WASTE MANAGEMENT
35251 Old Skyline Road
P.O. Box 471
Kettleman City, CA 93239

July 29, 2026

CERTIFIED MAIL (9589 0710 5270 1166 3865 23)

Jocelyn Clark (R9LandSubmit@epa.gov, clark.jocelyn@epa.gov)
Project Manager, Kettleman Hills Facility (CAT 000 646 117)
Permits Office (Attn: LND-4-2)
Land, Chemicals & Redevelopment Division
U.S. Environmental Protection Agency - Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: CHEMICAL WASTE MANAGEMENT, INC. - KETTLEMAN HILLS FACILITY CLASS 2 PERMIT MODIFICATION REQUEST: DECOMMISSION AND REPLACE TSCA MONITORING WELLS K46 AND K50, TSCA APPROVAL, JULY 2020

Dear Ms. Clark,

Chemical Waste Management, Inc. - Kettleman Hills Facility (KHF) hereby requests approval of a Class 2 modification to the TSCA Approval to Operate dated July 29, 2020 (TSCA Approval) pursuant to Table 3.C.1.a and Condition IX.A.2.d of the TSCA Approval. The requested modification is necessary to decommission and replace TSCA Groundwater Monitoring Wells K46 and K50 which are situated within the footprint of the Phase C-2 excavation area of Class II/III Landfill B-17, scheduled to commence in early 2027. The replacement wells will be installed in nearby locations that continue to monitor the same waste management units and hydrogeologic conditions as the existing wells. The relocated wells will remain part of the approved groundwater monitoring network and will be sampled at the same frequency and in accordance with the same monitoring requirements specified in the TSCA Approval.

On June 9, 2026, KHF submitted correspondence to U.S. EPA Region IX (June 9, 2026 Letter) that included the proposed decommissioning and installations workplans to facilitate EPA's review. As described in the June 9, 2026 Letter, KHF acknowledged that a Class 2 permit modification is required under Table 3.C.1.a because the decommissioning and replacement of Wells K46 and K50 will result in changes to the monitoring wellhead locations identified in the TSCA Approval.

Subject to U.S. EPA Region IX approval of the decommissioning and installation work plans submitted on June 9, 2026, KHF requests the corresponding revisions to the TSCA Approval described below:

- TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan (April 17, 2018)
  - Revise Table 1, "Monitoring Well Summary TSCA Waste Management Units," to remove K46 and K50 and replace with K46R and K50R
  - Revise Table 2, "Groundwater Well Construction Information TSCA Waste Management Units," to remove K46 and K50 and add a placeholder for well construction information for the replacement wells K46R and K50R. KHF understands that a subsequent permit modification may be necessary to update Table 2 with the well construction information once that information is available.
  - Revise Figure 2, "Monitoring Network TSCA Waste Management Units," to remove K46 and K50 and add K46R and K50R to the monitoring network map.
  - Revise citation for the addendum to state "TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018, Revised July 2026)
  - Attachment 1 includes a redline version of the TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018) with proposed changes.
  - Attachment 2 includes the proposed TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018, Revised July 2026)

- TSCA Approval
  - Condition B.3:

    Chemical Waste Management, Inc. shall operate and maintain the groundwater monitoring wells listed in Table 2 in accordance with the "TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018, Revised July 2026) and Section 4.6 "Groundwater Monitoring System Operation And Maintenance" in Site-Specific Groundwater Monitoring Plan, Class I Waste Management Units, April 2014. [40 C.F.R. § 761.75(b)(6); 40 C.F.R. § 761.75(c)(3)(ii)]

- Condition B. Table 2 PCB Monitoring Wells:

Well I.D.	Water Bearing Zone Monitored	Land Unit(s) Monitored
E02	Mya C/D	B-18
K05	Tuffaceous B	closed B-19 Phases 2 and 3
K17	Neverita A	closed B-19 Phases 2 and 3
K18	Trachycardium A	B-18
K30R	Mya A	closed B-19 Phases 2 and 3
K32R	Mya A	B-18 and closed B-19 Phases 2 and 3
K38	Mya A	B-18
~~K46~~	~~Mya A~~	~~closed B-14 and closed B-19 Phases 2 and 3~~
K46R	Mya A	closed B-14 and closed B-19 Phases 2 and 3
K48	Neverita B	closed B-19 Phases 2 and 3
K49	Neverita B	closed B-16 and closed B-19 Phases 2 and 3
~~K50~~	~~Tuffaceous B~~	~~closed B-14 and closed B-19 Phases 2 and 3~~
K50R	Tuffaceous B	closed B-14 and closed B-19 Phases 2 and 3
K51	Mya C/D	B-18
K57	Trachycardium B	B-18
K58	Trachycardium B	B-18
K60	Pecten A	B-18
K62	Tuffaceous B	closed B-19 Phases 2 and 3
K64	Tuffaceous A	closed B-19 Phases 2 and 3
K66	Neverita A	closed B-19 Phases 2 and 3
K67	Trachycardium A	B-18
K68	Pecten B	B-18
K69	Neverita A	closed B-19 Phases 2 and 3
K70	Neverita B	closed B-19 Phases 2 and 3
K71R	Pecten B	B-18

- Appendix B – Incorporated Documents

  - Volume 3: B-3. "TSCA Permit Renewal Application, Chemical Waste Management, Inc. Kettleman Hills Facility." Chemical Waste Management, Inc. Revision 4: November 22, 2019.
    - B-3-1. Section 5.7 – Quarterly Wipe Sampling Plan.
    - B-3-2. Section 10.1.1. – PCB Flushing/Storage Unit.
    - B-3-3. Section 14.1 – Closure and Post-Closure Plans.

B-3-4. Attachment 4 – TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan. April 17, 2018, Revised July 2026.
B-3-5. Attachment 6 – PCB Building Interior Secondary Containment Calculations. July 31, 2019.
B-3-6. Attachment 7 – PCB Building Exterior Secondary Containment Calculations July 31, 2019.

In accordance with Condition IX.A.2.d.2 of the TSCA Approval, KHF will send a notice of the modification request to all persons on the facility mailing list, maintained by US EPA, the appropriate units of State and local government, and publish a public notice in the local newspaper of general circulation within 7 days of the date of this letter.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

If you have any questions regarding this matter, please contact me at (559) 386-6151.

Sincerely,
Chemical Waste Management, Inc.

Reyna Verdin
Environmental Protection Manager

Attachment(s)

cc:

Omar Ghaleb, DTSC Permitting Division (Omar.Ghaleb@dtsc.ca.gov)
Carlos Cervantez, CVRWQCB (Carlos.Cervantez@waterboards.ca.gov)
Jesus Crespin, KCDPH – Environmental Health Services (Jesus.Crespin@co.kings.ca.us)

Attachment A

TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018, Revised July 2026) Redline Version

April 17, 2018

Project 07530

Ms. Reyna Verdin
Environmental Protection Manager
Chemical Waste Management, Inc.
35251 Old Skyline Road
Kettleman City, California 93239

Subject: **TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan**
Kettleman Hills Facility, Kings County, California

Dear Ms. Verdin:

The Chemical Waste Management, Inc. (CWM), Kettleman Hills Facility (KHF) is a waste management facility located in Kings County, California (Figure 1), that consists of operating and closed Class I (hazardous waste) treatment, storage, and disposal waste management units (WMUs) and Class II/III (designated and municipal wastes) WMUs. Class I WMUs B-14, B-16, B-18, and Phases 2 and 3 of B-19 have also been permitted to receive Toxic Substances Control Act (TSCA) waste. WMUs B-14, B-16, and Phases 2 and 3 of B-19 (closed TSCA WMUs) are closed and no longer receive waste. B-18 is active and continues to receive TSCA waste. TSCA waste storage and disposal is regulated by the U.S. Environmental Protection Agency and 40 Code of Federal Regulations (CFR) 761 Subpart D.

The current TSCA monitoring system includes 23 groundwater quality monitoring wells that monitor the closed and active TSCA WMUs (Figure 2). Of these, 13 wells monitor the closed TSCA WMUs, 11 wells monitor the active WMU, and 1 well (K32R) monitors both (Table 1).

Groundwater at the KHF is monitored in accordance with two approved site-specific monitoring plans (SSMPs) that were prepared to comply with the monitoring and reporting requirements of California Code of Regulations Title 22 and Title 23, administered by the California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (RWQCB), respectively. The SSMPs are periodically updated through a DTSC permit modification process and/or a RWQCB Waste Discharge Requirement (WDR) update. For the DTSC permit, the currently approved SSMP is the *Site-Specific Groundwater Monitoring Plan* (Geosyntec, 2001). For the RWQCB WDRs, the currently approved SSMP is the *Revised Site-Specific Groundwater Monitoring Plan Class I Waste Management Units* (AMEC, 2014). The currently approved DTSC plan specifies quarterly groundwater monitoring and reporting while the currently approved RWQCB plan specifies semiannual groundwater monitoring and reporting. KHF is working with the DTSC and RWQCB on updating and consolidating the SSMPs. Among other changes, the sampling and reporting frequency will be aligned between the two plans to either semiannual (twice per year) or annual (once per year). Monitoring is completed as required by the most recently approved version of the SSMP.

Some 40 CFR 761 Subpart D requirements may not be included in the approved SSMP. The purpose of this addendum to the SSMP is to specify the additional information and monitoring

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needed to comply with 40 CFR 761 Subpart D requirements. Specifically, this addendum addresses the requirements included in 40 CFR 761.75(b)(6)(ii)(B) and 40 CFR 761.75(b)(6)(iii).

40 CFR 761.75(b)(6)(ii)(B) specifies:

> "(B) All monitor wells shall be cased and the annular space between the monitor zone (zone of saturation) and the surface shall be completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore. The well opening at the surface shall have a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff. The well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis. The discharge shall be treated to meet applicable State or Federal discharge standards or recycled to the chemical waste landfill."

The first portion of paragraph 40 CFR 761.75(b)(6)(ii)(B) includes well construction and seal requirements. Pertinent well construction information, including the seal interval and type of seal material used for the groundwater wells monitoring the TSCA waste cells, is summarized in Table 2. The seal material consisted of Portland type cement with or without bentonite. Each of the KHF groundwater monitoring wells has a removable cap to provide access to the well and prevent rainfall and storm water from entering the well.

The second portion of paragraph 40 CFR 761.75(b)(6)(ii)(B) indicates the wells shall be pumped to remove the volume of water initially in the well before obtaining a sample for analysis. The pre-sample purge method is presented in the most recently approved SSMP. This purge method may not remove the volume of water in the well casing before samples are collected. A waiver under 40 CFR 761.75(c)(4) is included in the TSCA permit application. The rationale for the purge process at the KHF is discussed in the SSMP and in *Evaluation of Pre-Sample Purge Methods* (Geomatrix, 2007), *Review of Evaluation of Pre-Sample Purge Methods* (DTSC, 2008), and *Addendum to Evaluation of Pre-Sample Purge Methods* (AMEC, 2008). The waiver to the prescriptive purge standard in 40 CFR 761.75(b)(6)(ii)(B) will not pose an increased risk of injury to health or the environment.

40 CFR 761.75(b)(6)(iii) specifies:

> "(iii) Water analysis. As a minimum, all samples shall be analyzed for the following parameters, and all data and records of the sampling and analysis shall be maintained as required in §761.180(d)(1). Sampling methods and analytical procedures for these parameters shall comply with those specified in 40 CFR part 136 as amended in 41 FR 52779 on December 1, 1976.
>
> (A) PCBs.
>
> (B) pH.
>
> (C) Specific conductance.
>
> (D) Chlorinated organics."

Groundwater samples from the groundwater wells monitoring the closed TSCA waste cells, B-14, B-16, and B-19 Phases 2 and 3 will be monitored on the same frequency and for the same constituents specified for the Class I WMUs in the most recent approved SSMP. At a

minimum, groundwater wells monitoring the closed TSCA waste cells will be tested annually for pH (field), specific conductance (field), and chlorinated organics and every 5 years for polychlorinated biphenyls (PCBs; to coincide with the KHF 5-year constituent of concern groundwater monitoring events).

Groundwater samples from the groundwater wells monitoring the active TSCA waste cell B-18 will be monitored on the same frequency and for the same constituents specified for the Class I WMUs in the most recent approved SSMP. At a minimum, groundwater wells monitoring the active TSCA waste cell B-18 will be sampled annually and tested for PCBs, pH (field), specific conductance (field), and chlorinated organics.

If you have any questions regarding the information presented in this letter, please contact either of the undersigned.

Sincerely yours,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Bradley A. Loewen, PG
Senior Associate Geologist

Philip P. Ross, PG
Principal Hydrogeologist

Attachments:
Table 1 – Monitoring Well Summary, TSCA Waste Management Units
Table 2 – Groundwater Well Construction Information, TSCA Waste Management Units
Figure 1 – Site Location Map
Figure 2 – Monitoring Network, TSCA Waste Management Units

REFERENCES

AMEC Environment & Infrastructure, Inc., 2014, Revised Site-Specific Groundwater Monitoring Plan Class I Waste Management Units, Kettleman Hills Facility, Kings County, California, April 14 (AMEC, 2014).

AMEC Geomatrix, Inc., 2008, Addendum to Evaluation of Pre-Sample Purge Method, Kettleman Hills Facility, Kings County, California, June 27 (AMEC Geomatrix, 2008).

California Department of Toxic Substances Control, 2008, Review of Evaluation of Pre-Sample Purge Methods, Chemical Waste Management, Inc. – Kettleman Hills Facility, Kings County, US Environmental Protection Agency ID CAT000646117, February 20 (DTSC, 2008).

Geomatrix Consultants, Inc., 2007, Evaluation of Pre-Sample Purge Methods, Response to Comprehensive Groundwater Monitoring Evaluation, Kettleman Hills Facility, Kettleman City, California, March 14 (Geomatrix, 2007).

Geosyntec Consultants, 2001, Site-Specific Groundwater Monitoring Plan, Kettleman Hills Facility, Chemical Waste Management, Inc., Kings County, California, May (Geosyntec, 2001).

TABLE 1

MONITORING WELL SUMMARY
TSCA WASTE MANAGEMENT UNITS

Kettleman Hills Facility
Kings County, California

Well ID	Water-Bearing Zone	Monitored TSCA WMU
E02	Mya C/D	B-18
K05	Tuffaceous B	closed B-19 Phases 2 and 3
K17	Neverita A	closed B-19 Phases 2 and 3
K18	Trachycardium A	B-18
K30R	Mya A	closed B-19 Phases 2 and 3
K32R	Mya A	B-18 and closed B-19 Phases 2 and 3
K38	Mya A	B-18
K46	Mya A	closed B-14 and closed B-19 Phases 2 and 3
K48	Neverita B	closed B-19 Phases 2 and 3
K49	Neverita B	closed B-16 and closed B-19 Phases 2 and 3
K50	Tuffaceous B	closed B-14 and closed B-19 Phases 2 and 3
K51	Mya C/D	B-18
K57	Trachycardium B	B-18
K58	Trachycardium B	B-18
K60	Pecten A	B-18
K62	Tuffaceous B	closed B-19 Phases 2 and 3
K64	Tuffaceous A	closed B-19 Phases 2 and 3
K66	Neverita A	closed B-19 Phases 2 and 3
K67	Trachycardium A	B-18
K68	Pecten B	B-18
K69	Neverita A	closed B-19 Phases 2 and 3
K70	Neverita B	closed B-19 Phases 2 and 3
K71R	Pecten B	B-18

Abbreviations:
WMU = Waste Management Unit
TSCA = Toxic Substances Control Act

Table 1
Monitoring Well Summary
TSCA Waste Management Units

Kettleman Hills Facility
Kings County, California

Well ID	Water-Bearing Zone	Monitored TSCA WMU
E02	Mya C/D	B-18
K05	Tuffaceous B	closed B-19 Phases 2 and 3
K17	Neverita A	closed B-19 Phases 2 and 3
K18	Trachycardium A	B-18
K30R	Mya A	closed B-19 Phases 2 and 3
K32R	Mya A	B-18 and closed B-19 Phases 2 and 3
K38	Mya A	B-18
K46R	Mya A	closed B-14 and closed B-19 Phases 2 and 3
K48	Neverita B	closed B-19 Phases 2 and 3
K49	Neverita B	closed B-16 and closed B-19 Phases 2 and 3
K50R	Tuffaceous B	closed B-14 and closed B-19 Phases 2 and 3
K51	Mya C/D	B-18
K57	Trachycardium B	B-18
K58	Trachycardium B	B-18
K60	Pecten A	B-18
K62	Tuffaceous B	closed B-19 Phases 2 and 3
K64	Tuffaceous A	closed B-19 Phases 2 and 3
K66	Neverita A	closed B-19 Phases 2 and 3
K67	Trachycardium A	B-18
K68	Pecten B	B-18
K69	Neverita A	closed B-19 Phases 2 and 3
K70	Neverita B	closed B-19 Phases 2 and 3
K71R	Pecten B	B-18

Abbreviations:
TSCA = Toxic Substances Control Act
WMU = Waste Management Unit

Table modified July 2026 to reflect replacement of wells K46 and K50.

TABLE 2

GROUNDWATER WELL CONSTRUCTION INFORMATION
TSCA WASTE MANAGEMENT UNITS

Kettleman Hills Facility
Kings County, California

Well ID	Ground Elevation (feet msl)	Top of Sounding Pipe[1] (feet msl)	Date Drilled[2]	Total Well Depth[1,3] (feet)	Conductor Casing[1] (inches)	Casing Size[1,4] (inches)	Screen Depth[2,3] (feet)	Sandpack Depth[2,3] (feet)	Seal Interval[2,3] (feet)	Seal Material[2]
E02	870.46	871.78	11/22/87	508	N/A	6 (SS)	461-501	450-511	0-450	Type V Cement w/3-5% Bentonite
K05	900.10	901.66	06/14/84	520	N/A	4	476-515	459-520	0-459	Cement
K17	833.37	835.02	09/10/84	435	N/A	4	385-435	375-440	0-375	Type V Cement
K18	896.23	897.70	07/20/85	615	N/A	4	500-610	490-620	0-490	Type V Cement
K30R	897.11	903.16	05/02/08	471	N/A	5	438-467	426-478	0-426	Type II/V Cement w/ 5% Bentonite
K32R	815.20	818.49	03/14/91	421	16 and 10 Steel	5	381-421	376-422	0-376	Type V Cement w/3% Bentonite
K38	856.51	857.35	08/02/85	451	N/A	4.5	416-446	400-447	0-400	Type V Cement
K46	871.25	872.69	10/10/85	461	N/A	4.5	421-461	406-461	0-406	Type V Cement
K48	820.02	821.57	10/11/85	411	N/A	4.5	386-416	376-419	0-376	Type V Cement
K49	810.21	811.19	11/06/85	410	N/A	4.5	365-405	357-410	0-357	Type V Cement
K50	887.13	887.81	01/28/86	468	N/A	2 inside 4.5	426-476	415-491	0-415	Type V Cement
K51	835.65	836.90	06/22/91	464	16 and 10 Steel	5	409-464	403-464	0-403	Type V Cement w/5% Bentonite
K57	914.20	916.80	05/06/91	550	16 and 10 Steel	5	530-549	525-550	0-525	Type V Cement w/6% Bentonite
K58	905.72	907.40	12/10/99	531	N/A	5	490-530	485-535	0-485	Type V Cement w/3-5% Bentonite
K60	864.47	866.27	10/20/99	474	N/A	5	453-473	443-475	0-443	Type V Cement w/ Bentonite
K62	855.77	857.33	10/05/99	431	N/A	5	406-431	400-436	0-400	Type V Cement w/ 5% Bentonite
K64	825.69	826.92	09/24/99	395	N/A	5	355-395	348-407	0-348	Type V Cement w/ 3-5% Bentonite
K66	798.97	810.15	09/14/99	360	N/A	5	312-350	309-366	0-309	Type V Cement w/ 5% Bentonite
K67	930.88	932.84	12/02/99	585	N/A	5	545-585	530-589	0-530	Type V Cement w/ 3-5% Bentonite
K68	855.02	856.47	11/23/99	485	N/A	5	445-485	438-508	0-438	Type V Cement w/ 3-5% Bentonite
K69	876.00	877.87	12/15/97	437	N/A	5	396-436	391-440	0-391	Type V Cement w/ 5% Bentonite
K70	870.77	872.74	01/15/98	437	N/A	5	400-425	395-430	0-395	Type V Cement w/ 5-7% Bentonite
K71R	938.90	940.03	06/26/09	565	N/A	5	527-566	514-572	0-514	Type V Cement w/ 5% Bentonite

Notes:
1. Data from KHF Well ID Chart (November 6, 2013).
2. Taken from individual well completion records. Cement is Portland type cement.
3. Depths and elevations are rounded to nearest foot.
4. Polyvinyl chloride casing used for all wells except for E02, which used stainless steel casing.

Abbreviations:
msl = above mean sea level
N/A = not applicable
SS = stainless steel

Table 2
Groundwater Well Construction Information
TSCA Waste Management Units

Kettleman Hills Facility
Kings County, California

Well ID	Ground Elevation (feet msl)	Top of Sounding Pipe[1] (feet msl)	Date Drilled[2]	Total Well Depth[1,3] (feet)	Conductor Casing[1] (inches)	Casing Size[1,4] (inches)	Screen Depth[2,3] (feet)	Sandpack Depth[2,3] (feet)	Seal Interval[2,3] (feet)	Seal Material[2]
E02	870.46	871.78	11/22/87	508	N/A	6 (SS)	461-501	450-511	0-450	Type V Cement w/3-5% Bentonite
K05	900.10	901.66	06/14/84	520	N/A	4	476-515	459-520	0-459	Cement
K17	833.37	835.02	09/10/84	435	N/A	4	385-435	375-440	0-375	Type V Cement
K18	896.23	897.70	07/20/85	615	N/A	4	500-610	490-620	0-490	Type V Cement
K30R	897.11	903.16	05/02/08	471	N/A	5	438-467	426-478	0-426	Type II/V Cement w/ 5% Bentonite
K32R	815.20	818.49	03/14/91	421	16 and 10 Steel	5	381-421	376-422	0-376	Type V Cement w/3% Bentonite
K38	856.51	857.35	08/02/85	451	N/A	4.5	416-446	400-447	0-400	Type V Cement
~~K46~~	~~871.25~~	~~872.69~~	~~10/10/85~~	~~461~~	~~N/A~~	~~4.5~~	~~421-461~~	~~406-461~~	~~0-406~~	~~Type V Cement~~
K46R[5]	Pending Construction									
K48	820.02	821.57	10/11/85	411	N/A	4.5	386-416	376-419	0-376	Type V Cement
K49	810.21	811.19	11/06/85	410	N/A	4.5	365-405	357-410	0-357	Type V Cement
~~K50~~	~~887.13~~	~~887.81~~	~~01/28/86~~	~~468~~	~~N/A~~	~~2 inside 4.5~~	~~426-476~~	~~415-491~~	~~0-415~~	~~Type V Cement~~
K50R[5]	Pending Construction									
K51	835.65	836.90	06/22/91	464	16 and 10 Steel	5	409-464	403-464	0-403	Type V Cement w/5% Bentonite
K57	914.20	916.80	05/06/91	550	16 and 10 Steel	5	530-549	525-550	0-525	Type V Cement w/6% Bentonite
K58	905.72	907.40	12/10/99	531	N/A	5	490-530	485-535	0-485	Type V Cement w/3-5% Bentonite
K60	864.47	866.27	10/20/99	474	N/A	5	453-473	443-475	0-443	Type V Cement w/ Bentonite
K62	855.77	857.33	10/05/99	431	N/A	5	406-431	400-436	0-400	Type V Cement w/ 5% Bentonite
K64	825.69	826.92	09/24/99	395	N/A	5	355-395	348-407	0-348	Type V Cement w/ 3-5% Bentonite
K66	798.97	810.15	09/14/99	360	N/A	5	312-350	309-366	0-309	Type V Cement w/ 5% Bentonite
K67	930.88	932.84	12/02/99	585	N/A	5	545-585	530-589	0-530	Type V Cement w/ 3-5% Bentonite
K68	855.02	856.47	11/23/99	485	N/A	5	445-485	438-508	0-438	Type V Cement w/ 3-5% Bentonite
K69	876.00	877.87	12/15/97	437	N/A	5	396-436	391-440	0-391	Type V Cement w/ 5% Bentonite
K70	870.77	872.74	01/15/98	437	N/A	5	400-425	395-430	0-395	Type V Cement w/ 5-7% Bentonite
K71R	938.90	940.03	06/26/09	565	N/A	5	527-566	514-572	0-514	Type V Cement w/ 5% Bentonite

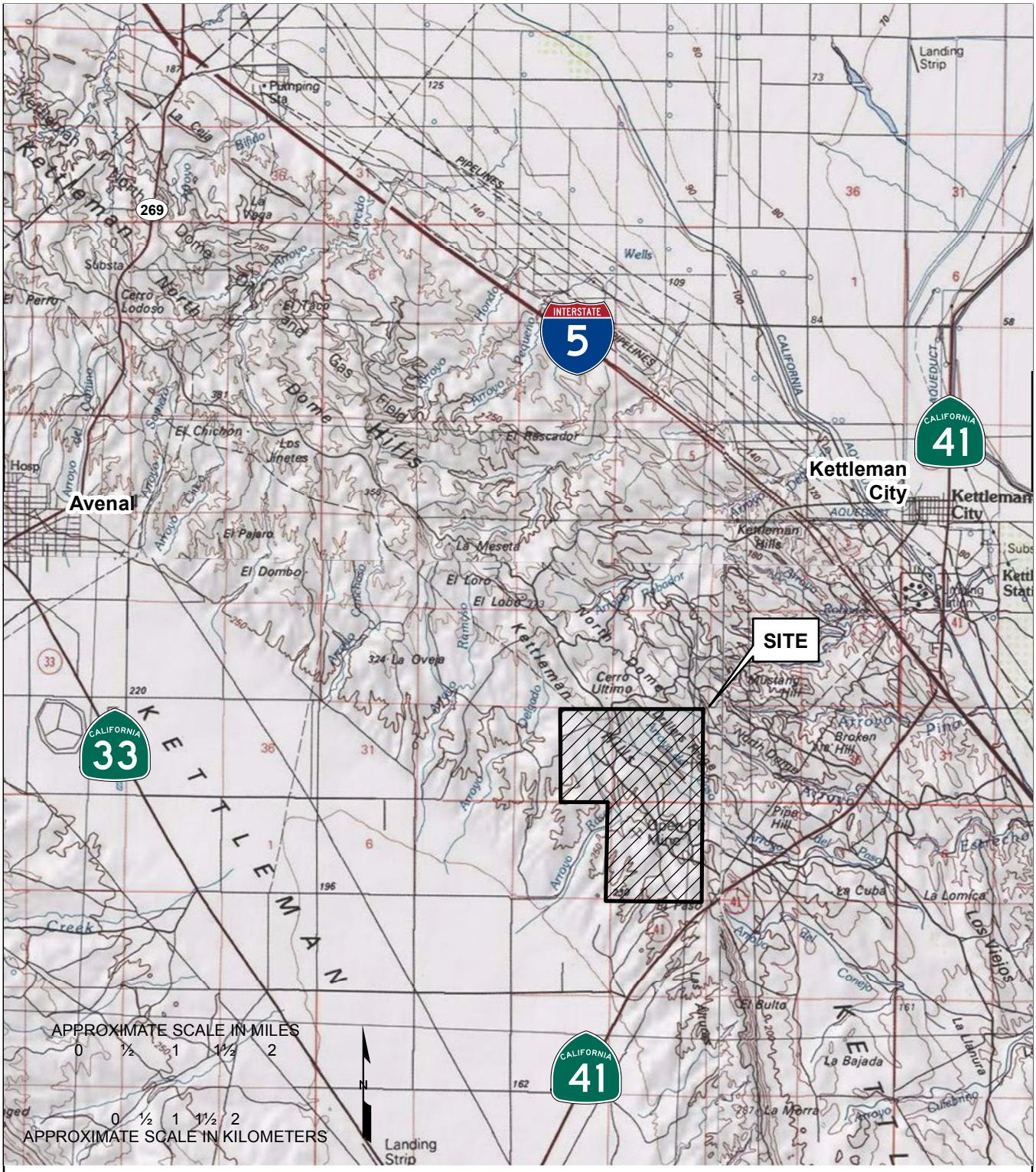
Notes:

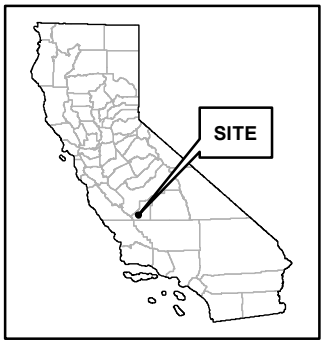
1. Data from KHF Well ID Chart (November 6, 2013).
2. Taken from individual well completion records. Cement is Portland type cement.
3. Depths and elevations are rounded to nearest foot.
4. Polyvinyl chloride casing used for all wells except for E02, which used stainless steel casing.
5. Information pending construction of wells.

Table modified July 2026 to reflect replacement of wells K46 and K50.

Abbreviations:

msl = above mean sea level
N/A = not applicable
SS = stainless steel





California

Basemap modified from National Geographic Society TOPO!
(U.S. Geological Survey topographical map mosaic dataset).

SITE LOCATION MAP
Kettleman Hills Facility
Kings County, California

amec foster wheeler

Date: 01/10/2018	Project No.: 007530	Figure 1
Submitted By: WTA	Drawn By: SCM	

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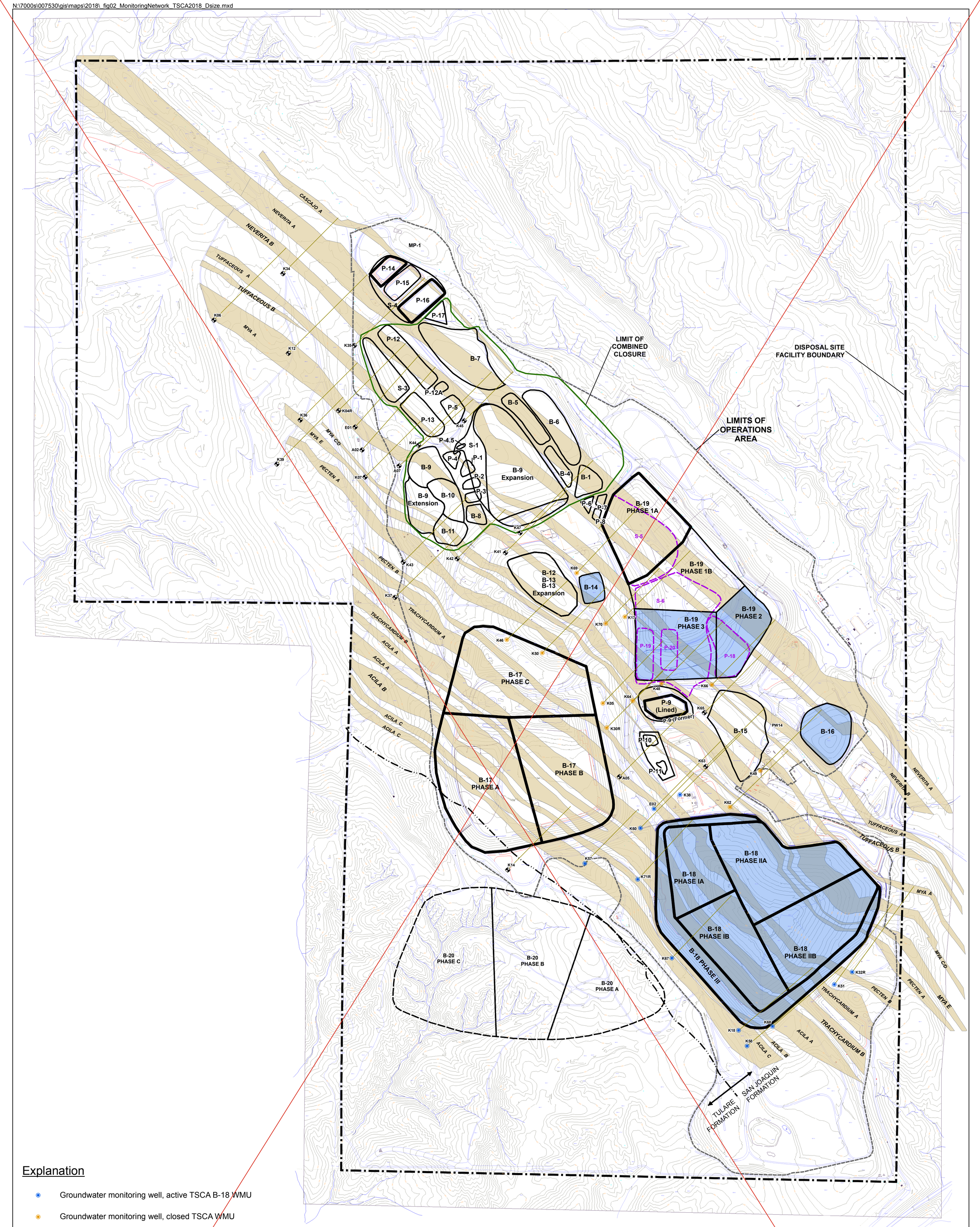

Explanation

- Groundwater monitoring well, active TSCA B-18 WMU
- Groundwater monitoring well, closed TSCA WMU
- Other groundwater monitoring well
- Leader from well to target sandstone
- Geologic contact between the San Joaquin Formation and the Tulare Formation

Site boundaries

Type

- Disposal site facility boundary
- Limits of operations area

Waste Management Units

- Active WMUs
- Closed WMUs
- Future WMU B-20. Not yet permitted for waste disposal.
- Clean Closed WMUs
- TSCA WMU

Site geology

- Outcrop of water bearing zone within San Joaquin Formation

NOTES:
1) TSCA = Toxic Substances Control Act.
2) WMU = Waste Management Unit.
3) 10 ft topographic contours.

APPROXIMATE SCALE IN FEET
0 500 1,000 1,500 2,000
0 100 200 300 400
APPROXIMATE SCALE IN METERS

N

MONITORING NETWORK
TSCA WASTE MANAGEMENT UNITS
Kettleman Hills Facility
Kings County, California

amec foster wheeler

Date: 04/17/2018	Project No.: 007530	Figure 2
Submitted By: BAL	Drawn By: SCM	

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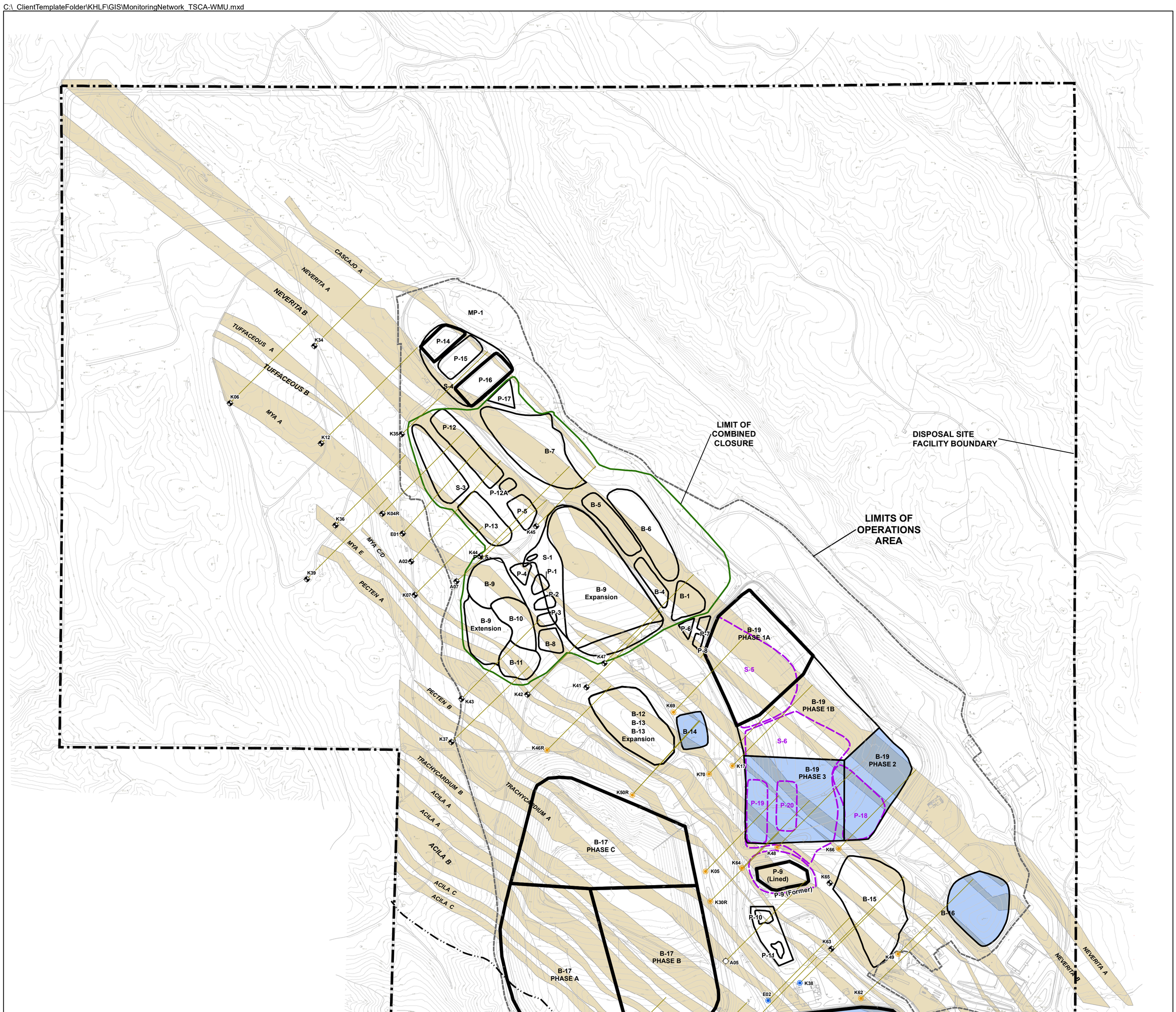

Explanation

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APPROXIMATE SCALE IN METERS

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MONITORING NETWORK
TSCA WASTE MANAGEMENT UNITS
Kettleman Hills Facility
Kings County, California

wsp

Date: 07/13/2026	Project No.: 007530	Figure 2
Submitted By: BAL	Drawn By: KJK	

Attachment B

TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan" (April 17, 2018, Revised July 2026)

April 17, 2018

Project 07530

Ms. Reyna Verdin
Environmental Protection Manager
Chemical Waste Management, Inc.
35251 Old Skyline Road
Kettleman City, California 93239

Subject: **TSCA Groundwater Monitoring Addendum to Site-Specific Monitoring Plan**
Kettleman Hills Facility, Kings County, California

Dear Ms. Verdin:

The Chemical Waste Management, Inc. (CWM), Kettleman Hills Facility (KHF) is a waste management facility located in Kings County, California (Figure 1), that consists of operating and closed Class I (hazardous waste) treatment, storage, and disposal waste management units (WMUs) and Class II/III (designated and municipal wastes) WMUs. Class I WMUs B-14, B-16, B-18, and Phases 2 and 3 of B-19 have also been permitted to receive Toxic Substances Control Act (TSCA) waste. WMUs B-14, B-16, and Phases 2 and 3 of B-19 (closed TSCA WMUs) are closed and no longer receive waste. B-18 is active and continues to receive TSCA waste. TSCA waste storage and disposal is regulated by the U.S. Environmental Protection Agency and 40 Code of Federal Regulations (CFR) 761 Subpart D.

The current TSCA monitoring system includes 23 groundwater quality monitoring wells that monitor the closed and active TSCA WMUs (Figure 2). Of these, 13 wells monitor the closed TSCA WMUs, 11 wells monitor the active WMU, and 1 well (K32R) monitors both (Table 1).

Groundwater at the KHF is monitored in accordance with two approved site-specific monitoring plans (SSMPs) that were prepared to comply with the monitoring and reporting requirements of California Code of Regulations Title 22 and Title 23, administered by the California Department of Toxic Substances Control (DTSC) and the Central Valley Regional Water Quality Control Board (RWQCB), respectively. The SSMPs are periodically updated through a DTSC permit modification process and/or a RWQCB Waste Discharge Requirement (WDR) update. For the DTSC permit, the currently approved SSMP is the *Site-Specific Groundwater Monitoring Plan* (Geosyntec, 2001). For the RWQCB WDRs, the currently approved SSMP is the *Revised Site-Specific Groundwater Monitoring Plan Class I Waste Management Units* (AMEC, 2014). The currently approved DTSC plan specifies quarterly groundwater monitoring and reporting while the currently approved RWQCB plan specifies semiannual groundwater monitoring and reporting. KHF is working with the DTSC and RWQCB on updating and consolidating the SSMPs. Among other changes, the sampling and reporting frequency will be aligned between the two plans to either semiannual (twice per year) or annual (once per year). Monitoring is completed as required by the most recently approved version of the SSMP.

Some 40 CFR 761 Subpart D requirements may not be included in the approved SSMP. The purpose of this addendum to the SSMP is to specify the additional information and monitoring

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USA
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needed to comply with 40 CFR 761 Subpart D requirements. Specifically, this addendum addresses the requirements included in 40 CFR 761.75(b)(6)(ii)(B) and 40 CFR 761.75(b)(6)(iii).

40 CFR 761.75(b)(6)(ii)(B) specifies:

> "(B) All monitor wells shall be cased and the annular space between the monitor zone (zone of saturation) and the surface shall be completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore. The well opening at the surface shall have a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff. The well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis. The discharge shall be treated to meet applicable State or Federal discharge standards or recycled to the chemical waste landfill."

The first portion of paragraph 40 CFR 761.75(b)(6)(ii)(B) includes well construction and seal requirements. Pertinent well construction information, including the seal interval and type of seal material used for the groundwater wells monitoring the TSCA waste cells, is summarized in Table 2. The seal material consisted of Portland type cement with or without bentonite. Each of the KHF groundwater monitoring wells has a removable cap to provide access to the well and prevent rainfall and storm water from entering the well.

The second portion of paragraph 40 CFR 761.75(b)(6)(ii)(B) indicates the wells shall be pumped to remove the volume of water initially in the well before obtaining a sample for analysis. The pre-sample purge method is presented in the most recently approved SSMP. This purge method may not remove the volume of water in the well casing before samples are collected. A waiver under 40 CFR 761.75(c)(4) is included in the TSCA permit application. The rationale for the purge process at the KHF is discussed in the SSMP and in *Evaluation of Pre-Sample Purge Methods* (Geomatrix, 2007), *Review of Evaluation of Pre-Sample Purge Methods* (DTSC, 2008), and *Addendum to Evaluation of Pre-Sample Purge Methods* (AMEC, 2008). The waiver to the prescriptive purge standard in 40 CFR 761.75(b)(6)(ii)(B) will not pose an increased risk of injury to health or the environment.

40 CFR 761.75(b)(6)(iii) specifies:

> "(iii) Water analysis. As a minimum, all samples shall be analyzed for the following parameters, and all data and records of the sampling and analysis shall be maintained as required in §761.180(d)(1). Sampling methods and analytical procedures for these parameters shall comply with those specified in 40 CFR part 136 as amended in 41 FR 52779 on December 1, 1976.
>
> (A) PCBs.
>
> (B) pH.
>
> (C) Specific conductance.
>
> (D) Chlorinated organics."

Groundwater samples from the groundwater wells monitoring the closed TSCA waste cells, B-14, B-16, and B-19 Phases 2 and 3 will be monitored on the same frequency and for the same constituents specified for the Class I WMUs in the most recent approved SSMP. At a

minimum, groundwater wells monitoring the closed TSCA waste cells will be tested annually for pH (field), specific conductance (field), and chlorinated organics and every 5 years for polychlorinated biphenyls (PCBs; to coincide with the KHF 5-year constituent of concern groundwater monitoring events).

Groundwater samples from the groundwater wells monitoring the active TSCA waste cell B-18 will be monitored on the same frequency and for the same constituents specified for the Class I WMUs in the most recent approved SSMP. At a minimum, groundwater wells monitoring the active TSCA waste cell B-18 will be sampled annually and tested for PCBs, pH (field), specific conductance (field), and chlorinated organics.

If you have any questions regarding the information presented in this letter, please contact either of the undersigned.

Sincerely yours,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Bradley A. Loewen, PG
Senior Associate Geologist

Philip P. Ross, PG
Principal Hydrogeologist

Attachments:
Table 1 – Monitoring Well Summary, TSCA Waste Management Units
Table 2 – Groundwater Well Construction Information, TSCA Waste Management Units
Figure 1 – Site Location Map
Figure 2 – Monitoring Network, TSCA Waste Management Units

REFERENCES

AMEC Environment & Infrastructure, Inc., 2014, Revised Site-Specific Groundwater Monitoring Plan Class I Waste Management Units, Kettleman Hills Facility, Kings County, California, April 14 (AMEC, 2014).

AMEC Geomatrix, Inc., 2008, Addendum to Evaluation of Pre-Sample Purge Method, Kettleman Hills Facility, Kings County, California, June 27 (AMEC Geomatrix, 2008).

California Department of Toxic Substances Control, 2008, Review of Evaluation of Pre-Sample Purge Methods, Chemical Waste Management, Inc. – Kettleman Hills Facility, Kings County, US Environmental Protection Agency ID CAT000646117, February 20 (DTSC, 2008).

Geomatrix Consultants, Inc., 2007, Evaluation of Pre-Sample Purge Methods, Response to Comprehensive Groundwater Monitoring Evaluation, Kettleman Hills Facility, Kettleman City, California, March 14 (Geomatrix, 2007).

Geosyntec Consultants, 2001, Site-Specific Groundwater Monitoring Plan, Kettleman Hills Facility, Chemical Waste Management, Inc., Kings County, California, May (Geosyntec, 2001).

Table 1
Monitoring Well Summary
TSCA Waste Management Units

Kettleman Hills Facility
Kings County, California

Well ID	Water-Bearing Zone	Monitored TSCA WMU
E02	Mya C/D	B-18
K05	Tuffaceous B	closed B-19 Phases 2 and 3
K17	Neverita A	closed B-19 Phases 2 and 3
K18	Trachycardium A	B-18
K30R	Mya A	closed B-19 Phases 2 and 3
K32R	Mya A	B-18 and closed B-19 Phases 2 and 3
K38	Mya A	B-18
K46R	Mya A	closed B-14 and closed B-19 Phases 2 and 3
K48	Neverita B	closed B-19 Phases 2 and 3
K49	Neverita B	closed B-16 and closed B-19 Phases 2 and 3
K50R	Tuffaceous B	closed B-14 and closed B-19 Phases 2 and 3
K51	Mya C/D	B-18
K57	Trachycardium B	B-18
K58	Trachycardium B	B-18
K60	Pecten A	B-18
K62	Tuffaceous B	closed B-19 Phases 2 and 3
K64	Tuffaceous A	closed B-19 Phases 2 and 3
K66	Neverita A	closed B-19 Phases 2 and 3
K67	Trachycardium A	B-18
K68	Pecten B	B-18
K69	Neverita A	closed B-19 Phases 2 and 3
K70	Neverita B	closed B-19 Phases 2 and 3
K71R	Pecten B	B-18

Abbreviations:
TSCA = Toxic Substances Control Act
WMU = Waste Management Unit

Table modified July 2026 to reflect replacement of wells K46 and K50.

Table 2
Groundwater Well Construction Information
TSCA Waste Management Units

Kettleman Hills Facility
Kings County, California

Well ID	Ground Elevation (feet msl)	Top of Sounding Pipe[1] (feet msl)	Date Drilled[2]	Total Well Depth[1,3] (feet)	Conductor Casing[1] (inches)	Casing Size[1,4] (inches)	Screen Depth[2,3] (feet)	Sandpack Depth[2,3] (feet)	Seal Interval[2,3] (feet)	Seal Material[2]
E02	870.46	871.78	11/22/87	508	N/A	6 (SS)	461-501	450-511	0-450	Type V Cement w/3-5% Bentonite
K05	900.10	901.66	06/14/84	520	N/A	4	476-515	459-520	0-459	Cement
K17	833.37	835.02	09/10/84	435	N/A	4	385-435	375-440	0-375	Type V Cement
K18	896.23	897.70	07/20/85	615	N/A	4	500-610	490-620	0-490	Type V Cement
K30R	897.11	903.16	05/02/08	471	N/A	5	438-467	426-478	0-426	Type II/V Cement w/ 5% Bentonite
K32R	815.20	818.49	03/14/91	421	16 and 10 Steel	5	381-421	376-422	0-376	Type V Cement w/3% Bentonite
K38	856.51	857.35	08/02/85	451	N/A	4.5	416-446	400-447	0-400	Type V Cement
~~K46~~	~~871.25~~	~~872.69~~	~~10/10/85~~	~~461~~	~~N/A~~	~~4.5~~	~~421-461~~	~~406-461~~	~~0-406~~	~~Type V Cement~~
K46R[5]	Pending Construction									
K48	820.02	821.57	10/11/85	411	N/A	4.5	386-416	376-419	0-376	Type V Cement
K49	810.21	811.19	11/06/85	410	N/A	4.5	365-405	357-410	0-357	Type V Cement
~~K50~~	~~887.13~~	~~887.81~~	~~01/28/86~~	~~468~~	~~N/A~~	~~2 inside 4.5~~	~~426-476~~	~~415-491~~	~~0-415~~	~~Type V Cement~~
K50R[5]	Pending Construction									
K51	835.65	836.90	06/22/91	464	16 and 10 Steel	5	409-464	403-464	0-403	Type V Cement w/5% Bentonite
K57	914.20	916.80	05/06/91	550	16 and 10 Steel	5	530-549	525-550	0-525	Type V Cement w/6% Bentonite
K58	905.72	907.40	12/10/99	531	N/A	5	490-530	485-535	0-485	Type V Cement w/3-5% Bentonite
K60	864.47	866.27	10/20/99	474	N/A	5	453-473	443-475	0-443	Type V Cement w/ Bentonite
K62	855.77	857.33	10/05/99	431	N/A	5	406-431	400-436	0-400	Type V Cement w/ 5% Bentonite
K64	825.69	826.92	09/24/99	395	N/A	5	355-395	348-407	0-348	Type V Cement w/ 3-5% Bentonite
K66	798.97	810.15	09/14/99	360	N/A	5	312-350	309-366	0-309	Type V Cement w/ 5% Bentonite
K67	930.88	932.84	12/02/99	585	N/A	5	545-585	530-589	0-530	Type V Cement w/ 3-5% Bentonite
K68	855.02	856.47	11/23/99	485	N/A	5	445-485	438-508	0-438	Type V Cement w/ 3-5% Bentonite
K69	876.00	877.87	12/15/97	437	N/A	5	396-436	391-440	0-391	Type V Cement w/ 5% Bentonite
K70	870.77	872.74	01/15/98	437	N/A	5	400-425	395-430	0-395	Type V Cement w/ 5-7% Bentonite
K71R	938.90	940.03	06/26/09	565	N/A	5	527-566	514-572	0-514	Type V Cement w/ 5% Bentonite

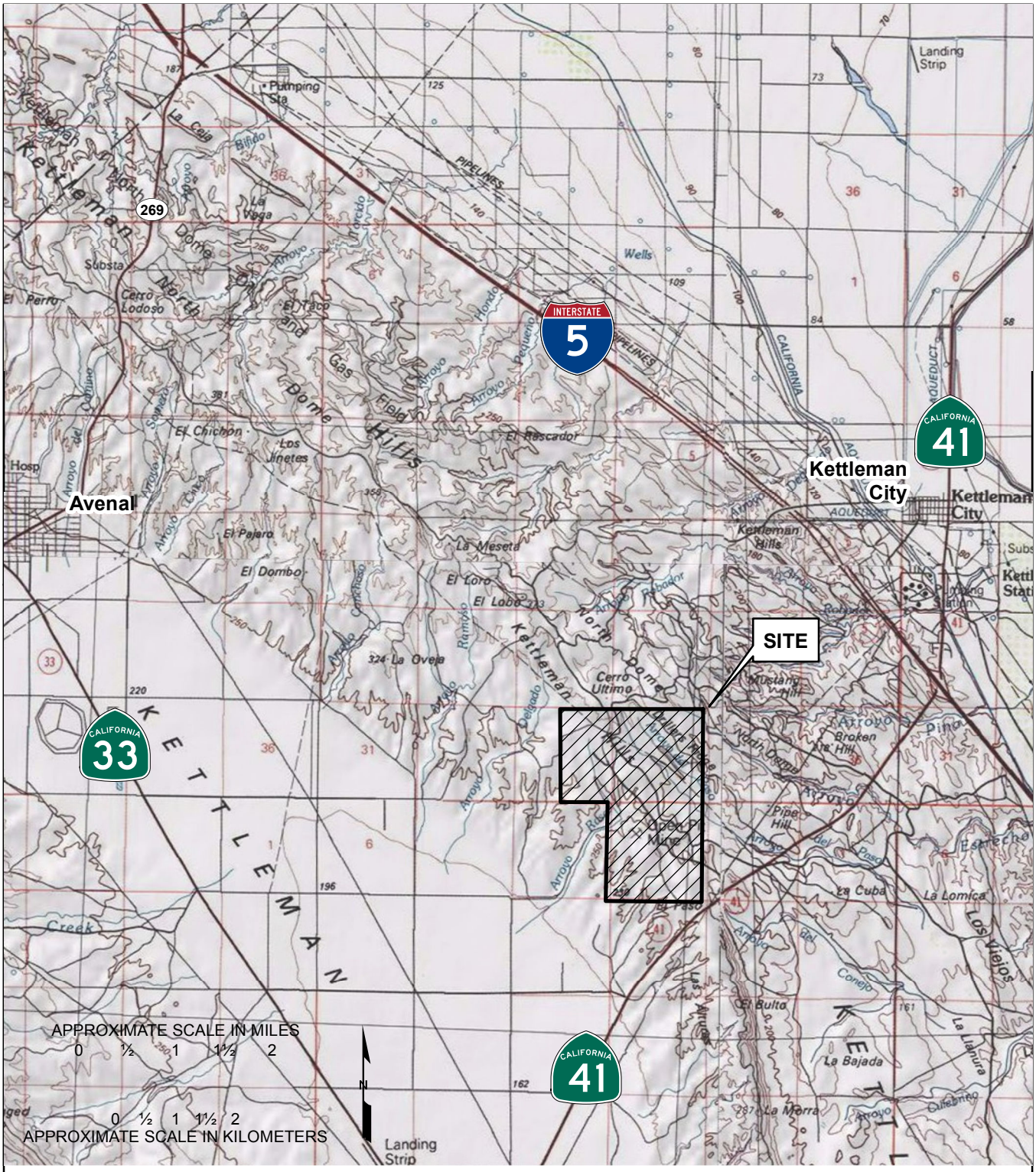
Notes:

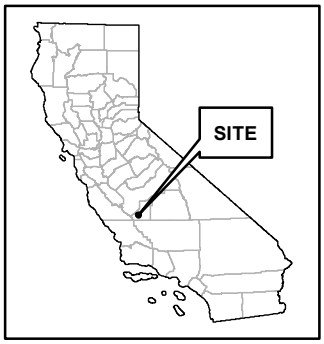
1. Data from KHF Well ID Chart (November 6, 2013).
2. Taken from individual well completion records. Cement is Portland type cement.
3. Depths and elevations are rounded to nearest foot.
4. Polyvinyl chloride casing used for all wells except for E02, which used stainless steel casing.
5. Information pending construction of wells.

Table modified July 2026 to reflect replacement of wells K46 and K50.

Abbreviations:

msl = above mean sea level
N/A = not applicable
SS = stainless steel





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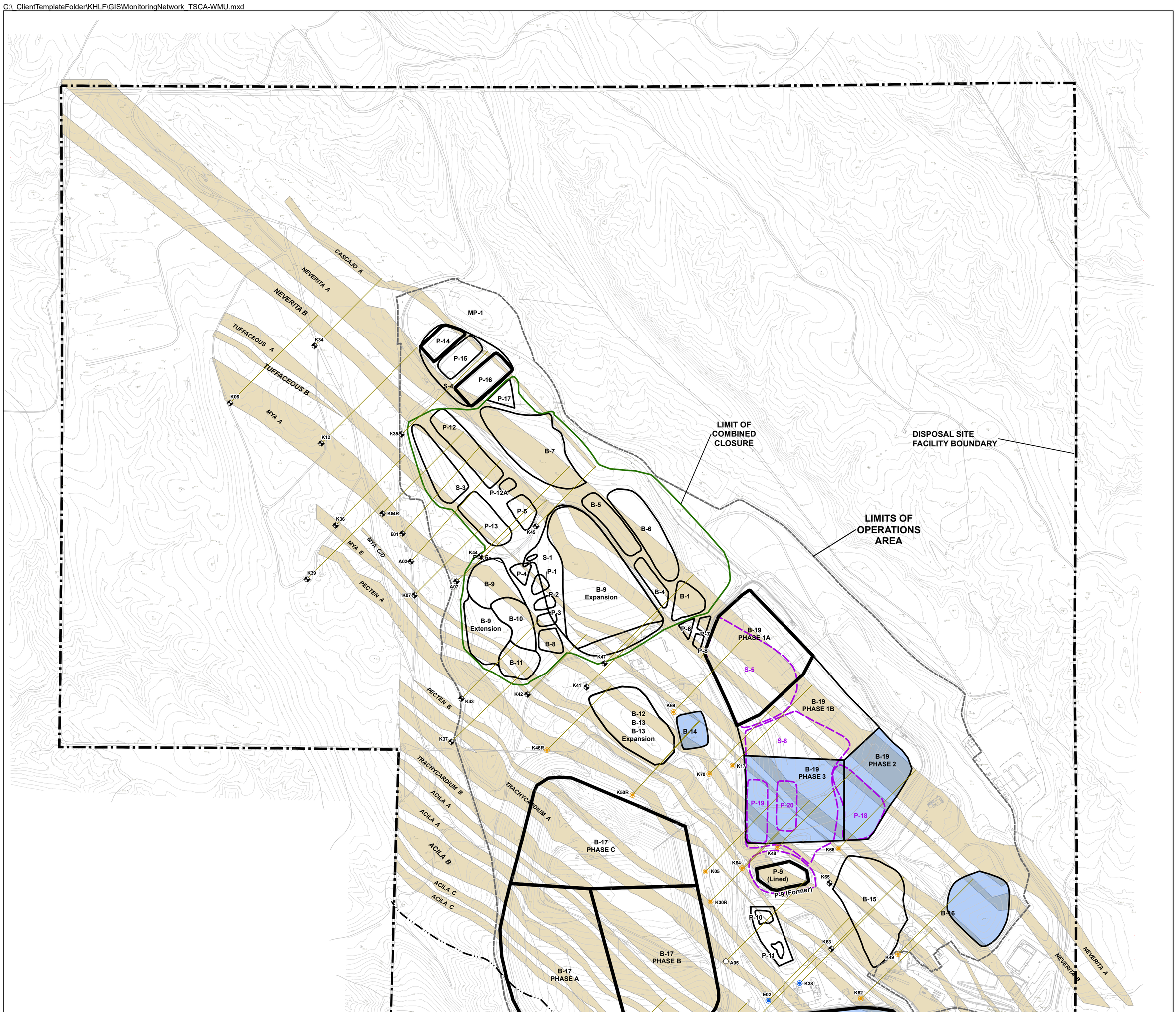

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wsp

Date: 07/13/2026	Project No.: 007530	Figure 2
Submitted By: BAL	Drawn By: KJK	