APPENDIX F

1997 TEST PIT AND CULVERT WELL INSTALLATION

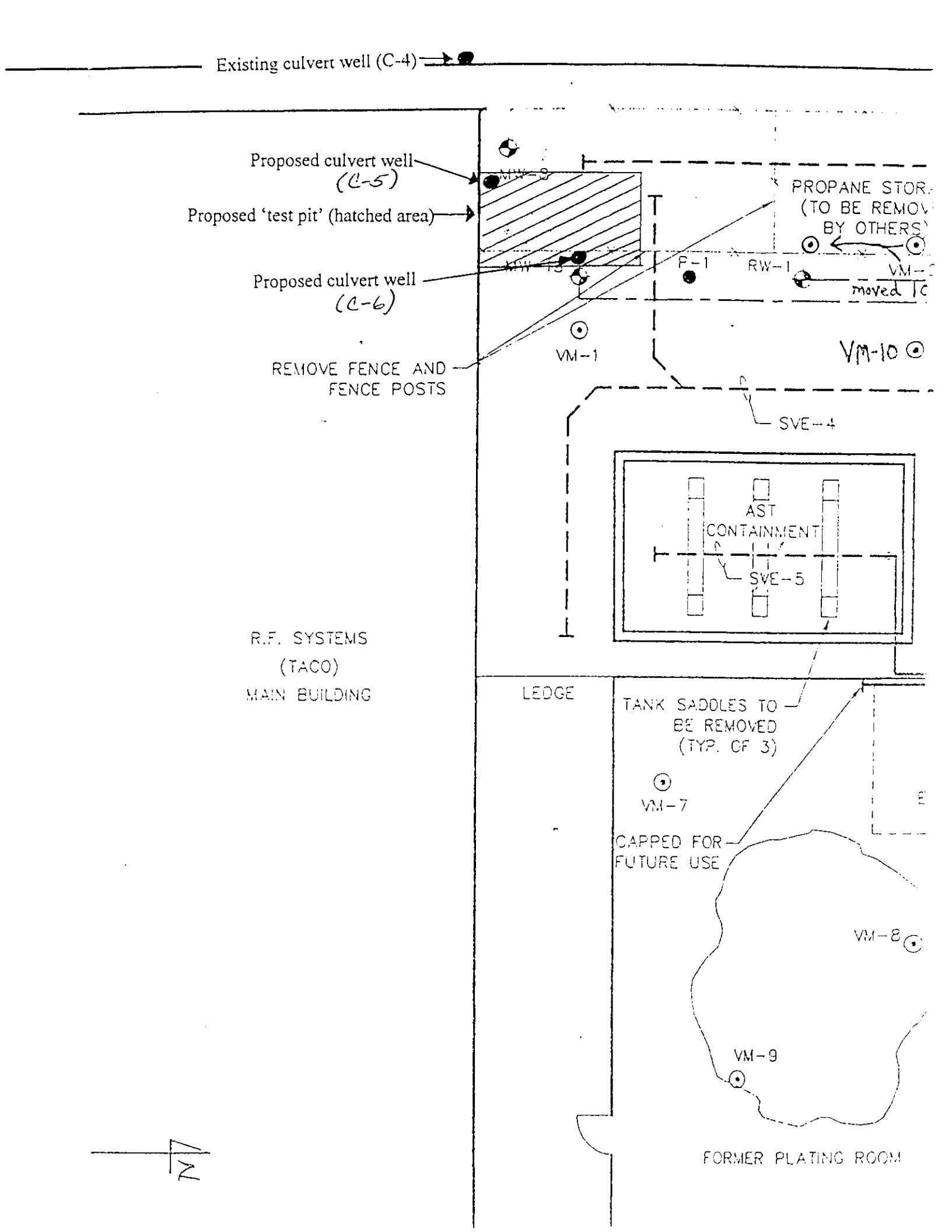
DRAFT

SCOPE OF WORK

Installation of 'Test Pit' and Culvert Wells
Former General Instrument Facility
Kenyon Press Drive
Sherburne, NY
July 28, 1997

S&W Services, Inc. will provide services for installation of a 'test pit' and culvert wells for recovery of free-phase petroleum product near the northwest corner of the Kenyon Press building. The following tasks shall be included in the Scope of Work:

- Excavate 'test pit' on the north side of the Kenyon Press building, between MW-8 and MW-18 as shown on the attached site sketch.
  -Remove fill from grade to 1-foot below grade and stockpile to use as backfill. Fill from grade to 1-foot below grade will be used to finish backfill above the gravel backfill to be installed.
  -Excavate remainder of test pit to a minimum of 1 foot below the observed water table at the deepest point. Grade excavation with shallowest point on northwest corner of excavation and deepest points near Kenyon Press building, MW-18, and MW-8.
  -Place excavated material in former AST containment area for SVE treatment.
- Collect product that enters the excavation and the existing culvert well C-1 (off northwest corner of Kenyon Press building) with skimmer, sorbent pads and sorbent booms.
- After product recovery in excavation diminishes, install HDPE (12-inch or larger) culvert wells in excavation.
  -Install two wells (C-5 and C-6), one adjacent to MW-18 (on west side of existing well) and one near MW-8, but as close to the Kenyon Press building as possible.
  -Culvert wells are to be slotted from approximate base to top. Culvert wells will be slotted to the maximum degree possible that will allow the wells to maintain sufficient strength against collapse.
  -Culvert wells to be installed with base at least 1.5 feet below the observed water table. S&W Services will attempt to install the wells deeper, with a maximum well depth of 10 feet below grade.
- Backfill excavation.
  -Backfill with No. 2 gravel from base of excavation to approximately 1 foot below grade in 1-foot deep lifts. Tamp each layer with excavation equipment to compact between lifts.
  -Backfill from approximately 1 foot below grade to grade with previously stockpiled soil.
- Place sorbent pillow in culvert wells (C-1, C-5, and C-6).
- Visit site for three weeks to measure product levels and recovery product. During each visit:
  -Monitor product levels in MW-8, MW-18, P-1, and culvert wells C-1 through C-6.
  -Skim product from the top of C-4, C-5 and C-6.
  -Change sorbent pillows in C-4, C-5 and C-6.


Existing culvert well (C-4)
Proposed culvert well (C-5)
Proposed 'test pit' (hatched area)
Proposed culvert well (C-6)
REMOVE FENCE AND FENCE POSTS
MW-9
MW-13
P-1
RW-1
PROPANE STOR
(TO BE REMOV
BY OTHERS)
moved to
VM-1
VM-10
SVE-4
AST CONTAINMENT
SVE-5
R.F. SYSTEMS
(TACO)
MAIN BUILDING
LEDGE
TANK SADDLES TO BE REMOVED (TYP. OF 3)
VM-7
CAPPED FOR FUTURE USE
VM-8
VM-9
FORMER PLATING ROOM

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

John P. Cahill
Commissioner

July 29, 1997

Ms. Barbara Curtis
Corporate Director of Environment
Health and Safety
General Instrument
Masons Mill, Bldg. 11
1800 Byberry Road
Huntingdon Valley, Pennsylvania 19006

Dear Ms. Curtis:

RE: **General Instrument Site - Installation of Culvert Wells**
Site # 7-09-010, (V) Sherburne (C) Chenango

The Department has reviewed S&W Services' July 28, 1997 memorandum requesting review and approval from the New York State Department of Environmental Conservation (NYSDEC) to excavate a test pit and culvert wells for recovery of free-phase petroleum product at the subject site. As a result of that review the NYSDEC has the following comments that will need to be addressed before final approval will be given:

1. Briefly describe the construction equipment that will be used to excavate test pits and install culvert wells.

2. Is former AST containment area to be used for SVE treatment of below water table soils currently operational? If not, what measures will be taken to make this area operational?

3. Does the soil excavated below the water table need to be de-watered before being placed into former AST containment area?

4. How will product levels be monitored and skimmed if there is a sorbent pillow in the culvert wells?

5. Please clarify the term "diminishes" in third bullet when referring to product recovery in excavation prior to culvert well installation.

6. How often does S&W Services anticipate on visiting the site within the first three week period? The NYSDEC recommends daily as long as product is being collected.

7. Should references to C-4 in last bullet be revised to C-1?

8. Is there an existing HASP that will be followed during the test pit and culvert well excavation and installation process?

9. Briefly describe how the collected petroleum product and discarded sorbent booms be collected, staged, and disposed of.

Please have S&W services provide a response to the above comments as soon as possible. Upon the NYSDEC's review of the responses it is anticipated a formal approval to conduct the work will be granted. Should you have any further questions on this matter please do not hesitate to contact me at (518) 457-7878.

Sincerely,

David J. Chiusano
Project Manager
Western Field Services Section
Bureau of Construction Services
Division of Environmental Remediation

Enclosure

cc: E. Herbold - S&W Services
D. Clark - Stearns & Wheler
J. May- NYSDEC, Region 7

S&W Services, Inc.

MEMORANDUM

TO: David Chiusano, NYSDEC
FROM: Ilene Herbold
DATE: August 12, 1997

RE: Installation of Culvert Wells
General Instrument, Sherburne, NY
Site #7-09-010

Responses to your comments regarding excavation of a test pit and installation of culvert wells for recovery of free-product contained in your July 29, 1997 letter to Barbara Curtis (attached) are included below:

Comment 1. The test pits will be excavated and the culvert wells will be installed using a rubber-tired backhoe equipped with an extension arm (extn'd hoe).

Comment 2. Soil from below the water table will be placed in the former AST containment area for SVE treatment. We are currently installing the SVE system modifications as previously discussed and expect the SVE system to be operational by August 13th.

Comment 3. We will 'dewater' the soil that is excavated below the water table in the same manner that soil was dewatered during construction of the landfarm cell. Free-draining water will be allowed to drain from the soil while the bucket of the backhoe is still in the excavation. Remaining moisture will be drained from the soil as it sits in the former AST containment area. The SVE system modifications will allow excess moisture in the soil to be collected and treated through the pump and treatment system.

Comment 4. We will be able to monitor the product level in a culvert well with a sorbent pillow in the well because the sorbent pillow will not cover the top of the water surface in the well. We have already been monitoring the product level in C-1 with a sorbent pillow in the well. We expect to remove the sorbent pillows from the wells in order to skim product off the wells.

Comment 5. "Diminishes" will mean (a.) product layer reduces to a sheen or (b.) product layer development is too slow to manually remove product at a maximum of 24-hour intervals (this will be a field call and we will consult the NYSDEC when making this judgement).

Comment 6. Our original intent was to visit the site on a weekly basis. We will visit the site daily during the first week immediately following excavation of the test pit and determine the frequency of subsequent visits based on our findings during that week and consultation with the NYSDEC.

Comment 7. References to C-4 should be revised to C-1.

Comment 8. The HASP included in the Operations, Maintenance, and Monitoring Manual (Stearns & Wheler, LLC, January 1997) will be followed.

Comment 9. Collected petroleum product and sorbent materials will be collected, stored, and transported in 55-gallon drums. These materials will be disposed of in accordance with applicable local, state, and federal regulations. At this time we believe that the materials will be disposed of by incineration at ENSCO Environmental in accordance with General Instruments Corporate Policies.

Please call me if you have any questions.

Attachments

cc: Diane Clark, Stearns & Wheler, LLC
Barbara Curtis, General Instrument

S&W Services, Inc.
One Remington Park Drive, Cazenovia, NY 13035
(315) 655-4953 Fax: (315) 655-2285

October 10, 1997

Mr. David Chiusano
NYSDEC
50 Wolf Road
Albany, NY 12233

Re: General Instrument Corporation
Sherburne, NY

Dear Mr. Chiusano:

The test pit and culvert wells were installed at the former General Instrument facility located in Sherburne, New York according to the Scope of Services submitted to the NYSDEC on July 28, 1997 and the updates to the Scope of Services submitted to the NYSDEC on August 12, 1997. These documents are attached for your reference.

The test pit was excavated on August 25, 1997. Groundwater was encountered at approximately 5 to 6 feet below grade and the test pit was excavated to 1-2 feet below the groundwater level. Product observations were made while the test pit was open between August 25 and August 29. The product observed in the test pit was brown, foamy and somewhat emulsified. This product was similar in appearance to the product that was observed on the water table during excavation of petroleum-impacted soil in the 'West Field' in October 1996. The product layer covered the surface of the water in the test pit; however, product thickness was not measurable with the interface probe.

Approximately 525 gallons of oily water was skimmed from the water surface in the test pit on August 26 and 27 with a drum-vac and with a trash-pump. This water/oil mixture was placed in bulk containers on the site. Sorbent pads were used to remove the product from the water surface in these containers and the water was treated and discharged through the onsite pump and treatment system on September 19. In addition to removal of product by skimming, sorbent booms and pads were placed on the water table in the test pit to absorb product that entered the test pit while the excavation was open. These pads and booms were removed and replaced as needed during the week. The used pads and booms are stored onsite in a 55-gallon drum pending disposal.

The culvert wells were set and the test pit was backfilled on August 29. The culvert wells were set with the bases approximately 7 feet below grade. Sorbent pillows were placed in the existing culvert well (C-1) and the two new culvert wells (C-5: adjacent to MW-8; C-6: adjacent to MW-18) following backfilling of the test pit. Following installation of the culvert wells, product thickness measurements were collected from C-1, C-2, C-3, C-4, C-5, C-6, MW-8, MW-18, P-1, and RW-1 on a weekly basis for a period of three weeks.

During the site visits product was also manually removed from wells and sorbent pillows were removed and replaced as needed. Product thickness measurements were collected on the following dates:

- August 29, 1997
- September 4, 1997
- September 11, 1997
- September 17, 1997

The data collected during site visits is summarized on the attached table (Table 1). No data from RW-1, C-2, C-3, or C-4 is included in the table because no product was found in these wells on the above-referenced dates. Product thickness measurements were less than 1-inch and appeared to decrease during the period of observations with one exception. The product thickness measurement in P-1 was 2.28-inches on September 11. However, during the following week (September 17) no product was found in P-1 and the product thickness measurements prior to September 11 were less than 0.5-inches.

We propose to follow up this effort by turning on the pump in MW-18 (the motor from the pump in RW-1 was used to replace the motor for MW-18) and running the pump and treatment system. We will then collect depth to water and depth to product measurements and calculate product thickness measurements in C-1, C-2, C-3, C-4, C-5, C-6, MW-8, MW-18, P-1, and RW-1 on a weekly basis for a period of three weeks. We will also manually recover product and replace sorbent materials in wells C-1, C-5, C-6, MW-8, P-1 and RW-1 during the site visits. We expect to use the data collected prior to pumping and during pumping to determine an appropriate method for product removal in the future if it is needed. In addition, we will collect pH measurements at several sampling ports while the pump and treatment system is operating to aid in the calculation of acid doses for pH adjustment (to control hardness precipitation).

Please call me at (315) 655-4953 with any questions and your comments on our proposed actions.

Very truly yours,

Ilene M. Herbold
Remediation Project Manager

IMH/dec

Attachments

cc: Diane Clark, Stearns & Wheler, LLC
Barbara Curtis, Next Level Systems, Inc.

TABLE 1

Summary of Field Data Collected During August and September, 1997

Former General Instrument Facility, Sherburne, NY

Well ID	Date	Depth to Product (ft.)	Depth to Water (ft.)	Product Thickness (ft.)	Product Thickness (in.)	Sorbent in Well	Sorbent Changed	Free Product Removed
C-1	8/29/97	7.01	7.02	0.01	0.12	Yes[2]	No	No
	9/4/97	7.12	7.13	0.01	0.12	Yes	Yes	Yes
	9/11/97	NP	7.31	Sheen	Sheen	Yes	No	No
	9/17/97	NP	7.40	NP	NP	Yes	No	No
C-5	8/29/97	NA[1]	NA[1]	NA	Haze/sheen	Yes[2]	No	No
	9/4/97	NP	8.78	Haze/sheen	Haze/sheen	Yes	No	No
	9/11/97	NP	8.93	Sheen	Sheen	Yes	No	No
	9/17/97	NP	8.85	NP	NP	Yes	No	No
C-6	8/29/97	NA[1]	NA[1]	NA	Haze/sheen	Yes[2]	No	No
	9/4/97	NP	9.09	Haze/sheen	Haze/sheen	Yes	No	No
	9/11/97	NP	9.11	Sheen	Sheen	Yes	No	No
	9/17/97	NP	9.10	NP	NP	Yes	No	No
RW-1	8/29/97	NP	5.71	NP	NP	No	NA	No
	9/4/97	NP	4.84	NP	NP	No	NA	No
	9/11/97	NP	5.02	NP	NP	No	NA	No
	9/17/97	NP	5.10	NP	NP	No	NA	No
P-1	8/29/97	5.84	5.90	0.06	0.72	No	NA	No
	9/4/97	5.40	5.44	0.04	0.48	No	NA	Yes
	9/11/97	5.10	5.29	0.19	2.28	No	NA	Yes
	9/17/97	NP	5.20	NP	NP	No	NA	No
MW-18	8/29/97	5.27	5.31	0.04	0.48	No	NA	No[3]
	9/4/97	5.40	5.44	0.04	0.48	No	NA	No[3]
	9/11/97	NP	5.60	NP	NP	No	NA	No[3]
	9/17/97	NP	5.62	NP	NP	No	NA	No[3]
MW-8	8/29/97	7.94	8.00	0.06	0.72	No	NA	No
	9/4/97	8.05	8.10	0.05	0.60	No	NA	Yes
	9/11/97	8.22	8.23	0.01	0.12	No	NA	Yes
	9/17/97	NP	8.30	NP	NP	No	NA	No

Notes.

[1] Depth to Product and Depth to Water were not measured because water level had not equalized following well installation.

[2] Sorbent pillow was placed in well C-5 and C-6 following installation on 8/29/97.
Sorbent pillow had been removed from C-1 on 8/28/97 and a new pillow was installed on 8/29/97.

[3] Sorbent socks and bailers are too big to fit past the pitless adapter in the well.

NA = Not Applicable

NP = No Product