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MCRD PARRIS ISLAND
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EMAIL REGARDING U S EPA REGION IV REQUEST FOR CONTINUED MONITORING AT
SITE 45 DRY CLEANING FACILITY SPILL AREA EMULSIFIED ZERO-VALENT IRON STUDY
LOCATION MCRD PARRIS ISLAND SC
2/23/2009
U S EPA REGION IV

From: Llamas.Lila@epamail.epa.gov
To: [Sladic, Mark](#)
Subject: RE: Dr. Su's Request for Continued Monitoring at Site 45 EZVI Study Location
Date: Monday, February 23, 2009 11:47:44 AM
Attachments: [pic28642.jpg](#)

Hi Mark,

Dr. Su sent me information, but I not sure it has been cleared for release since it might have proprietary information in it. Therefore, I have taken some language from it that I feel is general in nature and should meet your needs. There were some tables with results, but again, I am not sure about release. Geosyntec would be a better source for more details. It is my understanding that they are writing the report and they would know what is safe to release or not. I added below a snapshot of the contacts Table 8-1 from the Work Plan. Call Suzanne Ohara and then let me know if you do not get what you need.

Excerpt From Dr. Su follows:

"... Materials and Methods

Soil and groundwater samples were collected from the site in June 2005 and 2006 to assess contaminant distribution within the treatment areas, and a network of performance monitoring wells was installed at the site in June 2006 (Fig. 1). In the Direct Injection Plot, we installed one 13.5-ft deep and 2-inch diameter monitoring well (PMW-1) screened from 3.5 ft to 13.5 ft below ground surface (bgs). In the Pneumatic Injection Plot, we installed five 19-ft deep and 2-inch diameter monitoring wells (PMW-2, PMW-3, PMW-4, PMW-5, and PMW-6) screened from 4.0 ft to 19 ft bgs. In addition, we installed seven multilevel monitoring wells (0.5-inch diameter) screed at seven levels (mid-screen at 4.0, 6.5, 9.0, 11.5, 14.0, 16.5, and 19 ft for ML3, ML4, ML5, and ML6; mid-screen at 3.5, 6.0, 8.5, 11.0, 13.5, 16.0, and 18.5 ft for ML2 and ML7). Groundwater and soil core samples were collected prior to EZVI injection to establish baseline conditions for the demonstration.

.... Before injection, EZVI was pumped from mixing drums into injection tanks. EZVI was injected into the treatment areas in October 2006 (Fig. 1) and performance monitoring is ongoing and expected to be completed by October 2008. In the direct injection plot, 150 gallons of EZVI were injected into four locations between 6 and 12 ft bgs. In the Pneumatic Injection Plot, 575 gallons of EZVI were injected into eight locations between 7 and 19 ft bgs (two locations using Direct Injection). EZVI daylighted in both Direct Injection and Pneumatic Injection test plots as a result of incomplete plugging of holes left by previous soil core collection for site characterization. EZVI also daylighted around monitoring well ML3. ..."

(Embedded image moved to file: pic28642.jpg)

"Sladic, Mark"
<Mark.Sladic@tet
ratech.com>

To

Lila Llamas/R4/USEPA/US@EPA
02/23/2009 10:20 AM cc

Subject
RE: Dr. Su's Request for
Continued Monitoring at Site 45
EZVI Study Location

Hi Lila. Thanks for copying me. Obviously, any concurrence will come from Charles. But I am curious - is there any summary table yet available that shows Dr. Su's well construction details - mostly stuff like screened interval - so we can compare the monitoring results to historical results from other contractors (including Tetra Tech).
Thanks. MS

-----Original Message-----

From: Llamas.Lila@epamail.epa.gov [<mailto:Llamas.Lila@epamail.epa.gov>]
Sent: Friday, February 20, 2009 4:20 PM
To: charles.cook2@navy.mil; llamas.lila@epa.gov; Sladic, Mark;
timothy.j.harrington@usmc.mil; mmcrae@TechLawInc.com;
AmickMS@dhec.sc.gov; darrel.pittman@usmc.mil; Kelly.Taylor2@ch2m.com;
GerryAM@dhec.sc.gov
Cc: Su.Chunming@epamail.epa.gov
Subject: Dr. Su's Request for Continued Monitoring at Site 45 EZVI Study Location
Importance: High

Hi Folks,

As we know, Dr. Chunming Su has requested permission to continue monitoring under the EZVI Tech Demo Plan (Plan) as approved. We have a request from the state to clarify which wells are going to be sampled in the continued post-injection sampling events being requested. Good Question !

So I called Dr. Su to get the answer. He explained that in March they will be conducting the last of the previously scheduled post-injection well samples and soil cores (as seen in Figure 3-8 of the attached approved Plan.) Previously, they were sampling different wells at different times, but since this is the last official trip they intend to sample all wells at this point and repeat the soil cores for the last time. The Study report will be written based on this and previous data.

Dr. Su then stated that his continued monitoring would be an annual event, and since it is annual, as opposed to the more frequent intervals, all wells would be sampled each time he visits. For ease of identifying those wells, Dr. Su has provided a figure which identifies the wells intended to be sampled (see the other attached file.) Wells PMW 1-6, being fully screened wells, as well as ML 1-7, being multilevel wells, will be sampled (provided there is water in the wells at given depths.) I understood that there are not to be any more soil cores

planned at this time.

If there are any further questions, let me know. Otherwise I look forward to each of your concurrences with extending the monitoring.

Thanks,

Lila

(See attached file: Continued Monitoring by Chunming Su.doc)(See attached file: EZVI Tech Demo Plan TR0173 FINAL.pdf)