R124

Delta
Environmental
Consultants, Inc.

3164 Gold Camp Drive
Suite 200
Rancho Cordova, CA 95670-6021
U.S.A.
916/638-2085
FAX: 916/638-8385

April 11, 2002

Mr. Don Hwang
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

APR 19 2002

Subject: *Monitoring Well Installation Results Report*
Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California
Delta Project No. DG99-708

Mr. Hwang:

Delta Environmental Consultants, Inc. (Delta) has been authorized by Chevron Products Company (Chevron) to conduct an additional hydrogeologic investigation at the subject site as shown on Figure 1. A site map illustrating on-site features is included as Figure 2. This investigation was intended to further evaluate the distribution of dissolved petroleum hydrocarbons in groundwater in the vicinity of the subject site. This report includes the results of drilling and well installation activities conducted on January 25, 2002. The work was conducted in accordance with Delta's *Interim Corrective Action Plan* (ICAP) dated June 30, 2000. This work was performed under Alameda County Public Works Agency (ACPWA) well installation permit numbers W01-2162 and W01-2163, City of Oakland (COO) encroachment agreement and Excavation Permit Number X0200068. Copies of the permits are included in Enclosure A.

Site Description

The site is located at the northeast corner of the intersection of MacAurthur Boulevard and Seminary Avenue at 5910 MacArthur Boulevard in Oakland, California. The site is currently used as a retail gasoline service station consisting of a station building, four multi-pump fuel dispenser islands, and three 10,000-gallon underground storage tanks (USTs) that share a common tank basin near the southwest site boundary. The site is bounded to the south, east and west by residential homes and commercial retail businesses, and to the north by Mills College. The site lies at an elevation of approximately 100 feet above mean sea level (msl) with the surrounding topography sloping towards the southwest.

Project Background

In May 1997, Gettler-Ryan Inc. (GR) advanced three soil borings (MW-1 through MW-3) on-site to a depth of 41.5 feet below surface grade (bsg) as part of the real-estate transaction. Each boring was converted to a groundwater monitoring well. Laboratory analytical results for soil samples collected from the borings indicated that petroleum hydrocarbon constituents were present in the subsurface.

During April 1999, GR advanced one soil boring off-site to a depth of 20 feet bsg and completed the boring as monitoring well MW-4. The soil samples collected from the boring did not report detectable concentrations of petroleum hydrocarbons.

Quarterly groundwater monitoring and sampling has been performed at the site since the installation of the monitoring wells in May 1997. Depth to water in the wells has ranged from 10.70 to 14.29 feet bsg. Groundwater flow direction has fluctuated between west and south.

Regional Geology

The subject site is located on the eastern margin of the East Bay Plain at the western edge of the Berkeley Hills, approximately 2 miles northeast of San Leandro Bay. As mapped by Helley and others (1979), soil in the site vicinity consists of late Pleistocene alluvium consisting of weakly consolidated slightly weathered poorly sorted irregular interbedded clay, silt, sand, and gravel (GR 1997). The nearest surface water body is Lake Aliso, which is located approximately 2,700 feet northeast of the site on the Mills College campus.

Soil Borings

On January 25, 2002, a Delta geologist observed Cascade Drilling, Inc. of Sacramento, California advance two borings, each to a depth of 20 feet bsg, using a 8-inch diameter hollow-stem augers. The two borings were completed as groundwater monitoring wells MW-5 and MW-6. Field methods and procedures used by Delta during installation of these wells are summarized in Enclosure B.

Soil samples were collected at 5-foot intervals from each soil boring using a California-modified split spoon sampler to the total depth of each boring. The soil samples from each boring were logged using visual and manual methods, and field-analyzed for the presence of organic vapors using a photoionization detector (PID). Logs of borings are included in Enclosure C.

Soil Sample Analytical Results

Four soil samples (the 5.5 and 10 foot samples from each boring) were submitted to Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania for chemical analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B and total petroleum hydrocarbons in the gasoline range (TPHg) by the DHS Northern California LUFT (LUFT) Method. The soil samples submitted for analysis did not contain detectable concentrations of benzene or MTBE. However, the 10-foot soil sample collected from MW-5 contained detectable concentrations of TPHg at 1.7 mg/kg and the 10-foot soil sample from MW-6 contained low (0.0083 to 0.0020 mg/kg) concentrations of toluene, ethylbenzene, and total xylenes. Soil sample analytical results are presented in Table 1.

One composite soil sample SP-1-4 was collected from the stockpile and submitted to Lancaster for analysis of BTEX and MTBE by EPA Method 8021B, TPHg by the LUFT Method, and total lead by EPA Method 7420. TPHg was detected in the stockpile sample at a concentration of 4.1 mg/kg. Soil stockpile sample analytical results are summarized in Table 1. Copies of the soil analytical reports are included in Enclosure D.

Monitoring Well Construction

Groundwater monitoring wells MW-5 and MW-6 were installed to assess the possible presence of petroleum hydrocarbon constituents downgradient of monitoring well MW-1. The locations of the monitoring wells are shown on Figure 2.

Groundwater monitoring wells MW-5 and MW-6 were constructed with 20 feet of 2-inch diameter, flush-threaded, Schedule 40 PVC casing. The wells were screened with 10 feet of 0.020-inch machine-slotted well screen. The well annulus was backfilled with Lonestar No. 3 sand to approximately one foot above the well screen followed by a two foot thick bentonite transition seal. The upper portions of the well borings were backfilled with neat cement containing approximately five percent bentonite powder. The tops of the wells were completed with traffic-rated well boxes set flush grade in concrete.

Well Survey

On February 7, 2002, the monitoring wells were surveyed by Morrow Surveying of West Sacramento, California, relative to a City of Oakland benchmark. In accordance with State Assembly Bill AB2886, longitude and latitude coordinates were recorded from GPS observations along with well box and top of casing elevation relative to msl. The well survey is presented in Enclosure E.

Well Development, Sampling, and Groundwater Level Measurements

On March 6, 2002, GR developed and sampled the newly installed wells MW-5 and MW-6 using the methods described in Enclosure B. Depth to water in all of the wells ranged from 10.17 to 13.08 feet bsg. Based on the March 6, 2002 event, groundwater beneath the site flows toward the northwest at a gradient of 0.0016. Groundwater field data sheets are included in Enclosure F. A groundwater contour map based on the March 6, 2002 water level data is included as Figure 3.

Disposal of Soil Stockpile

Approximately one cubic yard of drill cuttings was generated during the drilling activities. The cuttings were temporarily covered and stockpiled on-site. The stockpile was removed on February 8, 2002, by Integrated Wastestream Management, Inc. (IWM) and transported to Republic Services Vasco Road Landfill in Livermore, California for disposal. The Certificate of Disposal is included in Enclosure G.

Groundwater Sample Analytical Results

On March 6, 2002, groundwater samples were collected from wells MW-5 and MW-6 during the subject site's first quarter 2002 monitoring and sampling event by GR. All groundwater samples from wells MW-5 and MW-6 were submitted to Lancaster for analysis. Samples were analyzed for BTEX and MTBE using EPA Method 8021B and TPHg using the LUFT Method.

The groundwater sample collected from well MW-6 did not contain detectable concentrations of benzene, however the sample collected from well MW-5 reported benzene at 18 micrograms per liter (µg/L). TPHg was reported in wells MW-5 and MW-6 at 4,900 and 220 µg/L, respectively. MTBE was reported in wells MW-5 and MW-6 at 290 and 53 µg/L, respectively. Groundwater chemical analytical results are presented in Table 2. Copies of the groundwater analytical reports with chain-of-custody documentation are included in Enclosure H.

Conclusions/Recommendations

Laboratory analytical results for the soil samples collected during this investigation indicate that petroleum hydrocarbons have not significantly impacted the vadose zone soil in the vicinity of the newly installed wells. Low concentrations of TPHg detected in MW-5 and toluene, ethylbenzene, and total xylenes in MW-6 appear to occur in the capillary-fringe (smear zone). However, groundwater samples collected from MW-5 and MW-6 indicate that dissolved benzene, TPHg, and MTBE have impacted the groundwater in the vicinity of the newly installed wells.

Delta recommends the newly installed wells be incorporated into the quarterly monitoring and sampling program to evaluate dissolved petroleum hydrocarbons in groundwater. Based on future quarterly sampling results, additional hydrogeologic assessment may be required to further evaluate the lateral extent of petroleum hydrocarbons in groundwater. In addition, Delta recommends a conceptual site model be prepared so as to fully explore the release scenario, likely distribution of chemicals beneath the site, and the links between potential sources and potential receptors.

Remarks/Signatures

The interpretations contained in this report represent our professional opinions, and are based in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact Todd Del Frate at (916) 536-2612.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Brett Bardsley

Brett A. Bardsley
Staff Geologist

T. C. Del Frate

Todd Del Frate
Project Manager

Michael A. Berrington

Michael A. Berrington, R.G.
California Registered Geologist No. 7124

REGISTERED GEOLOGIST
MICHAEL A BERRINGTON
MAB
No. 7124
Exp. 05/31/03
STATE OF CALIFORNIA

BAB (Lrp004.9-9708)
Enclosures

cc: Mr. Tom Bauhs – Chevron Products Company
Mr. Saidian Zektser – Station Owner

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS

Chevron Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

Sample ID	Date	Sample Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)
MW-5-S-5.5	01/25/02	5.5	<0.0050	<0.0050	<0.0050	<0.015	<1.0	<0.050	NA
MW-5-S-10	01/25/02	10	<0.0050	<0.0050	<0.0050	<0.015	1.7	<0.050	NA
MW-6-S-5.5	01/25/02	5.5	<0.0050	<0.0050	<0.0050	<0.015	<1.0	<0.050	NA
MW-6-S-10	01/25/02	10	<0.0050	0.016	0.0083	0.020	<1.0	<0.050	NA
Soil Stockpile Results									
SP-1-4	01/25/02	---	<0.0050	<0.0050	0.014	<0.060	4.1	<0.050	<2.6

TPHg = Total petroleum hydrocarbons in the gasoline range (C5-C9).

MTBE = Methyl tertiary butyl ether.

mg/kg= milligrams per kilogram.

NA = Not analyzed

--- = Not applicable

TABLE 2

GROUNDWATER SAMPLE ANALYTICAL RESULTS

Chevron Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

Sample ID	Date	Top of Casing Elevation (ft amsl)	Depth to Groundwater (ft. btc)	Groundwater Elevation (ft amsl)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPHg (µg/L)	TPHd (µg/L)	MTBE (µg/L)	HVOC's (µg/L)
MW-1	03/06/02	97.52	11.14	86.38	7.0	<0.50	0.72	<1.5	93	NA	1,000	NA
MW-2	03/06/02	97.81	12.99	84.82	170	2.5	<0.50	<1.5	670	NA	410	NA
MW-3	03/06/02	98.78	11.58	87.20	<0.50	<0.50	<0.50	<1.5	<50	30,000	<2.5	ND
MW-4	03/06/02	97.14	13.08	84.06	<0.50	<0.50	<0.50	<1.5	<50	NA	<2.5	NA
MW-5	03/06/02	95.71	11.40	84.31	18	2.7	29	9.8	4,900	NA	290	NA
MW-6	03/06/02	95.84	10.17	85.67	<0.50	<0.50	<0.50	<1.5	220	NA	53	NA

amsl = above mean sea level

btc = below top of casing

TPHg = Total petroleum hydrocarbons in the gasoline range (C5-C9).

TPHd = Total petroleum hydrocarbons in the diesel range (C10-C28).

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted.

HVOC's = Halogenated volatile organic compounds analyzed by EPA Method 8260.

µg/L = micrograms per liter

ND = All compounds analyzed by EPA Method 8260 were not detected at or above the laboratory reporting limits.

NA = Not analyzed.

[1] MTBE anlayzed by EPA Method 8260.

GENERAL NOTES:
BASE MAP FROM U.S.G.S.
OAKLAND EAST, CA
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1983

QUADRANGLE LOCATION

0 2000 FT

SCALE 1:24,000

FIGURE 1

SITE LOCATION MAP

CHEVRON SERVICE STATION NO. 9-9708
5910 MACARTHUR BOULEVARD
OAKLAND, CA

PROJECT NO. DG99-708	DRAWN BY M.L. 6/8/00
FILE NO. DG99708A	PREPARED BY JWS
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.

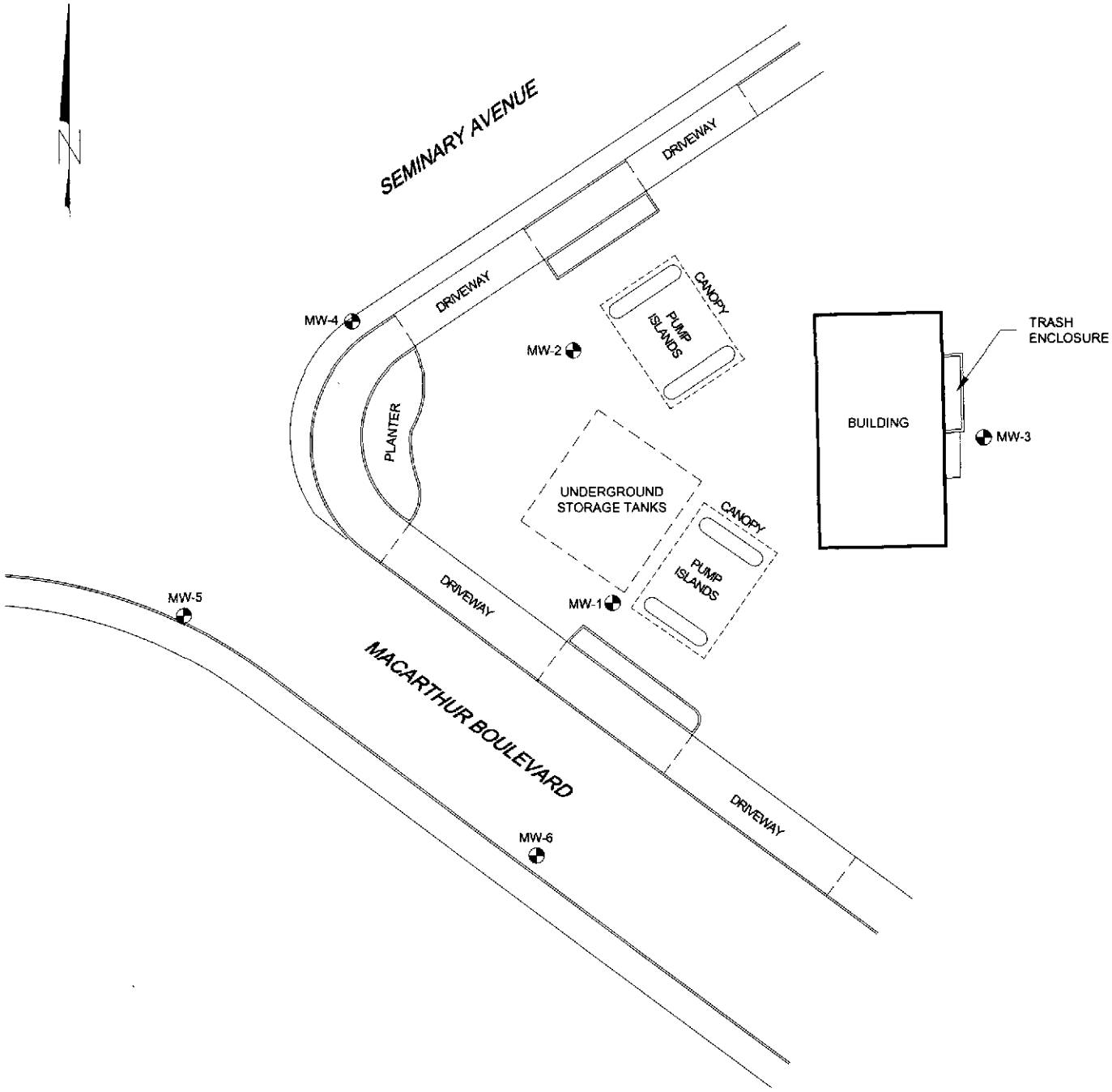


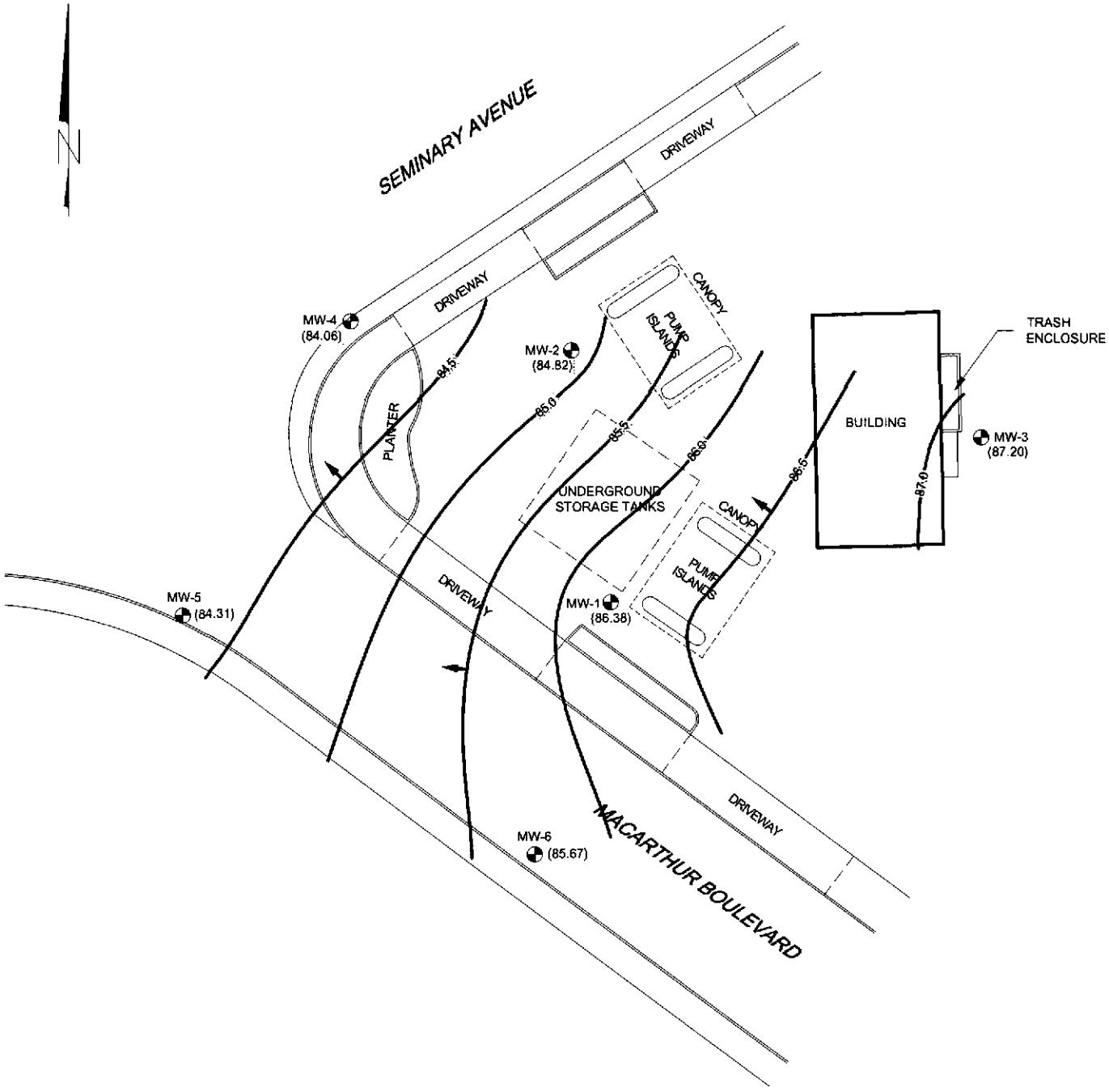
FIGURE 2

SITE MAP

CHEVRON SERVICE STATION 9-9708
5901 MACARTHUR BOULEVARD
OAKLAND, CA.

PROJECT NO. DG99-708	DRAWN BY M.L. 2/28/02
FILE NO. DG99708B	PREPARED BY M.L.
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND:

MW-1	MONITORING WELL LOCATION
(86.38)	GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL)
85.5	WATER TABLE CONTOUR IN FEET ABOVE MSL
	GROUND WATER FLOW DIRECTION

HYDRAULIC GRADIENT= 0.0016 ft/ft MEASURED BETWEEN MW-3 AND MW-4

0 40 FT

SCALE

FIGURE 3

GROUNDWATER ELEVATION CONTOUR MAP
3/6/02

CHEVRON SERVICE STATION 9-9708
5901 MACARTHUR BOULEVARD
OAKLAND, CA.

PROJECT NO. DG99-708	DRAWN BY M.L. 3/11/02
FILE NO. DG99708B	PREPARED BY BAB
REVISION NO. 2	REVIEWED BY

Delta Environmental Consultants, Inc.

ENCLOSURE A

Permits

ALAMEDA COUNTY PUBLIC WORKS AGENCY
WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT
Former Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

CLIENT
Name Chevron Products Company
Address P.O. Box 6004 Phone (925) 842-9999
City San Ramon Zip 94583

APPLICANT
Name Delta Environmental Consultants
Address 3164 Gold Camp Dr. # 200 Fax (916) 638-8385
City Rancho Cordova Phone (916) [redacted] 638-2164 Zip 95670

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

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

DRILLING METHOD:
Mud Rotary ☐
Cable ☐
Air Rotary ☐
Other ☐
Auger ☑

DRILLER'S NAME Cascade Drilling
DRILLER'S LICENSE NO. C57 # 717510

WELL PROJECTS
Drill Hole Diameter 8 in.
Casing Diameter 2 in.
Surface Seal Depth 5 ft.
Maximum Depth 20 ft.
Owner's Well Number MW-5

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

ESTIMATED STARTING DATE 1/30/02
ESTIMATED COMPLETION DATE 1/30/02

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

APPLICANT'S SIGNATURE Brett Bardsley DATE 1/2/02
PLEASE PRINT NAME Brett Bardsley

Rev. 5-15-00

FOR OFFICE USE
PERMIT NUMBER W21-2162
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 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 by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 1-2-02

ALAMEDA COUNTY PUBLIC WORKS AGENCY
WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT
Former Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

CLIENT
Name Chevron Products Company
Address P.O. Box 6004 Phone (925) 842-9999
City San Ramon Zip 94583

APPLICANT
Name Delta Environmental Consultants
Address 3164 Gold Camp Dr. #200 Phone (916) 638-2085
City Rancho Cordova Zip 95670

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

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

DRILLING METHOD:
Mud Rotary
Cable
Air Rotary
Other
Auger ✓

DRILLER'S NAME Cascade Drilling

DRILLER'S LICENSE NO. C57# 717510

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 30 ft.
Surface Seal Depth 5 ft. Owner's Well Number MW-6

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

ESTIMATED STARTING DATE 1/30/02
ESTIMATED COMPLETION DATE 1/30/02

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

APPLICANT'S SIGNATURE Brett Bardsley DATE 1/2/02

PLEASE PRINT NAME Brett Bardsley

Rev. 5-13-00

FOR OFFICE USE
PERMIT NUMBER W01-2163
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 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 by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole above zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

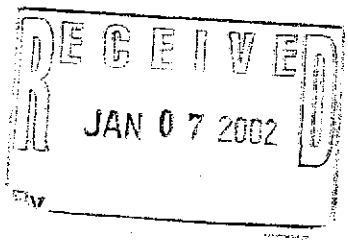
G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 1-7-01

Recording Requested by:
CITY OF OAKLAND

When Recorded Mail to:
City of Oakland
Community & Economic
Development Agency
Building Services Division,
Engineering Information
250 Frank H. Ogawa Plaza, 2nd Floor
Oakland, CA 94612



TAX ROLL PARCEL NUMBER
(ASSESSOR'S REFERENCE NUMBER)

037A	2737	022	03
MAP	BLOCK	PARCEL	SUB

Address: 5910 MACARTHUR BOULEVARD *Space Above for Recorder's Use Only*

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Delta Environmental Consultants, Inc. (Delta) is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way of MacArthur Boulevard to install two monitoring wells. The location of said encroachment shall be as delineated in Exhibit 'A' attached hereto and made a part hereof. Delta Environmental Consultants, Inc. (Delta) was authorized by Chevron Products Company (Chevron) to act on their behalf in conducting all business related to obtaining the encroachment permit (see Exhibit 'B').

The permittee agrees to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the undersigned, the present owners of the property described above, and their successors in interest thereof.

In witness whereof, I have set my signature this 16 day of January, 2002.

Delta Environmental Consultants, Inc. (Delta)

Brett Bardsley
NAME: Brett Bardsley
TITLE: Staff Geologist

* SEE ATTACHED NOTARY CERTIFICATE

---*Below for Official Use Only*---

CITY OF OAKLAND

Dated: _____

By: _____
CALVIN N. WONG
Director of Building Services
For:
WILLIAM E. CLAGGETT
Executive Director,
Community & Economic Development Agency

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of SACRAMENTO } ss.

On JANUARY 16, 2002 (Date), before me, KAREN M. JACOBSON, NOTARY PUBLIC (Name and Title of Officer (e.g., "Jane Doe, Notary Public")),

personally appeared BRETT BARDSLEY (Name(s) of Signer(s)),

☐ personally known to me

☒ proved to me on the basis of satisfactory evidence

to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

KAREN M. JACOBSON
Commission # 1251543
Notary Public - California
Sacramento County
My Comm. Expires Jan 27, 2004

WITNESS my hand and official seal.

Karen M Jacobson
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: MINOR ENCROACHMENT PERMIT + AGREEMENT

Document Date: 1-11-02 Number of Pages: 6

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: DELTA ENVIROMENTAL CONSULTING

TO: Delta Environmental Consultants, Inc. (Delta)
ADDRESS: 3164 Gold Camp Drive
Rancho Cordova, CA 95670 - 6021
(APN: 037A-2737-022-03)

RE: Minor Encroachment Permit for installation of two monitoring wells adjacent to 5910 MacArthur Boulevard.

CONDITIONS FOR GRANTING A MINOR ENCROACHMENT PERMIT

1. That this permit shall be revocable at the pleasure of the Director of Building Services.

2. That the permittee, by the acceptance, either expressed or implied, of the minor encroachment permit hereby disclaims any right, title, or interest in or to any portion of the public street area, and agrees that said temporary use of said area does not constitute an abandonment on the part of the City of Oakland of any of its rights for street purposes and otherwise.

3. The permittee shall maintain in force and effect at all times that said encroachment occupies said public area, good and sufficient public liability insurance in the amount of $300,000 for each occurrence, and property damage insurance in the amount of $50,000 for each occurrence, both including contractual liability, insuring the City of Oakland, its officers and employees against any and all claims arising out of the existence of said encroachment in said sidewalk area, as respects liabilities assumed under this permit, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the Director of Building Services of the City of Oakland, and that such certificate shall state that said insurance coverage shall not be canceled or be permitted to lapse without thirty (30) days written notice to said Director of Building Services. The permittee also agrees that the City may review the type and amount of insurance required of the permittee every five (5) years and may require the permittee to increase the amount of and/or change the type of insurance coverage required.

4. That the permittee, by the acceptance, either expressed or implied, of this revocable permit shall be solely and fully responsible for the repair or replacement of any portion or all of said improvements in the event that said improvements shall have failed or have been damaged to the extent of creating a menace or of becoming a hazard to the safety of the general public; and that the permittee shall be liable for the expenses connected therewith.

5. That the permittee is aware that the proposed work is out of the ordinary and does not comply with City standard installations. Permittee is also aware that the City has to conduct work in the public right-of-way, which may include, but may not be limited to, excavation, trenching, and relocation of its facilities, all of which may damage encroachments. Permittee is further aware that the City takes no responsibility for repair or replacement of encroachments, which are damaged by the City or its contractors. That the permittee, by the acceptance, either expressed or implied, of the encroachment permit hereby agrees that upon receipt of notification from the City, permittee shall immediately repair or replace within 30 days all damages to permittee's encroachments within the public right-of-way which are damaged by the City or its contractors in carrying out the City's work. Permittee agrees to employ interim measures required and approved by the City until repair or replacement work is completed.

6. That upon the termination of the permission herein granted, permittee shall immediately remove said encroachment from the street area, and any damage resulting therefrom shall be repaired to the satisfaction of the Director of Building Services.

7. That the permittee shall file with the City of Oakland for recordation a Minor Encroachment Permit and Agreement, and shall be bound by and comply with all the terms and conditions of said permit.

8. That said permittee shall obtain an excavation permit prior to construction and a separate excavation permit prior to the removal of the ground water monitoring wells.

9. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the monitoring wells and the results of all data collected from the monitoring wells.

10. That said permittee shall remove the monitoring wells and repair any damage to the street area in accordance with City standards two (2) years after construction or as soon as monitoring is complete.

11. That said permittee shall notify the Community & Economic Development Agency, Building Services Division after the monitoring wells are removed and the street area restored to initiate the procedure to rescind the minor encroachment permit.

12. That the monitoring well covers installed within the sidewalk area shall have a skid-proof surface.

13. That the ground water monitoring well castings and covers shall be iron and shall meet H-20 load rating. The cover shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface. For sidewalk installations, a pre-cast concrete utility box and non-skid cover may be needed in conjunction with the bolted cast iron cover with City approval.

14. That the permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.

15. The permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the encroachment area, and permittee hereby waives and fully releases and forever discharges the City and its officers, directors, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgements, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition or required remediation of the excavation area of any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 466 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401, 1450), the Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Sections 253000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).

16. Permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: " A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."

17. Permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect its decision to agree to

these encroachment terms and conditions, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

18. (a) That the permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs; collectively referred to as "claims", whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were either (1) caused by the permittee, its agents, employees, contractors or representatives, or, (2) in the case of environmental contamination, the claim is a result of environmental contamination that emanates or emanated from 5910 MacArthur Boulevard, Oakland, California site, or was otherwise caused by the permittee, its agents, employees, contractors or representatives.

(b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from 5910 MacArthur Boulevard, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.

(c) That the permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.

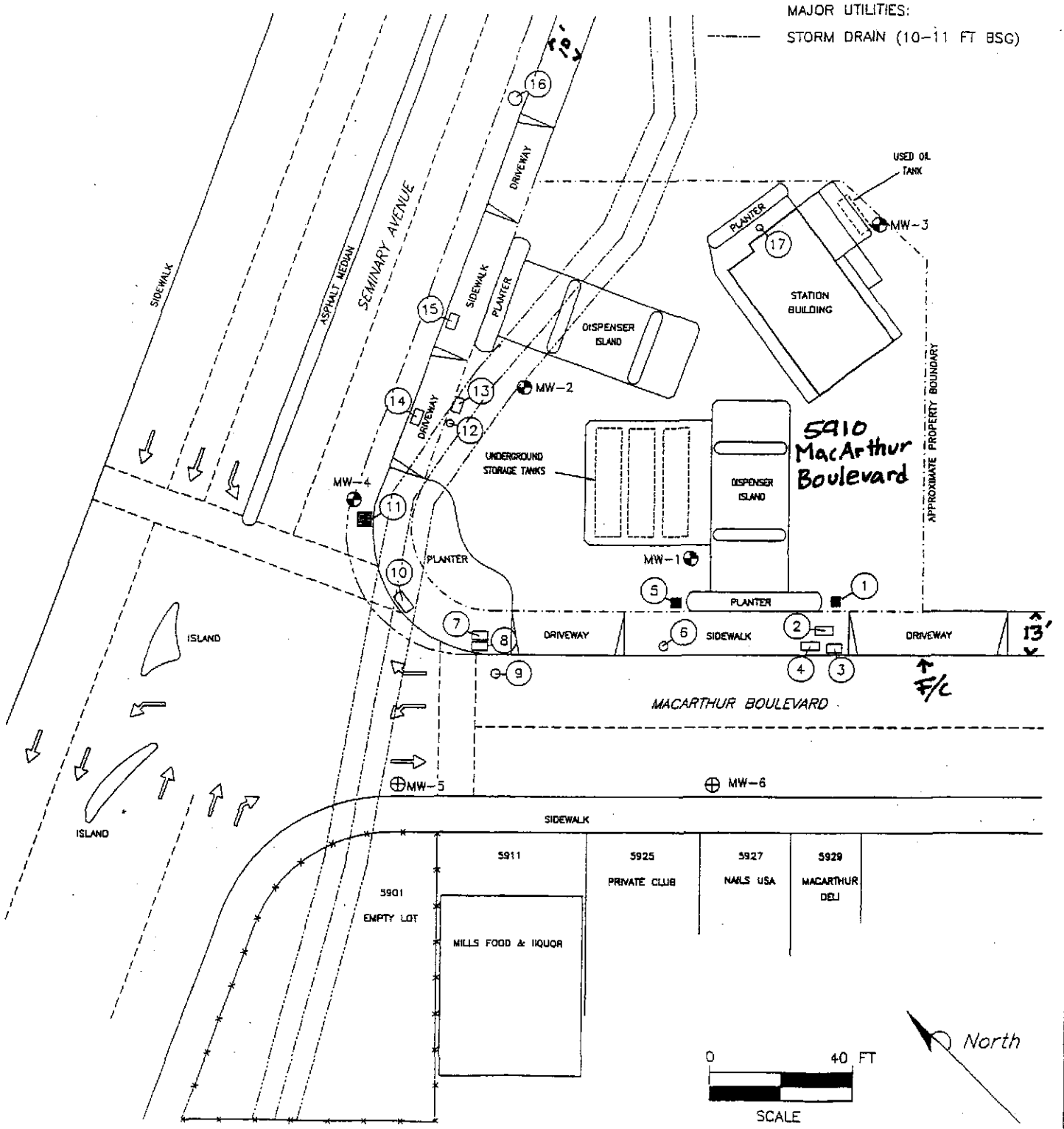
19. That the permittee hereby does remise, release, and forever discharge, and agree to defend, indemnify, and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, claims, and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or by the undersigned and any other person or persons, and arising out of, or by reason of the occupation of said public property, and the future removal of the above-mentioned encroachment.

20. That the herein above conditions shall be binding upon the permittee and the successive owners and assigns thereof.

21. That said permittee shall provide to the City of Oakland a performance bond for the amount of $3,000 per monitoring well encroaching within the public right-of-way prior to the issuance of the encroachment permit. Said performance bond shall be returned to the permittee after the monitoring is complete and the monitoring well is removed and the street area is restored.

22. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the Director of Building Services, and shall become null and void upon the failure of the permittee to comply with all conditions.

EXHIBIT 'A'



LEGEND:

MW-1 MONITORING WELL LOCATION

MW-5 PROPOSED MONITORING WELL LOCATION

VAULT NUMBER	VAULT DESCRIPTION	VAULT NUMBER	VAULT DESCRIPTION
1	STORM DRAIN	10	TRAFFIC
2	ELECTRICAL	11	STORM DRAIN
3	ELECTRICAL	12	WATER VALVE
4	TRAFFIC	13	PG&E
5	STORM DRAIN	14	WATER METER
6	SEWER	15	TRAFFIC
7	TRAFFIC	16	SEWER
8	TRAFFIC	17	SEWER CLEANOUT
9	WATER		

FIGURE 2

SITE VICINITY MAP

CHEVRON SERVICE STATION NO. 9-9708

5910 MACARTHUR BOULEVARD

OAKLAND, CA.

PROJECT NO. DG99-708	DRAWN BY TLA 1/15/01
FILE NO. 9-9708-2	PREPARED BY TLA
REVISION NO. 3	REVIEWED BY

Delta

EXHIBIT 'B'

Chevron

Chevron Products Company
6001 Bollinger Canyon Rd. Bldg. V
P. O. Box 6004
San Ramon, CA 94583-0904

Site Assessment & Remediation
Phone (510) 842-9500
Fax (510) 842-8370

December 18, 2001

Calvin Wong
Deputy Director of Building Services
City of Oakland
250 Frank G. Ogawa Plaza, 2nd Floor
Oakland, CA 94612

Subject: *Letter of Permission*
Chevron Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California
Delta Project No. DG99-708

Calvin Wong:

This letter serves as permission for Delta Environmental Consultants, Inc. (Delta) to obligate Chevron Products Company (Chevron) to the terms and conditions of the Encroachment Permit required for installation of wells in the City of Oakland Right-of-Way.

Delta, on behalf of Chevron is requesting permission to install groundwater monitoring wells in the City of Oakland Right-of-Way. The proposed work is being performed under the direction of Alameda County as part of an on-going environmental investigation that Delta is performing in connection with the former Chevron Station 9-9708 located at 5910 MacArthur Boulevard, Oakland, California.

Delta proposes to install two monitoring wells in the city Right-of-Way adjacent to the station property. Two monitoring wells (MW-5 and MW-6) will be installed in parking lanes next to the sidewalk. It is anticipated that the wells will be installed to a depth of up to 25 feet beneath the surface grade and completed with traffic rated well boxes. The proposed locations of the monitoring wells are illustrated on the attached figure.

If you have any questions concerning the project, please contact Tom Bauhs at (925) 842-8898.

Sincerely,

Chevron Products Company
Thomas K. Bauhs
Project Manager

Attachment

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785200

Collected:03/06/2002 12:35 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-3-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-3

M3026

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05553	TPH - DRO CA LUFT (Waters)	n.a.	30,000.	1,000.	ug/l	50
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. The observed sample pattern is not typical of diesel/#2 fuel oil. Accurate surrogate recoveries could not be determined due to the dilution required for analysis of the sample.					
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
05382	EPA SW846/8260 (water)					
05385	Chloromethane	74-87-3	N.D.	2.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	2.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	2.	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.	2.	ug/l	1

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785200

Collected:03/06/2002 12:35 by TC Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-3-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-3

M3026

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05390	1,1-Dichloroethene	75-35-4	N.D.	1.	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	1.	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	1.	ug/l	1
05396	Chloroform	67-66-3	N.D.	1.	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	1.	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	1.	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	1.	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	1.	ug/l	1
05383	EPA SW846/8260 (water) cont					
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
05432	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
05433	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
05435	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
08202	EPA SW 846/8260 - Water					
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
08203	Freon 113	76-13-1	N.D.	2.0	ug/l	1

A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of California Lab Certification No. 2116

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike.
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785200

Collected:03/06/2002 12:35 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-3-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-3

M3026

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	03/14/2002 19:17	Tracy A Cole	50
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 06:52	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 06:52	Melissa D Mann	1
05382	EPA SW846/8260 (water)	SW-846 8260B	1	03/13/2002 08:43	Kenneth L Boley Jr	1
05383	EPA SW846/8260 (water) cont	SW-846 8260B	1	03/13/2002 08:43	Kenneth L Boley Jr	1
08202	EPA SW 846/8260 - Water	SW-846 8260B	1	03/13/2002 08:43	Kenneth L Boley Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 06:52	Melissa D Mann	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/13/2002 08:43	Kenneth L Boley Jr	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	03/12/2002 01:30	JoElla L Rice	1

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

Analysis Report

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Lancaster Laboratories Sample No. WW 3785201

Collected:03/06/2002 13:05 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-4-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 00:40	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 00:40	Melissa D Mann	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 00:40	Melissa D Mann	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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2425 New Holland Pike.
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Analysis Report

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3785202

Collected:03/06/2002 13:40 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-5-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	4,900.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	18.	0.50	ug/l	1
00777	Toluene	108-88-3	2.7	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	29.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	9.8	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	290.	2.5	ug/l	1
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 01:14	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 01:14	Melissa D Mann	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 01:14	Melissa D Mann	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster, PA 17605-2425
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Analysis Report

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Lancaster Laboratories Sample No. WW 3785203

Collected:03/06/2002 10:45 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-6-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	220.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	53.	2.5	ug/l	1
	A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 01:49	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 01:49	Melissa D Mann	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 01:49	Melissa D Mann	n.a.

#=Laboratory MethodDetection Limit Exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 799685
Reported: 03/18/02 at 04:59 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 020700013A	Sample number(s): 3785200							
TPH - DRO CA LUFT (Waters)	N.D.	50.	ug/l	91	83	54-120	10	20
Batch number: 02071A16A	Sample number(s): 3785197-3785199							
Benzene	N.D.	0.5	ug/l	102	102	80-118	0	30
Toluene	N.D.	0.5	ug/l	103	104	82-119	1	30
Ethylbenzene	N.D.	0.5	ug/l	103	103	81-119	0	30
Total Xylenes	N.D.	1.5	ug/l	104	104	82-120	0	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	100	104	79-127	4	30
TPH-GRO - Waters	N.D.	50.	ug/l	100	102	76-126	1	30
Batch number: 02071A16B	Sample number(s): 3785199							
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	100	104	79-127	4	30
Batch number: 02071A53A	Sample number(s): 3785201-3785203							
Benzene	N.D.	0.5	ug/l	97	97	80-118	1	30
Toluene	N.D.	0.5	ug/l	97	97	82-119	1	30
Ethylbenzene	N.D.	0.5	ug/l	100	99	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	97	96	82-120	1	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	102	106	79-127	4	30
TPH-GRO - Waters	N.D.	50.	ug/l	103	102	76-126	1	30
Batch number: 02071A55B	Sample number(s): 3785200							
Benzene	N.D.	0.5	ug/l	98	98	80-118	1	30
Toluene	N.D.	0.5	ug/l	103	104	82-119	0	30
Ethylbenzene	N.D.	0.5	ug/l	107	108	81-119	1	30
Total Xylenes	N.D.	1.5	ug/l	107	107	82-120	1	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	101	99	79-127	2	30
TPH-GRO - Waters	N.D.	50.	ug/l	107		76-126		
Batch number: P020711AB	Sample number(s): 3785200							
Chloromethane	N.D.	2.	ug/l	102	102	44-118	1	30
Vinyl Chloride	N.D.	1.	ug/l	104	105	55-121	1	30
Bromomethane	N.D.	2.	ug/l	71	71	34-126	0	30
Chloroethane	N.D.	2.	ug/l	90	90	53-117	0	30
Trichlorofluoromethane	N.D.	2.	ug/l	92	95	54-142	3	30
1,1-Dichloroethene	N.D.	1.	ug/l	108	109	67-140	0	30
Methylene Chloride	N.D.	2.	ug/l	108	106	84-128	2	30
trans-1,2-Dichloroethene	N.D.	1.	ug/l	107	106	83-129	1	30
1,1-Dichloroethane	N.D.	1.	ug/l	106	107	77-129	1	30
cis-1,2-Dichloroethene	N.D.	1.	ug/l	103	105	85-126	2	30
Chloroform	N.D.	1.	ug/l	103	103	86-124	1	30
1,1,1-Trichloroethane	N.D.	1.	ug/l	104	104	83-127	0	30
Carbon Tetrachloride	N.D.	1.	ug/l	99	102	77-130	3	30
1,2-Dichloroethane	N.D.	2.	ug/l	106	106	77-132	0	30
Trichloroethene	N.D.	1.	ug/l	102	102	87-117	0	30
1,2-Dichloropropane	N.D.	1.	ug/l	99	101	83-123	1	30
Bromodichloromethane	N.D.	1.	ug/l	99	99	83-121	0	30
1,1,2-Trichloroethane	N.D.	1.	ug/l	104	104	86-120	0	30
Tetrachloroethene	N.D.	1.	ug/l	108	107	79-136	0	30
Dibromochloromethane	N.D.	1.	ug/l	99	98	78-119	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Where quality is a science.

Quality Control Summary

Client Name: Chevron Products Company
Group Number: 799685
Reported: 03/18/02 at 04:59 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chlorobenzene	N.D.	1.	ug/l	103	103	87-121	0	30
Bromoform	N.D.	1.	ug/l	94	94	69-121	0	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	107	105	72-119	2	30
1,3-Dichlorobenzene	N.D.	1.	ug/l	108	107	82-119	0	30
1,4-Dichlorobenzene	N.D.	1.	ug/l	104	103	84-116	1	30
1,2-Dichlorobenzene	N.D.	1.	ug/l	105	104	84-117	1	30
trans-1,3-Dichloropropene	N.D.	1.	ug/l	96	97	79-120	1	30
cis-1,3-Dichloropropene	N.D.	1.	ug/l	98	99	78-114	1	30
Freon 113	N.D.	2.	ug/l	110	113	73-139	2	30

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02071A16A	Sample number(s): 3785197-3785199								
TPH-GRO - Waters	111		74-132						
Batch number: 02071A53A	Sample number(s): 3785201-3785203								
Benzene	104		77-131						
Toluene	104		80-128						
Ethylbenzene	106		76-132						
Total Xylenes	103		76-132						
Methyl tert-Butyl Ether	108		61-144						
TPH-GRO - Waters	108		74-132						
Batch number: 02071A55B	Sample number(s): 3785200								
Benzene	104		77-131						
Toluene	113		80-128						
Ethylbenzene	116		76-132						
Total Xylenes	115		76-132						
Methyl tert-Butyl Ether	105		61-144						
TPH-GRO - Waters	109	111	74-132	2	30				
Batch number: P020711AB	Sample number(s): 3785200								
Chloromethane	116		42-125						
Vinyl Chloride	120		54-133						
Bromomethane	76		36-133						
Chloroethane	105		55-129						
Trichlorofluoromethane	112		58-157						
1,1-Dichloroethene	127		75-152						
Methylene Chloride	111		81-134						
trans-1,2-Dichloroethene	120		78-140						
1,1-Dichloroethane	118		77-142						
cis-1,2-Dichloroethene	107		79-133						
Chloroform	108		76-138						
1,1,1-Trichloroethane	113		78-141						
Carbon Tetrachloride	113		75-149						
1,2-Dichloroethane	108		75-141						

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 799685
Reported: 03/18/02 at 04:59 PM

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Trichloroethene	107		82-133						
1,2-Dichloropropane	103		82-128						
Bromodichloromethane	103		81-127						
1,1,2-Trichloroethane	102		82-127						
Tetrachloroethene	116		81-148						
Dibromochloromethane	98		74-125						
Chlorobenzene	105		81-125						
Bromoform	91		62-127						
1,1,2,2-Tetrachloroethane	99		69-121						
1,3-Dichlorobenzene	107		82-128						
1,4-Dichlorobenzene	103		81-122						
1,2-Dichlorobenzene	103		82-125						
trans-1,3-Dichloropropene	97		70-120						
cis-1,3-Dichloropropene	97		70-123						
Freon 113	132		76-157						

Surrogate Quality Control

Analysis Name: TPH - DRO CA LUFT (Waters)
Batch number: 020700013A

	Orthoterphenyl
3785200	261*
Blank	104
LCS	92
LCSD	93
Limits:	59-139

Analysis Name: TPH-GRO - Waters
Batch number: 02071A16A

	Trifluorotoluene-F	Trifluorotoluene-P
3785197	81	102
3785198	87	105
3785199	165*	124
Blank	78	102
LCS	121	104
LCSD	119	102
MS	172*	
Limits:	67-135	71-130

Analysis Name: TPH-GRO - Waters
Batch number: 02071A16B

	Trifluorotoluene-F	Trifluorotoluene-P
3785199		106

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Quality Control Summary

Client Name: Chevron Products Company Group Number: 799685
Reported: 03/18/02 at 04:59 PM

Surrogate Quality Control

Blank	84	103
LCS	121	104
LCSD	119	102
Limits:	67-135	71-130

Analysis Name: TPH-GRO - Waters
Batch number: 02071A53A

	Trifluorotoluene-F	Trifluorotoluene-P
3785201	96	100
3785202	116	108
3785203	92	93
Blank	94	98
LCS	111	100
LCSD	109	100
MS	109	101
Limits:	67-135	71-130

Analysis Name: TPH-GRO - Waters
Batch number: 02071A55B

	Trifluorotoluene-F	Trifluorotoluene-P
3785200	101	86
Blank	104	86
LCS	119	86
LCSD		86
MS	120	83
MSD	121	
Limits:	67-135	71-130

Analysis Name: EPA SW846/8260 (water)
Batch number: P020711AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3785200	102	97	99	89
Blank	102	97	100	88
LCS	95	96	101	98
LCSD	96	95	100	98
MS	96	95	100	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories — Where quality is a science.

080302-007

Acct. #: 10906 — For Lancaster Laboratories use only — Sample #: 378519 7 — SCR#:

GLOBAL ID # T0600102093

Facility #: 9-9708 JOB # 386595

Site Address: 5910 MAC ARTHUR BLVD. OAKLAND, CA.

Chevron PM: TOM BAUHS — Lead Consultant: DCITA/GR

Consultant/Office: G-R, INC, 6747 SIERRA CT. DUBLIN, 94568

Consultant Prj. Mgr.: DEANNA L. HARDING (DEANNA@GRINC.COM)

Consultant Phone #: 925-551-7555 — Fax #: 925-551-7899

Sampler: Tony Armanious

Service Order #: _____ ☐ Non SAR: _____

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (Potable ☐ NPDES ☐)	Matrix: Oil ☐ Air ☐	Total Number of Containers	Analyses Requested — Preservation Codes: BTEX + MTBE 8260 ☐ 8021 ☒	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐	H: HVOC's 8260	Comments / Remarks
QA	3/6/02	—				X		2	X	X						
MW-1		1408	X			X		3	X	X						
MW-2		1425	X			X		3	X	X						
MW-3		1235	X			X		8	X	X	X				X	
MW-4		1305	X			X		3	X	X						
MW-5		1340	X			X		3	X	X						
MW-6	↓	1045	X			X		3	X	X						

Preservative Codes
H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

Turnaround Time Requested (TAT) (please circle)
STD. TAT (circled) — 72 hour — 48 hour — 24 hour — 4 day — 5 day

Data Package Options (please circle if required)
QC Summary — Type I — Full
Type VI (Raw Data) — ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	3/6/02	1715	Received by:	3/8/02	1225
Relinquished by:	3/8/02		Received by:	3/8/02	1345
Relinquished by:	3/8/02	1615	Received by: Airborne	3/8/02	
Relinquished by Commercial Carrier: UPS FedEx Other (Airborne)			Received by:	3/8/02	0915
Temperature Upon Receipt 1.5-4.5 C°			Custody Seals Intact? Yes No		

3460 Rev. 7/30/01

MONITORING WELL
OBSERVATION SUMMARY SHEET

CHEVRON #: 9-9708 G-R JOB #: 386395

LOCATION: 5910 MacArthur Blvd. DATE: 3/6/02

CITY: Oakland, CA TIME:

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments
MW-1	19.95	11.14	Ø	TOC	
MW-2	19.91	12.99			
MW-3	19.80	11.58			
MW-4	19.18	13.08			
MW-5 After purge	18.53	11.40			
MW-6 After purge	18.61	10.17	Ø	Ø	

Comments:

Sampler: Tony Camarena Assistant:

Client/ CHEVRON
Facility #9-9708 Job#: 386395
Address: 5910 MACARTHUR BLVD. Date: 3/6/02
City: OAKLAND, CA. Sampler: TC

Well ID MW-5 Well Condition: O.K
Well Diameter 2" in. Hydrocarbon Thickness: 0 Ft. Amount Bailed (product/water): 0 (gal.)
PRE-PURGE
Total Depth 18.74 ft.
Depth to Water 11.40 ft.

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

7.34 x VF .17 = 1.2 x 10 (case volume) = Estimated Purge Volume: 12.5 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / Suction / Grundfos / Other: 2" STAINLESS BAILER
Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

Starting Time: 1112 Weather Conditions: cloudy / sprinkle
Sampling Time: 1340 Water Color: BROWN Odor: YES
Purging Flow Rate: — gpm. Sediment Description: WATER HAD SOME FOAM DURING PURGING
Did well de-water? YES If yes; Time: 1128 Volume: 7.0 (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1114	1.5	7.41	1121	69.2			
1116	3.0	7.26	1106	68.6			
1120	4.5	7.18	1042	68.2			
1124	5.5	7.02	1038	68.0			
1128	7.0	6.98	1029	67.8			
1316	8.0	6.64	964	67.9			
1320	9.0	6.82	932	68.0			
1324	10.0	6.71	948	67.6			
1328	11.0	6.80	956	67.4			
1332	12.5	6.92	918	67.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3XVOA-03RP	Y	HCL	LANCASTER	TPH-G/BTEX/MTBE

COMMENTS: LET WELL RECOVER APPROX. 1 HR 20 MINS AFTER IT DE-WATERED PULLED UP ABOT OF SAND OUT OF WELL WATER WAS ALSO FOAMY. TOTAL WELL DEPTH AFTER PURGE = 18.53 *WELL CLEARED UP O.K WATER WAS CLEAR LAST

Client/ CHEVRON
Facility #9-9908 Job#: 386395
Address: 5910 MAC ARTHUR BLVD. Date: 3/6/02
City: OAKLAND, CA. Sampler: TC

Well ID MW-6 Well Condition: ok
Well Diameter 2" in. Hydrocarbon Thickness: 0 Ft. Amount Bailed (product/water): 0 (gal.)
Total Depth pre-purge → 19.58 ft.
Depth to Water 10.17 ft.

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

8.41 x VF .17 = 1.4 x 10 (case volume) = Estimated Purge Volume: 14.0 (gal.)

Purge Equipment: Disposable Bailer, Bailer, ~~Stack~~, Suction, Grundfos, (Other) 2" STAINLESS
Sampling Equipment: ~~Disposable Bailer~~, Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 0951 Weather Conditions: RAIN
Sampling Time: 1045 Water Color: BROWN Odor: Y-S
Purging Flow Rate: 2.0 gpm. Sediment Description: SILTY
Did well de-water? Y-S If yes; Time: 1021 Volume: 10.5 (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1017 0954	1.5	7.42	1196	68.3			
0957	3.0	7.32	1246	68.0			
1000	4.5	7.22	1232	67.8			
1005	6.0	7.16	1216	67.8			
1018	7.5	7.21	1232	68.0			
1020	9.0	7.13	1186	67.6			
1021	10.5	7.08	1221	66.9			
1032	12.0	7.16	1206	67.0			
1033	13.5	7.21	1213	66.9			
1035	14.0	7.18	1226	66.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 VOA'S HCL	Y	HCL	LANCASTER	TPH-G / BTEX ONLY

COMMENTS: WELL DE-WATERED AT 10.5 GAL LET RECOVER FOR 10 MINS
* WELL CLEANED UP O.K LAST 3 CASING VOLUMES WATER WAS LGT. BROWN W/ LGT. SILT. AFT PURGE TWO = 18.61

9/97-fielcert.

ENCLOSURE G

Certificate of Waste Disposal

IWM, Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC.
950 AMES AVENUE, MILPITAS, CA 95035
PHONE: 408.942.8955 FAX: 408.942.1499

CERTIFICATE OF DISPOSAL

Generator Name: Chevron Products Company
Address: 6001 Bollinger Canyon Road
San Ramon, CA 94583
Contact: Bob Cochran
Phone: 925-842-9500

Facility Name: Chevron #9-9708
Address: 5910 Mac Arthur Blvd
Oakland, CA
Facility Contact: Brett Bardsley, Delta Environmental
Phone: 916-638-2164

IWM Job #: 91968-SS
Description of Waste: 1 CY of Non-Hazardous Soil
Removal Date: February 8, 2002
Ticket #: RSVRL080202

Transporter Information

Name: IWM, Inc.
Address: 950 Ames Avenue
Milpitas, CA 95035
Phone: (408) 942-8955

Disposal Facility Information

Name: Republic Services Vasco Road Landfill
Address: 4001 N. Vasco Road
Livermore, CA 94550
Phone: (925) 447-0491

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon William T. DeLon
Authorized Representative (Print Name and Signature)

2/8/02
Date

CertOfDisposal.Master.010600

Revised: 1 June 2000

ENCLOSURE H

Groundwater Sample Laboratory Analytical Results

Lancaster Laboratories
Where quality is a science.

ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904
925-842-8582

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 799685. Samples arrived at the laboratory on Saturday, March 09, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description			Lancaster Labs Number
QA-T-020306	NA	Water	3785197
MW-1-W-020306	Grab	Water	3785198
MW-2-W-020306	Grab	Water	3785199
MW-3-W-020306	Grab	Water	3785200
MW-4-W-020306	Grab	Water	3785201
MW-5-W-020306	Grab	Water	3785202
MW-6-W-020306	Grab	Water	3785203

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Delta C/O Gettler-Ryan Attn: Deanna L. Harding

Lancaster Laboratories
Where quality is a science.

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

Victoria M Martelli

Victoria M. Martelli
Chemist

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MEMBER ACIL

CASE NARRATIVE

Prepared For:

Thomas Bauhs
Chevron Products Company
6001 Bollinger Canyon Road
Building L
P.O. Box 6004
San Ramon, CA 94583-0904

Prepared By:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 799685. Samples arrived at the laboratory on Saturday, March 09, 2002.

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

COMMENTS

The percent recovery for the TPH-GRO surrogate was outside the QC limits for the MS associated with samples QA, MW-1 and MW-2 from Facility 99708. The compound met recovery criteria in the LCS/LCSD analysis.

Accurate surrogate recoveries could not be determined due to the dilution required for the TPH-DRO analysis of sample MW-3 from Facility 99708.

Analysis Report

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785197

Collected:03/06/2002 00:00

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:58
Discard: 04/18/2002
QA-T-020306 NA Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
	The percent recovery for the surrogate was outside QC limits in the MS associated with this sample. The compound met recovery criteria in the LCS/LCSD analysis.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
	Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/12/2002 17:25	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/12/2002 17:25	John B Kiser	1

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785197

Collected:03/06/2002 00:00 Account Number: 10905

Submitted: 03/09/2002 09:25 Chevron Products Company
Reported: 03/18/2002 at 16:58 6001 Bollinger Canyon Road
Discard: 04/18/2002 Building L PO Box 6004
QA-T-020306 NA Water San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 QA

01146	GC VOA Water Prep	SW-846 5030B	1	03/12/2002 17:25	John B Kiser	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785198

Collected:03/06/2002 14:08 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:58
Discard: 04/18/2002
MW-1-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	93.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
	The percent recovery for the surrogate was outside QC limits in the MS associated with this sample. The compound met recovery criteria in the LCS/LCSD analysis.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	7.0	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	0.72	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	1,000.	2.5	ug/l	5
	Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 01:58	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 01:26	John B Kiser	5

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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ACIL
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Where quality is a science.

Lancaster Laboratories Sample No. WW 3785198

Collected:03/06/2002 14:08 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:58
Discard: 04/18/2002
MW-1-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-1

08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 01:58	John B Kiser	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 01:26	John B Kiser	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Analysis Report

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3785199

Collected:03/06/2002 14:25 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-2-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	670.	50.	ug/l	1

The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The percent recovery for the surrogate
was outside QC limits in the MS associated with this sample.
The compound met recovery criteria in the LCS/LCSD analysis.

Due to the nature of the sample matrix, the surrogate standard recovery is above the range of specifications.

08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	170.	0.50	ug/l	1
00777	Toluene	108-88-3	2.5	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	410.	2.5	ug/l	5

Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster, PA 17605-2425
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Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3785199

Collected:03/06/2002 14:25 by TC

Account Number: 10905

Submitted: 03/09/2002 09:25
Reported: 03/18/2002 at 16:59
Discard: 04/18/2002
MW-2-W-020306 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 99708 Job# 386395 GRD
5910 MACARTHUR BLVD T0600102093 MW-2

01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	03/13/2002 00:22	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 00:22	John B Kiser	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	03/13/2002 21:38	Darvin L Martin	5
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2002 00:22	John B Kiser	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories, Inc.
2425 New Holland Pike.
PO Box 12425
Lancaster, PA 17605-2425
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CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

CIVIL ENGINEERING

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

PAGE 2 of 2

PERMIT NUMBER X0200068	SITE ADDRESS/LOCATION 5910 MACARTHUR
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS C57 717519	CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: ____________

2) **48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.** 510-238-4471 Joseph

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. ____________, B&PC for this reason ____________

WORKER'S COMPENSATION

☒ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # 01EW530531 Company Name Alaska National Insurance

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Chapter 6, Article 2 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law. 1/31/04

[signature] for Cascade Drilling, Inc. 1-16-02

Signature of Permittee ☐ Agent for ☒ Contractor ☐ Owner Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☒ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☒ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☒ NO
ISSUED BY [signature]		DATE ISSUED 1-16-02	

ENCLOSURE B

Field Methods and Procedures

1.0 FIELD METHODS AND PROCEDURES

1.1 Health and Safety Plan

Field work performed by Delta and Delta's subcontractors at the site is conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document which describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP is at the site and available for reference by appropriate parties during work at the site.

1.2 Locating Underground Utilities

Prior to commencement of work on-site, Delta researches the location of underground utilities with the assistance of Underground Service Alert (USA). USA contacts the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Work associated with the boring and monitoring well installation is preceded by manual hand augering to a minimum depth of 5 feet below surface grade (bsg) to avoid contact with underground utilities.

1.3 Soil Sampling and Contamination Reduction

Soil borings and soil sampling are performed under the direction of a Delta geologist. Soil borings are advanced using a truck-mounted hollow-stem auger drill rig.

To reduce the chances of cross-contamination between boreholes, all downhole drilling equipment is steam-cleaned between each boring. To reduce cross-contamination between samples, the split-barrel sampler is washed in a soap solution and double-rinsed between each sampling event.

Soil sampling beyond 5 feet bsg is conducted in accordance with ASTM 1586-84. Using this procedure, a 2-inch outside-diameter split-barrel sampler or a 2-inch inside-diameter California-type sampler is driven into the soil by a 140-pound weight falling 30-inches. After an initial set of 6-inches, the number of blows required to drive the sampler an additional 12-inches (known as penetration resistance or the "N" value) is recorded. The N value is used as an empirical measure of the relative density of cohesionless soils and the consistency of cohesive soils.

Upon recovery, a portion of the soil sample is placed into a plastic bag and sealed for later screening with a photoionization detector (PID). Another portion of the soil sample is used for classification and description. That part of the soil sample collected in the leading brass tube within the California-type sampler is stored at approximately 4°C for transport to the laboratory.

1.4 Soil Classification

As the samples are obtained in the field, they are classified by the geologist in accordance with the Unified Soil Classification System (USCS). Representative portions of the samples are then retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata, the N value, and pertinent information regarding the method of maintaining and advancing the borehole are made.

1.5 Soil Sample Screening/hNu Portable Photoionization Detector Method

After the soil sample plastic bags are brought to ambient temperature, the headspace vapors of the soil sample in the bag are screened with a PID equipped with a 10.2 eV lamp. The sample corner of the bag is opened and the detector probe immediately placed within the headspace. The highest observed reading is recorded.

1.6 Monitoring Well Gravel Pack and Slot Size Selection

The gravel pack is selected such that it will permit the development of a zone of higher hydraulic conductivity adjacent to the well screen but will reduce piping of the finer-grained formation materials into the well. The slot size of the well screen is selected such that it will retain a minimum of 95 percent of the gravel pack material.

1.7 Monitoring Well Development

After monitoring wells are installed, each monitoring well is developed with a surge block and bailer (or pump) until the water produced is relatively sediment-free and until the conductivity, pH, and temperature stabilize. If the well is pumped dry during the development process, recharge rates are recorded. No water or chemicals are introduced into the monitoring wells during well development. All development water is placed in drums on-site for later disposal.

1.8 Groundwater Sampling

At least three wetted casing volumes of liquid are removed from each well by bailing with a clean disposable bailer. A liquid sample is collected from each well with a clean disposable bailer and transferred into a laboratory supplied sampling container. Each sample is appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. Groundwater samples are transported to the laboratory and analyzed within the EPA-specified holding times for the requested analyses.

1.9 Liquid-Phase Petroleum Hydrocarbons

If liquid-phase petroleum hydrocarbons are present in a well, the thickness of the petroleum layer is measured by collecting a sample in a transparent disposable bailer with a check valve at the bottom, or by measurement using appropriate fluid-level sounding equipment.

2.0 ANALYTICAL PROCEDURES

Selected soil samples submitted to the laboratory are analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, and TPHg using DHS LUFT.

3.0 QUALITY ASSURANCE PLAN

This section describes the field and analytical procedures to be followed throughout the investigation.

3.1 General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of soil samples used on this project can be found in Section 1.0 (Methods).

3.2 Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures ensure sample integrity and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, are recorded on the borehole log or in the field records. Samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquish as the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirm that it was collected in the proper container, preserved correctly, and that there is an adequate volume for analysis.

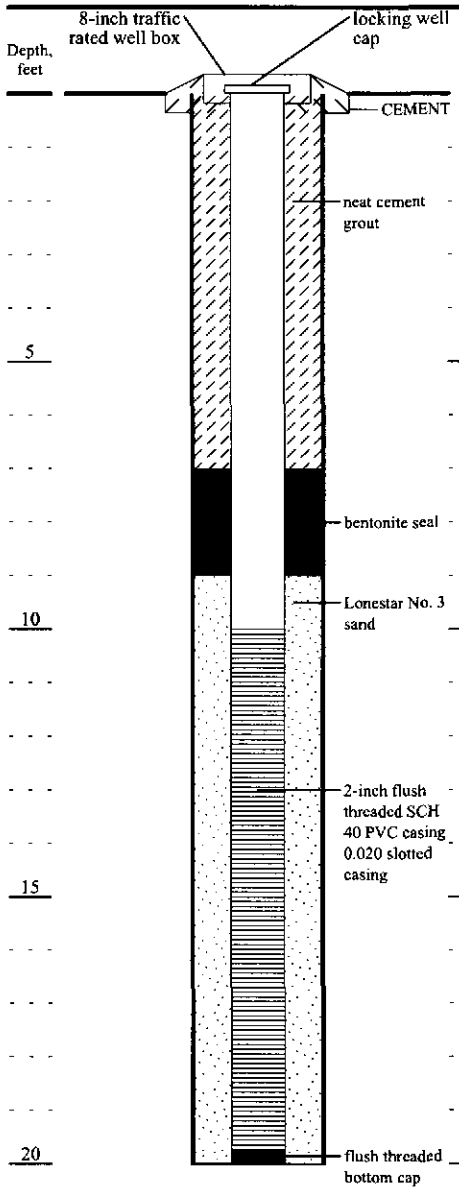
If these conditions are met, the sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory in the laboratory. The sample description, date received, client's name, and other relevant information is also be recorded.

ENCLOSURE C

Soil Boring Logs and Well Construction Details

Delta Environmental Consultants, Inc.	Street Address **5910 MacArthur Boulevard**	Project ID **Chevron Station No. 9-9708**	
	City & State **Oakland, Ca.**	Surface Elev. **96.04'**	Well / Boring ID **MW-5**
	Delta Project # **DG99-708**	Casing Elev. **95.71'**	Total Depth **20'**

WELL CONSTRUCTION



SAMPLING DATA

Depth, feet	Number	Interval	OVA Values (ppm)	Blow Counts
5	MW-5-5.50		0	7 12 13
10	MW-5-10.00			8 9 12
15	MW-5-15.50		2	15 16 18
	MW-5-18.50			17 18 21
20				

SOIL PROFILE/LITHOLOGY

Graphic Log

Visual Description

Asphalt Surface
Concrete

Aggregate Baserock

CLAYEY GRAVEL; fine to coarse grained gravel; black, low to medium plasticity, moist (GC)

SANDY CLAY WITH GRAVEL; fine to medium grained gravel; fine to coarse grained sand; brown, low to medium plasticity, very stiff, moist (CL)

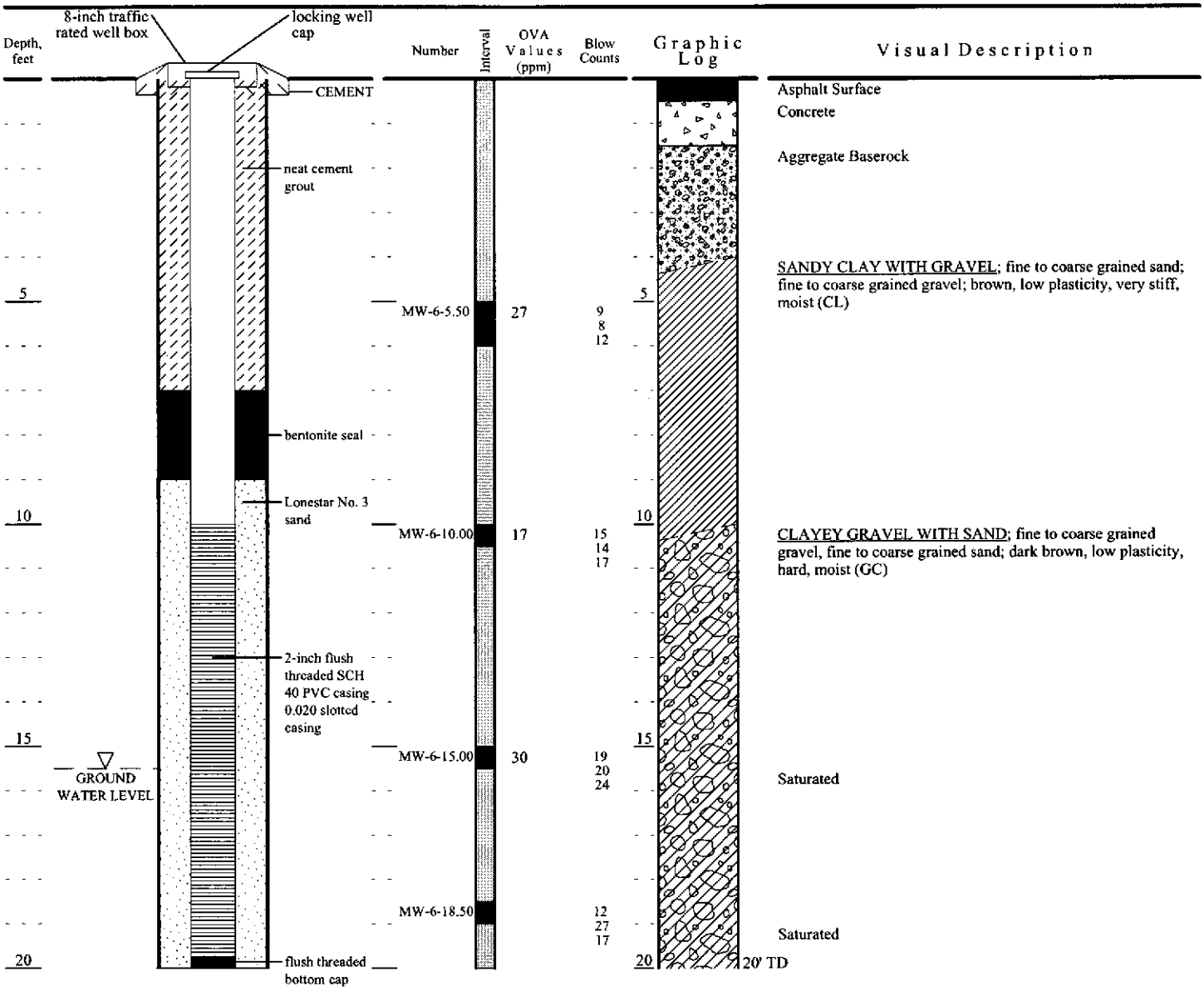
SANDY CLAY WITH GRAVEL; greenish gray, low to medium plasticity, hard, moist (CL)

CLAY WITH SAND; fine to coarse grained sand; yellowish brown, low to medium plasticity, hard, moist (CL)

20' TD

Dates and Times	Logger **Brett Bardsley**	Sampling Method & Diameter **2-inch ID split spoon**	Permitting Agency **Alameda County Public Works Agency**
Start **1/25/02 1100**	Drilling Company & Driller **Cascade Drilling, Inc., JD**	Bore Hole Diameter **8.25-inches**	Permit # **W01-2162**
Total Depth **1/25/02 1515**	Drillers C-57# **717510**	Diameter, Type & Slot Size of Casing **2-inch SCH 40 PVC/0.020 slot**	
Completion or backfill **1/25/02 1600**	Drilling Equipment and method **CME-75, hollow stem auger**		**Page 1 of 1**

Delta Environmental Consultants, Inc.	Street Address	Project ID	
	5910 MacArthur Boulevard	**Chevron Station No. 9-9708**	
	City & State	Surface Elev.	Well / Boring ID
	Oakland, Ca.	**96.27'**	**MW-6**
	Delta Project #	Casing Elev.	Total Depth
	DG99-708	**95.84'**	**20'**



Dates and Times	Logger	Sampling Method & Diameter	Permitting Agency
	Brett Bardsley	**2-inch ID split spoon**	**Alameda County Public Works Agency**
Start	Drilling Company & Driller	Bore Hole Diameter	Permit #
1/25/02 1000	**Cascade Drilling, Inc., JD**	**8.25-inches**	**W01-2163**
Total Depth	Drillers C-57#	Diameter, Type & Slot Size of Casing	
1/25/02 1645	**717510**	**2-inch SCH 40 PVC/0.020 slot**	
Completion or backfill	Drilling Equipment and method		
1/25/02 1730	**CME-75, hollow stem auger**		**Page 1 of 1**

ENCLOSURE D

Soil Sample Laboratory Analytical Reports

Lancaster Laboratories
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ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904
916-536-2623

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 794961. Samples arrived at the laboratory on Tuesday, January 29, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description			Lancaster Labs Number
MW-6-S-5.5-020125	NA	Soil	3765907
MW-6-S-10-020125	NA	Soil	3765908
MW-5-S-5.5-020125	NA	Soil	3765909
MW-5-S-10-020125	NA	Soil	3765910

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Delta Environmental Attn: Mr. Todd Del Frate

Lancaster Laboratories
Where quality is a science.

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

Matthew E. Barton
Sr. Chemist/Coordinator

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MEMBER ACIL

Lancaster Laboratories
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Lancaster Laboratories Sample No. SW 3765907

Collected:01/25/2002 16:23 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 23:56
Discard: 03/09/2002
MW-6-S-5.5-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 MW-6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/30/2002 20:55	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8021B	1	01/30/2002 20:55	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/30/2002 16:50	Martha L Seidel	n.a.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. SW 3765908

Collected:01/25/2002 16:30 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 23:56
Discard: 03/09/2002
MW-6-S-10-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 MW-6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	0.016	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	0.0083	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	0.020	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/30/2002 21:32	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8021B	1	01/30/2002 21:32	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/30/2002 16:51	Martha L Seidel	n.a.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. SW 3765909

Collected:01/25/2002 14:50 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 23:56
Discard: 03/09/2002
MW-5-S-5.5-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 MW-5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/30/2002 22:10	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8021B	1	01/30/2002 22:10	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/30/2002 16:52	Martha L Seidel	n.a.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. SW 3765910

Collected:01/25/2002 15:00 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 23:56
Discard: 03/09/2002
MW-5-S-10-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 MW-5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	1.7	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/30/2002 22:47	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8021B	1	01/30/2002 22:47	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/30/2002 16:53	Martha L Seidel	n.a.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 794961
Reported: 02/06/02 at 11:56 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02021A31	Sample number(s): 3765907-3765910							
TPH-GRO - Soils	N.D.	1.	mg/kg	78		75-117		
Benzene	N.D.	.005	mg/kg	106		84-132		
Toluene	N.D.	.005	mg/kg	106		88-116		
Ethylbenzene	N.D.	.005	mg/kg	106		87-127		
Total Xylenes	N.D.	.015	mg/kg	106		88-120		
MTBE	N.D.	.05	mg/kg	105		64-158		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02021A31	Sample number(s): 3765907-3765910								
TPH-GRO - Soils	71	71	44-116	1	20				
Benzene	120	123	56-142	2	30				
Toluene	93	96	66-120	4	30				
Ethylbenzene	100	105	66-131	5	30				
Total Xylenes	93	97	67-122	5	30				
MTBE	89	95	42-163	7	30				

Surrogate Quality Control

Analysis Name: TPH-GRO - Soils
Batch number: 02021A31

	Trifluorotoluene-F	Trifluorotoluene-P
3765907	77	101
3765908	73	97
3765909	74	97
3765910	71	94
Blank	86	103
LCS	91	108
MS	86	99
MSD	82	97
Limits:	61-127	68-122

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 10900 Sample #: 3765907-10 SCR#: _____

Facility #: Chevron Service Station No. 9-9708
Site Address: 5910 MacArthur Boulevard, Oakland, California
Chevron PM: Tom Bauhs Lead Consultant: Delta Env. Consultants Inc.
Consultant/Office: 3164 Gold Camp Drive, Suite 200, Rancho Cordova, CA 95670
Consultant Prj. Mgr.: Todd Del Frate
Consultant Phone #: 916-536-2612 Fax #: _____
Sampler: Brett Bardsley
Service Order #: _____ ☐ Non SAR: _____

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☑	TPH 8015 MOD GRO ✓	TPH 8015 MOD DRO ☐ Silica Gel Cleanup ☐	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐
MW-6	S		5.00	02 01 25	1623	X			1						
MW-6	S		5.50	02 01 25	1623				1	X	X				
MW-6	S		10.00	02 01 25	1630				1	X	X				
MW-6	S		15.00	02 01 25	1637				1						
MW-6	S		18.50	02 01 25	1645				1						
MW-5	S		5.00	02 01 25	1400	X			1						
MW-5	S		5.50	02 01 25	1450				1	X	X				
MW-5	S		10.00	02 01 25	1500				1	X	X				
MW-5	S		15.00	02 01 25	1505				1						
MW-5	S		15.50	02 01 25	1505				1						
MW-5	S		18.50	02 01 25	1515				1						

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by: Brett Bardsley	1/28/02	1030	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS (FedEx) Other _____			Received by:	1/28/02	0910
Temperature Upon Receipt 4.5 C°			Custody Seals Intact? (Yes) No		

3460 Rev. 10/04/01

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

Lancaster Laboratories
Where quality is a science.

ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904
916-536-2623

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 794960. Samples arrived at the laboratory on Tuesday, January 29, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description			Lancaster Labs Number
SP-1-4-S-020125	NA	Soil	3765906

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Delta Environmental Attn: Mr. Todd Del Frate

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,
Matthew E. Barton
Sr. Chemist/Coordinator

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
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Lancaster Laboratories Sample No. SW 3765906

Collected:01/25/2002 16:50 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 08:21
Discard: 03/09/2002
SP-1-4-S-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 NA

MBS14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00155	Lead	7439-92-1	N.D.	2.6	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	4.1	1.0	mg/kg	25

The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.
The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.

02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	0.014	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.060	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25

The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
total xylenes

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories Sample No. SW 3765906

Collected:01/25/2002 16:50 by BB

Account Number: 10900

Submitted: 01/29/2002 09:10
Reported: 02/06/2002 at 08:21
Discard: 03/09/2002
SP-1-4-S-020125 NA Soil

Chevron Products Company
6001 Bollinger Canyon Rd
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 99708 DECR
5910 MacArthur-Oakland T0600102093 NA

MBS14

00155	Lead	SW-846 7420	1	01/31/2002 09:07	Damary Valentin	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/30/2002 20:17	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8021B	1	01/30/2002 20:17	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/30/2002 20:17	Martha L Seidel	n.a.
05709	SW SW846 FAA	SW-846 3050B	1	01/30/2002 20:30	Annamaria Stipkovits	1

Lancaster Laboratories
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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 794960
Reported: 02/06/02 at 08:21 AM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02021A31	Sample number(s): 3765906							
TPH-GRO - Soils	N.D.	1.	mg/kg	78		75-117		
Benzene	N.D.	.005	mg/kg	106		84-132		
Toluene	N.D.	.005	mg/kg	106		88-116		
Ethylbenzene	N.D.	.005	mg/kg	106		87-127		
Total Xylenes	N.D.	.015	mg/kg	106		88-120		
MTBE	N.D.	.05	mg/kg	105		64-158		
Batch number: 020305709004	Sample number(s): 3765906							
Lead	N.D.	2.6	mg/kg	100		76-124		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02021A31	Sample number(s): 3765906								
TPH-GRO - Soils	71	71	44-116	1	20				
Benzene	120	123	56-142	2	30				
Toluene	93	96	66-120	4	30				
Ethylbenzene	100	105	66-131	5	30				
Total Xylenes	93	97	67-122	5	30				
MTBE	89	95	42-163	7	30				
Batch number: 020305709004	Sample number(s): 3765906								
Lead	102	105	80-120	3	20	17.5	20.8	17 (1)	20

Surrogate Quality Control

Analysis Name: TPH-GRO - Soils
Batch number: 02021A31

	Trifluorotoluene-F	Trifluorotoluene-P
3765906	74	97
Blank	86	103
LCS	91	108
MS	86	99
MSD	82	97
Limits:	61-127	68-122

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 10900 Sample #: 376590 16 SCR#: _____

Facility #: Chevron Service Station No. [redacted] 9-9708
Site Address: 5910 Mac Arthur Boulevard, Oakland, California
Chevron PM: Tom Bauhs Lead Consultant: Delta Env. Con. Inc.
Consultant/Office: 3164 Gold Camp Drive, Suite 200, Rancho Cordova, CA 95670
Consultant Prj. Mgr.: Todd Del Frate
Consultant Phone #: 916-536-2612 Fax #: _____
Sampler: Brett Bardsley
Service Order #: _____ ☐ Non SAR: _____

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☑	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☑ 7421 ☐
SP-1	S			02 01 25	1650				1	X	X				X
SP-2	S			02 01 25	1650				1	X	X				X
SP-3	S			02 01 25	1650				1	X	X				X
SP-4	S			02 01 25	1650				1	X	X				X

Comments / Remarks
Please composite 4 into 1

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour (48 hour)
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by: Brett Bardsley	11/28/02	1030	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS (FedEx) Other _____			Received by:	11/29/02	0910
Temperature Upon Receipt 4.5 C°			Custody Seals Intact? (Yes) No		

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300

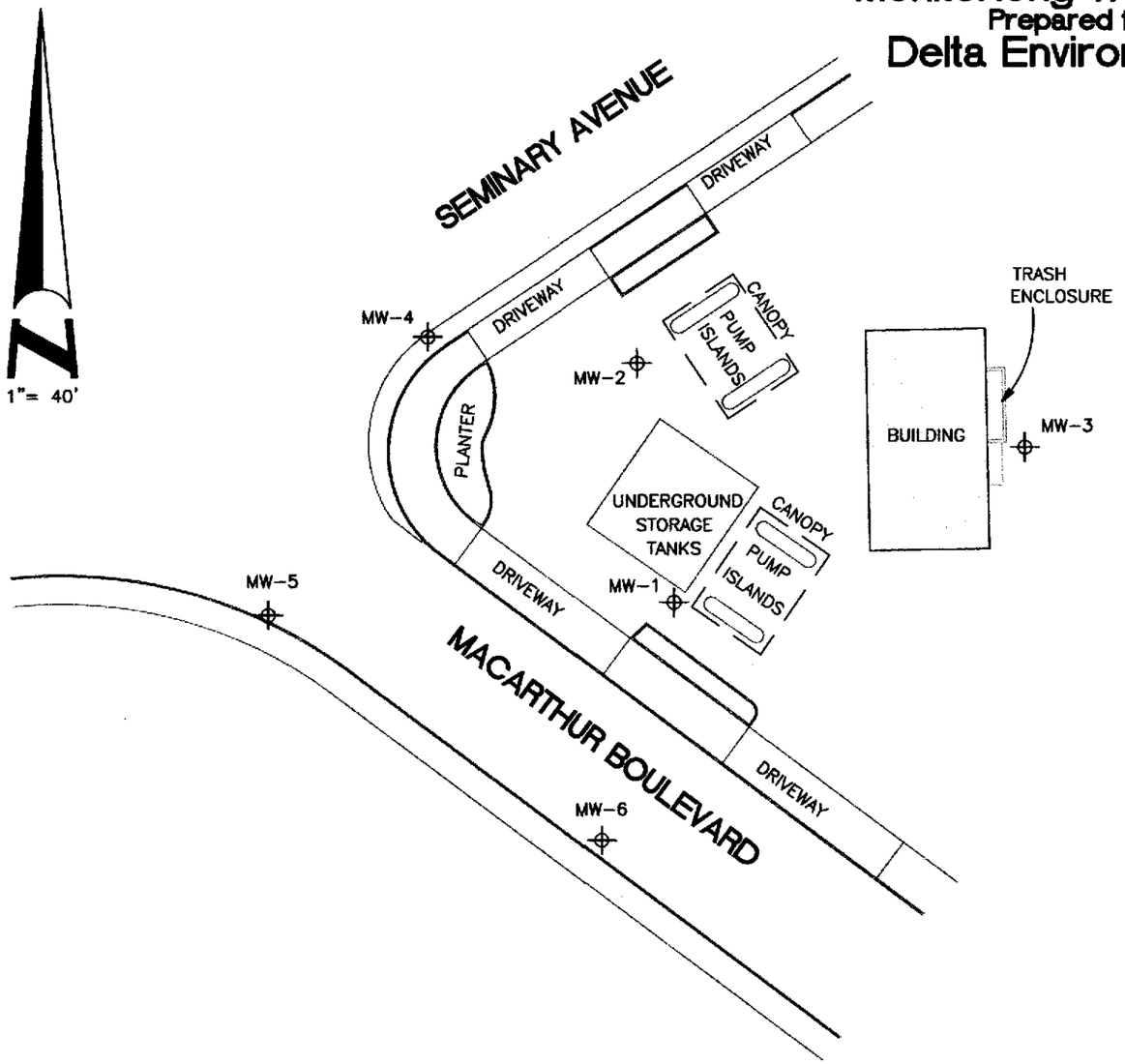
ENCLOSURE E

Well Survey Report

Monitoriong Well Exhibit

Prepared for:

Delta Environmental



DESCRIPTION	NORTHING	EASTING	ELEV (PVC)	ELEV (BOX)
MW-1	2109533.6	6075139.2	97.52	97.85
MW-2	2109598.9	6075129.3	97.81	98.05
MW-3	2109576.0	6075235.0	98.78	98.95
MW-4	2109606.3	6075072.2	97.14	97.35
MW-5	2109530.3	6075028.5	95.71	96.04
MW-6	2109468.6	6075119.5	95.84	96.27

	LATITUDE	LONGITUDE
MW-1	37.7763746	-122.1834832
MW-2	37.7765534	-122.1835216
MW 3	37.7764957	-122.1831546
MW 4	37.7765709	-122.1837195
MW 5	37.7763601	-122.1838660
MW 6	37.7761952	-122.1835473

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS96.

CORS STATIONS USED WERE PBL1 AND BRIB.

ELEVATIONS ARE BASED ON CITY OF OAKLAND BENCHMARK. A STANDARD CITY OF OAKLAND DISC STAMPED "SEC 50 STA F" SET UNDER A STANDARD CASTING ON THE MONUMENT LINE OF CAMDEN STREET AND 72 FEET WESTERLY OF THE MONUMENT AT SEMINARY AND CAMDEN. ELEVATION = 90.63 FEET.

0 20 40 80 120

SCALE IN FEET

Chevron Station No. 9-9708
5910 Macarthur Blvd.
Oakland
Alameda County
California

Morrow Surveying

1450 Harbor Blvd. Ste. D
West Sacramento
California 95691
(916) 372-8124
tom@morrowsurveying.com

Date: February, 2002
Scale: 1" = 40'
Sheet 1 of 1
Revised:
Field Book:
Dwg. No. 1275-042 AZ

ENCLOSURE F

Groundwater Sampling Field Data Sheets