Tien's Chocal

meeting summary

2/28/96

To do:

who?

Phillips ① Tier 2 analysis

" ② reduce scope of excavation to remove only source areas (not cap fringe): UST pit,

" ③ add analytes to w.o. UST closure samples
TPH-G, metals, SVOC

" ④ treatment / reintroduction conc. in soil (to check Basin Plan 6/95 data) - will send info to me

⑤ post remediation monitoring
question: additional well behind strip center?

"STABILITY" ISSUE

① minor "hits" (toluene) in MW-5 and -6 (one ea.) in ~~1992~~ 4/92 and 10/92

② minor "hit" (xylenes) in MW-7 in 10/93

④ "hits" for BTEX in MW-6 and TEX in MW-5 10/94

③ minor "hits" for TE in MW-5 and -6 in 4/94 however, <u>all</u> are below ASTM Tier 1 values

⑤ <u>All</u> BTEX "ND" in MW-5, -6, -7 in 4/95 and 10/95 - <u>overall</u> concencentrations diminishing since 1993 (March) <u>decreasing trend</u>

∴ appears plume <u>is</u> stable (i.e., not "growing")

RISK ISSUE

① highest concentrations of BTEX seen in GW in SP-1 (B 3.9, T 13, E 2.8, X 15 ppm) 1993

B	T	E	X	
0.021	—	—	—	(10^{-6})
2.14	—	—	—	(10^{-4})
—	85	—	—	Chronic (HQ=1)

- however, this "grab" sample may have been skewed by entrained sediments with adsorbed HCs

HVOC / breakdown product issues

① PCE breakdown products:

- 1,1-DCA
- 1,2-DCA ✓
- TCE ✓✓
- 1,1-DCE, cis-1,2-DCE ✓, trans-1,2-DCE ✓
- Vinyl chloride

present ✓
SP-1 ✓ 1993
MW-7 ✓ 1992

Soil contamination

① in all intrusive assessment work (1990—1993), highest PID and lab soil data are at approximate depth of either 1st encountered or stabilized GW elevations (~10-15' BG)
∴ soil data are really reflecting GW transport of gasoline

② site is immediately underlain by "... four to five feet of organic-rich silty clay."

③ (Likely) Tier 2 or Tier 3 analysis will show no risk to exposure both from vapor intrusion into commercial buildings and outdoor air

④ appears trench at west of USTs and vent line may be source of HCs in GW (SEE: data for SP-2, SB-13, SB-3)

Ground water impact

① established well network (MW-1 → MW-?) has shown trend of decreasing concentrations

② None of the well data exceed Tier 1 values for vapor intrusion into commercial buildings except for SP-1 (3900 ug/l benzene), where 1E-04 = 2140 ug/l

∴ appears to be candidate for "Low Risk GW Case" per Jan. 5, 1995 RWQCB guidance

USTs

① USTs storing motor vehicle ~~vehicle~~ fuel, and which are constructed of single wall steel, require upgrading to provide internal and external cathodic protection by 12/22/98. Replacing such tanks, or otherwise providing secondary containment, are acceptable.

CAP

Task 1: project preparation

permits – ~~BAAQMD~~, ACFCD, CUFD (ACFD) etc.

H+S plan

etc.

Task 2: well abandonment

MW-2, -3, -4 (due to UST removals)

Task 3: station demolition

Task 4: UST closures

UST closures (3)

Task 5: soil and water sampling / analysis

① one pit volume H_2O to be purged (if FP not present)

② sampling – a) UST (gasoline) – TPH-G, BTEX

b) UST (w.o) – add TPH-G, metals, SVOC

(proposes only TPH-D, BTEX, HVOC, TOG)

Task 6: remedial activities

① proposes to remove soil to total BTEX conc. of 1.0 mg/kg (indicating this is consistant with Basin Plan – 6/21/95)

② expect 3500 – 4000 yds^3 to be excavated near fuel USTs

③ FP to be "skimmed" and stored temporarily
④ FP/GW to be "treated" using carbon vessels before discharge to sewer (sanitary or storm)

Task 7: confirmation sampling

① one sample from pit sidewalls per 20 linear ft.

Task 8: back filling

① "clean" soil (< 1.0 mg/kg BTEX) to be reintroduced; 1 sample per 50 yds^3;

Task 9: disposal / recycling

① concrete / asphalt to be stockpiled / transported

② soil to be segregated into "clean" and "dirty" piles based on observations, PID screening, and confirmed by testing

③ fluids (GW, FP) will be either: 1) stored on-site pending treatment, or 2) transported off-site

Task 10: final report

MAJOR ISSUES

① Risk — ASTM E1739-95

- Tier 1 screening levels (RBSL)
- Tier 2 and 3 (SSTL)
- assumptions: DTW (10'), sediment type, carbon content, etc.
  (silt → gravel) total soil porosity (~38%), bulk density (1.7 g/cm³)
  depth to soil contaminants (3')

② CAP

- "stability" of plume ✓
- UST upgrades ✓
- " removal - need to add analytes for w.o.
- excavation scope ✓
  - limit of "source" area (define "source")
  - carbon / sediments description
  - GW impact vs. "true" soil contamination
  -
- assumptions of presence of "free product" ✓
  - sheen on auger (SB-2)
  - " " water (SB-3)
  - " in boring (SB-11)
  - products packets in soil (SB-13)
- treatment vs. off-haul
  ✓ - water
  - soil
- clean-up levels
  - 10 vs 100 ppm (TPH)
    1.0 (BTEX)