CHEMICAL DATA MANAGEMENT SYSTEMS

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10:41 am, Oct 07, 2010

Alameda County
Environmental Health

September 23, 2010

Mark Detterman
Environmental Health Department
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: *Request for Data Gap Work Plan; Spills, Leaks, Investigations and Cleanup (SLIC) Case No. RO0003009 and Geotracker, Global ID # T10000001598; Western Forge & Flange, 540 Cleveland Ave. Albany, CA 94706*

Dear Mr. Detterman:

Western Forge and Flange and CDMS have reviewed your July 30, 2010 letter, which includes requests for further information and a Data Gap Work Plan. This letter is a response to both requests.

Response to Technical Comments:

Technical Comment #1:
The hydrogeologic analysis of existing data, collection of new samples, analysis of new data, and interpretation of the conditions in the subsurface environment were performed by or under the direction of:

Fredric Hoffman
CA Professional Geologist No. 3929. Expiration date 10/31/2012
CA Certified Hydrogeologist No. 83. Expiration date 10/31/2012.

Technical Comment #2:
The understanding of the subsurface geology and hydrogeology is not quite as limited as is stated in your 7/30/2010 letter. The hydrogeology of the site was established in the Brown and Caldwell Problem Definition Report in 1984, and was based on the drilling of 4 monitor wells and 7 soil borings.

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> "*Regionally, the plant site lies on Quaternary alluvium between the older southeast-northwest trending Berkeley Hills and the San Francisco Bay. The Mesozoic Franciscan Formation outcrops locally east and northeast of the site, Local stratigraphy underlying the plant site consists of sandstone overlain by 0 to 14 feet of clay. Figure 4-1 is a generalized cross section constructed from logs of three boreholes drilled on site. Borehole W1, drilled on the eastern portion of the site, towards the Albany Hill outcrop, contains less than 1 foot of clay and is primarily composed of weathered sandstone. Horizontally, the clay bed increases in thickness to the west to a maximum of 14 feet at borehole W3. Vertically, the underlying weathered sandstone grades into unweathered sandstone.*
>
> *Water level elevations were measured at 5 to 6 feet beneath the ground surface in monitoring wells W2 (5.93 feet), W3 (5.48 feet), and W4 (6.11 feet on July 11, 1984. These data indicate groundwater flows in a north-northwesterly direction beneath the plant site. The local groundwater gradient is approximately 3 x 10^{-3} ft/ft."*

In 2008, CDMS drilled 17 additional boreholes throughout the site, 12 of which were observed by a Professional Geologist. All of the borings were consistent with the Brown and Caldwell description of the hydrogeology. In addition, CDMS found that the site is underlain by a low permeability clay saturated above a dry dense clay above a poorly cemented sand. The clay contains a thin perched ground water zone between 6 to 12 feet below the ground surface in the southwestern portion of the facility. The depth to water varies seasonally by 4-6 feet. None of the 2008 borings encountered any preferential pathways for transport of contaminants. CDMS. 2009.

The remediation goals proposed by CDMS were based upon this more detailed understanding of the hydrogeology of the site and upon the most recent ESLs from the RWQCB. We propose that additional discussion of any further refinement of the remediation goals be postponed until after the interpretation of analyses of samples resulting from the implementation of the Data Gap Work Plan described below.

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Technical Comment 3:

3a. Ring Roller Pit

These comments have been addressed in the above description of the hydrogeology at the site and in the Data Gap Work Plan.

3b. Lateral Definition of Excavation

The Data Gap Work Plan now proposes individual sidewall and bottom sampling.

3c. Waste Oil ASTs

The waste oil tank adjacent to the Oil water separator is addressed in the Data Gap Work Plan.

When the plant was in operation up to two drums of vegetable oil were stored near the press located at grid O-25. This oil was used to coat the metal being forged. In 2008, the site was evaluated by CDMS and the County for areas that displayed potential contamination. One of the criteria used was the discoloration of the concrete flooring. We identified 17 locations that displayed the potential for subsurface contamination. Location O-25 did not display any signs of contamination and was not selected as a sampling location.

3d. Oil-Water Separator

The oil-water separator located in the back of the property consists of a pit that is approximately 2.5 feet wide by 4 feet long and 3 feet deep. There were no permanent plumbing associated with this system. All input and output was handled manually with pumps and hoses. During the course of operation very little oil/water was put in this unit. When the pit did fill the oil was removed and put into waste a common plant waste oil container and the remaining water was removed and put into an oil/water waste container. These waste streams were removed from the site and manifested by a certified waste hauler (Maximum Oil Service EPA ID: CAL 000188867). A copy of one such manifest is attached to this report.

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3e. Roof Blowdown
A soil boring at this location is included in the Data Gap Work Plan. Soil samples at this location will be analyzed for metals.

3f. Analysis for Copper
All soil samples taken during implementation of the Data Gap Work Plan will include analyses for Copper.

3g. Elevated Groundwater Metal Concentrations
During the closure ground water samples were taken at various locations, as outlined in our report. To acquire the samples, four-inch holes were sawed through 6 – 9 inches of concrete. Samples were acquired using a hydro punch rig. At the water sampling locations, slotted PVC well screens were inserted into the borehole, and water samples were taken with a bailer. The sample analysis reports from the lab indicate the level of filtering.

Data Gap Work Plan

Based upon the data collected at the site over the last 30 years, and cleanup activities in the last 3 years, CDMS has concluded that the site is ready for closure. The data include:

- The metals that were of concern in the 1980s were remediated to the regulators' satisfaction and major changes were made to the operations to prevent the further release of metals.
- Since the discovery in 2009 of the hydraulic oil release at the Ring Roller Pit, major efforts have been conducted resulting in the removal and remediation of the hydraulic oil and the contaminated sediments.
- The CA State Water Resources Control Board has found that there is no appreciable risk to human health or to the environment from releases of hydraulic oil.
- The geologic setting of the site is protective of the human health and the environment. The very dense low-permeability clay that underlies the site and contains the ephemeral perched ground water will contain any remaining

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contaminants that exist in the subsurface. There is no evidence of any preferred pathways for the subsurface transport of contaminants.

- The site is intended for continued industrial use and a deed restriction is planned as part of the closure as discussed previously with the County.

In order to establish that the above conclusions are sound, the following additional fieldwork will be conducted:

- The four open excavations will have the clays of their sidewalls sampled and analyzed for hydraulic oil and metals.
- The three excavations along the southern portion of the site will have the clays in their bottom sampled and analyzed or hydraulic oil and metals.
- The water in the Ring Roller Pit will be sampled and analyzed for hydraulic oil.
- Where the cement has been removed beneath the old waste oil storage area and adjacent to the oil/water separator, two new boreholes will be drilled. These locations are northwest of the Ring Roller Pit and in the down-gradient direction. Samples will be taken of the clays at the surface and every two feet and analyzed for hydraulic oil and metals. PVC well screen will be installed in the boreholes and samples of the ground water will be taken and analyzed for hydraulic oil and metals.
- A soil boring will be conducted outside the building adjacent to the roof drain near the oil/water separator. Clay will be sampled at two feet below the ground surface and analyzed for metals.

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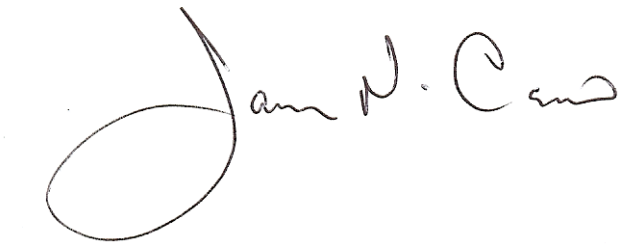
To minimize the impact of the winter water levels rising in the open pits due to the local rainfall, we would like to proceed with the implementation of this work plan by October 1, 2010. We will attempt to obtain the County approval to proceed, but in the absences of this approval we will proceed realizing that some activities may have to be duplicated.

Regards,



James N. Carro, REA

Copies: Walt Pierce, WFF
Fred Hoffman, Geologist
Kelley Etherington, Project Manager

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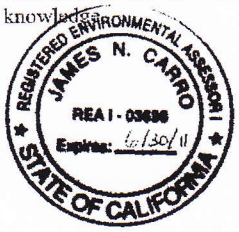
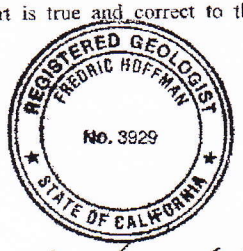
PERJURY STATEMENT

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.



James N. Carro, REA No. 03698
Expiration date 6/30/2011



Fredric Hoffman
CA Professional Geologist No. 3929.
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CA Certified Hydrogeologist No. 83.
Expiration date 10/31/2012.

Walter R. Pierce
President and CEO
Western Forge & Flange Co.

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State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD 981371396 — Manifest Document No. 79785 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Western Forge, 540 Cleveland, Albany Ca 94710
A. State Manifest Document Number: 21779785
4. Generator's Phone (510) 524-6831
B. State Generator's ID

5. Transporter 1 Company Name: Maximum Oil Service — 6. US EPA ID Number: CAL000188867
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: 707-552-8419
7. Transporter 2 Company Name — 8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address: Artesian Oil Recovery, 2306 Magnolia St, Oakland Ca. 94607 — 10. US EPA ID Number: CAL000233905
G. State Facility's ID
H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Non RCRA Hazardous Waste, Liquid (water + oil)	001	TT	0130	G	State 221 / EPA/Other None
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above: a. 01/14 — b. — c. — d.

15. Special Handling Instructions and Additional Information
ERG 171
Emergency contact (510)267-0134 T. Morgan

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Mike Thurston		03	27	92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Max Maxwell	Max Maxwell	03	27	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Eddie Nash		03	27	92

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550