

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (John Jang)
MEETING DATE: October 12, 2011

ITEM: **6A**

SUBJECT: **Ahmad and Marisol Avash, Ali and Fatemeh Salkhi, Avash Family Trust, 1993 Avash Family Trust, and 1993 Salkhi Family Trust, for the property located at 7474 Redwood Boulevard, Novato, Marin County, aka VIA Station - Rescind Site Cleanup Requirements**

CHRONOLOGY: February 21, 2001 - Site Cleanup Requirements adopted

DISCUSSION: The Tentative Order in Appendix A would rescind the existing site cleanup requirements for VIA Station, a gas station located in Novato at the intersection of Redwood Boulevard and Olive Street.

Historic petroleum releases from VIA Station impacted soil and groundwater beneath the station. In 2001, the Board adopted site cleanup requirements for this leaking underground fuel tank site, because of high concentrations of the gasoline oxygenate MTBE in groundwater and because the groundwater plume had impacted a water supply well at a nearby mobile home park. The impacted well was taken out of service, and the mobile home park has been connected to city water.

The dischargers have complied with the 2001 order, completing site investigation and conducting required cleanup and monitoring activities. The dischargers performed source control and operated a groundwater cleanup system from 2004 to 2009. As a result of these cleanup activities, petroleum pollutant concentrations in groundwater beneath the site have declined substantially. Natural attenuation is expected to reduce the concentrations in shallow groundwater to below drinking water standards before the groundwater will ever be used as a source of drinking water. The site is appropriate for low-threat closure, and rescission of the 2001 Order is warranted.

We circulated the Tentative Order for public comment and did not receive any comments. We expect this item to remain uncontested.

RECOMMEN-
DATION Adopt the Tentative Order.

File No.: 21-0159 (JMJ)
Appendices: A – Tentative Order
B – Location Map

APPENDIX A

Tentative Order

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

TENTATIVE ORDER

RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER NO. 01-023) FOR:

**AHMAD AND MARISOL AVASH
ALI AND FATEMEH SALKHI
THE AVASH FAMILY TRUST
THE 1993 AVASH FAMILY TRUST
THE 1993 SALKHI FAMILY TRUST**

for the property located at

**7474 REDWOOD BLVD.
NOVATO, MARIN COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Regional Water Board), finds that:

1. **Regional Water Board Orders:** The Regional Water Board adopted site cleanup requirements for the 7474 Redwood Blvd., Novato site (Site) on February 21, 2001 (Order No. 01-023).

2. **Summary of Investigation and Remediation Activities:**

The Site is an operating gas station and has been since 1967. In 1988, high concentrations of total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), and benzene/toluene/ethylbenzene/xylene (BTEX) were first detected in soil and groundwater samples collected beneath the Site. Free product floating on top of the groundwater was also encountered, with product thicknesses exceeding 0.5 feet. Later investigations in 1989, including the installation of three monitoring wells, showed soil samples containing up to 18,816 mg/kg of TPH-d; 5,943 mg/kg of TPH-g, 153 mg/kg of benzene, and continuing detections of free product and elevated concentrations of petroleum hydrocarbons in groundwater. To further characterize the Site, additional borings and monitoring wells were subsequently installed. In total, over sixty soil borings including fifteen monitoring wells, two shallow test wells, and two extraction wells have been installed at or near the Site. Free product was observed in several of the monitoring wells. The wells containing free product have been periodically bailed.

In April 1992, four underground storage tanks (USTs) were removed and replaced at the Site. Laboratory analyses of the soil samples indicated that TPH-g, TPH-d, TPH as kerosene, and BTEX were present in high concentrations. Groundwater in the excavation was not sampled because free product was present. The only over-excavation performed at the time of UST removal was to make room for the replacement USTs. To remove the USTs and to increase the size of the excavation to accept the new USTs, a total of 450 cubic yards of soil containing fuel hydrocarbons was excavated and disposed of at an appropriate offsite disposal facility.

Testing for the gasoline oxygenate, MTBE, first began at the Site on August 5, 1997. MTBE concentrations were found to be increasing, reaching up to 53,000 ppb in groundwater in June and September 2000 in onsite well MW-5. Benzene has also been detected in groundwater beneath the Site at up to 11,000 ppb. The primary maximum contaminant levels (MCLs) for MTBE and benzene in drinking water are 13 ppb and 1 ppb, respectively.

Two sensitive receptor surveys, conducted in November 1999 and April/May 2000, identified 15 properties within 2000 feet of the Site as having domestic water wells. Seven of the fifteen properties are located downgradient or cross-gradient of the Site. The only known downgradient drinking water well was located about 700 feet to the northeast. This drinking water well, servicing 42 connections at the Redwood Homes trailer park (7530 Redwood Blvd.), was found to be impacted with 92 ppb of MTBE on September 28, 2000. This drinking water well was taken out of service on October 10, 2000. A sample of the drinking water well on October 13, 2000, contained 120 ppb of MTBE. This drinking water well along with an older, inactive water well at the trailer park were decommissioned/destroyed on November 1, 2000. The suspected source of the MTBE contamination of the drinking water well was the gas station located at Site. The other six identified downgradient/cross-gradient water wells were found to consist of one City of Novato emergency municipal well (inactive for over 30 years and planned to provide irrigation water during periods of water shortages), one dust control well, one industrial supply well, one irrigation well (no longer in service, decommissioned in 2000), and two domestic wells (one of which could not be field located and the other of which is used for flushing toilets only).

The Site has undergone several phases of interim and final remedial activities (discussed in more detail in finding 3 below).

3. **Basis for Rescission:**

Rescission of Order No. 01-023 is appropriate because the dischargers have completed all of the following tasks required by Order No. 01-023:

- Submittal of a technical report that describes the investigation that defined the vertical and horizontal extent of pollution in soil and groundwater at and emanating from the Site;
- Submittal of a technical report documenting the completion and startup of interim remedial action. This interim remedial action consisted of two extraction wells to control and prevent the further offsite migration of groundwater pollution;
- Submittal of an acceptable workplan for the installation of additional monitoring wells to confirm the groundwater plume extent;
- Submittal of a technical report documenting the implementation of the above workplan; and
- Submittal of a technical report containing a feasibility study evaluating alternative final remedial actions and the recommended final remedial actions and cleanup standards. The chosen final remedial action was installation of an ozone microsparging system.

The ozone microsparging system was installed in 2003-2004 and started up on March 4, 2004. The ozone microsparging system operated until February 2009. The ozone microsparging system was effective in remediating groundwater with the concentrations of

chemicals of concern in the deeper groundwater (from monitoring wells screened from about 4 or 5 feet below grade to more than 20 feet below grade) decreasing significantly, from maximum concentrations of 6,900 ppb of TPH-g, 51,000 ppb of TPH-d, 55,000 ppb of MTBE, and 1,200 ppb of benzene prior to ozone microsparging to non-detectable (ND) concentrations of TPH-g, benzene, and MTBE, and 520 ppb of TPH-d in the groundwater sampling event of October 2008. Subsequent monitoring has shown no evidence of a significant rebound in concentrations in groundwater. These low post-remediation concentrations do not represent significant threats to human health and the environmental.

Contaminant concentrations in groundwater samples from the shallow zone (from monitoring wells screened from 1 or 2 feet below grade to about 8 feet below grade) have decreased only slightly after 4.5 years of ozone microsparging remediation. The maximum concentrations of contaminants in the shallow zone groundwater in 2008 were 11,000 ppb for TPH-g, 2,700 ppb for TPH-d, 1,300 ppb for MTBE, and 3,000 ppb for benzene. It was suspected that the shallow groundwater zone is being impacted by contaminants in the vadose zone. Therefore, a thirteen-day high vacuum dual phase extraction (HVDPE) remediation event was conducted in August 2009 in an effort to remediate the shallow zone contamination. The thirteen-day HVDPE event resulted in a significant amount of hydrocarbons recovered and treated (approximately 400 pounds of hydrocarbons in the vapor phase or 63 gallons in the aqueous phase). The post-HVDPE remediation groundwater monitoring event in October 2009 detected significantly lower concentrations of hydrocarbon-related chemicals in the monitoring wells sampled, with only one of the wells still containing significant concentrations of hydrocarbons. The highest concentrations in October 2009 were from well TW-2 and found 7,500 ppb of TPH-g, 1,900 ppb of TPH-d, 1,100 ppb of benzene, 290 ppb of TBA, and less than 10 ppb of MTBE. The elevated concentrations in TW-2 are localized only to the immediate vicinity of TW-2 and do not represent significant threats to human health and the environmental under the Site's current land use as a gas station.

Rescission of Order No. 01-023 is appropriate because the dischargers have completed all of the tasks required by Order No. 01-023 and for the following reasons:

- The contaminant sources at the Site have been evaluated.
- The Site has been adequately characterized.
- Exposure pathways, receptors, and potential risks, threats, and other environmental concerns at the Site have been adequately evaluated.
- Sources of onsite pollution have been remediated to the extent practicable.
- The groundwater plume beneath the Site is stable to retreating and limited to the immediate site vicinity.
- There are no unacceptable risks to human health, ecological health, and sensitive receptors, considering current and reasonable future land and water uses in the vicinity of the Site.
- Shallow groundwater in the area is not currently used for drinking water, and water quality objectives should be met before any future beneficial use of shallow groundwater occurs.

4. **CEQA:** This action rescinds an Order to enforce the laws and regulations administered by the Regional Water Board. As such, the Regional Water Board finds that the rescission of the Order is not a project as defined in the California Environmental Quality Act (CEQA).
5. **Notification:** The Regional Water Board has notified the dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to rescind site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
6. **Public Hearing:** The Regional Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that Order No. 01-023 is rescinded.

IT IS FURTHER ORDERED that the dischargers shall properly close all monitoring, test, and extraction wells consistent with applicable local agency requirements, and shall document such closure in a technical report to be submitted to the Regional Water Board within 30 days following the completion of closure activities.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on _____.

 Bruce H. Wolfe
 Executive Officer

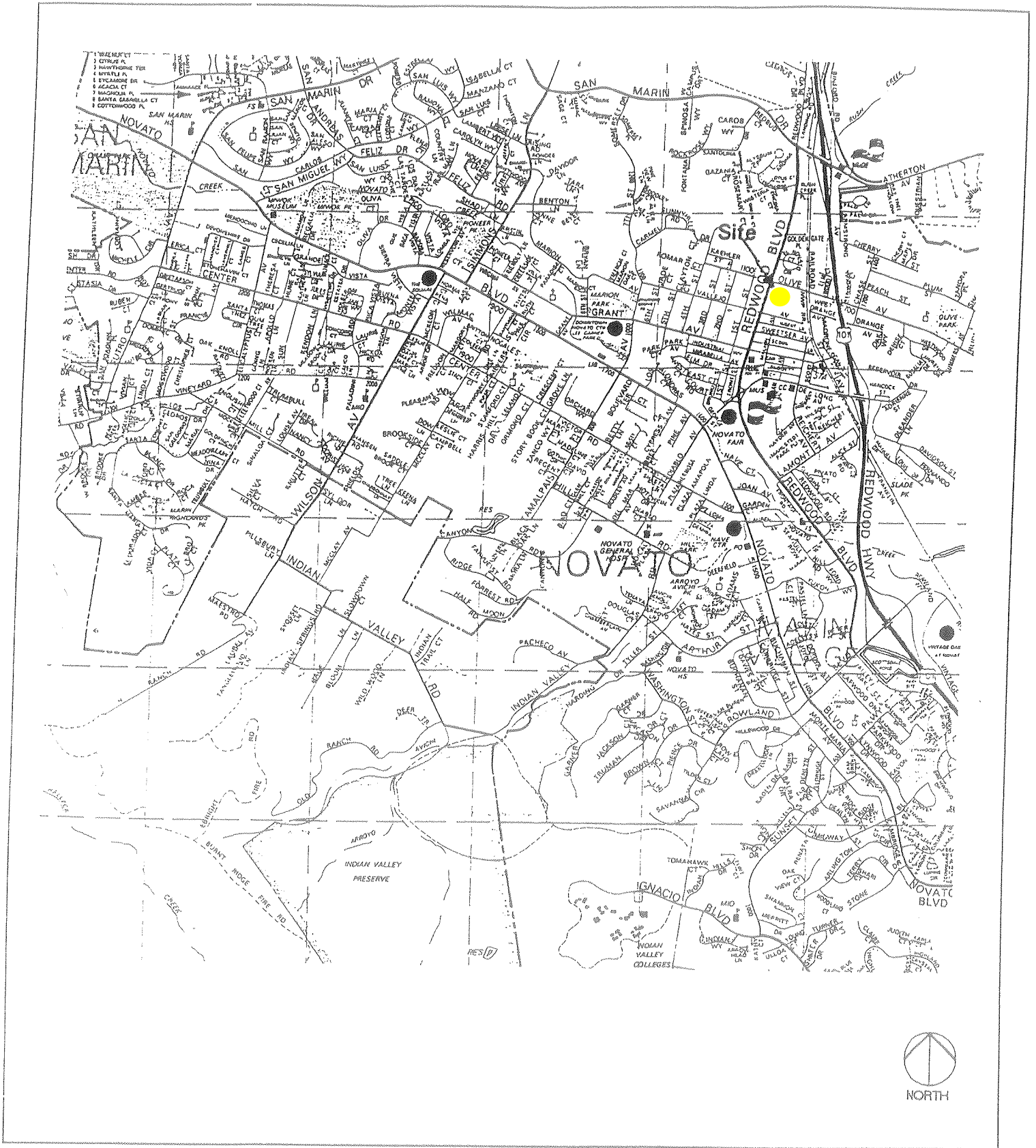
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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

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APPENDIX B

Location Map



EDD CLARK & ASSOCIATES, INC.
 ENVIRONMENTAL CONSULTANTS

Vicinity Map
 VIA/BP Service Station
 7474 Redwood Boulevard
 Novato, California

PLATE

1

JOB NUMBER
 0294,001.97

REVIEWED BY

DATE
 9/97

REVISED DATE

REVISED DATE