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California Regional Water Quality Control Board San Diego Region

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9174 Sky Park Court, Suite 100, San Diego, California 92123-4353
(858) 467-2952 • Fax (858) 571-6972
[http:// www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)

June 11, 2009

In reply refer to:
L10003156547:bpulver

Mr. Timothy G. Roberts
Environmental Director
LandBank Properties, L.L.C.
7604 Technology Way, Suite 300
Denver, Colorado 80237

Dear Mr. Roberts:

**SUBJECT: CLEANUP AND ABATEMENT ORDER NO. R9-2003-0080, FORMER
OMAR RENDERING SITE, CHULA VISTA, CALIFORNIA**

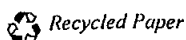
Cleanup and Abatement Order R9-2003-0080 (Order) required Otay Mesa Ventures II, LLC to provide certain reports to the California Regional Water Quality Control Board, San Diego Region (Regional Board). In response to the Order Otay Mesa Ventures II, LLC submitted the following reports prepared by Shaw Environmental, Inc. to the Regional Board:

1. *Comprehensive Site Investigation Report, Former Omar Rendering Site, Chula Vista, California* (Report)
2. *Site Conceptual Model, Former Omar Rendering Site, Chula Vista, California* (SCM)
3. *Remedial Alternatives, Feasibility Study, Former Omar Rendering Site* (Feasibility Study)

The reports have been reviewed and following are comments that need to be addressed.

- A. *Comprehensive Site Investigation Report, Former Omar Rendering Site, Chula Vista, California*
 1. **Directive B.1.a of the Order: The location and delineation of soils or groundwater in the source area which are polluted with mobile or immobile concentrations of non aqueous phase liquids (NAPL) has not been defined.**

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Wells and/or sampling points were not located within the footprint and area surrounding the former Class I ponds (source area). Therefore the presence of soil and/or groundwater with mobile or immobile concentrations of NAPL was not adequately evaluated.

2. **Directive B.1.b of the Order: The location and delineation of soils in the source area which are polluted with leachable concentrations of soluble pollutants has not been defined.**

Soil samples were not collected from the source area and analyzed for VOCs. Therefore the location and delineation of soil in the source area polluted with leachable concentrations of soluble pollutants was not adequately evaluated.

3. **Directive B.2 of the Order: The extent of volatile organic compounds (VOCs) in groundwater has not been defined.**

- a) The northern extent of VOCs in groundwater has not been adequately delineated.

- Trichloroethene (TCE): 24 micrograms per liter ($\mu\text{g/l}$)
- Cis -1,2-dichloroethene (cis-1,2-DCE): 15 $\mu\text{g/l}$
- 1,1-dichloroethane (1,1-DCA): 8.8 $\mu\text{g/l}$
- Trans-1,2-dichloroethene (trans-1,2-DCE): 2.2 $\mu\text{g/l}$

Groundwater monitoring well (well) MW-13 is used to define the northern, upgradient limit of VOC impacted groundwater. The groundwater sample collected from well MW-13 was reported to have detections of the following VOCs.

Therefore, well MW-13 does not define the northern extent of VOCs in groundwater.¹

¹ Since 2003 the TCE concentration of groundwater samples from well MW-13 have shown an overall increase. The sample collected in August 2008 sampling was reported to have a TCE concentration of 31 $\mu\text{g/l}$.

- b) The eastern extent of VOCs in groundwater has not been defined.

Well OVIPMW-04 is used to define the eastern limit of VOC impacted groundwater. For the reasons listed below data from well OVIPMW-04 does not define the eastern extent of VOCs in groundwater.

- i. The groundwater sample collected from well OVIPMW-04 was reported to have a TCE concentration of 7.2 µg/l.
- ii. A "grab" groundwater sample was reported to have been collected from soil boring B-5 in 1995. It should be noted that the OVIPM series wells are located approximately 800 feet southeast of soil boring B-5. The groundwater sample was reported to have detectable concentrations of the following VOCs:

Chemical	Concentration (µg/l)
Acetone	350
1,1-DCA	180
1,1-DCE	430
Chloroform	77
Methylene chloride	630
TCE	1,000

Because of the VOC detection in well OVIPMW-04 and that there are no wells located to the east of soil boring B-5, the eastern extent of VOCs in groundwater has not been adequately assessed.

- c) The southern extent of VOCs in groundwater has not been defined.

Well MW-16 is used to define the southern limit of VOC impacted groundwater. The groundwater sample collected from well MW-16 was reported to have a TCE at a concentration of 3 µg/l. Additionally there is an increasing TCE concentration trend of samples collected from well MW-16.² Therefore the southern extent of VOCs in groundwater is not adequately defined.

² The sample collected in August 2008 sampling was reported to have a TCE concentration of 45 µg/l.

- d) The western extent of VOCs in groundwater has not been defined.

Wells MW-02 and MW-03 are used to define the western limit of VOC impacted groundwater. For the reasons listed below data from wells MW-02 and MW-03 do not define the eastern extent of VOCs in groundwater.

- i. The groundwater sample collected from well MW-02 was reported to have a TCE concentration of 8.8 $\mu\text{g/l}$. Therefore, well MW-02 does not define the eastern extent of VOCs in groundwater.
- ii. Groundwater samples collected in 1995 and 1996 from wells and open borings located 600 to 800 feet east of the inferred limits of VOC impacted groundwater were reported to have TCE concentrations up to 720 $\mu\text{g/l}$. This indicates that VOCs in groundwater have moved further to the east than presented in the Report.

B. Site Conceptual Model, Former Omar Rendering Site, Chula Vista, California

1. Directive B.3 of the Order: The Site Conceptual Model (SCM) does not adequately identify all Existing and Potential Sources

- a) The existing Class I Waste Cell is an existing source of chemicals that may impact groundwater.
- b) Soil beneath the former waste ponds is a potential source of chemicals that may impact groundwater. Although soil beneath the ponds was excavated there remains 30 to 70 feet of soil between the base of the excavation and groundwater where VOC-bearing soil may be present and could leach into groundwater.

2. Directive B.3 of the Order: The SCM does not adequately identify all Existing and Potential Pathways

- a) The SCM uses the statement from the Risk-Based Decisions reports that "there is not a significant mass of chemical remaining in soil that could serve as a continuing source either down to groundwater or as emissions up to the surface." The SCM further states that "the DTSC [Department of Toxic Substance Control] concurred in the June 6, 1996 letter." It appears that this information is used to eliminate vapor migration as a potential pathway. For the following reasons the Regional Board does not concur with that opinion.

- i. The DTCS June 6, 1996 letter does not make any statements regarding the potential impact to groundwater from chemicals in the soil. Nor does the letter make any statements regarding the mass of chemicals in soil. The letter does make the statement that the excess cancer risks and noncarcinogenic health risks to the potential receptors are within acceptable limits.
- ii. Risk-Based Decisions uses soil vapor data to make conclusions regarding the volume of VOC-bearing soil at the site. This is an indirect measurement of the VOC in soil if typically used as a reconnaissance tool to locate areas to collect soil samples. In 2003 VOC impacted soil was encountered during grading. Because this soil was in an area where soil vapor samples were collected by Risk-Based Decisions an evaluation should be made of the method used to determine the applicability of the method used to evaluate the volume of VOC-impacted soil at the site.

C. Comprehensive Feasibility Study, Cleanup and Abatement Order R9-2003-0080, Former Omar Rendering Site, 4826 Otay Valley Road, Chula Vista

1. Due to increasing TCE concentrations of samples collected from wells MW-13 and MW-16 neither of the two recommended mitigation alternatives; monitored natural attenuation nor the creation of a Containment Zone, are appropriate at this time.
2. The modeling done to predict the concentration of TCE in groundwater does not appear to be verified using actual data. The model predicted decrease in TCE concentrations in samples collected from wells MW-13 and MW-16. The actual TCE concentrations have increased.
3. The Feasibility Study misstates the findings presented in the June 6, 1996 letter from the Department of Toxic Substance Control. The Feasibility Study states on page 2-2 that "*on the basis of soil vapor, soil, and groundwater samples collected between 1989 and 1996, Risk Based Decisions concluded that 'there is not a significant mass of chemicals remaining in soil that could serve as a continuing source either down to groundwater or as emissions up to the surface.' The DTSC concurred in their June 6, 1996 letter*".

The DTCS letter does not make any statements regarding the potential impact to groundwater from chemicals in the soil. Nor does the Memo make any statements regarding the mass of chemicals in soil. The Memo does make the

Mr. Timothy G. Roberts
Former Omar Rendering Facility

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statement that the excess cancer risks and non-carcinogenic health risks to the potential receptors are within acceptable limits.

In order to respond to the comments listed above the following reports shall be submitted to the Regional Board.

A. Site Conceptual Model and Workplan to Conduct a Comprehensive Site Investigation

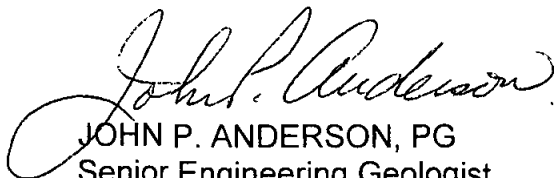
As soon as possible, but no later than **August 31, 2009** submit an adequate Site Conceptual Model and Workplan to Conduct a Comprehensive Site Investigation (Workplan) to the Regional Board.

The Site Conceptual Model shall:

1. Meet the requirements of Directive B.3 of Order R9-2003-0080.
2. Address the items listed in Comment B, above.
3. Include all available data and information.
4. Include a schedule for the implementation of the work plan and the submission of a Comprehensive Site Investigation Report and Comprehensive Feasibility Study as required by Directives B.1, B.2, and C of Order R9-2003-0080, and addresses items listed in Comments A and C.

In the subject line of any response, please include the requested "In reply refer to" information located in the heading of this letter. If you have any questions regarding this letter please feel welcome to call either Barry Pulver at (858) 467-2733 or me at (858) 467-2975.

Respectfully,



JOHN P. ANDERSON, PG
Senior Engineering Geologist
Southern San Diego Groundwater Unit

JPA:bsp

cc: Mr. Mark E. Unruh, Shaw Environmental & Infrastructure Inc.,
1230 Columbia Street, Suite 1200, San Diego, California 92101

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