Final

October 7, 2011

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

Humboldt County Local Oversight Program

Prepared as in-kind task as part of Cooperative Agreement LS-97952501-3 between USEPA Region 9 and the California State Water Resources Control Board

Table of Contents

| Section | | Page |
|------------------|---|------|
| Executive Summa | ary | 1 |
| Apparent Case St | atus - Initial and After | 2 |
| Aging Non-CUF C | ase Review Summary Table | 4 |
| Attachment 1: Ca | se Review Power Point Slides from Draft Report | 6 |
| 1. | SL0602306442 (BIG OIL &TIRE BROADWAY EXXON) | |
| 2. | T0602300336 (TETRAULT – CITY CENTER ROCKET) | |
| 3. | T0602300033 (CDOT FORTUNA MAINTENANCE STATION) | |
| 4. | T0602300349 (CHP ARCATA) | |
| 5. | T0602300380 (GENERAL PETROLEUM SERVICE STATION) | |
| 6. | T0602300002 (CDPR PATRICKS POINT STATE PARK) | |
| 7. | T0602300011 (CDF FORTUNA) | |
| 8. | T0602300305 (HUMBOLDT STATE UNIVERSITY-Plant OPS) | |
| 9. | T0602300118 (TEXACO, PETE'S) | |
| 10 | T0602300089 (VROMAN, TRUEMAN) | |
| 11 | T0602300108 (BP MINI MART/RIO DELL) | |
| 12 | T0602300199 (LINION 76 RIO DELL) | |

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Executive Summary

The Draft version of this report was submitted on June 11, 2010 and U.S. EPA Region 9 (USEPA) and Sullivan International Group, Inc. (Sullivan) scheduled a meeting to be held on September 6, 2011 to discuss the draft report and the agency's next steps for each case. During the September 2011 meeting barriers to moving cases to closure were discussed. Primary barriers discussed by the agency were recalcitrant RPs, lack of RP funding, lack of necessary historical data and files, and lack of enforcement tools.

One of the sites, BIG OIL& TIRE BROADWAY EXXON (SL0602306442), is on track to be closed within one-year or less. Of the remaining cases, four are in the "Appears to be on Track" category, two are in the "Appears NOT to be on Track" category, and five are in the "Appears to be Stuck" category.

Humboldt County LOP

Apparent Case Status – Initial and After

TOTAL NUMBER OF CASES REVIEWED = 12

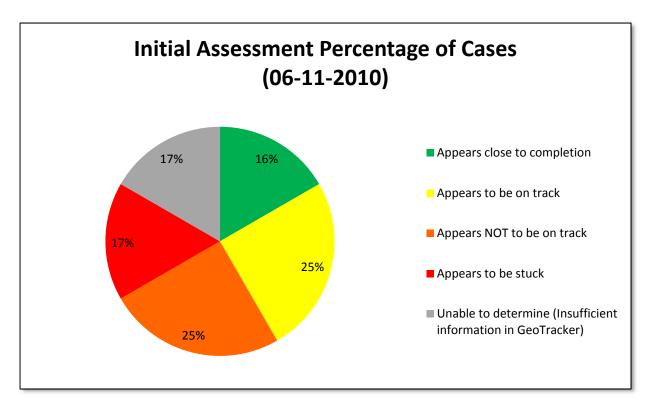
NUMBER OF ACTIVE LUST CASES ON NOVEMBER 1, 2010 = 121 CASES

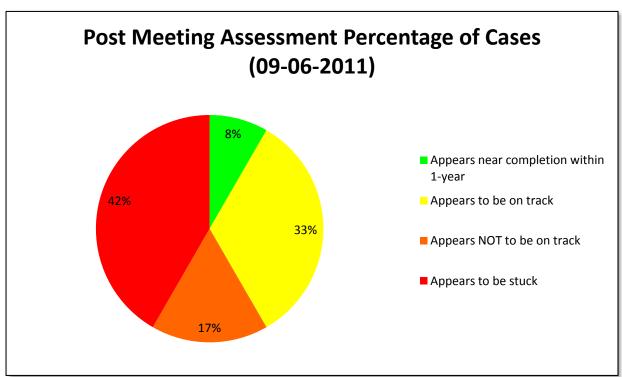
DRAFT REVIEW REPORT PREPARED AND SENT TO AGENCY ON JUNE 11, 2010

RESPONSE/MEETING WITH AGENCY ON SEPTEMBER 6, 2011

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

| Apparent Case Status | Initial Assessment Number of Cases (06-11-2010) | Post Meeting Assessment Number of Cases (09-06-2011) |
|--|---|--|
| CASE CLOSED | | |
| Appears close to completion | 2 | |
| Appears near completion within 1-year | | 1 |
| Appears to be on track | 3 | 4 |
| Appears NOT to be on track | 3 | 2 |
| Appears to be stuck | 2 | 5 |
| Unable to determine (Insufficient information in GeoTracker) | 2 | |
| NOT FEDERAL UST CASE | | |
| OTHERS – Considered a Duplicate Case | | |





CASE REVIEW SUMMARY TABLE HUMBOLDT COUNTY LOCAL OVERSIGHT PROGRAM

| ESTIMATED STATUS IN THE CLEANUP PIPELINE? | CHANGE IN STATUS IN THE CLEANUP AGENCY) ON MEETING?CALL WITH | ICASE LEAD AGENCY: HUMBOLDT COUNTY | GLOBAL 1D | CASE WORKER | PRIMARY COC (In Geotrach | APPARENT TYPE OF RP | RELEASE DATE | DISCUSSION NOTES FROM MEETING/CALL | |
|--|---|---|---------------------|-------------|--------------------------|---|--------------|---|----|
| Appears close to completion | Appears near completion within 1-year | BIG OIL&TIRE BROADWAY EXXON | <u>SL0602306442</u> | MAV | Gasoline | Z - Major Oil Company | 1/2/1965 | The caseworkers said that they have received concurrence from the Board for NFA, just waiting for well destruction. The caseworker said that Rich Pomrehn was identified as the RP and that the agency has been waiting for over one year for the RP to abandon the wells at the site and has had some access issues from the City of Eureka. The caseworker noted that this case is not as old as it looks in GeoTracker; it was opened in 2003. However, there was a previous case with the same name that was old and this case took on that release date for some reason. This case should be closed within one year but just need wells abandoned. | r |
| Appears close to completion | Appears NOT to be on track | TETRAULT - CITY CENTER ROCKET | <u>T0602300336</u> | BS | Multiple | Z - Major Oil Company | 12/23/1992 | The caseworker said that an Insurance Company is paying the bills for the cleanup of this site. There is an approved Pilot Study Work Plan for Vacuum Extraction but can't get the client to pay the money to do the work. The RP is claiming they don't have the funding. This case could be on Track easily once obtain funding, but it is currently Not On Track until funding is obtained. The agency requested that USEPA assist with getting the Insurance Company to do the work; they will forward USEPA a copy of the enforcement letter that will be sent to the Insurance Company. Recently the caseworker spoke with the consultant and the consultant said that they had submitted a cost estimate to the client. The caseworker said that they will need to send a NOV for this site. | |
| Appears to be on track | Appears to be stuck | CDOT FORTUNA MAINTENANCE STATION | <u>T0602300033</u> | BS | Multiple | G - Government Entity (include School, Hospital, Utility) | 4/11/1988 | This case is STUCK because there is no funding. The caseworker said that the cost of the proposed excavation at least doubled from the initial date the excavation was scoped and CalTrans not willing to pay. Ensure RP compliance (includes identify RP, enforcement, EAR account etc) | |
| Appears to be on track | Appears to be on track | CHP ARCATA | <u>T0602300349</u> | BS | Diesel | G - Government Entity (include School, Hospital, Utility) | 10/27/1992 | The caseworker said that now they do have a responsive RP that is willing to do the work. The agency has received a boring permit application with a proposed work date. This case is On Track. Continue current remediation until low-risk criteria is met | il |
| Appears to be on track | Appears to be on track | GENERAL PETROLEUM SERVICE STATION 99-EUK | <u>T0602300380</u> | BS | Multiple | Z - Major Oil Company | 12/1/1993 | The caseworker noted that their agency calls this case "Agape Chiropractic". The Agency wants the RP and their consultant to collect vapor samples more frequently during the month of September: one per week for the entire month. This case is ON TRACK. Push for additional/alternate remediation (current remediation ineffective) | 1 |
| Appears NOT to be on track | Appears to be on track | CDPR PATRICKS POINT STATE PARK | <u>T0602300002</u> | MAV | Multiple | G - Government Entity (include School, Hospital, Utility) | 8/24/1987 | The caseworker said that an extraction well was installed on site and that soil contamination is still not delineated. Recently a pilot study for vapor extraction has been implemented. This case is now on Track. Continue current remediation until low-risk criteria is met | il |
| Appears NOT to be on track | Appears to be on track | CDF FORTUNA | T0602300011 | BS | Gasoline | G - Government Entity (include School, Hospital, Utility) | 1/11/1988 | The caseworker noted that the agency and the RP have resolved the access issues and the consultant has begun the additional site investigation. The caseworker said he would update GeoTracker to reflect this. This case is low-risk criteria is met | il |
| Appears NOT to be on track | Appears NOT to be on track | HUMBOLDT STATE UNIVERSITY - PLANT OPS | <u>T0602300305</u> | MAV | Gasoline | G - Government Entity (include School, Hospital, Utility) | 5/7/1992 | The caseworker said that he had talked to the consultant on the phone on September 6th, 2011. The consultant said that they are going to send reports before the end of September. The work to be conducted is to investigate if the creek is a gaining or losing creek. They will put borings on the opposite side of the creek to see if the results will show if the creek is a groundwater divide or not. This case is not currently on Track but the agency is hopeful that the consultant will keep their word and do work soon. | |

CASE REVIEW SUMMARY TABLE HUMBOLDT COUNTY LOCAL OVERSIGHT PROGRAM

| ESTIMATED STATUS IN THE CLEANUP | CHANGE IN STATUS IN THE CLEANUP AGENCY) ON 09/06/11 | ICASE LEAD AGENCY: HUMBOLDT COUNTY. | GLOBAL ID | CASE WORKER | PRIMARY COC (In Geotrach. | APPARENT TYPE OF RP | RELEASE DATE | DISCUSSION NOTES FROM METING/CALL |
|--|--|-------------------------------------|--------------------|-------------|---------------------------|--------------------------------------|--------------|--|
| Appears to be stuck | Appears to be stuck | TEXACO, PETE'S | <u>T0602300118</u> | MAV | Other | S - Small Private Business | 8/4/1987 | The caseworker acknowledged that this case is not claimed in GT. The agency said that they might need some assistance from the associated CUPA to obtain the necessary files. Currently the site is used as a car wash and is not an active gas station. The agency does not have much in terms of historical files. The caseworker said that he will talk to the Board about this case and see if they can strategize on how to deal with it. This case remains account etc) |
| Appears to be stuck | Appears to be stuck | VROMAN, TRUEMAN | <u>T0602300089</u> | MAV | Gasoline | S - Small Private Business | 3/13/1989 | As part of an investigation of an adjacent site, Tetrault Henderson Center Rocket (T0602300462), a boring was installed in Trueman Vroman's site and it was determined that the contamination at Tetrault Henderson Center Rocket was due to a release from the Trueman Vroman's site and that BTEX and TPHg contamination exists. The caseworker said that Mr. Vroman does not want to do additional work at his site and that the "work done during the tank pull was sufficient". The agency and Mr. Vroman have been arguing. In August 2007 the agency sent Mr. Vroman's case to the District Attorney (DA) but the DA declined to take the case. The agency says that they feel as if they don't have any enforcement tools right now to deal with this case. The caseworker said that they will consider bringing in the Regional Board for some interim assistance and will send a letter to them. This case remains STUCK. |
| Unable to determine (Insufficient Information in GeoTracker) | Appears to be stuck | BP MINI MART / RIO DELL | <u>T0602300108</u> | MAV | Gasoline | U - Unknown | 7/5/1989 | The caseworker note that there are multiple RPs name for this site and the RP situation needs to be sorted out. There are eleven Notice of Responsibilities currently. The caseworker noted that no work has been conducted since 2008 and the agency said that they would talk to the Regional Board about writing letters to the RPs to see if any momentum can be gained from that. This case is STUCK. |
| Unable to determine (Insufficient Information in GeoTracker) | Appears to be stuck | UNION 76, RIO DELL | <u>T0602300199</u> | MAV | Gasoline | O - Other (Individual, Homes etc) | 6/11/1990 | The caseworker noted that there is a number of irresponsible RPs for this case and no RP is doing any work right now. Agency believes that it would be best if the city takes the case over and then maybe the case could qualify for some other type of funding. The Agency said that they would like to close some of these sites and partake in this drilling program similar to Region 1. The Agency also agreed to write a letter to Unocal since the URF has Unocal down as the RP. This case is STUCK. |

Attachment 1:

Case Review Power Point Slides from Draft Report

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

BIG OIL AND TIRE BROADWAY EXXON (SL0602306442)

1411 BROADWAY STREET, EUREKA, CA 95501



Possible Reason Why This Case Is So Old

- •Release date is 1/2/1965. Release reported in 7/1987, 23 years old.
- •Need to change Release date in GeoTracker because the age is incorrectly shown as 45 years old.

Case Age: 23 years

RP Identified by Regulator: BIG OIL & TIRE (Corporation)

Primary COC: Gasoline

Current Land Use: Active Service Station



CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12799
CASEWORKER: MARK VERHEY - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWQCB (REGION 1) - CASE #: 17HU799
CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY

NOTE: Data gueried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on GeoTracker Info \$10602306442

Assessment last 5 years

- GW Monitoring through 7/1987 to 12/2004. Data in GT from 2005 to Present
- Sensitive receptor survey 8/2006

Assessment older than 5 years

 GW Monitoring – 1987 to Present

Remediation last 5 years

 Remedial action certificate issued 10/2005

- GW/Vapor extraction from 10/1988 to 2/1993
- Applied ORC in 8/2001-9/2001

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

PROCEDURAL IMPEDIMENTS

Monitoring Wells Not Yet Abandoned - wells will be abandoned pending RB decision

Other - Request for RB concurrence with closure sent 04/19/2010

BENEFITS OF ADDITIONAL WORK

Other - pending RB concurring with closure

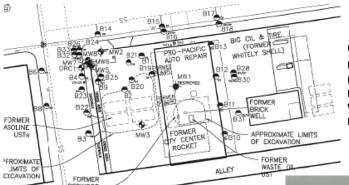
SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted monitoring wells impacted

- The regulatory agency recommended that the RP prepare a site closure request in July 2009. Recommendation for NFA to Regional Board sent 4/19/2010.
- This case should be closed in the near future.
- <u>Discussion</u>: Next step decommission wells pending RB decision.

TETRAULT CITY CENTER ROCKET (T0602300336)

1208 FIFTH STREET, EUREKA, CA 95501



Case Age: 18 years

RP Identified by Regulator: J.J. TETRAULT

(Individual)

Primary COC: GASOLINE, DIESEL, MTBE,

WASTE OIL

Land Use: Auto Repair Facility

Possible Reasons Why This Case Is So Old

- •No Regulatory enforcement in a timely manner.
- •No response regarding QM Report for 2008 until May 2010.



NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on Geotracker Info T0602300336

Assessment last 5 years

- Additional wells and borings – '04, '05, '06
- Additional investigation requested '08, but not completed yet

Assessment older than 5 years

- Wells and soil borings –
 '95, '96, '97
- SCM 5/03

Remediation last 5 years

None

- Excavate 1992
- Excavate 1993
- ORC 1997

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

INADEQUATE SOURCE CONTROL

Remaining Source Poses Threat to Groundwater - see MW-8, & water sample from B-14 GROUNDWATER IMPACTS

Groundwater Impacted Above Other Cleanup Goal - see reports

BENEFITS OF ADDITIONAL WORK

Restore Beneficial Uses - see MW-8

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT SENSITIVE

RECEPTOR TIME FRAME FOR IMPACT COMMENTS

Groundwater Already Impacted see MW-8, B-14, and others

NOTES / COMMENTS

Humboldt County LOP concurred with additional work in a letter dated March 26, 2008.

- Extensive assessment done at the site with some remediation. No remediation activity since 1997. Slow regulatory response.
- HCDEH requests more assessment. Additional subsurface investigation work plan submitted 7/2008. Regulator submitted correspondence letter in 8/2009 requesting for work to begin. Does not appear work has been started.
- Levels are not substantially high and site is without nearby receptors. After a cursory review of this site, it seems this may be a site that can be closed.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure? Evaluate for closure?

CDOT FORTUNA MAINTENANCE STATION (T0602300033)

1924 SMITH LANE, FORTUNA, CA 95540



Case Age: 22 years

RP Identified by Regulator: CALTRANS Primary COC: DIESEL, GASOLINE, WASTE OIL /

MOTOR / HYDRAULIC / LUBRICATING

Land Use: Not changed

LEANUP OVERSIGHT AGENCIES

IUMBOLDT COUNTY LOP (LEAD) - CASE #: 12035

CASEWORKER: BOB STONE - SUPERVISOR: NONE SPECIFIED

IORTH COAST RWQCB (REGION 1) - CASE #: 1THU035

Possible Reasons Why This Case So Is Old

- •Initial leak in 1988, USTs removed in 1992.
- Several years between activities; progress was slow. No activities from 1992-1998.
- •Free product encountered in 9/2004: additional assessment requested at that time, but not encountered since.
- •No remedial activity since 2007 remedial options report was submitted.
- •Government entity site.

NOTE: Data gueried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on GeoTracker Info T0602300033

Assessment last 5 years

- Quarterly GWM since 1989, now 10 MWs semi-annual and 10 MWs annual
- Additional site investigation report submitted 6/2006 and 5/2008

Remediation last 5 years

Remedial action options submitted 1/2007

Assessment older than 5 years

- Vapor survey 1988
- MWs installed 1989-1990
- Assessment 1992
- Site investigation 1998 and RBCA report 1998
- Remedial action options 1998
- Additional MWs installed 9/2000
- Sensitive receptor survey 2002

- Initial leak reported in 1988 UST removed 11/1993 (from piping, then repaired)
- USTs removed 10/1992
- Remedial action options 1998
- 9/1999 soil excavation and ORC injected

as reported by regulatory agency

BENEFITS OF ADDITIONAL WORK

Remove / Reduce Source Mass - remedial excavation proposed contingent on fund schedule from GS

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted increasing trends

- Remedial action options report submitted 1/2007 and additional site investigation report submitted 6/2008.
- Regulator concurred with further soil excavating, but did not concur with monthly oxygen injections in letter dated 1/15/2010.
 Regulator indicated that "further delays conducting corrective action is not warranted and may result in issuing a Notice of Violation."
- Closure Review indicates, "Remove / Reduce Source Mass remedial excavation proposed contingent on fund schedule from GS."
- <u>Discussion</u>: Next step how to move this case towards cleanup closure? Enhanced enforcement?

CHP ARCATA (T0602300349)

255 SAMOA BOULEVARD, EAST, ARCATA, CA 95521



Case Age: 18 years

RP Identified by Regulator: STATE OF CA, DEPT of GENERAL SERVICES, REAL ESTATE SERVICES DIVISION

Primary COC: DIESEL

Land Use: California Highway Patrol Facility

Possible Reasons Why This Case Is So Old

- No Remediation, only monitoring.
- Government entity site.

CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12462
CASEWORKER: <u>FOR STOME</u> - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWICES (REGION 1) - CASE #: 17HU462
CASEWORKER: <u>HUMBOLDT COUNTY HD LOP LEAD</u> - SUPERVISOR: KASEY ASHLEY



NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on GeoTracker Info T0602300349

Assessment last 5 years

- GW Monitoring 1998 to Present
- Still no complete site assessment performed
- 24-hour tidal study

Assessment older than 5 years

- Site investigation in 6/1995
- GW Monitoring 1998 to Present
- Site investigation

Remediation last 5 years

NONE

- 4/1995 pipe leak; free product recovery by hand bailing.
- Free product skimmer 1995

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

SITE ASSESSMENT INCOMPLETE

Extent of Contamination Has Not Been Determined - MTBE required

BENEFITS OF ADDITIONAL WORK

Fill-in RI Data Gaps - MTBE delineation and determine ra

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted MTBE

- Regulator responded to second quarter 2009 GWMR to sample "biannually" and asked if they "want to recommend abandoning some MWs during this proposed round of field work." Also, soil and grab GW samples are proposed in eight borings.
- MTBE contamination needs to be delineated and it appears that only one additional phase of site assessment should be needed to delineate all contamination. Remedial action should be initiated after contaminants are delineated.
- Government entity site, funding may be an issue.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure?

GENERAL PETROLEUM SERVICE STATION 99-EUK (T0602300380)

635 H STREET, EUREKA, CA 95501



Case Age: 17 years

RP Identified by Regulator: EXXONMOBIL

Primary COC: BENZENE, FUEL OXYGENATES, GASOLINE,

TOLUENE, WASTE OIL / MOTOR / HYDRAULIC /

LUBRICATING, XYLENE

Land Use: Parking Lot and Storage Building, surrounding

areas are commercial and residential

CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12504
CASEWORKER: <u>BOB STONE</u> - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWOOB (REGION 1) - CASE #: 17HU504
CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY

Possible Reasons Why This Case Is So Old

- •No activities from 1993-2000; progress was slow.
- •NAPL observed intermittently between 2003 to present.



NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on GeoTracker Info T0602300380

Assessment last 5 years

- Ongoing Sampling
- Quarterly GWM since 2002, no semi-annual
- Investigation for potential USTs 2/2006 and 3/2007
- Vapor assessment 12/2008

Assessment older than 5 years

- Soil sampling at time of removal.
- Quarterly GWM since 2002, no semi-annual
- 9 MWs, 7 SVs, and many borings.

Remediation last 5 years

- Feb 2007 DPE Pilot Test
- Remedial action plan submitted 12/2009

- UST removed 11/1993
- Free Product removal 8/2003

as reported by regulatory agency

BENEFITS OF ADDITIONAL WORK

Remove / Reduce Source Mass - HVDPE proposed to remove free product
SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT

COMMENTS

Groundwater

Already Impacted

monitoring wells impacted

- NAPL is intermittently observed in some monitoring wells since 2003.
- Contamination possibly from service station that operated from 1929 to 1959.
- The site should be on a consistent and aggressive cleanup schedule.
- High vacuum dual phase extraction remedial system is scheduled to begin in 10/2010 or 11/2010. Notification of construction activities submitted 3/2010.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure?

CPDR PATRICK'S POINT STATE PARK (T0602300002)

4150 PATRICK'S POINT DRIVE, TRINIDAD, CA 95570



Case Age: 23 years

RP Identified by Regulator: STATE OF CA, DEPT of GENERAL

SERVICES, REAL ESTATE SERVICES DIVISION

Primary COC: BENZENE, GASOLINE, TOLUENE, XYLENE

Current Land Use: Park

CLEANUP OVERSIGHT AGENCIES

HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12002

CASEWORKER: MARK VERHEY - SUPERVISOR: NONE SPECIFIED

NORTH COAST RWQCB (REGION 1) - CASE #: 17HU002

CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY



NOTE: Data gueried from GeoTracker and reviewed in June 2010

Possible Reasons Why This Case Is So Old

- •Limited regulatory agency enforcement and direction.
- •Only monitoring and assessment very little remediation. Government entity site.

Activities Conducted to Date Based on GeoTracker Info T0602300002

Assessment last 5 years

- 4 GW wells installed 9/2005
- In 11/2006, 3 GW wells & 2 surface samples from creek
- Site Assess. 1 GW installed –
 2/2008

Remediation last 5 years

• None

Assessment older than 5 years

- 1 GW well installed in 1992
- 2 additional wells installed in 2/2003
- GW Monitoring since 2/2001
- Subsurface investigation 12/2002

- UST removed 2/1988 and another removed 10/1997
- Soil Excavation 9/2004

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE SITE ASSESSMENT INCOMPLETE

Pollutant Sources Have Not Been Adequately Identified or Evaluated - soil concentration, TPHg, in B-13 and B-14 is too high to accurately estimate lateral edge

Extent of Contamination Has Not Been Determined - soil concentration, TPHg, in B-13 and B-14 is too high to accurately estimate lateral edge

INADEQUATE SOURCE CONTROL

Remaining Source Poses Threat to Groundwater - see concentrations in MW-6

GROUNDWATER IMPACTS

Groundwater Impacted Above Other Cleanup Goal - see concentrations in MW-6

BENEFITS OF ADDITIONAL WORK

Remove / Reduce Source Mass - concentrations are too high to achieve water quality objectives within a reasonable amount of time

Protect Ecological Receptors - there is a perennial creek nearby

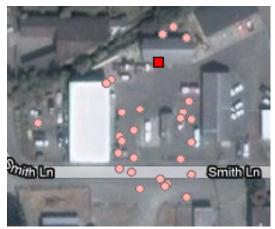
SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted see MW-6

- Remediation consultant determines assessment complete and MNA recommended (5/2008). HCDEH does not agree because extent of plume cannot be defined; requested additional assessment, and more corrective action options (6/2008) – no timeline given.
- HCDEH sends a letter to new consultant requesting more assessment and corrective action options to be provided within 60 days (12/2009). Additional request to complete delineation of soil contamination within 60 days (1/2010).
- Slow progress two USTs removed 1988 and 1997, one excavation, monitoring, and assessment ongoing ever since. Elevated TPHg and BTX. Increasing trend in TPHg observed.
- Government entity site, budget constraints?
- <u>Discussion</u>: Next step how to move this case towards cleanup closure? Identify feasible remedial action?

CDF FORTUNA (T0602300011)

118 FORTUNA BLVD, SOUTH, FORTUNA, CA 95540



Possible Reasons Why This Case Is So Old

- •Limited regulatory agency enforcement; strict deadlines not enforced. Government entity site.
- •Verification monitoring status since 1994, but remediation ceased in 1996.
- •Elevated concentrations still detected.

Case Age: 22 years

RP Identified by Regulator: STATE OF CA, DEPT of GENERAL SERVICES, REAL ESTATE SERVICES

DIVISION

Primary COC: GASOLINE

Land Use: Dept. of Forestry ranger unit headquarters - operating facility



CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12011
CASEWORKER: <u>BOE STONE</u> - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWQC8 (REGION 1) - CASE #: 17HU011
CASEWORKER: <u>HUMBOLDT COUNTY HD LOP LEAD</u> - SUPERVISOR: KASEY ASHLEY

NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on Geotracker Info T0602300011

Assessment last 5 years

- Two site investigations (2/2008 and 3/2009)
- Ongoing GW monitoring, now semi-annual

Assessment older than 5 years

- Periodic monitoring since 1996 – typically quarterly
- Subsurface hydropunch investigation in 11/1992

Remediation last 5 years

NONE

Remediation older than 5 years

 5/1993 free product recovery system and groundwater extraction and treatment system operated through 6/1996

as reported by regulatory agency

BENEFITS OF ADDITIONAL WORK

Remove / Reduce Source Mass - further source delineation and /or removal is needed

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

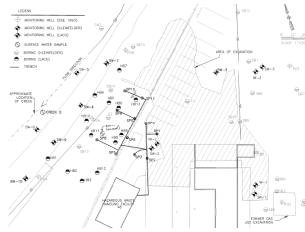
SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS

Groundwater Already Impacted monitoring wells impacted

- First Half 2010 groundwater monitoring report submitted 2/2010.
 Shows mostly TPHd and TPHg. Elevated level of MTBE in one well.
 MNA parameters measured.
- Verification monitoring status since 1996 when remedial system ceased. There is ongoing activity at the site, but progress is very slow. Strict timeline not maintained for many years. Government entity site.
- Agency concurred in 3/2010 that further subsurface investigation is not necessary, but requested to continue semi-annual groundwater monitoring and an evaluation of site conditions.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure? Additional remedial action needed? MNA analysis? Evaluate case for low-risk closure?

HUMBOLDT STATE UNIVERSITY - PLANT OPS (T0602300305)

FOURTEENTH & B STREET, ARCATA, CA 95521



Case Age: 18 years

RP Identified by Regulator: STATE OF CA, DEPT of GENERAL SERVICES, REAL ESTATE SERVICES

DIVISION

Primary COC: GASOLINE Land Use: Building Operations



Possible Reasons Why This Case Is So Old

- •No activities from 1994 to 2001 and 2002-2005.
- •Remediation stopped in 2/2008 due to completion of contract.
- •Regulator frequently sent enforcement letters for RP to upload GWM reports and data.



Activities Conducted to Date Based on Geotracker Info T0602300305

Assessment last 5 years

- WP for Corrective Action dated 6/2001
- · Ongoing GW monitoring
- Interim Report of Findings; hand boring installations submitted 4/19/2010

Assessment older than 5 years

- Samples collected after removals
- Site Assessment 1994

Remediation last 5 years

- RAP submitted 8/2005
- Mobile ozone and peroxide injected 1/06 – 3/06
- Stationary in-situ chemical oxidation system started - 10/06 thru 2/2008 (when contract ended)

- USTs removed 1992 and 1993
- Soil removal in 2002

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

INADEQUATE SOURCE CONTROL

Remaining Source Poses Threat to Groundwater - MtBE in SW-9.

BENEFITS OF ADDITIONAL WORK

Verify Remedial Action Effectiveness - Previous excavation removed 2,154 yards

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted see reports, SW-9

- Progress slowed due to completion of contract and remediation was stopped in 2/2008. Last GWM event from third guarter 2008.
- Full extent of MTBE contamination is not delineated. One well towards the edge of the plume has high concentrations of about 1,000 micrograms/liter of MTBE.
- Hand boring installation report submitted 4/2010. Consultant recommended installing one additional MW.
- <u>Discussion</u>: Next step Additional assessment should be completed in a timely manner and not slow the remediation progress. Has remediation resumed?

TEXACO, PETE'S (T0602300118)

248 FORTUNA BOULEVARD, FORTUNA, CA 95540



Case Age: 23 years

RP Identified by Regulator: ROBERT JOHNSTON

Not Claimed in GeoTracker

Primary COC: WASTE OIL / MOTOR / HYDRAULIC /

LUBRICATING Land Use: Unknown

ANUP OVERSIGHT AGENCIES

UMBOLDT COUNTY LOP (LEAD) - CASE #: 12147

CASEWORKER: MARK VERHEY - SUPERVISOR: NONE SPECIFIED
IORTH COAST RWQCB (REGION 1) - CASE #: 1THU147

CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY

Possible Reasons Why This Case Is So Old

- •No ESI submittals and limited site history
- •Referred to RB in 10/1989, should not be listed as **Humboldt LOP case?**
- •No enforcement or action taken by HCDEH or Regional Board since 1987.
- •Not properly mapped in GT. Address does not indicate N or S of the blvd. Location not verified.



NOTE: Data gueried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on GeoTracker Info T0602300118

Assessment last 5 years

NONE DOCUMENTED

Remediation last 5 years

NONE DOCUMENTED

Assessment older than 5 years

NONE DOCUMENTED

Remediation older than 5 years

NONE DOCUMENTED

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

PROCEDURAL IMPEDIMENTS

Other - referred to RB in 1989. Returned to LOP at unknown time. No unauthorized release form on file.

BENEFITS OF ADDITIONAL WORK

Verify Remedial Action Effectiveness - tanks apparently have been removed. A figure in HCDEH file shows three gasoline UST's

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR

TIME FRAME FOR IMPACT

COMMENTS

Groundwater

Undetermined

three shallow borings completed in 1989 but no water samples even though water was in each hole at a depth of approximately 5 ft

bgs

- No ESI submittals or documents uploaded; limited site history. Unclaimed site in GeoTracker.
- Case referred to RB in 1989; another case with RB lead not found.
 Closure Review indicates, "returned to LOP at unknown time" and "no unauthorized release form on file."
- Closure Review indicates, "three shallow borings completed in 1989, but no water samples taken (even though water was in each hole at a depth of approximately 5 feet bgs.)"
- Address not specific, could be North or South Fortuna Boulevard, which are two different locations. Businesses appear to exist at both locations.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure?

VROMAN, TRUEMAN (T0602300089)

335 HARRIS STREET, EUREKA, CA 95501



Case Age: 21 years

RP Identified by Regulator: TRUEMAN VROMAN

(assumed Individual)

Not Claimed in GeoTracker

Primary COC: GASOLINE

Land Use: Not located in GeoTracker correctly,

appears residential



Possible Reasons Why This Case Is So Old

- •No ESI submittals or documents uploaded.
- •Regulatory Agency took no oversight or enforcement actions and have been unable to establish communication with the RP.

CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12097
NORTH COAST RWQCB (REGION 1) - CASE #: 1THU097
CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY

NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on Geotracker Info T0602300089

Assessment last 5 years

NONE DOCUMENTED

Remediation last 5 years

NONE DOCUMENTED

Assessment older than 5 years

NONE DOCUMENTED

Remediation older than 5 years

NONE DOCUMENTED

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

SITE ASSESSMENT INCOMPLETE

Pollutant Sources Have Not Been Adequately Identified or Evaluated - *investigation* related to adjacent site (Henderson Center) revealed potential source of BTEX adjacent to former tanks at subject site.

Extent of Contamination Has Not Been Determined - the site across the street is almost entirely MTBE. the source at the subject site is TPHq and BTEX.

Potential Risks, Threats, And Other Environmental Concerns Have Not Been Adequately Identified And Assessed - *Sampling is incomplete*.

GROUNDWATER IMPACTS

Other - evaluation of potential threat to groundwater is incomplete.

BENEFITS OF ADDITIONAL WORK

Complete CSM and Our Understanding of Hydrogeologic Regime and Fate and Transport of Contaminants - *incomplete evaluation*

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR Groundwater

TIME FRAME FOR IMPACT Undetermined

COMMENTS this site needs water samples and soil samples adjacent to former tanks

- Lack of regulatory oversight or enforcement activities following discovery of release in 1989. Not claimed in GeoTracker.
- Communication sent in 1999. This was followed up in 2003 and referred to local agency in the same year. Third request for work plan dated 9/16/2003. Activities report shows file review in 11/2009.
- Closure review indicates, "investigation relegated to adjacent site (Henderson Center) revealed potential source of BTEX adjacent to former tanks at subject site" and "evaluation of potential threat to groundwater is incomplete."
- <u>Discussion</u>: Next step How to move this case towards cleanup closure? Enforcement needed.

BP MINI MART / RIO DELL (T0602300108)

255 WILDWOOD AVENUE, RIO DELL, CA 95562



Case Age: 21 years

RP Identified by Regulator: ROGER AND JUDITH ASTIER (CITY OF RIO DELL seems to have taken responsibility)

Not Claimed in GeoTracker Primary COC: GASOLINE

Land Use: Unknown - street view unavailable and limited

history in GT

Possible Reasons Why This Case Is So Old

- Limited enforcement: request for investigation WP dated 4/2003 and no action taken until 2008 (19 years after release).
- No ESI submittals/documents; limited site history.
- Government entity site?

CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12118
CASEWORKER: MARK VERHEY - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWQCB (REGION 1) - CASE #: 17HU118
CASEWORKER: HUMBOLDT COUNTY HD LOP LEAD - SUPERVISOR: KASEY ASHLEY

NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on Geotracker Info T0602300108

Assessment last 5 years

 Phase II submitted to agency. Agency did not concur with NFA in letter 2/15/2008

Remediation last 5 years

NONE DOCUMENTED

Assessment older than 5 years

- NONE DOCUMENTED
- Request for investigation WP submitted 4/2003

Remediation older than 5 years

NONE DOCUMENTED

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

SITE ASSESSMENT INCOMPLETE

Pollutant Sources Have Not Been Adequately Identified or Evaluated - some info from borings completed in 2008. See Humboldt County LOP letter dated 2/29/2008

BENEFITS OF ADDITIONAL WORK

Protect Designated Beneficial Uses - *geophysical data suggests tanks may still be in ground.*

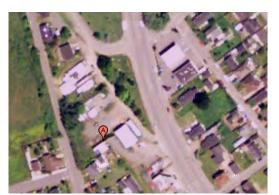
SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Undetermined limited information

- Closure review indicates, "geophysical data suggests tanks may still be in ground."
- Phase II submitted to agency. Agency did not concur with NFA in letter 2/15/2008 and requested a work plan for further delineation of remaining soil/GW contamination. Also, concurred with the "recommendation to remove USTs that may be present." No relevant correspondences submitted since 2/2008 (GW monitoring frequency reduction letter submitted, but does not pertain to site no GWM program has been instituted.)
- HCDEH needs to enforce and keep case on a reasonable timeframe. No action since 2008.
- Discussion: Next step how to move this case towards cleanup closure?

UNION 76, RIO DELL (T0602300199)

609 WILDWOOD AVE, RIO DELL, CA 95562



Case Age: 20 years

RP Identified by Regulator: MILLARD BARISDALE

(assumed individual)
Primary COC: GASOLINE

Land Use: Auto Shop or U-haul based on Google search results (Street View not available)

CLEANUP OVERSIGHT AGENCIES
HUMBOLDT COUNTY LOP (LEAD) - CASE #: 12267
CASEWORKER: MARK VERHEY - SUPERVISOR: NONE SPECIFIED
NORTH COAST RWQCB (REGION 1) - CASE #: 17HU267
CASEMORKER: HUMBOLD T COUNTY HOLD BY LEAD - SUPERVISOR: VASEV ASSILEY

Possible Reasons Why This Case Is So Old

- •Claimed in GT, but no ESI submittals or documents uploaded. Limited site history.
- •No activities in GeoTracker except historical enforcement in 6/1990 and a file review in 2/2009.

| ACTIVITIES REPORT | ACTIVITY TYPE FILTER: Show All Activities | ✓ Go | * | INDICATES A REVISED DUE DATE |
|--------------------------|---|-------------|-----------------------|------------------------------|
| ACTION TYPE | <u>ACTION</u> | ACTION DATE | RECEIVED / ISSUE DATE | ACTION DESCRIPTION |
| OTHER REGULATORY ACTIONS | File review | 2/18/2009 | 2/18/2009 | site assessment |
| ENFORCEMENT/ORDERS | * Historical Enforcement | 6/15/1990 | 6/15/1990 | |
| LEAK ACTION | Leak Stopped | 6/11/1990 | | |
| LEAK ACTION | Leak Reported | 6/11/1990 | | |
| LEAK ACTION | Leak Discovery | 6/11/1990 | | |

NOTE: Data queried from GeoTracker and reviewed in June 2010

Activities Conducted to Date Based on Geotracker Info T0602300199

Assessment last 5 years NONE DOCUMENTED Assessment older than 5 years NONE DOCUMENTED Remediation last 5 years NONE DOCUMENTED Remediation older than 5 years NONE DOCUMENTED UST removed in 1992

as reported by regulatory agency

IMPEDIMENTS TO CLOSURE

PROCEDURAL IMPEDIMENTS

Non-Responsive and / or Recalcitrant Responsible Party - analytical results of water sample from tank pull in 1990 verified an unauthorized release from the tank system had occurred

BENEFITS OF ADDITIONAL WORK

Protect Designated Beneficial Uses - see water sample from tank pull

SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR TIME FRAME FOR IMPACT COMMENTS
Groundwater Already Impacted limited information

- No submittals or documentation. Conclusions cannot be determined for this site based on information in GeoTracker.
- <u>Discussion</u>: Next step how to move this case towards cleanup closure?