
								ASPHALT LOOKING MATERIAL, BLACK
		E-TP-27	20"	METALS			24"	
5							29	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SILT, GRAY
								CLAYEY SILT, GRAY TO BROWN
		E-TP-27	54"	SEMI-VOC'S			48"	
10								
							67	
							72"	EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. G-TP-70

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL								
SURFACE ELEVATION :								
SURFACE CONDITIONS :								
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.
OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
	TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0							TOP SANDY SOIL	
						24"	FINE SAND	
5						37"	THIN LENSE OF SILTY CLAY, DARK BROWN	
						39"		
						48"	FINE SAND	
10								
						67"	CLAY, REDDISH - BROWN, WITH SOME ASPHALT LOOKING MATERIAL, BLACK	
						72"		
15		G-TP-70	87"	METALS				
		G-TP-70	104"	SEMI-VOC'S				
		G-TP-70	104"	VOC'S				
20						96"		
							EOB @ 108"	

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. 6-TP-71

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 8" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								24"	TOP SANDY SOIL
5								32"	FINE SAND
10								48"	
15		6-TP-71	66"	METALS				67" 72"	ASPHALT LOOKING MATERIAL, BLACK
20		6-TP-71	91"	SEMI- VOC'S				96"	EOB @ 96"

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/10/90

DATE FINISHED : 4/10/90

BORING No. 6-TP-72

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL
5							24"	FINE SAND
10		6-TP-72	55"	METALS			48"	ASPHALT LOOKING MATERIAL, BLACK
15							72"	ASPHALT LOOKING MATERIAL, BLACK, MIXED WITH SOME SILTY CLAY, GRAY
20		6-TP-72	100"	SEMI- VOC'S			96"	EOB @ 108"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/11/90

DATE FINISHED : 4/11/90

BORING No. G-TP-74

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGS

SAMPLE

TYPE
AND
No.DEPTH
(FROM -
TO)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

5

10

15

20

24"

48"

72"

96"

120"

FINE SAND

SILTY CLAY, GRAY,
MIXED WITH SOME ASPHALT
LOOKING MATERIAL, BLACK

EOB @ 120"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/11/90

DATE FINISHED : 4/11/90

BORING No. 6-TP-75

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)SAMPLE
ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

5

10

15

20

24"

30

48"

55

72"

75

78

96"

TOP SANDY SOIL

FINE SAND

CLAYEY SILT, BROWN
TO DARK BROWNCLAYEY SILT, GREENISH-YELLOW
CLAY, BROWNISH-RED
CLAYEY SILT, GREENISH-
YELLOW

EOB @ 96"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/11/90

DATE FINISHED : 4/11/90

BORING No. G-TP-77

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

VERY BRIGHT SHEEN ON THE SURFACE OF THE SAMPLES

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD	
		SPLIT SPOON				PIPE	CAP		
TYPE :								BACKHOE	
SIZE :									
HAMMER WT / FALL									
SURFACE ELEVATION :									
SURFACE CONDITIONS :									
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								TOP SANDY SOIL	
5							24"	FINE SAND WITH SOME SILT (FRAGMENT OF A STEEL PIPE Ø 3-4" AT 2')	
10							48"	ASPHALT LOOKING MATERIAL, BLACK, IN SOME INTERVALS SLIGHTLY INTERMIXED WITH SILT, GRAY	
15							72"		
20							96"		
		G-TP-77	109"	METALS					
		G-TP-77	109"	SEMI-VOC'S					
		G-TP-77	109"	VOC'S					
								EOB @ 114"	

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/11/90

DATE FINISHED : 4/11/90

BORING No. G-TP-80

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0								TOP SANDY SOIL	
5							24"		
							48"	FINE SAND	
10							45"		
							65"	CLAY, REDDISH-BROWN	
							72"	ASPHALT LOOKING MATERIAL, BLACK, WITH SOME SILT, DARK BROWN, GREENISH-YELLOW AND GRAY	
		G-TP-80	96"	METALS			96"		
		G-TP-80	96"	SEMI- VOC'S					
		G-TP-80	96"	VOC'S					
20								EOB @ 108"	



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REPORT

SHEET / OF /

BORING No. *H-TP-82*

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

DRILLER :

BIT

ЗАКНОЕ

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

20

24¹¹

48"

72"

96"

LANDFILL MATERIAL
SUCH AS RUBBER,
TAILINGS, INTERMIXED
WITH SOME SAND
AND SILT, BROWN

H-TP-82	100"	METALS
H-TP-82	100"	SEMI-VOC'S

EOB @ 108"

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. B-TP-84

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL					BIT			

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							7	TOP SANDY SOIL WITH SOME GRAVEL
								VERY FINE TO FINE SAND, REDDISH
5		B-TP-84	24"	METALS			24"	
							34	
							48"	CLAYEY SILT, REDDISH-BROWN, WITH NUMEROUS CALCAREOUS NODULES (VERY THIN 1" LENSE OF SILT, BLACK, AT 36")
10		B-TP-84	57"	SEMI-VOL'S			68	CLAY, REDDISH-BROWN
							72"	EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. B-TP-85

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP GRAVELLY SOIL
							24"	FINE SAND, BROWN, WITH NUMEROUS LENSES OF CLAY
5		B-TP-85	24"	METALS			33	
							48"	CLAY, REDDISH-BROWN, WITH NUMEROUS CALCAREOUS NODULES
10		B-TP-85	57"	SEMI-VOC'S			50	SILTY CLAY AND CLAYEY SILT, BROWN TO GRAY
							66	— — — — — ▼ — — — — —
							72"	EOB @ 72"
15								
							96"	
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. B-TP-86

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP SANDY SOIL
							21	CLAY, DARK BROWN TO GRAY, INTERMIXED WITH STONES AND LANDFILL MATERIAL
5		B-TP-86	27"	METALS			24"	
								CLAY, REDDISH-BROWN, WITH NUMEROUS CALCAREOUS NODULES
		B-TP-86	46"	SEMI-VOC'S			48"	
10								
							72"	EOB @ 60"
15								
							96"	
20								

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. A-TP-87

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL					BIT			

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0								TOP SANDY SOIL WITH SOME STONES
							15"	
							24"	FINE SAND WITH SOME GRAVEL
5		A-TP-87	25"	METALS			26"	
								CLAY, REDDISH-BROWN, WITH NUMEROUS CALCAREOUS NODULES
							48"	
10								
		A-TP-87	62"	SEMI-VOL'S			64"	SILTY CLAY AND SILT, REDDISH-BROWN
							72"	▼
15								EOB @ 72"
							96"	
20								

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. A-TP-90

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : TEST PIT LOG

CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							5	TOP SANDY SOIL
								FINE SAND AND GRAVEL
5		A-TP-90	30"	METALS			24" 26	
								SILTY CLAY, REDDISH-BROWN, WITH NUMEROUS CALCAREOUS NODULES
10							48"	
		A-TP-90	62"	SEMI-VOC'S			65	▼ FINE SAND AND SILT
15							72"	EOB @ 72"
20							96"	

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4/12/90

DATE FINISHED : 4/12/90

BORING No. F-TP-91

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEAD

REMARKS: TEST PIT LOG

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY				
0							24"	FRAGMENTS OF ROCK OF DIFFERENT DIMENSIONS FROM COARSE SAND TO BOULDERS WITH THIN (5-10") LAYER OF COARSE SAND, BLACKISH-GRAY, WITH STRONG ODOR AND MINOR AMOUNT OF ASPHALT LOOKING MATERIAL, BLACK, COVERING THE FRAGMENTS OF ROCK (LAYER IS AT DEPTH OF 72")	
5									
							48"		
10									
		F-TP-91	72"	METALS			72"		
		F-TP-91	72"	SEMI- VOC'S					
		F-TP-91	72"	VOC'S					
15									
							96" 100		
20									
								EOB @ 100"	

MICROTIP = 50 ppm in
Cottings.

BORING



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 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-19-90

DATE FINISHED : 7-19-90

BORING No. D-TP-3-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								CASE 576 K BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0								RED/BROWN SILTY FINE SAND.
	140 ppm							GREY TO DARK GREY STAINED SILTY SAND.
5								EOB @ 4.0'
10								
15								
20								
25								

MICROTIP = 2000 ppm in
collings.

BORING



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 85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-19-90

DATE FINISHED : 7-19-90

BORING No. E-TP-4-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGS

SAMPLE

TYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

LIGHT BROWN CLEAN
FINE SAND.

5

DARK GREY STAINED
FINE SAND.

EOB @ 4.0'

10

 MICRO TIP = 2300 ppm in
 cuttings.
 = 70 ppm in
 breathing zone.

15

"Level B" Protection

20

25



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8000 EXCELSIOR DRIVE MADISON, WI. 53717
315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

SHEET 1 OF 1

BORING No. **E-TP-5-2**

PROJECT No : 604-9

PREPARED BY: K. McHALE

DRILLER : T. DAVIS

DRILL RIG AND METHOD

PIPE

BIT

CASE
576 K
BACKHOE

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

25

RED/LIGHT BROWN SANDY
SILT

GREY TO DARK GREY
SANDY SILT.

EOB @ 6.0'

MICROTIP = 9500 ppm in cuttings.
= 100 ppm at ground level near test pit.

MicroTIP = 1000 ppm in
cuttings
= 6600 ppm in
headspace
screening .
OVA = off scale in
headspace
screening (> 1000)

BORING



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 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-20-90

DATE FINISHED : 7-20-90

BORING No. D-TP-7-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGS

SAMPLE

TYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

50-120

LIGHT BROWN FINE SAND

5

CHARCOAL GREY STAINED
FINE SAND

10

EOB @ 7.0'

15

MICROTIP = 80 ppm @
operator

20

"Level B" Protection

25

BORING



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 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-20-90

DATE FINISHED : 7-20-90

BORING No. E-TP-8-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.

SAMPLE

DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

400-2000

RED/BROWN SILTY FINE SAND

5

GREY TO BLACK STAINED
FINE SAND.

10

EOB @ 5.5'

15

MICROTIP = 2000ppm in
cuttings

20

LEL = 1-5

25



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8000 EXCELSIOR DRIVE MADISON, W. 53717
315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

SHEET / OF /

BORING No. **E-TP-9-2**

PROJECT No : 604-9

PREPARED BY: K. McHALE

DRILLER : T. DAVIS

DRILL RIG AND METHOD

BIT

CASE
576 K
BACKHOG

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

RED/BROWN SANDY SILT.

BLACK STAINED RED/BROWN
CLAYEY SILT.

EDB @ 6.2'

MICROTIP = 50 → 1500 ppm
downwind of
test pit.

LEL = 1-2

25

BORING



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 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-20-90

DATE FINISHED : 7-20-90

BORING No. F-TP-10-2*

CLIENT : REKENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY : K. McHALE

DRILLING CONTRACTOR :

LOGGED BY : K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :								CASE 576 K BACKHOE
SIZE :								
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0	70 (peak)								
5									
10									
15									
20									
25									

LIGHT BROWN FINE SAND.

RED/BROWN FINE SAND.

LIGHT GRAY STAINED FINE SAND.

EOB @ 6.0'

 * NOTE: MS & MSD RUN
 ON THIS SAMPLE.

BORING



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 85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-20-90

DATE FINISHED : 7-20-90

BORING No. G-TP-11-2*

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOYA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

TAN V. FINE SAND

5

RED/BROWN V. FINE SAND
TRACE SILT AND LITTLE
GREY STAINING.

10

EOB @ 7.0'

15

MICROTIP = 140 ppm in
cuttings
= 650 ppm for
sample.

20

* NOTE: MS & MSD RUN
ON THIS SAMPLE

25

BORING



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 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-20-90

DATE FINISHED : 7-20-90

BORING No. B-TP-12-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGS

SAMPLE

TYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

50

TAN V. FINE SAND.

5

RED/BROWN SILTY SAND.

10

DARK GREY STAINED SILTY SAND

EOB @ 7.0'

15

MICROTIP = 3500 ppm in
cuttings.

20

"Level B" Protection

25

BORING



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 85 FOREST AVENUE LOCUST VALLEY, N.Y. 11360
 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 of 1

DATE STARTED : 7-21-90

DATE FINISHED : 7-21-90

BORING No. G-TP-H-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.

SAMPLE

DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

TAN SAND (LOOSE)

5

STIFF BROWN CLAY

10

GREY STAINED SANDY
CLAY.

15

EOB @ 10.5

MICROTIP = 250-300 ppm
in cuttings.

20

25

BORING



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 85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
 8000 EXCELSIOR DRIVE MADISON, WI. 53717
 315 W. HURON STREET, SUITE 220, ANN ARBOR, MI 48104

REPORT

SHEET 1 OF 1

DATE STARTED : 7-21-90

DATE FINISHED : 7-21-90

BORING No. G-TP-16-2

CLIENT : REXENE PRODUCTS CORPORATION

PROJECT No : 604-9

PROJECT NAME & LOCATION : BRICKLAND REFINERY, N.M.

PREPARED BY: K. McHALE

DRILLING CONTRACTOR :

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

CASE
576 K
BACKHOE

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

RED/BROWN FINE SAND.

5

DARK GREY TO BLACK
FINE SAND.

10

LIGHT GREY STAINED FINE
SAND.

15

EOB @ 10.0'

MICROTIP = 150-500 ppm
in cutting.

20

25

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. B-HA-1

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

HAND
AUGER
DRILLING

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

B-HA-1

6"

METALS

6

TOP SANDY SOIL
SILT, BROWN

5

24"

FINE SAND

10

42
48"

CLAY, REDDISH-BROWN

15

B-HA-1

65"

SEMI-
VOC'S55
65SILTY CLAY, REDDISH-
BROWN

20

72"

EOB @ 72"

96"

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 of 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. B-HA-2

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS : CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

SIZE :

HAMMER
WT / FALL

BIT

HAND
AUGER
DRILLING

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
10)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

B-HA-2

12"

METALS

5

24"

CLAY, BROWN, WITH
NUMEROUS CALCAREOUS
NODULES

31

SAND AND SILTY SAND,
BROWN

48"

CLAY, REDDISH-BROWN,
WITH NUMEROUS
CALCAREOUS NODULES

10

B-HA-2

55"

SEMI-
VCC'S

59"

CLAYEY SILT AND CLAY,
BROWN TO GRAY

72"

EOB @ 66"

15

96"

20

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. B-HA-3

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS: CLEAN

CONTRACTOR : IT CORPORATION

LOGGED BY: KEVIN MCHALE

DRILLER :

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

HAND

SIZE :

3"

HAND
AUGER
DRILLINGHAMMER
WT / FALL

BIT

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

OVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)

ANALYSIS

RECOVERY

BLOWS / 6"
OR
CORE TIMEDEPTH
BELOW
GRADEDESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

B-HA-3

12"

METALS

24"

5

30"

SILTY CLAY, RED TO
BROWN

48"

VERY FINE SAND
CLAY, STIFF, RED
TO BROWN

10

B-HA-3

60"

SEMI-
V.C.C.'S

72"

EOB@ 70"

15

96"

20

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4/7/90

DATE FINISHED : 4/7/90

BORING No. B-HA-4

CLIENT : REXENE PRODUCTS COMPANY

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE I SITE INVESTIGATION FOR OLD BRICKLAND REFINERY SITE, NEW MEXICO

REMARKS:

CONTRACTOR : IT CORPORATION

LOGGED BY: VIKTOR RAYKIN

DRILLER :

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :					HAND			HAND AUGER DRILLING
SIZE :					3"			
HAMMER WT / FALL				BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	DEPTH BELOW GRADE	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	ANALYSIS	RECOVERY			
0							8	TOP SANDY SOIL
							24"	COARSE-GRAINED ORGANIC MATERIAL, BLACK WITH SOME TAILINGS
5		B-HA-4	24"	METALS			27	
							48"	CLAYEY SILT, REDDISH- BROWN, WITH NUMEROUS CALCAREOUS NODULES
		B-HA-4	46"	SEMI- VCC'S			44"	
10								FINE SAND (SATURATED)
								ECB @ 54"
							72"	
15								
							96"	
20								

SURFACE SOIL SAMPLING LOG

AREA	SAMPLE I.D.#	DATE	TIME	DEPTH, INCHES	DESCRIPTION OF SOIL	REMARKS
F	F-SS-1	4/5/90	11:40	9-12	SILTY SAND, FINE WITH SOME COBBLES OF UNUSAL COLORS: YELLOW, GREEN, GRAY, BLACK	CONCRETE AT THE DEPTH OF 12" AND SOME METAL PIPES
F	F-SS-2	4/5/90	11:50	8-10	SAND, FINE WITH SOME COBBLES AND DARK BROWN AND REDDISH INCLUSIONS	CONCRETE AT THE DEPTH OF 10"
F	F-SS-3	4/5/90	12:00	3-5	FINE SILTY SAND OF UNUSUAL COLORS: LIGHT AND DARK BROWN, BLACK, GREEN, GRAY, REDDISH	
E	E-SS-4	4/5/90	12:15	3-4	TAR	
E	E-SS-5	4/5/90	12:20	3-4	TAR	
F	F-SS-6	4/5/90	12:25	6-8	ASPHALT LOOKING MATERIAL, BLACK, WITH SILTY CLAY, REDDISH - GRAY	
G	G-SS-7	4/5/90	12:40	2-4	ASPHALT LOOKING MATERIAL, VERY STIFF, BLACK TO BROWN	
G	G-SS-8	4/5/90	12:45	6-8	ASPHALT LOOKING MATERIAL, VERY STIFF, BLACK TO BROWN WITH SOME SILT, BROWN	
G	G-SS-9	4/5/90	12:50	6-10	TAR WITH SILTY CLAY, BROWN	

SUBSURFACE SOIL SAMPLING LOG FROM STORM WATER OUTFALLS

STORM WATER OUTFALL #	SAMPLE LOCATION #	SAMPLE I.D. #	DATE	DEPTH, INCHES	DESCRIPTION OF SOIL	ANALYSIS
1.	1.	CUL-1-1	4/5/90	6-8	CLAY, BROWNISH-GRAY	METALS
		CUL-1-1	4/5/90	12	SILT AND SILTY CLAY, DARK GRAY TO BLACK	SEMI-VOC'S
	2.	CUL-1-2	4/5/90	3-5	CLAY, BROWNISH-GRAY	METALS
		CUL-1-2	4/5/90	18	SILTY CLAY, DARK GRAY TO BLACK	SEMI-VOC'S
2.	1.	CUL-2-1	4/5/90	8-10	SILTY CLAY, BROWNISH-GRAY	METALS
		CUL-2-1	4/5/90	18-20	SILT AND SILTY CLAY, BROWNISH-GRAY TO GRAY	SEMI-VOC'S
3.	1.	CUL-3-1	4/5/90	2-4	VERY FINE SAND, GRAY TO BROWN	METALS
		CUL-3-1	4/5/90	60-72	SILTY CLAY, BLACK AND GRAY, WITH BROWN IRON INCLUSIONS	SEMI-VOC'S
	2.	CUL-3-2	4/5/90	2-4	FAT CLAY, BROWN	METALS
		CUL-3-2	4/5/90	72	SILTY CLAY, BROWN TO BLACK	SEMI-VOC'S
4.	1.	CUL-4-1	4/5/90	2-4	SILTY CLAY, BROWN	METALS
		CUL-4-1	4/5/90	48	SILT, BLACK, WITH SILTY CLAY, GRAY	SEMI-VOC'S

APPENDIX D
SOIL BORING LOGS



85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

BORING No. **B-1**

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLER : T. DAVIS

DRILL RIG AND METHOD

PIPE	CAP
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

MOBILE
B-01

HSA

BIT

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

TOPSOIL w/v. fine sand.

Grey silty clay w/black staining @ 2.5' → 3.0'
Strong petro odor.

Gray silty v. fine sand.

Reddish brown silty v. fine sand.

EOB @ 10.0'

20

6

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2317 INTERNATIONAL LANE MADISON, W. 53704

REPORT

SHEET 1 OF 1

BORING No. **B-3**

PROJECT No : 604-9

PROJECT NAME & LOCATION: PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS: No odor was observed below the clay @ 8-8.5'

DRILLER : T. DAVIS

DRILL RIG AND METHOD

PIPE

MOBILE

B-61

H.S.A.

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

TOPSOIL / FILL

Silty v. fine gray sand w/petro
odor.

4-5
3-4

Silty Red/brown clay.

3-4
4-4

Stiff Red/brown Clay

2-3
6-7

Gray y. fine sand.

Red/brown silty clay

$$\begin{array}{r} 4-7 \\ 6-10 \end{array}$$

Red/brown v. fine sand.

EOB @ 10.0'

20

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-2-90

DATE FINISHED : 4-2-90

BORING No. B-5

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0				D				TOPSOIL / FILL RED/BROWN SILTY CLAY W/BLACK PETRO STAINING.	
	280		0-2	M	1.0	9-13 7-7			
				M					
	225		2-4	M	2.0	2-3 4-7			
5				M					
	180		4-6	W	2.0	3-3 4-8		RED/BROWN V. FINE SAND W/BLACK PETRO STREAKING.	
				W					
	150		6-8	W	2.0	7-10 14-24			
				W					
10	290		8-10	W	2.0	6-24 35-36			
								EOB @ 10.0'	
15									
20									

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-2-90

DATE FINISHED : 4-2-90

BORING No. B-6

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0				D				TOPSOIL/FILL
	125		0-2	M	1.2	2-3 3-3		RED SANDY SILT
				M				
	95		2-4	M	2.0	3-4 4-5		RED/BROWN V.FINE SAND
5				W				
	150		4-6	W	2.0	3-4 3-5		STIFF RED/BROWN SILTY CLAY
				W				
	110		6-8	W	2.0	4-8 8-9		RED/BROWN SANDY SILT.
				W				
10	90		8-10	W	2.0	3-6 6-9		RED/BROWN V.FINE SAND
								EDB @ 10.0'
15								
20								

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-2-90

DATE FINISHED : 4-2-90

BORING No. B-7

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0				D				SANDY SILT W/BLACK PETRO STAINING	
	8		0-2	M	1.5	14-17 12-13			
				M				RED/BROWN V.FINE SAND	
	220		2-4	W	2.0	3-3 3-3			
5				W					
	240		4-6	W	2.0	3-4 3-4		RED/BROWN STIFF CLAY	
				W				RED/BROWN SILTY V.FINE SAND	
	220		6-8	W	2.0	5-4 4-6			
				W					
10	60		8-10	W	2.0	4-5 3-5			
								EOB @ 10.0'	
15									
20									

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-2-90

DATE FINISHED : 4-2-90

BORING No. B-8

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

10

0-2

M

1.2

11-10
9-13

TOPSOIL / FILL

RED/BROWN V.FINE SANDY SILT

146

2-4

W

2.0

3-3
2-3

RED/BROWN V.FINE SAND

5

120

4-6

M

2.0

3-1
5-8

RED/BROWN SILTY CLAY

80

6-8

W

2.0

1-2
2-5

RED/BROWN V.FINE SAND

10

80

8-10

W

2.0

3-5
4-5

EOB @ 10.0'

15

20

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-3-90

DATE FINISHED : 4-3-90

BORING No. B-9

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140/30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

259

0-2

M

26-16
12-14

5

267

2-4

M

3-4
4-5

10

402

8-10

W

6-9
12-20RED/BROWN SILTY CLAY W/BLACK
STAINING + STRONG ODORRED/BROWN SILTY CLAY W/NO
STAINING - STRONG ODOR.

RED/BROWN V. FINE SAND W/SHEEN

EOB @ 10.0'

15

20

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-3-90

DATE FINISHED : 4-3-90

BORING No. B-10

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER				HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%			
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY						
0				D					SANDY FILL		
	276		0-2	M		13-13 13-11			RED/BROWN SILTY CLAY W/HEAVY BLACK PETRO STAINING + ODOOR.		
	396		2-4	M		4-4 4-6					
5								▽			
	395		4-6	W		3-4 4-7			GRAY STAINED SILT.		
	377		6-8	M		2-3 5-9					
10	322		8-10	W		5-6 8-6			RED/BROWN V.FINE SAND W/BLACK STREAKS		
									EOB @ 10.0'		
15											
20											

EOB @ 10.0'

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4-3-90

DATE FINISHED : 4-3-90

BORING No. B-11

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140/30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

3.6

0-2

M

7-10
10-12

SANDY FILL

BROWN SANDY SILT (CLEAN)

364

2-4

M

5-5
5-5DARK GREY STAINED SILTY RED/BROWN
CLAY.

5

348

4-6

W

2-2
3-5

GREY STAINED V. FINE SAND

351

6-8

M

2-4
6-6

RED/BROWN SILTY CLAY

10

371

8-10

W

7-11
14-13

LIGHT GREY STAIN IN V. FINE SAND

FOB @ 10.0

15

20

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-3-90

DATE FINISHED : 4-3-90

BORING No. B-13

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I. T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

287

0-2

M

23-18
9-12

SANDY FILL

396

2-4

M

5-7
8-8RED/BROWN SILTY V. FINE SAND
AND SILTY CLAY STAINED
BLACK TO GREY BY PETRO.

5

177

4-6

M

3-3
3-5

374

6-8

W

2-2
4-5

10

408

8-10

W

5-6
5-6RED/BROWN V. FINE SAND
W/STREAKS

EOB @ 10.0'

15

20

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 1-3-90

DATE FINISHED : 1-3-90

BORING No. B-14

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0							▽	SANDY FILL	
	316		0-2	M		12-10 8-7			
	296		2-4	M		3-5 5-6			
5				W			▽	BLACK TO GREY STAINED SANDY SILT AND SILTY CLAY.	
	351		4-6	W		2-2 2-3			
	350		6-8	M		4-4 4-8			
10	386		8-10	W		2-7 6-9		SILTY V. FINE SAND W/SOME BLACK DETRO STAINING.	
15								EDB @ 10.0'	
20									

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 1-3-90

DATE FINISHED : 1-3-90

BORING No. B-15

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

97

0-2

D

M

37-27
15-11

SANDY FILL

289

2-4

W

5-5
6-7SILTY BLACK STAINED CLAY
AND V. FINE SAND.

5

319

4-6

M

2-4
5-9

RED SILTY CLAY

410

6-8

W

7-5
5-7

RED/BROWN SILTY V. FINE SAND.

10

332

8-10

W

6-5
5-8

EOB @ 10.0'

15

20

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4-3-90

DATE FINISHED : 4-3-90

BORING No. B-16

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61
H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

150

0-2

M

24-21
10-8

5

152

2-4

M

2-2
3-3

281

4-6

M

2-3
5-6

332

6-8

W

4-6
7-7

10

218

8-10

W

4-3
4-2

SANDY FILL

BLACK TO GREY STAINED
SANDY SILT AND SILTY V. FINE
SAND.

EOB @ 10.0'

15

20



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REPORT

SHEET 1 OF 1

BORING No. **B-17**

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS: Located near standing gasoline pump - heavy gas odor, high benzene conc. from
Raegu tube, level "B" worn by drillers. Floating product and ~ 600 ppm Benzene.

DRILLER : T. DAVIS

DRILL RIG AND METHOD

PIPE

MOBILE

B-61

H.S.A.

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

SANDY SILTY FILL

BLACK TO GREY STAINED
V. FINE SAND

2-2
3-2

3-1
2-2

3-4
10-9

EOB @ 10.0'

20



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REPORT

SHEET 1 OF 1

BORING No. B-18

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLER : T. DAVIS

DRILL RIG AND METHOD

BIT

MOBILE
B-61
H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

BLACK TO GREY STAINED
SILTY CLAY.

▽

5-9
8-7

GREY STAINED RED/BROWN
V. FINE SAND.

FOR @ 10.0'

20

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4-4-90

DATE FINISHED : 4-4-90

BORING No. B-19

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61

H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

337

0-2

M

3-2
4-5

SANDY FILL

5

400

2-4

W

3-2
4-5BLACK TO GREY SILTY SAND
STAINED w/ PETRO.

10

403

8-10

W

2-3
4-5
5-4
6-7

EOB @ 10.0'

15

20

E

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REPORT

SHEET 1 OF 1

BORING No. **B-20**

PROJECT No : 604-9

REMARKS: Draeger tube detected 5 ppm Benzene in HSA. Level "C" worn by Dulles.

DRILLER : T. DAVIS

DRILL RIG AND METHOD

BIT

H.S.A.

SURFACE CONDITIONS :

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

SANDY SILTY FILL

SILTY CLAY STAINED BLACK
+ ORANGE.

RED/BROWN V. FINE SAND
w/ GREY STAINS

5 - 1/2" OF PRODUCT LAMINATIONS
@ 9.0'

EOR @ 10.0'

20

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4-1-90

DATE FINISHED : 4-4-90

BORING No. B-21

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0								SANDY FILL	
	280		0-2	M		10-15 13			
	260		2-4	M		5-5 10-15			
5								SILTY CLAY STAINED BLACK W/PETRO	
	250		4-6	W		12-9 8-3			
	180		6-8	W		1-1 2-2			
10	150		8-10	W		3-3 4-4		GREY STAINED V. FINE SAND W/SILT - LOOSE.	
15								EOB @ 10.0'	
20									

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-4-90

DATE FINISHED : 4-4-90

BORING No. B-23

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61
H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

60

0-2

M

17-27
29-17

SANDY FILL

80

2-4

M

2-4
4-4SILTY SAND/SANDY SILT
STAINED GREY TO BLACK.

5

160

4-6

M

2-3
6-7

110

6-8

W

3-3
5-9

10

170

8-10

W

4-2
2-3

RED/BROWN STIFF CLAY.

EOTB @ 10.0'

15

20

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4-4-90

DATE FINISHED : 4-4-90

BORING No. B-24

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61
H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

70

0-2

M

12-20
22-9

SANDY FILL

150

2-4

M

6-8
9-13

BLACK STAINED SILTY CLAY.

5

85

1-6

W

3-3
5-5

GREY STAINED V. FINE SAND

110

6-8

M

3-5
5-9

SILTY CLAY.

10

150

8-10

W

5-5
5-7

GREY V. FINE SAND.

EOB @ 10.0'

15

20

BORING



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REPORT

SHEET 1 of 1

DATE STARTED : 4-5-90

DATE FINISHED : 4-5-90

BORING No. B-27

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I. T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 H.S.A.
SIZE :		3" x 24"						
HAMMER WT / FALL		140 / 30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0								SANDY FILL
	480		0-2	M		5-5 8-10		BLACK STAINED SILTY CLAY:
	400		2-4	M		6-6 8-9		
5								VERY FINE SAND
	430		4-6	W		4-4 5-5		
	302		6-8	W		6-6 6-7		EOR @ 10.0'
10	379		8-10	W		6-5 4-4		
15								
20								

BORING



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REPORT

SHEET 1 OF 1

DATE STARTED : 4-5-90

DATE FINISHED : 4-5-90

BORING No. B-28

CLIENT : REYENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS:

DRILLING CONTRACTOR : I. T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140 / 30"

BIT

MOBILE
B-61
H.S.A.

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

100

0-2

M

5-5
5-2

SANDY FILL

120

2-4

M

2-4
6-7

BLACK STAINED SILTY CLAY.

5

140

4-6

W

4-4
4-4

LIGHT GREY V. FINE SAND

125

6-8

M

3-3
5-6

RED/BRN SILTY CLAY.

10

175

8-10

W

3-5
6-4

RED/BRN V. FINE SAND

EOB @ 10.0'

15

20

APPENDIX E

MONITORING WELL INSTALLATION AND CONSTRUCTION LOGS

REXENE CORPORATION
BRICKLAND REFINERY SITE - SUNLAND PARK, NEW MEXICO

Water Level Measurements

Well #	Date	Time	Hold	Cut	D.T.W.	M.P.Elev.	W.L.Elev
MW-1	4-12-90	1040	7.00	1.03	5.97	3730.88	3724.91
	4-13-90	1206	7.00	1.31	5.69	3730.88	3725.19
	7-16-90	1400	6.00	1.31	4.69	3730.88	3726.19
MW-2	4-12-90	1930	7.00	1.73	5.27	3732.01	3726.74
	4-13-90	1243	6.00	0.92	5.08	3732.01	3726.93
	7-16-90	1415	5.00	0.91	4.09	3732.01	3727.92
MW-3S	4-11-90	2235	8.00	1.66	6.34	3730.70	3724.36
	4-13-90	1213	8.00	1.80	6.20	3730.70	3724.50
	7-16-90	1430	6.00	0.98	5.02	3730.70	3725.68
MW-3D	4-11-90	2125	9.00	2.21	6.79	3730.71	3723.92
	4-13-90	1215	8.00	1.69	6.31	3730.71	3724.40
	7-16-90	1445	6.00	0.89	5.11	3730.71	3725.60
MW-4	4-12-90	1700	7.00	1.96	5.04	3729.31	3724.37
	4-13-90	1038	6.00	1.13	4.87	3729.31	3724.44
	7-16-90	1500	5.00	1.28	3.72	3729.31	3725.59
MW-5	4-12-90	1745	8.00	2.25	5.75	3730.10	3724.35
	4-13-90	1030	7.00	1.27	5.73	3730.10	3724.37
	7-16-90	1515	6.00	1.40	4.60	3730.10	3725.50
MW-6S	4-11-90	1545	9.00	1.72	7.28	3731.35	3724.07
	4-13-90	1227	9.00	1.79	7.21	3731.35	3724.14
	7-16-90	1530	7.00	1.00	6.00	3731.35	3725.35
MW-6D	4-11-90	1515	9.00	1.76	7.24	3731.32	3724.08
	4-13-90	1229	9.00	1.79	7.21	3731.32	3724.11
	7-16-90	1545	7.00	1.01	5.99	3731.32	3725.33
MW-7	4-11-90	1255	7.00	1.71	5.29	3729.45	3724.16
	4-13-90	1042	7.00	1.82	5.18	3729.45	3724.27
	7-16-90	1600	5.00	0.99	4.01	3729.45	3725.44
MW-8	4-11-90	1400	7.00	1.65	5.35	3729.68	3724.33
	4-13-90	1045	7.00	1.64	5.36	3729.68	3724.32
	7-16-90	1615	6.00	1.66	4.34	3729.68	3725.34
MW-9S	4-12-90	0945	9.00	2.04	6.96	3730.71	3723.75
	4-13-90	1237	8.00	1.11	6.89	3730.71	3723.82
	7-16-90	1630	7.00	1.27	5.73	3730.71	3724.98
MW-9D	4-12-90	0930	9.00	1.70	7.30	3731.04	3723.74
	4-13-90	1238	9.00	1.71	7.29	3731.04	3723.75
	7-16-90	1645	7.00	0.90	6.10	3731.04	3724.94
MW-10	4-12-90	2130	11.00	1.81	9.19	3733.00	3723.81
	4-13-90	1058	10.00	1.01	8.99	3733.00	3724.01
	7-16-90	1700	9.00	1.32	7.68	3733.00	3725.32
MW-11	4-12-90	2110	9.00	1.37	7.63	3731.82	3724.19
	4-13-90	1049	10.00	2.06	7.94	3731.82	3723.88
	7-16-90	1715	8.00	1.28	6.72	3731.82	3725.10
MW-12 (2)	4-11-90	1645	9.00	1.88	7.12	3730.65	3723.53
	4-13-90	1202	6.00	0.96	5.04	3730.65	3725.61
	7-16-90	1730	5.00	1.03	3.97	3730.65	3726.68
MW-13 (3)	4-12-90	1900	10.00	1.62	8.38	3732.79	3724.41
	4-13-90	1035	10.00	1.71	8.29	3732.79	3724.50
	7-16-90	1745	9.00	1.71	7.29	3732.79	3725.50

(1) Measured in feet above Mean Sea Level (M.S.L.)

(2) Measurement taken on 4-11-90 was 15 minutes after development.

(3) Well MW-13 was installed prior to this investigation.

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET / OF 1

DATE STARTED : 4-10-90

DATE FINISHED : 4-10-90

BORING No. MW-1

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140/30"

BIT

MOBILE
B-61

HSA

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

O

0-2

M

1.0

4-6
5-9

LIGHT BROWN SILTY SAND

O

2-4

M

2.0

3-3
3-3

5

O

4-6

W

2.0

2-2
3-4

RED/BROWN SILTY CLAY

6-8

10

O

8-10

W

2.0

4-5
4-7

RED/BROWN V. FINE SAND

15

O

13-15

W

2.0

4-3
4-5

EOB @ 15.0

20

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 2

DATE STARTED : 4-9-90

DATE FINISHED : 4-9-90

BORING No. MW-3

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140/30"

BIT

MOBILE
B-61

HSA

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

O

0-2

M

1.2

1-8
14-15

TAN V.FINE SAND

5

O

2-4

M

2.0

9-7
7-6

RED/BROWN SILTY V.FINE SAND

10

O

4-6

W

2.0

3-6
2-5

RED/BROWN V.FINE SAND

15

O

6-8

14-23
27-26

20

O

8-10

W

2.0

17-14
18-16AS ABOVE W/SOME MED
TO COARSE SAND/TRACE
GRAVEL.

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 3-27-90

DATE FINISHED : 3-28-90

BORING No. MW-4

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO.

REMARKS : APPROXIMATELY 75-100 GALLONS POTABLE WATER WERE ADDED DURING
DRILLING TO PREVENT SAND HEAVING.

DRILLING CONTRACTOR : I. T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" x 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0				D				TOPSOIL / FILL
	223		0-2	M	2.0	11-1 15-1		GRAY/BROWN SILTY V. FINE SAND - HEAVILY CONTAMINATED W/BLACK PETROLEUM. STRONG GASOLINE ODOR
			2-4	W	2.0	8-6 7-6		
5	356		4-6	W	1.7	7-8 11-10		
			6-8	W	1.8	4-5 6-7		GREY SILT W/TRACE V. FINE SAND.
10	85		8-10	W	1.5	4-4 5-6		
			10-12	W	1.4	6-7 9-11		
15								EOB @ 15.0'
20								

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 3-28-90

DATE FINISHED : 3-28-90

BORING No. MW-5

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" X 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0								TAN DRY SAND W/PETTBLES.
	130		0-2	M	1.7	9-11 4-6		BLACK STAINED SILT - ODOR (CRUDE)
	140		2-4	M	2.0	3-4 5-6		GREY/BROWN STAINED SILTY CLAY W/STRONG ODOR.
5				W				
	145		4-6	W	2.0	2-2 3-4		
			6-8	W	1.8	4-8 9-13		GREY/BROWN STAINED V. FINE SAND W/ODORS FROM LIGHTER PETROLEUM FRACTIONS.
10	145		8-10	W	2.0	6-9 3-7		
			10-12	W	2.0	6-8 7-4		
15								EOB @ 15.0'
20								

BORING



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2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 2

DATE STARTED : 4-8-90

DATE FINISHED : 4-8-90

BORING No. MW-6

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :

CASING :

SOIL SAMPLER :

SPLIT SPOON

CORE
BARREL

AUGER

MON. WELL (MW)

PIPE

CAP

DRILL RIG
AND METHOD

TYPE :

STD.

SIZE :

3" x 24"

HAMMER
WT / FALL

140/30"

BIT

MOBILE
B-61

HSA

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH
BELOW
GRADEOVA
READINGSTYPE
AND
No.SAMPLE
DEPTH
(FROM -
TO)MOISTURE
CONTENT

RECOVERY

BLOWS / 6"
OR
CORE TIMESTRATA
DEPTH /
ELEV.DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

0

510

0-2

M

1.2

3-10
4-15

518

2-4

M

2.0

8-3
5-5

5

560

4-6

W

2.0

4-6
5-3

495

6-8

W

2.0

2-2
1-4

10

80

8-10

W

2.0

3-2
1-1

15

38

13-15

W

2.0

11-6
6-4

20

24

18-20

W

2.0

14-18
10-20TAN V. FINE SILTY SAND
W/DK. GREY → BLACK PETRO
STAINING.RED/BROWN V. FINE SAND
W/TRACE SILT AND
GREY PETRO STAINING.

PROJECT NAME: PHASE 1 - BRICKLAND BORING No. MW-6

PROJECT No. 604-9

SHEET 2 of 2

[illegible]



85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, W. 53704

REPORT

SHEET 1 OF

BORING No. MW-7

PROJECT No : 1604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLER : T. DAVIS

DRILL RIG AND METHOD

PIPE	CAP
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

MOBILE
B-61

HSA

81T

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DESCRIPTION AND REMARKS
TRACE=0-10% LITTLE=10-20%
SOME=20-30% AND=35-50%

TAN V. FINE SAND (FILL)

BLACK STAINED CLAY
| STRONG ODDOR.

GREY STAINING SILTY CLAY

1.75

RED/BROWN SILTY BROWN
CLAY W/STRONG PETRO
ODOR.

2.0

2.0

EOB (14.0)

20

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, W. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 3-28-90

DATE FINISHED : 3-28-90

BORING No. MW-8

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" x 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0								FILL
	70		0-2	M	1.1			Dk Brown Clay.
			2-4	M	2.0			GRAY STAINED SILTY CLAY. GAS ODOR
5				W				
	150		4-6	W	2.0			
			6-8	W	2.0			
10								
	250		8-10	W	2.0			
15								
20								

EOB @ 14.0'

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-6-90

DATE FINISHED : 4-6-90

BORING No. MW-10

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" X 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT

FT. AFTER

HRS.

FT. AFTER

HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0				D				TAN V.FINE SAND
	0		0-2	M		4-6 11-14		AS ABOVE
				M				
	167		2-4	M		9-8 7-6		BLACK STAINED SILTY CLAY
5				W				
	431		4-6	W		3-4 3-3		
	310		6-8	W		3-5 7-12		RED/BROWN CLAY (STIFF) W/PRODUCT.
10	366		8-10	W		6-6 12-15		
								RED/BROWN V.FINE SAND W/TRACE SILT + PRODUCT.
				M				RED/BROWN DENSE CLAY.
15	83		13-15	W		2-6 7-9		
								RED/BROWN V.FINE SAND W/TRACE PRODUCT
20			18-20	W				

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 1

DATE STARTED : 4-5-90

DATE FINISHED : 4-5-90

BORING No. MW-11

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. AICHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" x 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

SURFACE CONDITIONS :

WATER LEVEL AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY			
0				D				TAN V. FINE SAND (FILL)
	0		0-2	M	1.5	3-11 11-12		
	376		2-4	M	1.0	17-21 17-10		RED/BROWN SANDY SILT W/GREY STAINING.
5								
	416		4-6	M	1.5	1-3 4-3		
	435		6-8	M	1.5	5-2 2-2		RED/BROWN SILTY CLAY W/PETROLEUM PRODUCT.
10	464		8-10	M	2.0	3-2 4-3		RED/BROWN SILTY V. FINE SAND
								RED/BROWN V. FINE SAND W/PEBBLE FRAGMENTS.
15	52		13-15	W	2.0	3-3 5-5		
20	0		18-20	W	2.0	17-18 17-18		

BORING



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85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560
2317 INTERNATIONAL LANE MADISON, WI. 53704

REPORT

SHEET 1 OF 2

DATE STARTED : 4-11-90

DATE FINISHED : 4-11-90

BORING No. MW-12

CLIENT : REXENE

PROJECT No : 604-9

PROJECT NAME & LOCATION : PHASE 1 INVESTIGATION - SUNLAND PARK, NEW MEXICO

REMARKS:

DRILLING CONTRACTOR : I.T.

LOGGED BY: K. McHALE

DRILLER : T. DAVIS

EQUIPMENT :	CASING :	SOIL SAMPLER :		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD
		SPLIT SPOON				PIPE	CAP	
TYPE :		STD.						MOBILE B-61 HSA
SIZE :		3" x 24"						
HAMMER WT / FALL		140/30"		BIT				

SURFACE ELEVATION :

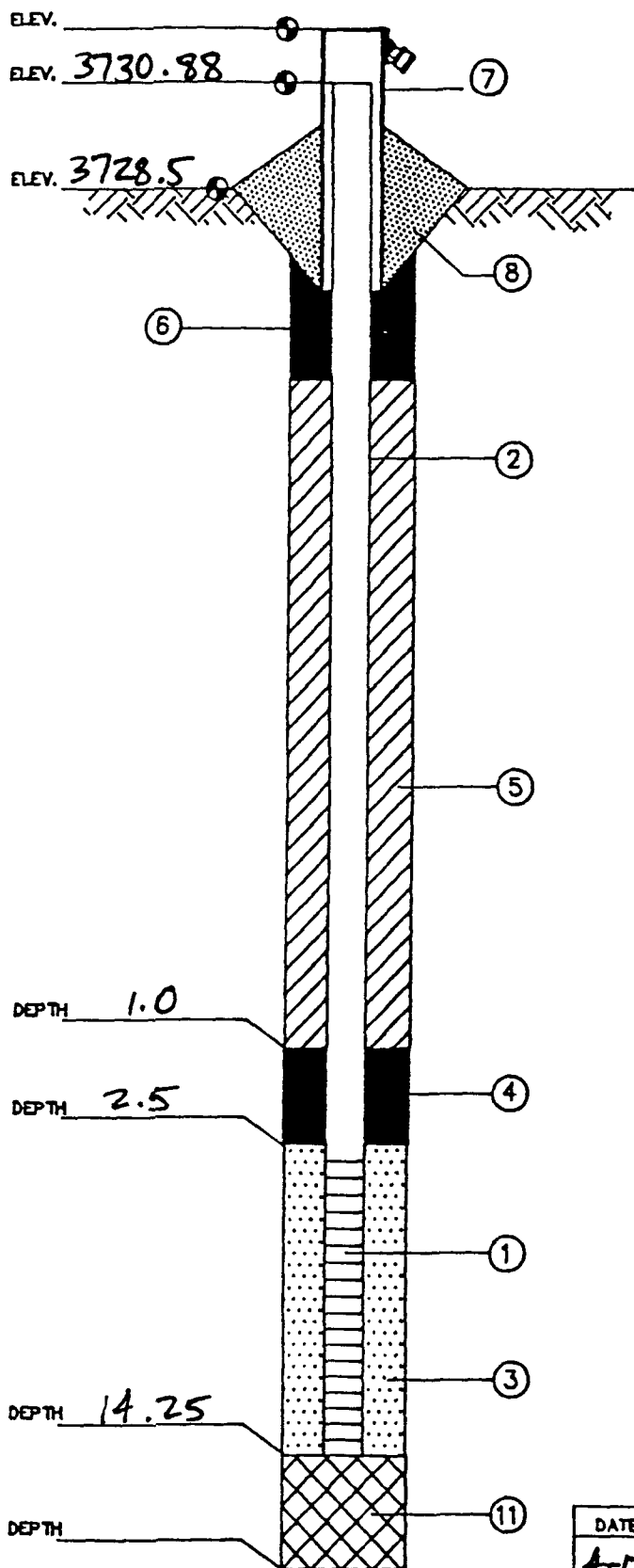
SURFACE CONDITIONS :

WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.	
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%	
		TYPE AND No.	DEPTH (FROM - TO)	MOISTURE CONTENT	RECOVERY				
0								RED/BROWN SILTY CLAY.	
	0		0-2	M	1.5	4-1 4-6			
5	0		2-4	M	2.0	3-2 3-3			
	0		4-6	W	2.0	2-2 4-6		RED/BROWN CLAY (STIFF)	
			6-8					RED BROWN SILTY CLAY	
								RED/BROWN CLAY (STIFF)	
10	0		8-10	W	2.0	5-1 4-7			
								RED/BROWN V. FINE SAND	
15	0		13-15	W	2.0	15-14 15-17			
								MED SAND AND GRAVEL	
20	0		18-20	W	2.0	7-10 17-16			

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION



JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO
DATE 4-10-90 WELL No. MW-1
HYDROGEOLOGIST KEVIN McHALE
DRILLING CONTRACTOR I.T.

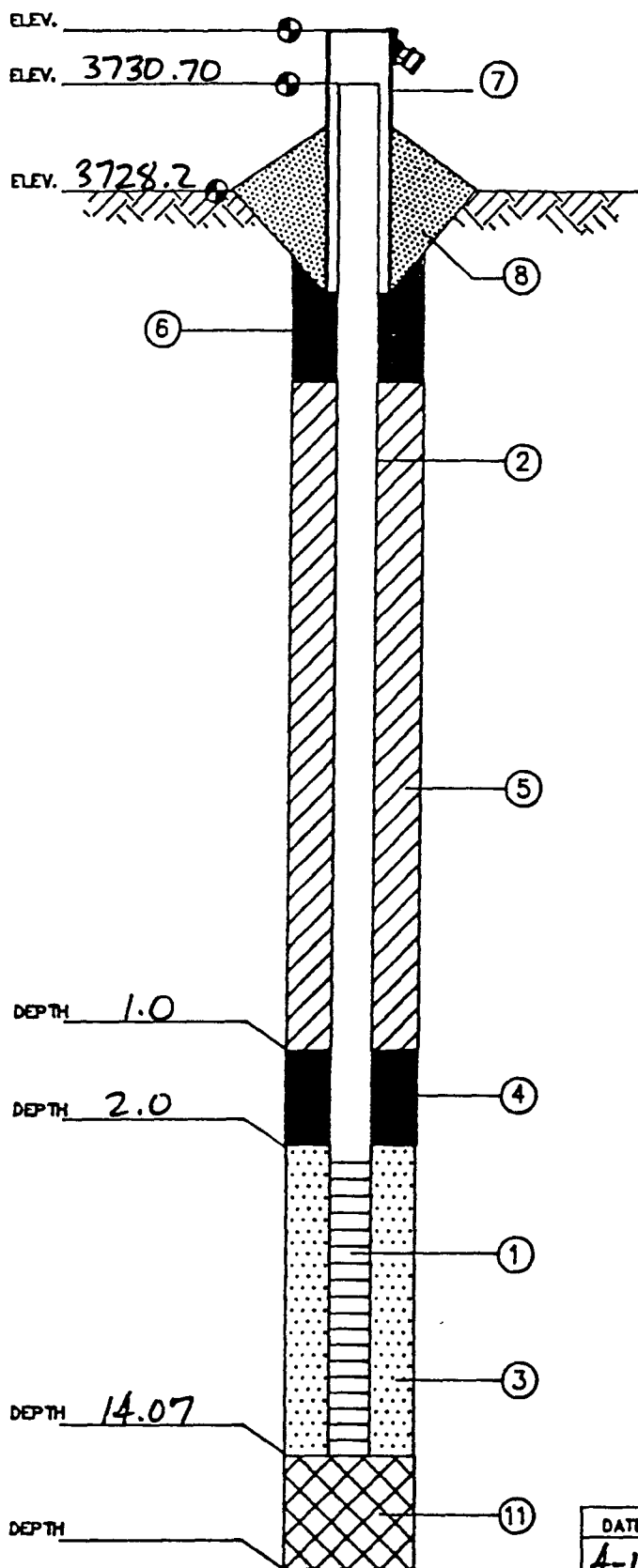
- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 6.25 ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED ☐ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN #10 LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS
- 5.) TYPE OF BACKFILL NONE
HOW INSTALLED _____
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE
- 7.) PROTECTIVE CASING - YES ☒ NO ☐
LOCKING CAP YES ☒ NO ☐
- 8.) CONCRETE SEAL - YES ☒ NO ☐
- 9.) DRILLING METHOD HOLLOW STEM AUGER
- 10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.
- 11.) TYPE OF BACKFILL NONE.

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-12	1040	5.97	
4-13	1206	5.69	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 4-9-90 WELL No. MW-35

HYDROGEOLOGIST KEVIN MCHALE

DRILLING CONTRACTOR I. T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 6.5' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED ☐ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN #10 LONESTAR SAND

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS

5.) TYPE OF BACKFILL NONE

HOW INSTALLED

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO ☐

LOCKING CAP YES ☒ NO ☐

8.) CONCRETE SEAL - YES ☒ NO ☐

9.) DRILLING METHOD HOLLOW STEM AUGER

10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.

11.) TYPE OF BACKFILL

WATER LEVEL CHECKS *

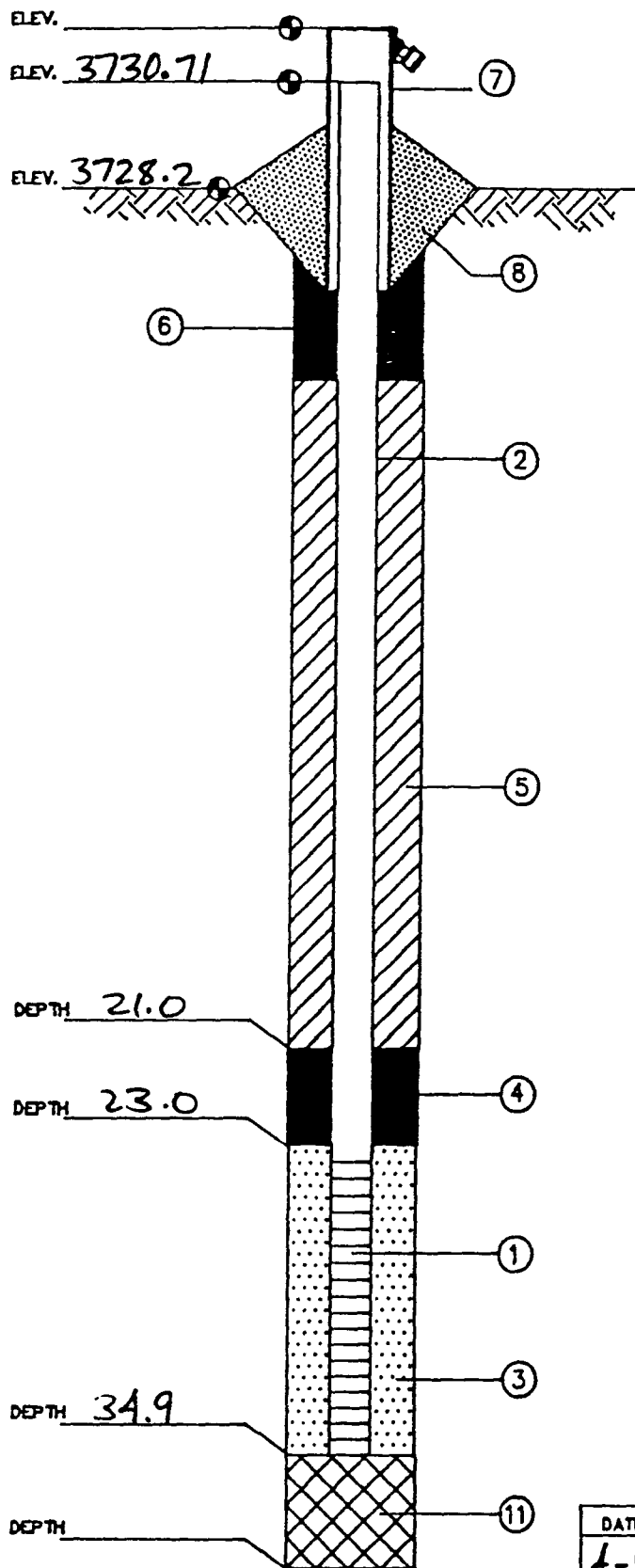
DATE	TIME	DEPTH TO WATER	REMARKS
4-11	2235	6.34	
4-13	1213	6.20	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION



JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO
DATE 4-9-90 WELL No. MW-3D
HYDROGEOLOGIST KEVIN McHALE
DRILLING CONTRACTOR I.T.

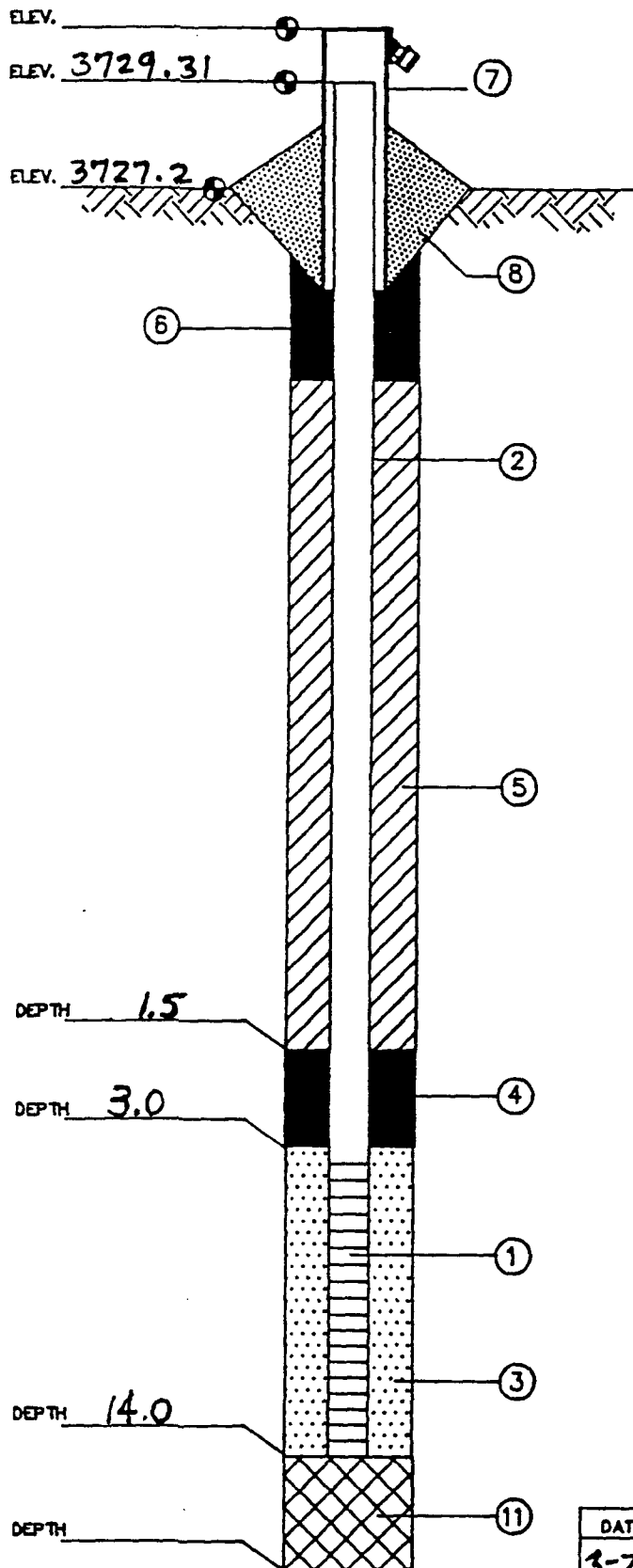
- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 27.5 ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED ☐ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN #10 LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS
- 5.) TYPE OF BACKFILL BENTONITE GROUT
HOW INSTALLED TREMIE PIPE
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE
- 7.) PROTECTIVE CASING - YES ☒ NO ☐
LOCKING CAP YES ☒ NO ☐
- 8.) CONCRETE SEAL - YES ☒ NO ☐
- 9.) DRILLING METHOD HOLLOW STEM AUGER
- 10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS
- 11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-11	2125	6.79	
4-13	1215	6.31	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.

MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 3-28-90 WELL No. MW-4

HYDROGEOLOGIST KEVIN McHALE

DRILLING CONTRACTOR I.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 8 ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED _____ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN _____

#1-C LOWESTAR SAND

4.) TYPE OF LOWER SEAL (IF INSTALLED)

BENTONITE PELLETS

5.) TYPE OF BACKFILL NONE

HOW INSTALLED _____

6.) TYPE OF SURFACE SEAL (IF INSTALLED)

NONE

7.) PROTECTIVE CASING - YES ☒ NO _____

LOCKING CAP YES ☒ NO _____

8.) CONCRETE SEAL - YES ☒ NO _____

9.) DRILLING METHOD HOLLOW STEM AUGER

10.) ADDITIVES USED (IF ANY) POTABLE WATER

TO PREVENT SAND HEAVING INTO AUGERS.

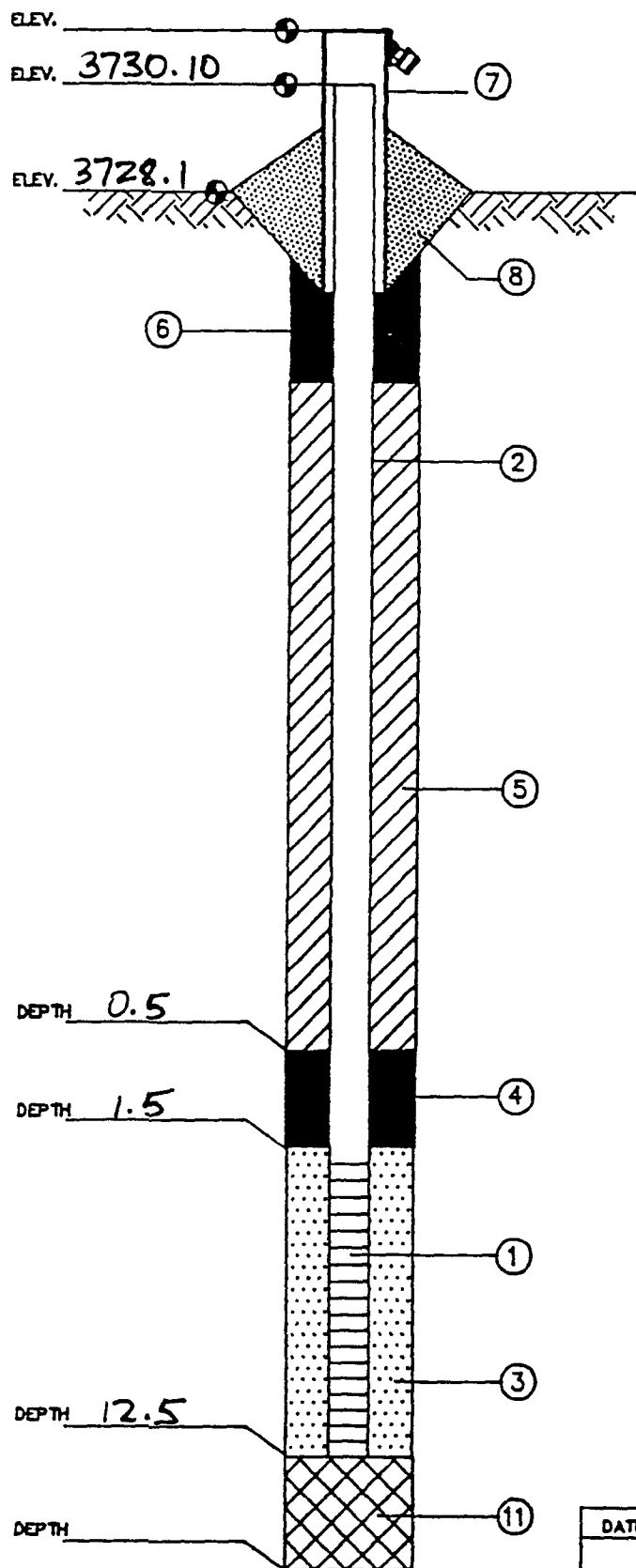
11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
3-27	1800	3.0'	INSIDE H.S.A.
4-12	1700	5.04'	T.O.C.
4-13	1038	4.87	T.O.C.

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.c.
MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 3-29-90 WELL No. MW-5

HYDROGEOLOGIST KEVIN McHALE

DRILLING CONTRACTOR I.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 5.0' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN #10- LONESTAR SAND.

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS.

5.) TYPE OF BACKFILL NONE

HOW INSTALLED

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO

LOCKING CAP YES ☒ NO

8.) CONCRETE SEAL - YES ☒ NO

9.) DRILLING METHOD HOLLOW STEM AUGERS

10.) ADDITIVES USED (IF ANY) POTABLE WATER

TO PREVENT SAND HEAVING INTO AUGERS

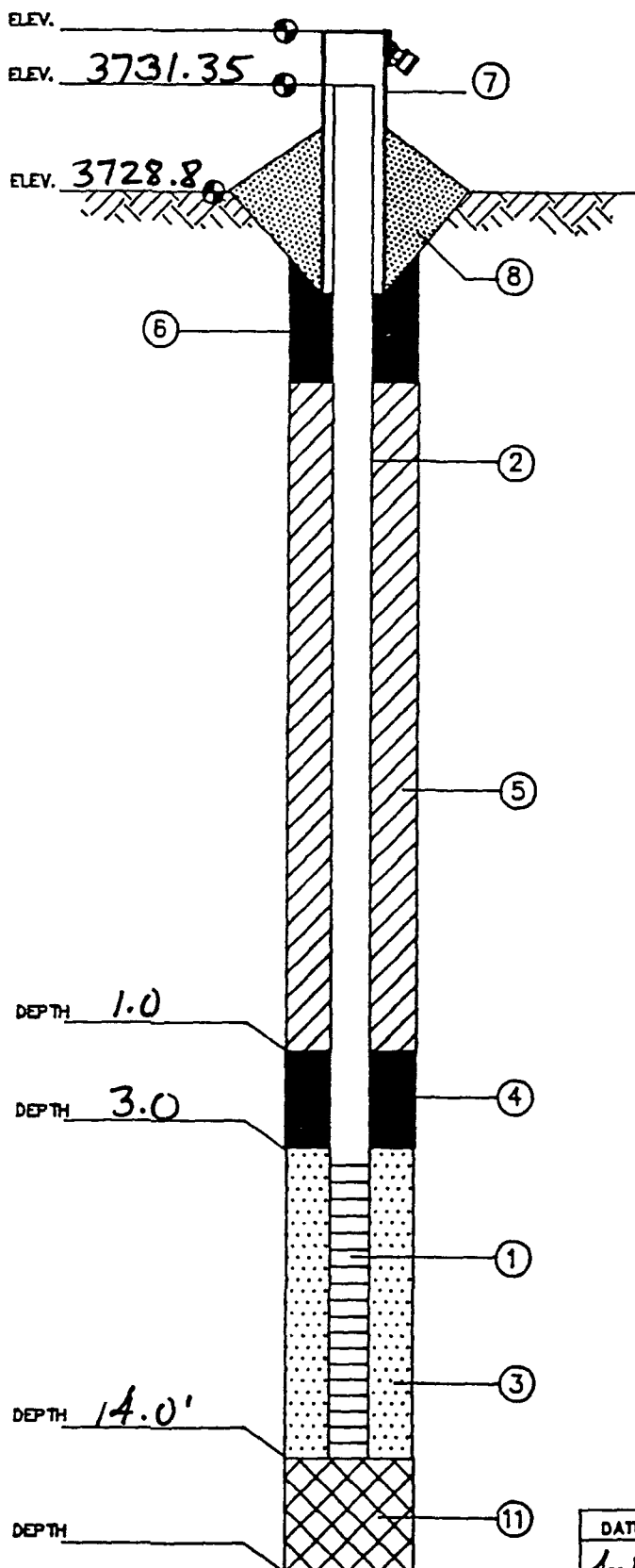
11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 4-8-90 WELL No. MW-65

HYDROGEOLOGIST KEVIN McHALE

DRILLING CONTRACTOR I.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 7.0' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED ☐ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN #10-Longest Star Sand.

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS.

5.) TYPE OF BACKFILL NONE

HOW INSTALLED

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO ☐

LOCKING CAP YES ☒ NO ☐

8.) CONCRETE SEAL - YES ☒ NO ☐

9.) DRILLING METHOD HOLLOW STEM AUGER.

10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.

11.) TYPE OF BACKFILL

WATER LEVEL CHECKS *

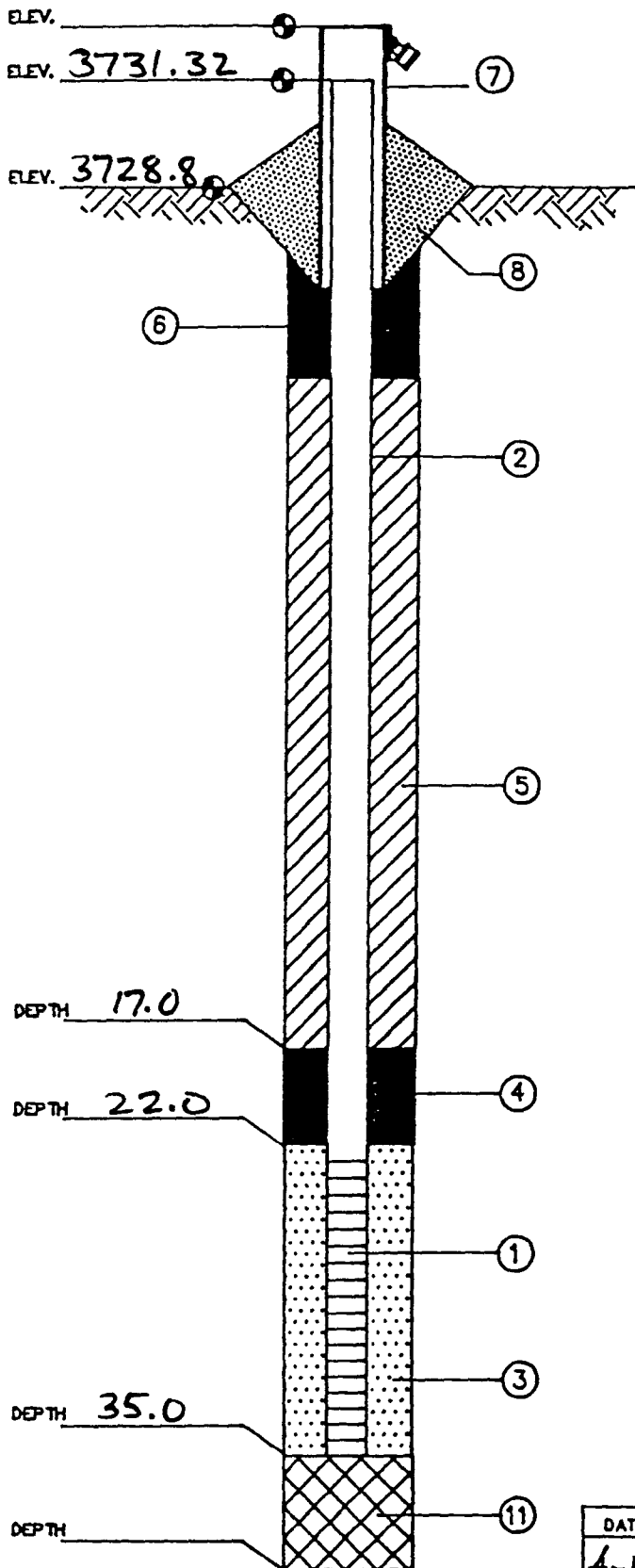
DATE	TIME	DEPTH TO WATER	REMARKS
4-11	1545	7.28	
4-13	1227	7.21	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c.

MONITORING WELL CONSTRUCTION INFORMATION



JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO.
DATE 4-8-90 WELL No. MW-60
HYDROGEOLOGIST KEVIN MCHALE
DRILLING CONTRACTOR I. T.

- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 28 ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED ☐ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN #10- LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS
- 5.) TYPE OF BACKFILL BENTONITE GROUT
HOW INSTALLED TREMIE PIPE
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE
- 7.) PROTECTIVE CASING - YES ☒ NO ☐
LOCKING CAP YES ☒ NO ☐
- 8.) CONCRETE SEAL - YES ☒ NO ☐
- 9.) DRILLING METHOD HOLLOW STEM AUGERS

10.) ADDITIVES USED (IF ANY) POTABLE WATER
TO PREVENT SAND HEAVING INTO AUGERS.

11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

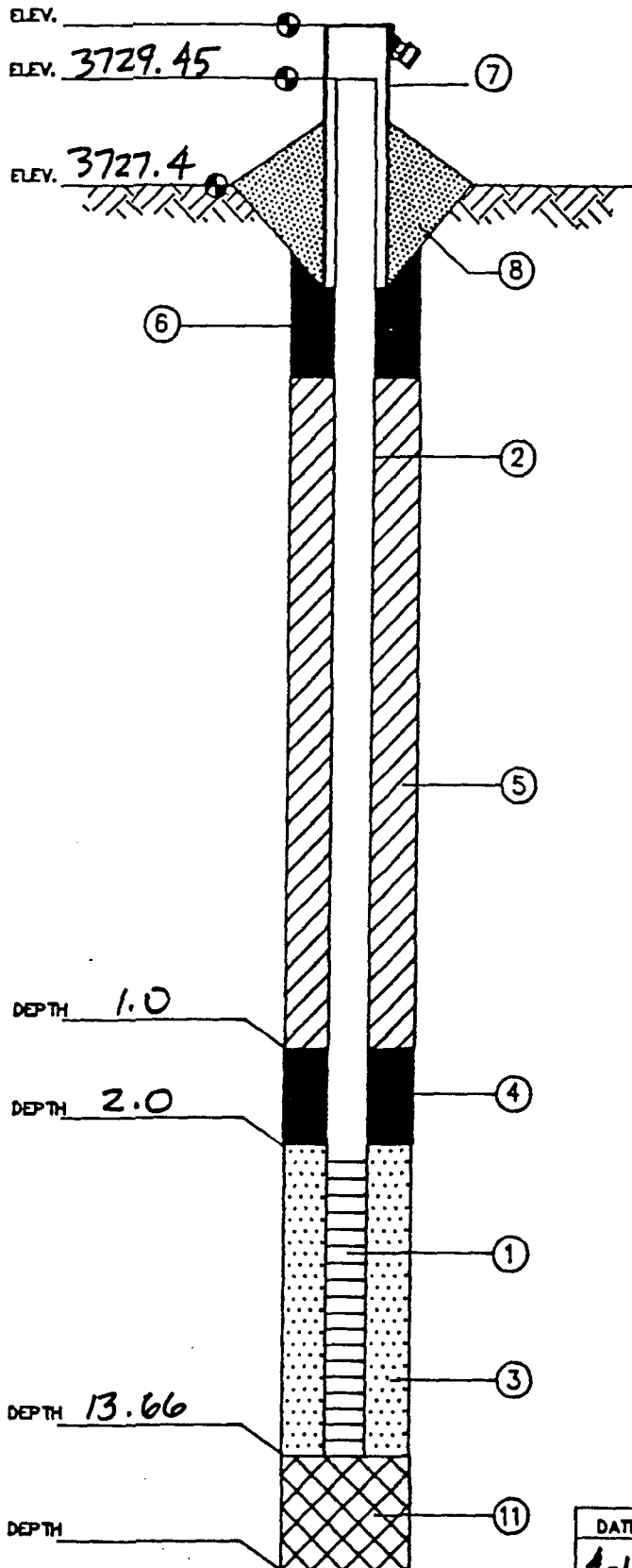
DATE	TIME	DEPTH TO WATER	REMARKS
4-11	1515	7.24	
4-13	1229	7.21	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION



- JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO.
DATE 3-28-90 WELL No. MW-7
HYDROGEOLOGIST KEVIN MCHALE
DRILLING CONTRACTOR I.T.
- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 5.5 ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED ☐ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN #10 LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS
- 5.) TYPE OF BACKFILL NONE
HOW INSTALLED _____
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE
- 7.) PROTECTIVE CASING - YES ☒ NO ☐
LOCKING CAP YES ☒ NO ☐
- 8.) CONCRETE SEAL - YES ☒ NO ☐
- 9.) DRILLING METHOD HOLLOW STEM AUGER
- 10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.
- 11.) TYPE OF BACKFILL NONE.

WATER LEVEL CHECKS *

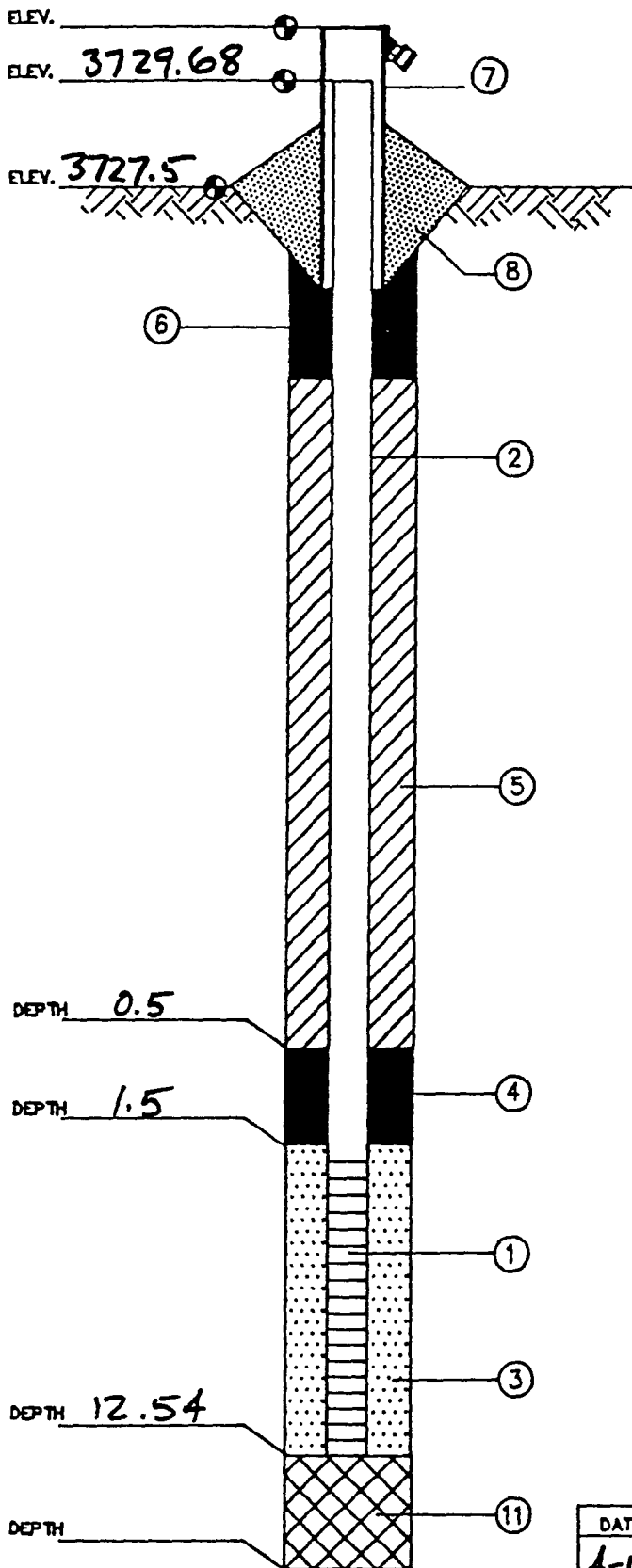
DATE	TIME	DEPTH TO WATER	REMARKS
4-11	1255	5.29	
4-13	1042	5.18	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c

MONITORING WELL CONSTRUCTION INFORMATION



JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO.
DATE 3-29-90 WELL No. MW-8
HYDROGEOLOGIST KEVIN McHALE
DRILLING CONTRACTOR I.T.

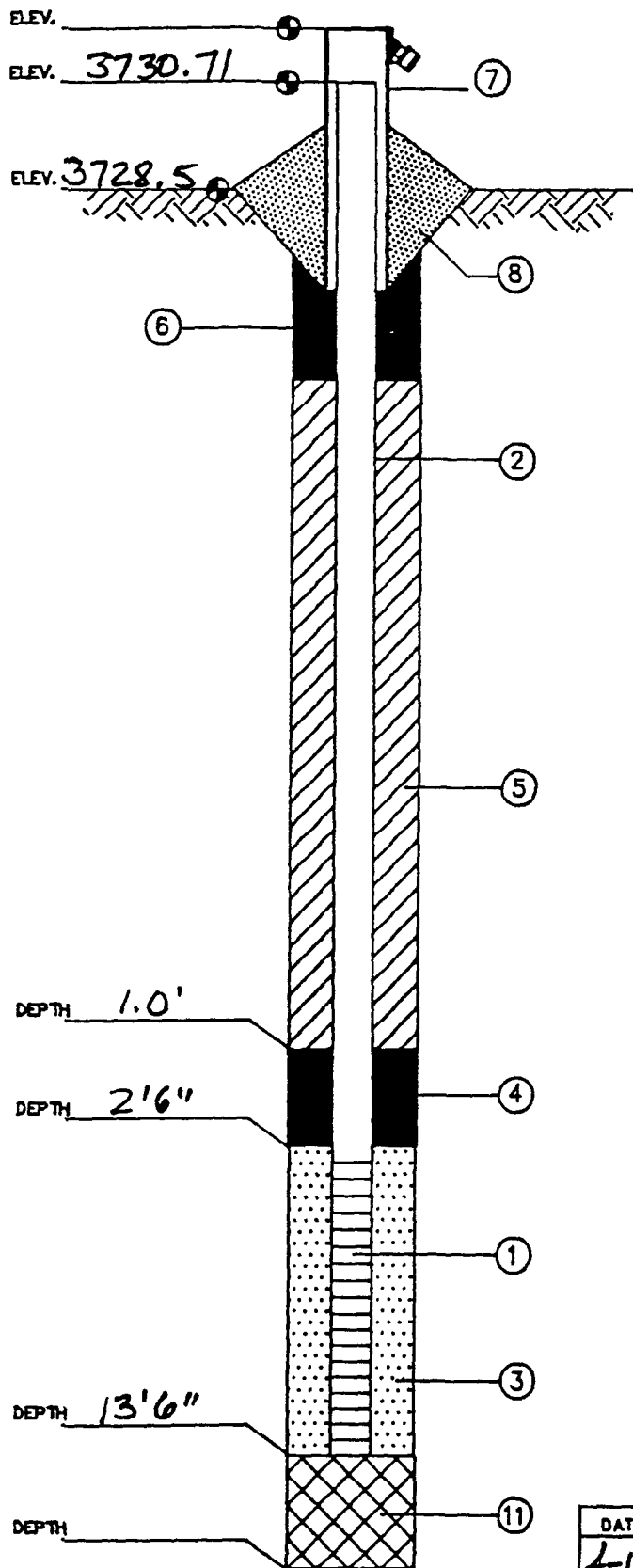
- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 5.0' ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED ☐ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN #10 LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS
- 5.) TYPE OF BACKFILL NONE
HOW INSTALLED _____
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE
- 7.) PROTECTIVE CASING - YES ☒ NO ☐
LOCKING CAP YES ☒ NO ☐
- 8.) CONCRETE SEAL - YES ☒ NO ☐
- 9.) DRILLING METHOD HOLLOW STEM AUGER
- 10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS
- 11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-11	1330	5.35	
4-13	1045	5.36	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.
MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 4-8-90 WELL No. MW-95

HYDROGEOLOGIST KEVIN McHALE

DRILLING CONTRACTOR I.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 5.5' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED ☐ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN #10- LONESTAR SAND.

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS

5.) TYPE OF BACKFILL NONE

HOW INSTALLED

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO ☐

LOCKING CAP YES ☒ NO ☐

8.) CONCRETE SEAL - YES ☒ NO ☐

9.) DRILLING METHOD HOLLOW STEM AUGER

10.) ADDITIVES USED (IF ANY) POTABLE WATER

TO PREVENT SAND HEAVING INTO AUGERS.

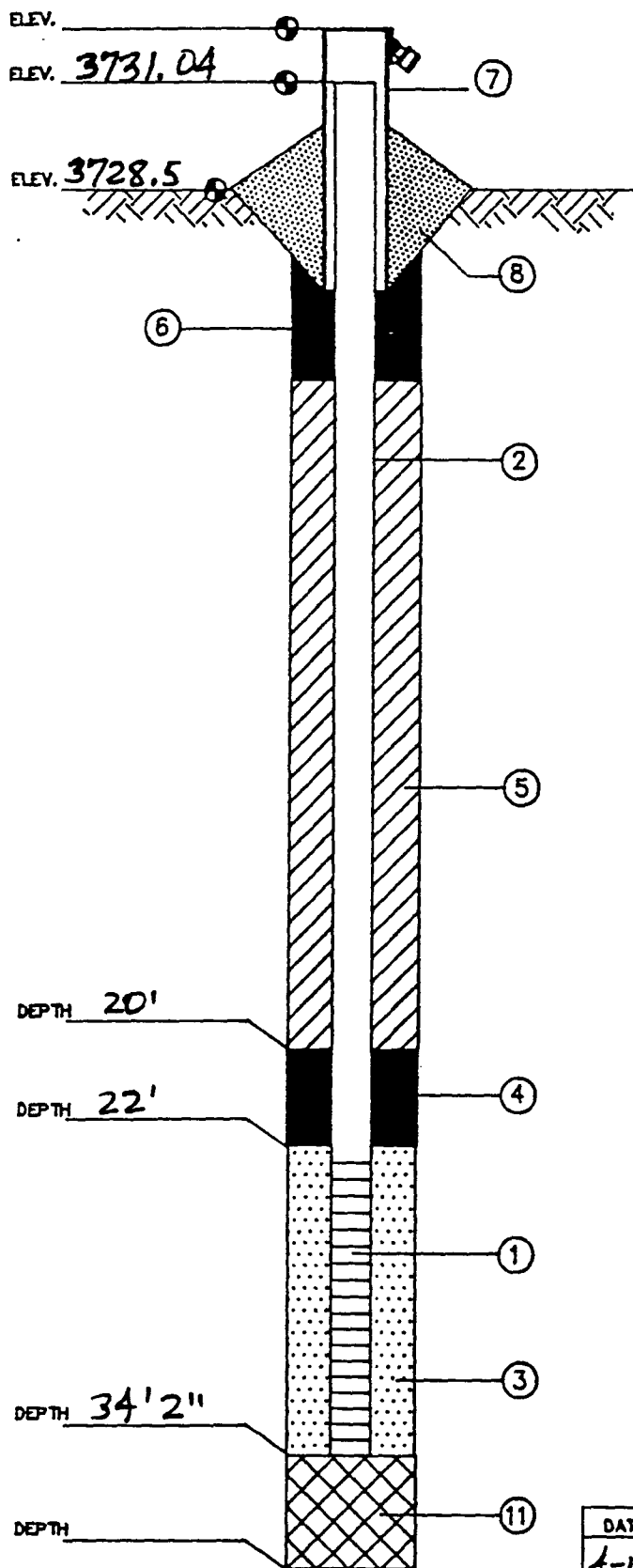
11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-12	0945	6.96	
4-13	1237	6.89	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.

MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO

DATE 4-6-90 WELL No. MW-9D

HYDROGEOLOGIST KEVIN MCHALE

DRILLING CONTRACTOR J.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 28.0' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED ☐ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN #1C-LONESTAR SAND.

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS

5.) TYPE OF BACKFILL BENTONITE GRNT.

HOW INSTALLED TREMIE PIPE.

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO ☐

LOCKING CAP YES ☒ NO ☐

8.) CONCRETE SEAL - YES ☒ NO ☐

9.) DRILLING METHOD HOLLOW STEM AUGER.

10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.

11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-12	0930	7.30	
4-13	1238	7.29	

* FROM TOP OF WELL CASING

MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9. CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO
DATE 4-6-90 WELL No. MW-10
HYDROGEOLOGIST KEVIN McHALE
DRILLING CONTRACTOR I.T.

- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 9.0 ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED _____ THREADED ☒
- 3.) TYPE OF BACKFILL AROUND SCREEN _____
#1 C LONESTAR SAND
- 4.) TYPE OF LOWER SEAL (IF INSTALLED)
BENTONITE PELLETS
- 5.) TYPE OF BACKFILL NONE
HOW INSTALLED _____
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED)
NONE
- 7.) PROTECTIVE CASING - YES ☒ NO _____
LOCKING CAP YES ☒ NO _____
- 8.) CONCRETE SEAL - YES ☒ NO _____
- 9.) DRILLING METHOD HOLLOW STEM AUGERS
- 0.) ADDITIVES USED (IF ANY) POTABLE WATER
TO PREVENT SAND HEAVING INTO AUGERS
- 1.) TYPE OF BACKFILL _____

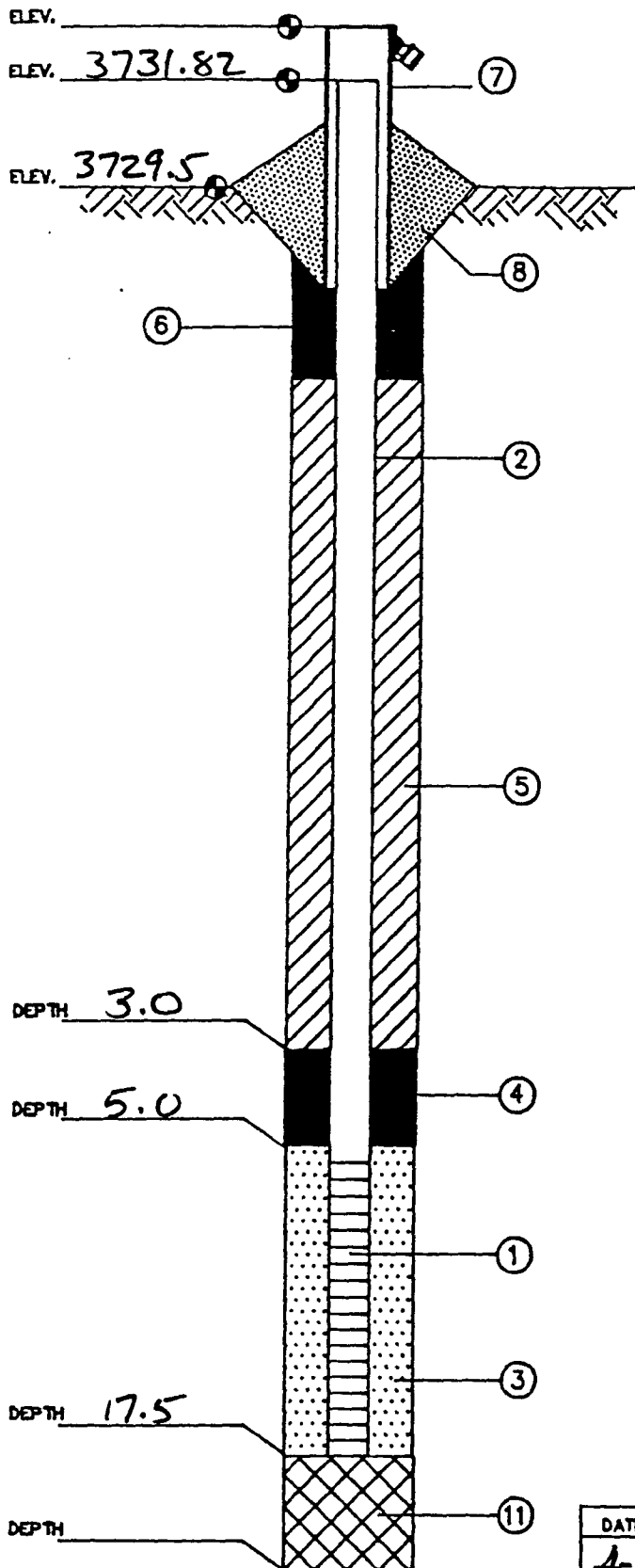
DATE	TIME	DEPTH TO WATER	REMARKS
4-11	2130	9.19	Floating black prod-
4-13	1058	8.99	uct found in borehole.

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE

eder associates consulting engineers, p.c.

MONITORING WELL CONSTRUCTION INFORMATION



JOB No. 604-9 CLIENT REXENE
LOCATION SUNLAND PARK, NEW MEXICO
DATE 4-5-90 WELL No. MW-11
HYDROGEOLOGIST KEVIN McHALE
DRILLING CONTRACTOR I. T.

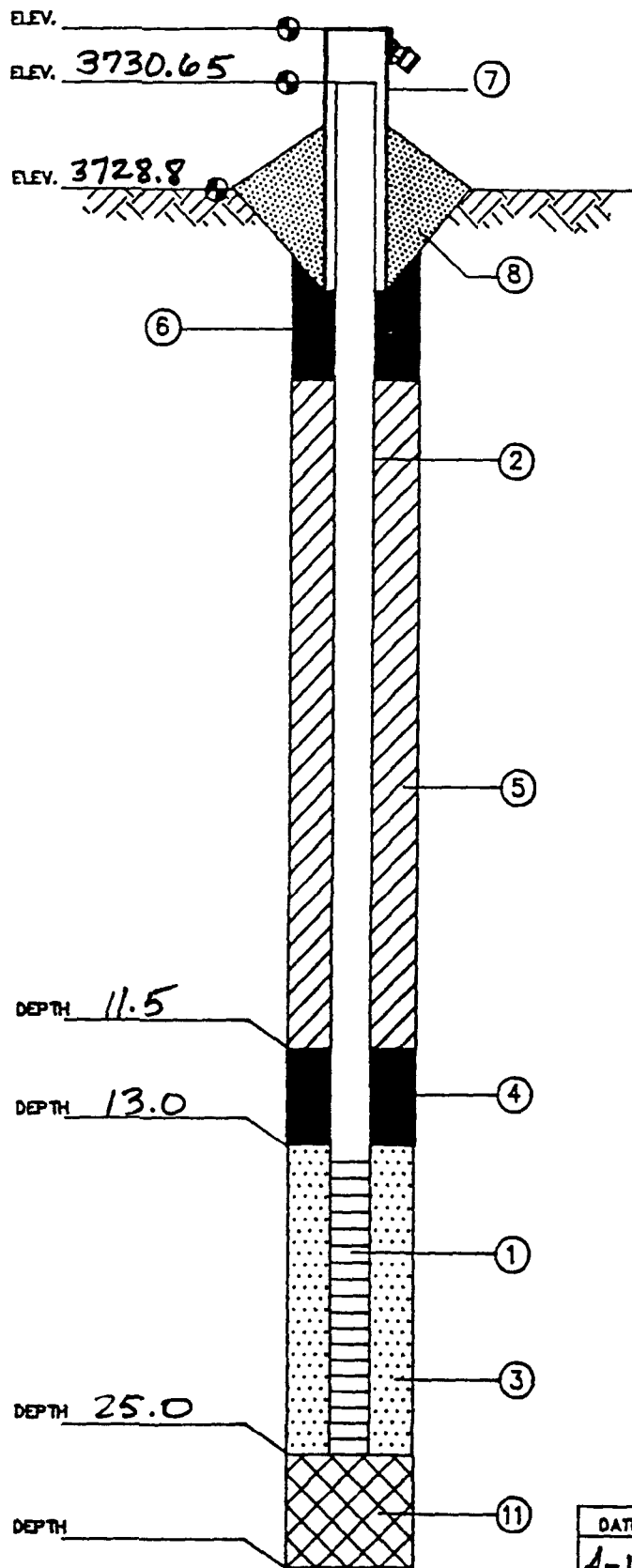
- 1.) SCREEN TYPE PVC
SLOTTED LENGTH 10.0' ft.
SLOT SIZE 0.010 in.
- 2.) SOLID PIPE TYPE PVC
SOLID PIPE LENGTH 10.0' ft.
PIPE & SCREEN DIA. 4.0" in.
JOINT TYPE - SLIP/GLUED THREADED ✓
- 3.) TYPE OF BACKFILL AROUND SCREEN
1C LOWESTAR SAND.
- 4.) TYPE OF LOWER SEAL (IF INSTALLED)
BENTONITE PELLETS
- 5.) TYPE OF BACKFILL NONE
HOW INSTALLED
- 6.) TYPE OF SURFACE SEAL (IF INSTALLED)
NONE
- 7.) PROTECTIVE CASING - YES ✓ NO
LOCKING CAP YES ✓ NO
- 8.) CONCRETE SEAL - YES ✓ NO
- 9.) DRILLING METHOD HOLLOW STEM AUGERS
- 10.) ADDITIVES USED (IF ANY) POTABLE WATER
TO PREVENT SAND HEAVING INTO AUGERS.
- 11.) TYPE OF BACKFILL NONE.

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-11	2110	7.63	
4-13	1049	7.94	

* FROM TOP OF WELL CASING

ALL DEPTHS MEASURED
FROM GROUND SURFACE



eder associates consulting engineers, p.c.
MONITORING WELL CONSTRUCTION INFORMATION

JOB No. 604-9 CLIENT REXENE

LOCATION SUNLAND PARK, NEW MEXICO.

DATE 4-10-90 WELL No. MW-12

HYDROGEOLOGIST KEVIN MCMALE

DRILLING CONTRACTOR I.T.

1.) SCREEN TYPE PVC

SLOTTED LENGTH 10.0' ft.

SLOT SIZE 0.010 in.

2.) SOLID PIPE TYPE PVC

SOLID PIPE LENGTH 18.0' ft.

PIPE & SCREEN DIA. 4.0" in.

JOINT TYPE - SLIP/GLUED ☐ THREADED ☒

3.) TYPE OF BACKFILL AROUND SCREEN # 10- LONESTAR SAND

4.) TYPE OF LOWER SEAL (IF INSTALLED) BENTONITE PELLETS

5.) TYPE OF BACKFILL BENTONITE GROUT.

HOW INSTALLED TREMIE PIPE.

6.) TYPE OF SURFACE SEAL (IF INSTALLED) NONE

7.) PROTECTIVE CASING - YES ☒ NO ☐

LOCKING CAP YES ☒ NO ☐

8.) CONCRETE SEAL - YES ☒ NO ☐

9.) DRILLING METHOD HOLLOW STEM AUGER

10.) ADDITIVES USED (IF ANY) POTABLE WATER TO PREVENT SAND HEAVING INTO AUGERS.

11.) TYPE OF BACKFILL NONE

WATER LEVEL CHECKS *

DATE	TIME	DEPTH TO WATER	REMARKS
4-11	1645	7.12	15 min. after well was developed.
4-13	1202	5.04	True static level.

* FROM TOP OF WELL CASING

APPENDIX F
SITE PHOTOS



PHOTO #1

TAR INTERMIXED WITH SOIL

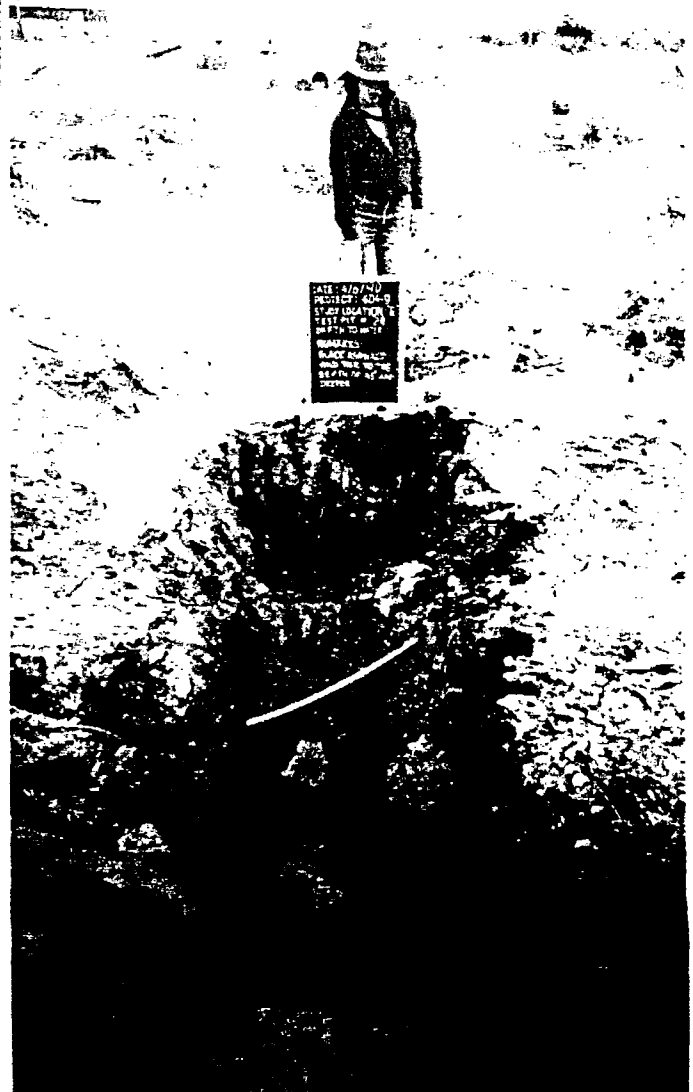


PHOTO #2

TAR



PHOTO #3

ASPHALT-LIKE MATERIAL



PHOTO #4

ASPHALT-LIKE MATERIAL



PHOTO #5

ASPHALT-LIKE MATERIAL



PHOTO #6

ASPHALT-LIKE MATERIAL



PHOTO #7

FILL MATERIAL, CONTAINING
OLD PIPES, WOOD AND BRICKS
INTERMIXED WITH SOIL



PHOTO #8

FILL MATERIAL, CONTAINING
BRICKS AND CONCRETE
STRUCTURES INTERMIXED WITH
SOIL



PHOTO #9

FILL MATERIAL, CONTAINING
TAILINGS AND PIECES OF OLD
RUBBER

PHOTO #10

FILL MATERIAL, CONTAINING
OLD TIRES, WOOD, CANS AND
CLOTHS INTERMIXED WITH
SOIL AND ASPHALT-LIKE
MATERIAL





PHOTO #11

CLEAN/BACKGROUND SOIL

PHOTO #12

CLEAN/BACKGROUND SOIL





PHOTO #13

CLEAN/BACKGROUND SOIL



PHOTO #14

CLEAN/BACKGROUND SOIL

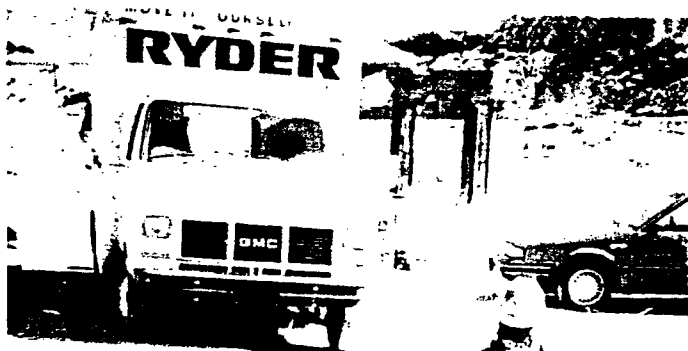


PHOTO #15

EXCAVATION OF 3" DIAMETER
STEEL PROCESS PIPING



PHOTO #16

EXCAVATION OF 1.5-2" DIAMETER
STEEL PROCESS PIPING



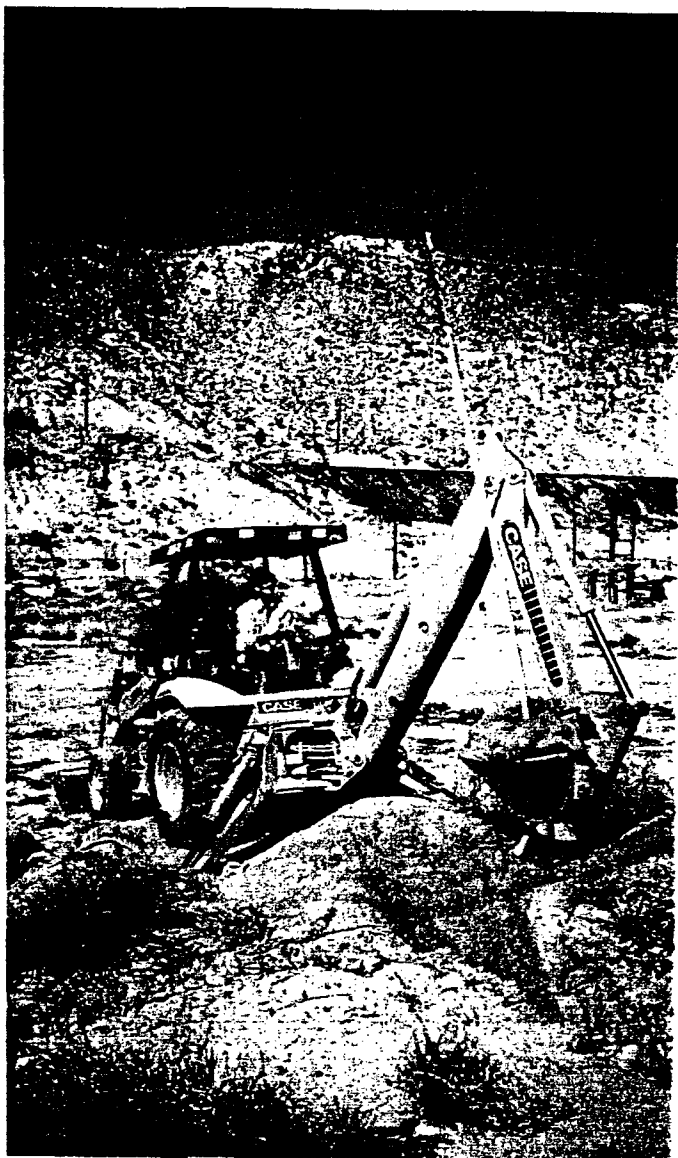


PHOTO #17

EXCAVATION OF 1.5-2"
DIAMETER PVC WATER PIPING



PHOTO #18

EXCAVATION OF 4" DIAMETER
STEEL PIPING



PHOTO #19

FLOATING PRODUCT



PHOTO #20

FLOATING PRODUCT



PHOTO #21

FLOATING PRODUCT

PHOTO #22

FLOATING PRODUCT

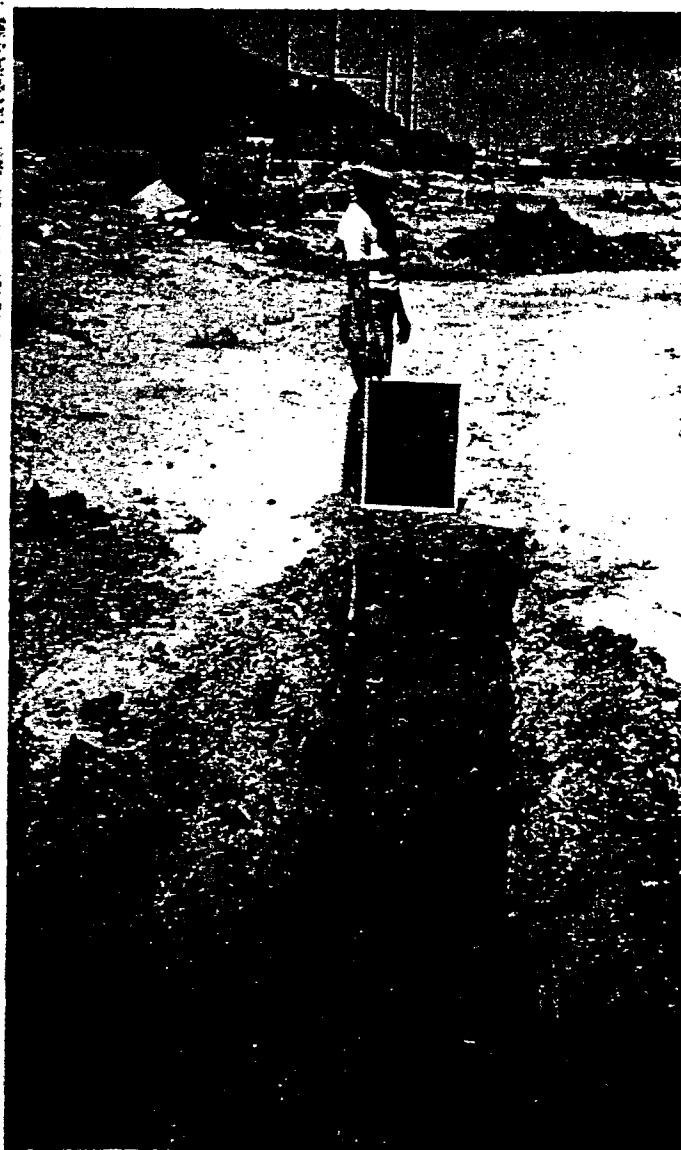




PHOTO #23

VISIBLE SHEEN



PHOTO #24

VISIBLE SHEEN

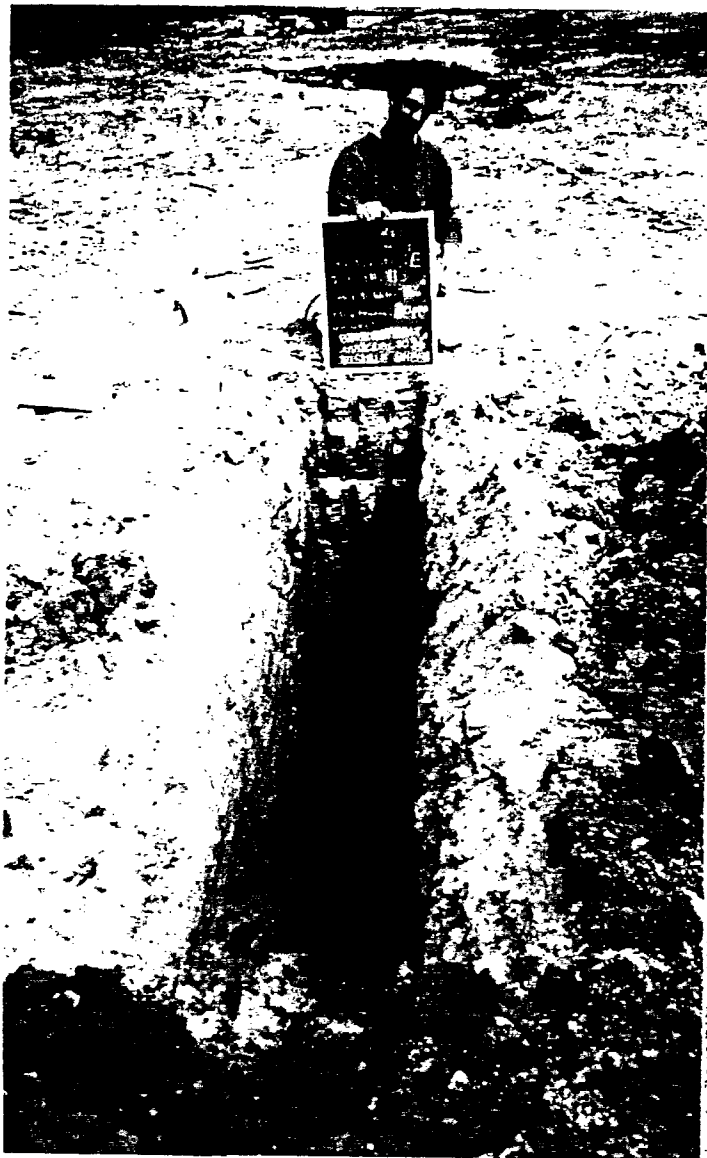


PHOTO #25

VISIBLE SHEEN



PHOTO #26

VISIBLE SHEEN



PHOTO #27

CLEAN/BACKGROUND WATER

PHOTO #28

CLEAN/BACKGROUND WATER

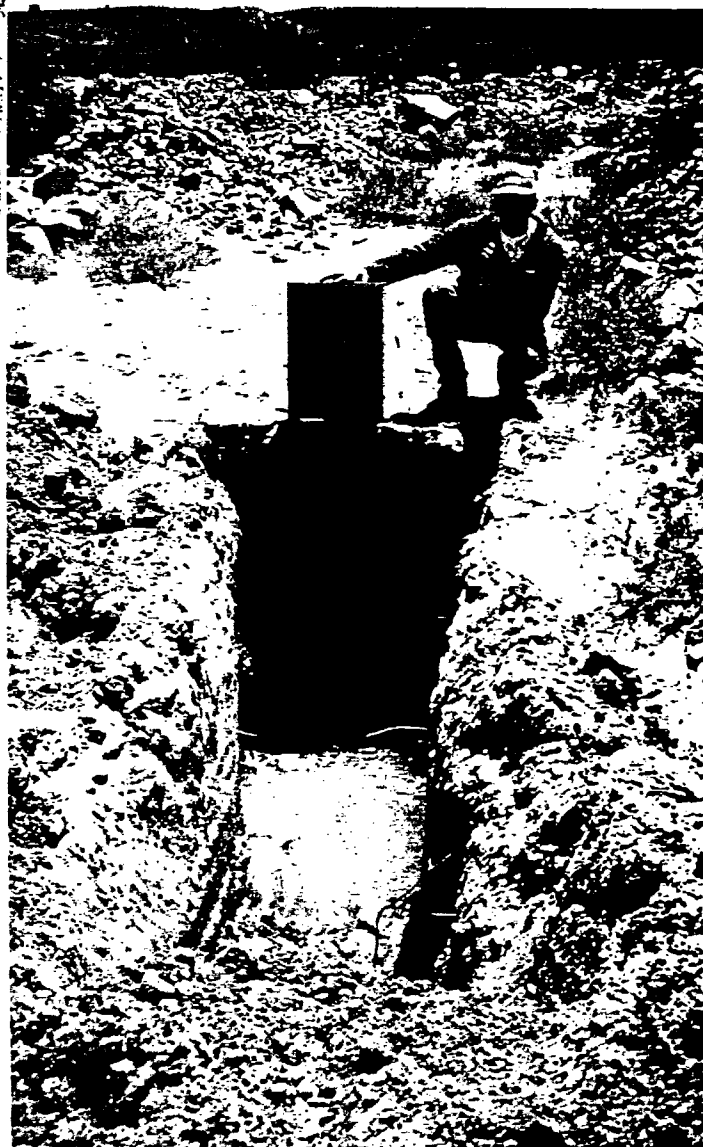




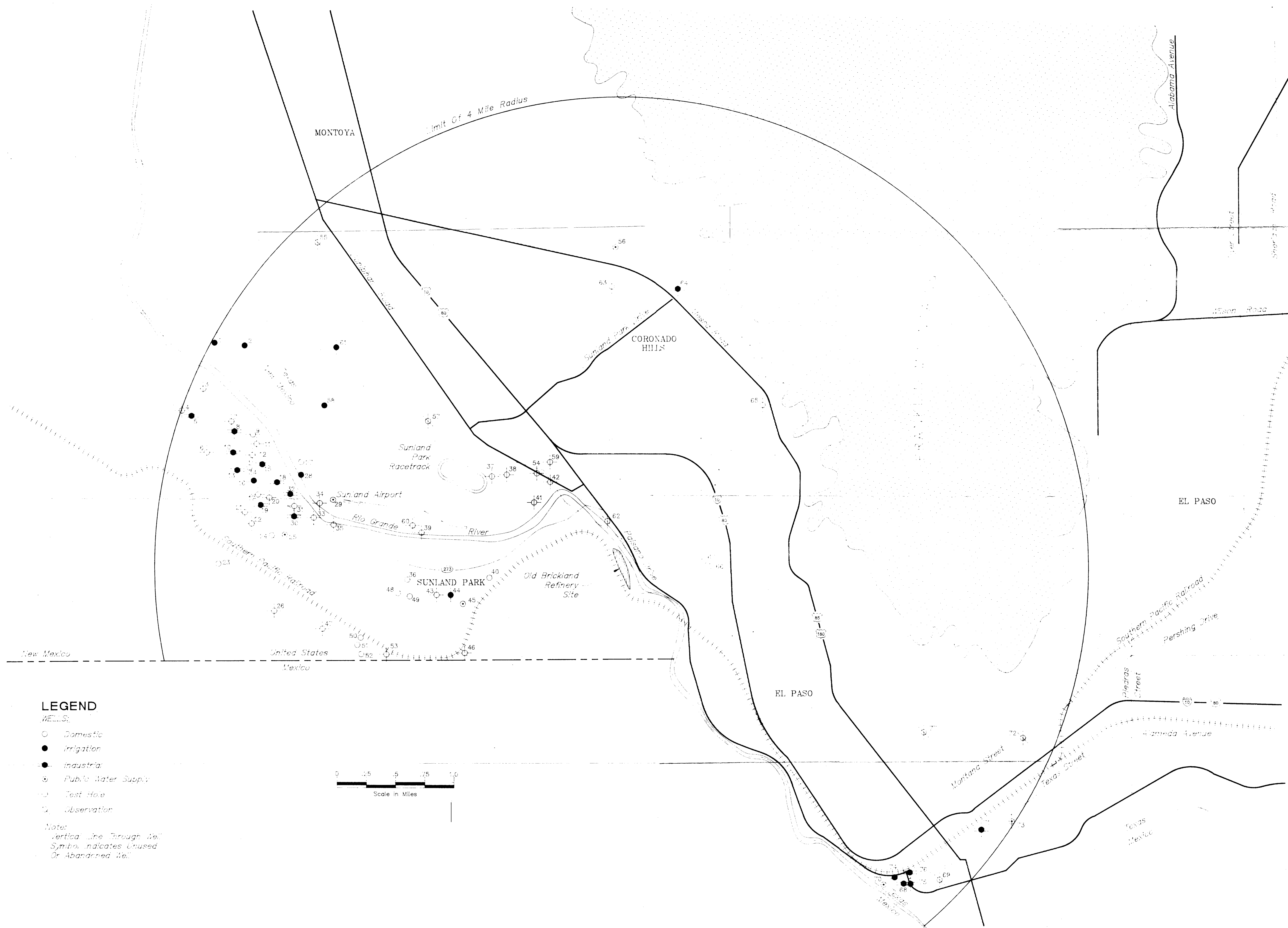
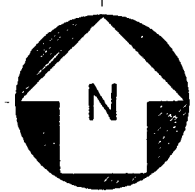
PHOTO #29

CLEAN/BACKGROUND WATER

PHOTO #30

CLEAN/BACKGROUND WATER



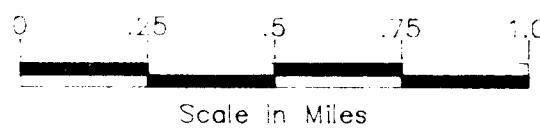


LEGEND

WELLS:

- Domestic
- Irrigation
- Industrial
- ⊙ Public Water Supply
- Test Hole
- Observation

Note:
Vertical Line Through Well
Symbol Indicates Unused
Or Abandoned Well



 eder associates, consulting engineers p. c. 85 FOREST AVENUE LOUST VALLEY, N.Y. 11560 8000 EXCELSIOR DRIVE MADISON, MI 53717	DATE: JULY, 1990	DRAWN BY: MJD
	DWG: 604-90	APPROVED BY: MJM
TITLE: LOCATION OF WELLS IN 4 MILE RADIUS	PROJECT: OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO	1

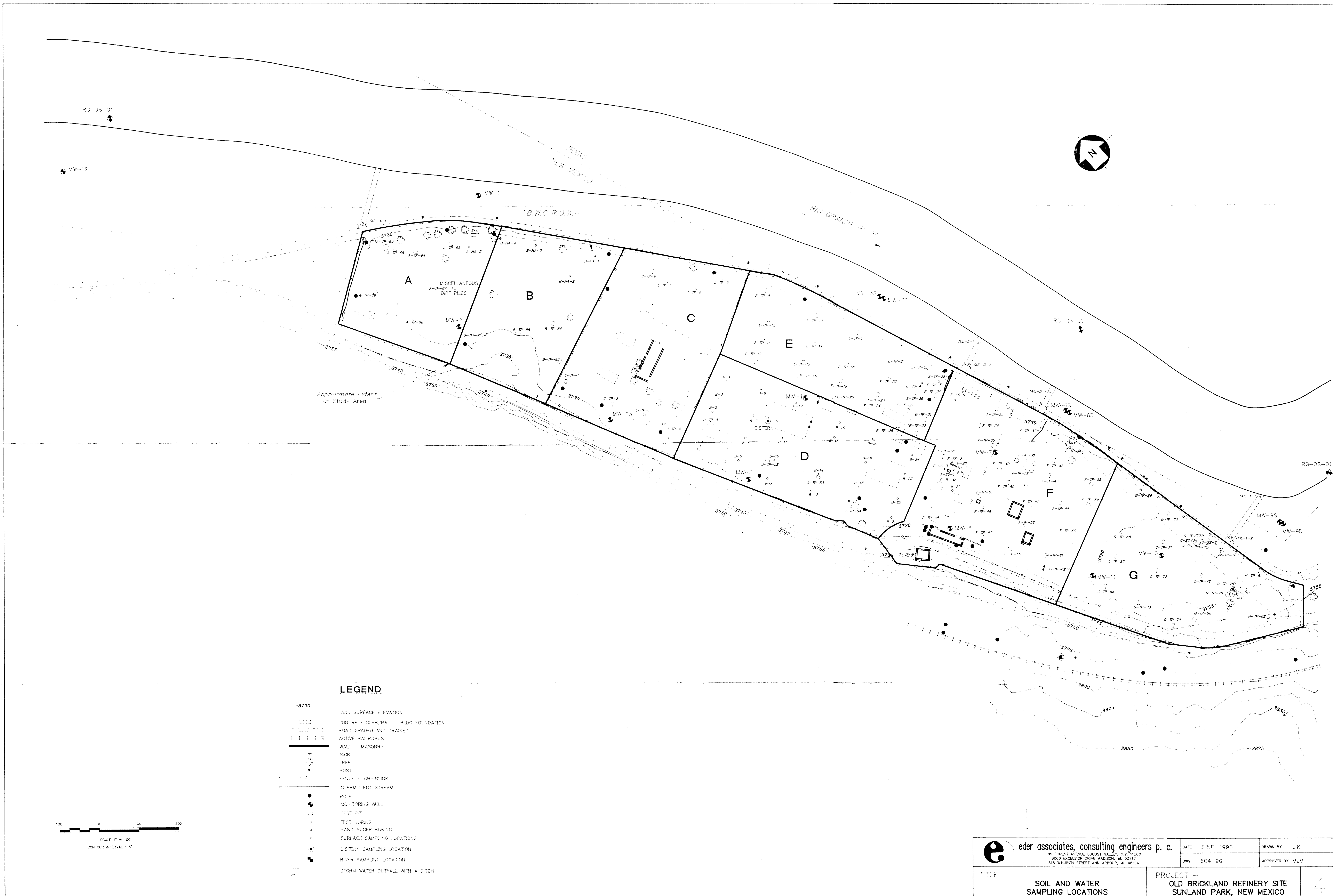


LEGEND

- INDEX CONTOUR
- CONCRETE SLAB/PAD - BLDG FOUNDATION
- ROAD GRADED AND DRAINED
- RAILROADS
- BRIDGE
- WALL - MASONRY
- SIGN
- MAGNETOMETER SURVEY POINT
- POST
- FENCE - CHAINLINK
- INTERMITTENT STREAM
- POLE

SCALE 1" = 100'
CONTOUR INTERVAL 10'

	eder associates, consulting engineers p. c.		DATE: JULY, 1990	DRAWN BY: MJD
	85 FOREST AVENUE, SUITE 100, NEW YORK, N.Y. 10002 8000 EXCELSIOR DRIVE, MADISON, WIS. 53712 315 WILSON STREET, ANN ARBOR, MI. 48104		604-9M APPROVED BY: MJD	
SITE CONTROL/ MAGNETOMETER SURVEY POINT LOCATION MAP		PROJECT - OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO		2

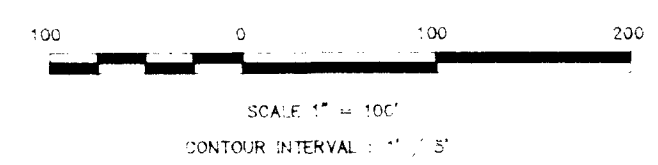
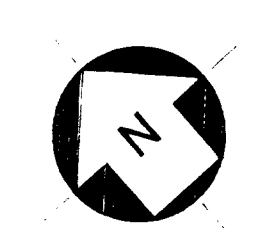
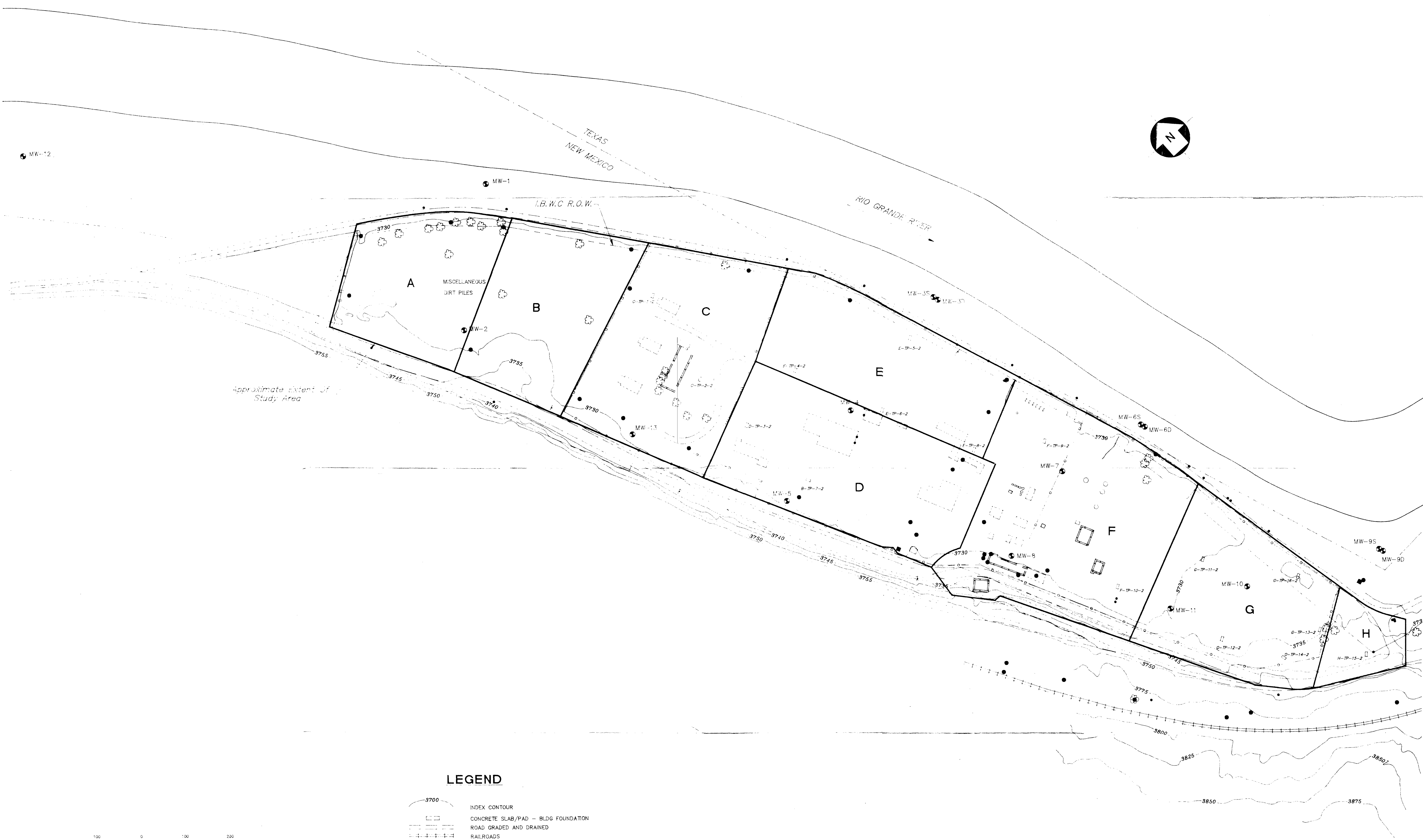


LEGEND

- 3700 LAND SURFACE ELEVATION
- CONCRETE SLAB/PAV. = BLDG FOUNDATION
- ROAD GRADED AND DRAINED
- ACTIVE RAILROADS
- WALL - MASONRY
- SIGN
- TREE
- POST
- FENCE - CHAINLINK
- INTERMITTENT STREAM
- POLE
- MONITORING WELL
- TEST PIT
- TEST BORING
- HAND AUGER BORING
- SURFACE SAMPLING LOCATIONS
- CISTERN SAMPLING LOCATION
- RIVER SAMPLING LOCATION
- STORM WATER OUTFALL WITH A DITCH

SCALE 1" = 100'
CONTOUR INTERVAL: 5'

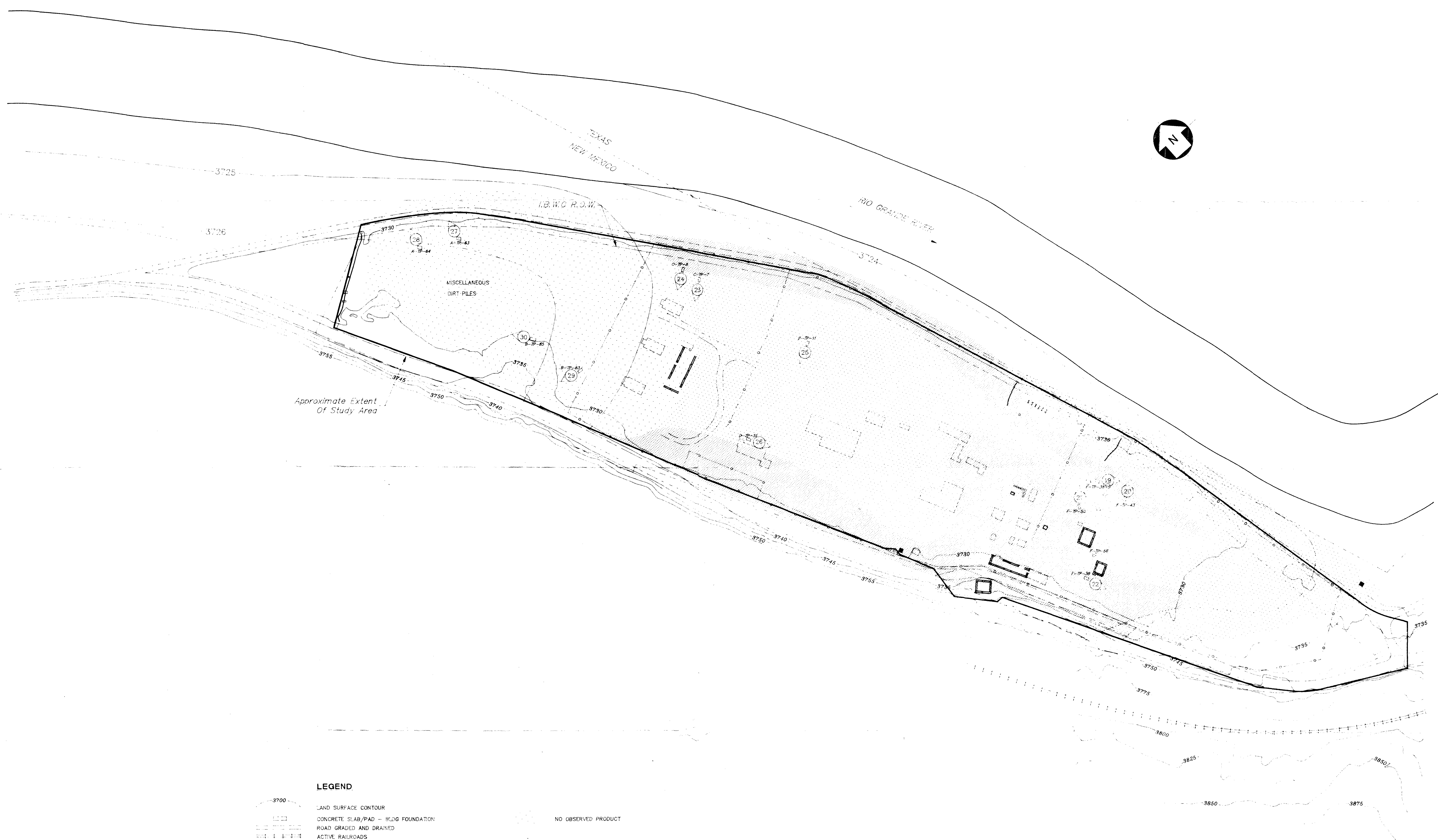
 eder associates, consulting engineers p. c. 85 FOREST AVENUE, LOCUST VALLEY, N.Y. 11560 8000 EXCELSIOR DRIVE, MADISON, W. 53717 315 WILKINSON STREET, ANN ARBOR, MI 48104	DATE: JUNE, 1990	DRAWN BY: JJK
	DWG: 604-9G	APPROVED BY: MJM
TITLE: SOIL AND WATER SAMPLING LOCATIONS	PROJECT: OLD BRICKLAND REFINERY SITE, SUNLAND PARK, NEW MEXICO	4



LEGEND

- INDEX CONTOUR
- CONCRETE SLAB/PAD - BLDG FOUNDATION
- ROAD GRADED AND DRAINED
- RAILROADS
- BRIDGE
- WALL - MASONRY
- SIGN
- TREE
- POST
- FENCE - CHAINLINK
- INTERMITTENT STREAM
- CULVERT/WING WALL
- POLE
- MONITOR WELL
- TEST PIT

eder associates, consulting engineers p. c. 85 FOREST AVENUE, LOCUST VALLEY, N.Y. 11560 8000 EXCELSIOR DRIVE, MADISON, WI 53717 315 WILSON STREET, ANN ARBOR, MI 48104	DATE: JULY, 1990	DRAWN BY: JJK
	DWG: 604-9L	APPROVED BY: SJO
TITLE: TEST PIT RESAMPLING LOCATIONS JULY, 1990		PROJECT: OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO
		4A

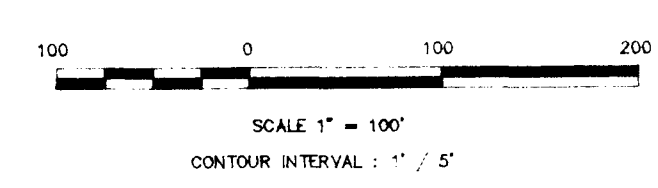


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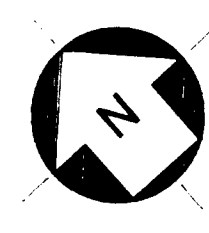
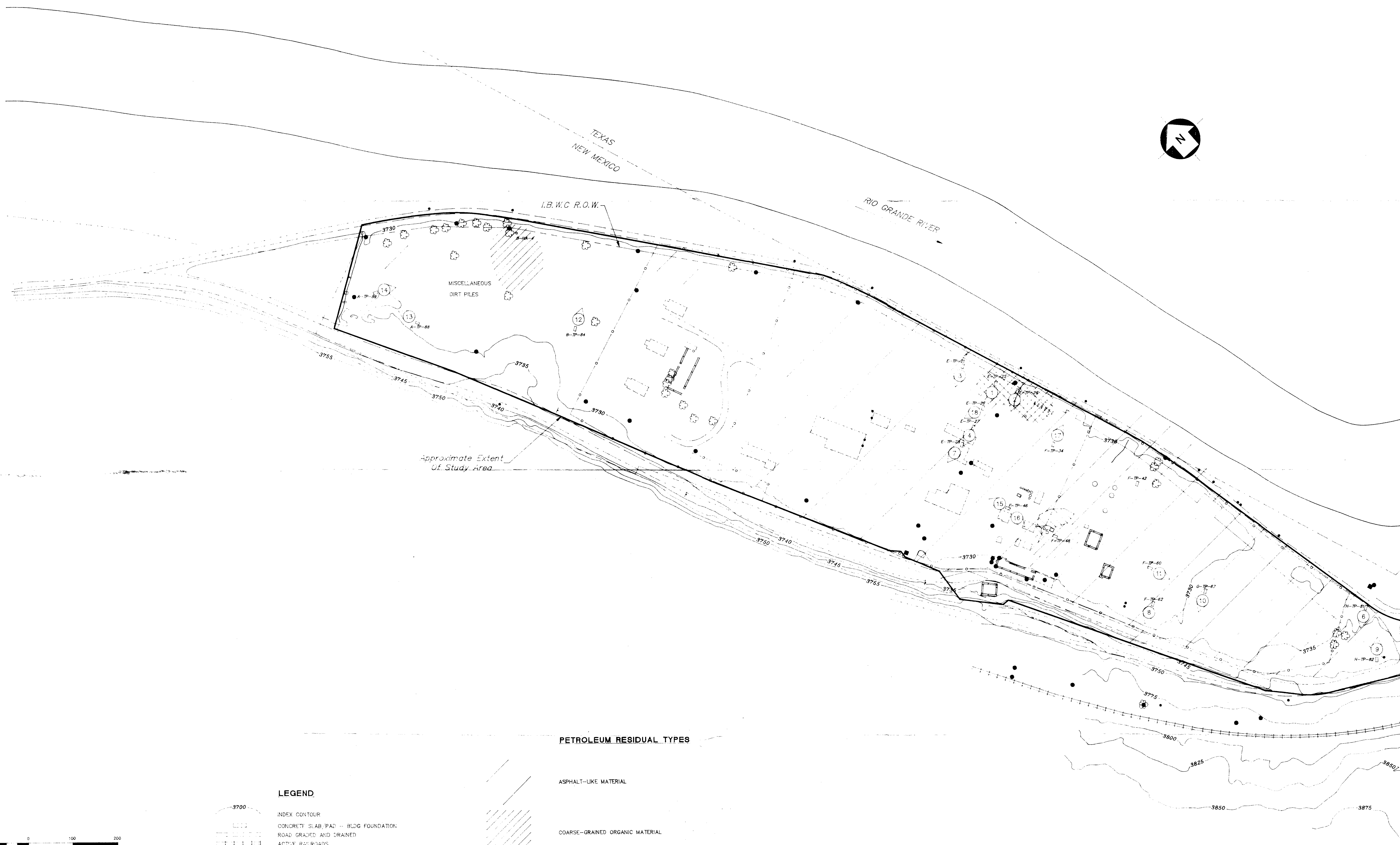
- | | | | |
|--|---|--|---------------------|
| | LAND SURFACE CONTOUR | | NO OBSERVED PRODUCT |
| | CONCRETE SLAB/PAD - BLDG FOUNDATION | | VISIBLE SHEEN |
| | ROAD GRADED AND DRAINED | | FLOATING PRODUCT |
| | ACTIVE RAILROADS | | |
| | WALL - MASONRY | | |
| | SIGN | | |
| | TREE | | |
| | POST | | |
| | FENCE - CHAINLINK | | |
| | INTERMITTENT STREAM POLE | | |
| | WATER TABLE CONTOUR
(Observed On April 13, 1990) | | |
| | TEST PIT | | |
| | PHOTO REFERENCE | | |

NOTES:

- BASED ON VISUAL OBSERVATIONS OF TEST PITS AND TEST BORINGS
- PHOTO NUMBERS CORRESPOND TO PHOTOS PRESENTED IN THE REPORT



eder associates, consulting engineers p. c. 85 FOREST AVENUE LOCUST VALLEY, N.Y. 11560 8000 EXCELSIOR DRIVE MADISON, WI 53717 315 WILKINSON STREET ANN ARBOR, MI 48104	DATE: JUNE, 1990	DRWN BY: JIK
	DWG: 604-91	APPROVED BY: MJM
PROJECT - FLOATING PETROLEUM PRODUCT AT THE WATER TABLE		PROJECT - OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO
		5



PETROLEUM RESIDUAL TYPES

- ASPHALT-LIKE MATERIAL
- COARSE-GRAINED ORGANIC MATERIAL
- FINE-GRAINED ORGANIC MATERIAL
- TAR

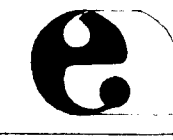
LEGEND

- INDEX CONTOUR
- CONCRETE SLAB/PAD -- BLDG FOUNDATION
- ROAD GRADED AND DRAINED
- ACTIVE RAILROADS
- WALL -- MASONRY
- SIGN
- TREE
- POST
- FENCE -- CHAINLINK
- INTERMITTENT STREAM
- POLE
- TEST PIT
- PHOTO REFERENCE

SCALE 1" = 100'
CONTOUR INTERVAL: 5'

NOTES:

- BASED ON VISUAL OBSERVATIONS OF TEST PITS AND TEST BORINGS
- PHOTO NUMBERS CORRESPOND TO PHOTOS PRESENTED IN THE REPORT

	eder associates, consulting engineers p. c. 85 FOREST AVENUE, LOCUST VALLEY, N.Y. 11560 8000 EXCELSIOR DRIVE, MADISON, WI 53717 315 W. HURON STREET, ANN ARBOR, MI 48104	DATE: JUNE, 1990	DRAWN BY: JIK
		DWG: 604-9K	APPROVED BY: MJM
TITLE -- APPROX. DISTRIBUTION AND LOCATIONS OF VARIOUS PETROLEUM RESIDUALS IN SOIL		PROJECT -- OLD BRICKLAND REFINERY SITE SUNLAND PARK, NEW MEXICO	
		6	

