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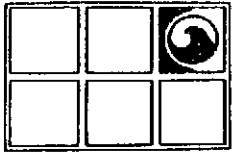
April 1986



GROUNDWATER TECHNOLOGY

A Division of Oil Recovery Systems, Inc.

CONSULTING GROUNDWATER GEOLOGISTS



GROUNDWATER TECHNOLOGY

Consulting Groundwater Geologists

A Division of Oil Recovery Systems, Inc.

5047 CLAYTON ROAD • CONCORD, CA 94521 • (415) 671-2387

PROJECT UPDATE REPORT
CHEVRON SERVICE STATION
LIVERMORE, CALIFORNIA

April 16, 1986

Prepared for:

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Prepared by:

Groundwater Technology
5047 Clayton Rd.
Concord, Ca. 94521

Robert W. Juncal ASJ

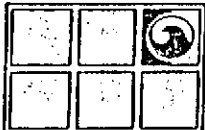
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GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES

Division of Oil Recovery Systems, Inc.

4 Mill St., Greenville, NH 03048

Tel: (603) 878-2500

Quality Assurance Documentation

Statement of Sample Integrity:

The samples in this data set meet the Groundwater Technology Laboratory criteria for physical integrity as per GTL Method Code 103 throughout the sampling, handling and analytical process.

Quality Assurance Specifications:

The data in this set conforms to the GTL Quality Assurance program and provisions specified in EPA Method 602 including daily calibration with freshly made standards, blanks before trace level samples, surrogate spikes, spikes in untested matrices, a minimum of 10% duplicates and a minimum of 6% reference samples traceable to the U.S. EPA.

Certification:

The data in this report have been checked for accuracy and completeness.

Respectfully Submitted,

Michael D. Webb
Technical Director

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PROJECT UPDATE REPORT
CHEVRON SERVICE STATION
LIVERMORE, CALIFORNIA

INTRODUCTION

This report presents an update of Groundwater Technology's monitoring, product recovery and water treatment program at the Chevron Service Station site located on the northeast corner of First Street and South Front Road in Livermore, California (See Figure 1, Site Plan). This report covers the period between December 17, 1985 and April 8, 1986.

BACKGROUND

As discussed in our previous report titled "Recovery System Report, Chevron U.S.A., Inc., Livermore, dated December 12, 1986, Groundwater Technology was retained by Chevron U.S.A., Inc. in January 1985 to perform an assessment and initiate an abatement program for a known gasoline leak from a subsurface storage tank at the Chevron station. A total of seventeen monitoring wells previously installed by others at the site enabled Groundwater Technology to perform a preliminary assessment of the free product plume. Groundwater Technology installed an additional two monitoring wells on March 29, 1985, to investigate for potential pathways for product migration. Groundwater monitoring data indicated that the groundwater existed at a depth of about 14 feet below grade and flowed in a southwesterly direction. Groundwater Technology then installed a recovery well on January 16, 1985 down groundwater gradient from the known free product plume and adjacent to a drainage culvert suspected to be a potential pathway for product migration. On February 1, 1986 a double pump recovery

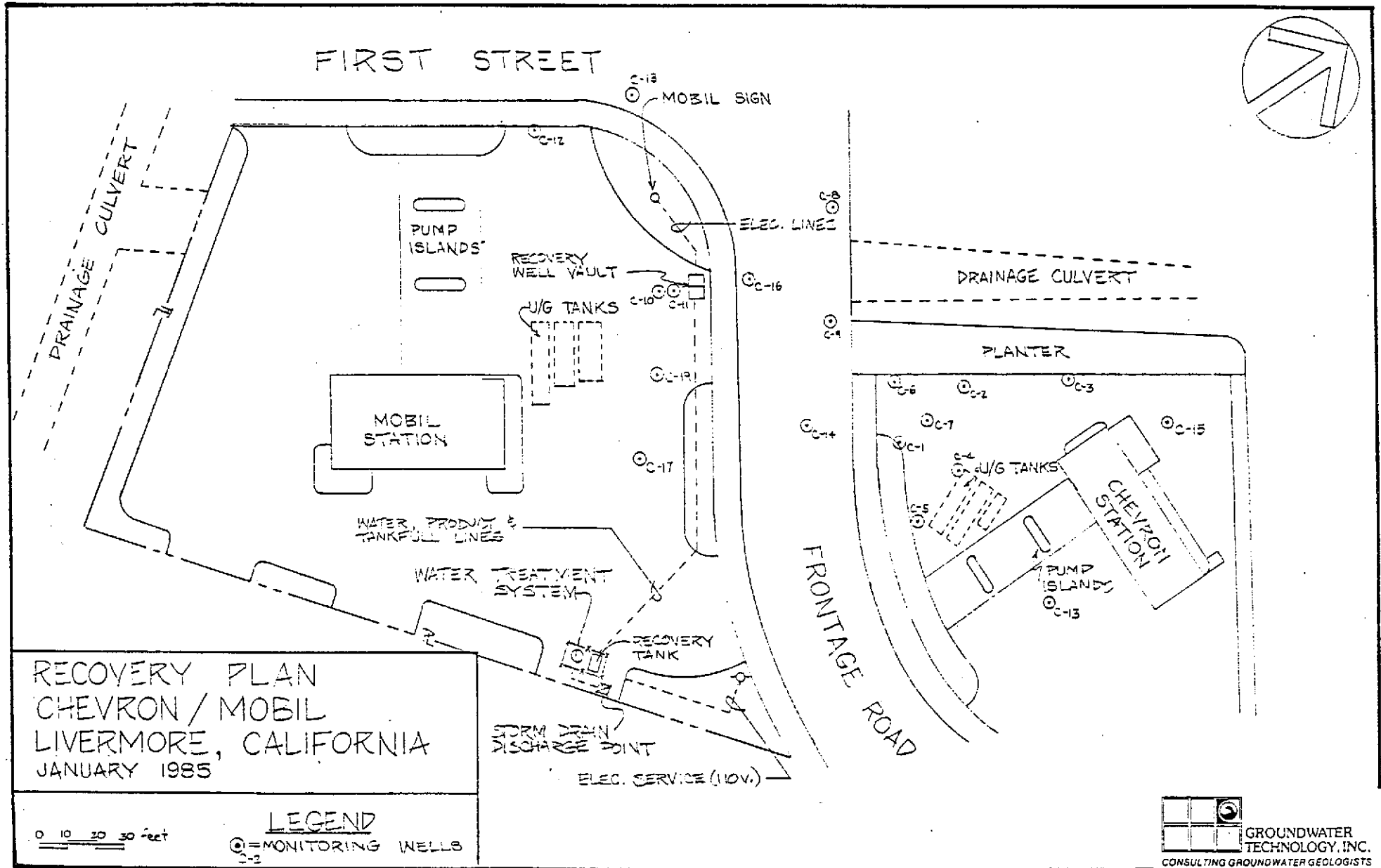


FIGURE I
SITE PLAN

system and water treatment unit initiated containment and recovery of free product in conjunction with treating dissolved hydrocarbon contamination in the groundwater. To date a total of 296 gallons of free product has been recovered and approximately 590,000 gallons of groundwater has been treated for the removal of dissolved hydrocarbon constituents. At present, only trace amounts of free product are detectable in the wells at the study site.

HYDROGEOLOGY

The borings drilled for the installation of the monitoring wells at the site encountered surficial sediments consisting of silty clays, sands and gravels. These alluvial deposits are underlain by gray sandstone of the Tassajara formation occurring at a depth of approximately 28 feet below grade. The water table is present at a depth of approximately 14 feet below grade and marks the top of the shallow aquifer system. Groundwater flows in a southwesterly direction towards the Arroyo Las Positas stream channel.

GROUNDWATER MONITORING

Groundwater Technology has continued to monitor the seventeen original wells and two additional monitoring wells, installed March 29, 1985 on a bi-monthly schedule. The monitoring procedure followed guidelines set forth in Groundwater Technology's Standard Operating Procedure, SOP 8, regarding groundwater monitoring (See Appendix I). The tabulated groundwater data for monitorings conducted between December 17, 1985 and April 18, 1986 are presented in Table 1. The data for the March 28, 1986 monitoring is plotted and contoured on the Depth to Water Map (See Figure 2). A review of the groundwater monitoring data to date suggests the following trends: free product has diminished to trace amounts

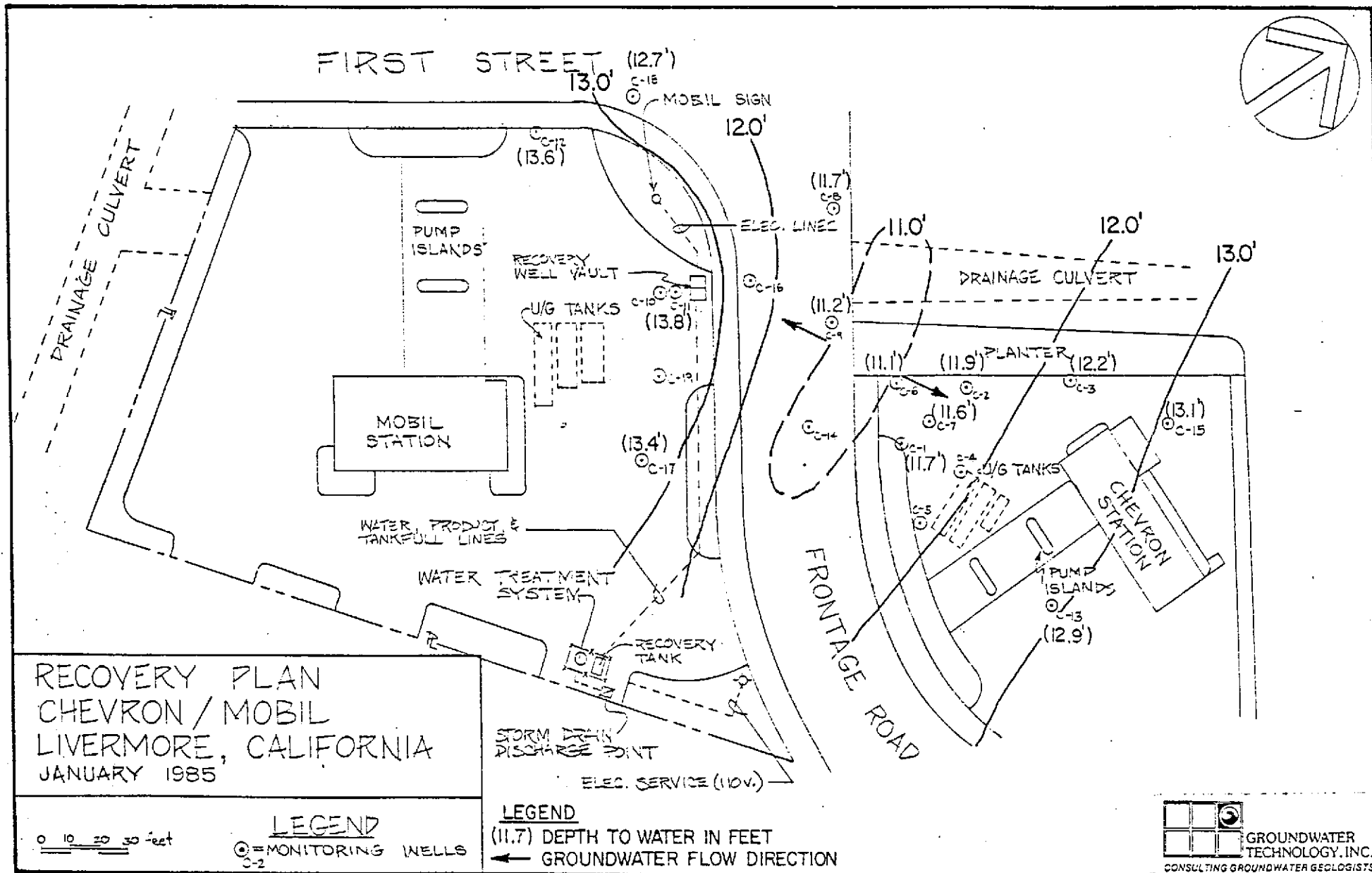


FIGURE 2
DEPTH TO WATER MAP
MARCH 28, 1986

in the recovery well and in monitoring well C-9 through the April 8, 1986 monitoring; a rise in the water table of about 2 feet occurred between the December 1985 and March 1986 monitorings, likely as a result of the increase in precipitation over this same period; and mounding of the groundwater in the vicinity of monitoring well C-9, possibly due to discharge from the drainage culvert, has divided the groundwater flow into northeasterly and southwesterly directions.

RECOVERY SYSTEM MONITORING

The recovery equipment and water treatment unit were monitored and maintained on the same bi-monthly schedule as the groundwater monitoring program. The double pump recovery system continued to operate, creating a cone of drawdown in the near vicinity of the recovery well. The thickness of free product within the recovery well never exceeded the 0.20 feet required for product recovery via the automatic product pump. The small amount of free product collecting within the recovery well was manually recovered by hand bailing and deposited in the product recovery tank. Approximately four gallons of free product was collected from December 17, 1985 through February 28, 1986 with no free product recovery since.

The water treatment unit continued to effectively treat the dissolved hydrocarbon components in groundwater pumped from the recovery well. The system processed about 43,000 gallons of water between December 17, 1985 and April 8, 1986, bringing the total gallons of groundwater treated to approximately 590,000. Water samples collected at the influent and effluent sample ports of the air stripper were analyzed for total dissolved hydrocarbon concentration by GC/FID Static Headspace Analyses. The water sampling was conducted in accordance with Groundwater Technology Standard Operating Procedures, SOP 10 and SOP 11, (See Appendix I).

The laboratory test results indicated that the total dissolved hydrocarbon concentrations of the system effluent did not exceed the 100 part per billion (ppb) limit, as set by the California Regional Water Quality Control Board (CRWQCB). Total dissolved hydrocarbon concentrations for the system influent has remained less than 6 parts per million (ppm) between December 1985 and April 1986, which is significantly lower than the 30 ppm average effluent concentration encountered over the first 11 months of operation. The laboratory results and method detection limits for the analyses used are presented in Appendix II.

SUMMARY CONCLUSION

To date the recovery system has been effective in the reduction of the free product plume and in the treatment of groundwater containing dissolved hydrocarbon constituents. The rate of recharge and quantity of free product accumulating in the recovery well has been of such small quantities as to require manual bailing for collections. The water treatment unit continued to operate, as per design specifications, for treatment of dissolved hydrocarbon components in the pumped groundwater to levels acceptable for discharge. The most recent groundwater monitoring, conducted April 8, 1986, detected only trace amounts of product in monitoring well C-9 and within the recovery well.

RECOMMENDATIONS

The absence of recoverable free product and declining concentrations of dissolved hydrocarbons pumped from the recovery well are the major factors which lead Groundwater Technology to recommend that the recovery system operation be discontinued. In addition, the poor quality of the shallow aquifer and the distance from the contaminated area to the nearest known groundwater wells,

discussed in Groundwater Technology's December 12, 1985 Recovery System Report suggests that no significant threat to public health and safety exists. Groundwater Technology recommends that the Livermore site be monitored on a monthly schedule for a period of four months, after which time the necessity for further investigation or abatement would be re-evaluated. If during this monitoring period free product thickness within any well at the site increased to greater than 0.01 feet this product would be hand bailed until it reduced to trace levels.

	PT	0.1	-	-	-	-	-	-	-	-	-
02-13-86	DTW	12.21	-	-	-	-	-	-	11	1	14
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	-	-	-	-	-	-	0	0	-

TABLE 1

DTW = Depth To Water
DTP = Depth To Product
PT = Product Thickness



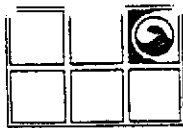
GROUNDWATER
TECHNOLOGY, INC.

CONSULTING GROUNDWATER GEOLOGISTS

PROJECT: Chevron Livermore
JOB NUMBER: 20-4051
DATE: Dec.1985-Feb.1986

		WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL
		11	12	13	14	15	16	17	18	19	RW
DATE	ELEV. (ft.)										
12-17-85	DTW	14.70	15.80	-	-	-	-	-	14.77	15.09	18.80
	DTP	-	-	-	-	-	-	-	-	-	18.70
	PT	0	0	-	-	-	-	-	0	0	0.10
12-30-85	DTW	15.00	15.15	15.41	-	15.34	14.23	15.37	14.23	15.62	19.70
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	0	0	-	0	0	0	0	0	trace
01-10-86	DTW	dry	14.24	14.58	-	14.84	13.88	14.55	13.32	14.70	18.95
	DTP	-	-	-	-	-	-	-	-	-	18.88
	PT	-	0	0	-	0	0	0	0	0	0.07
01-23-86	DTW	15.22	14.23	14.64	-	14.93	13.91	14.58	11.33	14.72	19.53
	DTP	-	-	-	-	-	-	-	-	-	19.38
	PT	0	0	0	-	0	0	0	0	0	0.15
02-13-86	DTW	-	13.23	-	-	-	13.38	-	12.54	-	18.85
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	-	0	-	-	-	0	-	0	-	trace

DTW = Depth To Water
DTP = Depth To Product
PT = Product Thickness

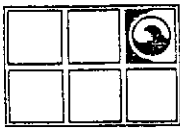


GROUNDWATER
TECHNOLOGY, INC.
CONSULTING GROUNDWATER GEOLOGISTS

PROJECT: Chevron Livermore
JOB NUMBER: 20-4051
DATE: Feb.-Apr. 1986

		WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL
		1	2	3	4	5	6	7	8	9	10
DATE	ELEV. (ft.)										
02-28-86	DTW	11.74	11.92	-	-	-	-	-	11.65	11.24	-
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	0	-	-	-	-	-	0	trace	-
03-28-86	DTW	11.75	11.98	12.24	-	12.00	11.12	11.67	11.78	11.24	dry
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	0	0	-	0	0	0	0	-	-
04-08-86	DTW	12.17	-	-	-	-	11.58	12.13	12.32	11.73	14.47
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	-	-	-	-	0	0	0	trace	0

DTW = Depth To Water
DTP = Depth To Product
PT = Product Thickness



GROUNDWATER
TECHNOLOGY, INC.
CONSULTING GROUNDWATER GEOLOGISTS

PROJECT: Chevron Livermore
JOB NUMBER: 20-4051
DATE: Feb.-Apr. 1986

		WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL	WELL
		11	12	13	14	15	16	17	18	19	RW
DATE	ELEV. (ft.)										
02-28-86	DTW	-	13.56	12.86	-	-	12.76	-	12.69	13.84	18.93
	DTP	-	-	-	-	-	-	-	-	-	18.92
	PT	-	0	0	-	-	0	-	0	0	0.01
03-28-86	DTW	13.82	13.61	12.95	-	13.14	-	13.48	12.74	13.67	16.50
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	0	0	0	-	0	-	0	0	0	0
04-08-86	DTW	dry	13.78	-	-	-	13.13	-	12.91	13.87	18.42
	DTP	-	-	-	-	-	-	-	-	-	-
	PT	-	0	-	-	-	0	-	0	0	trace

DTW = Depth To Water
DTP = Depth To Product
PT = Product Thickness

GROUNDWATER TECHNOLOGY
STANDARD OPERATING PROCEDURE
CONCERNING GROUNDWATER MONITORING
SOP 8

Groundwater monitoring of wells at the site shall be conducted using an ORS Interface Probe and Surface Sampler. The Interface Probe is a hand held, battery operated device for measuring depth to petroleum product and depth to water as measured from an established datum (i.e., top of the well casing which has been surveyed). Product thickness is then calculated by subtracting the depth to product from the depth to water. In addition, water elevations are adjusted for the presence of fuel with the following calculation:

$$\begin{aligned} &(\text{Product Thickness})(.8) + (\text{Water Elevation}) \\ &= \text{Corrected Water Elevation} \end{aligned}$$

Note: The factor of 0.8 accounts for the density difference between water and petroleum hydrocarbons.

The Interface Probe consists of a dual sensing probe utilizing an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products. A coated steel measuring tape transmits the sensor's signals to the reel assembly, where an audible alarm sounds a continuous tone when the sensor is immersed in petroleum product and an oscillating tone when immersed in water. The Interface Probe is accurate to 1/16-inch.

A Surface Sampler shall be used for visual inspection of the groundwater to note sheens (difficult to detect with the Interface Probe), odors, microbial action, etc.

The Surface Sampler used consists of a 12-inch long cast acrylic tube with a Delrin ball which closes onto a conical surface creating a seal as the sampler is pulled up. The sampler is calibrated in inches and centimeters for visual inspection of product thickness.

To reduce the potential for cross contamination between wells the monitorings shall take place in order from the least to most contaminated wells. Wells containing free product should be monitored last. Between each monitoring the equipment shall be washed with laboratory grade detergent and double rinsed with distilled water.



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GROUNDWATER TECHNOLOGY LABORATORY (GTL)
STANDARD OPERATING PROCEDURE
CONCERNING SAMPLING FOR VOLATILES IN WATER (DISSOLVED GASOLINE,
SOLVENTS, ETC.).
SOP 10

1. Use only vials properly washed and baked, available from GTL or Pierce Chemical.
2. Use clean sampling equipment. Scrub with Alconox or equivalent laboratory detergent and water followed by a thorough water rinse. Complete with a distilled water rinse.

Sampling equipment which has come into contact with liquid hydrocarbons (free product) should be regarded with suspicion. Such equipment should have tubing and cables replaced and all resilient parts washed with laboratory detergent solution, as above. Visible deposits may have to be removed with hexane, breath methanol fumes. Solvent washing should be followed by detergent washing as above.

This procedure is valid for volatile organics analysis only. For extractable organics (for example, pesticides, or base neutrals for EPA method 625) a final rinse with pesticide grade isopropyl alcohol, followed by overnight or oven drying, will be necessary.

3. Take duplicate samples for GTL. Mark on forms as a single sample with two containers to avoid duplication of analysis.
4. Take a site blank using distilled water or known uncontaminated source. This sample will be run at the discretion of the project manager.
5. Fill out labels and forms as much as possible ahead of time. Use an indelible laundry marker or a Space pen.



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6. Preservatives are required for some types of samples. Use specially prepared vials from GTL, marked as indicated below, or use the appropriate field procedure (SOP 12 for acidification). Make note on forms that samples were preserved. Always have extra vials in case of problems. For samples from dissolved gasoline sites or other samples should be acidified below pH 2 with sulfuric acid. Use vials with care and keep them upright. Eye protection, foot protection, and disposable vinyl gloves are required for handling. Samples designated for expedited service and analyzed within seven (7) days of sampling will be acceptable without preservation.

Acid causes burns. Glasses or goggles (not contacts) are necessary for protection of the eyes. Wash eyes with fresh water for 15 minutes if contact occurs and seek medical attention. Rinse off hands frequently with water during handling.

For sampling chlorinated drinking water supplies for chlorinated volatiles, samples shall be preserved with sodium thiosulfate. Use vials labeled "CONTAINS THIOSULFATE". No particular cautions are necessary.

7. Fill vial to overflowing with water, avoiding turbulence and bubbling as much as possible. Water should stand above lip of vial.
8. Carefully but quickly slip cap onto vial. Avoid dropping the teflon disc from cap by not inverting cap until in contact with vial. Disc should have teflon face toward the water. Also avoid touching white teflon face with dirty fingers.
9. Tighten cap securely, invert vial and tap against hand to see that there are no bubbles inside.
10. Label vial using indelible ink as follows:
- a) Sample I.D. No. (and "Groundwater Technology" if not on preprinted label).
 - b) Job I.D. No.
 - c) Date and Time.
 - d) Type of analysis requested.
 - e) Your name.



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11. Unless the fabric type label is used, place scotch tape over the label to preserve its integrity.
12. For Chain of Custody reasons, sample vial should be wrapped end-for-end with scotch tape or evidence tape and signed with indelible ink where the end of the tape seals on itself. The septum needs to be covered.
13. Chill samples immediately. Samples to be stored should be kept at 4°C (39°F). Samples received at the laboratory above 10°C (as measured at glass surface by a thermocouple probe), after overnight shipping will be considered substandard, so use a high quality cooler with sufficient ice or freezer packs. (Coolers are available from GTL).
14. Fill out Chain of Custody and Analysis Request form. (See Chain of Custody Procedures SOP11).



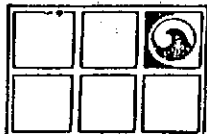
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CONSULTING GROUNDWATER GEOLOGISTS

GROUNDWATER TECHNOLOGY LABORATORY (GTL)
STANDARD OPERATING PROCEDURE
CONCERNING CHAIN OF CUSTODY
SOP 11

1. Samples must be maintained under custody until shipped or delivered to the laboratory. The laboratory will then maintain custody. A sample is under custody if:
 - a) It is in your possession
 - b) It is in your view after being in your possession
 - c) You locked it up after being in your possession
 - d) It is in a designated secure area
2. Custody of samples may be transferred from one person to the next. Each transferee and recipient must date, sign and note the time on the chain of custody form.
3. In shipping, the container must be sealed with tape, bearing the sender's signature across the area of bonding at the ends of the tape in order to prevent undetected tampering. Each sampling jar should be taped and signed as well. Scotch tape works well.
4. Write "sealed by" and sign in the Remarks box at the bottom of the form before sealing up the box. Place form in a plastic bag and seal inside the box.
5. The "REMARKS" section in the upper right part of the form is for documenting details such as:
 - a) correlation of sample numbers if samples are split between labs.
 - b) QC numbers when lab is logging in the samples.
 - c) sample temperature and condition when received by lab.
 - d) Preservation notation.
 - e) pH of samples when opened for analysis (if acidified).
6. The chain of custody form should be included inside the shipping container. A copy should be sent to the project coordinator.
7. When the samples are received by the lab, the chain of custody form will be dated, signed, and a note of the time made by a laboratory representative. The form along with shipping bills and receipts will be retained in the laboratory files.



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CONSULTING GROUNDWATER GEOLOGISTS



GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

Laboratory Test Results

1/24/86

Report No. 20-3229-20

Submitted to:

CHEVRON/LIVERMORE

Robert Juncal
Groundwater Technology
5047 Clayton Rd.
Concord, CA. 94521

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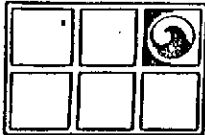
JAN 30 1986

Ans'd.....

The attached report covers water samples #21184-21185 taken by D. Kaufman at site #20-3229, Livermore, California and analyzed by GC/FID Static Headspace Analysis for volatile hydrocarbons, analyst E.S.L.

Method Detection Limits (MDL) listed are the levels above which quantitation is considered reliable: benzene and toluene 1 ppb, ethylbenzene 2 ppb, total xylenes 6 ppb. The level for reliable quantitation for total aliphatic hydrocarbons and miscellaneous aromatics is 20 ppb.

If noted on report, MDL is increased by a factor of 44 for dilutions made in order to maintain calibrated range. Precision for levels above 10 times MDL is 10%. Precision at MDL equals 30%. Hexane and ortho-xylene are used as calibration standards for aliphatic hydrocarbons and miscellaneous aromatics, respectively.



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Tel: (603) 878-2500

HYDROCARBONS IN WATER ug/L (ppb)
REPORT NO. 20-3229-20

Sample I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX
21184 AS/INF	1/23/86	1/24/86	7	ND	ND	158	165
21185 AS/EFF	1/23/86	1/24/86	1	ND	ND	ND	1

*NOTES:

ND = BELOW DETECTION LIMIT

TOTAL BTEX = THE SUM OF BENZENE, TOLUENE, ETHYL BENZENE,
AND XYLENES, ROUNDED TO THREE SIGNIFICANT FIGURES.



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Division of Oil Recovery Systems, Inc.

4 Mill St., Greenville, NH 03048

Tel: (603) 878-2500

HYDROCARBONS IN WATER ug/l
REPORT NO. 20-3229-20

SAMPLE NO.	I.D.	C4-C12	MISC	TOTAL
		ALIPHATIC HYDROCARBONS	AROMATICS C8-C12	
21184	AS/INF	2580	440	3190 *1
21185	AS/EFF	94	ND	95

*NOTES:

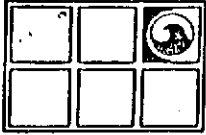
TOTAL = THE SUM OF THE TOTAL BTEX AND THE ABOVE PARAMETERS.

ND = BELOW DETECTION LIMIT

AS/INF = AIR STRIPPER INFLUENT

AS/EFF = AIR STRIPPER EFFLUENT

1 = METHANE DETECTED AT 10-100 PPB.



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Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

Quality Assurance Documentation

Statement of Sample Integrity:

The samples in this data set meet the Groundwater Technology Laboratory criteria for physical integrity as per GTL Method Code 103 throughout the sampling, handling and analytical process.

Quality Assurance Specifications:

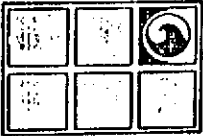
The data in this set conforms to the GTL Quality Assurance program and provisions specified in EPA Method 602 including daily calibration with freshly made standards, blanks before trace level samples, surrogate spikes, spikes in untested matrices, a minimum of 10% duplicates and a minimum of 6% reference samples traceable to the U.S. EPA.

Certification:

The data in this report have been checked for accuracy and completeness.

Respectfully Submitted,

Michael D. Webb
Technical Director



GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

RECEIVED
APR 21 1986

Ans'd..... Laboratory Test Results

4/12/86

Report No. 20-3229-21

Submitted to:

Robert Juncal
Groundwater Technology
5047 Clayton Rd.
Concord, CA. 94521

Sample Identification:

The attached report covers water samples #24578-24579 taken by D. Kaufman using 40 ml septum-capped glass vials at site #20-3229, Livermore, California.

Method:

Analysis was performed for purgeable aromatic priority pollutants and xylenes by purge and trap gas chromatography with flame ionization detection as per EPA Method 602. Quantification was performed on a very polar open tubular fused silica capillary column which fractionates aliphatics (up to C12) away from volatile aromatics. Qualitative confirmation was performed for all samples on a dissimilar column. Chromatographic conditions are referenced in GTL Method Code 103. Hexane and ortho-xylene are used as calibration standards for the aliphatic hydrocarbons and miscellaneous aromatics, respectively, if reported.

Minimum Detection Limit (MDL) at 5 times background is 0.5 ppb for all parameters. The level for reliable quantitation for the summed groups such as aliphatics is 20 ppb. Samples diluted in order to maintain the calibrated range are so indicated by a footnote giving the factor by which the MDL is raised.

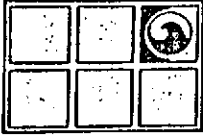
Sampling and sample handling and preservation are specified by this laboratory to be as per EPA Method 602. Any irregularities are referenced in the attached quality assurance report.

Results:

Results are reported in ppb (ug/l).

Prepared by:
Eileen Foley
Analytical Program Manager

S.E. Bourbeau
Analyst



GROUNDWATER TECHNOLOGY LABORATORY

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4 Mill St., Greenville, NH 03048
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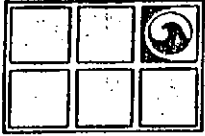
HYDROCARBONS IN WATER ug/L (ppb)
REPORT NO. 20-3229-21

Sample I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX
24578	ASINF 4/8/86	4/9/86	1110	ND	ND	159	1270
24579	ASEFF 4/8/86	4/9/86	ND	ND	ND	ND	ND

*NOTES:

ND = BELOW DETECTION LIMIT

TOTAL BTEX = THE SUM OF BENZENE, TOLUENE, ETHYL BENZENE,
AND XYLENES, ROUNDED TO THREE SIGNIFICANT FIGURES.



GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
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HYDROCARBONS IN WATER ug/l
REPORT NO. 20-3229-21

SAMPLE NO.	I.D.	C4-C12 ALIPHATIC HYDROCARBONS	MISC AROMATICS C8-C10	TOTAL
24578	ASINF	3750	691	5710 *5
24579	ASEFF	1	ND	1

NOTES:

TOTAL = THE SUM OF THE TOTAL BTEX AND THE ABOVE PARAMETERS.

ND = BELOW DETECTION LIMIT

5 = UNCATEGORIZED COMPOUNDS PRESENT AT LESS THAN 40 PPB.

ASINF = AIR STRIPPER INFLUENT

ASEFF = AIR STRIPPER EFFLUENT