



GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. Edward Loss
Tri-Valley Transportation
5481 Brisa, Street
Livermore, CA 94550

DATE: September 10, 2001
PROJ. #: 948166.02-2
SUBJECT: Geoprobe Report
Tri-Valley Transportation
Brisa Street,
Livermore, California

FROM:
Douglas J. Lee
Project Manager
Gettler-Ryan Inc.
6747 Sierra Court Suite J
Dublin, California

SEP 13 2001

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Enclosed is a copy of the referenced report. If you have any questions, please call me at (925) 551-7555.

cc: Ms. Eva Chu, Alameda County Environmental Health Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577



GETTLER-RYAN Inc.

SUBSURFACE INVESTIGATION REPORT

for

Tri-Valley Transportation & Storage, Inc.
5481 Brisa Street
Livermore, California

Report No. 948166.02-2

SEP 13 2001

Prepared for:

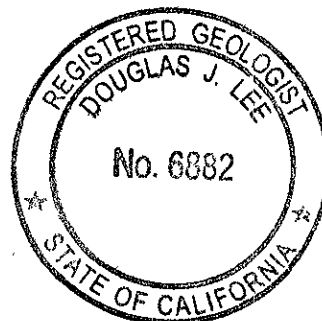
Mr. Edward Loss
Tri-Valley Transportation & Storage, Inc.
5481 Brisa, Street
Livermore, California

Prepared by:

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September 10, 2001

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SUBSURFACE INVESTIGATION REPORT

For

Tri-Valley Transportation & Storage, Inc.
5481 Brisa Street
Livermore, California

Report No. 948166.02-2

1.0 INTRODUCTION

This report summarizes the results of the recent subsurface investigation performed by Gettler-Ryan Inc. (GR) at the subject site. The work was performed at the request of Tri-Valley Transportation & Storage, Inc. in response to a letter from the Alameda County Health Care Services (ACEHS) dated May 4, 2001. The purpose of the investigation was to define the degree and extent of petroleum hydrocarbon impacted groundwater in the vicinity of the former UST pit. The proposed scope of work was approved by the ACEHS in a letter to Tosco dated July 3, 2001. The scope of work included: preparing a site-specific safety plan; obtaining the required permits; advancing one Geoprobe® soil boring; collecting and submitting selected soil and all grab groundwater samples for chemical analysis; and prepare a report summarizing the findings of the investigation.

2.0 SITE DESCRIPTION

2.1 General

The subject site is located at 5481 Brisa Street in Livermore (Figure 1). The site consists of a paved parking lot, an office and warehouse building with a loading dock and a truck scale. Pertinent site features and the locations of the former gasoline and diesel USTs are shown on Figure 3.

2.2 Geology and Hydrogeology

The site is situated on gently sloping, northwest-trending topography in the eastern portion of the Livermore Valley. Based on review of regional geologic maps (U.S. Geological Survey Open-File Report 80-538 "Preliminary Geologic Map of the Altamont Quadrangle, Alameda, California" by Thomas W. Dibblee, Jr., 1980), the subject site is inferred to be underlain by Quaternary-age alluvium. The closest surface water is Arroyo Seco Creek, which is located 3,000 feet west-southwest of the site. Based on the topography, the regional groundwater flow direction is inferred to be to the northwest. During this investigation groundwater was encountered at approximately 18 feet below ground surface (bgs) and stabilized at approximately 15 feet bgs.

948166.02-2

2.3 Previous Environmental Work

In February, 2001, GR removed one 2,500 gallon gasoline Underground Storage Tank (UST), one 6,000 gallon diesel UST, the former product lines, fiber trenches and two dispensers. Upon removal, GR personnel visually inspected the USTs for evidence of failure. No holes or cracks were observed in the USTs. Five compliance soil samples were collected from beneath the USTs (Figure 3) at depths ranging from 10.5 to 15.0 feet below ground surface (bgs). The samples from beneath the USTs contained Total Petroleum Hydrocarbons as gasoline (TPHg) ranging from non-detect (ND) to 680 parts per million (ppm) and Total Petroleum Hydrocarbons as diesel (TPHd) ranging from ND to 960 ppm. No Benzene or Methyl tertiary-Butyl Ether (MTBE) were detected in the five compliance samples.

Also in February, 2001, GR returned to the site to remove additional hydrocarbon impacted soil from the southwest corner of the UST pit. (see Figure 3). The size of the overexcavated area was 7 feet in length, by 7 feet in width and extended 17.5 feet in depth. Approximately 10 cubic yards of soil was removed from the UST pit. Confirmation soil samples were collected at the sidewalls of the UST pit at a depth of 15 feet bgs. One soil sample was collected at the base of the overexcavated pit at 17.5 feet bgs and it contained TPHg in concentrations ranging from ND to 8.4 ppm and TPHd in concentrations ranging from ND to 2.9 ppm. No Benzene or Methyl tertiary-Butyl Ether (MTBE) were detected in any of the confirmation samples. The analytical results of the soil samples collected during the UST removal and overexcavation activities are presented in Table 3.

3.0 FIELD WORK

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A), the GR Health and Safety Plan and the Site Specific Safety Plan. The Geoprobe® boring was advanced under drilling permit number 21122 issued July 12, 2001, by the Zone 7 Water Agency. A copy of the permits is included in Appendix B. Underground Service Alert (USA) was notified prior to drilling at the site. The boring was hand-excavated, with a 3-inch diameter hand auger, for the first five feet bgs to insure that no utilities were disturbed.

3.1 Geoprobe® Advancement

On July 24, 2001 a GR geologist observed Gregg Drilling Inc. (C57 #485165) advance one onsite Geoprobe® boring (SB1). The Geoprobe was advanced with a truck-mounted rig utilizing direct-push technology; the location of the boring is shown on Figure 2.

The Geoprobe® was advanced to a depth of 22 feet bgs. Soil sampling for lithologic logging was conducted continuously beginning at 5 feet bgs and soil samples from selected depths were collected for chemical analysis. The soil samples were handled in accordance with GR Field Methods and Procedures (Appendix A). The GR geologist prepared a log of the Geoprobe and screened the samples in the field for the presence of volatile organic compounds. Lithologic and screening data, and the depths at which soil and groundwater samples were collected are presented on the boring log in Appendix B.

3.2 Groundwater Sampling

After groundwater was encountered, probing was halted and a grab groundwater sample was collected from the boring with a disposable teflon bail. The sample was decanted into the appropriate laboratory-supplied container, as described in GR's field methods and procedures (Appendix A).

3.3 Borehole Sealing

After probing and sampling were completed, the borehole was sealed with neat cement grout. The grout was placed from the bottom of the boring to approximately five foot bgs with a tremie pipe. The upper 5 feet of the boring was backfilled with hand-excavated drill cuttings. The borehole was finished to surface with quick-set concrete.

3.4 Laboratory Analysis

Selected soil and all groundwater samples were submitted to Sequoia Analytical in Walnut Creek, California (ELAP #1271). The soil samples were analyzed for TPHg and TPHd by Environmental Protection Agency (EPA) Method 8015, Benzene, Toluene, Ethyl-Benzene and Xylene (BTEX) and MtBE by EPA Method 8020. In addition the groundwater samples were analyzed for ethanol, tert-butyl alcohol (TBA), MtBE, diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), 1,2-dichloroethane (1,2 DCA), tert-amyl methyl ether (TAME) and ethylene dibromide (EDB) by EPA method 8260, and dissolved lead by EPA Method 8270. Copies of the laboratory analytical reports and chain-of-custody records are included in Appendix C.

4.0 RESULTS

4.1 Subsurface Conditions

Groundwater was encountered during probing at approximately 18 feet bgs. Soils encountered during this investigation consisted of silty sand to 13 feet bgs, silty gravel with sand from 13 to 15 feet bgs, poorly graded coarse sand from 15 to 21.5 feet bgs and silty sand from 21.5 to the total explored depth of 22 feet bgs. The boring log from the Geoprobe is included in Appendix B.

4.2 Soil Analytical Results

Soil sample SB1-10.5, collected at 10.5 feet bgs, did not contained detectable concentrations of any hydrocarbon constituents analyzed. Soil Sample SB1-15, collected at 15 feet bgs, contained 2.1 ppm of an unidentified hydrocarbon reported as TPHd, but no-detectable concentrations for all other hydrocarbon constituents analyzed. The analytical results from the soil samples are summarized in Table 1.

4.3 Groundwater Analytical Results

Grab groundwater sample SB1 did not contain detectable concentrations of all hydrocarbon constituents analyzed. In addition, sample SB1 contained no detectable concentration of dissolved lead. The analytical results from the groundwater samples are summarized in Table 2.

5.0 RECOMMENDATIONS

The analytical results of soil and groundwater samples collected from Geoprobe SB1 show no detectable hydrocarbons, except for 2.1 ppm of extractable hydrocarbons in the diesel range detected in soil sample SB1-15, collected at 15 feet bgs. The laboratory indicates that this sample does not appear to contain diesel. Based on the results of Geoprobe SB1, located approximately five feet from the former UST pit in the inferred downgradient direction, groundwater in the vicinity of the former UST pit is not impacted by residual hydrocarbons from the former UST pit. Therefore, no further environmental work is necessary at this site and GR is recommending that the site be referred for case closure.

6.0 REFERENCES

Gettler - Ryan Inc., 2001, Work Plan For Limited Subsurface Investigation at Tri-Valley Transportation 5481 Brisa Street, Livermore California, dated July 2, 2001.

Gettler - Ryan Inc., 2001, Soil Sampling During UST Removal at Tri-Valley Transportation Facility Report, 5481 Brisa Street, Livermore California, dated April 20, 2001.

TABLES

TABLE 1 - SOIL SAMPLE CHEMICAL ANALYTICAL DATA

Tri-Valley Transportaion

5481 Brisa Street

Livermore, California

| Sample No. | Sample Date | Sample Depth (feet) | TPHg (ppm) | TPHd (ppm) | Benzene (ppm) | Toluene (ppm) | Ethyl-benzene (ppm) | Total Xylenes (ppm) | MTBE (ppm) |
|------------|-------------|---------------------|------------|------------------|---------------|---------------|---------------------|---------------------|------------|
| SB1-10.5 | 7/24/01 | 10.5 | ND | ND | ND | ND | ND | ND | ND |
| SB1-15 | 7/24/01 | 15 | ND | 2.1 ¹ | ND | ND | ND | ND | ND |

EXPLANATION:

ppm = parts per million

ND = Not Detected

¹= This sample does not appear to contain Diesel. Discrete peaks comprise the extractable hydrocarbons in this range.

ANALYTICAL METHOD:

TPHg = Total Petroleum Hydrocarbons as gasoline by EPA Method 8015 modified

TPHd = Total Petroleum Hydrocarbons as diesel by EPA Method 8015 modified

Benzene, Toluene, Ethylbenzene and Total Xylenes by EPA method 8020

MTBE = Methyl tert-Butyl Ether by EPA Method 8020

TABLE 2 - GRAB GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA

Tri-Valley Transportation
5481 Brisa Street
Livermore, California

| Sample No. | Sample Date | TPHg (ppb) | TPHd (ppm) | Benzene (ppb) | Toluene (ppb) | Ethyl- | | MTBE ¹ (ppb) | ETHANOL (ppb) | TBA (ppb) | MTBE ² (ppb) | DIPE (ppb) | ETBE (ppb) | TAME (ppb) | 1,2-DCA (ppb) | EDB (ppb) | Dissolved Lead (ppb) |
|------------|-------------|------------|------------|---------------|---------------|---------------|---------------|-------------------------|---------------|-----------|-------------------------|------------|------------|------------|---------------|-----------|----------------------|
| | | | | | | benzene (ppb) | Xylenes (ppb) | | | | | | | | | | |
| SB1 | 7/24/01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

EXPLANATION:

ppb = parts per billion

NA = Not Analyzed

¹ = MTBE by EPA Method 8020

² = MTBE by EPA Method 8260

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)

(see laboratory reports for detection limits)

ANALYTICAL METHOD:

TPHg = Total Petroleum Hydrocarbons as gasoline by EPA Method 8015 modified

TPHd = Total Petroleum Hydrocarbons as diesel by EPA Method 8015 modified

Benzene, Toluene, Ethylbenzene and Total Xylenes by EPA method 8020

Ethanol by EPA Method 8260

TBA = tert-Butyl alcohol by EPA Method 8260

MTBE = Methyl tert-butyl ether by EPA Method 8020/8060

DIPE = Di-isopropyl ether by EPA Method 8260

ETBE = Ethyl tert-butyl ether by EPA Method 8260

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260

TAME = tert-Amyl methyl ether by EPA Method 8260

EDB = Ethylene dibromide by EPA Method 8260

Dissolved lead by EPA Method 6010A

Table 3- UST Soil Chemical Analytical Data
 Tri Valley Transportation
 5481 Brisa Street
 Livermore, California

| Sample I.D. | Sample Depth (Feet) | Date Collected | TPHd (ppm) | TPHg (ppm) | Benzene (ppm) | Toluene (ppm) | Ethyl-benzene (ppm) | Xylenes (ppm) | MtBE (ppm) |
|---|----------------------------|-----------------------|-------------------|-------------------|----------------------|----------------------|----------------------------|----------------------|-------------------|
| <u>UST Excavation</u> | | | | | | | | | |
| A1 (10.5) | 10.5 | 2/2/01 | <5.0 | 1.7 ¹ | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| A2 (10.5) | 10.5 | 2/2/01 | <5.0 | <1.0 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| B1 (13) | 13 | 2/2/01 | 960 ³ | 680 ¹ | <0.50 | <0.50 | <0.50 | <0.50 | <5.0 |
| B1 (15) | 15 | 2/2/01 | 200 ³ | 140 ² | <0.0050 | <0.0050 | 0.0077 | 0.030 | <0.050 |
| B2 (14) | 14 | 2/2/01 | <5.0 | <1.0 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| <u>UST OverExcavation</u> | | | | | | | | | |
| B1 (17.5) | 17.5 | 2/12/01 | 8.2 ⁴ | <1.0 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| B1-SW1 (15) | 15 | 2/12/01 | <5.0 | <1.0 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| B1-SW2 (15) | 15 | 2/12/01 | <5.0 | 2.9 ¹ | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| <u>UST Pit Stockpile (Pea Gravel)</u> | | | | | | | | | |
| Comp-1 | N/A | 2/2/01 | <5.0 | <1.0 | <0.0050 | <0.0050 | <0.0050 | 0.010 | <0.050 |
| Comp-2 | N/A | 2/2/01 | <5.0 | <1.0 | <0.0050 | 0.022 | <0.0050 | 0.036 | <0.050 |
| <u>Diesel Line Fiber Trench Stockpile (Pea Gravel)</u> | | | | | | | | | |
| ST-FT | N/A | 2/2/01 | <5.0 | <1.0 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.050 |
| <u>UST Pit Overexcavation Stockpile</u> | | | | | | | | | |
| ST-OEXC ⁵ | N/A | 2/12/01 | 56 ³ | 2.9 ² | <0.025 | <0.025 | <0.025 | 0.27 | <0.25 |

Table 3- UST Soil Chemical Analytical Data
Tri Valley Transportation
5481 Brisa Street
Livermore, California

EXPLANATION:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

MtBE = Methyl tertiary-Butyl Ether

BTEX = benzene, toluene, ethylbenzene, xylenes

ppm = Parts per million

N/A = Not Applicable

¹ = Laboratory reports Unidentified Hydrocarbons >C8

² = Laboratory reports Unidentified Hydrocarbons >C7

³ = Laboratory reports Diesel C9-C24

⁴ = Laboratory reports Unidentified Hydrocarbon >C16

⁵ = Total lead by EPA Method 6010 was detected at 2.1 ppm

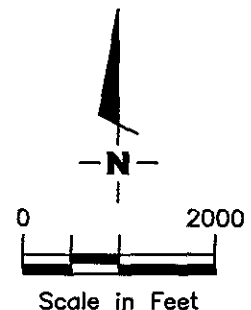
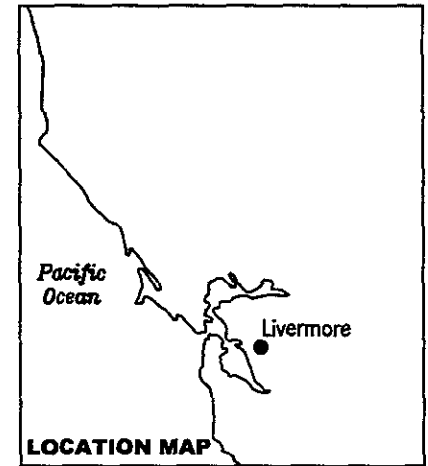
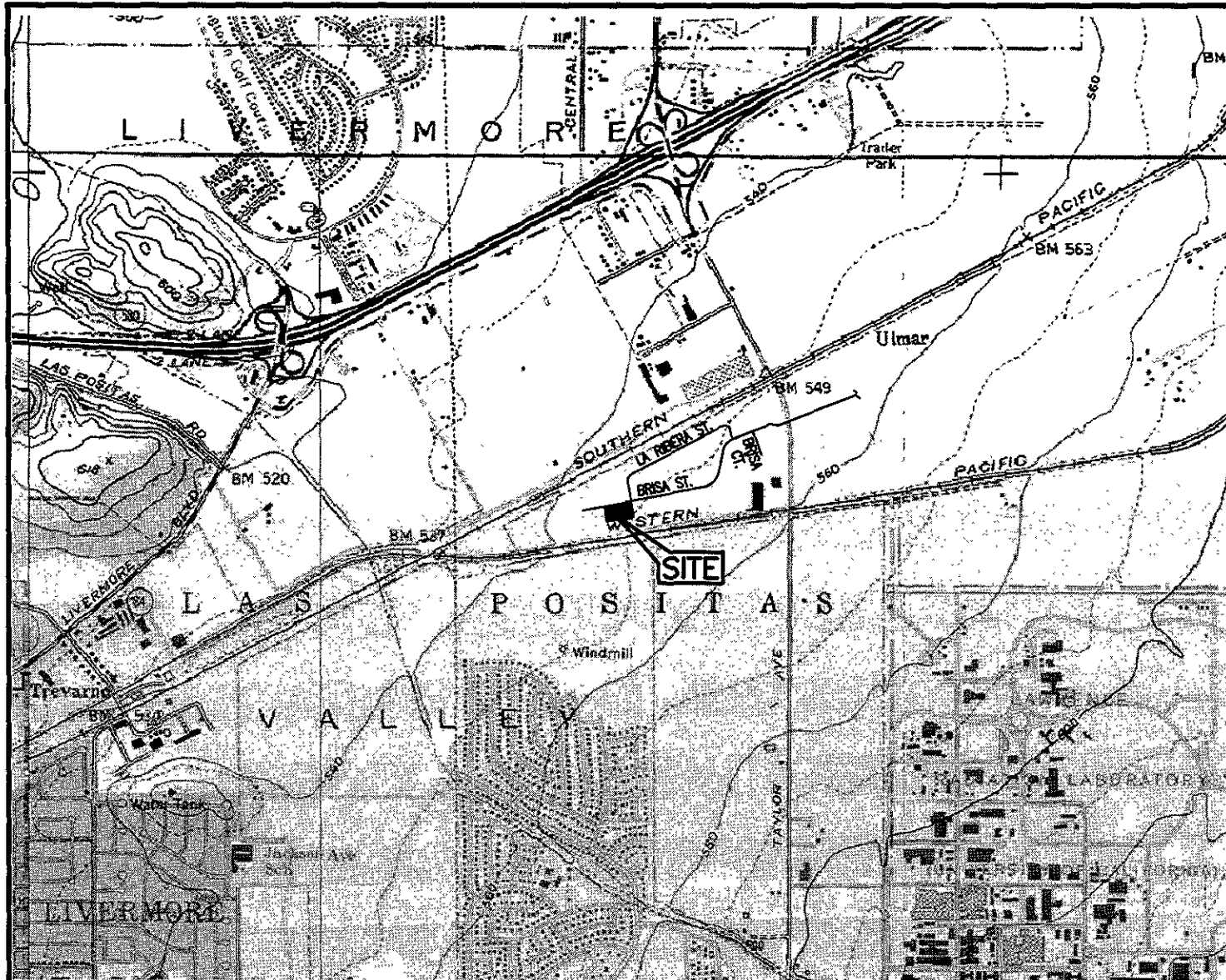
ANALYTICAL METHODS:

TPHd, TPHg, BTEX and MtBE by DHS LUFT

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)

FIGURES



Source: National Geographic California Seamless USGS Topographic Maps on CD-ROM

GETTLER - RYAN INC.
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 Dublin, CA 94568 (925) 551-7555

VICINITY MAP
 Tri Valley Transportation and Storage Inc.
 5481 Brisa Street
 Livermore, California

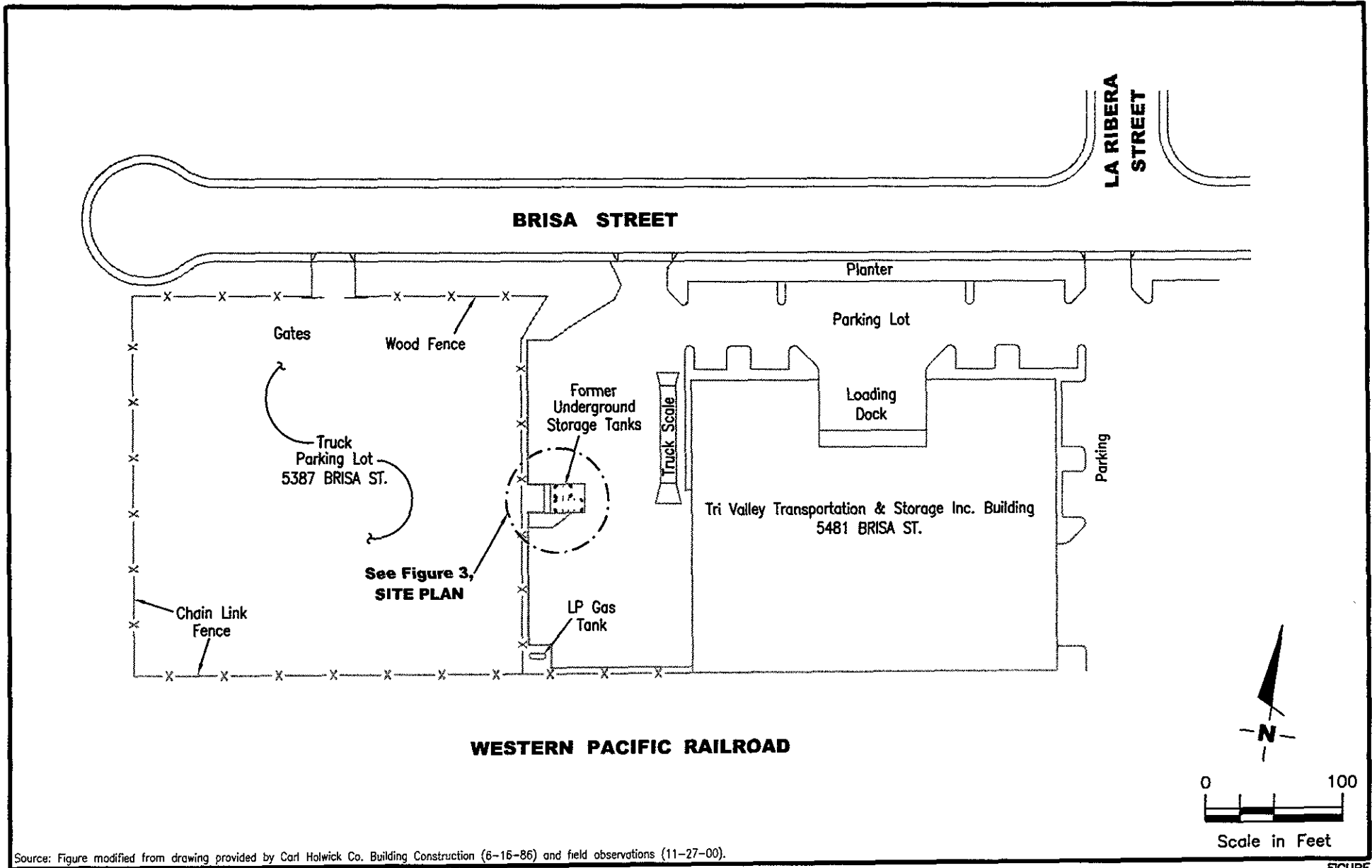
FIGURE
1

PROJECT NUMBER
948166

REVIEWED BY

DATE
6/01

REVISED DATE



Source: Figure modified from drawing provided by Carl Holwick Co. Building Construction (6-16-86) and field observations (11-27-00).

GETTLER - RYAN INC.
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 Dublin, CA 94568 (925) 551-7555

EXTENDED SITE PLAN
 Tri Valley Transportation and Storage Inc.
 5481 Brisa Street
 Livermore, California

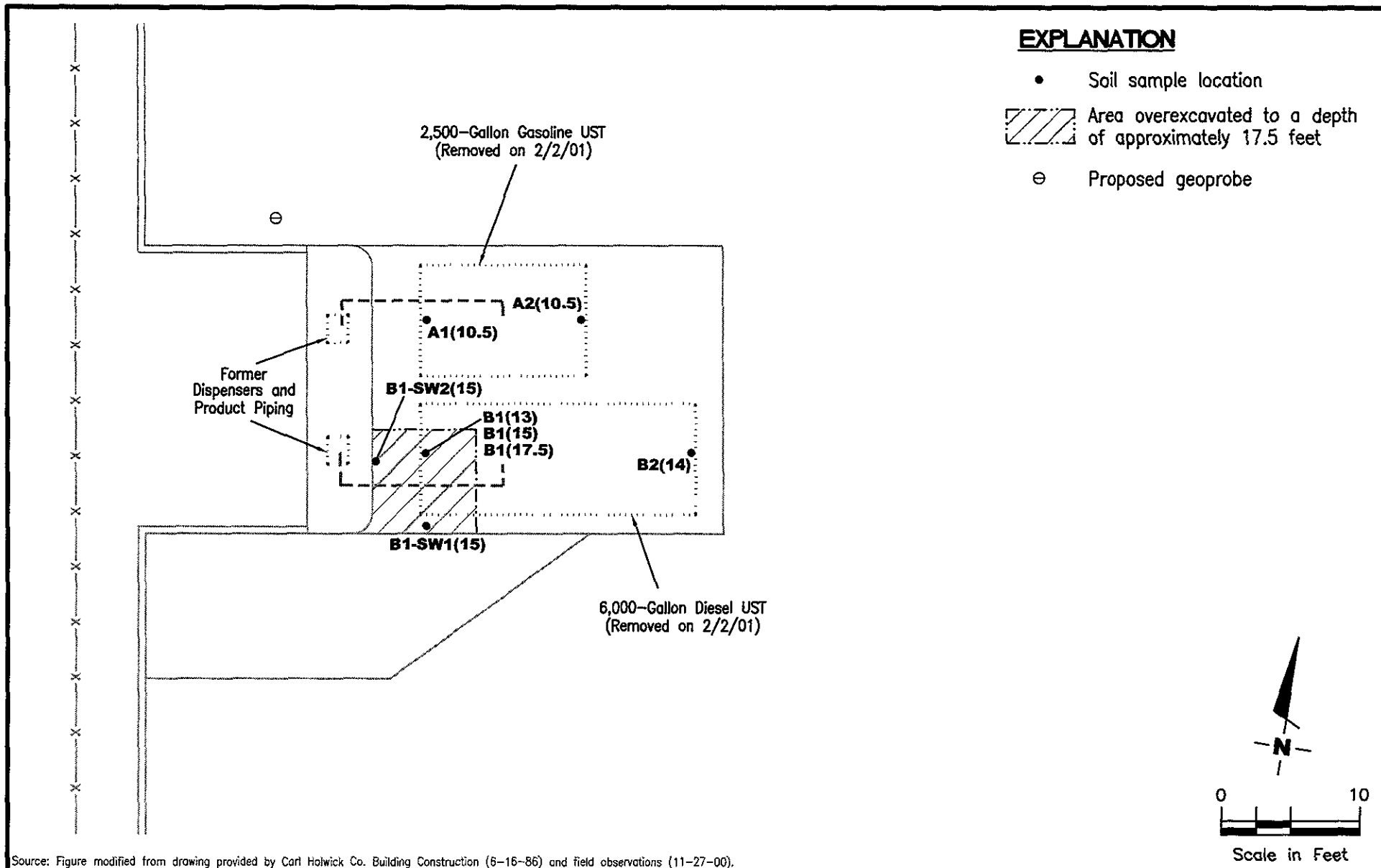
FIGURE
2

PROJECT NUMBER
 101217

REVIEWED BY

DATE
 6/01

REVISED DATE



GETTLER - RYAN INC.

6747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

SITE PLAN

Tri Valley Transportation and Storage Inc.
5481 Brisa Street
Livermore, California

FIGURE

3

PROJECT NUMBER
948166

REVIEWED BY

DATE
6/01

REVISED DATE

APPENDIX A
GR FIELD METHODS AND PROCEDURES

GETTLER - RYAN

FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan, Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Soil Samples

Exploratory soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the exploratory soil boring with a split-barrel sampler or other appropriate sampling device fitted with clean brass or stainless steel liners. The sampling device is driven approximately 18 inches with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler each successive 6 inches is recorded on the boring log. The encountered soil is described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based on:

- a. depth relative to underground storage tanks and existing ground surface
- b. depth relative to known or suspected groundwater
- c. presence or absence of contaminant migration pathways
- d. presence or absence of discoloration or staining
- e. presence or absence of obvious gasoline hydrocarbon odors
- f. presence or absence of organic vapors detected by headspace analysis

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing some soil from one of the sample tubes not retained for chemical analysis and immediately covering the end of the tube with a plastic cap. The PID probe is inserted into the headspace inside the tube through a hole in the plastic cap. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Stockpile Sampling

Stockpile samples consist of four individual sample liners collected from each 100 cubic yards (yd³) of stockpiled soil material. Four arbitrary points on the stockpiled material are chosen, and discrete soil sample is collected at each of these points. Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless steel or brass tube into the stockpiled material with a wooden mallet or hand driven soil sampling device. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, placed in the

cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

Construction of Monitoring Wells

Monitoring wells are constructed in the exploratory borings with Schedule 40 polyvinyl Chloride (PVC) casing. All joints are thread-joined; no glues, cements, or solvents are used in well construction. The screened interval is constructed of machine-slotted PVC well screen which generally extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular space adjacent to the entire screened interval. A bentonite transition seal is placed in the annular space above the sand, and the remaining annular space is sealed with neat cement or cement grout.

Wellheads are protected with water-resistant traffic rated vault boxes placed flush with the ground surface. The top of the well casing is sealed with a locking cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on plastic sheeting or stored in drums depending on site conditions and regulatory requirements. Stockpile samples are collected and analyzed on the basis of one composite sample per 50 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless or brass sample tube into the stockpiled material with a hand, mallet, or drive sampler. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

Wellhead Survey

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (M.S.L.).

Well Development

The purpose of well development is to improve hydraulic communication between the well and surrounding aquifer. Prior to development, each well is monitored for the presence of separate-phase hydrocarbons and the depth-to-water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

Grab Groundwater Sampling

A Hydropunch® groundwater sampling tool or temporary PVC casing installed in the boring may be used to facilitate grab groundwater sample collection. Samples of groundwater are collected from the surface of the water in the Hydropunch® or temporary casing using a teflon bailer. The water samples are then gently poured into laboratory-cleaned containers and sealed with teflon-lined caps, and inspected for air bubbles to check for headspace. The samples are then labeled by an adhesive label, noted in permanent ink, and promptly placed in an ice storage. A Chain-of-

Custody Record is initiated and updated throughout handling of the samples, and accompanies the samples to the laboratory certified by the State of California for analyses requested.

Groundwater Sampling

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip (or comparable) interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

APPENDIX B
PERMIT AND BORING LOG

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235
FAX (925) 462-3914



DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 5481
Brisa Street, Livermore

PERMIT NUMBER 21122
WELL NUMBER _____
APN _____

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Name Tri. Valley Transportation
Address 5481 Brisa Street Phone _____
City Livermore CA Zip _____

- A. GENERAL**
 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS**
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
 3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 4. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
- D. GEOTECHNICAL.** Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC.** Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION.** See attached.
- G. SPECIAL CONDITIONS**

APPLICANT Name Gettler-Ryan-INC.
Address 6747 Sierra Ct Suite J Phone (925) 551-7444 ext 127
City Dublin CA Zip 94568
Fax (925) 551-7888

| | | | |
|---------------------|--------------------------|----------------------------|-------------------------------------|
| TYPE OF PROJECT | | Geotechnical Investigation | |
| Well Construction | | General | <input type="checkbox"/> |
| Cathodic Protection | <input type="checkbox"/> | Contamination | <input checked="" type="checkbox"/> |
| Water Supply | <input type="checkbox"/> | Well Destruction | <input type="checkbox"/> |
| Monitoring | <input type="checkbox"/> | | |

PROPOSED WATER SUPPLY WELL USE

| | | | |
|--------------|--------------------------|----------------------|--------------------------|
| New Domestic | <input type="checkbox"/> | Replacement Domestic | <input type="checkbox"/> |
| Municipal | <input type="checkbox"/> | Irrigation | <input type="checkbox"/> |
| Industrial | <input type="checkbox"/> | Other _____ | <input type="checkbox"/> |

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other Geo Probe X

DRILLER'S LICENSE NO. C-57-485165

WELL PROJECTS

| | | | |
|---------------------|-----------|---------|-----------|
| Drill Hole Diameter | _____ in. | Maximum | _____ ft. |
| Casing Diameter | _____ in. | Depth | _____ ft. |
| Surface Seal Depth | _____ ft. | Number | _____ |

GEOTECHNICAL PROJECTS

| | | | |
|-------------------|---------------|---------|---------------|
| Number of Borings | <u>1</u> | Maximum | _____ |
| Hole Diameter | <u>2"</u> in. | Depth | <u>30</u> ft. |

ESTIMATED STARTING DATE July 23, 2001
ESTIMATED COMPLETION DATE July 23, 2001

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

APPLICANT'S SIGNATURE [Signature] Date 7/11/01

Approved [Signature] Date 7/12/01
Wyman Hong

Gettler-Ryan, Inc.

Log of Boring SB1

| | |
|--|--|
| PROJECT: <i>Tri Valley Transportation and Storage Inc.</i> | LOCATION: <i>5481 Brisa Street, Livermore, CA</i> |
| GR PROJECT NO.: <i>948166.02</i> | SURFACE ELEVATION: |
| DATE STARTED: <i>07/24/01</i> | WL (ft. bgs): <i>18.0</i> DATE: <i>07/24/01</i> TIME: <i>09:10</i> |
| DATE FINISHED: <i>07/24/01</i> | WL (ft. bgs): <i>15.3</i> DATE: <i>07/24/01</i> TIME: <i>09:35</i> |
| DRILLING METHOD: <i>2 in. Geoprobe (direct Push)</i> | TOTAL DEPTH: <i>22 feet</i> |
| DRILLING COMPANY: <i>Gregg Drilling</i> | GEOLOGIST: <i>Andrew Smith</i> |

| DEPTH (feet) | PID (ppm) | SAMPLE NUMBER | SAMPLE INT. | GRAPHIC LOG | SOIL CLASS | GEOLOGIC DESCRIPTION | REMARKS |
|--------------|-----------|---------------|-------------|-------------|------------|--|---|
| | | | | | | Asphalt pavement over sand and gravel base. | Boring backfilled with neat cement to ground surface. |
| 4 | | | | | SM | SILTY SAND (SM) - yellowish brown (10YR 5/4), moist, loose; 85% fine sand, 15% silt, trace of angular gravel to 5 inch diameter. | Hand augered to 5 feet. |
| | | | | | | Becomes dense; 80% fine sand, 20% silt. | |
| 8 | | | | | | | |
| 10 | 0 | SBI-10.5 | | | | | |
| 12 | | | | | GM | SILTY GRAVEL WITH SAND (GM) - dark gray (10YR 4/1), moist, loose; 65% angular gravel to 1.5 inch diameter, 20% sand, 15% silt. | |
| 16 | 0 | SBI-15.5 | | | SP | POORLY GRADED SAND (SP) - dark yellowish brown (10YR 4/4), moist, loose; 95% sand, 5% silt. | Grab groundwater sample SBI. |
| 20 | | SBI | | | | | |
| 24 | | | | | SM | SILTY SAND (SM) - yellowish brown (10YR 5/4), wet, medium dense; 80% fine sand, 20% silt. | |
| 22 | | | | | | Bottom of boring at 22 feet bgs. | |
| 28 | | | | | | | |

APPENDIX C

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS



Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

7 August, 2001

Doug Lee
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Tri Valley Transportation
Sequoia Report: W107443

Enclosed are the results of analyses for samples received by the laboratory on 24-Jul-01 16:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dimple Sharma For Charlie Westwater
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-----------------|-----------------|
| SB1-10.5 | W107443-01 | Soil | 24-Jul-01 00:00 | 24-Jul-01 16:10 |
| SB1-15 | W107443-02 | Soil | 24-Jul-01 00:00 | 24-Jul-01 16:10 |

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.


Dimple Sharma For Charlie Westwater, Project Manager





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|--------|----------|---------|-----------|-----------|---------------|-------|
| SB1-10.5 (W107443-01) Soil Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 1.0 | mg/kg | 20 | 1G27003 | 29-Jul-01 | 29-Jul-01 | EPA 8015/8020 | |
| Benzene | ND | 0.0050 | " | " | " | " | " | " | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 0.050 | " | " | " | " | " | " | zCC-3 |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 113 % | 40-140 | " | " | " | " | " | |
| SB1-15 (W107443-02) Soil Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 1.0 | mg/kg | 20 | 1G27003 | 29-Jul-01 | 29-Jul-01 | EPA 8015/8020 | |
| Benzene | ND | 0.0050 | " | " | " | " | " | " | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 0.050 | " | " | " | " | " | " | zCC-3 |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 106 % | 40-140 | " | " | " | " | " | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

**Diesel Hydrocarbons (C9-C24) by DHS LUFT
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|--------------------|--------|----------|---------|-----------|-----------|----------|-------|
| SB1-10.5 (W107443-01) Soil Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 1.0 | mg/kg | 1 | 1G26016 | 26-Jul-01 | 27-Jul-01 | DHS LUFT | |
| Surrogate: <i>n</i> -Pentacosane | | 78.1 % | 50-150 | | " | " | " | " | |
| SB1-15 (W107443-02) Soil Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Diesel Range Hydrocarbons | 2.1 | 1.0 | mg/kg | 1 | 1G26016 | 26-Jul-01 | 27-Jul-01 | DHS LUFT | D-06 |
| Surrogate: <i>n</i> -Pentacosane | | 97.3 % | 50-150 | | " | " | " | " | |



COMPANY Tri Valley Transportation JOB NO. 94816602

JOB LOCATION 5481 Brisa street

CITY Livermore, CA PHONE NO. _____

AUTHORIZED Doug Lee DATE 7/24/01 P.O. NO. (925) 551-7555

| SAMPLE ID | NO. OF CONTAINERS | SAMPLE MATRIX | DATE/TIME SAMPLED | ANALYSIS REQUIRED | SAMPLE CONDITION LAB ID |
|-----------|-------------------|---------------|-------------------|--|-------------------------|
| SBI-10.5 | 1 - Core | Soil | 7/24/01 | TPH ₂ & TPH ₆ (8015/A) BTEX & MTBE (8020) | O1A |
| SBI-15 | ↓ | ↓ | ↓ | ↓ | O2A |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

RELINQUISHED BY: [Signature] 7/24/01 1500

RECEIVED BY: [Signature] / Sequoia / 7-24-01

RELINQUISHED BY: [Signature] / Seq / 7-24-01 / 1610

RECEIVED BY: Michael Golin 7-24-01 / 1610

DESIGNATED LABORATORY: Sequoia Walnut Creek DHS #: _____

REMARKS: 10 - Day TAT

DATE COMPLETED _____ FOREMAN _____



Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1G27003 - EPA 5030B MeOH

Blank (1G27003-BLK1)

Prepared: 27-Jul-01 Analyzed: 28-Jul-01

| | | | | | | | | | | |
|--|-------|--------|-------|-------|--|-----|--------|--|--|--|
| Purgeable Hydrocarbons | ND | 10 | mg/kg | | | | | | | |
| Benzene | ND | 0.0050 | " | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.0050 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 0.050 | " | | | | | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 0.720 | | " | 0.600 | | 120 | 40-140 | | | |

LCS (1G27003-BS1)

Prepared: 27-Jul-01 Analyzed: 28-Jul-01

| | | | | | | | | | | |
|--|-------|--------|-------|-------|--|-----|--------|--|--|--|
| Benzene | 0.826 | 0.0050 | mg/kg | 0.800 | | 103 | 50-150 | | | |
| Toluene | 0.868 | 0.0050 | " | 0.800 | | 108 | 50-150 | | | |
| Ethylbenzene | 0.910 | 0.0050 | " | 0.800 | | 114 | 50-150 | | | |
| Xylenes (total) | 2.70 | 0.0050 | " | 2.40 | | 112 | 50-150 | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 0.736 | | " | 0.600 | | 123 | 40-140 | | | |

Matrix Spike (1G27003-MS1)

Source: W107431-02

Prepared: 27-Jul-01 Analyzed: 29-Jul-01

| | | | | | | | | | | |
|--|-------|--------|-------|-------|----|------|--------|--|--|--|
| Benzene | 0.766 | 0.0050 | mg/kg | 0.800 | ND | 95.8 | 50-150 | | | |
| Toluene | 0.798 | 0.0050 | " | 0.800 | ND | 99.8 | 50-150 | | | |
| Ethylbenzene | 0.832 | 0.0050 | " | 0.800 | ND | 104 | 50-150 | | | |
| Xylenes (total) | 2.48 | 0.0050 | " | 2.40 | ND | 103 | 50-150 | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 0.632 | | " | 0.600 | | 105 | 40-140 | | | |

Matrix Spike Dup (1G27003-MSD1)

Source: W107431-02

Prepared: 27-Jul-01 Analyzed: 29-Jul-01

| | | | | | | | | | | |
|--|-------|--------|-------|-------|----|------|--------|------|----|--|
| Benzene | 0.798 | 0.0050 | mg/kg | 0.800 | ND | 99.8 | 50-150 | 4.09 | 20 | |
| Toluene | 0.840 | 0.0050 | " | 0.800 | ND | 105 | 50-150 | 5.13 | 20 | |
| Ethylbenzene | 0.870 | 0.0050 | " | 0.800 | ND | 109 | 50-150 | 4.47 | 20 | |
| Xylenes (total) | 2.60 | 0.0050 | " | 2.40 | ND | 108 | 50-150 | 4.72 | 20 | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 0.652 | | " | 0.600 | | 109 | 40-140 | | | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

**Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|---|---------------|---|-------------|------|-----------|-------|
| Batch 1G26016 - EPA 3550B | | | | | | | | | | |
| Blank (1G26016-BLK1) | | | | Prepared: 26-Jul-01 Analyzed: 27-Jul-01 | | | | | | |
| Diesel Range Hydrocarbons | ND | 1.0 | mg/kg | | | | | | | |
| Surrogate: n-Pentacosane | 1.02 | | " | 1.11 | | 91.9 | 50-150 | | | |
| LCS (1G26016-BS1) | | | | Prepared: 26-Jul-01 Analyzed: 27-Jul-01 | | | | | | |
| Diesel Range Hydrocarbons | 10.7 | 1.0 | mg/kg | 15.0 | | 71.3 | 60-140 | | | |
| Surrogate: n-Pentacosane | 1.06 | | " | 1.11 | | 95.5 | 50-150 | | | |
| LCS Dup (1G26016-BSD1) | | | | Prepared: 26-Jul-01 Analyzed: 27-Jul-01 | | | | | | |
| Diesel Range Hydrocarbons | 12.2 | 1.0 | mg/kg | 15.0 | | 81.3 | 60-140 | 13.1 | 40 | |
| Surrogate: n-Pentacosane | 1.11 | | " | 1.11 | | 100 | 50-150 | | | |
| Matrix Spike (1G26016-MS1) | | | | Source: W107411-03 | | Prepared: 26-Jul-01 Analyzed: 27-Jul-01 | | | | |
| Diesel Range Hydrocarbons | 12.2 | 1.0 | mg/kg | 15.0 | ND | 81.3 | 50-150 | | | |
| Surrogate: n-Pentacosane | 1.01 | | " | 1.11 | | 91.0 | 50-150 | | | |
| Matrix Spike Dup (1G26016-MSD1) | | | | Source: W107411-03 | | Prepared: 26-Jul-01 Analyzed: 27-Jul-01 | | | | |
| Diesel Range Hydrocarbons | 11.9 | 1.0 | mg/kg | 15.0 | ND | 79.3 | 50-150 | 2.49 | 50 | |
| Surrogate: n-Pentacosane | 1.07 | | " | 1.11 | | 96.4 | 50-150 | | | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 15:43

Notes and Definitions

- D-06 This sample does not appear to contain Diesel. Discrete peaks comprise the extractable hydrocarbons in this range.
- zCC-3 Continuing Calibration indicates that the quantitative result for this analyte includes a greater than 15% degree of uncertainty. The value as reported is within method acceptance.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

7 August, 2001

Doug Lee
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Tri Valley Transportation
Sequoia Report: W107444

Enclosed are the results of analyses for samples received by the laboratory on 24-Jul-01 16:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Alan B. Kemp For Charlie Westwater
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-----------------|-----------------|
| SB1 | W107444-01 | Water | 24-Jul-01 00:00 | 24-Jul-01 16:10 |





| | | |
|--|--|------------------------------|
| Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 | Project: Tri Valley Transportation Project Number: 948166.02 Project Manager: Doug Lee | Reported: 07-Aug-01 14:46 |
|--|--|------------------------------|

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|-------|---------------|---------|-----------|-----------|-------------------|-------|
| SBI (W107444-01) Water Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1G27004 | 03-Aug-01 | 03-Aug-01 | EPA 8015M/8020 | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| <i>Surrogate. a,a,a-Trifluorotoluene</i> | | <i>101 %</i> | | <i>70-130</i> | | | | | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

Diesel Hydrocarbons (C9-C24) by DHS LUFT
Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|--------|----------|---------|-----------|-----------|-----------|-------|
| SB1 (W107444-01) Water Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 71 | ug/l | 1 | 1G27011 | 27-Jul-01 | 29-Jul-01 | EPA 8015M | |
| Surrogate: n-Pentacosane | | 98.9 % | 50-150 | | " | " | " | " | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

**Dissolved Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|--------------------|-------|----------|---------|-----------|-----------|-----------|-------|
| SBI (W107444-01) Water Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Lead | ND | 0.020 | mg/l | 1 | 1G27016 | 27-Jul-01 | 06-Aug-01 | EPA 6010A | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166 02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|-------|----------|---------|-----------|-----------|-----------|-------|
| SB1 (W107444-01) Water Sampled: 24-Jul-01 00:00 Received: 24-Jul-01 16:10 | | | | | | | | | |
| Ethanol | ND | 500 | ug/l | 1 | IH03014 | 03-Aug-01 | 03-Aug-01 | EPA 8260B | |
| tert-Butyl alcohol | ND | 20 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 2.0 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 2.0 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 2.0 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 107 % | | 50-150 | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 109 % | | 50-150 | " | " | " | " | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1G27004 - EPA 5030B P/T

Blank (1G27004-BLK5)

Prepared & Analyzed: 03-Aug-01

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | 29.1 | | " | 30.0 | | 97.0 | 70-130 | | | |

LCS (1G27004-B55)

Prepared: 03-Aug-01 Analyzed: 06-Aug-01

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Benzene | 17.1 | 0.50 | ug/l | 20.0 | | 85.5 | 70-130 | | | |
| Toluene | 16.7 | 0.50 | " | 20.0 | | 83.5 | 70-130 | | | |
| Ethylbenzene | 15.9 | 0.50 | " | 20.0 | | 79.5 | 70-130 | | | |
| Xylenes (total) | 53.3 | 0.50 | " | 60.0 | | 88.8 | 70-130 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 27.2 | | " | 30.0 | | 90.7 | 70-130 | | | |

Matrix Spike (1G27004-MS1)

Source: W107427-02

Prepared: 27-Jul-01 Analyzed: 01-Aug-01

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|----|------|--------|--|--|--|
| Benzene | 22.8 | 0.50 | ug/l | 20.0 | ND | 114 | 70-130 | | | |
| Toluene | 18.4 | 0.50 | " | 20.0 | ND | 92.0 | 70-130 | | | |
| Ethylbenzene | 17.8 | 0.50 | " | 20.0 | ND | 89.0 | 70-130 | | | |
| Xylenes (total) | 58.4 | 0.50 | " | 60.0 | ND | 97.3 | 70-130 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 29.0 | | " | 30.0 | | 96.7 | 70-130 | | | |

Matrix Spike Dup (1G27004-MSD1)

Source: W107427-02

Prepared: 27-Jul-01 Analyzed: 01-Aug-01

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|----|------|--------|------|----|--|
| Benzene | 18.6 | 0.50 | ug/l | 20.0 | ND | 93.0 | 70-130 | 20.3 | 20 | |
| Toluene | 17.4 | 0.50 | " | 20.0 | ND | 87.0 | 70-130 | 5.59 | 20 | |
| Ethylbenzene | 17.1 | 0.50 | " | 20.0 | ND | 85.5 | 70-130 | 4.01 | 20 | |
| Xylenes (total) | 54.0 | 0.50 | " | 60.0 | ND | 90.0 | 70-130 | 7.83 | 20 | |
| Surrogate: a,a,a-Trifluorotoluene | 26.4 | | " | 30.0 | | 88.0 | 70-130 | | | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

**Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-------|-------------|---|------|-------------|------|-----------|-------|
| Batch 1G27011 - EPA 3510B | | | | | | | | | | |
| Blank (1G27011-BLK1) | | | | | | | | | | |
| | | | | | Prepared: 27-Jul-01 Analyzed: 29-Jul-01 | | | | | |
| Diesel Range Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Surrogate: n-Pentacosane | 17.3 | | " | 33.3 | | 52.0 | 50-150 | | | |
| LCS (1G27011-BS1) | | | | | | | | | | |
| | | | | | Prepared: 27-Jul-01 Analyzed: 29-Jul-01 | | | | | |
| Diesel Range Hydrocarbons | 389 | 50 | ug/l | 500 | | 77.8 | 60-140 | | | |
| Surrogate: n-Pentacosane | 32.3 | | " | 33.3 | | 97.0 | 50-150 | | | |
| LCS Dup (1G27011-BSD1) | | | | | | | | | | |
| | | | | | Prepared: 27-Jul-01 Analyzed: 29-Jul-01 | | | | | |
| Diesel Range Hydrocarbons | 354 | 50 | ug/l | 500 | | 70.8 | 60-140 | 9.42 | 50 | |
| Surrogate: n-Pentacosane | 30.7 | | " | 33.3 | | 92.2 | 50-150 | | | |





| | | |
|--|--|------------------------------|
| Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 | Project: Tri Valley Transportation Project Number: 948166.02 Project Manager: Doug Lee | Reported: 07-Aug-01 14:46 |
|--|--|------------------------------|

**Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------|-------|-------------|---------------|------|-------------|-------|-----------|-------|
| Batch 1G27016 - 200.7 | | | | | | | | | | |
| Blank (1G27016-BLK1) Prepared: 27-Jul-01 Analyzed: 03-Aug-01 | | | | | | | | | | |
| Lead | ND | 0.020 | mg/l | | | | | | | |
| LCS (1G27016-BS1) Prepared: 27-Jul-01 Analyzed: 03-Aug-01 | | | | | | | | | | |
| Lead | 0.988 | 0.020 | mg/l | 1.00 | | 98.8 | 80-120 | | | |
| LCS Dup (1G27016-BSD1) Prepared: 27-Jul-01 Analyzed: 03-Aug-01 | | | | | | | | | | |
| Lead | 1.02 | 0.020 | mg/l | 1.00 | | 102 | 80-120 | 3.19 | 20 | |
| Matrix Spike (1G27016-MS1) Source: W107434-01 Prepared: 27-Jul-01 Analyzed: 03-Aug-01 | | | | | | | | | | |
| Lead | 1.02 | 0.020 | mg/l | 1.00 | 0.020 | 100 | 80-120 | | | |
| Matrix Spike Dup (1G27016-MSD1) Source: W107434-01 Prepared: 27-Jul-01 Analyzed: 03-Aug-01 | | | | | | | | | | |
| Lead | 1.01 | 0.020 | mg/l | 1.00 | 0.020 | 99.0 | 80-120 | 0.985 | 20 | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1H03014 - EPA 5030B (P/T)

Blank (1H03014-BLK1)

Prepared & Analyzed: 03-Aug-01

| | | | | | | | | | | |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Ethanol | ND | 500 | ug/l | | | | | | | |
| tert-Butyl alcohol | ND | 20 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| Di-isopropyl ether | ND | 2.0 | " | | | | | | | |
| Ethyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| tert-Amyl methyl ether | ND | 2.0 | " | | | | | | | |
| 1,2-Dichloroethane | ND | 2.0 | " | | | | | | | |
| Ethylene dibromide | ND | 2.0 | " | | | | | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 49.1 | | " | 50.0 | | 98.2 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 50.0 | | " | 50.0 | | 100 | 50-150 | | | |

LCS (1H03014-BS1)

Prepared & Analyzed: 03-Aug-01

| | | | | | | | | | | |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Methyl tert-butyl ether | 55.1 | 2.0 | ug/l | 50.0 | | 110 | 70-130 | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 53.1 | | " | 50.0 | | 106 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 48.7 | | " | 50.0 | | 97.4 | 50-150 | | | |

Matrix Spike (1H03014-MS1)

Source: W107444-01

Prepared & Analyzed: 03-Aug-01

| | | | | | | | | | | |
|---|------|-----|------|------|----|------|--------|--|--|--|
| Methyl tert-butyl ether | 50.7 | 2.0 | ug/l | 50.0 | ND | 101 | 60-150 | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 49.0 | | " | 50.0 | | 98.0 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 53.9 | | " | 50.0 | | 108 | 50-150 | | | |

Matrix Spike Dup (1H03014-MSD1)

Source: W107444-01

Prepared & Analyzed: 03-Aug-01

| | | | | | | | | | | |
|---|------|-----|------|------|----|-----|--------|------|----|--|
| Methyl tert-butyl ether | 57.2 | 2.0 | ug/l | 50.0 | ND | 114 | 60-150 | 12.0 | 25 | |
| <i>Surrogate: Dibromofluoromethane</i> | 53.5 | | " | 50.0 | | 107 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 54.4 | | " | 50.0 | | 109 | 50-150 | | | |





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Tri Valley Transportation
Project Number: 948166.02
Project Manager: Doug Lee

Reported:
07-Aug-01 14:46

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



Gettler - Ryan Inc.

W107444
ENVIRONMENTAL DIVISION

6001 Chain of Custody

COMPANY Tri Valley Transportation

JOB NO. 948166.02

JOB LOCATION 5481 Brisa Street

CITY Livermore CA

PHONE NO. _____

AUTHORIZED Doug Lee

DATE 7/24/01

P.O. NO. _____

| SAMPLE ID | NO. OF CONTAINERS | SAMPLE MATRIX | DATE/TIME SAMPLED | ANALYSIS REQUIRED | SAMPLE CONDITION LAB ID |
|-----------|-------------------|------------------|-------------------|---|-------------------------|
| SBI | 5 VOCs | H ₂ O | 7/24/01 | TPH & TPHd (8015/M) BTEX & MTBE (8020) | OIA-H |
| | 2 1-lt AMB | | | 6 CIVS, 12 DCA & EDB, | |
| | 1-500ml PI | | | dissolved lead | |
| | | | | | |
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RELINQUISHED BY: Archer Smith 7/24/01 1500

RECEIVED BY: Mark Bell / Sequoia / 7.24.01

RELINQUISHED BY: Mark Bell / Seq / 7.24.01 / 1610

RECEIVED BY: _____

RELINQUISHED BY: _____

RECEIVED BY LAB: Michael Gorin 7.24.01/1610

DESIGNATED LABORATORY: Sequoia Walnut Creek DHS #: _____

REMARKS: For 8270 Perform extract and Hold extract until further notified. Filter dissolved Lead Sample in the Lab.
10- Day TAT

DATE COMPLETED _____ FOREMAN _____