

**Regional Water Quality Control Board
Central Valley Region**

Board Meeting – 07, 08 June 2012

**Response to Written Comments on
Reconsideration of the Issuance of Cleanup and Abatement Order R5-2011-0713
for
Antlers Shell/Subway Station
Shasta County**

15 May 2012

At a public hearing scheduled for 07/08 June 2012, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will reconsider the issuance of Cleanup and Abatement Order R5-2011-0713 (the "Order") for Antlers Shell/Subway, Lakehead, Shasta County. This document contains responses to comments received from TBS Petroleum, LLC ("TBS") and Mr. Bob Davis ("Mr. Davis") in response to the current Order, which was issued by the Executive Officer on 6 December 2011. Written comments from designated/interested parties were required to be received by the Central Valley Water Board by 10 May 2012 in order to receive full consideration. Comments were received from:

1. TBS Petroleum, LLC – received on 10 May 2012
2. Mr. Bob Davis – received on 10 May 2012

Written comments from the designated and interested party are summarized below, followed by the response of Central Valley Water Board's Cleanup Team.

TBS PETROLEUM, LLC

TBS PETROLEUM, LLC – COMMENT #1: TBS is requesting that the Board revise the Cleanup and Abatement Order to name Mr. Davis as a responsible party. In support of their position, TBS cites to *In Re Mohammadian, WQO 2002-0021*, which states that, "a responsible party should not be left to clean up constituents attributable to a different release for which that party is not responsible."

RESPONSE: TBS, as the owner of land where waste has been discharged, is responsible for the cleanup of the contamination. The citation to *In Re: Mohammadian* omits the first part of the sentence, which reads, in full: "Moreover, *a balancing of the equities dictates that, whenever possible*, a responsible party should not be left to clean up constituents attributable to a different release for which that party is not responsible." (Emphasis added.) Though it is a general principle that a responsible party should not be solely responsible for cleaning up contamination that was discharged by another viable entity, even the *In Re: Mohammadian* decision leaves some room for the exercise of discretion.

TBS PETROLEUM, LLC – COMMENT #2: The Order is unprecedented, because it does not name a known responsible party, and instead names just the current property owner.

RESPONSE: TBS is correct that the decision to leave a viable responsible party off of a cleanup order represents a fairly unique situation, but the fact situation confronted by the Executive Officer is fairly unique as well. The Cleanup Team is unaware of any other instance where an appellate court has adjudicated the terms of a purchase contract *prior* to the issuance of a cleanup order, deciding that the purchase contract shifted cleanup liabilities to the purchaser. To the extent that the Order is “unprecedented,” it is only because the Board rarely has an appellate court decision as part of the evidence that is considered in the issuance of a cleanup order. The rationale that informs this decision is also far from “unprecedented.” The Board’s enforcement discretion has previously been used to issue Civil Liability Orders against only a subset of violators.

TBS PETROLEUM, LLC – COMMENT #3: The Cleanup Team, in defending the Order, admits that the Order did not include sufficient Findings to support the ultimate decision that the actual discharger, Mr. Davis, should be left off the Cleanup and Abatement Order. The new policy justifications aren’t supported by substantial evidence in the record.

RESPONSE: After TBS requested that the Board re-open the administrative record and re-assess the Executive Officer’s issuance of the Order, the Board’s Cleanup Team further clarified the rationale for issuing the Order solely to TBS. However, the Cleanup Team contends that all of these policy rationales were already reflected in the Order’s findings, and are supported by evidence that was already in the Board’s records at the time the Order was issued.

- 1. Comment: Though TBS agrees that evidence in the Board’s files shows that TBS is the current owner of the property and that there are no known access issues that prevent TBS from implementing cleanup options, TBS disagrees that it will benefit from the increased property value that inheres to a fully-remediated property, and claims that this rationale is not supported by evidence in the record.**

Response: Evidence in the Board’s files supports the fact that TBS was aware that pollution issues may have impaired the property at the time it acquired the property. It is reasonable to conclude that the full resolution of any potential pollution issues adds value to a potentially-contaminated property.

TBS was well aware that there were potential environmental issues associated with the Antler’s Shell station at the time TBS acquired the property. Evidence list No. 19 provides that “Antlers Shell sold an average of 700,000 to 800,000 gallons of fuel per year and around ‘98, TBS was a start-up company that delivered *all* the fuel to Antlers Shell from ‘98 until the close of escrow. ...spill buckets were not installed until ‘05.” (Emphasis added.) There are three primary

sources of subsurface leaks at fuel stations: tanks, pipe fittings, and spill buckets. Assuming conservatively that 8,000 gallons of fuel was delivered to the Site in one truck; the site received about 90 fuel deliveries per year, all by TBS. Minor releases can occur when spill buckets are not utilized. TBS would have been aware that the lack of spill buckets could pose a risk that contaminated soils might, at some time in the future, contribute to a condition of pollution in the soil that would require remediation.

Additionally, TBS and Mr. Davis entered into Amortization and Supply Agreement dated on or about 1 October 1997, which provided funding assistance for modernization of the Antlers Shell Station (Evidence List No. 19). Soil samples obtained on 10 October 1997 during UST removal activities indicated the presence of MTBE and other gasoline constituents in soil under the USTs and below the station dispensers. It is reasonable to assume TBS, through this agreement, had intimate knowledge of the pre-1997 UST system and post-1997 upgrades, and risks associated with such facilities.

The purchase contract allowed for the completion of a "Phase 1 environmental study". This study was apparently completed by TBS, however a copy of the study is not in the Board's files and was not submitted by TBS.

There is a risk to acquiring property that has been known to be contaminated with petroleum hydrocarbons, and this risk plays a role in the evaluation of property values. It is reasonable for the Board to conclude that the property, after the investigation and remediation called for in the Order is complete, will provide a greater level of assurance that all potential past environmental obligations have been fully remediated.

- 2. Comment: The Superior Court Decision should not be used to justify not naming Mr. Davis; it "is hard to understand why an owner of Property who did not cause or contribute to contamination would refuse to allow access"; and the Board did not "adequately consider what funding may be available to fund the necessary work."**

Response: Findings in the existing Order clearly state that the Board acknowledges that the litigation did not resolve Mr. Davis' liability to the Board. Though the Board also finds it hard to understand why a property owner would not provide access to someone willing to undertake remediation work, property access issues are nonetheless a frequently a disputed point between parties that share responsibility for the remediation of a contaminated Site. Lastly, it would be too speculative for the Board to justify a decision to name a responsible party on the basis of an uncertain funding source, particularly when other evidence justifies leaving the party off of the Order.

- 3. Comment: TBS argues that there are no compliance issues at the Site that would render either party ineligible for funds from the UST Fund.**

Response: The Cleanup Team maintains that there is evidence in the Board's files that justify the conclusion reached in the Findings that the responsible parties show a history of non-compliance with the Board's directives. In providing the subject comment, TBS states, "the CAO includes Findings that TBS *has* complied with Board directives..." (Emphasis added.) TBS cites Findings 13, 14, 15, 16, and 17 (text of Finding 17 actually Finding 18) to support this conclusion. To reiterate the Cleanup Team's position that the Order includes Findings in support of non-compliance, the Cleanup Team provides the following:

Finding 13; is neutral in nature and stands only to provide basis for future investigative work.

Finding 14; TBS omits the second sentence; The Work Plan was submitted on behalf of TBS *in response to a second staff request dated 25 July 2008 for the Dischargers to investigate petroleum pollution in the on-site domestic well.*

Findings 15 and 16: Stand only to describe results of the investigation following the 30 October 2008 work plan.

Finding 17: The Cleanup Team believes TBS incorrectly cites Finding 17 as the text they refer to is found in Finding 18 "On April 27, 2010, Central Valley Water Board issued an Order to Submit Information Pursuant to California Water Code Section 13267 ("the 13267 Order"), jointly to TBS and Mr. Davis. ...TBS responded to this request..."

Here TBS neglects to cite pertinent sentences from Finding 18: "...*the 13267 Order required the submittal of two work plans. The first was a work plan to further mitigate post-treatment pollution from the on-site domestic well. TBS responded to this request. The second workplan was for further site investigation of pollutant flow paths through colluvium and fractured bedrock sufficient to evaluate the onsite domestic well as a pollution conduit, correlate with identified pollution in on and off-site receptor wells, and define pollution extent. Neither party has submitted the second required workplan.*"

The Board's 13267 Order was issued on 27 April 2010. The Order that is at issue in this proceeding was issued on 6 December 2012. It was only *after* the current Order was issued that TBS submitted the second required workplan on 1 March 2012, which is nearly two years after the required submittal date.

Non-compliance with the Board's 13267 Order was one of the reasons why the Board issued the current Order. Ordinarily, when responsible parties fully comply with the Board's directives, cleanup can proceed under voluntary oversight, and the Board does not need to issue any Cleanup and Abatement Order. TBS is correct in stating that the Board's files do not show that Mr. Davis has taken any steps to comply with the Board's directives.

TBS PETROLEUM, LLC – COMMENT #4: TBS should be named secondarily liable.

RESPONSE: None of the State Water Board's Orders that discuss secondary liability find that it is an appropriate to name current owners as secondarily liable, particularly when the cleanup has not been proceeding well.

MR. BOB DAVIS

DAVIS – COMMENT #1: Mr. Davis recites a Site history, and states that TBS is appropriately named in the Order.

RESPONSE: The Cleanup Team does not dispute the factual background presented by Mr. Davis, and concurs that TBS is appropriately named in the Order.

DAVIS – COMMENT #2: TBS is the responsible party since it purchased Antler Shell on an "AS-IS" basis and assumed all liability for the prior conditions of the property.

RESPONSE: Though the Cleanup Team acknowledges that Mr. Davis has not resolved his liability to the Board, TBS's assumption of liability, and the Court's affirmation of that assumption, were factors that were considered by the Executive officer when she issued the Order.

DAVIS – COMMENT #3: Mr. Davis did not cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into waters of the state.

RESPONSE: Mr. Davis owned and operated the subject facility from 30 January 1990 to 20 April 2005. Soil samples obtained on 10 October 1997 during UST removal activities indicated the presence of MTBE and other gasoline constituents in soil under the USTs and below the station dispensers. According to best available data, MTBE was only included in Shell gasoline sold in California from approximately 1991 until 2003. Mr. Davis owned and operated the USTs during the entire period during which MTBE was added to Shell gasoline in California. Therefore, Mr. Davis owned and operated the site when MTBE was released/leaked from the USTs, regardless of whether that fuel impacted groundwater at that time.

Data from nearby closed UST case, Jack's Market, located about 1,100 feet south south-west of the site, suggest that groundwater levels in the area fluctuate from as low as 15 feet below ground surface during the dry season to as high as within 3 feet of the surface during the wet season. Data from LACO and Associates' 2008 Initial Subsurface Investigation indicate that groundwater at the Antlers Shell site was at about 12 to 14 feet below ground surface, similar to depths observed at the nearby Jack's site. Field notes prepared by Mark Cramer, SCDEH, during SCDEH's inspection of the UST

removal, note the depth of the UST excavation to be approximately 11' deep (where samples were obtained). No groundwater was observed in the tank cavity during removal (October). October is the end of the dry season and typically when groundwater levels can be expected to be at their lowest (this is supported by data at the Jack's site). Based on this data, it can be inferred that groundwater is likely present within, or at least very near, the base of the UST cavity during the wet season, without the influence of the broken water pipe, as inferred by SHN's report.

As outlined in the Central Valley Water Board's 22 April 2010 *Technical Memorandum*, Staff prepared a dispersion (spreadsheet) model to assess MtBE transport in the colluvium. The model equation (Ogata 1970) predicts linear dispersion, e.g., along a plume centerline, from a continuous source.

$$C=C_o/2[\text{erfc}((L-vt)/2(D_i t)^{0.5}) + \exp(vL/D_i)\text{erfc}((L+vt)/2(D_i t)^{0.5})]$$

Where:

- C= concentration down-gradient over time,
- C_o= initial concentration,
- L= down-gradient plume length,
- v= average linear groundwater velocity = Ki/n,
- K= hydraulic conductivity
- i= gradient
- n= effective porosity
- t= time,
- D_l= longitudinal coefficient of dispersion = α_lv + D*,
- α_l= dispersivity, often about 0.1L, highly scale dependant
- D*=molecular diffusion (neglected, assumed far overshadowed by dispersion).

As a result:

- C_o = 49,000 µg/L, the maximum MtBE concentration observed in LACO's subsurface investigation.
- L = 150 feet, the approximate distance from the tank pit to the onsite well down-gradient plume length,
- K = 0.10 ft/day, a typical representative value for silty soils.
- i = 0.04, as estimated from LACO's potentiometric map.
- N = 0.25, typical for silt.
- Time = between 8 and 13 years because Davis first identified MtBE in soil in 1997.

The following table summarizes results:

C _o (µg/L)	L (ft)	Time (years)	K (ft/day)	gradient (ft/ft)	n _{eff}	predicted C (µg/L)
49000	150	8	0.1	0.04	0.25	0.000
49000	150	9	0.1	0.04	0.25	0.000
49000	150	10	0.1	0.04	0.25	2.802

49000	150	11	0.1	0.04	0.25	11.206
49000	150	12	0.1	0.04	0.25	36.420
49000	150	13	0.1	0.04	0.25	86.848

Preliminary dispersion estimates depend strongly on initial MtBE concentration, therefore partitioning coefficients were used to estimate pore water concentrations of MtBE from 1997 soil concentrations. Assuming no biodegradation, a conservative fractional organic carbon of 0.001 for colluvium, and 8.0 liters per kilogram (L/kg) for MtBE soil organic partitioning coefficient (K_{oc}), and maximum concentrations of MtBE in soil of 85 $\mu\text{g}/\text{kg}$ (0.085 mg/kg), estimated pore water concentration of MtBE is 1,130 $\mu\text{g}/\text{L}$, about two orders of magnitude lower than maximum MtBE found to date in groundwater. This indicates soil sampling during the tank removal may have under-represented maximum source concentrations. It also shows that 49,000 $\mu\text{g}/\text{L}$ for C_0 is conservative based on current data. The above suggests that an MtBE release near the USTs, around 1997, dispersed continuously and began to reach the domestic well beginning about 10 years later.

The model is preliminary, useful strictly to support a site conceptual model, and subject to revision based on further data. However, predicted concentrations in the well are within range of those observed and provide evidence of a discharge during Davis' ownership of the site.

DAVIS – COMMENT #4: Mr. Davis is not strictly liable under Water Code section 13304(a)

RESPONSE: While the Board is in agreement with Mr. Davis that Water Code section 13304(a) is not a strict liability statute, but rather follows a rationale based on the common law of nuisance, the Cleanup Team does not agree that "There is no evidence that discharges were occurring during Mr. Davis's ownership of Antler's Shell or that he cause or permitted or deposited waste where it is, or probably will be, discharged into waters of the state." The Cleanup Team does not agree that "The only conclusion that may be draw from the evidence is that TBS through its failure to abate a water leak for nearly 3 months mobilized MTBE and caused or permitted waste to be discharged to water (sic)of the state."

The Board notes that the language quoted from Water Code section 13304 is incomplete. The legal standard in Water Code section 13304 is not "cause or permitted or deposited waste where it is, or probably will be, discharged into waters of the state" but rather:

... caused or permitted, causes or permits, or *threatens to cause or permit* any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and *creates, or threatens to create*, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts

Under this standard, the Board could conclude that there is sufficient evidentiary support to name Mr. Davis in the Order.

DAVIS – COMMENT #5: Mr. Davis does not have a claim assignable to TBS pursuant to State Board Orders WQ 99-02-UST and WQ-2000-6-UST.

RESPONSE: Though the Cleanup Team disputes that it does not have the authority to name Mr. Davis in the Order, the Cleanup Team agrees with the general application of the cited State Water Board Orders. These State Water Board Orders discuss when a settlement between multiple responsible parties can allow a responsible party to expend money on behalf of an eligible claimant (which has implications for the priority claim at the UST Fund), and conclude that these arrangements are permissible in certain circumstances. The Cleanup Team agrees with Mr. Davis' assertion that State Water Board Order WQ 99-02-UST precludes the use of "on behalf of" arrangements in the following circumstances:

1. When a judicial action results in a definitive apportionment of liability,
2. When one responsible party has previously released another person from liability at a site, and
3. When one responsible party has previously agreed to indemnify another responsible party.

Arguably, both 1 and 3 are applicable to the current situation, as an appellate court has apportioned liability, and has done so on the basis of an existing indemnification clause.

DAVIS – COMMENT #6: The Board should Affirm the Order Naming Solely TBS as the Responsible Party.

RESPONSE: The Board's Cleanup Team concurs that the Board should affirm the Order issued by the Executive Officer, but also acknowledges there are differences with Mr. Davis' position: the Cleanup Team does not agree that it would be "awarding damages" if it had exercised its discretion to name Mr. Davis (*People of California v. Kinder Morgan Energy Partners, L.P.* (S.D. Cal. 2008) 569 F.Supp.2d 1073 acknowledges that the Board is prohibited from awarding damages to injured parties) and the Cleanup Team also maintains that evidence in the Board's files supports the assertion that Mr. Davis did discharge wastes that may be addressed by an Order issued pursuant to Water Code section 13304.