STATE OF CALIFORNIA
CALIFORNIA WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 10, 2004

Prepared on August 17, 2004

ITEM: 8

SUBJECT: LOW THREAT CASES

DISCUSSION

General NPDES Permit:

General Waste Discharge Requirements for Wineries:

Small Winery Waivers, [Matt Thompson, 805/549-3159]

On November 1, 2002, the Regional Board adopted *General Waste Discharge Requirements for Discharges of Winery Waste* (General Winery WDR). A component of the General Winery WDR authorizes the Executive Officer to grant waivers of Waste Discharge Requirements to small wineries that pose little or no threat to water quality. The General Winery WDR defines "small winery" as crushing less than or equal to 80 tons of grapes per year, or producing less than or equal to 5,000 cases or 13,000 gallons of wine per year. In general, small wineries generate 200 to 300 gallons-per-day (long-term average) of process wastewater, most of which originates from equipment (tanks, barrels, floors, etc.) cleaning. Waivers expire five years from the date granted or whenever the winery no longer meets the definition of small, whichever is sooner.

The table below identifies wineries granted Small Winery Waivers between April 1, 2004, and July 31, 2004.

Facility Name	Facility Location	Facility Owner	Production and Discharge Description	Date Waiver Granted
Pisoni Vineyards	34361 Paraiso Springs Road, Soledad, Monterey County	Mark and Jeff Pisoni	Pisoni Vineyards will produce up to 3000 cases of wine per year with a crush of less than 50 tons of grapes per year. Process wastewater treatment consists of solids separation via screened floor drains, a septic tank, and disposal to a subsurface leachfield. The disposal area is greater than 100 feet from any water supply wells or water bodies. Depth to groundwater beneath the disposal area is greater than 100 feet.	May 19, 2004
Kenneth Paul Winery	2646 Vineyard Cr. Paso Robles, San Luis Obispo County	Kenneth Mundee	Kenneth Paul Winery will produce up to 1000 cases of wine per year. Process wastewater treatment consists of solids separation via screened floor drains, followed by land spreading in an onsite dry pond. The disposal area is greater than 100 feet from any water supply wells or water bodies. Depth to groundwater beneath the disposal area is greater than 100 feet.	June 16, 2004

Casa Cassara Winery	7661 Santos Road, Lompoc, Santa Barbara County	Bennie Cassara	Casa Cassara Winery plans to produce up to 5,000 cases of wine per year and generate up to 600 gallons per day of winery process wastewater. Process wastewater will be treated and disposed through a conventional septic tank and leachfield system. The disposal area is greater than 100 feet from any water supply wells or water bodies. Depth to groundwater beneath the disposal area is approximately 20 feet	July 23, 2004

Eberle Winery, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Staff enrolled Eberle Winery under the General Waste Discharge Requirements for Discharges of Winery Waste (General WDRs) on July 7, 2004. Eberle Winery is located at 3810 Highway 46 (Assessor's Parcel No. 025-431-047), Paso Robles, San Luis Obispo County. Approximately 425 tons of grapes are processed and 35,000 cases of wine are produced annually. Hot water, tartaric acid, trisodium phosphate, diammonium phosphate, metabisulphate and/or ozone are used for barrel and tank cleaning. Floors are cleaned with a pressure washer. Peak winery process wastewater flows are approximately 2,100 gallons per day during the crush season. Large solids are separated from process wastewater by floor drain screens. Process wastewater is settled in an 8,000-gallon septic tank and a second septic tank (with an effluent filter) prior to constructed wetlands treatment and constructed wetlands evaporative disposal. Pomace, seeds, and stems are spread in surrounding vineyards.

Enrollment under the General WDRs requires Eberle Winery to follow Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified specifically for Eberle Winery. Among several standard monitoring requirements, the treatment constructed wetlands' effluent quality will be monitored and the disposal constructed wetlands will be monitored for freeboard, vegetative condition, algal growth in ponds, odors, insects, and other potential nuisance conditions that may be present.

Denner Estate Winery, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Staff enrolled Denner Estate Winery under the General Waste Discharge Requirements for Discharges of Winery Waste (General WDRs) on July 6, 2004. Denner Estate Winery is located at 5414 Vineyard Drive (Assessor's Parcel No. 039-091-005), Paso Robles, San Luis Obispo County. Approximately 170 tons of grapes are processed and 12,000 cases of wine are produced annually. Hot water, tartaric acid, trisodium phosphate, diammonium phosphate, or metabisulphate and/or ozone are used for barrel and tank cleaning. Floors are cleaned with a pressure washer. Peak winery process wastewater flows are approximately 480 gallons per day during the crush season. Large solids are separated from process wastewater by floor drain screens. Process wastewater is settled in an 3,000-gallon septic tank (with an effluent filter) prior to constructed wetlands treatment and constructed wetlands evaporative disposal. Pomace, seeds, and stems are spread in surrounding vineyards.

Enrollment under the General WDRs requires Denner Estate Winery to follow Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified specifically for Denner Estate Winery. Among several standard monitoring requirements, the treatment constructed wetlands' effluent quality will be monitored and the disposal constructed wetlands will be monitored for freeboard, vegetative condition, algal growth in ponds, odors, insects, and other potential nuisance conditions that may be present.

Norman Vineyards, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Regional Board staff enrolled Norman Vineyards under the General Waste Discharge Requirements for Discharges of Winery Waste on April 29, 2004. Norman Vineyards was not previously regulated by the Regional Board.

Norman Vineyards is located at 7450 Vineyard Drive, in Paso Robles, San Luis Obispo County. Wine production is currently 20,000 cases per year. Process wastewater is treated and disposed of by a conventional 1,000-gallon septic tank and dual 300 lineal feet leachfields. The design capacity of the septic system is 1,200 gallons per day (gpd). Monitoring and Reporting Program (MRP) No. R3-2003-0084 has been modified specifically for Norman Vineyards. Staff will begin regular inspections of Rancho Norman Vineyards to ensure continued compliance with the General WDRs.

Justin Winery, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Regional Board staff enrolled Justin Winery under the General Waste Discharge Requirements for Discharges of Winery Waste on August 12, 2004. The Regional Board did not previously regulate Justin Winery.

Justin Winery is located at 11680 Chimney Rock Road, in Paso Robles, San Luis Obispo County. Wine production is currently 42,000 cases per year. Process wastewater is treated and disposed of by a conventional septic tank and leachfield system. Justin Winery is subject to Monitoring and Reporting Program (MRP) No. R3-2003-0084. Staff will begin regular inspections of Justin Winery to ensure continued compliance with the General WDRs.

Peachy Canyon Winery, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Regional Board staff enrolled Peachy Canyon Winery under the General Waste Discharge Requirements for Discharges of Winery Waste on August 12, 2004. The Regional Board did not previously regulate Peachy Canyon Winery.

Peachy Canyon Winery is located at 2025 Nacimiento Lake Road, in Paso Robles, San Luis Obispo County. Wine production is currently 45,000 cases per year. Process wastewater is treated and disposed of by an oxidation pond. Justin Winery is subject to Monitoring and Reporting Program (MRP) No. R3-2003-0084. Staff will begin regular inspections of Peachy Canyon Winery to ensure continued compliance with the General WDRs.

Tablas Creek Vineyard, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3689]

Regional Board staff enrolled Tablas Creek Vineyard under the General Waste Discharge Requirements for Discharges of Winery Waste on August 13, 2004. The Regional Board did not previously regulate Tablas Creek Vineyard.

Tablas Creek Vineyard is located at 9339 Adelaida Road in Paso Robles, San Luis Obispo County. Wine production is currently 10,000 cases per year, but Tablas Creek Vineyard plans on producing up to 25,000 cases in the future. Process wastewater is treated and disposed of by a conventional septic tank and leachfield system, although Tablas Creek Vineyard plans on installing a constructed wetlands treatment system with evaporative disposal. Tablas Creek Vineyard is subject to Monitoring and Reporting Program (MRP) No. R3-2003-0084. Staff will begin regular inspections of Tablas Creek Vineyard to ensure continued compliance with the General WDRs.

Waiver of Waste Discharge Requirements

Andrew Murray Vineyards, Los Olivos, Santa Barbara County [Matt Thompson 805/549-3159]

Staff tentatively enrolled Andrew Murray Vineyards, 6701 Foxen Canyon Road, Los Olivos, Santa Barbara County, under General Waiver Resolution No. 2002-0115 on July 14, 2004. Andrew Murray Vineyards produces 9,000 cases of wine annually, and generates up to 600 gallons per day of process wastewater. Process wastewater and low volumes of domestic wastewater are disposed through an approximately 2,000-gallon septic tank equipped with an effluent filter, to four 50-foot deep drywells. Approximate depth to groundwater

beneath the disposal area is 400 feet. The closest water supply well is located ½ mile upgradient of the disposal area. Pomace, stems, and lees are composted and spread in surrounding landscaping or vineyards.

Andrew Murray Vineyards' waiver is contingent on satisfaction of the following conditions:

- Compliance with the Prohibitions, Recommendations, and Specifications of the General Waste Discharge Requirements for Wineries;
- Pomace, lees, bentonite, and diatomaceous earth shall be excluded from the septic system to the extent practicable.
- Any incidence of overflow from the wastewater system shall be reported to the Executive Officer within 24 hours.
- Staff shall be allowed to visit the facility in the future to ensure continued compliance with these conditions.

Staff recommends the Regional Board concur with waiving Waste Discharge Requirements for Andrew Murray Vineyards under these conditions. This conditional waiver will expire September 10, 2009.

Rancho Sisquoc Winery, Santa Barbara County [Matt Thompson 805/549-3159]

Staff tentatively enrolled Rancho Sisquoc Winery, 6600 Foxen Canyon Road, Santa Maria, Santa Barbara County, under General Waiver Resolution No. 2002-0115 on August 16, 2004. Rancho Sisquoc Winery produces 7,500 cases of wine annually, and generates approximately 1,200 gallons per day of process wastewater (average) during the harvest season. Process wastewater is screened by basket strainers, settled in two 1,000-gallon septic tanks, and disposed in two 100-foot long leachfields located in a pasture adjacent to the winery. The nearest water supply well is 0.7-mile downgradient of the leachfields. Depth to groundwater in the well is approximately 200 feet. Pomace, stems, and lees are composted with green waste and spread in surrounding vineyards or landscaping.

Rancho Sisquoc Winery's waiver is contingent on satisfaction of the following conditions:

- Compliance with the Prohibitions, Recommendations, and Specifications of the General Waste Discharge Requirements for Wineries;
- Pomace, lees, bentonite, and diatomaceous earth shall be excluded from the septic system to the extent practicable.
- Any incidence of overflow from the wastewater system shall be reported to the Executive Officer within 24 hours.
- Staff shall be allowed to visit the facility in the future to ensure continued compliance with these conditions.

Staff recommends the Regional Board concur with waiving Waste Discharge Requirements for Rancho Sisquoc Winery under these conditions. This conditional waiver will expire September 10, 2009.

Santa Barbara County Road Maintenance Yard, 4415 Cathedral Oaks Road, Santa Barbara, Santa Barbara County [John Mijares 805/549-3696]

On July 22, 2004, Regional Board staff enrolled the Santa Barbara County Road Maintenance Yard, 4415 Cathedral Oaks Road, Santa Barbara, Santa Barbara to the General Waiver Resolution No. R3-2002-0115. Groundwater is contaminated with petroleum hydrocarbon constituents from a previously removed leaking underground fuel tank. Currently the contaminated groundwater is extracted and treated using an air stripping tower followed by three in-line granular activated carbon treatment units to remove petroleum hydrocarbon constituents. The effluent from the water treatment system is approximately 18,300 gallons per week. Approximately 70% of the effluent (12,800 gallons) is discharged to a tributary of Atascadero Creek and the remaining 30% (5,500 gallons) is used for landscape irrigation. The facility is currently enrolled in a General NPDES permit for Discharges of Highly Treated Groundwater to Surface Waters, Order No. 01-134 for the discharge of effluent to the creek. The portion of the effluent used for landscape irrigation is applied using a drip irrigation system along the eastern and southern perimeter of the facility. Santa Barbara County (Responsible Party) filed a complete Report of waste Discharge for enrollment in a General Waiver to use a portion of the effluent for landscape irrigation.

The facility is in compliance with all requirements for enrollment in the General Waiver for Treated Groundwater except for the 100-foot setback from a stream. However, as discussed above, the facility is also enrolled in a General NPDES permit for the discharge of highly treated to a tributary of Atascadero Creek. As a condition for enrollment in the General Waiver, Regional Board staff requires the County to continue implementing the facility's existing Monitoring and Reporting Program Nos. 99-116 and 01-135 to verify continued compliance with the General NPDES and General Waiver requirements. The General Waiver expires on July 31, 2009.

Robert Cole 2900 Grand Avenue, Los Olivos, Santa Barbara County [John Mijares 805/549-3696]

On July 26, 2004, Regional Board staff enrolled the 2900 Grand Avenue, Los Olivos, Santa Barbara County site to the General Waiver Resolution No. R3-2002-0115. Soil and groundwater at the site are contaminated with petroleum hydrocarbon constituents from previously removed leaking underground storage tanks. Mr. Robert Cole, the responsible party, proposes a remedial plan using dual-phase extraction that combines the use of both groundwater extraction and soil vapor extraction to remove dissolved and adsorbed-phase petroleum hydrocarbon constituents. The extracted groundwater will be pumped to a storage tank and then treated via three in-line 1000-pound granular activated carbon (GAC) treatment units. The GAC treatment units are designed to completely remove petroleum hydrocarbon constituents in the extracted groundwater. The effluent from the final GAC canister will be discharged to an onsite leachfield disposal system at a flow rate of about three gallons per minute (4320 gallons per day).

The site complies with all requirements for enrollment in the General Waiver for Treated Groundwater. As a condition for enrollment in the General Waiver, Regional Board staff issued Monitoring and Reporting Program No. R3-2004-0131 to verify compliance with the General Waiver requirements. The General Waiver expires on July 31, 2009.

Granite Rock Highway 101 Grinding Project, Morgan Hill, Santa Clara County [Matthew Keeling 805/549-3689]

Staff enrolled Graniterock under Resolution No. R3-2002- 0115, General Waiver for Specific Types of Discharges, on July 26, 2004.

The project will involve the grinding of concrete on Highway 101 between Cochrane Road and the San Benito County Line from approximately August 2, 2004, through October 28, 2004. Concrete grinding slurry generated during the project will be collected and transferred to a lined pond located in the Caltrans right-of-way within the southwest corner of the Highway 101 and Tennant Avenue interchange. The proposed highway grinding slurry pond site was previously approved by the Executive Officer. Concrete solids and aggregate will be settled out of the slurry in the pond and will be recycled at the Graniterock Arthur Wilson Quarry in Aromas. Decanted and filtered slurry water will be pumped back for reuse in the grinding operation.

This waiver enrollment is conditional upon compliance with the following:

- General Waiver Conditions (Attachment A1, Section A).
- Discharge-specific conditions contained in Waivers of Waste Discharge Requirements, 'Highway Grinding Slurry' (Attachment A1, Section B, Item 2) for highway grinding slurry.

Low Threat General NPDES Permit:

Dewatering of Excavation at First Street and San Miguel Street, Avila Beach [Matt Thompson, 805/549-3159]

Staff enrolled an excavation dewatering discharge at the vacant lot on the northwestern corner of First Street and San Miguel Street in Avila Beach, under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on August 9, 2004. High groundwater must be drawn down to facilitate construction of a subsurface parking structure and foundation for the La Fonda Inn. Groundwater will be pumped intermittently at 5 to 50 gallons-per-minute from

three shallow wells, for up to 120 days. Groundwater will be discharged into the Avila Beach storm drain system to San Luis Obispo Creek.

Enrollment under the Low Threat General Permit requires the discharger to comply with Monitoring and Reporting Program No. 01-119 (MRP), which has been modified specifically for this discharge. The MRP requires weekly monitoring of effluent flow, turbidity, and pH; and one-time monitoring of petroleum compounds. The discharger has agreed to immediately cease the discharge and contact staff if any contamination is discovered in the discharge or the excavation.

Case Closures for Underground Tank Sites:

Staff Closed Cases:

Dominican Hospital – 610 Fredrick Street, Santa Cruz, Santa Cruz County; (RWQCB No. 3438) [Tom Sayles 805-542-4640]

A 1,000 gallon underground storage tank (UST) was removed from an operating hospital on August 16, 2000, and replaced with an above ground tank. During UST removal, soil samples were collected. The results indicated a maximum concentration of 1,800 milligrams per kilograms (mg/kg) total petroleum hydrocarbons as diesel (TPH-D) in soil. During the tank removal, approximately 25 cubic yards of hydrocarbon-impacted soil was excavated. On April 2 and 3, 2001, four soil borings and three groundwater monitoring wells (MW-1 through MW-3) were installed to evaluate the extent of soil and groundwater contamination. Initial groundwater monitoring results indicated a maximum concentration of 3,600 µg/L TPH-D. Benzene, toluene, ethylbenzene, xylene, methyl tertiary-butyl ether (MTBE), and other oxygenates were not detected or were below cleanup goals. In February 2003 groundwater monitoring wells MW-4, MW-5 and EW-1 were installed. Approximately 60,000 gallons of hydrocarbon impacted groundwater were extracted from EW-1 between April 25, 2003 and October 17, 2003. This remedial action appears to have been effective in reducing TPH-D concentrations in the groundwater monitoring wells.

The site lies within the Santa Cruz Hydrologic Unit, which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. Therefore, cleanup goals for common hydrocarbon constituents are as follows: 1,000 µg/L – total petroleum hydrocarbons (TPH), 1 µg/L – benzene, 150 µg/L – toluene, 300 µg/L – ethylbenzene, 1,750 µg/L – xylenes, and 5 µg/L – MTBE. Cleanup goals for MTBE and TPH have been established based on taste and odor thresholds.

Depth to underlying groundwater is approximately 6 to 8 feet below ground surface (bgs). Groundwater flow is generally to the south with a gradient of 0.005 feet per feet. The nearest water supply well is located approximately 0.5 mile east of the site.

Second quarter 2004 groundwater monitoring results indicate all hydrocarbon constituents are below cleanup goals with the exception of 1,100 µg/L TPH-D in MW-1. Based on these results, there is no threat to groundwater quality and no further groundwater investigation or action is necessary. The Santa Cruz County Environmental Health Services Agency concurs with this determination. The property owner/site operator has been notified of case closure and the responsible party has been directed to destroy all monitoring wells. Staff is proceeding to close this case and will issue a final case closure letter upon receipt of a well destruction report documenting the proper destruction of all monitoring wells.

Former Eurotech Auto Garage, Santa Cruz, Santa Cruz County; (RWQCB No. S-345) [Tom Sayles 805-542-4640]

A Phase I environmental review was completed on September 26, 2002. Based on the historical uses at the site, a Phase II was completed on December 12, 2002 to assess the soil and groundwater impacts beneath the oil storage area located behind the automotive service shop. During the Phase II investigation, four borings were advanced (B1 through B4) to collect soil and "grab" groundwater samples. A maximum concentration of 4,700 milligrams per kilograms (mg/kg) total petroleum hydrocarbons as diesel (TPH-D), 6,500 mg/kg total petroleum hydrocarbons as motor oil (TPH-MO) and 270 mg/kg total petroleum hydrocarbons as gasoline (TPH-G) were detected in the shallow

soils. Groundwater samples collected from the December 12, 2002 borings detected a maximum concentration of 11 micrograms per liter (µg/L) benzene in boring B4. Based on these results, soil excavation and soil sampling activities were proposed to remediate the shallow contaminated soils. Following the initial excavation of soils on April 30, 2003, soil samples were collected from the sidewalls of the open excavation to determine the lateral extent of soil contamination. Based on the data, approximately 106 tons of hydrocarbon-impacted soil were excavated and approximately 5,000 gallons of groundwater were removed from the impacted area. To determine if remedial actions were effective in reducing the hydrocarbon concentrations in the soil and groundwater, on April 21, 2004, four confirmation borings were drilled and soil and groundwater samples were collected from (SB-1 through SB-4). The soil and groundwater results indicated total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene, methyl tertiary-butyl ether (MTBE) and all other constituents analyzed were not detected or were below water quality objectives (WQO's). The remedial actions appear to have been effective in reducing the hydrocarbon concentrations in the soil and groundwater.

The site lies within the Santa Cruz Hydrologic Unit, which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. Therefore, WQO's for common hydrocarbon constituents are as follows: 1,000 µg/L – total petroleum hydrocarbons (TPH), 1 µg/L – benzene, 150 µg/L – toluene, 300 µg/L – ethylbenzene, and 1,750 µg/L – xylenes. WQOs for TPH have been established based on taste and odor thresholds.

Depth to underlying groundwater is approximately 8 to 10 feet below ground surface (bgs). There are no known water supply wells located within 0.5 miles of the site. No active UST or groundwater wells are present at the site.

The recent soil and groundwater results indicate all hydrocarbon constituents are below WQO's. Based on these results, there is no threat to groundwater quality and no further groundwater investigation or action is necessary. The Santa Cruz County Environmental Health Services Agency concurs with this determination. The property owner/site operator has been notified of case closure. Staff is proceeding to close this case and will issue a final case closure letter with a case closure summary form.

Beacon Service Station No. 3728, 11775 Merritt Street, Castroville, Monterey County; [Burton Chadwick [805/542-4786]

An unauthorized release was discovered in October 2001 at this active service station during underground storage tank (UST) system upgrades. The upgrades involved the removal and replacement of the USTs, product lines and dispensers. Soil sampling results from beneath the former product lines and dispensers detected petroleum hydrocarbon contamination.

Further assessment involving installation of five direct-push soil borings was completed in October 2002, directed by the Monterey County Department of Health, Division of Environmental Health (MCDH). Three soil and one groundwater sample were collected from each boring. Investigation results indicated the presence of methyl-*tertiary*-butyl ether (MTBE) and tertiary butyl alcohol (TBA) in one groundwater sample at a maximum concentration of 140 micrograms per kilograms (µg/L) and 31 µg/L, respectively. This Regional Board's water quality objectives are 5 µg/L for MTBE and 12 µg/L for TBA. MTBE was also detected at 5 µg/L at a second sample location.

In December 2002, Regional Board staff requested additional groundwater assessment. Three permanent groundwater monitoring wells were installed and sampled in August 2003. Groundwater was generally encountered at 29 feet below grade with a north-northwesterly component of flow at 0.001 ft/ft. Total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes, MTBE, and TBA were not detected. Non-detectable concentrations were confirmed during subsequent groundwater sampling on January 22, 2004. Therefore, Regional Board staff is proceeding with case closure activities.

In a May 11, 2004 letter to the responsible party, MCHD indicated that no further action related to the USTs is required, and in a June 23, 2004 Regional Board letter, the responsible party was

instructed to properly destroy the groundwater monitoring wells. Upon receipt of documentation outlining proper well destruction, the Executive Officer will issue a formal case closure letter.

Case Recommended for Closure:

New County Government Center, 1051 Monterey Street, San Luis Obispo, San Luis Obispo County (RWQCB #3366) [Corey Walsh 805/542-4781]

Staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicate methyl tertiary-butyl ether (MTBE) at a maximum concentration of 19 micrograms per liter (µg/L) and tertiary butyl alcohol (TBA) at 13 µg/L. The MTBE and TBA are believed to be associated with one or more off-site sources that are undergoing investigation and cleanup by the respective responsible party/parties. Other typical petroleum hydrocarbon and burn-ash constituents have been analyzed and are below detection limits in groundwater.

Petroleum hydrocarbon and lead contamination was discovered during San Luis Obispo County Government Center demolition and foundation excavation. Elevated lead concentrations in soil were associated with "burn-ash" deposits found. Five USTs were removed during demolition. Two additional tanks found within the street right-of-way were left in-place. An eighth UST, discovered in April 2004 beneath Monterey Street right-of-way, is being investigated and is not included in this closure. Additional tank(s) are suspected to be located within the Santa Rosa Street right-of-way. These tanks will be investigated during construction activities scheduled to be completed in late 2004.

Approximately 9,500-tons of lead contaminated soil and 31,000-tons of petroleum hydrocarbon contaminated soil were excavated and disposed off-site during project construction. Approximately 1.8 million gallons of contaminated groundwater were treated and discharged to the City of San Luis Obispo sewer system.

Soil sample analytical results indicate lead-containing ash deposits and petroleum hydrocarbon impacted soil remain in the excavation sidewalls. Soil samples collected from sidewalls detected up to 1,700 milligrams per kilogram (mg/kg) total petroleum hydrocarbons reported as gasoline (TPH-g), 4,100 mg/kg TPH reported as diesel (TPH-d), and 1,300 mg/kg total lead. Excavation sidewalls extend to the Monterey and Santa Rosa Street right-of-ways or abut adjacent properties and building such that additional excavation is not feasible.

Depth to groundwater was observed from approximately 13 to 17 feet below ground surface (bgs) and the groundwater flow direction is generally south–southwest with a gradient of 0.02 ft/ft.

The nearest water well (Mitchell Park) is located approximately 1,300 feet southeast of the site. This municipal well is owned by the City of San Luis Obispo and is currently inactive. San Luis High School operates an irrigation well located approximately 2,200 feet east-northeast of the site. The residual petroleum hydrocarbons remaining are unlikely to impact these wells considering groundwater flow direction and distance.

The site lies within the San Luis Obispo Creek Hydrologic Subarea of the Estero Bay Hydrologic Unit (3-10.24), which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater beneficial uses to be domestic and municipal supply, agricultural supply, and industrial supply. Therefore, the groundwater cleanup goals for common gasoline constituents are as follows: 1,000 µg/L total petroleum hydrocarbons (TPH), 1 µg/L benzene, 150 µg/L toluene, 300 µg/L ethylbenzene, 1,750 µg/L xylenes, 5 µg/L MTBE, and 12µg/L TBA. The MTBE and TPH cleanup goals have been established based on taste and odor thresholds, not health risks. The TBA cleanup goal is based on California Department of Health Services (DHS) Action Levels, which are health-based advisory levels.

The recommendation for closure is based on the following: (1) majority of contaminant mass has been removed, (2) remaining groundwater pollution above cleanup goals is from off-site source(s) where on-going cleanup and investigation is underway by other responsible parties, (3) closure is consistent with Section III.G. of State Board Resolution No. 92-49, allowing the

consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

The responsible party and property owner are aware of the proposed case closure as required by the Health and Safety Code. In addition, San Luis Obispo City Fire Department acting as the lead agency for soil investigation and cleanup activities has concurred with site closure.

Unless the Regional Board objects and pending appropriate monitoring well destruction the, Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations.

Former S & S Auto Electric, 1960 Santa Barbara Street, San Luis Obispo, San Luis Obispo County [Corey Walsh 805/542-4781]

Staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicate 0.9 micrograms per liter (µg/L) 1,2-dichloroethane (1,2-DCA) in one well. No other petroleum hydrocarbon constituents, except 180 µg/L total petroleum hydrocarbons reported as diesel (TPH-d), were detected during the most recent sampling event. The property is currently used for automobile parking, all USTs were removed, and fuel is no longer stored on site.

In 1986, two USTs were removed from the site. Later, a Phase II Site Assessment, conducted in 1997, detected petroleum hydrocarbons in soil in excess of local regulatory agency action levels. A subsequent Phase II conducted in 2000 detected petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylenes in groundwater. Soil contamination was also detected at concentrations of up to 3,400 milligrams per kilogram (mg/kg) TPH-d, 410 mg/kg TPH reported as gasoline (TPH-g), and 250 mg/kg total lead.

In August 2000, approximately 800 cubic yards of contaminated soil were excavated from two former UST areas and three additional areas at the site. A 500-gallon UST was discovered and was also removed. Complete removal of impacted soil was not possible because of limited access and hard bedrock conditions. Impacted soil left in-place was limited to three areas at maximum concentrations of 110 mg/kg TPH-g, 330 mg/kg TPH-g, and 21 mg/kg lead.

In August 2002, four groundwater monitoring wells were installed in the area, and downgradient, of the former USTs. Groundwater sample results detected up to 1,800 µg/L TPH-g, 310 µg/L benzene, 2.2 µg/L methyl tertiary-butyl ether (MTBE), and 1.8 µg/L 1,2-DCA.

Depth to groundwater was observed from approximately 4 to 11 feet below ground surface, and the groundwater flow direction is westerly at a gradient of 0.018 ft/ft.

The nearest water supply well is an inactive City of San Luis Obispo well, Mitchell Park Well, located approximately 1,400 feet northwest of the site. The residual petroleum hydrocarbons remaining are unlikely to impact this well considering the groundwater flow direction and distance.

The site lies within the San Luis Obispo Creek Hydrologic Subarea of the Estero Bay Hydrologic Unit (3-10.24), which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater beneficial uses to be domestic and municipal supply, agricultural supply, and industrial supply. Therefore, the groundwater cleanup goals for common gasoline constituents are as follows: 1,000 µg/L total petroleum hydrocarbons (TPH), 1 µg/L benzene, 150 µg/L toluene, 300 µg/L ethylbenzene, 1,750 µg/L xylenes, 5 µg/L MTBE, and 0.5 µg/L 1,2-DCA. The MTBE and TPH cleanup goals have been established based on taste and odor thresholds, not health risks.

The closure recommendation is based on the following: (1) majority of contaminant mass has been removed, (2) remaining groundwater pollution above cleanup goals is limited in extent and observed in only one of four wells surrounding the former UST locations, (3) 1,2-DCA is the only remaining constituent of concern above the cleanup goal of 0.5 µg/L, (4) the observed decreasing trend of 1,2-DCA from 1.8 µg/L to 0.9 µg/L, (5) closure is consistent with Section III.G. of State Board Resolution No. 92-49, allowing the consideration of cost effective abatement measures

for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

The responsible party and property owner are aware of the recommended case closure as required by the Health and Safety Code. In addition, San Luis Obispo City Fire Department acting as the lead agency for soil investigation and cleanup activities has concurred with site closure.

Unless the Regional Board objects and pending appropriate monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations.

San Luis Obispo County Maintenance Yard, 6805 Sycamore Road, Atascadero, San Luis Obispo County [Corey Walsh 805/542-4781]

Staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicate 8.4 milligrams per liter (mg/L) total petroleum hydrocarbons reported as diesel (TPH-d) detected in only one well. No other petroleum hydrocarbon constituents (e.g., benzene, toluene, ethylbenzene, xylenes {BTEX} and methyl tertiary-butyl ether {MTBE}) were detected in this or the other four wells on-site. The property is used as a county maintenance yard; however, USTs were removed and fuel is no longer stored on site.

Petroleum hydrocarbons were discovered during removal of two 6,000-USTs, and associated piping and fuel dispensing equipment in 1993. During the removal, approximately 1,600 cubic yards of contaminated soil were excavated to a depth of twenty-five feet, and aerated on-site. Excavation sidewall sample results ranged from <0.5 to 10.0 milligrams per kilogram (mg/kg) TPH-d. The excavation was backfilled with clean soil.

Initial groundwater sample results from a well installed in the former UST excavation in October 1993, detected up to 6,500 mg/L TPH-d. Free product was observed and removed during subsequent sampling events. A total of five monitoring wells were installed, including; two in 1994 and two in 1997.

Depth to groundwater was observed from approximately 16 to 27 feet below ground surface, and the groundwater flow direction is currently to the northwest at a gradient of 0.003 ft/ft.

The nearest active water supply wells, Atascadero Mutual Water Company (AMWC) wells No. 5 and 5A are located approximately 2,000 feet north of the site. Both wells were analyzed and found to be non-detect for volatile organic compounds and semi-volatile organic compounds in July 2002 and February 2003, respectively. An inactive well, AMWC No. 15, is located approximately 400 feet east and was analyzed August 2004 for TPD-d and BTEX and found to be non-detect. The Salinas River is approximately 500 feet east of the site. The remaining residual petroleum hydrocarbons are unlikely to impact any of these potential receptors due to the well construction; groundwater flow direction, and/or distance.

The site lies within the Atascadero Hydrologic Subarea of the Salinas Hydrologic Unit (3-9.81), which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater beneficial uses to be domestic and municipal supply, agricultural supply, and industrial supply. Therefore, the groundwater cleanup goal for total petroleum hydrocarbons (TPH) is 1 mg/L. The TPH cleanup goal has been established based on taste and odor thresholds, not health risks.

The closure recommendation is based on the following: (1) majority of contaminant mass has been removed, (2) remaining groundwater pollution above cleanup goals is limited in extent and observed in only one of five wells surrounding the former UST location, (3) the observed decreasing trend of TPH-d from 6,500 mg/L to 11 mg/L, (4) TPH-d is the only remaining constituent, (5) closure is consistent with Section III.G. of State Board Resolution No. 92-49, allowing the consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

The responsible party and property owner are aware of the recommended case closure as required by the Health and Safety Code. In addition, San Luis Obispo County Division of Environmental Health as the lead agency for soil investigation and cleanup activities has concurred with site closure.

Unless the Regional Board objects and pending appropriate monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations.

Former Avis Rent-A-Car (Panosian Property), 5680 Hollister Avenue, Goleta, Santa Barbara County [John Mijares 805/549-3696]

The site is located at the corner of Hollister and Kinman Avenues in Goleta (Attachment No. 1). Highway 101 is located about 0.33 miles to the north, and the Pacific Ocean is about 1.25 miles to the south. A service station owned by World Oil is located to the east across Kinman Avenue. Residential apartment units are located approximately 65 feet to the north and light commercial businesses are located to the east and west. Over the past 13 years, shallow groundwater levels have fluctuated between 15-20 feet below ground surface (bgs), with an average 0.03 ft/ft hydraulic gradient and a west-northwest flow direction.

Atlantic Richfield operated at the site from 1961 to 1973 with three gasoline underground storage tanks (one-6,000 and two-4,000 gallon) and one 250-gallon waste oil underground storage tank (UST). Mr. Ernest Panosian, the Responsible Party, purchased the property in 1973 and leased it to an auto repair shop until 1978. Avis has also leased the property and used one of the USTs (6000-gallon) from 1979 to 1988. A used car business currently operates at the site.

All USTs were removed in 1991 and contaminated soil was excavated, transported offsite and disposed. A total of 21 soil borings were drilled, and three temporary and 10 permanent monitoring wells were installed. The first four monitoring wells were installed in June 1991. Monitoring well MW-1 was installed near the former pump island, MW-2 and MW-3 near the former UST pit, and MW-4 near the associated piping. Results of initial groundwater sampling indicated maximum benzene (B), 1,2-Dichloroethane (1,2-DCA), and dissolved Total Petroleum Hydrocarbons as gasoline (TPHg) concentrations of 730 micrograms per liter (µg/l), 50 µg/l, and 2,100 µg/l, respectivly.

In July 2000, Mr. Panosian requested site closure from the Santa Barbara County Fire Department, Fire Protection Services Division (County Fire Department), based on low concentrations of residual volatile petroleum hydrocarbons, and the continuing natural attenuation. The County Fire Department denied the closure request and required Mr. Panosian to conduct additional plume definition and active groundwater remediation. On March 2, 2002, Mr. Panosian appealed the closure denial to the SWRCB contending that limited residual petroleum constituents [other than methyl tertiary butyl ether (MTBE) from an upgradient site] are adequately defined and pose no risk to human health, safety, and the environment. On April 11, 2002, the County Fire Department sent written comments to the SWRCB expressing their opinion that the site should not be closed because TPHg, benzene, and 1,2-DCA are above the groundwater cleanup objectives, the plume has not been completely defined, the plume appears to be migrating, and the potential for contaminating a nearby, private, domestic well. On April 15, 2002, the Executive Officer requested, in writing, denial of the petition for closure because benzene and 1,2-DCA were in excess of water quality objectives. The SWRCB scheduled a Workshop for July 2, 2002, to consider Mr. Panosian's petition; however, Mr. Panosian cancelled his appearance and requested the SWRCB hold the petition in abeyance.

On August 20, 2003, Mr. Panosian requested the SWRCB reactivate his petition, and on September 12, 2003, SWRCB staff informed Mr. Panosian his petition was reactivated. On February 23, 2004, SWRCB staff called to inquire whether Regional Board staff would be willing to consider resolving this issue at the Regional Board level. SWRCB staff indicated that otherwise they would be presenting an Order to the State Board to close the case. On June 3, 2004, Regional Board and County Fire Department staff met to discuss whether the site could be closed. The County Fire Department

agreed to submit a closure request to Regional Board staff that includes a conditional site closure.

According to the County Fire Department, residual soil impacts thought to be the source of groundwater impairment may remain in the former UST and dispenser island areas. However, groundwater concentrations have decreased, or remained stable over the thirteen years of groundwater monitoring. Results of the March 3, 2004 groundwater monitoring indicate maximum concentration of TPHg at 2,900 µg/l, benzene at 150 µg/l (MW-2), and 1,2-DCA at 5 µg/l (MW-3). These concentrations do not appear to be high enough to impact the nearest private, domestic supply well that is 500 feet away and is located cross-to upgradient and is not screened in shallow groundwater. The remaining residual soil impacts can be addressed during potential site re-development activities using appropriate engineering controls.

The County Fire Department recommends the following conditions for case closure:

- Prior to any redevelopment or land use change from commercial, either conducts limited residual soil site assessment to determine the current risk to human health based upon the proposed land use, or remove and dispose contaminated soil via excavation.
- Properly destroy monitoring wells or transfer to World Oil prior to site closure.

Regional Board staff concurs with the County Fire Department recommendation for case closure and agree with the closure conditions. In addition, Mr. Panosian will be required to provide access to the neighboring site for the investigation and cleanup of MTBE plume emanating from the World Oil site.

This recommendation for case closure is based on the following:

- Concentrations of petroleum hydrocarbons has decreased, or remained stable, in the last 13 years of groundwater monitoring. The maximum concentration of benzene beneath the former UST pit has decreased from 730 µg/l (6/24/91) to 150 µg/l (3/3/04). Groundwater monitoring data indicate the elevated concentration of benzene is localized on site. Downgradient monitoring wells MW-7 and MW-9 indicate benzene concentrations of 1.8 µg/l and below laboratory reporting limit, respectively. The drinking water MCL for benzene is 1 µg/l. The data indicate the spatial extent of residual benzene in shallow groundwater is limited and does not pose a threat to potential receptors.
- The concentrations of 1,2-DCA have decreased, or remained stable, during the 13 years of monitoring. The most recent maximum 1,2-DCA concentration is 5 µg/l in MW-3. The drinking water MCL for 1,2-DCA is 0.5 µg/l. Residual concentrations of 1,2-DCA remain in wells MW-1, MW-2, MW-4, MW-5, MW-7, and MW-8 at concentrations from 2.5 to 0.5 µg/l. Considering site conditions, limited nearby wells, contamination extent, etc., staff believes these concentrations do not pose a significant water quality concern.
- The residual petroleum hydrocarbons in shallow groundwater are unlikely to impact the private, domestic water supply well located within 500 feet of the site. The well is located near the corner of Kellogg and Hollister Avenues 500 feet east and cross- to upgradient of the site, is not in operation.
- The residual petroleum hydrocarbons dissolved in shallow groundwater and adsorbed to soil are localized and limited in extent and will continue to attenuate naturally over time.
- Historical monitoring data appear to demonstrate that it is highly unlikely that residual petroleum constituents will migrate beyond the current limited lateral extent. It is also highly unlikely that the shallow groundwater will be used directly as a source of drinking water; water is supplied by the Goleta Water District. In the unlikely event that a domestic supply well were to be installed at the subject site, the deep production aquifer would be protected by a clay aquitard and the well's sanitary seal.
- Case closure is also consistent with State Board Resolution NO. 92-49, Section

III.G., which allows consideration of cost effective abatement measures where attainment of reasonable objectives, less stringent than background water quality, does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

- Closure of this case will (1) reduce costs (potentially saving reimbursement money for the UST Cleanup Fund), (2) remove the environmental "stigma" associated with the property, and (3) free up caseworker time to work on more high priority cases.
- Closure of this low risk case with the conditions imposed by the Regional Board and County Fire Department is protective of water quality, human health, and the environment.

Unless the Regional Board objects the Executive Officer will issue a case closure letter. Regional Board staff recommends closure of this case.

Former Western Farm Service, 405 W. Beach Street, Watsonville, Santa Cruz County [John Mijares 805/549-3696]

The 1.7-former Western Farm Service pesticide formulating and fertilizer/pesticides sales facility is a 1.7 acre site in an industrial section of Watsonville. Western Farm Service (WFS) operated the site since 1985. On May 11, 1990, the Regional Board adopted Waste Discharge Requirements, Order No. 90-67 to regulate the handling and disposal of fertilizer and pesticide rinsewater and accidental fertilizer or pesticides spills. The Order was rescinded on May 19, 2000, after WFS ceased its fertilizer/pesticides sales and application business in early 1999. Based on current data, staff recommends closure of this site.

The upper 6 to 12 feet of soil immediately below ground surface typically consist of clay and silt deposits with minor amounts of sand. A silty, clayey sand zone underlies the upper fine-grained soils and ranges in thickness from 8 to 20 feet. The lower portion of this interval is water bearing at variable depths between about 15 and 19 feet bgs depending upon the time of the year. A lower clay unit underlies the sandy interval and serves as the perching layer for the shallow groundwater. Groundwater levels have varied as much as 8 feet near the organochlorine pesticides-impacted soils and are generally the highest through the first and second quarters of the year. Groundwater typically flows to the north-northeast at gradients between 0.004 to 0.008.

Gasoline and diesel underground storage tanks were previously located southwest and southeast of the former office/warehouse, respectively, as shown on Attachment 2. Aboveground storage tanks containing xylenes, ethion (a pesticide), and spray oil were previously located east of the office/warehouse. All tanks were removed between 1980 and 1987. Organochlorine pesticide (OCP) formulation activities took place in the central portion of the office and warehouse structures (OCPs are insecticides composed primarily of carbon, hydrogen and chlorine. OCPs initially detected at the site include toxaphene, DDT, endosulfan, heptachlor, heptachlor epoxide, dieldrin, endrin, and malathion). Drainage from this area was discharged to a sump in the warehouse and to a dry well east of the warehouse. The drainage system, sump, and dry well were removed during assessment activities in 1987 and were subsequently found to be the primary sources for OCP-impacted soil. Soil and groundwater investigations indicate soil and groundwater were contaminated with petroleum hydrocarbon constituents from leaky underground tanks, spray oil, and organochlorine pesticides. Methyl tertiary-butyl ether was not detected during these investigations.

On September 16, 1988, the Regional Board issued Cleanup or Abatement Order No. 88-133 to WFS for the investigation and cleanup of petroleum hydrocarbon constituents in soil and groundwater. Shell Oil Company (Shell), the former owner of WFS, is the Responsible Party for the investigation and cleanup of soil and groundwater contamination at this location. Initial site assessment activities began in 1988 to delineate the extent of petroleum hydrocarbon and OCP-impacted soil and groundwater. A pump and treat system was used to remediate contaminated groundwater from June 1988 to April 1998. A soil vapor extraction (SVE) system was initiated in March 1995 to remediate petroleum-contaminated soil. Approximately 11,500 pound of volatile petroleum hydrocarbons were removed prior to the system shutdown in July

1997. Subsequent soil confirmation sampling in October 1997 indicated volatile petroleum hydrocarbons were either below the soil cleanup guidelines or below the laboratory reporting limits. This confirmation sampling also delineated the extent of spray oil and OCP contamination in soil.

The Regional Board and the Santa Cruz County Environmental Health Department established soil cleanup objectives listed in the table below.

Constituent of Concern in Soil	**Cleanup Objectives, mg/kg**
Toxaphene	2.7 [USEPA Region 9 Preliminary Remediation Goal (PRG)]*
DDT	1.0 [Total Threshold Limit Concentration (TTLC)] **
DDD	1.0 (TTLC) **
DDE	1.0 (TTLC) **
Spray Oil	1000 ***

- *USEPA's PRGs are estimated contaminant concentrations in environmental media (soil, air, and water) that are considered protective of humans, including sensitive groups, over a lifetime. The PRG was used as the soil cleanup objective for toxaphene, since it is lower than its TTLC of 5 mg/kg.
- **TTLC means the concentration of a solubilized, extractable and nonextractable, bioaccumulative or persistent toxic substance which, if equaled or exceeded in a waste, renders the waste hazardous. TTLCs were used as soil cleanup objectives for DDT, DDD, and DDE because they were lower than their respective PRGs.
- ***The soil cleanup objective for spray oil is 1000 times the 1 mg/l groundwater cleanup level of total petroleum hydrocarbons. Spray oil is in the motor oil range and moves very slowly in soil.

In September 2002, Shell implemented an excavation program to remove soils containing contaminants above soil cleanup objectives. Approximately 5400 tons of contaminated soil (205 truck loads) were taken to a Class I landfill in Buttonwillow, California. Contaminated soil was excavated down to the water table at approximately 16 feet. The final excavation footprint reached 92 feet across north to south and 104 feet east to west as shown on Attachment 3. All results from the 47 final sidewall confirmatory samples met the final cleanup objectives listed above. Five excavation floor samples were taken in saturated soils, three had no results above the soil cleanup objectives, one sample (CFS 16-16) had 1.3 mg/kg DDD, and sample CFF-4-16 had results of 9.6 mg/kg DDD, 14 mg/kg DDT, and 17 mg/kg toxaphene. Since the floor samples were taken in the saturated zone 16 feet below ground surface, the potential health impact (through ingestion, dermal contact, and inhalation) posed by residual contaminants would be mitigated by 16 feet of clean fill. OCPs are also strongly adsorbed by soil particles and exhibit low water solubility, therefore, migration is not anticipated. Backfilling of the excavation, compaction, grading and asphalt paving were completed in November 2002.

On April 8, 2003, the County of Santa Cruz, Health Services Agency issued a closure letter confirming completion of soil cleanup activities. On April 16, 2003, Regional Board staff issued an approval letter to Shell confirming its compliance with soil cleanup objectives and completion of soil cleanup activities.

Groundwater monitoring is conducted in accordance with Monitoring and Reporting Program No. 98-43 revised on July 18, 2003. The monitoring program requires the semi-annual monitoring of onsite and offsite monitoring wells shown on Attachments 2 and 3. On June 28, 2004, ENSR International (Shell's environmental consultant) submitted the 2004 first semi-annual groundwater monitoring report and a requesed site closure. Results indicate petroleum hydrocarbons were not detected above their laboratory reporting limits in all monitoring wells. Results for the organochlorine pesticides, listed on the following table, indicate three OCPs were detected in two monitoring wells above the action level or MCL established by the California Department of Health Services.

Well ID	Chemical of Concern	Concentration in µg/l	California Action Level, µg/l	California MCL in µg/l
E-7	Dieldren	0.044	0.002	
E-7	Heptachlor Epoxide	0.031		0.01
E-8	Heptachlor Epoxide	0.011		0.01
E-8	Heptachlor	0.021		0.01

Shell requests site closure based on the following:

- Petroleum hydrocarbons in soil and groundwater have been remediated by soil vapor extraction and by pump and treat systems respectively;
- Pesticide contaminated soil was removed by excavation;
- The detected OCPs have been below the laboratory reporting limits or were detected sporadically in very low concentrations in previous monitoring events; and
- The detected OCPs, Dieldrin, Heptachlor, and Heptachlor Epoxide are strongly adsorbed in soil and have low solubility in water.

Case closure is consistent with State Board Resolution No. 92-49, Section III.G., which allows consideration of cost effective abatement measures where attainment of reasonable objectives, less stringent than background water quality, does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

Regional Board staff concurs with Shell's request and rationale for site closure. In addition, OCPs were not detected in onsite and offsite monitoring wells downgradient of monitoring wells E-7 and E-8. The detection of OCPs in wells E-7 and E-8 maybe attributed to the mobilization of these compounds from the soil excavation activities. Well E-7 and E-8 are very close to the edge of the excavated area. The strong adsorption to soil particles is demonstrated by the non-detection of these OCPs in wells downgradient to E-7 and E-8.

Watsonville has three active municipal supply wells close to the site. Two supply wells are about 800 and 1,800 feet south and upgradient of the site with respect to groundwater flow direction. The third supply well is about 1,800 feet to the west and crossgradient of the site. In July 2004, these supply wells were sampled and analyzed for pesticides. Results indicate all OCPs were not detected above their respective laboratory reporting limits in all supply wells. In a March 8, 2004 Regional Board letter to the responsible party, staff informed Watsonville City and Santa Cruz County staff of the proposed closure.

Unless the Regional Board objects to site closure, staff will direct Shell after the Board meeting to proceed with site closure activities by destroying the remaining monitoring wells. The Executive Officer will then issue a site closure letter upon receipt of the well destruction report.

Former Shell El Dorado Service Station, 1835 State Street, Santa Barbara, Santa Barbara County [John Mijares 805/549-3696]

This is a follow up to the July 9, 2004 Regional Board meeting in Watsonville when the Regional Board expressed concern with closing the case with 4.1 micrograms per liter (µg/L) 1,2 dichloroethane (EDC). The state maximum contaminant level is 0.5 µg/L and the Federal MCL is 5.0 µg/L. The Regional Board's concerns were three-fold; (1) the concentration of EDC is above the maximum contaminant level, (2) concentrations are not clearly declining, and (3) EDC does not readily biodegrade.

Although the concerns are valid, Regional Board staff supports case closure because it represents a low risk to water quality given all the site-specific conditions. The concentration of EDC is only

slightly above the state MCL, is below the federal MCL, and is expected to continue to decline through natural attenuation mechanisms, such as volatilization, dispersion, dilution, advection, adsorption, and although slowly, biodegradation. The extent of EDC is confined to only one monitoring well. Even though low levels of EDC exist, Regional Board staff does not believe it necessary to keep this case open, continuing to monitor. The case is ready to be closed now and would likely be closed by the State Board on appeal.

The USEPA has a goal for California's leaking underground storage tank oversight program – a 50 percent reduction in caseload within five years. State Water Resources Control Board staff have often stated their opinion that sites should be cleaned up to the extent practical and then closed; long term monitoring is of little value. It is widely held at the program's statewide roundtable that the Central Coast Regional Board has the most stringent case closure criteria in California. We as staff have responded that closure goals are nice, but sites can only be closed once site remediation has proceeded to appropriate levels for closure. Also, the Central Coast Region relies more on its own groundwater than many other regions in the state, and a conservative approach is warranted.

With this site, case closure will (1) reduce costs (potentially saving reimbursement money for the UST Cleanup Fund), (2) remove the environmental "stigma" associated with the property, (3) free up caseworker time to work on more high priority cases, and most importantly (4) will not increase water quality or public health risk.

Closure of this low risk case is protective of water quality, human health, and the environment. The threshold value for DCE volatilization (from groundwater at 80 feet) to impact indoor air quality is 200 µg/L, so that pathway is not a concern. The subject site and surrounding properties receive their water supply from the local municipality though a public water system. The nearest municipal supply well is approximately 2000 feet away and is upgradient with respect to flow in the water table. In the unlikely event that a domestic supply well was to be installed at the subject site, DCE concentrations would likely be below the maximum contaminant level due to the low mass of DCE remaining in the water table, and due to dilution through a long production well screen.

Unless the Regional Board objects staff will take action to close this case.

Former Ahlport Petroleum, 975 North Sanborn Road, Salinas, Monterey County, [John Goni, (805) 542-4628]

Four underground storage tanks (UST) were removed from this site in January of 1991. Surrounding backfill and native soil were impacted with gasoline. Soil at a depth of 15 feet below grade had a detection of 5,800 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg). Impacted soil was excavated to a depth ranging from 14 to 20 feet below ground surface (bgs). Initial site characterization included the advancement of two borings to depths of 31 and 56 feet bgs. Groundwater was not encountered during drilling. Five laboratory soil samples indicated no significant impacts.

The Monterey County Department of Health (MCDH) subsequently required additional excavation and sampling at the northwest end of the tank basin, near former piping. A soil sample from a depth of 21.5-feet bgs was collected on March 22, 1991 with a detection of 3,200 mg/kg TPHg. Additional excavation was then directed by the MCDH. In April 1991 three new 8,000-gallon double walled gasoline tanks were installed in the former basin.

Excavated soil stockpiled on-site was sampled in July 1991, with results below detection limits for gasoline constituents, excepting one composite sample having 56-mg/kg TPHg, (below the action level of 100 mg/kg). No benzene was detected in excavated soils at or above 0.05-mg/kg (action level is 0.100 mg/kg). The soil was then disposed off-site.

Groundwater monitoring well MW-1 (adjacent to the former tank pit) was installed to 100 feet bgs in July 1992. Soil samples contained low-level concentrations of gasoline constituents, which increased near groundwater contact. Depth to groundwater was 92-feet bgs with initial concentrations at 7,200 micrograms per liter (ug/l) TPHg, and 830 ug/l benzene. In January 1993, down gradient monitoring wells MW-2 and MW-3

were installed, to depths of 100 feet bgs and 105 feet bgs, respectively. Soils from MW-2 had detections of 5-mg/kg TPHg and 1.9-mg/kg benzene at 55-feet bgs. Deeper soils from both wells were below laboratory reporting limits. Groundwater samples from MW-2 and MW-3 had concentrations of TPHg at 330 and 400 ug/l, and concentrations of Benzene at 44 and 49 ug/l, respectively.

Groundwater was monitored on a quarterly basis until 1997, and then on a semi-annual basis until Spring 2004. Gasoline constituents in MW-2 and MW-3 attenuated to non-detect levels by 1999 and 1996, respectively. Gasoline concentrations at MW-1 fluctuated in direct response to groundwater elevation changes, with the largest concentrations in the spring of each year when groundwater was highest. Groundwater concentrations of benzene have attenuated over the years from a high of 3,700 ug/l in the spring sample of 1997, to the lowest historic levels of 11 ug/l last fall and 58 ug/l last spring. These fluctuations suggest a mass of contaminants in soil being released as groundwater elevation changed seasonally. The reduction in contaminant concentrations is indicative of a reduction in mass over the years.

Site closure for this case was requested much earlier, and the State Board was petitioned for closure. Regional Board staff resisted earlier closure because of groundwater contaminant concentration fluctuations, and the much higher concentrations seen at that time. Closure is being considered now because the fluctuations are now minimal, compared to what was seen in the past. Contaminant concentrations have consistently decreased and attenuated to concentrations where beneficial uses of underlying 180-foot and 400-foot water supply aquifers will not be impaired, as intervening regional aquitards are effective barriers in preventing benzene migration. Attenuation of contaminant concentrations to action levels is expected in the near future. MTBE has never been detected. The nearest water supply wells are approximately 1,000 feet up-gradient or side-crossgradient to the site. The residual petroleum hydrocarbons remaining are unlikely to impact this well considering the groundwater flow direction and distance. No water supply wells have been identified with-in ½ mile down-gradient of the subject site. The local water purveyor, ALCO Water Service, has reported no gasoline constituents have been detected in their water supply wells in this area. Closure is also consistent with Section III.G. of State Board Resolution No. 92-49, allowing consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than prescribed by the Basin Plan.

Regional Board staff therefore believes this underground tank case may now be closed, and will proceed accordingly, unless the Regional Board objects. The MCDH is in concurrence with the case closure. The property owner has been notified of the proposed closure and will be directed to properly implement and document the destruction of all monitoring wells.

ATTACHMENTS

1. Former Avis Rent-A-Car (Panosian Property) Site Map.
2. Former Western Farm Service Contour Map.
3. Former Western Farm Service Sampling Locations Map.

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