

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF MAY 12-13, 2010
Prepared April 15 2010

ITEM NUMBER: 13

SUBJECT: Staff Closures

THIS ACTION: Status Update – Information item only

Background:

This staff report summarizes information for staff-closed groundwater cleanup cases, including three underground storage tank (UST) cleanup sites and three Site Cleanup Program (SCP) sites. Central Coast Water Board staff closed these sites because the groundwater beneath each site has reached water quality goals that are protective of beneficial uses. No Central Coast Water Board action is necessary for these items.

Meikle Property, 1266 Soquel Avenue, Santa Cruz, Santa Cruz County
(Tom Sayles 805-542-4640)

Central Coast Water Board staff plans to close this UST case where groundwater sample results indicate total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE) and tert-butyl alcohol (TBA) are below the Central Coast Water Board's cleanup goals.

This facility was operated as an automobile sales and service center since 1978. The facility owner removed a leaking 1,000-gallon waste oil tank from the property on February 22, 1990. Approximately 20 cubic yards (yds³) of contaminated soil were excavated during tank removal.

Consultants conducted Phase I and Phase II Environmental Site Assessments after removing thirteen hydraulic hoists and related hydraulic oil reservoirs, in January 2008. Results of the Phase II showed concentrations of Total Petroleum Hydrocarbons as motor oil ranging from 47 milligrams per kilograms (mg/kg) to 49,000 mg/kg in the soil beneath the site.

Between August 2008 and December 2008, consultants directed the excavation and disposal of approximately 400 yds³ of contaminated soil. In June 2009, an additional 80 yds³ of contaminated soils were removed and properly disposed of offsite. On June 23-24, 2009, consultants installed five monitoring wells (MW-1 through MW-5) to confirm cleanup of the groundwater beneath the site. Lab results from the groundwater samples contained only trace concentrations of MTBE. All other petroleum hydrocarbons constituents were below the cleanup goals. Consultants conducted two additional monitoring events to confirm the initial results. The data indicate that contaminants in groundwater beneath the site are below the Central Coast Water Boards cleanup goals.

The depth to shallow groundwater is approximately eight feet below the ground surface (bgs). The groundwater gradient is towards the southeastern. There are no drinking water supply wells within a half mile of the subject site.

Based on the data collected from the subject site, no further investigation or cleanup is necessary. Santa Cruz County Environmental Health Services (SCCEHS) staff agrees that no further action is required for this case. We have notified all interested parties of our plan to close this case. We have not received any comments or objections to the planned closure of this case. The Central Coast Water Board staff will close this case, and the Executive Officer will issue a final case closure letter upon receipt of a final well destruction report.

TOSCO / 76 Service Station No. 5660, 684 Grand Avenue, Grover Beach, San Luis Obispo County (Corey Walsh 805-542-4781)

The subject site is an active retail service station located on the southwest corner of Grand Avenue and Seventh Street in the City of Grover Beach. The property is surrounded by mixed commercial and residential properties. ConocoPhillips Company is the party responsible for cleanup of the site, however the property is owned by Mr. Elsayed M. Elsayed, Grover Beach Enterprises, LLC.

In March 2001, contractors discovered a release of total petroleum hydrocarbons as oil and grease (TPH-waste oil) associated with the excavation and removal of one used waste oil UST and two service bay hoists. The responsible party directed the excavation of contaminated soil from beneath the site, and the collection of verification soil samples to approximately twelve feet bgs. In addition, seven soil borings were drilled, and soil and grab groundwater samples were collected and analyzed. San Luis Obispo County Environmental Health Services (EHS) referred the case to Central Coast Water Board staff in July 2001 based on grab groundwater results that indicated TPH as gasoline, benzene and other petroleum hydrocarbon constituents of concern were present in groundwater.

Historic groundwater analytical results show the primary constituents of concern were benzene, TPH as gasoline (TPH-g), and TPH as diesel (TPH-d). The maximum concentrations for TPH-g, TPH-d, and benzene were 40,000 micrograms per liter ($\mu\text{g/L}$), 33,000 $\mu\text{g/L}$, and 98 $\mu\text{g/L}$, respectively. ConocoPhillips used in-situ chemical oxidation and limited soil excavation to cleanup the site. ConocoPhillips operated eleven ozone sparging wells and excavated approximately 100 cubic yards of contaminated soil. The most recent groundwater monitoring showed all constituents of concern are below cleanup goals, except in one off-site well (MW-6). Contaminant concentrations remain greater than cleanup goals in MW-6 for benzene, TPH-g and TPH-d. However, after review of the investigation and monitoring history for this and the adjacent site, Central Coast Water Board staff concludes MW-6 is impacted by groundwater contaminant flow from the off-site, up-gradient source located at 702 Grand Avenue (UST case No. 3655). Attachment 1, Groundwater Elevation Contour Map, presents monitoring well locations and groundwater flow direction data collected on January 5, 2010.

The site lies within a groundwater basin designated as having beneficial uses for domestic and municipal supply and agricultural supply. The depth to groundwater at the site currently ranges from approximately 40 to 48 feet bgs. Groundwater flows toward the west/southwest at an average gradient of 0.003 feet per foot. The nearest active water supply well is the City of Pismo Beach Well No. 5, located approximately 500 feet east/southeast (up and cross-gradient) from the site. Pismo Well No. 5 is reportedly screened from 150 to 500 feet bgs, and has a sanitary seal set at a depth of 50 feet bgs. The water supply well was sampled for volatile organics including benzene, MTBE and TPH-g; and extractable TPH-d on March 5, 2010 and none ($<0.5 \mu\text{g/L}$, $<50 \mu\text{g/L}$, and $<100 \mu\text{g/L}$, respectively) were detected.

Six other water supply wells were discovered between 1,000 feet and ½-mile from the site, two of which are identified as municipal wells owned by the City of Pismo Beach. These six wells are unlikely to be impacted by residual petroleum hydrocarbons considering the groundwater flow direction, well distances, and low contaminant concentration remaining.

Residual soil impacts may exist beneath the subject property, primarily within the capillary zone at approximately 45 feet bgs. Soil hydrocarbon concentrations in samples collected at 45 feet bgs during the installation of the ozone sparge wells exceeded the soil cleanup goal of 100 mg/kg, with a maximum soil concentration of 1,100 mg/kg (TPH-g) reported in boring OS-9.

Based on site investigation and groundwater monitoring results, there is no longer a threat to groundwater or surface water quality from the release of petroleum hydrocarbons at this site. Central Coast Water Board staff has no further requirements for soil or groundwater investigation, monitoring, or cleanup at the site. The San Luis Obispo County EHS agrees with this determination. Central Coast Water Board staff also notified the property owner, adjacent owners and other interested parties of the proposed case closure. We have not received any comments or objections to the planned closure of this case. The responsible party has been directed to destroy all monitoring wells, except off-site MW-6 and MW-7, which are proposed to be transferred to the adjacent cleanup case. The Central Coast Water Board staff will close this case, and the Executive Officer will issue a final case closure letter, upon receipt of a well destruction report and monitoring well conveyance agreement documenting the proper destruction or conveyance of monitoring wells.

Attachment 1 - Groundwater Elevation Contour Map

Former Exxon Service Station no. 7-0258, 8 Williams Road, Salinas, Monterey County (John Goni 805-542-4628)

Central Coast Water Board staff has closed this UST case because gasoline constituents in soil and groundwater are below the Central Coast Water Board's cleanup goals.

This is an active gasoline station. In April 1991, consultants removed three 10,000 gallon gasoline tanks, one 550 gallon waste oil tank, and associated piping from beneath the site. Samples at the time of the removals showed total petroleum hydrocarbons as gasoline in soil at 4000 mg/kg and benzene in groundwater at 140 µg/L. Over-excavation of approximately 1000 cubic yards of material from the former tank pit area removed the bulk of the contaminant source. The remaining contaminants were allowed to attenuate naturally. Subsequent soil borings and groundwater monitoring confirmed the contaminants have attenuated to below the cleanup goals.

Based on site investigation and groundwater monitoring results, there is no longer a threat to groundwater or surface water quality from the release of petroleum hydrocarbons at this site. Central Coast Water Board staff has no further requirements for soil or groundwater investigation, monitoring, or cleanup at the site. The Monterey County Department of Environmental Health agrees with this determination. Central Coast Water Board staff also notified other interested parties of the proposed case closure, and received one comment; Monterey County legal staff requested we delay closure until the County was satisfied with the status of litigation against a former site operator. Monterey County has since concurred with closure

All groundwater monitoring wells have been destroyed. The Water Board Executive Officer issued a final closure letter on April 7, 2010.

Steam Injector Casing Breach at Aera Energy LLC, San Ardo Oilfield, Monterey County
(Alison Jones 805-542-4646)

This site is an oilfield steam injector well located in the San Ardo oilfield. The San Ardo oilfield is located on the east side of the Salinas River, approximately five miles southeast of the town of San Ardo, in southern Monterey County. The steam injector well, operated by Aera Energy, LLC., suffered a casing breach sometime between July 3, 2001, and April 9, 2002.

During oil production, saline water separated from deeper oil reservoirs is softened at the surface, then injected as steam and water into the oil producing zone to enhance oil recovery. As part of the water softening process, the produced water is treated to remove multi-valent metals; however, softened water may contain petroleum hydrocarbons and high levels of chlorides and total dissolved solids.

The discovery of the casing breach was made through an inert gas tracer survey conducted on April 9, 2002. The breach occurred at a depth of approximately 570-610 feet below ground surface, and Aera estimated that a cumulative total of up to 386,000 gallons of water and 464,000 gallons of steam could have been released into the Paso Robles aquifer during the 280-day period. Upon discovery of the casing breach, the area of the breach was isolated to prevent additional release.

Groundwater at the site occurs at approximately 200 feet bgs under unconfined conditions. The Paso Robles aquifer is approximately 750 feet thick in this area. Groundwater flows west-southwest at a gradient of 0.002 and a velocity of 44 feet per year. Groundwater flows toward the Salinas River, approximately 1.5 miles to the west-southwest. Groundwater beneficial uses include agricultural and domestic water use. There are no known private or municipal water supply wells located within a 1,000-foot radius of the site. The nearest surface water is Sargent Creek, an ephemeral stream located approximately ¼ mile to the south and cross gradient to the direction of groundwater flow, and the Salinas River.

The Central Coast Water Board required Aera to characterize the impact to groundwater. On April 14, 2004, Aera submitted a report, *Hydrogeologic Characterization and Analyses of OR 5168-2 Casing Breach, San Ardo Field*. The report extensively summarized the geology and hydrogeology of the area, and surrounding groundwater quality. The report modeled the movement of potential contaminant plumes and predicted the attenuation of volatile organics and saline water within 300 feet and 800 feet of the injection well, respectively. The report recommended additional sampling at monitoring well MW-2, 135 feet directly downgradient of the injection well. MW-2 is screened between 515 and 615 feet below ground surface and positioned to intersect with a release from the casing breach. Based on the site hydrogeology and contaminant transport modeling, any solutes released from the injector should have begun to appear in MW-2 by mid-2004.

Six rounds of groundwater monitoring data collected at MW-2 between March 2003 and May 2005 were compared to several samples of steam feedstock water. Samples were analyzed for salts, metals and volatile organic compounds. Water sampled in MW-2 showed no volatile organic compounds in any sampling event and no increase in chloride or total dissolved solids which might indicate impacts from the steam feedstock water.

Based on site evaluation and groundwater monitoring results, the groundwater does not appear to be impacted above natural background levels and no further investigation or cleanup is necessary at this site. Monterey County Environmental Health confirmed the proper destruction of MW-2 in a letter dated December 3, 2008. We have notified Monterey County Environmental Health and the responsible party of our plan to close this case. Since the site is located in an existing oilfield, with no nearby agricultural or domestic users, we have not identified any additional interested parties. We have not received comments or objections to the planned closure of this case. The Executive Officer issued a final case closure letter in April 2010.

Converted Organics (formerly California Liquid Fertilizer), Monterey County
(Alison Jones 805-542-4646)

This site is small organic fertilizer processing facility located on Johnson Canyon Road, near Gonzales in Monterey County. The site occupies approximately eight acres, located between Johnson Canyon landfill, a feedlot run by Gallo, and an irrigated agricultural operation. Historically, the site was part of a larger feedlot called Fat City.

On June 30, 2004, a spill of liquid fertilizer occurred due to a crack in a 4,000 gallon fiberglass storage tank. An unknown amount of fertilizer traveled between one-quarter and one-half mile along a road and into the neighboring feedlot before stopping (the discharge did not reach surface water). Spilled fertilizer mixed with cattle waste within the feedlot. Staff determined that soil sampling would therefore be inconclusive due to nitrate contributions from other sources. Ambient groundwater nitrate concentrations in the area around the facility generally range between 20 and 40 mg/L nitrogen as nitrate, based on data from the Johnson Canyon Landfill and neighboring domestic wells. Depth to groundwater is between 160 and 300 feet; given this depth to groundwater and the estimated maximum potential volume of the discharge, it is very unlikely that any impact from the spill could be detected in groundwater or would significantly raise the background nitrate concentration.

Water Board staff required California Liquid Fertilizer (now Converted Organics) to prevent further spills and contamination by 1) putting all storage and processing tanks on the existing concrete pad and providing secondary containment to contain any future spills, and 2) ensuring that no stormwater contaminated with fertilizer could leave the site.

On March 28, 2005, the facility enrolled under the General Waste Discharge Requirements (WDRs) for Fertilizer and Pesticide Handling Facilities in the Central Coast Region, Order No. R3-2005-0001, and is currently regulated under that order.

To protect against future discharges, the facility has completed the following facility improvements as required by Water Board staff:

- All processing tanks are maintained on the "tank farm" area of the site, which consists of an impervious concrete pad and 30,000 gallon underground containment sump. The concrete pad and sump are designed to capture and contain any and all product, as well as area rain water.
- Tanks are no longer permitted outside this area of the facility.
- Any spill occurring in the "tank farm" area is contained by the concrete pad and sump area, preventing any discharge.

Based on site cleanup actions, no further investigation or cleanup is necessary at this site. We have notified Monterey County Environmental Health Department, the responsible party and

other interested parties of our plan to close this case. We have not received comments or objections to the planned closure of this case. We will continue to regulate the site under existing Waste Discharge Requirements. The Executive Officer issued a final case closure letter in April 2010.

Gibbs International Trucking, 375 N. Frontage Road, Nipomo, San Luis Obispo County
[Alison Jones 805-542-4646]

This site is a truck sales, parts and service facility located on the southwest corner of the intersection of North Frontage Road and Linden Lane in the community of Nipomo in San Luis Obispo County. The site contained an oil-water separator, a steam cleaner system, and a three-stage clarifier with a leach field area for disposal of truck wash water. The site was referred to the Water Board's Site Cleanup Program by San Luis Obispo County Environmental Health for investigation of potential soil and groundwater contamination due to discharge of wastewater with petroleum hydrocarbons to the leach field system.

Water Board staff approved a site investigation workplan on August 18, 2006. The investigation included soil sampling from seven locations near the clarifier and the clarifier leach field, in accordance with the approved workplan. A total of 21 soil samples (three samples from each boring, collected at depths of 5, 10 and 20 feet bgs) were analyzed for total petroleum hydrocarbons (in the ranges for gasoline, diesel and motor oil), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE.

No constituents were detected above their respective laboratory reporting limits in any of the 21 samples analyzed. No groundwater was encountered in any of the borings. Groundwater in the site area is approximately 150 feet bgs and the regional flow direction is generally toward the southwest.

Based on the analytical results, the soil at the site does not appear to have been affected by the clarifier or the associated leach field system and the potential for groundwater impacts is minimal. No further investigation or cleanup is necessary at this site. We have notified the San Luis Obispo County Environmental Health Department, the property owner and other interested parties of our plan to close this case. San Luis Obispo County staff responded, supporting the closure. We have not received comments or objections to the planned closure of this case from any other parties. All borings were backfilled with bentonite and sealed after sampling. The Executive Officer issued a final case closure letter in April 2010.