



GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. David B. De Witt
 Tosco Marketing Company
 2000 Crow Canyon Place, Suite 400
 San Ramon, California

DATE: December 18, 2000
 PROJ. #: 140061.03
 SUBJECT: Well Installation Report
 Tosco 76 Station No. 0018
 6201 Claremont Ave.
 Oakland, California

FROM:
 Douglas J. Lee
 Project Manager
 Gettler-Ryan Inc.
 6747 Sierra Court, Suite J
 Dublin, California 94568

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COMMENTS:

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

cc: Don Hwang, Alameda County Environmental Health Services Agency

ENVIRONMENTAL
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 00 DEC 20 PM 11:03



GETTLER-RYAN INC.

WELL INSTALLATION REPORT

at

Tosco (76) Service Station No. 0018
6201 Claremont Avenue
Oakland, California

Report No. 140061.03-1

Prepared for:

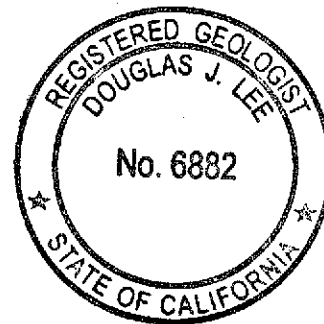
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December 18, 2000

TABLE OF CONTENTS

INTRODUCTION	1
SITE DESCRIPTION	1
GEOLOGY AND HYDROGEOLOGY	2
PREVIOUS ENVIRONMENTAL WORK	2
Groundwater Monitoring Well Installation.....	3
Well Monitoring, Development and Sampling	3
Wellhead Survey.....	3
CHEMICAL ANALYTICAL RESULTS	4
Chemical Analytical Procedures	4
Soil Analytical Results.....	4
Groundwater Analytical Data	4
WASTE DISPOSITION	4
DISCUSSION	5
RECOMMENDATIONS	5

TABLES

Table 1.	Groundwater Monitoring and Chemical Analytical Data
Table 2.	Groundwater Chemical Analytical Data
Table 3	Soil Chemical Analytical Data

FIGURES

Figure 1.	Vicinity Map
Figure 2.	Potentiometric Map
Figure 3.	Concentration Map

APPENDICES

Appendix A.	Field Methods and Procedures
Appendix B.	Well Permits and Boring Log
Appendix C.	Surveyor's Report
Appendix D.	Allied Waste Acceptance Letter
Appendix E.	Chemical Analytical Reports and Chain-of-Custody Forms
Appendix F.	Well Monitoring/Development Field Data Sheet

WELL INSTALLATION REPORT

at

Tosco 76 Service Station No. 0018
6201 Claremont Avenue
Oakland, California

Report No. 140061.03-1

INTRODUCTION

This report presents the results of a subsurface investigation performed by Gettler-Ryan Inc. (GR) at the above referenced site. The work was performed at the request of Tosco Marketing Company (Tosco) to evaluate the extent of petroleum hydrocarbons in soil and groundwater beneath the site. This Work Plan was prepared in response to a letter from the Alameda County Health Care Services Agency (ACHCSA) dated May 27, 1998. The scope of work performed included: preparing the site safety plan; obtaining the required drilling permits; installing three on-site groundwater monitoring wells; developing and sampling the wells; collecting and submitting selected soil and groundwater samples for chemical analysis; surveying the wellhead elevations; arranging for Tosco's contractor to dispose of the waste materials; and preparing a report presenting the findings of this investigation. The work performed was proposed in GR's *Work Plan for Monitoring Well Installation* (report No. 140061.03, dated February 15, 2000), and approved by the ACHCSA in a letter dated June 2, 2000.

The scope of work proposed in this Work Plan is intended to comply with the State of California Water Resources Control Board's *Leaking Underground Fuel Tanks (LUFT) Manual* and *California Underground Storage Tank Regulations, 1994*, the Regional Water Quality Control Board's (RWQCB) *Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites*, and the ACHCSA guidelines.

SITE DESCRIPTION

The subject site is an active service station located on the northern corner of the intersection of Claremont and College Avenues in Oakland, California (Figure 1). Site aboveground facilities consist of two dispenser islands and a station building. Gasoline underground storage tanks (USTs) are located immediately south of the station building in the common pit that fully encompasses the former gasoline UST pit. A former waste oil UST was located near the southern corner of the station building. Pertinent site features are shown on Figure 2.

GEOLOGY AND HYDROGEOLOGY

The subject site is located at the eastern margin of the East Bay Plain, approximately 3.5 miles east of the eastern shore of San Francisco Bay. The local topography slopes gently to the southwest. The site is situated at an elevation of approximately 210 feet above mean sea level. As mapped by E. J. Helley and others (1979), soil in the site vicinity consists of late Pleistocene alluvium consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand and gravel. The nearest surface water is Claremont Creek, approximately 0.1 mile northeast of the site. Based on the site topography, the regional groundwater flow in the vicinity of the site is inferred to be toward the southwest.

PREVIOUS ENVIRONMENTAL WORK

In March 1997, two 12,000-gallon gasoline USTs and associated product lines were replaced and one 280-gallon waste oil UST was removed at the subject site. Three holes of approximately ¼-inch in diameter were present on top of the former waste oil UST. The former gasoline USTs had no apparent holes or cracks. Karpealian Engineering Inc. (KEI) collected soil and grab groundwater samples during UST and product line replacement activities. One soil sample (WO1) was collected from native soil beneath the former waste oil UST at a depth of approximately 8 feet below ground surface (bgs). Four soil samples (D1 through D4) were collected from native soil beneath the former product dispensers at a depth of approximately 2 feet bgs. Four native soil samples (A1, A2, B1 and B2) were collected from the former gasoline UST excavation at an approximate depth of 16 feet bgs (just above groundwater). One grab groundwater sample was collected from groundwater standing in the former gasoline UST excavation. Sample locations are shown on Figure 2.

Total petroleum hydrocarbons as gasoline (TPHg), benzene or methyl tertiary butyl ether (MTBE) were not detected in the soil samples collected beneath the gasoline and waste oil USTs, or product dispensers with the exception of 2.6 parts per million (ppm) of TPHg detected in sample A2 and 1.4 ppm TPHg, 0.012 ppm benzene and 1.4 ppm MTBE detected in sample D1. Total oil and grease (TOG), total petroleum hydrocarbons as diesel (TPHd), volatile organic compounds (VOCs) or semi-volatile organic compound (SVOCs) were also not detected in the soil sample collected from beneath the former waste oil UST. However, the grab groundwater sample collected from the former gasoline UST excavation contained 6,100 parts per billion (ppb) TPHg and 54 ppb benzene. MTBE was not detected in the grab groundwater sample collected from the former UST excavation.

FIELD ACTIVITIES

To evaluate the extent of petroleum hydrocarbons in soil and groundwater beneath the subject site, GR installed three groundwater monitoring wells. Field work was performed in accordance with GR's Site Safety Plan dated July 10, 2000. GR Field Methods and Procedures are included in Appendix A. Underground Service Alert (USA) was notified to mark utility locations prior to beginning site activities, and a private subsurface utility locating service was contracted to locate subsurface utilities on the subject site. Drilling and well construction activities were performed by Woodward Drilling, Inc. (C-57 #710079). Well installation was performed under Alameda County Public Works Agency (ACPWA)

drilling permit numbers W00-385 through W00-387. Copies of the drilling permits are included in Appendix B.

Three groundwater monitoring wells (MW-1 through MW-3) were installed on July 11, 2000. The well borings were drilled to depths of 30 to 30.5 feet bgs using a truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers. A GR geologist observed the drilling and well installation. Soil samples were collected from the well and soil borings at five-foot intervals for description and preparation of a log, and for possible chemical analysis. Boring logs are included in Appendix C. Monitoring well locations are shown on Figure 2.

Soil cuttings generated during drilling activities were placed on and covered with plastic. One composite disposal confirmation sample SP-1(A-D) was collected from the stockpiled soil cuttings. Stockpile sampling procedures are presented in Appendix A.

Groundwater Monitoring Well Installation

Groundwater monitoring wells MW-1 through MW-3 are constructed using 2-inch diameter Schedule 40 polyvinyl (PVC) casing and screen material. The wells are screened from 10 to 30 feet bgs. The annular space around the screens in each of the wells was packed with Lonestar #3 graded sand. The sandpack was followed by a seal of bentonite chips hydrated with clean water and neat cement to approximately 1-foot bgs. The top of each well is protected by a vault box, locking well cap and lock. The vault box is installed flush with the ground surface and is set in concrete. Well construction details are included with the boring logs in Appendix B.

Well Monitoring, Development and Sampling

The wells were developed and sampled on August 24, 2000. Depth-to-groundwater in the wells was measured and each well checked for the presence of separate phase hydrocarbons (SPH) prior to development. SPH were not observed in the wells. None of the wells dewatered during development. Following development, groundwater samples were collected from the wells. Purge water generated during development and sampling procedures was transported to the Tosco Refinery in Rodeo, California for disposal. Well development procedures are included in Appendix A. Copies of the well development forms are included in Appendix F. Monitoring Data are summarized in Table 1.

Wellhead Survey

Following installation, the top of casing elevations for wells MW-1 through MW-3 were surveyed to mean sea level by Virgil Chavez Land Surveying (PLS 6323). Horizontal coordinates of the well locations were obtained at the same time. The surveyor's report is included in Appendix C. Top of casing elevations are summarized in Table 1.

RESULTS OF THE SUBSURFACE INVESTIGATION

Soil encountered during this investigation consisted primarily of interbedded sandy silt, silty sand with variable clay and gravel components to approximately 30.5 feet bgs. Some localized intervals of silt, sand and silty gravel were encountered. Groundwater was encountered during drilling at depths from 20 to 28.5 feet bgs. On August 24, 2000, static water levels in the wells ranged from 18.50 and 19.69 during well development. Based on the static water levels collected during well development, the groundwater flow beneath the site was to the southwest at a gradient of 0.01 ft./ft. (Figure 2).

CHEMICAL ANALYTICAL RESULTS

A total of 4 soil samples from the well borings, and one composite soil sample from the stockpiled drill cuttings and three groundwater samples were submitted under chain-of-custody for chemical analysis. Analyses were performed by Sequoia Analytical of Walnut Creek, California (ELAP No.1271). Copies of the laboratory reports and chain-of-custody forms are included in Appendix E. Soil and groundwater chemical analytical data are summarized in Tables 1, 2 and 3.

Chemical Analytical Procedures

All soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPHg) by EPA Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020, and methyl tert-butyl ether (MtBE) by EPA Methods 8020 or 8260 method. In addition, all groundwater samples were analyzed for fuel oxygenates: ethanol, t-Butanol (TBA), MTBE, Di-Isopropyl Ether (DIPE), Ethyl-Butyl Ether (ETBE) and t-Amyl Methyl Ether (TAME). The cuttings stockpile composite sample was also tested for total lead by EPA 6000/7000 Series Methods.

Soil Analytical Results

TPHg, benzene, and MTBE, were not detected in any of the soil samples, except in the sample MW-1-25.5, collected at 25.5 feet bgs in MW-1. This sample contained 19 ppm TPHg, 0.018 ppm benzene and no detectable MTBE. The composite soil stockpile sample showed no detected hydrocarbons, but did contain 7.8 ppm Lead.

Groundwater Analytical Data

TPHG, benzene and MTBE were not detected in the groundwater sample from MW-2. The groundwater sample from MW-3 contained no detectable TPHg or benzene and 2.3 ppm MTBE by EPA Method 8260. In MW-1, 120 ppb TPHg, 0.67 ppb Benzene and 54 ppb MTBE (EPA method 8260) were detected.

WASTE DISPOSITION

Approximately 2.5 cubic yards of drill cuttings generated during well installation activities were removed from the site by Denbeste Transportation and transported to Forward Landfill on August 24, 2000, for disposal. A copy of the Allied Waste Acceptance Letter is in Appendix D. Stockpile analytical data represented by composite sample SP-1(A-D) are summarized in Table 1.

DISCUSSION

TPHg, BTEX, and MTBE were detected in groundwater in MW-1, located downgradient from the UST pit and dispenser islands. MTBE was also present in MW-3 at a concentration below the Department of Health Services current action level and proposed Maximum Contaminant Level (MCL) of 13 ppb.

On August 24, 2000, static water levels in the wells ranged from 18.50 and 19.69 during well development and sampling. Based on these static water levels, the groundwater flow beneath the site was to the southwest at a gradient of 0.01 ft./ft. (Figure 2).

RECOMMENDATIONS

GR recommends instituting a quarterly monitoring and sampling program for wells MW-1 through MW-3 at the site to verify the results of this investigation. The results of each monitoring and sampling event will be evaluated, and recommendations for modifying the monitoring and sampling program, or for additional work, will be made as warranted.

TABLE 1 - GROUNDWATER MONITORING AND CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 0018
6201 Claremont Avenue
Oakland, California

Sample No.	Sample Date	Total Well Depth (ft.)	Well ¹ Elev. (ft. MSL)	Depth to Water (ft.)	Floating Product (ft.)	Ground Water Elevation (ft. MSL)	TPHd (ppb)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	MTBE ² (ppb)	MTBE ³ (ppb)
MW-1	8/24/00	30.00	208.15	18.50	0.0	189.65	NA	120 ⁴	0.67	ND	0.86	1.4	54	54
MW-2	8/24/00	30.00	210.27	19.69	0.0	190.58	NA	ND	ND	ND	ND	ND	ND	ND
MW-3	8/24/00	30.00	208.98	18.69	0.0	190.29	NA	ND	ND	ND	ND	ND	4.7	2.3

EXPLANATION:

ft. = feet
ft. MSL = feet relative to Mean Sea Level.
ppb = parts per billion
ND = not detected
— = not applicable
NA = not analyzed

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)
(see laboratory reports for detection limits)

ANALYTICAL METHODS:

TPHd = Total Petroleum Hydrocarbons as diesel according to EPA Method 8015 Modified
TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified
Benzene, Toluene, Ethylbenzene, and Total Xylenes according to EPA Method 8020
MTBE = Methyl tertiary butyl ether according to EPA Method 8020/8260

¹ = Well elevations reported as top of casing (TOC) surveyed by Virgil Chavez, Licensed California Land Surveyor No. 6323.

² = MTBE by EPA Method 8020

³ = MTBE by EPA Method 8260

⁴ = Chromatogram Pattern: Gasoline C6-C12

TABLE 2 - GROUNDWATER CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 0018

6201 Claremont Avenue

Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-1	08/24/00	ND	ND	54	ND	ND	ND
MW-2	8/24/00	ND	ND	ND	ND	ND	ND
MW-3	8/24/00	ND	ND	2.3	ND	ND	ND

EXPLANATIONS:

TBA = Tertiary butyl alcohol
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
EDB = Ethylene dibromide
ND = Not Detected

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds
(see laboratory reports for detection limits)

TABLE 3 - SOIL CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 0018
6201 Claremont Avenue
Oakland, California

Sample No.	Sample Depth (feet)	Date Collected	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)	Total Lead (ppm)
MW-1-15	15	7/11/00	ND	ND	ND	ND	ND	ND	NA
MW-1-25.5	25.5	7/11/00	19 ¹	0.018	0.035	0.056	0.12	ND	NA
MW-2-16	16	7/11/00	ND	ND	ND	ND	ND	ND	NA
MW-2-20.5	20.5	7/11/00	ND	ND	ND	ND	ND	ND	NA
MW-3-18	18	7/11/00	ND	ND	ND	ND	ND	ND	NA
Stockpile SP-1 (A-D)	--	7/11/00	ND	ND	ND	ND	0.020	ND	7.0

EXPLANATION:

ppm = parts per million
ND = not detected
NA = not analyzed
-- = not applicable

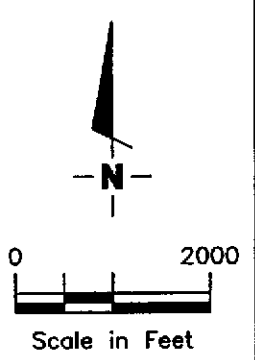
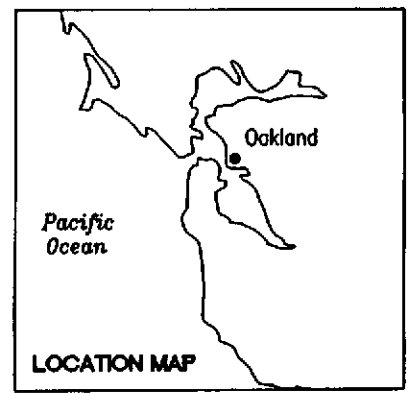
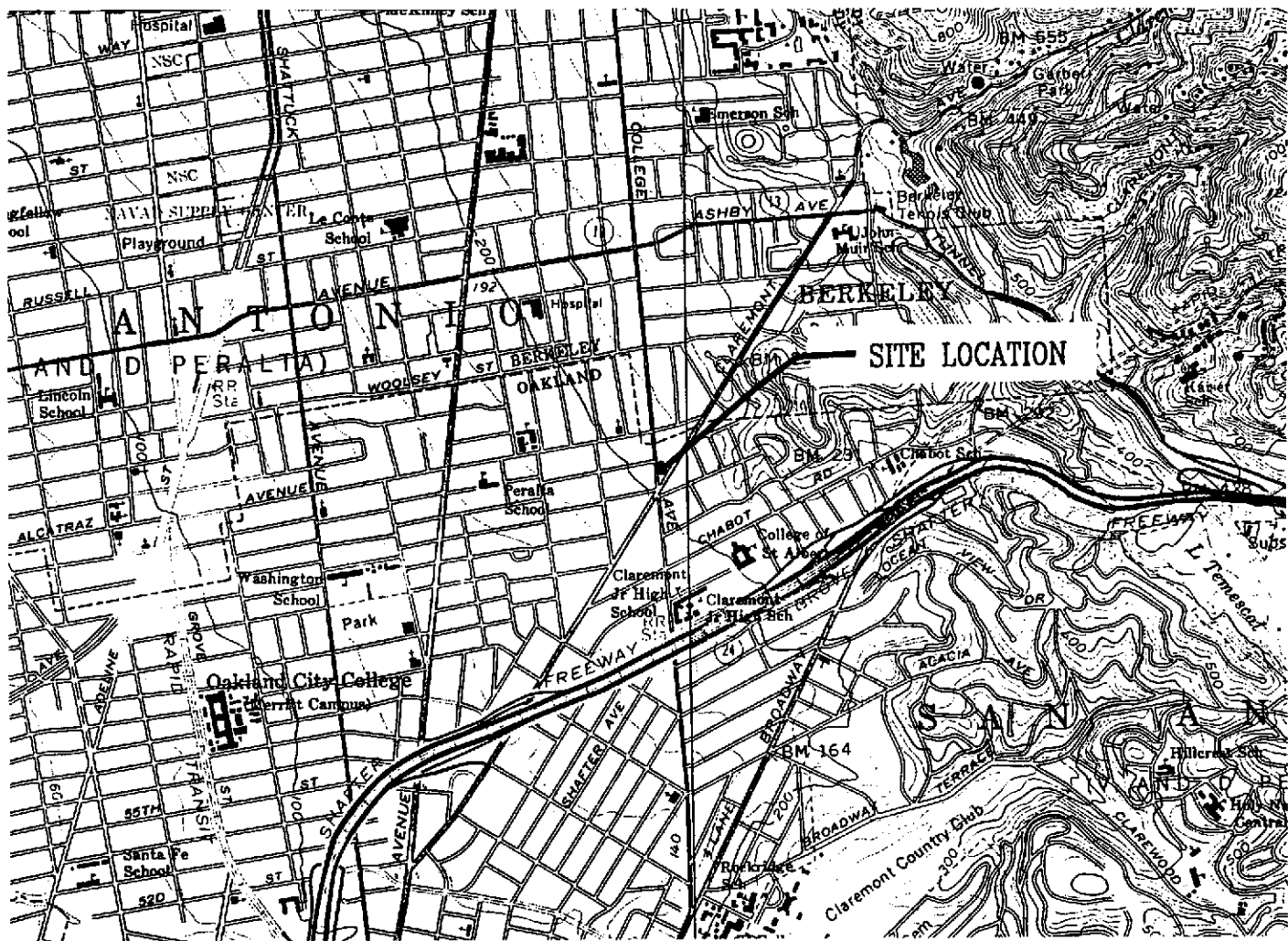
ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek (ELAP #1271)
(see laboratory reports for detection limits)

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified
Benzene, Toluene, Ethylbenzene, and Total Xylenes according to EPA Method 8020
MTBE = Methyl tertiary butyl ether according to EPA Method 8020
Total Lead according to EPA Method 6010

¹ = Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12



Base Map: USGS Topographic Map



Gettler - Ryan Inc.

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

VICINITY MAP

Tosco 76 Branded Facility No. 0018
6201 Claremont Avenue
Oakland, California

FIGURE

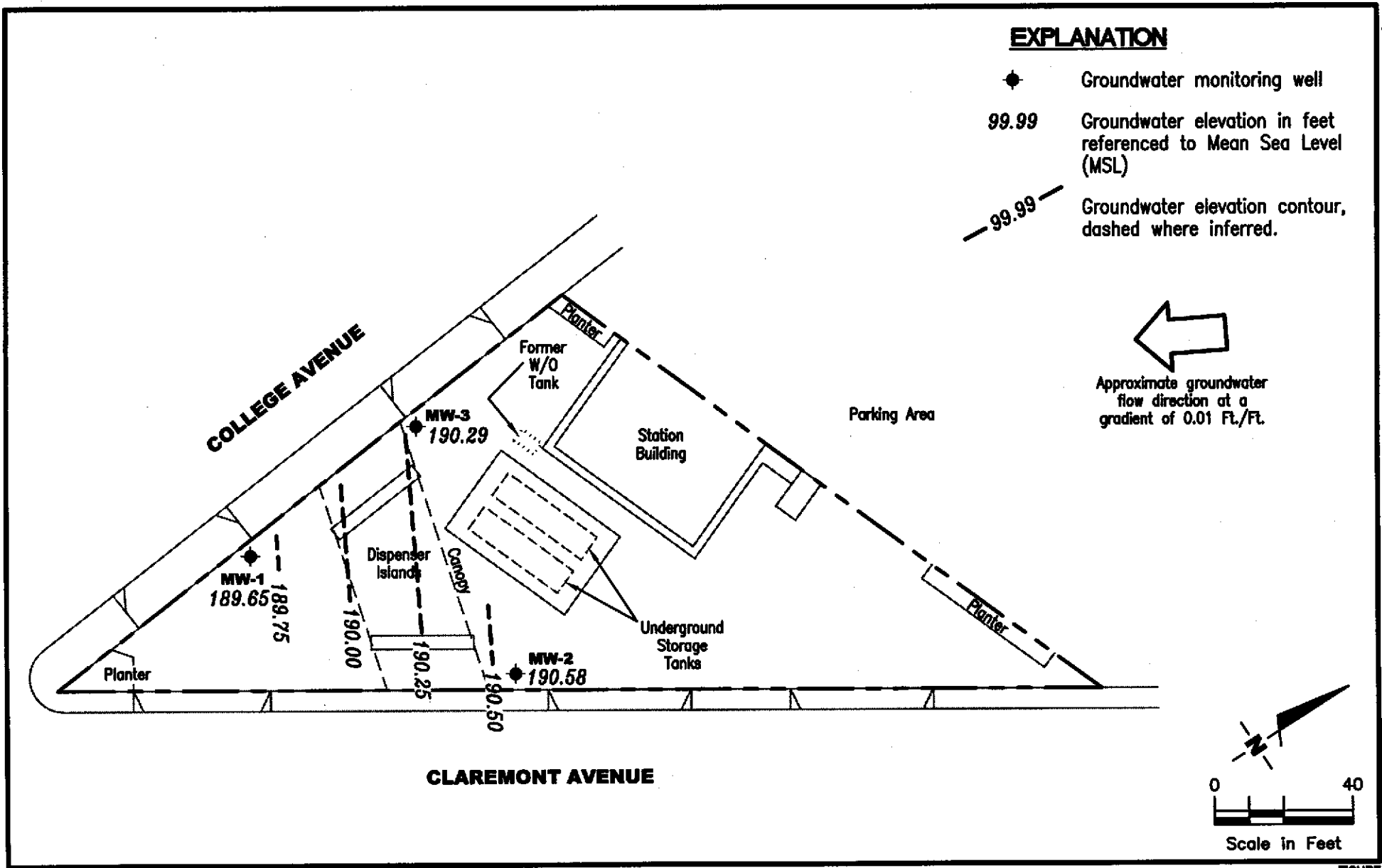
1

JOB NUMBER
140061

REVIEWED BY

DATE
June, 1998

REVISED DATE



Gertler - Ryan Inc.

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

POTENTIOMETRIC MAP
Tosco (76) Service Station No. 0018
6201 Claremont Avenue
Oakland, California

FIGURE

2

PROJECT NUMBER
140061

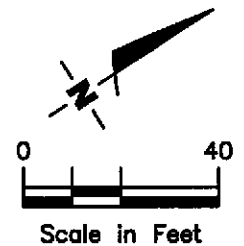
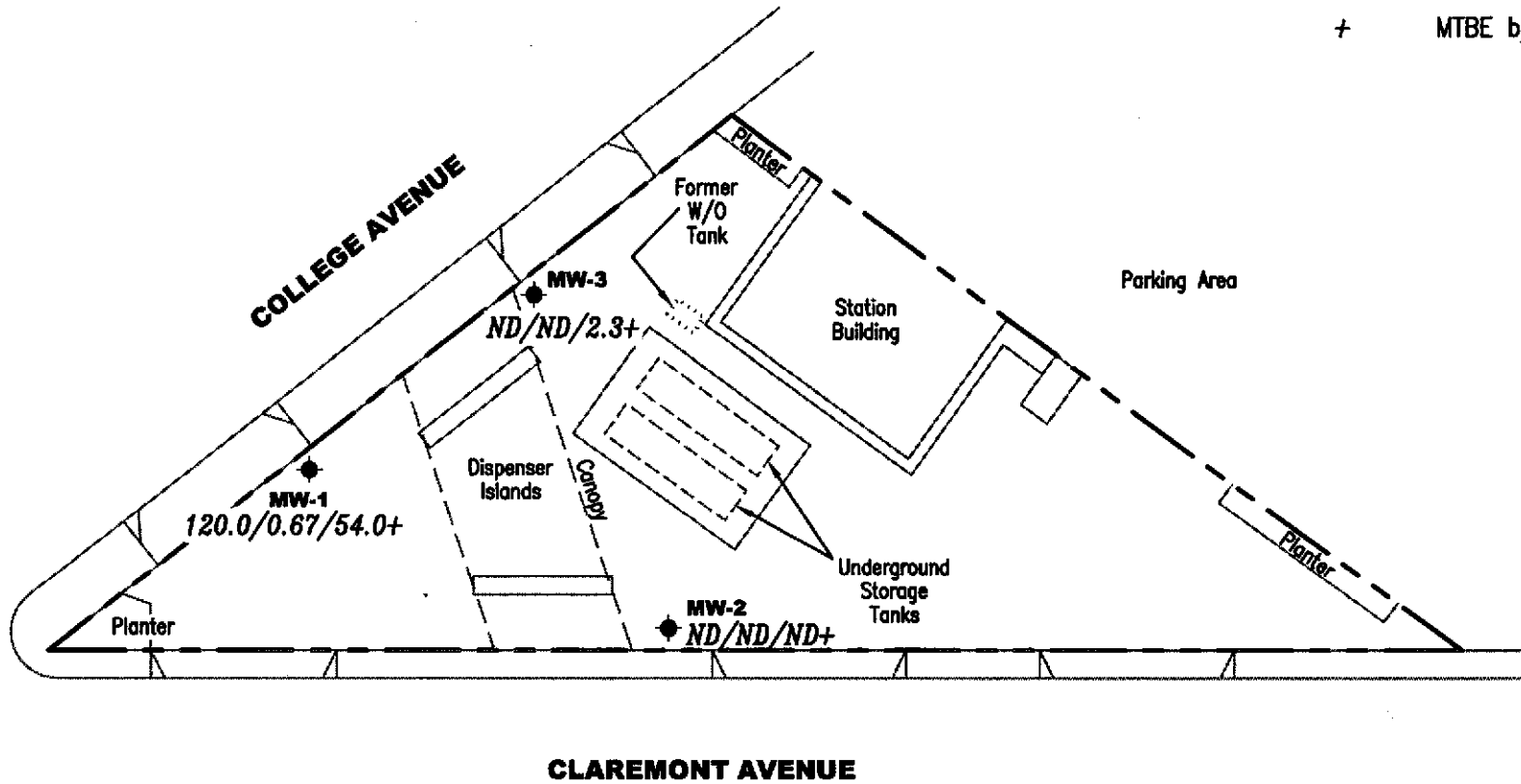
REVIEWED BY

DATE
August 24, 2000

REVISED DATE

EXPLANATION

- ◆ Groundwater monitoring well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/ Benzene/MTBE concentrations in ppb
- + MTBE by EPA Method 8260



Gertler - Ryan Inc.

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

CONCENTRATION MAP
Tosco (76) Service Station No. 0018
6201 Claremont Avenue
Oakland, California

FIGURE

3

PROJECT NUMBER
140061

REVIEWED BY

DATE
August 24, 2000

REVISED DATE

Appendix A

Field Methods and Procedures

**GETTLER-RYAN INC.
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 (MSL).

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.

Groundwater Monitoring and Sampling

Decontamination Procedures

All physical parameter measuring and sampling equipment are decontaminated prior to sample collection using Alconox or equivalent detergent followed by steam cleaning with deionized water. During field sampling, equipment placed in a well are decontaminated before purging or sampling the next well by cleaning with Alconox or equivalent detergent followed by steam cleaning with deionized water.

Water-Level Measurements

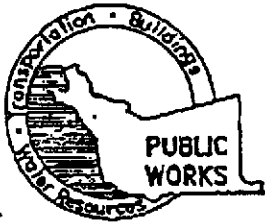
Prior to sampling each well, the static water level is measured using an electric sounder and/or calibrated portable oil-water interface probe. Both static water-level and separate-phase product thickness are measured to the nearest ± 0.01 foot. The presence of separate-phase product is confirmed using a clean, acrylic or polyvinylchloride (PVC) bailer, measured to the nearest ± 0.01 foot with a decimal scale tape. The monofilament line used to lower the bailer is replaced between borings with new line to preclude the possibility of cross-contamination. Field observations (e.g. product color, turbidity, water color, odors, etc.) are noted. Water-levels are measured in wells with known or suspected lowest dissolved chemical concentrations to the highest dissolved concentrations.

Sample Collection and Labeling

A temporary PVC screen is installed in the boring to facilitate a grab groundwater sample collection. Samples of groundwater are collected from the surface of the water in each well or boring using the teflon bailer or a pump. 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.

Appendix B

Well Permits and Boring Logs



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TOSCO 76 Facility No. 0018
6201 CLAREMONT AVENUE
OAKLAND, CA

California Coordinates Source _____ ft. Accuracy ± _____ ft.
N _____ ft. CCE _____ ft.
N _____

CLIENT
Name TOSCO MARKETING COMPANY
Address 200 CROW CYN PL STE 400 Phone 925-277-2384
City SAN RAMON CA Zip 94583

APPLICANT
Name GETTLER-RYAN INC; William McINTOSH
Address 2747 SIERRA CT #2 Fax (925) 551-7888
City DUBLIN CA Phone (925) 551-7535 Zip 94568

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE

New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other ENVIRONMENTAL ✓

DRILLING METHOD:

Mud Rotary Air Rotary Auger
Cable Other (HOLLOW-STEM)

DRILLER'S LICENSE NO 710079 WOODWARD DRILLING

WELL PROJECTS

Drill Hole Diameter 8 in Maximum _____
Casing Diameter 8 in Depth 30 ft.
Surface Seal Depth 8 ft. Number 3

GEOTECHNICAL PROJECTS

Number of Borings _____ Maximum _____
Hole Diameter _____ in Depth _____ ft.

ESTIMATED STARTING DATE 07-11-00
ESTIMATED COMPLETION DATE 07-11-00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-63.

APPLICANT'S SIGNATURE William McIntosh DATE 6-20-00

FOR OFFICE USE

PERMIT NUMBER W00-385
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources - **WELL COMPLETION REPORT**
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.

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.

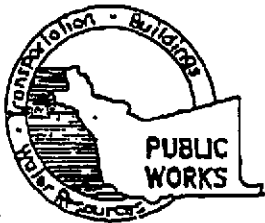
F. WELL DESTRUCTION

See attached.

G. SPECIAL CONDITIONS

APPROVED Shankar Codd DATE 6-21-00

Monitoring Well #1



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TOSCO 76 Facility No. 0018
6201 CLAREMONT AVENUE
OAKLAND, CA

Uniform Coordinates Source _____ ft. Accuracy ± _____ ft.
N _____ ft. CCE _____ ft.
E _____ ft.

CLIENT
Name TOSCO MARKETING COMPANY
Address 200 CROSS CANYON PL STE 400 Phone 925-277-2384
City SAN BARTOLOME CA Zip 94568

APPLICANT
Name GETTLER-RYAN INC; William McIntosh
Address 1747 SIERRA CT #2 Fax (925) 551-7888
City DUBLIN CA Phone (925) 551-7555 Zip 94568

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring Well Destruction

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other ENVIRONMENTAL

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other (Hollow-STEM)

DRILLER'S LICENSE NO 710079 WOODWARD DRILLING

WELL PROJECTS
Drill Hole Diameter 8 in Maximum _____
Casing Diameter 8 in Depth 30 ft.
Surface Seal Depth 8 ft. Number 3

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

ESTIMATED STARTING DATE 07-11-00
ESTIMATED COMPLETION DATE 07-11-00

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

APPLICANT'S SIGNATURE William McIntosh DATE 6-20-00

FOR OFFICE USE

PERMIT NUMBER W00-386
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources - **WELL COMPLETION REPORT**

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 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

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.

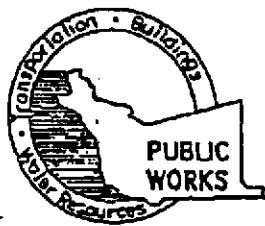
F. WELL DESTRUCTION

See attached.

G. SPECIAL CONDITIONS

APPROVED Shankar Codd DATE 6-21-00

Monitoring Well #2



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TOSCO 76 Facility No. 0018
6201 CLAREMONT AVENUE
OAKLAND, CA

California Coordinates Source _____ ft. Accuracy ± _____ ft.
N _____ ft. CCE _____ ft.
N _____

CLIENT
Name TOSCO MARKETING COMPANY
Address 200 CROW CYN PL STE 400 Phone 925-277-2304
City SAN RAMON CA Zip 94583

APPLICANT
Name GETTLER-RYAN INC; William McINTOSH
Address 747 SIERRA CT #D Fax (925) 551-7888
City DUBLIN CA Phone (925) 551-7585 Zip 94568

TYPE OF PROJECT
Well Construction _____ Geotechnical Investigation _____
Cathodic Protection General C
Water Supply Contamination G
Monitoring Well Destruction C

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation C
Industrial Other ENVIRONMENTAL

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other (HOLLOW-STEM)

DRILLER'S LICENSE NO 710079 WOODWARD DRILLING

WELL PROJECTS
Drill Hole Diameter 8 in Maximum _____
Casing Diameter 2 in Depth 30 ft.
Surface Seal Depth 8 ft. Number 3

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

ESTIMATED STARTING DATE 07-11-00
ESTIMATED COMPLETION DATE 07-11-00

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

APPLICANT'S SIGNATURE William McIntosh DATE 6-20-00

FOR OFFICE USE

PERMIT NUMBER W00-387
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL**
 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources WELL COMPLETION REPORT
 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.
- 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**

APPROVED Shankar C. ... DATE 6/21/00

Monitoring Well #3

Gettler-Ryan, Inc.

Log of Boring MW-1

PROJECT: *Tosco (76) Service Station No. 0018*

LOCATION: *6201 Claremont Blvd., Oakland, California*

GR PROJECT NO.: *140061.03*

CASING ELEVATION:

DATE STARTED: *07/11/00*

WL (ft. bgs): *20.4* DATE: *07/11/00* TIME: *09:25*

DATE FINISHED: *07/11/00*

WL (ft. bgs): *16.95* DATE: *07/11/00* TIME: *14:20*

DRILLING METHOD: *8 in. Hollow Stem Auger*

TOTAL DEPTH: *30.5 feet*

DRILLING COMPANY: *Woodward Drilling*

GEOLOGIST: *Skip McIntosh*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
0						FILL	Asphalt - 3 inches thick. Clay, silt and gravel (fill).	
5	0	24				SM	SILTY SAND (SM) - dark yellowish brown (10YR 4/4), moist, medium dense; 60% sand, 30% silt, 10% gravel, roots.	
						ML	SILT WITH SAND (ML) - very dark grayish brown (10YR 3/2), moist, very stiff; 65-70% silt, 25% sand, 5-10% gravel, trace of clay.	
10	0	27					At 10 feet color changes to dark yellowish brown (10YR 4/6), becomes 75% silt, 20% sand, 5% clay, trace of gravel to 5/8 inch diameter.	
15	1.6	12	MW-1-15				SANDY SILT (ML) - gray green (5GY 4/1), damp to wet, stiff; 60% silt, 40% fine sand, trace of gravel to 1/2 inch diameter.	
20	63	16					SILT WITH SAND (ML) - dark yellowish brown (10YR 4/6) mottled with dark olive gray (5Y 3/2), moist, stiff; 75% silt, 15% sand, 10% clay, trace of gravel.	
25	118	24	MW-1-25.5				At 25 feet color changes to brownish yellow (10YR 6/8) with black streaks, becomes moist, very stiff.	
30	0	16				SM	SILTY SAND (SM) - dark yellowish brown (10YR 4/4), wet, medium dense; 65% sand, 25% silt, 10% rounded gravel.	
35							Bottom of boring at 30.5 feet bgs. (* = converted to equivalent standard penetration blows/foot.)	

Gettler-Ryan, Inc.

Log of Boring MW-2

PROJECT: *Tosco (76) Service Station No. 0018*

LOCATION: *6201 Claremont Blvd., Oakland, California*

GR PROJECT NO.: *140061.03*

CASING ELEVATION:

DATE STARTED: *07/11/00*

WL (ft. bgs): *28.5* DATE: *07/11/00* TIME: *11:30*

DATE FINISHED: *07/11/00*

WL (ft. bgs): *18.1* DATE: *07/11/00* TIME: *14:28*

DRILLING METHOD: *8 in. Hollow Stem Auger*

TOTAL DEPTH: *30 feet*

DRILLING COMPANY: *Woodward Drilling*

GEOLOGIST: *Skip McIntosh*

DEPTH (feet)	PTD (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
							Concrete - 6 inches thick.	
5	0	21				ML	SANDY SILT (ML) - dark brown (10YR 2/2), moist, stiff; 45-50% silt, 40% sand, 10-15% gravel to 1/2 inch diameter.	
						SM	SILTY SAND (SM) - dark yellowish brown (10YR 3/4) mottled with red and light yellow brown, moist, medium dense; 60% sand, 25% silt, 15% gravel, trace of clay.	
10	0	30				ML	SANDY SILT (ML) - dark yellowish brown (10YR 4/4), moist, very stiff; 60% silt, 35% sand, 5% clay, trace of gravel.	
15	0	10	MW-2-16			SM	SILTY SAND WITH GRAVEL (SM) - dark yellowish brown (10YR 4/4), moist, dense; 55% sand, 35% silt, 10% gravel, trace of clay.	
20	0	46	MW-2-20.5			GM	SILTY GRAVEL WITH SAND (GM) - dark yellowish brown (10YR 4/6), moist, dense; 65% gravel to 2 inch diameter, 15% silt, 15% sand, 5% clay.	
25	0	54				ML GM	SILT WITH SAND (ML) - dark yellowish brown (10YR 4/8), moist, hard; 75% silt, 15% sand, 10% clay, trace of gravel. WELL GRADED GRAVEL WITH SILT AND SAND (GM) - dark yellowish brown (10YR 3/6), wet, very dense; 45% gravel, 20%	
30	0	15				ML	SILTY SAND (ML) - dark yellowish brown (10YR 3/6), medium dense; 70-80% sand, 15-20% silt, 10% gravel. gravelly sand lens from 29-29.5 feet. Bottom of boring at 30 feet bgs. (* = converted to equivalent standard penetration blows/foot.)	
35								

Gettler-Ryan, Inc.

Log of Boring MW-3

PROJECT: *Tosco (76) Service Station No. 0018*

LOCATION: *6201 Claremont Blvd., Oakland, California*

GR PROJECT NO.: *140061.03*

CASING ELEVATION:

DATE STARTED: *07/11/00*

WL (ft. bgs): *20* DATE: *07/11/00* TIME: *12:40*

DATE FINISHED: *07/11/00*

WL (ft. bgs): *17.95* DATE: *07/11/00* TIME: *14:38*

DRILLING METHOD: *8 in. Hollow Stem Auger*

TOTAL DEPTH: *30 feet*

DRILLING COMPANY: *Woodward Drilling*

GEOLOGIST: *Skip McIntosh*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
						FILL	Concrete - 3 inches thick. Fill.	
5	0	8				ML	SANDY SILT (ML) - dark brown (10YR 2/2), moist, medium stiff; 60% silt, 35% poorly sorted sand, 5% clay, trace of gravel to 3/4 inch diameter. 4 inch gravel lens at 6 feet; rounded clasts to 2 inches. Color changes to grayish green (5G 5/2) at 9.5 feet, becomes stiff. Color changes to grayish green (5G 5/2) with 20% brown patches, becomes very stiff.	
10	0	26					Color changes to light olive gray (5Y 6/2), becomes very moist, stiff; 70% silt, 30% sand, trace of root holes.	
15	0	14						
	0	10	MW-3-18					
20	0	28				SM	SILTY SAND WITH GRAVEL (SM) - dark yellowish brown (10YR 4/4) with gray green patches, very moist, medium dense; 55% sand, 30% silt, 15% gravel, roots. Becomes water saturated at 20 feet.	
							SILTY SAND (SM) - dark yellowish brown (10YR 4/4) wet, medium dense; 65-70% sand, 30-35% silt.	
25	0	40					Color changes to dark yellowish brown (10YR 4/6), dense; 65% sand, 35% silt, trace of clay.	
						ML	SILT WITH SAND (ML) - brown (10YR 4/3) mottled with dark yellowish brown (10YR 4/6), wet, very stiff; 70% silt, 20% sand, 10% clay.	
30							Bottom of boring at 30 feet bgs. (* = converted to equivalent standard penetration blows/foot.)	

Appendix C

Surveyor's Report

Virgil Chavez Land Surveying

312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

August 17, 2000
Project No. 1824-13

Skip McIntosh
Gettler-Ryan, Inc.
6747 Sierra Court, Suite J
Dublin, Ca. 94568-2611

Subject: Monitoring Well Survey
Tosco 78 Service Station #0018
6201 Claremont Ave.
Oakland, Ca.

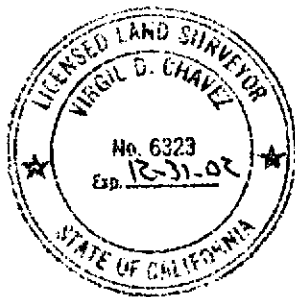
Dear Skip:

This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was performed on August 3, 2000. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue. The station and offset data are relative to the existing building face. Measurements taken at approximate north side of top of box and top of casing.

Benchmark Elevation = 179.075 feet, MSL.

<u>Well No.</u>	<u>Rim Elevation</u>	<u>TOC Elevation</u>	<u>Station</u>	<u>Offset</u>
MW - 1	208.56'	208.15'	0+82.77	-59.60 (Lt)
MW - 2	210.55'	210.27'	0+14.20	-42.70 (Lt)
MW - 3	209.29'	208.98'	0+68.00	-12.28 (Lt)
Southeast Bldg Cor.			0+00	0.00
Southwest Bldg Cor.			0+40.62	0.00

Sincerely,



Virgil D. Chavez
Virgil D. Chavez, PLS 6323

Appendix D

Forward Acceptance Letter



NORTHERN CALIFORNIA SALES OFFICE • SPECIAL WASTE

Forward • Keller Canyon • Newby Island • Ox Mountain



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

Attn: Mr. McIntosh

Re: Approval No. 972100
Gasoline Contaminated Soil
6201 Claremont Ave

Dear Mr. McIntosh:

FORWARD INC. is pleased to inform you that the approximately 5 tons of Gasoline Contaminated Soil from the referenced site has been approved for acceptance at our Manteca, California Landfill as a Class 2 waste. This approval has been based on the information provided in the waste profile and associated materials submitted on behalf of Tosco Marketing Company (Generator). Acceptance of the waste is subject to regulatory requirements, and is also subject to the "Terms and Conditions" agreed to and signed by Generator in the waste profile.

Your approval number for this project will be 972100. This number should be used in all scheduling and correspondence with **FORWARD, INC.** regarding this waste profile.

This profile shall remain in effect until August 2, 2001, or until any significant changes in the waste stream occur. At that time, **FORWARD, INC.** will re-evaluate the profile, and current analytical data and requirements will be reviewed.

Please schedule all waste shipments with the Landfill (209-982-4298) at least 24 hours in advance. The landfills hours of operation are Monday through Friday 6:00 am to 6:00 pm for soil, 6:00 am to 3:00 pm for asbestos, 6:00 am to 5:00 pm for all other waste types.

Thank you for the opportunity to be of service. Should you have any questions, please do not hesitate to contact me or our Customer Service at (800) 204-4242.

Sincerely,

Allied Waste Industries

Brad Bonner/dc
Brad J. Bonner
Special Waste Sales Manager
Northern, CA

BJB/dc

F:\FORWARD\MERGE FORMS\VACCEPT.DOC

1145 West Charter Way, Stockton, CA 95206 Phone 800.204.4242 Fax 209.466.1067

Appendix E

Chemical Analysis Reports and Chain of Custody Forms



Sequoia Analytical

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

27 July, 2000

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

RE: Tosco
Sequoia Report W007225

Enclosed are the results of analyses for samples received by the laboratory on 12-Jul-00 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: W. Skip McIntosh

Reported:
27-Jul-00 10:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1-15'	W007225-01	Soil	12-Jul-00 08:30	12-Jul-00 16:30
MW1-25.5'	W007225-02	Soil	12-Jul-00 08:45	12-Jul-00 16:30
MW2-16'	W007225-03	Soil	12-Jul-00 10:30	12-Jul-00 16:30
MW2-20.5'	W007225-04	Soil	12-Jul-00 10:45	12-Jul-00 16:30
MW3-18'	W007225-05	Soil	12-Jul-00 12:30	12-Jul-00 16:30





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: W. Skip McIntosh

Reported:
27-Jul-00 10:47

**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
MW1-15' (W007225-01) Soil Sampled: 12-Jul-00 08:30 Received: 12-Jul-00 16:30									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0G19002	19-Jul-00	19-Jul-00	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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		110 %	40-140		"	"	"	"	
MW1-25.5' (W007225-02) Soil Sampled: 12-Jul-00 08:45 Received: 12-Jul-00 16:30 P-04									
Purgeable Hydrocarbons	19	1.0	mg/kg	20	0G19002	19-Jul-00	19-Jul-00	EPA 8015/8020	
Benzene	0.018	0.0050	"	"	"	"	"	"	
Toluene	0.035	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.056	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.12	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		68.7 %	40-140		"	"	"	"	
MW2-16' (W007225-03) Soil Sampled: 12-Jul-00 10:30 Received: 12-Jul-00 16:30									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0G19002	19-Jul-00	19-Jul-00	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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.7 %	40-140		"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: W. Skip McIntosh

Reported:
27-Jul-00 10:47

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
MW2-20.5' (W007225-04) Soil Sampled: 12-Jul-00 10:45 Received: 12-Jul-00 16:30									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0G19002	19-Jul-00	19-Jul-00	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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	40-140		"	"	"	"	
MW3-18' (W007225-05) Soil Sampled: 12-Jul-00 12:30 Received: 12-Jul-00 16:30									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0G19002	19-Jul-00	19-Jul-00	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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.3 %	40-140		"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: W. Skip McIntosh

Reported:
27-Jul-00 10:47

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 0G19002 - EPA 5030B [MeOH]

Blank (0G19002-BLK1)

Prepared & Analyzed: 19-Jul-00

Purgeable Hydrocarbons	ND	1.0	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>	0.608		"	0.600		101	40-140			

LCS (0G19002-BS1)

Prepared & Analyzed: 19-Jul-00

Benzene	0.622	0.0050	mg/kg	0.800		77.7	50-150			
Toluene	0.650	0.0050	"	0.800		81.2	50-150			
Ethylbenzene	0.700	0.0050	"	0.800		87.5	50-150			
Xylenes (total)	2.10	0.0050	"	2.40		87.5	50-150			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	0.698		"	0.600		116	40-140			

Matrix Spike (0G19002-MS1)

Source: W007165-05

Prepared & Analyzed: 19-Jul-00

Benzene	0.652	0.0050	mg/kg	0.800	ND	81.5	50-150			
Toluene	0.684	0.0050	"	0.800	ND	85.5	50-150			
Ethylbenzene	0.730	0.0050	"	0.800	ND	91.3	50-150			
Xylenes (total)	2.16	0.0050	"	2.40	ND	90.0	50-150			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	0.600		"	0.600		100	40-140			

Matrix Spike Dup (0G19002-MSD1)

Source: W007165-05

Prepared & Analyzed: 19-Jul-00

Benzene	0.670	0.0050	mg/kg	0.800	ND	83.8	50-150	2.72	20	
Toluene	0.712	0.0050	"	0.800	ND	89.0	50-150	4.01	20	
Ethylbenzene	0.760	0.0050	"	0.800	ND	95.0	50-150	4.03	20	
Xylenes (total)	2.23	0.0050	"	2.40	ND	92.9	50-150	3.19	20	
<i>Surrogate: a, a, a-Trifluorotoluene</i>	0.606		"	0.600		101	40-140			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: W. Skip McIntosh

Reported:
27-Jul-00 10:47

Notes and Definitions

P-04 Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12

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

27 July, 2000

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

RE: Tosco
Sequoia Report W007223

Enclosed are the results of analyses for samples received by the laboratory on 12-Jul-00 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





Sequoia Analytical

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

7 September, 2000

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

RE: Tosco
Sequoia Report W008550

Enclosed are the results of analyses for samples received by the laboratory on 24-Aug-00 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W008550-01	Water	24-Aug-00 00:00	24-Aug-00 15:50
MW-1	W008550-02	Water	24-Aug-00 14:20	24-Aug-00 15:50
MW-2	W008550-03	Water	24-Aug-00 12:58	24-Aug-00 15:50
MW-3	W008550-04	Water	24-Aug-00 13:40	24-Aug-00 15:50

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.

Charlie Westwater, Project Manager

Page 1 of 10





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

**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
TB-LB (W008550-01) Water Sampled: 24-Aug-00 00:00 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	ND	50	ug/l	1	0H30002	30-Aug-00	30-Aug-00	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>		96.0 %	70-130	"	"	"	"	"	
MW-1 (W008550-02) Water Sampled: 24-Aug-00 14:20 Received: 24-Aug-00 15:50 P-01									
Purgeable Hydrocarbons	120	50	ug/l	1	0H30002	30-Aug-00	30-Aug-00	EPA 8015M/8020	
Benzene	0.67	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	0.86	0.50	"	"	"	"	"	"	
Xylenes (total)	1.4	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	54	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	70-130	"	"	"	"	"	
MW-2 (W008550-03) Water Sampled: 24-Aug-00 12:58 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	ND	50	ug/l	1	0H30003	30-Aug-00	30-Aug-00	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>		99.7 %	70-130	"	"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
06-Oct-00 10:31

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
MW-3 (W008550-04) Water Sampled: 24-Aug-00 13:40 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	ND	50	ug/l	1	0H31003	31-Aug-00	31-Aug-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	4.7	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		102 %		70-130	"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W008550-02) Water Sampled: 24-Aug-00 14:20 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	01-Sep-00	01-Sep-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	54	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		102 %	50-150		"	"	"	"	
MW-2 (W008550-03) Water Sampled: 24-Aug-00 12:58 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	29-Aug-00	30-Aug-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		94.0 %	50-150		"	"	"	"	
MW-3 (W008550-04) Water Sampled: 24-Aug-00 13:40 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	29-Aug-00	30-Aug-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	2.3	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	50-150		"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

**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
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Batch 0H30002 - EPA 5030B [P/T]

Blank (0H30002-BLK1)

Prepared & Analyzed: 30-Aug-00

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	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.7		"	30.0		99.0	70-130			

LCS (0H30002-BS1)

Prepared & Analyzed: 30-Aug-00

Benzene	16.4	0.50	ug/l	20.0		82.0	70-130			
Toluene	17.8	0.50	"	20.0		89.0	70-130			
Ethylbenzene	19.4	0.50	"	20.0		97.0	70-130			
Xylenes (total)	59.1	0.50	"	60.0		98.5	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	27.3		"	30.0		91.0	70-130			

Matrix Spike (0H30002-MS1)

Source: W008461-02

Prepared & Analyzed: 30-Aug-00

Benzene	18.5	0.50	ug/l	20.0	ND	92.5	70-130			
Toluene	19.7	0.50	"	20.0	ND	98.5	70-130			
Ethylbenzene	20.3	0.50	"	20.0	ND	101	70-130			
Xylenes (total)	61.3	0.50	"	60.0	ND	102	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	30.1		"	30.0		100	70-130			

Matrix Spike Dup (0H30002-MSD1)

Source: W008461-02

Prepared & Analyzed: 30-Aug-00

Benzene	17.7	0.50	ug/l	20.0	ND	88.5	70-130	4.42	20	
Toluene	19.2	0.50	"	20.0	ND	96.0	70-130	2.57	20	
Ethylbenzene	20.3	0.50	"	20.0	ND	101	70-130	0	20	
Xylenes (total)	61.5	0.50	"	60.0	ND	103	70-130	0.326	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.5		"	30.0		98.3	70-130			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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
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Batch 0H30003 - EPA 5030B [P/T]

Blank (0H30003-BLK1)

Prepared & Analyzed: 30-Aug-00

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	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.5		"	30.0		98.3	70-130			

LCS (0H30003-BS1)

Prepared & Analyzed: 30-Aug-00

Benzene	19.3	0.50	ug/l	20.0		96.5	70-130			
Toluene	19.4	0.50	"	20.0		97.0	70-130			
Ethylbenzene	19.6	0.50	"	20.0		98.0	70-130			
Xylenes (total)	56.9	0.50	"	60.0		94.8	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.0		"	30.0		96.7	70-130			

Matrix Spike (0H30003-MS1)

Source: W008473-02

Prepared & Analyzed: 30-Aug-00

Benzene	18.2	0.50	ug/l	20.0	ND	91.0	70-130			
Toluene	18.2	0.50	"	20.0	ND	91.0	70-130			
Ethylbenzene	18.4	0.50	"	20.0	ND	92.0	70-130			
Xylenes (total)	52.9	0.50	"	60.0	ND	88.2	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.1		"	30.0		97.0	70-130			

Matrix Spike Dup (0H30003-MSD1)

Source: W008473-02

Prepared & Analyzed: 30-Aug-00

Benzene	18.4	0.50	ug/l	20.0	ND	92.0	70-130	1.09	20	
Toluene	18.5	0.50	"	20.0	ND	92.5	70-130	1.63	20	
Ethylbenzene	18.7	0.50	"	20.0	ND	93.5	70-130	1.62	20	
Xylenes (total)	53.6	0.50	"	60.0	ND	89.3	70-130	1.31	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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
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Batch 0H31003 - EPA 5030B [P/T]

Blank (0H31003-BLK1)

Prepared & Analyzed: 31-Aug-00

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: <i>a,a,a</i> -Trifluorotoluene	30.5		"	30.0		102	70-130			

LCS (0H31003-BS1)

Prepared & Analyzed: 31-Aug-00

Benzene	18.8	0.50	ug/l	20.0		94.0	70-130			
Toluene	18.9	0.50	"	20.0		94.5	70-130			
Ethylbenzene	19.1	0.50	"	20.0		95.5	70-130			
Xylenes (total)	54.9	0.50	"	60.0		91.5	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	29.7		"	30.0		99.0	70-130			

LCS Dup (0H31003-BSD1)

Prepared & Analyzed: 31-Aug-00

Benzene	20.0	0.50	ug/l	20.0		100	70-130	6.19	20	
Toluene	20.1	0.50	"	20.0		101	70-130	6.15	20	
Ethylbenzene	20.3	0.50	"	20.0		101	70-130	6.09	20	
Xylenes (total)	58.2	0.50	"	60.0		97.0	70-130	5.84	20	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	31.6		"	30.0		105	70-130			





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 0018 Project Manager: Deanna L. Harding	Reported: 07-Sep-00 08:56
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**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
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Batch 0H29015 - EPA 5030B [P/T]

Blank (0H29015-BLK1)			Prepared & Analyzed: 29-Aug-00							
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
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	"							
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	43.0		"	50.0		86.0	50-150			

Blank (0H29015-BLK2)			Prepared & Analyzed: 01-Sep-00							
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
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	"							
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			

LCS (0H29015-BS1)			Prepared & Analyzed: 29-Aug-00							
Methyl tert-butyl ether	41.7	2.0	ug/l	50.0		83.4	70-130			
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	42.0		"	50.0		84.0	50-150			

LCS (0H29015-BS2)			Prepared & Analyzed: 01-Sep-00							
Methyl tert-butyl ether	40.7	2.0	ug/l	50.0		81.4	70-130			
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	45.0		"	50.0		90.0	50-150			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

**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
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Batch 0H29015 - EPA 5030B [P/T]

Matrix Spike (0H29015-MS1)		Source: W008552-07			Prepared & Analyzed: 29-Aug-00					
Methyl tert-butyl ether	43.2	2.0	ug/l	50.0	ND	86.4	60-150			
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	41.0		"	50.0		82.0	50-150			
Matrix Spike Dup (0H29015-MSD1)		Source: W008552-07			Prepared & Analyzed: 29-Aug-00					
Methyl tert-butyl ether	46.6	2.0	ug/l	50.0	ND	93.2	60-150	7.57	25	
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	43.0		"	50.0		86.0	50-150			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

Notes and Definitions

P-01 Chromatogram Pattern: Gasoline C6-C12
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





Tosco Marketing Company
3000 Civic Center Pl., Ste. 400
San Ramon, California 94583

Facility Number TOSCO # 0018
 Facility Address 6201 Alameda Blvd. OAKLAND
 Consultant Project Number 14006103
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name) Mr. Dave Dewitt
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number W002550
 Samples Collected by (Name) BOB K. AND HAIG K.
 Collection Date 8/24/2000
 Signature [Handwritten Signatures]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analytes To Be Performed											DO NOT BILL TB-LB ANALYSIS	Remarks				
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	(6) Oxy Compounds								
TB-LB	01A	1	W	G		HCL	YES	✓																
MW-1	01A	5	W	G	14:20	HCL	YES	✓																
MW-2	01A	5	W	G	12:58	HCL	YES	✓																
MW-3	01A	5	W	G	13:40	HCL	YES	✓																

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>8/24/00</u>	Received By (Signature) _____	Organization _____	Date/Time _____	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>[Signature]</u>	Date/Time <u>8/24/00 15:50</u>		

APPENDIX F

**WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET**



GETTLER-RYAN INC.

DAILY SAMPLING REPORT

Site Location: TOSCO #0018
6201 Claremont Blvd.
OAKLAND, CA

Job # 140061.03

Date: 8/24/00

DESCRIPTION OF WORK PERFORMED:

Monitor 3
Purge 3
Sample 3
Develop 3

Total # of Wells @ site: 3

Water levels only: _____

Monitored/Sampled: 3 / 3

Bailed Product: Ø

PURGING EQUIPMENT:

Disposal bailer _____
Teflon bailer _____
3/8" stack pumps ✓
1" double diaphragm _____
Grundfo's _____

OTHER EQUIPMENT:

Gloves 12
Bailer cord 120
Well plug size _____ # _____

CHECK LIST:

Transfer Purge Water To:
Drums on site: _____
Holding tank: ✓
Total Purge Water (gals): 58 + RINSATE ONE DRUM

Sampling Truck: MP4

Purge water trailer: _____

Traffic Control: _____

Arrow board/road signs/cones ○

SAMPLING EQUIPMENT:

Teflon bailer _____
Disposable bailer 3
Grab sample _____
Pressure bailer _____

SPECIAL EQUIPMENT:

Turbidity Meter _____
D O Meter _____
Re-Dox Meter _____
Alkalinity test _____

COMMENTS: RINSATE WATER ≈ 50 GAL. DATED 7/11/00
PUMPED OUT FROM ONE DRUM. THE 55-gal BLACK
DRUM IS EMPTY AND LOCATED NEXT TO STOCKPILED SOIL

Sampled by: Hana K / P & G

Assistant: _____

NOTE: DEALER WANTS STOCKPILE
OUT ASAP - SPACE LIMITATION
Time Billed: 4 1/2 Hrs

PLUS 1.5 Hrs PUMP OUT
RINSATE WATER FROM DRUM & CLEAN



MONITORING WELL
OBSERVATION SUMMARY SHEET

TOSCO FACILITY #: 0018 G-R JOB #: 140061.03

LOCATION: 6201 Claremont Blvd. DATE: 8-24-00

CITY: OAKLAND, CA TIME: _____

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments Volume
<u>MW-1</u>	<u>30.00</u>	<u>18.55</u>	<u>d</u>	<u>TOC</u>	<u>19 20</u>
<u>MW-2</u>	<u>30.00</u>	<u>19.69</u>	<u>d</u>	<u>↓</u>	<u>18</u>
<u>MW-3</u>	<u>30.00</u>	<u>18.68</u>	<u>d</u>	<u>↓</u>	<u>20</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: _____

Sampler: Hayk / Bob G. Assistant: _____

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (76) #0018
 6201 Claremont Boulevard
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MI/BE (ppb)
MW-1 208.15	08/24/00	18.55	10.0-30.0	189.60	120 ¹	0.67	ND	0.86	1.4	54/54 ²
MW-2 210.27	08/24/00	19.69	10.0-30.0	190.58	ND	ND	ND	ND	ND	ND/ND ²
MW-3 208.98	08/24/00	18.68	10.0-30.0	190.30	ND	ND	ND	ND	ND	4.7/2.3 ²
Trip Blank TB-LB	08/24/00	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (76) #0018
6201 Claremont Boulevard
Oakland, California

EXPLANATIONS:

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

S.I. = Screen Interval

(ft. bgs.) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean seal level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

- * TOC elevations have been surveyed relative to Mean Sea Level (msl), per the city of Oakland benchmark; a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue. The station and offset data are relative to the existing building face. Measurements taken at approximate north side of top of box and top of casing. Benchmark elevation = 179.075 feet, msl.

¹ Laboratory report indicates gasoline C6-C12.

² MTBE by EPA Method 8260.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (76) #0018
 6201 Claremont Boulevard
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-1	08/24/00	ND	ND	54	ND	ND	ND
MW-2	08/24/00	ND	ND	ND	ND	ND	ND
MW-3	08/24/00	ND	ND	2.3	ND	ND	ND

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 ppb = Parts per billion
 ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

STANDARD OPERATING PROCEDURE - 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 an 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, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken 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.

**WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET**

Client/Facility: TOSCO # 0018 Job#: 140061.03
 Address: 6201 Claremont Blvd. Date: 8-24-00
 City: OAKLAND, CA Sampler: Bob G / Heig K

Well ID: MW-1 Well Condition: Good

Well Diameter: 2" in. Hydrocarbon Thickness: 0 Ft. Amount Bailed (product/water): 0 (gal.)

Total Depth: 30.00 ft.
 Depth to Water: 18.55 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.45 x VF 0.17 = 1.9 x 10 (case volume) = Estimated Purge Volume: 19 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 13:48 Weather Conditions: Sunny
 Sampling Time: 14:20 Water Color: Cloudy Odor: _____
 Purging Flow Rate: 21 gpm. Sediment Description: _____
 Did well de-water? NO If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:52</u>	<u>2</u>	<u>7.55</u>	<u>833</u>	<u>73.0</u>	_____	_____	_____
<u>13:54</u>	<u>6</u>	<u>7.35</u>	<u>725</u>	<u>71.6</u>	_____	_____	_____
<u>13:58</u>	<u>10</u>	<u>7.33</u>	<u>698</u>	<u>71.2</u>	_____	_____	_____
<u>14:02</u>	<u>14</u>	<u>7.29</u>	<u>609</u>	<u>72.0</u>	_____	_____	_____
<u>14:05</u>	<u>17</u>	<u>7.27</u>	<u>604</u>	<u>71.9</u>	_____	_____	_____
<u>14:08</u>	<u>20</u>	<u>7.26</u>	<u>613</u>	<u>71.5</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>5x VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQ</u>	<u>TPH/G/BTEX/mibp</u>
_____	_____	_____	<u>"</u>	<u>"</u>	<u>(6) OXYS by 8260</u>
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET**

Client/Facility: TOSCO # 0018 Job#: 140061.03
 Address: 6201 Claremont Blvd. Date: 8-24-00
 City: OAKLAND, CA Sampler: Haig K / Bob G

Well ID: MW-3 Well Condition: Good
 Well Diameter: 2" in. Hydrocarbon Amount Bailed
 Thickness: Ft. (product/water): (gal.)
 Total Depth: 30.00 ft.
 Depth to Water: 18.6 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.32 x VF 0.17 = 1.9 x 3 (case volume) = Estimated Purge Volume: 19 (gal.)

Purge Equipment: Disposable Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 13:10 Weather Conditions: Sunny
 Sampling Time: 13:40 Water Color: Steady Clear Odor: NO
 Purging Flow Rate: ~1 gpm. Sediment Description: _____
 Did well de-water? NO If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:12	2	7.62	791	70.4			
13:16	6	7.41	613	68.1			
13:20	10	7.39	608	67.8			
13:24	14	7.35	626	67.3			
13:27	17	7.35	610	67.1			
13:30	20	7.32	601	67.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	X VOA VIAL	Y	HCL	SEQ	TPH/G/BTEX/mbc
			"	"	(6) ORYS by 8262

COMMENTS: _____



Sequoia Analytical

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

7 September, 2000

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

RE: Tosco
Sequoia Report: W008550

Enclosed are the results of analyses for samples received by the laboratory on 24-Aug-00 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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
TB-LB (W008550-01) Water Sampled: 24-Aug-00 00:00 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	ND	50	ug/l	1	0H30002	30-Aug-00	30-Aug-00	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>		96.0 %		70-130	"	"	"	"	
MW-1 (W008550-02) Water Sampled: 24-Aug-00 14:20 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	120	50	ug/l	1	0H30002	30-Aug-00	30-Aug-00	EPA 8015M/8020	
Benzene	0.67	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	0.86	0.50	"	"	"	"	"	"	
Xylenes (total)	1.4	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	54	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %		70-130	"	"	"	"	P-01
MW-2 (W008550-03) Water Sampled: 24-Aug-00 12:58 Received: 24-Aug-00 15:50									
Purgeable Hydrocarbons	ND	50	ug/l	1	0H30003	30-Aug-00	30-Aug-00	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>		99.7 %		70-130	"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W008550-02) Water Sampled: 24-Aug-00 14:20 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	01-Sep-00	01-Sep-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	54	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		102 %	50-150		"	"	"	"	
MW-2 (W008550-03) Water Sampled: 24-Aug-00 12:58 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	29-Aug-00	30-Aug-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		94.0 %	50-150		"	"	"	"	
MW-3 (W008550-04) Water Sampled: 24-Aug-00 13:40 Received: 24-Aug-00 15:50									
Ethanol	ND	500	ug/l	1	0H29015	29-Aug-00	30-Aug-00	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	2.3	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	50-150		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	50-150		"	"	"	"	





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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 0H30003 - EPA 5030B [P/T]

Blank (0H30003-BLK1)

Prepared & Analyzed: 30-Aug-00

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	"							

<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.5		"	30.0		98.3	70-130			
--	------	--	---	------	--	------	--------	--	--	--

LCS (0H30003-BS1)

Prepared & Analyzed: 30-Aug-00

Benzene	19.3	0.50	ug/l	20.0		96.5	70-130			
Toluene	19.4	0.50	"	20.0		97.0	70-130			
Ethylbenzene	19.6	0.50	"	20.0		98.0	70-130			
Xylenes (total)	56.9	0.50	"	60.0		94.8	70-130			

<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.0		"	30.0		96.7	70-130			
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Matrix Spike (0H30003-MS1)

Source: W008473-02

Prepared & Analyzed: 30-Aug-00

Benzene	18.2	0.50	ug/l	20.0	ND	91.0	70-130			
Toluene	18.2	0.50	"	20.0	ND	91.0	70-130			
Ethylbenzene	18.4	0.50	"	20.0	ND	92.0	70-130			
Xylenes (total)	52.9	0.50	"	60.0	ND	88.2	70-130			

<i>Surrogate: a,a,a-Trifluorotoluene</i>	29.1		"	30.0		97.0	70-130			
--	------	--	---	------	--	------	--------	--	--	--

Matrix Spike Dup (0H30003-MSD1)

Source: W008473-02

Prepared & Analyzed: 30-Aug-00

Benzene	18.4	0.50	ug/l	20.0	ND	92.0	70-130	1.09	20	
Toluene	18.5	0.50	"	20.0	ND	92.5	70-130	1.63	20	
Ethylbenzene	18.7	0.50	"	20.0	ND	93.5	70-130	1.62	20	
Xylenes (total)	53.6	0.50	"	60.0	ND	89.3	70-130	1.31	20	

<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130			
--	------	--	---	------	--	------	--------	--	--	--





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

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
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Batch 0H29015 - EPA 5030B [P/T]

Blank (0H29015-BLK1) Prepared & Analyzed: 29-Aug-00										
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
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	"							
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	43.0		"	50.0		86.0	50-150			

Blank (0H29015-BLK2) Prepared & Analyzed: 01-Sep-00										
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
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	"							
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			

LCS (0H29015-BS1) Prepared & Analyzed: 29-Aug-00										
Methyl tert-butyl ether	41.7	2.0	ug/l	50.0		83.4	70-130			
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	42.0		"	50.0		84.0	50-150			

LCS (0H29015-BS2) Prepared & Analyzed: 01-Sep-00										
Methyl tert-butyl ether	40.7	2.0	ug/l	50.0		81.4	70-130			
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	45.0		"	50.0		90.0	50-150			





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

Project: Tosco
Project Number: Tosco # 0018
Project Manager: Deanna L. Harding

Reported:
07-Sep-00 08:56

Notes and Definitions

P-01 Chromatogram Pattern: Gasoline C6-C12
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

