



INTERNATIONAL
TECHNOLOGY
CORPORATION

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IT Project No. 409440

Caroline Kwan, Project Manager
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U.S. EPA Region II
290 Broadway, 20th Floor
New York, NY 10007-1866

Additional Comments on "Draft Feasibility Study"
Tutu Wells Site, St. Thomas, U.S. Virgin Islands

Dear Ms. Kwan:

Please find enclosed three copies of IT Corporation (IT) comments on the above referenced document. These comments are being provided on behalf of our client, L'Henri, Inc. These comments are also being transmitted to the TEIC Committee; however, there is no mechanism currently in place for these comments to be addressed by TEIC. We believe that these comments should be addressed before the document can be finalized.

We appreciate this opportunity to present our concerns on behalf of our client. If you have any questions, please feel free to call Attorney D'Anna at (809) 776-6533 or me at (615) 690-3211.

Sincerely,

Belinda K. Price, R.P.G.
Project Manager

Enclosure

cc: N. D'Anna, Esq.
P. Martinez-Lorenzo, Esq.
Jack McBirney, de maximis, inc.

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**Additional Comments on Geraghty and Miller, Inc. 1995,
Draft Feasibility Study Tutu Wells Site,
St Thomas, U.S. Virgin Islands**

After review of the Final RI for the above referenced site the following additional comments on the FS are submitted.

1. The location of recovery wells should be revised and additional recovery wells are appropriate based on the following changes in data presentation in the Final RI:

- Groundwater elevation contour maps for May 10, 1994 (figures 4-12 and 4-14) in the Final RI include supply well data not previously used south of the Esso station. These maps appear appropriate for this portion of the aquifer. Figure 4-14 indicates divergent groundwater flow at the approximate location of the Tom Cat Laundromat which is likely a reflection of fracture flow. The flow paths become parallel southeast of the Steele supply well.
- The contaminant maps for MTBE in shallow and deep groundwater (figures 5-20 and 5-21) indicate flow pathways from sites with sources of petroleum compounds in groundwater, this would be expected to also reflect the flow pathways for the dissolved VOCs which may have emanated from those same sources.
- The contamination maps for PCE (figures 5-25 and 5-26) indicate three areas with PCE greater than 10 ug/l in the shallow groundwater (referred to herein as the northern, central and southern hot spots), but a more diffuse plume in the deep groundwater. This pattern appears similar for other individual chlorinated VOCs. Individual compound maps or a map with these individual compound maps superimposed on each other should replace the "chlorinated VOC compounds maps" (figures 5-22 and 5-23) which were used to pick recovery well locations in the FS (figure 2-4).

Based on the new presentation of data in the Final RI as described above, separate recovery wells should be placed into the shallow and deep portions of the aquifer. Shallow recovery wells should be targeted to remediate the three identified hot spots. Deep recovery wells should focus on remediation and control of the more diffuse plume. Groundwater modeling should be used to explore the recovery well scenarios to ensure that they are practical. Specifically the following preliminary changes in the recovery well scenario are recommended:

- Add one shallow recovery well approximately 50 feet northeast of Antilles Motors to remediate the northern hot spot in the shallow portion of the aquifer.

- Move RW-4, which should be a deep recovery well, to the location of the Texaco Service Station to remediate and control the northern part of the diffuse plume in the deep portion of the aquifer.
- Add one shallow recovery well at the location of the northeast corner of the Esso Service Station to remediate the central hot spot in the shallow portion of the aquifer.
- Add one deep recovery well at the location of the northeast corner of the Esso Service Station to remediate the central part of the diffuse plume in the deep portion of the aquifer. (Note pumping at Four Winds needs to be considered when locating this recovery well).
- Move RW-1 to the west side of Route 38 at the approximate location of the God of Holiness Church, and install as a deep recovery well, to control the central part of the diffuse plume in the deep portion of the aquifer.
- Add one shallow recovery well near the southern end of the Liquor Barn to remediate the southern hot spot in the shallow portion of the aquifer.
- RW-5 is in an appropriate location but it should be installed as a deep recovery well. The purpose is to remediate the diffuse plume in the deep portion of the aquifer which flows along the western flow path where flow has been identified as being divergent.
- Add one deep recovery well between monitoring well MW-21D and the LaPlace supply well. The purpose is to remediate the diffuse plume in the deep portion of the aquifer which flows along the eastern flow path where flow has been identified as being divergent.
- RW-3 is in an appropriate location but it should be installed as a deep recovery well. The purpose is to remediate the diffuse plume in the deep portion of the aquifer.
- Move RW-2, which should be a deep recovery well, approximately 100 feet to the east. The purpose is to remediate the diffuse plume in the deep portion of the aquifer.
- Add one deep recovery well approximately 100 feet northwest of the Delegarde supply well. The purpose is to control the southern toe of the diffuse plume in the deep portion of the aquifer.

2. The depiction of an area "suspected to contain DNAPL in the saturated zone" (figure 2-4) beneath the Liquor Barn and O'Henry Dry Cleaners is not upheld by new and previously available data:

- The Final RI discussion of the likely presence of DNAPL indicates a high probability of a DNAPL release based on the historical use of PCE as a dry cleaning solvent using the criteria set forth in EPA 1992b. This is inappropriate use of this EPA publication where the goal is to provide guidance for site characterization. Further, the publication provides two decision charts, one titled "Does Historical Site Release Indicate Presence of DNAPL?" and one titled "Do site characterization data indicate presence of DNAPL?". These decision charts are supposed to be used together to determine the potential for occurrence of DNAPL.
- The Final RI states that the concentrations of PCE in soils found at O'Henry are not high enough to conclude that PCE is present as a separate phase in soils. Data recently obtained during the soil removal action at the O'Henry Dry Cleaners confirm that no DNAPL is present in the soils. (Report to be issued May 1995).
- Evidence used in the Final RI to indicate that DNAPL is present in the groundwater beneath the O'Henry Dry Cleaners is that concentrations of PCE in groundwater samples from two sampling rounds (between 1987 and 1991) were at levels which exceeded 1 percent of the solubility. This may indicate that free-phase existed before 1991. Concentrations of PCE in groundwater samples collected from the Harvey supply well since 1991 have been much lower, indicating no free-phase since 1991. Therefore there is no evidence to conclude that PCE is present as a separate phase in groundwater.

3. If it is assumed that the criteria provided in the Final RI for determining the high probability of DNAPL in groundwater is correct, then historical data provided for the Tillet supply well indicate that this area should also be identified on figure 2-4 of the FS as an "area suspected to contain DNAPL in the saturated zone".

*Apply to
Tillet - well.*