RESNA
Working To Restore Nature

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REPORT OF FINDINGS
UNDERGROUND GASOLINE-STORAGE TANK
REMOVAL AND REPLACEMENT

at

ARCO Station 4494
566 Hegenberger Road
Oakland, California

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Report prepared for

ARCO Products Company
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by

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INTRODUCTION

At the request of ARCO Products Company (ARCO), RESNA Industries Inc. (RESNA) conducted an environmental investigation related to the removal of three underground gasoline-storage tanks (USTs) and placement of four new double-walled fiberglass USTs at an ARCO AM/PM store and service station located at 566 Hegenberger Road in Oakland, California. This investigation was initiated as part of ARCO's planned tank replacement program.

This investigation included the following:

- drilling four soil borings and collecting soil samples for laboratory analyses in proposed new tank pit location;
- destroying monitoring well MW-2 for tank excavation activities;
- observing excavation and removal of three USTs, and associated product lines;
- sampling and directing analyses of soil samples from the former tank pit, product-line trenches, and stockpiled soil as required by Mr. Barney Chan of the

Hazardous Materials Division of the Alameda County Health Care Services Department (ACHCSA);

- On December 18, 1992, six "grab" water samples were collecting and on December 29, 1992 an additional "grab" water sample was collected from the former tank pit;
- observing excavation of a new tank pit;
- sampling and directing analyses of soil from the new tank pit and stockpiled soil as required by Mr. Britt Johnson of the Hazardous Materials Division of the ACHCSA;
- observed removal of stockpiled soil from the site after analytical results indicated that petroleum hydrocarbon concentrations indicated acceptable levels;
- supervised the construction of a slurry wall near the 6 foot diameter storm drain, as proposed in the Addendum to Work Plan (RESNA, December 31, 1992); and
- preparing this report.

This report presents the results of this work, including field methods used, laboratory analyses, activities related to removal of former USTs and associated piping, and installation of new USTs and associated piping. Construction activities are currently ongoing at the site and not summarized here.

SITE DESCRIPTION AND BACKGROUND

General

The site is an operating gasoline station located at 566 Hegenberger Road, on the northeastern corner of the intersection of Hegenberger Road and Edes Avenue in Oakland, California, as shown on the Site Vicinity Map (Plate 1). The site is on a relatively flat concrete- and asphalt-covered lot at an elevation of approximately 5 feet above mean sea level, and is located in a commercial/industrial area of the City of Oakland, approximately 1000 feet east of Interstate Highway 880. This commercial/industrial area is occupied by a wide variety of businesses including fast food restaurants, the Oakland SPCA, union halls, tool manufacturers, trucking firms, construction firms, motels, and inns. The Oakland-Alameda County Coliseum Complex is located approximately ½-mile northwest of the site. The site is bounded by a restaurant to

the north, a parking lot for a restaurant to the east, restaurants to the west across Hegenberger Road, and a Shell Oil service station across Edes Avenue to the South.

Before its development in 1969, the subject property was covered by a sparse growth of native grasses and weeds, and was situated on reclaimed tidal marshlands covered by approximately four feet of artificial fill (Soil Mechanics and Foundation Engineers [SMFE], August 1968). The fill material was described by SMFE as heterogeneous sandy gravelly clay containing construction debris, including pieces of concrete, asphalt, and metallic slag. The source of the construction debris was unknown. Below the fill material was marshland and bay mud deposits. SMFE reported that the site may contain a buried tidal slough crossing the southern portion of the site. This slough was filled in between 1947 and 1953, based on observations of aerial photographs from those years, and replaced with an excavated drainage channel (Pacific Aerial Surveys, 1947 and 1953). This drainage channel was then filled in and replaced with a 72-inch storm drain pipeline sometime after 1968. According to SMFE, three pipelines cross the central portion of the property in a northeast-southwest direction, including the 72-inch diameter storm drain, a 48-inch-diameter sanitary sewer, and an abandoned sanitary sewer pipeline.

Microfiche plans at the City of Oakland Building Inspection Department indicate that the site was originally developed by Gulf Oil Company (Gulf) as a service station in 1969. Building plans for the Gulf station show three underground storage tanks (UST) east of the station building, and a fourth tank (possibly a waste-oil tank) may have been located adjacent to the east wall of the station building just south of the USTs. Records of the Oakland Fire Department indicate that Gulf removed and replaced one 10,000-gallon UST in 1975. No record of soil sampling to document possible discharge from the tank was found. RESNA understands from information supplied by ARCO, that ARCO purchased the site from Gulf in 1977, and that one 280-gallon waste-oil UST was located west of the station building. On December 16, 1988, this waste-oil UST was excavated and removed from the site by Crosby and Overton of Oakland, California, leaving three 10,000-gallon USTs at the site. The three tanks consisted of one UST that contained regular leaded gasoline, one super-unleaded gasoline UST, and one regular-unleaded gasoline UST. Removal of these three tanks is documented in this report.

Regional and Local Geology

The site is located along the eastern margin of San Francisco Bay within the East Bay Plain, in the northwestern portion of the San Leandro Cone near the boundary of the Oakland Alluvial Plain (Hickenbottom and Muir, June 1988). The East Bay Plain lies within the Coast Range geomorphic province and is characterized by broad alluvial fan margins sloping westward into San Francisco Bay.

The site and vicinity were formerly occupied by shallow tidal marshes, and a channelized tidal slough is still located directly west of the site, across Hegenberger Road. Helley and others (1979) mapped the earth materials underlying the site area as being Holocene bay mud estuarine deposits composed of unconsolidated, water-saturated, dark plastic clay and silty clay rich in organic materials, with local lenses and stringers of well-sorted silt, fine sand, and peat. These estuarine materials, known locally as Bay Mud, were deposited primarily in brackish- to salt-water marshes along the margins and beneath the waters of San Francisco Bay during interglacial periods before and after the Wisconsin Glaciation in late Pleistocene time (Goldman, 1969). The estuarine Bay Mud materials interfinger with Holocene-age fine-grained alluvium deposited by standing floodwaters that periodically inundate the low interfluvial basin areas and fresh-water marshes (Helley and others, 1979).

Regional and Local Hydrogeology

Groundwater quality in the water-bearing units of the San Leandro Cone generally meets recommended primary and secondary standards for drinking water. The most productive water wells in the San Leandro Cone are those completed within the older alluvium units. The older alluvium units consist of permeable alluvial fan deposits characterized by poorly consolidated to unconsolidated gravel, sand, silt and clay (Hickenbottom and Muir, June 1988). These units contain appreciable quantities of groundwater, and are therefore considered to be the principal groundwater reservoir in the East Bay Plain area. Smaller amounts of groundwater occur in the younger alluvium, fluvial deposits, interfluvial basin deposits, and Bay Mud estuarine deposits. These deposits generally are relatively thin (less than 120 feet thick), and generally yield only small amounts of groundwater to wells. The Bay Mud acts as a barrier to the vertical movement of salt water from San Francisco Bay into the older alluvium. The Bay Mud is generally water-saturated because most of it lies below the water table. However, it is not considered as a useable source of groundwater to wells because of its low permeability and because it is believed to contain mostly salt water (Hickenbottom and Muir, June 1988).

The direction of groundwater flow at the site appears to be to the northeast based on groundwater elevations as interpreted from depth-to-water (DTW) data collected at the site. The depth to first groundwater has been measured to be approximately 7 to 15 feet below grade during drilling, and stabilizes in the wells at approximately 7 to 9 feet below grade.

The site is located approximately 3,500 feet east of San Leandro Bay, which is a smaller portion of San Francisco Bay. The nearest streams to the site are Elmhurst Creek, which is located approximately 1,300 feet north of the site, and San Leandro Creek which is located approximately 6,500 feet south of the site. Both creeks originate in the East Bay Hills, which are a part of the Diablo mountain range, and drain directly into San Leandro Bay. Water enters these creeks by direct runoff from rural and urban areas, through numerous small tributaries,

and through numerous storm sewer outlets originating in the urbanized areas. Water also enters San Leandro Creek from overflow of the East Bay Municipal Utility District's Lake Chabot reservoir located in the East Bay Hills north of the city of Castro Valley.

PREVIOUS ENVIRONMENTAL WORK

Previous subsurface environmental investigations performed at the site are summarized in Appendix A, Previous Environmental Work.

FIELD WORK

Field work conducted on behalf of ARCO during this investigation included drilling four soil borings, collecting soil samples from the borings for description and possible analyses; destroying monitoring well MW-2; observing removal of three gasoline underground storage tanks (USTs) and associated product lines; collecting soil samples from the side-walls directly above groundwater in the former tank pit excavation and beneath the former product lines as directed by Mr. Barney Chan of the ACHCSA; excavation of a new UST pit and collecting soil samples as requested by Mr. Britt Johnson of the ACHCSA; and collecting soil samples from the stockpiled soil for laboratory analyses. The field work was conducted according to the procedures described in Appendix B, Field Procedures, and in accordance with the RESNA Site Safety Plan (RESNA, December 16, 1992).

A chronological summary of site activities is provided in Appendix C.

New Tank Pit Soil Borings

Well construction and destruction permits were acquired from the Alameda County Flood Control and Water Conservation District, Zone 7 (ACFCWCD) prior to drilling at the site. Copies of the permits are included in Appendix D, Well Permits. On December 8, 1992, four soil borings (B-21 through B-24) were drilled using a Mobile Drill B-61 rig with 8.25-inch diameter hollow-stem augers to evaluate the presence and extent of gasoline hydrocarbons in soil in the immediate vicinity of the new tank pit at the site. Soil borings B-21 through B-24 were drilled in a row approximately 10 feet apart in the southwest corner of the site. Monitoring well MW-2 was destroyed using 12-inch diameter hollow stem augers drilled to approximately 1 foot below well depth. A RESNA field geologist observed that bentonite seal was saturated with a black hydrocarbon product during well destruction. The black hydrocarbon product was observed from the top of the bentonite seal (approximately 3 feet below ground surface) to 13 feet below ground surface. Monitoring well MW-2 was destroyed because it was located

immediately adjacent to the former tanks. The locations of the borings and destroyed well are shown on Plate 2, General Site Plan.

Soil Sampling and Description

Ten soil samples were collected from the soil borings B-21 through B-24 for description and possible laboratory analyses. A summary of the Unified Soil Classification System used to identify the soil encountered during drilling is displayed as Plate 3 and the description of the soil encountered in the borings are shown as Plates 4 through 7, Boring Logs. Soil samples from the borings B-21 through B-24 were collected at intervals of 5 feet or less from the ground surface to the total depth of the borings. Sampling procedures are described in Appendix B. Field measurements of organic vapors were also taken with an organic vapor meter (OVM) which provides a qualitative only field analysis of organic vapor content of soil samples. OVM readings are also shown on the boring logs in Appendix D, under the column titled P.I.D. (photoionization detector). Groundwater was first encountered at depths between 10 to 10½ feet below grade in borings B-21 through B-24.

Removal of Underground Tanks

On December 17 and December 18, 1992, a field geologist from RESNA was onsite to observe the excavation and removal of three underground gasoline-storage tanks T1 through T3. The geologist inspected the outer surfaces of the tanks, collected soil samples from native soil beneath the ends and sidewalls of tanks T1 through T3, collected six "grab" samples of water from the standing groundwater within the tank pit, and observed the excavation of backfill soil from the tank excavation. The backfill material appeared to have been impacted by petroleum hydrocarbons as evident by OVM readings over 100 ppm. Tank and product-line removal was performed by Golden West Environmental Services, Builders, General Contractors of Livermore, California. The Oakland Fire Department (OFD), ACHCSA, and the Bay Area Air Quality Management District (BAAQMD) were notified prior to tank removal. Mr. Barney Chan of the ACHCSA, and Mr. Gordon Gullette of the OFD were present on December 17, 1992, to observe the removal of the tanks. Mr. Barney Chan was also present to observe and direct soil and water sampling in the former tank pits.

RESNA's field geologist observed that product-line plumbing above USTs T1 and T2 consisted primarily of single-walled steel pipes and fittings. The product line plumbing and the former vapor vent lines above tank T3 consisted primarily of single-walled fiberglass pipes and fittings.

On December 17, 1992, two single-walled steel USTs (T1 and T2) measuring approximately 8 feet in diameter by 16 feet in length, and one single-walled fiberglass UST (T3) measuring approximately 8 feet in diameter by 16 feet in length were uncovered and prepared for removal.

These three tanks were each approximately 10,000 gallon capacity. Hydrocarbon vapors and oxygen were purged from the tanks by the addition of solid carbon dioxide (dry ice) into the tanks. After acceptable lower explosive limits (LEL) readings were taken and recorded by OFD, tanks T1 through T3 were then excavated and removed from the tank pit.

Examination of the steel USTs T1 and T2 after their removal indicated they were in good condition with no noticeable through-going holes or pits. Asphalt wrapping covering both tanks was slightly deteriorated. Examination of the fiberglass UST T3 indicated the tank was in good condition with no visible through-going holes. Tanks T1 through T3 were transported by Erickson Inc., a licensed waste hauler, to a licensed disposal facility in Richmond, California. Manifests documenting the disposal of tanks and certificates of destruction are included in Appendix E, Manifests for Tanks.

The backfill soil excavated from the tank pit above and around the steel tanks T1 and T2 was predominately an orange to green clayey sand with gravel. Abundant brick, glass, and porcelain fragments were uncovered during excavation to approximately 8 feet below grade. Native soil appeared to begin below 8 feet, and consisted of a gray silty clay with sand. A fiberglass wall was encountered between the steel USTs (T1 and T2) and the fiberglass UST (T3). The backfill soil excavated from the tank pit above and around the fiberglass UST (T3) was predominantly fine gravel (pea-gravel). Excavated soil was monitored with an organic vapor meter (OVM), field calibrated to a 100 parts per million (ppm) sample of isobutylene, as it was removed from the excavation. OVM readings during this monitoring indicated levels of hydrocarbons up to approximately 980 ppm in the soil. Groundwater was encountered at an approximate depth of 10 feet below graded surface in the tank pit which was excavated to a depth of approximately 12 feet below grade.

Once the USTs were removed, RESNA's field geologist observed a black hydrocarbon product seeping into the former tank pit from the northeastern corner. At the request of ARCO, the northeastern corner of the former tank pit was over-excavated approximately 12 feet to the northeast, exposing an existing 6-foot diameter storm drain as shown on Plate 8, Soil Sample Location and Concentration Map. Mr. Barney Chan of the ACHCSA and a RESNA field geologist observed that the black hydrocarbon product was migrating through the storm drain backfill from an offsite source and seeped into the former tank pit and onto standing groundwater in the pit. It was also observed that recently destroyed well MW-2 had been installed at the edge of the storm drain backfill. Mr. Barney Chan determined that it was not ARCO's responsibility to investigate the source of this black hydrocarbon product, ~~sense~~ since ARCO agreed to construct a slurry wall in an attempt to limit the migration of black hydrocarbon product from the storm drain backfill to the former tank pit. H and H Environmental removed the black hydrocarbon product and groundwater from the tank pit on December 18 and on December 22, 1992. On December 29, 1992, the black hydrocarbon product was skimmed from the surface of the

groundwater in the former tank pit by H and H. Tank replacement activities were temporarily halted to investigate and evaluate the extent and source of the black hydrocarbon product. Copies of the Disposal Manifests for the black hydrocarbon product and groundwater are attached in Appendix F, Water and Soil Disposal Manifests.

Soil Sampling in Former Tank Pit

On December 17, 1992, 6 soil samples (S-10-TP1, S-9-TP2, S-9.5-TP3, S-10-TP4, S-9-TP5, S-9-TP6) were collected from native soil at the ends of USTs T1 through T3 and at the sidewalls of tanks T1 and T3 at depths of 9 to 10 feet (directly above groundwater) to evaluate the impact of gasoline hydrocarbons on the native soil near the former gasoline-storage tanks. The native soils at the sample depths consisted of silty clay with sand and silty clay with gravel. OVM readings indicated concentrations of up to 980 ppm in the northwestern corner of the former tank pit. Soils in this vicinity were over-excavated for approximately 10 feet and a seventh soil sample (S-11-TL7) was collected to confirm the removal of hydrocarbon impacted soil. The over-excavation was conducted under the supervision and direction of Mr. Barney Chan of the ACHCSA.

"Grab" Water Sampling in Former Tank Pit

On December 17, 1992, six "grab" water samples (TP-1, TP-1g, TP-1d, TP-1o, TP-1p, TP-1m, and TP-2) were collected from the standing groundwater in the former tank pit at the request of Mr. Barney Chan of the ACHCSA for laboratory analysis. At the request of ARCO, one "grab" water sample (TP-2b and TP-2s) was collected from the former tank pit standing groundwater to be split in an attempt to characterize the black hydrocarbon product.

Product-Line Removal

The former product lines were excavated and removed on December 16, 1992. The ACHCSA, the OFD, and the BAAQMD were notified prior to performing this work. On December 17 and 18, 1992, a RESNA geologist and Mr. Barney Chan of the ACHCSA were onsite to supervise excavation of field-detected impacted soils beneath the product dispensers and product lines, and to observe the collection of 7 soil samples (S-2-TL1 through S-2-TL7) from the native soil beneath the former product dispensers and product lines. Locations of the collected soil samples are shown on Plate 8.

On December 17, 1992, RESNA's geologist observed that the shallow soil beneath the former product lines appeared not to be impacted by gasoline hydrocarbons, with the exception of localized impacted soils in the area near the former product dispensers. These impacted soils were over-excavated to groundwater on December 18, 1992, as directed and supervised by Mr.

Barney Chan of the ACHCSA, and confirmation samples (S-14-TL1 and S-12-TL5) were collected for analysis. On December 18, 1992, a GTEL Environmental Mobile Laboratory was onsite to analyze soil samples S-14-TL1 and S-12-TL5, and to analyze soil sample S-12-TP1, collected from the bottom of the over-excavated tank pit. Soil sample S-5-TL3 was collected from the storm drain backfill and also analyzed by the GTEL Mobile Laboratory to evaluate possible oil and grease migration through the backfill. These samples were collected under the direction and supervision of Mr. Barney Chan of the ACHCSA, and sample locations and analytical results are shown on Plate 8.

The former product lines consisted of single-walled fiberglass pipes and fittings, and appeared to be in good condition with no visible holes or loose fittings. The former product lines were originally installed at a depth of approximately 0.5 foot below the ground surface. Soil samples were obtained from the native soil, at a depth of approximately 2 feet below the fill material beneath the product dispensers and the product lines and submitted for laboratory analysis (Plate 8).

Soil excavated during product line removal was stockpiled with soils removed from the former tank pit for subsequent aeration for disposal or use for backfilling the former tank pit.

Stockpiled Soil

Approximately 1,200 cubic yards of backfill soil removed from the former tank pit and former product line excavations was stockpiled in two separate piles (SP-1 and SP-2) on asphalt for subsequent disposal. Stockpile SP-1 was impacted by gasoline hydrocarbons, and consisted mainly of material overlying the former tanks and former product lines, while stockpile SP-2 was impacted by gasoline hydrocarbons and black petroleum product encountered during over-excavation of the former tank pit. On December 18, 1992, RESNA's geologist collected 12 soil samples (SP1-1A-D through SP1-6A-D and SP2-1A-D through SP2-6A-D) from the two stockpiles SP-1 and SP-2 for laboratory analyses. The stockpiled soil was then covered by plastic sheeting by Golden West Environmental Services pending results of laboratory analysis. Of the 1,200 cubic yards, approximately 900 cubic yards of soil was removed from the site on January 28 and 29, 1993 and approximately 100 yards cubic yards of soil was removed on February 8, 1993 by Dillard Trucking of Byron, California, and disposed of at Laidlaw Class II Landfill in Buttonwillow, California. Approximately 200 cubic yards of soil was removed on February 1, 1993 by Dillard Trucking and disposed of at BFI, a Class III landfill in Livermore, California. Copies of the Disposal Manifests are included in Appendix F.

New Tank Pit Excavation

On January 4 through 8, 1993, a new tank pit was shored and excavated by Golden West Environmental Services to accommodate four 10,000 gallon USTs. A RESNA geologist was onsite on January 7, 1993 to observe the excavation and stockpiling of approximately 1,200 cubic yards of excavated soil at the site.

Soil Sampling in New Tank Pit

Soil samples of material to be used for backfilling the former tank pit were collected from the new tank pit in accordance with Mr. Britt Johnson of the ACHCSA on December 30, 1992. Locations and depths of soil samples obtained from the new tank pit excavation are shown on Plate 8. Sampling of the new tank pit included:

- collecting two soil samples from the northeastern and southeastern corners of the pit at approximately 4.5 feet below grade and analyzing for total petroleum hydrocarbons as gasoline (TPHg) and gasoline constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Because excavated soil from the new tank pit was too wet to be used as backfill, the excavated soil was stockpiled onsite in two separate piles (SP-3 and SP-4) for aeration and drying. On January 8, 1993, ten soil samples were collected from the two stockpiles, submitted for laboratory analysis, and composited at Sequoia Analytical for analysis to ascertain possible use of these stockpiles as backfill material in the former tank pit. In telephone conversations with Mr. Barney Chan and Mr. Paul Smith of the ACHCSA on February 23 and 24, 1993, it was decided that soil samples from SP-3 and SP-4 indicating nondetectable (less than 0.5 parts per million) concentrations of benzene could be used as backfill material in the former tank pit. Six of the original ten soil samples collected from stockpiles SP-3 and SP-4 contained low levels of detectable benzene and after further aeration of the stockpiles, were resampled on March 1, 1993. The six samples contained nondetectable concentrations of benzene following the March 1, 1993 sampling.

LABORATORY METHODS

Analytical Methods and Sample Summary

Soil samples collected from the former tank pit and former product lines on December 17, 1992 and six groundwater "grab" samples were analyzed by Sequoia Analytical in Redwood City, California (State Hazardous Waste Testing Laboratory Certification No. 1210). An additional groundwater "grab" sample TP-2 was collected from standing groundwater in the former tank

pit and one split sample was sent to ARCO's Refinery in Los Angeles, California, and the second split sample was sent to Core Laboratories in Long Beach, California (State Hazardous Waste Testing No. 0024805) to be analyzed for hydrocarbon fingerprinting. Soil samples collected from over-excavated tank pits on December 18, 1993, were analyzed by GTEL Environmental's mobile laboratory (State Hazardous Waste Testing Laboratory Certification [SHWTLC] No. E723). Soil samples collected from stockpiles SP-1 and SP-2 on December 18, 1992, were analyzed by Laidlaw Environmental to determine acceptability for disposal to their landfill. The Chain of Custody Records and the Laboratory Analysis Reports are included in Appendix G and Fingerprint Analysis Reports are included in Appendix H.

Six soil samples collected from the ends of the former USTs (TP-1 through TP-7) were analyzed for TPHg using modified Environmental Protection Agency (EPA) Method 5030/8015 and for the gasoline constituents BTEX using EPA Methods 8015/8020.

"Grab" water samples (TP-1, TP-1g, TP-1o, TP-1p, TP-1m, and TP-1d) were collected from the standing groundwater in the former tank pit. Sample TP-1g was analyzed for TPHg and BTEX using EPA Methods 5030/8015/8020. Sample TP-1d was analyzed for total petroleum hydrocarbons as diesel (TPHd) using EPA Methods 3510/3520/8015. Sample TP-1o was analyzed for total oil and grease (TOG) using EPA Method 418.1. Sample TP-1 was analyzed for purgeable hydrocarbons using EPA Method 624. Sample TP-1p was analyzed for acid and base neutrals using EPA Method 625 and organochlorine pesticides and PCBs using EPA Method 8080. Sample TP-1m was analyzed for lead, zinc, chromium, cadmium, and nickel using EPA Methods 7421 and 6010. Split "Grab" water sample TP-2b/TP-2s was collected from the standing groundwater in the former tank pit and analyzed for hydrocarbon fingerprinting using simulated distillation.

Eight soil samples obtained from borings B-21 through B-24, and two excavation samples (S-4.5-NP and S-4.5-SP) collected for the new tank pit were analyzed for TPHg and BTEX using modified EPA Method 5030/8015/8020 and toxicity characteristic leaching procedure (TCLP) for BTEX. In addition, soil samples collected from borings B-21 through B-24 were analyzed for soluble threshold limit concentration (STLC) lead.

Ten soil samples obtained from beneath the former product lines and product dispensers were analyzed for TPHg and BTEX using modified EPA Methods 5030/8015/8020. One sample S-5-TL3 was analyzed for TOG using EPA Method 418.1 as requested by Mr. Barney Chan of the ACHCSA.

Twelve composite soil samples from the two stockpiles SP-1 and SP-2 were collected and submitted to Sequoia to be composited and analyzed for TPHg and BTEX using EPA Methods

5030/8015/8020, TCLP TPHg and BTEX, and STLC lead. Four soil samples were collected from every 50 cubic yards of stockpiled soil and composited into one sample for analysis.

Ten composite soil samples from the two stockpiles SP-3 and SP-4 were collected and submitted to Sequoia to be composited and analyzed for TPHg and BTEX using EPA Methods 5030/8015/8020, TCLP TPHg and BTEX, and STLC lead. Stockpiles SP-3 and SP-4 were resampled and submitted to Sequoia to be composited and analyzed for TPHg and BTEX using EPA Methods 5030/8015/8020. Four soil samples were collected every 50 cubic yards from the stockpiled soil and constituted one composite sample.

GEOLOGY AND LABORATORY RESULTS

Geology Results

Earth materials encountered in borings B-21 through B-24 beneath a section of asphalt and baserock, consisted of sandy clay to silty sand fill that contained glass, brick, and metal fragments at depths greater that about 3 feet. A water-bearing silty clay with sand was encountered beneath the fill. Groundwater was encountered in B-21 through B-24 at depths of 10 to 10½ feet. Organic vapor meter (OVM) readings from samples collected from the borings are shown on the boring logs in the column labeled PID (photoionization detector). OVM readings from the samples indicated nondetectable hydrocarbon vapors. Geologic cross section D-D' (Plate 9) shows the RESNA's interpretation of the subsurface stratigraphy beneath the site. The location of the geologic cross section D-D' is shown on Plate 2.

Laboratory Results

The results of laboratory analyses of soil samples obtained from soil borings B-21 through B-24 in the new tank pit area, and from the new tank pit are summarized in Table 1, Results of Laboratory Analyses of New Tank Pit Soil Samples. Soil sample locations in the vicinity of the new tank pit and TPHg concentrations are shown on Plate 8. Analytical results of soil samples from borings B-22 and B-23 and samples S-10-B21 and S-9.5-B24 indicated nondetectable concentrations of TPHg (less than 1.0 ppm) and benzene (less than 0.0050 ppm). Concentrations of TPHg and benzene were detected in sample S-4.5-B21 at 2.3 ppm TPHg and 0.010 ppm benzene. TPHg was detected in sample S-4.5-B24 at 1.8 ppm concentration. Concentrations of STLC lead were nondetectable (less than 0.10 ppm) in all samples, except for the presence of 0.31 ppm STLC lead in S-4.5-B21. Analytical results of the soil samples S-4½-NP and S-4½-SP from the northeastern and southeastern corners of the new tank pit indicated nondetectable concentrations of TPHg and benzene.

The results of laboratory analyses of soil samples obtained from the former tank excavation are reported in Table 2, Results of Laboratory Analyses of Former Gasoline Tank Pit Soil Samples. Soil sample locations and TPHg concentrations are shown on Plate 8. Analytical results of these 7 soil samples indicated that TPHg ranged from 2 ppm to 220 ppm and benzene concentrations ranged from 0.031 ppm to 3.5 ppm. These samples were collected at the soil water interface in the former tank pit.

The results of laboratory analyses of the 10 soil samples collected beneath the former product lines and dispensers are summarized on Table 3, Results of Laboratory Analyses of Product-Line and Product Dispenser-Line Soil Samples. Concentrations of TPHg ranged from 8.4 ppm to 190 ppm, with exception to samples S-2-TL-1 and S-2-TL-5, which contained TPHg concentrations of 12,000 ppm and 1,100 ppm, respectively. Concentrations of benzene ranged from 0.16 ppm to 10 ppm with exception to sample S-2-TL-1, which contained benzene concentration at 220ppm. After over-excavation in the areas in which samples S-2-TL-1 and S-2-TL-5 were collected, TPHg concentrations ranged from nondetectable (less than 5.0 ppm in sample S-14-TL-1) to 58 ppm in sample S-12-TL5 and concentrations of benzene ranged from nondetectable (less than 0.005 ppm in sample S-14-TL1) to 1.5 ppm in sample S-12-TL5. TOG was nondetectable (less than 10 ppm) in sample S-5-TL3. Results of laboratory analysis of composite soil samples collected from the stockpiled soil at the site are shown on Table 4, Results of Laboratory Analyses of Stockpiled Soils, and Table 5, Results of Laboratory Analyses of Resampled Stockpiled Soils.

The laboratory analytical results of the water "grab" samples are summarized in Tables 6 and 7, Results of Laboratory Analysis of Water "Grab" Samples. The analytical results of split water "grab" samples TP-2 provided by Core Laboratories and depicted on a graph indicates a fingerprint pattern ranging between a weathered gasoline and motor-oil. ARCO's Refinery Laboratory reported the hydrocarbon fingerprint as a weathered gasoline which does not resemble the fingerprint of any finished products refined by ARCO (Appendix H).

DISCUSSION

Hydrocarbon Impacted Soil and Groundwater

Soils impacted by gasoline hydrocarbons appear to be limited to the immediate vicinity of the former gasoline tank pit sidewalls and shallow soils beneath the former pump island. The former USTs and former product lines appeared to be in good condition. Therefore, it appears that the connections between the former product dispensers and the former product lines and former USTs are possible sources for the gasoline hydrocarbons detected in the soil and groundwater within the former tank pit. The presence of an upper clay unit (fill) beneath the site appears to have limited the migration of gasoline hydrocarbons in soil and groundwater as evident by

nondetectable to low concentrations of TPHg and BTEX in soil samples from tank pit, product line, new tank pit boring soil samples, and soil samples collected from borings and groundwater samples collected from downgradient, offsite wells during the Additional Subsurface Environmental Investigation (RESNA, October 27, 1992).

The black hydrocarbon product observed seeping into the northeastern corner of the former tank pit during former tank removal activities appears to have migrated from an offsite source through the sand and gravel trench backfill material of a 6-feet-diameter storm drain. During over-excavation of the tank pit the storm drain was encountered approximately three feet below ground surface. The floating product previously detected in recently destroyed well MW-2 appears to be the same as the black hydrocarbon product migrating through the storm drain from offsite. The clayey fill material beneath the site appears to have limited the vertical migration of the black hydrocarbon product. The direction of flow within the backfill material is not known, but observations of local topography suggest a flow direction toward the west (toward the ARCO site).

Backfilling Former Tank Pit

In telephone conversations with Mr. Barney Chan and Mr. Paul Smith of the ACHCSA on February 23 and 24, 1993, and the follow-up letter dated March 1, 1993, it was decided soils excavated and stockpiled from the new tank pit could be used as backfill material in the former tank pit, provided they contained nondetectable concentrations of Benzene. A RESNA field geologist and a soil technician from Balby and Chang (B&C) supervised the dewatering and backfilling of the former UST pit between March 17 through April 2, 1993. The backfilling of the former UST pit was engineered by Barghausen Consultants and performed by Golden West. The former UST pit was dewatered using vacuum trucks, removing approximately 20,000 gallons of water. After dewatering, the bottom of the former tank pit was filled with 1 to 2 foot diameter boulders to stabilize the bottom of the pit. Phillips 66 Filter Fabric was then placed in the pit as lining followed by another 1½ feet of boulders. These boulders were overlain with 1½ feet of pea-gravel and a second layer of the filter fabric lining was placed on top of the pea gravel. Stockpiled soil from the new tank pit was then used as backfill material. This soil was used after the soil was aerated and dried (water content was less than 15 percent) and after stockpile SP-4 was resampled and analytical results indicated nondetectable concentrations of benzene. The soil was placed into the former UST pit in 1 to 1½ feet lifts, compacted, and compaction tested. The compaction tests indicated compaction rates of 97 percent in the first two lifts. At three feet below grade, the former UST pit was laterally expanded in the north and west directions to allow increased support. A third layer of filter fabric lining was then placed in the former UST pit, followed by filling and compacting the former pit with soil to grade.

Slurry Wall Construction

On April 5, 1993, and as proposed in Addendum Two to Work Plan (RESNA, December 31, 1992), a RESNA field geologist supervised the construction of a concrete slurry wall in the former tank pit. This slurry wall was installed approximately six feet from and parallel to the six foot diameter storm drain within the former tank pit. The slurry wall was installed in an attempt to limit the migration from an offsite source of the black hydrocarbon product along the storm drain backfill material into the former tank pit area. Recently filled and compacted soils were excavated from the northeast corner of the former tank pit and visqueen was placed along the walls of the excavation to serve as a liner. Approximately 19 cubic yards of three-sack concrete were poured into the excavation to form the slurry wall. Due to cave-ins from the sidewalls of the excavation, the slurry wall was poured to a thickness of approximately four feet instead of the originally proposed one foot width. A six-inch diameter recovery well was installed between the slurry wall and the storm drain to monitor the presence of the black hydrocarbons from the offsite source. The well was constructed using ten feet of schedule 40 polyvinyl chloride (PVC), 0.020 inch machine slotted screen and five feet of schedule 40 PVC blank casing. The excavation between the slurry wall and the storm drain was backfilled with washed pea-gravel to two feet below grade. The remainder of the excavation was then backfilled and compacted (over 90% compaction) to grade with aerated soil. The approximate location of the slurry wall and recovery well RW-1 is shown on Plate 2.

CONCLUSIONS

Based on the results of this investigation, RESNA concludes:

- Soils in the vicinity of the new gasoline-storage tank pit did not appear to have been significantly impacted by gasoline hydrocarbons, as indicated by nondetectable to low concentrations of TPHg (equal to or less than 2.3 ppm) in boring soil samples, and tank pit samples collected in the vicinity of the northeastern and southeastern corners of the new tank pit;

- Shallow soils (approximately 10 feet below grade) in the immediate vicinity of the former gasoline-storage tanks appear to have been impacted by TPHg concentrations less than 50 ppm, as indicated by laboratory analytical results of tank pit soil samples, except in the northern corners of the tank pit, where soil appears to have been impacted by TPHg at concentrations of 220 ppm directly above the water table. The soil sample collected after over-excavation indicated a TPHg concentration of 33 ppm;

- Shallow soils (approximately one to two feet below grade) in the vicinity of the former product dispensers appear to have been impacted by TPHg at concentrations greater than 1,000 ppm, as indicated by analytical results of samples collected from beneath the former service island. Soil beneath the former product dispensers, and the former product lines were over-excavated to the top of the local groundwater table. Soil samples collected after over-excavation directly above groundwater, indicated concentrations of TPHg at or less than 58 ppm beneath the former dispenser lines;

- Clayey soils beneath the site, including fill material, appear to have confined gasoline hydrocarbons to the immediate vicinity of the sources previously discussed;

- The floating product previously detected in recently decommissioned monitoring well MW-2 was confirmed to have originated from the storm drain backfill from an apparent offsite source. ARCO has taken action to limit this flow into the former tank pit by constructing a slurry wall parallel to the six foot diameter storm drain and lining the area between the storm drain the slurry wall with visqueen. Soils impacted by this black hydrocarbon product were over-excavated during tank removal activities and properly disposed; and

- Based on hydrocarbon fingerprinting analyses performed by ARCO and Core Laboratories, the black hydrocarbon product appears to be a mixture of weathered gasoline and motor-oil. According to ARCO's Refinery, the black hydrocarbon product does not resemble any of ARCO's finished products.

DISTRIBUTION

RESNA recommends that copies of this report be forwarded to:

Mr. Barney Chan
Alameda County Health Services Department
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Mr. Richard Hiett
California Regional Water Quality Control Board
San Francisco Region
2101 Webster Street, Suite 500
Oakland, California 94612

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This assessment was conducted solely for the purpose of evaluating environmental conditions of the soil with respect to gasoline related to the former USTs, dispenser lines and the vicinity of the new USTs at the subject site. No soil engineering or geotechnical implications are stated or should be inferred. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available.

RECOMMENDATIONS

Based on findings during underground gasoline storage tank removal and replacement activities, RESNA recommends the following:

- ok — Replace decommissioned well MW-2 with a 4-inch diameter groundwater monitoring well in the area of former well MW-2; — into native soils. look for all detectable PHC found in H_2O.

- Monitor the recovery well (RW-1) installed between the slurry wall and the storm drain on a monthly basis for the presence of the black hydrocarbon product migrating onto the ARCO property from offsite;

- Further future work is not recommended at this time at this site as the impact to soils and groundwater at the site appear to be limited, the onsite source of hydrocarbons in soil and groundwater has been removed, existing onsite and downgradient offsite groundwater monitoring wells contain nondetectable concentrations of gasoline hydrocarbons, and the fine grained soils in the subsurface at the site do not appear to be ammenable to groundwater or soil vapor extraction. Based on this information, this site may qualify for alternative points of compliance as outlined in the RWQCB's Basin Plan Amendment; and (not good enough) (Specific testing of soil to verify)

- Pumping of groundwater from the area of the former tank pit is not recommended as the new station building is being built in this area. Based on discussions with a representative from Balby and Chang, the Geotechnical firm contracted by Barghausen Consultants, dewatering of the engineered fill from within the former tank pit area may de-stabilize the new station building.

- See if the contamination in the piping area will be detected w/ a MW

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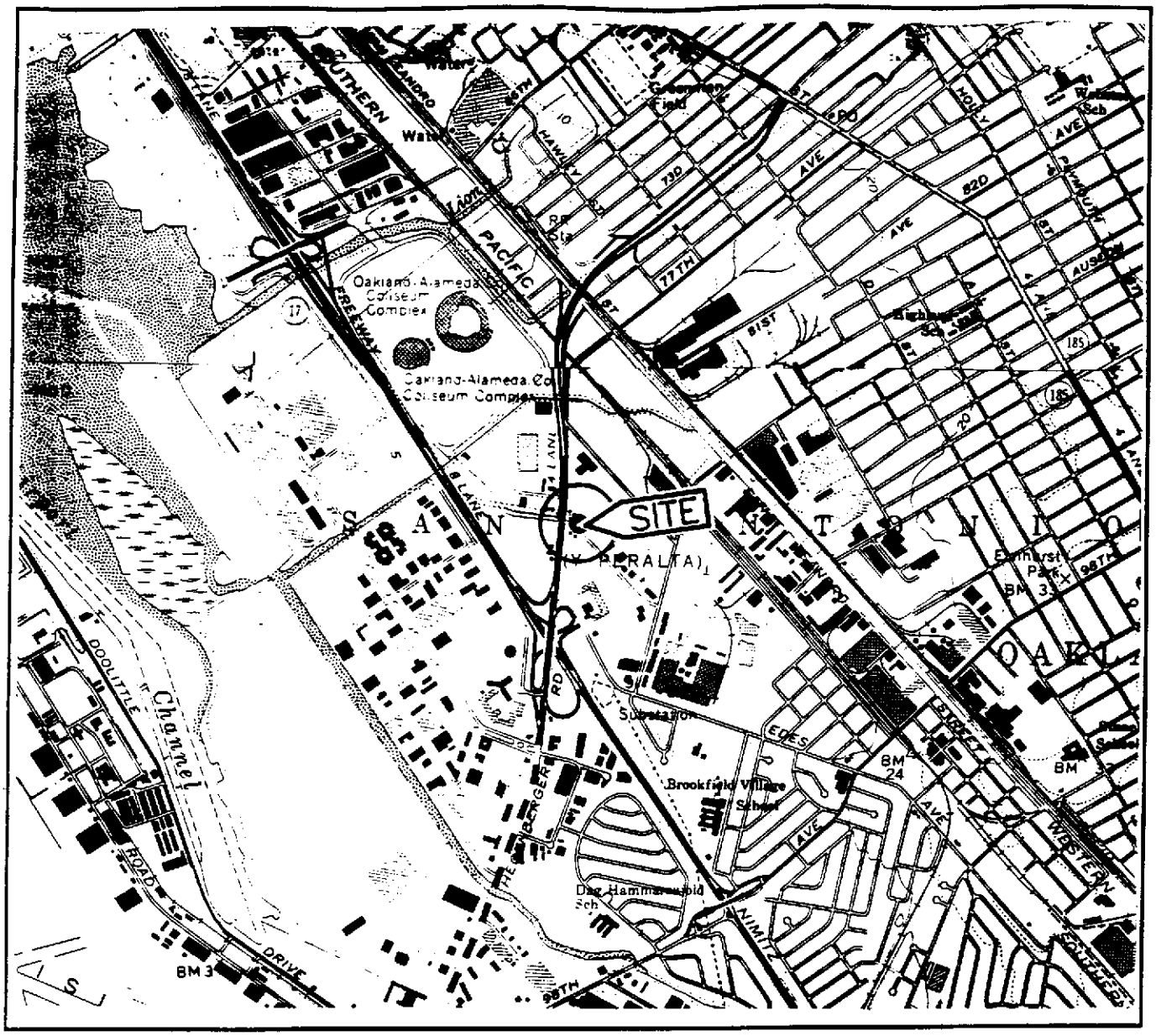
U.S. Geologic Survey, 1980. 7.5-Minute Quadrangles, Oakland East/San Leandro, California. Scale 1:2000.



Base: U.S. Geological Survey
7.5–Minute Quadrangles
Oakland East/San Leandro, California
Photorevised 1980

N

LEGEND

⊙ = Site Location

Approximate Scale

2000 1000 0 2000 4000

feet

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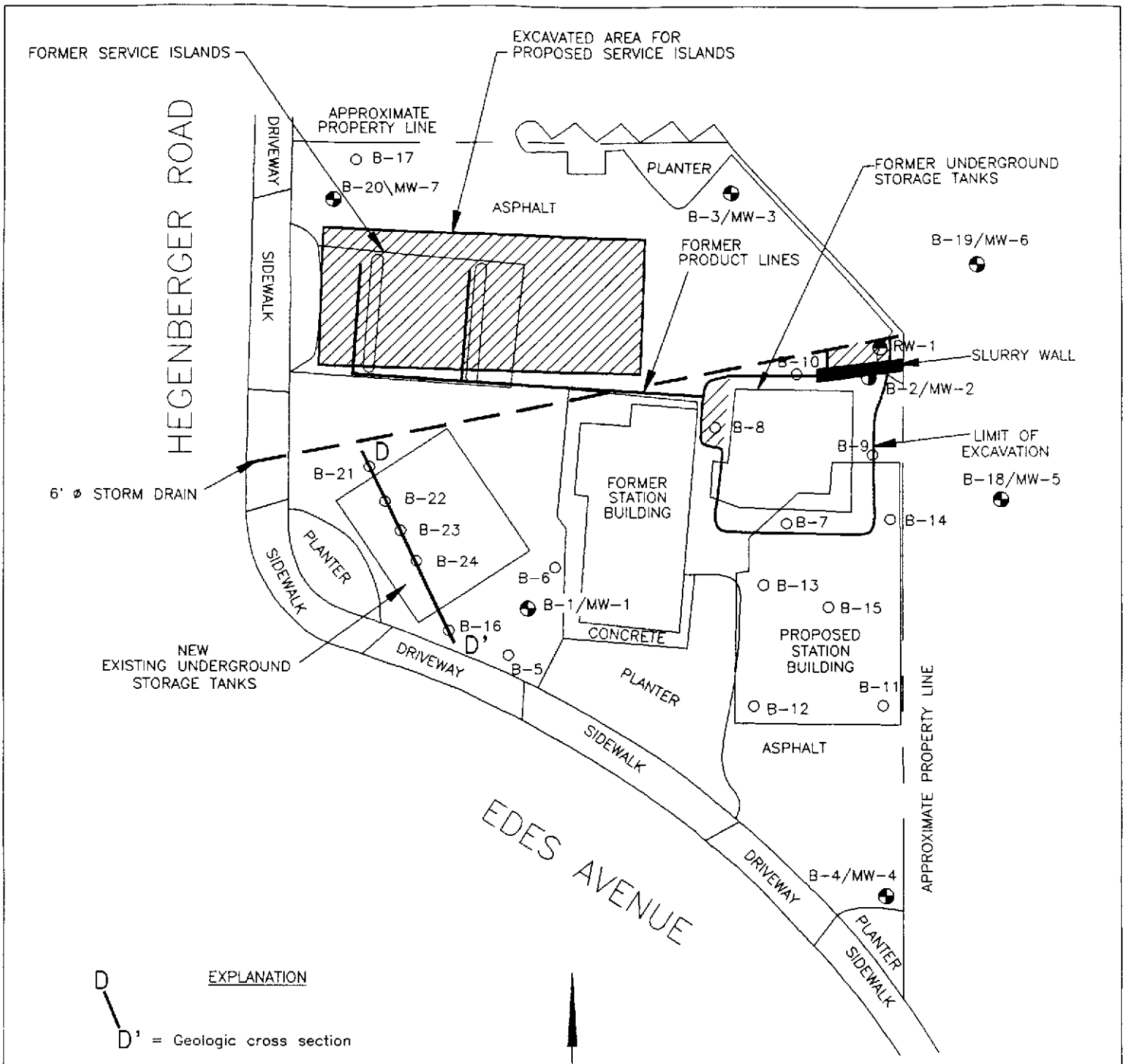
SITE VICINITY MAP
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

PLATE
1



Source: Surveyed by John Koch, Licensed Land surveyor, July 1992.

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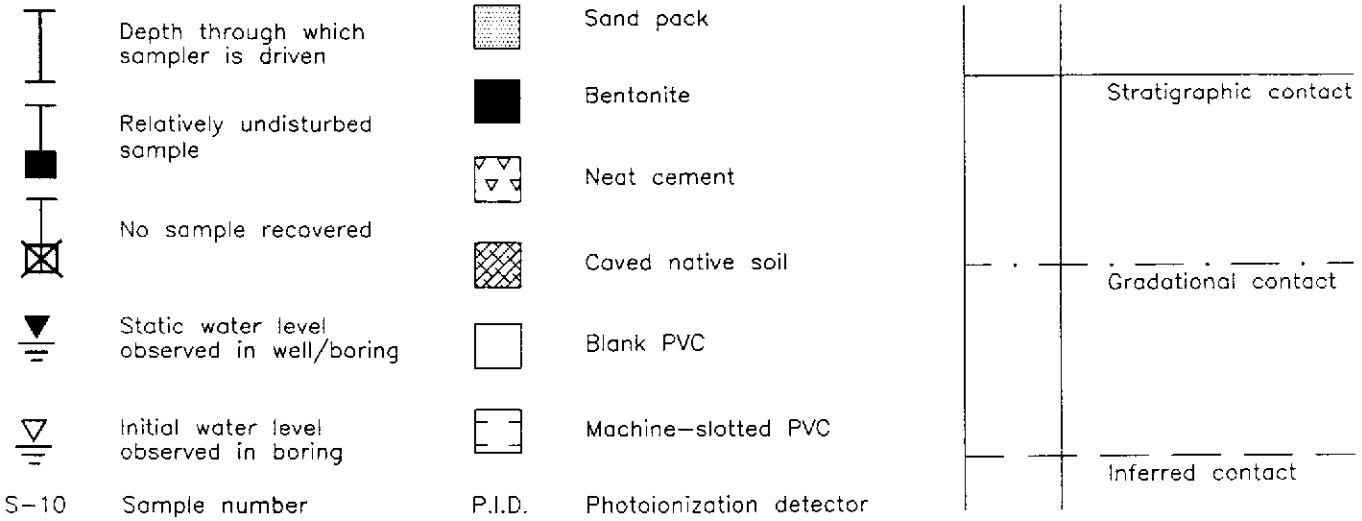
903813-S

GENERALIZED SITE PLAN
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

PLATE 2

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISION		LTR	DESCRIPTION	MAJOR DIVISION		LTR	DESCRIPTION
COARSE-GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel-sand mixtures, little or no fines.	FINE-GRAINED SOILS	SILTS AND CLAYS LL<50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity.
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines.			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		GM	Silty gravels, grave-sand-silt mixtures.			OL	Organic silts and organic silt-clays of low plasticity.
		GC	Clayey gravel, gravel-sand-clay mixtures.		SILTS AND CLAYS LL>50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
	SAND AND SANDY SOILS	SW	Well-graded sand or gravelly sands, little or no fines.			CH	Inorganic clays of high plasticity, fat clays.
		SP	Poorly-graded sands or gravelly sands, little or no fines.			OH	Organic clays of medium to high plasticity, organic silts.
		SM	Silty sands, sand-silt mixtures.	HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils.
		SC	Clayey sands, sand-clay mixtures.				



BLOWS REPRESENT THE NUMBER OF BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES TO DRIVE THE SAMPLER THROUGH EACH 6 INCHES OF AN 18-INCH PENETRATION.

GRADATIONAL AND INFERRED CONTACT LINES SEPARATING UNITS ON THE LOG REPRESENT APPROXIMATE BOUNDARIES ONLY. ACTUAL BOUNDARIES MAY BE GRADUAL. LOGS REPRESENT SUBSURFACE CONDITIONS AT THE BORING LOCATION AT THE TIME OF DRILLING ONLY.

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UNIFIED SOIL CLASSIFICATION SYSTEM AND SYMBOL KEY
ARCO Station 4494
566 Hegenberger Road
Oakland, California

PLATE 3

Depth of boring: 12 feet Diameter of boring: 8 inches Date drilled: 12/8/92

Well depth: N/A Material type: N/A Casing diameter: N/A

Screen interval: N/A Slot size: N/A

Drilling Company: Exploration Geoservices Driller: Dave and Dennis

Method Used: Hollow-Stem Auger Field Geologist: Rob Campbell

Signature of Registered Professional:

Registration No.: CEG 1463 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
					Asphalt (3 inches).	
				SW	Sandy gravel, brown, damp, medium dense: baserock.	
2				CL	Sandy clay with silt, black, damp, low plasticity, soft; no product odor: fill.	
4	S-4.5	2 2 2	0		Grades to bluish green @ 3 1/2 feet. Glass fragments in sample.	
					Grades to dark olive green @ 6 feet.	
6				CL	Silty clay with sand, dark olive green, moist, low plasticity, soft; no product odor; root holes.	
8						
10	S-10	2 2 2 2 4 2	0 ▽ 0			
12					Depth of boring 12 feet.	
14						
16						
18						
20						

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PROJECT: 69038.13

LOG OF BORING B-21
ARCO Station 4494
566 Hegenberger Road
Oakland, California

PLATE
4

Depth of boring: 11 feet Diameter of boring: 8 inches Date drilled: 12/8/92

Well depth: N/A Material type: N/A Casing diameter: N/A

Screen interval: N/A Slot size: N/A

Drilling Company: Exploration Geoservices Driller: Dave and Dennis

Method Used: Hollow-Stem Auger Field Geologist: Rob Campbell

Signature of Registered Professional:

Registration No.: CEG 1463 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (3 inches).	
				SP	Sandy gravel, light brown, damp, medium dense; baserock.	
2				CL	Sandy clay with gravel, damp, low plasticity, soft; glass and brick fragments, and rusted iron handles: fill.	
4				CL	Silty clay, black, damp, low plasticity, firm; no product odor; root holes and roots.	
	S-5.5	2 3 3	0			
6						
8					Grades to light gray @ 9 1/2 feet.	
	S-9.5	4				
10	S-10	5 6	▽ 0		Silty clay with sand stringers @ 10 feet.	
					Depth of boring 11 feet.	
12						
14						
16						
18						
20						

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LOG OF BORING B-22
ARCO Station 4494
566 Hegenberger Road
Oakland, California

PLATE
5

Depth of boring: 11 feet Diameter of boring: 8 inches Date drilled: 12/8/92

Well depth: N/A Material type: N/A Casing diameter: N/A

Screen interval: N/A Slot size: N/A

Drilling Company: Exploration Geoservices Driller: Dave and Dennis

Method Used: Hollow-Stem Auger Field Geologist: Rob Campbell

Signature of Registered Professional:

Registration No.: CEG 1463 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (3 inches).	
				SP	Sandy gravel, brown, damp, medium dense: baserock.	
2				CL	Sandy clay with silt, dark brown, damp, low plasticity, firm; no product odor, glass and brick fragments: fill.	
4	S-5	3 4 3	0		Silty clay, black, damp, firm; no product odor; root holes and roots.	
6					Grades to less sand and becomes gray @ 7 feet.	
8						
10	S-9.5 S-10	4 3 5	▽ 0		Silty clay with sand, and gravel stringers, gray, moist, low plasticity, firm; no product odor, root holes.	
12					Depth of boring 11 feet.	
14						
16						
18						
20						

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PROJECT: 69038.13

LOG OF BORING B-23
ARCO Station 4494
566 Hegenberger Road
Oakland, California

PLATE
6

Depth of boring: 11 feet Diameter of boring: 8 inches Date drilled: 12/8/92

Well depth: N/A Material type: N/A Casing diameter: N/A

Screen interval: N/A Slot size: N/A

Drilling Company: Exploration Geoservices Driller: Dave and Dennis

Method Used: Hollow-Stem Auger Field Geologist: Rob Campbell

Signature of Registered Professional:

Registration No.: CEG 1463 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
					Asphalt-covered surface.	
0					Asphalt (3 inches).	
				SP	Sandy gravel, brown, damp, medium dense: baserock.	
2				SM	Silty sand, black, damp, loose; no product odor, glass fragments: fill.	
4	S-4.5	4 3 3	0			
6						
8				CL	Silty clay, gray, moist, low plasticity, firm; no product odor, root holes.	
10	S-9.5	4 5 6	▽ = 0			
					Depth of boring 11 feet.	
12						
14						
16						
18						
20						

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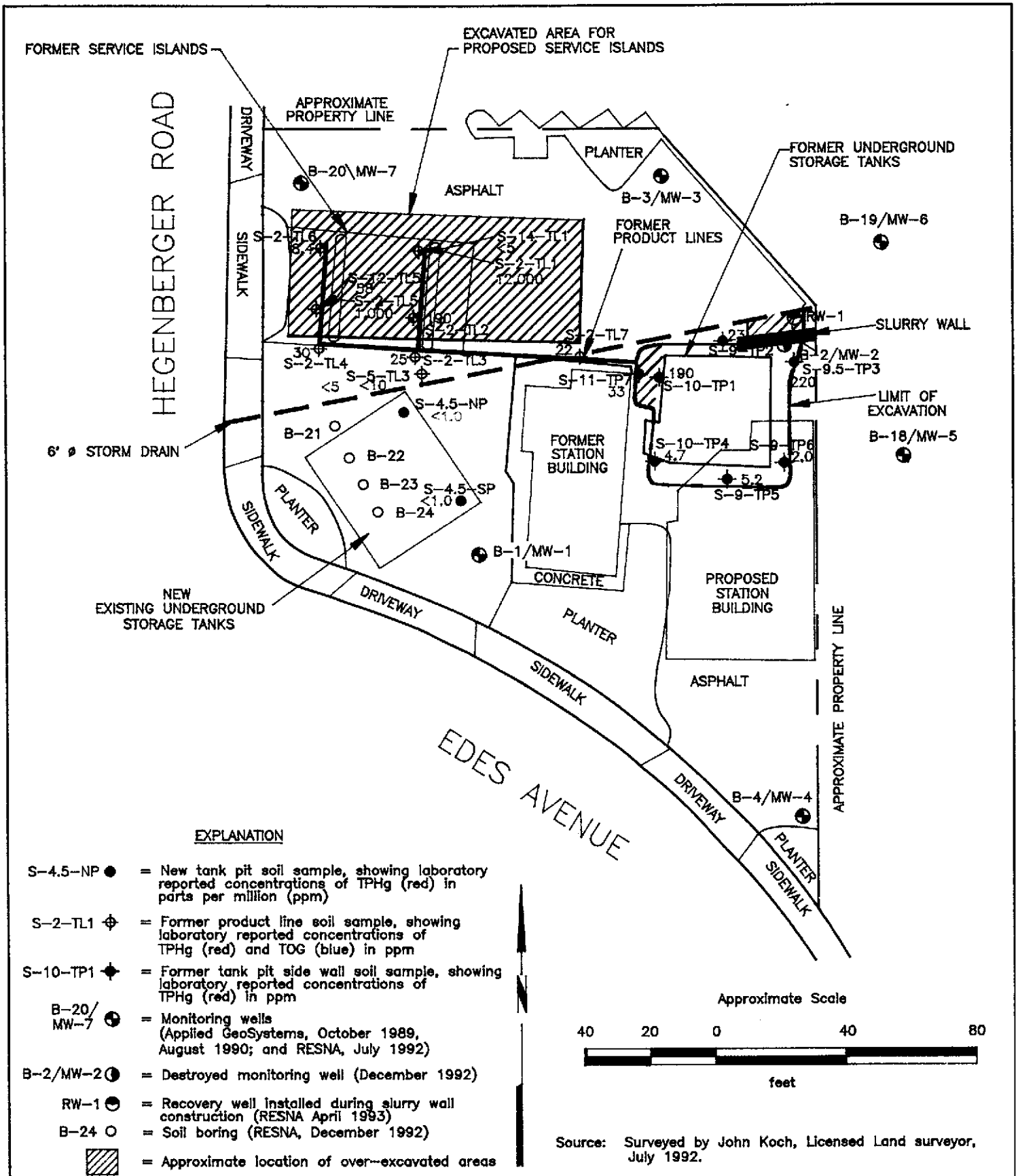
LOG OF BORING B-24
ARCO Station 4494
566 Hegenberger Road
Oakland, California

PLATE
7



EXPLANATION

- S-4.5-NP ● = New tank pit soil sample, showing laboratory reported concentrations of TPHg (red) in parts per million (ppm)
- S-2-TL1 ⊕ = Former product line soil sample, showing laboratory reported concentrations of TPHg (red) and TOG (blue) in ppm
- S-10-TP1 ✦ = Former tank pit side wall soil sample, showing laboratory reported concentrations of TPHg (red) in ppm
- B-20/MW-7 ◒ = Monitoring wells (Applied GeoSystems, October 1989, August 1990; and RESNA, July 1992)
- B-2/MW-2 ◑ = Destroyed monitoring well (December 1992)
- RW-1 ◒ = Recovery well installed during slurry wall construction (RESNA April 1993)
- B-24 ○ = Soil boring (RESNA, December 1992)
- ▨ = Approximate location of over-excavated areas

N

Approximate Scale

40 20 0 40 80

feet

Source: Surveyed by John Koch, Licensed Land surveyor, July 1992.

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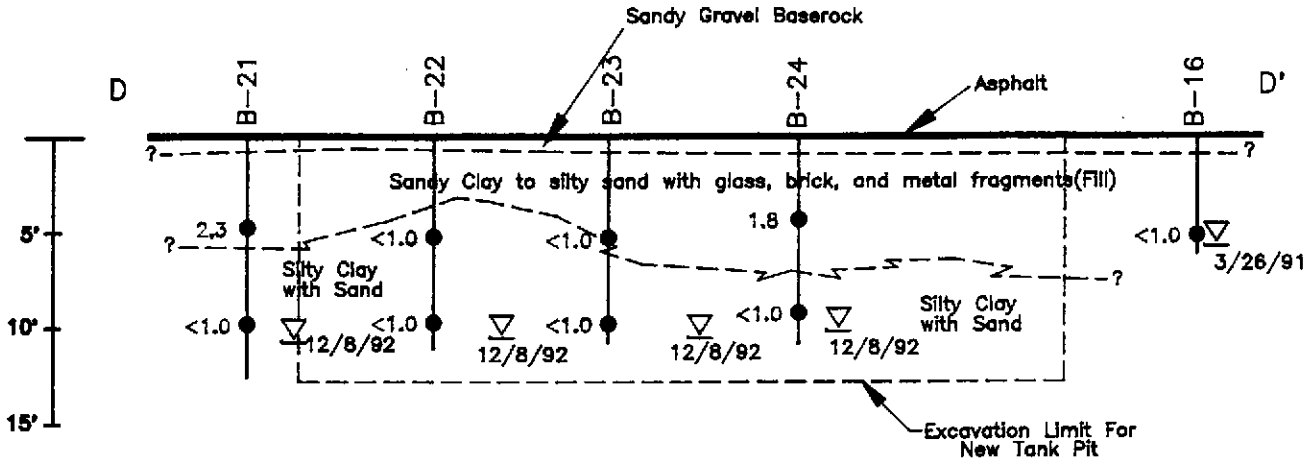
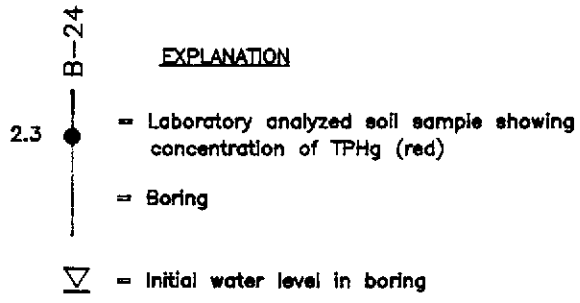
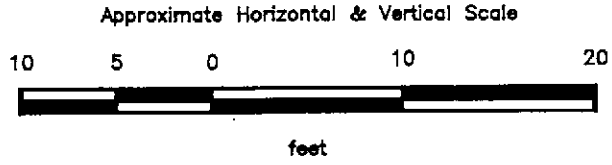
PROJECT 69038.13

SOIL SAMPLE LOCATION AND CONCENTRATION MAP
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

PLATE 8







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GEOLOGIC CROSS SECTION D-D'
ARCO Service Station 4494
566 Hegenberger Road
Oakland, California

PLATE
9

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Report on Tank Removal Investigation
ARCO Station 4494, Oakland, California.

May 17, 1993
69038.13

TABLE 1
RESULTS OF LABORATORY ANALYSES OF NEW TANK PIT SOIL SAMPLES
ARCO Station 4494
Oakland, California

Sample ID	B	T	E	X	TPHg	STLC Lead
Borings December 8, 1992						
S-4.5-B21	0.010(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	0.0070(<0.50)	2.3	0.31
S-10-B21	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
S-5.5-B22	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
S-10-B22	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
S-5-B23	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
S-10-B23	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
S-4.5-B24	<0.0050(<0.50)	0.034(<0.50)	0.039(<0.50)	0.22(<0.50)	1.8	<0.10
S-9.5-B24	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0	<0.10
Tank Pit Sidewall January 7, 1993						
S-4.5-NP	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	NA
S-4.5-SP	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	NA

Results in parts per million (ppm), the exception of TCLP BTEX which was reported in parts per billion (ppb).
< : Less than the indicated laboratory detection limit.
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes
TPHg : Total petroleum hydrocarbons as gasoline.
TPHg with BTEX distinction measured by EPA Methods 5030/8015/8020.
( ) : Analytical results of toxicity characteristic leaching procedure (TCLP) for BTEX in ppb.
NA : Not analyzed.

Sample Identification:

Soil Borings:

S-4.5-B21
- Boring number
- Depth of sample in feet
- Soil sample

Excavation Samples:

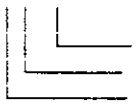
S-4.5-NP
- North corner of pit
- Depth of sample in feet
- Soil sample

TABLE 2
RESULTS OF LABORATORY ANALYSES OF FORMER GASOLINE TANK PIT SOIL SAMPLES
ARCO Station 4494
Oakland, California

Sample ID	B	T	E	X	TPHg
December 17, 1992					
S-10-TP1	**3.5**	**0.99**	**7.2**	**6.0**	**190**
S-9-TP2	0.50	0.26	0.46	2.0	23
S-9.5-TP3	**2.2**	**1.6**	**7.0**	**5.7**	**220**
S-10-TP4	0.14	0.028	0.013	0.066	4.7
S-9-TP5	0.031	0.020	0.014	0.059	5.2
S-9-TP6	0.058	0.010	0.0050	0.010	2.0
December 18, 1992					
S-11-TP7	1.7	0.083	1.0	0.63	33

Results in parts per million (ppm).
NA : Not analyzed.
< : Less than the indicated laboratory detection limit.
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes.
TPHg : Total petroleum hydrocarbons as gasoline.
(TPHg with BTEX distinction measured by EPA Methods 5030/8015/8020).

Sample Identification: S-10-TP1



Tank number
Depth of sample in feet
Soil sample

TABLE 3
RESULTS OF LABORATORY ANALYSES OF PRODUCT-LINE
AND PRODUCT-DISPENSER SOIL SAMPLES
ARCO Station 4494
Oakland, California

Sample ID	B	T	E	X	TPHg	TOG
December 17, 1992						
S-2-TL1	**220**	**1,000**	**310**	**1,700**	**12,000**	NA
S-2-TL2	5.6	15	6.6	26	190 ←	NA
S-2-TL3	0.83	0.095	0.34	0.33	25	NA
S-2-TL4	0.83	3.9	0.92	5.6	30	NA
S-2-TL5	**10**	**7.7**	**34**	**120**	**1,100**	NA
S-2-TL6	0.16	0.044	0.018	1.1	8.4	NA
S-2-TL7	0.71	0.055	0.80	0.44	22	NA
December 18, 1992						
S-14-TL1	<0.005	<0.005	<0.005	<0.015	<5	NA
S-5-TL3	0.047	0.006	0.010	0.019	<5	<10
S-12-TL5	1.5	0.21	1.6	0.95	58	NA

Results in parts per million (ppm).
< : Less than the laboratory detection limit.
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes
BTEX : Measured by EPA Method 8020.
TPHg : Total petroleum hydrocarbons as gasoline by EPA Methods 5030/8015.
TOG : Total oil and grease by EPA Method 418.1.
NA : Not analyzed.

Sample Identification:

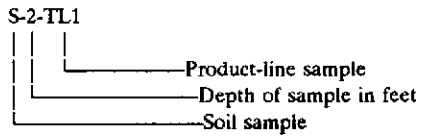


TABLE 4
RESULTS OF LABORATORY ANALYSES OF STOCKPILED SOILS
ARCO Station 4494
Oakland, California

Sample ID	B	T	E	X	TPHg	TCLP Lead
December 18, 1992						
SP1-1A-D*	0.40(<0.50)	2.9(110)	4.5(180)	49(1,900)	810(11,000)	0.68
SP1-2A-D	0.27(<0.50)	1.4(<0.50)	1.6(<0.50)	20(620)	450(5,000)	0.29
SP1-3A-D	<0.0050(<0.50)	<0.0050(<0.50)	0.10(<0.50)	1.7(59)	77(1,400)	0.33
SP1-4A-D	0.020(<0.50)	0.059(<0.50)	0.027(<0.50)	1.6(19)	2.5(<50)	0.13
SP1-5A-D	<0.0050(<0.50)	1.4(78)	2.3(110)	15(800)	360(8,000)	0.32
SP1-6A-D	0.10(<0.50)	0.54(<0.50)	0.50(<0.50)	15(530)	430(5,000)	0.58
SP2-1A-D	2.7(90)	2.6(<0.50)	20(500)	27(800)	930(9,300)	1.3
SP2-2A-D	0.80(83)	1.7(190)	3.7(140)	13(720)	220(5,000)	0.46
SP2-3A-D	15(230)	64(860)	70(750)	360(4,100)	3,200(22,000)	0.48
SP2-4A-D	4.4(370)	18(1,500)	29(1,500)	140(7,900)	1,300(34,000)	0.54
SP2-5A-D	1.7(66)	7.1(210)	11(560)	40(750)	690(8,100)	0.39
SP2-6A-D	9.2(310)	36(1,200)	59(1,500)	280(7,800)	2,700(30,000)	0.21
SP3-1A-D	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	0.026(<0.50)	<1.0(<50)	0.33
SP3-2A-D	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	<1.0(<50)	0.29
SP3-3A-D	0.0080(<0.50)	0.010(<0.50)	0.014(<0.50)	0.077(<0.50)	2.8(<50)	0.97
SP3-4A-D	0.0060(<0.50)	0.012(<0.50)	0.012(<0.50)	0.078(<0.50)	2.2(<50)	0.28
SP3-5A-D	<0.0050(<0.50)	0.0080(<0.50)	0.010(<0.50)	0.092(<0.50)	2.6(<50)	0.76
SP4-1A-D	0.022(<0.50)	0.014(<0.50)	0.036(<0.50)	0.066(<0.50)	2.3(<50)	1.7
SP4-2A-D	<0.0050(<0.50)	<0.0050(<0.50)	<0.0050(<0.50)	0.020(<0.50)	<1.0(<50)	0.18
SP4-3A-D	0.0060(<0.50)	0.011(<0.50)	0.013(<0.50)	0.062(<0.50)	1.8(<50)	0.38
SP4-4A-D	0.0080(<0.50)	0.0090(<0.50)	0.0080(<0.50)	0.049(<0.50)	1.4(<50)	0.47
SP4-5A-D	0.012(<0.50)	0.029(<0.50)	0.035(<0.50)	0.17(<).50)	4.7(<50)	0.44

Results in parts per million (ppm), with the exception of TCLP BTEX, which is in parts per billion (ppb).
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes.
TPHg : Total petroleum hydrocarbons as gasoline.
TPHg and BTEX were analyzed using EPA Methods 5030/8015/8020.
STLC : Soluable threshold limit concentration of lead in ppm.
( ) : Analytical results of toxicity characteristic leaching procedure (TCLP) for BTEX and TPHg in ppb.
< : Less than the laboratory detection limit.

Sample Identification:

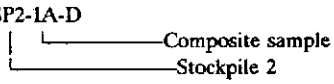
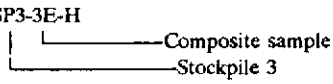


TABLE 5
RESULTS OF LABORATORY ANALYSES OF RESAMPLED STOCKPILED SOILS
ARCO Station 4494
Oakland, California

Sample ID	B	T	E	X	TPHg
March 1, 1993					
SP3-3E-H	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SP3-4E-H	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SP4-1E-H	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SP4-3E-H	<0.0050	<0.0050	0.0080	<0.0050	1.7
SP4-4E-H	<0.0050	<0.0050	<0.0050	0.021	<1.0
SP4-5E-H	<0.0050	<0.0050	<0.0050	0.013	<1.0

Results in parts per million (ppm).
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes.
TPHg : Total petroleum hydrocarbons as gasoline.
TPHg and BTEX were analyzed using EPA Methods 5030/8015/8020.
< : Less than the laboratory detection limit.

Sample Identification:



Report on Tank Removal Investigation
ARCO Station 4494, Oakland, California.

May 17, 1993
69038.13

TABLE 6
RESULTS OF LABORATORY ANALYSES OF "GRAB" WATER SAMPLE FROM FORMER TANK PIT-
BTEX, TPHg, TPHd, TOG, Pb, Zn, Cr, Cd, Ni, and Fingerprint
ARCO Station 4494
Oakland, California ug/l (ppb)

Sample ID	B	T	E	X	TPHg	TPHd	TOG	Pb	Zn	Cr	Cd	Ni
TP-1g	3,900	5,400	1,800	11,000	57,000	NA	NA	NA	NA	NA	NA	NA
TP-1d	NA	NA	NA	NA	NA	170,000*	NA	NA	NA	NA	NA	NA
TP-1o	NA	NA	NA	NA	NA	NA	81,000	NA	NA	NA	NA	NA
TP-1m	NA	NA	NA	NA	NA	NA	NA	0.19	0.31	0.069	<0.10	0.11

HYDROCARBON FINGERPRINT

TP-2 Fingerprint analysis indicated a chromatogram pattern between a degraded gasoline and motor oil

Results in parts per billion (ppb).
< : Less than the laboratory detection limit.
B: benzene, T: toluene, E: ethylbenzene, X: total xylenes
TPHg : Total petroleum hydrocarbons as gasoline.
(TPHg with BTEX distinction measured by EPA Methods 5030/8015/8020).
TPHd : Total petroleum hydrocarbons as diesel by EPA Methods 3510/3520/8015.
* : Chromatogram pattern indicated a non-diesel mix in sample.
TOG : Total oil and grease by EPA Method 418.1.
Pb : Lead by EPA Method 7421.
Zn : Zinc by EPA Method 6010.
Cr : Chromium by EPA Method 6010.
Cd : Cadmium by EPA Method 6010.
Ni : Nickel by EPA Method 6010.
The fingerprint was performed using simulated distillation by gas chromatography.

TABLE 7
RESULTS OF LABORATORY ANALYSES OF "GRAB" WATER SAMPLE FROM FORMER TANK PIT-
VOCs, BNAs, Organochlorine Pesticides, and PCBs
ARCO Station 4494
Oakland, California

Sample ID	VOCs	BNAs	Organochloride Pesticides	PCBs
TP-1 and TP-1p	3,800 Benzene 6,300 Toluene 1,500 Ethylbenzene 7,300 Total Xylenes	3,800 2-Methylnaphalene 6,600 Naphthalene	<800	<200

Results in parts per billion (ppb).
< : Less than the laboratory detection limit.
VOCs : Volatile organic compounds by EPA Method 624.
BNAs : Base neutral acids by EPA Method 625.
PCBs : Polychlorinated biphenyls (and organochloride pesticides) by EPA Method 8080.
Compounds not listed were not detected.

APPENDIX A

PREVIOUS ENVIRONMENTAL WORK

PREVIOUS ENVIRONMENTAL WORK

Beginning in December 1988 and continuing through January 1989, Pacific Environmental Group (PEG) of Santa Clara, California, and Crosby & Overton, Inc. (C&O), of Oakland, California, conducted an initial environmental investigation. The investigation included the removal of one 280-gallon waste-oil tank (WOT), and collection of soil samples from beneath the WOT for laboratory analyses (PEG, May 1989). PEG reported that the WOT showed no evidence of leakage; however, a strong product odor was noted in the soil beneath the WOT. The tank pit was excavated to a depth of 7 feet, and one soil sample (WO-1) was collected for laboratory analyses. The tank pit was deepened to 10 feet, and a second sample was collected for laboratory analyses (WO-2). The laboratory results of sample WO-1, collected at 7 feet, indicated concentrations of 4,500 ppm total oil and grease (TOG), 4,800 ppm high boiling point hydrocarbons (HBPH) calculated as oil, and 370 ppm HBPH calculated as diesel. Laboratory analysis of sample WO-2, collected at 10 feet, indicated nondetectable levels of TPHg (less than 5 ppm), TOG (less than 20 ppm), HBPH calculated as oil (less than 10 ppm), and HBPH calculated as diesel (less than 10 ppm).

Four sidewall samples were taken at a depth of 7 feet in the tank pit (WOSW-N, WOSW-E, WOSW-S, and WOSW-W). The results of these samples indicated that the concentration of TOG ranged from < 10 ppm to 200 ppm, HBPH calculated as oil ranged from < 10 ppm to 400 ppm, and HBPH calculated as diesel ranged from < 10 ppm to 33 ppm. The highest concentrations were found in sample WOSW-N. Based on these analytical results, 3-1/2 more feet of soil were excavated from the north wall of the former tank pit to remove the hydrocarbon impacted soil (PEG, May 1989).

In October of 1989, RESNA (formerly Applied GeoSystems [AGS]) drilled and sampled two soil borings (B-1 and B-2), and installed and sampled two groundwater monitoring wells (MW-1 and MW-2, respectively) (AGS, February 1991). Laboratory results of the soil and groundwater samples collected from the borings/wells indicated the presence of predominantly degraded gasoline hydrocarbons. Laboratory Analysis of soil samples from the borings for the presence of total metals, indicated concentrations below the Total Threshold Limit Concentration Values (TTLC) of the metals cadmium, chromium, lead, and zinc as reported in Title 22 of the California State Administrative Code (California Administrative Code, January 1988).

Laboratory analysis of the groundwater samples collected from well MW-1 for the presence of total metals indicated detectable levels slightly above the Maximum Contaminant Levels (MCL) for Drinking Water (Department of Health Services State of California, October 1990). A black hydrocarbon product ranging between 2 and 11 inches thick was reported

in well MW-2 at the time of drilling and well installation. Due to the presence of the black hydrocarbon product in well MW-2, the investigation was suspended until a records search could be done to evaluate potential offsite contaminant sources in the inferred upgradient direction of the site (AGS, February 1991).

In February of 1990, an environmental records search was performed (AGS, October 1990) for properties within a 1/2 mile radius of the site using information supplied by ARCO, Alameda County Flood Control and Water Conservation District (Zone 7), and the California Department of Water Resources. During the search it was discovered that several facilities in the area are under investigation for soil and groundwater impacted by solvents, metals, and petroleum hydrocarbons. In addition, numerous facilities in the area have stored of fuels and solvents in USTs. Many of these USTs were removed in the 1970's and early 1980's when there were few requirements for testing of soil and groundwater was minimal.

In August 1990, RESNA resumed work on the site with the drilling and sampling of three soil borings (B-3 through B-5), and the installation and sampling of two groundwater monitoring wells, MW-3 and MW-4 in borings B-3 and B-4, respectively. Laboratory results for the soil and water samples collected from the borings/wells indicated that hydrocarbons present consisted predominantly of degraded gasoline, and that concentrations of total metals were detected at concentrations in groundwater slightly above respective MCLs, and at concentrations in soil slightly below respective TTLCs.

As a part of the initial subsurface investigation a survey was conducted of active, inactive, and destroyed water supply wells and monitoring wells listed with the County of Alameda Public Works Agency (CAPWA) within the vicinity of the site. According to CAPWA records there were no active public-use or domestic-use water producing wells, but there were two industrial-use wells, one irrigation well, and 39 monitoring wells within a ½-mile radius of the site (AGS, February 1991).

In June 1990, AGS began quarterly monitoring and sampling of wells MW-1 and MW-2. In August 1990, monitoring wells MW-3 and MW-4 were installed and added to the quarterly monitoring program. The most recent quarterly monitoring of wells MW-1, MW-3, and MW-4, indicated nondetectable concentrations of gasoline hydrocarbons as gasoline in the groundwater (RESNA, November 1992). In previous quarters, a heavy sheen of black hydrocarbon product was reported in monitoring well MW-2; however, a skimmer was installed in MW-2 in November 1991, and in the first quarter 1992 no sheen was observed and the well was sampled. Laboratory results from MW-2 indicated concentrations of 48,000 ppm TPHg, 2,000 ppm benzene, 580 ppm toluene, 2,300 ppm ethylbenzene, and 7,000 ppm total xylenes. A groundwater gradient and flow direction of approximately 0.02 to the northeast was interpreted for the site based on depth to water levels measured between

January 19 and March 20, 1992. This flow direction was consistent with those previously interpreted, but is opposite of the inferred flow direction based on topography, and data presented by Hickenbottom and Muir (June 1988). Information obtained during the records search indicated that a buried tidal slough was present at the site before filling and development took place, and may be influencing the groundwater gradient.

In March 1991, RESNA conducted a preliminary tank replacement assessment (AGS, May 1991) which consisted of drilling and sampling twelve soil borings (B-6 through B-17), and analyzing selected soil samples from the borings. These borings were requested by ARCO to evaluate petroleum hydrocarbons in the soil before the pending removal and replacement of the existing USTs. One boring (B-6) was located in the vicinity of the proposed location of future gasoline USTs; four borings (B-7 through B-10) were drilled around the perimeter of the three existing USTs; five soil borings were drilled in the area of the proposed location of a station building; one boring (B-16) was drilled in the vicinity of the southwestern corner of the proposed gasoline USTs; and one boring (B-17) was drilled in the northwestern corner of the site.

Laboratory analytical results of the soil samples from B-6 through B-17 indicated that the soil in the area of the existing USTs had been impacted by gasoline hydrocarbons. The soil in the area of the proposed station building had not been impacted by gasoline hydrocarbons, but had been impacted by TOG. The soil in the northwestern corner of the site had been impacted by both gasoline hydrocarbons and TOG.

In December of 1991, a Horner EZY Floating Product skimmer was installed in groundwater monitoring well MW-2 as an interim groundwater remediation system. The skimmer has been checked on a monthly basis since installation, and it appears that floating product has subsequently been removed.

In July 1992, an additional subsurface investigation was performed by RESNA, which included drilling two offsite borings (B-18 and B-19) and one onsite boring (B-20), installing two offsite wells MW-5 and MW-6 in borings B-18 and B-19, and onsite well MW-7 in boring B-20. The earth materials encountered during this investigation consisted primarily of silty and sandy clays interbedded with sandy gravel and sand. Groundwater was encountered between depths of 7 and 15 feet. All samples collected from offsite borings B-18 and B-19 indicated nondetectable concentrations of TPHg (less than 50 ppm) and BTEX (less than 0.0050 ppm). Most soil samples collected from onsite boring B-20 indicated nondetectable concentrations with respect to TPHg and BTEX, with the exception of total xylenes (0.022 ppm) in a soil sample collected at seven feet. It was concluded from the additional investigation that the majority of gasoline hydrocarbons in the soil at the site appear to be limited to the area beneath and directly northeast of the then existing gasoline

USTs, at depths between 3 and 20 feet; and TPHg and BTEX appeared to be localized in the groundwater near then existing MW-2, located immediately downgradient to the former USTs.

APPENDIX B

FIELD METHODS

FIELD PROTOCOL

The following presents RESNA Industries' Inc.'s (RESNA's) field protocol for a typical site investigation involving hydrocarbon-impacted soil and/or groundwater.

Site Safety Plan

The Site Safety Plan describes the safety requirements for the evaluation of hydrocarbons in soil, groundwater, and the vadose-zone at the site. The site Safety Plan is applicable to personnel of RESNA and its subcontractors. RESNA's personnel and subcontractors of RESNA scheduled to perform the work at the site are briefed on the contents of the Site Safety Plan before work begins. A copy of the Site Safety Plan is available for reference by appropriate parties during the work. A site Safety Officer is assigned to the project.

Soil Excavation

Permits are acquired prior to the commencement of work. Excavated soil is evaluated using a field calibrated (using isobutylene) Thermo-Environmental Instruments Model 580 Organic Vapor Meter (OVM). This evaluation is done upon arrival of the soil at the ground surface in the excavator bucket by removing the top portion of soil from the bucket, and then placing the intake probe of the OVM against the surface of the soil in the bucket. Field instruments such as the OVM are useful for measuring relative concentrations of vapor content, but cannot be used to measure levels of gasoline hydrocarbons with the accuracy of laboratory analysis. Samples are taken from the soil in the bucket by driving laboratory-cleaned brass sleeves into the soil. The samples are sealed in the sleeves using aluminum foil, plastic caps, and aluminized duct tape; labeled; and promptly placed in iced storage. If field subjective analyses suggest the presence of gasoline hydrocarbons in the soil, additional excavation and soil sampling is performed, using similar methods. If groundwater is encountered in the excavation, groundwater samples are collected from the excavation using a clean Teflon® bailer. The groundwater samples are collected as described below under "Groundwater Sampling". The excavation is backfilled or fenced prior to departure from the site.

Sampling of Stockpiled Soil

One composite soil sample, consisting of four soil samples, is collected from each 50 cubic yards of stockpiled soil, and for each individual stockpile less than 50 cubic yards. Soil samples are obtained by first evaluating relatively high, average, and low areas of hydrocarbon concentration by digging approximately one to two feet into the stockpile and placing the intake probe of a field calibrated OVM against the surface of the soil; and then

collecting one sample from the "high" reading area, and three samples from the "average" areas. Samples are collected by removing the top one to two feet of soil, then driving laboratory-cleaned brass sleeves into the soil. The samples are sealed in the sleeves using aluminum foil, plastic caps, and aluminized duct tape; labeled; and promptly placed in iced storage for transport to the laboratory, where compositing is performed.

Soil Borings

Prior to the drilling of borings and construction of monitoring wells, permits are acquired from the appropriate regulatory agency. In addition to the above-mentioned permits, encroachment permits from the City or State are acquired if drilling of borings offsite on City or State property is necessary. Copies of the permits are included in the appendix of the project report. Prior to drilling, Underground Services Alert (USA) is notified of our intent to drill, and known underground utility lines and structures are approximately marked.

The borings are drilled by a truck-mounted drill rig equipped with 8- or 10-inch-diameter, hollow-stem augers. The augers are steam-cleaned prior to drilling each boring to minimize the possibility of cross-contamination. After drilling the borings, monitoring wells are constructed in the borings, or neat-cement grout with bentonite is used to backfill the borings to the ground surface.

Borings for groundwater monitoring wells are drilled to a depth of no more than 20 feet below the depth at which a saturated zone is first encountered, or a short distance into a stratum beneath the saturated zone which is of sufficient moisture and consistency to be judged as a perching layer by the field geologist, whichever is shallower. Drilling into a deeper aquifer below the shallowest aquifer is begun only after a conductor casing is properly installed and allowed to set, to seal the shallow aquifer.

Drill Cuttings

Drill cuttings subjectively evaluated as containing gasoline hydrocarbons at concentrations greater than 100 parts per million (ppm) are separated from those subjectively evaluated as containing gasoline hydrocarbons at concentrations less than 100 ppm. Evaluation is based either on subjective evidence of soil discoloration, or on measurements made using a field calibrated OVM. Readings are taken by placing a soil sample into a ziplock-type plastic bag and allowing volatilization to occur. The intake probe of the OVM is then inserted into the headspace created in the plastic bag immediately after opening it. The drill cuttings from the borings are placed in labeled 55-gallon drums approved by the Department of Transportation, or on plastic at the site, and covered with plastic. The cuttings remain the responsibility of the client.

Soil Sampling in Borings

Soil samples are collected at no greater than 5-foot intervals from the ground surface to the total depth of the borings. The soil samples are collected by advancing the boring to a point immediately above the sampling depth, and then driving a California-modified, split-spoon sampler containing brass sleeves through the hollow center of the auger into the soil. The sampler and brass sleeves are laboratory-cleaned, steam-cleaned, or washed thoroughly with Alconox® and water, prior to each use. The sampler is driven with a standard 140-pound hammer repeatedly dropped 30 inches. The number of blows to drive the sampler each successive six inches are counted and recorded to evaluate the relative consistency of the soil.

The samples selected for laboratory analysis are removed from the sampler and quickly sealed in their brass sleeves with aluminum foil, plastic caps, and plastic zip-lock bags or aluminized duct tape. The samples are then labeled, promptly placed in iced storage, and delivered to a laboratory certified by the State of California to perform the analyses requested.

One of the samples in brass sleeves not selected for laboratory analysis at each sampling interval is tested in the field using an OVM that is field calibrated at the beginning of each day it is used. This testing is performed by inserting the intake probe of the OVM into the headspace in the plastic bag containing the soil sample as described in the Drill Cuttings section above. The OVM readings are presented in Logs of Borings included in the project report.

Logging of Borings

A geologist is present to log the soil cuttings and samples using the Unified Soil Classification System. Samples not selected for chemical analysis, and the soil in the sampler shoe, are extruded in the field for inspection. Logs include texture, color, moisture, plasticity, consistency, blow counts, and any other characteristics noted. Logs also include subjective evidence for the presence of gasoline hydrocarbons, such as soil staining, noticeable or obvious product odor, and OVM readings.

Groundwater Sampling

The static water level in each well is measured to the nearest 0.01-foot using a Solinst® electric water-level sounder or oil/water interface probe (if the wells contain floating product) cleaned with Alconox® and water before use in each well. The depth of each well

is also measured. The liquid in the wells is examined for visual evidence of gasoline hydrocarbons by gently lowering approximately half the length of a Teflon® bailer (cleaned with Alconox® and water) past the air/water interface. The sample is then retrieved and inspected for floating product, sheen, emulsion, color, sediment, and clarity. Obvious product odor is recorded if noted. If floating product is present in the well, the thickness of floating product is measured using an oil/water interface probe and is recorded to the nearest 0.01 foot. Floating product is removed from wells on site visits.

Groundwater samples from the wells are collected in approximate order of increasing product concentration, as best known or estimated. Wells which do not contain floating product are purged using a submersible pump. Equipment which comes in contact with the interior of the well or the groundwater is cleaned with Alconox® and deionized or distilled water prior to use in each well. The wells are purged until withdrawal is of sufficient duration to result in stabilized pH, temperature, and electrical conductivity of the water. These parameters are measured to the nearest 0.1 pH unit, 0.1 degree F, and 10 umhos/cm, respectively, using portable meters calibrated daily to a buffer and conductivity standard, according to the manufacturer's specifications. If sufficient water is present, a minimum of four well volumes is purged from each well. If the well becomes dewatered, the water level is allowed to recover to at least 80 percent of the initial water level. When recovery of the water level has not reached at least 80 percent of the static water level after two hours, a groundwater sample will be collected when sufficient volume is available to fill the sample container. Prior to the collection of each groundwater sample, the Teflon® bailer is cleaned with Alconox® and rinsed with tap water and deionized water, and the latex gloves worn by the sampler changed. Hydrochloric acid is added to the sample vials as a preservative (when applicable). Sample containers remain sealed until usage at the site. A sample method blank is collected by pouring distilled water into the bailer and then into sample vials. Method blanks are analyzed periodically to verify effective cleaning procedures. A sample of the formation water is then collected from the surface of the water in each of the wells using the Teflon® bailer. The water samples are then gently poured into laboratory-cleaned, 40-milliliter (ml) glass vials, 500 ml plastic bottles or 1-liter glass bottles (as required for specific laboratory analysis), sealed with Teflon®-lined caps, and inspected for air bubbles to check for headspace, which would allow volatilization to occur. If a bubble is evident, the cap is removed, more sample is added, and the bottle resealed. The samples are then labeled and promptly placed in iced storage, and the wellhead is secured. A field log of well evacuation procedures and parameter monitoring is maintained. Water generated by the purging of wells is stored in 17E DOT 55-gallon drums, and floating product bailed from the wells is stored in double containment onsite; this water and product remains the responsibility of the client.

Sample Labeling and Handling

Sample containers are labeled in the field with the job number, unique sample location, depth, and date, and promptly placed in iced storage for transport to the laboratory. A Chain of Custody Record is initiated by the field geologist and updated throughout handling of the samples, and accompanies the samples to a laboratory certified by the State of California for the analyses requested. Samples are transported to the laboratory promptly to help ensure that recommended sample holding times are not exceeded. Samples are properly disposed of after their useful life has expired.

APPENDIX C

CHRONOLOGICAL SUMMARY OF SITE ACTIVITIES

SUMMARY OF SITE ACTIVITIES
ARCO STATION 4494
566 Hegenberger Road
Oakland, California

Date	Activity
12-07-92	Site meeting with ARCO, Golden West, COFD, and RESNA to discuss tank removal and replacement activities. Received drilling permits from ACFCWCD, Zone 7.
12-08-92	Drilled four soil borings (B-21 through B-24) and destroyed well MW-2. Borings B-21 through B-24 were drilled to an approximate depth of 12 feet, and well MW-2 was drilled out 1 foot below bottom of well, approximately 18 feet.
12-14-92	Called the BAAQMD to talk about how much soil could be aerated. A five day notice is needed before aeration can be initiated. A fax notification form was completed and faxed to Bertha at BAAQMD.
12-15-92	Golden West removed tank slab and exposed tanks and stockpiled contaminated soil. Scheduled GTEL and scheduled mobile lab for Friday, December 18, 1992.
12-16-92	Golden West removed canopy and exposed product delivery and vapor lines back to USTs. Flushed lines and USTs were cleaned starts to expose underground gasoline-storage tanks (USTs) at the site. No environmental work was performed.
12-17-92	Removed underground gasoline storage tanks and collected soil samples from the former tank pit side walls and beneath former product lines as directed by Mr. Barney Chan of the ACHCSA.
12-18-92	Over-excavation activities were performed at the direction of Mr. Barney Chan of the ACHCSA in the former tank pit and beneath the former product lines and collected confirmation samples which were submitted to the mobile laboratory for analysis.
12-21-92	Over-excavated soil in the northeastern corner of the former tank pit to an existing 6-foot diameter storm drain, in attempt to chase the black hydrocarbon product and find a source. It was determined by Mr. Chan of the ACHCSA and a RESNA field geologist that the black hydrocarbon product was migrating through the storm drain backfill to the former tank pit.
12-22-92	Golden West Removed asphalt for new tank pit. H & H Shipping removed water from the former tank pit and over-excavated area new storm drain.
12-23-92	Onsite meeting with ARCO and RESNA discussing slurry wall design options and future work at the site.
12-28-92	Collected water samples of the black hydrocarbon product in the former tank pit for fingerprint analyses and submitted split samples to Core Laboratories and ARCO's Refinery for analysis. Mr. Barney Chan of ACHCSA requested an Addendum Two to Work Plan to outline slurry wall construction.
12-29-92	H & H Shipping removed the black hydrocarbon product floating on the surface of the standing water in the former tank pit.
12-30-92	Brit Johnson and Barney Chan of ACHCSA called me about the soil sample results from borings B-21 through B-24. They said that we needed better lateral definition of the soil in the proposed tank pit if we were going to use it as backfill for the former UST pit. Brit wanted two samples collected from the northeastern and southeastern corners of the proposed tank pit at approximately 4½ feet. Collected 6

Chronological Summary of Site Activities
ARCO Station 4494, Oakland, California

May 17, 1993
69038.13

composite soil samples from original soil piles SP-2 and submitted the samples under Chain of Custody documentation to Laidlaw Environmental for characterization and acceptance at their landfill.

Date	Activity
12-30-92 through 01-07-93	Rain prevented constructing slurry wall and backfilling former UST pit.
01-04-93	Golden West started to install shoring for new tank hole. No environmental work performed.
01-05-93	Golden West finished shoring for new tank hole. No environmental work performed.
01-06-93	Golden West initiated excavating new tank pit and stockpiled soil for possible backfill for the former UST pit. No environmental work performed.
01-07-93	Finished excavating new tank pit, collected two soil samples (NE and SE) from the northeastern and southeastern corners of the new tank pit at approximately 4½ feet below ground surface, as per request of Britt Johnson of ACHCSA, and submitted with Chain of Custody documentation to Sequoia Analytical to be analyzed for TPHg and BTEX by EPA Methods 5030/8015/8020. The results indicated nondetectable concentrations of TPHg and BTEX in both samples. Site meeting with ARCO, RESNA, and Golden West to discuss slurry wall construction and interim groundwater remediation. The rain kept us inside the trailer and further delayed construction of the slurry wall. It was determined that day through the soil engineer for the site, Philip Chang, of B&CA, that groundwater extraction would cause differential settling of the buildings' foundation. After discussing our remedial options, Mike Whelan wanted Valli to fax him and Golden West a diagram of a proposed sparge well design.
01-08-93	Golden West lined new tank pit with four rolls of visqueen to top of tanks and installed four 10,000 gallon double-lined fiberglass tanks in the pit. Installed dead men and filter fabric.
01-11-93 through 01-15-93	Raining continually during the week, all environmental work postponed.
01-15-93	Meeting with Tom Wray of ARCO, Rob and Valli of RESNA, and Philip Chang, P.E. of B&CA. Items discussed were the following: 1) construction of proposed building without subsidence; 2) interim groundwater remediation activities; and 3) removal of stockpiled soil. Philip Chang is the ARCO soil engineering consultant. His job is to make sure that the building will not be compromised by the type of backfill and/or interim groundwater remediation within the former UST pit. The discussion centered around stabilizing the proposed building and two methods were vigorously discussed: 1) installed a pier to approximately 30 feet and 2) constructing a 1 foot thick, rebar re-enforced concrete slab, spanning the width of the former UST pit, and placing the building ontop of it. Tom Ray liked the second idea much more than the first and directed Philip Chang to look into it and get back to him. I also asked Phil to fax us (RESNA) a copy of the as-build.
01-15-93 through 01-21-93	Raining off and on at the site, engineering design for the new building ongoing, kept site activities postponed.
01-20-93	Robert Campbell (RESNA) phoned Walt (Golden West) to ask him about what is going on at the site. He said that nothing yet. They're still waiting for the engineering of the new building foundation to be completed.
01-22-93	Robert Campbell (RESNA) called Walt (Golden West) to inquire about the activities at the site, and if he has heard anything about the soil removal from the site. He did not call back.
01-25-93	Robert Campbell (RESNA) called Rick Henderson (Golden West) and asked him if he had any news about work at the site. He said that he hasn't heard a thing about it, but if he does, he will give me a call.
01-27-93	Went to the site to show Dillard where the 200 cubic yards of soil going to BFI are located.

RESNA
Working to Restore Nature

Chronological Summary of Site Activities
ARCO Station 4494, Oakland, California

May 17, 1993
69038.13

Date	Activity
01-28-93	Went to the site to observe removal of soil stockpiles SP1 and SP2.
01-29-93	Went to the site to observe removal of soil stockpiles SP1 and SP2, and sign manifests.
01-29-93	Walt called Robert Campbell and said that Golden West is pulling out of the site until ARCO figures out where they are going to put the canopy and pumps. The soil we were going to use as a form for the slurry wall was re-excavated and put back into the Buttonwillow bound soil stockpile. Walt then faxed me an Environmental Form which we signed and faxed back to him at their office in Livermore.
02-01-93	Rick called Robert Campbell and faxed an Environmental Form which Walt forgot to have me sign for the visqueen beneath the new tanks. Signed it and faxed it back.
02-01-93	Robert Campbell called Patti Dillard to see if the 1,200 cubic yards of soil removed from the site went to the correct places. She called back and said yes, 1,000 cubic yards went to Laidllaw's Class II Landfill in Buttonwillow, California and 200 cubic yards went to BFI's Class III Landfill in Livermore, California.
02-04-93	Rob called Golden West to find out where the project is going to be done. Rick said that they're going to be working on the canopy tomorrow, but he does not know about old tank hole. He called Chase, and Chase told them to start-up again on the canopy, digging out for the pylons. Mike Whelan knows about old tank hole and the ball is in his court about what to do next. Rick said that if the soil they drill out is impacted, that they'll cover it with visqueen and call me to take samples.
02-05-93	Walt called me (Rob) and said that approximately 50-100 cubic yards have not been picked-up by Dillard, because they said it was too wet. I called Dillard and spoke with Patty about it and told her that Walt said, and that we need to get rid of the dirt ASAP. She said no problem.
02-05-93	Robert Campbell called Walt and told him that I'll be onsite on Monday and Tuesday.
02-05-93	Donna (Dillard Trucking) called me (Rob) and said that 17 trucks will be out at 4494 on Monday morning at 7:00 am to remove the excavated dirt. She also pointed out that Walt was excavating the dirt from the proposed slurry wall and placing it next to the soil that Dillard was excavating. The operator from Dillard asked Walt to move the soil he was placing next to the existing soil stockpiles being removed, because he thought that Walt was opening a new excavation. Walt just moved it and never said a thing to the loading operator from Dillard. Therefore, Walt of Golden West was not correct in telling me that Dillard could not take the soil because it was too wet.
02-08-93	Robert Campbell went to the site to observe soil removal by Dillard of the soil that Golden West forgot to remove from the former tank pit.
02-08-93 through 03-01-93	ARCO Construction and Barghausen researched the options for the soil removed from the new tank pit, including using it as backfill. Golden West had moved stockpile SP-4 and placed it in three different locations. This fact has further delayed activities at the site. Consultation with Mr. Barney Chan of the ACHCSA revealed that the soil generated from the new tank pit can be used for backfilling the former tank pit (especially the nondetectable soil); however, authorization must come from Mr. Brit Johnson, who happened to be in a training seminar all week (2/22 through 2/26). Therefore, site design and planning were delayed another week.
02-16-93 through 03-01-93	Heavy rains delayed site work.
03-03-93	Results of soil samples collected last week indicated nondetectable concentrations of benzene in all samples. Therefore, the soil can be used as backfill.

RESNA
Working to Restore Nature

Chronological Summary of Site Activities
ARCO Station 4494, Oakland, California

May 17, 1993
69038.13

Date	Activity
03-05-93	Received plans from Barghausen, scheduled site meeting for 3/10/93.
03-08-93	Tank pull report completed 1st draft.
03-10-93	Site meeting with ARCO, Golden West, and RESNA personnel to discuss stockpiled soil options and backfilling of former tank pit. ARCO Environmental and ARCO Construction each agreed to pay half of the total cost for backfilling the former tank pit, including aeration of soils, fill materials, equipment, and labor. All soil indicating nondetectable concentrations of TPHg and BTEX will be disposed of by ARCO Construction.
03-11-93 through 03-16-93	Aeration of stockpiled soil.
03-17-93	Dewatered former tank pit, and initiated backfilling using boulders, filter fabric, and pea gravel.
03-18-93 through 03-23-93	Backfilling of former tank pit.
03-23-93 through 03-28-93	Rain delayed work at site, soil covered with visqueen.
03-29-93 through 03-31-93	Backfilling activities resumed, and aeration continued. Rain did not significantly saturate the soil.
04-01-93	Rain delayed work at the site, soil covered with visqueen.
04-02-93	Soil aeration resumed for the last three feet in former tank pit. Rain did not significantly saturate the soil.
04-05-93	Slurry wall constructed and 6-inch diameter recovery wall installed between slurry wall and 6-foot diameter storm drain.
04-07-93	Completed backfilling former tank pit in the vicinity of the proposed building.
04-08-93	Compaction tests of the backfilled former tank pit indicated compaction percents of 99, 97, 96, and 94; therefore, the backfilled former tank pit passed the compaction test.

APPENDIX D

WELL PERMITS

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Arco Station 4494
566 Hegenberger Road
Oakland, CA

CLIENT
Name Arco Products Co.
Address P.O. Box 5811 Phone (415) 571-2935
City San Mateo Zip 94402

APPLICANT
Name TECHNA Industries Inc.
Address 3315 Almaden Expy. Suite 34 Phone (408) 264-7723
City San Jose Zip 95118

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring		Well Destruction	

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 484288

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 4 Maximum
Hole Diameter ___ in. Depth 20 ft.

ESTIMATED STARTING DATE 12-08-92
ESTIMATED COMPLETION DATE 12-10-92

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Roland D. Campbell Date 12/8/92

FOR OFFICE USE

PERMIT NUMBER 92629
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 7 Dec 92
Wyman Hong

31992

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT ARCO STATION 4494
~~7366~~ 7366 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

CLIENT
Name ARCO
Address P.O. BOX 5811 Voice (415) 811-2400
City SAN MATEO Zip 94402

APPLICANT
Name ERIN McLUCAS RESNA INDUSTRIES INC.
Fax (408) 264-2435
Address 3315 ALMADEN EXPY SUITE 34 Voice (408) 264-7723
City SAN JOSE Zip 95118

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction	X

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 484288

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter 4 in. Depth 20 ft.
Surface Seal Depth ___ ft. Number 1

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE 12-07-92
ESTIMATED COMPLETION DATE 12-10-92

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

FOR OFFICE USE

PERMIT NUMBER 92628
LOCATION NUMBER 2S/3W 21G80

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(E.) WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 7 Dec 92
Wyman Hong

APPENDIX E

MANIFESTS FOR TANKS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

92201676

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000098868

Manifest Document No.: 91676

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address: Atlantic Richfield Co. 17315 Studebaker Road Cerritos, Ca. 90701

4. Generator's Phone (510) 447-4145

5. Transporter 1 Company Name: Erickson, Inc.

6. US EPA ID Number: CAD009466392

(510) 235-1393

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address: Gibson Environmental 475 Seaport Blvd. Redwood City, Ca. 94604

10. US EPA ID Number: CAD043260702

CAD04326070[illegible]

(415) 368-5511

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	Waste Number
a. RQ Hazardous waste liquid N.O.S. ORM-E NA9189 D018	001	TT	04900	G	D018
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: Hydrocarbon mixture with water

K. Handling Codes for Wastes Listed Above: [illegible]

(901) 1770

15. Special Handling Instructions and Additional Information: Gibson Oil Waste Stream profile #10001 ER631

24 hr. contact: Walt Orr 24 hr. phone: (209) 474-1846 16610

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Walter Orr	[signature]	12	15	92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Maurine Shagley	[signature]	12	15	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Bill Ledw	[signature]	12	16	92

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (12/91)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

GOLDEN WEST
TELEPHONE
(510) 235-1393

TEL:510-447-4145 Feb 19 93 4:54 No.010 P.03

CERTIFICATE
CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 15154

CUSTOMER GOLDEN WEST
JOB NO. 80363

FOR: Erickson, Inc. TANK NO. 10344

LOCATION: Richmond DATE: 12/22/92 TIME: 08:20:51

TEST METHOD Visual Gastech/1314 SMPA LAST PRODUCT UC

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 8000 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%
LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE TITLE INSPECTOR

CP595

GOLDEN WEST
TELEPHONE
(510) 235-1393

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 10104

CUSTOMER: GOLDEN WEST

JOB NO. 30060

FOR: Erickson, Inc. TANK NO. 10343

LOCATION: Richmond DATE: 12/22/92 TIME: 11:25:14

TEST METHOD: Visual Gastech/1314 SMPN LAST PRODUCT: UG

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE: 8000 Gallon Tank CONDITION: SAFE FOR FIRE

REMARKS: OXYGEN 20.9%
LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit: and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE TITLE INSPECTOR

CP599

GOLDEN WEST TEL:510-447-4145 Feb 19 93 4:55 No.010 P.05

Please print or type. Form designed for use on elite (12-pitch typewriter). See instructions on back of page 6. Toxic Substances Control Progc Sacramento, Califor

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A D 0 0 0 0 9 8 4 8 | Manifest Document No. 8 0 3 6 3 | 2. Page 1 of 2 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Atlantic Richfield 1723 S. Baker Rd Cerritos Ca 90701
4. Generator's Phone: 510 447 4145
A. State Manifest Document Number: 9148912
B. State Generator's ID:

5. Transporter 1 Company Name: TRIDENT TRUCK LINE, INC.
6. US EPA ID Number: C A D 9 8 2 4 8 4 3 7 0
C. State Transporter's ID: 30-791
D. Transporter's Phone: (510) 783-2881

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: ERICKSON, INC. 255 PARR BLVD. RICHMOND, CA 94801
10. US EPA ID Number: C A D 0 0 9 4 6 6 3 9 2
G. State Facility's ID: C A D 0 0 9 4 6 6 3 9 2
H. Facility's Phone: (510) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. EMPTY TANK NON-RCRA HAZARDOUS WASTE SOLID	002	T P	16000	P	State 312 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above: QUANTITY 2 EMPTY STORAGE TANK(S) 10343 10347 HAVE BEEN INERTED WITH 15 LBS. DRY ICE PER 1000 GAL. CAPACITY
K. Handling Codes for Wastes Listed Above: a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
KEEP AWAY FROM SOURCES OF IGNITION. ALWAYS WEAR HARDHATS AND GLASSES WHEN WORKING AROUND UNDERGROUND STORAGE TANKS. 24 HR. CONTACT NAME: WATT ODT AND PHONE: 209-474-1846

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
WALTER ODT AGENT FOR ARCO	Walter Odt	1	21	92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JIM WISE	Jim Wise	1	21	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space: #2) S/B PJ 1041

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
KAREN RUFFIN	Karen Ruffin	1	21	92

DO NOT WRITE BELOW THIS LINE.

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

9148912S

DHS 8022A (12/90)
EPA 8700-22

Write: TSDF SENDS THIS COPY TO DHS WITHIN 30 DAYS
To: P.O. Box 942732, Sacramento, CA 94234

State of California—Health and Welfare Agency

See instructions on back of page 6. 8023

Department of Health Services
Toxic Substances Control Program
Sacramento, California

Please print or type. Form designed for use on elite (12-pitch typewriter).

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1000009161 Manifest Document No. 801363 2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Atlantic Richfield 12355 Stuebner Kan Rd. Cerritos Ca. 90701
4. Generator's Phone: (510) 447 4145

A. State Manifest Document Number: 91489119
B. State Generator's ID:
C. State Transporter's ID: 309587
D. Transporter's Phone: (510) 783-2881
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: CAD009466392
H. Facility's Phone: (510) 235-1393

5. Transporter 1 Company Name: TRIDENT TRUCK LINE, INC.
6. US EPA ID Number: CAD982484370
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: ERICKSON, INC. 255 PARR BLVD. RICHMOND, CA 94801
10. US EPA ID Number: CAD009466392

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. EMPTY TANK NON-RCRA HAZADOUS WASTE SOLID	001	T,P	06000	P	State 512 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: QUANTITY 1 EMPTY STORAGE TANK(S) 10345 HAVE BEEN INERTED WITH 15 LBS. DRY ICE PER 1000 GAL. CAPACITY

K. Handling Codes for Wastes Listed Above: a. 99 b. c. d.

15. Special Handling Instructions and Additional Information
KEEP AWAY FROM SOURCES OF IGNTION. ALWAYS WEAR HARDHATS AND GLASSES WHEN WORKING AROUND UNDERGROUND STORAGE TANKS. 24 HR. CONTACT NAME: Walt Orr AND PHONE: 209 474 1844

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
WALTER ORR AGENT FOR ARCO	Walter E Orr	12	17	92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Bob Serna		12	17	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
DAVID SATO	DAVE SATO	12	31	92

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

91489119

DHS 8022A (12/90)
EPA 8700-22

APPENDIX F

WATER AND SOIL DISPOSAL MANIFESTS

H&H ENVIRONMENTAL SERVICES

Division of H&H Ship Service Co., Inc.
220 China Basin St., San Francisco, CA 94107
☎# (415) 543-4835 Fax # (415) 543-8265

FAX TRANSMITTAL

DATE: 2-19-93 3 **Pages including this page**

TO: John Young

COMPANY: RESNA

FROM: RON J.

SUBJECT: Manifestations for ARCO # 4494

COMMENTS:

H&H Job # 11906 + # 11955

****

[ ] Sign & Fax Back
[ ] No Reply Needed
[ ] For Your Info Only
[ ] Urgent
[ ] Routine
[ ] Call For Questions

****

FAX #: 408-264-2435 **TEL #:** 408-264-7723

Form Approved OMB No. 2050-0039 (Expires 9-30-94)
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See Instructions on back of page 6.

0366

Department of Toxic Substances Co
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A L 0 0 0 0 1 3 2 0 9	0 0 0 0 2		

3. Generator's Name and Mailing Address
ARCO
P. O. Box 5811, San Mateo, CA. 94402

4. Generator's Phone (415) 571-2434/571-2428

A. State Manifest Document Number
92218554

5. Transporter 1 Company Name
H & H Ship Service Company

6. US EPA ID Number
C A D 0 0 4 7 7 1 1 6 8

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA. 94107

10. US EPA ID Number
C A D 0 0 4 7 7 1 1 6 8

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	0 0 1	T T	0 5 0 0 0	G
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
JOB #11929
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: ARCO STATION, #4494
566 Hegenberger Road
Oakland, California

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

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Printed/Typed Name	Signature	Month	Day	Year
WALTER ORR	Walter E Orr	1 2	2 2	9 2

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
EDWARD G. MILAND	Edward G Miland	12	22	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Ashar Shaikh		12	22	92

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

EMERGENCY RESPONSE

92218554

DTSC 8022A (12/91)
EPA 8700-22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See instructions on back of page 6.

Department of Toxic Substances Contr
0381 Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A L 0 0 0 1 3 2 0 9	0 0 0 0 3		

3. Generator's Name and Mailing Address
ARCO
P. O. Box 5811, San Mateo, CA. 94402

4. Generator's Phone (415) 571-2434/571-2428

5. Transporter 1 Company Name — 6. US EPA ID Number
H & H Ship Service Company — C A D 0 0 4 7 7 1 1 6 8

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address — 10. US EPA ID Number
H & H Ship Service Company
220 China Basin Street
San Francisco, CA. 94107 — C A D 0 0 4 7 7 1 1 6 8

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	0 0 1	T T	05000	G
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
JOB #11955 — JOB SITE: ARCO STATION, #4494
24 Hr. Emergency Contact: H & H #(415) 543-4835 — 566 Hegenberger Road
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR — Oakland, California

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

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Printed/Typed Name	Signature	Month	Day	Year
Robert D. Campbell	Robert D. Campbell	1 2	2 9	9

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ESTEBAN M. PENALVER		1 2	2 9	9

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
		1 2	2 9	9

DO NOT WRITE BELOW THIS LINE.

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

DTSC 8022A (12/91)
EPA 8700—22

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

9221601?

Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: C A L 0 0 0 0 1 3 2 0 9 Manifest Document No.: 0 0 0 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 92219503

3. Generator's Name and Mailing Address
ARCO
P. O. Box 5811, San Mateo, CA. 94402

4. Generator's Phone (415) 571-2434/571-2428

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8

7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA. 94107

10. US EPA ID Number: C A D 0 0 4 7 7 1 1 6 8

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	001	TT	05000	G
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
JOB #11906
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR
JOB SITE: ARCO STATION, #4494
566 Hegenberger Road
Oakland, California

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

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Printed/Typed Name	Signature	Month	Day	Year
Robert D. Campbell	[signature]	12	18	92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
EDWARD G. MILANO	Edward G. Milano	12	18	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Richard Shaddow	[signature]	12	18	92

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

92219503

DTSC 8022A (12/91)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811 EPA ID NO. [ ]

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494 PHONE NO 415 571-2434

CONTAINERS: No. 3-7-1 VOLUME ____ WEIGHT ____

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER ____

WASTE DESCRIPTION Soil Contaminated with Waste Oil GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER ____

HANDLING INSTRUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

[signature] for ARCO products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. Hoyt Transportation EPA I.D. NO. C A D 9 8 1 6 9 2 8 0 9

ADDRESS P. O. Box 218 SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE ____

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 40-805 [signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc. EPA I.D. NO. C A D 9 8 0 6 7 5 2 7 6

ADDRESS 2500 Lokern Road DISPOSAL METHOD

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787 ☒ LANDFILL ☐ OTHER ____

PHONE NO. 800 544-7199

Jorge Dominguez [signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	14.60
C/O		RT/CD		HWDF NONE

ABS DISCREPANCY

9301934 8392

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

ADDRESS: P. O. Box 5811

EPA ID NO: CA[illegible]

CITY, STATE, ZIP: San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No. 304559 VOLUME 23 WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

[signature] for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC. NG Chronicle

EPA I.D. NO.: CAD981692809

ADDRESS: P. O. Box 218 2240 Mahoney Rd

SERVICE ORDER NO.: 1003/17

CITY, STATE, ZIP: Byron, California 94514 SANTA MARIA

PICK UP DATE: 1-29-93

PHONE NO.: 510 634-6850

TRUCK, UNIT, I.D. NO.: 10

Bill HANNA [signature]

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE 1-29-93

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO.: 800 544-7199

Derek Wiggins [signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

GEN	OLD/NEW	L	A	TONS 605
TRANS		S	B	48,460
C/O		RT/CD		HWOF NONE

DISCREPANCY

9301927

8385

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

EPA I.D. NO: CAL000400818

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No 307629 VOLUME 18 YDS WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	~~Soil~~	~~99.5~~	~~99.9~~	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: Neutral ~~pH~~ XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

[signature] for ARCO (Generator) — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE: 1/29/93

TRANSPORTER

NAME: DILLARD TRUCKING, INC. HOYT TRANSPORTATION

EPA I.D. NO: CAD981692809

ADDRESS: P. O. Box 218 350 MAPLE ST

SERVICE ORDER NO: 1003/17

CITY, STATE, ZIP: Byron, California 94514 CORONA CA 91720

PICK UP DATE: 1-29-93

PHONE NO: 510 634-6850 909 734-3191

TRUCK, UNIT, I.D. NO: 70-56 T

JOHN HARPER [signature] — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE: 1-29-93

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO: CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO: 800 544-7199

DEREK [signature] — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE: 1-29-93

GEN	OLD/NEW	L	A	~~TONS~~ CRS
TRANS		S	B	18,580
C/O		RT/CD		HWDF NONE

DISCREPANCY

45322110 YF6360 9301939 #1 8397

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA ID NO CAL000098166

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 317722 VOLUME 18 YDS WEIGHT

TYPE: ☐ TANK TRUCK XX☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D Campbell for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29-93

PHONE NO. 510 634-6850

TRUCK UNIT I.D. NO. 78 ~~317722~~

Julian Salazar [signature]

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Jack Daniels Jack Daniels 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~	LBS
TRANS		S	B	48,140	
C/O		RT/CD		HWDF NONE	DISCREPANCY

1-760111
1UN6106

9301938

8396

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA I.D. NO. CALD009908690

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No 302664 VOLUME 18/45 WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ___ XX SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Robert Schell for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. TORRES

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29 93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO 6-2A

EDDIE GARCIA Eddie Garcia 1-29 93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Jack Daniels Jack Daniels 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

GEN	OLD/NEW	L A	~~TONS~~	LBS
TRANS		S B	46540	
C/O		RT/CD	HWDF NONE	DISCREPANCY

9301935 8399

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA ID NO CAL000098468

CITY, STATE, ZIP San Mateo, Ca. 94402

566 Hegenberger, Oakland
Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 305767-305768 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK XX☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Campbell for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. -DenBeste Trucking

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 21

MARIANNE E SMITH Marianne E Smith 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800-544-7199

Derek [illegible] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS 6.05
TRANS		S	B	541620
C/O		RT/CD		HWDF NONE

DISCREPANCY

8394

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811 EPA I.D. NO. CALD009 998 68

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494 PHONE NO. 415 571-2434

CONTAINERS: No. 309059 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Richard Campbell for ARCO products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. DEN BESTE Trucking EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218 SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE 1-29-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 18 TONY SOUZA Tony Souza 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc. EPA I.D. NO. CAD980675276

ADDRESS 2500 Lokern Road DISPOSAL METHOD

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK WINDLE 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS CYS	
TRANS		S B	SL920	
C/O		RT/CD	HWDF NONE	DISCREPANCY

9351937

8395

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. CALD009809868

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No 311326 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP THUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Engdahl for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. DEN BESTE

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. F-1

PAT FARRELL Pat Farrell 1-29-9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

ADDRESS 2500 Lokern Road

DISPOSAL METHOD ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK Winnell

TYPED OR PRINTED FULL NAME & SIGNATURE 1-29-93 DATE

GEN	OLD/NEW	L	A	TONS 10.5
TRANS		S	B	520.00
C/Q		RT/CO		HWDF NONE

DISCREPANCY

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402

EPA I.D. NO: CAL0000 0986

566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No. 401.492 VOLUME 184 WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Richard D. Caffall for ARCO Products Co. 1/29/93 (Generator)

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO: CAD981692809

ADDRESS: P. O. Box 218

SERVICE ORDER NO: 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE: 1-29-93

PHONE NO: 510 634-6850

TRUCK, UNIT, I.D. NO: 189

Bill Lee 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO: CAD980675276

ADDRESS: 2500 Lokern Road

Buttonwillow, Ca. 93206-0787

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP

PHONE NO: 800 544-7199

DEREK Lindell 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS 12.5	
TRANS		S B	47,600	
C/O		RT/CD	HWDF NONE	DISCREPANCY

9301924 8382

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

EPA I.D. NO.: CAL000098 68

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No. 4D/1177 VOLUME 18 YDS WEIGHT

TYPE: ☐ TANK TRUCK XX☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1	Soil	99.5	99.9	5			
2	Waste Oil	0.1	0.5	6			
3				7			
4				8			

PROPERTIES: pH Neutral XX☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco [signature] 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO.: CAD981692809

ADDRESS: P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE: 1-29-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 229

[signature]

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

1-29-93

PHONE NO. 800 344-7199

[signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ LBS
TRANS		S	B	49,340
C/O		RT/CD		HWDF NONE

DISCREPANCY

9501720

838

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA ID NO C A L 0 0 0 0 9 8 6

ADDRESS P. O. Box 5811

566 Hegenberger, Oakland Station #4494

CITY, STATE, ZIP San Mateo, Ca. 94402

PHONE NO 415 571-2434

CONTAINERS: No. 401496 VOLUME 15 yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Peters for Arco Matthew Peters 1/2

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO C A D 9 8 1 6 9 2 8 0

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE

PHONE NO 510 634-6850

TRUCK, UNIT, I.D. NO. 489-260

Bud Lawrence Bud Lawrence 1-29-9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. C A D 9 8 0 6 7 5 2 7

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO 800 544-7199

DEREK Cowdell 1-29-9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~ 155	
TRANS		S B	46960	
C/O		RT/CD	HWDF NONE	DISCREPANCY

4930 1931

8389

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. C A L P 0 0 9 0 8 6 8

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 302291 VOLUME _____ WEIGHT _____

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: Neutral pH ____ XX SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Richard S. Call for Arco Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME ~~DILLARD TRUCKING, INC.~~ Hayter Trucking 416

EPA I.D. NO. ~~C A D 0 8 1 6 0 2 8 0 0 9~~ C A 1 0 1 5 1 2 1 6 1 6 1 2 1 4

ADDRESS P. O. Box ~~218~~

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP ~~Byron, California 94514~~ Taft Calif. 93268

PICK UP DATE 1-29-93

PHONE NO ~~510 634-6850~~ (805) 768-4366

TRUCK, UNIT, I.D. NO. 377

Rudy E. Guerrero Rudy E. G 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. C A D 9 8 0 6 7 5 2 7 6

ADDRESS 2500 Lokern Road

DISPOSAL METHOD ☐ LANDFILL ☐ OTHER _____

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK GIBSON 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ 155	
TRANS		S	B	46,180	
C/O		RT/CD		HWDF NONE	DISCREPANCY

450140 0 8386

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

EPA ID NO: CAL000009868

ADDRESS: P. O. Box 5611

CITY, STATE, ZIP: San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No. 30116666 VOLUME 13yds WEIGHT

TYPE: ☐ TANK TRUCK XX☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

(Generator) Robert D. Campbell for ARCO Products Co.

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE 1/29/93

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO: CAD981692809

ADDRESS: P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 555 Goodwin

John M. Goodwin

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE 1/29/93

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO: 800 544-7199

Derek [illegible]

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE 1-29-93

		OLD/NEW			
GEN			L	A	TONS [illegible]
TRANS			S	B	48440
C/O			RT/CD		HWDF NONE

DISCREPANCY

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811 EPA I.D. NO. CAL000098688

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494 PHONE NO 415 571-2434

CONTAINERS: No. 02 VOLUME 14 yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutcher for Arco Matthew Dutcher 1/28/93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218 SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE 1-28-93

PHONE NO 510 634-6850

TRUCK, UNIT, I.D. NO. 8 Leon W Flanders Leon W Flanders 1-28-93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc. EPA I.D. NO. CAD980675276

ADDRESS 2500 Lokern Road DISPOSAL METHOD ☑ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO 800 544-7199

HILARIO CALVES 1-28-93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS 50 620	
TRANS		S B		
C/O		RT/CD	HWDF NONE	DISCREPANCY

9301821

8996

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402

566 Hegenberger, Oakland Station #4494

EPA I.D. NO.: C A L 0 0 0 0 0 9 8 6 8

PHONE NO.: 415 571-2434

CONTAINERS: No. 401486 VOLUME 18 yds WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco Matthew Dutra 1/28/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO.: C A D 9 8 1 6 9 2 8 0 9

ADDRESS: P. O. Box 218

SERVICE ORDER NO: 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE

PHONE NO.: 510 634-6850

TRUCK, UNIT, I.D. NO.: 35

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: C A D 9 8 0 6 7 5 2 7 6

ADDRESS: 2500 Lokern Road

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO.: 800 544-7199

Robert Jones Robert Jones 1-28-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

Jack Daniels Jack Daniels 1-28-93

GEN	OLD/NEW	L A	LBS	39260	
TRANS		S B			
C/Q		RT/CD	HWDF NONE	DISCREPANCY	

4 501828 8378

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

EPA ID NO: CAL000098068

ADDRESS: P. O. Box 5811

566 Hegenberger, Oakland
Station #4494

CITY, STATE, ZIP: San Mateo, Ca. 94402

PHONE NO: 415 571-2434

CONTAINERS: No. 319837 VOLUME: 15 yds WEIGHT:

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5 6130	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco [signature] 1/28/93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO.: CAD981692809

ADDRESS: P. O. Box 218

SERVICE ORDER NO.: 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE:

PHONE NO.: 510 634-6850

TRUCK, UNIT, I.D. NO.: 6

Scot Black [signature] 1-28-93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO.: 800 544-7199

Jack Daniels [signature] 1-28-93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ 41540 LBS
TRANS		S	B	
C/O		RT/CD		HWDF NONE

DISCREPANCY

4301827

B 8377

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811 EPA ID NO. CA D 0 9 9 0 9 9 8 6 5

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494 PHONE NO 415 571-2434

CONTAINERS: No 319839 VOLUME 1½ yds WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Dave Matthew Dutra 11/28/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC. EPA I.D. NO. CA D 9 8 1 6 9 2 8 0 9

ADDRESS P. O. Box 218 SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 99A Jeff Gavitt Jeff Gavitt 11/27/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc. EPA I.D. NO. CA D 9 8 0 6 7 5 2 7 6

ADDRESS 2500 Lokern Road DISPOSAL METHOD

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787 ☒ LANDFILL ☐ OTHER

PHONE NO. 800 544-7199

Jack Daniels Jack Daniels 1-28-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TRK~~ 41880	LBS
TRANS		S	B		
C/Q		RT/CD		HWDF NONE	DISCREPANCY

93001823

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan
EPA ID NO: C A L 0 0 0 0 0 9 8 6 6
ADDRESS: P. O. Box 5811
566 Hegenberger, Oakland Station #4494
CITY, STATE, ZIP: San Mateo, Ca. 94402
PHONE NO: 415 571-2434

CONTAINERS: No 300838, 300539 VOLUME 18 yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil
GENERATING PROCESS: UST Removal

COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9
2. Waste Oil	0.1	0.5
3.		
4.		
5.		
6.		
7.		
8.		

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.
Matthew Dutra for Arco Matthew Dutra 1/28/93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.
EPA I.D. NO: C A D 9 8 1 6 9 2 8 0 9
ADDRESS: P. O. Box 218
SERVICE ORDER NO: 1003/17
CITY, STATE, ZIP: Byron, California 94514
PICK UP DATE: 1-28-93
PHONE NO: 510 634-6850
TRUCK, UNIT, I.D. NO: 9C17955; 1U69707
Douglas W. Minton Douglas W. Minton 1-28-9
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.
EPA I.D. NO: C A D 9 8 0 6 7 5 2 7
DISPOSAL METHOD
ADDRESS: 2500 Lokern Road
☒ LANDFILL ☐ OTHER
CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787
PHONE NO: 800 544-7199
Hilani Catalu 1-28-9
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS 15.84	CBS.
TRANS		S	B		
C/O		RT/CD		HWDF NONE	DISCREPANCY

9301820

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA ID NO. C A L 0 0 0 0 0 9 8 6

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. ~~[illegible]~~ 401484 VOLUME 15 yds WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutcher Prod Matthew Dutcher 1/28/94

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. C A D 9 8 1 6 9 2 8 0 9

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 689

JOHN SANCHEZ John Sanchez 1/28/94

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. C A D 9 8 0 6 7 5 2 7 6

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Gabriel Ortega Gabriel Ortega 1/28

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~ 165	
TRANS.		S B	49000	
C/O		RT/CD	HWDF NONE	DISCREPANCY

4501824

9000

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402

566 Hegenberger, Oakland Station #4494

EPA I.D. NO.: C A L 0 0 0 0 0 0 9 8 6 8

PHONE NO.: 415 571-2434

CONTAINERS: No. 1 312637 VOLUME: 18 yds WEIGHT:

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER:

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
Waste Oil	0.1	0.5			
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco Matthew Dutra 1/28/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO.: C A D 9 8 1 6 9 2 8 0 9

ADDRESS: P. O. Box 218

1003/17

SERVICE ORDER NO.:

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE: 1-28-93

PHONE NO.: 510 634-6850

TRUCK, UNIT, I.D. NO.: 888 312637

PHIL MANDELBAUM 1-28-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: C A D 9 8 0 6 7 5 2 7 6

ADDRESS: 2500 Lokern Road

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO.: 800 544-7199

DEREK Wandell 1-28-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ 10	
TRANS		S	B	17.60	
C/Q		RT/CD		HWDF NONE	DISCREPANCY

h 8379

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. C A L 0 0 0 0 0 9 8 6 8

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 401492 (1) VOLUME 18 yds WEIGHT

TYPE: ☐ TANK TRUCK XX☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS [illegible] UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
Waste Oil	0.1	0.5			
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral XX☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco Matthew Dutra 1/28/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. C A D 9 8 1 6 9 2 8 0 9

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 01-28-93

PHONE NO 510 634-6850

TRUCK, UNIT, I.D. NO. 189

Bill Lee

TYPED OR PRINTED FULL NAME & SIGNATURE

01-28-93

DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. C A D 9 8 0 6 7 5 2 7 6

ADDRESS 2500 Lokern Road

DISPOSAL METHOD ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO 800 544-7199

[illegible]

TYPED OR PRINTED FULL NAME & SIGNATURE

1/28/93

DATE

GEN	OLD/NEW	L A	TONS 4.95	
TRANS		S B		
C/O		RT/CD	HWDF NONE	DISCREPANCY

9501806 837

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA I.D. NO. CA1000098 6

ADDRESS P. O. Box 5811

566 Hegenberger, Oakland
Station #4494

CITY, STATE, ZIP San Mateo, Ca. 94402

PHONE NO 415 571-2434

CONTAINERS: No. 300810 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK XX☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for ARCO Matthew Dutra 1/28/93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-28-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 39

JIM FERREIRA Jim Ferreira 1-28-93
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

DISPOSAL METHOD ☑ LANDFILL ☐ OTHER

ADDRESS 2500 Lokern Road

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

HILARIO CAVALLI [signature] 1-28
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS 45480 L05	
TRANS		S	B		
C/Q		RT/CD		HWDF NONE	DISCREPANCY

9301825

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO CAL0000098 6

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 3016666 VOLUME 18 yds WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ___ XX ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco Matthew Dutra 1/28/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1/28/93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 555

John M. Goodwin 1/28/

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

ADDRESS 2500 Lokern Road

DISPOSAL METHOD

X LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Jack Daniels John M. Goodwin 1/28/9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~	54540 LBS
TRANS		S	B		
C/O		RT/CD		HWDF NONE	DISCREPANCY

9302214

8485

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA I.D. NO. CALOOOOOO868

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402

566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No 401497 VOLUME 18Y WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert S. Gyfell For ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 3-8-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 88

Percy Rogers Percy Rogers 3-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Glenn Rodin 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS	44,800
TRANS		S B		
C/O		RT/CD	HWDF	NONE

DISCREPANCY

9302212

8483

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO CAL0000098688

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 401499 VOLUME 18yDS WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: Neutral pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Campbell For Arco Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 2 8 93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 289

WALTER MOUGHLER Walter Moughler 2 8 93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Gabriel Ortega Gabriel Ortega 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS 165	
TRANS		S	B	50,480	
C/D		RT/CD		HWDF NONE	DISCREPANCY

9302210

8481

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. CAL0000098688

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 4/01498 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Campbell For ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 2-8-93

PHONE NO 510 634-6850

TRUCK, UNIT, I.D. NO. 389

Robert Hosmer Robert Hosmer 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

ADDRESS 2500 Lokern Road

DISPOSAL METHOD ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 00-544-7199

Glenn Nedini 2/9/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~	
TRANS		S B	50520	
C/Q		RT/CD	HWDF NONE	DISCREPANCY

930221 B1

8482

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. CAL0000098688

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 401496 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH Neutral ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS: Profile 1059-BDN-0193, Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Campbell For ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 489-280

Bud Lawrence Bud Lawrence 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

ADDRESS 2500 Lokern Road

DISPOSAL METHOD

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Glenn Medina 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ LBS	
TRANS		S	B	49480	
C/O		RT/CD		HWDF NONE	DISCREPANCY

9302215

8486

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. C A L 0 0 0 0 0 9 8 6 8

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 401483 VOLUME _____ WEIGHT _____

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1 Soil	99.5	99.9	5		
2 Waste Oil	0.1	0.5	6		
3			7		
4			8		

PROPERTIES: Neutral pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Campbell For ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. C A D 9 8 1 6 9 2 8 0 9

ADDRESS P. O. Box 218

SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 2-8-93

PHONE NO 510 634-6850

TRUCK, UNIT, I.D. NO.

ROBERT JONES Robert Jones

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. C A D 9 8 0 6 7 5 2 7 6

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER _____

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO 800 544-7199

Gabriel Ortega Gabriel Ortega 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~ lbs	
TRANS		S B	33,460	
T/O		RT/CD	HWDF NONE	DISCREPANCY

93022216

8286

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO PRODUCTS ATTN: MIKE WHELAN

ADDRESS P.O. BOX 5811

EPA I.D. NO. CAL000099818

CITY, STATE, ZIP SAN MATEO, CA. 94402 566 HEGENBERGER, OAKLAND STATION #4494

PHONE NO 415 571 2434

CONTAINERS: No. 401484 VOLUME 18 YARDS WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION SOIL CONTAMINATED WITH WASTE OIL

GENERATING PROCESS UST REMOVAL

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. SOIL	99.5	99.9	5.		
2. WASTE OIL	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH NEUTRAL ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS PROFILE 1059-BNO-0193 STATION #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D Campbell FOR ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981161928 09

ADDRESS P.O. BOX 218

SERVICE ORDER NO. 10033/17

CITY, STATE, ZIP BYRON, CALIFORNIA 94514

PICK UP DATE 2/8/93

PHONE NO 510 634 6850

TRUCK, UNIT, I.D. NO 689

JOHN SANCHEZ 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME LAIDLAW ENVIRONMENTAL SERVICES, INC.

EPA I.D. NO. CAD980167276

ADDRESS 2500 LOKERN ROAD

DISPOSAL METHOD ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP BUTTONWILLOW, CA. 93206-0787

PHONE NO 800 544 7199

Glenn Dedini 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~ Lb	
TRANS		S B	43,540	
C/Q		RT/CD	HWOF NONE	DISCREPANCY

9302213

8484

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA I.D. NO. CAL0000098 68

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 401495 VOLUME 18Y WEIGHT

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ____ XX SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert D. Engbell For ARCO Products Co. 2/8/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 2-8-93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 39

Jim Ferreira Jim Ferreira 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Glenn Medini 2-8-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	~~TONS~~ CY	
TRANS		S B	47660	
C/O		RT/CD	HWDF NONE	DISCREPANCY

Waste Systems™
WNING-FERRIS INDUSTRIES

No. 905290

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No.: 415-571-2434

Phone No.:

BFI Waste Code: CA 405 123092 49956

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

E. F. STERZI — Generator Authorized Agent Name
Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No.: 48
Phone No.: 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Gary Riddell

Address: P. O. Box 218
Byon, California 94544

Vehicle License No./State: 2N57450 / CA.
Vehicle Certification: 309762

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature
02 01 93 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
02 01 93 — Receipt Date

PASS CODE

/86

BFI260-720

Waste Systems™
NING-FERRIS INDUSTRIES

No. 905289

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No.: 415-571-2434
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Eric Sterzl — Signature — 02 01 93 Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Truck No.: 413
Phone No.: 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Guy Reed

Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: 2N56250/CA

Vehicle Certification: 309762

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 02 01 93 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 02 01 93 Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 02 01 93 Receipt Date

19700

PASS CODE

10/86

BFI260-720

Waste Systems™
NING-FERRIS INDUSTRIES

No. 905292

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No.: 415 — 571 2434

Phone No.: ___ — ___

BFI Waste Code: CA 0 0 3 | 1 2 3 0 9 2 | 4 9 9 6 4

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Eric Gerzi — Generator Authorized Agent Name
Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No.: 24
Phone No.: 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Bill Pohley

Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: SP27564

Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Bill Pohley — Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bill Pohley — Driver Signature
02 01 93 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510 — 447 0491

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
02 01 93 — Receipt Date

PASS CODE

10/86

BFI260-72

Waste Systems™
ING-FERRIS INDUSTRIES

No. 905289

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No.: 415-571-2434
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste	Quantity	Units	Containers No.	Containers Type
NON HAZARDOUS SOIL	00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

ERIC STERZL — Generator Authorized Agent Name
Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No.: 24
Phone No.: 510-634-6850

Transporter Name: Billard Trucking, Inc. 1003/17
Driver Name (Print): Bill Billy

Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: SP27564 FH62
Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Bill Billy — Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bill Billy — Driver Signature
02 01 93 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
02 01 93 — Receipt Date

PASS CODE

0/86

BFI260-720

TRANSPORTER COPY

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 905287

NON-HAZARDOUS SPECIAL WASTE MANIFES

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo, Ca. 94402
Phone No. 415-571-2434

Generating Location: ARCO Station #4494
Address: 566 Hegenberger
Oakland, CA
Phone No.

BFI Waste Code: CA 405 123092 499964

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	02	T

Typ
D - Dru
C - Car
B - Bag
T - Tru
P - Pou
Y - Yar
O - Oth

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicab state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly describe classified and packaged, and is in proper condition for transportation according to applicable regulations.

ERIC STERZL — Generator Authorized Agent Name
Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No. 8
Phone No. 510-634-6850
Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Leon W Flanders
Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: 2665 3W Ca
Vehicle Certification: 308762, 309140

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered w out incident to the destination listed below.

Driver Signature
02 01 9 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No. 510-447-0491
Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accura

Name of Authorized Agent
Signature
02 01 9 — Receipt Date

PASS CODE

10/86

BFI260

TRANSPORTER RE

BFI Waste Systems
BROWNING-FERRIS INDUSTRIES

No. 905294

NON-HAZARDOUS SPECIAL WASTE MANIFE

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No.: 415-571-2434
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste	Quantity	Units	Containers No.	Containers Type
NON HAZARDOUS SOIL	0018	Y	02	T

Containers Type: D - D, C - C, B - B, T - T, P - P, Y - Y, O - O

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applic state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly descri classified and packaged, and is in proper condition for transportation according to applicable regulations.

E.F. Sterzl — Generator Authorized Agent Name
Signature
02/01/93 — Shipment Date

TRANSPORTER

Truck No.: 8
Phone No.: 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Leon W Flanders

Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: 26653W Ca
Vehicle Certification: 308767, 309, 14(

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
02/01/93 — Shipment Date

I hereby certify that the above named material was delivere out incident to the destination listed below.

Driver Signature
02/01/ — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-04

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and acc

Name of Authorized Agent
Signature
02/0 — Receipt Date

PASS CODE

10/86

B

Waste Systems™
/NING-FERRIS INDUSTRIES

No. 905291

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo, Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #4494
Address: 566 Hegenberger
Oakland, CA
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

ERIC SIERRA — Generator Authorized Agent Name
Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No.: 231
Transporter Name: Dillard Trucking, Inc. 1003/17
Address: P. O. Box 218
Byon, California 94544
Phone No.: 510-634-6850
Driver Name (Print): Kent Bott
Vehicle License No./State: 3Z88735
Vehicle Certification: 301509

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature
02 01 93 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
4001 North Vasco Rd., Livermore, Ca. 94550
Phone No.: 510-[illegible]

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate

Name of Authorized Agent
Signature
Receipt Date

PASS CODE

10/86

BFI260

Waste Systems™
NING-FERRIS INDUSTRIES

No. 905283

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo, Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #4494
Address: 566 Hegenberger
Oakland, CA
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste	Quantity	Units	Containers No.	Containers Type
NON HAZARDOUS SOIL	00018	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Rick DiBasilio — Generator Authorized Agent Name
Rick DiBasilio — Signature
02 01 93 — Shipment Date

TRANSPORTER

Truck No.: 231
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Vern Botti
Address: P. O. Box 218
Byron, California 94514
Vehicle License No./State: 3Z68745
Vehicle Certification: 301529

I hereby certify that the above named material was picked up at the generator site listed above.

Vern Botti — Driver Signature
02 01 93 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Vern Botti — Driver Signature
02 01 93 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491
Address: 4001 North Vasco Rd., Livermore, Ca. 4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 02 01 93 — Receipt Date

PASS CODE

10/86

BFI260-72

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. 4494-91-15

Chain of Custody

ARCO Facility no. 4494	City (Facility) OAKLAND	Project manager (Consultant) Joel Coffman	Laboratory name GTEL
ARCO engineer Michael Whelen	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA	Address (Consultant) 3315 ALMADEN #34 SAN JOSE, CA. 95118		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐
S-5-TL3		1	X			X		12/18/92	1030		X			X						
S-14-TL1		1	X			X		12/18/92	1100		X									
S-12-TL5		1	X			X		12/18/92	11:20		X									
S-11-TP7		1	X			X		12/18/92	1200		X									

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time
(MOBILE LAB)
Priority Rush
1 Business Day ☐
Rush
2 Business Days ☐
Expedited
5 Business Days ☐
Standard
10 Business Days ☐

Condition of sample:

Temperature received:

Relinquished by sampler	Date 12/18/92	Time 1200	Received by Bill Jou GTEL Mobile Lab.
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant
APPC-3292 (2-91)

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Southwest Region
20000 / 300 Mariner Drive
Torrance, CA 90503
(310) 371-1044
(800) 727-GTEL
Fax (310) 371-8720

690328 13

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

DEC 1992

December 22, 1992

Mr. Joel Coffman
Resna Industries
3315 Almaden Expressway, Suite 34
San Jose, CA 95118

Dear Mr. Coffman,

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12-18-92 under task order number 4494-91-1S.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the state of California under Certification #1122.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

William Jow /ms

William M. Jow
Western Region Mobile Laboratory Manager

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

ANALYTICAL RESULTS

Volatile Organics in Soil
EPA Methods Modified 8020 and Modified 8015[a]

GTEL Sample Number		Lab Blank	12219-1	12219-2	12219-3
Client Identification		--	S-5-TL3	S-14-TL1	S-12-TL5
Date Sampled		--	12-18-92	12-18-92	12-18-92
Date Extracted		--	12-18-92	12-18-92	12-18-92
Date Analyzed		12-18-92	12-18-92	12-18-92	12-18-92
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Benzene	0.005	<0.005	0.047	<0.005	1.5
Toluene	0.005	<0.005	0.006	<0.005	0.21
Ethylbenzene	0.005	<0.005	0.010	<0.005	1.6
Xylene, total	0.015	<0.015	0.019	<0.015	0.95
TPH as Gasoline	5	<5	<5	<5	58
Dilution Multiplier[b]		1	1	1	1
TFT surrogate[c], % recovery		110	121	113	86.1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Results are calculated on a wet weight basis.

b. Indicates the adjustments made for sample dilution.

c. TFT surrogate recovery acceptability limits of 72.8-123% are derived from the 99% confidence interval of all samples during the previous quarter. Expected surrogate value is 1.07 mg/kg.

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

ANALYTICAL RESULTS

Volatile Organics in Soil
EPA Methods Modified 8020 and Modified 8015[a]

GTEL Sample Number		12219-4			
Client Identification		S-11-TP7			
Date Sampled		12-18-92			
Date Extracted		12-18-92			
Date Analyzed		12-18-92			
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Benzene	0.005	1.7			
Toluene	0.005	0.083			
Ethylbenzene	0.005	1.0			
Xylene, total	0.015	0.63			
TPH as Gasoline	5	33			
Dilution Multiplier[b]		1			
TFT surrogate[c], % recovery		97.1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Board LUFT Manual procedures. Results are calculated on a wet weight basis.

b. Indicates the adjustments made for sample dilution.

c. TFT surrogate recovery acceptability limits of 72.8-123% are derived from the 99% confidence interval of all samples during the previous quarter. Expected surrogate value is 1.07 mg/kg.

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

ANALYTICAL RESULTS

Total Recoverable Petroleum Hydrocarbons in Soil
EPA 418.1/Standard Methods 503E[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Reporting Limit, mg/kg	Concentration, mg/kg
GTEL No.	Client ID					
12219-1	S-5-TL3	12-18-92	12-18-92	12-18-92	10	< 10

a. EPA 600/4-79-020, March 1983 revision. Extraction by EPA Method 3550. Results are calculated on a wet weight basis.

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

CONFORMANCE/NONCONFORMANCE SUMMARY

Abbreviations:

X = Requirements Met * = See Comments NA = Not Applicable - = Test Not Required
VOA = Volatiles SV = Semi Volatiles ND = Not Detected

#	Conformance Item	VOA GC	VOA GC/MS	SV GC	SV GC/MS	Metals	Wet Chem
1	Holding Time	X					X
2	Method Accuracy	X					X
3	Method Precision	X					X
4	Surrogate Recovery	X					NA
5	Blank	ND					ND

Comments:

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

QC Check Sample Results

Matrix: Soil

Analyte	Source	Date of Analysis	Expected Value	Units	Recovery[a], %
GC:					
Benzene	Macro Scientific	12-18-92	75.0	ug/L	89.3 (81.1-118)
Toluene	Macro Scientific	12-18-92	75.0	ug/L	85.7 (79.9-123)
Ethylbenzene	Macro Scientific	12-18-92	75.0	ug/L	86.1 (81.1-123)
Xylene, total	Macro Scientific	12-18-92	225	ug/L	86.8 (82.9-123)
Gasoline	Chevron	12-18-92	1.0	mg/L	89.5 (80-120)
Inorganic Chemistry:					
TPH/IR	J.T. Baker	12-18-92	50.0	mg/L	99.6 (80-120)

a. Acceptability limits are in parentheses.

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

Matrix Spike and Duplicate Spike Results

Matrix: Soil

Analyte	Sample ID	Date of Analysis	Sample Amount	Spike Amount	Units	Recovery. %	Duplicate Recovery[a] %	RPD[a], %
GC:								
Benzene	T212219-2	12-18-92	<0.005	1.14	mg/kg	82.4	72.2 (37.2-94.4)	13.2 (30)
Toluene	T212219-2	12-18-92	<0.005	1.14	mg/kg	87.0	77.1 (30.9-102)	12.1 (30)
Ethylbenzene	T212219-2	12-18-92	<0.005	1.14	mg/kg	90.4	81.4 (41.6-104)	10.5 (30)
Xylene, total	T212219-2	12-18-92	<0.015	3.43	mg/kg	94.1	83.8 (40.6-108)	11.6 (30)
Inorganic Chemistry:								
TPH/IR	T212219-1	12-18-92	<10	83.3	mg/kg	84.0	NA (77-124)	NA

a. Acceptability limits are in parentheses.
NA Not Applicable.

GTEL Client Number: RSN04.ARC01
Representative: Michael Whalen
Facility Number: 4494
Work Order Number: T212219

Sample and Sample Duplicate Results

Matrix: Soil

Analyte	Sample ID	Date of Analysis	Sample Results	Sample Duplicate Results	Units	RPD[a], %
Inorganic Chemistry:						
TPH/IR	T212219-1	12-18-92	<10	<10	mg/kg	NA (20)

a. Acceptability limits are in parentheses.
NA = Not Applicable.

aste Systems™
.NG-FERRIS INDUSTRIES

No. 905293

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo, Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #4494
Address: 566 Hegenberger
Oakland, CA
Phone No.:

BFI Waste Code: CA 405 123092 49964

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	01	T

Type: D - Drum, C - Cartor, B - Bag, T - Truck, P - Pounc, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

E.F. STERZI — Generator Authorized Agent Name
Signature
Shipment Date: 02/19/93

TRANSPORTER

Truck No.: M-3
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Cliff Mayhugh
Address: P. O. Box 218
Byon, California 94544
Vehicle License No./State: 3Z88987
Vehicle Certification: 300755

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
Shipment Date: 02/19/93

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature
Delivery Date: 02/20/93

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0499
Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accura

Name of Authorized Agent
Signature
Receipt Date: 02/20/93

PASS CODE

10/86

BF-26

No. 905285

aste Systems ™
NG-FERRIS INDUSTRIES

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Generating Location: ARCO Station #4494

Address: P. O. Box 5811
San Mateo, Ca. 94402

Address: 566 Hegenberger
Oakland, CA

Phone No. 415—5712434
Phone No. ___—_______

BFI Waste Code: CA 405 123092 49964

Description of Waste	Quantity	Units	Containers No.	Containers Type
NON HAZARDOUS SOIL	00018	Y	01	T

Type: D - Drum, C - Carto, B - Bag, T - Truck, P - Pounc, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: [illegible] — Signature: [illegible] — Shipment Date: [illegible]

TRANSPORTER

Truck No. M-3
Phone No. 510-634-6850

Transporter Name: Dillard Trucking, Inc. 1003/17
Driver Name (Print): Cliff [illegible]

Address: P. O. Box 218
Byon, California 94544

Vehicle License No./State: 3288987
Vehicle Certification: 300755

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature: [illegible] — Shipment Date: 82093

I hereby certify that the above named material was delivered w out incident to the destination listed below.

Driver Signature: [illegible] — Delivery Date: 82819

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No. 510—447049

Address: 4001 North Vasco Rd., Livermore, Ca.4550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accura

Name of Authorized Agent — Signature — Receipt Date: [illegible]

PASS CODE ________

10/86

BFI26

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

ADDRESS P. O. Box 5811

EPA I.D. NO. CALD009 099 898

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 312637 VOLUME _____ WEIGHT _____

TYPE: ☐ TANK TRUCK XX ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	*0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: pH ____ XX SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert Engvall for Arco Products Co (Generator 1/29/9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692800

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29-93

PHONE NO. 510 634-6850

PHIL MANDELBAUM 1-29-9

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRUCK, UNIT, I.D. NO. 88

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD980675277

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER _____

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK LINDELL 1-29-

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ LBS
TRANS		S	B	45,020
C/Q		RT/CD		HWDF NONE

DISCREPANCY

9301926 838

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA ID NO. CAL000 098 6

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 2 (300834/300835) VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK (XX) ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral ☒ SOLID (XX) ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Matthew Dutra for Arco Matthew Dutra — 1/29/
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981 6 9280

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1/29/93

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 78/78A

GLENN O. OLSON Glenn O Olson — 1/29/9
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO. CAD9806 7527

ADDRESS 2500 Lokern Road

DISPOSAL METHOD ☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK Winters [signature] — 1-29-9
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

GEN	OLD/NEW	L	A	~~TONS~~ 1.35
TRANS		S	B	46740
C/O		RT/CD		HWDF NONE

DISCREPANCY

9301929

8387

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA ID NO CALOOOOOO868

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO 415 571-2434

CONTAINERS: No. 02 VOLUME 18yds WEIGHT

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Soil	99.5	99.9	5.		
2. Waste Oil	0.1	0.5	6.		
3.			7.		
4.			8.		

PROPERTIES: Neutral pH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTUCTIONS Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Robert S. Cantrell for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE 1-29-93

PHONE NO. 310 634-6850

TRUCK, UNIT, I.D. NO. 8

LEON W FLANDERS Leon W Flanders 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

DEREK WINDER Derek Winder 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

GEN	OLD/NEW	L A	TONS 1.55	
TRANS		S B	50.460	
C/O		RT/CD	HWDF NONE	DISCREPANCY

930193 2 8390

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME ARCO Products Attn: Mike Whelan

EPA ID NO CAL000099868

ADDRESS P. O. Box 5811

CITY, STATE, ZIP San Mateo, Ca. 94402 366 Hegenberger, Oakland Station #4494

PHONE NO. 415 571-2434

CONTAINERS: No. 319837 VOLUME 18 yds WEIGHT

TYPE: ☐ TANK TRUCK XX ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Soil Contaminated with Waste Oil

GENERATING PROCESS UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: Neutral pH ____ XX ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Richard D. Campbell for ARCO Products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME DILLARD TRUCKING, INC.

EPA I.D. NO. CAD981692809

ADDRESS P. O. Box 218

SERVICE ORDER NO. 1003/17

CITY, STATE, ZIP Byron, California 94514

PICK UP DATE

PHONE NO. 510 634-6850

TRUCK, UNIT, I.D. NO. 6

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Laidlaw Environmental Services, Inc.

EPA I.D. NO CAD980675276

DISPOSAL METHOD

ADDRESS 2500 Lokern Road

☒ LANDFILL ☐ OTHER

CITY, STATE, ZIP Buttonwillow, Ca. 93206-0787

PHONE NO. 800 544-7199

Derek Lindell Scot Black Scot Black 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	~~TONS~~ 10.5	
TRANS		S	B	11,380	
C/O		RT/CD		HWDF NONE	DISCREPANCY

9301433 8391

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME: ARCO Products Attn: Mike Whelan

EPA ID NO: CAL000068105

ADDRESS: P. O. Box 5811

CITY, STATE, ZIP: San Mateo, Ca. 94402 — 566 Hegenberger, Oakland Station #4494

PHONE NO: 415 571-2434

CONTAINERS: No. 219839 VOLUME: 18 yd WEIGHT:

TYPE: ☐ TANK TRUCK XX ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION: Soil Contaminated with Waste Oil

GENERATING PROCESS: UST Removal

	COMPONENTS OF WASTE	PPM	%		COMPONENTS OF WASTE	PPM	%
1.	Soil	99.5	99.9	5.			
2.	Waste Oil	0.1	0.5	6.			
3.				7.			
4.				8.			

PROPERTIES: pH Neutral XX ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Profile 1059-BDN-0193 Station #4494

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

[signature] for Arco products Co. (Generator) 1/29/93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

EPA I.D. NO.: CAD981692809

ADDRESS: P. O. Box 218

SERVICE ORDER NO.: 1003/17

CITY, STATE, ZIP: Byron, California 94514

PICK UP DATE:

PHONE NO.: 510 634-6850

TRUCK, UNIT, I.D. NO.: 9

Jeff Gauthier [signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME: Laidlaw Environmental Services, Inc.

EPA I.D. NO.: CAD980675276

DISPOSAL METHOD: ☒ LANDFILL ☐ OTHER

ADDRESS: 2500 Lokern Road

CITY, STATE, ZIP: Buttonwillow, Ca. 93206-0787

PHONE NO.: 800 544-7199

Derek [signature] 1-29-93

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS 4.5
TRANS		S	B	45160
C/O		RT/CD		HWDF NONE

DISCREPANCY

APPENDIX G

CHAIN OF CUSTODY RECORDS AND ANALYTICAL REPORTS

ARCO Products Company Division of AtlanticRichfieldCompany

Task Order No. 4494-91-1A

Chain of Custody

ARCO Facility no.	4494
City (Facility)	Oakland
Project manager (Consultant)	Joel Coffman
Laboratory name	Sequoia
ARCO engineer	Michael Whelan
Telephone no. (ARCO)	(415) 571-2437
Telephone no. (Consultant)	(408) 264-7723
Fax no. (Consultant)	(408) 264-2435
Contract number	
Consultant name	RESNA Industries Inc.
Address (Consultant)	3315 Almaden Exp. Suite 34 San Jose, CA 95118

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐ (TLC TPH-d)	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☒ Semi VOA ☐ (BTEX and)	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	[illegible]	STLC Pb only	Hold
-4.5-B21		1	X			X		12/8/92				X						X				X	
-10-B21		1	X			X		↓				X						X				X	
-5.5-B22		1	X			X		↓				X						X				X	
-9.5-B22		1	X			X		↓															X
-10-B22		1	X			X		↓				X						X				X	
-5-B23		1	X			X		↓				X						X				X	
-9.5-B23		1	X			X		↓															X
-10-B23		1	X			X		↓				X						X				X	
-4.5-B24		1	X			X		↓				X						X				X	
-9.5-B24		1	X			X		↓				X						X				X	

Method of shipment

Special detection Limit/reporting: STLC-Pb show organic & total lead concentrations!

Special QA/QC

Remarks: Hold all samples for possible further analyses.

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☒
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☐

Condition of sample:

Temperature received:

Relinquished by sampler	Date	Time	Received by
Robert D. Campbell	12/9/92	2:55	Rebekah J. Hayes

Relinquished by	Date	Time	Received by

Relinquished by	Date	Time	Received by laboratory	Date	Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2121552	Soil, S-9.5-B24	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

DEC 1 • 1992

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 8 soil samples received at Sequoia Analytical on December 9,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2121545	Soil, S-4.5-B21	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121546	Soil, S-10-B21	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121547	Soil, S-5.5-B22	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121548	Soil, S-10-B22	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121549	Soil, S-5-B23	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121550	Soil, S-10-B23	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC
2121551	Soil, S-4.5-B24	12/8/92	EPA 5030/8015/8020 EPA 5030/8020 TCLP Extract Lead by STLC Organic Lead by STLC

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 16, 1992
Attention: Joel Coffman	First Sample #:	212-1545		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-1545 S-4.5-B21	Sample I.D. 212-1546 S-10-B21	Sample I.D. 212-1547 S-5.5-B22	Sample I.D. 212-1548 S-10-B22	Sample I.D. 212-1549 S-5-B23	Sample I.D. 212-1550 S-10-B23
Purgeable Hydrocarbons	1.0	2.3	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.0050	0.010	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.0050	0.0070	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Non-Gas Mix < C8	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92
Instrument Identification:	GCHP-7	GCHP-6	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	110	95	97	96	98	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 16, 1992
Attention: Joel Coffman	First Sample #:	212-1551		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-1551 S-4.5-B24	Sample I.D. 212-1552 S-9.5-B24
Purgeable Hydrocarbons	1.0	1.8	N.D.
Benzene	0.0050	N.D.	N.D.
Toluene	0.0050	0.034	N.D.
Ethyl Benzene	0.0050	0.039	N.D.
Total Xylenes	0.0050	0.22	N.D.
Chromatogram Pattern:		Weathered Gas	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	12/10/92	12/10/92
Instrument Identification:	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	106	95

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	TCLP Extract of Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8020	Reported:	Dec 16, 1992
Attention: Joel Coffman	First Sample #:	212-1545		

BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 212-1545 S-4.5-B21	Sample I.D. 212-1546 S-10-B21	Sample I.D. 212-1547 S-5.5-B22	Sample I.D. 212-1548 S-10-B22	Sample I.D. 212-1549 S-5-B23	Sample I.D. 212-1550 S-10-B23
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Quality Control Data

Report Limit Multiplication Factor:	20	20	20	20	20	20
Date Analyzed:	12/11/92	12/11/92	12/11/92	12/11/92	12/14/92	12/14/92
Instrument Identification:	GCHP-2	GCHP-2	GCHP-2	GCHP-2	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	101	102	103	104	88	78

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	TCLP Extract of Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8020	Reported:	Dec 16, 1992
Attention: Joel Coffman	First Sample #:	212-1551		

BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 212-1551 S-4.5-B24	Sample I.D. 212-1552 S-9.5-B24
Benzene	0.50	N.D.	N.D.
Toluene	0.50	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.

Quality Control Data

Report Limit Multiplication Factor:	20	20
Date Analyzed:	12/14/92	12/14/92
Instrument Identification:	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	102	106

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis for:	Lead by STLC	Extracted:	Dec 10, 1992
Attention: Joel Coffman	First Sample #:	212-1545	Analyzed:	Dec 14, 1992
			Reported:	Dec 16, 1992

LABORATORY ANALYSIS FOR: Lead by STLC

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
212-1545	S-4.5-B21	0.10	0.31
212-1546	S-10-B21	0.10	N.D.
212-1547	S-5.5-B22	0.10	N.D.
212-1548	S-10-B22	0.10	N.D.
212-1549	S-5-B23	0.10	N.D.
212-1550	S-10-B23	0.10	N.D.
212-1551	S-4.5-B24	0.10	N.D.
212-1552	S-9.5-B24	0.10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Soil	Received:	Dec 9, 1992
San Jose, CA 95118	Analysis for:	Organic Lead by STLC	Extracted:	Dec 15, 1992
Attention: Joel Coffman	First Sample #:	212-1545	Analyzed:	Dec 15, 1992
			Reported:	Dec 16, 1992

LABORATORY ANALYSIS FOR: Organic Lead by STLC

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
212-1545	S-4.5-B21	0.050	N.D.
212-1546	S-10-B21	0.050	N.D.
212-1547	S-5.5-B22	0.050	N.D.
212-1548	S-10-B22	0.050	N.D.
212-1549	S-5-B23	0.050	N.D.
212-1550	S-10-B23	0.050	N.D.
212-1551	S-4.5-B24	0.050	N.D.
212-1552	S-9.5-B24	0.050	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 10, 1992	Dec 10, 1992	Dec 10, 1992	Dec 10, 1992
QC Sample #:	GBLK121092 MS/MSD	GBLK121092 MS/MSD	GBLK121092 MS/MSD	GBLK121092 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.22	0.21	0.21	0.65
Matrix Spike % Recovery:	110	105	105	108
Conc. Matrix Spike Dup.:	0.22	0.22	0.22	0.65
Matrix Spike Duplicate % Recovery:	110	110	110	108
Relative % Difference:	0.0	4.6	4.6	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 11, 1992	Dec 11, 1992	Dec 11, 1992	Dec 11, 1992
QC Sample #:	GBLK121192 MS/MSD	GBLK121192 MS/MSD	GBLK121192 MS/MSD	GBLK121192 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	10	10	10	31
Matrix Spike % Recovery:	100	100	100	103
Conc. Matrix Spike Dup.:	10	10	10	30
Matrix Spike Duplicate % Recovery:	100	100	100	100
Relative % Difference:	0.0	0.0	0.0	3.3

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992
QC Sample #:	GBLK121492 MS/MSD	GBLK121492 MS/MSD	GBLK121492 MS/MSD	GBLK121492 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.7	9.7	9.7	29
Matrix Spike % Recovery:	97	97	97	97
Conc. Matrix Spike Dup.:	9.7	9.6	9.7	30
Matrix Spike Duplicate % Recovery:	97	96	97	100
Relative % Difference:	0.0	1.0	0.0	3.4

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead STLC	Organic Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 7421	LUFT
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp	S. Chin	K.V.S.
Reporting Units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Date Analyzed:	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 5, 1992
QC Sample #:	GBLK121492 MS/MSD	GBLK121492 MS/MSD	GBLK121492 MS/MSD	GBLK121492 MS/MSD	212-1405	212-0596
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	0.13	N.D.
Spike Conc. Added:	10	10	10	30	0.50	25
Conc. Matrix Spike:	10	9.8	9.9	30	0.65	22
Matrix Spike % Recovery:	100	98	99	100	104	88
Conc. Matrix Spike Dup.:	10	9.7	9.8	29	0.65	22
Matrix Spike Duplicate % Recovery:	100	97	98	97	104	88
Relative % Difference:	0.0	1.0	1.0	3.4	0.0	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. 4/94 - 91 - 15

Chain of Custody

ARCO Facility no. 4/94	City (Facility) Oakland	Project manager (Consultant) Joel Coffman	Laboratory name GRL
ARCO engineer Michael Whelan	Telephone no. (ARCO) (415) 571-2449	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA Industries	Address (Consultant) 3315 Almaden Expy. Suite 34 San Jose CA 95118		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Water	Other	Preservation: Ice	Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☒ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☒	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	DC1
SP1-1A-D			X			X		12/13/92				X		21	43	183		X	X		X
SP1-2A-D			X			X						X				84		X	X		
SP1-3A-D			X			X						X				85		X	X		
SP1-4A-D			X			X						X				86		X	X		
SP1-5A-D			X			X						X				87		X	X		
SP1-6A-D			X			X						X				88		X	X		
SP2-1A-D			X			X						X				89		X	X		
SP2-2A-D			X			X						X				90		X	X		
SP2-3A-D			X			X						X				91		X	X		
SP2-4A-D			X			X						X				92		X	X		
SP2-5A-D			X			X						X				93		X	X		
SP2-6A-D			X			X						X				94		X	X		

Special detection Limit/reporting

Special QA/QC

Remarks: Composite add sets of 4 samples into one

Lab number

Turnaround time
- Priority Rush 1 Business Day ☒
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☐

Method of shipment

Condition of sample:

Temperature received:

	Date	Time	Received by
Relinquished by sampler	12/18/92	1640	
Relinquished by	12-19-92	0708	
Relinquished by	Date	Time	Received by laboratory: Date 12/19/92 Time 10:00

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

Relinquished by [redacted] Received by GTEL Env. Lab 12/19/92 12:20

ARCO Products Company Division of AtlanticRichfieldCompany

Task Order No. 4494-91-15

Chain of Custody

ARCO Facility no. 4494 | City (Facility) Oakland | Project manager (Consultant) Joel Coffman | Laboratory name Sequoia

ARCO engineer Michael Whelan | Telephone no. (ARCO) (415) 571-2444 | Telephone no. (Consultant) (408) 264-7723 | Fax no. (Consultant) (408) 264-2435 | Contract number

Consultant name RESNA Industries INC | Address (Consultant) 3315 Almaden Exp. Suite 34 San Jose, CA 95118

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☒	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	[illegible]	TPH-d
TP-1				Y		Y	HCl	12/17/92	1100	12	3776					X						
TP-1g	(*)			Y		Y	HCl	↓	1130	↓	71								-			X
TP-1O		1		Y		Y	H2SO4		1100		72			X								
TP-1P		1		Y		Y	-		1115		73						X					
TP-1M		1		Y		Y	HNO3		1100		74										X	
TP-1d		1		Y		Y	-	↓	1100	↓	75	X										

(*) TP-1g 3 2 : 1 was already used up by GTEL, 2 remain - CB 12/21/92

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks: Please sample lower column - Avoid product

Lab number

Turnaround time
- Priority Rush 1 Business Day ☒
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☐

Condition of sample: | Temperature received:

Relinquished by sampler: Robert B. Campbell | Date 12/19/92 | Time 1640 | Received by: R. Malle

Relinquished by: R. Malle | Date 12-18-92 | Time 0700 | Received by

Relinquished by | Date | Time | Received by laboratory: Carrie Kelly | Date 12/19/92 | Time 10:00

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

[redacted] re [redacted] b [redacted] ... [redacted] ke GTEL [redacted] ENV lab 12/21/92 12:30 [redacted]

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 12 soil samples received at Sequoia Analytical on December 21,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2123783	Soil, SP1-1A-D	12/18/92	EPA 5030/8015/8020 Corrosivity, Ignitability and Reactivity
2123784	Soil, SP1-2A-D	12/18/92	EPA 5030/8015/8020
2123785	Soil, SP1-3A-D	12/18/92	EPA 5030/8015/8020
2123786	Soil, SP1-4A-D	12/18/92	EPA 5030/8015/8020
2123787	Soil, SP1-5A-D	12/18/92	EPA 5030/8015/8020
2123788	Soil, SP1-6A-D	12/18/92	EPA 5030/8015/8020
2123789	Soil, SP2-1A-D	12/18/92	EPA 5030/8015/8020
2123790	Soil, SP2-2A-D	12/18/92	EPA 5030/8015/8020
2123791	Soil, SP2-3A-D	12/18/92	EPA 5030/8015/8020
2123792	Soil, SP2-4A-D	12/18/92	EPA 5030/8015/8020
2123793	Soil, SP2-5A-D	12/18/92	EPA 5030/8015/8020
2123794	Soil, SP2-6A-D	12/18/92	EPA 5030/8015/8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 18, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3783		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-3783 SP1-1A-D	Sample I.D. 212-3784 SP1-2A-D	Sample I.D. 212-3785 SP1-3A-D	Sample I.D. 212-3786 SP1-4A-D	Sample I.D. 212-3787 SP1-5A-D	Sample I.D. 212-3788 SP1-6A-D
Purgeable Hydrocarbons	1.0	810	450	77	2.5	360	430
Benzene	0.0050	0.40	0.27	N.D.	0.020	N.D.	0.10
Toluene	0.0050	2.9	1.4	N.D.	0.059	1.4	0.54
Ethyl Benzene	0.0050	4.5	1.6	0.10	0.027	2.3	0.50
Total Xylenes	0.0050	49	20	1.7	1.6	15	15
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gas & Non-Gas Mix > C8

Quality Control Data

Report Limit Multiplication Factor:	50	25	20	1.0	100	20
Date Analyzed:	12/21/92	12/22/92	12/22/92	12/22/92	12/21/92	12/22/92
Instrument Identification:	GCHP-7	GCHP-7	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	102	97	128	111	98	119

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 18, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3789		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-3789 SP2-1A-D	Sample I.D. 212-3790 SP2-2A-D	Sample I.D. 212-3791 SP2-3A-D	Sample I.D. 212-3792 SP2-4A-D	Sample I.D. 212-3793 SP2-5A-D	Sample I.D. 212-3794 SP2-6A-D
Purgeable Hydrocarbons	1.0	930	220	3,200	1,300	590	2,700
Benzene	0.0050	2.7	0.80	15	4.4	1.7	9.2
Toluene	0.0050	2.6	1.7	64	18	7.1	36
Ethyl Benzene	0.0050	20	3.7	70	29	11	59
Total Xylenes	0.0050	27	13	360	140	40	280
Chromatogram Pattern:		Gas	Gas	Gas	Gas	Gas	Gas

Quality Control Data

Report Limit Multiplication Factor:	100	100	100	100	100	100
Date Analyzed:	12/21/92	12/21/92	12/21/92	12/21/92	12/21/92	12/21/92
Instrument Identification:	GCHP-2	GCHP-2	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	113	84	130	103	98	119

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2123783-94

Reported: Dec 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Lee	R. Lee	R. Lee	R. Lee
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192	GBLK122192	GBLK122192	GBLK122192
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.18	0.18	0.18	0.54
Matrix Spike % Recovery:	90	90	90	90
Conc. Matrix Spike Dup.:	0.19	0.18	0.18	0.56
Matrix Spike Duplicate % Recovery:	95	90	90	93
Relative % Difference:	5.4	0.0	0.0	3.6

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2123783-94

Reported: Dec 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192	GBLK122192	GBLK122192	GBLK122192
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.17	0.16	0.16	0.48
Matrix Spike % Recovery:	85	80	80	80
Conc. Matrix Spike Dup.:	0.17	0.17	0.17	0.51
Matrix Spike Duplicate % Recovery:	85	85	85	85
Relative % Difference:	0.0	6.1	6.1	6.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 18, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Soil, SP1-1A-D	Received:	Dec 21, 1992
San Jose, CA 95118			Analyzed:	Dec 22, 1992
Attention: Joel Coffman	Lab Number:	212-3783	Reported:	Dec 23, 1992

CORROSIVITY, IGNITABILITY, AND REACTIVITY

Analyte	Detection Limit	Sample Results
Corrosivity:		
pH	N.A.	8.2
Ignitability:		
Flashpoint (Pensky-Martens), °C	N.A.	> 100 °C
Reactivity:		
Sulfide, mg/kg	10	N.D.
Cyanide, mg/kg	0.50	N.D.
Reaction with water	N.A.	Negative

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 212-3783

Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cyanide	pH	Sulfide
Method:	EPA 9010	EPA 9045	EPA 9030
Analyst:	A. Savva	Y. Arteaga	N. Zahedi
Reporting Units:	mg/kg	N.A.	mg/L
Date Analyzed:	Dec 17, 1992	Dec 22, 1992	Dec 22, 1992
QC Sample #:	212-2310	212-3783	212-3837
Sample Conc.:	N.D.	8.2	N.D.
Spike Conc. Added:	10	N.A.	1300
Conc. Matrix Spike:	9.8	N.A.	1400
Matrix Spike % Recovery:	98	N.A.	108
Conc. Matrix Spike Dup.:	10	8.2	1400
Matrix Spike Duplicate % Recovery:	100	N.A.	108
Relative % Difference:	2.0	0.0	0.0

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. 4/94-91-15

Chain of Custody

ARCO Facility no. 4/94	City (Facility) Oakland	Project manager (Consultant) Joel Coffman	Laboratory name Sequoia
ARCO engineer Michael Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA Industries INC	Address (Consultant) 3315 Almaden Exp. Suite 34 San Jose, CA 95118		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	7420 10
S-2-TL1			X			X		12/17/92			X										
S-2-TL2			X			X					X						56				
S-2-TL3			X			X					X						57				
S-2-TL4			X			X					X						58				
S-2-TL5			X			X					X						59				
S-2-TL6			X			X					X						60				
S-2-TL7			X			X					X						61				
S-10-TP1			X			X					X						62				
S-9-TP2			X			X					X						63				
S-9-TP3			X			X					X						64				
S-10-TP4			X			X					X						65				
S-9-TP5			X			X					X						66				
S-9-TP6			X			X					X						67				

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

- Priority Rush 1 Business Day ☒
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☐

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler	12/18/92	1640	Received by		
Relinquished by	12-19-92	0708	Received by		
Relinquished by			Received by laboratory	12/19/92	10:00

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

12-21-92

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 13 soil samples received at Sequoia Analytical on December 21,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2123755	Soil, S-2-TL1	12/17/92	EPA 5030/8015/8020
2123756	Soil, S-2-TL2	12/17/92	EPA 5030/8015/8020
2123757	Soil, S-2-TL3	12/17/92	EPA 5030/8015/8020
2123758	Soil, S-2-TL4	12/17/92	EPA 5030/8015/8020
2123759	Soil, S-2-TL5	12/17/92	EPA 5030/8015/8020
2123760	Soil, S-2-TL6	12/17/92	EPA 5030/8015/8020
2123761	Soil, S-2-TL7	12/17/92	EPA 5030/8015/8020
2123762	Soil, S-10-TP1	12/17/92	EPA 5030/8015/8020
2123763	Soil, S-9-TP2	12/17/92	EPA 5030/8015/8020
2123764	Soil, S-9.5-TP3	12/17/92	EPA 5030/8015/8020
2123765	Soil, S-10-TP4	12/17/92	EPA 5030/8015/8020
2123766	Soil, S-9-TP5	12/17/92	EPA 5030/8015/8020
2123767	Soil, S-9-TP6	12/17/92	EPA 5030/8015/8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3755		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-3755 S-2-TL1	Sample I.D. 212-3756 S-2-TL2	Sample I.D. 212-3757 S-2-TL3	Sample I.D. 212-3758 S-2-TL4	Sample I.D. 212-3759 S-2-TL5	Sample I.D. 212-3760 S-2-TL6
Purgeable Hydrocarbons	1.0	12,000	190	25	30	1,100	8.4
Benzene	0.0050	220	5.6	0.83	0.83	10	0.16
Toluene	0.0050	1,000	15	0.095	3.9	7.7	0.044
Ethyl Benzene	0.0050	310	6.6	0.34	0.92	34	0.018
Total Xylenes	0.0050	1,700	26	0.33	5.6	120	1.1
Chromatogram Pattern:		Gas	Gas	Gas	Gas	Gas	Gas & Non-Gas Mix < C8

Quality Control Data

Report Limit Multiplication Factor:	1,000	100	5.0	5.0	100	2.0
Date Analyzed:	12/21/92	12/21/92	12/21/92	12/21/92	12/21/92	12/21/92
Instrument Identification:	GCHP-3	GCHP-7	GCHP-3	GCHP-3	GCHP-7	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	110	114	108	98	120	124

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3761		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-3761 S-2-TL7	Sample I.D. 212-3762 S-10-TP1	Sample I.D. 212-3763 S-9-TP2	Sample I.D. 212-3764 S-9.5-TP3	Sample I.D. 212-3765 S-10-TP4	Sample I.D. 212-3766 S-9-TP5
Purgeable Hydrocarbons	1.0	22	190	23	220	4.7	5.2
Benzene	0.0050	0.71	3.5	0.50	2.2	0.14	0.031
Toluene	0.0050	0.055	0.99	0.26	1.6	0.028	0.020
Ethyl Benzene	0.0050	0.80	7.2	0.46	7.0	0.013	0.014
Total Xylenes	0.0050	0.44	6.0	2.0	5.7	0.066	0.059
Chromatogram Pattern:		Gas	Gas & Non-Gas Mix	Gas	Gas	Gas & Non-Gas Mix	Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	2.0	100	1.0	1.0
Date Analyzed:	12/21/92	12/22/92	12/21/92	12/21/92	12/21/92	12/21/92
Instrument Identification:	GCHP-3	GCHP-1	GCHP-3	GCHP-3	GCHP-3	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%) *Coelution confirmed	116	149*	110	99	110	90

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3767		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 212-3767 S-9-TP6
Purgeable Hydrocarbons	1.0	2.0
Benzene	0.0050	0.058
Toluene	0.0050	0.010
Ethyl Benzene	0.0050	0.0050
Total Xylenes	0.0050	0.010
Chromatogram Pattern:		Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	12/21/92
Instrument Identification:	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	106

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2123755-67

Reported: Dec 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	B. Ali	B. Ali	B. Ali	B. Ali
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.24	0.22	0.23	0.67
Matrix Spike % Recovery:	120	110	115	112
Conc. Matrix Spike Dup.:	0.24	0.22	0.23	0.69
Matrix Spike Duplicate % Recovery:	120	110	115	115
Relative % Difference:	0.0	0.0	0.0	2.9

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2123755-67

Reported: Dec 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Villar	J. Villar	J. Villar	J. Villar
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.18	0.17	0.18	0.54
Matrix Spike % Recovery:	90	85	90	88
Conc. Matrix Spike Dup.:	0.18	0.18	0.18	0.54
Matrix Spike Duplicate % Recovery:	90	90	90	90
Relative % Difference:	0.0	5.7	0.0	1.9

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 2123755-67

Reported: Dec 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192	GBLK122192	GBLK122192	GBLK122192
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.17	0.16	0.16	0.48
Matrix Spike % Recovery:	85	80	80	80
Conc. Matrix Spike Dup.:	0.17	0.17	0.17	0.51
Matrix Spike Duplicate % Recovery:	85	85	85	85
Relative % Difference:	0.0	6.1	6.1	6.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

DEC 1992

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 1 liquid sample received at Sequoia Analytical on December 23,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2123773	Liquid, TP-1p	12/17/92	EPA 8080

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Liquid, TP-1p	Relogged:	Dec 23, 1992
San Jose, CA 95118	Analysis Method:	EPA 8080	Extracted:	Dec 28, 1992
Attention: Joel Coffman	Lab Number:	212-3773	Analyzed:	Dec 28, 1992
			Reported:	Dec 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	N.D.
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 212-3773

Reported: Dec 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Heptachlor	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	L. Laikhtman	L. Laikhtman	L. Laikhtman
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Dec 22, 1992	Dec 22, 1992	Dec 22, 1992
QC Sample #:	BLK122292	BLK122292	BLK122292
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	16	19	62
Matrix Spike % Recovery:	80	95	78
Conc. Matrix Spike Dup.:	16	20	62
Matrix Spike Duplicate % Recovery:	80	100	78
Relative % Difference:	0.0	5.6	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 6 liquid samples received at Sequoia Analytical on December 21,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2123770	Liquid, TP-1	12/17/92	EPA 624
2123771	Liquid, TP-1g	12/17/92	EPA 5030/8015/8020
2123772	Liquid, TP-1o	12/17/92	EPA 418.1 (I.R. with clean-up)
2123773	Liquid, TP-1p	12/17/92	EPA 625
2123774	Liquid, TP-1m	12/17/92	Lead Zinc Chromium Cadmium Nickel
2123775	Liquid, TP-1d	12/17/92	EPA 3510/3520/8015

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Liquid	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Dec 23, 1992
Attention: Joel Coffman	First Sample #:	212-3771		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 212-3771 TP-1g
Purgeable Hydrocarbons	50	57,000
Benzene	0.50	3,900
Toluene	0.50	5,400
Ethyl Benzene	0.50	1,800
Total Xylenes	0.50	11,000
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	400
Date Analyzed:	12/21/92
Instrument Identification:	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	102

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Liquid	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 3510/3520/8015	Reported:	Dec 23, 1992
Attention: Joel Coffman	First Sample #:	212-3775		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 212-3775 TP-1d
Extractable Hydrocarbons	50	170,000
Chromatogram Pattern:		Non-Diesel Mix < C15

Quality Control Data

Report Limit Multiplication Factor:	200
Date Extracted:	12/21/92
Date Analyzed:	12/22/92
Instrument Identification:	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Matrix Descript:	Liquid	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 418.1 (I.R. with clean-up)	Extracted:	Dec 22, 1992
Attention: Joel Coffman	First Sample #:	212-3772	Analyzed:	Dec 22, 1992
			Reported:	Dec 23, 1992

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Sample Number	Sample Description	Petroleum Oil mg/L (ppm)
212-3772	TP-1o	81

Detection Limits:	20

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Liquid, TP-1	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 624	Analyzed:	Dec 22, 1992
Attention: Joel Coffman	Lab Number:	212-3770	Reported:	Dec 23, 1992

PURGEABLES by GC/MS (EPA 624)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	5,000	N.D.
Benzene	**1,000**	**3,800**
Bromodichloromethane	1,000	N.D.
Bromoform	1,000	N.D.
Bromomethane	1,000	N.D.
2-Butanone	5,000	N.D.
Carbon disulfide	1,000	N.D.
Carbon tetrachloride	1,000	N.D.
Chlorobenzene	1,000	N.D.
Chloroethane	1,000	N.D.
2-Chloroethyl vinyl ether	5,000	N.D.
Chloroform	1,000	N.D.
Chloromethane	1,000	N.D.
Dibromochloromethane	1,000	N.D.
1,1-Dichloroethane	1,000	N.D.
1,2-Dichloroethane	1,000	N.D.
1,1-Dichloroethene	1,000	N.D.
cis-1,2-Dichloroethene	1,000	N.D.
trans-1,2-Dichloroethene	1,000	N.D.
1,2-Dichloropropane	1,000	N.D.
cis-1,3-Dichloropropene	1,000	N.D.
trans-1,3-Dichloropropene	1,000	N.D.
Ethylbenzene	**1,000**	**1,500**
2-Hexanone	5,000	N.D.
Methylene chloride	2,500	N.D.
4-Methyl-2-pentanone	5,000	N.D.
Styrene	1,000	N.D.
1,1,2,2-Tetrachloroethane	1,000	N.D.
Tetrachloroethene	1,000	N.D.
Toluene	**1,000**	**5,300**
1,1,1-Trichloroethane	1,000	N.D.
1,1,2-Trichloroethane	1,000	N.D.
Trichloroethene	1,000	N.D.
Trichlorofluoromethane	1,000	N.D.
Vinyl acetate	1,000	N.D.
Vinyl chloride	1,000	N.D.
Total Xylenes	**1,000**	**7,300**

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Liquid, TP-1p	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 625	Extracted:	Dec 21, 1992
Attention: Joel Coffman	Lab Number:	212-3773	Analyzed:	Dec 22, 1992
			Reported:	Dec 23, 1992

ACID & BASE/NEUTRALS by GC/MS (EPA 625)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene	200	N.D.
Acenaphthylene	200	N.D.
Aniline	200	N.D.
Anthracene	200	N.D.
Benzidine	5,000	N.D.
Benzoic Acid	1,000	N.D.
Benzo(a)anthracene	200	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	200	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	200	N.D.
Bis(2-chloroethyl)ether	200	N.D.
Bis(2-chloroisopropyl)ether	200	N.D.
Bis(2-ethylhexyl)phthalate	1,000	N.D.
4-Bromophenyl phenyl ether	200	N.D.
Butyl benzyl phthalate	200	N.D.
4-Chloroaniline	200	N.D.
2-Chloronaphthalene	200	N.D.
4-Chloro-3-methylphenol	200	N.D.
2-Chlorophenol	200	N.D.
4-Chlorophenyl phenyl ether	200	N.D.
Chrysene	200	N.D.
Dibenz(a,h)anthracene	200	N.D.
Dibenzofuran	200	N.D.
Di-N-butyl phthalate	1,000	N.D.
1,3-Dichlorobenzene	200	N.D.
1,4-Dichlorobenzene	200	N.D.
1,2-Dichlorobenzene	200	N.D.
3,3-Dichlorobenzidine	1,000	N.D.
2,4-Dichlorophenol	200	N.D.
Diethyl phthalate	200	N.D.
2,4-Dimethylphenol	200	N.D.
Dimethyl phthalate	200	N.D.
4,6-Dinitro-2-methylphenol	1,000	N.D.
2,4-Dinitrophenol	1,000	N.D.

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RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Liquid, TP-1p	Received:	Dec 21, 1992
San Jose, CA 95118	Analysis Method:	EPA 625	Extracted:	Dec 21, 1992
Attention: Joel Coffman	Lab Number:	212-3773	Analyzed:	Dec 22, 1992
			Reported:	Dec 23, 1992

ACID & BASE/NEUTRALS by GC/MS (EPA 625)

Analyte	Detection Limit µg/L	Sample Results µg/L
2,4-Dinitrotoluene	200	N.D.
2,6-Dinitrotoluene	200	N.D.
Di-N-octyl phthalate	200	N.D.
Fluoranthene	200	N.D.
Fluorene	200	N.D.
Hexachlorobenzene	200	N.D.
Hexachlorobutadiene	200	N.D.
Hexachlorocyclopentadiene	200	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	200	N.D.
2-Methylnaphthalene	**200**	**3,800**
2-Methylphenol	200	N.D.
4-Methylphenol	200	N.D.
Naphthalene	**200**	**6,600**
2-Nitroaniline	1,000	N.D.
3-Nitroaniline	1,000	N.D.
4-Nitroaniline	1,000	N.D.
Nitrobenzene	200	N.D.
2-Nitrophenol	200	N.D.
4-Nitrophenol	1,000	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	200	N.D.
Pentachlorophenol	1,000	N.D.
Phenanthrene	200	N.D.
Phenol	200	N.D.
Pyrene	200	N.D.
1,2,4-Trichlorobenzene	200	N.D.
2,4,5-Trichlorophenol	1,000	N.D.
2,4,6-Trichlorophenol	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Dec 17, 1992
3315 Almaden Expwy., Suite 34	Sample Descript:	Liquid, TP-1m	Received:	Dec 21, 1992
San Jose, CA 95118			Analyzed:	see below
Attention: Joel Coffman	Lab Number:	212-3774	Reported:	Dec 23, 1992

LABORATORY ANALYSIS

Analyte	Date Analyzed	Detection Limit mg/L	Sample Result mg/L
Lead	12/22/92	0.10	0.19
Zinc	12/22/92	0.010	0.31
Chromium	12/22/92	0.010	0.069
Cadmium	12/22/92	0.010	N.D.
Nickel	12/22/92	0.050	0.11

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

2123771.RES <7>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 212-3771

Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Donohue	C. Donohue	C. Donohue	C. Donohue
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992	Dec 21, 1992
QC Sample #:	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD	GBLK122192 MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	10	10	9.8	28
Matrix Spike % Recovery:	100	100	98	93
Conc. Matrix Spike Dup.:	10	9.8	9.8	28
Matrix Spike Duplicate % Recovery:	100	98	98	93
Relative % Difference:	0.0	2.0	0.0	0.0

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 212-3775

Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Extractable Hydrocarbons
Method:	EPA 8015
Analyst:	R. Lee
Reporting Units:	µg/L
Date Analyzed:	Dec 10, 1992
QC Sample #:	DBLK120992X
Sample Conc.:	N.D.
Spike Conc. Added:	300
Conc. Matrix Spike:	240
Matrix Spike % Recovery:	80
Conc. Matrix Spike Dup.:	240
Matrix Spike Duplicate % Recovery:	80
Relative % Difference:	0.0

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 212-3772

Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Total Petroleum Hydrocarbons

Method:	EPA 418.1
Analyst:	P. Penner
Reporting Units:	mg/L
Date Analyzed:	Dec 22, 1992
QC Sample #:	Blank
Sample Conc.:	N.D.
Spike Conc. Added:	40
Conc. Matrix Spike:	34
Matrix Spike % Recovery:	85
Conc. Matrix Spike Dup.:	37
Matrix Spike Duplicate % Recovery:	93
Relative % Difference:	8.5

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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RESNA	Client Project ID:	ARCO 4494, Oakland	
3315 Almaden Expwy., Suite 34	Method (units):	EPA 624 (µg/L purged)	Q.C. Sample Dates
San Jose, CA 95118	Analyst(s):	M. Williams	
Attention: Joel Coffman	QC Sample #:	BLK122192	Analyzed: Dec 21, 1992
			Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	60	120	56	112	6.9
Trichloroethene	N.D.	50	50	100	46	92	8.3
Benzene	N.D.	50	51	102	49	98	4.0
Toluene	N.D.	50	51	102	48	96	6.1
Chlorobenzene	N.D.	50	50	100	46	92	8.3

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Maria Lee
Project Manager

$$\% \text{ Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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RESNA	Client Project ID:	ARCO 4494, Oakland	
3315 Almaden Expwy., Suite 34	Method:	EPA 625	Q.C. Sample Dates
San Jose, CA 95118	Analyst(s):	E. Manuel	Extracted: Dec 14, 1992
Attention: Joel Coffman	QC Sample #:	WBLK121492	Analyzed: Dec 15, 1992
			Reported: Dec 23, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	48	48	50	50	4.1
2-Chlorophenol	N.D.	100	82	82	88	88	7.1
1,4-Dichloro-benzene	N.D.	50	37	74	38	76	2.7
N-Nitroso-Di-N-propylamine	N.D.	50	40	80	44	88	9.5
1,2,4-Trichloro-benzene	N.D.	50	38	76	38	76	0.0
4-Chloro-3-Methylphenol	N.D.	100	80	80	91	91	13
Acenaphthene	N.D.	50	41	82	41	82	0.0
4-Nitrophenol	N.D.	100	20	20	30	30	40
2,4-Dinitro-toluene	N.D.	50	37	74	36	72	2.7
Pentachloro-phenol	N.D.	100	66	66	76	76	14
Pyrene	N.D.	50	46	92	43	86	6.7

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 2 soil samples received at Sequoia Analytical on January 7,1993. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
3010637	Soil, S-4.5-NP	1/7/93	EPA 5030/8015/8020
3010638	Soil, S-4.5-SP	1/7/93	EPA 5030/8015/8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Jan 7, 1993
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 8, 1993
Attention: Joel Coffman	First Sample #:	301-0637		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 301-0637 S-4.5-NP	Sample I.D. 301-0638 S-4.5-SP
Purgeable Hydrocarbons	1.0	N.D.	N.D.
Benzene	0.0050	N.D.	N.D.
Toluene	0.0050	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.
Total Xylenes	0.0050	N.D.	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	1/7/93	1/7/93
Instrument Identification:	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	87	92

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 3010637-8

Reported: Jan 8, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	B. Ali	B. Ali	B. Ali	B. Ali
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jan 7, 1993	Jan 7, 1993	Jan 7, 1993	Jan 7, 1993
QC Sample #:	GBLK010793	GBLK010793	GBLK010793	GBLK010793
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.18	0.17	0.18	0.51
Matrix Spike % Recovery:	90	85	90	85
Conc. Matrix Spike Dup.:	0.18	0.17	0.17	0.51
Matrix Spike Duplicate % Recovery:	90	85	85	85
Relative % Difference:	0.0	0.0	5.7	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

ARCO Products Company

Division of AtlanticRichfieldCompany

Chain of Custody

Task Order No. 4494-91-15

ARCO Facility no. 4494	City (Facility) Oakland	Project manager (Consultant) Joel Coffman	Laboratory name Sequoia
ARCO engineer Michael Whelan	Telephone no. (ARCO) (415) 541 2449	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA Industries Inc.	Address (Consultant) 3315 Almaden Exp. Suite 34 San Jose CA 95118		Contract number

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks: Composite 4 samples into one → Analyze

Lab number

Turnaround time: Priority Rush 1 Business Day [X]; Rush 2 Business Days [ ]; Expedited 5 Business Days [ ]; Standard 10 Business Days [ ]

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Water	Other	Preservation: Ice	Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP ☐ Semi ☐ Metals ☐ VOA ☐ VOA	CAM Metals ☐ EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
3-1A-D	4	4	X			X		3/10	0847			X						X	X			
P3-2A-D	4	4	X			X			48			X						X	X			
3-3A-D	4	4	X			X			49			X						X	X			
3-4A-D	4	4	X			X			50			X						X	X			
B-5A-D	4	4	X			X			51			X						X	X			
4-1A-D	4	4	X			X			52			X						X	X			
4-2A-D	4	4	X			X			53			X						X	X			
4-3A-D	4	4	X			X			54			X						X	X			
4-4A-D	4	4	X			X			55			X						X	X			
P4-5A-D	4	4	X			X			56			X						X	X			

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler: Robert D. Campbell	1/8/93	1000	Received by: Tina VanLaanhoven		
Relinquished by: Tina VanLaanhoven	1/8/93	1050	Received by:		
Relinquished by:			Received by laboratory: [illegible]	1-8-93	1050

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 4494, Oakland

Enclosed are the results from 10 soil samples received at Sequoia Analytical on Jan 8, 1993. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
3010847	Soil, SP3/1A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010848	Soil, SP3/2A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010849	Soil, SP3/3A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010850	Soil, SP3/4A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010851	Soil, SP3/5A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010852	Soil, SP4/1A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010853	Soil, SP4/2A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010854	Soil, SP4/3A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
3010855	Soil, SP4/4A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead
3010856	Soil, SP4/5A-D	Jan 7, 1993	EPA 5030/8015/8020 EPA 5030/8015/8020 TCLP Extract STLC Lead

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Jan 8, 1993
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 13, 1993
Attention: Joel Coffman	First Sample #:	301-0847		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 301-0847 SP3/1A-D	Sample I.D. 301-0848 SP3/2A-D	Sample I.D. 301-0849 SP3/3A-D	Sample I.D. 301-0850 SP3/4A-D	Sample I.D. 301-0851 SP3/5A-D	Sample I.D. 301-0852 SP4/1A-D
Purgeable Hydrocarbons	1.0	N.D.	N.D.	2.8	2.2	2.6	2.3
Benzene	0.0050	N.D.	N.D.	0.0080	0.0060	N.D.	0.022
Toluene	0.0050	N.D.	N.D.	0.010	0.012	0.0080	0.014
Ethyl Benzene	0.0050	N.D.	N.D.	0.014	0.012	0.010	0.036
Total Xylenes	0.0050	0.026	N.D.	0.077	0.078	0.092	0.066
Chromatogram Pattern:		--	--	Gas	Gas	Gas	Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	1/8/93	1/8/93	1/8/93	1/8/93	1/8/93	1/8/93
Instrument Identification:	GCHP-7	GCHP-7	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	106	92	107	98	101	104

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil	Received:	Jan 8, 1993
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 13, 1993
Attention: Joel Coffman	First Sample #:	301-0853		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 301-0853 SP4/2A-D	Sample I.D. 301-0854 SP4/3A-D	Sample I.D. 301-0855 SP4/4A-D	Sample I.D. 301-0856 SP4/5A-D
Purgeable Hydrocarbons	1.0	N.D.	1.8	1.4	4.7
Benzene	0.0050	N.D.	0.0060	0.0080	0.012
Toluene	0.0050	N.D.	0.011	0.0090	0.029
Ethyl Benzene	0.0050	N.D.	0.013	0.0080	0.035
Total Xylenes	0.0050	0.020	0.062	0.049	0.17
Chromatogram Pattern:		--	Gas	Gas	Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Analyzed:	1/8/93	1/8/93	1/8/93	1/8/93
Instrument Identification:	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	98	101	106	117

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Matrix:	TCLP Extract of Soil	Received:	Jan 8, 1993
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 13, 1993
Attention: Joel Coffman	First Sample #:	301-0847		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 301-0847 SP3/1A-D	Sample I.D. 301-0848 SP3/2A-D	Sample I.D. 301-0849 SP3/3A-D	Sample I.D. 301-0850 SP3/4A-D	Sample I.D. 301-0851 SP3/5A-D	Sample I.D. 301-0852 SP4/1A-D
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	20	20	20	20	20	20
Date Analyzed:	1/11/93	1/11/93	1/11/93	1/11/93	1/12/93	1/12/93
Instrument Identification:	GCHP-3	GCHP-3	GCHP-3	GCHP-3	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	96	95	94	95	92	89

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Matrix:	TCLP Extract of Soil	Received:	Jan 8, 1993
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 13, 1993
Attention: Joel Coffman	First Sample #:	301-0853		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 301-0853 SP4/2A-D	Sample I.D. 301-0854 SP4/3A-D	Sample I.D. 301-0855 SP4/4A-D	Sample I.D. 301-0856 SP4/5A-D
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	20	20	20	20
Date Analyzed:	1/12/93	1/12/93	1/13/93	1/13/93
Instrument Identification:	GCHP-2	GCHP-2	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	88	86	93	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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RESNA	Client Project ID:	ARCO 4494, Oakland	Sampled:	Jan 7, 1993
3315 Almaden Expwy., Suite 34	Sample Descript:	Soil	Received:	Jan 8, 1993
San Jose, CA 95118	Analysis for:	STLC Lead	Extracted:	Jan 11, 1993
Attention: Joel Coffman	First Sample #:	301-0847	Analyzed:	Jan 13, 1993
			Reported:	Jan 13, 1993

LABORATORY ANALYSIS FOR: STLC Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
301-0847	SP3/1A-D	0.10	0.33
301-0848	SP3/2A-D	0.10	0.29
301-0849	SP3/3A-D	0.10	0.97
301-0850	SP3/4A-D	0.10	0.28
301-0851	SP3/5A-D	0.10	0.76
301-0852	SP4/1A-D	0.10	1.7
301-0853	SP4/2A-D	0.10	0.18
301-0854	SP4/3A-D	0.10	0.38
301-0855	SP4/4A-D	0.10	0.47
301-0856	SP4/5A-D	0.10	0.44

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 3010847-56

Reported: Jan 13, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	B. Ali	B. Ali	B. Ali	B. Ali
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jan 8, 1993	Jan 8, 1993	Jan 8, 1993	Jan 8, 1993
QC Sample #:	GBLK010893	GBLK010893	GBLK010893	GBLK010893
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.17	0.17	0.17	0.52
Matrix Spike % Recovery:	85	85	85	87
Conc. Matrix Spike Dup.:	0.18	0.18	0.17	0.52
Matrix Spike Duplicate % Recovery:	90	90	85	87
Relative % Difference:	5.7	5.7	0.0	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 3010847-56

Reported: Jan 13, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Jan 11, 1993	Jan 11, 1993	Jan 11, 1993	Jan 11, 1993
QC Sample #:	GBLK011193	GBLK011193	GBLK011193	GBLK011193
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.7	9.7	9.8	29
Matrix Spike % Recovery:	97	97	98	97
Conc. Matrix Spike Dup.:	9.3	9.3	9.5	28
Matrix Spike Duplicate % Recovery:	93	93	95	97
Relative % Difference:	4.2	4.2	3.1	3.5

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 3010847-56

Reported: Jan 13, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Jan 12, 1993	Jan 12, 1993	Jan 12, 1993	Jan 12, 1993
QC Sample #:	GBLK011293	GBLK011293	GBLK011293	GBLK011293
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.0	9.0	9.0	27
Matrix Spike % Recovery:	90	90	90	90
Conc. Matrix Spike Dup.:	9.0	9.1	9.1	27
Matrix Spike Duplicate % Recovery:	90	91	91	90
Relative % Difference:	0.0	1.1	1.1	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 4494, Oakland

QC Sample Group: 3010847-56

Reported: Jan 13, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 7421
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp	S. Chin
Reporting Units:	µg/L	µg/L	µg/L	µg/L	mg/L
Date Analyzed:	Jan 13, 1993	Jan 13, 1993	Jan 13, 1993	Jan 13, 1993	Jan 13, 1993
QC Sample #:	301-1265	301-1265	301-1265	301-1265	301-0847
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	0.33
Spike Conc. Added:	10	10	10	30	0.50
Conc. Matrix Spike:	9.6	9.3	9.9	28	0.85
Matrix Spike % Recovery:	96	93	99	93	104
Conc. Matrix Spike Dup.:	8.2	8.0	8.5	24	0.87
Matrix Spike Duplicate % Recovery:	82	80	85	80	108
Relative % Difference:	16	15	15	15	2.3

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

APPENDIX H

FINGERPRINT ANALYTICAL REPORTS

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. 4494-91-15

Chain of Custody

ARCO Facility no. 4494	City (Facility) Oakland	Project manager (Consultant) Joel Coffman	Laboratory name Core
ARCO engineer Michael Whelan	Telephone no. (ARCO) (415) 521-2449	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA Industries Inc	Address (Consultant) 3315 Almaden Exp. Suite 34 San Jose, CA 95118		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Semi Metals ☐ VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	Simulation Distillation
TP-25		3		X				12/10/92	700												X

Special detection Limit/reporting

Special QA/QC

Remarks: Please fax + send us results.

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:		Temperature received:
Relinquished by sampler: Robert D. Campbell	Date 12/2/92 Time 1700	Received by
Relinquished by	Date Time	Received by
Relinquished by	Date Time	Received by laboratory / Date / Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (2-91)

Western Atlas International
A Litton Dresser Company

CORE LABORATORIES

CORE LABORATORIES
A N A L Y T I C A L R E P O R T

Job Number: 930006
Prepared For:

RESNA Company
Robert D. Campbell
3315 Almaden Expressway, Suite 34
San Jose, CA 95118

Date: 01/05/93

Signature

Date: 1/5/93

Name: Ryan S. Nakatani

Core Laboratories - Long Beach
3700 Cherry Avenue
Long Beach, CA 90807

Title: Laboratory Supervisor

Western Atlas International
A Dresser Company

CORE LABORATORIES

LABORATORY TESTS RESULTS
01/05/93

JOB NUMBER: 930006 CUSTOMER: RESNA Company ATTN: Robert D. Campbell

CLIENT I.D.....: TP-25
DATE SAMPLED.....: 12/28/92
TIME SAMPLED.....: 07:00
WORK DESCRIPTION...: TP-25

LABORATORY I.D...: 930006-0001
DATE RECEIVED....: 12/31/92
TIME RECEIVED....: :
REMARKS.....: 3 - 40 ml vials

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Simulated Distillation, Distillate		*1		ASTM D-2887	01/05/93	FA
IBP	215	1	Deg F	ASTM D-2887		
1 % Off	238	1	Deg F	ASTM D-2887		
2 % Off	279	1	Deg F	ASTM D-2887		
3 % Off	299	1	Deg F	ASTM D-2887		
4 % Off	320	1	Deg F	ASTM D-2887		
5 % Off	327	1	Deg F	ASTM D-2887		
6 % Off	333	1	Deg F	ASTM D-2887		
7 % Off	341	1	Deg F	ASTM D-2887		
8 % Off	352	1	Deg F	ASTM D-2887		
9 % Off	359	1	Deg F	ASTM D-2887		
10 % Off	363	1	Deg F	ASTM D-2887		
11 % Off	368	1	Deg F	ASTM D-2887		
12 % Off	372	1	Deg F	ASTM D-2887		
13 % Off	378	1	Deg F	ASTM D-2887		
14 % Off	384	1	Deg F	ASTM D-2887		
15 % Off	387	1	Deg F	ASTM D-2887		
16 % Off	391	1	Deg F	ASTM D-2887		
17 % Off	393	1	Deg F	ASTM D-2887		
18 % Off	396	1	Deg F	ASTM D-2887		
19 % Off	399	1	Deg F	ASTM D-2887		
20 % Off	401	1	Deg F	ASTM D-2887		
21 % Off	404	1	Deg F	ASTM D-2887		
22 % Off	406	1	Deg F	ASTM D-2887		
23 % Off	409	1	Deg F	ASTM D-2887		
24 % Off	412	1	Deg F	ASTM D-2887		
25 % Off	416	1	Deg F	ASTM D-2887		
26 % Off	420	1	Deg F	ASTM D-2887		
27 % Off	424	1	Deg F	ASTM D-2887		
28 % Off	428	1	Deg F	ASTM D-2887		
29 % Off	432	1	Deg F	ASTM D-2887		
30 % Off	435	1	Deg F	ASTM D-2887		
31 % Off	437	1	Deg F	ASTM D-2887		
32 % Off	440	1	Deg F	ASTM D-2887		
33 % Off	442	1	Deg F	ASTM D-2887		
34 % Off	445	1	Deg F	ASTM D-2887		
35 % Off	449	1	Deg F	ASTM D-2887		
36 % Off	456	1	Deg F	ASTM D-2887		
37 % Off	465	1	Deg F	ASTM D-2887		
38 % Off	474	1	Deg F	ASTM D-2887		
39 % Off	480	1	Deg F	ASTM D-2887		
40 % Off	485	1	Deg F	ASTM D-2887		
41 % Off	495	1	Deg F	ASTM D-2887		
42 % Off	509	1	Deg F	ASTM D-2887		

3700 Cherry Avenue
Long Beach, CA 90807
(310) 595-8401

Western Atlas International
A Litton Dresser Company

CORE LABORATORIES

LABORATORY TESTS RESULTS
01/05/93

JOB NUMBER: 930006 CUSTOMER: RESNA Company ATTN: Robert D. Campbell

CLIENT I.D.....: TP-25
DATE SAMPLED.....: 12/28/92
TIME SAMPLED.....: 07:00
WORK DESCRIPTION...: TP-25

LABORATORY I.D...: 930006-0001
DATE RECEIVED....: 12/31/92
TIME RECEIVED....: :
REMARKS.....: 3 - 40 ml vials

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
43 % Off	520	1	Deg F	ASTM D-2887		
44 % Off	532	1	Deg F	ASTM D-2887		
45 % Off	544	1	Deg F	ASTM D-2887		
46 % Off	560	1	Deg F	ASTM D-2887		
47 % Off	573	1	Deg F	ASTM D-2887		
48 % Off	589	1	Deg F	ASTM D-2887		
49 % Off	605	1	Deg F	ASTM D-2887		
50 % Off	622	1	Deg F	ASTM D-2887		
Simulated Distillation, Continued		*1		ASTM D-2887	01/05/93	FA
51 % Off	640	1	Deg F	ASTM D-2887		
52 % Off	657	1	Deg F	ASTM D-2887		
53 % Off	678	1	Deg F	ASTM D-2887		
54 % Off	700	1	Deg F	ASTM D-2887		
55 % Off	723	1	Deg F	ASTM D-2887		
56 % Off	743	1	Deg F	ASTM D-2887		
57 % Off	762	1	Deg F	ASTM D-2887		
58 % Off	778	1	Deg F	ASTM D-2887		
59 % Off	792	1	Deg F	ASTM D-2887		
60 % Off	804	1	Deg F	ASTM D-2887		
61 % Off	815	1	Deg F	ASTM D-2887		
62 % Off	825	1	Deg F	ASTM D-2887		
63 % Off	835	1	Deg F	ASTM D-2887		
64 % Off	845	1	Deg F	ASTM D-2887		
65 % Off	854	1	Deg F	ASTM D-2887		
66 % Off	864	1	Deg F	ASTM D-2887		
67 % Off	873	1	Deg F	ASTM D-2887		
68 % Off	881	1	Deg F	ASTM D-2887		
69 % Off	890	1	Deg F	ASTM D-2887		
70 % Off	898	1	Deg F	ASTM D-2887		
71 % Off	905	1	Deg F	ASTM D-2887		
72 % Off	913	1	Deg F	ASTM D-2887		
73 % Off	920	1	Deg F	ASTM D-2887		
74 % Off	927	1	Deg F	ASTM D-2887		
75 % Off	930	1	Deg F	ASTM D-2887		
76 % Off	932	1	Deg F	ASTM D-2887		
77 % Off	934	1	Deg F	ASTM D-2887		
78 % Off	936	1	Deg F	ASTM D-2887		
79 % Off	938	1	Deg F	ASTM D-2887		
80 % Off	939	1	Deg F	ASTM D-2887		
81 % Off	941	1	Deg F	ASTM D-2887		
82 % Off	943	1	Deg F	ASTM D-2887		
83 % Off	945	1	Deg F	ASTM D-2887		
84 % Off	947	1	Deg F	ASTM D-2887		

3700 Cherry Avenue
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(310) 595-8401

Western Atlas International
A Litton Dresser Company

CORE LABORATORIES

LABORATORY TESTS RESULTS
01/05/93

JOB NUMBER: 930006 CUSTOMER: RESNA Company ATTN: Robert D. Campbell

CLIENT I.D.....: TP-25
DATE SAMPLED.....: 12/28/92
TIME SAMPLED.....: 07:00
WORK DESCRIPTION...: TP-25

LABORATORY I.D...: 930006-0001
DATE RECEIVED....: 12/31/92
TIME RECEIVED....: :
REMARKS.....: 3 - 40 ml vials

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
85 % Off	949	1	Deg F	ASTM D-2887		
86 % Off	950	1	Deg F	ASTM D-2887		
87 % Off	952	1	Deg F	ASTM D-2887		
88 % Off	954	1	Deg F	ASTM D-2887		
89 % Off	956	1	Deg F	ASTM D-2887		
90 % Off	957	1	Deg F	ASTM D-2887		
91 % Off	959	1	Deg F	ASTM D-2887		
92 % Off	960	1	Deg F	ASTM D-2887		
93 % Off	962	1	Deg F	ASTM D-2887		
94 % Off	964	1	Deg F	ASTM D-2887		
95 % Off	966	1	Deg F	ASTM D-2887		
96 % Off	967	1	Deg F	ASTM D-2887		
97 % Off	969	1	Deg F	ASTM D-2887		
98 % Off	971	1	Deg F	ASTM D-2887		
99 % Off	973	1	Deg F	ASTM D-2887		
FBP	974	1	Deg F	ASTM D-2887		

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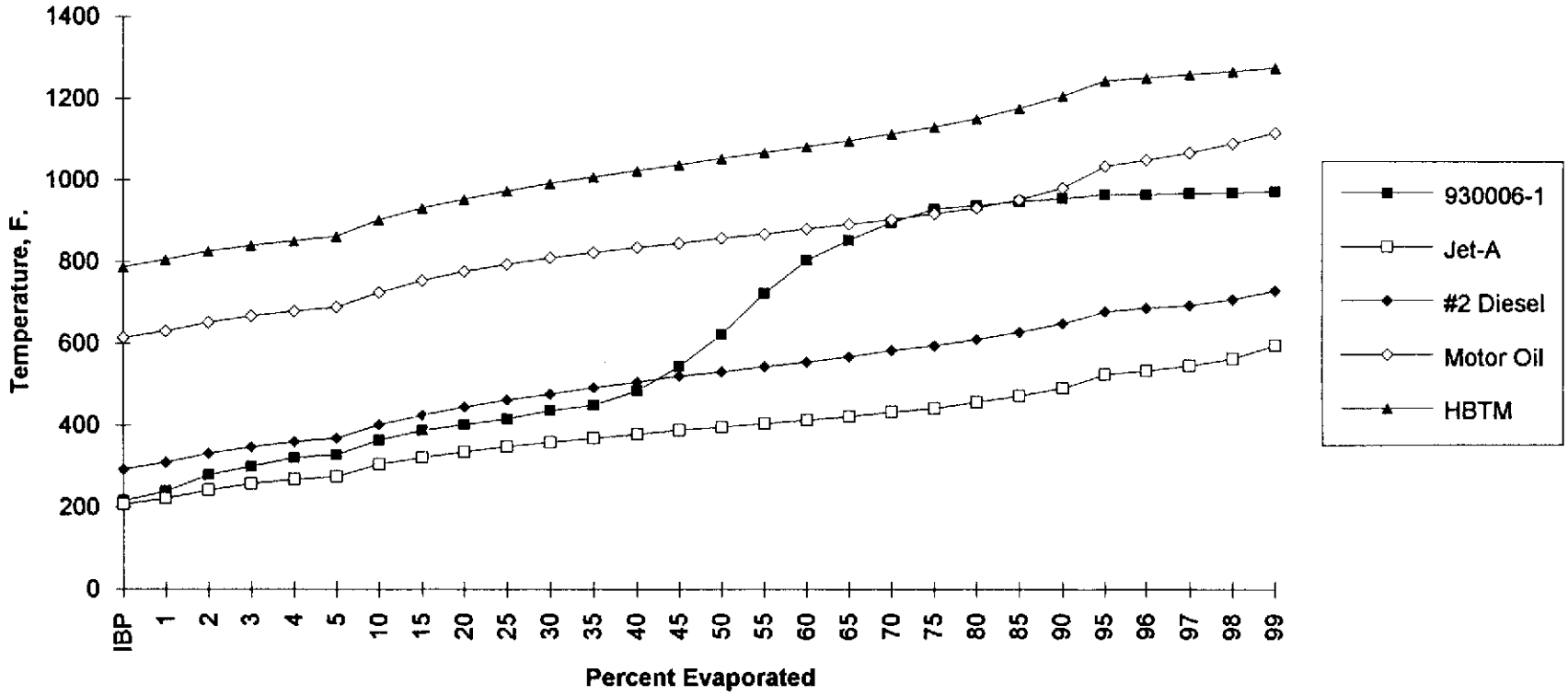
CORE LABORATORIES

Sample 930006-1 Distillation Profile



Western Atlas International
A Dresser Company

CORE LABORATORIES

QUALITY ASSURANCE REPORT
01/05/93

JOB NUMBER: 930006 CUSTOMER: RESNA Company ATTN: Robert D. Campbell

Simulated Distillation, Distillate DATE ANALYZED: 01/05/93 TIME ANALYZED: 11:46 METHOD: ASTM D-2887 QC NUMBER:936850

BLANKS

TEST DESCRIPTION	ANALY SUB-TYPE	ANALYSIS I.D.	DILUTION FACTOR	ANALYZED VALUE	DETECTION LIMIT	UNITS OF MEASURE
Simulated Distillation ASTM D-2887	Reagent	CS2	1	<1	1	Vol.%

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CORE LABORATORIES

QUALITY ASSURANCE REPORT
01/05/93

JOB NUMBER: 930006 CUSTOMER: RESNA Company ATTN: Robert D. Campbell

Simulated Distillation, Distillate DATE ANALYZED: 01/05/93 TIME ANALYZED: 11:46 METHOD: ASTM D-2887 QC NUMBER:936850

REFERENCE STANDARDS

TEST DESCRIPTION	ANALYSIS SUB-TYPE	ANALYSIS I. D.	DILUTION FACTOR	ANALYZED VALUE	TRUE VALUE	PERCENT RECOVERY	DETECTION LIMITS	UNITS OF MEASURE
Simulated Distillation ASTM D-2887	Reference	RGO #1	1	241	238	101	1	Vol.%

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QUALITY ASSURANCE FOOTER
01/05/93

Analyses performed in accordance with ASTM Testing Procedures.

Samples retained for thirty days after report submission. After thirty days, samples are disposed in accordance with Core Laboratories' Disposal Policy. Samples will be retained longer with prior arrangement. Storage fees may apply.

The acceptance criteria for duplicate analyses are the applicable ASTM Repeatability Statements.

The "Time Analyzed" in the QA Report refers to the start time of the analytical batch. It may not reflect the actual analysis time. The "Date Analyzed" reflects the actual analysis date.

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ARCO Products Company
Division of AtlanticRichfieldCompany

Chain of Custody

Task Order No. 4494-91-15

ARCO Facility no. 4494	City (Facility) Oakland	Project manager (Consultant) Joel Coffman	Laboratory name ARCO Products Co
ARCO engineer Michael Whelan	Telephone no. (ARCO) (415) 571-2449	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435
Consultant name RESNA Industries Inc.	Address (Consultant) 3315 Almaden Exp. Suite 34, San Jose, CA 95118		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Semi Metals ☐ VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	Fingerprint/ Boiling Range
TP-2B		3		X				12/28/92	700												X

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks
Please fax us results.

Lab number

Turnaround time
- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:		Temperature received:	
Relinquished by sampler: Richard D. Campbell	Date 12/28/92 Time 1700	Received by David C. Tuyo	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

#4494

ARCO Petroleum Products Company **Internal Correspondence**

Date: January 6, 1993

Subject: **Analysis of Monitoring Well Samples SS#4494, Oakland, CA**

JAN 1 1993

From/Location: Lynn M. Lane
LAR, AS
310/816-8673

RECD JAN 08 1993

To/Location: M. Whelan
SM
ARCO Net 571-2449

cc: J.M. DeJovine
J.A. Jaecker
A.V. Nowak
D.C. Tong
R.Campbell, Resna Industries

3 samples from 1 Well were received on January 4, 1993. They were placed in a cold room and maintained at 38 F until removed for analysis. The samples were identified as follows:

1. TP-2B, 1
2. TP-2B, 2
3. TP-2B, 3

A Simulated Distillation by Gas Chromatography was performed on the samples. All are predominantly weathered gasolines. TP-2B 1 had 34% percent of the product boiling outside of the normal gasoline range. TP-2B 2 and TP-2B 3 had 17% and 15% respectively outside of the normal range. The contaminants do not resemble any of our finished hydrocarbon products.

If you have any questions concerning these analyses, please call. The original copies of the Simulated Distillation Reports are attached to this report. Due to limited sample storage capabilities, all of these samples will be discarded 60 days from issue of this report unless otherwise requested.

*** SIMULATED DISTILLATION REPORT ***

TB-2B

****

* Sample Name: well 1, station 4494 Operator Initials:
* Date: 01-01-1993 10:45:24 Method:I:OCSIMD DATA FILE: H:WELL111.PTS
* Interface: 7 Cycle#: 1 Channel#: 0 Vial#: N.A.
* Starting Peak Width: 10 Threshold: 10

****

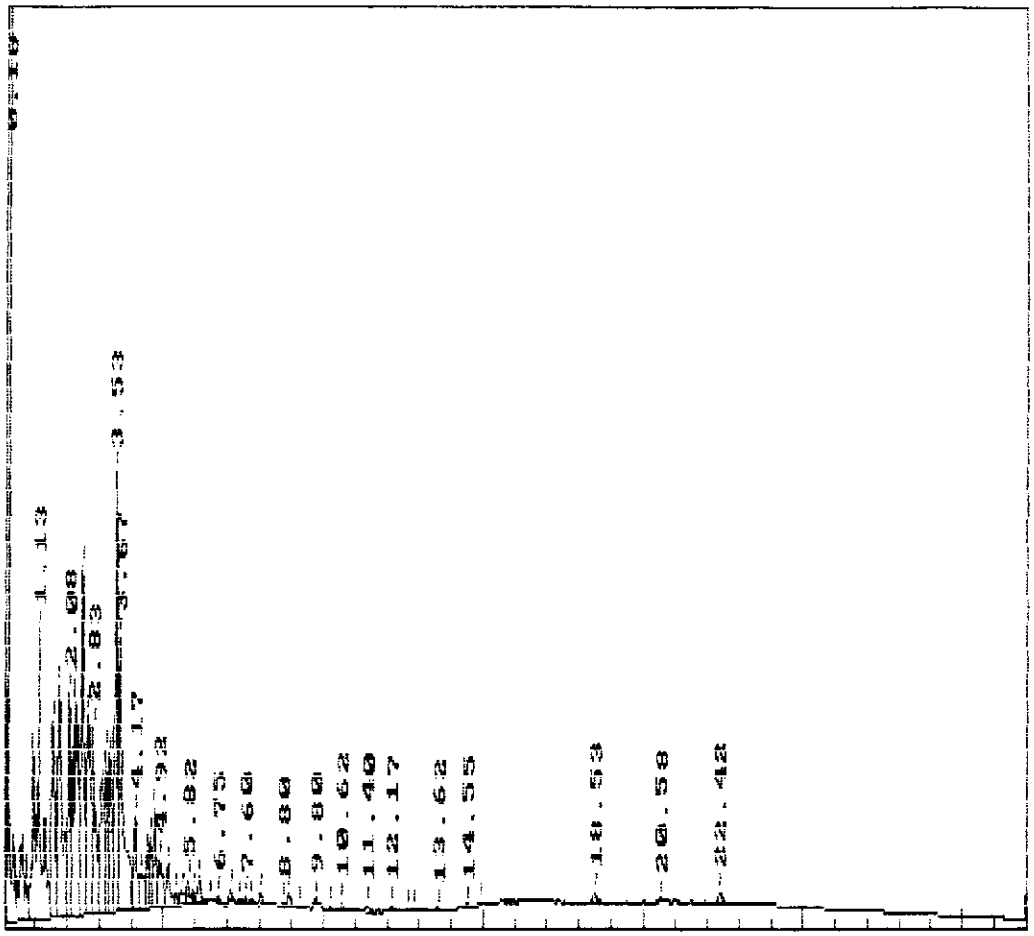
Starting Delay: 0.00 Ending Retention Time: 32.00
Calibration file: i:ocsimd.SCL Date printed:01-01-1993 Time printed 12:34:52
ASTM D 2887 Method
Percent Off Table
Baseline from: 0.47 to 31.81
Process from: 0.47 to 31.81
Total Area: 12374959
Slope : -3.25678
Increment : 1

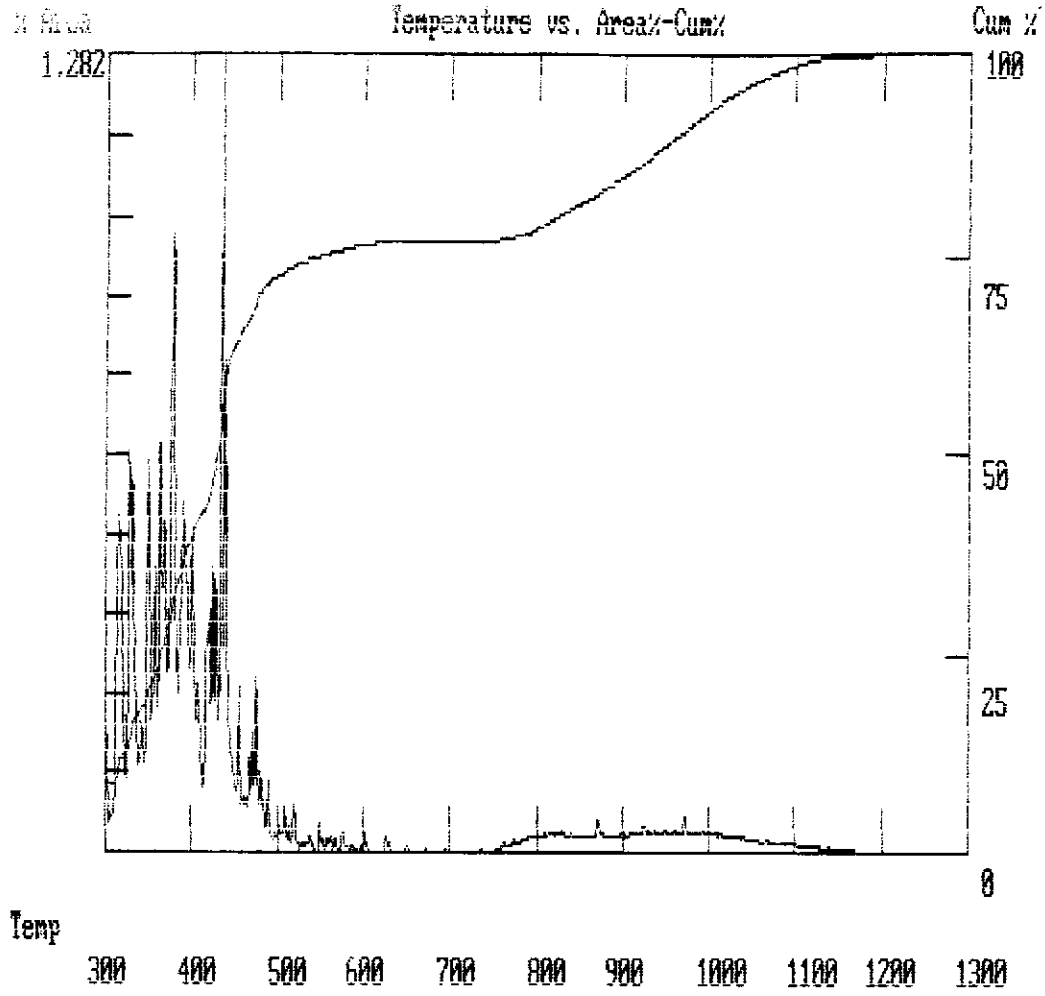
% OFF	Ret. Time	Temp
IBP	0.59	218.4
1.00	0.64	223.7
2.00	0.94	254.7
3.00	0.99	260.2
4.00	1.07	268.2
5.00	1.13	274.3
6.00	1.15	276.7
7.00	1.28	290.8
8.00	1.35	298.2
9.00	1.53	311.8
10.00	1.56	314.2
11.00	1.60	316.5
12.00	1.64	319.2
13.00	1.73	325.2
14.00	1.76	327.3
15.00	1.79	329.5
16.00	1.82	331.5
17.00	1.88	335.8
18.00	1.97	342.3
19.00	2.05	347.3
20.00	2.08	349.2
21.00	2.12	352.2
22.00	2.18	356.2
23.00	2.22	359.3
24.00	2.26	361.9
25.00	2.29	363.8
26.00	2.33	366.3
27.00	2.36	368.5
28.00	2.41	371.8
29.00	2.45	374.7
30.00	2.47	376.2
31.00	2.49	377.4
32.00	2.51	378.9
33.00	2.54	381.2
34.00	2.60	385.0
35.00	2.64	387.8
36.00	2.67	389.9
37.00	2.71	392.2

39.00	2.79	398.2
40.00	2.83	400.7
41.00	2.88	404.2
42.00	2.95	409.0
43.00	3.06	416.2
44.00	3.11	419.5
45.00	3.15	421.8
46.00	3.21	423.8
47.00	3.25	425.1
48.00	3.31	427.0
49.00	3.35	428.4
50.00	3.40	430.1
51.00	3.47	432.4
52.00	3.51	433.6
53.00	3.52	434.1
54.00	3.54	434.5
55.00	3.55	435.0
56.00	3.57	435.6
57.00	3.61	437.0
58.00	3.64	438.1
59.00	3.66	438.8
60.00	3.69	439.7
61.00	3.74	441.3
62.00	3.81	443.7
63.00	3.92	447.2
64.00	4.06	451.8
65.00	4.16	455.2
66.00	4.30	459.9
67.00	4.50	466.5
68.00	4.62	470.5
69.00	4.73	474.1
70.00	4.80	476.4
71.00	4.96	481.7
72.00	5.19	489.2
73.00	5.70	504.9
74.00	6.15	518.8
75.00	7.12	548.5
76.00	8.11	576.9
77.00	14.19	752.3
78.00	15.43	786.2
79.00	16.09	804.1
80.00	16.66	819.6
81.00	17.20	834.5
82.00	17.80	851.2
83.00	18.44	868.8
84.00	18.91	881.4
85.00	19.53	897.6
86.00	20.10	912.5
87.00	20.61	925.8
88.00	21.09	938.2
89.00	21.60	951.0
90.00	22.09	963.6
91.00	22.51	974.1
92.00	23.02	986.4
93.00	23.52	998.6
94.00	24.08	1011.9
95.00	24.71	1026.8
96.00	25.40	1043.1
97.00	26.23	1062.4
98.00	27.21	1084.4
99.00	28.44	1111.5
FBP	29.30	1130.6

WARNING--END POINT BEYOND THE SCOPE OF D2887

Data File = H:WELL111.PTS Printed on 01-01-1993 at 12:34:11
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 mv.
Low Value: 10082 uv High Value: 351286 uv Scale factor: 1.0




Temperature vs. Area%-Cum%
Cum %
1.282
100
75
50
25
0
Temp
300
400
500
600
700
800
900
1000
1100
1200
1300

*** SIMULATED DISTILLATION REPORT ***

TP-2B

****

* Sample Name: well 2, station 4494 Operator Initials:
* Date: 01-01-1993 11:34:06 Method:I:OCSIMD DATA FILE: H:WELL22.PTS
* Interface: 7 Cycle#: 2 Channel#: 0 Vial#: N.A.
* Starting Peak Width: 10 Threshold: 10

****

Starting Delay: 0.00 Ending Retention Time: 32.00
Calibration file: i:ocsimd.SCL Date printed:01-01-1993 Time printed 12:31:21
ASTM D 2887 Method
Percent Off Table
Baseline from: 0.47 to 31.81
Process from: 0.47 to 31.81
Total Area: 3104260
Slope : -1.27858
Increment : 1

% OFF	Ret. Time	Temp
IBP	0.60	219.4
1.00	0.64	224.1
2.00	0.92	253.3
3.00	0.98	258.9
4.00	1.04	265.3
5.00	1.09	271.0
6.00	1.13	274.8
7.00	1.15	276.7
8.00	1.22	284.2
9.00	1.31	293.6
10.00	1.36	299.1
11.00	1.51	310.3
12.00	1.55	313.3
13.00	1.58	315.0
14.00	1.60	316.7
15.00	1.63	318.4
16.00	1.67	321.8
17.00	1.73	325.8
18.00	1.75	327.2
19.00	1.78	328.8
20.00	1.80	330.4
21.00	1.82	331.9
22.00	1.86	334.3
23.00	1.92	338.6
24.00	1.98	342.7
25.00	2.04	346.7
26.00	2.07	348.4
27.00	2.09	349.9
28.00	2.12	352.1
29.00	2.17	355.3
30.00	2.20	357.4
31.00	2.24	360.1
32.00	2.26	361.9
33.00	2.28	363.2
34.00	2.31	365.0
35.00	2.33	366.7
36.00	2.36	368.3
37.00	2.38	370.3

39.00	2.45	374.9
40.00	2.47	376.3
41.00	2.49	377.4
42.00	2.50	378.4
43.00	2.52	379.7
44.00	2.55	381.5
45.00	2.59	384.1
46.00	2.62	386.4
47.00	2.65	388.4
48.00	2.67	389.9
49.00	2.70	391.6
50.00	2.72	393.5
51.00	2.75	395.5
52.00	2.79	398.1
53.00	2.82	400.1
54.00	2.85	402.0
55.00	2.90	405.3
56.00	2.95	408.8
57.00	3.03	414.7
58.00	3.08	417.9
59.00	3.12	420.5
60.00	3.16	422.0
61.00	3.21	423.7
62.00	3.24	424.8
63.00	3.28	426.2
64.00	3.33	427.7
65.00	3.36	428.8
66.00	3.41	430.4
67.00	3.47	432.4
68.00	3.51	433.6
69.00	3.52	434.2
70.00	3.54	434.6
71.00	3.55	435.1
72.00	3.57	435.6
73.00	3.60	436.6
74.00	3.63	437.8
75.00	3.66	438.6
76.00	3.68	439.3
77.00	3.70	440.2
78.00	3.75	441.6
79.00	3.81	443.6
80.00	3.90	446.5
81.00	4.00	450.1
82.00	4.13	454.4
83.00	4.23	457.5
84.00	4.43	464.2
85.00	4.60	469.8
86.00	4.72	473.9
87.00	4.80	476.4
88.00	4.96	481.8
89.00	5.23	490.7
90.00	6.17	519.6
91.00	16.31	810.1
92.00	18.59	872.7
93.00	21.55	949.8
94.00	22.37	970.8
95.00	22.60	976.4
96.00	23.29	993.0
97.00	23.88	1007.2
98.00	24.82	1029.3
99.00	26.29	1063.9
FBP	27.67	1094.6

WARNING--END POINT BEYOND THE SCOPE OF D2887

Data File = H:WELL22.PTS Printed on 01-01-1993 at 12:30:41
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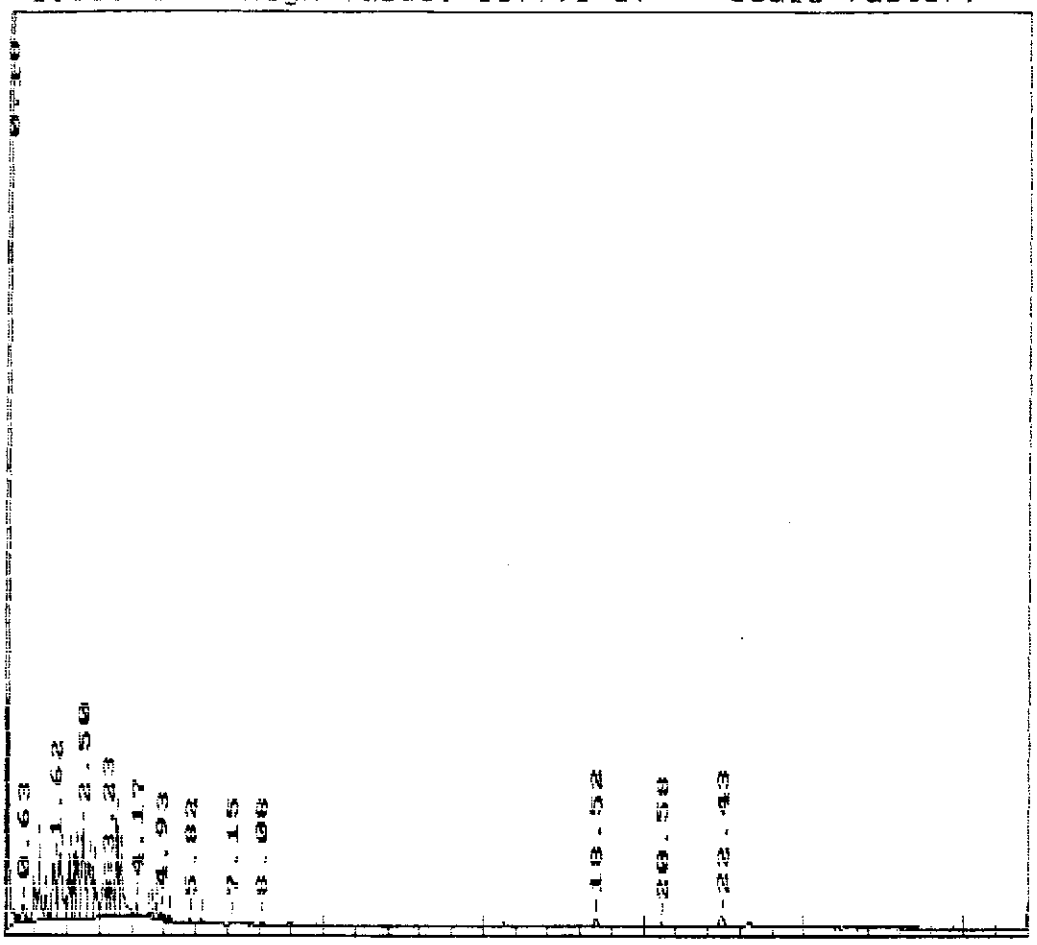
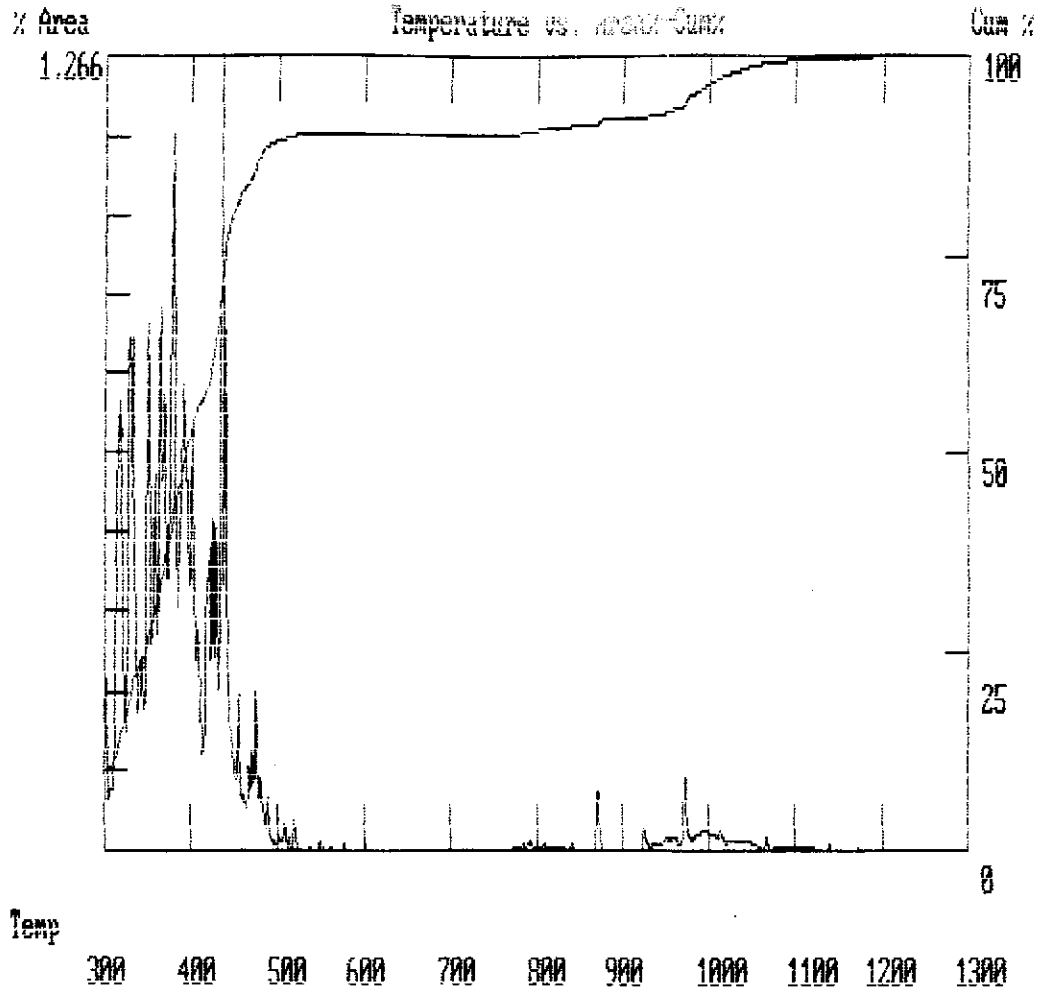
Low Value: 10080 uv High Value: 357791 uv Scale factor: 1.0




% Area
Temperature vs. Heat Flux
Cum %
1.266
100
75
50
25
0
Temp
300
400
500
600
700
800
900
1000
1100
1200
1300

*** SIMULATED DISTILLATION REPORT ***

TB2B

****

* Sample Name: well 3, station 4494 Operator Initials:
* Date: 01-01-1993 12:22:27 Method:OCSIMD DATA FILE: H:WELL33.PTS
* Interface: 7 Cycle#: 3 Channel#: 0 Vial#: N.A.
* Starting Peak Width: 10 Threshold: 10

****

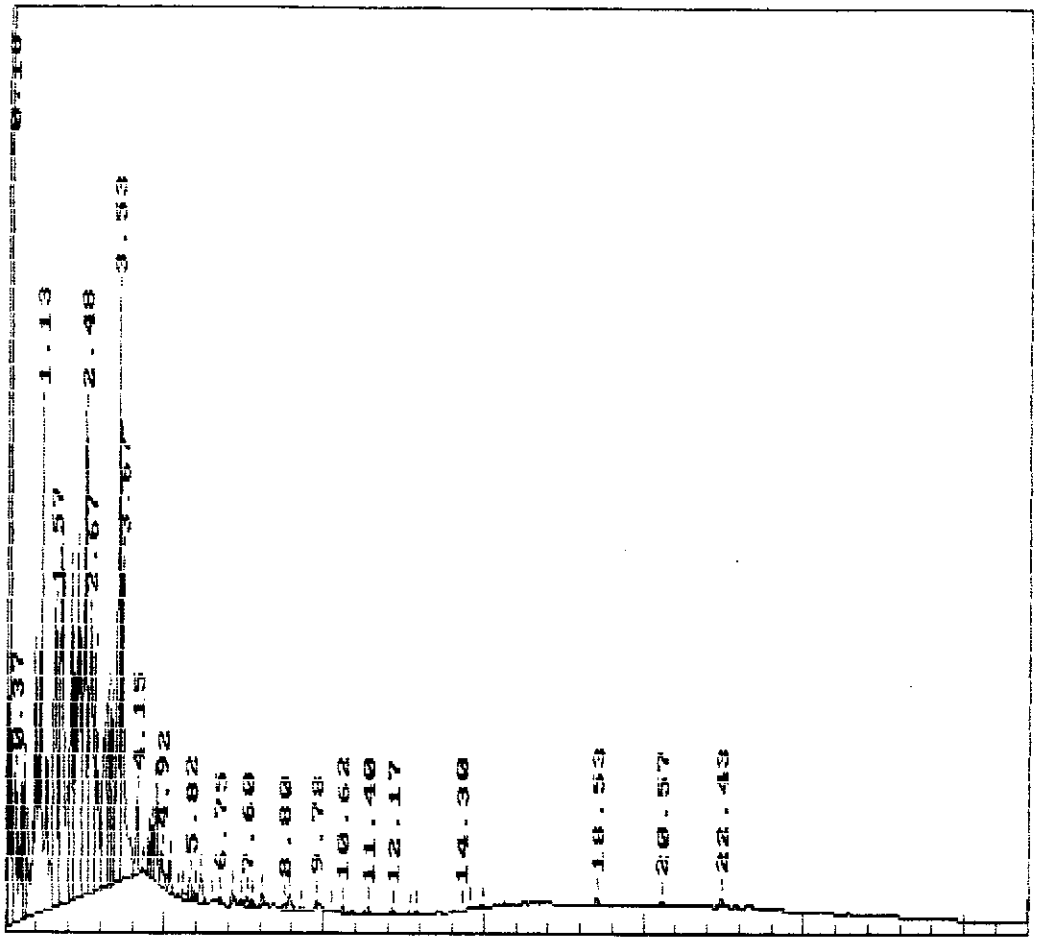
Starting Delay: 0.00 Ending Retention Time: 32.00
Calibration file: i:ocsimd.SCL Date printed:01-01-1993 Time printed 12:55:23
ASTM D 2887 Method
Percent Off Table
Baseline from: 0.47 to 31.81
Process from: 0.47 to 31.81
Total Area: 13913458
Slope : -6.67783
Increment : 1

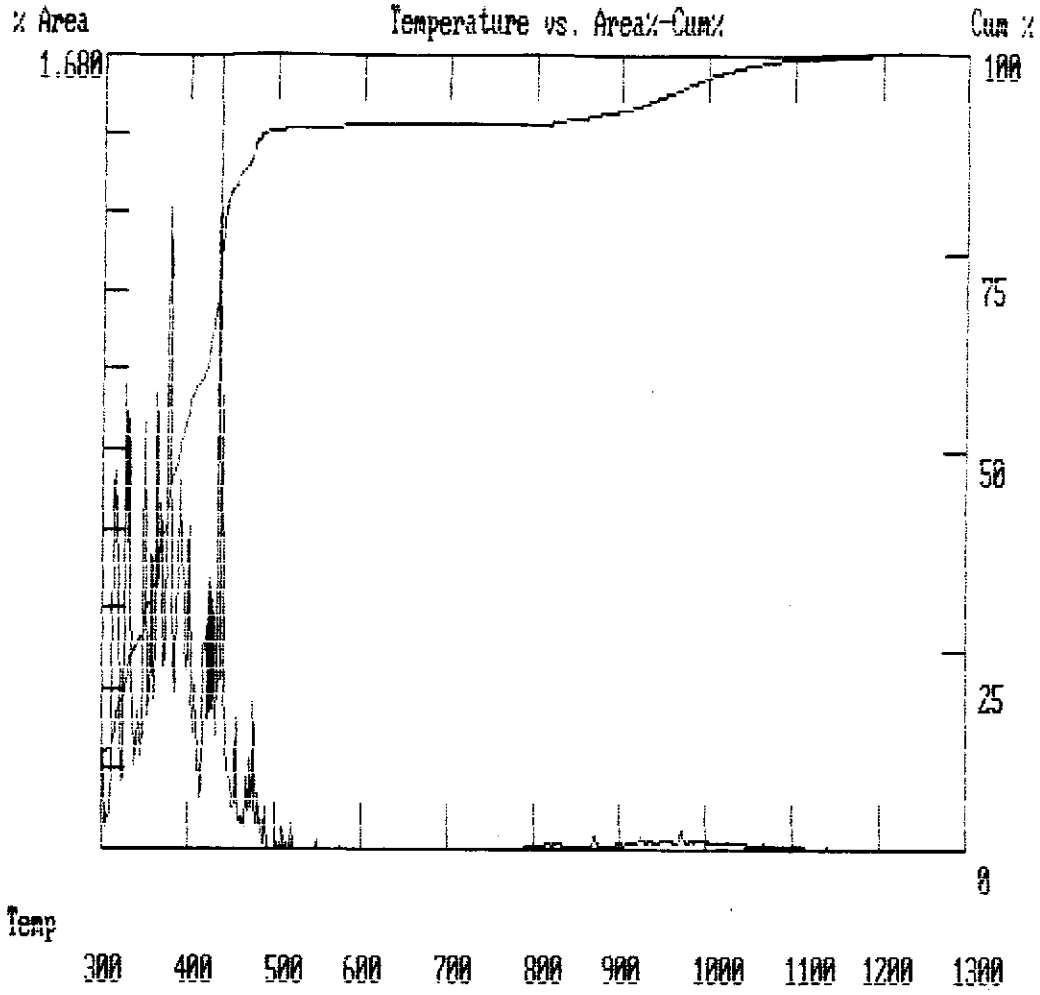
% OFF	Ret. Time	Temp
IBP	0.56	215.4
1.00	0.60	219.6
2.00	0.72	232.0
3.00	0.92	253.3
4.00	0.96	257.2
5.00	1.00	261.7
6.00	1.06	267.6
7.00	1.11	272.9
8.00	1.13	274.5
9.00	1.14	276.3
10.00	1.23	285.5
11.00	1.31	293.5
12.00	1.36	298.8
13.00	1.52	311.1
14.00	1.55	313.0
15.00	1.57	314.4
16.00	1.59	316.0
17.00	1.61	317.6
18.00	1.66	320.8
19.00	1.72	325.2
20.00	1.74	326.6
21.00	1.77	328.0
22.00	1.79	329.6
23.00	1.81	331.0
24.00	1.84	333.2
25.00	1.91	338.0
26.00	1.98	342.4
27.00	2.04	346.5
28.00	2.06	348.0
29.00	2.08	349.4
30.00	2.11	351.8
31.00	2.16	355.1
32.00	2.19	357.1
33.00	2.23	360.0
34.00	2.26	361.5
35.00	2.28	362.8
36.00	2.30	364.6
37.00	2.33	366.4

39.00	2.38	370.1
40.00	2.42	372.8
41.00	2.45	374.7
42.00	2.46	375.7
43.00	2.48	376.6
44.00	2.49	377.5
45.00	2.51	378.8
46.00	2.53	380.5
47.00	2.58	383.4
48.00	2.61	386.0
49.00	2.64	388.0
50.00	2.67	389.5
51.00	2.69	391.2
52.00	2.72	393.2
53.00	2.75	395.3
54.00	2.79	398.1
55.00	2.82	400.0
56.00	2.85	402.0
57.00	2.91	405.8
58.00	2.97	410.2
59.00	3.06	416.2
60.00	3.10	418.9
61.00	3.13	421.2
62.00	3.18	422.8
63.00	3.22	424.1
64.00	3.25	425.2
65.00	3.31	427.0
66.00	3.34	428.1
67.00	3.38	429.4
68.00	3.44	431.4
69.00	3.49	433.0
70.00	3.51	433.6
71.00	3.52	434.0
72.00	3.53	434.3
73.00	3.54	434.7
74.00	3.55	435.1
75.00	3.57	435.8
76.00	3.62	437.2
77.00	3.64	438.0
78.00	3.66	438.6
79.00	3.68	439.3
80.00	3.72	440.5
81.00	3.78	442.5
82.00	3.87	445.8
83.00	4.00	450.0
84.00	4.14	454.6
85.00	4.27	459.0
86.00	4.51	467.0
87.00	4.63	471.0
88.00	4.74	474.5
89.00	4.85	478.2
90.00	5.14	487.8
91.00	16.04	802.8
92.00	17.90	853.9
93.00	19.61	899.6
94.00	20.75	929.5
95.00	21.71	953.8
96.00	22.50	973.9
97.00	23.42	996.0
98.00	24.50	1021.8
99.00	26.11	1059.6
FBP	27.38	1088.2

WARNING--END POINT BEYOND THE SCOPE OF D2887

well 3, st Processed: 01-01-1993 12:54:28, segment 3, cycle 3
RAW DATA SAVED IN FILE H:WELL33.PTS
Areas, times, and heights stored in: H:WELL33.ATB
Data File = H:WELL33.PTS Printed on 01-01-1993 at 12:54:42
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 mv.
Low Value: 10111 uv High Value: 375035 uv Scale factor: 1.0




% Area
Temperature vs. Area%-Cum%
Cum %
1.600
100
75
50
25
0
Temp
300
400
500
600
700
800
900
1000
1100
1200
1300