

Final

August 17, 2011

**Review of Leaking Underground
Storage Tank Cases
Not in Cleanup Fund and Open
Over 15 Years**

Kern County Local Oversight Program

**Prepared as in-kind task as part of Cooperative Agreement
LS-97952501-2 between U.S. EPA Region 9 and the California State
Water Resources Control Board**

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Executive Summary

The Draft version of this report was submitted on July 30, 2010, with a request for a follow-up meeting and input from Kern County Local Oversight Program (LOP) into the “Next Steps for Agency” column of the case cleanup status spreadsheet.

Kern County LOP met with Sullivan International Group, Inc Staff, in a conference call on July 6, 2011 to discuss the draft report and their next steps for each case. Agency Staff stated that all 6 cases covered in the Draft Report have been or are in the process of being transferred to the Regional Water Quality Control Board. Agency Staff declined to comment on specific cases in the draft report.

Kern County LOP

Apparent Case Status: Initial and After

TOTAL NUMBER OF CASES REVIEWED = 6

NUMBER OF ACTIVE LUST CASES ON NOVEMBER 1, 2010 = 46 CASES

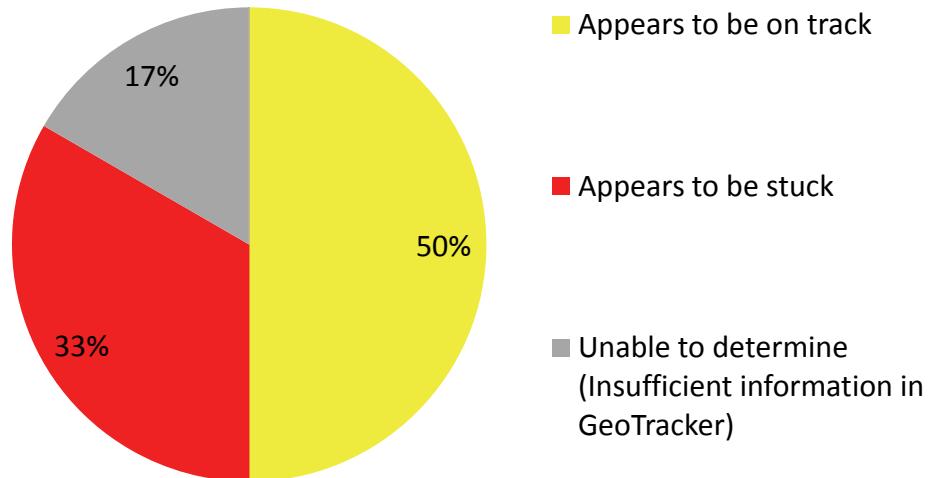
DRAFT REVIEW REPORT PREPARED AND SENT TO AGENCY ON JULY, 30, 2010

MEETING WITH AGENCY ON JULY 06, 2011

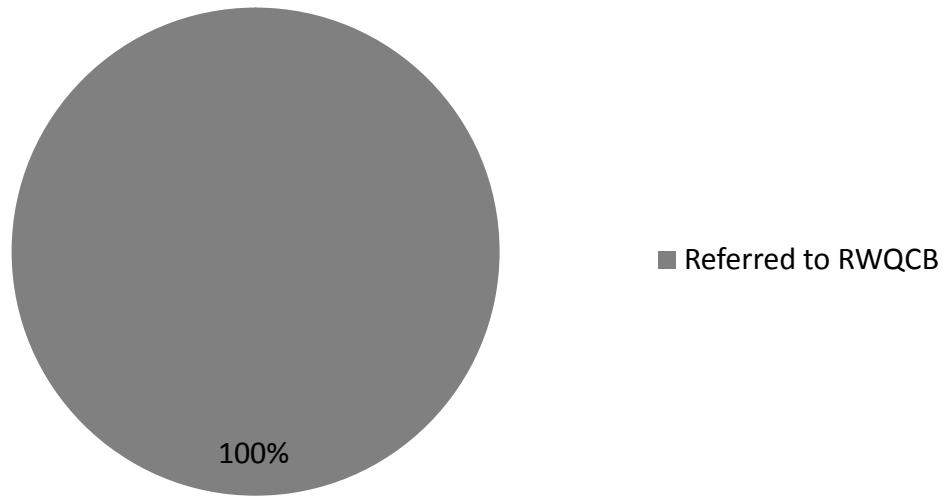
APPARENT STATUS OF CASES REVIEWED – INITIAL REVIEW AND AFTER MEETING TO DISCUSS CASES

Apparent Case Status	Initial Assessment Number of Cases (7-30-2010)	Post Meeting Assessment Number of Cases (07-06-2011)
CASE CLOSED	0	0
Appears close to completion	0	0
Appears near completion within 1-year	0	0
Appears to be on track	3	0
Appears NOT to be on track	0	0
Appears to be stuck	2	0
Unable to determine (Insufficient information in GeoTracker)	1	0
NOT FEDERAL UST CASE	0	0
OTHERS - Not Non-CUF, Older than 15-years Case	0	0
Referred to RWQCB	0	6

Initial Assessment Percentage of Cases (7-30-2010)



Post Meeting Assessment Percentage of Cases (07-06-2011)



CASE REVIEW SUMMARY TABLE
(KERN COUNTY LOP)

ESTIMATED STATUS IN THE CLEANUP PIPELINE?	CHANGE IN STATUS IN THE CLEANUP PIPELINE (BASED ON MEETING/CALL WITH AGENCY) ON 07/06/2011	(CASE NAME (CASE LEAD AGENCY: KERN COUNTY LOP)	CITY	GLOBAL ID	CASE WORKER	APPARENT TYPE OF RP	RELEASE DATE	DISCUSSION NOTES FROM MEETING/CALL (07-06-2011)	NEXT STEPS FOR AGENCY
Appears to be on track	Open - Referred	CALIFORNIA CORRECTIONAL INST.	TEHACHAPI	T0602900318	BAR	G - Government Entity (include School, Hospital, Utility)	2/14/1989	No Comment	Referring to Regional Water Board
Appears to be on track	Open - Referred	BEAR VALLEY FIRE STATION	TEHACHAPI	T0602900388	BAR	G - Government Entity (include School, Hospital, Utility)	10/30/1990	No Comment	Referred to Regional Water Board
Appears to be on track	Open - Referred	NORTH KERN STATE PRISON	DELANO	T0602900672	BAR	G - Government Entity (include School, Hospital, Utility)	12/9/1993	No Comment	Referring to Regional Water Board
Appears to be stuck	Open - Referred	BUTTONWILLOW FIRE STATION	BUTTON-WILLOW	T0602900257	LAU	G - Government Entity (include School, Hospital, Utility)	1/25/1990	No Comment	Referred to Regional Water Board
Appears to be stuck	Open - Referred	LOST HILLS ROAD YARD	LOST HILLS	T0602900439	LAU	G - Government Entity (include School, Hospital, Utility)	8/30/1991	No Comment	Referred to Regional Water Board
Unable to determine (Insufficient Information in GeoTracker)	Open - Referred	KERN COUNTY FIRE STATION #17	BORON	T0602900899	CHA	G - Government Entity (include School, Hospital, Utility)	5/18/1993	No Comment	Referring to Regional Water Board

Attachment 1:

Case Review Power Point Slides from Draft Report

The contents of this attachment are provided in electronic format only.

CALIFORNIA CORRECTIONAL INST. (T0602900318)

24900 HIGHWAY 202, TEHACHAPI, CA 93561



OPEN - REMEDIATION

CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP ([LEAD](#)) - CASE #: 600028

CASEWORKER: [BARBARA HOUGHTON](#) - SUPERVISOR: NONE SPECIFIED

CENTRAL VALLEY RWQCB (REGION 05) - CASE #: 5T15000320

CASEWORKER: [JOHN WHITING](#) - SUPERVISOR: John Noonan

OTHER REGULATORY ACTIONS

3/28/2002 Technical Correspondence / Assistance / Other

LEAK ACTION

2/14/1989 Leak Reported

LEAK ACTION

11/2/1987 Leak Discovery

LEAK ACTION

10/23/1987 Leak Stopped

NOTE: Data queried from GeoTracker and reviewed in July 2010

Activities Conducted to Date Based on GeoTracker Info (T0602900318)

Assessment last 5 years

- Periodic groundwater monitoring since 2002

Remediation last 5 years

- Groundwater extraction system operated 2005 to 2010

Assessment older than 5 years

- Periodic groundwater monitoring since 2002

Remediation older than 5 years

- Two USTs removed in 1987
- SVE system in operation 2002 to 2005

IMPEDIMENTS TO CLOSURE (T0602900318)

as reported by regulatory agency

PLUME INSTABILITY

- Verification Monitoring Not Complete - *one more year of monitoring with decreasing concentrations verified is recommended*

GROUNDWATER IMPACTS

- Groundwater Impacted Above Background – *MtBE*

BENEFITS OF ADDITIONAL WORK

- Verify Remedial Action Effectiveness - *verification monitoring to verify concentrations are decreasing/attenuating*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Groundwater Already Impacted MtBE

Review Conclusions T0602900318

- Site is incorrectly placed on map in GeoTracker
- A Notice of Violation was issued March 16, 2006 for failure to submit annual monitoring report. A second Notice of Violation was issued September 22, 2008 for chronic violation of waste discharge requirements, and for failure to submit required reports on time.
- Low levels of PCE have been detected in several monitoring wells near the method detection limit
- Active remediation ceased in February 2010, at least one year of verification monitoring will be required prior to closure.
- *Discussion: Site appears to be on path towards case closure. Site got off to a slow start due to a 13 year delay.*

BEAR VALLEY FIRE STATION (T0602900388)

28946 BEAR VALLEY RD., TEHACHAPI, CA 93561



Case Age: 20 years

Primary COC: Gasoline

RP Identified by Regulator: Kern County Fire

Current Land Use: Fire Station

OPEN - REMEDIATION

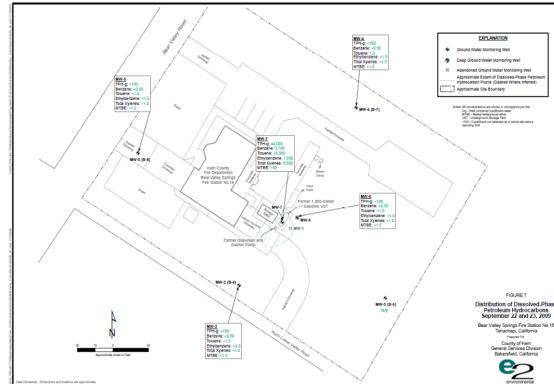
CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP (LEAD) - CASE #: 600023

CASEWORKER: [BARBARA HOUGHTON](#) - SUPERVISOR: NONE SPECIFIED

CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T15000396

CASEWORKER: [JOHN WHITING](#) - SUPERVISOR: John Noonan



Possible Reasons Why This Case Is So Old

- 6-8 year delay between discovery of leak and installation of first monitoring well
- 4 production wells located within 1 mile of the site, 2 of these wells have historically had MTBE and TPH detections in them, believed related to site.
- TPHg and BTEX remain at high concentrations near the former tank pit. Levels may remain in soils.
- Government Entity site, is funding an issue?

Activities Conducted to Date Based on GeoTracker Info (T0602900388)

Assessment last 5 years

- Periodic Groundwater monitoring since 2001
- Monitoring well installed in 2008 to replace the improperly screened MW-1

Remediation last 5 years

- NONE DOCUMENTED

Assessment older than 5 years

- 3 soil borings advanced in 1992 , Monitor-well installed 1998
- Periodic Groundwater monitoring since 2001, one monitoring event was conducted in 1998
- Soil borings advanced and grab water samples taken 2002. Four borings were converted into monitoring wells.
- Production wells and Cub Lake sampled 2002.
- Aquifer slug testing performed in 2002, and indicated that MTBE could potentially migrate up to 2425 feet down gradient from the site, with the highest concentrations of MTBE located approximately 1500 feet down gradient
- Off site sampling conducted in 2002

Remediation older than 5 years

- UST “taken out of service” 1990, and removed in 1993, it is unknown whether over excavation was conducted at that time
- ORC injections conducted in 2003

IMPEDIMENTS TO CLOSURE (T0602900388)

as reported by regulatory agency

INADEQUATE SOURCE CONTROL

- Feasible Source Control Not Performed - *Remedial Action has been approved and is pending*

GROUNDWATER IMPACTS

- Groundwater Impacted Above Background - *Benzene and TPHG levels still elevated*
- Groundwater Impacted Above Other Cleanup Goal - *Benzene is greater than MCL.*

BENEFITS OF ADDITIONAL WORK

- Remove / Reduce Source Mass - *Remedial Action is Pending*
- Protect Designated Beneficial Uses - *Potential migration to nearby water wells*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Municipal Well Undetermined Bear Valley CSD

Review Conclusions T0602900388

- Site is incorrectly located in GeoTracker.
- Nearby production wells used for irrigation and maintaining water levels in Cub Lake have had historical detections of TPH and MTBE that are believed to be related to this release. There have been no detections in recent monitoring events
- TPH and BTEX remain very elevated in vicinity of the former tank pit, indicating residual source mass is present in soil at the site. The site consultant has recommended bioventing as the preferred remedial alternative for this remaining source mass, and the regulator concurred in January 2010. No work plan has been submitted in GeoTracker.
- Government Entity Site (Fire Station), which may explain slow rate of compliance and cleanup? Is funding an issue?
- *Discussion: Site appears to be on slow path to closure, with a small stable plume, however, the residual source mass may need to be remediated before the site can achieve low risk closure*

NORTH KERN STATE PRISON (T0602900672)

2737 CECIL AVE W, DELANO , CA 93216



Possible Reasons Why This Case Is So Old

- Site was issued a Remedial Action Completion Certification letter on June 1, 1999, and reopened in 2007
- Site has been assessed and is currently undergoing periodic groundwater monitoring. The site consultant has recommended additional characterization and remediation
- Case appears to be on track, however, is not a candidate for closure at this time

NOTE: Data queried from GeoTracker and reviewed in July 2010

Case Age: 17 years

Primary COC: Gasoline

RP Identified by Regulator: North Kern State Prison

Current Land Use: PRISON GARAGE

OPEN - SITE ASSESSMENT

CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP ([LEAD](#)) - CASE #: 480026A

CASEWORKER: [BARBARA HOUGHTON](#) - SUPERVISOR: NONE SPECIFIED

CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T15000706

CASEWORKER: [JOHN WHITING](#) - SUPERVISOR: John Noonan

ACTION TYPE	ACTION DATE	ACTION
RESPONSE - REPORTS	1/30/2010	4Q09 GWMR
OTHER REGULATORY ACTIONS	11/24/2009	Technical Correspondence / Assistance / Other
ENFORCEMENT/ORDERS	11/10/2009	Staff Letter
RESPONSE - WORKPLANS	9/30/2009	SOIL AND GROUNDWATER INVESTIGATION WORK PLAN
LEAK ACTION	12/9/1993	Leak Reported
LEAK ACTION	11/25/1993	Leak Discovery
LEAK ACTION	11/25/1993	Leak Stopped



Activities Conducted to Date Based on GeoTracker Info (T0602900672)

Assessment last 5 years

- Periodic groundwater monitoring is ongoing
- Sampling conducted during the 2006 UST removal lead to the reopening of this case
- One soil boring advanced and grab water sample taken at the site in 2008
- In December 2009, four soil borings were advanced, and 3 monitoring wells installed

Remediation last 5 years

- Two Additional USTs removed May 2006

Assessment older than 5 years

- Four monitoring wells installed and six soil borings advanced 1995/1996

Remediation older than 5 years

- NONE DOCUMENTED

IMPEDIMENTS TO CLOSURE (T0602900672)

as reported by regulatory agency

SITE ASSESSMENT INCOMPLETE

- Incomplete Conceptual Site Model (CSM) - *Further investigation pending*

INADEQUATE SOURCE CONTROL

- Feasible Source Control Not Performed - *remediation not yet conducted*

GROUNDWATER IMPACTS

- Groundwater Impacted Above Background – *Benzene*

BENEFITS OF ADDITIONAL WORK

- Complete CSM and Our Understanding of Hydrogeologic Regime and Fate and Transport of Contaminants - *more data needed*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Groundwater Already Impacted Gasoline related compounds

Review Conclusions T0602900672

- Site is incorrectly located in GeoTracker, can agency properly locate it?
- Original leak dates to 1993, it is unclear whether this was from a leaking tank, or a surface spill. Site was issued a Remedial Action Completion Certification letter on June 1, 1999. In May 2006 two additional USTs were removed from the site, and soil samples revealed petroleum impacted soil. Further investigation of this site was requested July 26, 2007. Is this case actually only a 4 year old case?
- Soil and groundwater appear to be significantly impacted by MTBE, TBA and other gasoline constituents. Site consultant recommends additional site characterization
- *Discussion: Current active case only dates to 2006/2007, and appears to be moving forward.*

BUTTONWILLOW FIRE STATION (T0602900257)

104 2ND ST W, BUTTONWILLOW , CA 93206



Possible Reasons Why This Case Is So Old

- UNCLAIMED GOVERNMENT SITE. Kern County is both the Regulator AND the RP for this site!
- Site is **unclaimed** in GeoTracker. No Documents or Data have been uploaded to GeoTracker by the RP or the Regulator. Site history remains unknown. No conclusions can be made about the subsurface conditions at this site.
- 2 apparent monitoring wells visible from Google Street View, however, the age, status of wells not known.
- Government entity site, regulated by same Government entity. Is funding an issue?

Case Age: 20 years

Primary COC: Gasoline

RP Identified by Regulator: Kern County Public Works – **UNCLAIMED IN GEOTRACKER**

Current Use: Button Willow Chamber of Commerce

OPEN - REMEDIATION

CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP ([LEAD](#)) - CASE #: 370020

CASEWORKER: [LAUREL FUNK](#) - SUPERVISOR: NONE SPECIFIED

CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T15000258

CASEWORKER: [JOHN WHITING](#) - SUPERVISOR: John Noonan

Regulatory Activities

ACTION TYPE	ACTION DATE	ACTION
LEAK ACTION	1/25/1990	Leak Reported
LEAK ACTION	12/29/1989	Leak Discovery
LEAK ACTION	12/27/1989	Leak Stopped



NOTE: Data queried from GeoTracker and reviewed in July 2010

Activities Conducted to Date Based on GeoTracker Info (T0602900257)

Assessment last 5 years

- NONE DOCUMENTED
 - Closure review notes that Benzene was detected in 2007, but no documentation for this event is present in Geotracker

Remediation last 5 years

- NONE DOCUMENTED

Assessment older than 5 years

- NONE DOCUMENTED
 - Staff notes indicate that a quarterly report was received in 1995, but no documentation for this event is present in Geotracker

Remediation older than 5 years

- NONE DOCUMENTED

IMPEDIMENTS TO CLOSURE (T0602900257)

as reported by regulatory agency

PLUME INSTABILITY

- Verification Monitoring Not Complete - *confirmation samples needed from soil and groundwater*

BENEFITS OF ADDITIONAL WORK

- Verify Remedial Action Effectiveness - *confirmation borings needed*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Groundwater Already Impacted minor benzene in 2007. Not since sampled

Review Conclusions T0602900257

- Unclaimed Government owned site. Kern County is both the regulator and RP for this site. Conflict of interest with the regulation of site?
- No documents or data have been uploaded to GeoTracker, however, it appears that some work has been performed. Notes indicate that sampling was performed in 1995 and 2007, and Street View photographs show 1 or 2 monitoring wells are present at the site.
- Regulator must enforce AB2886 requirements and properly regulate this case or the case should be transferred to the RWQCB for enforcement and oversight. This would eliminate any conflicts of interest by a regulatory agency not regulating a site also owned by the same entity.
- *Discussion: While the site appears to have undergone at least a limited assessment, no work has been performed since 2007. The Regulator appears unable or unwilling to enforce AB2886 requirements on a county agency. Case should be transferred to RWQCB oversight.*

LOST HILLS ROAD YARD (T0602900439)

UNIVERSAL AVE., LOST HILLS , CA 93249

Case Age: 19 years

Primary COC: Gasoline

RP Identified by Regulator: County of Kern

- UNCLAIMED IN GEOTRACKER

Current Land Use: UNKNOWN

OPEN - VERIFICATION MONITORING

CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP ([LEAD](#)) - CASE #: 450031

CASEWORKER: [LAUREL FUNK](#) - SUPERVISOR: NONE SPECIFIED

CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T15000450

CASEWORKER: [JOHN WHITING](#) - SUPERVISOR: John Noonan

Regulatory Activities

ACTION TYPE	ACTION DATE	ACTION
LEAK ACTION	8/30/1991	Leak Reported
LEAK ACTION	8/28/1991	Leak Discovery

Possible Reasons Why This Case Is So Old

- This **UNCLAIMED GOVERNMENT SITE** has not been properly located in GeoTracker, and does not have a full address listed. No Documents or Data have been uploaded by the RP for this site, and the regulator has only entered a brief summary. The exact location, site conditions, and current use remain undocumented
- GeoTracker Staff notes state that as of 7/6/2010, "Review of site documents indicate that no action including groundwater monitoring has been conducted since 1996. Further review indicates that the only well impacted is MW-1 located below the original UST location. Source was removed by excavation during 1990s. Recommended one more round of groundwater sampling if wells are still intact and then review case for closure.

NOTE: Data queried from GeoTracker and reviewed in July 2010

Activities Conducted to Date Based on GeoTracker Info (T0602900439)

Assessment last 5 years

- NONE DOCUMENTED

Remediation last 5 years

- NONE DOCUMENTED

Assessment older than 5 years

- Sampling conducted at some point during or prior to 1996. No documentation or data in Geotracker

Remediation older than 5 years

- NONE DOCUMENTED

IMPEDIMENTS TO CLOSURE (T0602900439)

as reported by regulatory agency

SITE ASSESSMENT INCOMPLETE

- Incomplete Conceptual Site Model (CSM) - *File review pending - no data*

BENEFITS OF ADDITIONAL WORK

- Fill-in RI Data Gaps - *no data*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Groundwater Undetermined no data

Review Conclusions T0602900439

- Site has not been properly located, and does not have a complete address listed in Geotracker, Can agency correct this?
- Unclaimed Government Site has no documents or data uploaded. County owned maintenance yard, not being regulated by County LOP Regulatory Agency, possible, due to conflicts of interest of same agency being both RP and regulator.
- Staff Notes indicate that a file review was completed on 7/7/2010, but not actions recorded or taken as noted in GeoTracker.
- No actions have been completed for this site since 1996, site conditions remain undocumented
- *Discussion: Kern County is both the RP and regulator for this site. The agency seems unable or unwilling to enforce applicable laws and regulations against a county agency. Case should be referred to RWQCB for enforcement and or oversight, which would eliminate the apparent conflicts of interest posed by this case.*

KERN COUNTY FIRE STATION #17 (T0602900899)

26965 COTE ST., BORON , CA 93516



Case Age: 17 years

Primary COC: Gasoline

RP Identified by Regulator: Kern County Fire Dept

Current Land Use: Fire Station

OPEN - REMEDIATION

CLEANUP OVERSIGHT AGENCIES

KERN COUNTY LOP ([LEAD](#)) - CASE #: 560008

CASEWORKER: [CHARLES BAUER](#) - SUPERVISOR: NONE SPECIFIED

LAHONTAN RWQCB (REGION 8T) - CASE #: 6B1500472T

ACTION TYPE	ACTION DATE	ACTION
ENFORCEMENT/ORDERS	7/9/2010	Staff Letter
ENFORCEMENT/ORDERS	8/14/2009	Staff Letter
ENFORCEMENT/ORDERS	2/27/2009	Staff Letter
OTHER REGULATORY ACTIONS	10/11/2001	File review
LEAK ACTION	5/18/1993	Leak Reported
LEAK ACTION	3/21/1993	Leak Discovery
LEAK ACTION	3/21/1993	Leak Stopped



NOTE: Data queried from GeoTracker and reviewed in July 2010

Possible Reasons Why This Case Is So Old

- Eight Year gap in GeoTracker between Leak Discovery, and next action. County Fire Dept. Site.
- Data Deficiency letter mailed to RP in August 2009 states that documents have not been uploaded, Data has been uploaded in the wrong format, and the wells have not been surveyed. No response has been posted to GeoTracker, and the deficiencies do not appear to have been corrected
- Free product has been reported at site as recently as 2005

Activities Conducted to Date Based on GeoTracker Info (T0602900899)

Assessment last 5 years

- Periodic groundwater monitoring 1995-2007
- Soil samples taken in 2006 as part of SVE pilot test installation

Remediation last 5 years

- Soil Remediation SVE Pilot study conducted 2006-2006
- Soil Remediation WP for SVE System was approved February 2009, but no report for this work has been submitted to GeoTracker

Assessment older than 5 years

- Soil samples taken at time of UST removal
- Soils investigations conducted 1994, 1995 and 1998. 15 soil borings were advanced and approximately 118 soil samples collected at the site from 1994 to 1998.
- Periodic groundwater monitoring 1995-2007

Remediation older than 5 years

- UST removed 1992

IMPEDIMENTS TO CLOSURE (T0602900899)

as reported by regulatory agency

INADEQUATE SOURCE CONTROL

- Feasible Source Control Not Performed - *VES Pending*

GROUNDWATER IMPACTS

- Groundwater Impacted Above Other Cleanup Goal - *BTEX and MtBE are above MCLs*

BENEFITS OF ADDITIONAL WORK

- Remove / Reduce Source Mass - *VES to reduce source*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

- Groundwater Already Impacted BTEX MtBE

Review Conclusions T0602900899

- Remediation may be moving forward, however, RP has not uploaded all required documents to GeoTracker, and the Regulator, with the exception of a single letter mailed to the RP in August 2009, has not been enforcing AB2886 requirements.
- Elevated levels of TPHg remain in the soil and groundwater at the site. MCLs for BTEX are exceeded in groundwater at this site as of December 2008
- No reports have been uploaded since December 2008. It is unclear whether remediation has been initiated, or not.
- *Discussion: Case appears to be moving forward erratically. Regulator needs to more aggressively enforce GeoTracker upload requirements. If Agency is unwilling or unable to enforce applicable laws and regulations against another county agency, then the case should be referred to RWQCB for enforcement and oversight, which would eliminate any appearance of conflicts in interest.*