

**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III**

I hereby certify that the within is a true and correct copy of the original Order filed in this matter.


Attorney for USEPA

IN THE MATTER OF:

Safety Kleen Systems Inc.

RESPONDENT

BDC Spectrum LLC

Silver Spring, Maryland

FACILITY

) ADMINISTRATIVE ORDER ON
) CONSENT
)
)
) U.S. EPA Docket Number:
) RCRA-03-2015-0129TH
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)
) Proceeding under Section
) 3013 of the Resource
) Conservation and Recovery
) Act, as amended, 42 U.S.C.
) § 6934

ADMINISTRATIVE ORDER ON CONSENT

The parties to this Administrative Order on Consent (Consent Order or Order), the United States Environmental Protection Agency (EPA) and Safety Kleen Systems Inc. (Safety Kleen or Respondent), having agreed to entry of this Consent Order, it is therefore ordered and agreed that:

I. JURISDICTION

1. This Consent Order is issued pursuant to the authority vested in the Administrator

of EPA (the Administrator) by Section 3013 of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (collectively referred to hereinafter as RCRA), 42 U.S.C. Section 6934. The authority vested in the Administrator has been delegated to the EPA Regional Administrators by EPA Delegation No. 8-20, dated May 11, 1994, and further delegated to the Director of the Waste and Chemicals Management Division, now known as the Land and Chemicals Division, on September 20, 1999.

2. On January 25, 1985, EPA granted the State of Maryland (the State) authorization to operate a state hazardous waste program in lieu of the Federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), and has since approved revisions to that program. The State, however, does not have RCRA Section 3013, 42 U.S.C. § 6934, authority. The State has been given notice of the issuance of this Consent Order.

3. This Consent Order is issued to Safety Kleen, the former operator of the Facility as more fully described in Section V. 11. C., below.

4. Respondent consents to issuance of this Consent Order, agrees to comply with its terms and will not contest EPA's authority to issue this Consent Order and to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to compel compliance with this Consent Order in any subsequent enforcement proceeding, either administrative or judicial, require Respondent's compliance with the terms of this Consent Order, or impose sanctions for violations of this Consent Order. Respondent, however, by entering into this Consent Order does not admit or deny EPA's Findings of Fact or Conclusions of Law. Moreover, nothing in this Consent Order constitutes an admission of liability or waiver of defenses by the Respondent to any third party.

II. DEFINITIONS

5. This Consent Order incorporates the definitions in RCRA, 42 U.S.C. §§ 6901 - 6922k.

III. PARTIES BOUND

6. This Consent Order shall apply to and be binding upon EPA, the Respondent, and their agents, successors and assigns.

7. No change in ownership of any property covered by this Consent Order or in the corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Consent Order.

8. Respondent shall provide a copy of this Consent Order to all supervisory personnel, contractors, subcontractors, laboratories, and consultants retained to conduct and/or monitor any portion of the Work performed pursuant to this Consent Order and shall do so within seven (7) calendar days of the Effective Date of this Consent Order or date of such

retention, whichever is later. All contracts, agreements or other arrangements with such persons shall require such persons to conduct and/or monitor the Work in accordance with the requirements of this Consent Order. Notwithstanding the terms of any such contract, agreement or arrangement, Respondent is responsible for complying with this Consent Order and for ensuring that all such persons perform such Work in accordance with this Consent Order.

9. In the event of any change in majority ownership or control of the Respondent, Respondent shall notify EPA in writing of the nature of any such change no later than fifteen (15) calendar days after the effective date of such change. Respondent shall provide a copy of this Consent Order to any successor to Respondent and/or Facility at least fifteen (15) calendar days prior to the effective date of such change. Nothing stated in this Paragraph III.9 shall relieve Respondent from complying with the terms and conditions of this Consent Order in the time and manner specified herein.

IV. STATEMENT OF PURPOSE

10. In entering into this Consent Order, the mutual objective of EPA and Respondent is to have Respondent perform the monitoring, testing, analysis, and reporting activities required by the Final Remedy identified in Section 5 of Final Decision and Response to Comments (FDRTC) and as specified in Section VII, below, issued by EPA on November 21, 2014. The FDRTC is incorporated by reference herein as though fully set forth at length and is attached herein and made a part hereof as Exhibit 1 to this Consent Order.

V. EPA'S FINDINGS OF FACT

11. EPA makes the following Findings of Fact to which Respondent neither admits nor denies:

A. Respondent is a corporation and is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

B. Respondent is the former operator of a hazardous waste storage, facility located at 12158 and 12164 Tech Rd., Silver Spring, Maryland within the meaning of Section 3013 of RCRA, U.S.C. Section 6934.

C. The Facility consists of approximately 10 acres. The Facility is currently owned by BDC Spectrum LLC. From approximately 1982 until April 1996, Safety Kleen operated two leaseholds within the Facility as an accumulation point for spent solvents and other fluids generated by Safety Kleen customers. Safety Kleen occupied two warehouses in a building with other tenants in adjacent offices. The Facility property includes a parking lot and an area where two underground storage tanks (USTs or tanks), a return and fill station area, and associated piping trench had been located (UST Area).

The area within which Safety Kleen operated is depicted on Exhibit 2. The Facility is an operating industrial and commercial park. Neighboring properties are involved in various forms of industrial and commercial activities.

D. During Safety Kleen's lease of a portion of the Facility, it operated under a Controlled Hazardous Substances permit issued by the Maryland Department of the Environment (MDE). MDE issued a Post Closure Permit for the Facility in February 2001, which includes remediation goals and requirements for the cleanup of total petroleum hydrocarbon (TPH), volatile organic compounds (VOCs), organic compounds and metals in the groundwater and soil.

E. On October 29, 2013, Safety Kleen performed groundwater sampling at the Facility. Results showed that groundwater under and in the vicinity of the Facility contained concentrations of tetrachloroethylene (PCE) above its Maximum Contaminant Level (MCL) established by the Safe Drinking Water Act, 42 U.S.C. Section 300g-1, as follows:

Well ID	PCE*
	micrograms per liter ug/L
Shallow Overburden Wells	
MW-1	ND(5)
MW-2	ND(5)
MW-3	ND(5)
MW-4	76
MW-5	93
MW-6	170
MW-7	8.4
Off-site, Side Gradient	
MW-8	300
Deep Overburden Zone Wells	
MW-9	170
MW-10	260
MW-11	210
Up-Gradient, On-Site	
MW-13	6.4
MW-14	24
Up-gradient, west side of building	
PZ-2	55
PZ-1	ND(5)
*MCL (ug/L)	5

F. Groundwater sampling results from MW-7 taken in 2012 showed other VOCs above their applicable MCLs as follows: 99 ug/L of cis-1,2-dichloroethene (MCL of 70 ug/L), 8.2 ug/l of trichloroethene (MCL of 5 ug/L), and 31 ug/l of vinyl chloride (MCL of 2 ug/L).

G. In response to EPA's request, Safety Kleen submitted a Groundwater Monitoring Plan (the "GWMP"), attached hereto as Exhibit 3, to address the residual PCE groundwater concentrations found in the October 2013 samples. EPA approved the GWMP on May 6, 2014.

H. In August 2015, consistent with Section 5.B.4 of the Final Remedy in the FDRTC, Safety Kleen submitted to EPA for review and approval, a plan to install a sub slab depressurization system ("Vapor Intrusion Control System Plan" or "VICS Plan")

below the current structure on the Facility (Exhibit 4). EPA approved the VICS Plan on September 23, 2015.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

12. EPA makes the following Conclusions of Law and Determinations to which Respondent neither admits nor denies:

Based on the Findings of Fact set forth above, all jurisdictional elements of Section 3013 of RCRA, 42 U.S.C. § 6934, have been met and the monitoring, testing, analysis and reporting set forth in this Consent Order are reasonable to ascertain the nature and extent of the hazard at the Facility.

VII. MONITORING, TESTING, ANALYSIS AND REPORTING

13. Pursuant to Section 3013 of RCRA, 42 U.S.C. § 6934, Respondent agrees to and is hereby ordered to perform the monitoring, testing, analysis and reporting activities required by the Final Remedy identified in Section 5 of the FDRTC as further described in Paragraph 16 of this Order below ("Work") in the manner and by the dates specified herein. All Work undertaken pursuant to this Consent Order shall be developed and performed, as appropriate and approved by EPA, in accordance with the Scope of Work for Corrective Measures Implementation ("CMI"); the Scope of Work for Health and Safety Plan, and RCRA, its implementing regulations and relevant EPA guidance documents. EPA's Scopes of Work and relevant guidance are available at: http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.

14. EPA acknowledges that Respondent has completed some of the tasks required by this Consent Order and that Respondent has available some of the information and data required by this Consent Order. On May 6, 2014, EPA approved the Ground Water Monitoring Plan (GWMP). This previous work may be used to meet the requirements of this Consent Order, upon submission to and formal approval by EPA.

15. "Days" as used herein shall mean calendar days unless otherwise specified.

A. CORRECTIVE MEASURES IMPLEMENTATION PLAN

16. Corrective Measures Implementation Plan

- a. Within thirty (30) days of the effective date of this Order, Respondent shall submit to EPA for approval a Corrective Measures Implementation Plan

(CMIP) for implementation of the Final Remedy selected by EPA in the FDRTC. The CMIP shall include a schedule to: a) install, and operate and maintain the EPA-approved vapor intrusion control system (VICS) under the current structure on the Facility to achieve and/or maintain an ambient indoor air perchloroethylene (PCE) concentration of 47 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) or less on a continuous basis; b) implement the EPA-approved GWMP attached hereto as Attachment 1; c) submit annual written certification evaluating the effectiveness of the GWMP in reducing contaminant concentrations and restoring groundwater to MCLs or background concentrations; d) secure from the then-current owner of the Facility the groundwater use restrictions described in Subsections 5.B.1, 2, 3, 6(2) and 7 of the FDRTC and a description how such restrictions will be implemented, monitored for compliance, and enforced against future owners, i.e., run with the land; and e) submit geographic coordinates and metes and bounds survey of the Facility property boundary and the 3.5-acre area depicted in Exhibit 2 consistent with Section 5C of the FDRTC. The following link provides additional guidance with respect to the coordinate data:

[http://www3.epa.gov/reg3wcmd/ca/pdf/RCRA Mapping of Institutional and Engineering Controls.pdf](http://www3.epa.gov/reg3wcmd/ca/pdf/RCRA_Mapping_of_Institutional_and_Engineering_Controls.pdf)

The CMIP shall be developed in accordance with the Scope of Work for CMI. EPA's Scopes of Work and relevant guidance are available at:

http://www3.epa.gov/reg3wcmd/ca/ca_resources.htm

Upon receipt of EPA approval of the CMIP, Respondent shall implement the EPA-approved CMIP in accordance with the terms and schedules contained therein.

- b. Respondent shall use best efforts to secure from the then-current owner an agreement by to cooperate with Respondent in implementing the EPA-approved CMIP.
- c. For purposes of Paragraph VII.A.16.b of this Order, "best efforts" means the efforts that a reasonable person in the position of Respondent would use so as to secure groundwater use restrictions in a timely manner, including the cost of employing professional assistance to negotiate with the then-current owner and the payment of reasonable sums of money to draft, file and record a restrictive covenant containing the groundwater use restrictions required in Subsections 5.B.1, 2, 3, 6(2) and 7 of the FDRTC. If Respondent does not secure from the then-current owner an enforceable restrictive covenant and agreement to have it recorded on title to the Facility property within sixty (60) days of EPA's approval of the CMIP, Respondent shall immediately notify EPA in writing, and shall include in that notification a summary of the steps

that Respondent has taken to attempt to comply with Paragraphs VII.A.16. a and b of this Order. EPA may, as it deems appropriate, assist Respondent in obtaining the groundwater use restrictions. EPA reserves any right it may have to require that Respondent reimburse EPA for all costs incurred by EPA in obtaining groundwater use restrictions, including, but not limited to, attorney's fees and the amount of any just compensation and costs incurred by EPA. Provided that EPA has determined that Respondent has used good faith efforts to obtain the groundwater use restrictions required by Paragraph VII.A.16.a of this Order, Respondent shall not be deemed in violation of Paragraphs VII.A.16.a and b of this Order.

- d. Respondent is required to operate, maintain and monitor all vapor mitigation systems installed in accordance with this Consent Order. If Respondent believes on the basis of the monitoring results over three (3) consecutive years that the operation of any vapor mitigation system installed is no longer necessary to protect human health, Respondent may petition EPA in writing for a system shut-down. EPA will notify Respondent in writing of EPA's decision. If EPA approves Respondent's system shut-down petition, Respondent will no longer be required under this Consent Order to operate, maintain and monitor such system.

17. Corrective Measures Implementation Assessment Report

- e. Within one (1) year after EPA approval of the CMIP pursuant to Paragraph 16 immediately above, Respondent shall submit a CMI Assessment Report for EPA approval. The CMI Assessment Report shall provide an evaluation of the effectiveness of the corrective measures being implemented in accordance with the EPA-approved CMIP.
- f. If, based on the CMI Assessment Report or any other information, EPA determines that the Final Remedy is not being effectively implemented under the EPA-approved CMIP, EPA shall notify Respondent in writing of those activities that must be undertaken to implement the Final Remedy effectively and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.
- g. No later than five (5) years after the Effective Date of this Consent Order and every five (5) years thereafter until Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed, Respondent shall submit to EPA a CMI Five-Year Assessment Report. Such Report shall contain an evaluation of the past and projected

future effectiveness of the corrective measures in achieving the requirements set forth in the FDRTC.

- h. Respondent may, as part of a CMI Five-Year Assessment Report or earlier, request that EPA select, for the purposes of this Consent Order, an /alternative and/or supplemental corrective measures.
- i. In the event EPA selects an alternative and/or supplemental corrective measure(s) either in response to a request by Respondent pursuant to subparagraph 17. h., immediately above, or on its own initiative, EPA may provide Respondent with a period of thirty (30) calendar days from the date Respondent receives written notice from EPA of the selection of an alternative and/or supplemental corrective measure(s) within which to reach an agreement with EPA regarding performance of the alternative and/or supplemental corrective measure(s) in lieu of, or in addition to, the corrective measures. Any such agreement between EPA and Respondent shall be incorporated into and become enforceable under this Consent Order in accordance with Section XXII. ("SUBSEQUENT MODIFICATION") and Respondent shall implement the activities required under any such agreement in accordance with any schedule and provisions contained therein.

Nothing in this Paragraph 17 shall limit EPA's authority to implement or require performance of alternative and/or supplemental corrective measure(s) or to take any other appropriate action under RCRA, the Comprehensive Environmental Response, Compensation and Liability Act, as amended (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, or any other legal authority, including the issuance of a unilateral administrative order or the filing of a civil action. Respondent reserves whatever rights it may have to defend against any such action by EPA.

C. SUBMISSIONS / EPA APPROVAL

18. EPA will review the workplans and reports and all other documents required to be submitted by Respondent to EPA by this Consent Order (Submissions) and, with the exception of progress reports, notify Respondent in writing of EPA's approval or disapproval of each such Submission. In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission. Such disapproval shall not be subject to the Dispute Resolution procedures of Section XV, below.

19. Within thirty (30) calendar days of receipt of EPA's comments on the Submission, Respondent shall submit to EPA for approval a revised Submission, which responds to any comments received and/or corrects any deficiencies identified by EPA. In the event that EPA disapproves of the revised Submission, Respondent may invoke the Dispute Resolution procedures of Section XV, below. Otherwise, EPA reserves the right to revise such Submission.

Any Submission approved or revised by EPA or upheld through dispute resolution under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

20. Beginning with the first business day of the fourth full month following the Effective Date of this Consent Order, Respondent shall provide EPA with annual progress reports.

21. One (1) copy of all Submissions required by this Consent Order shall be electronically delivered to the Project coordinator, and one (1) hard copy shall be hand-delivered or sent by Overnight Mail, Return Receipt Requested, to the Project Coordinator designated pursuant to Section XII ("PROJECT COORDINATORS") below.

22. All Work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site investigation. Respondent has selected Mr. George Mathes, P.E., Trihydro Corporation to supervise the Work performed pursuant to this Consent Order. Notwithstanding Respondent's selection of Mr. George Mathes, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Consent Order. EPA shall have the right to disapprove at any time the use of any professional engineer, geologist, contractor or subcontractor selected by Respondent. EPA's disapproval shall not be subject to review under Section XV ("DISPUTE RESOLUTION") or otherwise. Within fifteen (15) calendar days of receipt from EPA of written notice disapproving the use of any professional engineer, geologist, contractor or subcontractor, Respondent shall notify EPA, in writing, of the name, title and qualifications of the personnel who will replace the personnel disapproved by EPA. Respondent shall notify EPA ten (10) days prior to changing voluntarily its engineer or geologist, and/or contractors or subcontractors to be used in carrying out the terms of this Consent Order, and shall submit to EPA in writing, the name, title, and qualifications of such person(s). As of the Effective Date of this Consent Order, EPA has not provided written notice to Respondent disapproving the use of any professional engineer, geologist, contractor or subcontractor.

D. ADDITIONAL WORK

23. EPA may determine or Respondent may propose that certain tasks and deliverables including, but not limited to, investigatory work or engineering evaluation require additional work. These tasks and deliverables may or may not have been in the EPA-approved Work Plans. If EPA determines that such additional work is necessary, EPA shall request, in writing, that Respondent perform the additional work and shall specify the reasons for EPA's determination that additional work is necessary. Within fifteen (15) calendar days after the receipt of such request, or as otherwise agreed by the parties, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. In the event that Respondent agrees to perform the additional work, this Consent Order shall be modified in accordance with Section XXII ("SUBSEQUENT MODIFICATION") below, and such work shall be performed in accordance with this Consent Order. In the event Respondent declines or fails to perform the additional work, EPA reserves the right, at a minimum, to order Respondent

to perform such additional work; to perform such additional work itself and to seek to recover from Respondent all costs of performing such additional work; and to disapprove the CMI Work Plans; the CMI Reports and/or any other Submissions. Respondent reserves its rights and defenses to challenge any such action by EPA, subject to Paragraph I.4 above.

24. If at any time during the pendency of this Consent Order, Respondent discovers that a new structure is to be constructed above the 3.5-acre area depicted in Exhibit 2, Respondent shall notify EPA within 30 days of such discovery. Respondent may, at the time of such notification or at any time, provide EPA with a demonstration that the new structure is a structure which is required to be constructed to comply with Mont. Co. Code 08.00.02.27, 424.1 or that vapor intrusion will not pose a threat to human health. Upon written request of EPA, Respondent shall submit to EPA for approval a Workplan to install a vapor intrusion control system (VICS Workplan). Upon receipt of EPA approval of the VICS Workplan, Respondent shall implement the EPA-approved VICS Workplan in accordance with the terms and conditions set forth therein.

VIII. QUALITY ASSURANCE

25. Commencing on the Effective Date of this Consent Order and continuing thereafter, throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA-approved Workplans. In addition, Respondent shall:

A. Ensure that laboratories used by Respondent for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all analytical protocols to be used for analyses to EPA for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain EPA approval prior to the use of such analytical protocols.

B. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

C. Inform the EPA Project Coordinator at least fourteen (14) calendar days in advance of any laboratory analysis regarding which laboratory will be used by Respondent and ensure that EPA personnel and EPA authorized representatives have reasonable access to the laboratories and personnel used for analysis.

IX. ON- SITE AND OFF-SITE ACCESS

26. Respondent shall use its best efforts to obtain site access either through existing agreements or through new agreement(s) from the then current owner(s) and/or lessee(s) of any property it does not own or control, as appropriate, within thirty (30) calendar days of receipt of EPA approval of the CIMP and/or any VICS Workplan. For purposes of this paragraph, "best efforts" means the efforts that a reasonable person in the position of Respondent would use so as to obtain access in a timely manner, including the cost of employing professional assistance to negotiate with the then-current owner and the payment of reasonable sums of money to secure any additional access required. In the event that such access is not obtained from the then-current owner through new or modified agreements within thirty (30) calendar days after receipt of EPA approval of any workplan prepared pursuant to this Consent Order, Respondent shall notify EPA, in writing, within seven (7) calendar days after the conclusion of such thirty-day period, regarding both the efforts undertaken to obtain access and the inability to obtain such agreements. In the event that Respondent fails to obtain such access, despite the exercise of best efforts, EPA, in its discretion, may assist Respondent in obtaining such access for Respondent. Respondent shall reimburse EPA for all costs incurred by EPA in obtaining access, including, but not limited to, attorney's fees and the amount of any just compensation and costs incurred by EPA.

27. Nothing in this Consent Order limits or otherwise affects EPA's rights of access and entry pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

X. SAMPLING AND DATA/DOCUMENT AVAILABILITY

28. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent in accordance with the requirements of this Consent Order.

29. Respondent shall notify EPA, electronically, or in writing, at least fourteen (14) calendar days in advance of any field activities, including but not limited to, well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

30. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order in the manner described in 40 C.F.R. § 2.203(b). Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data.

31. If Respondent wishes to assert a privilege with regard to any document which EPA seeks to inspect or copy pursuant to this Consent Order, Respondent shall identify the document, the privilege claimed, and the basis therefor in writing. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure. Respondent shall not assert a privilege with regard to analytical, sampling and monitoring data.

XI. RECORD PRESERVATION

32. Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of at least six (6) years after its termination, all data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Consent Order or to solid and/or hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to EPA for inspection or shall provide copies of such records to EPA. Respondent shall notify EPA at least thirty (30) calendar days prior to the proposed destruction of any such records, and shall provide EPA with a reasonable opportunity to inspect, copy and/or take possession of any such records. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Section shall in any way limit the authority of EPA under § 3007 of RCRA, 42 U.S.C. § 6927, or any other access or information-gathering authority.

XII. PROJECT COORDINATORS

34. EPA hereby designates Leonard Hotham as the EPA Project Coordinator. Respondent hereby designates Stephen Fleming, P.E. as its Project Coordinator. Respondent will notify EPA within ten (10) calendar days of the effective date of this Consent Order, in writing, of a change in the Project Coordinator it has selected. Respondent's legal counsel shall not serve as Respondent's Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of the Consent Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators.

35. Each party agrees to provide at least seven (7) calendar days written notice to the other party prior to changing Project Coordinators.

36. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of Work.

XIII. NOTIFICATION

37. Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices, or other submissions relating to or required under this Consent Order shall be in writing and shall be sent as follows:

A. One (1) hard copy and one (1) electronic copy shall to be submitted to:

Leonard Hotham
U.S. Environmental Protection Agency
Region III, Mail Code 3LC20
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029
Telephone # 215-814-5778
E-mail: hotham.leonard@epa.gov

B. One (1) copy of all documents to be submitted to EPA shall also be sent to:

Mr. Ed Hammerberg
Maryland Department of the Environment (MDE)
Waste Division and Utilization Program
1800 Washington Blvd., Suite 645
Baltimore, MD 21230

38. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Consent Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A "responsible corporate officer" means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a "duly authorized representative" only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA in Section XII ("PROJECT COORDINATORS") of this Consent Order.

39. The certification required by Paragraph 38, above, shall be in the following form:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature : _____

Name : _____

Title : _____

XIV. DELAY IN PERFORMANCE/STIPULATED PENALTIES

40. Unless there has been a written modification of a compliance date by EPA, or excusable delay as defined below in Section XVI ("FORCE MAJEURE AND EXCUSABLE DELAY"), in the event that Respondent fails to comply with the requirements set forth in this Consent Order and this Section XIV, Respondent shall pay stipulated penalties, as set forth below, upon receipt of written demand by EPA. Compliance by Respondent shall include commencement or completion, as appropriate, of any activity, plan, study or report required by this Consent Order and in the manner required by this Consent Order and within the specified time schedules in and approved under this Consent Order. Stipulated penalties shall for failure to commence, perform, complete Work, submit a deliverable (Submission"), or for any failure to comply with this Consent Order as required herein: \$500 per day for one to seven days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter.

41. Whether or not Respondent has received notice of a violation, stipulated penalties shall begin to accrue on the date that complete performance is due or a violation occurs, and shall continue to accrue until and through the correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.

42. All penalties owed to EPA under this Section shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures under Section XV, below. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty (30) calendar day period and shall accrue at the United

States Tax and Loan Rate.

43. All penalty payments shall be made by certified or cashier's check payable to the Treasurer of the United States of America and shall be remitted to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Office
PO Box 979077
St. Louis, MO 63197-9000

All payments shall reference the name of the Facility, Respondent's name and address, and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator and the Regional Hearing Clerk (3RC00), U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.

44. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below under Section XV ("DISPUTE RESOLUTION"). Stipulated penalties shall continue to accrue for failures specified in Paragraph 40 which continue, but need not be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail upon resolution of the dispute, Respondent shall remit to EPA within seven (7) calendar days of receipt of such resolution any outstanding penalty payment, including any accrued interest, in the manner described above in Paragraph 42 of this Section. To the extent Respondent prevails upon resolution of the dispute, no penalties shall be payable.

45. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

46. The stipulated penalties set forth in this Section XIV shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

XV. DISPUTE RESOLUTION

47. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by the Land and Chemicals Division (LCD) pursuant to this Consent Order, Respondent shall notify the Director of LCD in writing of its objections, and the basis for such objections, within fourteen (14) calendar days of receipt of LCD's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it

considers necessary for LCD's determination. LCD and Respondent shall have an additional fourteen (14) calendar days from the receipt by LCD of the notification of objection, during which time representatives of LCD and Respondent may confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. In the event that resolution is not reached within this fourteen (14) calendar day period, LCD will furnish to Respondent, in writing, its decision on the pending dispute.

48. The invocation of formal dispute resolution procedures under this Section XV shall not extend, postpone or affect in any way any obligation of Respondent under this Consent Order unless EPA determines otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Order. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIV ("DELAY IN PERFORMANCE/STIPULATED PENALTIES").

49. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA, including, without limitation, decisions of the Director of Land and Chemicals Management Division, Region III, pursuant to this Consent Order, shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of a judicial action to compel Respondent's compliance with this Consent Order.

XVI. FORCE MAJEURE AND EXCUSABLE DELAY

50. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. Respondent shall have the burden of proving such a force majeure. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. Such events do not include increased costs of performance, changed economic circumstances, reasonably foreseeable weather conditions or weather conditions which could have been overcome by due diligence, or failure to obtain federal, state, or local permits unless applications for such permits were submitted in a timely and complete fashion and such permits were not issued, through no fault of Respondent.

51. Respondent shall notify EPA, in writing, within seven (7) calendar days after it becomes or should have become aware of any event which Respondent claims constitutes a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this Section shall constitute a waiver of Respondent's right to assert a force majeure claim with respect to such event. In addition to the above notification

requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or should have become aware of any event which may delay such compliance.

52. If EPA determines that there is excusable delay because the failure to comply or delay has been or will be caused by a force majeure, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such force majeure. This shall be accomplished through an amendment to this Consent Order pursuant to Section XXII ("SUBSEQUENT MODIFICATION"). Such an extension shall not alter the schedule for performance or completion of any other tasks required by this Consent Order, unless these tasks are also specifically altered by amendment of the Consent Order. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XV ("DISPUTE RESOLUTION").

XVII. RESERVATION OF RIGHTS

53. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of Work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or perform any Work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in this Consent Order and the documents incorporated hereunder.

54. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order, including, without limitation, the assessment of penalties under Section 3013 of RCRA, 42 U.S.C. § 6934. This Consent Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority.

55. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

56. The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to RCRA, including, but not limited to, Section 3013 of RCRA, 42 U.S.C. § 6934, or any other authority, should EPA determine that such action is warranted. Respondent's willingness to enter into and comply with the Consent Order does not serve as an admission of any fact or of liability to EPA or any other person.

57. This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit or approval.

58. EPA reserves the right to perform any portion of the Work consented to herein or any additional site characterization, feasibility study, and response/corrective actions it deems necessary to protect public health or welfare or the environment. EPA may exercise its authority under RCRA, CERCLA or any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such response actions. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA. Respondent reserves all rights and defenses it may have with respect to any such action by EPA and makes no admission of liability as to such action by EPA.

59. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order. Respondent reserves all rights and defenses it may have with respect to any such action by EPA, and makes no admission of liability as to such action by EPA.

XVIII. OTHER CLAIMS

60. Nothing in this Consent Order shall constitute or be construed as a release by EPA of any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation, or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal or any hazardous constituents, hazardous substances, hazardous wastes, solid wastes, pollutants, or contaminants found at, taken to, or taken from the Facility. Except as specified in this Consent Order, nothing in this Consent Order shall constitute or be construed as a release, waiver or admission by Respondent in any claim, cause of action or demand in law or equity by any person, firm, partnership, corporation or other entity, other than EPA.

XIX. OTHER APPLICABLE LAWS

61. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

XX. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

62. Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting

the rights or obligations of Respondent or the United States under their various contracts. The United States shall not be deemed to be a party to any contract entered into by Respondent for the purpose of carrying out any activities required by this Consent Order.

XXI. NOTICE OF NON-LIABILITY OF EPA

63. EPA shall not be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Consent Order.

XXII. SUBSEQUENT MODIFICATION

64. Except as provided in Paragraph 66, below, this Consent Order may be amended only by mutual agreement of EPA and Respondent. Any such amendment shall be in writing, shall be signed by an authorized representative of each party, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this Consent Order.

65. All Submissions required by paragraph 64 are, upon written approval by EPA, incorporated into this Consent Order. Any noncompliance with such EPA-approved Submissions, and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XIV ("DELAY IN PERFORMANCE/STIPULATED PENALTIES").

66. Minor modifications in the studies, techniques, procedures, designs or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall have as an effective date the date on which the agreement is signed by the EPA Project Coordinator.

67. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

XXIII. SEVERABILITY

68. If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this Consent Order shall not be affected thereby and shall remain in full force.

XXIV. TERMINATION AND SATISFACTION

69. The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the CMIP, and any additional tasks imposed by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with its continuing obligations hereunder including, but not limited to, Sections XI ("RECORD PRESERVATION"), XVII ("RESERVATION OF RIGHTS"), XVIII ("OTHER CLAIMS"), XIX ("OTHER APPLICABLE LAWS"), and XX ("INDEMNIFICATION OF THE UNITED STATES GOVERNMENT").

XXV. ATTORNEYS' FEES

70. The Respondent shall bear its own costs and attorneys fees.

XXVI. EFFECTIVE DATE

71. The Effective Date of this Consent Order shall be the date on which a true and correct copy of this Consent Order is received by Respondent.

XXVII. CERTIFICATION OF SIGNATURE

72. The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Consent Order and to bind the party it represents to this document.

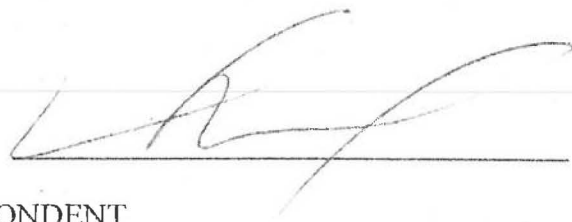
IT IS SO AGREED AND ORDERED:

DATE: 9.30.15

BY: 

JOHN ARMSTEAD
DIRECTOR, LAND AND CHEMICALS DIVISION
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION III

DATE: 9/30/15

A handwritten signature in black ink, appearing to be 'L. Alf', written over a horizontal line.

BY:
RESPONDENT
SAFETY KLEEN SYSTEMS INC.

Attachment 1



April 18, 2014

Mr. Leonard Hotham
United States Environmental Protection Agency – Region 3
Remedial Project Manager
1650 Arch Street
Philadelphia, PA 19103

RE: Groundwater Monitoring Plan, Former Safety-Kleen Corp. Service Center
12164 Tech Road, Silver Spring, Maryland (MDD000737395)

Dear Mr. Hotham:

Enclosed please find a copy of the document entitled *Groundwater Monitoring Plan, Former Safety-Kleen Corp. (S-K) Service Center, 12164 Tech Road, Silver Spring, Maryland*. This revised Groundwater Monitoring Plan has been prepared at the request of the United States Environmental Protection Agency (USEPA) Region 3 in email correspondence dated December 4, 2013. Comments on the Groundwater Monitoring Plan were submitted by email from the USEPA dated February 11, 2014, April 2, 2014, and April 8, 2014.

S-K does not concur with the technical assumptions used as the basis for the suggested monitoring well network, including which wells are up-gradient versus down-gradient, appropriate cleanup objectives, as well as the fate and transport of regional tetrachloroethene (PCE) impacts onto the former S-K site. PCE was excluded from the MDE permit due to the presence of a substantial, well-documented up-gradient source of PCE migrating from the former International Fabricare Institute (IFI) property onto the former S-K Site. Note, there are considerable regional PCE impacts associated with a long-term release and subsequent transport/release in a sewer line that wraps around the S-K site. Additionally, contaminant presence/transport in bedrock groundwater has been documented by the up-gradient/regional source. Therefore, S-K respectfully disagrees with the assumption that wells MW-8 and PZ-2 are down-gradient of S-K operations, and that well MW-12 is not background. Well MW-12 was excluded from the enclosed Groundwater Monitoring Plan at the request of USEPA due to concerns that the well is not up-gradient of the S-K monitoring well network, which S-K does not concur with.

There is a significant historical record supporting that well MW-8 has been impacted by PCE discharged by IFI into the WSSC sewer including the trial and appellate record in the lawsuit filed by Westfarm Associates Ltd. Partnership against IFI and WSSC. For example, the fact section of the of a summary judgment motion filed in the United States District Court in Maryland in 1993, explains that:

Scott McClelland, a hydrogeologist, has also testified that the presence of PCE contamination at well S-K MW-8, adjacent to the Tech Road sewer where the Tech Road bends to the southwest, indicates that PCE has escaped from Tech Road sewer. The

Mr. Leonard Hotham

April 18, 2014

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conclusion that PCE has escaped from the Tech Road sewer is also supported by the fact that high levels of PCE residues were found in the Tech Road sewer when that sewer was cleaned out prior to the April 9, 1993 video inspection.

Memorandum in Support of Motion of Westfarm Associates Limited Partnership for Partial Summary Judgment against WSSC for CERCLA Response at p. 6.

However, S-K would like to continue to work with USEPA to refine our mutual understanding of the site conceptual model, and it is our understanding that finalization of the Groundwater Monitoring Plan could not be delayed in order to reach consensus. S-K is committed to working with the USEPA on incorporating the final remedy for the site (institutional controls), and has submitted this revised Groundwater Monitoring Plan with the suggested edits provided by the USEPA. However, S-K respectfully requests that amendments to the Groundwater Monitoring Plan be allowed based on information and data which is pertinent to the ability of S-K to meet cleanup objectives due to the regional impacts.

If you have any questions regarding the Groundwater Monitoring Plan and/or require additional information, please feel free to contact me at (513) 275-3960 or Allison Riffel (Trihydro Corporation) at (307) 745-7474. Please understand that nothing stated in this letter or the attached work plan is intended, nor should be construed as an admission of fact or law, or waiver of any legal rights or defenses by Safety-Kleen.

Sincerely,
SAFETY-KLEEN SYSTEMS, INC.



Stephen Fleming, P.E., CHMM
Senior Environmental Remediation Manager

198-002-015

Attachment

cc: Luis Pizarro (USEPA Region III)
Ed Hammerberg (MDE)
Todd Blake (S-K, Manassas, VA)
Norman Nelhuebel (S-K, Norwell) – CD
Tim Henderson (Rich & Henderson) – electronic copy
Sean Sullivan (Spectrum Partners) – electronic copy
Trihydro Corporation

**GROUNDWATER MONITORING PLAN
FORMER SAFETY-KLEEN CORP. SERVICE CENTER
12164 TECH ROAD
SILVER SPRING, MARYLAND**

April 18, 2014

Project #: 198-002-015

SUBMITTED BY: Trihydro Corporation
1252 Commerce Drive, Laramie, WY 82070

PREPARED FOR: Safety-Kleen Systems, Inc., A Clean Harbors Company
4120 Thunderbird Lane, Fairfield, OH 45014



ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

Home Office | 1252 Commerce Drive | Laramie, WY 82070 | phone 307/745.7474 | fax 307/745.7729 | www.trihydro.com

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A. EXAMPLE FIELD FORMS



1.0 INTRODUCTION

This Groundwater Monitoring Plan has been prepared for the former Safety-Kleen Systems, Inc. (S-K) service center located at 12164 Tech Road in Silver Spring, Maryland (Site) (Figure 1). Monitoring activities are currently being implemented in accordance with Controlled Hazardous Substances Permit Number A-302 (Effective Date December 11, 2008), which was issued by the Maryland Department of the Environment (MDE). On June 11, 2012, S-K submitted a request to terminate the post-closure permit. Based on verbal feedback provided during a teleconference on November 2013, S-K anticipates that termination of the MDE permit will be forthcoming in the near future.

S-K has been working recently with the United States Environmental Protection Agency (USEPA) Region 3 to address tetrachloroethene (PCE) impacts to the former facility. S-K recently installed up-gradient wells MW-12, MW-13, and MW-14 in October 2013 to further document the presence of PCE up-gradient from the former S-K property. PCE was detected in all three wells at concentrations above the current USEPA Regional Screening Level (5 ug/L), with a maximum concentration of 130 ug/L (Figure 2).

S-K proposed institutional controls as final remedy as part of the Remedial Alternatives Evaluation Report (Trihydro 2009). USEPA has concurred with this approach through implementation of a covenant on the subject property. However, the USEPA will require long-term groundwater monitoring for PCE and its daughter products in conjunction with the covenant. The purpose of this Groundwater Monitoring Plan is to identify a well network and monitoring program for the purposes of finalizing the covenant. The covenant will allow for future residential use in conjunction with an institutional control as required at the time of property development.

2.0 PROPOSED WELL NETWORK

The proposed groundwater monitoring program consists of a subset of the existing 14 wells (MW-1 through MW-14) and 2 piezometers (PZ-1 and PZ-2) at the site. A total of ten wells were selected by the USEPA for the network, including two background wells (MW-13 and MW-14), six compliance wells (PZ-2, MW-1, MW-8, MW-9, MW-10, and MW-11), and two sentinel wells (MW-6 and MW-7). Sentinel wells are being defined by the USEPA in this instance as the wells used to determine the groundwater concentrations leaving the site (USEPA 2014). Wells installed at the most down-gradient edge of the site and the property line will be considered sentinel wells. Compliance wells are defined by USEPA as wells installed at the point of compliance, which in this instance is the waste management area. USEPA has specified that the point of compliance is the edge of the building where S-K managed wastes (USEPA 2014).

S-K will continue to work with the USEPA to refine the mutual understanding of groundwater flow direction, and contaminant fate and transport. S-K will propose modifications to the aforementioned well network as necessary to reflect consensus on the technical differences of opinion, as appropriate.

Four existing wells (MW-2, MW-3, MW-4, and MW-5) were excluded from the proposed monitoring program due to proximity to existing wells. Piezometer PZ-1 was excluded from the proposed sampling program, since it is located hydraulically up-gradient from S-K activities (Figure 2). Off-site well WSSC MW-4 will not be gauged or sampled as part of the monitoring program, because this well is already being monitored by the Washington Suburban Sanitation Commission (WSSC) as part of ongoing investigations into elevated PCE concentrations at this location. S-K will try to obtain routine fluid level data for the purposes of preparing groundwater contour figures and evaluating regional groundwater flow conditions, if possible. The locations of the wells within the proposed monitoring program are shown on Figure 3. Groundwater monitoring wells and piezometers not included in the monitoring well network (MW-2, MW-3, MW-4, MW-5, and PZ-1) will be gauged for fluid levels, but will not be sampled. A summary of the well construction information for the proposed monitoring well network is included in Table 1.

3.0 FIELD PROCEDURES

Groundwater monitoring activities will include fluid level monitoring and groundwater sampling. Procedures for conducting routine field activities are described below, including well inspections, fluid level gauging, and groundwater sampling. In addition, standard practices for equipment calibration and maintenance; decontamination; and management of investigation derived waste are outlined herein.

3.1 WELL INSPECTIONS

During groundwater sampling activities, each of the groundwater monitoring wells and piezometers on Site will be inspected for damage to well integrity, including: seals, bolts, concrete well vaults. The inspections will be recorded on the Field Well Inspection Form (Appendix A). Any damage/faults that are observed will be repaired in a timely manner.

3.2 FLUID LEVEL GAUGING

Fluid levels will be gauged using an oil/water interface probe or similar device that is designed to distinguish between water and non-aqueous phase liquids. The fluid level and total well depth will be measured to the nearest 0.01-foot for each well and piezometer and recorded on a Fluid Level Form (Appendix A). If non-aqueous phase liquids are encountered in a monitoring well, the well will not be sampled. The non-aqueous phase liquid will be evacuated from the well using a disposable bailer, collected in buckets, and then containerized in 55-gallon drums. The quantity of non-aqueous phase liquid will be recorded on the field form.

3.3 GROUNDWATER SAMPLING

Groundwater wells included in the monitoring well network will be sampled in order from least to most impacted based on past analytical results. A submersible pump and dedicated tubing will be used for purging and sampling. Wells will be sampled using low-flow sampling methodology pursuant to the latest USEPA guidance (or newer if available): Region 1 USEPA guidance document *Low-Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (USEPA 2010). The flow rate will be set at a maximum of 500 mL/min so that drawdown is no greater than 0.3 feet to reduce the potential for volatilization from turbulent flow and to target formation water. If the minimum drawdown that can be achieved exceeds 0.3 feet, but remains stable, purging will continue. Low-yielding wells will be evacuated to dryness and allowed to recover prior to sampling. A well will not be considered to be bailed dry until less than 10% of the original volume of water remains in the well after purging.

Field parameters (temperature, pH, specific conductance, oxidation/reduction potential (ORP), dissolved oxygen (DO), and turbidity) will be monitored during purging using a water quality meter with a flow through cell. Purging will continue until field parameters stabilize. Field parameters will be considered stabilized when successive measurements meet the following requirements: temperature (± 3 degrees Celsius), pH (± 0.1 pH unit), specific conductance ($\pm 3\%$), ORP (± 10 mV), and DO ($\pm 3\%$).

Groundwater samples will be submitted to Analytical Services, Inc. in Norcross, Georgia for analysis of volatile organic compounds (VOCs), including PCE and reductive dechlorination daughter products, by USEPA Method 8260B. Table 2 includes the analytical method, sample container, preservation, and holding times for sample collection. Groundwater samples will be placed on ice to cool them, handled with care, and stored in a secure location. Transfer of the samples to the laboratory will be recorded through a Chain of Custody form, which will include the date and time of transfer.

Field personnel will record sample collection information on a Low-Flow Groundwater Sampling Log (Appendix A). Relevant information will include: sampler name; date; sample time; observations of sheen, odor, or color; field parameter readings; total depth and fluid levels; purge volumes; analysis requested; and quality assurance/quality control samples collected.

3.4 EQUIPMENT MAINTENANCE AND CALIBRATION

Various types and brands of field instruments and equipment will be available for use during groundwater sampling. Maintenance and calibration procedures for these items will vary, depending on the instrument type, manufacturer, and model. Manufacturer's manuals for operation of the equipment and instruments will be available during the sampling event and will be closely followed to maintain proper operation, adjustment, calibration, general maintenance, and trouble-shooting. Equipment and instruments used during sampling will be examined to verify that they are in satisfactory operating condition. If a piece of equipment or instrument is malfunctioning or providing suspect performance or measurements, it will be immediately taken out of service and replaced. Any equipment problems noted during sampling, and not corrected in the field, will be corrected upon return to the office. Broken or contaminated equipment will be discarded and taken out of use.

Water quality instruments will be checked and calibrated with sufficient frequency (at least daily, prior to beginning sampling) and in such a manner that accuracy and reproducibility of results are consistent with specifications in the manufacturer's instruction manual. The instrument checks and calibrations performed will be documented on Daily Instrument and Calibration/Maintenance Log (Appendix A).

3.5 DECONTAMINATION PROCEDURES

Non- disposable sampling equipment (e.g., fluid level probe, submersible pump, etc.) will be manually washed and rinsed prior to use and between each sampling location. The decontamination procedure will include washing with non-phosphate based detergent such as Alconox (or similar), a tap-water rinse, and a distilled (or de- ionized) water rinse. Decontamination will be conducted over visqueen type poly sheeting to avoid discharging any decontamination fluids onto the ground.

3.6 INVESTIGATION DERIVED WASTE

Investigation derived waste (IDW) generated during the groundwater monitoring activities includes groundwater generating during monitoring and solid waste. Groundwater and decontamination/rinse water will be containerized and sealed in 55-gallon drums. The drums will be labeled and transported off-site by S-K or Clean Harbors for management within the S-K or Clean Harbors waste management system. Personnel protective equipment (PPE) and disposable equipment generated during sampling activities will be disposed of as municipal solid waste.

3.7 SAFETY PROCEDURES

Field personnel that have the potential of coming into contact with the impacted media will be trained appropriately, including Occupational Safety and Health Administration (OSHA) 40-hour HAZWOPER training and annual 8-hour HAZWOPER refresher training. Additionally, field personnel will sign and acknowledge that they have reviewed and understand the site safety procedures as presented in the current site-specific Health and Safety Plan (HASP). The HASP will be updated annually.

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

The quality assurance objectives provide quantitative and qualitative measures of the ability to produce high quality results through a properly designed sampling and analysis program. The objectives of the overall Quality Assurance/Quality Control (QA/QC) program are to:

- Confirm that procedures are documented, including any changes from the work plan protocol.
- Confirm that sampling and analytical procedures are conducted according to sound scientific principles.
- Monitor the performance of the field sampling team and laboratory with a systematic audit program and provide for corrective action necessary to assure quality.
- Evaluate the quality of the analytical data through a system of quantitative and qualitative criteria.
- Confirm that data and observations are properly recorded and archived.

4.1 FIELD QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

The level of quality control effort will be consistent with that required under SW846 and the USEPA National Functional Guidelines. The level of effort for each quality assurance sample type is summarized below:

- Blind Duplicate Samples: One for each ten samples received for VOCs with a minimum of one per sampling event.
- Trip Blanks: One aqueous trip blank for each cooler shipment of VOCs groundwater samples.
- Field Blanks: One for each ten samples received for VOCs with a minimum of one per sampling event.
- Matrix Spike/Matrix Spike Duplicate (MS/MSD): One for each twenty samples received for VOCs with a minimum of one per sampling event.

If a blind duplicate fails the acceptance criteria, the laboratory will be contacted to determine the possible cause of the error. If duplicate samples do not meet the acceptance criteria (RPD of 30%), the parent and duplicate sample are qualified with "J" flags to indicate an estimated value. If the RPD is greater than or equal to 100%, all samples will be qualified with "J" flags for that constituent or "UJ" qualified depending on the magnitude of difference between the parent and duplicate sample. When corrective action is taken as a result of field QC checks, the effectiveness of the corrective action will be measured based on the rate of reoccurrence of failure. In some cases, qualification of the data may be sufficient for evaluation of the data. Additionally, in some cases, the field crew may be required to return to the site in order to meet completeness objectives.

4.2 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Laboratories contracted for this project have QC programs in place to ensure the reliability and validity of the analysis performed at the laboratory. The required PCE detection limit for this investigation will be 1.0 ug/L. All analytical procedures are documented in writing as SOPs and each SOP includes a QC section that addresses the minimum QC requirements for the analytical procedure. The internal QC checks include:

- Method blanks
 - Instrument blanks
 - MS/MSDs
 - Surrogate spikes
 - Laboratory duplicates
 - Laboratory control standards
-
- Internal standard areas for GC/MS analysis
 - Mass tuning for GC/MS analysis

Data obtained will be properly recorded. The data package will include a full deliverable package capable of allowing the recipient to reconstruct QC information and compare it to QC criteria. The laboratory will re-analyze any samples not analyzed in conformance with the QC criteria, if sufficient volume is available. It is expected that sufficient volumes/weights of samples will be collected to allow for reanalysis, when necessary.

4.3 DATA VALIDATION (TIER I AND II)

Trihydro will perform data validation review on data received from the laboratory. The data validation will include a Tier I and Tier II reviews, unless a higher level of validation would be triggered due to major non-conformances or at the discretion of the project manager. Data will be evaluated in accordance with the general validation criteria set forth in the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Data Review, document number EPA 540R-10-011, January 2010. Review of duplicates is conducted in accordance with USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, December 1996 or as specified by the method (as applicable).

The Tier I evaluation will include a review of sampling dates, sample extraction dates, and analysis dates to check that samples were extracted and/or analyzed within proper holding times; review of analytical methods and required detection limits to verify conformance with this Work Plan; review of the target constituent list to verify that



conformance with project requirements; and review chain-of-custody forms to verify that samples were maintained under a strict chain-of-custody. The Tier II evaluation will include a review of all Tier I elements as well a review of field and laboratory blanks to evaluate possible contamination sources; review of field duplicate data for evaluation of field and laboratory precision; review of laboratory quality assurance data (MS/MSD recoveries and RPD calculations, LCS recoveries) for compliance with method or project required acceptance criteria; review of the analytical results to verify compliance with the specified project goals; and review of the laboratory narrative notes for tuning and calibration checks (if available). One hundred percent of the analytical data shall be validated. The data validation procedures described above does not include a review of the raw data (chromatographs), tuning, calibrations, or those items described as Tier III/Tier IV validation, unless a higher level of validation is needed.

A Tier I checklist and Tier II data validation report will be produced for each sample delivery group (laboratory report) delivered by the laboratory. A Tier I validation checklist will be prepared in an electronic format for each laboratory analytical sample group. Tier I validations can be performed by any competent person with knowledge of the project requirements. Tier II data validations will be performed by an individual who is familiar with the actual laboratory methods used in generating the data set, and who has a reasonable degree of independence from the project team.

The Tier II data validation reports will describe and define any qualifiers that were added by the data validator. The data quality flags used to qualify analytical data will be in general accordance with those outlined within the USEPA Data Validation Functional Guidelines for Evaluating Environmental Analyses. These qualifiers will be maintained in the database with each data point and the reason for qualification. The most commonly used data quality flags include:

- **R Code:** An "R" flag indicates data has not met the required analytical quality assurance requirements. This data is unusable, even if field quality control requirements have been fulfilled.
- **J Code:** A "J" flag indicates that data has not met some of the analytical quality assurance requirements; however, the problem was not of sufficient magnitude to warrant classifying the data as unusable. Data in this category is qualitative (estimated) provided the field data meets all quality control requirements.
- **UJ Code:** The analyte was analyzed for, but was not detected. The sample quantification limit is an estimated value.
- **JB Code:** A "JB" flag indicates that the result of the value could be attributed to cross contamination. Specifically, this flag will be applied if the result for a field contaminant is within 10 times of a field, equipment, trip or method blank detected result.
- **U Code:** A "U" code indicates that the result was detected but due to cross contamination was determined to be undetected by the validator. The original values and the revised undetected result will be clearly noted on the report tables.

5.0 REMEDIAL SCREENING LEVELS

The most current USEPA Regional Screening Levels (RSLs) will be used for screening levels with the exception of PCE. Since The Site is impacted by off-site sources of PCE, as indicated by the presence of the contaminant in up-gradient wells MW-13 and MW-14, the screening level for PCE will be established using background concentrations. Background PCE concentrations will account for the presence of PCE above the USEPA Regional Screening Level of 5 ug/L, which will be verified by groundwater monitoring. S-K proposes to establish the screening level for the former Silver Spring site by calculating an Upper Prediction Limit (UPL).

S-K proposes establishing standards based on up-gradient or background data as presented in USEPA's Unified Guidance (USEPA 2009); one recommended method is to compare down-gradient sample results to an UPL calculated from background/up-gradient sample results. The UPL is the upper bound on a statistical interval created to capture the "next" sample result with a specified level of confidence; in cases where inter-well testing is appropriate, the data from up-gradient wells are combined to create the background data set to which individual compliance well measurements are compared. With each new round of sampling, the background data are updated by adding the new sample results, and a new UPL is calculated. S-K proposes to use a UPL approach to calculating the background PCE concentration after completing four monitoring events with the two background wells noted above (MW-13 and MW-14).

5.1 PROPOSED TRIGGER

An important aspect of the UPL test is that it incorporates retesting for confirmation of an indicated exceedance; i.e. the statistic is calculated based on the number of retests required to confirm an exceedance, while maintaining the desired Site-Wide False Positive Rate (SWFPR). If the PCE concentration in a sentinel well (MW-6 and MW-7) exceeds the UPL, the well would be resampled during the next semiannual event. Therefore, two consecutive events with PCE concentrations above the UPL are necessary for a confirmed exceedance at a sentinel well.

5.2 DISCONTINUATION OF MONITORING ACTIVITIES

S-K proposes to continue monitoring PCE concentrations groundwater until the RSLs are achieved for three consecutive years. At that time, S-K will discontinue monitoring activities at the site with USEPA approval. PCE impacts are being investigated under the direction of the MDE concurrently at the off-site WSSC property to the east of the former S-K site. S-K may refine or discontinue the proposed monitoring program if new information becomes available which affects our understanding of the site conceptual model, such as additional information regarding the migration of PCE from the off-site property to the S-K property with USEPA approval. Transfer of monitoring activities would be coordinated with USEPA from S-K to the responsible party at that time and USEPA would also



need to approve the transfer. In addition, remediation activities at up-gradient or down-gradient neighboring properties may influence PCE groundwater quality at the former S-K site. S-K will coordinate with USEPA to evaluate how the proposed monitoring program may be modified to account for changing conditions and USEPA will need to approve any changes to the program.

All applicable and appropriate technical and policy arguments will be considered by the USEPA and MDE in order to adjust, modify and revise the approved Groundwater Monitoring Plan, including but not limited to risk assessment approaches and consideration of regional impacts.

6.0 SCHEDULE AND REPORTING

The groundwater well network will be monitored semiannually, typically during April and October. S-K will provide notification to the USEPA at least 10-days prior to sampling. Results of each monitoring event will be compiled into two semiannual progress reports. The reports will include:

- Summary of field, laboratory, and data validation activities
 - Tabulation of groundwater monitoring data
 - Site map including well locations
 - Groundwater quality map depicting current PCE concentrations
 - Groundwater fluid level map showing the groundwater level elevations
 - Summary of conclusions and recommendations
-
- Copies of field documentation, laboratory report, and Tier II data validation report

Semiannual progress reports will be submitted to the USEPA by the end of the semiannual monitoring period (June 30 and December 31).

7.0 REFERENCES

- Arcadis G&M, Inc. 2006. Second Quarter 2006 Groundwater Monitoring Report, International Fabricare Institute, Silver Spring Maryland. July 2006.
- Trihydro 2009. Remedial Alternatives Evaluation Report, Former Safety-Kleen Corp. Service Center, 12164 Tech Road, Silver Spring, Maryland, Trihydro Corporation, March 11, 2009.
- USEPA 2014. Memorandum to Leonard Hotham, Project Manager from Erich Weissbart, P.G. Regarding Former Safety-Kleen Silver Spring Service Center – Groundwater Monitoring Plan, February 11, 2014.
- USEPA 2010. Region 1, Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, United States Environmental Protection Agency (USEPA). January 19, 2010 (EQASOP-GW 001) Revision Number 3.
- USEPA 2009. The Statistical Analysis of Groundwater Monitoring Data At RCRA Facilities Unified Guidance, United States Environmental Protection Agency (USEPA), March 2009.
- USEPA 1998. Risk-Based Clean Closure. Memorandum From Elizabeth Cotswold, United States Environmental Protection Agency (USEPA) Office of Solid Waste, To RCRA Senior Policy Advisors, March 16, 1998.
- Westfarm Associates Limited Partnership v. International Fabricare Institute, et al. Memorandum in Support of Motion of Westfarm Associates Limited Partnership for Partial Summary Judgment Against Washington Suburban Sanitary Commission for CERCLA Response Costs, Civil No. HM-92-9, 1993 (D. Md.).
- Westfarm Associates Ltd. Partnership v. Int'l Fabricare Institute, et. al., 846 F.Supp. 422 (D.Md. 1993) and Westfarm Associates Ltd. P'ship v. Washington Suburban Sanitary Comm'n, 66 F.3d 669 (4th Cir. 1995).

TABLES

**TABLE 1. MONITORING WELL COMPLETION SUMMARY INFORMATION
FORMER SAFETY-KLEEN CORP. SERVICE CENTER, SILVER SPRING, MARYLAND**

Well Number	Date Drilled	Total Depth Drilled (ft-bgs)	Total Depth Cased (ft-bgs)	Casing Diameter and Type (inches)	Measuring Point Elevation (ft-amsl)	Ground Surface Elevation (ft-amsl)	Elevation of Screened Interval (ft-amsl)
MW-2	8/10/1989	26.0	25.0	4-inch PVC, 0.020-inch SLSC	369.99	370.51	345.51 to 365.51
MW-3	8/10/1989	25.5	25.0	4-inch PVC, 0.020-inch SLSC	369.05	369.68	344.68 to 364.68
MW-4	8/10/1989	25.5	25.0	4-inch PVC, 0.020-inch SLSC	368.15	369.04	344.04 to 364.04
MW-5	8/14/1991	30.0	30.0	4-inch PVC, 0.020-inch SLSC	369.16	369.53	339.53 to 364.53
MW-12	10/9/2013	40.0	40.0	2-inch PVC, 0.020-inch SLSC	371.92	372.06	332.06 to 342.06
PZ-1	10/14/2013	28.0	27.7	2-inch PVC, 0.020-inch SLSC	368.05	368.52	340.52 to 350.52
MW-6	8/13/1991	30.0	30.0	4-inch PVC, 0.020-inch SLSC	367.77	368.20	338.20 to 363.20
MW-7	8/14/1991	30.0	30.0	4-inch PVC, 0.020-inch SLSC	368.72	368.94	338.94 to 363.94
MW-13	10/10/2013	30.0	30.0	2-inch PVC, 0.020-inch SLSC	370.44	370.66	340.66 to 350.66
MW-14	10/11/2013	27.0	26.7	2-inch PVC, 0.020-inch SLSC	370.03	370.44	343.44 to 353.44
MW-1	8/8/1989	31.0	30.0	4-inch PVC, 0.020-inch SLSC	369.43	369.77	339.77 to 359.77
MW-8	1/7/1992	30.0	30.0	4-inch PVC, 0.020-inch SLSC	368.67	368.90	338.90 to 363.90
MW-9	4/25/2008	40.0	40.0	2-inch PVC, 0.020-inch SLSC	368.60	369.04	329.04 to 339.04
MW-10	4/24/2008	40.0	39.7	2-inch PVC, 0.020-inch SLSC	368.91	369.17	329.17 to 339.17
MW-11	4/23/3008	40.0	39.6	2-inch PVC, 0.020-inch SLSC	368.99	369.27	329.27 to 339.27
PZ-2	10/14/2013	31.0	30.7	2-inch PVC, 0.020-inch SLSC	367.31	368.05	337.05 to 347.05

Notes:

ft-bgs = feet below ground surface.

ft-amsl = feet above mean sea level.

**TABLE 2. ANALYTICAL METHODS AND SAMPLING REQUIREMENTS
FORMER SAFETY-KLEEN CORP. SERVICE CENTER
12164 TECH ROAD, SILVER SPRING, MARYLAND**

ANALYSIS	METHOD	MATRIX	HOLDING TIME (days)	MINIMUM VOLUME	CONTAINER	PRESERVATION
VOCs	8260B	W	14	40 mL	3 x 40-mL VOA vials	Cool, 6°C and HCl to pH < 2 (no headspace)

Notes:

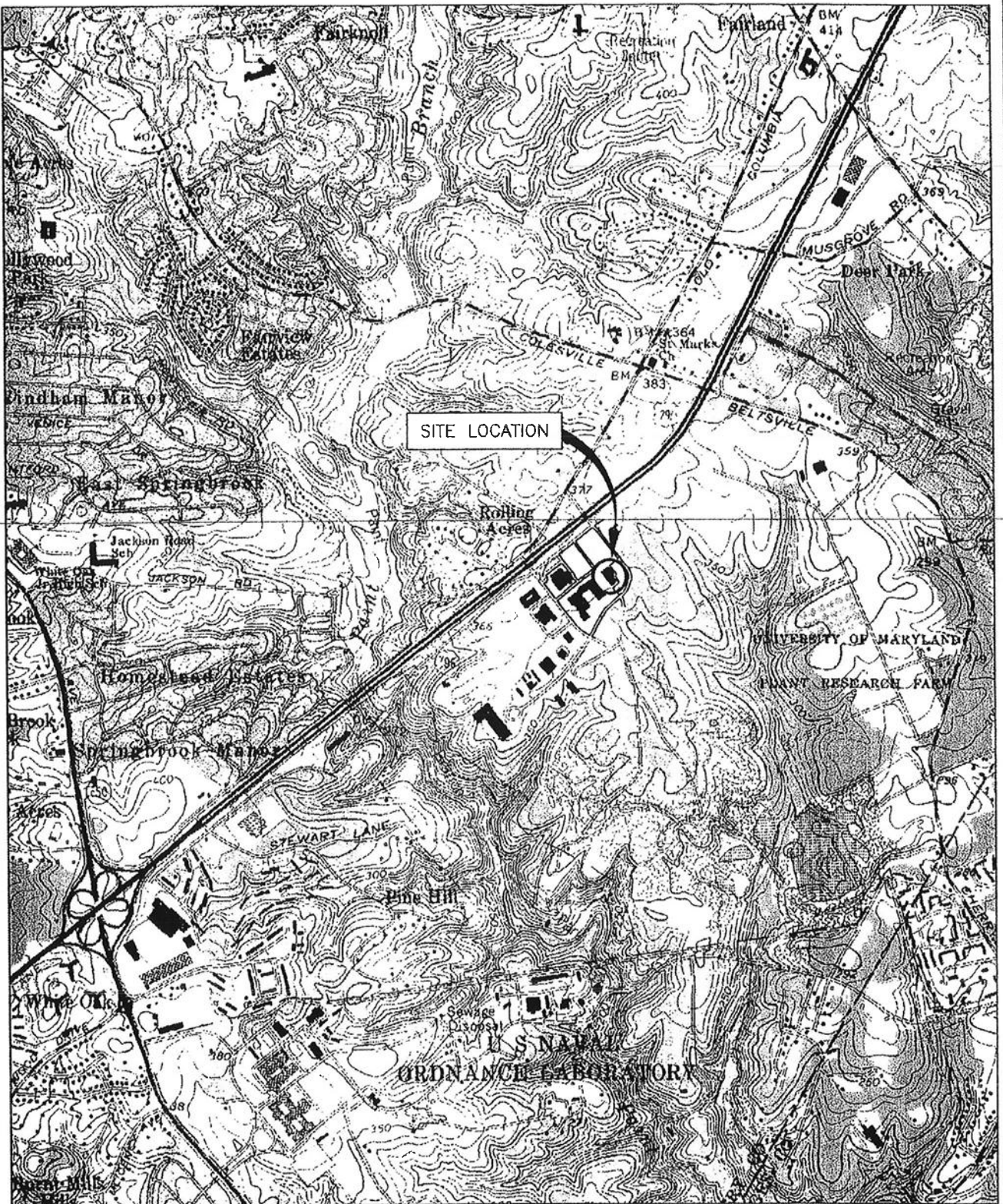
Method - USEPA SW-846 Methods

W - water/aqueous samples

mL - milliliters

FIGURES





Basemap: U.S.G.S. 7.5 Min. Quadrangle, Beltsville, MD. 1964 Photorevised 1979

FIGURE 1

SITE LOCATION MAP

FORMER SAFETY-KLEEN CORP. SERVICE CENTER
SILVER SPRING, MARYLAND



1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7720

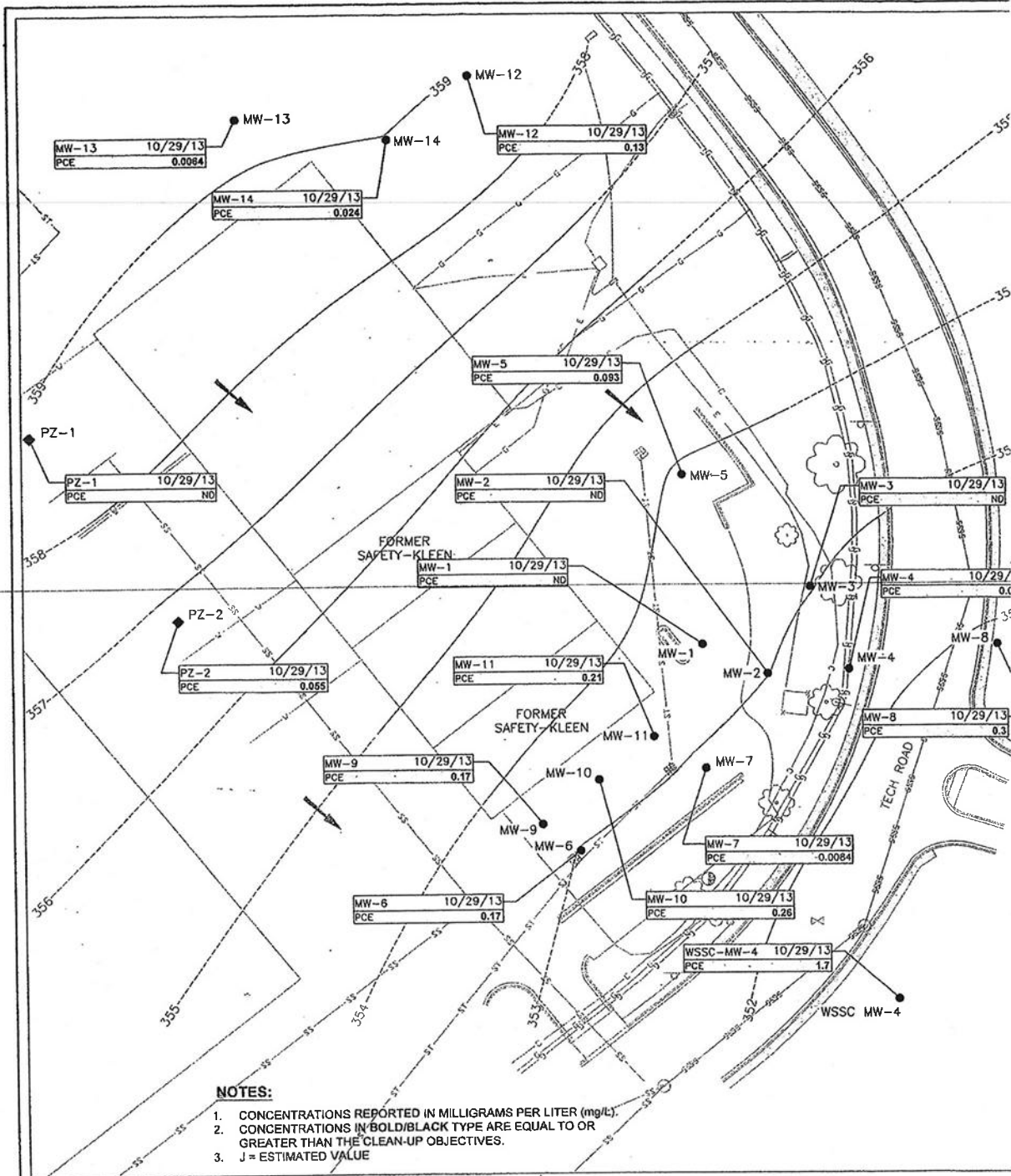
Drawn By: REP

Checked By: AR

Scale: 1" = 2,000'

Date: 3/11/09

File: 198USGSSITE



NOTES:

1. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (mg/L).
2. CONCENTRATIONS IN BOLD/BLACK TYPE ARE EQUAL TO OR GREATER THAN THE CLEAN-UP OBJECTIVES.
3. J = ESTIMATED VALUE

EXPLANATION

- MW-6 WELL AND DESIGNATION
- ◆ PZ-2 PIEZOMETER AND DESIGNATION
- FENCE
- SS SANITARY SEWER LINE
- G GAS LINE
- ST STORM DRAIN LINE
- W WATER LINE
- C COMMUNICATION/CABLE LINE
- E ELECTRICAL LINE
- FIRE HYDRANT
- GRATE
- SIGN POST
- UTILITY POLE
- GUY WIRE
- SEWER MANHOLE
- WATER VALVE
- ▭ BUILDING OR OTHER STRUCTURE
- ▭ SIDEWALK
- TREE

CONSTITUENT TABLE EXPLANATION

WELL DESIGNATION	Sample Date	Average Background Concentration (mg/L)
MW-6	10/29/13	0.0533
TETRACHLOROETHENE	PCE	0.0533

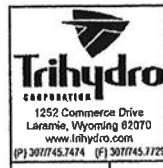
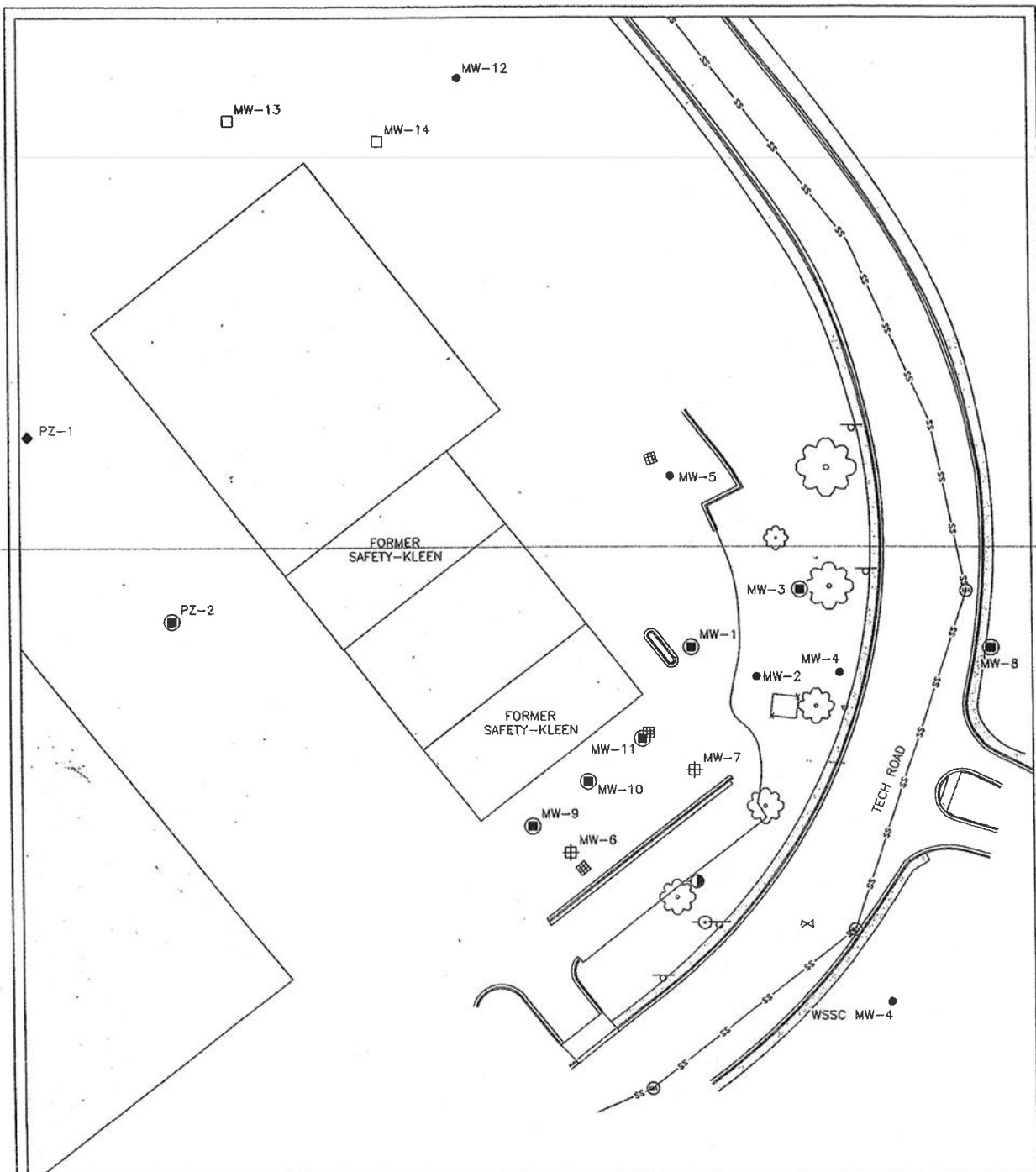


FIGURE 2
TETRACHLOROETHENE
GROUNDWATER CONCENTRATIONS
(OCTOBER 2013)
FORMER SAFETY-KLEEN CORP. SERVICE CENT
SILVER SPRING, MARYLAND



EXPLANATION

- MW-6 MONITORING WELL AND DESIGNATION
- MW-13 BACKGROUND MONITORING WELL AND DESIGNATION
- ⊞ MW-6 SENTINEL MONITORING WELL AND DESIGNATION
- ⊙ MW-9 COMPLIANCE WELL AND DESIGNATION
- ◆ PZ-2 PIEZOMETER AND DESIGNATION
- x-x- FENCE
- ss- SANITARY SEWER LINE
- ⊞ GRATE
- ⊞ SIGN POST
- ⊞ UTILITY POLE
- ⊞ GUY WIRE
- ⊞ SEWER MANHOLE
- ⊞ WATER VALVE
- ⊞ BUILDING OR OTHER STRUCTURE
- ⊞ SIDEWALK
- ⊞ TREE



<p>Trihydro CORPORATION</p> <p>1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307/745.7474 (F) 307/745.7729</p>	<p>FIGURE 3</p> <p>PROPOSED MONITORING PROGRAM</p> <p>FORMER SAFETY-KLEEN CORP. SERVICE CENTER SILVER SPRING, MARYLAND</p>
	<p>Drawn By: REP Checked By: AR Scale: 1" = 50' Date: 3/1/14 File: 198MONWELLNET201403</p>

APPENDIX A

EXAMPLE FIELD FORMS





Field Well Inspection Form

Job Name: Former Service Center
 Job No.: 198-002-014
 Client: Safety-Kleen

Site Location: Silver Spring
 Date: _____
 Inspector: _____

Concrete Pad

Visible? Yes No
 Sloped away from casing? Yes No

If no, which well(s)? Explain: _____
 If no, which well(s)? Explain: _____

Check any of the following features that apply:

- Many Cracks Well ID and explanation: _____
- Few Cracks Well ID and explanation: _____
- Gap Around Casing Well ID and explanation: _____
- No Pad Present Well ID and explanation: _____
- Pondered Water Well ID and explanation: _____

Well Cover

Steel Lid Present: Yes No If no, which well(s)? Explain: _____

Condition: Good Broken Cracked If not good, which well(s)? Explain: _____

Condition of Sump: Clean Dirty Standing Water If not clean, which well(s)? Explain: _____

Stripped Bolts? Yes No If yes, which well(s)? Fixed? Explain: _____

Stripped Bolt Holes? Yes No If yes, which well(s)? Fixed? Explain: _____

Missing Bolts? Yes No If yes, which well(s)? Fixed? Explain: _____

Missing Gaskets? Yes No If yes, which well(s)? Fixed? Explain: _____

Broken Bolt Ears? Yes No If yes, which well(s)? Fixed? Explain: _____

Intercasing (PVC):

Condition: Good Broken Cracked If not good, which well(s)? Explain: _____

Cap Present: Yes No If no, which well(s)? Explain: _____

Well Lock Present: Yes No If no, which well(s)? Explain: _____

Lock Functioning: Yes No If no, which well(s)? Explain: _____

Well I.D. Visible: Yes No If no, which well(s)? Explain: _____

ADDITIONAL SPACE FOR EXPLANATIONS:

LOW-FLOW GROUNDWATER SAMPLING LOG

Client: Safety-Kleen Systems Inc.
 Project Number: 198-01A-002
 Project Name: S-K Silver Spring
 Project Location: Silver Spring, MD
 Sample Date: _____
 Weather: _____
 Field Personnel: _____
 VOCs: _____
 Containers/Preservatives: 3 X 40mL VOA
 Static Water Level: _____
 Depth to Product: _____
 Total Well Depth: _____
 Screened Interval: _____
 Pump Inlet Depth: _____
 Laboratory Analysis: _____
 QAQC Samples Collected: (yes) (no) _____
 Water Quality Meter: _____
 Total Purge Volume: _____
 If Yes, Sample ID: _____

MONITORING WELL ID:

Time	Pumping Rate (mL/min)	Depth to Water (ft-bmp) < 0.3 ft Δ	Temp (deg C) +/- 3°	Sp. Con. (mS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV) +/- 10mV	TDS (mg/L)	Turbidity (NTU) +/- 10%	Comments Groundwater appearance, odor, NAPL, purge interruptions, etc.

FIELD WELL INSPECTION:

Protective Casing: _____
 Lock Condition: _____
 Lid Condition: _____
 Casing Diameter: _____
 Cap Condition: _____
 Well I.D. Visible: _____
 Condition of Manway: _____
 Bolt Condition: _____
 Bumper Posts: _____
 Flush Mount Seal: _____
 Comments: _____



DAILY INSTRUMENT CALIBRATION/MAINTENANCE LOG

Date: _____

Filed Instrument and Number	Standard and Concentration	Calibration Reading	Accuracy Reading	Accuracy (+/- % from Standard)	Calibrator Initials
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Field Instrument and Number	Maintenance Personnel	Maintenance Performed
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Site Manager

IN UNITS OF mg,
CONCENTRATIONS
AVERAGE BACK
SAMPLE DATE

WELL DESIGNATION
Mw-6
10/29/13
PCE
0.0535
TETRACHLOROETHENE

CONSTITUENT TABLE EXPLANATION

WELL AND DESIGNATION
6
MM, SCS, TR, PI, WSSC = MONITORING WELL

PIEZOMETER AND DESIGNATION
-2

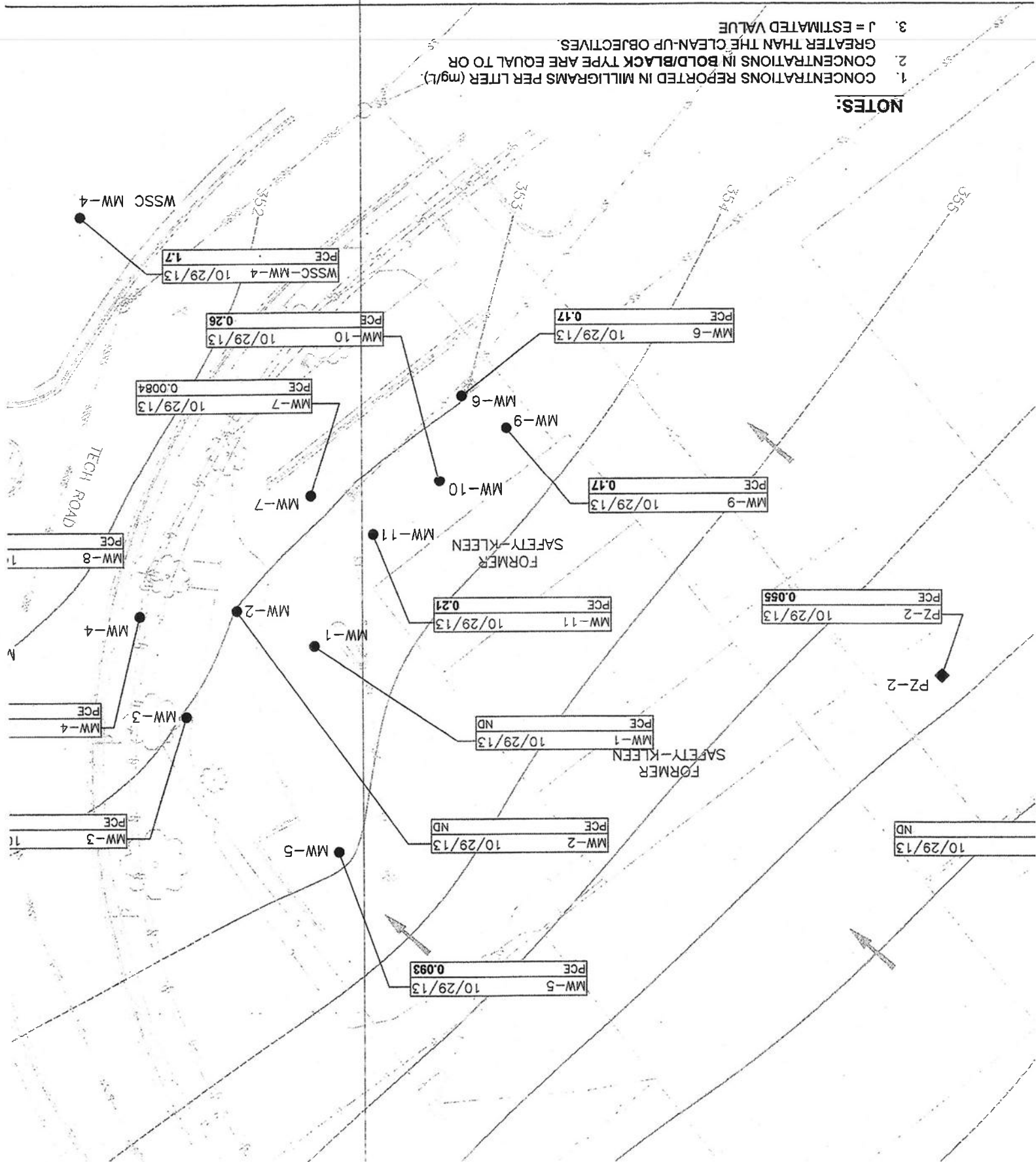
FENCE

SANITARY SEWER LINE

GAS LINE

EXPLANATION





- NOTES:**
1. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (mg/L).
 2. CONCENTRATIONS IN BOLD/BLACK TYPE ARE EQUAL TO OR GREATER THAN THE CLEAN-UP OBJECTIVES.
 3. J = ESTIMATED VALUE



CONSTITUENT TABLE EXPLANATION

EXPLANATION

- NOTES:**
1. CONCENTRATIONS REPORTED IN MILLIGRAMS PER LITER (mg/L).
 2. CONCENTRATIONS IN BOLD/BLACK TYPE ARE EQUAL TO OR GREATER THAN THE CLEAN-UP OBJECTIVES.
 3. J = ESTIMATED VALUE

- MW-9  SENTINEL MONITORING WELL AND DESIGNATION
- MW-6  BACKGROUND MONITORING WELL AND DESIGNATION
- MW-13  MONITORING WELL AND DESIGNATION
- MW-6  MONITORING WELL AND DESIGNATION

EXPLANATION

