UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
Underground Storage Tanks Program Office
75 Hawthorne Street (LND-4-3)
San Francisco, CA 94105

JAN 26 2015

CERTIFIED MAIL: 7013 1090 0000 1618 9808
RETURN RECEIPT REQUESTED

Ms. Betty Jackson
P.O. Box 308
Hoopa, CA 95546

Subject: No Further Action
Former Jackson Trucking UST Site
Moon Lane, Hoopa, California (EPA ID# HOOP-007)

Dear Ms. Jackson:

The U.S. Environmental Protection Agency Region 9 ("EPA") has completed its review of file documentation pertaining to the Jackson Trucking underground storage tank ("UST") Site ("the Site"). EPA's summary of the former UST operations, site assessment work and potential receptors, as well as the conclusions regarding the Site, are contained in Enclosure A. In addition, Enclosure B discusses background levels of selected metals in soil throughout the United States.

Based on this file review, EPA has determined that no further action ("NFA") is required for the Site at this time. However, if additional information becomes available in the future regarding hydrocarbon contamination in soil and/or groundwater at the Site related to USTs, or the planned use of the Site changes, EPA may reopen the Site and require additional site assessment and/or corrective action.

Please note that this NFA letter, as well as all supporting documentation, will be available to the general public. If you have any questions regarding this letter, please contact me at (415) 972-3369.

Sincerely,

Steven C. Linder, P.E., Manager
Underground Storage Tanks Program Office

Enclosures: A) Site Background and Justification for NFA
B) Reference material on background concentrations for selected metals in the United States

Cc (w/enclosures): Ken Norton, Director, Land Management Department, Hoopa Tribe

ENCLOSURE A
Site Background and Justification for NFA

Former Jackson Trucking UST Facility, Moon Lane, Hoopa, California (EPA ID# HOOP-007)

Site background and current use

On May 21, 1986, Paul E. Jackson, co-owner of Jackson Trucking, signed the EPA UST Notification Form for the Site, which listed one 10 year old, steel, 4,000 gallon UST that had been used for the storage of gasoline. The Notification Form indicated that the UST was last used in September 1985.

During an interview at the Site on April 28, 2010 with Chris Prokop of EPA, Pliny Jackson stated that the property was owned by his mother, Betty Jackson. According to Mr. Jackson, the Redwood Construction Company (aka, Boudreau Transportation, Inc.) installed and operated the 4,000 gallon UST, possibly during the 1970s. Mr. Jackson also indicated that after his mother's purchase of the property in 1979, Jackson Trucking continued to operate the UST, along with its vehicle repair/maintenance business within a building adjacent to the former UST. As noted above, the UST was reportedly operated until September 1985. The vehicle repair/maintenance business at the Site, which includes a hydraulic lift, is still operated intermittently by Mr. Pliny Jackson.

Site assessment findings and documentation of a hydrocarbon release

On October 20-21, 2014, EPA's contractor, Enviro Compliance Solutions, Inc. ("ECS"), conducted a site assessment at the Site which included the following: 1) properly removing the UST to permit sampling of the soil beneath it; 2) collecting five samples from in-situ soil; 3) arranging for all soil samples to be analyzed for volatile organic compounds ("VOCs") and gasoline-range organics ("GRO") by EPA Method 8260B, diesel-range organics ("DRO") and oil-range organics ("ORO") by EPA Method 8015B, and RCRA 8 Metals by EPA Methods 6010B/7471A; 4) properly disposing of the UST, piping and investigation-derived wastes; and 5) restoring the Site through appropriate backfilling. No groundwater was encountered at the maximum depth of soil sampling, which was 11 feet below ground surface ("bgs"). ECS documented its findings in its report entitled "Site Assessment at the Former Jackson Trucking UST Site", dated November 18, 2014 ("ECS' Report").

ECS' Report noted that the USTs and piping were in good condition, and that there were no visual or olfactory indicators of hydrocarbons. The analytical results contained within ECS' Report showed no VOC or GRO concentrations above the method detection limits for the laboratory methods. A previous hydrocarbon release at the Site was documented, however, by analytical detections for DRO in four of the five soil samples, and detections for ORO in all five of the soil samples. The highest ORO and DRO concentrations were 510 mg/kg and 40 mg/kg, respectively, and both were found in the soil sample collected from 10-11 feet bgs in the area of the product piping.

The analytical results for RCRA 8 Metals showed detections for seven of the eight metals analyzed (i.e., there were no detections for selenium). All of the metals concentrations were below EPA's Regional Screening Levels ("RSLs") for residential areas except for arsenic, where the concentrations ranged from 4.7 to 6.0 mg/kg. The arsenic concentrations in all five soil samples were above the 0.67 mg/kg residential RSL for arsenic. It should be noted that arsenic compounds are not components of gasoline. As such, these arsenic concentrations are not the result of the former UST operations. In addition, EPA Region 9 believes that the arsenic concentrations at the Site reflect background concentrations for soil in this area of Hoopa Valley. This belief is supported by a study conducted by the U.S. Geologic Survey in

1984, which showed naturally occurring arsenic in soil in the United States ranging up to 97 mg/kg (see Enclosure B). Acknowledging this natural variation in metals concentrations in soil, EPA Region 9 has used the non-cancer based RSL for arsenic (i.e., 22 mg/kg) for screening purposes when warranted by site conditions. In addition, this 22 mg/kg arsenic screening level falls within the range of soil concentrations (0.39-39 mg/kg) that equates to EPA's "acceptable" cancer risk range of one in 1,000,000 to one in 10,000 (also documented in Enclosure B).

Potential receptors

As noted previously in this enclosure, vehicle repair/maintenance activities still occur intermittently at the Site. Residential areas are located to the west, south and east of the Site, and undeveloped land is located immediately north of the Site. The nearest apparent residence (a trailer home) is located approximately 250 feet southwest of the Site. Most of the homes and businesses in Hoopa Valley are connected to the Hoopa Tribe's public water supply system, but some private wells exist within Hoopa Valley. One of these private wells is owned by Donna Smith, whose residence is located approximately 500 feet south-southeast of the Site. On October 21, 2014, ECS, along with Ken Norton, Director of the Hoopa Tribe's Land Management Department, asked Ms. Smith if she would permit them to sample her private well. Ms. Smith denied this request and also indicated that she would not sign EPA's access agreement form (noting denial of access).

On January 2, 2015, Mr. Prokop contacted Ms. Smith via phone to clarify some issues regarding her private well. During that communication, Ms. Smith said her son had paid for a contractor to sample her private well years ago and that the analytical results had shown no contamination. Ms. Smith did not know exactly when this sampling event occurred and she did not possess a copy of the analytical results. Ms. Smith also confirmed that the adjacent Larsen Trailer Park is connected to the Hoopa Tribe's public water supply system.

The Hoopa Tribe obtains all of the its drinking water from the Trinity River, and the Hoopa Tribe's drinking water intake within the Trinity River is located approximately 1.5 miles north of the Site.

Conclusion

As noted above, the analytical results for the soil samples collected during the UST removal showed no detections for VOCs or GRO. In addition, the arsenic concentrations found in the soil samples are not related to the former UST operations, and are consistent with background arsenic concentrations that are present in other areas of the United States, as documented by existing studies (see Enclosure B). Although DRO and ORO were detected in the soil samples, the maximum concentrations obtained in these samples (noted above) are relatively low when compared to UST sites that have had significant fuel releases. In addition, the individual chemicals that make up the DRO and ORO hydrocarbon ranges are collectively less mobile and less toxic than the chemicals that comprise the gasoline range hydrocarbons. The soil sample from the fuel piping that contained the maximum DRO and ORO concentrations was collected from a depth of 10-11 feet bgs. This depth of burial makes direct human exposure very unlikely if conditions at the Site remain the same. Should Site conditions change in the future, EPA will reassess the human exposure assumptions and potentially require further work at the Site.

of the PRGs.(e.g. impact to groundwater, local fish consumption, raising beef, dairy, or other livestock)?

- Are there unusual site conditions (e.g. large areas of contamination, high fugitive dust levels, potential for indoor air contamination)?

If any of these four conditions exist, the PRG may need to be adjusted to reflect this new information. Suggested references for evaluating pathways not currently evaluated by Region 9 PRG's are presented in Exhibit 3-1.

EXHIBIT 3-1
SUGGESTED READINGS FOR EVALUATING EXPOSURE PATHWAYS NOT CURRENTLY ADDRESSED BY REGION 9 PRGs

EXPOSURE PATHWAY	REFERENCE
Migration of contaminants to an underlying potable aquifer	*Soil Screening Guidance* (USEPA 1996a,b), *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites* (ASTM 1995)
Ingestion via plant uptake	*Soil Screening Guidance* (USEPA 1996a,b)
Ingestion via meat, dairy products, human milk	*Estimating Exposure to Dioxin-Like Compounds* (USEPA 1994a)
Inhalation of volatiles that have migrated into basements	*User's Guide for Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings* (USEPA 1997a)
Ecological pathways	*Ecological Risk Assessment: Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*, (USEPA 1997b), *Guidance for Ecological Risk Assessment at Hazardous Waste Sites and Permitted Facilities* (CAL-EPA 1996)

3.2 Background Levels Evaluation

A necessary step in determining the usefulness of Region 9 PRGs is the consideration of background contaminant concentrations. EPA may be concerned with two types of background at sites: naturally occurring and anthropogenic. Natural background is usually limited to metals whereas anthropogenic (i.e. human-made) "background" includes both organic and inorganic contaminants. Before embarking on an extensive sampling and analysis program to determine local background concentrations in the area, one should first compile existing data on the subject. Far too often there is pertinent information in the literature that gets ignored, resulting in needless expenditures of time and money.

Generally EPA does not clean up below natural background. In some cases, the predictive risk-based models generate PRG levels that lie within or even below typical background. If natural background concentrations are higher than the risk-based PRGs, an adjustment of the PRG is probably needed. Exhibit 3-2 presents summary statistics for selected elements in soils that have background levels that may exceed risk-based PRGs. An illustrative example of this is naturally occurring arsenic in soils which frequently is higher than the risk-based concentration set at a one-in-one-million cancer risk (the PRG for residential soils is 0.39 mg/kg). After considering background concentrations in a local area, EPA Region 9 has at times used the non-cancer PRG (22 mg/kg) to evaluate sites recognizing that this value tends to be above background levels yet still falls within the range of soil concentrations (0.39-39 mg/kg) that equates to EPA's "acceptable" cancer risk range of 10E-6 to 10E-4.

Where anthropogenic "background" levels exceed PRGs and EPA has determined that a response action is necessary and feasible, EPA's goal will be to develop a comprehensive response to the widespread contamination. This will often require coordination with different authorities that have jurisdiction over the sources of contamination in the area.

EXHIBIT 3-2
BACKGROUND CONCENTRATIONS OF SELECTED ELEMENTS IN SOILS

TRACE	U.S. STUDY DATA[1]			CALIFORNIA DATA[2]		
ELEMENT	Range	GeoMean	ArMean	Range	GeoMean	ArMean
Arsenic	<.1-97	5.2 mg/kg	7.2 mg/kg	0.59-11	2.75 mg/kg	3.54 mg/kg
Beryllium	<1-15	0.63 "	0.92 "	0.10-2.7	1.14 "	1.28 "
Cadmium	<1-10	--	<1	0.05-1.7	0.26	0.36
Chromium	1-2000	37	54	23-1579	76.25	122.08
Nickel	<5-700	13	19	9.0-509	35.75	56.60

[1]Shacklette and Hansford, "Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States",USGS Professional Paper 1270, 1984.

[2]Bradford et. al, "Background Concentrations of Trace and Major Elements in California Soils", Kearney Foundation Special Report, UC-Riverside and CAL-EPA DTSC, March 1996.

3.3 Screening Sites with Multiple Pollutants

A suggested stepwise approach for PRG-screening of sites with multiple pollutants is as follows:

- Perform an extensive records search and compile existing data.
- Identify site contaminants in the PRG table. Record the PRG concentrations for various media and note whether PRG is based on cancer risk (indicated by "ca") or noncancer hazard (indicated by "nc"). Segregate cancer PRGs from non-cancer PRGs and exclude (but don't eliminate) non-risk based PRGs ("sat" or "max").