RO-459

GETTLER-RYAN INC.

DEC 07 2001

TRANSMITTAL

TO: Mr. David B. De Witt
Phillips 66 Company
2000 Crow Canyon Place, Suite 400
San Ramon, California

DATE: December 4, 2001
PROJ. #: 140101.04-2
SUBJECT: Well Installation Report
Tosco (76) Station No. 6419
6401 Dublin Boulevard
Dublin, 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 draft 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 Service, 1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502-7577.

GETTLER-RYAN INC.

MONITORING WELL INSTALLATION REPORT

for

Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, California

Report No. 140101.04-2

Prepared for:

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December 3, 2001

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

MONITORING WELL INSTALLATION REPORT

for

Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, California

Report No.140101.04-2

1.0 INTRODUCTION

At the request of Tosco Marketing Company (Tosco), Gettler-Ryan Inc. (GR) has prepared this report presenting the observations associated with the installation of two off-site monitoring wells at the subject site. The purpose of this investigation was to further evaluate the groundwater and soil conditions beneath the subject site. This work was originally proposed in GR Report No. 140101.04-1, *Work Plan for Monitoring Well Installation,* dated August 14, 2001.

The scope of work included: updating the site specific safety plan; obtaining the required drilling permit from Alameda County Flood Control and Water Conservation District (Zone 7), installing two off-site monitoring wells; collecting soil samples for possible chemical analysis and preparing logs of the well borings; surveying the newly installed monitoring wells; developing and sampling the wells; and preparing a report presenting the findings of the investigation.

2.0 SITE DESCRIPTION

2.1 General

The subject site is an active service station located on the western corner of the intersection of Dublin Boulevard and Dougherty Road in Dublin, California (Figure 1). The site is bounded to the southeast by Dublin Boulevard, to the northeast by Dougherty Road, and to the northwest and southwest by a shopping center parking lot. Properties in the immediate site vicinity are used for a mix of commercial purposes that include service stations and shopping facilities.

Current aboveground site facilities consist of two dispenser islands under a canopy, car wash, and a station building/convenience store. Two 12,000-gallon gasoline underground storage tanks (USTs) are located in the common pit immediately east of the station building. Pertinent site features are shown on Figure 2.

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2.2 Geology and Hydrogeology

The subject site is located at approximately 330 feet above mean sea level within the Dublin Sub-basin of the Livermore Valley Groundwater Basin, as defined by the Alameda County Flood Control and Water Conservation District (Zone 7), and by the California Department of Water Resources Bulletin 118-2. The site vicinity is underlain by Holocene age fine grained alluvium (Qhaf) that is described as unconsolidated, plastic, moderately to poorly sorted carbonaceous silt and clay materials that are generally less than 10 feet thick. The site is situated less than 0.5 miles from two mapped geologic contacts separating the Qhaf from Late Pleistocene alluvial deposits (Qpa) and Holocene medium-grained alluvium (Qham). The Qpa sequence consists of weakly consolidated slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel, with a thickness of at least 150 feet. The younger Qham deposits consist of unconsolidated, moderately sorted, permeable fine sand, silt, and clayey silt with a few thin beds of coarse sand, with a maximum thickness of 12 feet in the vicinity of the site (United States Geological Survey, 1979). The site is approximately 0.6 miles west of the Pleasanton Fault and 1.4 miles east of the Calaveras Fault (California Division of Mines and Geology, 1990). The nearest surface water is the Chabot Canal, located approximately 1,600 feet east of the site.

Based on the results of GR's previous subsurface investigation, approximately 6 to 12 feet of fill material consisting of clays, gravels, and sands overlie the native soil at the site. The unsaturated (vadose) zone is comprised predominantly of clays and silts. The saturated zone is comprised of clay with lenses of sand and clayey or sandy gravel. Groundwater was initially encountered at approximately 12 feet bgs (GR, 1999).

The most recent semi-annual monitoring event was conducted at the site on August 24, 2001. On that date the measured depth to groundwater ranged from 7.57 to 8.14 feet below tops of casing and the groundwater flow direction was toward the southwest with a gradient range of 0.005 to 0.02. Historically, the depth to groundwater has ranged from 5.10 to 9.64 feet bgs. Groundwater flow direction has been predominantly to the southwest (GR, 1998-2001).

2.3 Previous Environmental Work

On September 7, 1993, two 10,000-gallon gasoline USTs, one 550-gallon waste oil UST, one 6,000-gallon underground septic tank, and the associated product piping were removed from the site. Groundwater was observed entering the UST excavation at a depth of approximately 14 feet below ground surface (bgs). Two 12,000-gallon and one 520-gallon double-wall glasteel USTs were installed in the same pit immediately northeast of the canopy and dispenser islands. Seven soil samples were collected from the sidewalls and bottom of the gasoline UST excavation at depths ranging from 13.5 to 17 feet bgs and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and total lead. Petroleum hydrocarbon concentrations ranged from not detected to 2.6 parts per million (ppm) of TPHg and 0.11 ppm of benzene.

Eight soil samples were collected from beneath the dispenser islands at depths of 2.5 and 5.5 feet bgs. These samples were reported as not detected for TPHg and BTEX. Total lead concentrations in these samples ranged from 4.8 to 14 ppm. Seven soil samples were collected from beneath the product lines at depths ranging from 3 to 7 feet bgs and analyzed for TPHg, BTEX, and total lead. Petroleum hydrocarbon concentrations ranged from not detected (ND) to 9.7 ppm of TPHg and not detected to 0.15 ppm of benzene.

Two soil samples were collected from beneath the former septic tank at a depth of 10 feet bgs and was reported as not detected for TPHg and BTEX. One soil sample was collected from beneath the former waste oil UST at a depth of 8 feet bgs and analyzed for TPHg, BTEX, Total Petroleum Hydrocarbons as diesel (TPHd), Oil and Grease (O&G), volatile organic compounds (VOCs) and 5 metals. The sample contained 6.8 ppm of TPHg, 0.050 ppm of benzene, allowable concentrations of various metals, and was not detected for TPHd, O&G, and VOCs (Kaprealian Engineering Inc. [KEI], 1993).

Approximately 7,000 gallons of groundwater were removed from the UST excavation on September 10, 1993 by H&H Environmental Services (H&H). After purging, groundwater stabilized at approximately 15 feet bgs, at which time groundwater sample W1 was collected. The sample was reported to contain 2,600 parts per billion (ppb) of TPHg, 33 ppb of benzene, 530 ppb of TPHd, allowable concentrations of 5 metals, and was reported as not detected for O&G and VOCs. On September 13 and 14, 1993, approximately 12,000 gallons of groundwater was removed from the excavation by H&H. Groundwater sample W2 was collected from the excavation after groundwater had stabilized at approximately 12 feet bgs and was analyzed for TPHg and BTEX. The sample contained 740 ppb of TPHg and 14 ppb of benzene. A sheen was observed on the surface of the groundwater in the southwest corner of the excavation (KEI, 1993a).

As part of the UST replacement activities, approximately 850 cubic yards of soil was excavated and stockpiled on-site and sampled for acceptance at an appropriate disposal facility. Approximately 750 cubic yards of soil was transported to The Browning Ferris Incorporated (BFI) Vasco Road Landfill in Livermore, California. In addition, approximately 100 cubic yards of soil was transported to Forward, Inc. Landfill in Stockton, California for disposal (KEI, 1993b).

Three on-site 2-inch diameter groundwater monitoring wells (MW-1, MW-2, and MW-3 on Figure 2) were installed in February 1994. Ten soil samples were collected during drilling at depths ranging from 5 to 17 feet bgs and analyzed for TPHg and BTEX. The samples were reported as not detected for TPHg and BTEX. The initial groundwater samples from MW-1 through MW-3 were analyzed for TPHg and BTEX. Hydrocarbon concentrations ranged from not detected (MW-2) to 1,800 ppb (MW-1) of TPHg and not detected (MW-2 and MW-3) to 17 ppb (MW-1) of benzene. In addition, sample MW-1 was reported to contain 810 ppb of a TPHd. Depth to groundwater was reported at between 7.09 and 7.93 feet below top of casing (TOC)(KEI, 1994).

In 1996, the former service station facilities were demolished and the current convenience store, self-service fueling and car wash facilities were constructed at the site. As part of the site upgrade activities, the current dispenser islands and canopy were constructed and new double-wall fiberglass product piping was installed from the existing USTs to the islands. In addition, a 550-gallon waste oil UST, formerly located within the pea gravel of the current UST cavity, was removed.

In July 1998, Environmental Resolutions, Inc. (ERI) conducted a four day extended soil vapor extraction test at the site. Based on photoionization detector (PID) readings from each well, monitoring well MW-1 was selected as the extraction well. During the course of the test, MtBE concentrations in the vapor stream of MW-1 decreased from 1,700 to 47 micrograms per liter. ERI estimated that approximately 0.53 pounds of TPHg and 6.5 pounds of MtBE (approximately 1 gallon of gasoline/additive) were extracted during the four day test. Vacuum measurements obtained from MW-2 and MW-3 during the test indicated that the effective radius of influence is likely to be less than 40 feet (ERI, 1998).

Four on-site soil borings were drilled in June 1999 and completed as groundwater monitoring wells MW-4 through MW-7. The wells were each installed to a total depth of approximately 19 feet bgs. Locations of the wells are shown on Figure 2. A total of four soil samples from the monitoring well borings. Petroleum hydrocarbons were not detected in the four soil samples collected from the soil borings, except for 0.33 ppm of MtBE in a sample from well boring MW-6 at 12 feet bgs, and 0.010 ppm of benzene and 0.0080 ppm of xylenes detected in a sample from well boring MW-7 at 6 feet bgs.

Groundwater has been historically reported at approximately 5 to 10 feet below ground surface (bgs). Petroleum hydrocarbon concentrations in groundwater have ranged from not detected to 9,200 ppb (MW-1) of TPHg, not detected to 130 ppb (MW-1) of benzene, and not detected to 140,000 ppb (MW-1) of MtBE. Groundwater flow direction has been reported as variable then becoming predominantly southwest for the quarterly and semi-annual sampling events dating back to March 1994 (MPDS, 1994 through 1997, GR, 1998 and 1999).

In November 1999, a four-inch diameter, slotted poly-vinyl chloride (PVC) Tank Pit Well (TPW-1 on Figure 2) was installed in the gasoline UST pit backfill to allow purging of MTBE-impacted groundwater. Purging of TPW-1 was initiated in December 1999.

Groundwater was removed from the UST pit by Onyx Industrial Services (Onyx) of Benicia, California and transported to the Tosco Refinery in Rodeo, California for disposal. The groundwater was purged from TPW-1 directly into Onyx vacuum trucks on an approximate weekly basis. From December 23, 1999 to August 21, 2000, approximately 129,800 gallons of groundwater were removed from the TPW-1. An estimated total of 110.60 pounds of MtBE have been removed from the site during the purging of 129,800 gallons of groundwater. Groundwater samples periodically collected from TPW-1 during the time period from December 23, 1999 to August 21, 2000 contained TPHg ranging from ND to 2100 ppb, benzene ranging from ND to 96 ppb and methyl tert-butyl ether

(MtBE) ranging from 3,900 to 146,000 ppb. Groundwater purging from TPW-1 is ongoing at this time.

During the most recent monitoring event that was conducted at the site on August 24, 2001, the groundwater samples collected contained MtBE and Benzene in concentrations ranging from 4.4 to 7,800 ppb and ND to 8.3 ppb respectively. Historically the MtBE and Benzene concentrations have ranged from ND to 140,000 ppb and ND to 130 ppb respectively.

3.0 FIELD WORK

Fieldwork was conducted in accordance with GR's Field Methods and Procedures (Appendix A), the GR Health and the Safety Plan, and Site Safety Plan dated August 20, 2001. Soil borings were advanced under permit number 21155 issued by the Alameda Zone 7. A Copy of the drilling permit is included in Appendix B.

Underground Service Alert (USA) was notified prior to drilling at the site. As a precautionary measure, a private utility locator was contracted to identify utilities near the proposed boring locations. The borings were hand excavated for the first five feet bgs to insure that no utilities were disturbed.

3.1 Drilling Activities

On September 28, 2001 a GR geologist observed Gregg Drilling Inc. of Martinez, California (C57 #485165) install two off-site groundwater monitoring wells (MW-8 and MW-9) at the locations shown on Figure 2. The well borings were drilled to 20 feet bgs using 8-inch diameter hollow-stem augers driven by a truck-mounted drilling rig. Soil samples were collected at approximately 5 foot intervals beginning at 5 feet bgs. A GR geologist prepared logs of the borings and screened the soil samples in the field for the presence of volatile organic compounds. Screening data are presented on the boring logs (Appendix B).

Groundwater monitoring wells were constructed in the borings using 15 feet of two-inch diameter, 0.020-inch machine-slotted schedule 40 poly-vinyl chloride (PVC) screen. Lonestar #3 graded sand was placed in the wells across the entire screened interval and extending 1 foot above the tops of the screens. The wells were then sealed with 1-foot of hydrated bentonite chips followed by neat cement. Well construction details are presented on the boring logs in Appendix B.

3.2 Well Monitoring, Development, and Sampling

On October 11, 2001, all static groundwater levels were measured and the new and preexisting wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were

not present in any of the wells. Static water level data and groundwater elevations are summarized in Table 1.

After the static water levels were measured, the newly installed wells MW-8 and MW-9 were developed using a 2-inch diameter stainless steel bailer and a submersible pump. Copies of the GR Well Monitoring/Development Field Data Sheets are included in Appendix C

After development, groundwater samples were collected from monitoring wells MW-8 and MW-9 as specified by GR Field Methods and Procedures (Appendix A). Water purged during well development and sampling was transported to the Tosco Refinery in Rodeo, California, for disposal.

3.3 Wellhead Survey

Following installation, the well casing elevations of the new and preexisting wells were surveyed by Virgil Chavez Land Surveying of Vallejo, California, Licensed California Land Surveyor No. 6323. Top of casing (TOC) elevations were measured relative to mean sea level (MSL), and the horizontal locations of the wells were measured. Well casing elevation data are presented in Table 1. A copy of the surveyor's report is included in Appendix D.

3.4 Waste Disposal

Drill cuttings were placed in 55-gallon steel drums and stored on-site pending disposal. After completion of drilling, four samples for disposal characterization were collected from the drill cuttings and submitted to the laboratory for compositing and analysis as sample Comp-1 (ABCD). The analytical results from the composite soil sample were submitted to Allied Waste's Forward landfill in Manteca. On October 26, 2001, the drill cuttings were removed from the site and transported to Forward Landfill in Stockton, California, by Denbeste Trucking of Windsor, California, under disposal approval No. 1272. A copy of the Forward landfill acceptance letter is included in Appendix D.

3.5 Laboratory Analysis

Selected soil and all groundwater samples were submitted to Sequoia Analytical in Walnut Creek California (ELAP #1271). Soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) by Environmental Protection Agency (EPA) Method 8015; benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MtBE) by EPA Method 8020. In addition, groundwater samples collected from the new wells were analyzed for ethanol, tert-butyl alcohol (TBA), MtBE, di-isopropyl 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. Soil sample Comp-1 (A-D) was analyzed for TPHg (EPA Method 8015), BTEX

and MtBE (EPA Method 8020), and total lead (EPA Method 6010). Copies of the laboratory analytical reports and chain-of-custody records are included in Appendix E.

4.0 RESULTS

4.1 Subsurface Conditions

The soils encountered during drilling consisted primarily of clay and poorly graded sand. Silty sand with gravel, silt with sand and poorly graded sand were encountered from 0.5 to 5.5 feet bgs in MW-8, followed by clay extending to the total depth of the boring (20 feet bgs). In MW-9, clay was observed from approximately 0.5 to 17 feet bgs overlying poorly graded sand, which extended from approximately 17 feet bgs to the total depth of the boring. During drilling, groundwater was encountered at depths ranging from 15 to 18.5 feet bgs. Descriptions of the subsurface materials encountered during drilling are presented on the Boring Logs in Appendix B.

On October 11, 2001, the measured depth to groundwater in the monitoring wells ranged from 7.12 to 8.29 feet below the tops of the well casings. The groundwater flow direction, on October 11, 2001, was generally to the south-southwest with a gradient ranging between 0.003 to 0.02. A Potentiometric Map is included with this report as Figure 2.

4.2 Soil Analytical Results

All soil samples submitted to the lab were found to have no detectable concentrations of any of the hydrocarbon constituents analyzed. The stockpile sample, Comp-1(A-D), contained a concentration of lead that was acceptable for disposal at Allied Waste's Forward Landfill. The analytical results from the soil samples are summarized in Table 3.

4.3 Groundwater Analytical Results

The groundwater samples collected from monitoring wells MW-8 and MW-9 were found to have no detectable concentrations of any of the hydrocarbon constituents analyzed, except sample MW-9, in which MtBE was detected at 22 ppb (EPA Method 8020) and 15 ppb (EPA Method 8260).

5.0 RECOMMENDATIONS

Based on the soil and groundwater analytical results collected during installation and development of the two new monitoring wells, no significant hydrocarbon impact was observed on the property adjacent to southwest of the Tosco site. To further verify these results, GR recommends continuation of the current monitoring and sampling program at the subject site.

Analytical results of groundwater samples from the onsite wells have previously shown elevated concentrations of MTBE. In order to reduce these levels, Tosco is purging up to 5,000 gallons of groundwater weekly from UST pit backfill well TPW-1 (Figure 2). The purging program is ongoing at this time. Grab groundwater samples are periodically collected from TPW-1 to monitor the progress of the purging program. A status report summarizing the recent results of the purging and sample is currently being prepared and will be submitted to Tosco for their use and distribution.

6.0 REFERENCES

Gettler-Ryan Inc., August 24, 2001, Semi-Annual Groundwater Monitoring and Sampling Reports for Tosco (Unocal) Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: G-R Job #180021, dated October 4, 2001.

Gettler-Ryan Inc., 1998-2001, Semi-Annual Groundwater Monitoring and Sampling Reports for Tosco (Unocal) Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: G-R Job #180021, various dates.

Gettler-Ryan Inc., 2000, Remedial Status Report for Tosco (76) Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California. GR Job Number 140101.03, dated November 20, 2000

Gettler-Ryan Inc., 1999, Well Installation Report at Tosco 76 Branded Facility No. 6419, 6401 Dublin Boulevard, Dublin, California. GR Job Number 140101.0, dated September 7, 1999

Environmental Resolutions Inc., 1998, Extended Soil Vapor Extraction Test at Tosco 76 Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: Report No. ERI 233004.L04 dated September 24, 1998.

Kaprealian Engineering Inc., 1993, Soil Sampling Report for Unocal Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: Report No. KEI-P93-0401.R1 dated October 15, 1993.

Kaprealian Engineering Inc., 1993a, Sampling and Disposal of the Stockpiled Soil at Unocal Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: Report No. KEI-P93-0401.R3 dated October 15, 1993.

Kaprealian Engineering Inc., 1994, Preliminary Ground Water Investigation at Unocal Service Station No. 6419, 6401 Dublin Boulevard, Dublin, California: Report No. KEI-P93-0401.R5 dated April 7, 1994.

California Division of Mines and Geology, 1990, Geologic Map of the San Francisco – San Jose Quadrangle, Map No. 5A (Geology).

TABLE 1 - GROUNDWATER MONITORING AND CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, 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)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE[2] (ppb)
MW-1	10/11/01	9.32	330.17	7.72	0.00	322.45	---	---	---	---	---	---
MW-2	10/11/01	17.62	330.24	7.62	0.00	322.62	---	---	---	---	---	---
MW-3	10/11/01	18.53	330.59	7.83	0.00	322.76	---	---	---	---	---	---
MW-4	10/11/01	19.13	330.35	8.29	0.00	322.06	---	---	---	---	---	---
MW-5	10/11/01	19.35	330.18	7.34	0.00	322.84	---	---	---	---	---	---
MW-6	10/11/01	19.35	330.47	8.03	0.00	322.44	---	---	---	---	---	---
MW-7	10/11/01	19.29	330.41	7.87	0.00	322.54	---	---	---	---	---	---
MW-8	10/11/01	20.12	329.97	7.57	0.00	322.40	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-9	10/11/01	19.39	329.51	7.12	0.00	322.39	<50	<0.50	<0.50	<0.50	<0.50	22

EXPLANATION:

ft. = feet
ft. MSL = feet relative to Mean Sea Level.
ppb = parts per billion
--- = not sampled
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

ANALYTICAL LABORATORY:

Sequoia Analytical Walnut Creek, ELAP #1271

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 8020/8260

TABLE 2- GROUNDWATER CHEMICAL ANALYTICAL DATA

Tosco (76) Service Station No.6419
6401 Dublin Boulevard
Dublin, California

Sample No.	Sample Date	Ethanol (ppb)	TBA (ppb)	MtBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-8	10/11/01	<500	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-9	10/11/01	<500	<20	15	<2.0	<2.0	<2.0	<2.0	<2.0

EXPLANATIONS:

Ethanol
TBA = tert Butyl alcohol
MtBE = Methyl tert- butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert- butyl ether
TAME = tertiary Amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = Ethylene dibromide
ppb = Parts per billion

ANALYTICAL LABORATORY:

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

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

TABLE 3 - SOIL CHEMICAL ANALYTICAL DATA

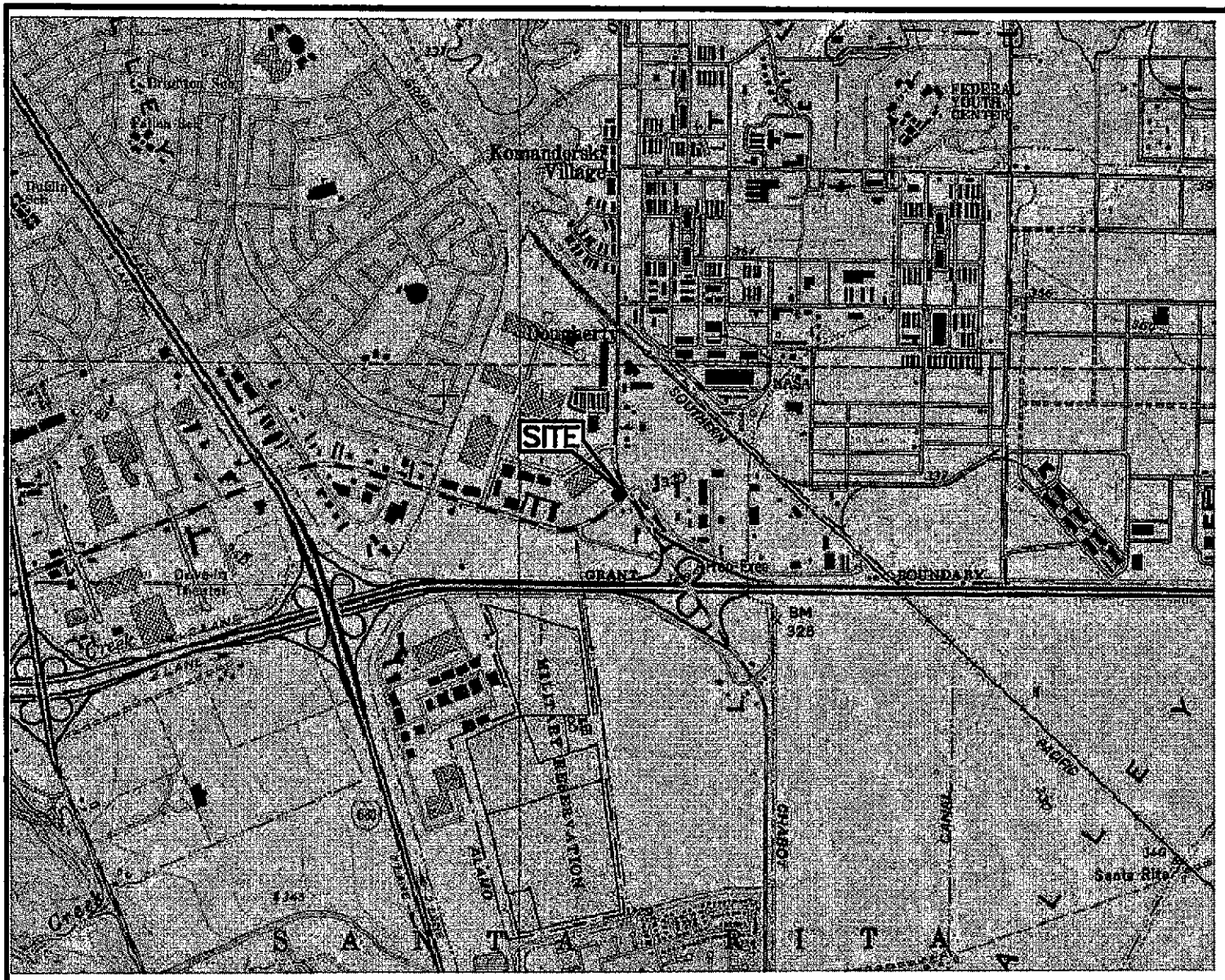
Tosco (76) Service Station No.6419
6401 Dublin Boulevard
Dublin, California

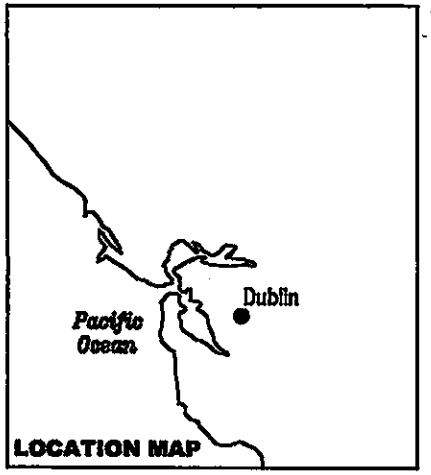
Sample No.	Sample Date	Sample Depth (in feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	MtBE[1] (ppm)	Total lead (ppm)
MW-8 (5.5)	9/28/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	---
MW-8 (7.5)	9/28/01	7.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	---
MW-9 (5.5)	9/28/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	---
MW-9 (7.5)	9/28/01	7.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	---
Comp-1 (A B C D)	9/28/01	N/A	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	1.8

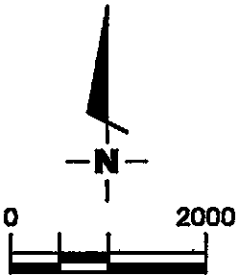
EXPLANATION:
ppm = parts per million
--- = analysis not requested
N/A = not applicable
[1] = MtBE by Method 8020

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
Benzene, Toluene, Ethylbenzene and Total Xylenes by EPA method 8020
MtBE = Methyl tert-butyl ether by EPA Method 8020
Total Lead by EPA Method 6010







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

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VICINITY MAP
Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, California

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
140101		11/01	

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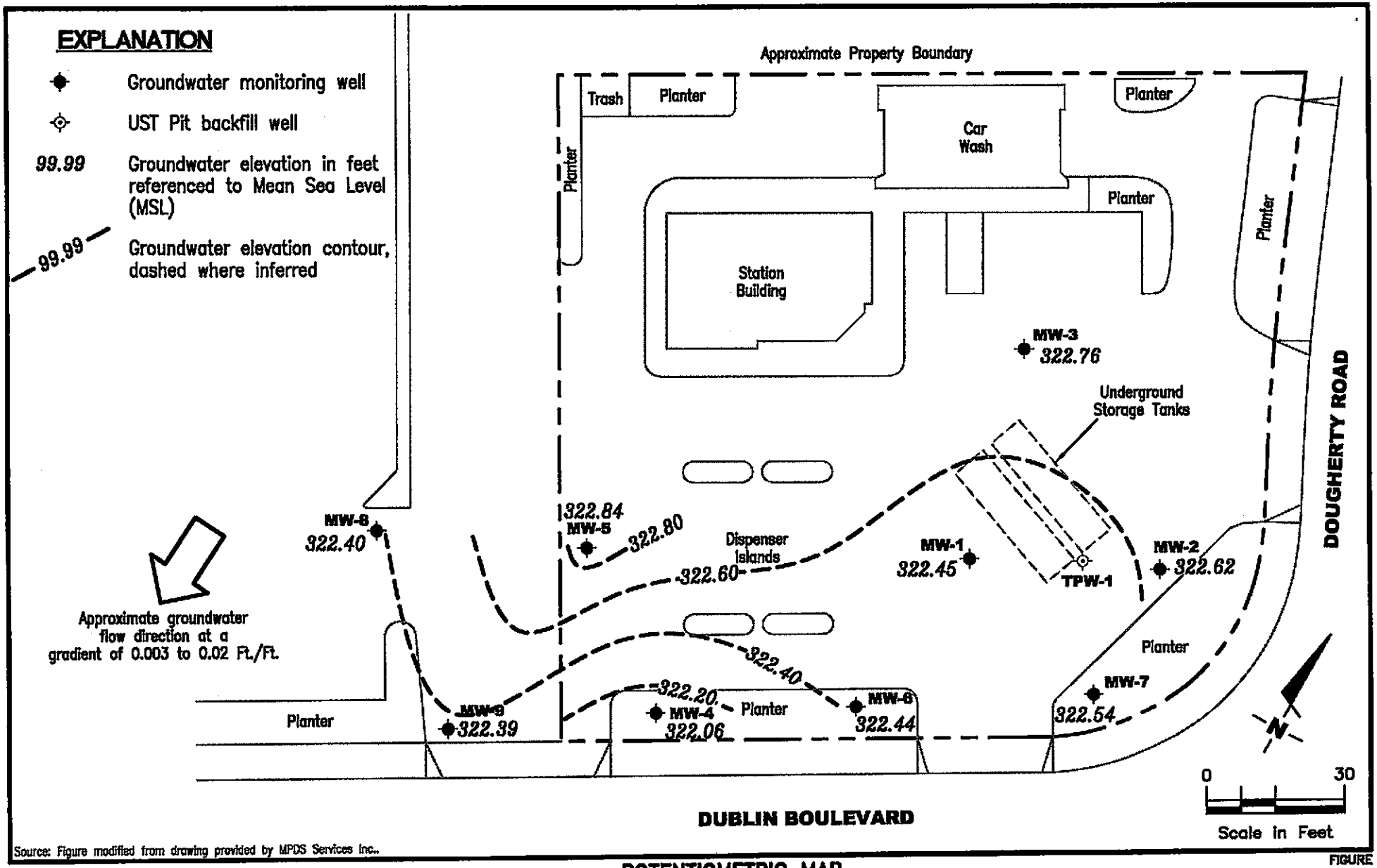

Source: Figure modified from drawing provided by MPDS Services Inc..

FIGURE 2

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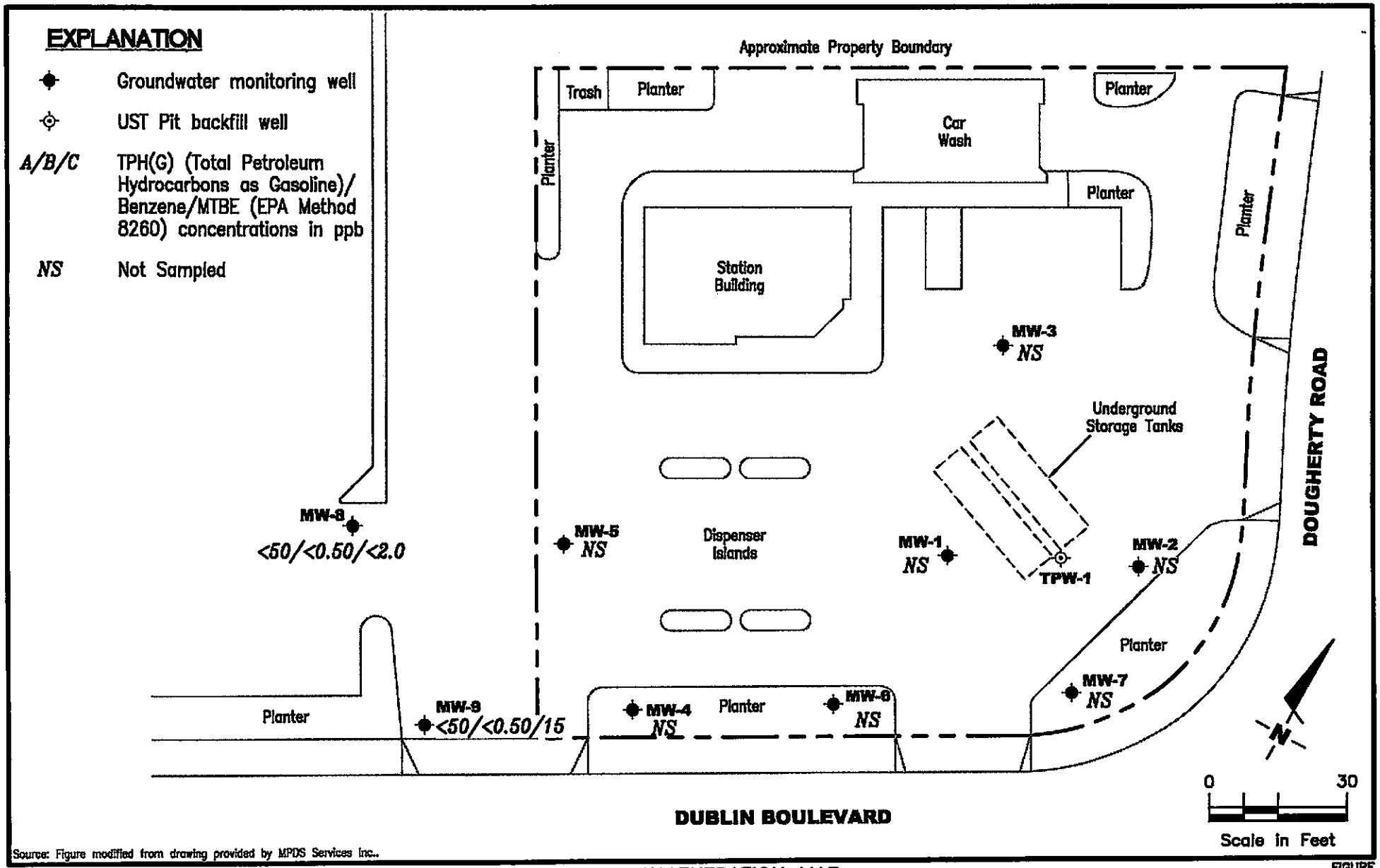
Dublin, CA 94568
(925) 551-7555

POTENTIOMETRIC MAP
Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, California

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
140101		October 11, 2001	

FILE NAME: P:\ENVIRO\TOSCO\6419\A00-6419.DWG | Layout Tab: Well Install 11-01



Source: Figure modified from drawing provided by MPDS Services Inc..

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

CONCENTRATION MAP
Tosco (76) Service Station No. 6419
6401 Dublin Boulevard
Dublin, California

FIGURE
3

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
140101		October 11, 2001	

FILE NAME: P:\ENVIRO\TOSCO\6419\A00-6419.DWG | Layout Tab: Con4 11-01

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 of these plans contents 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 (yd^3) 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.

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 polyvinyl chloride (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

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

PERMITS AND BORING LOGS

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588-5127 • PHONE (925) 484-2600 FAX (925) 462-3914

August 27, 2001

Mr. Andrew Smith
Gettler-Ryan, Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568-2611

Dear Mr. Smith:

Enclosed is drilling permit 21155 for a monitoring well construction project at 6401 Dublin Boulevard in Dublin for Tosco Marketing Company. Also enclosed are current drilling permit applications for your files.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 235 or Matt Katen at extension 234.

Sincerely,

Wyman Hong

Wyman Hong
Water Resources Technician II

Enc.

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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

LOCATION OF PROJECT 6401 Dublin Blvd.
Dublin CA

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

CLIENT
Name Tosco Marketing Company
Address 2000 Crow Canyon Place Phone _____
City San Ramon CA Zip 94583

APPLICANT
Name Gettler-Ryan Inc. Fax (925) 551-7888
Address 6747 Sierra Ct Suite J Phone (925) 551-7555 Ext 127
City Dublin CA Zip 94568

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	X
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. 485165

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum Depth 20 ft.
Casing Diameter 2 in. Number 2
Surface Seal Depth 1 ft.

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

ESTIMATED STARTING DATE 9/28/01
ESTIMATED COMPLETION DATE 9/28/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE _____ Date 8/20/01

FOR OFFICE USE

PERMIT NUMBER 21155
WELL NUMBER 3S/1E 6F32 & 6F33
APN 941 0205 010 03

PERMIT CONDITIONS

Circled Permit Requirements Apply

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

B. WATER 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

Approved Wyman Hong Date 8/27/01
Wyman Hong

8/6/9

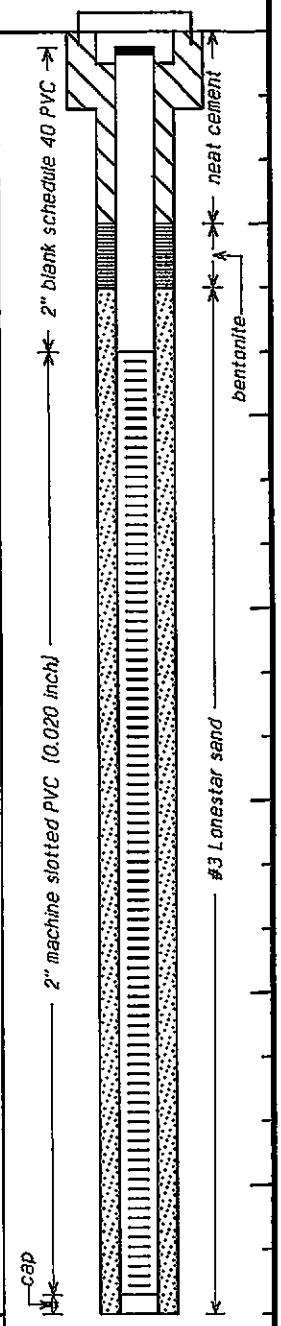
Gettler-Ryan, Inc.

Log of Boring MW-8

PROJECT: *Tosco (76) Service Station No. 6419*	LOCATION: *6401 Dublin Boulevard, Dublin, California*
GR PROJECT NO.: *140101.04*	CASING ELEVATION:
DATE STARTED: *09/28/01*	WL (ft. bgs): *15.0* DATE: *09/28/01* TIME: *09:30*
DATE FINISHED: *09/28/01*	WL (ft. bgs): *7.5* DATE: *09/28/01* TIME: *13:45*
DRILLING METHOD: *8" Hollow stem auger*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						Aspahlt and base rock – 6 inches thick.
					SM	SILTY SAND WITH GRAVEL (SM) – dark reddish brown (5YR 3/2), moist, loose; 65% fine to medium sand, 20% silt, 15% rounded fine to medium gravel.
					ML	SILT WITH SAND (ML) – dark greenish gray (GLEY2, 5BG 4/1), moist, medium stiff; 85% silt, 15% fine sand.
3	0				SP	POORLY GRADED SAND (SP) – dark greenish gray (GLEY2, 5BG 4/1), moist, loose; 95% fine sand, 5% silt.
6	0	MW-8-5.5			CL	CLAY (CL) – dark brown (7.5YR 3/2), moist, stiff; 95% clay, 5% fine sand.
	0	MW-8-7.5				
9	0					
12						
15	0					
18						
21						Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *140101.04*

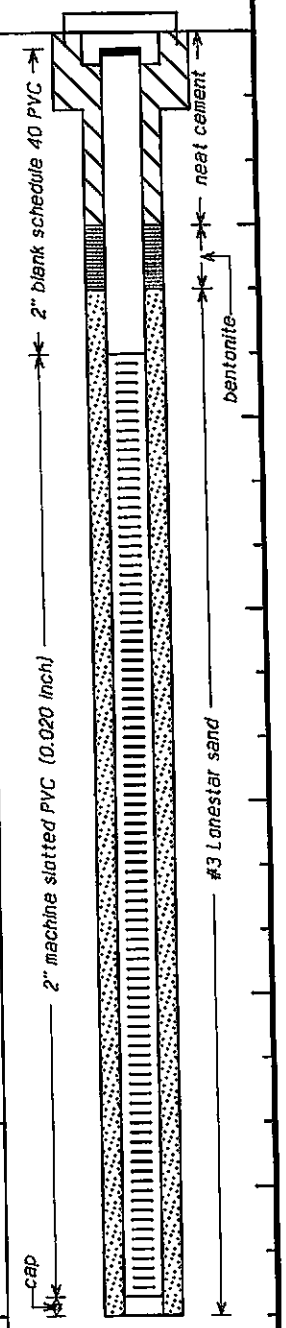
Gettler-Ryan, Inc.

Log of Boring MW-9

PROJECT: *Tosco (76) Service Station No. 6419*	LOCATION: *6401 Dublin Boulevard, Dublin, California*
GR PROJECT NO.: *140101.04*	CASING ELEVATION:
DATE STARTED: *09/28/01*	WL (ft. bgs): *18.5* DATE: *09/28/01* TIME: *13:15*
DATE FINISHED: *09/28/01*	WL (ft. bgs): *7.24* DATE: *09/28/01* TIME: *13:50*
DRILLING METHOD: *8" Hollow stem auger*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
				Asphalt and base rock – 6 inches thick.
3			CL	CLAY WITH GRAVEL (CL) – very dark grayish brown (2.5Y 3/2), moist, medium stiff; 75% clay, 20% medium to coarse gravel, 5% fine to medium sand (fill).
6	0	MW-9-5.5		CLAY (CL) – black (2.5Y 2.5/1), moist, medium stiff; 90–95% clay, 5–10% silt.
	0	MW-9-7.5		
9	0			
12				
15	0			Color changes to olive brown (2.5Y 4/3).
18	0		SP-SC	POORLY GRADED SAND WITH CLAY (SP-SC) – grayish brown (2.5Y 5/2), wet, medium dense; 90% fine sand, 10% clay.
21				Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *140101.04*

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

APPENDIX C

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD DATA SHEETS

MONITORING WELL
OBSERVATION SUMMARY SHEET

#: Tosco(76)6419 G-R JOB #: 140101

LOCATION: 6401 Dublin BLVD DATE: 10/11/01

CITY: Dublin TIME: 1230

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments
MW-1	9.32	7.72	Ø	TOC	*
MW-2	17.62	7.62			
MW-3	18.53	7.83			
MW-4	19.13	8.29			
MW-5	19.35	7.34			
MW-6	19.35	8.03			
MW-7	19.29	7.87			
MW-8	20.12	7.57			
MW-9	19.39	7.12			

Comments: * Maybe an obstruction @ 9.22'

Sampler: Assistant:

WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET

Client/ Facility: Tosco (76) #6419 Job#: 140101

Address: 6401 Dublin 13100 Date: 10/11/01

City: Dublin, CA. Sampler: Andrew Smith

Well ID: MW-9 Well Condition: Odor

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

Total Depth: 19.39 ft.

Depth to Water: 7.12 ft.

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

12.27 X VF 0.17 = 2.1 X 3 (case volume) = Estimated Purge Volume: 21 (gal.)

Purge Equipment: Disposable Bailer; (Bailer); (Stack); Suction; Grundfos; Other: ____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: ____

Starting Time: 1535 Weather Conditions: Sunny

Sampling Time: 1725 Water Color: Light Brown Odor: None

Purging Flow Rate: ≈1-2.5 gpm. Sediment Description: Silty Sand

Did well de-water? Yes If yes; Time: 1625 Volume: ≈15 (gal.)

	Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
*	1555	8	7.97	2795	23.0			
	1612	10	7.07	2654	21.7			
	1620	14	7.22	2506	20.6			
**	1654	15	7.24	2437	21.3			
	1656	16	710	2406	20.9			
	1700	17	714	2392	20.7			
	1705	19	7.00	2299	21.4			
	1706	21	7.14	2265	20.9			
Dry @ 1706	1715	23	7.35	2408	20.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	6 VOAs	Yes	HCl	Sequoia	TPH-g, BTEX, MTBE # 8 OXYS

COMMENTS: * Bail 6 gal Before Pumping. **1620 WL=19.11

1641 WL=11.02

9/97-fieldat.frm

WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET

Client/ Facility: Tosco (76) #6419 Job#: 140101

Address: 6401 Dublin Blvd. Date: 10/1/01

City: Dublin, CA Sampler: Andrew Smith

Well ID: MW-8 Well Condition: New

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

Total Depth: 20.12 ft.

Depth to Water: 7.57 ft.

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

12.55 x VF 0.17 = 2.1 x 10 (case volume) = Estimated Purge Volume: 210 (gal.)

Purge Equipment: Disposable Bailer; (Bailer); (Stack); Suction; Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1335 Weather Conditions: Sunny

Sampling Time: 1450 Water Color: Light Brown Odor: None

Purging Flow Rate: ≈ 2.0 gpm. Sediment Description: Silty Sand

Did well de-water? No If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1345	2	7.03	3280	23.6			
WL= 1346	4	6.91	3271	22.8			
8.13 1350	6	6.85	3245	22.9			
1402	8	6.87	3133	22.9			
1404	12	6.84	3118	22.8			
1406	14	6.82	2897	22.2			
* 1425	16	6.73	2911	23.0			
1430	18	6.74	2840	22.4			
1432	20	6.77	2820	22.4			
1436	22	6.82	2794	22.7			

Total Gal Purged = 22 + 64 = 86 GAL

1440 WL= 8.11

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: * 1407 Stop Pump Bail & Surge (≈ 6 GAL)

Still Silty WL= 8.31 (1420). Pump Set @ 19.5'

9/97-fieldat.frm

APPENDIX D

SURVEYOR'S REPORT AND LANDFILL ACCEPTANCE LETTER

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

November 2, 2001
Project No. 1904-01a

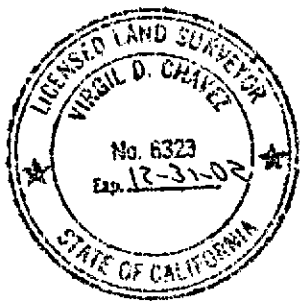
Andrew Smith
Gettler-Ryan, Inc.
6747 Sierra Court, Ste. J
Dublin, CA. 94568-2611

Subject: Monitoring Well Survey
Tosco Service Station No. 6419
6401 Dublin Blvd.
Dublin, Ca.

Dear Andrew:

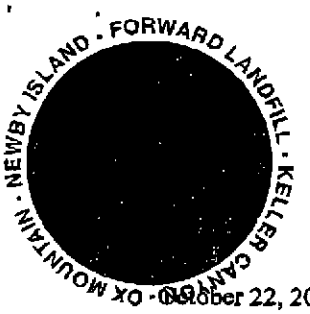
This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was performed on November 1, 2001. The benchmark for the survey was a chiseled square on top center of the concrete curb at the north curb return at the northwest corner of the intersection of Dougherty Road and Dublin Boulevard. Measurements were taken at approximate north side of top of box and top of casing. The coordinates are assumed, and are for top of casing.
Benchmark Elevation = 330.60 feet, NGVD 1929.

Well No.	Rim Elevation	TOC Elevation	Northing	Easting
MW - 1	330.56'	330.17'	5047.11	4983.92
MW - 2	330.53'	330.24'	5043.41	5024.44
MW - 3	330.90'	330.59'	5092.56	4997.86
MW - 4	330.70'	330.35'	5011.99	4910.64
MW - 5	330.55'	330.18'	5048.55	4897.09
MW - 6	330.83'	330.47'	5011.95	4956.32
MW - 7	330.70'	330.41'	5012.52	5008.93
MW - 8	330.24'	329.97'	5052.99	4851.11
MW - 9	329.81'	329.51'	5010.14	4860.56



Sincerely,

Virgil D. Chavez, PLS 6323



NORTHERN CALIFORNIA SALES OFFICE • SPECIAL WASTE

Forward • Keller Canyon • Newby Island • Ox Mountain

ALLIED WASTE COMPANIES BFI

October 22, 2001

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

Attn: Mr. Smith

Re: Approval No. 1306
Hydrocarbon impacted soil
S/S# 6419 - 6401 Dublin Blvd

Dear Mr. Smith:

FORWARD INC. is pleased to inform you that the approximately 4 drums of Hydrocarbon impacted 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 Phillips 66 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 1306. This number should be used in all scheduling and correspondence with ***FORWARD, INC.*** regarding this waste profile.

This profile shall remain in effect until December 31, 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 J. Bonner
Special Waste Sales Manager
Northern, CA

BJB/sr

F:\FORWARD\MERGE FORMS\ACCEPT.DOC

APPENDIX E

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

15 October, 2001

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

RE: Tosco
Sequoia Report: W110012

Enclosed are the results of analyses for samples received by the laboratory on 01-Oct-01 13:40. 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
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FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8 (5.5)	W110012-01	Soil	28-Sep-01 00:00	01-Oct-01 13:40
MW-8 (7.5)	W110012-02	Soil	28-Sep-01 00:00	01-Oct-01 13:40
MW-9 (5.5)	W110012-03	Soil	28-Sep-01 00:00	01-Oct-01 13:40
MW-9 (7.5)	W110012-04	Soil	28-Sep-01 00:00	01-Oct-01 13:40
COMP-1 (ABCD)	W110012-05	Soil	28-Sep-01 00:00	01-Oct-01 13:40

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

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

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-8 (5.5) (W110012-01) Soil Sampled: 28-Sep-01 00:00 Received: 01-Oct-01 13:40									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	1J01002	02-Oct-01	02-Oct-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 (MTBE)	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*	*40-140*		"	"	"	"	
MW-8 (7.5) (W110012-02) Soil Sampled: 28-Sep-01 00:00 Received: 01-Oct-01 13:40									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	1J01002	02-Oct-01	02-Oct-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 (MTBE)	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*40-140*		"	"	"	"	
MW-9 (5.5) (W110012-03) Soil Sampled: 28-Sep-01 00:00 Received: 01-Oct-01 13:40									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	1J01002	02-Oct-01	02-Oct-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 (MTBE)	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*104 %*	*40-140*		"	"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

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-9 (7.5) (W110012-04) Soil Sampled: 28-Sep-01 00:00 Received: 01-Oct-01 13:40									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	1J01002	02-Oct-01	02-Oct-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 (MTBE)	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*		*40-140*		"	"	"	
COMP-1 (ABCD) (W110012-05) Soil Sampled: 28-Sep-01 00:00 Received: 01-Oct-01 13:40									
Purgeable Hydrocarbons (C6-C12)	ND	1.0	mg/kg	20	1J01002	02-Oct-01	02-Oct-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 (MTBE)	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*		*40-140*		"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
COMP-1 (ABCD) (W110012-05) Soil	**Sampled: 28-Sep-01 00:00**		**Received: 01-Oct-01 13:40**						
Lead	**1.8**	1.0	mg/kg	1	1J01004	02-Oct-01	13-Oct-01	EPA 6010B	

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Stetler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

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 1J01002 - EPA 5030B MeOH										
Blank (1J01002-BLK1)				Prepared & Analyzed: 01-Oct-01						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.610*		"	*0.600*		*102*	*40-140*			
Blank (1J01002-BLK2)				Prepared & Analyzed: 02-Oct-01						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.660*		"	*0.600*		*110*	*40-140*			
LCS (1J01002-BS1)				Prepared & Analyzed: 01-Oct-01						
Benzene	0.678	0.0050	mg/kg	0.800		84.8	50-150			
Toluene	0.720	0.0050	"	0.800		90.0	50-150			
Ethylbenzene	0.770	0.0050	"	0.800		96.2	50-150			
Xylenes (total)	2.27	0.0050	"	2.40		94.6	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.622*		"	*0.600*		*104*	*40-140*			
LCS (1J01002-BS2)				Prepared & Analyzed: 02-Oct-01						
Benzene	0.798	0.0050	mg/kg	0.800		99.8	50-150			
Toluene	0.832	0.0050	"	0.800		104	50-150			
Ethylbenzene	0.860	0.0050	"	0.800		108	50-150			
Xylenes (total)	2.54	0.0050	"	2.40		106	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.746*		"	*0.600*		*124*	*40-140*			

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

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 1J01002 - EPA 5030B MeOH										
LCS Dup (1J01002-BSD1)				Prepared & Analyzed: 01-Oct-01						
Benzene	0.734	0.0050	mg/kg	0.800		91.8	50-150	7.93	20	
Toluene	0.764	0.0050	"	0.800		95.5	50-150	5.93	20	
Ethylbenzene	0.810	0.0050	"	0.800		101	50-150	5.06	20	
Xylenes (total)	2.39	0.0050	"	2.40		99.6	50-150	5.15	20	
Surrogate: a,a,a-Trifluorotoluene	*0.582*		"	*0.600*		*97.0*	*40-140*			
Matrix Spike (1J01002-MS1)		**Source: W110012-02**		Prepared: 01-Oct-01 Analyzed: 03-Oct-01						
Benzene	0.770	0.0050	mg/kg	0.800	ND	96.2	50-150			
Toluene	0.820	0.0050	"	0.800	ND	102	50-150			
Ethylbenzene	0.860	0.0050	"	0.800	ND	108	50-150			
Xylenes (total)	2.61	0.0050	"	2.40	ND	109	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.568*		"	*0.600*		*94.7*	*40-140*			
Matrix Spike Dup (1J01002-MSD1)		**Source: W110012-02**		Prepared: 01-Oct-01 Analyzed: 03-Oct-01						
Benzene	0.886	0.0050	mg/kg	0.800	ND	111	50-150	14.0	20	
Toluene	0.942	0.0050	"	0.800	ND	118	50-150	13.8	20	
Ethylbenzene	0.982	0.0050	"	0.800	ND	123	50-150	13.2	20	
Xylenes (total)	2.98	0.0050	"	2.40	ND	124	50-150	13.2	20	
Surrogate: a,a,a-Trifluorotoluene	*0.654*		"	*0.600*		*109*	*40-140*			

Sequoia Analytical

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Cuttler Ryan, Inc - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	15-Oct-01 08:50

Total 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 1J01004 - EPA 3050B										
Blank (1J01004-BLK1)				Prepared & Analyzed: 01-Oct-01						
Lead	ND	1.0	mg/kg							
Blank (1J01004-BLK2)				Prepared & Analyzed: 02-Oct-01						
Lead	ND	1.0	mg/kg							
LCS (1J01004-BS1)				Prepared & Analyzed: 01-Oct-01						
Lead	48.3	1.0	mg/kg	50.0		96.6	80-120			
LCS (1J01004-BS2)				Prepared & Analyzed: 02-Oct-01						
Lead	48.3	1.0	mg/kg	50.0		96.6	80-120			
LCS Dup (1J01004-BSD1)				Prepared & Analyzed: 01-Oct-01						
Lead	50.2	1.0	mg/kg	50.0		100	80-120	3.86	20	
LCS Dup (1J01004-BSD2)				Prepared & Analyzed: 02-Oct-01						
Lead	50.2	1.0	mg/kg	50.0		100	80-120	3.86	20	
Matrix Spike (1J01004-MS1)		Source: W109430-01		Prepared: 01-Oct-01 Analyzed: 02-Oct-01						
Lead	51.6	1.0	mg/kg	50.0	5.4	92.4	80-120			
Matrix Spike Dup (1J01004-MSD1)		Source: W109430-01		Prepared: 01-Oct-01 Analyzed: 02-Oct-01						
Lead	53.8	1.0	mg/kg	50.0	5.4	96.8	80-120	4.17	20	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA. 94568	Project Manager: Doug Lee	15-Oct-01 08:50

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

.4. 006101

TOSCO

☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 1404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company: Gettler-Ryan Inc, 140101.04-	Project Name: 6401 Dublin BLVD
Address: 6747 Sierra Ct. Suite J	TOSCO Engineer (required) David B. De Witt
City: Dublin State: CA Zip Code: 94568	W110012
Telephone: (925) 551-7555 FAX #(925) 551-7888	Site #, City, State: 6419, Dublin, CA
Report To: Doug Lee Sampler: Andrew Smith	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours

☐ Drinking Water ☐ Waste Water ☒ Other

CODE: ☐ Misc. ☒ Detect. ☐ Eval. ☐ Remed. ☐ Demol. ☐ Closure

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH (EPA 8015 Mod. Gas)	BTEX (EPA 8020)	MTBE (EPA 8020)	TPH (EPA 8015 Mod. Diesel)	Volatile Organics (EPA 8260)	MTBE Confirmation (EPA 8260)	Total Lead EPA 6010			Comments
1. MW-8(5.5)	9/28/01	Soil	1	SS	01A	X	X	X							
2. MW-8(7.5)	↓	↓	↓	↓	02A	↓	↓	↓							
3. MW-9(5.5)					03A										
4. MW-9(7.5)	↓	↓	↓	↓	04A	↓	↓	↓							
5. Comp-1(ABCD)	↓	↓	4	SS	05A-D	X	X	X				X			
6.															
7.															
8.															
9.															
10.															

Relinquished By:	Date: 10/1/01	Time: 9:00	Received By:	Date: 10/1	Time: 12:30
Relinquished By:	Date: 10/1	Time: 1:40	Received By:	Date: 10/1/01	Time: 13:40
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page ___ of ___

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed? _____

2) Was the report issued within the requested turnaround time? ☐ Yes ☐ No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

404 N. Wiget Lane
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29 October, 2001

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

RE: Tosco
Sequoia Report: W110242

Enclosed are the results of analyses for samples received by the laboratory on 12-Oct-01 14:00. 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
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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 6419 Project Manager: Doug Lee	**Reported:** 29-Oct-01 07:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8	W110242-01	Water	11-Oct-01 00:00	12-Oct-01 14:00
MW-9	W110242-02	Water	11-Oct-01 00:00	12-Oct-01 14:00

Sequoia Analytical - Walnut Creek

Charlie Westwater, Project Manager

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.

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	29-Oct-01 07:33

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-8 (W110242-01) Water Sampled: 11-Oct-01 00:00 Received: 12-Oct-01 14:00									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	1J15002	15-Oct-01	15-Oct-01	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	Q-28
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*70-130*		"	"	"	"	
MW-9 (W110242-02) Water Sampled: 11-Oct-01 00:00 Received: 12-Oct-01 14:00									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	1J15002	15-Oct-01	15-Oct-01	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	**22**	2.5	"	"	"	"	16-Oct-01	"	Q-28a,QR-04
Surrogate: a,a,a-Trifluorotoluene		*98.3 %*	*70-130*		"	"	*15-Oct-01*	"	

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 6419 Project Manager: Doug Lee	**Reported:** 29-Oct-01 07:33

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (W110242-01) Water Sampled: 11-Oct-01 00:00 Received: 12-Oct-01 14:00									
Ethanol	ND	500	ug/l	1	1J23004	23-Oct-01	23-Oct-01	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	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	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.8 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.2 %*		*50-150*	"	"	"	"	
MW-9 (W110242-02) Water Sampled: 11-Oct-01 00:00 Received: 12-Oct-01 14:00									
Ethanol	ND	500	ug/l	1	1J23004	23-Oct-01	23-Oct-01	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	**15**	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	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.0 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.2 %*		*50-150*	"	"	"	"	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 6419 Project Manager: Doug Lee	**Reported:** 29-Oct-01 07:33

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 1J15002 - EPA 5030B P/T										
Blank (1J15002-BLK1)				Prepared & Analyzed: 15-Oct-01						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*29.9*		"	*30.0*		*99.7*	*70-130*			
Blank (1J15002-BLK2)				Prepared & Analyzed: 16-Oct-01						
Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*30.1*		"	*30.0*		*100*	*70-130*			
LCS (1J15002-BS1)				Prepared & Analyzed: 15-Oct-01						
Benzene	16.8	0.50	ug/l	20.0		84.0	70-130			
Toluene	17.7	0.50	"	20.0		88.5	70-130			
Ethylbenzene	18.8	0.50	"	20.0		94.0	70-130			
Xylenes (total)	55.7	0.50	"	60.0		92.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*29.2*		"	*30.0*		*97.3*	*70-130*			
LCS (1J15002-BS2)				Prepared & Analyzed: 16-Oct-01						
Benzene	17.4	0.50	ug/l	20.0		87.0	70-130			
Toluene	18.5	0.50	"	20.0		92.5	70-130			
Ethylbenzene	19.2	0.50	"	20.0		96.0	70-130			
Xylenes (total)	58.0	0.50	"	60.0		96.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*29.8*		"	*30.0*		*99.3*	*70-130*			

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA. 94568	Project Manager: Doug Lee	29-Oct-01 07:33

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 1J15002 - EPA 5030B P/T										
Matrix Spike (1J15002-MS1)	**Source: W110243-01**			Prepared: 15-Oct-01 Analyzed: 16-Oct-01						
Benzene	16.7	0.50	ug/l	20.0	ND	83.5	70-130			
Toluene	17.6	0.50	"	20.0	ND	88.0	70-130			
Ethylbenzene	18.6	0.50	"	20.0	ND	93.0	70-130			
Xylenes (total)	55.6	0.50	"	60.0	ND	92.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*29.3*		"	*30.0*		*97.7*	*70-130*			
Matrix Spike Dup (1J15002-MSD1)	**Source: W110243-01**			Prepared: 15-Oct-01 Analyzed: 16-Oct-01						
Benzene	17.1	0.50	ug/l	20.0	ND	85.5	70-130	2.37	20	
Toluene	18.1	0.50	"	20.0	ND	90.5	70-130	2.80	20	
Ethylbenzene	19.1	0.50	"	20.0	ND	95.5	70-130	2.65	20	
Xylenes (total)	57.0	0.50	"	60.0	ND	95.0	70-130	2.49	20	
Surrogate: a,a,a-Trifluorotoluene	*29.3*		"	*30.0*		*97.7*	*70-130*			

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Gettler Ryan, Inc. - Dublin	Project: Tosco	
6747 Sierra Court Suite J	Project Number: Tosco # 6419	**Reported:**
Dublin CA, 94568	Project Manager: Doug Lee	29-Oct-01 07:33

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 1J23004 - EPA 5030B (P/T)										
Blank (1J23004-BLK1)				Prepared & Analyzed: 23-Oct-01						
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether (MTBE)	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	"							
Surrogate: Dibromofluoromethane	*52.3*		"	*50.0*		*105*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		"	*50.0*		*97.6*	*50-150*			
LCS (1J23004-BS1)				Prepared & Analyzed: 23-Oct-01						
Methyl tert-butyl ether (MTBE)	50.4	2.0	ug/l	50.0		101	70-130			
Surrogate: Dibromofluoromethane	*47.0*		"	*50.0*		*94.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*45.2*		"	*50.0*		*90.4*	*50-150*			
LCS (1J23004-BS2)				Prepared & Analyzed: 24-Oct-01						
Methyl tert-butyl ether (MTBE)	45.6	2.0	ug/l	50.0		91.2	70-130			
Surrogate: Dibromofluoromethane	*50.3*		"	*50.0*		*101*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*47.9*		"	*50.0*		*95.8*	*50-150*			
Matrix Spike (1J23004-MS1)	**Source: W110272-01**			Prepared & Analyzed: 23-Oct-01						
Methyl tert-butyl ether (MTBE)	42.4	2.0	ug/l	50.0	ND	84.8	60-150			
Surrogate: Dibromofluoromethane	*48.1*		"	*50.0*		*96.2*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*47.6*		"	*50.0*		*95.2*	*50-150*			
Matrix Spike Dup (1J23004-MSD1)	**Source: W110272-01**			Prepared: 23-Oct-01 Analyzed: 24-Oct-01						
Methyl tert-butyl ether (MTBE)	50.5	2.0	ug/l	50.0	ND	101	60-150	17.4	25	
Surrogate: Dibromofluoromethane	*48.4*		"	*50.0*		*96.8*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*47.6*		"	*50.0*		*95.2*	*50-150*			

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 6419 Project Manager: Doug Lee	**Reported:** 29-Oct-01 07:33

Notes and Definitions

Q-28	The opening calibration verification standard was outside acceptance criteria by -23%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
Q-28a	The opening calibration verification standard was outside acceptance criteria by 14%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
QR-04	Primary and confirmation results varied by greater than 40% RPD. The results may still be useful for their intended purpose.
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

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☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company: Gettler-Ryan Inc. 14010	Project Name: 6401 Dublin BLVD
Address: 6747 Sierra Ct. Suite J	TOSCO Engineer (required) David B. De With
City: Dublin State: CA Zip Code: 94568	WIL0242
Telephone: 925-551-7555 FAX #: 925-551-7888	Site #, City, State: 6419, Dublin, CA
Report To: Doug Lee Sampler: A. Smith	QC Data: ☐ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

CODE: ☐ Misc. ☒ Detect. ☐ Eval. ☐ Remed. ☐ Demol. ☐ Closure

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH (EPA 8015 Mod. Gas)	BTEX (EPA 8020)	MTBE (EPA 8020)	TPH (EPA 8015 Mod. Diesel)	Volatile Organics (EPA 8260)	MTBE Confirmation (EPA 8260)	8044			Comments
1. MW-8	10/11/01	H2O	6	VOAS	01A-F	X	X	X				X			
2. MW-9	"	"	"	"	02A-F	X	X	X				X			not TPHd
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

Relinquished By: [signature]	Date: 10/12/01	Time: 1400	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: [signature]	Date: 10/12/01	Time: 14:00

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page 1 of 1

To be completed upon receipt of report:
1) Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed? _____
2) Was the report issued within the requested turnaround time? ☐ Yes ☐ No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
Yellow - Sequoia
White - Sequoia