

July 11, 2012

Mr. Ryan Nakken  
Clark Pacific Corporation  
1980 South River Road  
West Sacramento, CA 95691

*Responses to Comments -Precipitated Calcium Carbonate Piles Removal*

**FORMER SPRECKELS SUGAR FACILITY**

40600 County Road 18C  
Woodland, Yolo County, California  
WKA No. 7864.21

Dear Mr. Nakken:

Wallace-Kuhl & Associates (WKA) reviewed material provided to us regarding the Central Valley Regional Water Quality Control Board (CVRWQCB) draft Cease and Desist Order for the ongoing removal of Precipitated Calcium Carbonate (PCC) at the former Spreckels Sugar facility located at 40600 County Road 18C, Woodland, Yolo County, California (Site). This material includes correspondence submitted to CVRWQCB by Brenda Cedarblade of Historic Nelson Ranch (including Law Offices of Donald B Mooney on behalf of Brenda Cedarblade, Ted Wilson, and the Historic Nelson Ranch), Alan Pryor of Ozone Process Consultants, Inc. and Jeffery Clayton of Grayland Environmental Consulting Services. WKA identified the following four issues expressed in the materials to which we present responses in this document.

1. Whether the PCC may potentially include hazardous materials left over from the former Spreckels operation. CVRWQCB has determined that the six underground storage tanks formerly operated at the Site, the four former settling pond sites, and the one former PCC pond site pose no threat to public health or the environment and that no further study at these sites is required. Laboratory results for samples of PCC collected and analyzed by Alpha Analytical Laboratories, Inc. revealed no hazardous materials in the PCC.
2. Whether the PCC may threaten water quality. Data from ongoing aquifer monitoring illustrates groundwater collected from the background monitoring wells, while displaying lower electrical conductivity values, show the same fluctuation in values as groundwater

collected from the downgradient monitoring wells. This continuity in the fluctuation pattern suggests that PCC removal from the Site is not a primary influencing factor to groundwater quality.

3. Whether airborne dust collected from inside the Cedarblade residence contains elevated levels of contaminants. This document questions the sampling methods and laboratory results from Grayland Environmental Consulting Service's recent testing.
4. Whether fugitive dust from the Clark Pacific property causes a nuisance. Yolo Solano Air Quality Management District inspections of Jack Spence, Inc. activities to remove PCC from the Site have consistently found no violations.

These issues are discussed in the following sections.

**1. The PCC does not contain unreported industrial pollution from the former Spreckels operation.**

Precipitated Calcium Carbonate Analysis

Clark Pacific retained Alpha Analytical Laboratories, Inc., a State-Certified laboratory (Alpha) to collect and analyze PCC for the constituents listed below.

- Organochlorine Pesticides and Polychlorinated Biphenyls using EPA Methods 8081 and 8082
- Organophosphorus Pesticides using EPA Method 8144A
- Volatile Organic Compounds using EPA Method 8260B Full List
- Semi-Volatile Organic Compounds using EPA Method 8270C Regular List
- California Assessment Manual listed 17 (CAM 17) Metals – Total Concentration
- Metals (Al, B, Ca, Fe, K, Mg, Mn, Na, Sn) – Total Concentration using EPA Method (6000/7000 series)
- Hexavalent Chromium using EPA method 7196 A
- Total Alkalinity
- Moisture, Percent/Solids, Dry Weight
- pH
- Bulk Asbestos



Laboratory data sheets for the Alpha analyses are included as Attachment A. The Alpha analyses revealed compounds present at concentrations exceeding their laboratory reporting limit are limited the following metals: aluminum, barium, calcium, total chromium, copper, iron, magnesium, manganese, potassium, sodium, vanadium, and zinc. The Alpha data and the information from studies of underground storage tanks and former mud settling ponds, that are discussed following this paragraph, does not support the claims posed by Ozone Process Consultants, Inc. that, *“There is ample reason to believe that there may be extensive contamination of some parts of the PCC pile and the soil underlying the waste pond underlying the PCC pile.”*

#### Former Underground Storage Tanks

Hydrogeologic studies were conducted prior to Clark Pacific’s ownership of the facility to identify whether historic operation of the six USTs formerly operated within the Maintenance Shop, Agricultural Repair Shop and the Farm Repair Shop areas had degraded shallow soil or shallow groundwater. The Site formerly contained seven underground storage tanks (USTs). These USTs were removed from the ground in 1986 and 1987. One UST was removed from the Maintenance Shop area. Three of the USTs were removed from the Agricultural Repair Shop portion of the Site and the three other USTs were removed from the Farm Repair Shop portion of the Site. These removed USTs are listed as follows:

##### Maintenance Shop

1,000-gallon capacity gasoline UST

##### Agricultural Repair Shop

8,000-gallon capacity regular gasoline UST

6,000-gallon capacity unleaded gasoline UST

1,200-gallon capacity waste oil UST

##### Farm Repair Shop

5,000-gallon capacity diesel UST

1,000-gallon capacity diesel UST

750-gallon capacity waste oil UST

The following paragraphs briefly present information regarding studies completed at former UST locations prior to Clark Pacific ownership of the Site. A hydrogeologic study was conducted at the former 1,000-gallon capacity gasoline UST in the area of the Maintenance Shop beginning in 2004 and ending in 2007. The Central Valley Regional Water Quality Control Board



(CVRWQCB) provided a letter dated November 26, 2007 stating, “Based on the two sampling events showing [Total Petroleum Hydrocarbons as diesel] TPHd is not present in groundwater, we find that closure of this case is acceptable.” The CVRWQCB letter continued to state that a No Further Action Required (NFAR) would be issued following its receipt of documents showing the monitoring wells had been properly abandoned and that the data had been uploaded to the Geotracker database (Refer to Attachment B).

The hydrogeologic study within the Farm Repair Shop revealed no data indicating the three USTs listed above had caused petroleum hydrocarbons to degrade shallow soil or shallow groundwater beneath the Site. Central Valley Regional Water Quality Control Board (CVRWQCB) provided a letter dated July 16, 2010 that notified Clark Pacific of its No Further Action Required (NFAR) determination regarding the USTs that formerly occupied the Farm Repair Shop area (Refer to Attachment C).

Hydrogeologic studies conducted within the Agricultural Repair Shop revealed shallow soil and shallow groundwater had been impacted by operation of only the waste oil UST. The study revealed no data indicating operation of the former diesel USTs had degraded shallow soil or shallow groundwater. CVRWQCB provided a letter dated July 16, 2010 that notified Clark Pacific of its NFAR determination regarding the USTs that formerly occupied the Agricultural Repair Shop area (Refer to Attachment D).

The CVRWQCB letter dated November 26, 2007 and the two letters that are both dated July 16, 2010 indicate the historic operation of the one UST located near the Maintenance Shop, the three USTs formerly located within the Farm Repair Shop area and the three USTs formerly located within the Agricultural Repair Shop area have not caused an environmental impairment and do not require further actions to satisfy CVRWQCB requirements for protection of water quality.

#### Former Mud Settling Ponds

Spreckels Sugar Company operated four mud settling ponds and one PCC pond. The four mud settling ponds received soil laden water from washing of beets received from the field. The fifth PCC pond was used to aerate pond water to control odors arising from the decomposition of vegetable matter. Item 4, Findings, of the CVRWQCB Cease and Desist Order draft document acknowledges that the discharge of waste into the five ponds ceased in 2000. Item 4 goes on to state that, “...the mud settling ponds and PCC ponds have been remediated and closed to the satisfaction of the Board.” (Refer to Attachment E).



## 2. The PCC does not affect drinking water.

### Ongoing Shallow Groundwater Monitoring Program

WKA collects groundwater water data from 10 groundwater monitoring wells located within the former Spreckels Sugar facility. Groundwater samples are collected from each monitoring well on an annual schedule pursuant to CVRWQCB Monitoring and Reporting Program R5-2003-047, as amended on May 26, 2008. Eight of the monitoring wells are screened within the shallow aquifer; the screened interval being approximately 40 to 60 feet below ground surface. Of these eight monitoring wells, MW-1, MW-9, MW-9A, MW-10, and MW-11 are located near the PCC and mud settling ponds. Monitoring wells MW-12 and MW-13 are located in a neighboring irrigated field. Monitoring well MW-15 is the identified background well, meaning that it is located upgradient of the PCC piles. The two remaining monitoring wells are screened between approximately 70 and 100 feet below ground surface, which is within the deeper aquifer. Deeper aquifer monitoring well MW-14 is the upgradient background monitoring well.

The deep background monitoring well MW-14 displays historic Specific Conductance (EC) concentrations ranging between 758  $\mu\text{mhos/cm}$  (February 2002) and 1,700  $\mu\text{mhos/cm}$  (June 2008), and Total Dissolved Solids concentrations ranging between 650 mg/l (November 2007) and 890 mg/l (May 2005). MW-14 has displayed concentrations exceeding the secondary Maximum Cleanup Level (MCL) for EC of 1,600  $\mu\text{mhos/cm}$  four times in eighteen sampling events.

The shallow background monitoring well MW-15 displays historic EC concentrations ranging between 890  $\mu\text{mhos/cm}$  (February 2002) and 1,561  $\mu\text{mhos/cm}$  (December 2004), and TDS concentrations ranging between 610 mg/l (November 2007) and 950 mg/l (August 2001). Groundwater flow has varied between northwesterly (June 2008) and southeasterly (December 2008, April 2010, April 2011) directions, with the predominant flow direction being towards the northeast. Groundwater gradient has varied between 0.00029 feet/foot (June 2008) to 0.0033 feet/foot (December 2008).

Variation in EC values shows strong positive correlation across all sampled monitoring wells, including the background wells MW-14 and MW-15. An increase or decrease in EC in one well is accompanied by a corresponding increase or decrease in the other wells. EC values have shown significant variation since groundwater monitoring began in March 2001. The only time period in which all EC detections in the non-background wells were below the secondary MCL



of 1,600  $\mu\text{mhos/cm}$  was during two consecutive monitoring events, of February 2002 and December 2002. EC concentrations then became elevated to a maximum of 3,368  $\mu\text{mhos/cm}$  in MW-1 in December 2004; at which point the EC concentrations in the non-background monitoring wells began decreasing to a minimum of 1,723  $\mu\text{mhos/cm}$  in MW-10 in December of 2006. EC concentrations began increasing again to a local maximum of 3,290  $\mu\text{mhos/cm}$  in MW-9 in December of 2008. EC concentrations have again decreased to a most recent maximum of 2,700  $\mu\text{mhos/cm}$  detected in well MW-9 in May 2012.

PCC removal is reported as beginning in 1980 and constantly ongoing up to the present, with several delays. If EC values are increased by PCC removal operations, EC detections would not fluctuate as shown by monitoring data. These data would instead steadily increase as the PCC removal operation continues. The fact that the background monitoring wells, while displaying lower overall EC values, show distinctly the same fluctuation as the downgradient monitoring wells, suggests that PCC removal is not the primary influence on EC detections.

Conversely, historic TDS detections in all monitoring wells show relatively little fluctuation. While the upgradient background monitoring wells MW-14 and MW-15 show consistently lower values than the downgradient wells, all monitoring wells display slightly decreasing trends of TDS concentrations. The most recent sampling event revealed a maximum TDS concentration of 1,500 mg/l in MW-9, and a minimum downgradient monitoring well TDS concentration of 940 mg/l in MW-9A, which is below the secondary MCL of 1,000 mg/l.

#### Ongoing Deep Groundwater Monitoring Program

Comparison of data collected from the background deep aquifer monitoring well, MW-14, and the downgradient deep aquifer monitoring well, MW-1A, indicates that the downgradient well has greater concentrations of bicarbonate-as-calcium carbonate (bicarbonate), sodium, and total organic carbon (TOC) than the background well. The attached chart (MW-1A versus MW-14) displays detections of these three analytes from the deep aquifer monitoring wells.

The attached chart indicates that bicarbonate and sodium concentrations in the deep downgradient monitoring well have generally decreased since groundwater monitoring began, while concentrations in the background monitoring well MW-14 have generally increased.



Concentrations of TOC fluctuate more erratically in both MW-1A and MW-14. TOC concentrations in the background well MW-14 have exceeded the downgradient well MW-1A concentrations on two occasions; June 2008 and April 2010. In general, MW-1A TOC concentrations are between 10-15 mg/l, with the exception of two spikes to 60-80 mg/l, during 2007 and 2009. MW-14 concentrations are generally between 1-5 mg/l, with the exception of one spike to 30 mg/l in 2010.

Samples collected from both the background deep aquifer monitoring well and the downgradient deep aquifer monitoring well indicate that sodium concentrations exceed the USEPA drinking water advisory limit for taste & odor of 30 mg/l. There are no regulatory or suggested limits for bicarbonate or TOC.

The most recent groundwater monitoring event, conducted May 3, 2012, revealed concentrations of calcium and magnesium in well MW-1A of 130 mg/l and 210 mg/l, respectively, and in well MW-14 of 100 mg/l and 110 mg/l, respectively. Using the formula:

$$2.5 [\text{Ca}] + 4.1 [\text{Mg}] = \text{Total Hardness}$$

Hardness is calculated to be 1,186 mg/l in MW-1A, and 701 mg/l in MW-14. In general, water with hardness greater than 180 mg/l is considered to be "Very Hard".

MW-1A and MW-14 are screened between 70-90 feet bgs and 84-105 feet bgs respectively. The remaining monitoring wells are generally screened between 44 to 64 feet bgs. Groundwater elevations in these wells generally have a difference of less than one foot when compared to the nearest shallow aquifer monitoring wells. Groundwater elevations are historically higher in the shallow zone wells, which indicate a downward vertical gradient. This also may indicate a leaky boundary between the deep and shallow zones which could allow pressure head equalization between the two zones.

Groundwater flow direction has historically ranged between the northeast to the southeast. A single monitoring event, during June 2008, indicates a flow direction to the northwest with a gradient of 0.00029, the shallowest gradient on record. The variation in groundwater flow direction, as well as the downward vertical gradient, may be a product of agricultural well pumping in the vicinity of the site.



Ozone Process Consultants, Inc.

WKA reviewed the Ozone Process Consultants, Inc. report dated June 25, 2012 (Refer to Attachment F). The report, prepared by Alan Pryor, describes visual observations made at the Historic Nelson Ranch, 41070 County Road 18C, Woodland, California, as well as an analysis of groundwater data collected from the monitoring well network and recommendations to the RWQCB regarding the draft Cease and Desist Order.

In regards to the point 5 made in the Ozone Process Report:

*“The Discharger should have the current onsite groundwater contamination adequately characterized and remediated. Discharger should also be required to test all water sources downgradient of the onsite contaminated plume to ensure compliance with all existing drinking water standards. Discharger should be required to provide new deep water well to the affected horse ranch to the east if their water sources are contaminated by the discharger’s plume.”*

The downgradient deep aquifer monitoring well, MW-1A is screened between 70 and 90 feet bgs. The domestic well located at the adjacent horse ranch (domestic well) is screened between 284-376 feet bgs. It is not demonstrated that the domestic well draws water from the same water-bearing zone as the domestic well, or what analytes, if any, have been detected in the domestic well.

EC detections in downgradient wells have historically exceeded the secondary MCL of 1,600  $\mu\text{mhos/cm}$  since January 2003. TDS detections in downgradient wells have historically exceeded the secondary MCL of 1,000 mg/l since monitoring began in March 2001. Title 22, Division 4, Chapter 15, Article 16 of the California Code of Regulation, regarding domestic water quality and monitoring regulations, indicates that the secondary MCLs were developed for community water systems to monitor their sources for the taste, odor, or appearance of their drinking water. It does not indicate that any constituent exceeding the secondary MCLs poses a health risk or is required to be remediated in the case of private water systems.



**3. The analysis of soil and dust submitted by Grayland does not establish contamination by PCC from the former Spreckels operation.**

Grayland Environmental Testing, April 17, 2012

WKA reviewed the Grayland Environmental Consulting Services report dated April 17, 2012 that was submitted to the Law Offices for Donald Mooney (Refer to Attachment G). The report, prepared by Jeffery A. Clayton, a California Professional Geologist, describes visual observations, sample collection methods and laboratory results regarding surface soil and dust at the Historic Nelson Ranch, 41070 County Road 18C, Woodland, California. The Grayland Report states, *“The purpose of the work was to evaluate outdoor soil and indoor dust at the site for potential contamination, which may be present as a result of the apparent disturbance of large volumes of soil at the adjacent property, where sugar beets were once processed.”* WKA reviewed the two-page Grayland Report, its Table 1, and the attached SunStar Laboratories, Inc. laboratory data sheets. The following lists information in the Grayland Report followed by WKA comments.

1. Grayland reports visual observations that, *“A walk through of the horse ranch indicated that the apparent disturbance of large volumes of exposed soil at the adjacent property had created the occurrence of widespread, wind-dispersed dust across much of the property, including a significant accumulation onside of the site structures.”*

WKA finds no information in the Grayland Report that describes visual characteristics used to validate a conclusion that dust Grayland observed at the horse ranch originated solely from the former Spreckels Sugar facility. Grayland failed to describe sources of dust within the horse ranch. WKA believes the horse ranch land surface is mostly soil that is soft and lacking vegetation. The area receives vehicle traffic, livestock traffic and foot traffic in support of boarding, exercising, and showing horses. The area is also believed to occasionally support cattle. The area is expected to store hay, other feed and feed supplements. The facility is also expected to have areas that are used for disposal of livestock waste. Each of these activities are significant sources of dust and the lack of their discussion raises the question of the number of horse ranch dust sources Grayland failed to inventory during its site inspection.



2. Grayland reports having collected a soil sample as follows. *“Following the brief site inspection, a soil sample was collected from a small residual pile of soil present along the property line of the horse ranch, adjacent to the former sugar beet processing facility. The soil material was a slightly yellowish, brownish white color and had a very fine-grained (powdery) texture. The sample was collected in a stainless steel sample sleeve by driving the sleeve through the surface of the pile using a percussion core sampler.”*

WKA finds no information in the Grayland Report that describes the origin of the residual soil from which Grayland collected its sample. Grayland presents no description of surrounding features or of surrounding soil descriptions to support a conclusion that soil collected for analysis is representative of conditions at either the horse ranch or at the former Spreckels Sugar facility. Grayland provided no maps or figures illustrating the sampled location. The lack of details regarding the sampled location draws question the ability of the collected soil sample to represent PCC stored within the former Spreckels Sugar facility. In addition, the Grayland Report provides no information that allows a third party professional to opine on the potential for sample to have become contaminated by compounds introduced by activities conducted at the horse ranch.

The standard stainless steel sample tube used for environmental sampling is two inches in diameter and six inches long. Grayland used a percussion core sampler, which means the tube was driven into the ground then extracted when full. This procedure makes it impossible to perform a visual review of the sample tube’s contents. Grayland provided no description of soil exposed following the sample being collected to support an assumption that the sample represented only the “*residual soil*” that Grayland intended to sample. The lack of detailed information regarding the sample tube contents and their origin means the laboratory results for this sample cannot be interpreted for the purposes stated by Grayland.

3. Grayland reports having collected a dust sample as follows. *“To compare this soil material to dust observed inside of the site residence, a sample of dust was collected mainly from the floor and furniture surfaces present in the living room of the residence. An inspection of the dust indicated that there was a strong similarity in grain size (powdery) and color to the soil observed along the property line. The dust was collected using a plastic scraping device and was placed in a sealed plastic bag.”*



WKA notes that Grayland's sample collection procedure is based on an assumption that all dirt on the floor is from dust and that no other dirt, such as dirt carried on shoes and by other means, accumulated on the floor. WKA believes that any sample collected from the floor would include dirt that is not representative dust. The sample method used scraping to collect the sample. Grayland presented no description of the sampled surfaces; therefore, it is possible that defects caused the sampled surfaces to become included in Grayland's scraping to collect its sample.

WKA finds at least two conditions that are likely to have compromised Grayland's dust sample. Grayland's failure to differentiate dirt on the floor from dust that may have accumulated on the floor make the dust sample impossible to interpret for the purposes stated by Grayland. The potential for Grayland's use of a scraping device to have caused compounds that were a part of the sampled surface to have become included in the sample causes the sample to be inappropriate for analysis purpose stated by Grayland. These two conditions and others that may be recognized if more details of the Grayland investigation are able to be reviewed causes WKA to conclude that Grayland's data fails to properly describe conditions at either the horse ranch or the former Spreckels Sugar facility.

WKA finds the sampling activity and laboratory results Grayland presented to be insufficiently detailed to support a scientific conclusion that the Historic Nelson Ranch is contaminated by the presence of PCC dust.

#### **4. The stockpiled PCC does not cause a nuisance condition**

##### Yolo Solano Air Quality Management District

Yolo Solano Air Quality Management District (YSAQMD) visited the former Spreckle's Sugar facility on at least 14 dates during 2011 and 2012 to response to telephoned complains of excessive dust arising from activities to remove PCC from the former Spreckels Sugar facility (Refer to Attachment H). On each occasion, YSAQMD staff reported no dust arising from the PCC removal activities (Refer to Attachment I). The YSAQMD file notes reveal their observations, their communications with the complaining party, and the complaining party's responses. The YSAQMD information indicates the Jack Spence, Inc. activities to remove PCC have not created a dust nuisance and are not in violation of YSAQMD requirements.

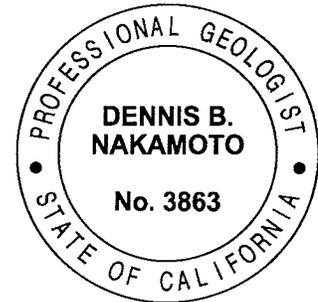


The YSAQMD staff reports describe their immediately traveling to the Site following telephoned complaints. In each report, YSAQMD staff report observing that no dust was being resuspended by equipment and truck traffic in connection with the removing of stockpiled PCC material. YSAQMD staff reports reveal that Jack Spence, Inc activities regarding the application of water by trucks is successful in prohibiting the resuspension of dust. The staff reports provide observations that directly contradict with the telephoned complaints of nuisance dust being resuspended by the PCC removal activities.

Please contact either of us if you would like to discuss information presented in this letter.

Sincerely,

Wallace-Kuhl & Associates



Christopher Kadi, GIT  
Staff Geologist

Dennis B. Nakamoto, PG, CEG, CHG  
Senior Hydrogeologist

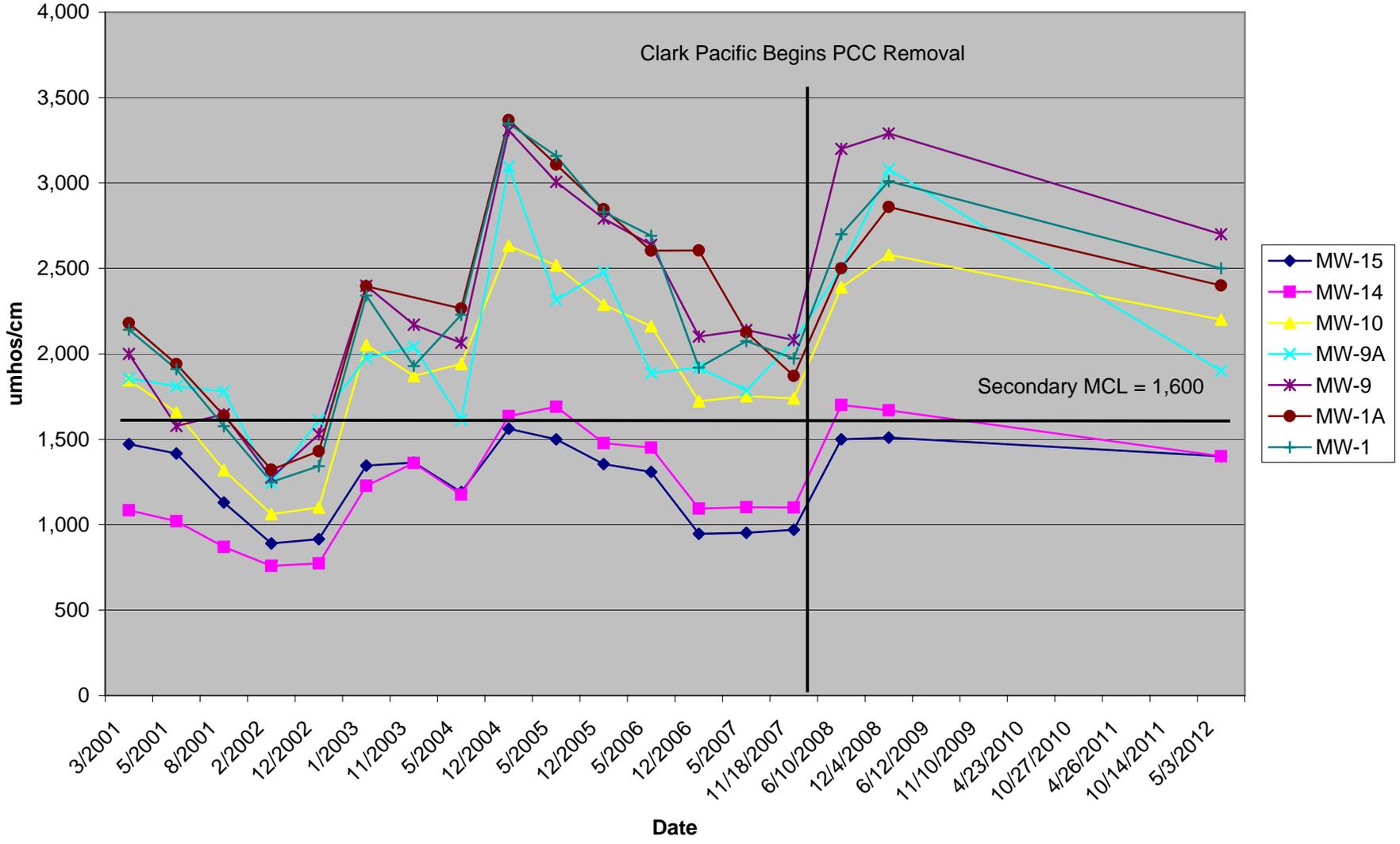
- Attachments:
- A Alpha Laboratory Data Sheets
  - B NFA Letter for Maintenance Repair Shop USTs
  - C NFA Letter for Farm Repair Shop USTs
  - D NFA Letter for Agricultural Repair Shop USTs
  - E Draft Cease and Desist Order
  - F Ozone Process Public Comment
  - G Grayland Sampling Report
  - H Brenda Cedarblade email and Letter from Law Offices of Donald B. Mooney
  - I YSAQMD Records



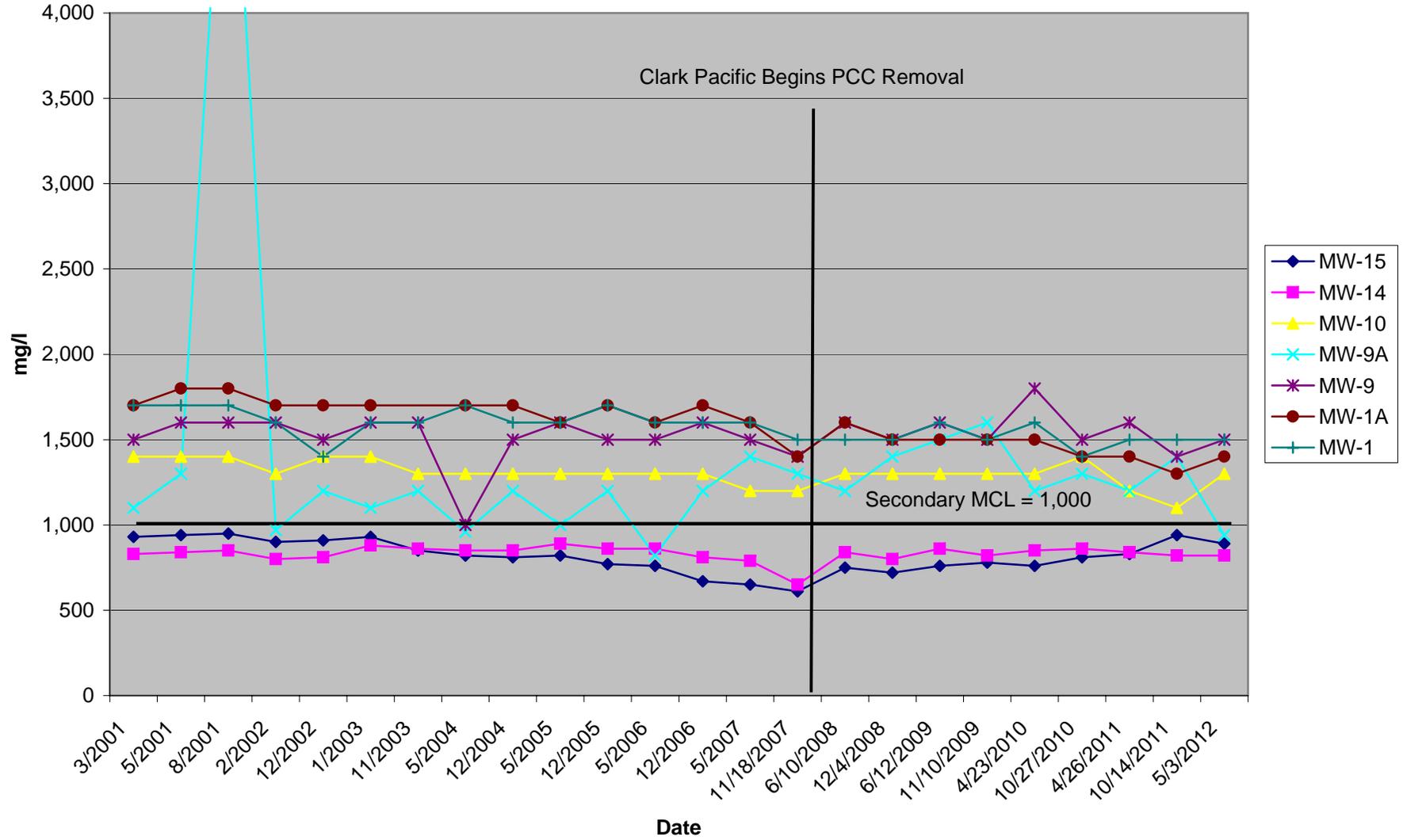
## CHARTS



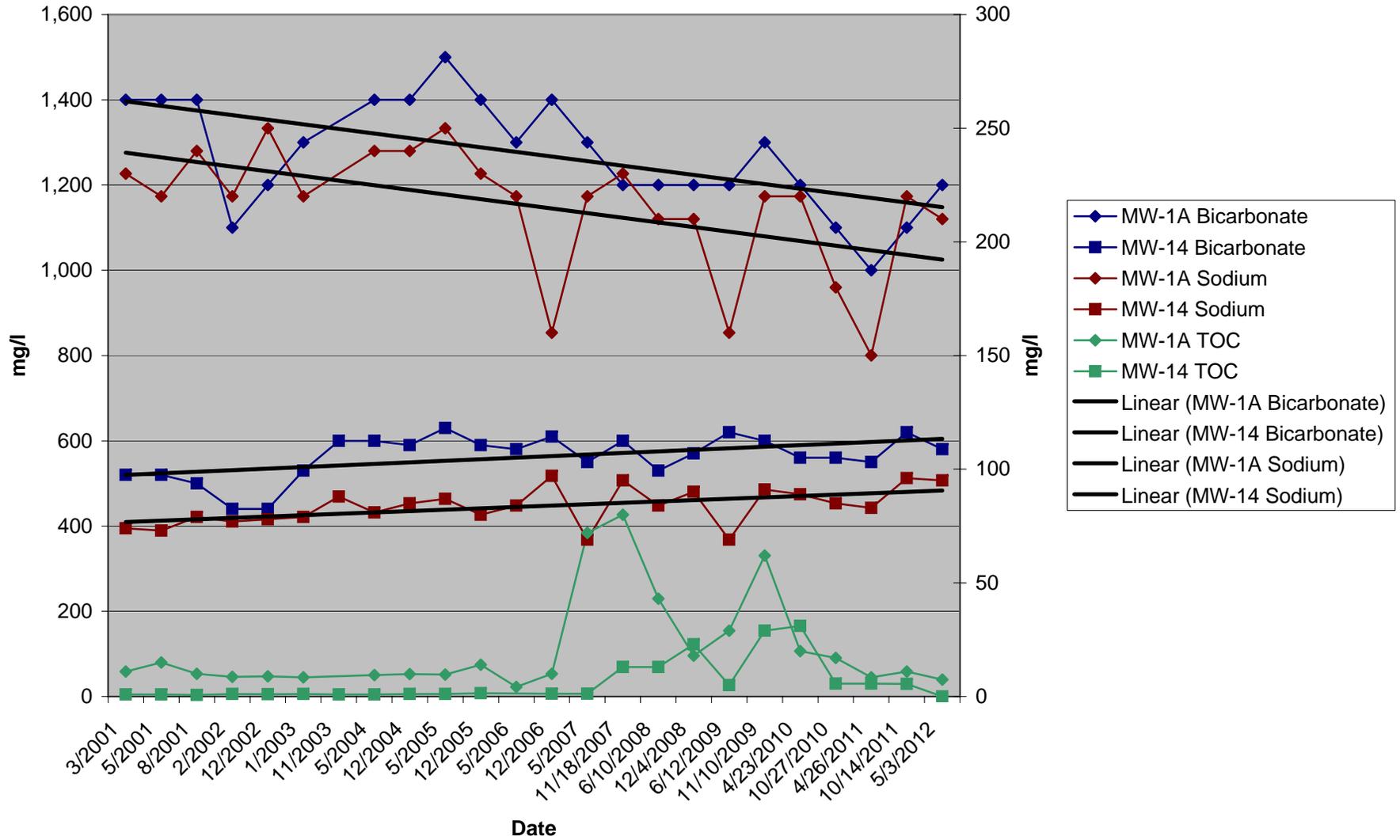
### Specific Conductance



# Total Dissolved Solids



### MW-1A vs. MW-14



**APPENDIX A**  
Alpha Laboratory Data Sheets





Alpha

Alpha Analytical Laboratories Inc.

e-mail: [clientservices@alpha-labs.com](mailto:clientservices@alpha-labs.com)

208 Mason St. Ukiah, California 95482

Phone: (707) 468-0401 • Fax: (707) 468-5267

ELAP Certificate Numbers 1551 and 2728

06/06/2012

Dear Ryan:

You asked me to explain the results of the testing that we performed of the Precipitated Calcium Carbonate (PCC) material from the Spreckels lime piles (the "sample") that we took on May 3, 2012.

We tested the sample for the presence of certain organic and inorganic contaminants on May 9, 2012, and the results were included in Work Order 12E0241.

- Our test for Volatile Organic Compounds (EPA 8260B) resulted in a "non-detect" across the board, meaning that our lab analysis did not detect the presence of any such contaminants in the sample.
- Our lab also did not detect the presence of any Semivolatile Organic Compounds (EPA 8081, 8082, 8141, 8270) in the sample.
- The corrosivity of the sample (pH) was only slightly alkaline. A neutral range is considered 6.5 – 8.5, and the result was measured at 8.77 units.
- No asbestos was detected.
- No hexavalent chromium was detected.
- The sample was analyzed for the CAM-17 (California Administrative Manual) list of heavy metals, along with 9 additional minerals/metals not included in the regulated list of 17 metals (a total of 26 elements). No arsenic, boron, cadmium, lead, mercury, molybdenum, selenium, or thallium was detected. We detected small amounts of five elements with TTLC (Total Threshold Limit Concentration) restrictions (Ba, Cr, Cu, V and Zn), but none of the readings were nearly high enough to require a subsequent STLC (Soluble Threshold Limit Concentration) extraction for further solubility data. STLC extractions must be done on eighteen specific elemental contaminants whenever the TTLC concentrations are above a designated limit, in order to determine whether certain leachable compounds are present in large enough amounts in a given material that the material needs to be dealt with as hazardous waste.
- There is a significant amount of calcium in the sample, and a fair amount of magnesium. This is no surprise, as limestone is composed largely of the minerals calcite and aragonite, which are different crystal forms of calcium carbonate.

In summary, this laboratory data yielded no results which would classify the material as hazardous according to State of California regulations for any of the target analytes we were asked to report. Thank you for using Alpha Analytical Laboratories, Inc.

Sincerely,

David Pingatore  
Project Manager

2 JUN 22 PM 1:19

RECEIVED  
SACRAMENTO  
CVR/WCCB



*Alpha*

Alpha Analytical Laboratories Inc.

e-mail: [clientservices@alpha-labs.com](mailto:clientservices@alpha-labs.com)

Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267  
Satellite Laboratory: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

18 May 2012

Clark Pacific

Attn: Ryan Nakken

1980 South River Road

West Sacramento, CA 95691

RE: Limestone Project

Work Order: 12E0241

Enclosed are the results of analyses for samples received by the laboratory on 05/03/12 20:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanette L. Poplin For Clint T. Ostenberg  
Project Manager



Alpha Analytical Laboratories Inc.

e-mail: [clientservices@alpha-labs.com](mailto:clientservices@alpha-labs.com)

Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267  
Satellite Laboratory: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

**CHEMICAL EXAMINATION REPORT**

Page 1 of 34

Clark Pacific  
1980 South River Road  
West Sacramento, CA 95691  
Attn: Ryan Nakken

Report Date: 05/17/12 10:39  
Project No: Limestone Project  
Project ID: Limestone Project

Order Number  
12E0241

Receipt Date/Time  
05/03/2012 20:35

Client Code  
CV CLARKPACIFIC

Client PO/Reference

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Speckels Limestone	12E0241-01	Soil	05/02/12 10:21	05/03/12 20:35

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Bruce Gove  
Laboratory Director

5/18/2012



Alpha Analytical Laboratories Inc.

e-mail: clientservices@alpha-labs.com

Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267  
 Satellite Laboratory: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Clark Pacific  
 1980 South River Road  
 West Sacramento, CA 95691  
 Attn: Ryan Nakken

Report Date: 05/17/12 10:39  
 Project No: Limestone Project  
 Project ID: Limestone Project

Order Number  
 12E0241

Receipt Date/Time  
 05/03/2012 20:35

Client Code  
 CV CLARKPACIFIC

Client PO/Reference

Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)							
Metals by EPA 6000/7000 Series Methods							
Sample Type: Soil							
Sampled: 05/02/12 10:21							
Aluminum	EPA 6010	AE20242	05/07/12 12:19	05/08/12 10:28	1	1800 mg/kg dry	24
Antimony	"	"	"	"	"	ND "	18
Arsenic	EPA 7060	"	"	05/09/12 09:50	"	ND "	2.4
Barium	EPA 6010	"	"	05/08/12 10:28	"	29 "	12
Beryllium	"	"	"	"	"	ND "	0.88
Boron	"	"	"	"	"	ND "	59
Cadmium	"	"	"	"	"	ND "	1.2
Calcium	"	"	"	05/10/12 12:38	20	350000 "	1200
Chromium	"	"	"	05/08/12 10:28	1	6.5 "	5.9
Chromium hexavalent	EPA 7196	AE21116	05/11/12 13:12	05/16/12 07:30	"	ND "	0.94
Cobalt	EPA 6010	AE20242	05/07/12 12:19	05/08/12 10:28	"	ND "	12
Copper	"	"	"	"	"	29 "	12
Iron	"	"	"	"	"	1900 "	59
Lead	"	"	"	"	"	ND "	5.9
Magnesium	"	"	"	"	"	6300 "	59
Manganese	"	"	"	"	"	150 "	5.9
Mercury	EPA 7471	AE20750	05/08/12 14:30	05/09/12 10:02	"	ND "	0.24
Molybdenum	EPA 6010	AE20242	05/07/12 12:19	05/08/12 10:28	"	ND "	12
Nickel	"	"	"	"	"	ND "	12
Potassium	"	"	"	"	"	670 "	59
Selenium	EPA 7740	"	"	05/10/12 09:42	"	ND "	1.2
Silver	EPA 6010	"	"	05/08/12 10:28	"	ND "	5.9
Sodium	"	"	"	"	"	480 "	59
Thallium	"	"	"	"	"	ND "	8.3
Tin	"	"	"	"	"	ND "	12
Vanadium	"	"	"	"	"	7.5 "	5.9
Zinc	"	"	"	"	"	43 "	12

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Bruce Gove  
 Laboratory Director

5/18/2012



Alpha Analytical Laboratories Inc.

e-mail: clientservices@alpha-labs.com

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CHEMICAL EXAMINATION REPORT

Page 3 of 34

Clark Pacific  
1980 South River Road  
West Sacramento, CA 95691  
Attn: Ryan Nakken

Report Date: 05/17/12 10:39  
Project No: Limestone Project  
Project ID: Limestone Project

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
12E0241	05/03/2012 20:35	CV CLARKPACIFIC	

Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			
Conventional Chemistry Parameters by APHA/EPA Methods							
% Solids	EPA 160.3	AE20423	05/04/12 15:09	05/16/12 11:52	1	84.7 %	0.100
% Moisture	"	AE20422	"	05/16/12 11:51	"	15.3 "	0.100
pH	EPA 9045C	AE21658	05/16/12 12:00	05/16/12 12:30	"	8.77 pH Units	1.68
Volatile Organic Compounds by EPA Method 8260B							
Acetone	EPA 8260B	AE20748	05/04/12 09:30	05/05/12 04:58	173.2	ND mg/kg dry	0.82
Benzene	"	"	"	"	"	ND "	0.20
Bromobenzene	"	"	"	"	"	ND "	0.20
Bromochloromethane	"	"	"	"	"	ND "	0.20
Bromodichloromethane	"	"	"	"	"	ND "	0.20
Bromoform	"	"	"	"	"	ND "	0.20
Bromomethane	"	"	"	"	"	ND "	0.20
n-Butylbenzene	"	"	"	"	"	ND "	0.20
sec-Butylbenzene	"	"	"	"	"	ND "	0.20
tert-Butylbenzene	"	"	"	"	"	ND "	0.20
Carbon tetrachloride	"	"	"	"	"	ND "	0.20
Chlorobenzene	"	"	"	"	"	ND "	0.20
Chloroethane	"	"	"	"	"	ND "	0.20
Chloroform	"	"	"	"	"	ND "	0.20
Chloromethane	"	"	"	"	"	ND "	0.20
2-Chlorotoluene	"	"	"	"	"	ND "	0.20
4-Chlorotoluene	"	"	"	"	"	ND "	0.20
Dibromochloromethane	"	"	"	"	"	ND "	0.20
1,2-Dibromo-3-chloropropane	"	"	"	"	"	ND "	0.20
1,2-Dibromoethane (EDB)	"	"	"	"	"	ND "	0.20
Dibromomethane	"	"	"	"	"	ND "	0.20

R-06

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Laboratory Director

5/18/2012



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e-mail: clientservices@alpha-labs.com

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## CHEMICAL EXAMINATION REPORT

Page 4 of 34

Clark Pacific  
1980 South River Road  
West Sacramento, CA 95691  
Attn: Ryan Nakken

Report Date: 05/17/12 10:39  
Project No: Limestone Project  
Project ID: Limestone Project

Order Number  
12E0241

Receipt Date/Time  
05/03/2012 20:35

Client Code  
CV CLARKPACIFIC

Client PO/Reference

### Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			R-06
Volatile Organic Compounds by EPA Method 8260B (cont'd)							
1,2-Dichlorobenzene	EPA 8260B	"	05/05/12 04:58	"	ND "	0.20	
1,3-Dichlorobenzene	"	"	"	"	ND "	0.20	
1,4-Dichlorobenzene	"	"	"	"	ND "	0.20	
Dichlorodifluoromethane	"	"	"	"	ND "	0.20	
1,1-Dichloroethane	"	"	"	"	ND "	0.20	
1,2-Dichloroethane	"	"	"	"	ND "	0.20	
1,1-Dichloroethene	"	"	"	"	ND "	0.20	
cis-1,2-Dichloroethene	"	"	"	"	ND "	0.20	
trans-1,2-Dichloroethene	"	"	"	"	ND "	0.20	
1,2-Dichloropropane	"	"	"	"	ND "	0.20	
1,3-Dichloropropane	"	"	"	"	ND "	0.20	
2,2-Dichloropropane	"	"	"	"	ND "	0.20	
1,1-Dichloropropene	"	"	"	"	ND "	0.20	
cis-1,3-Dichloropropene	"	"	"	"	ND "	0.20	
trans-1,3-Dichloropropene	"	"	"	"	ND "	0.20	
Ethylbenzene	"	"	"	"	ND "	0.20	
Hexachlorobutadiene	"	"	"	"	ND "	0.20	
Isopropylbenzene	"	"	"	"	ND "	0.20	
p-Isopropyltoluene	"	"	"	"	ND "	0.61	
Methyl ethyl ketone	"	"	"	"	ND "	0.41	
Methyl isobutyl ketone	"	"	"	"	ND "	0.20	
Methyl tert-butyl ether	"	"	"	"	ND "	0.20	
Methylene chloride	"	"	"	"	ND "	0.20	
Naphthalene	"	"	"	"	ND "	0.20	
n-Propylbenzene	"	"	"	"	ND "	0.20	

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Laboratory Director

5/18/2012



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## CHEMICAL EXAMINATION REPORT

Page 5 of 34

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1980 South River Road  
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<u>Order Number</u>	<u>Receipt Date/Time</u>	<u>Client Code</u>	<u>Client PO/Reference</u>
12E0241	05/03/2012 20:35	CV CLARKPACIFIC	

### Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			
Volatile Organic Compounds by EPA Method 8260B (cont'd)							
Styrene	EPA 8260B	"	05/05/12 04:58	"	ND "	0.20	R-06
1,1,1,2-Tetrachloroethane	"	"	"	"	ND "	0.20	
1,1,2,2-Tetrachloroethane	"	"	"	"	ND "	0.20	
Tetrachloroethene	"	"	"	"	ND "	0.20	
Toluene	"	"	"	"	ND "	0.20	
1,2,3-Trichlorobenzene	"	"	"	"	ND "	0.20	
1,2,4-Trichlorobenzene	"	"	"	"	ND "	0.20	
1,1,1-Trichloroethane	"	"	"	"	ND "	0.20	
1,1,2-Trichloroethane	"	"	"	"	ND "	0.20	
Trichloroethene	"	"	"	"	ND "	0.20	
Trichlorofluoromethane	"	"	"	"	ND "	0.20	
Trichlorotrifluoroethane	"	"	"	"	ND "	0.20	
1,2,3-Trichloropropane	"	"	"	"	ND "	0.20	
1,2,4-Trimethylbenzene	"	"	"	"	ND "	0.20	
1,3,5-Trimethylbenzene	"	"	"	"	ND "	0.20	
Vinyl chloride	"	"	"	"	ND "	0.20	
m,p-Xylene	"	"	"	"	ND "	0.20	
o-Xylene	"	"	"	"	ND "	0.20	
Xylenes (total)	"	"	"	"	ND "	0.20	
Surrogate: Bromofluorobenzene	"	"	"	"	119 %	38-163	
Surrogate: Dibromofluoromethane	"	"	"	"	84.9 %	39-154	
Surrogate: Toluene-d8	"	"	"	"	130 %	51-161	

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5/18/2012



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**CHEMICAL EXAMINATION REPORT**

Page 6 of 34

Clark Pacific  
 1980 South River Road  
 West Sacramento, CA 95691  
 Attn: Ryan Nakken

Report Date: 05/17/12 10:39  
 Project No: Limestone Project  
 Project ID: Limestone Project

<u>Order Number</u>	<u>Receipt Date/Time</u>	<u>Client Code</u>	<u>Client PO/Reference</u>
12E0241	05/03/2012 20:35	CV CLARKPACIFIC	

**Alpha Analytical Laboratories, Inc.**

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			
Organochlorine Pesticides and PCBs by EPA Method 8081/8082							
Aldrin	EPA 8081/8082	AE20921	05/09/12 09:18	05/12/12 00:16	1	ND mg/kg dry	0.0059
alpha-BHC	"	"	"	"	"	ND "	0.0059
beta-BHC	"	"	"	"	"	ND "	0.0059
delta-BHC	"	"	"	"	"	ND "	0.0059
gamma-BHC (Lindane)	"	"	"	"	"	ND "	0.0059
Chlordane (tech)	"	"	"	"	"	ND "	0.24
4,4'-DDD	"	"	"	"	"	ND "	0.0059
4,4'-DDE	"	"	"	"	"	ND "	0.0059
4,4'-DDT	"	"	"	"	"	ND "	0.0059
Dieldrin	"	"	"	"	"	ND "	0.0059
Endosulfan I	"	"	"	"	"	ND "	0.0059
Endosulfan II	"	"	"	"	"	ND "	0.0059
Endosulfan sulfate	"	"	"	"	"	ND "	0.0059
Endrin	"	"	"	"	"	ND "	0.0059
Endrin aldehyde	"	"	"	"	"	ND "	0.0059
Heptachlor	"	"	"	"	"	ND "	0.0059
Heptachlor epoxide	"	"	"	"	"	ND "	0.0059
Methoxychlor	"	"	"	"	"	ND "	0.24
Toxaphene	"	"	"	"	"	ND "	0.24
PCB-1016	"	"	"	"	"	ND "	0.24
PCB-1221	"	"	"	"	"	ND "	0.24
PCB-1232	"	"	"	"	"	ND "	0.24
PCB-1242	"	"	"	"	"	ND "	0.24
PCB-1248	"	"	"	"	"	ND "	0.24
PCB-1254	"	"	"	"	"	ND "	0.24

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 Laboratory Director

5/18/2012



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## CHEMICAL EXAMINATION REPORT

Page 7 of 34

Clark Pacific  
1980 South River Road  
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Project No: Limestone Project  
Project ID: Limestone Project

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
12E0241	05/03/2012 20:35	CV CLARKPACIFIC	

### Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
<b>Spreckels Limestone (12E0241-01)</b>							
<b>Organochlorine Pesticides and PCBs by EPA Method 8081/8082 (cont'd)</b>							
PCB-1260	EPA 8081/8082	"	"	05/12/12 00:16	"	ND "	0.24
<i>Surrogate: Dibutylchlorodate</i>	"	"	"	"	78.6 %	50-120	

### Semivolatile Organic Compounds by EPA Method 8270C

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Acenaphthene	EPA 8270C	AE20816	05/08/12 06:58	05/11/12 13:40	1	ND mg/kg dry	0.073
Acenaphthylene	"	"	"	"	"	ND "	0.073
Anthracene	"	"	"	"	"	ND "	0.073
Benizidine	"	"	"	"	"	ND "	1.9
Benzo (a) anthracene	"	"	"	"	"	ND "	0.39
Benzo (a) pyrene	"	"	"	"	"	ND "	0.073
Benzo (b) fluoranthene	"	"	"	"	"	ND "	0.073
Benzo (g,h,i) perylene	"	"	"	"	"	ND "	0.073
Benzo (k) fluoranthene	"	"	"	"	"	ND "	0.073
Benzoic acid	"	"	"	"	"	ND "	1.9
Benzyl alcohol	"	"	"	"	"	ND "	0.78
Bis(2-chloroethoxy)methane	"	"	"	"	"	ND "	0.39
Bis(2-chloroethyl)ether	"	"	"	"	"	ND "	0.39
Bis(2-chloroisopropyl)ether	"	"	"	"	"	ND "	0.39
Bis(2-ethylhexyl)phthalate	"	"	"	"	"	ND "	0.39
4-Bromophenyl phenyl ether	"	"	"	"	"	ND "	0.39
Butyl benzyl phthalate	"	"	"	"	"	ND "	0.39
4-Chloro-3-methylphenol	"	"	"	"	"	ND "	0.39
4-Chloroaniline	"	"	"	"	"	ND "	0.78
2-Chloronaphthalene	"	"	"	"	"	ND "	0.39
2-Chlorophenol	"	"	"	"	"	ND "	0.39
4-Chlorophenyl phenyl ether	"	"	"	"	"	ND "	0.39

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CHEMICAL EXAMINATION REPORT

Page 8 of 34

Clark Pacific  
1980 South River Road  
West Sacramento, CA 95691  
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Report Date: 05/17/12 10:39  
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Order Number  
12E0241

Receipt Date/Time  
05/03/2012 20:35

Client Code  
CV CLARKPACIFIC

Client PO/Reference

Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			
Semivolatile Organic Compounds by EPA Method 8270C (cont'd)							
Chrysene	EPA 8270C	"	05/11/12 13:40	"	ND "	0.073	
Di-n-butyl phthalate	"	"	"	"	ND "	0.39	
Di-n-octyl phthalate	"	"	"	"	ND "	0.39	
Dibenz (a,h) anthracene	"	"	"	"	ND "	0.073	
Dibenzofuran	"	"	"	"	ND "	0.39	
1,2-Dichlorobenzene	"	"	"	"	ND "	0.39	
1,3-Dichlorobenzene	"	"	"	"	ND "	0.39	
1,4-Dichlorobenzene	"	"	"	"	ND "	0.78	
3,3'-Dichlorobenzidine	"	"	"	"	ND "	0.39	
2,4-Dichlorophenol	"	"	"	"	ND "	0.39	
Diethyl phthalate	"	"	"	"	ND "	0.39	
Dimethyl phthalate	"	"	"	"	ND "	0.39	
2,4-Dimethylphenol	"	"	"	"	ND "	0.39	
4,6-Dinitro-2-methylphenol	"	"	"	"	ND "	1.9	
2,4-Dinitrophenol	"	"	"	"	ND "	1.9	
2,4-Dinitrotoluene	"	"	"	"	ND "	0.39	
2,6-Dinitrotoluene	"	"	"	"	ND "	0.39	
1,2-Diphenylhydrazine	"	"	"	"	ND "	0.39	
Fluoranthene	"	"	"	"	ND "	0.073	
Fluorene	"	"	"	"	ND "	0.073	
Hexachlorobenzene	"	"	"	"	ND "	0.39	
Hexachlorobutadiene	"	"	"	"	ND "	0.39	
Hexachlorocyclopentadiene	"	"	"	"	ND "	1.9	
Hexachloroethane	"	"	"	"	ND "	0.39	
Indeno (1,2,3-cd) pyrene	"	"	"	"	ND "	0.073	

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Laboratory Director

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# alpha

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## CHEMICAL EXAMINATION REPORT

Page 9 of 34

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1980 South River Road  
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Order Number  
12E0241

Receipt Date/Time  
05/03/2012 20:35

Client Code  
CV CLARKPACIFIC

Client PO/Reference

### Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			
Semivolatile Organic Compounds by EPA Method 8270C (cont'd)							
Isophorone	EPA 8270C	"	"	05/11/12 13:40	"	ND "	0.39
2-Methylnaphthalene	"	"	"	"	"	ND "	0.073
2-Methylphenol (o-cresol)	"	"	"	"	"	ND "	0.39
3 & 4-Methylphenol (m,p-cresol)	"	"	"	"	"	ND "	0.39
N-Nitrosodi-n-propylamine	"	"	"	"	"	ND "	0.39
N-Nitrosodimethylamine	"	"	"	"	"	ND "	0.78
N-Nitrosodiphenylamine	"	"	"	"	"	ND "	0.39
Naphthalene	"	"	"	"	"	ND "	0.073
2-Nitroaniline	"	"	"	"	"	ND "	1.9
3-Nitroaniline	"	"	"	"	"	ND "	1.9
4-Nitroaniline	"	"	"	"	"	ND "	1.9
Nitrobenzene	"	"	"	"	"	ND "	0.39
2-Nitrophenol	"	"	"	"	"	ND "	1.9
4-Nitrophenol	"	"	"	"	"	ND "	1.9
Pentachlorophenol	"	"	"	"	"	ND "	1.9
Phenanthrene	"	"	"	"	"	ND "	0.073
Phenol	"	"	"	"	"	ND "	0.39
Pyrene	"	"	"	"	"	ND "	0.073
1,2,4-Trichlorobenzene	"	"	"	"	"	ND "	0.39
2,4,5-Trichlorophenol	"	"	"	"	"	ND "	0.39
2,4,6-Trichlorophenol	"	"	"	"	"	ND "	0.39
Surrogate: 2-Fluorobiphenyl	"	"	"	"	69.5 %	61-117	
Surrogate: 2-Fluorophenol	"	"	"	"	63.8 %	50-113	
Surrogate: Nitrobenzene-d5	"	"	"	"	68.5 %	47-123	
Surrogate: p-Terphenyl-d14	"	"	"	"	82.0 %	63-133	
Surrogate: Phenol-d6	"	"	"	"	64.9 %	49-119	
Surrogate: 2,4,6-Tribromophenol	"	"	"	"	73.4 %	52-129	

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## CHEMICAL EXAMINATION REPORT

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### Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
Spreckels Limestone (12E0241-01)		Sample Type: Soil		Sampled: 05/02/12 10:21			

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Laboratory Director

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**McC Campbell Analytical, Inc.**  
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1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Alpha Analytical Laboratories  
208 Mason Street  
Ukiah, CA 95482

Client Project ID: #12E0241

Date Sampled: 05/02/12  
Date Received: 05/07/12  
Date Extracted: 05/09/12  
Date Analyzed: 05/09/12

Client Contact: Sheri Speaks

Client P.O.:

**Organophosphorous Pesticides by GC-MS (Basic Target List)\***

Extraction Method: SW3550B

Analytical Method: SW8141Am

Work Order: 1205205

Lab ID	1205205-001A	Reporting Limit for DF = 1		
Client ID	Spreckels Limestone	S	W	
Matrix	S			
DF	5			
Compound	Concentration		mg/kg	µg/L
Alachlor	ND<0.50		0.1	NA
Atrazine	ND<0.50		0.1	NA
Azinphos methyl (Guthion)	ND<0.50		0.1	NA
Bolstar (Sulprofos)	ND<0.50		0.1	NA
Chloropyrifos	ND<0.50		0.1	NA
Coumaphos	ND<0.50		0.1	NA
Demeton	ND<0.50		0.1	NA
Diazinon	ND<0.50		0.1	NA
Dichlorvos (DDVP)	ND<0.50		0.1	NA
Dimethoate	ND<0.50		0.1	NA
Disulfoton (Di-Syston)	ND<0.50		0.1	NA
EPN	ND<0.50		0.1	NA
EPTC	ND<0.50		0.1	NA
Ethion	ND<0.50		0.1	NA
Ethoprop	ND<0.50		0.1	NA
Fensulfothion	ND<0.50		0.1	NA
Fenthion	ND<0.50		0.1	NA
Fonofos	ND<0.50		0.1	NA
Malathion	ND<0.50		0.1	NA
Mevinphos (Phosdrin)	ND<0.50		0.1	NA
Molinate	ND<0.50		0.1	NA
Ethyl parathion	ND<0.50		0.1	NA
Methyl parathion	ND<0.50		0.1	NA
Phorate (Thimet)	ND<0.50		0.1	NA
Prometon	ND<0.50		0.1	NA
Ronnel	ND<0.50		0.1	NA
Simazine	ND<0.50		0.1	NA
Stirofos (Tetrachlorvinphos)	ND<0.50		0.1	NA
Terbacil	ND<0.50		0.1	NA
Terbufos (Terbuphos)	ND<0.50		0.1	NA
Thiobencarb	ND<0.50		0.1	NA
Tokuthion (Prothiofos)	ND<0.50		0.1	NA
Trichloronate (Agritox)	ND<0.50		0.1	NA

**Surrogate Recoveries (%)**

%SS:	116		
Comments	a3		

\* soil/sludge/solid samples in mg/kg.  
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor  
# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or, surrogate peak is on elevated baseline, or, surrogate has been diminished by dilution of original extract.  
a3) sample diluted due to high organic content.

 Angela Rydelius, Lab Manager



**QC SUMMARY REPORT FOR SW8141A**

W.O. Sample Matrix: Solid

QC Matrix: Soil

BatchID: 67411

WorkOrder: 1205205

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Alachlor	N/A	0.20	N/A	N/A	N/A	66.2	N/A	N/A	20 - 140
Atrazine	N/A	0.20	N/A	N/A	N/A	48.3	N/A	N/A	20 - 140
Disulfoton (Di-Syston)	N/A	0.20	N/A	N/A	N/A	35.3	N/A	N/A	20 - 140
Fenthion	N/A	0.20	N/A	N/A	N/A	64.1	N/A	N/A	20 - 140
Methyl parathion	N/A	0.20	N/A	N/A	N/A	56.6	N/A	N/A	20 - 140
%SS	N/A	1	N/A	N/A	N/A	164, F3	N/A	N/A	60 - 140

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

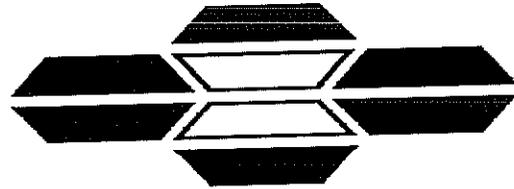
F3 = the surrogate standard recovery is outside of acceptance limits; however, all spiked QC analytes are within proper acceptance limits.

**BATCH 67411 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1205205-001A	05/02/12 10:21 AM	05/09/12	05/09/12 11:13 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ;  $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

*JR* QA/QC Officer



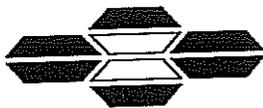
**ASBESTOS TEM LABORATORIES, INC.**

**Polarized Light Microscopy  
Analytical Report  
(EPA Point Count Protocol)**

**Laboratory Job # 1288-00338**

630 Bancroft Way  
Berkeley, CA 94710  
(510) 704-8930  
FAX (510) 704-8429

---



ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP  
Lab No. 1866



NVLAP Lab Code: 101891-D  
Berkeley, CA

May/18/2012

Clint T. Ostenberg  
Alpha Analytical Laboratories, Inc.  
208 Mason Street  
Ukiah, CA 95482

RE: LABORATORY JOB # 1288-00338  
Polarized light microscopy analytical results for 1 bulk sample(s).  
Job Site:  
Job No.: 12E0241

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM) using the point counting technique to determine asbestos concentration. Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze the various materials present, including asbestos. Quantitation of asbestos is made via counting of a minimum of 400 semi-random particles using a Chalkey reticle. The data is then compiled into standard report format and subjected to a thorough quality assurance check before the information is released to the client.

Sincerely Yours,

Lab Manager  
ASBESTOS TEM LABORATORIES, INC.

--- These results relate only to the samples tested and must not be reproduced, except in full, without the approval of the laboratory. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. ---

# POLARIZED LIGHT MICROSCOPY POINT COUNT ANALYTICAL REPORT

Contact: Clint T. Ostenberg	Samples Submitted: 1	Report No. 309903
Address: Alpha Analytical Laboratories, Inc.	Samples Analyzed: 1	Date Submitted: May-07-12
208 Mason Street	Job Site / No.	Date Reported: May-18-12
Ukiah, CA 95482	12E0241	

SAMPLE ID	POINTS COUNTED	ASBESTOS %	TYPE	LOCATION / DESCRIPTION
12E0241-01		<b>&lt;0.25%</b>	<b>None Detected</b>	Spreckels Limestone.
Lab ID # 1288-00338-001	400 - Total Points			No Point Count Performed - ARB Exception 1
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			

QC Reviewer *R. Mc Point*

Analyst *Jo Ann Huentro*

# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 12-138-111      CLIENT: 1047-D      SUBMITTED BY: CLINT OSTENBERG

SEND TO: ALPHA ANALYTICAL LABS      CUSTOMER: 12E0241

208 MASON ST

UKIAH, CA 95482-

## FERTILIZER AND LIME ANALYSIS REPORT

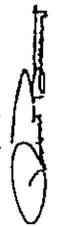
PAGE: 1

DATE OF REPORT: 05/21/12

Sample Identification	Lab Number	Nitrogen % N	Total Phosphate % P <sub>2</sub> O <sub>5</sub>	Potash % K <sub>2</sub> O	Sulfur % S	Zinc % Zn	Available Phosphate % P <sub>2</sub> O <sub>5</sub>	Non-Ortho Phosphate % of Total P <sub>2</sub> O <sub>5</sub>	Sulfate Sulfur %	Calcium % Ca	Magnesium % Mg	Calcium Carbonate Equiv. % CaCO <sub>3</sub>	H <sub>2</sub> O %
41-01 LIMESTONE	24335											83.10	7.85

REMARKS: Values reported are on a dry weight basis.

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.



Robert Butterfield  
A & L WESTERN LABORATORIES, INC.

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**A & L WESTERN AGRICULTURAL LABORATORIES, INC.**  
1311 Woodland Avenue, Suite 1 • Modesto, California 95351 • (209) 529-4080



**QUALITY ASSURANCE REPORT**

Run Date: 05/21/12

Analyte:	LCS True Value %	LCS Result %	% Recovery	Acceptance Limits %	Comments
CaCO <sub>3</sub>	100.0	99.43	99.43	98-102	Acceptable

Samples included in run: 24335

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# Chain of Custody Record

Reports and Invoices will be delivered by email in pdf format.

Lab No. 12E0241 Page      of     

Laboratory  
& Corporate: 208 Mason Street, Ukiah, CA 95482  
707-468-0401 Fax: 707-408-8267

Service Center  
& Micro Lab: 6388 Dougherty Rd, Sta 35, Dublin, CA 94568  
925-828-8226 Fax: 925-828-6309

Alpha Analytical Laboratories Inc.  
e-mail: clientservices@alpha-abb.com

**Alpha**  
Analytical Laboratories Inc.  
e-mail: clientservices@alpha-abb.com

Report to:		Project Info for Report:		Container:		Preservative:		Matrix:		Date					
Company:	Client:	Project ID:	Project No:	Soil Jar - Bz	Amber	Poly	Adm VOA	HCL	HNO3	H2SO4	None	Water	Soil	Limestone cke	
Clark Pacific	Ryan Nakken	Limestone Project		x							x				
Address: 1980 South River Road West Sacramento CA 95691	Address: 916 275 3752	POI/Reference:													
Phone/Fax: 916 275 3752	Email Address: makken@clarkpacific.com														
Samplers Signature: <u>Clark T. Osterberg</u>		Sampled Date: <u>5/14/12</u>		Total Number of Containers: <u>10</u>		Total Number of Containers: <u>10</u>									
Sample Identification: <u>Spreckels Limestone</u>		Sample Notes or CDPH Source Numbers: <u>PER CLIENT: 1F</u>													
		TAT: 10 days <input checked="" type="radio"/> RUSH: 5 days <input type="radio"/> 48 hours <input type="radio"/> Other: <input type="radio"/> days <input type="radio"/>		Analyses Requested:											
		Sample Notes (lab use only): Temperature: <u>    </u> deg. C <u>    </u> Shipment Method: <u>    </u> Custody Seals: Y / N <u>    </u>		Asbestos (BULK) - SUB <input checked="" type="checkbox"/>		Moisture, Percent / Solids, Dry Weight <input checked="" type="checkbox"/>		Alkalinity, Total <input checked="" type="checkbox"/>		C6 7196A <input checked="" type="checkbox"/>		add 6010A: Al B Ca Fe K Mg Mn Na Sn <input checked="" type="checkbox"/>		CAM 17 TTLC Soil <input checked="" type="checkbox"/>	
		Lab Approval Required For Rush TATs: <u>    </u>		PH <input checked="" type="checkbox"/>		B270 Regular List <input checked="" type="checkbox"/>		B260B Full List <input checked="" type="checkbox"/>		B144A OPP <input checked="" type="checkbox"/>		B001 & B0B2 Pest/PCB <input checked="" type="checkbox"/>		MATERIAL EXCEEDS <u>    </u>	
		CDPH Write On EDT Transmission? <input type="radio"/> Yes <input type="radio"/> No		State System Number: <u>    </u>		Date: <u>5/14/12</u>		Time: <u>10:21</u>		Received by: <u>[Signature]</u>					
		CA Geotracker EDF Report? <input type="radio"/> Yes <input type="radio"/> No		Global ID: <u>    </u>		Date: <u>5-3-12</u>		Time: <u>17:50</u>		Received by: <u>[Signature]</u>					
		Global ID: <u>    </u>		EDF to (Email Address): <u>    </u>		Date: <u>5-3-12</u>		Time: <u>20:30</u>		Received by: <u>[Signature]</u>					
		Travel and Site Time: <u>    </u>		Misc Supplier: <u>    </u>											

## **APPENDIX B**

NFA Letter for Maintenance Repair Shop USTs





Linda S. Adams  
Secretary for  
Environmental  
Protection

# California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

NOV 27 2007



Arnold  
Schwarzenegger  
Governor

Sacramento Main Office  
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

26 November 2007

Mr. Chris Ochoa  
Sugarland Farms, LLC  
9 Colgate Court  
Woodland, California 95695

## REPORT REVIEW, FORMER SPRECKELS SUGAR FACILITY, 40600 COUNTY ROAD 18C, WOODLAND, YOLO COUNTY

I reviewed the 17 September 2007 *Addendum No. 4 to No Further Action Required Report (Report)*, prepared on your behalf by your consultant, Kwest Engineering (Kwest). The *Report* documents that groundwater samples were collected from monitoring well MW-3 on 26 July and 6 September 2007, and results of the analysis indicated that total petroleum hydrocarbons as diesel (TPHd) was not detected in either groundwater sample. These groundwater samples were collected because the previous trend of TPHd in MW-3 was increasing as shown in Table 1. This new data establishes a minimum trend for decreasing TPHd concentrations, which was requested in my 17 July 2007 letter to you, to show that the previously detected TPHd in groundwater is stable and degrading. Based on the two sampling events showing TPHd is not present in groundwater, we find that closure of this case is acceptable.

Table 1. Groundwater Data, MW-3

Location	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-3	4/21/2004	390	96	<0.5	1.5	<0.5	<0.5
MW-3	9/28/2004	290	60	0.78	0.82	<0.5	2.2
MW-3	12/16/2004	170	63	<0.5	0.8	<0.5	2.2
MW-3	3/21/2005	71	96	<0.5	0.96	0.84	1.8
MW-3	6/15/2005	66	66	<0.5	<0.5	<0.5	<0.5
MW-3	9/16/2005	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-3	12/19/2005	190	<50	<0.5	<0.5	<0.5	<0.5
MW-3	3/28/2006	260	<50	<0.5	<0.5	<0.5	<0.5
MW-3	7/26/2007	<50	NA	NA	NA	NA	NA
MW-3	9/6/2007	<50	NA	NA	NA	NA	NA

Concentrations in micrograms per liter. TPHd: total petroleum hydrocarbons as diesel. TPHg: total petroleum hydrocarbons as gasoline. NA: Not analyzed.

Please submit by **28 December 2007** a work plan to destroy monitoring wells MW-1, MW-2, and MW-3 according to Yolo County ordinances and under permits from Yolo County Environmental Health Services (YCEHS). Monitoring wells must be appropriately destroyed before a No Further Action Required (NFAR) letter is issued. Also, all data and documents must be submitted to Geotracker before the NFAR is issued.

Please note that in addition to the electronic submittal of reports, until you receive further direction from this Regional Board, you are to continue to submit a paper copy of all reports to my attention at the Central Valley Regional Board. Submit only electronic copies of all documents in PDF format to Yolo County Environmental Health Services; however, they are requesting that documents 3MG and larger should be sent on CD.

All work must be conducted according to Appendix A of the *Tri-Regional Recommendations for Preliminary Investigation Evaluation of Underground Storage Tank Sites*, and permits acquired from the appropriate local agencies prior to beginning work. Appendix A is available for review at [http://www.swrcb.ca.gov/rwqcb/available\\_documents](http://www.swrcb.ca.gov/rwqcb/available_documents).

If you have any questions, please contact me at (916) 464-4673.



DAVID F. STAVAREK, P. G.  
Engineering Geologist  
UST Enforcement Unit II

cc: Mr. Mark Owens, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Mr. Kent Calfee, Calfee and Young, 611 North Street, Woodland  
Mr. Mike Goodwin, Kwest Engineering, Yuba City

KR ENVIRONMENTAL

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February 10, 2008

David Stavarek, P.G.  
California Regional Water Quality Control Board - Central Valley District  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

SUBJECT: Report for the Destruction of Monitoring Wells  
Former Spreckels Sugar Facility  
40600 County Road 18C – Woodland, CA

Dear David:

Attached is the Report regarding the destruction of the three (3) groundwater monitoring wells located at the Former Spreckels Sugar Facility located at 40600 County Road 18C in Woodland, California.

If you have any questions, call me at (530) 521-0026.

Sincerely,



Mike Goodwin  
Sr. Geologist/Branch Manager

Attachment

c: Chris Ochoa – Sugarland Farms, LLC  
Kent Calfee – Calfee/Konwinsky  
Jeff Pinnow, Yolo County Environmental Health Services

**REPORT  
DESTRUCTION OF GROUNDWATER MONITORING WELLS  
FORMER SPRECKELS SUGAR FACILITY  
40600 COUNTY ROAD 18C  
WOODLAND, CA**

Prepared for

California Regional Water Quality Control Board – Central Valley Region  
11020 Sun Center Drive #200  
Rancho Cordova, California, 95670-6114

Prepared by

KR Environmental  
1026 Almendia Court  
Chico, CA 95926

February 10, 2008

Project # 08-01

## 1.0 INTRODUCTION

This Report describes activities conducted during the destruction of the three (3) groundwater monitoring wells (MW-1, MW-2 and MW-3) located at the former Spreckels Sugar Facility, 40600 County Road 18C in Woodland, California (see Figures 1 and 2). This Report was prepared as requested by the California Regional Water Quality Control Board – Central Valley Region (CRWQCB-CVR) in a letter to Chris Ochoa dated January 28, 2008 entitled “*Workplan Review, Former Spreckels Sugar Facility, 40600 County Road 18C, Woodland, Yolo County.*” A copy of the January 28, 2008, CRWQCB-CVR letter is included in Appendix A.

## 2.0 SCOPE OF WORK

The destruction of the three (3) groundwater monitoring wells included the following tasks:

- A. Permit Application Preparation and Processing
- B. The Destruction of the Three (3) Groundwater Monitoring Wells
- C. Report of Findings

### **A. Permit Application Preparation and Processing**

Permits for the destruction of the three (3) groundwater monitoring wells were obtained from the Yolo County Environmental Health Consolidated HAZMAT Program (CUPA). A copy of the completed Application for Monitoring Wells and Soil Borings and a copy of the Monitoring Well Permit Conditions for the destruction of the three (3) groundwater monitoring wells are included in Appendix B.

### **B. Destruction of Groundwater Monitoring Wells**

The three (3) groundwater monitoring wells were constructed with two-inch diameter, Schedule 40 PVC, threaded, flush joint casing. The bottom 10-foot section of the casing consists of slotted pipe (0.020-inch perforations). The remaining 20-foot section of the casing (distance from slotted section to ground surface) consists of blank pipe.

Report – Destruction of Groundwater Monitoring Wells  
Former Spreckels Sugar Facility  
40600 County Road 18C, Woodland, CA

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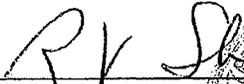
The three (3) groundwater monitoring wells were destroyed in accordance with CUPA ordinances and in accordance with the KR Environmental Workplan prepared for this project entitled "*Workplan, Destruction of Monitoring Wells, Former Spreckels Sugar Facility, 40600 County Road 18C, Woodland, CA.*" The three (3) groundwater monitoring wells were destroyed on February 1, 2008 by pressure grouting of each of the groundwater monitoring wells using a bentonite/Portland cement slurry and over-drilling of the top five (5) feet of each of the groundwater monitoring wells by a licensed drilling company. After the top five feet of each of the wells were over-drilled, the top 5 feet of each of the wells were capped with Portland cement.

**C. Report of Findings**

The Workplan along with this Report has been submitted to the CRWQCB-CVR and CUPA in paper form, and through Geotacker to the CRWQCB-CVR and in electronic PDF format to CUPA as required to obtain the No Further Action Required (NFAR) letter from the CRWQCB-CVR.

**D. Certification**

This report entitled "*Report, Destruction of Groundwater Monitoring Wells, Former Spreckels Sugar Facility, 40600 County Road 18C, Woodland, CA*" was prepared under my supervision in accordance with the State of California laws. I am a Professional Engineer (Civil) in the State of California and the qualified professional responsible for this project.

  
\_\_\_\_\_  
Roy J. Shaver, P.E.  
Professional Engineer



2/10/08  
/Date

**APPENDIX A**

**JANUARY 28, 2008 CRWQCB-CVR LETTER**



California Regional Water Quality Control Board  
Central Valley Region

Karl E. Longley, ScD, P.E., Chair



Arnold  
Schwarzenegger  
Governor

Linda S. Adams  
Secretary for  
Environmental  
Protection

Sacramento Main Office  
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

28 January 2008

Mr. Chris Ochoa  
Sugarland Farms, LLC  
9 Colgate Court  
Woodland, California 95695

**WORK PLAN REVIEW, FORMER SPRECKELS SUGAR FACILITY,  
40600 COUNTY ROAD 18C, WOODLAND, YOLO COUNTY**

I reviewed the 17 January 2008 *Workplan for the Destruction of Monitoring Wells (Workplan)*, prepared on your behalf by your consultant, KR Environmental. The *Workplan* proposes to destroy monitoring wells MW-1, MW-2, and MW-3 according to Yolo County guidelines and under permit from Yolo County Environmental Health Services. According to the *Workplan*, the wells will be pressure grouted with a bentonite/cement slurry, the top five feet of the well will be removed, and then backfilled with concrete to surface grade. Your work plan is consistent with the comments and recommendation in our 6 November 2007 letter to you. This work is necessary and appropriate and should be conducted without delay.

Please submit a report of this work by **28 March 2008** with a copy of the well destruction permit. A No Further Action Required letter will be issued after this report is received, and data and documents have been submitted to Geotracker.

All work must be conducted according to Appendix A of the *Tri-Regional Recommendations for Preliminary Investigation Evaluation of Underground Storage Tank Sites*, and permits acquired from the appropriate local agencies prior to beginning work. Appendix A is available for review at [http://www.swrcb.ca.gov/rwqcb/available\\_documents](http://www.swrcb.ca.gov/rwqcb/available_documents).

If you have any questions, please contact me at (916) 464-4673.

DAVID F. STAVAREK, P. G.  
Engineering Geologist  
UST Enforcement Unit II

cc: Mr. Mark Owens, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Mr. Kent Calfee, Calfee and Young, 611 North Street, Woodland  
Mr. Mike Goodwin, KR Environmental, Chico

dfs:c:\proj\570315L009

*California Environmental Protection Agency*

**APPENDIX B**

**YOLO COUNTY ENVIRONMENTAL HEALTH CONSOLIDATED HAZMAT  
PROGRAM (CUPA) COMPLETED APPLICATION FOR  
MONITORING WELLS AND SOIL BORINGS & MONITORING WELL  
PERMIT CONDITIONS**

WP 3057



**Yolo County Environmental Health**  
**Consolidated Hazmat Program (CUPA)**  
 137 N. Cottonwood Street, Suite 2400, Woodland CA 95695  
 Phone (530) 666-8646 Fax (530) 669-1448  
<http://www.yolohealth.org> → Environmental Health  
 EMAIL: [environmental.health@yolocounty.org](mailto:environmental.health@yolocounty.org)

**SEE STATUS BAR FOR HELP**  
 Near Bottom of Screen

The status bar is a horizontal area at the bottom of the document window. If not displayed click Options on the Tools menu, click the View tab, and then select the Status bar check box under Show.

MH

**Dept Use Only**

Permit Number 08-005H  
 Date Received 1/30/08  
 File Number UST 357  
 Received By \_\_\_\_\_

**Application For Monitoring Wells and Soil Borings**  
 PERMIT EXPIRES IN 120 DAYS

**Dept Use Only**

Fee Paid \$ 0.00  
 Check # 3071  
 Receipt # 58898  
 Record ID # \_\_\_\_\_

FA 8517

**Facility Information**

Site Name <u>Former Spreckels Sugar</u>	Address <u>40600 Co Road 18c</u>	Phone <u>681-5607</u>
Property Owner Name <u>Sugarland Farms LLC</u>	Address <u>9 Edgemoor Ct, Woodland</u>	Phone <u>681-5607</u>
Responsible Party <u>Chris Ochoa</u>	Address <u>9 Edgemoor Ct, Woodland</u>	Phone <u>681-5607</u>
Location Address <u>40600 County Rd 18c</u>	City <u>Woodland</u>	Assessors Parcel # _____

**Contractor Name, Address, Phone and Fax**

Consultant <u>KR Environmental</u>	<u>1026 Alameda Court Woodland CA 95694</u>	<u>530-321-0024</u>	RG/PE # <u>244587</u>
Driller <u>WDC Exploration</u>		<u>530-343-3239</u>	License # <u>283326</u>

**Well/Boring Type: Specify Number of Wells or Borings of Each Type**

Monitoring Well	Vapor Well	Extraction Well	Sparging Well
Bioventing Well	Cathodic Well	Exploratory	Other
Construction: <input type="checkbox"/> Air <input type="checkbox"/> Mud <input type="checkbox"/> Auger <input type="checkbox"/> Push <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Well Abandonment

Description of Project or Work: See Attached work plan

I Declare this Application Is Correct and I Will Comply with State of California and Yolo County Requirements.

Applicant Signature: <u>Mike Goodwin</u>	Title: <u>SR Geologist</u>	Date: <u>1/8/08</u>
--	----------------------------	---------------------

**DEPARTMENTAL USE ONLY**

Permit: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	Expiration Date <u>5/30/08</u>
Authorized Signature: <u>Monsieur M. Hava</u>	Date Approved: <u>1/30/08</u>



# Yolo County Environmental Health Services

137 N. COTTONWOOD STREET, Suite 2400, WOODLAND CA 95695  
PHONE (530) 666-8646 • FAX (530) 669-1448

## MONITORING WELL PERMIT CONDITIONS

Permit #: 08-00514 File #: UST 357 Well #'s: Abandonment of 3 GW Mon. Wells

Facility Name/Location: Former Spreckels Sugar @ 40600 CR 18C, Woodland.

This permit expires 120 days from date of issue.

- Well Installation: Sanitary seal inspection required\*
  - Tremie Placement Required.
  - Neat Cement Slurry Required.
  - Concrete Pad (Min 2 X 2 Feet) Required For Installations Not Into Paved Surfaces
- SOIL BORING/HYDROPUNCH/CONE PENETROMETOR/BOREHOLE: Destruction inspection required\*
  - Tremie Placement Required.
  - Neat Cement Slurry Required.
- Well Destruction: Destruction inspection required\*
  - Tremie Placement Required.
  - Neat Cement Slurry Required.
  - Pressure Grout Placement.
  - Over Drill and Remove Casing

Note: Neat Cement Slurry is at least one 94 pound bag Portland Cement to 4.5 to 6.5 gallons of water.

\*Call (530) 666-8646 to schedule inspection with any Hazmat Specialist

DRILL CUTTINGS AND PURGE WATER STORAGE: Potentially hazardous waste to be appropriately labeled and stored per Cal Title 22 and DOT requirements and properly secured until analytical results determine appropriate disposal options.

HAZARDOUS WASTE DISPOSAL: Drill cuttings, purge water or other materials found to meet hazardous waste criteria must be disposed as hazardous waste within 90 days of generation. Other contaminated wastes must be disposed as approved by Yolo County Environmental Health. Non contaminated waste must be disposed as solid waste.

REPORTING REQUIREMENTS:

- Provide as-built site map of installation/destruction required.
- Report of installation, sampling, and analytical finding required.

Other Please call me if there are any changes / delays in original appt. (10:30 am on 2/1/08)

CALL (530) 666-8646 TO SCHEDULE INSPECTIONS

Inspections Required:



# KR Environmental

*Environmental Consulting and Remediation*

---

January 8, 2008

David Stavarek, P.G.  
California Regional Water Quality Control Board - Central Valley District  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

SUBJECT: Workplan for the Destruction of Monitoring Wells  
Former Spreckels Sugar Facility  
40600 County Road 18C – Woodland, CA

Dear David:

Attached is the Workplan for the destruction of the three (3) groundwater monitoring wells located at the Former Spreckels Sugar Facility located at 40600 County Road 18C in Woodland, California. Upon your approval, I will initiate this project. Also, I have included my new contact information.

Mike Goodwin  
KR Environmental  
Senior Geologist/Branch Manger – Chico Office  
1026 Almedia Court  
Chico, CA 95926  
Phone (530) 521-0026  
FAX (530) 343-3239  
Email [mikekrenv@AOL.com](mailto:mikekrenv@AOL.com)

If you have any questions, call me at (530) 521-0026.

Sincerely,



Mike Goodwin  
Sr. Geologist/Branch Manager

Attachment

c: Chris Ochoa – Sugarland Farms, LLC  
Kent Calfee – Calfee/Konwinsky  
Jeff Pinnow, Yolo County Environmental Health Services

1026 Almedia Court, Chico, CA 95926  
530-521-0026 Fax 530-343-3239 Email [mikekrenv@aol.com](mailto:mikekrenv@aol.com)

# KR Environmental

*Environmental Consulting and Remediation*

---

**WORKPLAN  
DESTRUCTION OF MONITORING WELLS  
FORMER SPRECKELS SUGAR FACILITY  
40600 COUNTY ROAD 18C  
WOODLAND, CA**

Prepared for

California Regional Water Quality Control Board – Central Valley Region  
11020 Sun Center Drive #200  
Rancho Cordova, California, 95670-6114

Prepared by

KR Environmental  
1026 Almedia Court  
Chico, CA 95926

January 9, 2008

Project # 08-01

## 1.0 INTRODUCTION

This Workplan describes proposed activities to destroy three (3) monitoring wells located at the former Spreckels Sugar Facility, 40600 County Road 18C in Woodland, California (see Figures 1 and 2). This Workplan was prepared as requested by the California Regional Water Quality Control Board – Central Valley Region (CRWQCB-CVR) in a letter to Chris Ochoa dated November 26, 2007 entitled "*Report Review, Former Spreckels Sugar Facility, 40600 County Road 18C, Woodland, Yolo County.*" A copy of the November 26, 2007, CRWQCB-CVR letter is included in Appendix A.

The CRWQCB-CVR requested that a Workplan be prepared for the destruction of groundwater monitoring wells MW-1, MW-2 and MW-3 in accordance with Yolo County ordinances and under permits from the Yolo County Environmental Health Services (YCEHS).

## 2.0 SCOPE OF WORK

The destruction of the three (3) groundwater monitoring wells will include the following tasks:

- A. Permit Application Preparation and Processing
- B. The Destruction of the Three (3) Groundwater Monitoring Wells
- C. Report of Findings

### A. Permit Application Preparation and Processing

KR Environmental will obtain all applicable permits from YCEHS. A completed copy of the YCEHD Application for Monitoring Wells and Soil Borings for the destruction of the three (3) groundwater monitoring wells is included in Appendix B.

### B. Destruction of Groundwater Monitoring Wells

The three (3) groundwater monitoring wells were constructed with two-inch diameter, Schedule 40 PVC, threaded, flush joint casing. The bottom 10-foot section of the casing consists of slotted pipe (0.020-inch perforations). The remaining 20-foot section of the casing (distance from slotted section to ground surface) consists of blank pipe. A copy of the Monitoring Well Schematic is included in Appendix C.

Workplan – Destruction of Groundwater Monitoring Wells  
Former Spreckels Sugar Facility  
40600 County Road 18C, Woodland, CA

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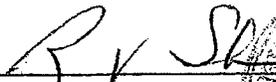
The three (3) groundwater monitoring wells will be destroyed in accordance with YCEHS ordinances to include the over-drilling of the top five (5) feet of each of the groundwater monitoring wells by a licensed drilling company and the pressure grouting of each of the groundwater monitoring wells using a bentonite/Portland cement slurry. The top 5 feet of each of the wells will be capped with Portland cement.

**C. Report of Findings**

KR Environmental will submit a Report of Findings regarding the abandonment of the three (3) groundwater monitoring wells. The Workplan along with the Report of Findings will be submitted to the CRWQCB-CVR and YCEHS in paper form, and through Geotacker to the CRWQCB and in electronic PDF format YCEHS as required to obtain the No Further Action Required (NFAR) letter from the CRWQCB.

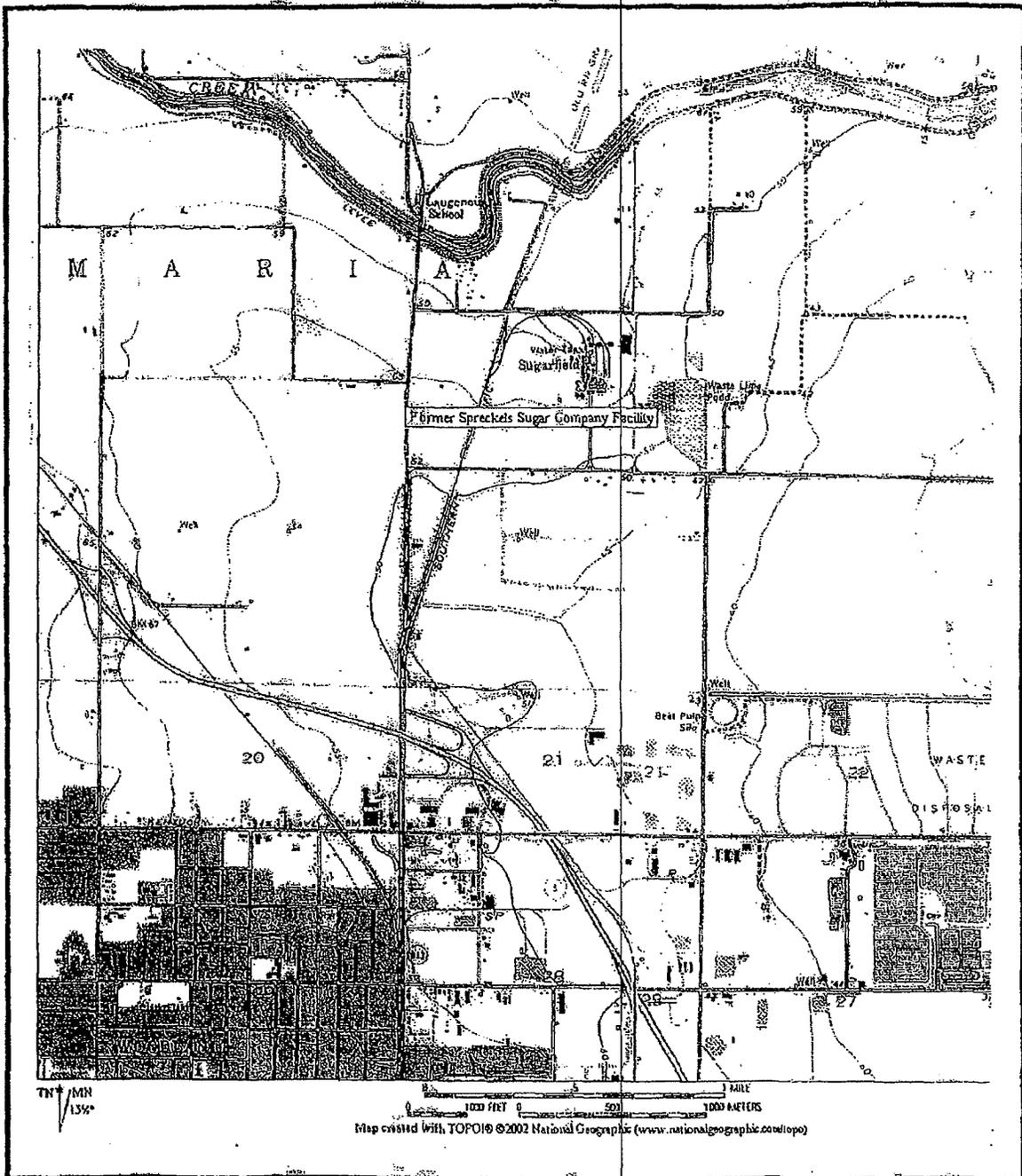
**D. Certification**

This Workplan entitled "*Workplan, Abandonment of Groundwater Monitoring Wells, Former Spreckels Sugar Facility, 40600 County Road 18C, Woodland, CA*" was prepared under my supervision in accordance with the State of California laws. I am a Professional Engineer (Civil) in the State of California and the qualified professional responsible for this project.

  
\_\_\_\_\_  
Roy J. Shaver, P.E.  
Professional Engineer



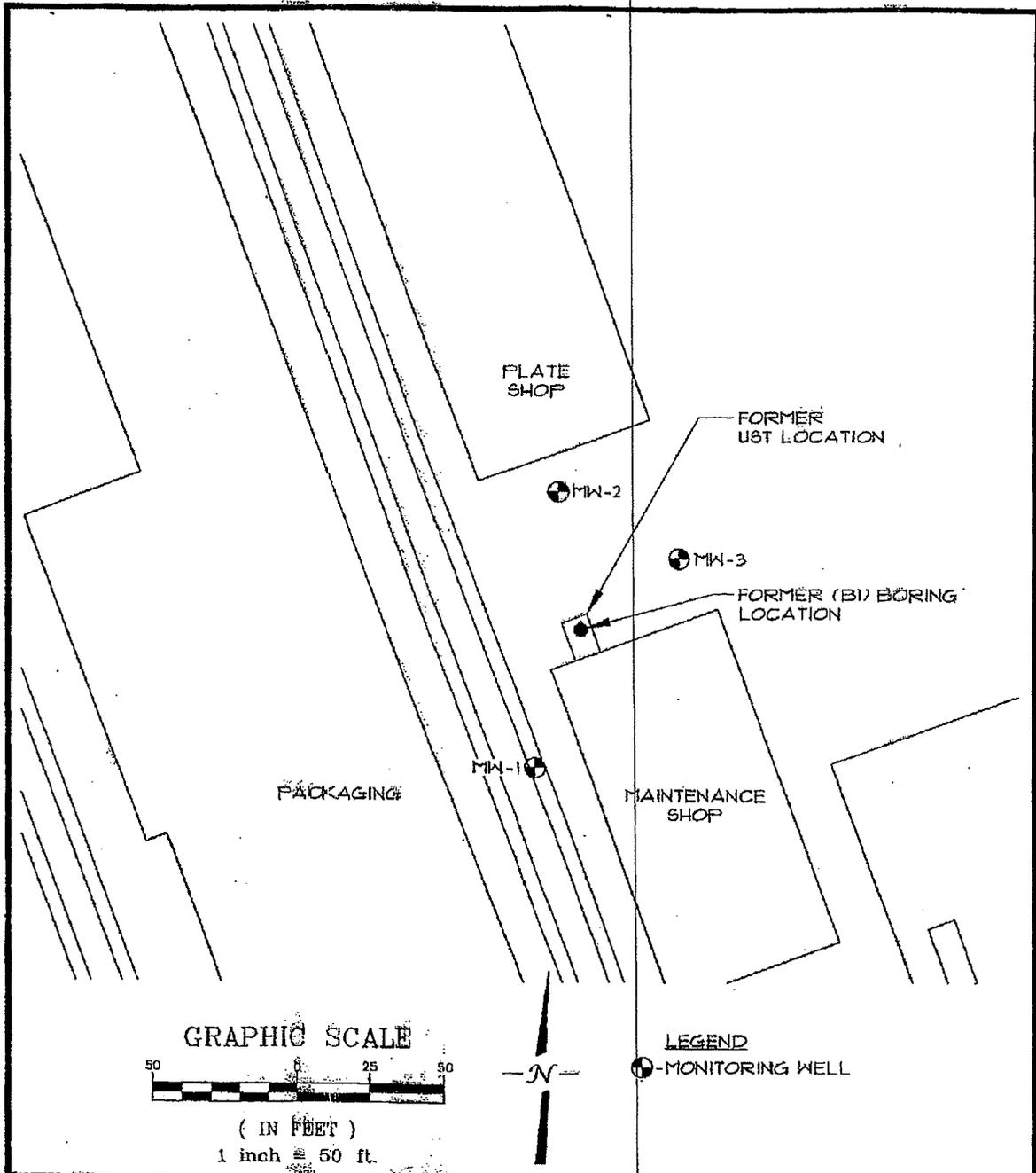
1/16/08  
Date



KR Environmental  
 1026 Alameda Court  
 Chico, CA 95926  
 530-521-0026  
 530-343-3239 (fax)

FIGURE 1 - SITE LOCATION MAP  
 SUGARLAND FARMS, LLC  
 FORMER SPRECKLES SUGAR  
 COMPANY FACILITY  
 YOLO COUNTY, CA

PROJ. 216.03



KR Environmental  
 1026 Alameda Court  
 Chico, CA 95926  
 530-521-0026  
 530-343-3239 (fax)

FIGURE 2 - PLOT PLAN  
 FORMER SPRECKELS FACILITY  
 40600 ROAD 18C  
 WOODLAND, CA

PROJ. 216.01

**APPENDIX A**

**NOVEMBER 26, 2007 CRWQCB-CVR LETTER**



**California Regional Water Quality Control Board  
Central Valley Region**

Karl E. Longley, ScD, P.E., Chair

Linda S. Adams  
Secretary for  
Environmental  
Protection

Sacramento Main Office  
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>



Arnold  
Schwarzenegger  
Governor

26 November 2007

RECEIVED  
NOV 27 2007  
ENVIRONMENTAL HEALTH

Mr. Chris Ochoa  
Sugarland Farms, LLC  
9 Colgate Court  
Woodland, California 95695

**REPORT REVIEW, FORMER SPRECKELS SUGAR FACILITY, 40600 COUNTY ROAD 18C,  
WOODLAND, YOLO COUNTY**

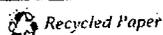
I reviewed the 17 September 2007 *Addendum No. 4 to No Further Action Required Report (Report)*, prepared on your behalf by your consultant, Kwest Engineering (Kwest). The *Report* documents that groundwater samples were collected from monitoring well MW-3 on 26 July and 6 September 2007, and results of the analysis indicated that total petroleum hydrocarbons as diesel (TPHd) was not detected in either groundwater sample. These groundwater samples were collected because the previous trend of TPHd in MW-3 was increasing as shown in Table 1. This new data establishes a minimum trend for decreasing TPHd concentrations, which was requested in my 17 July 2007 letter to you, to show that the previously detected TPHd in groundwater is stable and degrading. Based on the two sampling events showing TPHd is not present in groundwater, we find that closure of this case is acceptable.

**Table 1: Groundwater Data, MW-3**

Location	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-3	4/21/2004	390	96	<0.5	1.5	<0.5	<0.5
MW-3	9/28/2004	290	60	0.78	0.82	<0.5	2.2
MW-3	12/16/2004	170	63	<0.5	0.8	<0.5	2.2
MW-3	3/21/2005	71	96	<0.5	0.96	0.84	1.8
MW-3	6/15/2005	66	66	<0.5	<0.5	<0.5	<0.5
MW-3	9/16/2005	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-3	12/19/2005	190	<50	<0.5	<0.5	<0.5	<0.5
MW-3	3/28/2006	260	<50	<0.5	<0.5	<0.5	<0.5
MW-3	7/26/2007	<50	NA	NA	NA	NA	NA
MW-3	9/6/2007	<50	NA	NA	NA	NA	NA

Concentrations in micrograms per liter. TPHd: total petroleum hydrocarbons as diesel. TPHg: total petroleum hydrocarbons as gasoline. NA: Not analyzed.

*California Environmental Protection Agency*

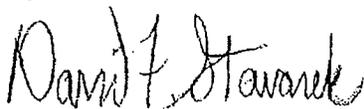


Please submit by **28 December 2007** a work plan to destroy monitoring wells MW-1, MW-2, and MW-3 according to Yolo County ordinances and under permits from Yolo County Environmental Health Services (YCEHS). Monitoring wells must be appropriately destroyed before a No Further Action Required (NFAR) letter is issued. Also, all data and documents must be submitted to Geotracker before the NFAR is issued.

Please note that in addition to the electronic submittal of reports, until you receive further direction from this Regional Board, you are to continue to submit a paper copy of all reports to my attention at the Central Valley Regional Board. Submit only electronic copies of all documents in PDF format to Yolo County Environmental Health Services; however, they are requesting that documents 3MG and larger should be sent on CD.

All work must be conducted according to Appendix A of the *Tri-Regional Recommendations for Preliminary Investigation Evaluation of Underground Storage Tank Sites*, and permits acquired from the appropriate local agencies prior to beginning work. Appendix A is available for review at [http://www.swrcb.ca.gov/wqcb/available\\_documents](http://www.swrcb.ca.gov/wqcb/available_documents).

If you have any questions, please contact me at (916) 464-4673.



DAVID F. STAVAREK, P. G.  
Engineering Geologist  
UST Enforcement Unit II

cc: Mr. Mark Owens, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Mr. Kent Calfee, Calfee and Young, 611 North Street, Woodland  
Mr. Mike Goodwin, Kwest Engineering, Yuba City

**APPENDIX B**

**YCEHS COMPLETED APPLICATION FOR  
MONITORING WELLS AND SOIL BORINGS**



**Yolo County Environmental Health  
Consolidated Hazmat Program (CUPA)**  
137 N. Cottonwood Street, Suite 2400, Woodland CA 95695  
Phone (530) 666-8646 Fax (530) 669-1448  
<http://www.yolohealth.org> → Environmental Health  
EMAIL: [environmental.health@yolocounty.org](mailto:environmental.health@yolocounty.org)

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**Application For  
Monitoring Wells and  
Soil Borings**  
PERMIT EXPIRES IN 120 DAYS

Dept Use Only
Fee Paid
Check #
Receipt #
Record ID #

**Facility Information**

Site Name <i>Former Spreckels Sugar</i>	Address <i>40600 Co Road 18C</i>	Phone <i>681-5607</i>
Property Owner Name <i>Sugarland Farms LLC</i>	Address <i>9 Edgemoor Ct, Woodland</i>	Phone <i>681-5607</i>
Responsible Party <i>Chris Ochoa</i>	Address <i>9 Edgemoor Ct, Woodland</i>	Phone <i>681-5607</i>
Location Address <i>40600 County Rd 18C</i>	City <i>Woodland</i>	Assessors Parcel #

**Contractor Name, Address, Phone and Fax**

Consultant <i>KR Environmental</i>	<i>1026 Alameda Court Chico CA 95926</i>	<i>530-521-0026 530-33-3239</i>	RG/PE # <i>C44587</i>
Driller <i>WDC Exploration</i>			License # <i>283326</i>

**Well/Boring Type:** Specify Number of Wells or Borings of Each Type

Monitoring Well	Vapor Well	Extraction Well	Sparging Well
Bioventing Well	Cathodic Well	Exploratory	Other
Construction: <input type="checkbox"/> Air <input type="checkbox"/> Mud <input type="checkbox"/> Auger <input type="checkbox"/> Push <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Well Abandonment

**Description of Project or Work:** *See Attached workplan*

**I Declare this Application Is Correct and I Will Comply with State of California and Yolo County Requirements.**

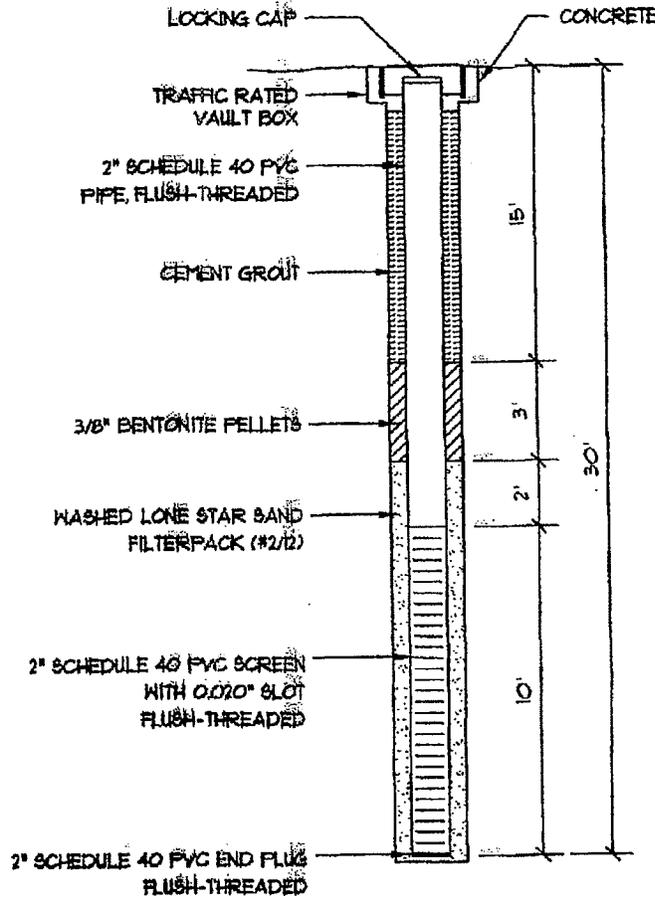
Applicant Signature: <i>Mike Goodwin</i>	Title: <i>SR Geologist</i>	Date: <i>1/8/08</i>
---	-------------------------------	------------------------

DEPARTMENTAL USE ONLY	
Permit: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	Expiration Date _____
Authorized Signature: _____	Date Approved: _____

**APPENDIX C**  
**MONITORNG WELL SCHEMATIC**

1026 Almendia Court, Chico, CA 95926  
530-521-0026 Fax 530-343-3239 Email [mikekrenv@aol.com](mailto:mikekrenv@aol.com)

# MONITORING WELL SCHEMATIC



NOT TO SCALE

KR Environmental  
1026 Alameda Court  
Chico, CA 95926  
530-521-0026  
530-343-3239 (fax)

FIGURE 3 - MONITORING WELL  
CONSTRUCTION SCHEMATIC  
FORMER SPRECKELS  
SUGAR FACILITY  
40600 ROAD 18C  
WOODLAND, CA      PROJ. 216.01





# California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair



Arnold  
Schwarzenegger  
Governor

Linda S. Adams  
Secretary for  
Environmental  
Protection

## Sacramento Main Office

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

**TO:** Jim Munch, P.E.  
Senior Engineer  
UST Program

**FROM:** David Stavarek, P.G.  
Engineering Geologist  
UST Unit II

**DATE:** 25 February 2008

**SIGNATURE:** \_\_\_\_\_

**SUBJECT: FORMER SPRECKELS SUGAR FACILITY, 40600 COUNTY ROAD 18C,  
WOODLAND, YOLO COUNTY**

I reviewed the 8 November 2006 *Addendum to No Further Action Required (NFAR) Request Report*, 1 June 2007 *Additional Information for No Further Action Required (NFAR)*, 21 June 2007 *Additional Information for No Further Action Required (NFAR)*, and 17 September 2007 *Addendum No. 4 to No Further Action Required Report (Report)*, prepared for Sugarland Farms, LLC (Sugarland), on their behalf by their consultant, Kwest Engineering (Kwest). In addition, I reviewed the 10 February 2008 report for the *Destruction of Monitoring Wells prepared for Sugarland* by their new consultant, KR Environmental. Following is a summary and my comments regarding this case and the criteria for issuing a No Further Action Required (NFAR) letter. See attached copy of Kwest's Figure 2 for location of site features, borings, and monitoring wells.

## BACKGROUND

The site was used from 1937 through 2000 for the purpose of processing sugar beets, then sugar packaging and distribution from 2001 until September 2002. The facility was formerly owned by Imperial Sugar Company and operated by Holly Sugar Corporation doing business as Spreckels Sugar Company. Sugarland Farms, LLC bought the property in September 2002. During a 10 May 2007 telephone conversation, Mr. Alex Waterbury at Presidio Development Company stated they represent potential new buyers of the property. According to Kwest, the site will "...remain industrial, with a new industrial park to be developed on the Site."

In August 1987 a 1,000-gallon underground storage tank (UST) was removed from the site. This UST reportedly was used to dispense gasoline. According to Yolo County Environmental Health Service (YCEHS) records a hole was observed in the UST. Three soil samples were collected from the UST cavity, then two cubic yards of soil was removed and another soil sample was collected. Analysis of the soil samples showed 16 and 22 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons as diesel (TPHd), however, the samples were not analyzed for gasoline and there is no explanation for the diesel analysis.

Investigation by Kwest began in 2002 with boring SB-1 drilled through the former UST cavity to groundwater, which was encountered approximately 25 feet below ground surface (bgs). This

was followed by three borings for monitoring wells MW-1, MW-2, and MW-3, and then Geoprobe borings B-1 and B-2 drilled northeast of MW-3.

## SOIL INVESTIGATIONS

Soil samples were collected from six borings at 10, 15, 20, 25, and 55 feet below ground surface and analyzed for TPHd, total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), MtBE, tertiary butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), ethanol, methanol, ethylene dibromide (EDB), and 1, 2-dichloroethane (1, 2-DCA). The only constituent detected was 0.0051 mg/kg of ethylbenzene detected at SB-1 (former UST cavity) at 20 feet bgs. Petroleum hydrocarbon constituents were not detected in the soil samples from the six borings, including the soil sample collected 55 feet bgs at B-1, northeast of MW-3.

## GROUNDWATER INVESTIGATIONS

Groundwater has been encountered during drilling at 20 to 25 feet bgs, but was not observed in boring B-1 at 55 feet bgs. Monitoring wells MW-1, MW-2, and MW-3 were installed in April 2004 and screened from 20 to 25 feet bgs. Since the three monitoring wells were installed in 2004, eight quarterly monitoring events have been performed. The groundwater gradient has been to the northwest during five events, then one each to the northeast, southwest, and southeast at 0.0045 to 0.00051 foot per foot. Groundwater elevation data show that groundwater has been 17 to 26 feet bgs in the three wells.

During the 28 September 2004 sampling event, TPHg, benzene, toluene, and xylenes were detected in MW-2 at 52, 1.6, 1.1, and 2.1 ug/L, respectively. Xylenes at 1.1 ug/L were also detected in MW-1 during this sampling event. Gasoline hydrocarbons were not detected in MW-1 and MW-2 during any of the other seven groundwater sampling events. Table 1 shows the results of groundwater sampling for monitoring well MW-3, where petroleum hydrocarbons have been repeatedly detected.

**Table 1. Groundwater Data, MW-3**

Location	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-3	4/21/2004	390	96	<0.5	1.5	<0.5	<0.5
MW-3	9/28/2004	290	60	0.78	0.82	<0.5	2.2
MW-3	12/16/2004	170	63	<0.5	0.8	<0.5	2.2
MW-3	3/21/2005	71	96	<0.5	0.96	0.84	1.8
MW-3	6/15/2005	66	66	<0.5	<0.5	<0.5	<0.5
MW-3	9/16/2005	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-3	12/19/2005	190	<50	<0.5	<0.5	<0.5	<0.5
MW-3	3/28/2006	260	<50	<0.5	<0.5	<0.5	<0.5
MW-3	7/26/2007	<50	NA	NA	NA	NA	NA
MW-3	9/6/2007	<50	NA	NA	NA	NA	NA

Concentrations in micrograms per liter. TPHd: total petroleum hydrocarbons as diesel. TPHg: total petroleum hydrocarbons as gasoline. NA: not analyzed.

Grab groundwater samples were collected from SB-1 in 2002 and B-2 in 2006. The sample from B-2 was used to verify that hydrocarbons detected at MW-3 had not migrated toward two

onsite water supply wells that are 300 and 370 feet northeast of the former UST. According to Kwest the water supply wells have not been active since 1999. To verify that hydrocarbons had not migrated vertically an attempt was made to collect a water sample at 55 feet bgs at B-1. However, groundwater was not present at 55 feet bgs, therefore, a soil sample was collected. As previously stated in this memorandum, petroleum hydrocarbons were not detected in the soil sample collected 55 feet bgs. Analytical results of groundwater samples from borings SB-1 and B-2 are shown in Table 2.

**Table 2. Groundwater Data**

Location	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
SB-1*	6/17/2002	NA	12,000	120	<30	1,600	1,400
B-2	3/28/2006	<50	<50	<0.5	<0.5	<0.5	<0.5

Concentrations in micrograms per liter. TPHd: total petroleum hydrocarbons as diesel. SB-1\*: location is the former UST cavity. TPHg: total petroleum hydrocarbons as gasoline. NA: not analyzed.

The TPHd and TPHg detected in groundwater samples from MW-3 were reported by the laboratory as samples that contain compounds in the retention time range associated with diesel or gasoline, but their respective chromatograms were not consistent with the expected chromatographic pattern or "fingerprint" for diesel or gasoline. TPHg detections were also reported by the laboratory to be weathered gasoline. Groundwater samples from MW-3 were then analyzed for volatile organic compounds and semi-volatile compounds using Environmental Protection Agency (EPA) Methods 8260 and 8270, respectively, to determine whether the hydrocarbons detected within the gasoline and diesel range represented single compounds found in these fuels. Both the EPA Methods were non-detect for all compounds analyzed. The laboratory stated in a 23 May 2007 electronic mail: "The compound present is in the retention time of Diesel but does not fit the profile of our current standard. This SVOC and VOC scans did not indicate the presence of any Petro based components. One may conclude the material present is not a recent sample of Diesel." In 2007, analysis of samples from MW-3 for TPHd indicated TPHd was not present in groundwater at MW-3.

Groundwater samples from B-2, MW-1, MW-2, and MW-3 were also analyzed for MtBE, TBA, DIPE, ETBE, TAME, methanol, ethanol and analytical results for these compounds were non-detect. The water sample from B-2 was also analyzed for 1, 2-DCA and EDB, and the analytical results were non-detect for these two lead scavengers.

On 1 February 2008, MW-1, MW-2, and MW-3 were destroyed according to Yolo County ordinances and under permit from the YCEHS. These three wells were pressure grouted with a cement/bentonite slurry, the wellhead removed, and the top five feet of each well was over drilled and backfilled with concrete.

## REMEDIATION

Remediation was limited to the two cubic yards of soil removed in 1987, and the approximately 210 gallons of groundwater removed during monitoring well development and subsequent sampling events. According to Kwest soil generated during drilling borings for the monitoring wells was analyzed for gasoline hydrocarbons and diesel. Analytical results indicated hydrocarbons were not detected; therefore, Sugarland Farms representative used the soil onsite as infill material. According to a waste manifest submitted to us by Kwest, the purge

water from the monitoring wells was removed from the site and recycled/disposed at the Alta Environmental Class II Landfill.

Kwest stated that the laboratory has identified the hydrocarbons detected in groundwater as weathered petroleum fuel hydrocarbons, and conclude that this indicates that natural degradation processes are occurring.

### **SENSITIVE RECEPTOR SURVEY**

Two water supply wells are onsite 300 and 370 feet northeast of the former UST, but according to Kwest have not been used since 1999. Monitoring well MW-3 is between the former UST and these two wells. Kwest collected soil and groundwater samples from borings northeast of MW-3, to determine whether the hydrocarbons detected in MW-3 were part of a plume migrating to the northeast, because Kwest reasoned that pumping from the two nearby wells had the potential for the greatest influence on plume migration. Petroleum hydrocarbons were not detected in the samples from B-1 and B-2; therefore, Kwest concluded the two nearby wells were not threatened by hydrocarbons detected at and near the former UST.

### **HUMAN HEALTH RISKS**

The concentrations of petroleum hydrocarbons detected in soil beneath the UST do not exceed the appropriate Environmental Screening Levels (ESLs) and California Health Hazard Screening Levels (CHHSLs), as established by the San Francisco Bay Regional Water Quality Control Board and the Office of Environmental Health Hazards Assessment, respectively. Petroleum hydrocarbons are no longer present in groundwater; therefore, there is no risk to human health based on ESLs and CHHSLs

### **SUMMARY**

One UST reportedly used for gasoline was removed in 1987. However, diesel hydrocarbons were detected in soil below the former UST. Subsequent groundwater sampling indicated that weathered diesel and gasoline hydrocarbons and possible naturally occurring hydrocarbons were present in groundwater at and northeast of the former UST. Individual volatile and semi-volatile compounds were not detected in groundwater in the monitoring well between the former UST and the nearest onsite water supply wells. Only trace concentrations of BTEX compounds were detected during one sampling event in the two other monitoring wells. Laboratory data indicate that the hydrocarbons detected in the one monitoring well are degrading petroleum hydrocarbons that have since reached water quality goals in July 2007. Soil and groundwater data showed hydrocarbons have not impacted the nearby water supply wells and the aquifer those wells are screened through. Further, because hydrocarbons are no longer present in groundwater, the appropriate ESLs and CHHSLs are not exceeded, and therefore, there is no risk to human health. The site is an industrial facility and future plans are for new industrial developments. Public participation notification is not needed because the property boundaries of the site are greater than 500 feet from the former UST. All appropriate documents have been submitted to Geotracker, and the monitoring wells have been destroyed as we requested. Therefore, I concur with KR Environmental's conclusion that closure for this site is appropriate, and I recommend that a NFAR letter be issued for closure of this case.



Linda S. Adams  
Secretary for  
Environmental  
Protection

# California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair



Arnold  
Schwarzenegger  
Governor

---

**Sacramento Main Office**

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

25 February 2008

Mr. Chris Ochoa  
Sugarland Farms, LLC  
9 Colgate Court  
Woodland, California 95695

**NO FURTHER ACTION REQUIRED, UNDERGROUND STORAGE TANK,  
FORMER SPRECKELS SUGAR FACILITY, 40600 COUNTY ROAD 18C, WOODLAND,  
YOLO COUNTY (LUSTIS NO. 570315)**

This letter confirms the completion of a site investigation and corrective action for the underground storage tank that was removed at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the underground storage tanks are greatly appreciated.

Based on the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code.

Please contact Mr. David Stavarek at (916) 464-4673 if you have any questions regarding this matter.

PAMELA C. CREEDON  
EXECUTIVE OFFICER

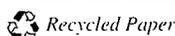
Enclosures (Memorandum and NFAR Checklist)

cc w/encls.: Ms. Christina Ochoa, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Mr. Kent Calfee, Calfee and Young, 611 North Street, Woodland  
Mr. Mike Goodwin, KR Environmental, Chico

dfs\c:\proj\570315NFRL001

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*California Environmental Protection Agency*





**TABLE 1 - CHECKLIST OF REQUIRED DATA  
FOR NO FURTHER ACTION REQUESTS AT UNDERGROUND TANK SITES**

Site Name and Location:		Former Spreckels Sugar Plant, 40600 county Rd. 18C, Woodland, Yolo County	
<input checked="" type="checkbox"/>	1. Distance to production wells for municipal, domestic, agriculture, industry and other uses within 2000 feet of the site;	Onsite water supply wells are 300 and 370 ft. downgradient of the former UST. Petroleum hydrocarbons were not detected downgradient of the former UST, between the former UST and the water supply wells.	
<input checked="" type="checkbox"/>	2. Site maps, to scale, of area impacted showing locations of former and existing tank systems, excavation contours and sample locations, borings and monitoring wells elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities	See County case file and reports, including May 04 PIER, 10 May 05 Closure Rept, 8 Nov 06, 1 Jun 07, 21 Jun 07, and 11 Sept 07 addendums and additional information reports to Closure Report.	
<input checked="" type="checkbox"/>	3. Figures depicting lithology (cross section), treatment system diagrams;	See County case file and reports listed under item 2..	
<input type="checkbox"/>	4. Stockpiled soil remaining on-site or off-site disposal (quantity);	None	
<input checked="" type="checkbox"/>	5. Monitoring wells remaining on-site, fate;	Three monitoring wells onsite destroyed 1 Feb 08 under permit from Yolo Co. after Closure approved.	
<input checked="" type="checkbox"/>	6. Tabulated results of all groundwater elevations and depths to water;	See County case file and reports, including reports listed in item 2.	
<input checked="" type="checkbox"/>	7. Tabulated results of all sampling and analyses: Detection limits for confirmation sampling Lead analyses	See County case file and reports, including reports listed in item 2.	
<input checked="" type="checkbox"/>	8. Concentration contours of contaminants found and those remaining in soil and groundwater, and both on-site and off-site: Lateral and Vertical extent of soil contamination Lateral and Vertical extent of groundwater contamination	See County case file and reports in item 2.	
<input checked="" type="checkbox"/>	9. Zone of influence calculated and assumptions used for subsurface remediation system and the zone of capture attained for the soil and groundwater remediation system;	See County case file and reports in item 2.	
<input checked="" type="checkbox"/>	10. Reports / information Well and boring logs	<input checked="" type="checkbox"/> Unauthorized Release Form <input type="checkbox"/> PAR	<input checked="" type="checkbox"/> QMRs see Yolo Co. Files <input checked="" type="checkbox"/> FRP
<input checked="" type="checkbox"/>	11. Best Available Technology (BAT) used or an explanation for not using BAT;	See County case file and reports, including 3 Aug 99 Case Closure Request Report and 25 Aug 03 Site Assessment Workplan.	
<input checked="" type="checkbox"/>	12. Reasons why background was/is unattainable using BAT;	See County case file and reports, including 3 Aug 99 Case Closure Request Report and 25 Aug 03 Site Assessment Workplan.	
<input checked="" type="checkbox"/>	13. Mass balance calculation of substance treated versus that remaining;	See County case file and reports listed in item 2.	
<input checked="" type="checkbox"/>	14. Assumptions, parameters, calculations and model used in risk assessments, and fate and transport modeling;	See County case file and reports listed in item 2.	
<input checked="" type="checkbox"/>	15. Rationale why conditions remaining at site will not adversely impact water quality, health, or other beneficial uses; and	See County case file and reports listed in item 2.	
<input type="checkbox"/>	16. WET or TCLP results		
By: DFS	<b>Comments:</b> In August 1987 a 1,000-gallon UST, that was reportedly used to dispense gasoline, was removed along with two cubic yards of contaminated soil. The UST was located at a former sugar processing plant. Soil analytical samples from the former UST pit showed up to 22 mg/kg of TPHd, and diesel and gasoline hydrocarbons in groundwater beneath the UST. Petroleum hydrocarbons were not detected in soil 10 to 55 feet bgs at borings beyond the UST. Three monitoring wells were installed in 2004, and after June 2005 weathered TPHd was the only constituent of concern detected in groundwater at one monitoring well. Remediation of groundwater consisted of purging approximately 210 gallons of groundwater from the monitoring wells. TPHd in groundwater was defined and in 2007 the concentration of diesel previously detected in the one well, was non-detect. TPHd is no longer a threat to groundwater or human health, therefore, the monitoring wells were destroyed and a no further action required letter was issued 25 February 2008.		
Date: 5/16/2008			



## **APPENDIX C**

NFA Letter for Farm Repair Shop USTs



# California Regional Water Quality Control Board Central Valley Region

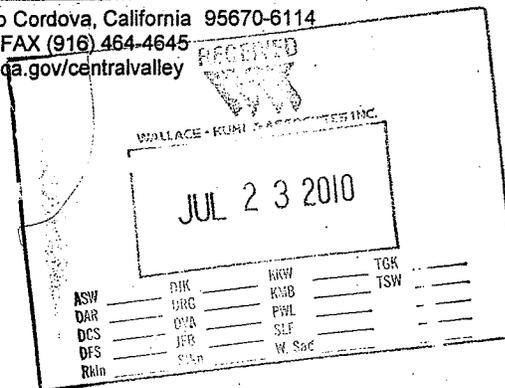
Katherine Hart, Chair



Arnold  
Schwarzenegger  
Governor

Linda S. Adams  
Secretary for  
Environmental  
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>



16 July 2010

Mr. Ryan Nakken  
Clark Pacific  
1980 South River Road  
West Sacramento, California 95691

**NO FURTHER ACTION REQUIRED, FORMER UNDERGROUND STORAGE TANKS,  
FORMER SPRECKELS FARM REPAIR SHOP, 40979 BEST RANCH ROAD, WOODLAND,  
YOLO COUNTY (LUSTIS NO. 570346)**

This letter confirms the completion of a site investigation and corrective action for the former underground storage tanks system at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the underground storage tanks are greatly appreciated.

Based on the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your former underground storage tanks site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code.

Please contact Mr. David Stavarek at (916) 464-4673, or by e-mail at [dstavarek@waterboards.ca.gov](mailto:dstavarek@waterboards.ca.gov) if you have any questions regarding this matter.

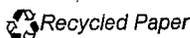
PAMELA C. CREEDON  
Executive Officer

Enclosures (Memorandum and NFAR Checklist)

cc w/encls.: Mr. Mark Owens, SWRCB, UST Cleanup Fund, Sacramento  
Ms. Barbara Rinker, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Ms. Mari O'Brien, Wallace-Kuhl & Associates, Inc., West Sacramento

dfstc:\proj\570346\NFAR

**California Environmental Protection Agency**





# California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Linda S. Adams  
Secretary for  
Environmental  
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
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<http://www.waterboards.ca.gov/centralvalley>

Arnold  
Schwarzenegger  
Governor

TO: Jim Munch, P.E.  
Senior Engineer  
UST Program

FROM: David Stavarek, P.G.  
Engineering Geologist  
UST Unit II

DATE: 11 January 2010  
Updated 7 July 2010

SIGNATURE:

SUBJECT: **NO FURTHER ACTION REQUIRED, FORMER SPRECKELS SUGAR PLANT  
FARM REPAIR SHOP, 40979 BEST RANCH ROAD, WOODLAND,  
YOLO COUNTY (LUSTIS NO. 570346)**

I reviewed our files and the 29 May 2009 *Subsurface Investigation Report of Findings and No Further Action Request (Report)*, prepared on your behalf by your consultant Wallace-Kuhl & Associates, Inc. (WKA) on behalf of the Responsible Party and current property owner, Reverse Exchange Properties Inc./Clark Pacific. Following is a summary and my comments regarding this case and the criteria for issuing a No Further Action Required (NFAR) letter. See attached copy of WKA's Figures 1, 2, and 3 for location of site, site features, borings, and monitoring wells.

## BACKGROUND

The Former Farm Repair Shop (FFRS) area is an approximately 280 by 340 feet area in the northeast corner of the Former Spreckels Sugar Plant (Plant). The Plant operated as a sugar processing facility from 1936 until 1996. In 2002, the property was sold to Sugarland Farms LLC, and then in 2008 to Reverse Exchange Properties Inc. Clark Pacific concrete products currently occupies the Plant, but have shut down operations at this location.

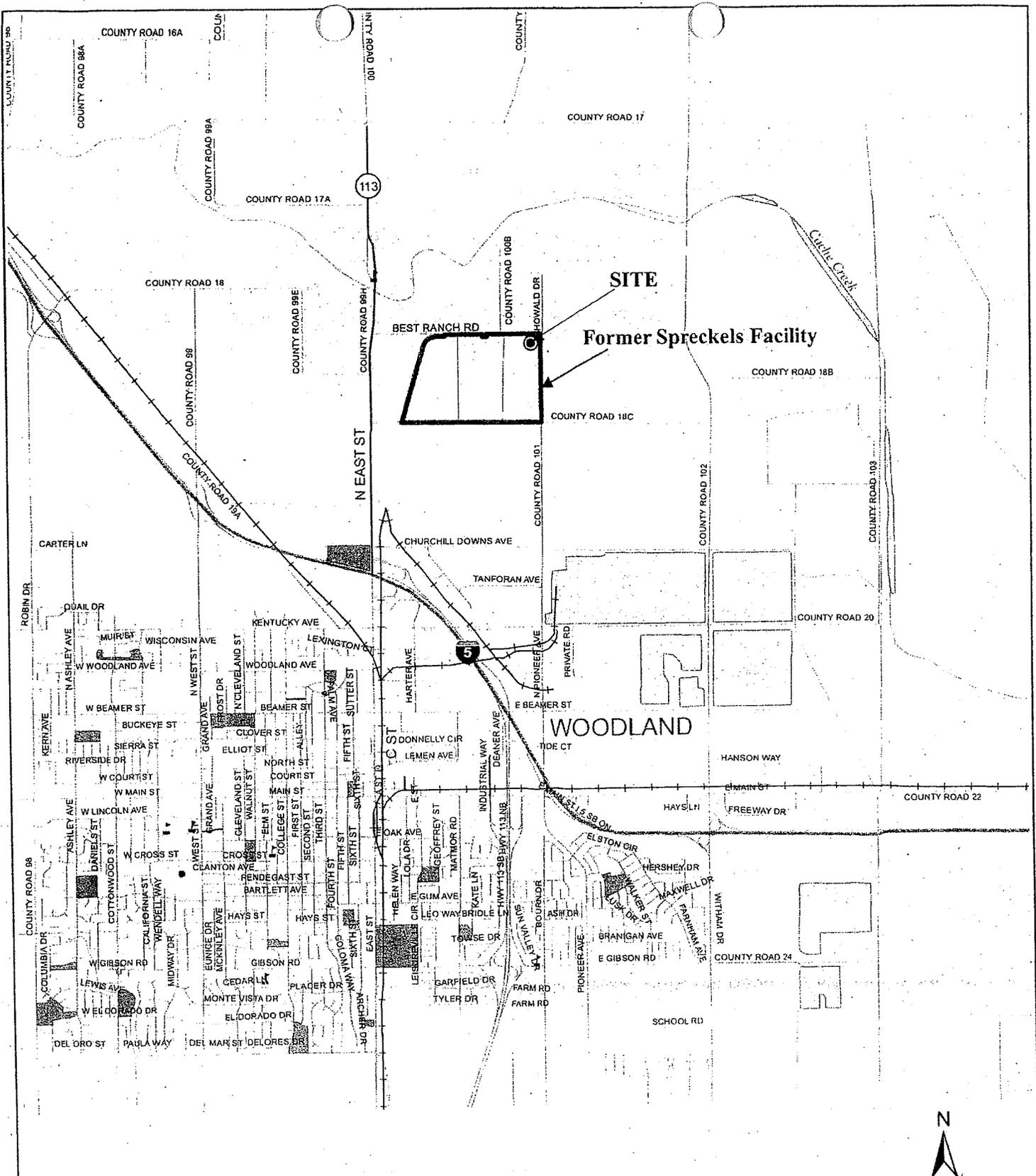
The FFRS is a dirt covered area with one shop building. WKA indicated in a 2008 Phase I Environmental Site Assessment report that three underground storage tanks were removed from the site in 1987 under permit from Yolo County Environmental Health Services (YCEHS). The three USTs consisted of a 1,000-gallon diesel, 5,000-gallon diesel, and 750-gallon waste oil tank; there were no records of when the USTs were installed or the condition of these USTs when they were removed.

## INVESTIGATIONS

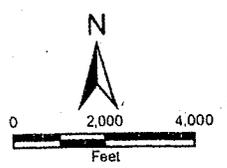
A total of eight borings, monitoring wells were installed in four of the borings, have been used to investigate the soil and groundwater beneath the FFRS area since December 2007. Soil results indicated 1.3, 5.6, 3.5, 1.0, and 2.2 milligrams per kilogram of total petroleum hydrocarbon as diesel (TPHd) in soil 11, 14, 15, 15, and 16.5 feet below ground surface (bgs), respectively, in soil beneath the FFRS area. Gasoline hydrocarbons including oxygenates, and full scan for semi-volatile organic compounds using Environmental Protection Agency (EPA) Method 8270C were not detected in soil.

Groundwater has been encountered approximately 20 feet bgs during drilling and has been 20 to 21 feet bgs in the monitoring wells. The groundwater gradient has been to the southeast. Groundwater samples were collected from four soil borings and four monitoring wells. Monitoring wells FW-1, FW-2, and FW-3 were screened from 16 to 31, 14 to 29, and 15 to 30 feet bgs, respectively.

**California Environmental Protection Agency**



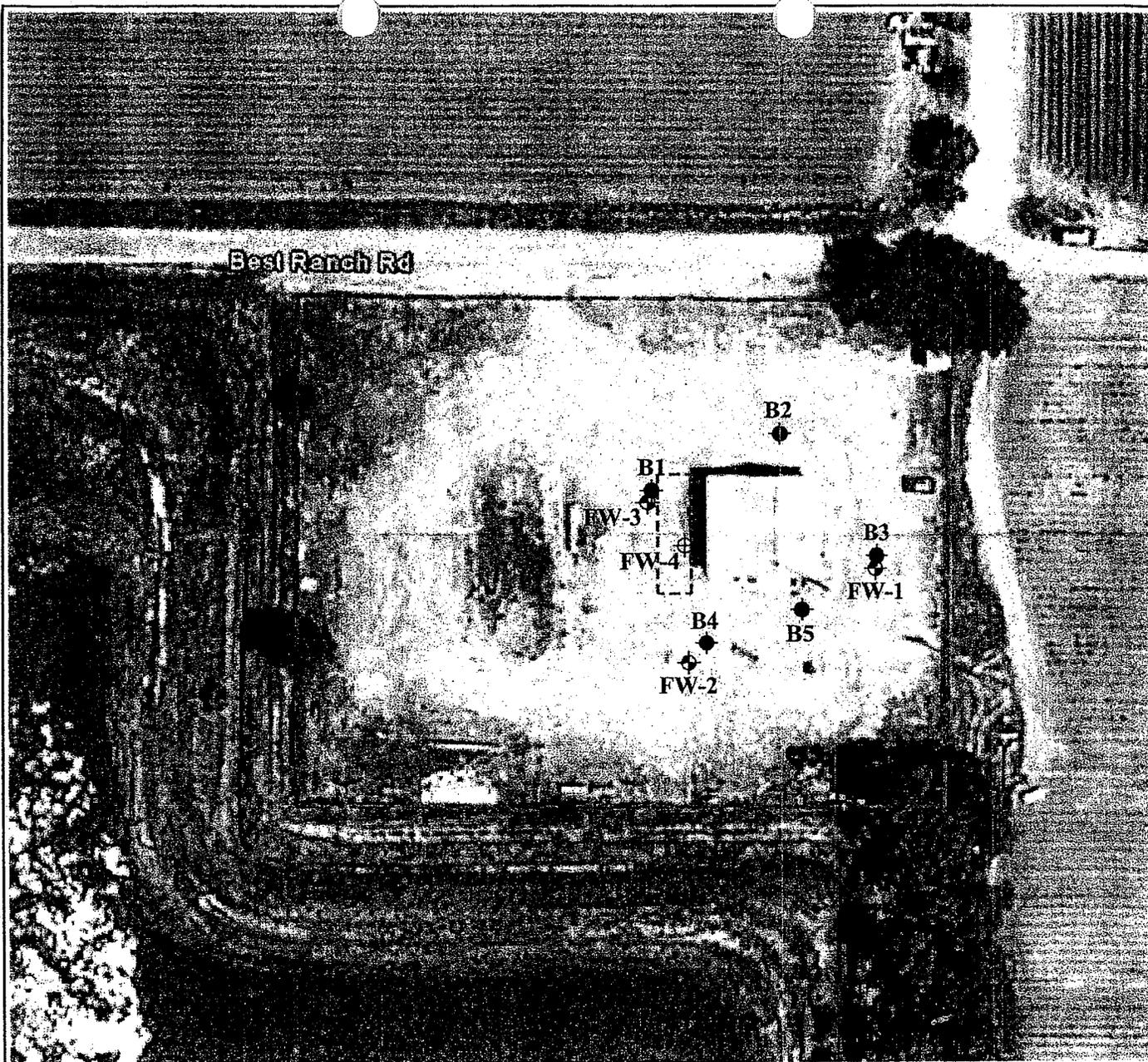
Adapted from Data Provided By Yolo County, 2007  
 Projection: NAD 83, California State Plane, Zone II



**VICINITY MAP**  
**FORMER SPRECKELS SUGAR FACILITY**  
**FARM REPAIR SHOP UST AREA**  
 Woodland, California

<b>FIGURE 1</b>	
DRAWN BY	TJC
CHECKED BY	MOB
PROJECT MGR	SAA
DATE	5/09
<b>WKA NO. 7864.14</b>	



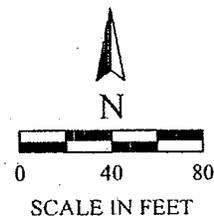


**Note:**

Adapted from an aerial photograph from Google Earth™ mapping service, 2006.

**Legend:**

- ◆ Approximate previous & current soil boring location (WKA, 2007)
- ◆ Shallow groundwater monitoring well location
- ⊕ Deep groundwater monitoring well location
- ▭ Site boundary
- ▭ Potential location of former USTs



**SITE PLAN**  
**FORMER SPRECKLES SUGAR FACILITY**  
**FARM REPAIR SHOP UST AREA**  
 Woodland, California

<b>FIGURE 3</b>	
DRAWN BY	TJC
CHECKED BY	MOB
PROJECT MGR	SAA
DATE	5/09
<b>WKA NO. 7864.14</b>	

**TABLE 3**  
**SOIL ANALYTICAL RESULTS**  
**Former Spreckels Farm Repair Shop UST Area**  
**40979 Best Ranch Road**  
**Woodland, California**  
**WKA No. 7864.14**

Concentrations reported in milligrams per kilogram (mg/kg)

SAMPLE DATA			EPA 8015M	EPA 8260B										EPA 8270C
Sample Designation	Sample Depth (feet bgs)	Date Sampled	TPHd	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	Tert-Butanol	All Analytes *
FW1 11-III	11	02/09/09	1.3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MRL
FW2 14-III	14	02/09/09	5.6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MRL
FW3 15-III	15	02/09/09	3.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MRL
FW4 55-III	55	02/13/09	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MRL
B5 15ft	15	02/13/09	1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MRL

Notes:

TPHd = Total petroleum hydrocarbons-as-diesel  
 TPHg = Total petroleum hydrocarbons-as-gasoline  
 MTBE = Methyl-tert-butyl ether  
 DIPE = Diisopropyl ether  
 ETBE = Ethyl-tert-butyl ether  
 TAME = Tert-amyl methyl ether

EPA = Environmental Protection Agency  
 bgs= below ground surface  
 < = Less than laboratory reporting limit  
 <MRL = Less Than Method Reporting Limits  
 \* = The full list of analytes can be found in Appendix F

**TABLE 1 - CHECKLIST OF REQUIRED DATA FOR NO FURTHER ACTION REQUESTS AT UNDERGROUND TANK SITES**

Site Name and Location: <b>Former Spreckels Sugar Farm Shop, 40979 Best Ranch Road, Woodland, Yolo County</b>	
<input checked="" type="checkbox"/> 1. Distance to production wells for municipal, domestic, agriculture, industry and other uses within 2000 feet of the site;	Onsite Water Supply Well is approx. 50 feet North of the plume, gradient from site is to the east. A water supply well is on the adjacent site, approx. 300 ft upgradient to the west of the site. Another well is 450 feet SE of site.
<input checked="" type="checkbox"/> 2. Site maps, to scale, of area impacted showing locations of former and existing tank systems, excavation contours and sample locations, borings and monitoring wells elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities;	Yes, see reports; 24 Jan 08, 28 Feb 08 and 29 May 09.
<input checked="" type="checkbox"/> 3. Figures depicting lithology (cross section), treatment system diagrams;	Yes, see Reports listed in item 2.
<input checked="" type="checkbox"/> 4. Stockpiled soil remaining on-site or off-site disposal (quantity);	No, no Soil from UST work onsite.
<input checked="" type="checkbox"/> 5. Monitoring wells remaining on-site, fate;	No, all 5 groundwater monitoring wells destroyed on 13 and 14 May 2010.
<input checked="" type="checkbox"/> 6. Tabulated results of all groundwater elevations and depths to water;	Yes, see 29 May 09 Report.
<input checked="" type="checkbox"/> 7. Tabulated results of all sampling and analyses: <input checked="" type="checkbox"/> Detection limits for confirmation sampling <input checked="" type="checkbox"/> Lead analyses	See 29 May 09 report and others listed in item 2.
<input checked="" type="checkbox"/> 8. Concentration contours of contaminants found and those remaining in soil and groundwater, and both on-site and off-site: <input checked="" type="checkbox"/> Lateral and <input checked="" type="checkbox"/> Vertical extent of soil contamination <input checked="" type="checkbox"/> Lateral and <input checked="" type="checkbox"/> Vertical extent of groundwater contamination	See reports listed in item 2.
<input type="checkbox"/> 9. Zone of influence calculated and assumptions used for subsurface remediation system and the zone of capture attained for the soil and groundwater remediation system;	No active remediation.
<input checked="" type="checkbox"/> 10. Reports / information <input checked="" type="checkbox"/> Unauthorized Release Form <input checked="" type="checkbox"/> QMRs <i>see reports 2008 through 2009</i> <input checked="" type="checkbox"/> Well and boring logs <input type="checkbox"/> PAR <input type="checkbox"/> FRP <input checked="" type="checkbox"/> Other	
<input checked="" type="checkbox"/> 11. Best Available Technology (BAT) used or an explanation for not using BAT;	UST removal and natural attenuation.
<input checked="" type="checkbox"/> 12. Reasons why background was/is unattainable using BAT;	Petroleum hydrocarbons largely non-detect in soil and groundwater, natural attenuation has degraded residual hydrocarbons.
<input type="checkbox"/> 13. Mass balance calculation of substance treated versus that remaining;	Concentrations detected indicates no mass remaining in subsurface see report 29 May 09.
<input type="checkbox"/> 14. Assumptions, parameters, calculations and model used in risk assessments, and fate and transport modeling;	See 2 September 2009 Request for Site Closure.
<input checked="" type="checkbox"/> 15. Rationale why conditions remaining at site will not adversely impact water quality, health, or other beneficial uses.	Primary sources of petroleum hydrocarbons were removed. Except for trace level of petroleum hydrocarbons are not a risk to groundwater or human health.
<input type="checkbox"/> 16. WET or TCLP results	See reports 2008 through 2009
By: DFS Date: 8 July 2010	<b>Comments:</b> : In 1987 a 1,000-gal diesel fuel and 5,000-gal diesel fuel USTs, and 750-gal waste oil UST were removed. Initial investigations in December 2007 and February 2008 indicated low concentrations of petroleum hydrocarbons. Subsequent soil and groundwater investigations indicated no apparent threat to groundwater or human health. Therefore, all monitoring wells were destroyed on 13 and 14 May 2010, and documents entered into Geotracker, therefore, closure is warranted.



# California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Arnold  
Schwarzenegger  
Governor

Linda S. Adams  
Secretary for  
Environmental  
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114  
Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

15 March 2010

Mr. Ryan Nakken  
Clark Pacific  
1980 South River Road  
West Sacramento, California 95691

## REQUEST FOR WELL DESTRUCTION, FORMER SPRECKELS FARM REPAIR SHOP, 40979 BEST RANCH ROAD, WOODLAND, YOLO COUNTY

I reviewed the 26 January 2010 *Monitoring Well Destruction Workplan (Workplan)*, prepared on your behalf by your consultant Wallace-Kuhl & Associates, Inc. The *Workplan* proposes to:

Obtain well destruction permits from Yolo County Environmental Health Services, and then use tremie grout (under pressure) to destroy monitoring wells FW-1 through FW-4. The top five feet of the wells and the wellheads will be removed and then that portion of the former well backfilled with grout. The surface of the borehole will then be completed similar to surrounding material. A report of this work will be prepared.

Your work plan is consistent with the comments and recommendations in our 25 January 2010 letter to you. This work is necessary and appropriate and should be conducted without delay. You must also dispose at an appropriate facility all drill cuttings, rinsate water, or other soil and water from environmental work at the site. Please submit by **14 May 2010** a report of the results of this work, and enter all documents and data into Geotracker, and submit electronic copies to Yolo County Environmental Health Services.

All work must be conducted according to Appendix A of the *Tri-Regional Recommendations for Preliminary Investigation Evaluation of Underground Storage Tank Sites*, and permits acquired from the appropriate local agencies prior to beginning work. Appendix A can be found at: [http://www.swrcb.ca.gov/rwqcb5/available\\_documents](http://www.swrcb.ca.gov/rwqcb5/available_documents).

If you have any questions, please contact me at (916) 464-4673 or by e-mail at [dstavarek@waterboards.ca.gov](mailto:dstavarek@waterboards.ca.gov).

DAVID F. STAVAREK, P.G.  
Engineering Geologist  
UST Enforcement Unit II

cc: Mr. Mark Owens, SWRCB, UST Cleanup Fund, Sacramento  
Ms. Barbara Rinker, SWRCB, UST Cleanup Fund, Sacramento  
Mr. Jeff Pinnow, Yolo County Environmental Health Services, Woodland  
Mr. Mark Nichols, Wallace-Kuhl & Associates, Inc., West Sacramento

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**California Environmental Protection Agency**

















