

1/23/97 Reviewed 7/17/96 QR by BTS. GW sampled on 6/21/96 flowed West, but they did not use onsite wells to determine flow direction. They did not sample MW4 or MW5 the 2 most imp wells. Table 1 says "no longer monitored or sampled."

Chevrons 10/22/96 cover ltr says MW4 and MW5 were not sampled bec they were covered by a protective pipe to prevent damage to the wells. But that they WERE sampled in 3rd Q 96.

Phoned Phil Briggs and lm to remind him I did not receive 3rd QR 96.

WROTE LETTER TO RP.

2/21/97 Reviewed 1/23/97 ltr fm PB. They cd not find MW5 and MW6. "A concentrated effort will be made to locate MW5 and MW6. . ."

Reviewed 11/12/96 3rd Q 96 rpt by BTS. GW monitored on 9/26/96 flowed West. MW5 had 1800 benzene, 5700 TPHg (thats a rather high ratio of benzene to TPHg). It still represents a decrease in conc.

Reviewed 1/21/97 "4th Q 96" rpt by BTS (new logo). GW monitored on 12/19/96 flowed West. They cd not find MW5 and MW6.

3/3/97 Reviewed 2/7/97 ltr fm PB. And the "Soil Excavation Samplg Rpt" by Touchstone, dated 1/31/97. They offhauled approx 325 tons (I added 282 tons) of soil.

7-25 Novy 6-9-97 "1st Q" rpt.
GW sampled 3-22-97 flowed
W at 0.02 ft/ft.
MW5 has ↑ conc, while DC MW4
is still ND. Could not find
MW6. Wants to do ORC in MW5.
phoned Phil: lm: OK to do ORC

11/11/96 Unexpected site visit, while doing another tank removal (214 Grand Ave). Gallagher and Burk contractors were removing apparently contaminated soil in order to install a storm drain. Excavation was approx 5'bgs, soil was stained green, and had STRONG gasoline odor. See field notes. Told contractors of my health and safety concerns. They backfilled pit w/the dirty soil, for H&S reasons (no site fencing, lots of peds including lots of kids).

11/12/96 phoned Phil Briggs: he wants to get some samples, and see how extensive it is. We will probably end up removing the contam soil, so that they don't hold up the construction. Wants to meet onsite w/Mickey A-u today. Mess fm PB: spoke w/contractor Jerry Feusi; can meet around 3 pm. They do not have 40 hr H&S training. So he will have to get Touchstone to do sampling. SENT FAX to PB showing where I think contam area is, plus photos and utility map drawn by his consultant. I cannot make the 3 pm onsite mtg bec I twisted my ankle. This info should help him find the excavated area.

Mess fm PB: will meet w/owners Wed at 1 pm. Will try to set up a schedule to overex. Maybe Thursday. Im for Phil: did he go onsite today?

11/14/96 ONSITE FOR EXCAVATION AND SAMPLING. See field notes. Results are on 8-hr TAT.

11/19/96 lm for Phil: I'd like to be kept in the loop; please fax lab report. Spoke w/PB: he doesn't have lab rpt yet, but phoned Jeff Monroe for it. Just verbal: 5 samples: 16 ppm TPHg, 0.19 benzene on North wall; 140 TPHg, 0.54 B on West wall; ND TPHg, .006 B on East wall; ND and ND on South wall. Max concs are 140 TPHg and 0.54 Benzene at 4.5'bgs on West wall; ND and ND on bottom (sample 5). SP had 50 TPH and 1.4 Benzene. Maybe another comp SP sample, but he doesn't know the results yet. I asked for a site map and lab rpt. So they went ahead and backfilled on Friday. But it's been raining since Friday or Sat (today is Tue). They removed about 200 yd³ soil. He will submit a separate excavation report. Received fax and reviewed it.

1/23/97 Reviewed 5/7/96 QR by BTS. GW sampled on 3/28/96 flowed NW, but they did not use onsite wells (or MW6) to determine flow direction. They did not sample MW4, MW5 or MW6, the 3 most imp't wells. Due to construction onsite.

11/22/95 spoke w/MM and revised Dale's letter and sent it with my sign. Faxed to MM.

2/7/96 Reviewed 12/20/95 Geraghty & Miller report, and MM's 1/16/96 cover letter. They decommissioned the GWE system, and abandoned MW1 and MW3. They also collected 10 shallow soil samples at 3'bgs. I didn't know they'd do this. Tphg and benzene were ND except 0.026 ppm benzene and 2.1 ppm TPHg in S9, and 2.8 ppm Tphg in S2. Also got TEH ranging from 2.7 to 38 ppm, of "unidentified Hcs >C16." I presume that this investigation was NOT to address the contaminants mentioned in my 11/21/95 letter, since those depths were much greater than 3'bgs.
Phoned MM: Why did they do the shallow borings?

To make sure no contam associated w/workers in the area.

3/1/96 Reviewed 1/18/96 QR by BTS. GW sampled on 12/29/95 flowed W-NW (odd) (but they did not use MW4 or MW5 to assess gradient, so this direction may be erroneous). But GW flowed W-SW last time. So they only sampled MW6 and 7. Both were ND.

3/11/96 Reviewed 11/3/95 QR by BTS. Gw sampled on 9/27/95 flowed W-SW. MW5 had 15,000 ppb TPHg, 3,600 ppb benzene.

10/4/96 spoke w/Rick Spencer of G&M He has my 11/21/95 letter to Chevron. He removed treatment system and some wells on 12/1. Also took soil samples: S1 to S10 . . .since they had a drill rig onsite. City was buying the property. He wanted to know the status of the need for further excavation in the area of MW4 and MW5, as per my 11/22/95 letter. He put stove pipe protection around 2 wells. He will ask BTS and Chevron for Qrs for 1996.

Mess fm RS: he has results for 6/21/96; will fax; just got them from BTS. No 3rd Q results yet.

Lm Phil Briggs: its important to sample MW4 and MW5. We must find a way to sample those wells. Those wells have stovepipes for protection during paving. But hey, the data isnt doing us much good without knowing what is going on in those 2 wells.

8/25/95 Spoke w/MM: the contam in MW5 appears isolated and therefore not a signif problem. He'd be concerned if MW4 had similar concs to MW5. Was there soil contam in borehole for MW5? If so, they may want to do spot excavation. 390 ppm TPH and 3.4 ppm benzene at 5.5'bgs-highest hits. 28 ppm TPH and 0.12 ppm benzene at 15'bgs. Two more samples in between. He thinks they dug out as close to sidewalk as possible. See map by WGR (Fig 3). He's right. . . . What if they have offsite migration? What would we require? Maybe they could do SVE in the sandy or gravelly backfill of the utility trench. He thinks you would not want to bother w/the utility, bec once it hits utility, contam is gone. **I suggested trenching near MW5, parallel to Grand Ave, to remove that hotspot.** We discussed leaving hits in place under sidewalk. Told him that major oil is getting closure on such a site (200 East 18th St.). **He'll check w/the soil excavation report:** if there were hits along that sidewall near MW5, they may not want to dig it out (?)

- 1/26/95 mtg w/Chevron, K. Graves (and JE): MM: GWE in RW5 fm 3/93 to 12/93. Future use is parking lot; City bought it 1-2 yrs ago. JE: utilities in st may intercept the plume; DTW is only 3-6' bgs. KG: (Glen Echo) Creek and Lake Merritt are very close surf. water bodies w/turtled. Let's look at sewer and esp. storm drain lines; does it go directly to the Lake? Maybe another DG well on SW corner Montecito and Grand, in the street. MM: discontinue MW1, 3, 8, and 9. Just do QM in MW4, 5, 6, and 7. Change wording in Weiss' proposal from "cease" sampling in 98, to "continue semi-annual." KG: #1 goal is to address threat to Lake M. OK to stop HVOcs in MW3 and 5.
- 2/27/95 MM phoned: should WEiss redo their NAA proposal? Or should they just draft a ltr discussing what we agreed to in our 1/26/95 mtg. Voted for the 2nd option. He's trying to standardized procedures. He wants to come up w/a standard process for Chevron to follow. Wants to avoid confusion by submitting revision after revision. Wants to get consensus among regulators. I vote for less paper.
- 6/2/95 Wrote letter to RP
- Reviewed 4/5/95 QR by BTS. GW sampled on 3/21/95 had similar flow pattern: SW towards the Lake. MW4 had an increase in concs, and also increase in GWE by about 1ft. MW5 (the trouble well) had a decrease in concs, but an increase in GWE. STRANGE. Offsite MW6 is back to ND; it's GWE decreased.
- 7/6/95 mess fm MM: re my 6/2 ltr: got a map fm City for sewer and storm drains.
- 7/17/95 mess fm MM: considering getting utility locator to see where utilities are in relation to Mws. Cannot tell from the City maps. Needs 2 more wks to compile data.
- 8/25/95 Reviewed 8/23/95 letter from MM. I cannot figure out which lines are what on the utility map; there is no key. There is no mention of the contribution MW5 may have on offsite impacts. He only mentions MW4 and MW6 as being low or ND.
- Reviewed 7/20/95 QR by BTS. GW sampled on 6/27/95 flowed W-SW. Max concs are in MW5: 18,000 ppb Tphg and 6,100 ppb benzene.

1/19/95 Began review of 12/20/94 **Draft unsigned** "Comprehensive Site Evaluation and Proposed Future Action Plan," by WEISS.

1) re plume control: check out increasing concs of TPHg in MW6. Also, there is a lot of silty sand w/moderate est K near the first encountered gw in onsite wells. Offsite wells have more clay (and are screened higher).

2) re biodegradation of plume: monitor DO at least

3)*** their trigger conc for MW5 seems too high: 7,000 ppb benzene. This well has only exceeded 7,000 ppb on 5 occasions, all consecutive quarters, from 11/91 to 12/92, after which GWE occurred.

4)*** They only plan to monitor semi-annually in 95, then annually for 2 yrs thru 97. Then cease sampling in 98. Is this enough time to be considered "long-term monitoring?"

5) Note the waste oil pit had 3600 O&G below UST at 11.5' and SP had 6400 O&G, 960,000 TPH-g, and 14,000 ppm benzene. Must have been FP!

1/20/95 Continued/finished review of report

6) They ID'd a well used for irrigation at 244 Lakeside, owned by Lakeside Corp (Bechtel), drilled in 1977, located 100'NW of Jackson, 200'SW of Lakeside.

7) They can stop sampling for HVOCs in at least MW3, and maybe MW5, if KG says ok.

8) Max. concs left in place: waste oil pit: 380 ppm O&G (near Montecito) and 130 ppm TPHg (south wall of pit); fuel tanks/piping: 190 ppm O&G (along Montecito Av), 210 ppm TPHg and .57 ppm benzene (along Bay Pl).

9) Should trigger concs. be exceeded for **two** consecutive events bf they do contingency plan? Isn't **one** event enough?

I'm basically ok w/this proposal, but the trigger concs need revision.

Site Summary STID 1110
former Chevron
210 Grand Ave.
Oak 610

con't from handwritten notes, and former disk

- 11/4/94 Reviewed 8/4/94 QR by GTI. Tell MM not to cc RWQCB. GW sampled 6/16 and 7/8/94. **Why 2 separate days?** GW flowed SW on 6/23/94 (generally towards the Lake). **How did they get a sample fm MW1 if it's "abandoned?"** **What is the source of contam in MW5? Why is it called RW5 now?** There's no MW DG or UG of our hit (MW5), so I'm not convinced we can establish NAA. We need DG and UG wells.
- 11/8/94 left mess. MM
- 11/15/94 spoke w/MM. Why 2 separate days of sampling? Maybe because there's still a pump in that well (RW5), which was sampled on 7/8/94. He thinks all wells were again sampled 9/8/94. I have the report. MW5 is RW5 bec. it's the pumping well. Source of contam in MW5? He doesn't think there's dirty soil around MW5 bec. they excavated there and took confirmatory samples (210 ppm TPH). Don't really know. Thinks it's a localized condition; hung up in cap fringe and/or gw. MW1 is not abandoned; MW2 is abandoned. Blaine Tech is taking over the QS from GTI; he thinks Blaine has better QA/QC. We started GW extraction in 1/93. Let's see what the 12/94 results say. OK. Weiss is working on proposal for further action. It will also review all the work that's been done to date. Should be here by end of year.
- 1/5/95 Reviewed 9/26/94 QR by GTI. GW sampled on 9/8/94 flowed SW; there was 14,000 ppb TPHg and 2,800 ppb benzene (also 2.8 ppb 1,2-DCA and 1.2 ppb PCE) in RW5. Offsite DG well MW7 had hits for the first time: 250 TPHg and 34 benzene (high ratio of benzene to TPHg). **TPHg concs have been steadily increasing in RW5 since the GWE system was shut off in early 94.** What say you now?
- 1/19/95 Reviewed 1/6/95 QR by Blaine Tech. GW sampled on 11/29/94 flowed W to SW, **but why is GWE in MW6 and MW7 nearly 5' less than MW4?** Conc of TPHg in MW5/RW5 have somewhat decreased this Q but are still higher than when GW extraction ceased; benzene is exactly the same as last Q. **There are increased concs of TPHg in DG MW6, while MW7 went back to ND.**

that metals, especially Pb was ALSO an issue.

- 6/29/92 spoke with Julie Carver of City of Oakland
- 1) mayor wants to buy this site. . .to pave it, maybe day care facility in future
 - 2) City did NOT contract with Kleinfelder. They contracted HLA, who reviewed Chevron's reports. . .problems with well screen installation. . .wells were screened improperly. . .screens were 2-4 feet below the top of the water table. . .therefore, gw may not be properly sampled or remediated.. . .apparently, Chevron did not allow wells to recover properly.
 - 3) EPA has mucho published data on background levels of metals
 - 4) In their purchase agreement w/Chevron, Chev agreed to remediate "covered contamination"
 - 5) Are we happy with their soil investigation? Bottom line question

6-30-92 Phone call from citizen Bill Turner
763-4916. Wants status of site.

7-2-92 I phoned B.T. He knows as a fact - City wants to buy it. He was concerned - City wd n be aware of contam. I told him that City has an Env. person ~~to be~~ who's inform of such g'

7-8-92 spoke w/WV. They're still waiting for City to ok location of system.

- 1) OK'd gw remediation workplan of 4/15/92
- 2) want performance data
- 3) you may need other permits, ie AQMD

6/22/92 left mess N.V. re status of
 1) gw treatment system
 2) any performance data yet?
 3) additional soil investigation as per her 5/20/92 letter

6/25/92 NV phoned. GW remediation system not yet installed. Waiting for City to ok location of system because city wants to buy property. Julie Carver is their contact. Chevron would keep responsibility for remediation if City bought property.

Re soil investigation: City contracted with Kleinfelder, who recommended NFA re soil invest. City is concerned with metals levels, including Pb. Pb in soil borings for offsite wells were higher than onsite wells. NV thinks metals are background, but their results are inconclusive. Does Al Co require additional testing to concur with them that Pb is background?

Specifically, MW3 (B3) and MW6 (B6) were the only 2 wells analyzed for Pb in their soil borings.

B3 (onsite well)
 June 1989 report
 TTLC

	(ppm)			
	Pb	Cd	Cr	Zn
5'	7	ND	38	20
10'	5	ND	39	42
15'	6	ND	60	39
18'	7	ND	39	51

B6 (offsite well)
 August 1990 report
 TTLC

	(ppm)			
	Pb	Cd	Cr	Zn
5.5'	6	1	29	22
8.7'	15	3	26	46
11.7'	15	3	24	51

NV wants us to concur with them that Pb is background. But MY issue re soil invest. deals with benzene and HCs, as per my 4/20/92 letter, item #1. I did not realize

- 10/2/91 cover letter with Quarterly GW Sampling report (9/20/91)
6,100 ppb benzene in MW-5
up to 36,000 ppb TPH-g (MW5)
metals not sampled
gradient W to SW
- 1/10/92 letter to RP from Al Co
requests gw remediation workplan
- 1/10/91 letter to Al Co from RP
with Quarterly GW Sampling (12/23/91)
21,000 ppb TPH-g (MW5)
8,000 ppb benzene (mw5)
gradient NW to SW
they want to discontinue metals sampling
- 3/31/92 (see folder) PS was phoned by 2 people. Julie Carver
from the City of Oakland phoned. City wants to buy
property. Linda Hartmann of Chevron phoned. She wants
to know if there are high background levels of Pb in
Oakland. PS told her that there was a study conducted
by Dr. Lynn Goldman of DHS that said there were hi
levels in soil, but that it was incumbent upon
Chevron/her to show that the metals were not caused by
her site.
- 4/17/92 file review by JE
still no workplan for gw remediation, as per 1/10/92
and 8/15/91 requests by letter
- 4/20/92 letter to Chevron from Al Co (JE).
1) we allowed them to discontinue sampling metals in gw
2) questions re backfilled soil containing 6 ppm benzene
3) visqueen on site
4) **3rd request** for a workplan re gw remediation. GW
contaminated with up to 21,000 ppb TPH-g and 8,000 ppb
benzene (MW5) for past 3 years.
- 5/22/92 reviewed gw remediation workplan w/Susan
- 6/4/92 spoke w/R. Hiatt re gw remediation workplan. He
generally agreed with approval. If treatment system
does not work, it'll need to be modified. This is an
interim measure. I'll check performance data 24-72 hrs.
after initial startup. Check drawdown of all MWs
(radius of influence), and rate of extraction.
- 6/4/92 left message for N. Vukelich

up to 0.10 ppm benzene

soil beneath Hydraulic lifts

180 ppm TPH-diesel

1,300 ppm O&G

soil beneath product lines

up to 160 ppm TPH-gas

up to 2.9 ppm benzene

received

on

9/28/90 "Soil Excavation and Aeration" workplan by WGR, not dated. . plans to excavate and aerate soils from former fuel tank pits, hydraulic lift, and product line areas.

11/19/90 Quarterly GW Sampling report by WGR *gw flow?*

2/26/91 letter to Al Co from Chevron
Chevron would like to temporarily discontinue quarterly gw sampling due to inaccessibility of MWs due to overexcavation/aeration activities currently underway.

8/15/91 letter to RP from Al Co
requests info: update of 1991 activities, continue quarterly gw monitoring, submit workplan for treatment system.

9/11/91 letter to Al Co from RP
includes huge "Soil Excavation, Remediation & Disposal" report by Resna, dated 8/91
1) 700 yd³ of "non-hazardous" soil containing <1000ppm O&G was disposed
2) 800 yd³ of soil remained onsite in stockpiles until used as backfill by Chevron in July 1991. **This soil contained 0.006ppm (6ppb) benzene.**
3) w.o. pit: 380 ppm O&G remained in west sidewall
130 ppm TPH-gas in south sidewall at 7'
4) gas pit: 190 ppm O&G from west wall (Montecito Av);
210 ppm TPH-gas and **0.57 ppm benzene** from the east wall (Bay Pl)
5) apparent HC contamination still exists at the limits of excavation along the Grand Av. and Montecito Pl sidewalks.
6) a previously unknown product line (approx. 50' in length and 2.5' in depth) was uncovered adjacent to the Bay Pl sidewalk during excavation in April and May 1991.
7) The aerated stockpiled soil was used to backfill the western and eastern portions of the fuel tank excavation (along Montecito Av & Bay Pl) on 7/29/91.
8) No stockpiles remain onsite.

*started 7-90 + completed 7-91
asper NW*

Chevron
210 Grand Av.
Oak 94610

Summary of STID 1110 . . . as of 6/30/92. . . by JE

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a lot of paper in the file

Feb & Mar 1989 WGR conducted soil vapor survey. . .based on those results, WGR conducted 5 soil borings and completed them as 5 MWS.

4/20/90 Closure Plan accepted

4 USTs: 1,000 gallon Waste Oil
two 10,000 gallon Gasoline
10,000 gallon Gasoline (leaded)

6/20/90 Three gas USTs and one w.o. UST removed by Blaine Tech Services; soils sampled

August 1990 "Off-Site Subsurface Investigation" report by Western Geologic Resources (WGR) four soil borings developed into MWS (offsite). **ND TPH-gas, TPH-dies, O&G, BTX, or halocarbons in soil borings B6 through B9. 0.01 ppm Ethylbenzene in two soil samples from B6. Low concentrations of metals in B6.**

8/16/90 UST Closure Report, by Blaine Tech, under cover letter from Chevron dated 9/28/90

Waste oil tank stockpile

960,000 ppm TPH-g

6,400 ppm O & G

14,000 ppm benzene

was this soil disposed or backfilled?

Gasoline tank stockpile

290 ppm TPH-gas

was this soil disposed or backfilled?

Waste oil tank pit

up to 69 ppm TPH-gas

up to 0.29 ppm benzene

up to 190 ppm TPH-diesel

up to 3,600 ppm O&G

was this soil overexcated?

Gasoline tank pit

up to 13 ppm TPH-gas

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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Mr. Michael Whelan
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DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

STID 817

RE: ARCO Service Station No. 5387, located at 20200 Hesperian Blvd.,
Hayward, California

Dear Mr. Whelan,

This office has received and reviewed the Quarterly Monitoring Report, dated June 19, 1992. To this date, seven monitoring wells have been installed on and immediately off site, and samples collected from all but one of these wells have exhibited very elevated concentrations of TPHg and BTEX (up to 210,000 ppb TPHg and 44,000 ppb benzene). According to the TPHg and benzene isoconcentration maps included in the above report, the highest concentrations of TPHg and benzene have been identified near the on-site well MW-2, with concentrations apparently decreasing radially outward from this well.

You are required to submit a work plan to this office **within 45 days** of the receipt of this letter, addressing your proposals for further delineation, containment, and remediation of the ground water contaminant plume beneath the site. These proposals must adhere to the Regional Water Quality Control Board's Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, the State Water Board's LUFT manual, and be consistent with requirements set forth in Article 11 of Title 23, California Code of Regulations. Copies of all plans and proposals should be sent to this office. Alameda County must approve these plans before they can be implemented.

Please be advised that this is a formal request for technical reports pursuant to **California Water Code Section 13267 (b)**. Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or RWQCB.

Please be aware that you must continue to prepare quarterly groundwater monitoring reports and submit them to this office.

Please be reminded to copy **Eddy So** at the San Francisco Bay Regional Water Quality Control Board on all future correspondence and reports.