SCHARFF & GREBEN
ATTORNEYS AT LAW
WELLS FARGO BUILDING
400 CAPITOL MALL, SUITE 1100
SACRAMENTO, CALIFORNIA 95814

JAN ADAM GREBEN
JEFFORY J. SCHARFF

TELEPHONE
(916) 558-6192
FACSIMILE
(916) 446-1611

August 19, 1992

Mr. Scott Seery
Alameda County Environmental Management Dept.
80 Swan Way, Suite 200
Oakland, CA 94621

Re: Ray Lorge & Sons
2522 Castro Valley Boulevard

Dear Mr. Seery:

Enclosed for your review and information is a copy of a preliminary site assessment prepared by Christopher M. French, registered geologist, which is intended to satisfy your July 22, 1992 correspondence requesting the same pursuant to the Porter-Cologne Water Quality Control Act §13267(b).

The assessment provides a detailed discussion of the applicable information which has been generated as a result of on-site investigation at the subject property. Mr. French includes an evaluation of regulatory considerations that take into account technical and cost benefit criteria pursuant to statutory and regulatory provisions. It goes on to discuss the background, physical setting, physicochemical properties of the identified constituents, corrective action alternatives and finally, selection of corrective action.

Mr. French closes with a recommendation that a limited ground water monitoring program be implemented through the existing monitoring well. This conclusion is based on all of the available information from upgradient, transgradient and downgradient sources of contamination in abandoned underground storage tanks in the vicinity. He concludes that no measure of on-site remediation "will meaningfully inure to an equal or greater water quality benefit at equal or lesser cost."

Mr. Lorge is prepared to implement Mr. French's recommendation for limited groundwater monitoring. Please advise as to the frequency of monitoring intervals to be reported.

Sincerely,

Jeffory J. Scharff

JJS:af

Enclosures

cc: Ray Lorge (w/o enc.)

clients\lorge\seery.1

Christopher M. French, R.G.
RG #4465
REA #00307

ENVIRONMENTAL INVESTIGATION REMEDIATION AND RISK ASSESSMENT
2735 ELMWOOD AVENUE
BERKELEY CALIFORNIA 94705
(415) 486-0722

Reviewed 11/23/92 SDS

92 NOV 10 AM 8:30

August 14, 1992

Mr. Jeff Scharff
Scharff & Greben
Attorneys at Law
400 Capitol Mall, Ste. 1100
Sacramento, CA 95814

Subject: Preliminary Site Assessment and Preliminary Evaluation of Corrective Action Alternatives for 2522 Castro Valley Boulevard/2517 San Carlos Avenue, Castro Valley, California

Dear Mr. Scharff:

A Preliminary Site Assessment (PSA) has been performed for the purpose of providing a preliminary evaluation of Corrective Action Alternatives for the above referenced property in Castro Valley, California. The PSA has been performed in response to the letter request of Mr. Scott Seery of the Alameda County Health Care Services Agency (ACHCSA) dated July 22, 1992, pursuant to Porter Cologne Water Quality Control Act Section 13267 (b). In providing this assessment, the technical and cost benefit criteria codified in California Code of Regulations (CCR) Title 23, Article 11, Section 2720 et seq. have been applied as the basis for validating corrective action requirements.

not a PSA

Corrective Action alternatives must be based upon an assessment of impacts including (i) the physical and chemical characteristics of the hazardous substances or its constituents, including toxicity, persistence, and potential for migration (§2724 (e)(1)), (ii) hydrogeologic characteristics of the site and surrounding area (§2724 (e)(2)), (iii) proximity and quality of surface water or groundwater, and the current or beneficial uses of these waters (§2724 (e)(3)), (iv) the potential effects of residual contamination on nearby surface water and groundwater (§2724 (e)(4)), and (v) an exposure assessment, when required by the regulatory agencies. A feasibility assessment must be performed, and each alternative shall be evaluated for cost effectiveness. The responsible parties shall propose to implement the most cost effective corrective action (§2725 (b) and (f)). "Cost-effective" means "actions that achieve similar or greater water quality benefits at an equal or lesser cost than other corrective actions."

In our judgement, the scope of Corrective Action performed at this site has been adequate to restore and protect the current or potential beneficial uses of waters of the State, taking into consideration technical practicality and cost. The sources have been

removed and, while it is evident that some residual contamination remains, it is clear the site is surrounded by several significant and substantial sources of groundwater contamination, as well as several uncharacterized abandoned UST sites and unreported release sites which likely have similarly contributed to groundwater contamination. The hydrogeologic setting, composed of a hydraulic medium with strongly adsorptive properties, low hydraulic conductivity and demonstrated absence of significant potential for migration, as evidenced by the monitoring results for the contiguous Thrifty Oil site, will act to naturally limit the impact of the residual hydrocarbon concentrations. Based upon the detailed assessment of impacts provided herein, performance of further action is not likely to achieve meaningfully greater water quality benefits. Requirements for such action do not meet the legal criteria for cost benefit and technical practicality. ?

It is recommended that a limited groundwater monitoring program be implemented at the location of the existing monitoring well. Until such time as upgradient, transgradient and downgradient sources of contamination and abandoned USTs are fully characterized and mitigated, no measure of on site remediation effort will meaningfully enure to an equal or greater water quality benefit at equal or lesser cost, as mandated by law.

who, when, where, How?

It is further observed that the Responsible Parties have incurred nearly ruinous response costs to date and are in danger of losing their livelihood in the present economic climate. Given the legislative mandate contained within Section 13267 (b) of the Porter Cologne Water Quality Control Act, it is our opinion that the burden, including cost, of further reporting does not bear a reasonable relationship to the need for the reporting or the benefits to be derived therefrom. Should the Local Implementing Agency not concur, it is recommended the LIA assist the Responsible Parties in successfully appealing for response costs under SB 2004.

this has been done

BACKGROUND

Two USTs have been removed from the property. Neither is reported to have been in use for a period in excess of thirty years. It is our understanding the current owners were never operators of the USTs. One 1,000 gallon underground Storage tank (UST No. 1) was initially subject to closure. During closure, the ACHCSA inspector noticed a second vent line which subsequent geophysical investigation was shown to be connected to a second, 700 gallon UST (UST No. 2). The 1,000 G UST was removed on February 6, 1991, and the second on February 20, 1992. Both removals were appropriately permitted and executed.

A full description of closure activities is provided in the two KTW & Associates, Inc. reports, provided in Attachment A. The two USTs are located in close proximity to each other, with UST No. 1 located approximately 30 feet upgradient of UST No. 2. Contamination was evident in the area of both USTs during removal, based upon observations noted by the ACHCSA inspector. Approximately 1,395 gallons of contaminated water were removed from the first UST and excavation during removal. An additional 1,119 gallons of water were purged during the second UST removal. Approximately thirty cubic yards of soil were over excavated from UST No. 1. Overexcavation at UST No. 2 could not be performed due to physical constraints, including a building, fence line and property boundary.

not clear yet which way "up gradient" actually is

Analytical results of soil and groundwater contamination are presented in the KTW reports. The results appear to reflect the influence of separate sources. UST No. 1 results indicate the presence of weathered gasoline constituents. Lead was not present at the instrument level of detection. UST No. 2 results did indicate the presence of lead, as well as low and high boiling point hydrocarbons. Based upon the equivalent ages of the two USTs, the absence of lead at the upgradient UST and the presence of lead at the downgradient UST, the presence of an upgradient, off site source of unleaded gasoline may be inferred.

- a grand conclusion!

May be the 2nd UST had stored leaded fuel, The other not

PHYSICAL SETTING

The subject property is located at an approximate elevation of 160 feet above mean sea level within the broad topographic depression of Castro Valley. The upper tributary to San Lorenzo Creek is located approximately 1,000 feet east of the site. Stormwater runoff is controlled by the grading of the site. The surrounding land use is primarily commercial, with some light industrial and residential lots.

Nearby Contamination Sites

Based upon existing information, groundwater has been severely impacted both directly upgradient and somewhat downgradient of the subject site. The subject property is located adjacent to, or in close proximity to abandoned and contaminated UST sites in the upgradient, transgradient and downgradient directions. These include (i) a Thrifty Oil site, located at 2504 Castro Valley Boulevard (presently operated by B.P. Oil), (ii) Stop and Save at 20570 Stanton Avenue, where local residents report that a significant release occurred, (iii) Roebers, Inc. Plumbing, at 2516 San Carlos, where UST replacement activities are reported to have encountered substantial contamination, iv)

where?

Nesbitt Feed Company at 2544 Castro Valley Boulevard and Autohaus Castro Valley, at 20197 Park Way . A Shell site further downgradient is also reported to have experienced a large release.

Of these sites, documentation is readily available only for the Thrifty Oil site. This property, which is contiguous with the subject site, is reported to have suffered a catastrophic release of petroleum hydrocarbons twice in the late 1970s. A remediation system has been installed at the site, but does not appear to be functioning well. Since installation of pumping wells in approximately May, 1991, the system has operated approximately 5,209 hours, enabling treatment of only 2,672 gallons of hydrocarbon contaminated groundwater. This corresponds to a sustainable pumping rate of 0.5 gallons per hour, or 0.008 gallons per minute.

Hydrogeologic Setting

The area is reported to have been a wetlands prior to development in the 1940s and 1950s. Groundwater is variably present at depths ranging from 18 inches to several feet beneath the site. Based upon hydrogeologic data for the contiguous property at 2504 Castro Valley Boulevard (Thrifty Oil), groundwater flows to the east under a gradient of approximately 0.04 feet per foot (Thrifty Oil Company letter to Mr. Scott Seery, dated April 27, 1992). The upper unit within which groundwater was first encountered appears to be a clay with secondary porosity due to desiccation features or other soil structure. Clay is not deemed capable of a significant, sustained yield.

Potential for Off Site Migration

Data from the Thrifty Oil site appears to indicate a very low probability for off site migration. As seen in Figures 2 and 3 of the Thrifty Oil Quarterly report, presented in Appendix B, off site well RS-8 is located less than 70 feet directly downgradient of a source of floating product, but has contained only trace quantities of hydrocarbon constituents in groundwater.

Beneficial Uses of Water of the State

Existing direct beneficial uses of groundwater are identified in the revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) dated December 17, 1986. The existing beneficial uses of groundwater may include municipal, domestic, industrial and agricultural water supply for designated groundwater basins. As households in the

area are now connected to the EBMUD water conveyance system, the aquifer located beneath the site are not presently used for drinking water supply.

The older alluvium of the Castro Valley area is not considered a viable source for drinking water. There are no known drinking water wells located in close proximity (<1,000) to the site (Alameda County Water Conservation and Flood Control District 205 (J) Report, 1988). As stated in the 205 (J) report, "these units should not be considered as a source of drinking water because they are relatively thin, permeable, surface or near surface deposits that are susceptible to contamination from sewer systems, street runoff, ...etc." UST leaks?

PHYSICOCHEMICAL PROPERTIES

An evaluation of the physicochemical properties is critical for an understanding of the potential impact to beneficial uses arising from a source of hydrocarbons. The physicochemical properties which must be taken into consideration include toxicity, persistence, and potential for migration in water, soil and air.

Toxicity

The primary constituent of concern from the standpoint of toxicity is benzene, a known human carcinogen. The Department of Health Services has established a Drinking Water Standard of 1.0 ppb for benzene. Specifically, the drinking water delivered to the free flowing outlet of an ultimate end user (the receptor) must by State and federal law contain less than 1 ppb of benzene. The benzene level established by the State and federal regulations is based upon highly conservative risk assessment criteria, which deliberately overstates risk by at least 100 times [U.S. Environmental Protection Agency Integrated Risk Information Database (IRIS), 1991]. Based upon the conservative assumptions, it is calculated that an "average" male adult consuming two liters of water per day containing 1 ppb benzene over a period of seventy years will have a one in one million (10^{-6}) increased potential risk of developing cancer.

Benzene concentrations in site groundwater have been reported at 280 ppb. By extension of the conservative risk criteria presented above, this concentration might cause a 2.8×10^{-4} increased potential cancer risk for an adult male consuming two liters of water per day over a period of seventy years, were such exposure to occur. The average lifetime risk of contracting cancer is 0.2, with an uncertainty of 10 % (Wilson and Crouch, Science, 1987). Accordingly, the increased risk of carcinogenesis from

consumption of water containing 280 ppb is 0.20028 as opposed to 0.2000010 for water containing 1 ppb benzene. This is an insignificant difference.

There are obviously hundreds of constituents in petroleum which might cause an acute or chronic toxic effect given certain short or long term levels of exposure. What should be emphasized is that for a risk to be incurred, exposure must occur. Because the shallow water bearing zone is not presently and is not likely ever to be used as a source of drinking water, exposure to the toxicity characteristics of benzene or other petroleum hydrocarbons is not likely to occur.

Persistence

Thousands of leaking underground gasoline storage tanks have been found throughout California from which a tremendous amount of gasoline has leaked into groundwater over the past half century. The most water soluble constituent in gasoline is benzene, and it typically contaminates groundwater beneath leaking underground storage tanks (Hadley and Armstrong, 1991). An evaluation is presented for the persistence of benzene, the compound of greatest concern.

Benzene is a stable non-polar light aromatic compound. Its physical and chemical characteristics are described in various references, including Verschueren (1983). It is moderately soluble in water and readily adsorbed onto carbon. The major route of removal from the environment is through volatilization and ultimately photodegradation under ultraviolet light in the upper atmosphere. Adsorption onto soil is likely to occur. Hydrolysis is unlikely to occur under ambient conditions. Bioaccumulation of benzene - that which would remain in the fatty tissue of exposed organisms - is moderately low.

Biodegradation is an important decomposition process for benzene in groundwater. Several species have been observed to use benzene as a sole carbon source for substrate, even under anaerobic conditions, in the presence of nitrate (Taylor et al., 1970; Braun and Gibson, 1984; Oshima, 1984). Microbial activity is ubiquitous in the unsaturated zone and upper and lower portions of the saturated zone of subsurface strata (Dunlapp and McNabb, 1973). Microorganisms play a critical role in the breakdown of complex organic materials in soil and groundwater, and are likely to adapt to exposure to a wide variety of organic chemicals, including hydrocarbons (McKee et al., 1972). Under controlled conditions, Lee and Ryan (1979) document a biodegradation half life for benzene of 6 days for an initial concentration of 25 micrograms per liter. Tabak et al. (1981) note an approximate biodegradation half life of 7 days at an initial concentration

of 5 milligrams per liter. Rittman et al. (1980) indicate that environments composed of fine-grained soil material afford unusually great opportunities for biodegradation by attached organisms because of the high surface area for attachment.

"In a state-mandated program", write Hadley and Armstrong (1991), "7,167 wells serving water-supply systems throughout California were tested for a broad panel of organic constituents. Of the wells tested, 812 (11.3%) had detectable concentrations of at least one of the constituents tested for. Detectable concentrations of benzene were reported for only 10 wells. While many processes influence the fate of organics in ground water, the most likely explanation for the nonoccurrence of benzene is that it is destroyed near its source by biodegradation."

Potential for Migration

An understanding of physicochemical properties of hydrocarbons is necessary in order to understand the complex interactions and resulting distribution of hydrocarbons in environmental media. Physicochemical properties which influence the transport and fate of chemicals in media include solubility, vapor pressure, degree of interaction with water (hydrophobicity), and potential for evaporative loss. Within the clayey hydrogeologic medium of the site, the physicochemical properties of solubility and degree of interaction with solids prevail. Hydrocarbons are weakly to moderately soluble in water. In general, they are considered hydrophobic compounds subject to sorption. In addition to providing an unusually good opportunity for biodegradation by attached organisms because of the high surface area available for attachment, the clays of the site are likely to provide for substantial adsorption.

Exposure Assessment

One of the major complexities in evaluating health risks from soil or groundwater contamination is the identification and quantification of the important exposure routes. Site usage is important in defining the exposed population. Usually, the existing land use (e.g., pasture land, shopping center, industrial site, or residential area) will dictate the level of necessary cleanup. For contaminated soil in residential areas, ingestion of soil by children would represent the primary exposure concern. For commercial sites such as the subject property, workers may represent the most exposed population and the relevant exposure routes would be via dermal contact and inhalation of volatilized contaminants and of windblown dust. Ingestion is assumed to be fairly low for the worker population (Beck, 1989, Paustenbach, 1989). Redevelopment of the property,

including paving and installation of landscaped areas, would further limit the potential for exposure.

CORRECTIVE ACTION ALTERNATIVES

Corrective action alternatives which are generally employed for remediation of gasoline hydrocarbons include those useful for remediation of soil and/or water. Soil remediation methods include excavation, which has already been performed to a considerable extent, vapor extraction and bioremediation. Groundwater corrective action includes pumping of groundwater and treatment. As an alternative to active corrective action, a no action alternative with verification monitoring is considered an appropriate corrective action alternative when it is demonstrated to enure to a greater or equal water quality benefit, taking into consideration technical practicality and cost.

Remediation Performed to Date

The Responsible parties have already performed remediation at the site, including excavation of 30 cubic yards of soil, and pumping of 2,514 gallons of groundwater. The latter figure corresponds closely to the total volume of groundwater processed by the treatment unit present at Thrifty Oil over 5,209 hours of operation.

Alternative I - Soil Remediation

Three common technologies used in soil remediation are excavation, vapor extraction, and bioremediation.

Excavation

Limited excavation has already been performed. Excavation in the downgradient direction of UST No. 2 is limited by the property extent. Further excavation of site soil is not deemed cost effective given the prevalence of upgradient and transgradient sources of contamination. Excavation of site clay and replacement with a clean, permeable backfill will only result in recurrence of contamination due to on site migration from an upgradient source.

Vapor Extraction

Vapor from a contaminant in a soil exists in equilibrium with the unvaporized liquid.

Because hydrocarbons have a high vapor pressure, the presence of hydrocarbon contamination in soil can be manifested by the presence of high vapor concentrations. In practice, the amount of contaminant that vaporizes depends on the soil concentration, the vapor pressure of the contaminant and the amount of air moving through the soil. Implementation of a vapor extraction system is not warranted given the extremely low air permeability of clay and the absence of a significant vadose zone.

Bioremediation

In-situ (in place) bioremediation techniques employ naturally-occurring or artificially-grown microorganisms to remove the organic contaminants from the soil. Due to the major differences in porosity and contaminant level in the soil at most sites, and the high probability of clogging, it is very difficult to achieve a uniform dispersion of water, air, and fertilizer throughout the contaminated soil. Consequently, the bioremediation proceeds very unevenly. Microorganisms begin growing in some portions of the soil, while in other portions very little growth occurs. As a result, it is very difficult to fully remediate all of the effected soil. Given the very low permeability of the site strata and the large proportion of dead pore space in the clay, this Corrective Action method is likely to be largely ineffective, technically unfeasible and not likely to achieve any measurable water quality benefit.

Groundwater Remediation

The usual method to attempt to remediate contaminated ground water is to pump the water from a well and treat it to remove the dissolved organic compounds. Groundwater pump and treat options are generally recognized to be technically unfeasible because it is not possible to displace adsorbed hydrocarbon. A sufficient body of evidence has been accumulated to show that once the treatment is discontinued, contaminant concentrations may once again increase to pretreatment levels. Groundwater pumping may, however, be considered effective in containing a groundwater plume where hydraulic control is required, such as in a basin utilized for drinking water supply where a well field is threatened.

The hydrogeologic setting of the site precludes groundwater pump and treat as a feasible option. The yield from clay is extremely low, as demonstrated by the difficulties encountered at the Thrifty Oil site. Were groundwater extraction to be implemented, and were a feasible pumping rate established, the cone of depression in the unconfined aquifer would cause capture of nearby contaminant plumes, causing spreading of contaminated groundwater. This will result in a net loss of water quality benefit.

I thought it was just stated that yields are low. How, then, could such a cone of depression be generated to capture the Thrifty plume 100 - 200' down/cross gradient?

The No Action Alternative

The No Action Alternative with Verification Monitoring consists of utilizing existing or proposed monitoring methodologies to assess the increase or decrease of on site contaminant concentrations through time resulting from natural attenuation processes. The alternative is generally utilized where it can be demonstrated that the impact to beneficial uses, or receptors, of surface water or groundwater are negligible and the cost benefit criteria indicate that remedial action is not cost effective. The No Action alternative is also utilized in cases where passive remediation is required as a result of on site conditions or off site considerations.

the problem is that the contaminants are likely already off-site

Estimated Cost of Remedial Action Alternatives

The following costs are estimated for various remedial options. Where the feasibility assessment has indicated the option is not feasible, no costs are provided.

ESTIMATED COSTS

TECHNOLOGY	ENGINEERING	EQUIPMENT	INSTALLATION	ANNUAL O&M
Soil Vapor Extraction	not feasible - limited vadose zone			
In Situ Soil Bioremediation	$20,000	25,000	$60,000	$30,000
Ground Water Pump and Treat	$20,000	$50,000-70,000	$15,000	$50,000
No Action with Verification Monitoring	$ 1,500	$1,500	$1,500	$4,700

The above costs do not include permits, Health and Safety Plans, bench-scale tests, analytical laboratory testing (with the exception of verification monitoring alternative), transportation and disposal of hazardous wastes and project administration and oversight.

SELECTION AND IMPLEMENTATION OF CORRECTIVE ACTION

California Code or Regulations (CCR) Title 23, Chapter 16, Article 11 of the Underground Storage Tank (UST) regulations was approved on December 2, 1991. These procedures provide the criterion that the Corrective Action chosen shall provide for the most effective protection of State Waters taking into consideration technical practicality and cost, based upon the results of site characterization activities. "Cost-effective" is defined in the regulations as "actions that achieve similar or greater water quality benefits at an equal or lesser cost than other corrective actions."

Regulatory Criteria for Selection of Appropriate Corrective Action

also... enhanced biodegradation, SVE, and pumping / treating GW, etc, etc.

The regulations specify that the responsible party shall take interim remedial action to abate the unauthorized release (§2722 (b)), including removal of floating product (§2722 (b) (1)), etc. A preliminary site assessment phase shall be implemented (§2723), including initial site investigation, initial abatement actions and initial site characterization. Using information derived from the site investigation, the responsible party shall propose a Corrective Action Plan (§2723 (b)). Corrective Action alternatives must be based upon an assessment of impacts including 1) the physical and chemical characteristics of the hazardous substances or its constituents, including toxicity, persistence, and potential for migration, 2) hydrogeologic characteristics of the site and surrounding area, 3) proximity and quality of surface water or groundwater, and the current or beneficial uses of these waters, 4) the potential effects of residual contamination on nearby surface water and groundwater, and 5) an exposure assessment, when required by the regulatory agencies (§2724 (e)). A feasibility study shall be implemented to evaluate alternatives for remedying the effects of the release (§2724 (f)), and cleanup levels shall be established (§2724 (g)). Upon approval, the responsible party shall implement Corrective Action (§2726) and perform verification monitoring (§2727 (e)). The responsible parties shall propose to implement the most cost effective corrective action (§2725 (b) and (f)). "Cost-effective" means "actions that achieve similar or greater water quality benefits at an equal or lesser cost than other corrective actions."

Physical and Chemical Characteristics

Based upon data from the contiguous Thrifty Oil site, there is a limited probability of significant hydrodynamic transport. Advective transport is unlikely to be the primary mechanism of contaminant transport in the affected clay. The low to moderate solubility and elevated hydrophobicity of the hydrocarbon are likely to contribute to significant

But, it was previously stated that biodegradation was of limited value

sorption phenomena. The hydrocarbons of concern have been demonstrated to be subject to biodegradation under both aerobic and anaerobic conditions. The fine grained clays of the site are likely to provide an unusually large surface area for the attachment of microorganisms.

The primary compound of concern from a toxicity perspective is benzene, a known carcinogen. The increased risk of carcinogenesis from exposure to site benzene is 0.20028, as opposed to 0.2000000 for the unaffected population, given the unlikely exposure scenario of continuous exposure to two liters of site water derived from the shallow saturated interval over a period of seventy years. Exposure is in fact not likely to occur given an absence of exposure pathways. The most cost effective method to further limit the already low potential for exposure is to limit subsurface disruption of the property.

Proximity and Quality of Surface Water or Groundwater and Beneficial Uses

The nearest surface water body is located 1,000 feet downgradient of the site. It is not likely to be impacted by the site. Groundwater which is present within the clay is not capable of a significant and sustained yield and, therefore, the water bearing zone is generally impractical for most beneficial uses. It is therefore likely that the beneficial uses of waters of the State have not been impacted in a manner which could by any sensible measure be considered significant. This is further supported by the observation that the shallowest water bearing unit has locally and regionally likely been affected by other releases of a similar nature, infiltration of storm water runoff from pavement and leaking sewer laterals.

SELECTION OF CORRECTIVE ACTION

In our judgement, the scope of Corrective Action performed at this site has been adequate to restore and protect the current or potential beneficial uses of waters of the State, taking into consideration technical practicality and cost. The sources have been removed and, while it is evident that some residual contamination remains, it is clear the site is surrounded by contamination sites and abandoned UST sites which have similarly contributed to groundwater contamination. The hydrogeologic setting, composed of a hydraulic medium with strongly adsorptive properties, low hydraulic conductivity and demonstrated absence of significant potential for migration, as evidenced by the monitoring results for the contiguous Thrifty Oil site, will act to naturally attenuate the residual hydrocarbon concentrations. Based upon the detailed assessment of impacts provided herein, performance of further action is not likely to achieve meaningfully greater water quality benefits. Requirements for such action do not meet the legal criteria for cost benefit

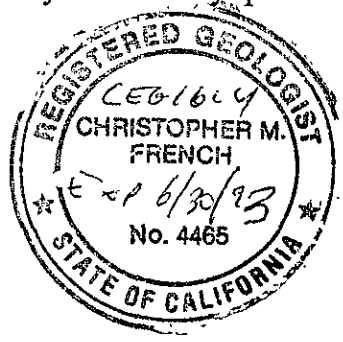
and technical practicality.

It is recommended that a limited groundwater monitoring program be implemented at the existing monitoring well. Until such time as upgradient, transgradient and downgradient sources of contamination and abandoned USTs are mitigated, no measure of on site remediation effort will meaningfully enure to an equal or greater water quality benefit at equal or lesser cost.

Thank you for the opportunity to review this unusual case. Should you have any questions, please call.

Very truly yours,

Christopher M. French, C.E.G., R.E.A.
Certified Engineering Geologist No. 1614 (Exp. 6/30/93)
Registered Environmental Assessor No. 307 (Exp. 6/30/93)



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ATTACHMENT A

KTW & Associates Reports

KTN & ASSOCIATES

43289 Osgood Road, Fremont, Calif. 94539
(415) 623-0480
Cal. State Cont. Lic. # 572427

RJ QUICK CLEAN

2522 Castro Valley Boulevard
Castro Valley, California

Tank Closure Report

No. 1

K.T.W. & ASSOCIATES

43289 Osgood Road, Fremont, Calif. 94539
(415) 623-0480
Cal. State Cont. Lic. # 572427

Mr. Raymond Lorge
Mr. Jim Lorge
RJ Quick Clean
2522 Castro Valley Boulevard
Castro Valley, California 94546

Dear Sirs:

K.T.W. & Associates is pleased to submit this report describing closure activities associated with the removal of one (1) underground storage tank at your site located at 2517 San Carlos Street, Castro Valley, California. This report provides a description of site activities and observations, the condition of the excavated tank, the condition of tank backfill and other subsurface materials, sampling procedures and locations, laboratory analytical procedures and certified analytical results, chain of custody documentation, and hazardous waste manifest.

Site Description

The site is located at 2517 San Carlos Street, Castro Valley, California. A site location map is presented in Plate 1. One 1,000 gallon, underground gasoline, storage tank, was formerly located at the subject site. A site map showing the location of the site structure, former underground tank and dispensing island is presented in Plate 2.

Closure Plan and Permitting

A closure plan and permit application for removal of underground tanks was completed and submitted to the Alameda County Health Care Services Agency, Hazardous Materials Division. An additional permit was filed with the Bay Area Air Quality Management District even though displacement of volatile vapors was not expected due to the tank having been filled with water to the top of the fill pipe.

Underground Tank Closure

Tank removal activities occurred on February 6, 1991. Inspector Scott Seery was present to observe the tank removal and sampling activities. Construction services associated with closure were performed by K.T.W. & Associates. Robert Chew of R.Y. Chew Geotechnical provided a California Registered Geologist to perform environmental sampling and documentation services.

The presence of groundwater in the tank pit showed visual signs of contamination, as well as a strong gasoline odor. The tank contained approximately 1,000 gallons of water prior to its removal. The water was removed from the tank via vacuum truck and manifested under a hazardous waste manifest presented in Attachement B. At the direction of Scott Seery, an additional 395 gallons, of visibly contaminated water, were removed from the tank excavation. The recharge rate was noted to be steady, and to occur on all sides of the excavation.

Closure activities were documented in the Hazardous Materials Inspection Form prepared by Scott Seery located in Attachment A. Upon removal the structural integrity of the tank was observed to be sound. The tank was of cold-rolled steel construction, and the piping consisted of single wall steel. The tank was removed and transported from the site by a permitted hazardous waste transporter under hazardous waste manifest. Copies of the hazardous waste manifest are presented in Attachment B.

General Observations, Underground Tank Closure

The tank, which had been used to store gasoline approximately thirty years ago, contained the following trim: a riser assembly for filling, a vent line, and a product line for the dispensing of the material. According to anecdotal information supplied by the client, the tank had not contained product for at least fifteen years.

The condition of the lines prior to removal were unsound, and contained several corrosion holes.

All the fittings appeared to be properly installed, however, the corrosion holes appeared to be of sufficient size in the vent line to allow for the introduction of groundwater. The riser assembly that constituted the fill pipe for the tank appeared to be sound and free of defects. A very strong hydrocarbon odor was observed while removing the overburden. This odor remained strong throughout the excavation and subsequent overexcavation activities. The material was stockpiled on-site pending analysis results, and was not incorporated as backfill in the excavation. Backfilling of the excavation has yet to be completed with clean imported fill material.

The following day, overexcavation began at the site to determine if the contamination was localized in nature. Since it did not appear to be the case, overexcavation was discontinued after the removal of approximately thirty (30) additional yards.

Soil Sampling

Soil samples were collected from the tank excavation, and from the sidewalls of the overexcavation as well. Soil sampling of the tank excavation occurred on February 6, 1991. The sampling following the overexcavation occurred on Feburary 7, 1991. These samples were obtained by excavating to the native soil interface and driving a brass tube into the native soil. Soil samples were collected in brass tubes, sealed in foil and plastic caps, and promptly stored in a cooler. Following completion of field work, samples were submitted to BSK Analytical Labs, a certified analytical laboratory, for analyses under appropriate chain of custody protocol.

Certified Analytical Results

Samples collected for minimum verification analyses (MVA) were analyzed in accordance with appropriate regulatory guidelines contained within Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks (RWQCB, 1988). Copies of soil analytical results are presented in Attachment C.

MVA for Underground Tank Excavation

The soil samples collected from the soil below the east and west ends of the tank, showed a range of the compounds associated with gasoline contamination. The analysis performed on the soil for gasoline and it's constituents showed levels ranging from non-detected (N.D.) to 2200 parts per million (ppm) of Total Petroleum Hydrocarbons as Gasoline (TPH-G). The results from the sampling activities that occurred immediately after overexcavation showed TPH-G constituents ranging from N.D. to 1500 ppm. Analytical results are shown in Attachment C. It was noted in the QA/QC summary that the total petroleum hydrocarbon sample results showed that the readings were of a lower molecular weight, in fact extractable components of gasoline, rather than being indicative of another fuel. The QA/QC data has been attached to the analysis results. No organic lead was detected in any of the analyses.

Regulatory Guidelines

The Regional Water Quality Control Board - San Francisco Bay Region has established a level of 100 ppm Total Petroleum Hydrocarbons (TPH) concentrations in soil as a general decision value for requiring further definition of site soil and groundwater contamination where shallow groundwater conditions are known to exist. The origin of the 100 ppm level was to "develop a method to prioritize the case load and indicate whether a significant volume of fuel had been released or discharged" (RWQCB, June, 1988).

Copies of this report should be submitted to:

Regional Water Quality Control Board
1111 Jackson Street, Rm. 6000
Oakland, CA 94607
Attn: Dyan Whyte

Alameda County Health Care Services Agency
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621
Attention: Scott Seery

Additional copies of this report have been provided for the purpose of regulatory submittal.

Should you have any questions or comments regarding the evaluations presented in this report, please call.

Respectfully,

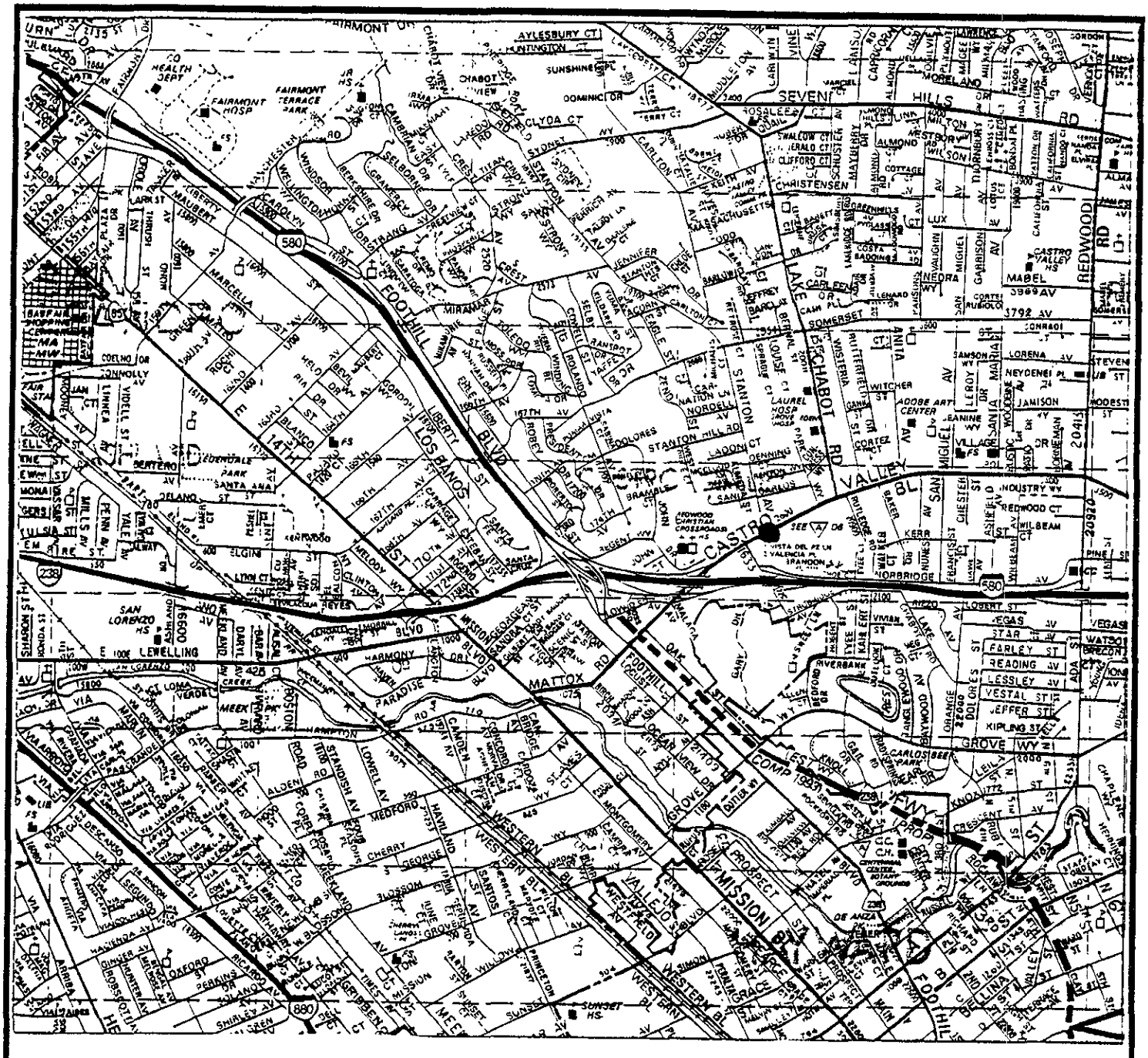
Kevin Krause
Vice President
K.T.W. & Associates, Inc.

Thomas M. Gregory
President
K.T.W. & Associates, Inc.

KK/emm

Attachments

PLATES



● = SITE

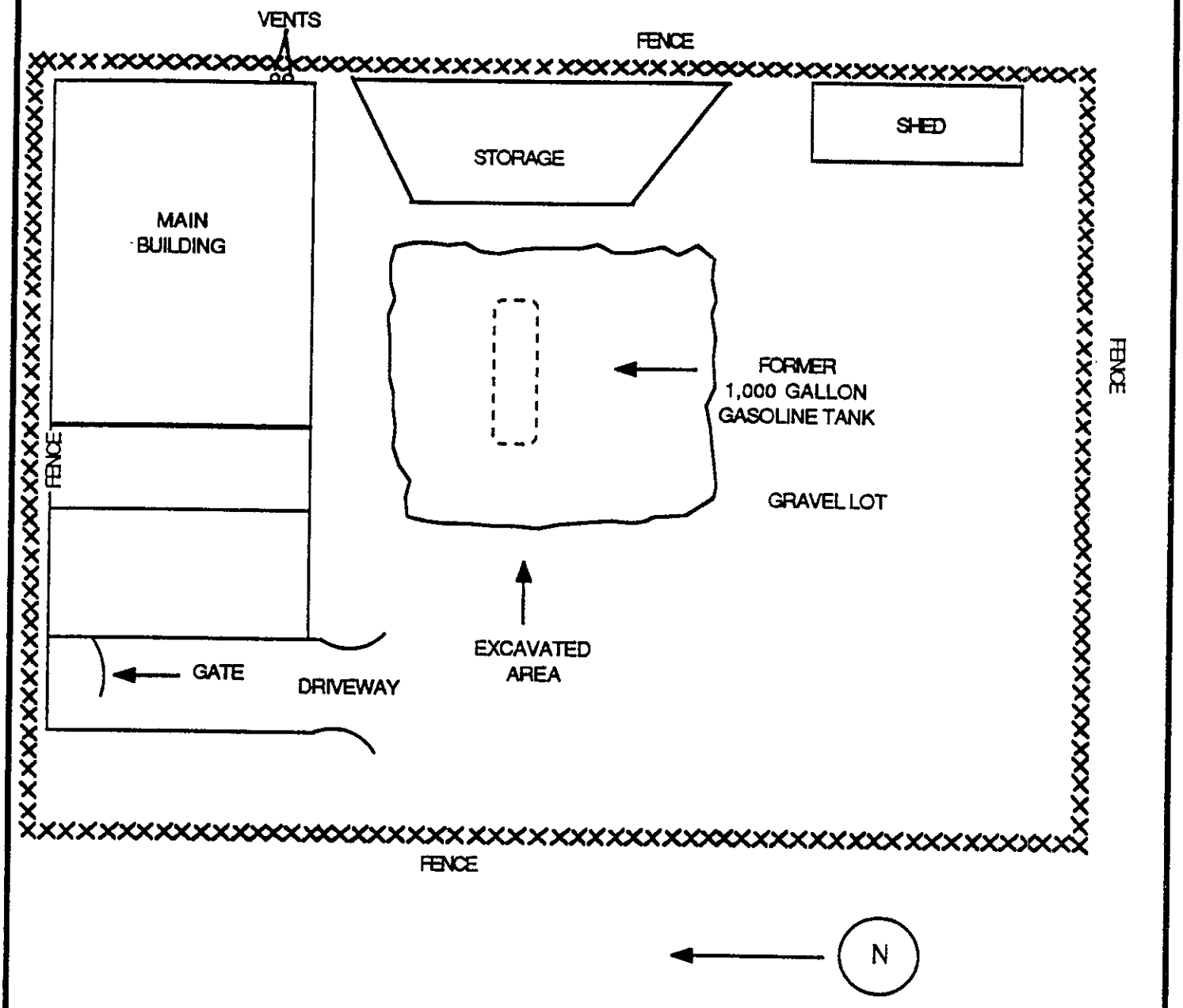
SCALE	NTS
DATE	3/11/91
DRWG. BY	EMM

KTW & ASSOCIATES

PROJECT: 1133

SITE LOCATION
RJ QUICK CLEAN
2522 Castro Valley Blvd.
Castro Valley, California

PLATE
1



SCALE	NTS
DATE	3/11/91
DRWG. BY	EMM

KTN & ASSOCIATES

PROJECT: 1133

GENERALIZED SITE MAP
RJ QUICK CLEAN
2517 San Carlos Street
(2522 Castro Valley Blvd.)
Castro Valley, California

PLATE
2

ATTACHMENT A

Hazardous Materials
Inspection Form

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form

II,III

Site ID # ____ Site Name MANUAL PADILLA TRUCKING Today's Date 2/6/91

Site Address 2517 San Carlos (2522 Castro Valley Blvd.)

City Castro Valley Zip 94546 Phone ____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:
____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Business Plans, Acute Hazardous Materials
V III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

1:00 - 4:00

Comments:
On-site to witness UST closure. One (1) 1,000 gallon tank thus far identified, and this closure report documents its removal. (Note: An additional UST is likely located on the east side of the building as another vent line is attached vertically to the east wall. A survey using a metal detector [magnetic] identified a subsurface anomaly ~~in the~~ beneath the driveway along the eastern edge of the property, proximal to the noted vent line.). The tank was full of water upon my arrival. A vacuum truck from Evergreen Oil removed liquid from the tank, and product-impacted H_2O from the UST excavation. Brown floating product is evident upon the G.W. in the excavation. GW can be seen flowing into the pit from the north, east and west walls of the excavation, at a depth below grade (BG) ranging from a few inches to approx 18" BG. As the GW was being vacuumed from the excavation, the odor of gasoline became more evident. The sand backfill is stained a green color. Bob Bolman arrived on site to confirm LEL/O_2 concentrations. Tank pulled.

II.A. BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. Offsite Conseq. Assess.	25534(e)
___	15. Probable Risk Assessment	25534(f)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(i)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651.
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

II, III

Contact: Tom Gregory
Title: co-owner KTW + Assoc
Signature: [signature]

Inspector: S. Seary
Signature: [signature]

page 2

white	-env.health
yellow	-facility
pink	-files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form

II,III

Site ID # ____ Site Name Manual Padilla Trucking Today's Date 2/6/91

Site Address 2517 San Carlos

City Castro Valley Zip 94 Phone ____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
✓ II. Business Plans, Acute Hazardous Materials
✓ III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:
The tank appears sound, and is of bare steel construction. No holes or rust were evident. David Glick (David C. Glick Assoc.) was on hand to collect samples. The tank was transported under manifest number 90574133 by Ericksen, Inc.

One sample was collected from each end of the tank. The sample from the west end was at ~6' BG; from the east, ~7' BG. No water sample was collected.

Over excavation of the pit will continue over the course of the next several days

II.A BUSINESS PLANS (Title 19)

	Item	Code
___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

	Item	Code
___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. Offsite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

	Item	Code
___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ____

	Item	Code
___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing	2646
___	10. Ground Water	2647

New Tanks

	Item	Code
___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

II, III

Contact: Tom Gregory
Title: ~~Co-owner~~, KTW + Assoc
Signature: [signature]

Inspector: S. Seery
Signature: [signature]

ATTACHMENT B

Hazardous Waste Manifests and Certificate

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7 — 74073

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAC000158352 | Manifest Document No.: 74073 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
R.S. QUICK & SEAN (RAY LORGE)
2522 CASTRO VALLEY Blvd. CASTRO VALLEY, CA. 94546

4. Generator's Phone (415) 581-9797

5. Transporter 1 Company Name: ERICKSON TRUCKING | 6. US EPA ID Number: CAD009466392

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

A. State Manifest Document Number: 90574133
B. State Generator's ID:
C. State Transporter's ID: 126245
D. Transporter's Phone: (415) 235-1393
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: CAD009466392
H. Facility's Phone: (415) 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 No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	001	T P	1000	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
Qty. 1 Empty Storage Tank(s) #5519
Tank (s) 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 when working around U.S.T.'s 24 Hr. Contact Name RAY LORGE & Phone (415) 581-9797

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

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ROBERT CANEPA | Signature: Robert Canepa | Month Day Year: 02 06 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: JIM D. LORGE | Signature: Jim D Lorge | Month Day Year: 02 6 91

FACILITY

19. Discrepancy Indication Space
Generator Sign Manifest at line 18 S/B in Area 16

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Donald H Rossi Jr | Signature | Month Day Year: 02 06 91

S.L.

Do Not Write Below This Line

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

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

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

№ 5579-74073
K.T.W.

CERTIFICATE

Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night
Telephone
(415) 235-1393

For: Erickson, Inc. Tank No.(s.) 5579 Location: Richmond Date: 02-08-91 Time: 1:00 p.m.

Test Method: Visual Gastech/1314 SMPN Last Product: Loaded Gas

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each 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(s)	Condition	
1- 15000 Gal. Tank	Safe For Fire	Oxy 20.0%
		LEL-LESS THAN 0.1%

Remarks:

In the event of any physical or atmospheric changes affecting the gas-free condition 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 than 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.

K Vaughn — Representative

Title

Inspector

CP5875

THIS SHIPPING ORDER

must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

Shipper's No. _____

CARRIER: ~~Erickson, Trucking Inc.~~ SCAC Carrier's No. 019 Date

TO: Consignee / Street / Destination	LMC Corp. 600 S. 4th St. Richmond, Ca. 94805 Zip	**FROM:** Shipper / Street / Origin	Erickson, Inc. 255 Parr Blvd. Richmond, Ca. 94801 Zip

Route: Vehicle Number

No Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
7		NON-D.O.T. REGULATED MATERIAL NON-HAZARDOUS, GAS FREE					
		UNDERGROUND STORAGE TANKS FOR SCRAP.					
		~~74071-5595~~ / 74082 - 5584 & 5583	NONE	N/A	N/A	N/A	NONE
		~~74075-5580~~ / 74073 [redacted]					
		74072-5568, 5571					

Remit C.O.D. to:
Address:
City: State: Zip:

COD Amt: $

C.O.D. FEE: Prepaid ☐ Collect ☐ $

NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ Per

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

FREIGHT CHARGES ☐ PREPAID ☐ COLLECT

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
Per _____

PLACARDS REQUIRED No **PLACARDS SUPPLIED** ☐ YES ☐ NO — FURNISHED BY CARRIER
DRIVER SIGNATURE:

SHIPPER: ~~Erickson, Inc.~~
PER: ~~Shannan Lowry~~
DATE: 2-8-91

CARRIER:
PER:
DATE:

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )

Manned 24 hours/day by a person with knowledge of the hazards of the material and emergency response information or who has access to a person with that knowledge.

Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.
9-BLS-A3
(Rev 5/90)

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster whose signature is on this certificate who is a recognized authority of accuracy as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

LMC METALS
A DIVISION OF SIMSMETAL USA CORPORATION
600 SOUTH 4th STREET
RICHMOND, CALIFORNIA 94804
(415) 236-0606

TICKET# 33437

MATL. 10201-1 UNP
PRICE / TON:
TOTAL PRICE:
WEIGHT ADJUSTMENT: 0 PERCENT: *****%
INBOUND WEIGHT: 42740 Lbs.

ACCOUNT: 22168801
ERICKSON INC.
255 PARR BLVD.
RICHMOND , CA
CASH I.D.:

PAY WEIGHT: 13260

TRUCK NO. LICENSE NO.
DRIVER:

42740 (M) Gross Weight Lbs. 2/08/91- 13:54 FRT. CODE:1 COST:$ 0.00
29480 Tare Weight Lbs. 2/08/91- 14:1[illegible]
13260 Net Weight Lbs.

Raymond Perry
SIGNATURE OF SELLER OR AGENT

LMC METALS WEIGHMASTER

2-86097

SALVAGE VEHICLE SALES: I hereby certify, under penalty of perjury, that any vehicles sold have been cleared for dismantling with the Department of Motor Vehicles.

HOLD HARMLESS AGREEMENT: Seller will indemnify and hold buyer harmless from damages, demands and liabilities, including reasonable attorney's fees, resulting from the breach of any warranty hereunder and driver agrees to be responsible for damage to vehicle during unloading.

BILL OF SALE: I warrant that I am the owner (or owner's representative) of the material described hereon and have the right to sell same, that it contains no hazardous material as defined by Federal or State law and that for payment hereby received, I sell and convey title to LMC METALS.

CUSTOMER COPY

State of Calif MAR 12 '91 10:48 EVERGREEN OIL/NEWARK, CA. ...e Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

Form Approved OMB No. 2050-0039 (Expires 9-30-91)

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD980695761 Manifest Document No. 21829

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
EVERGREEN ENVIRONMENTAL SERVICES
6880 Smith Avenue, Newark, CA 94560

4. Generator's Phone (415) 795-4410

A. State Manifest Document Number 89721829

B. State Generator's ID HAHQ36-014494

5. Transporter 1 Company Name C.O.R.I.. dba EVERGREEN ENVIRON. SERVICES

6. US EPA ID Number CAD980695761

C. State Transporter's ID 10713

D. Transporter's Phone (800) 972-5284

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
EVERGREEN OIL INC.
6880 Smith Avenue
Newark, CA 94560

10. US EPA ID Number CAD980874188

G. State Facility's ID CAD980874188

H. Facility's Phone (415) 795-4400

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 No.
a. X WASTE PETROLEUM OILS, NOS, COMBUSTIBLE LIQUID, NA 1270	001	TT	2060 G		State 221 EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
1.1 • Waste oil with an undetermined amount of halogens.
1.2 • Waste Water

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
Wear Protective Clothing
EMERGENCY NO 415 795-4400
KIRK HAYWARD

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 DAN SHRIGLEY Signature Dan Shrigley Month 02 Day 06 Year 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name DAN SHRIGLEY Signature Dan Shrigley Month 02 Day 06 Year 91

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 03 Day 06 Year 91

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

GENERATOR

OMB 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

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ATTACHMENT C

Certified Analytical Reports

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/07/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910631-1	02/06/91	1525 hrs. West end of tank	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0631-1	Detection Limit (DLR)
Benzene.....	ND	1.0
Toluene	ND	1.0
Ethylbenzene	16	1.0
Total Xylene Isomers	39	1.0
Total Petroleum Hydrocarbons	600*	10.00
Total Votatile Hydrocarbons	2200	500

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

051890

BSK Analytical Laboratories
1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/07/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910631-2	02/06/91	1530 hrs. East end of tank	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0631-2	Detection Limit (DLR)
Benzene.....	ND	0.02
Toluene	ND	0.02
Ethylbenzene	10	0.02
Total Xylene Isomers	13	0.02
Total Petroleum Hydrocarbons	350*	10.00
Total Votatile Hydrocarbons	1300	10.00

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

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Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/07/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910631-1	02/06/91	1525 hrs. West end of tank	02/19/91
Ch910631-2	02/06/91	1530 hrs. East end of tank	02/19/91

Soil Analyses for Total Organic Lead

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Results 0631-1	Results 0631-2	Detection Limit (DLR)
Total Organic Lead	ND	ND	2.0

DLR: Detection Limit For the Purposes of Reporting
Method: DHS
ND: None Detected

Cynthia Pigman, QA/QC Supervisor

Doug Deasy, Inorganics Supervisor

BSK Analytical Laboratories

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Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-1	02/07/91	1405 hrs. North Wall (OX)	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0661-1	Detection Limit (DLR)
Benzene.....	0.2	0.1
Toluene	ND	0.1
Ethylbenzene	1.9	0.1
Total Xylene Isomers	3.1	0.1
Total Petroleum Hydrocarbons	77*	10.00
Total Votatile Hydrocarbons	270	50

Method: BTXE-EPA 8020 TPH-DHS GC/FID

DLR: Detection Limit For the Purposes of Reporting

ND: None Detected

*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-2	02/07/91	1409 hrs. East Wall (OX)	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0661-2	Detection Limit (DLR)
Benzene.....	0.4	0.2
Toluene	ND	0.2
Ethylbenzene	3.9	0.2
Total Xylene Isomers	7.9	0.2
Total Petroleum Hydrocarbons	180*	10.00
Total Votatile Hydrocarbons	460	100

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-3	02/07/91	1413 hrs. South Wall (OX)	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0661-3	Detection Limit (DLR)
Benzene.....	0.2	0.1
Toluene	ND	0.1
Ethylbenzene	1.1	0.1
Total Xylene Isomers	3.5	0.1
Total Petroleum Hydrocarbons	200*	10.00
Total Votatile Hydrocarbons	330	50

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-4	02/07/91	1417 hrs. West Wall (OX)	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0661-4	Detection Limit (DLR)
Benzene.....	ND	1.0
Toluene	ND	1.0
Ethylbenzene	12	1.0
Total Xylene Isomers	16	1.0
Total Petroleum Hydrocarbons	1200*	10.00
Total Votatile Hydrocarbons	1500	500

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description		Date Analyzed
Ch910661-5	02/07/91	1421 hrs.	Center - Bottom (OX)	02/11/91

Soil Analyses for BTXE, TPH, and TVH

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Lab.No. 0661-5	Detection Limit (DLR)
Benzene.....	ND	0.2
Toluene	ND	0.2
Ethylbenzene	4.3	0.2
Total Xylene Isomers	5.7	0.2
Total Petroleum Hydrocarbons	300*	10.00
Total Votatile Hydrocarbons	610	100

Method: BTXE-EPA 8020 TPH-DHS GC/FID
DLR: Detection Limit For the Purposes of Reporting
ND: None Detected
*This sample contains lower molecular weight Hydrocarbons.

Cynthia Pigman,
QA/QC Supervisor

Michael Brechmann,
Organics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description		Date Analyzed
Ch910661-1	02/07/91	1405 hrs.	North Wall (OX)	02/19/91
Ch910661-2	02/07/91	1409 hrs.	East Wall (OX)	02/19/91

Soil Analyses for Total Organic Lead

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Results 0661-1	Results 0661-2	Detection Limit (DLR)
Total Organic Lead	ND	ND	2.0

DLR: Detection Limit For the Purposes of Reporting
Method: DHS
ND: None Detected

Cynthia Pigman, QA/QC Supervisor

Doug Deasy, Inorganics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-3	02/07/91	1413 hrs. South Wall (OX)	02/19/91
Ch910661-4	02/07/91	1417 hrs. West Wall (OX)	02/19/91

Soil Analyses for Total Organic Lead

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Results 0661-3	Results 0661-4	Detection Limit (DLR)
Total Organic Lead	ND	ND	2.0

DLR: Detection Limit For the Purposes of Reporting
Method: DHS
ND: None Detected

Cynthia Pigman, QA/QC Supervisor

Doug Deasy, Inorganics Supervisor

R051890

BSK Analytical Laboratories

1414 Stanislaus Street * Fresno, California 93706 * Telephone (209) 485-8310 * Fax (209) 485-6935

Robert Y. Chew Geotechnical
26203 Production Avenue, Suite 7
Hayward, CA 94545

Report Issue Date: 02/21/91
Date Received: 02/08/91
Project Number: 91009

Lab Number	Date Sampled	Client's Sample Description	Date Analyzed
Ch910661-5	02/07/91	1421 hrs. Center - Bottom (OX)	02/19/91

Soil Analyses for Total Organic Lead

Results Reported in Milligrams per Kilogram (mg/kg)

Compound	Results 0661-5	Detection Limit (DLR)
Total Organic Lead	ND	2.0

DLR: Detection Limit For the Purposes of Reporting
Method: DHS
ND: None Detected

Cynthia Pigman, QA/QC Supervisor

Doug Deasy, Inorganics Supervisor

R051890

0001

BSK Log Number ______

Robert Chew

ANALYSIS REQUEST/CHAIN OF CUSTODY RECORD

1000 - 7682

Client Name: R&J Quick Clean

Address: 2517 San Carlos (2522 Castro Valley Blvd.)

City, State, Zip: Castro Valley, CA 94546

Project or P.O #: Project No. 91009

Phone #:

Report, attention: Robert Chew

Sampled by: DCG

Lab Use Only in this section

Analysis required: TPH-G/BTXE, TPH-D, TETRA-ETHL Lead

2/21/91

Date sampled	Time sampled	Type (See key below)	Sample description (2/8/91)	Number of containers	Lab Sample number	Sample Seals (See key below)	TPH-G/BTXE	TPH-D	TETRA-ETHL Lead						Hazardous sample Special handling required	Remarks
2/7/91	2:05 PM	SO	North wall (OX)	1	-1	A	1	1	1							1X Soil Tube
2/7/91	2:09 PM	SO	East wall (OX)	1	-2	↓	1	1	1							↓
2/7/91	2:12 PM	SO	South wall (OX)	1	-3	↓	1	1	1							↓
2/7/91	2:17 PM	SO	West wall (OX)	1	-4	↓	1	1	1							↓
2/7/91	2:21 PM	SO	Center-Bottom (OX)	1	-5	↓	1	1	1							↓

IMPORTANT NOTICE: No samples will be analyzed without an authorized signature in this section.

I am hereby requesting BSK's Normal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in the U.S. E.P.A. SW 846 and that there is no extra charge for this service.

By: Rod R. Schurman (signature)
Authorized Signature

I am hereby requesting BSK's Formal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in U.S. EPA Contract Laboratory Program Statement of Work, Section F, and that there is a charge of $50.00 per work order or $5.00 a bottle, whichever is greater.

By: ______
Authorized Signature

	Signature	Print Name	Company	Date	Time
Relinquished by	Rod R. Schurman (signature)	Rod R. Schurman	Robert Y. Chew Geotechnical, Inc	2/7/91	2:25 PM
Received by	Mickey Obermire (signature)	M. OBERMIRE	BSK Lab	2/8/91	0930
Relinquished by					
Received by					
Relinquished by					
Received by					

BSK & Associates Chemical Laboratories

1414 Stanislaus Street Fresno, California 93706

Telephone (209) 485-8310 • Fax (209) 485-7427

KEY: Type: AQ-Aqueous SL-Sludge SO-Soil PE-Petroleum OT-Other
Seals: P-Present A-Absent B-Broken
DISTRIBUTION: WHITE, CANARY - LABORATORY PINK - ORIGINATOR
Note:
Samples are discarded 14 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense.

BSK Log Number 0021

ANALYSIS REQUEST/CHAIN OF CUSTODY RECORD

1000 - 7683

Client Name	R & J Quick Clean
Address	2517 San Carlos (2522 Castro Valley
City, State, Zip	Castro Valley, CA 94546
Project or P.O. #	Proj. No 4160
Phone #	Blvd)
Report attention	ROBERT CITRON

Lab Use Only in this section

Analysis required

Date sampled	Time sampled	Type (See key below)	Sampled by / Sample description	Number of containers	Lab Sample number	Sample Seals (See key below)	TPH-G	BTXE	TPH-D	TETRA-ETHYL LEAD	Hazardous sample Special handling required	Remarks
			DCG 2/6/91									2/20/91
2/6/91	3:25 pm	SO	West End of Tank	1	-1	A	1	1	1			LX Soil Tube
2/6/91	3:30 pm	SO	East End of Tank	1	-2	V	1	1	1			V

IMPORTANT NOTICE: No samples will be analyzed without an authorized signature in this section.

I am hereby requesting BSK's Normal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in the U.S. E.P.A. SW 846 and that there is no extra charge for this service

By: Robert F Citron
Authorized Signature

I am hereby requesting BSK's Formal Chain-of-Custody Procedures for the above samples. I understand that these procedures are generally consistent with those outlined in U.S. EPA Contract Laboratory Program Statement of Work, Section F, and that there is a charge of $50.00 per work order or $5.00 a bottle, whichever is greater

By: _____
Authorized Signature

	Signature	Print Name	Company	Date	Time
Relinquished by	Robert F Citron	ROBERT CITRON	ROBERT Y. CITRON GEOTECHNICAL, INC.	2/6/91	4:45 pm
Received by	Jim Eldridge	Jo Eldridge	LAB	2/7/91	0830
Relinquished by					
Received by					
Relinquished by					
Received by					

BSK & Associates Chemical Laboratories

1414 Stanislaus Street Fresno, California 93706

Telephone (209) 485-8310 • Fax (209) 485-7427

KEY: Type: AQ-Aqueous SL-Sludge SO-Soil PE-Petroleum OT-Other
Seals: P-Present A-Absent B-Broken
DISTRIBUTION: WHITE, CANARY - LABORATORY PINK - ORIGINATOR
Note:
Samples are discarded 14 days after results are reported unless other arrangements are made
Hazardous samples will be returned to client or disposed of at client expense.

KTN & ASSOCIATES

43289 Osgood Road, Fremont, Calif. 94539
(510) 623-0480
Cal. State Cont. Lic. # 572427

TANK CLOSURE REPORT

for

RJ Quick Clean
2522 Castro Valley Boulevard
Castro Valley, California

NO. 2

K T W & ASSOCIATES
43289 Osgood Road, Fremont, Calif. 94539
(510) 623-0480
Cal. State Cont. Lic. # 572427

Mr. Raymond Lorge
Mr. Jim Lorge
RJ Quick Clean
2522 Castro Valley Boulevard
Castro Valley, California 94546

Dear Sirs:

K.T.W. & Associates is pleased to submit this report describing closure activities associated with the removal of one (1) underground storage tank at your site located at 2522 Castro Valley Boulevard and 2517 San Carlos Street, Castro Valley, California. This report provides a description of site activities and observations, the condition of the excavated tank, the condition of tank backfill and other subsurface materials, sampling procedures and locations, laboratory analytical procedures and certified analytical results, chain of custody documentation, and hazardous waste manifest.

Site Description

The site is located at 2522 Castro Valley Boulevard and 2517 San Carlos Street, Castro Valley, California. A site location map is presented in Plate 1. One (1) 700 gallon, underground storage tank, was formerly located at the subject site. A site map showing the location of the site structure, former underground tank and sampling activities are presented in Plate 2.

Closure Plan and Permitting

A closure plan and permit application for removal of underground tanks was completed and submitted to the Alameda County Health Care Services Agency, Hazardous Materials Division.

Underground Tank Closure

Tank removal activities occurred on February 20, 1992. Inspector Scott Seery, Alameda County Health Care Services Agency, was present to observe the tank removal and sampling activities. Construction, environmental sampling, and documentation services associated with closure were performed by K.T.W. & Associates.

The presence of groundwater in the tank showed visual signs of contamination, as well as a strong gasoline odor. The tank and excavation was purged of 1,119 gallons of water prior to its removal. The water was removed from the tank via a vacuum truck, manifested under a hazardous waste manifest and disposed of at a recycling plant, presented in Attachment B.

Closure activities were documented in the Hazardous Materials Inspection Form prepared by Scott Seery located in Attachment A. Upon removal the structural integrity of the tank was observed to be unsound and riddled with through and through holes. The tank was removed, wrapped in polyethelyene sheeting, and transported from the site by a permitted hazardous waste transporter under hazardous waste manifest. Copies of the hazardous waste manifest and certificate are presented in Attachment B.

General Observations, Underground Tank Closure

The tank, which had been used to store gasoline approximately forty-five years ago, contained the following trim: a riser assembly for filling, a vent line, and a product line for the dispensing of the material. According to anecdotal information supplied by the client, the tank had not contained product for at least thirty years.

The condition of the lines prior to removal were unsound, and contained several corrosion holes. All the fittings appeared to be properly installed, however, the corrosion holes appeared to be of sufficient size in the vent line to allow for the introduction of groundwater. The riser assembly that constituted the fill pipe for the tank appeared to be sound and free of defects.

A very strong hydrocarbon odor was observed while removing the overburden. The material was stockpiled on-site pending analysis results, and was not incorporated as backfill in the excavation. Backfilling the excavation, and installation of an extraction well in the center of the tank pit occurred on the same day as to allow for access to the properties surrounding the excavation. It was backfilled with clean imported fill material and resurfaced.

Soil Sampling

Soil samples were collected from the tank excavation and the stockpile. Water samples were also taken from the groundwater remaining in the bottom of the pit. Soil and water sampling of the tank excavation occurred on February 20, 1992. The soil samples were obtained by excavating to the native soil interface and driving a brass tube into the native soil. Soil samples were collected in brass tubes, sealed in foil and plastic caps, and promptly stored in a cooler. The water samples were obtained via the use of a disposable bailer and placed in acidified voa and liter amber bottles. Following completion of field work, the samples were submitted to Anametrix Analytical Lab, a certified analytical laboratory, for analyses under appropriate chain of custody protocol.

Certified Analytical Results

Samples collected for minimum verification analyses (MVA) were analyzed in accordance with appropriate regulatory guidelines contained within Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks (RWQCB, 1988). Copies of soil analytical results are presented in Attachment C.

MVA for Underground Tank Excavation

The soil samples were collected one (1) from a sidewall on the fill end (sample No. 1), and from the stockpile (sample No. 8) of the tank excavation. These samples showed a variety of the compounds associated with gasoline contamination.

The analyses performed on the soil for gasoline and it's constituents showed levels ranging from 140 to 430 parts per million (p.p.m.) of Total Petroleum Hydrocarbons as Gasoline (TPH-G), non-detected (N.D.) to 49 p.p.m. of Total Petroleum Hydrocarbons as Diesel (TPH-D), 32 to 6.7 p.p.m. Benzene, Toluene, Xylenes, and Ethylbenzene (BTXE). These two soil samples were also analyzed for ~~Total Organic Lead (TOL).~~ Lead constituents ranged from 9.7 p.p.m. to 10.2 p.p.m. Total Lead, not TOL

Additionally, groundwater samples were taken from the tank excavation (samples No. 2 and No. 4). Sample 4 was analyzed for TPH-G and BTXE. Those constituents were 6900 part per billion (p.p.b) TPH-G, and up to 430 p.p.b. BTXE. Sample 2 was analyzed for TPH-D and TOL. That sample contained 42,000 p.p.b. TPH-D, and 6.7 p.p.b of ~~TOL.~~ The analyses are combined in Table I. Total Lead, not TOL

Regulatory Guidelines

The Regional Water Quality Control Board - San Francisco Bay Region has established a level of 100 p.p.m. Total Petroleum Hydrocarbons (TPH) concentrations in soil as a general decision value for requiring further definition of site soil and groundwater contamination where shallow groundwater conditions are known to exist. The origin of the 100 p.p.m. level was to "develop a method to prioritize the case load and indicate whether a significant volume of fuel had been released or discharged" (RWQCB, June, 1988).

It is our opinion, that the well placed in the center of the backfill, be used as a monitoring well to allow for impact studies on the existing area.

Copies of this report should be submitted to:

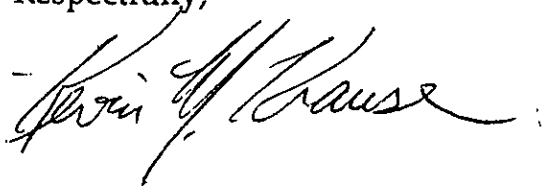
Regional Water Quality Control Board
1111 Jackson Street, Rm. 6000
Oakland, CA 94607
Attn: Dyan Whyte

Alameda County Health Care Services Agency
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621
Attention: Scott Seery

Additional copies of this report have been provided for the purpose of regulatory submittal.

Should you have any questions or comments regarding the evaluations presented in this report, please call.

Respectfully,

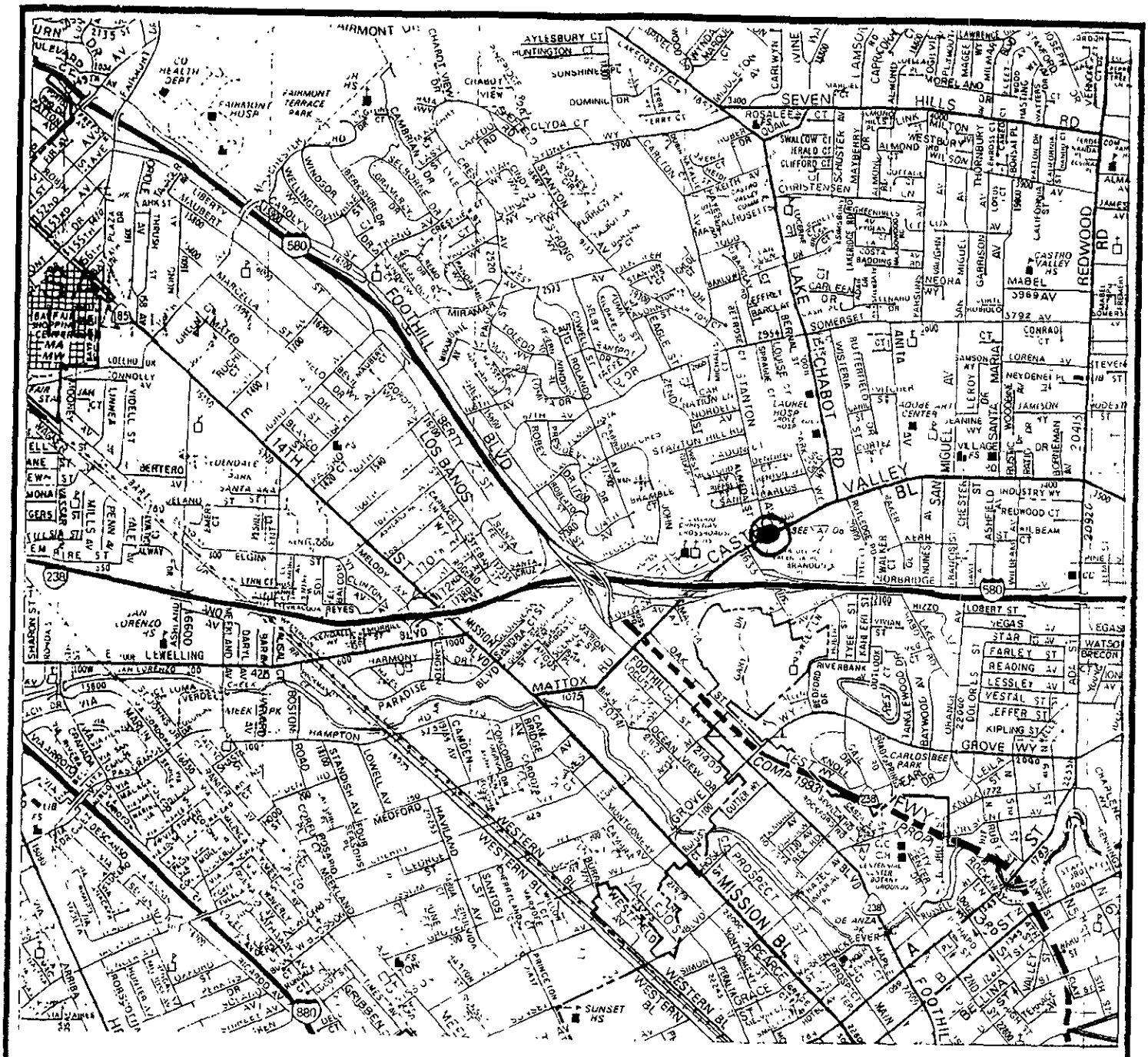


Kevin Krause
Vice President
K.T.W. & Associates, Inc.

KK/emm

Attachments

PLATES



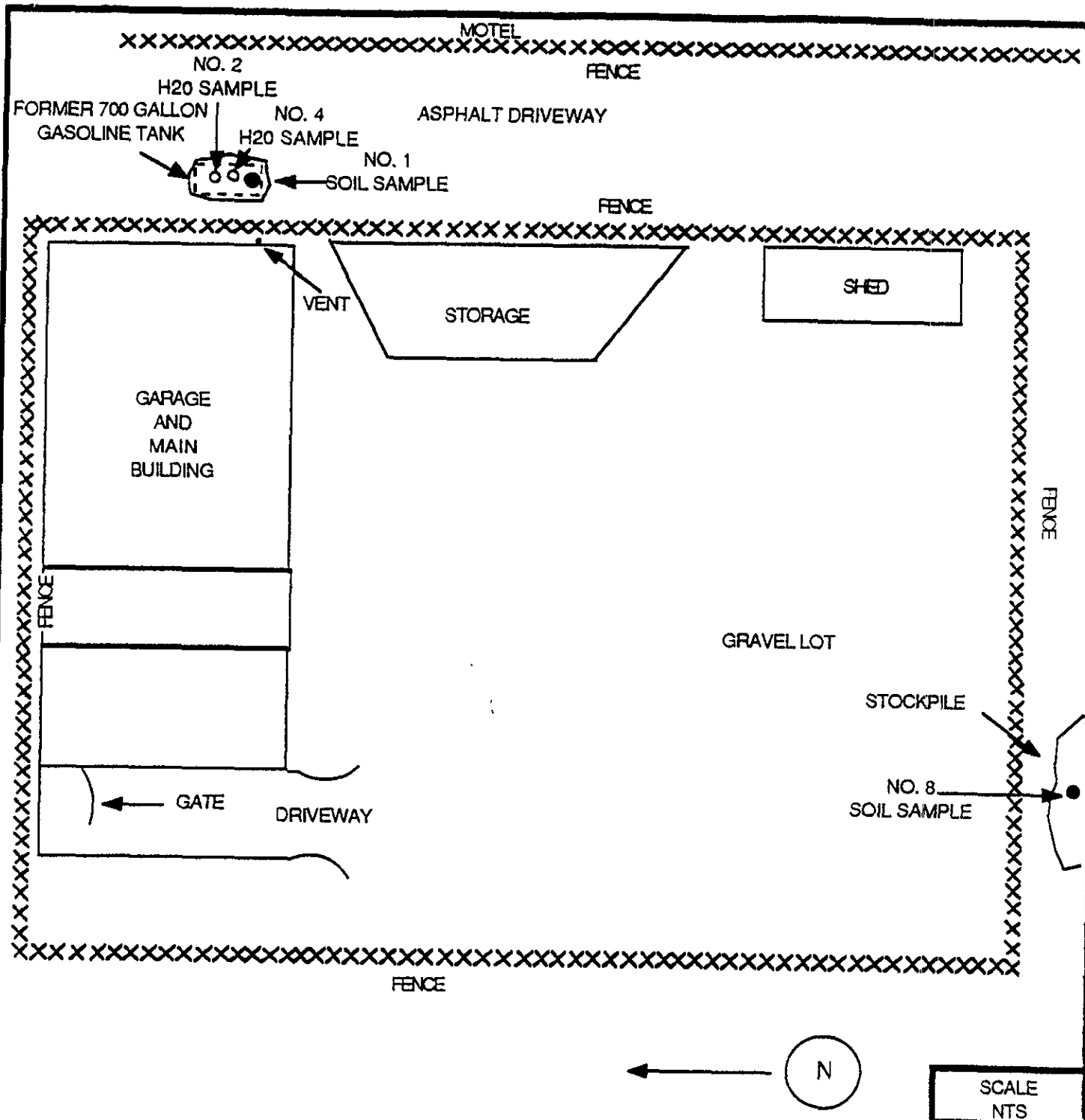
SCALE	NTS
DATE	3/13/92
DRWG. BY	EMM

KTN & ASSOCIATES

● = SITE LOCATION

SITE LOCATION MAP
RJ QUICK CLEAN
2522 Castro Valley Blvd.
Castro Valley, California

PLATE
1



SCALE	NTS
DATE	3/9/92
DRWG. BY	EMM

KTN & ASSOCIATES

PROJECT: 1231

GENERALIZED SITE MAP
RJ QUICK CLEAN
2522 Castro Valley Blvd.
Castro Valley, California

PLATE
2

TABLE

RJ QUICK CLEAN TABLE I

SOIL SAMPLES	DATE	TPH-G	TPH-D	B	T	X	E	TOL
1	2/21/92	430	N.D.	N.D.	32	32	12	9.7
8	2/21/92	140	49	6.7	11	13	8.6	0.15
WATER SAMPLES								
2	2/21/92	6900	N/A	280	430	120	N.D.	6.7
4	2/21/92	N/A	42000	N/A	N/A	N/A	N/A	N/A

ABBREVIATIONS

TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
B	BENZENE
T	TOLUENE
X	XYLENES
E	ETHYLBENZENE
TOL	TOTAL ORGANIC LEAD

NOTE: ALL SOIL SAMPLES ARE MEASURED IN PARTS PER MILLION (PPM)
ALL WATER SAMPLES ARE MEASURED IN PARTS PER BILLION (PPB)

ATTACHMENT A

Inspection Form

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Inspection Form

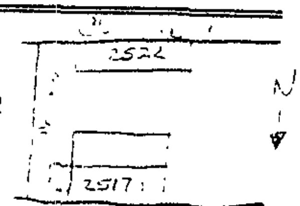
II,III

Site ID # ____ Site Name Padilla Trucking/RJ Quick Clean Today's Date 2/20/92

Site Address 2517 San Carlos / 2522 Castro Valley Blvd

City Castro Valley Zip 94546 Phone ____

____ MAX AMT stored > 500 lbs. 55 gal., 200 cft.?



Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
__✓__ II. Business Plans, Acute Hazardous Materials
__✓__ III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	
___	14. Offsite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ________

___	7. Precis Tank Test Date: ________	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ________	2711
___	14. As Built Date: ________	2635

Rev 6/88

Comments:

On-site to witness UST closure. This closure is the second of two on this site. Larry Brown of CVFD was also on-site. The subject tank was riddled with large through-going holes. Brown floating product and sheen were observed on shallow GW welling into excavation. Native soil along sidewall of pit was heavily stained. A GW sample was collected after the pit was pumped by the vacuum truck. The UST was wrapped in plastic sheeting before being placed on an Erickson flatbed for transport. One (1) sidewall sample was collected from the fill end of the tank pit, just above the apparent GW/vadose interface. Odor of product was evident emanating from the UST pit.

The pit will be backfilled w/ gravel around a 6" perforated well casing for future extraction.

II, III

Contact: [illegible]
Title: [illegible]
Signature: [illegible]

Inspector: S. Seery
Signature: [illegible]

ATTACHMENT B

Hazardous Waste Disposal
Manifests and Certificates

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAC000618872
Manifest Document No.: 77792
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
R. J. QUICKCLEAN
3532 CASTRO VALLEY BLVD
CASTRO VALLEY CA 94546

4. Generator's Phone (510) 581-9797

A. State Manifest Document Number: 90792154

B. State Generator's ID:

5. Transporter 1 Company Name: ERICKSON INC
6. US EPA ID Number: CAD009466392

C. State Transporter's ID: 205169

D. Transporter's Phone: (510) 235-1393

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: CAD009466392

G. State Facility's ID: CAD009466392

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 No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	1	TP	645	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:
Qty. 0 Empty Storage Tank (s) #8117, ____, ____
____, ____ Tank (s) 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 when working around U.S.T.'s 24 Hr. Contact Name RAY LORGE & Phone 510-581-9797

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: Chris Lorge | Signature: Chris Lorge | Month Day Year: 02 20 92

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: RICH POLLASTRINI 3F33 | Signature: [signature] | Month Day Year: 02 20 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: DONALD H. POSSONE | Signature: [signature] | Month Day Year: 02 20 92

GENERATOR / TRANSPORTER / FACILITY

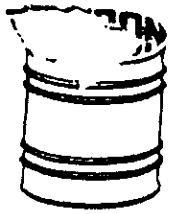
90792154

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

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

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



GIBSON OIL & REFINING CO., INC.

3300 TRUXTUN AVENUE, SUITE 200
BAKERSFIELD, CA. 93301
(805) 327-0413

WEIGHT TAG NUMBER [redacted]

DATE 2-20-92

ORIGIN: RJ Quick Clean

MANIFEST # 90648639

DESTINATION: GIBSON OIL REFINERY
COMMERCIAL DRIVE
BAKERSFIELD, CA. 93308

INVOICE TO:

PRICE:

CARRIER #	CARRIER	RELEASE #	COMMODITY	QUANTITY	TEMP.	GRAV.	NET GALLONS / BBLS
2036	ERICKSON	13220	O/W	—	—	10	1119 G / 26.64 BBLS

ARRIVED TO UNLOAD	START TO UNLOAD	FINISH UNLOADING
15:45 AM / PM	AM / PM	16:25 AM / PM

LOADED FROM	UNLOADED TO
VAC Truck	30958

LOADER'S SIGNATURE	DRIVER'S SIGNATURE
Bill [illegible]	[illegible]

REMARKS

PHG

SOLIDS %	Ø
WASHOUT GALLONS	
DEDUCT B S & W %	4
NET BARRELS	

RECEIPT TICKET

52974

State of California—Health and Welfare Agency
Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. Form designed for use on elite (12-pitch typewriter).

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

GIBSON

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD006888727 | Manifest Document No.: 77810 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
RJ QUICK CLEAN
2522 CASTRO VALLEY BLVD
CASTRO VALLEY CA 94546 X012711

4. Generator's Phone (510-581-9797

A. State Manifest Document Number: 90648639

B. State Generator's ID

5. Transporter 1 Company Name: ERICKSON INC
6. US EPA ID Number: CAD009466392

C. State Transporter's ID: 205138
D. Transporter's Phone: 510-235-1393

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:
GIBSON PILOT 415-368-5511
475 SEAPORT BLVD
REDWOOD CITY CA 94604
10. US EPA ID Number: CAD043260702 ~~CAD043260702~~

G. State Facility's ID: CAD043260702
H. Facility's Phone: (415) 368-5511

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 No.
a. RQ HAZARDOUS WASTE liquid NOS ORM-E NA9189 D018	1	TT	1119	G	State 223; EPA/Other D018
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
HydroCARbons .05% or less
WATER - 95% or less
GOR 52974

K. Handling Codes for Wastes Listed Above
a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
GLOVES GOGGLES 510 581 9797
24 EMERGENCY CONTACT & phone Ray LORGE

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: RAY C. LORGE | Signature: Ray C Lorge | Month Day Year: 1 22 92

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: KENNETH PHILLIPS | Signature: Kenneth R Phillips | Month Day Year: 01 22 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: BILL LEDIN | Signature: Bill Ledin | Month Day Year: 01 22 92

GENERATOR / TRANSPORTER / FACILITY

90648639 IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802, WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

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

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 12068

CUSTOMER KTW

JOB NO. 77792

FOR: Erickson, Inc. TANK NO. 8117

LOCATION: Richmond DATE: 02/24/92 TIME: 09:47:37

TEST METHOD Visual Gastech/1314 SMPX LAST PRODUCT LG

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 700 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

ATTACHMENT C

Certified Analytical Results

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

REPORT

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202243
Date Received : 02/21/92
Project ID : 1231-2
Purchase Order: A3128-RJ2

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9202243- 1	2
9202243- 2	4

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202243
Date Received : 02/21/92
Project ID : 1231-2
Purchase Order: A3128-RJ2
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9202243- 1	2	WATER	02/20/92	TPHd
9202243- 2	4	WATER	02/20/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202243
Date Received : 02/21/92
Project ID : 1231-2
Purchase Order: A3128-RJ2
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as diesel for sample 2 is due to the presence of a combination of a heavier petroleum product (possibly motor oil) and a lighter petroleum product (possibly gasoline or kerosene).

Department Supervisor 3/2/92 Date

Chemist 3/2/92 Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9202243
Matrix : WATER
Date Sampled : 02/20/92

Project Number : 1231-2
Date Released : 03/02/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# 4 -02	Sample I.D.# 04B0227C BLANK
Benzene	0.5	280	ND
Toluene	0.5	280	ND
Ethylbenzene	0.5	120	ND
Total Xylenes	0.5	430	ND
TPH as Gasoline	50	6900	ND
% Surrogate Recovery		94%	96%
Instrument I.D.		HP4	HP4
Date Analyzed		02/27/92	02/27/92
RLMF		25	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst Date

Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9202243
Matrix : WATER
Date Sampled : 02/20/92
Date Extracted: 02/26/92

Project Number : 1231-2
Date Released : 03/02/92
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9202243-01	2	02/27/92	1000	42000
DWBL022692	METHOD BLANK	02/27/92	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 3/2/92 Date

Supervisor Date

TOTAL EXTRACTABLE HYDROCARBON METHOD SPIKE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD SPIKE
Matrix : REAGENT WATER
Date Sampled : N/A
Date Extracted: 02/26/92
Date Analyzed : 02/27/92

Anametrix I.D. : SPK022692
Analyst : JB
Supervisor : CB
Date Released : 03/02/92
Instrument I.D.: HP 9

COMPOUND	SPIKE AMT. (ug/L)	MS (ug/L)	%REC MS	MSD (ug/L)	%REC MSD	RPD	%REC LIMITS
Diesel	1250	1300	104%	1200	96%	-8%	36-150

* Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202243
Date Received : 02/21/92
Project ID : 1231-2
Purchase Order: A3128-RJ2
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9202243- 1	2	WATER	02/20/92	7421

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202243
Date Received : 02/21/92
Project ID : 1231-2
Purchase Order: A3128-RJ2
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- No QA/QC problems encountered for sample.

Department Supervisor 3/12/92 Date

Chemist 3/12/92 Date

ANALYSIS DATA SHEET - TOTAL LEAD EPA METHOD 7421
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9202243
Matrix : WATER
Date Sampled : 02/20/92
Project Number: 1231-2

Date Prepared : 03/11/92
Date Analyzed : 03/12/92
Date Released : 03/12/92
Instrument I.D.: AA2

	ELEMENTS	LEAD			
	EPA METHOD	7421			
	REPORTING LIMIT	3.0			
ANAMETRIX ID	CLIENT ID	(ug/L)			
9202243-01	2	6.7			
MB0311W	METHOD BLANK	ND			

ND : Not detected at or above the practical quantitation limit for the method.

All Metals by EPA Method 6010/7000, Test Method for Evaluating Solid Waste, SW-846 3rd Edition November 1986, and California Code of Regulations Title 22, or Method for Chemical Analysis of Water and Wastes, EPA, 3rd edition, 1983.

Supervisor 3/12/92 Date

Chemist Mona Kamal 3/12/92 Date

9202243

CLIENT CHAIN OF CUSTODY RECORD

A3128-RJ2

PROJECT NUMBER	PROJECT NAME
[illegible]	[illegible]

Send Report Attention of:	Report Due	Verbal Due
[illegible]	/ /	/ /

Type of Analysis: [illegible] / [illegible] / 7421

	Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	[illegible]	[illegible]	7421	Condition of Samples	Initial
1	[illegible]	[illegible]	[illegible]		/	[illegible]	[illegible]	[illegible]		/	X	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]		/	[illegible]	3	[illegible]	/			[illegible]	[illegible]
						[illegible]	5						

samples Received cold

7421 Analysis added 2-27-92 SNH - Per Clients Request

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Ellen M. [illegible]	1325 2/21/92	[illegible]	2-21-92 1325

Remarks: [illegible]

COMPANY: [illegible]
ADDRESS: [illegible]
PHONE : [illegible] FAX : [illegible]

2066

Rel. By: [illegible] [illegible] 2-21-92 1615

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408)432-8192 • Fax (408)432-8198

REPORT

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202242
Date Received : 02/21/92
Project ID : 1231
Purchase Order: A3128-RJ

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9202242- 1	1
9202242- 2	8

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

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If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

3-2-92
Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202242
Date Received : 02/21/92
Project ID : 1231
Purchase Order: A3128-RJ
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9202242- 1	1	SOIL	02/20/92	TPHd
9202242- 2	8	SOIL	02/20/92	TPHd
9202242- 1	1	SOIL	02/20/92	TPHg/BTEX
9202242- 2	8	SOIL	02/20/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202242
Date Received : 02/21/92
Project ID : 1231
Purchase Order: A3128-RJ
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as diesel for sample 8 is due to the presence of a combination of a lighter petroleum product (possibly gasoline) and a heavier petroleum product (possibly motor oil).

Cheryl Bateman 2/27/92
Department Supervisor Date

Irene Sher 2/27/92
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9202242
Matrix : SOIL
Date Sampled : 02/20/92

Project Number : 1231
Date Released : 02/27/92

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# 1 -01	Sample I.D.# 8 -02	Sample I.D.# 08B0226C BLANK
Benzene	0.005	ND	6.7	ND
Toluene	0.005	32	11	ND
Ethylbenzene	0.005	12	8.6	ND
Total Xylenes	0.005	32	13	ND
TPH as Gasoline	0.5	430	140	ND
% Surrogate Recovery		142%	137%	103%
Instrument I.D.		HP8	HP8	HP8
Date Analyzed		02/26/92	02/26/92	02/26/92
RLMF		100	100	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 2/27/92 Date

Supervisor 2/27/92 Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9202242
Matrix : SOIL
Date Sampled : 02/20/92
Date Extracted: 02/25/92

Project Number : 1231
Date Released : 02/27/92
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9202242-01	1	02/26/92	10	ND
9202242-02	8	02/26/92	10	49
DSBL022592	METHOD BLANK	02/26/92	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 3/9/92 Date

Supervisor 3/9/92 Date

TOTAL EXTRACTABLE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : N/A
Matrix : SOIL
Date Sampled : 02/18/92
Date Extracted: 02/25/92
Date Analyzed : 02/26/92

Anametrix I.D. : 9202191-02
Analyst : IS
Supervisor : cb
Date Released : 02/27/92
Instrument I.D.: HP 23

COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	RPD	%REC LIMITS
Diesel	125	120	96%	130	104%	8%	32-143

* Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202242
Date Received : 02/21/92
Project ID : 1231
Purchase Order: A3128-RJ
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9202242- 1	1	SOIL	02/20/92	7421
9202242- 2	8	SOIL	02/20/92	7421

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. JOHN SUTFIN
KTW ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9202242
Date Received : 02/21/92
Project ID : 1231
Purchase Order: A3128-RJ
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

3/12/92
Department/Supervisor Date

Mona Kamir 3/12/92
Chemist Date

ANALYSIS DATA SHEET - TOTAL LEAD EPA METHOD 7421
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9202242
Matrix : SOIL
Date Sampled : 02/20/92
Project Number: 1231

Date Prepared : 03/11/92
Date Analyzed : 03/12/92
Date Released : 03/12/92
Instrument I.D.: AA2

		ELEMENTS	LEAD		
		EPA METHOD	7421		
		REPORTING LIMIT	0.15		
ANAMETRIX ID	CLIENT ID		(mg/Kg)		
9202242-01	1		9.7		
9202242-02	8		10.2		
MB0311S	METHOD BLANK		ND		

ND : Not detected at or above the practical quantitation limit for the method.

All Metals by EPA Method 6010/7000, Test Method for Evaluating Solid Waste, SW-846 3rd Edition November 1986, and California Code of Regulations Title 22, or Method for Chemical Analysis of Water and Wastes, EPA, 3rd edition, 1983.

Supervisor 3/12/92 Date

Chemist 3/12/92 Date

9202242 # [illegible]

CLIENT CHAIN-OF-CUSTODY RECORD

A3127RJ

PROJECT NUMBER	PROJECT NAME	Send Report Attention of:	Report Due	Verbal Due
1231	F.S. QUICK CLEAN	[illegible]	/ /	/ /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: [illegible]	[illegible] A3127RJ	7421/SW							Condition of Samples	Initial
1 1	[illegible]	1400		X	[illegible]	1	[illegible]	X	/	X							[illegible]	[illegible]
2 3	[illegible]	1700	X		STOCKPILE	1	[illegible]	/	/	X							[illegible]	[illegible]
					total	2											samples	
																	Received,	
																	no headspace.	
																	7421 Analysis	
																	added 2-22-92	
																	per clients	
																	request	
																	SW	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Ellen McMan	2/21/92 1325	[illegible]	2-21-92 1325

Remarks: [illegible]

COMPANY: [illegible]
ADDRESS: [illegible]
PHONE: [illegible] FAX: [illegible]

2066

[illegible] 2/21/92 1625

ATTACHMENT B

Thrifty Oil Company Report

THRIFTY OIL CO.

April 27, 1992

Mr. Scott O. Seary
Alameda County
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

RE: **Thrifty Oil Co. Station #054**
2504 Castro Valley Boulevard
Castro Valley, California
1st. QUARTER REPORT, 1992

Dear Mr. Seary,

This letter report presents the results of soil/groundwater treatment and site monitoring during the 1st. quarter of 1992 at the subject site. A vicinity map is presented as Figure 1. The approximate location of the on- and off-site monitoring wells are shown on Figure 2. During the 1st. quarter of 1992, Remediation Services Intl. (RSI) no longer operated and maintained the soil/groundwater treatment unit (RSI-SAVE system) and as of January 29, 1992 the unit has not been operational. All monitoring is conducted by Earth Management Co. (EMC). During the monthly site visits by EMC, a technician inspected the treatment unit, collected groundwater samples and recorded any pertinent data.

Treatment Unit Operation

Based on the data obtained by EMC, the RSI-SAVE unit has operated a total of 5209 hours with about 129 hours of operation during the reporting period. This decrease in operational hours from last quarter is apparently due to the lack of supplemental fuel. A total of about 2672 gallons of water has been processed by the unit and discharged to the local sanitary sewer of this 156 gallons was processed during the quarter.

Site Monitoring and Sample Collection

The site was visited once a month by an EMC technician in order to gauge the wells and collect groundwater samples. Water levels were measured in each well from the rim of well cover using a Marine Moisture Tape (nearest 0.01 feet) capable of also measuring the presence of free floating hydrocarbons. Depth to water ranged from about 2.65 to 8.64 feet below grade. As of March 11, 1992, four of the twelve wells exhibited noticeable floating product that was measurable only as a sheen or film. The depth to water data was used in conjunction with the

recent survey data to determine groundwater elevations across the site. The interpretation of groundwater flow across the site on March 11, 1992 is depicted on Figure 2. In general, the groundwater flow was to the east at a gradient of about 4 feet per 100 feet. No pumping depressions were noted as the unit was not operational.

Prior to collecting groundwater samples from the wells that did not exhibit free floating hydrocarbons, about 4 well volumes of groundwater was removed using a PVC bailer. During the purging process, the pH, conductivity and temperature were checked and recorded to insure formation water was entering the well to be sampled. About 7 to 38 gallons of water were removed from each well and stored in 55 gallon D.O.T approved drums pending disposal or discharge through the treatment unit. Groundwater samples were collected with a Teflon bailer. Samples were maintained and transported in 40 milliliter vials placed on ice pending delivery to American Analytics, a state certified analytical laboratory headquartered in Chatsworth, California. Field monitoring sheets prepared by EMC personnel are included in Appendix A.

Analytical Results

Groundwater samples were analyzed for total hydrocarbons (TPH) and volatile aromatic compounds (BETX) using EPA methods 8015 and 8020, respectively. Copies of the laboratory analysis reports are attached in Appendix B. A summary of the results are presented in Table 1. The two down-gradient wells, RS-8 and RS-9 indicate no detectable hydrocarbons. An iso-concentration map of benzene based on the March sampling event is presented as Figures 3.

Closing

Thrifty will continue to monitor groundwater at the site on a quarterly basis for the remainder of 1992. In addition, the RSI-SAVE system will be restarted and appropriate monitoring will be accomplished. If you have any questions please contact me at (213) 923-9876.

Very truly yours,

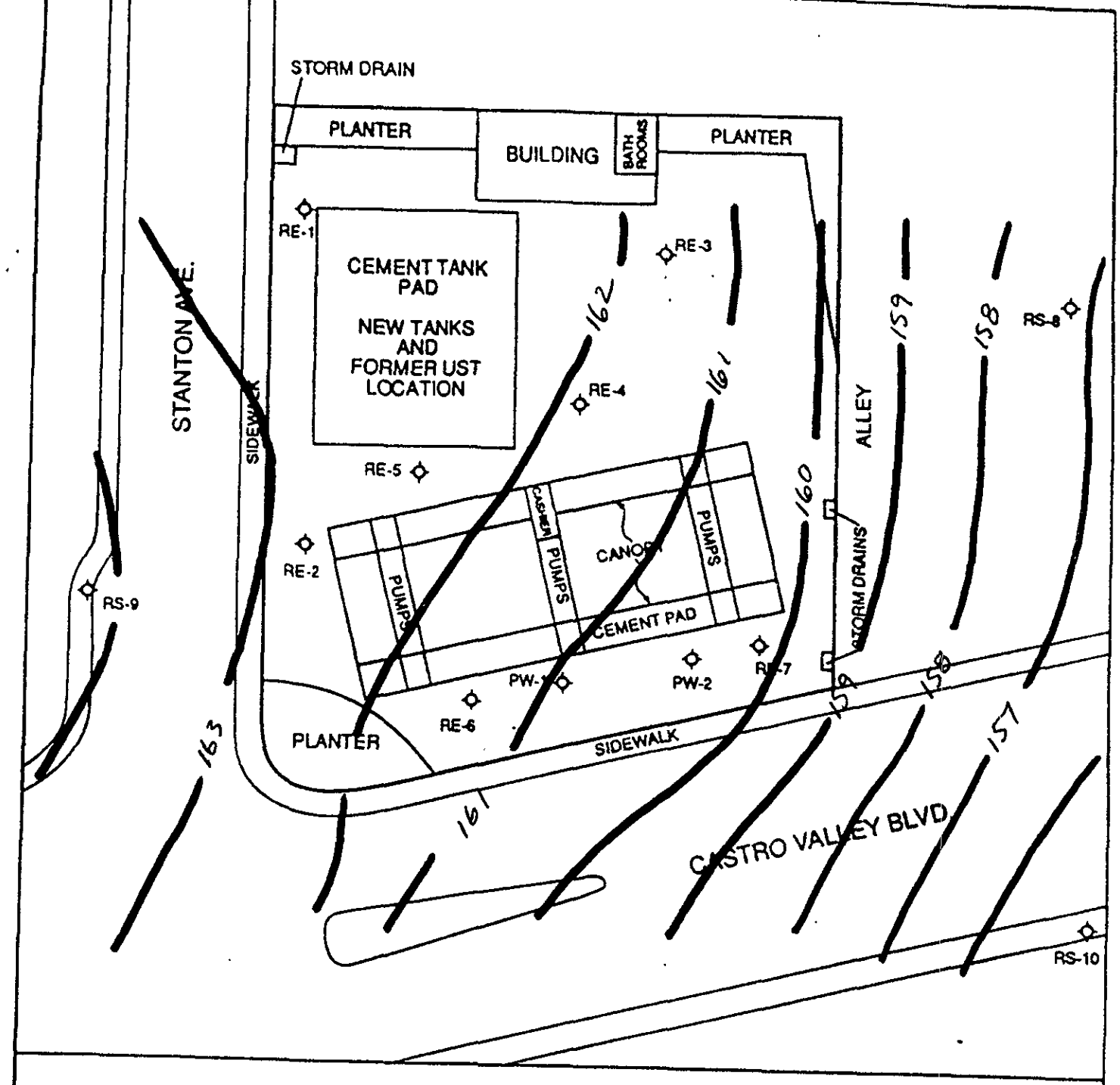
Peter D'Amico
Manager
Environmental Affairs

cc: Mr. Ray Lorge
2522 Castro Valley Blvd.
Castro Valley, CA

FIGURES

21161-002-044	THRIFTY OIL STORE #054	VICINITY MAP
DAMES & MOORE	2504 CASTRO VALLEY BLVD. CASTRO VALLEY, CA	

PLATE 1



SITE PLAN II

THRIFTY OIL CO. #054
CASTRO VALLEY, CALIFORNIA
Prepared for
THRIFTY OIL CO.
DOWNEY, CALIFORNIA

0 25 50
SCALE IN FEET

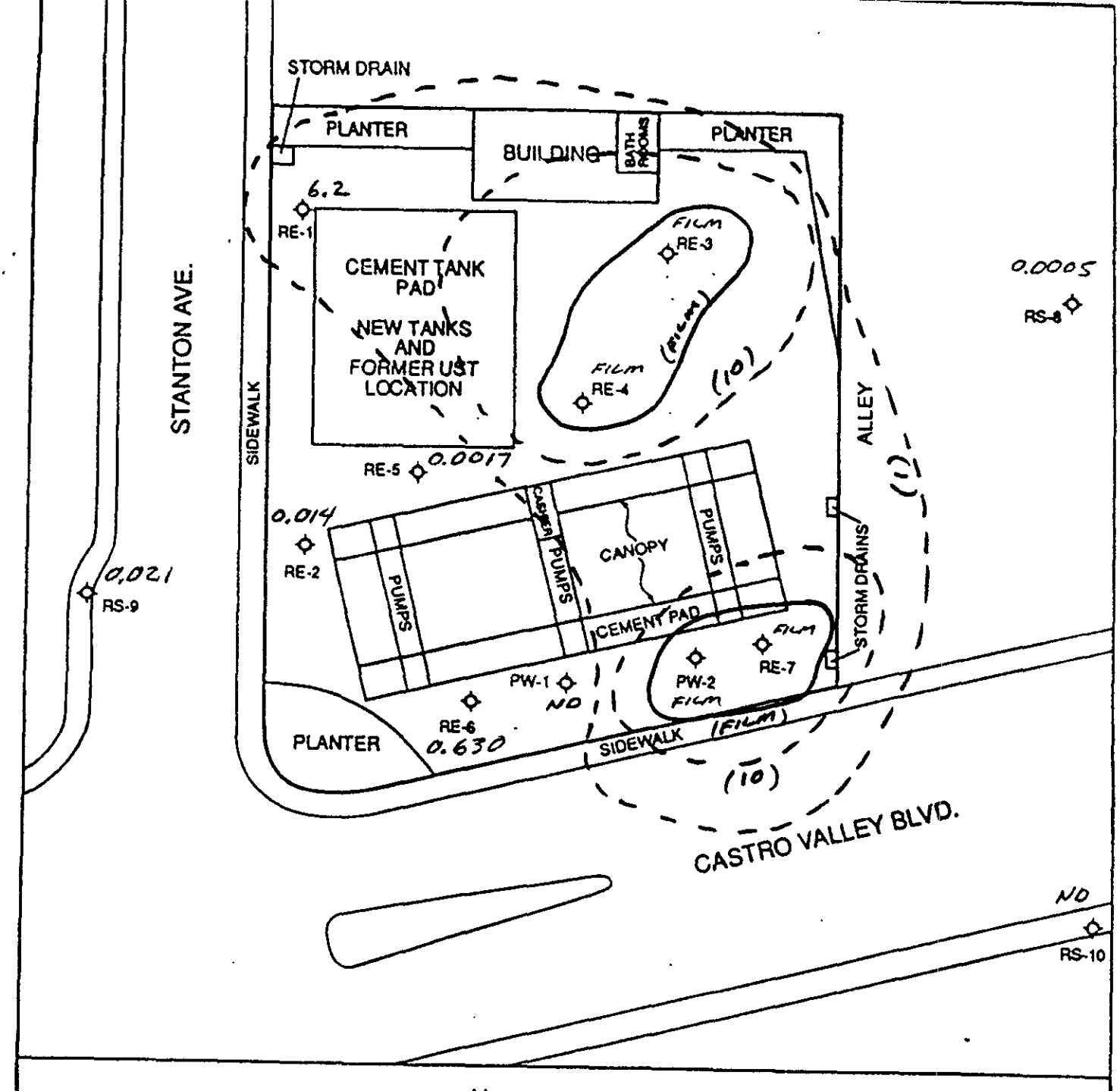
N

/ GROUNDWATER CONTOUR (3-11-92)

EXISTING MONITORING WELL

Figure 2

RCL



SITE PLAN II

THRIFTY OIL CO. #054
CASTRO VALLEY, CALIFORNIA
Prepared for
THRIFTY OIL CO.
DOWNEY, CALIFORNIA

0 25 50
SCALE IN FEET

N

i' - Benzene Contour, ppm
3-19-92

EXISTING MONITORING WELL

Figure 3

RCI

TABLES

Table 1 - Summary of Analytical Results

I.D	Date	TPH	Benzene	Toluene	Ethyl-Benzene	Xylenes
PW-1	5/22/91	41000	600	730	250	3800
	3/19/92	ND	ND	ND	ND	ND
PW-2	5/22/91	14000	57	51	10	480
	6/19/91	NA	NA	NA	NA	NA
RE-1	5/22/91	85000	8700	10000	1800	12000
	6/19/91	110000	8500	9600	2600	16000
	7/17/91	5500	950	ND	26	ND
	8/07/91	NA	6700	5000	ND	7100
	9/27/91	60000	6800	4300	640	6900
	10/23/91	79000	7900	8300	450	7100
	11/06/91	130000	14000	15000	1100	8800
	12/04/91	50000	8000	4700	520	4100
	1/29/92	21000	10300	11000	780	6000
	2/26/92	38000	8400	10500	720	7100
	3/19/92	48000	6200	9700	780	7200
RE-2	5/22/91	1000	5.3	3.6	4.4	8.9
	6/19/91	700	2.1	1.4	3.8	3.5
	7/17/91	880	12.0	8.0	4.3	28.0
	8/07/91	NA	3.8	1.6	ND	ND
	9/27/91	670	7.2	7.1	ND	23
	10/23/91	2700	52	60	22	130
	11/06/91	1900	18	61	9.1	83
	12/04/91	1100	26	47	4.3	42
	1/29/92	900	14	24	5.3	19
	2/26/92	500	3.4	3.5	2.7	2.7
	3/19/91	1200	14	20	15	18
RE-5	5/22/91	2500	330	7.8	5.6	200
	6/19/91	2000	59	1.6	5.1	110
	11/06/91	9900	2300	37	260	160
	12/04/91	4500	1000	27	ND	180
	1/29/92	600	6.1	2.3	ND	47
	2/26/92	500	5.4	2.7	1.2	14
	3/19/92	ND	1.7	1.1	ND	5.5
RE-6	5/22/91	8500	1700	14	24	6.7
	6/19/91	NA	NA	NA	NA	NA
	7/17/91	120000	9300	13000	2400	16000
	8/07/91	NA	590	5.3	ND	14
	9/27/91	7000	310	11	5.3	35
	11/06/91	4000	710	18	29	49
	12/04/91	4100	1100	14	33	39
	1/29/92	2600	790	14	ND	49
	2/26/92	3100	950	21	30	33
	3/19/92	2200	630	14	12	40
RS-8	8/07/91	ND	ND	ND	ND	ND
	9/27/91	ND	ND	ND	ND	ND
	10/23/91	ND	ND	ND	ND	ND
	11/06/91	ND	ND	ND	ND	ND
	12/04/91	ND	ND	ND	ND	ND
	1/29/92	ND	2.1	1.0	2.5	3.6
	2/26/92	ND	ND	0.7	ND	0.7
	3/19/92	ND	0.5	1.0	1.5	2.7
RS9	8/07/91	NA	0.5	ND	330	1200
	9/27/91	13000	3.5	3.0	82	140
	10/23/91	11000	ND	ND	39	340
	11/06/91	6800	8.4	0.6	22	230
	12/04/91	6500	6.5	0.7	87	200
	1/29/92	8100	22	10	140	260
	2/26/92	13000	40	16	220	600
	3/19/92	12000	21	12	100	280
RS10	8/07/91	ND	ND	ND	ND	ND
	9/27/01	ND	ND	ND	ND	ND
	10/23/91	ND	ND	ND	ND	ND
	11/06/91	ND	ND	ND	ND	ND
	12/04/91	ND	ND	ND	ND	ND
	1/29/92	ND	ND	ND	ND	ND
	2/26/92	ND	ND	ND	ND	ND
	3/19/92	ND	ND	ND	ND	0.6

Results reported in micrograms per liter (ug/L)
NA - Not Analyzed.
TPH - Total Petroleum Hydrocarbons as gasoline.

APPENDIX A

EARTH MANAGEMENT CO.
Environmental Remediation

PROJECT STATUS REPORT
THRIFTY OIL CO. S.S. #054
2504 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA 94546
DATE: JANUARY 29, 1992

FREQ.	MONITORING				ODORS			FREE		WELLS CONNECTED TO SYSTEM (W)							
	OBSERVATION WELLS				(S=SLIGHT)			PRODUCT		CONNECT		INTEGRITY		VAPOR		WATER	
	NO.	DTW	DTP	PT	YES	NO	S	YES	NO	YES	NO	OK	NO	ON	OFF	ON	OFF
M	PW-1	5.43	SHEEN		-	-	X	-	X	X	-	X	-			-	-
M	PW-2	6.17	SHEEN		-	-	X	-	X	X	-	X	-			-	-
M	RE-1	4.50			-	X	-	-	X	X	-	X	-			-	-
M	RE-2	5.11			-	X	-	-	X	X	-	X	-			-	-
M	RE-3	7.17	SHEEN		-	-	X	-	X	X	-	X	-			-	-
M	RE-4	7.72	SHEEN		-	-	X	-	X	X	-	X	-			X	-
M	RE-5	5.12			-	X	-	-	X	X	-	X	-			-	-
M	RE-6	6.70			-	X	-	-	X	X	-	X	-			X	-
M	RE-7	8.64	SHEEN		-	-	X	-	X	X	-	X	-			-	-
M	RS-8	9.28			-	X	-	-	X	-	X	X	-	-	-	-	-
M	RS-9	2.65			-	X	-	-	X	-	X	X	-	-	-	-	-
M	RS-10	6.78			-	X	-	-	X	-	X	X	-	-	-	-	-

SAVE SYSTEM WEEKLY

PARAMETER	U/M	DATA	PARAMETER	U/M	DATA
TIME	AM/PM	10:00AM	AIR FLOW	C F M	12
WORKING	YES/NO	NO	VAPOR FLOW	C F M	14
RESTARTED	YES/NO	YES	FUEL FLOW	C F M/H	7
HOURS	#	2025	WELL VACUUM	IN H2O	22
ENGINE ROT.	RPM	2000	L P G TANKS	%	#1: 80
ENGINE VACUUM	IN HG	10	GAS METER READING	-	N/A
TANK VACUUM	IN HG	1	WATER FLOWMETER	GALL.	2672

EXHAUST (By others)					
INLET TO ENGINE					

MAINTENANCE | ES/100/400/800 | ___ | FOR SPECIFIC OPERATIONS SEE FIELD RECORD

WATER SAMPLING - CHECK (___) WHEN DONE

EFFLUENT		INFLUENT	WELLS
(___) _____	(___) _____	(___) _____	(___) Q.-SEE C.CUST.

REMARKS: _____

FREE PRODUCT REMOVED: APPROX. ___ GALLONS WATER REMOVED: APPROX. 15 GALLONS

DATA RECORDED BY : EUGENIU GASMAN INPUT BY: R.K. >\FF\054rsirt

EARTH MANAGEMENT CO.
Environmental Remediation

PROJECT STATUS REPORT
THRIFTY OIL CO. S.S. #054
2504 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA 94546
DATE: FEBUARY 26, 1992

FREQ.	MONITORING OBSERVATION WELLS				ODORS (S=SLIGHT)			FREE PRODUCT		WELLS CONNECTED TO SYSTEM (W) CONNECT		INTEGRITY		VAPOR		WATER	
	NO.	DTW	DTP	PT	YES	NO	S	YES	NO	YES	NO	OK	NO	ON	OFF	ON	OFF
M	PW-1	5.54	SHEEN				X		X	X	-	X	-				
M	PW-2	5.90	SHEEN				X		X	X	-	X	-				
M	RE-1	5.27				X			X	X	-	X	-				
M	RE-2	4.31	SHEEN			X			X	X	-	X	-				
M	RE-3	5.56	SHEEN				X		X	X	-	X	-				
M	RE-4	5.13	FILM		X			X		X	-	X	-				
M	RE-5	4.93				X			X	X	-	X	-				
M	RE-6	5.44				X			X	X	-	X	-				
M	RE-7	6.00	FILM		X			X		X	-	X	-				
M	RS-8	7.05				X	-		X	-	X	X	-				
M	RS-9	3.42				X	-		X	-	X	X	-				
M	RS-10	8.33				X	-		X	-	X	X	-				

SAVE SYSTEM WEEKLY

PARAMETER	U/M	DATA
TIME	AM/PM	
WORKING	YES/NO	NO
RESTARTED	YES/NO	NO
HOURS	#	
ENGINE ROT.	RPM	
ENGINE VACUUM	IN HG	
TANK VACUUM	IN HG	

PARAMETER	U/M	DATA
AIR FLOW	C F M	
VAPOR FLOW	C F M	
FUEL FLOW	C F M/H	
WELL VACUUM	IN H2O	
L P G TANKS	%	#1:
GAS METER READING	-	N/A
WATER FLOWMETER	GALL.	

EXHAUST (By others)					
INLET TO ENGINE					

MAINTENANCE | ES/100/400/800 | ___ | FOR SPECIFIC OPERATIONS SEE FIELD RECORD

WATER SAMPLING - CHECK (___) WHEN DONE

EFFLUENT		INFLUENT	WELLS
(___) _____	(___) _____	(___) _____	(___) Q.-SEE C.CUST.

REMARKS: _____

FREE PRODUCT REMOVED: APPROX. ____ GALLONS WATER REMOVED: APPROX. GALLONS

DATA RECORDED BY : EUGENIU GASMAN INPUT BY: M.L.M. >\FF\054rsirt

EARTH MANAGEMENT CO.
Environmental Remediation

PROJECT STATUS REPORT
THRIFTY OIL CO. S.S. #054
2504 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA 94546
DATE: 3/11/92

FREQ.	MONITORING OBSERVATION WELLS NO.	DTW	DTP	PT	ODORS (S=SLIGHT) YES	NO	S	FREE PRODUCT YES	NO	WELLS CONNECTED TO SYSTEM (W) CONNECT YES	NO	INTEGRITY OK	NO	VAPOR ON	OFF	WATER ON	OFF
M	PW-1	5.47				X			X	X	-	X					
M	PW-2	5.80	SHEEN				X		X	X	-	X					
M	RE-1	4.47				X			X	X	-	X					
M	RE-2	4.45				X			X	X	-	X					
M	RE-3	5.44	SHEEN				W		X	X	-	X					
M	RE-4	5.00	SHEEN				X		X	X	-	X					
M	RE-5	4.45				X			X	X	-	X					
M	RE-6	5.30				X			X	X	-	X					
M	RE-7	5.55	Film		X				X	X	-	X					
M	RS-8	7:30				X			X	-	X	X					
M	RS-9	3:12				X			X	-	X	X					
M	RS-10	8.02				X			X	-	X	X					

SAVE SYSTEM WEEKLY

PARAMETER	U/M	DATA
TIME	AM/PM	
WORKING	YES/NO	NO
RESTARTED	YES/NO	NO
HOURS	#	
ENGINE ROT.	RPM	
ENGINE VACUUM	IN HG	
TANK VACUUM	IN HG	

PARAMETER	U/M	DATA
AIR FLOW	C F M	
VAPOR FLOW	C F M	
FUEL FLOW	C F M/H	
WELL VACUUM	IN H2O	
L P G TANKS	%	#1:
GAS METER READING	-	N/A
WATER FLOWMETER	GALL.	

EXHAUST (By others)					
INLET TO ENGINE					

MAINTENANCE | ES/100/400/800 | ___ | FOR SPECIFIC OPERATIONS SEE FIELD RECORD

WATER SAMPLING - CHECK (___) WHEN DONE

EFFLUENT		INFLUENT	WELLS
(___) _____	(___) _____	(___) _____	(___) Q.-SEE C.CUST.

REMARKS: _____

FREE PRODUCT REMOVED: APPROX. ___ GALLONS WATER REMOVED: APPROX. ___ GALLONS

DATA RECORDED BY : E. GASMAN INPUT BY: M.M. >\FF\054rsirt

APPENDIX B

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Co.
Method: EPA 8015M (Gasoline), QC, Spike

Sample Matrix: Water
Date Analyzed: 2/4/92
Date Reported: 2/18/92

Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
76	88	14.6

RPD = Relative Percent Difference, $100[(X_1 - X_2)/\{(X_1 + X_2)/2\}]$

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Method: EPA 602 (BTEX), QC, Spike

Sample Matrix: Water
Date Analyzed: 2/4/92
Date Reported: 2/18/92

Compounds	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	105	104	0.9
Toluene	106	107	0.9
Ethyl Benzene	106	103	2.9
Total Xylenes	105	104	0.9

RPD = Relative Percent Difference, $100[(X_1 - X_2)/((X_1 + X_2)/2)]$

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

tjm

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Co.
Method: EPA 8015M (Gasoline), QC, Spike

Sample Matrix: Water
Date Analyzed: 1/31/92
Date Reported: 2/18/92

	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
	90	90	0

RPD = Relative Percent Difference, $100[(X_1 - X_2)/((X_1 + X_2)/2)]$

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

tjm

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Method: EPA 8020 (BTEX), QC, Spike

Sample Matrix: Water
Date Analyzed: 1/31/92
Date Reported: 2/18/92

Compound	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	96	94	2.1
Toluene	99	101	2.0
Ethyl Benzene	99	99	0
Total Xylenes	96	96	0

RPD = Relative Percent Difference, $100\ [(x_1 - x_2)/\{(x_1 - x_2)/2\}]$

Eric C.C. Lu, Ph.D.
Technical Director

George L. Quindi, M.S.
Chemist

tjm

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC 54
Sample Matrix: Grab Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135054
Date Sampled: 1/29/92
Date Received: 1/31/92
Date Analyzed: 1/31/-2/4/92
Units: mg/L
Date Reported: 2/18/92

AA ID No.	Client ID	Total Petroleum Hydrocarbon Results (ppm)	Detection Limits (ppm)
7287	Well RS10	ND	0.2
7288	RS9	8.1	4
7289	RS8	ND	0.2
7290	RE1	21	4
7291	RE2	0.9	0.2
7292	RE5	0.6	0.2
7293	RE6	2.6	2
7294	Trip Blank	ND	0.2

ND: Not detected at or above the concentration of the detection limits

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

tjm

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Grab Water
Method: EPA 602 (BTEX)

AA Project No.: A135054
Date Sampled: 1/29/92
Date Received: 1/31/92
Date Analyzed: 1/31/-2/4/92
Units: µg/L
Date Reported: 2/18/92

AA I.D.#	Client I.D.	Results (ppb) Benzene	Ethylbenzene	Toluene	Xylenes
7287	Well RS10	ND	ND	ND	ND
Detection Limits:		0.5	0.5	0.5	0.5
7288	RS9	22	140	10	260
Detection Limits:		10	10	10	10
7289	RS8	2.1	2.5	1.0	3.6
Detection Limits:		0.5	0.5	0.5	0.5
7290	RE1	10300	780	11000	6000
Detection Limits:		100	100	100	100
7291	RE2	14	5.3	24	19
Detection Limits:		0.5	0.5	0.5	0.5
7292	RE5	6.1	ND	2.3	47
Detection Limits:		0.5	0.5	0.5	0.5
7293	RE6	790	ND	14	49
Detection Limits:		5	5	5	5
7294	Trip Blank	ND	ND	ND	ND
Detection Limits:		0.5	0.5	0.5	0.5

ND: Not detected at or above the concentration of the detection limits

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

tjm

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9765 ETON AVE., CHATSWORTH, CA 91311

(818) 998-5547 (818) 998-5548 1-800-533-TEST 1-800-533-8378 FAX (818) 998-7258

DATE: _____ PAGE ____ OF ____

AA Client: THRIFTY OIL CO

Project Manager: NICK GIORTAN

Project Name: TOC # 054

Job Name and Address: TOC # 054, 2504 Castro Valley Bl. CASTRO-VALEY CA 94546

Phone: (213) 923-9876

P.O. No.:

Project No.:

Sampler's Name: EUGENIU GASMAN

Sampler's Signature: Eugeniu Gasman

Project Manager's Signature:

ANALYSIS REQUIRED

Detection Limits

Test Name: BTXE

AA I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	BTXE	Test Requirements
7287	WELL RS10	1/29/92	1:50P	GRAB	2	X	
7288	RS9	1/29/92	2:05P	GRAB	2	X	
7289	RS8	1.29.92	2:25P	GRAB	2	X	
7290	RE1	1.29.92	2:45P	GRAB	2	X	
7291	RE2	1.29.92	3:10P	GRAB	2	X	
7292	RE5	1.29.92	3:30P	GRAB	2	X	
7293	RE6	1.29.92	3:45P	GRAB	2	X	
7294	TRIP BLANK	1.29.92	7:00A		2	X	

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB

Samples Intact: Yes X No

Samples Properly Cooled: Yes X No

Samples Accepted: Yes X No

If Not Why:

AA Project No.

Relinquished by:	Date	Time	Received by:
Eugeniu Gasman	1/31/92	1:30	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Grab Water
Method: EPA 602 (BTEX)

AA Project No.: A135054
Date Sampled: 2/26/92
Date Received: 2/26/92
Date Analyzed: 3/2,3/92
Units: µg/L
Date Reported: 3/13/92

AA I.D.#	Client I.D.	Results (ppb) Benzene	Ethylbenzene	Toluene	Xylenes
7600	RS10	ND	ND	ND	ND
7601	RS8	ND	ND	0.7	0.7
Detection Limits:		0.5	0.5	0.5	0.5
7602	RS9	40	220	16	600
Detection Limits:		10	10	10	10
7603	RE2	3.4	2.7	3.5	2.7
7604	RE5	5.4	1.2	2.7	14
Detection Limits:		0.5	0.5	0.5	0.5
7605	RE6	950	30	21	33
Detection Limits:		5	5	5	5
7606	RE1	8,400	720	10,500	7,100
Detection Limits:		50	50	50	50
7607	Trip Blank	1.1	ND	2.8	1.6
Detection Limits:		0.5	0.5	0.5	0.5

ND: Not detected at or above the concentration of the detection limits

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

elh

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Method: EPA 602 (BTEX), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/2/92
Date Reported: 3/13/92

Compounds	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	120	120	0
Toluene	112	113	0.9
Ethyl Benzene	104	106	1.9
Total Xylenes	106	106	0

RPD = Relative Percent Difference, $100[(x_1 - x_2)/\{(x_1 + x_2)/2\}]$

Eric C.C. Lu, Ph.D.
Technical Director

George L. Gyindi, M.S.
Chemist

elh

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Grab Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135054
Date Sampled: 2/26/92
Date Received: 2/26/92
Date Analyzed: 3/2,3/92
Units: mg/L
Date Reported: 3/13/92

AA ID No.	Client ID	Total Petroleum Hydrocarbon Results (ppm)	Detection Limits (ppm)
7600	RS10	ND	0.2
7601	RS8	ND	0.2
7602	RS9	13	4
7603	RE2	0.5	0.2
7604	RE5	0.5	0.2
7605	RE6	3.1	2
7606	RE1	38	20
7607	Trip Blank	ND	0.2

ND: Not detected at or above the concentration of the detection limits

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Technical Director

George L. Gyindi, M.S.
Chemist

elh

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AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Co.
Method: EPA 8015M (Gasoline), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/2/92
Date Reported: 3/13/92

Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
105	114	8.2

RPD = Relative Percent Difference, $100[(X_1 - X_2)/((X_1 + X_2)/2)]$

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Technical Director

George L. Guindi, M.S.
Chemist

elh

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Method: EPA 602 (BTEX), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/3/92
Date Reported: 3/13/92

Compounds	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	138	140	1.4
Toluene	130	135	3.8
Ethyl Benzene	120	125	4.1
Total Xylenes	123	127	3.2

RPD = Relative Percent Difference, $100[(X_1 - X_2)/((X_1 + X_2)/2)]$

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Technical Director

George L. Guindi, M.S.
Chemist

elh

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Co.
Method: EPA 8015M (Gasoline), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/3/92
Date Reported: 3/13/92

Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
83	87	4.7

RPD = Relative Percent Difference, $100[(X_1 - X_2)/\{(X_1 + X_2)/2\}]$

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Technical Director

elh

George L. Guindi, M.S.
Chemist

American Analytics • 9765 Eton Avenue, Chatsworth, California 91311
Tel:(818)998-5547 • (800)533-8378 • Fax:(818)998-7258

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DATE: 2/26/92 PAGE ___ OF ___

AA Client: THRIFTY OIL Co.
Project Manager: NICK CIORTAN
Project Name: TOC # 054
Job Name and Address: TOC # 054 — 2504 CASTRO VALLEY, CASTRO VALEY CA 94546
Phone: (213) 923-9876
P.O. No.:
Project No.:
Sampler's Name: EUGENIU GAZMAN
Sampler's Signature: Eugeniu Gazman
Project Manager's Signature:

ANALYSIS REQUIRED

AA I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	Detection Limits / Test Name: TPH	BTXE	Test Requirements
7600	RS 10	2/26/92	1:45P	GRAB	2	X	X	
7601	RS 8	2/26/92	2:05P	GRAB	2	X	X	
7602	RS 9	2/26/92	2:30P	GRAB	2	X	X	
7603	RE 2	2/26/92	2:55P	GRAB	2	X	X	
7604	RE 5	2/26/92	3:20P	GRAB	2	X	X	
7605	RE 6	2/26/92	3.45P	GRAB	2	X	X	
7606	RE 1	2/26/92	4:05P	GRAB	2	X	X	
7607	TRIP BLANK	2/25/92	7:00A		2	X	X	

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB

Samples Intact	Yes X	No
Samples Properly Cooled	Yes X	No
Samples Accepted	Yes X	No

If Not Why:

AA Project No.

Relinquished by:	Date	Time	Received by:
Eugeniu Gazman	2/26/92		
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

DISTRIBUTION: White - Laboratory, Canary - Laboratory, Pink - Account Executive, Gold - Client

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 602 (BTEX)

AA Project No.: A135054
Date Sampled: 3/19/92
Date Received: 3/23/92
Date Analyzed: 3/25/92
Units: µg/L
Date Reported: 4/3/92

AA I.D.#	Client I.D.	Results (ppb) Benzene	Ethylbenzene	Toluene	Xylenes
8104	PW1	ND	ND	ND	ND
Detection Limits:		0.5	0.5	0.5	0.5
8105	RE1	6200	780	9700	7200
Detection Limits:		50	50	50	50
8106	RE2	14	15	20	18
8107	RE5	1.7	ND	1.1	5.5
Detection Limits:		0.5	0.5	0.5	0.5
8108	RE6	630	12	14	40
Detection Limits:		5	5	5	5
8109	RS8	0.5	1.5	1.0	2.7
Detection Limits:		0.5	0.5	0.5	0.5
8110	RS9	21	100	12	280
Detection Limits:		10	10	10	10
8111	RS10	ND	ND	ND	0.6
8112	Trip Blank	ND	ND	ND	ND
Detection Limits:		0.5	0.5	0.5	0.5

ND: Not detected at or above the concentration of the detection limits

Eric C.C. Lu, Ph.D.
Technical Director

George L. Guindi, M.S.
Chemist

elh

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Method: EPA 602 (BTEX), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/25/92
Date Reported: 4/3/92

Compounds	Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
Benzene	91	93	2.2
Toluene	92	94	2.1
Ethyl Benzene	89	91	2.2
Total Xylenes	90	90	0

RPD = Relative Percent Difference, $100[(X_1 - X_2)/((X_1 + X_2)/2)]$

Eric C.C. Lu, Ph.D.
Technical Director

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Chemist

elh

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Company
Project No.: N/A
Project Name: TOC #054
Sample Matrix: Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135054
Date Sampled: 3/19/92
Date Received: 3/23/92
Date Analyzed: 3/25/92
Units: mg/L
Date Reported: 4/3/92

AA ID No.	Client ID	Total Petroleum Hydrocarbon Results (ppm)	Detection Limits (ppm)
8104	PW1	ND	0.2
8105	RE1	48	20
8106	RE2	1.2	0.2
8107	RE5	ND	0.2
8108	RE6	2.2	2.0
8109	RS8	ND	0.2
8110	RS9	12	4.0
8111	RS10	ND	0.2
8112	Trip Blank	ND	0.2

ND: Not detected at or above the concentration of the detection limits

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Technical Director

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Chemist

elh

AMERICAN ANALYTICS

LABORATORY ANALYSIS RESULTS

Client: Thrifty Oil Co.
Method: EPA 8015M (Gasoline), QC, Spike

Sample Matrix: Water
Date Analyzed: 3/25/92
Date Reported: 4/3/92

Spike Recovery (%)	Spike/Duplicate Recovery (%)	RPD (%)
108	106	1.9

RPD = Relative Percent Difference, $100[(X_1 - X_2)/\{(X_1 + X_2)/2\}]$

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Technical Director

George L. Guindi, M.S.
Chemist

elh

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DATE: 3/19/92

PAGE ____ OF ____

AA Client: THRIFTY OIL CO

Project Manager: NICK GIORTAN

Project Name: TOC #054

Job Name and Address: TOC #054, 2504 CASTRO VALLEY, CASTRO VALLEY CA 94546

Phone: (213) 953-0719

P.O. No.:

Project No.:

Sampler's Name: EUGENIU GARMAN

Sampler's Signature: Eugeniu Garman

Project Manager's Signature:

ANALYSIS REQUIRED

AA I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	Test Name: TPH	Test Name: BTEX	Test Requirements
8104	PW 1	3/19/92	4:20P	GRAB	2	X	X	
8105	RE1	3/19/92	3:05P	GRAB	2	X	X	
8106	RE2	3/19/92	3:30P	GRAB	2	X	X	
8107	RE5	3/19/92	3:45P	GRAB	2	X	X	
8108	RE6	3/19/92	4:05P	GRAB	2	X	X	
8109	RS8	3/19/92	2:20P	GRAB	2	X	X	
8110	RS9	3/19/92	2:45P	GRAB	2	X	X	
8111	RS10	3/19/92	2:00P	GRAB	2	X	X	
8112	TRIP BLANK	3/19/92	7:00A		2	X	X	

SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB

Samples Intact	Yes ✓ No	Relinquished by: Eugeniu Garman	Date 3/19/92	Time 14:00	Received by:
Samples Properly Cooled	Yes ✓ No	Relinquished by:	Date	Time	Received by:
Samples Accepted	Yes ✓ No	Relinquished by:	Date	Time	Received by:
If Not Why:		Relinquished by:	Date	Time	Received by:

AA Project No. A135054

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