August 8, 2025
Revised September 9, 2025
File No. 01204123.21-13

Mr. Baitong Chen
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Subject: Revised Monthly Reaction Committee Determination on Reaction Area Boundary
Chiquita Canyon Landfill – Castaic, California

Dear Mr. Chen:

In accordance with Condition Nos. 9a and 9b of the Modified Stipulated Order for Abatement (SOFA) pertaining to the Chiquita Canyon Landfill (Landfill or Facility) (Case No. 6177-4), the Reaction Committee has reviewed newly acquired applicable data recorded during the month of July 2025, considered revisions of the estimated extent of elevated temperature landfill (ETLF) conditions exhibited at the subject Facility (referred to as the "Reaction Area" limits), and has prepared this determination on potentially revising the Reaction Area map. This revised determination has been updated per the request of South Coast Air Quality Management District personnel during the Monthly Reaction Committee Meeting conducted on August 20, 2025 to incorporate a 30-day temperature range map for the month of July in Attachment B and adjust the range intervals for the H_2 concentrations depicted on the range map in Attachment E.

Attachment A presents the Drawing, titled "Reaction Area Map", prepared by SCS Engineers (SCS) and dated August 6, 2025. The Drawing depicts the Reaction Area boundary as prescribed in Condition No. 9a, which corresponds to the limits of Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2, as a solid black line. The Drawing also depicts the estimated extent of ETLF conditions being experienced at the site based on the Reaction Committee's review of scientific data as a dashed magenta line. The rationale that serves as the basis for considering adjustments and modifications to the Reaction Area boundary (or the determination to maintain the decreed boundary), include the following:

- Landfill Gas (LFG) wellhead temperatures in excess of approximately 160 degrees Fahrenheit.
- Poor gas quality (defined as methane levels of less than 30 percent) in conjunction with methane-to-carbon dioxide (CH_4:CO_2) ratios less than 1.0.
- The concentration of hydrogen (H_2) in the LFG measured greater than 2 percent by volume.
- The concentration of carbon monoxide (CO) in the LFG measured greater than 2,000 ppm.
- Accelerated settlement of the landfill surface, defined as approximately 18 inches or greater within a 60-day period, and cracks in landfill cover. This corresponds to a strain value (i.e., settlement rate) rate of 3 percent per year for areas with a 300-foot waste column depth, which we believe is a reasonable average depth in the subject area of interest.

- First-hand observations of Landfill and/or SCS engineering, construction, and operations and maintenance (O&M) field personnel who are on-site related to: 1) atypical excess leachate quantities (presence and quantity of liquids); 2) instances of pressurized liquids emitting from the landfill surface, from boreholes during drilling, and from LFG wells; and, 3) the characteristics of the odors originating from the select areas of the waste footprint (often described as "chemical-like" and distinctly different from typical LFG or landfill working face odors).

- Observations of subsurface waste conditions and characteristics as noted on borehole drilling logs for recently installed new wells and/or probes.

- Subsurface temperatures recorded at the in-situ waste temperature probes during July 2025.

- Temperature of gas or liquids measured at depth within the LFG well riser pipe (using an automated transmitter or manual field instrumentation).

- Subsurface temperature and pressures associated with drilling activities for new LFG extraction wells during July 2025.

CONSIDERATIONS FOR POTENTIAL ADJUSTMENTS TO THE ESTIMATED EXTENT OF ETLF CONDITIONS (DASHED MAGENTA LINE)

In making its monthly determinations, the Reaction Committee evaluates the above set of data parameters, in conjunction with one another, to identify meaningful trends indicating ETLF conditions, as opposed to fluctuations exhibited in isolated datapoints.

Each month, the Reaction Committee scrutinizes particular areas of the Landfill that have previously exhibited abnormal or fluctuating data, when applicable. As discussed below, despite minor variances in discrete areas of the landfill, the Reaction Committee has not discerned any meaningful trends with respect to the July 2025 data that would indicate the reaction has expanded into these areas.

Near CV-24009 and CV-24011

Well CV-24009 is positioned within 60 feet or so of the delineated boundary line and Well CV-24011 is positioned within 25 feet or so of the delineated boundary. Both wells recorded LFG wellhead temperatures in the range of 160 to 162 degrees F during June and July, however the average LFG wellhead temperatures measured during April through July for these two wells were 155 and 154 F, respectively.

The LFG quality is marginal at CV-24009, which has exhibited an average methane (CH_4) concentration of 23 percent during January through July, and the methane-to-carbon dioxide (CH_4:CO_2) ratio in July was 0.23. The carbon monoxide (CO) concentration at CV-24009 measured during June and July was approximately 435 ppm. The hydrogen (H_2) concentration measured in July was 9.0 percent.

The LFG quality at CV-24011 is rather poor, with an average methane concentration of only 14 percent during January through July, and the methane-to-carbon dioxide (CH_4:CO_2) ratio in July was 0.35. The carbon monoxide (CO) concentration at CV-24011 measured during June and July was approximately 5,700 ppm. The H_2 concentration measured in July was 13.7 percent.

Adjacent well CV-24007 exhibits hydrogen (H_2) concentrations in the 2 to 4 percent range, but the average LFG wellhead temperatures measured during May through July are only 132 degrees F. Adjacent well CV-24008 exhibited a wellhead temperature of 161 degrees F during July, but the average LFG wellhead temperature measured during May through July was only 114 degrees F.

The Reaction Committee has identified gas movement from within the reaction area via existing horizontal collectors as the potential cause of the short-term increase in heat and longer-term trend of marginal to poor quality gas at these wells. Specifically, well CV-24009 is positioned immediately adjacent to H-1769 (at an elevation of 1335 feet) and CV-24011 is positioned immediately adjacent to H-59 (at an elevation of 1280 feet), both of which extend hundreds of feet into the reaction area, so it is possible that the source of the heat and reaction gas at these vertical wells is offset some distance away and is being conveyed toward the wells by the horizontal collectors' piping and trench. In addition, both CV-24009 and CV-24011 are equipped with a dedicated dewatering pump, so the recent increase in temperatures and the presence of increased reaction gas (as opposed to typical landfill gas) may be attributable to the lowering of perched leachate levels in this vicinity, which is enabling movement of heat and gas through the void spaces.

Near CV-24126

Well CV-24126 is positioned within 100 feet or so of the delineated boundary. Well CV-24126 recorded LFG wellhead temperatures in the range of 162 to 168 degrees F during June and July, however the average LFG wellhead temperatures measured during April through July for this well was only 145 degrees F.

The LFG quality at CV-24126 is poor, with an average CH_4 concentration of only 6 percent during January through July, and the CH_4:CO_2 ratio in July was 0.3. The average CO concentration during June and July was 2,660 ppm. The H_2 concentration measured in July was 5.0 percent.

The LFG quality at adjacent well CV-2333 is also poor, with an average CH_4 concentration of only 3 percent during May through July, and the average CO concentration was 3,000 ppm during this period. Adjacent wells CV-24127 and CV-24134 exhibited average CH_4 concentrations of 24 and 19 percent, respectively during May through July. Adjacent wells CV-2333, CV-24127, and CV-24134 exhibited H_2 concentrations during July of 17, 6, and 14 percent, respectively. However, the average LFG wellhead temperatures measured at these three wells during May through July are only 130, 112, and 148 degrees F, respectively. The maximum in-situ waste temperature (measured at the 150-foot depth interval) in TP-19, which is co-located with well CV-24134, was 162 degrees F.

The Reaction Committee has identified gas movement from within the reaction area via existing horizontal collectors as the potential cause of the short-term increase in heat at CV-24126 and longer-term trend of marginal to poor quality gas at the adjacent three wells. Specifically, well CV-24126 is positioned in close proximity to H-56 (at an elevation of 1240 feet), which extends hundreds of feet into the reaction area, so it is possible that the source of the heat and reaction gas at this vertical well is offset some distance away and is being conveyed toward the wells by the horizontal collectors' piping and trench. In addition, CV-2333, CV-24126, and CV-24127 are

equipped with a dedicated dewatering pump, so the recent increase in temperatures and the presence of increased reaction gas (as opposed to typical landfill gas) may be attributable to the lowering of perched leachate levels in this vicinity, which is enabling movement of heat and gas through the void spaces.

Near CV-2541 and CV-24068

Well CV-2541 is a new well that was installed on June 19, 2025, that is positioned within 25 feet or so of the delineated boundary line. It is positioned immediately adjacent to horizontal collector H-54 (at an elevation of 1225 feet) and H-1564 (at an elevation of 1245 feet), both of which extend hundreds of feet into the reaction area. Well CV-2541 initially recorded a temperature of 194 degrees F, but the average temperature since installation is 159 degrees F. The LFG quality at CV-2541 is particularly poor, with an average CH_4 concentration of only 5 percent since installation, and the CH_4:CO_2 ratio in July was 0.1. The average CO concentration during June and July was 2,167 ppm.

The average LFG wellhead temperature measured in the adjacent well CV-24068 during May through July was 148 degrees F. The LFG quality at CV-24068 is marginal, with an average CH_4 concentration of 16 percent during May through July. The average CO concentration during May through July was 1,998 ppm. The H_2 concentration measured in well CV-24068 during July was 6 percent.

The average LFG wellhead temperatures measured in the adjacent wells CV-24066 and CV-24079 during May through July were 112 and 155 degrees F, respectively. The H_2 concentrations measured in wells CV-24066 and CV-24079 during July were 2 and 4 percent, respectively.

Considering the most recent temperatures are relatively low for ETLF conditions, along with the proximity to horizontal collectors and the fact that CV-2541 has only been monitored on a few instances since installation in mid-June, the Reaction Committee does not believe an adjustment to the boundary of the Reaction Area to include the portions of the waste footprint inclusive of CV-2541 or CV-24068 is warranted at this time.

TEMPERATURE MONITORING PROBE DATA

The Reaction Committee reviewed the temperature measurements recorded during July 2025 by the in-situ temperature monitoring probes. As of July 2025, six of the 32 probes (TP-2, 3, 9, 11, 15, and 21) are located within the current estimated extent of ETLF conditions (dashed magenta line). Of the remaining twenty-six (26) probes positioned outside of the boundary, twelve probes are positioned within relatively close proximity (within 200 feet) of this boundary. It is the Reaction Committee's opinion that the temperatures recorded by the 26 probes outside of the boundary during July 2025 are not indicative of a subsurface reaction and do not substantiate a decision to adjust the boundary of the Reaction Area at this time.

The Reaction Committee continues to closely observe the temperature fluctuations in TP-8 and noted that nearly all depth intervals exhibited a decrease in temperature of approximately 10 degrees F during the past six weeks, which is inconsistent with ETLF conditions. The Reaction Committee continues to closely observe the subtle increases in temperatures in TP-13, to assess whether these constitute trends consistent with ETLF conditions at this location. However, the LFG temperatures recorded at the co-located LFG wellhead (CV-24073) remain less than 160 degrees F.

The Reaction Committee noted significant decreases in the maximum temperatures at the following temperature monitoring probes located within the current estimated extent of ETLF conditions:

- TP-9: The maximum temperature declined from 219 to 209 degrees F during the 4-week period of June 26 through July 24, 2025;

- TP-15: The maximum temperature declined from 198 to 188 degrees F during the 12-week period of May 1 through July 24, 2025;

- TP-21: The maximum temperature declined from 255 to 214 degrees F during the 12-week period of May 1 through July 24, 2025;

The Reaction Committee evaluated the 30-day maximum temperatures recorded in TP-24, TP-26, TP-29, TP-30, and TP-31, which have remained relatively consistent over the previous 12-week period of May 1 through July 24, 2025. The Reaction Committee noted differentiation between the 30-day maximum temperatures in these five probes compared to the 30-day maximum temperatures measured at the three probes within the current estimated extent of ETLF conditions (dashed magenta line), specifically TP-3, TP-9, and TP-21. Based on this differentiation, along with consideration of the other relevant criteria and data parameters, the Reaction Committee does not believe an adjustment to the boundary of the Reaction Area to include the portions of the waste footprint inclusive of TP-24, TP-26, TP-29, TP-30, and TP-31 is warranted at this time.

HYDROGEN CONCENTRATIONS

The Reaction Committee also evaluated the concentration of hydrogen in LFG during July 2025. Recall that certain wells positioned to the south and east of the Reaction Area boundary (where dewatering pumping was reactivated) have periodically demonstrated some increased hydrogen content in the LFG during the Reaction Committee's review of the data in previous months, which similarly was the case for the July data. The Reaction Committee noted in its review of the data that, other than well CV-24126, these wells did not exhibit elevated temperatures. There was no evidence of the increased heat that is typical with ETLF conditions present at the wells exhibiting atypical hydrogen concentrations (except well CV-24-126). As noted previously, the Reaction Committee suspects this increased hydrogen content may be attributable to substantial dewatering being accomplished throughout the Reaction Area and may be associated with gas movement from within the Reaction Area by existing horizontal collectors in close proximity. Thus, the presence of elevated hydrogen in these isolated locations does not suggest that ETLF conditions are expanding south and east of the delineated boundary. Accordingly, the Reaction Committee does not believe an adjustment to the boundary of the Reaction Area is warranted at this time.

CONCLUSION

As presented on the Drawing included as **Attachment A**, the estimated extent of ETLF conditions (dashed magenta line) is fully contained within the Reaction Area boundary decreed in the SOFA (solid black line). Because the ETLF conditions are fully contained within the Reaction Area boundary and have not expanded into a new cell, the Reaction Committee finds no basis to modify the Reaction Area boundary as prescribed in Condition 9a at this time.

There was no dissenting opinion among the Reaction Committee members regarding this monthly determination. Supporting data is presented on the Drawing included as **Attachment A.** The maximum temperature measurements recorded at the 32 in-situ waste temperature monitoring probes during July are presented in **Attachment B** in graphical format. This revised determination has been updated to incorporate the maximum 30-day temperature range map for the month of July in Attachment B. The LFG wellhead temperatures recorded at the extraction wells for the entire Landfill footprint are reflected on the isothermal gradient range map presented as **Attachment C**. The CH_4:CO_2 ratios measured at the LFG wellheads in the vicinity of the data-driven Reaction Area boundary are depicted on the range map presented as **Attachment D**. The H_2 concentrations measured at the LFG wellheads in the vicinity of the data-driven Reaction Area boundary are depicted on the range map presented as **Attachment E**. This revised determination has been updated to adjust the range intervals for the H_2 concentrations depicted on the range map in Attachment E to conform to the intervals prescribed in Condition 9(b) the SOFA. The Reaction Committee develops each determination in a manner that complies with the specific requirements of the appropriate SOFA condition(s). The CO concentrations measured at the LFG wellheads in the vicinity of the data-driven Reaction Area boundary are depicted on the range map presented as **Attachment F**. The landfill surface settlement isopach values measured on a quarterly basis (April 2, 2025 compared to July 2, 2025) in the vicinity of the data-driven Reaction Area boundary are depicted on the range map presented as **Attachment G**. The electronic database and recordkeeping platform enables these measurements to be downloaded into a tabular spreadsheet format, which can be submitted to the South Coast Air Quality Management District under separate cover, if requested.

Please contact either of the undersigned if you have questions or require additional information.

Sincerely,

Robert E. Dick, PE, BCEE
Senior Vice President
SCS Engineers

Patrick S. Sullivan, BCES, CCP
Senior Vice President
SCS Engineers

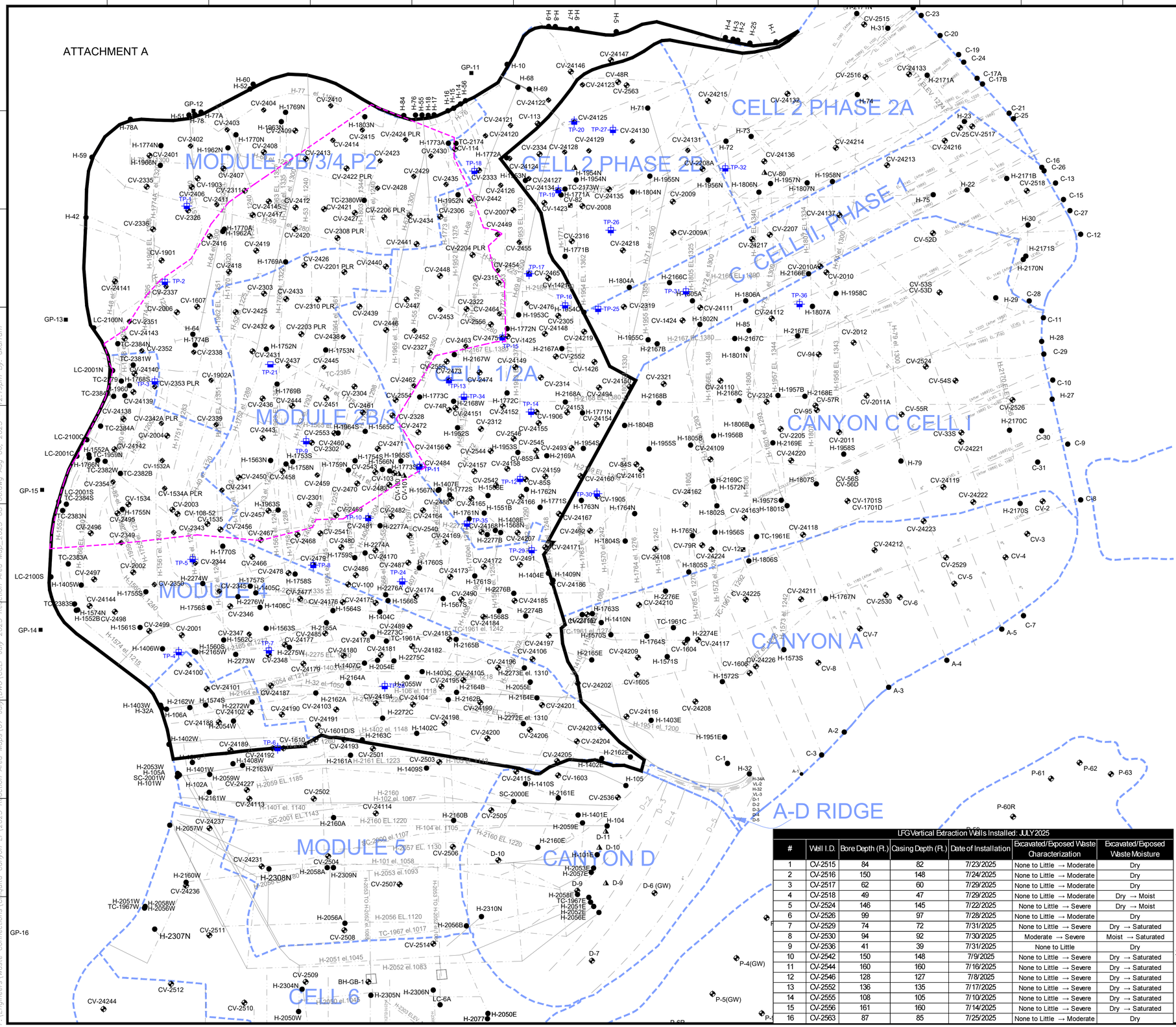
RED/PSS

cc: Nathaniel Dickel, SCAQMD
Christina Ojeda, SCAQMD
Pablo Sanchez Soria, PhD, CIH, CTEH
Neal Bolton, PE, Blue Ridge Services, Inc.
Richard Pleus, PhD, Intertox
Srividhya Viswanathan, PE, SCS Engineers

Enclosures:

Attachment A – Reaction Area Map
Attachment B – In-Situ Waste Temperature Monitoring Probe Data
Attachment C – Isothermal Gradient Range Map
Attachment D – Wellhead Methane-to-Carbon Dioxide Range Map
Attachment E – Wellhead Hydrogen Range Map
Attachment F – Wellhead Carbon Monoxide Range Map
Attachment G – Settlement Isopach Range Map

ATTACHMENT A



LEGEND

- EXISTING CELL LIMITS (APPROXIMATE)
- CV-XX EXISTING VERTICAL WELLS
- CV-XX PLR EXISTING VERTICAL WELL - PRESSURIZED LEACHATE RELEASE
- CV-XX EXISTING VERTICAL WELLS BELOW-GRADE
- H-XX EXISTING HORIZONTAL WELLS
- CV-XX EXISTING REMOTE VERTICAL WELLHEAD
- GP-XX EXISTING PERIMETER MIGRATION PROBE
- TP-XX EXISTING TEMPERATURE PROBE
- EXISTING HORIZONTAL COLLECTOR - SOLID
- EXISTING HORIZONTAL COLLECTOR - PERFORATED
- EXISTING HISTORIC HORIZONTAL COLLECTOR
- REACTION AREA BOUNDARY (APPROXIMATE) - BASED ON DATA REVIEW
- REACTION AREA BOUNDARY - CONDITION 9A

LFG Vertical Extraction Wells Installed: JULY 2025

#	Well I.D.	Bore Depth (Ft.)	Casing Depth (Ft.)	Date of Installation	Excavated/Exposed Waste Characterization	Excavated/Exposed Waste Moisture
1	CV-2515	84	82	7/23/2025	None to Little → Moderate	Dry
2	CV-2516	150	148	7/24/2025	None to Little → Moderate	Dry
3	CV-2517	62	60	7/29/2025	None to Little → Moderate	Dry
4	CV-2518	49	47	7/29/2025	None to Little → Moderate	Dry → Moist
5	CV-2524	146	145	7/22/2025	None to Little → Severe	Dry → Moist
6	CV-2526	99	97	7/28/2025	None to Little → Moderate	Dry
7	CV-2529	74	72	7/31/2025	None to Little → Severe	Dry → Saturated
8	CV-2530	94	92	7/30/2025	Moderate → Severe	Moist → Saturated
9	CV-2536	41	39	7/31/2025	None to Little	Dry
10	CV-2542	150	148	7/9/2025	None to Little → Severe	Dry → Saturated
11	CV-2544	160	160	7/16/2025	None to Little → Severe	Dry → Saturated
12	CV-2546	128	127	7/8/2025	None to Little → Severe	Dry → Saturated
13	CV-2552	136	135	7/17/2025	None to Little → Severe	Dry → Saturated
14	CV-2555	108	105	7/10/2025	None to Little → Severe	Dry → Saturated
15	CV-2556	161	160	7/14/2025	None to Little → Severe	Dry → Saturated
16	CV-2563	87	85	7/25/2025	None to Little → Moderate	Dry

GENERAL DRAWING NOTES:

1. NORTH ARROW SHOWN HERE IS REFERENCE TO THE CALIFORNIA STATE PLANE ZONE V COORDINATE SYSTEM, NAD 83.
2. THE LOCATION OF ANY EXISTING PIPING, VALVES, TIE-IN LOCATIONS AND OTHER FEATURES ARE APPROXIMATE AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.

DATE
REVISION
NO.

SHEET TITLE: REACTION AREA MAP JULY 2025

PROJECT TITLE: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

CLIENT: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

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DWN. BY: AEK
CHK. BY: WCH
APP. BY: WCH
PROJ. NO: 01204123.41
DSN. BY: -

DATE: 08/06/2025

SCALE: AS SHOWN

SHEET: 1

F:\Engineers\Waste Connections\Chiquita Canyon LF\2025 Reaction Area Maps\07-July\DWG\CCLF July 2025 Reaction Area Map_2025-08-06.dwg Aug 06, 2025 - 12:19pm By: akarram

ATTACHMENT B

Solid Waste Borehole Maximum Temperature Profiles Over 6 Weeks

for 6/12/2025 to 7/23/2025

From July 17, 2025, through July 23, 2025, there were two recorded temperature decreases and three recorded temperature increases that triggered the notification limits set forth in the LEA's October 4, 2024 letter.

Additionally, as of April 4, 2025, twelve new TMPs (TMP-21, TMP-24, TMP-25, TMP-26, TMP-27, TMP-28, TMP-29, TMP-30, TMP-31, TMP-32, TMP-34, and TMP-35) have been installed and are online. None of these twelve new TMPs indicate reaction temperatures occurring outside of the currently delineated data-driven reaction area boundary, and the four TMPs that were able to be drilled to within 25 feet of the liner (TMP-24, TMP-27, TMP-31, and TMP-32) show significantly cooler temperatures at the deepest thermocouple, as expected due to the cooling from the underlying earth.

Chiquita provides the following updates:

- TP-03
  - The 30-foot thermocouple showed a decrease in maximum temperature of 10°F from 221°F to 211°F from July 19th to July 21st.
- TP-15
  - The 30-foot thermocouple showed a decrease in maximum temperature of 13°F from 174°F to 161°F from July 12th to July 19th, and then an increase in maximum temperature of 11°F from 161°F to 172°F from July 19th to July 23rd.
  - The 45-foot thermocouple showed an increase in maximum temperature of 12°F from 174°F to 186°F from July 16th to July 23rd.
  - The 75-foot thermocouple showed an increase in maximum temperature of 10°F from 178°F to 188°F from July 16th to July 23rd.
- TP-16
  - The 45-foot thermocouple remained consistent with previous recorded temperatures. As noted in previous submittals, the 45-foot thermocouple showed an anomalous reading on June 22nd of 222°F for a single one-hour reading; however, subsequent readings were consistent with previous recorded temperatures and no other thermocouples at TP-16 showed any such changes in temperatures, indicating that this recorded temperature increase was most likely erroneous.

SCS ENGINEERS

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274 Granite Run Drive
Lancaster, PA 17601
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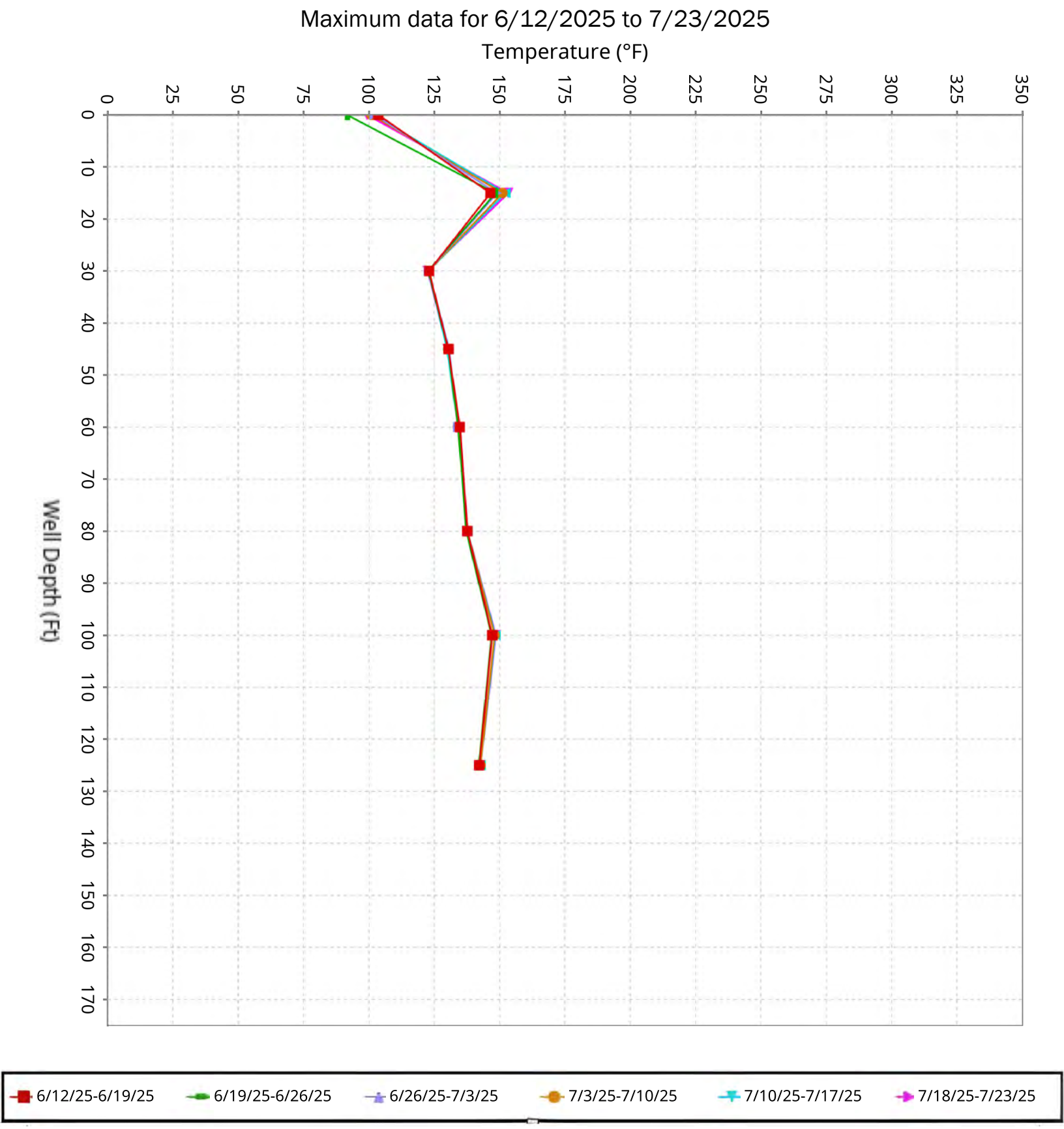
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-1



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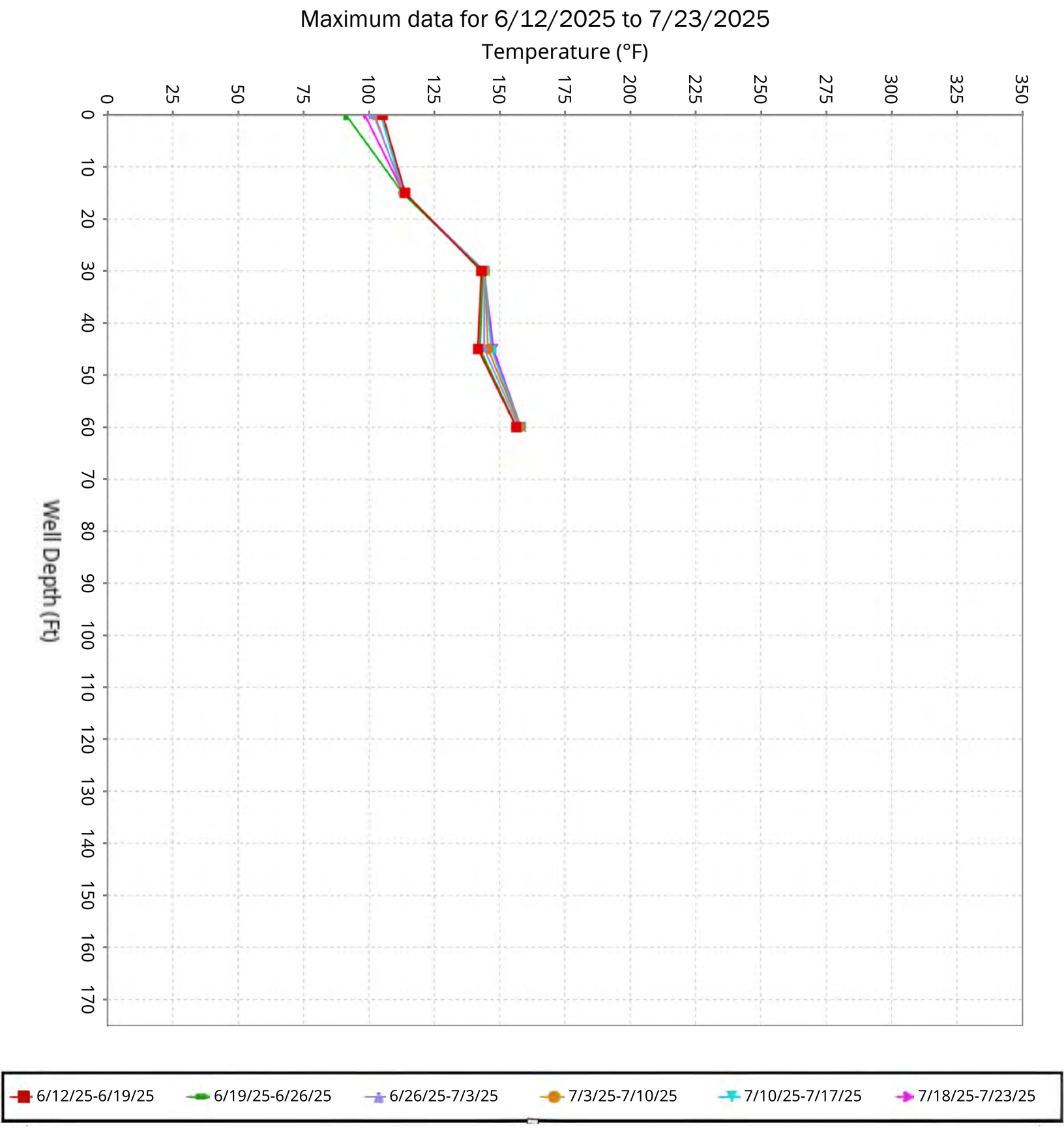
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-2



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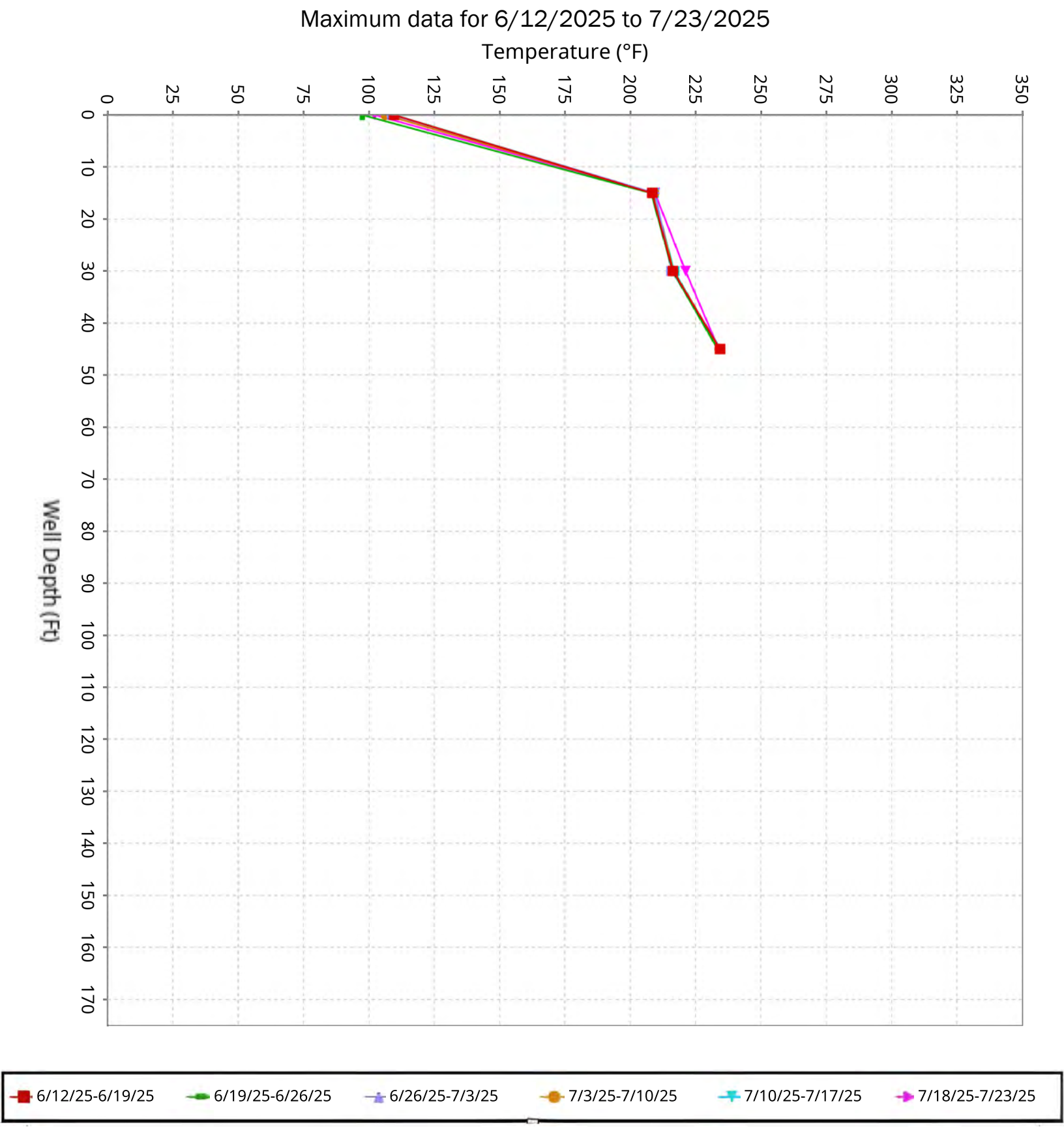
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-3



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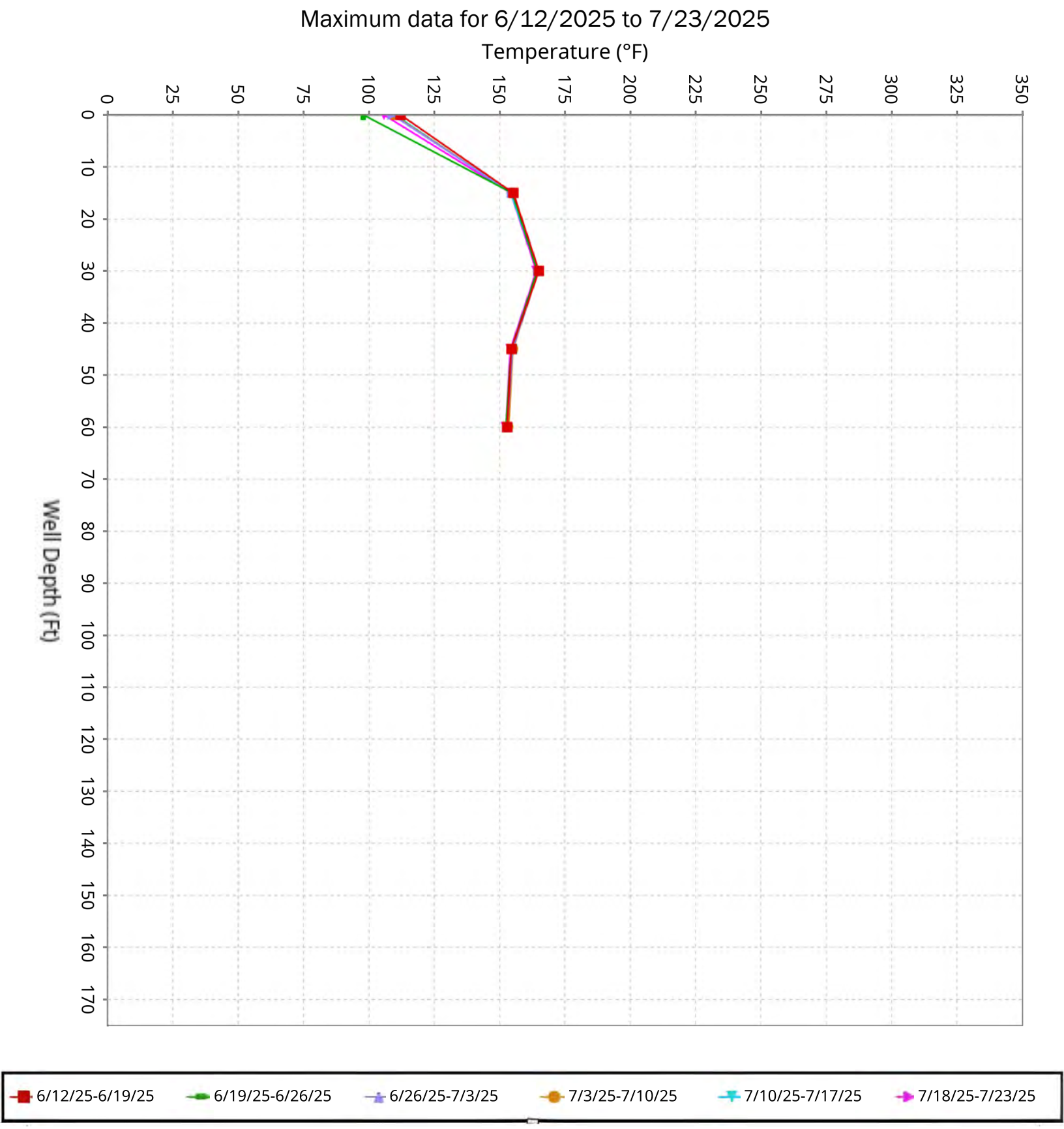
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-4



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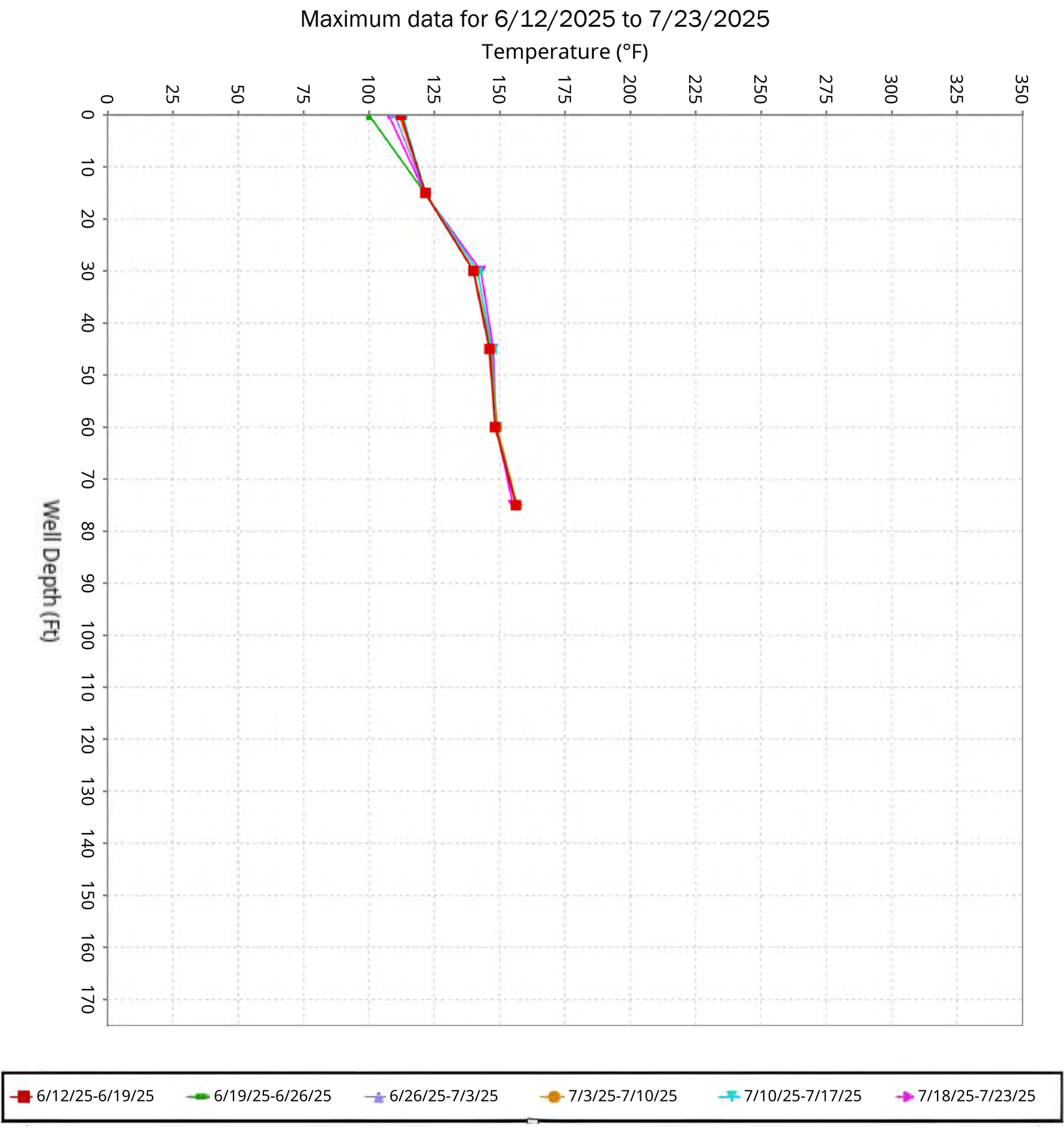
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-5



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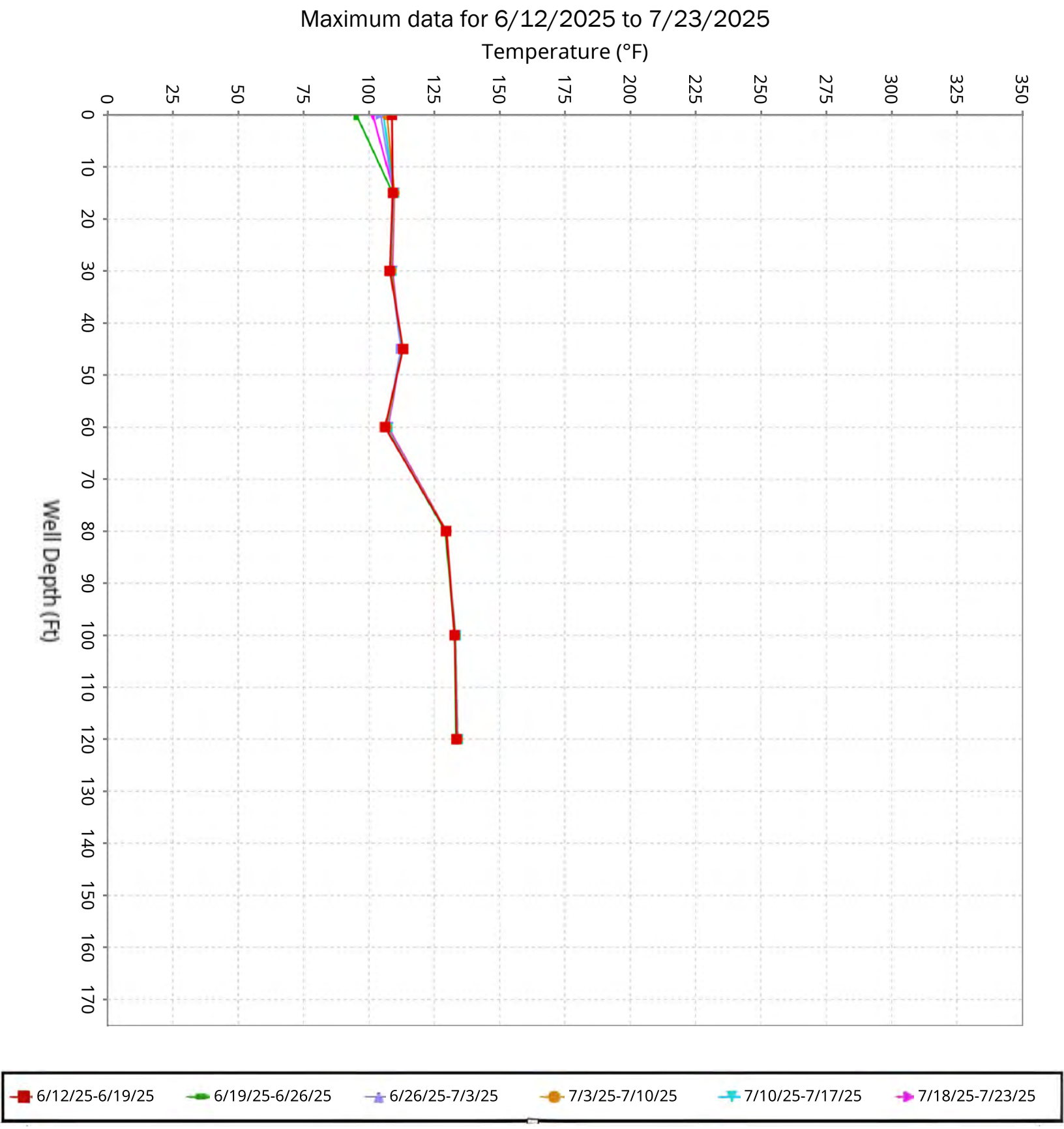
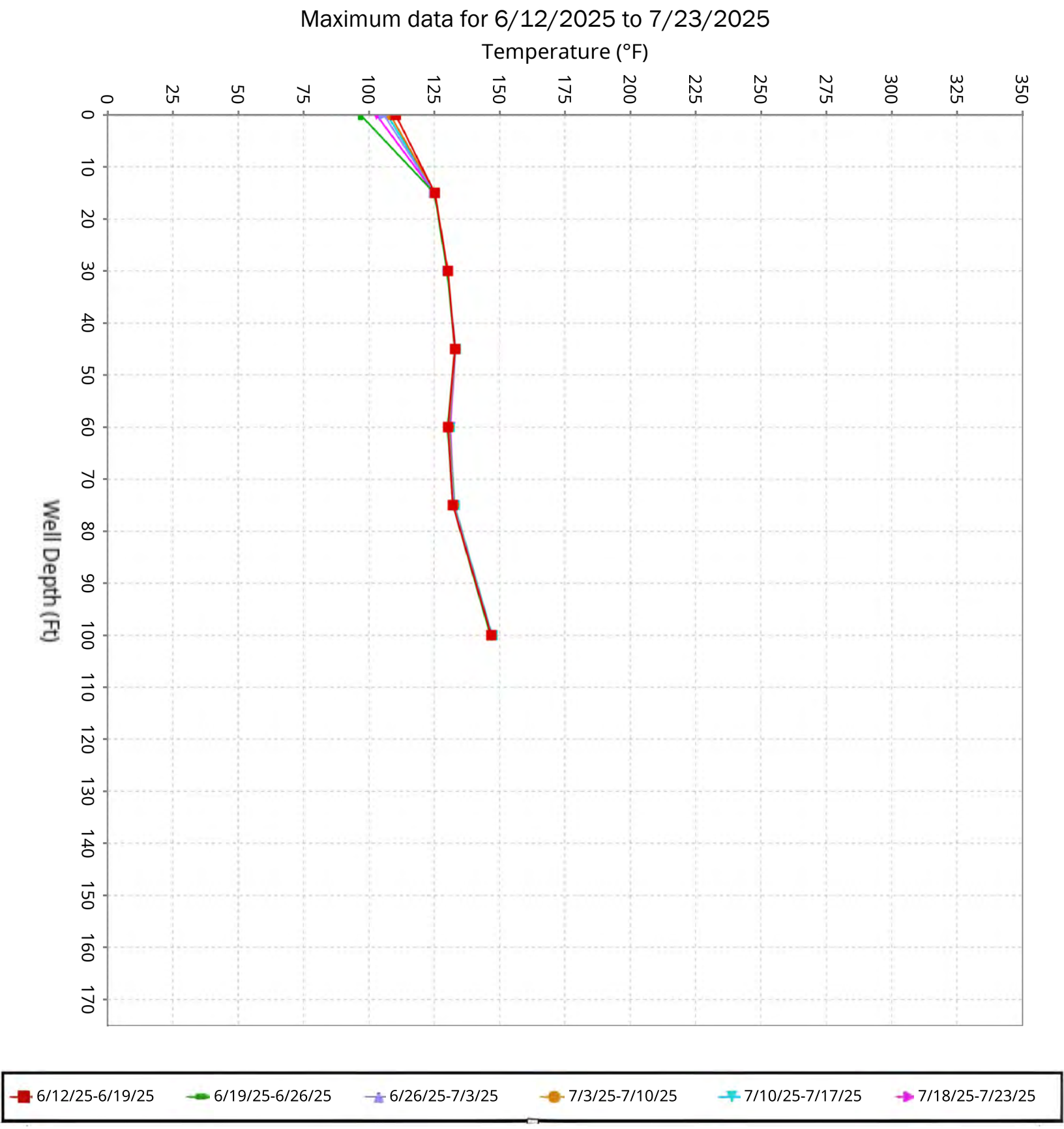
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-6



SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-7



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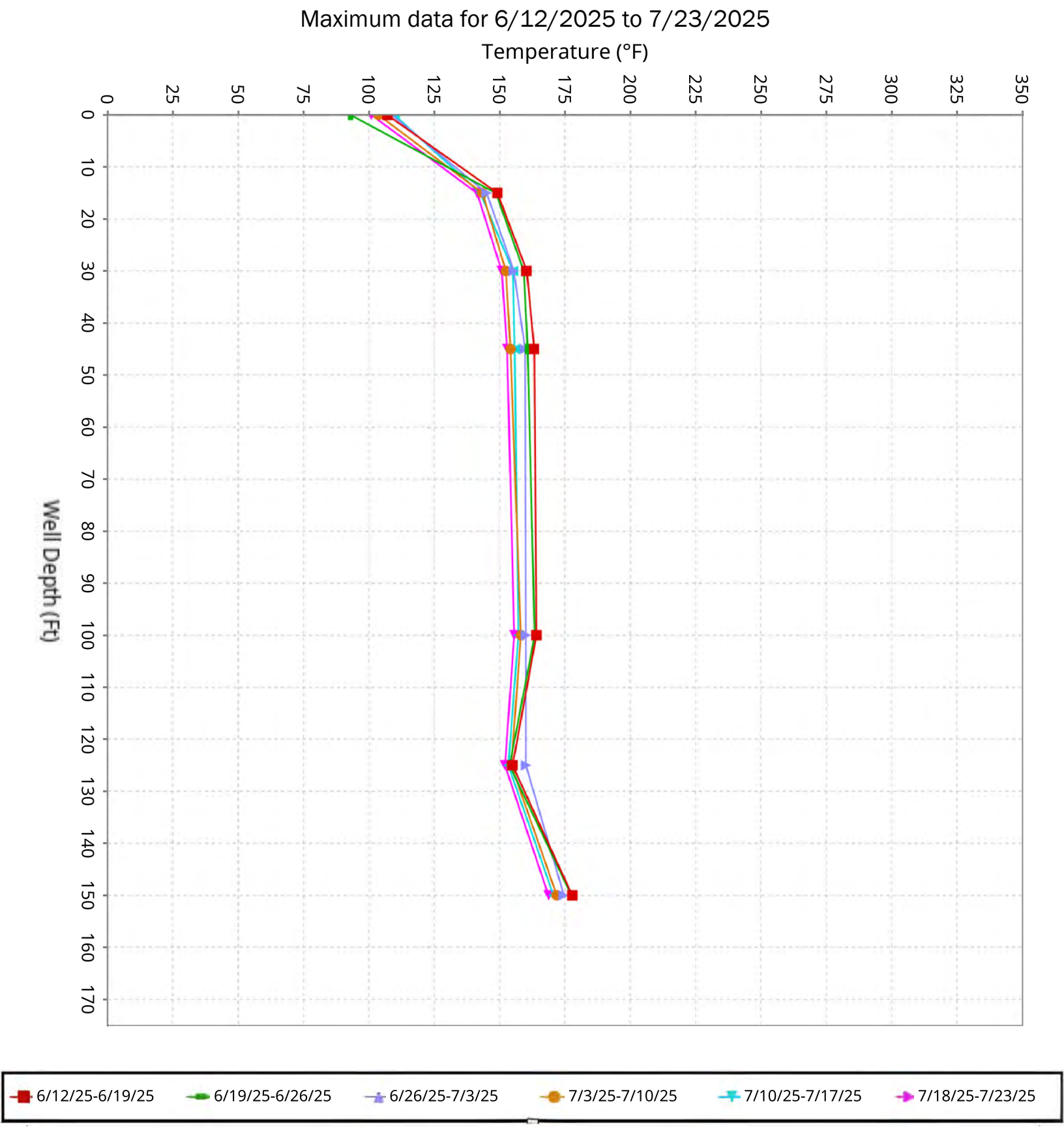
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-8



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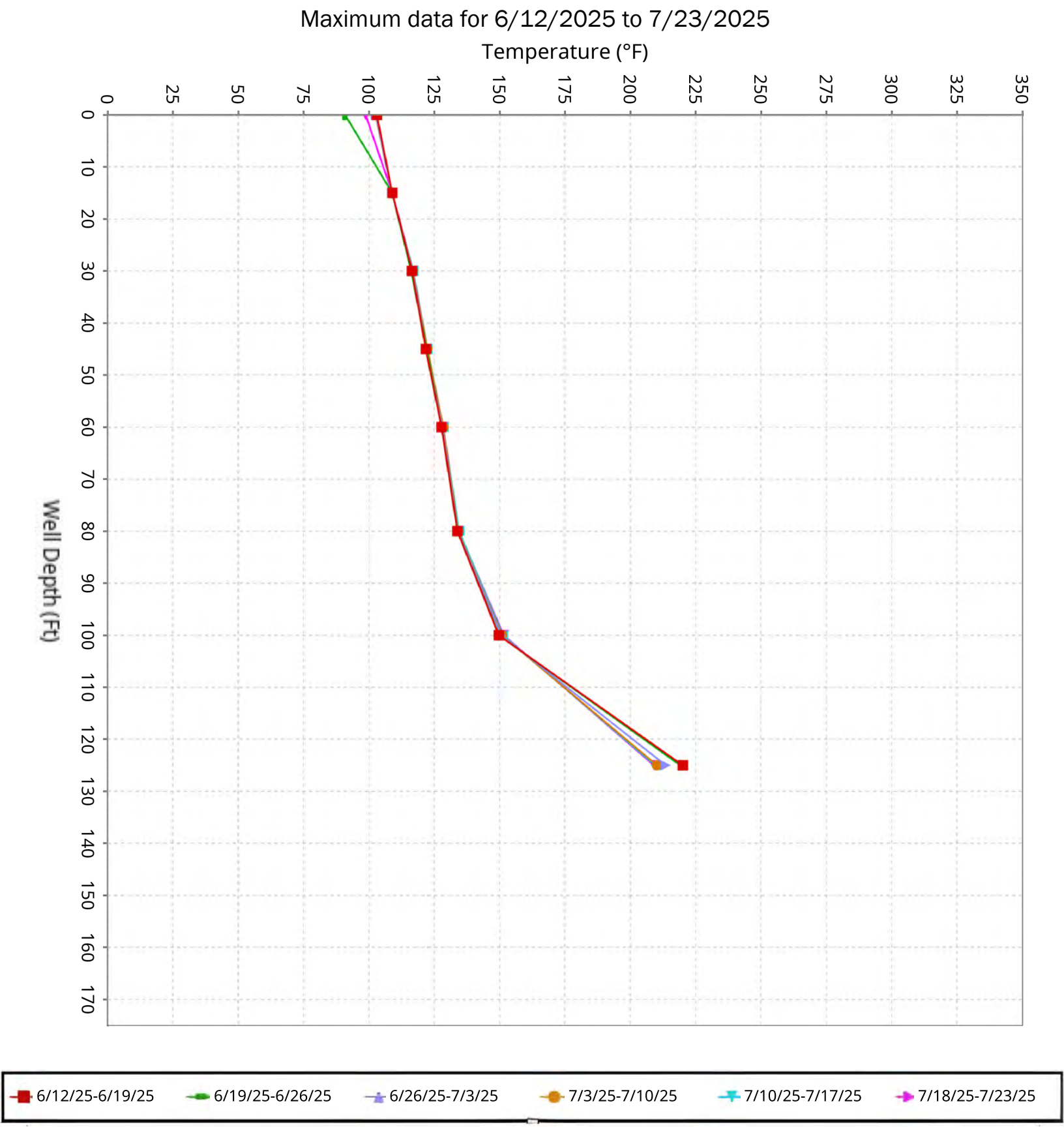
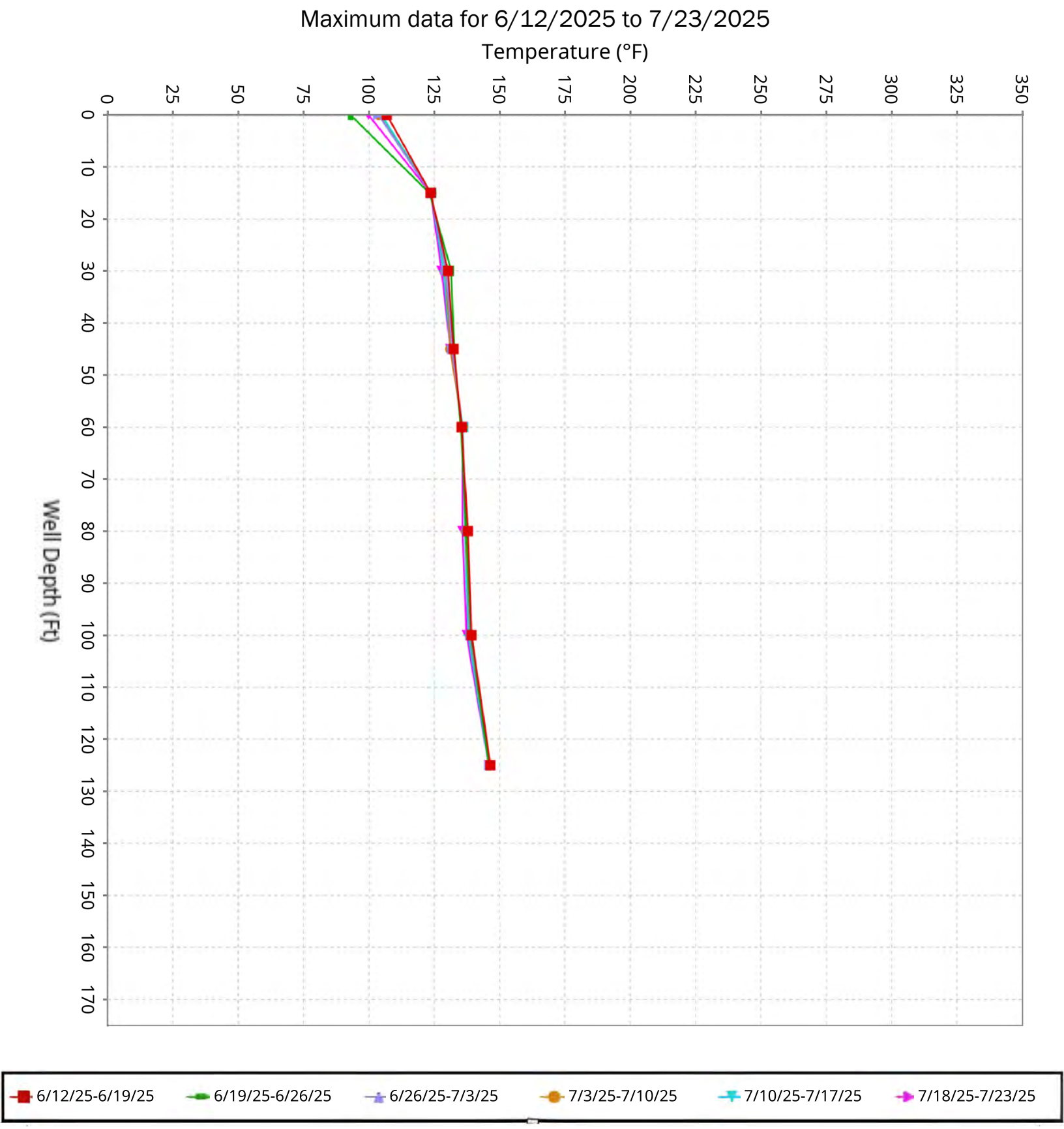
Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-9



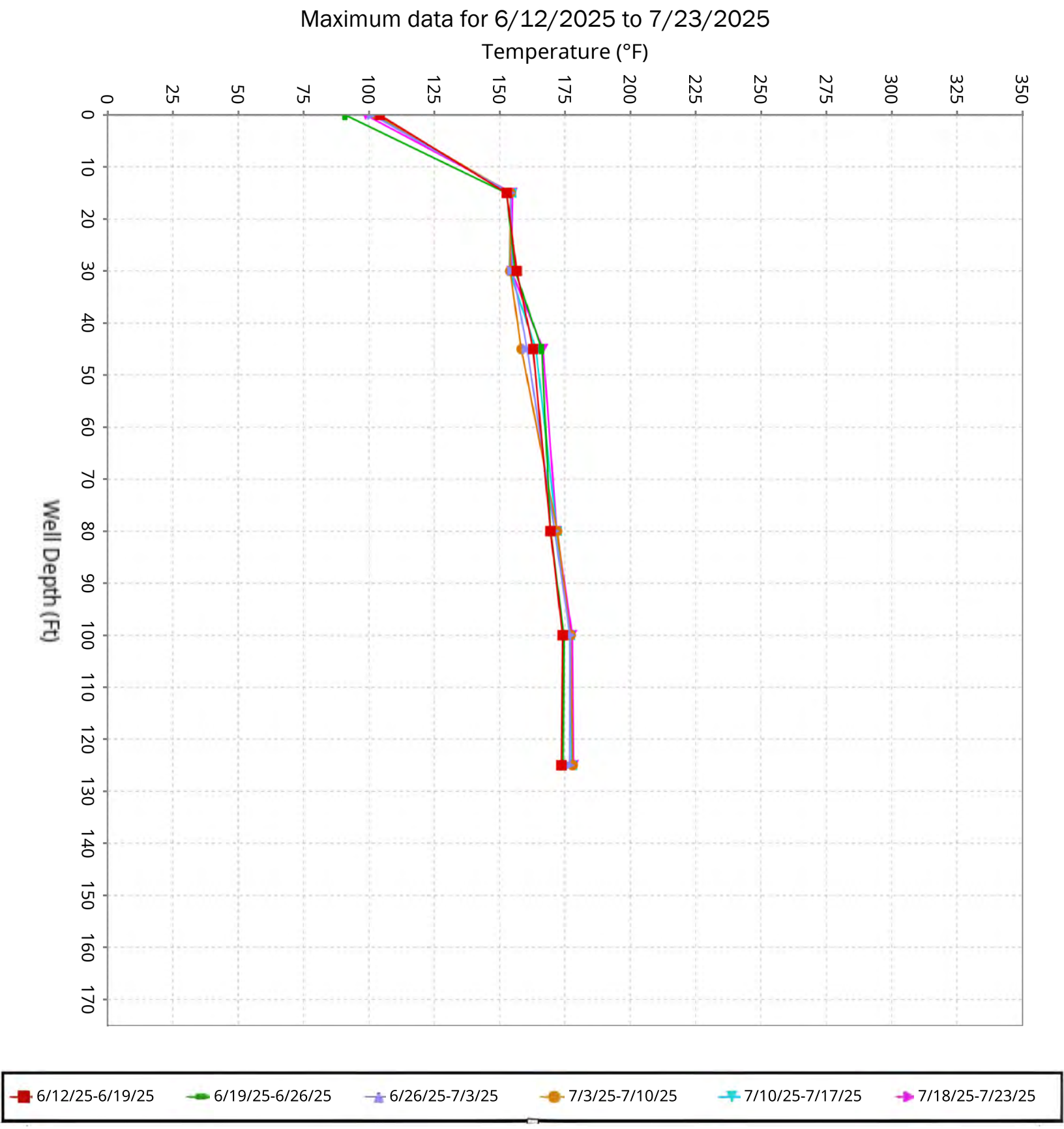
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-10



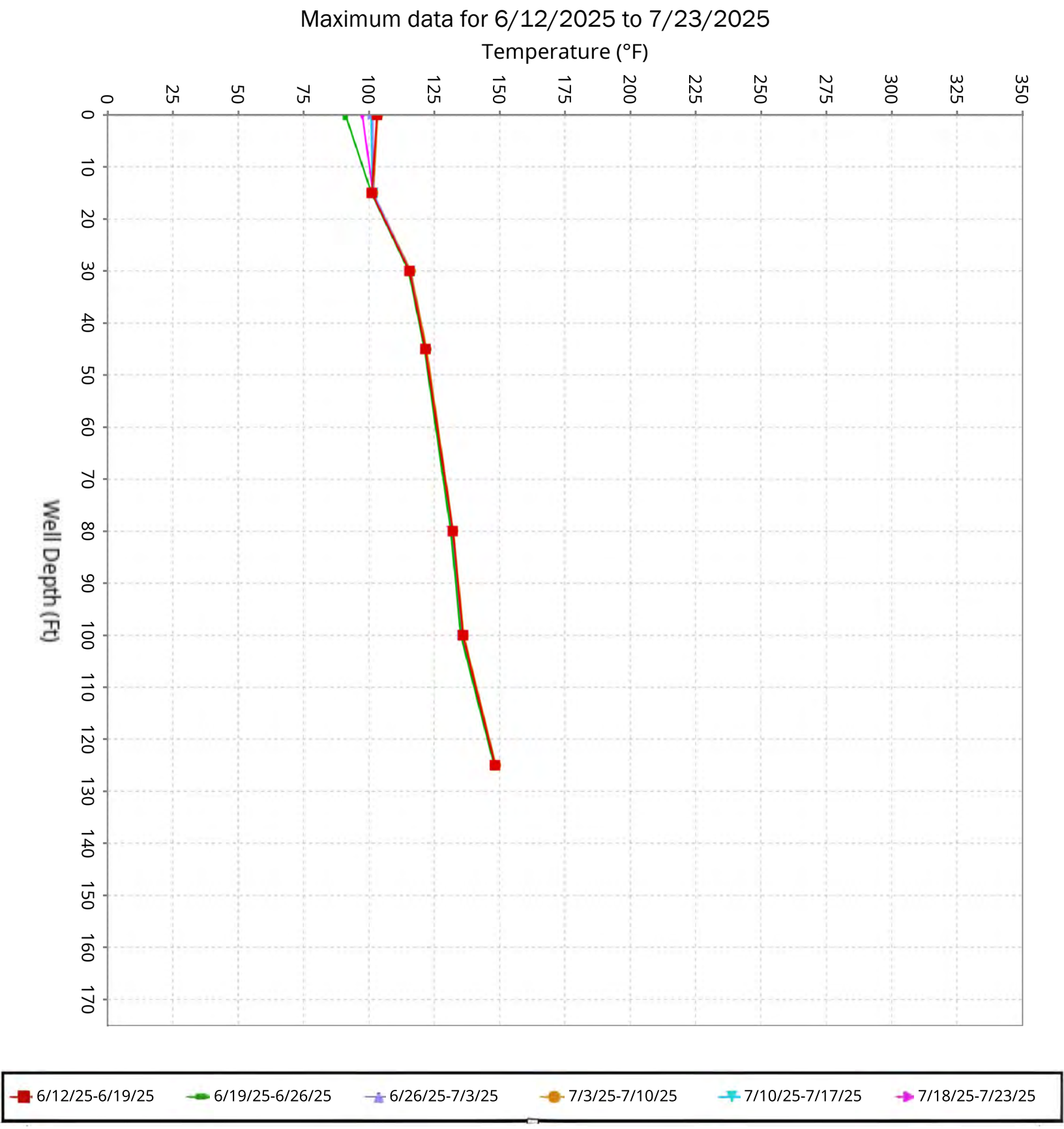
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-11



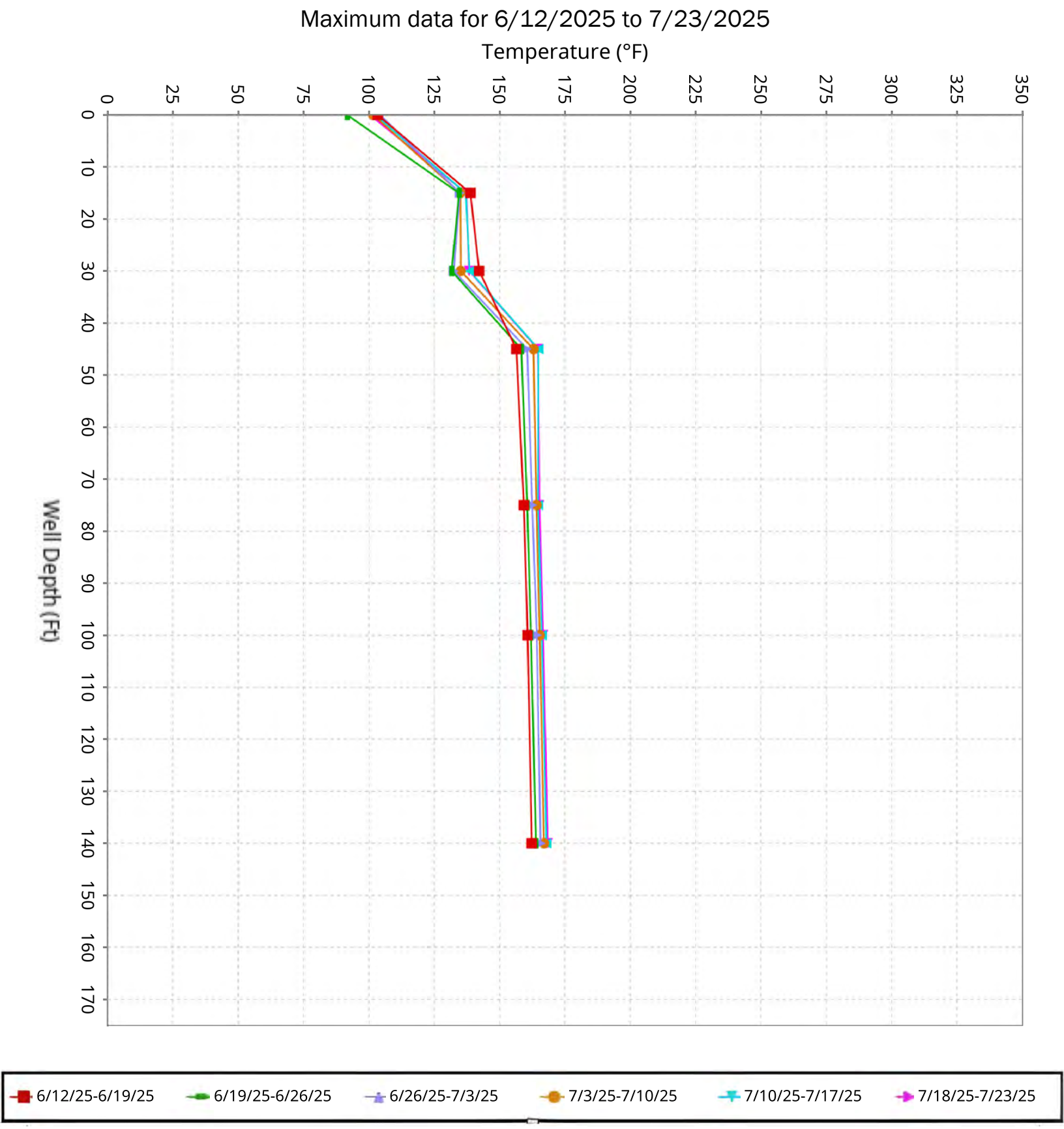
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-12



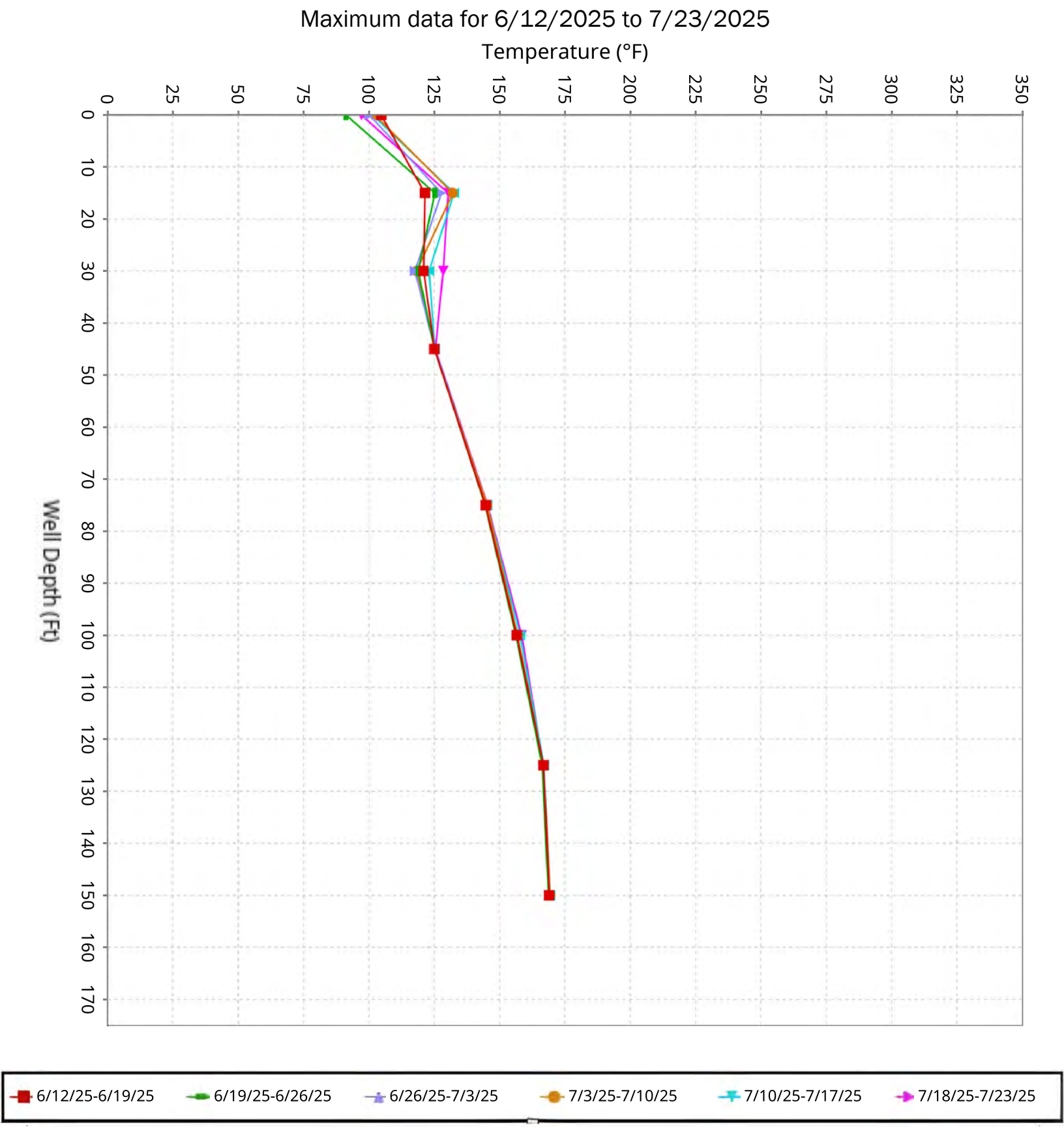
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-13



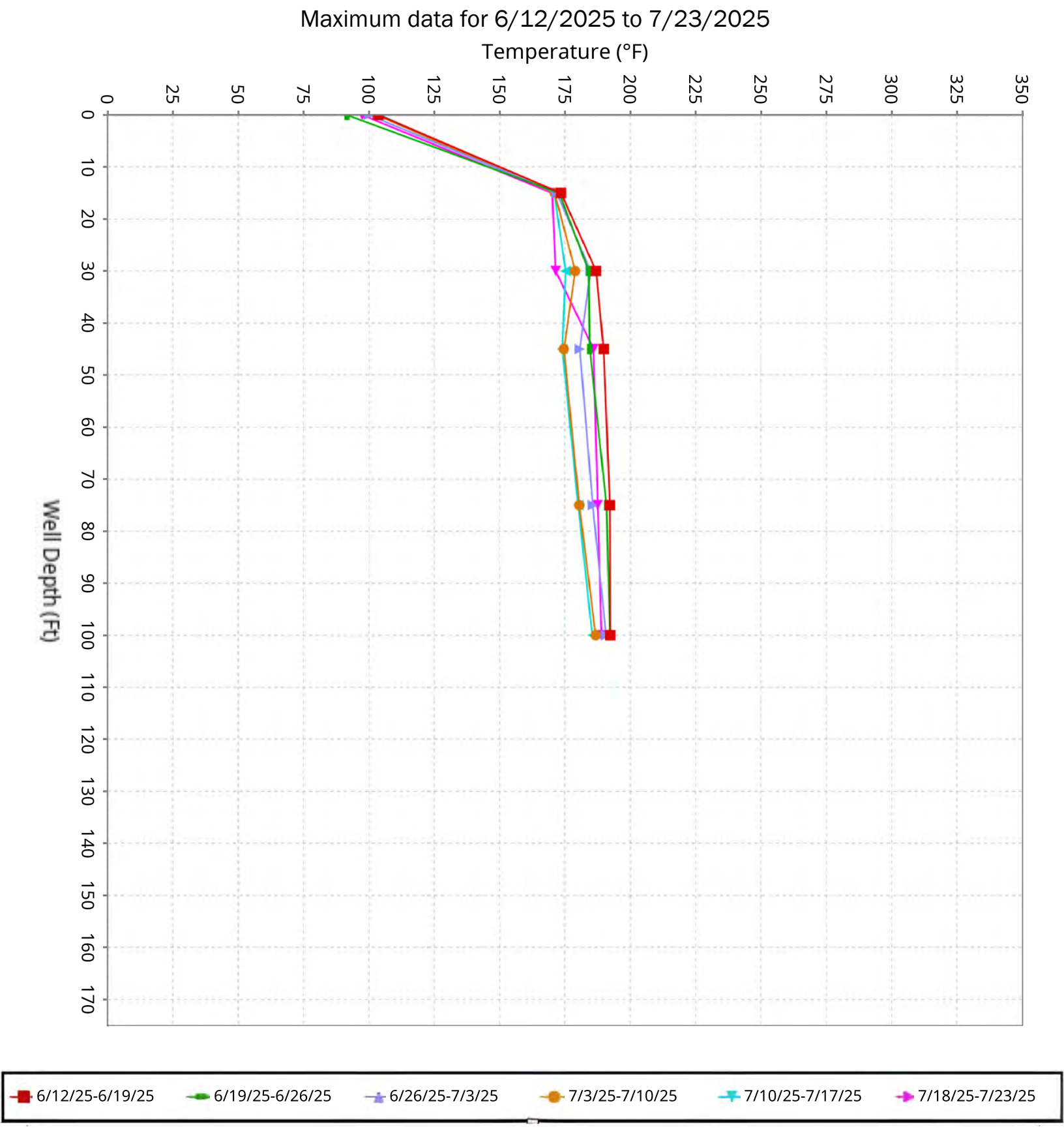
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-14



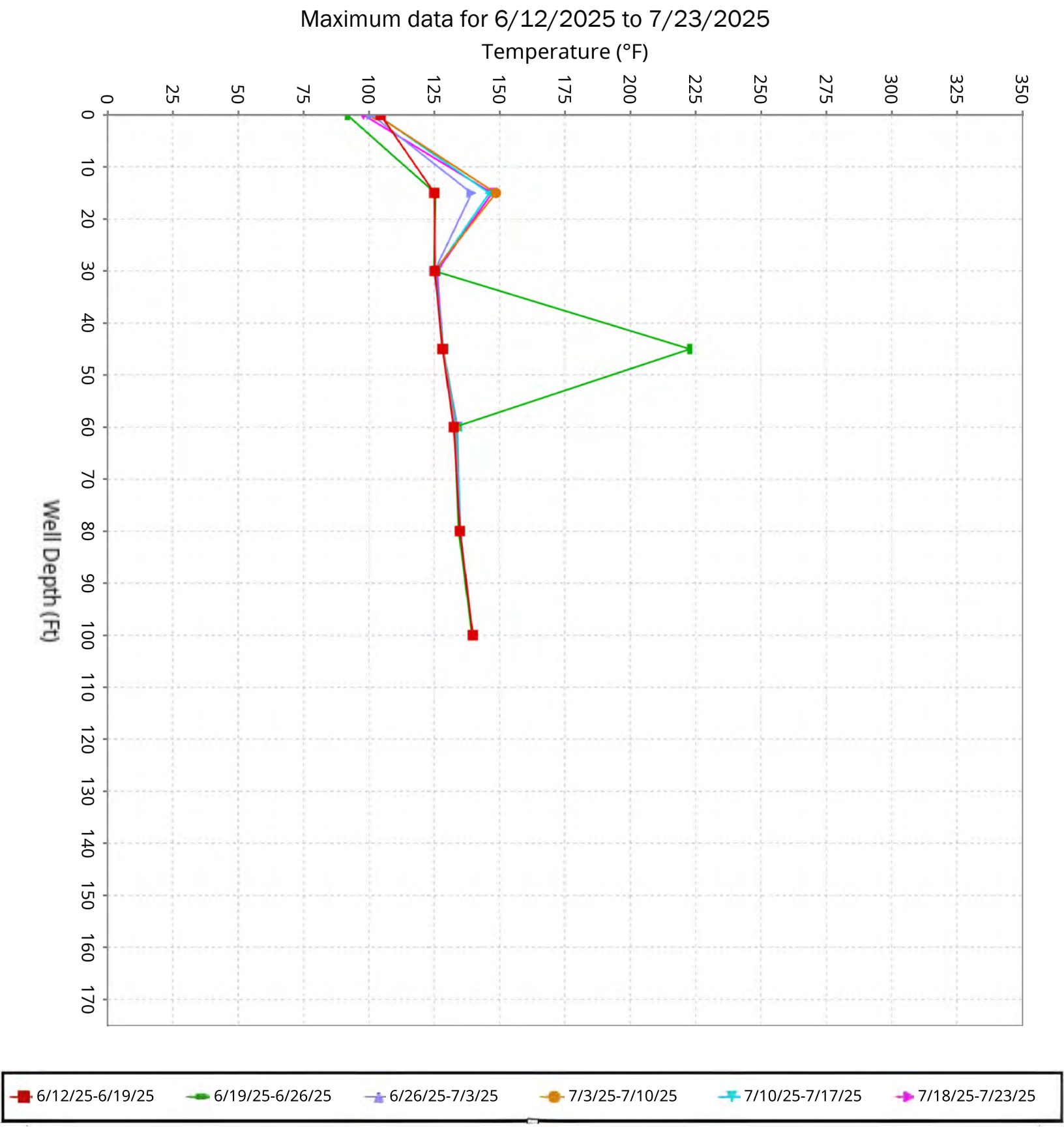
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-15



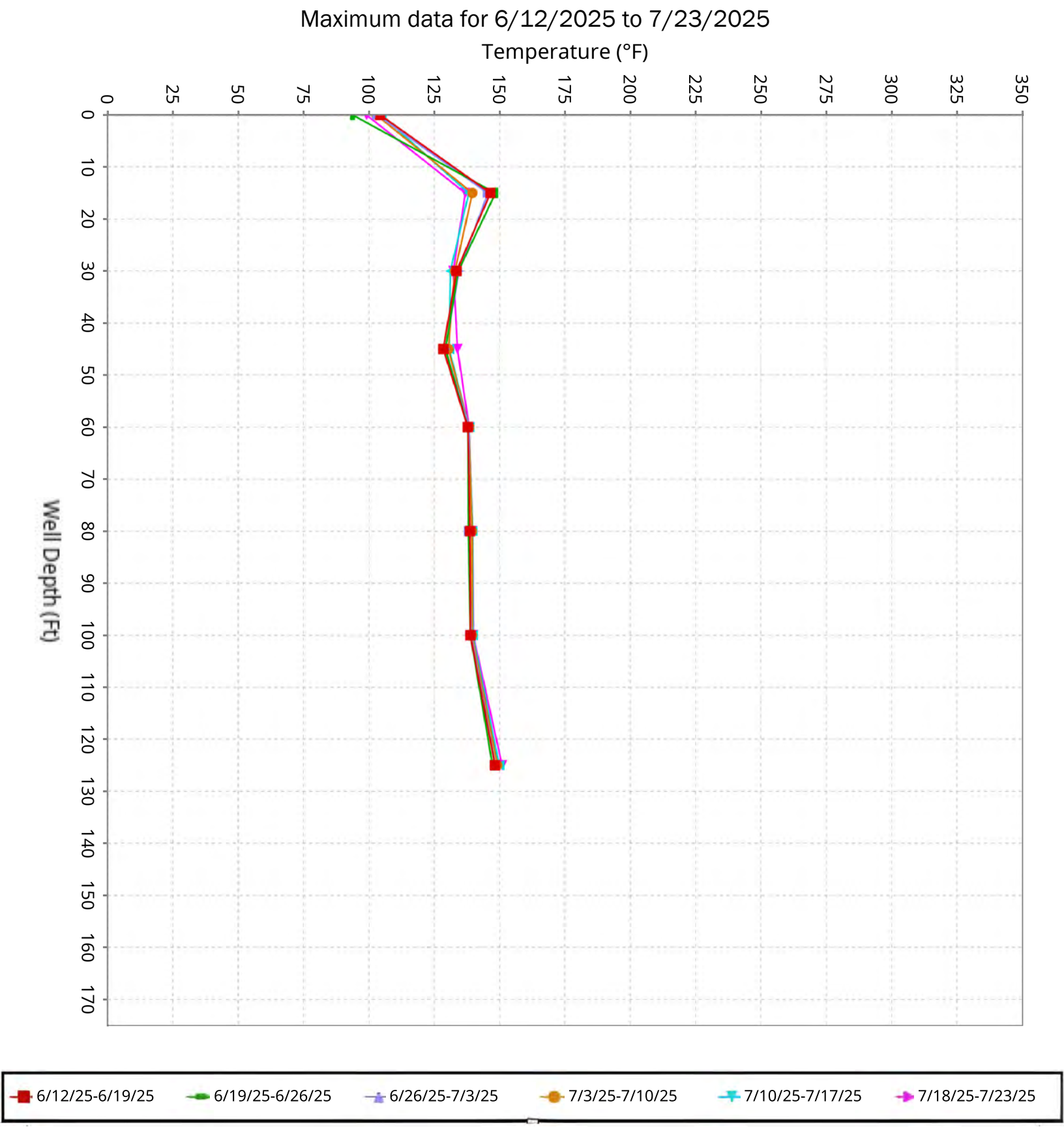
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-16



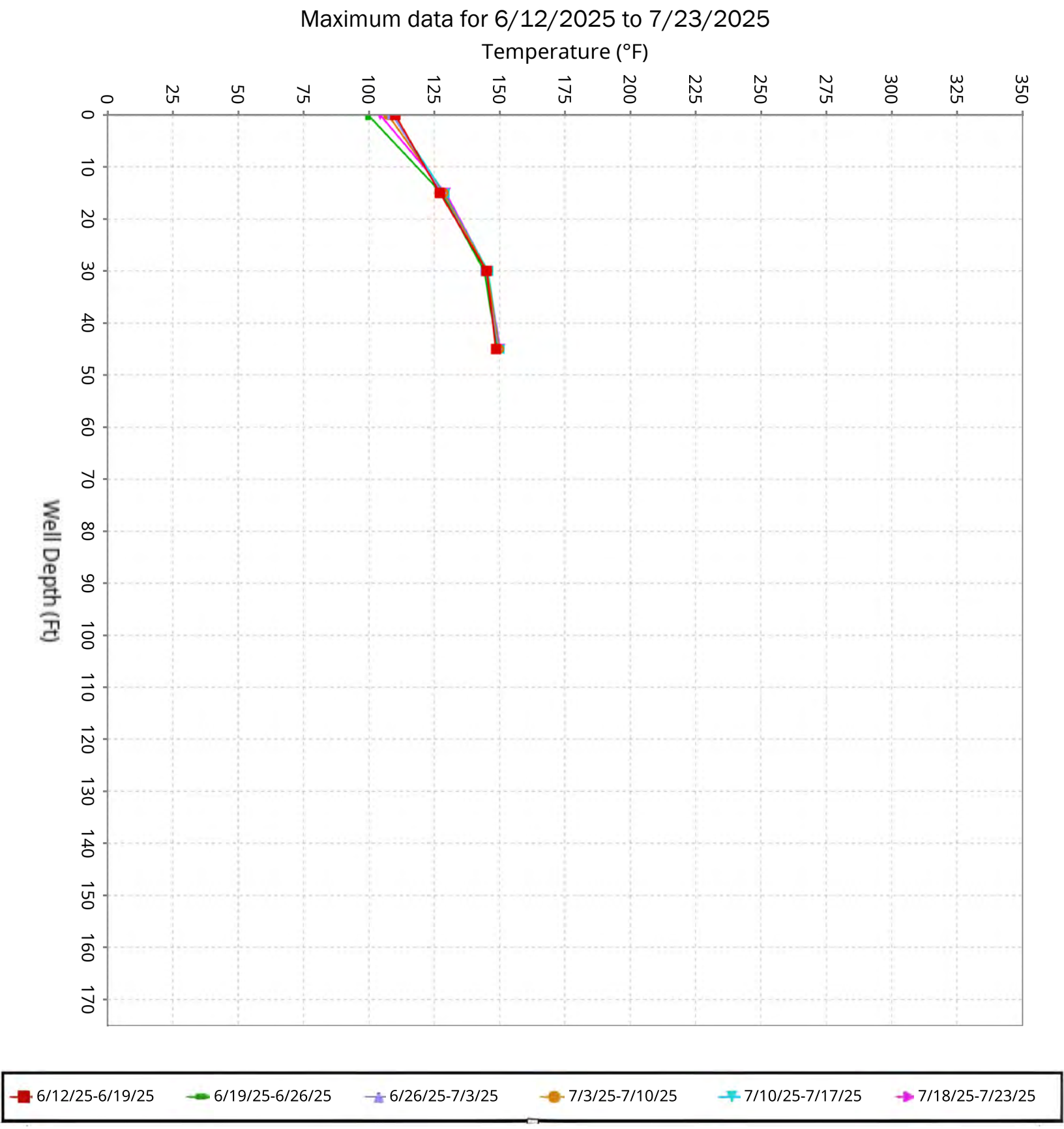
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-17



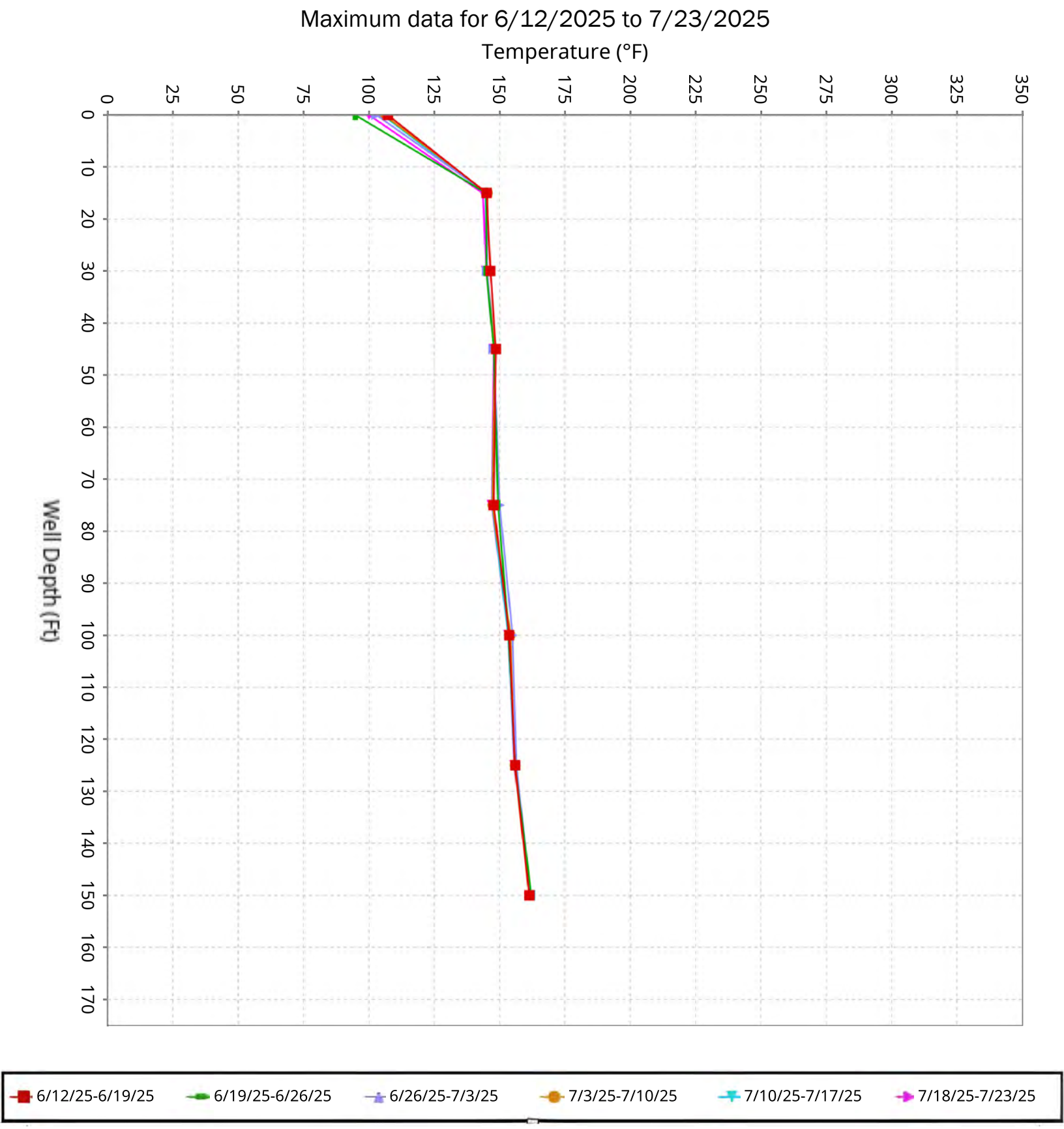
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-18



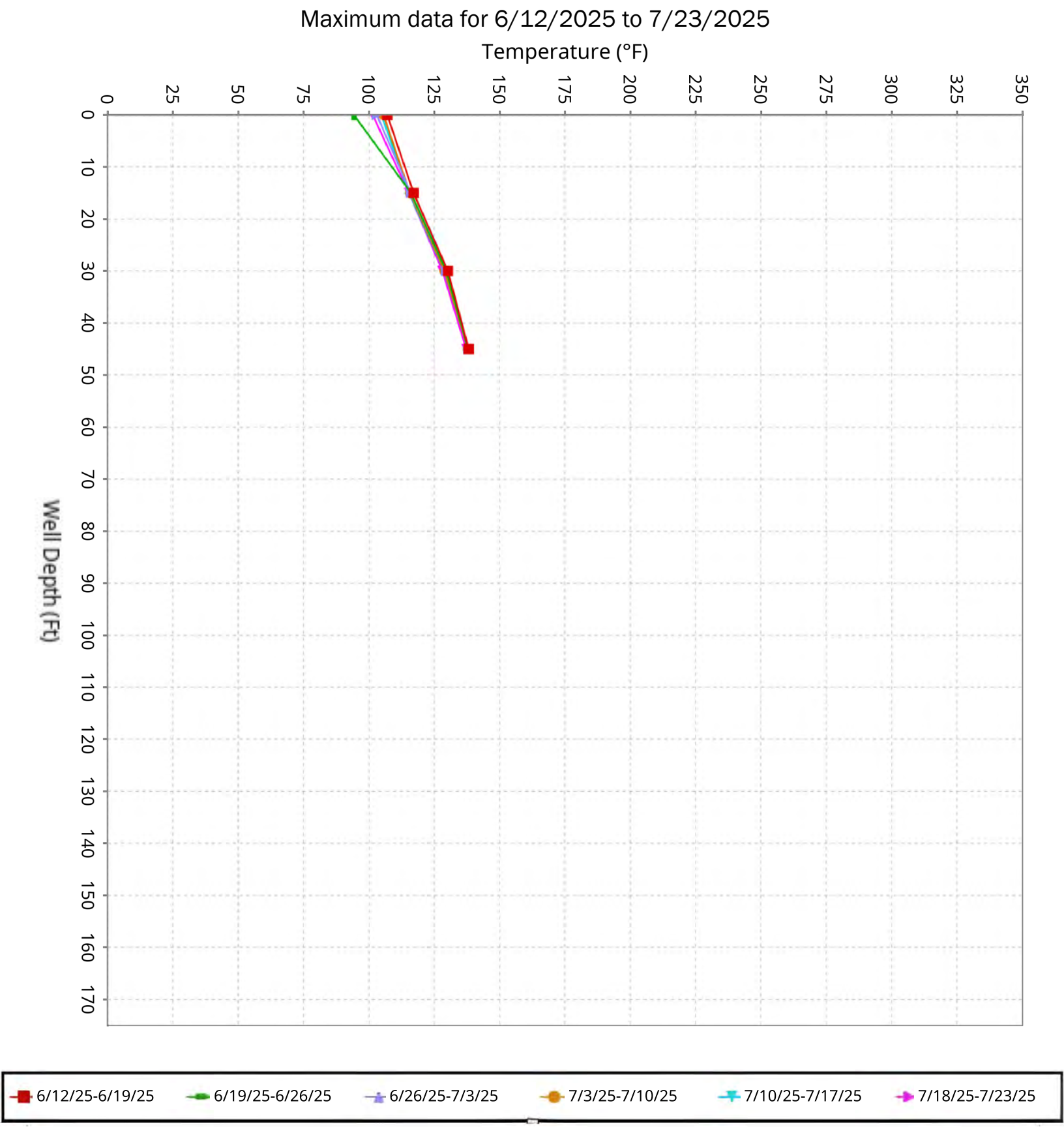
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-19



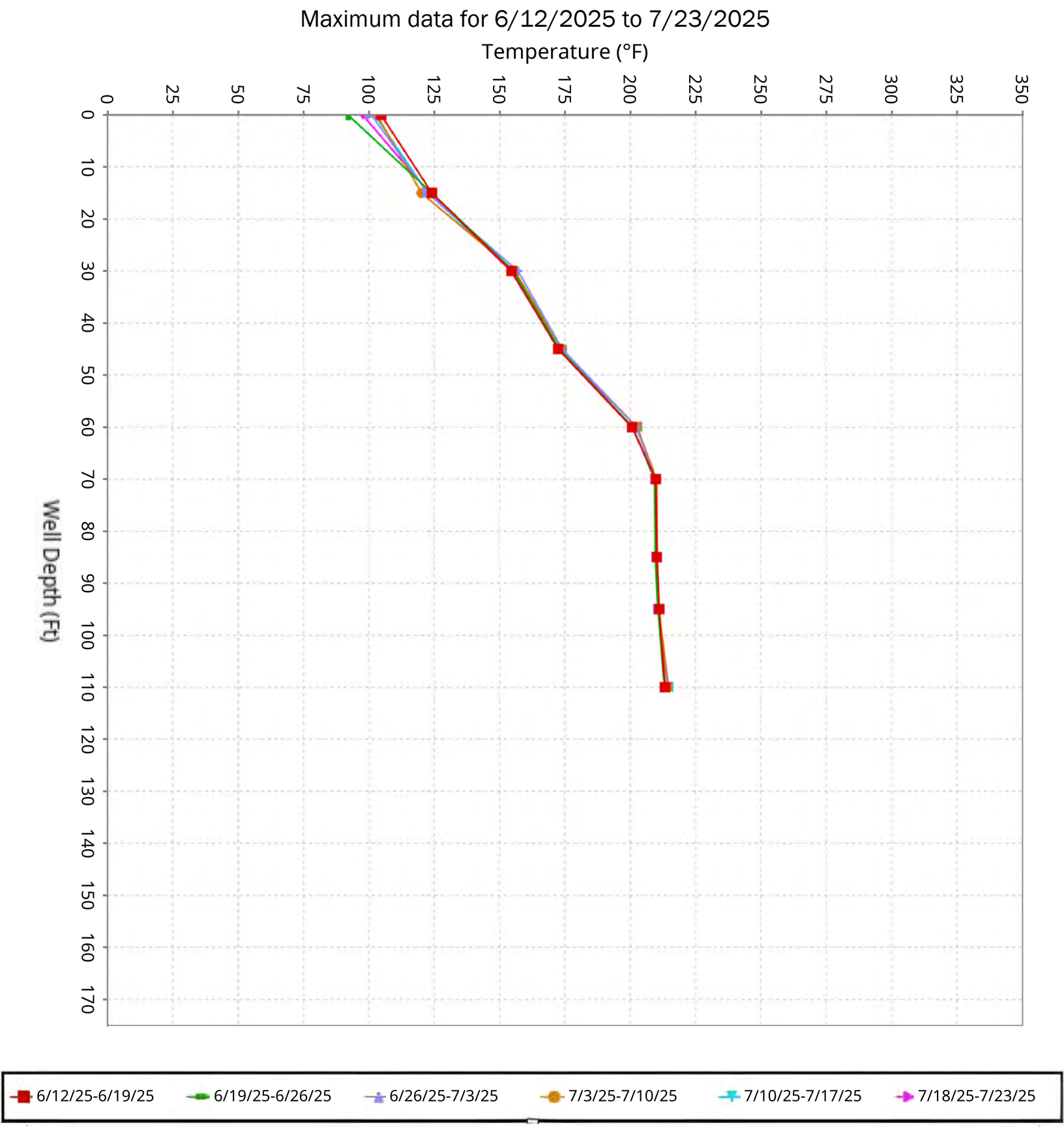
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-20



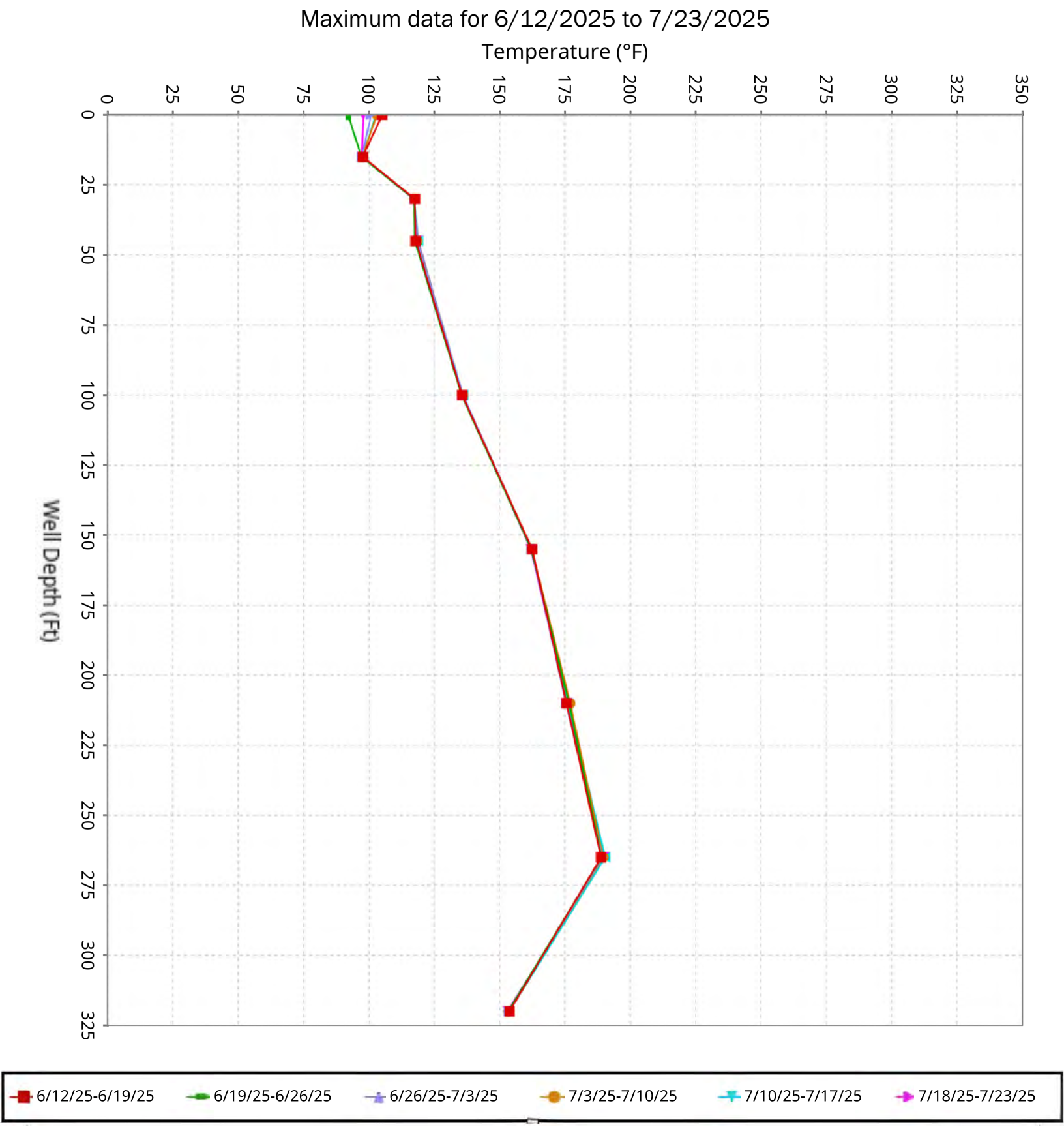
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-21



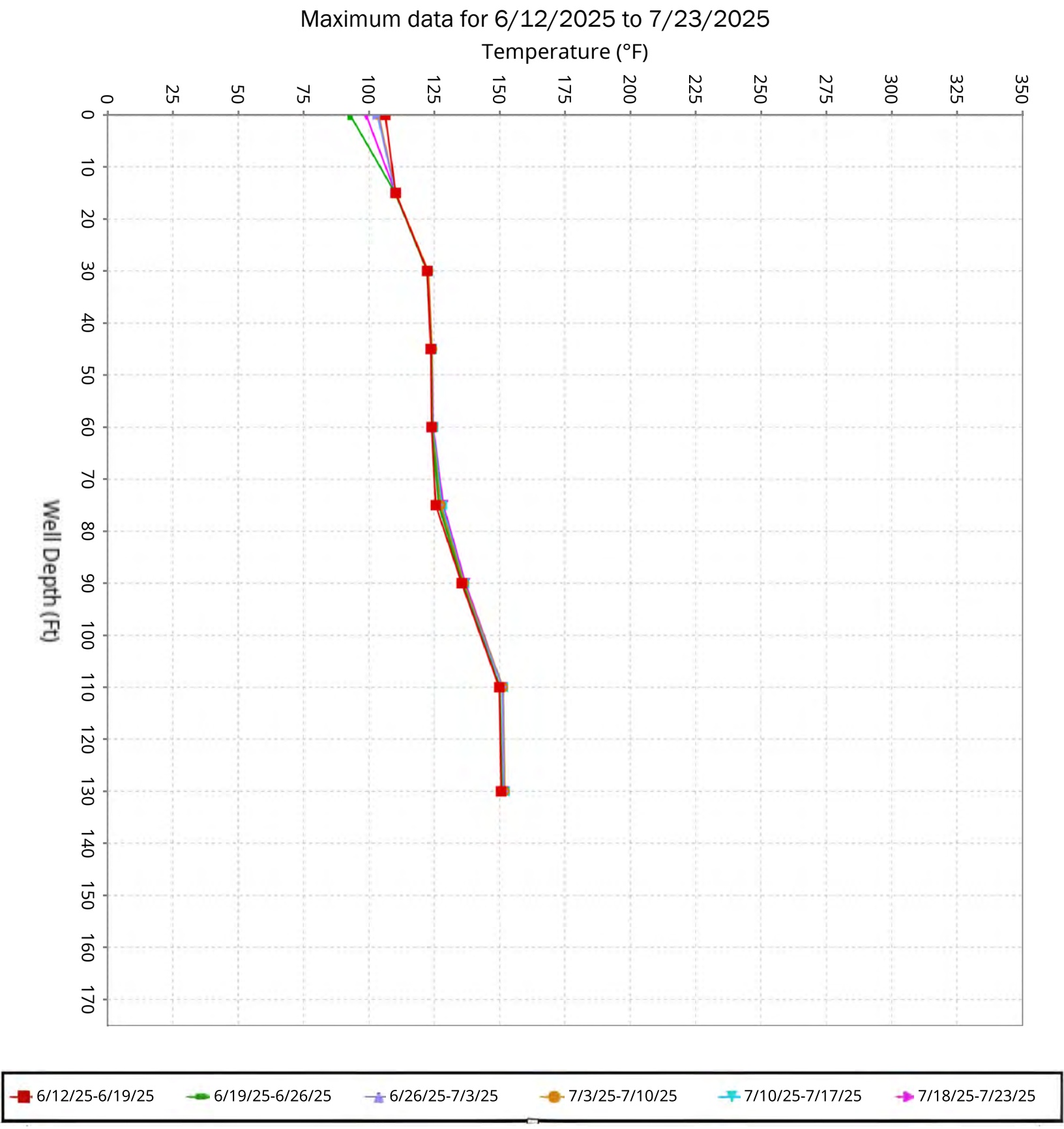
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-24



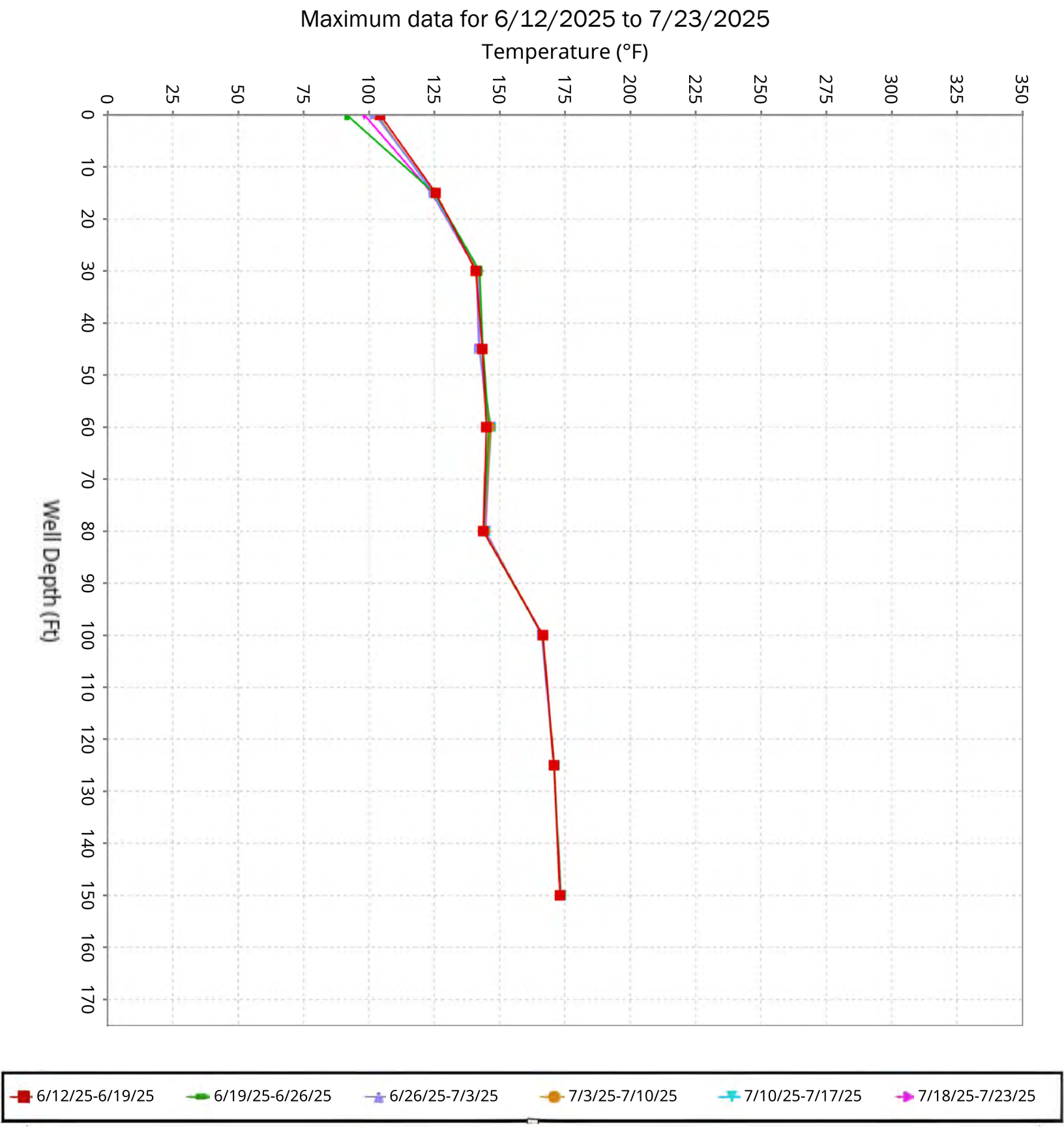
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-25



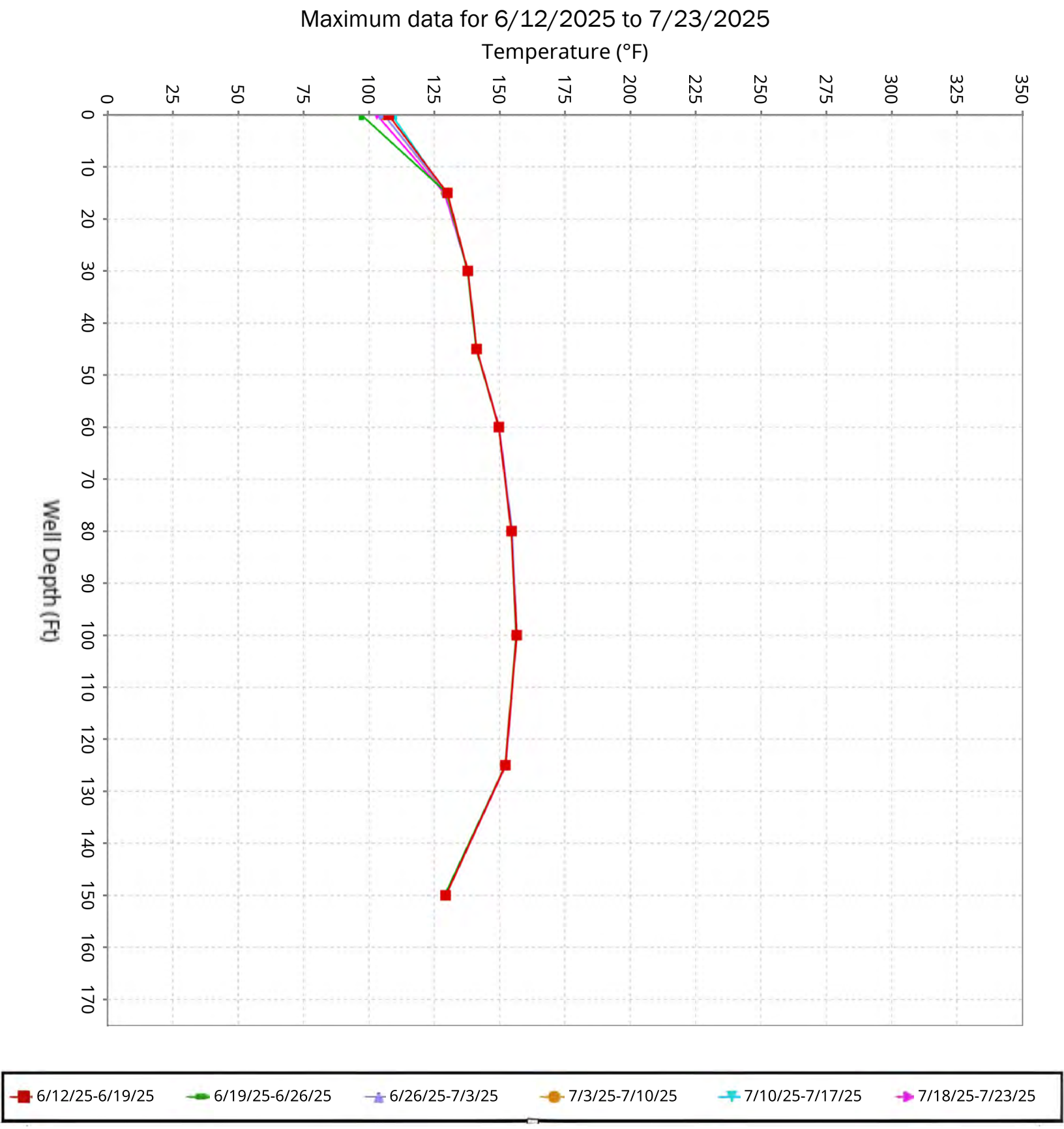
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-26



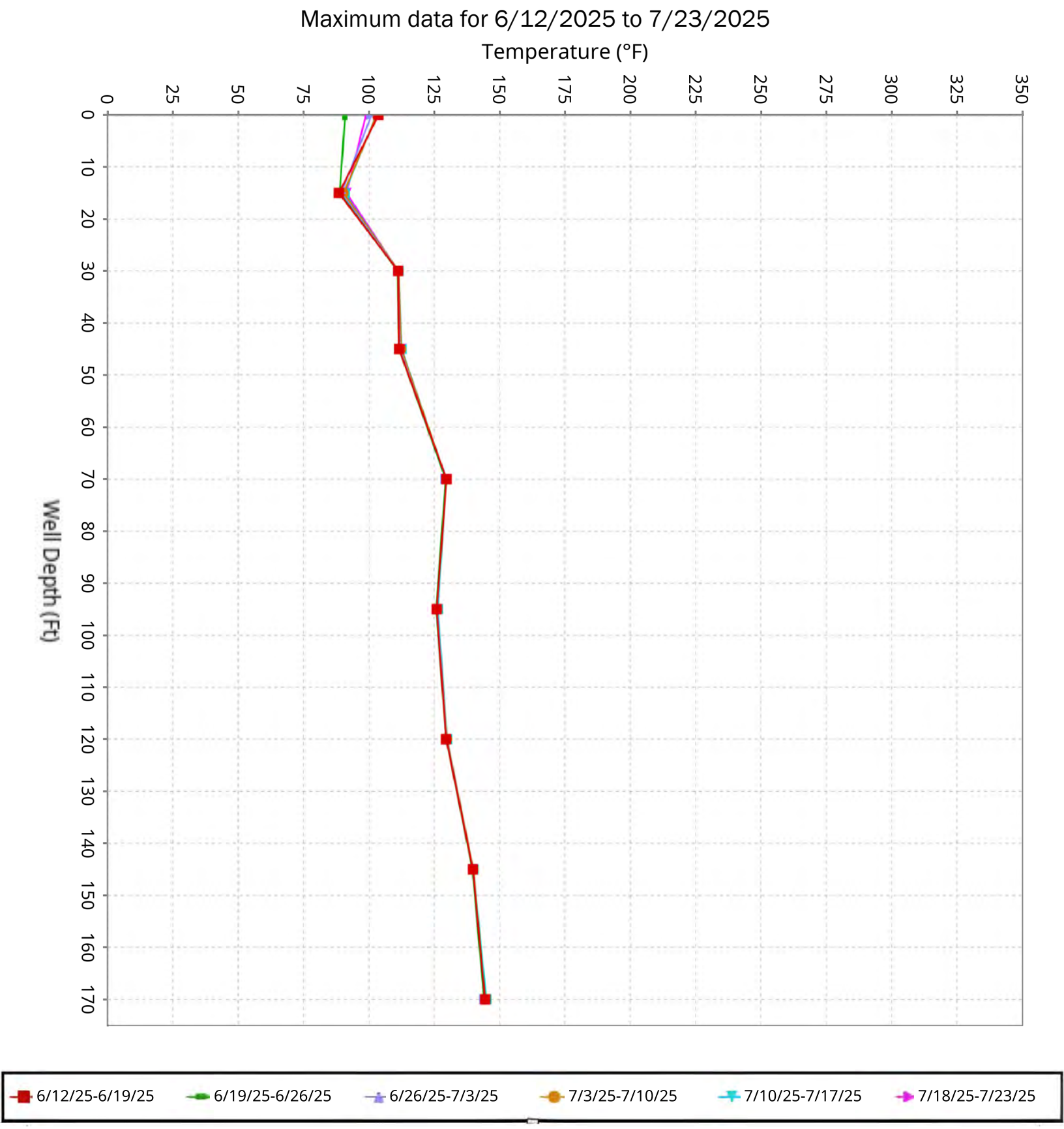
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-27



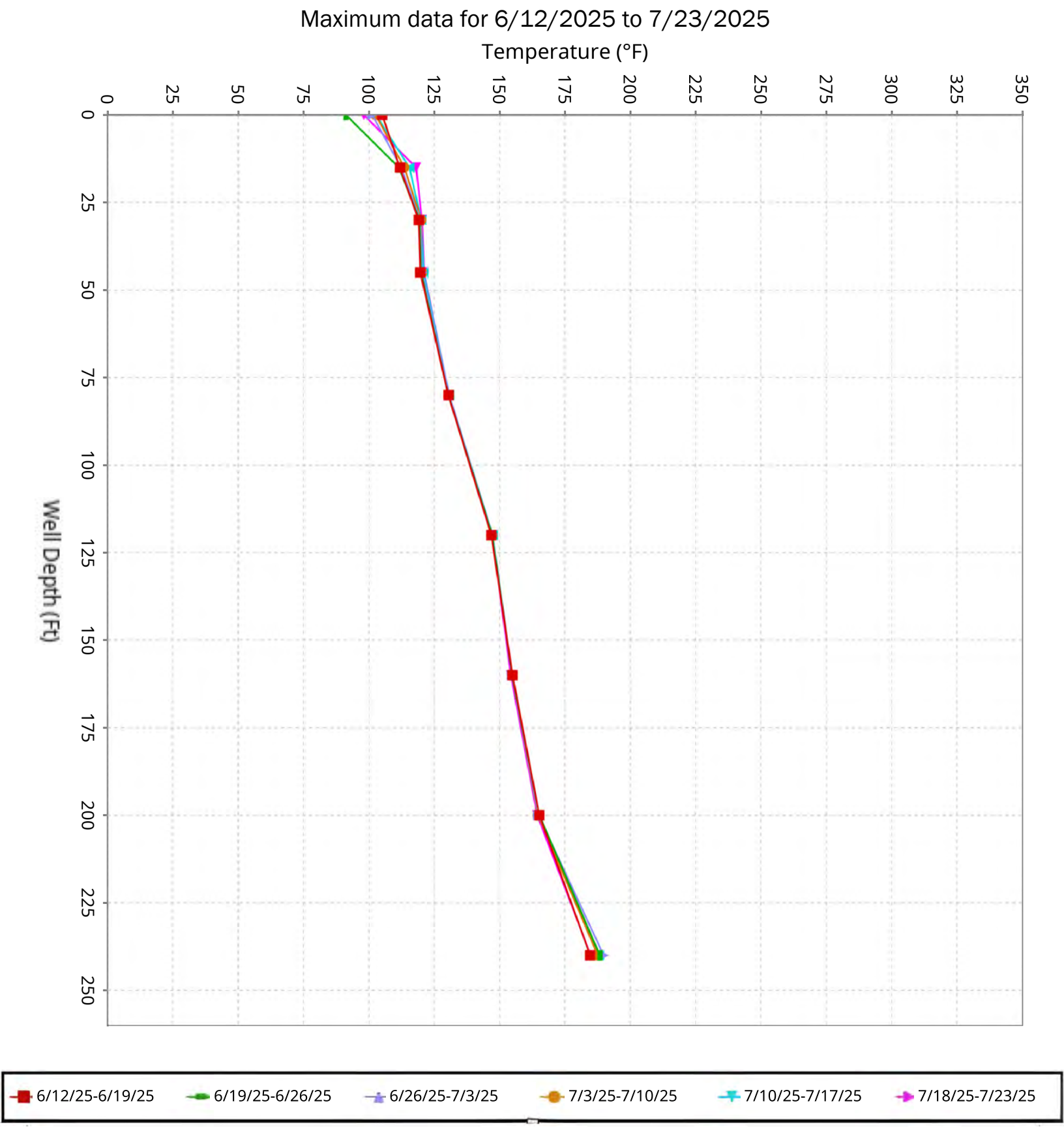
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-28



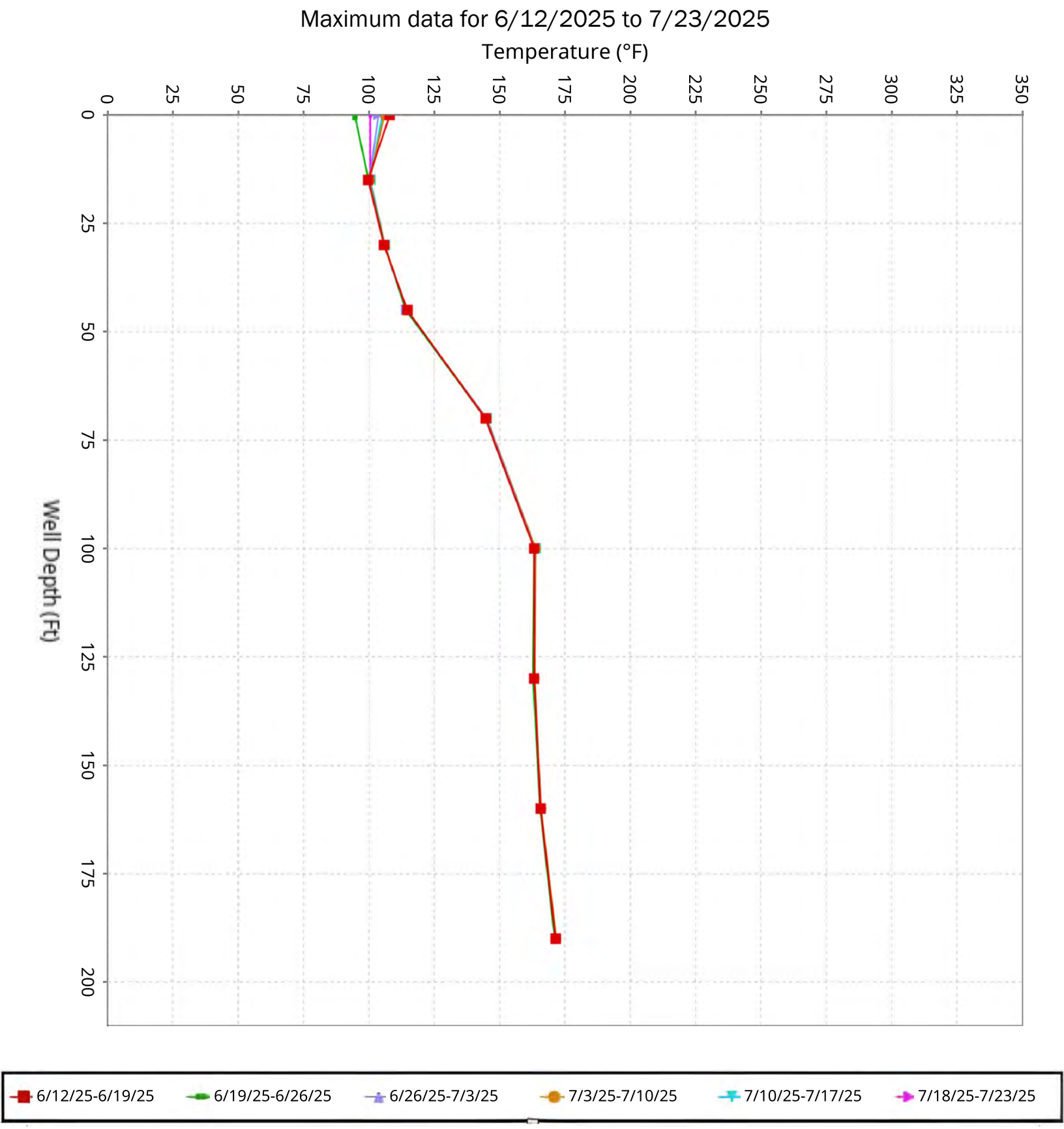
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-29



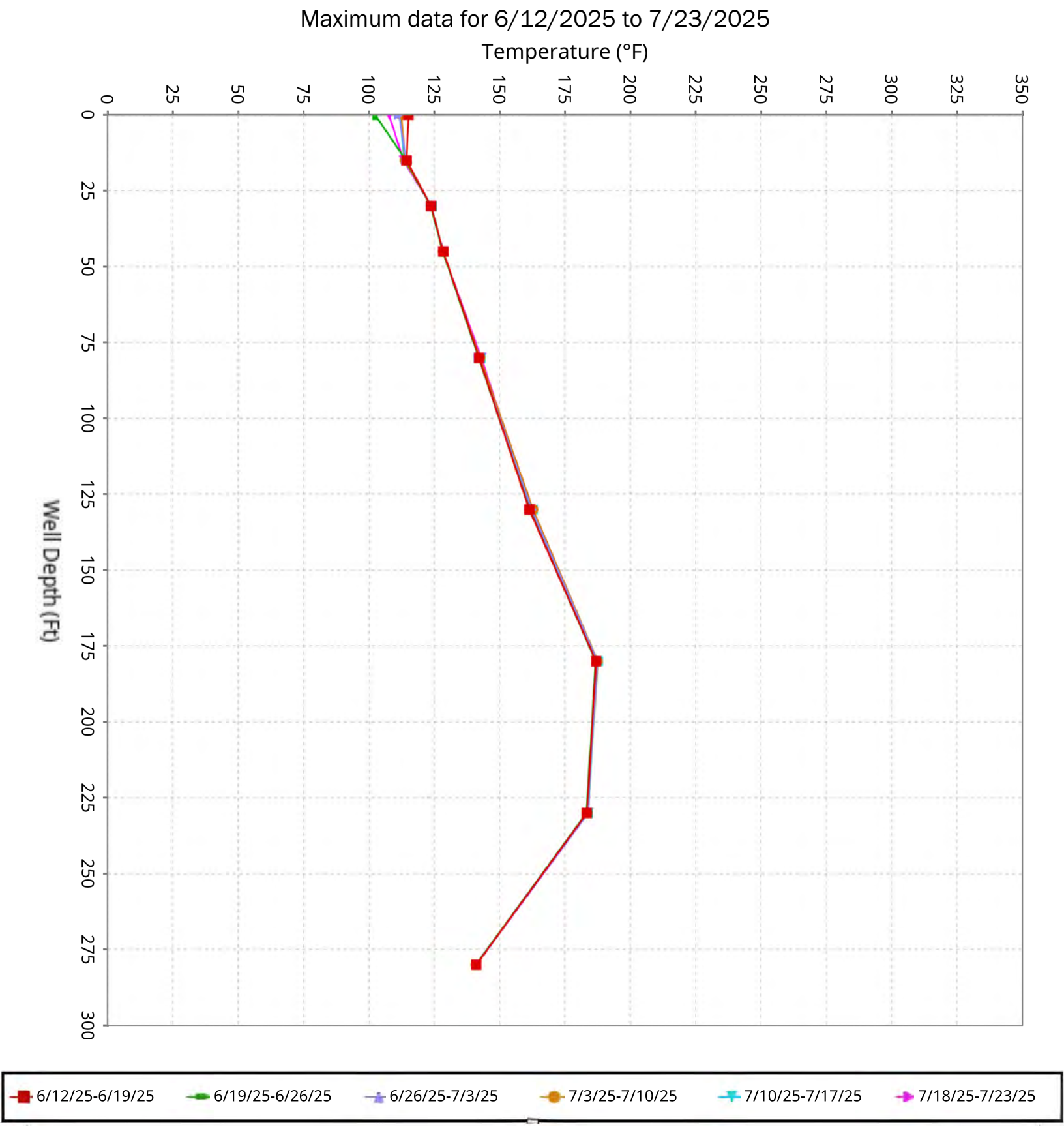
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-30



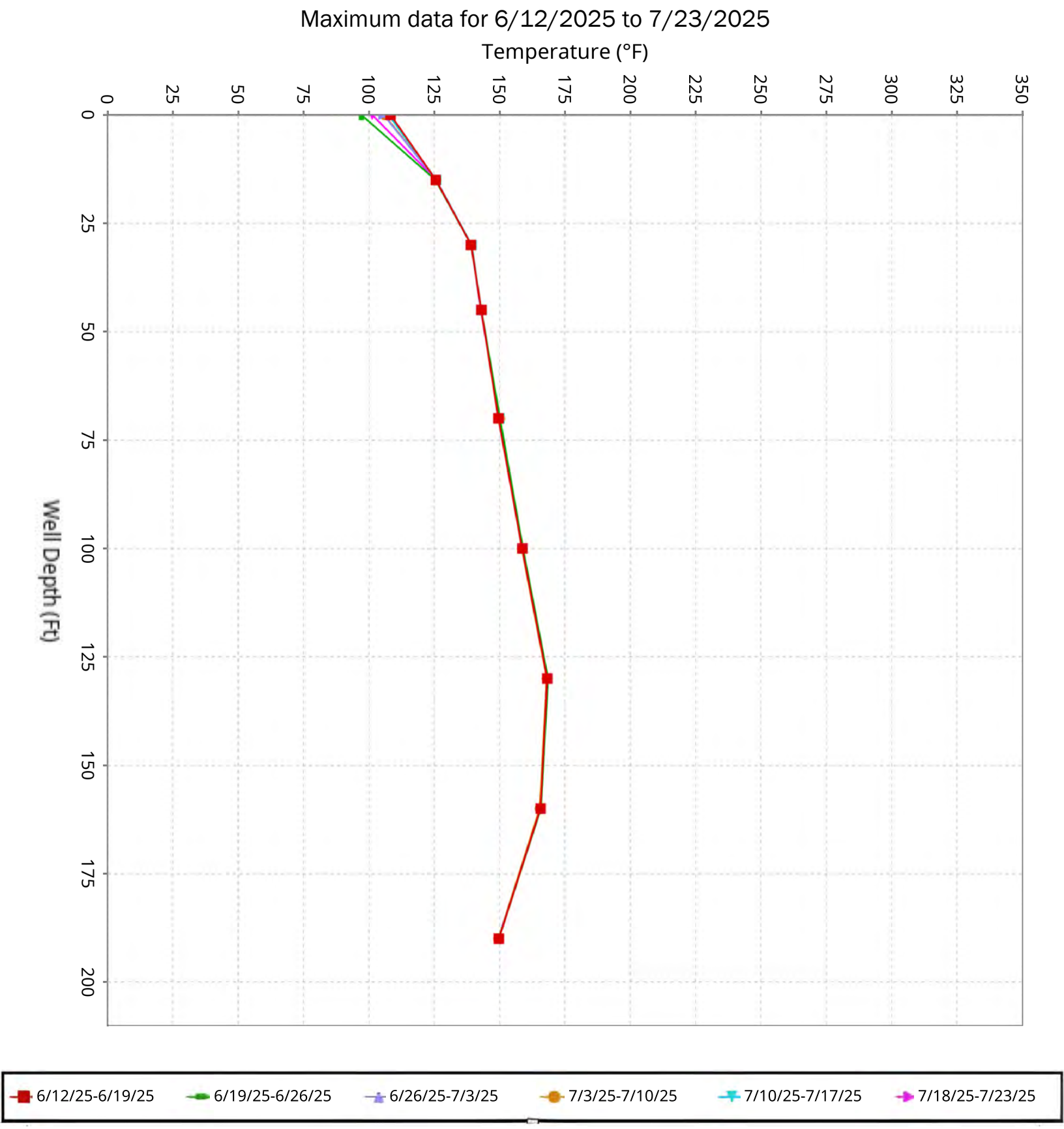
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-31



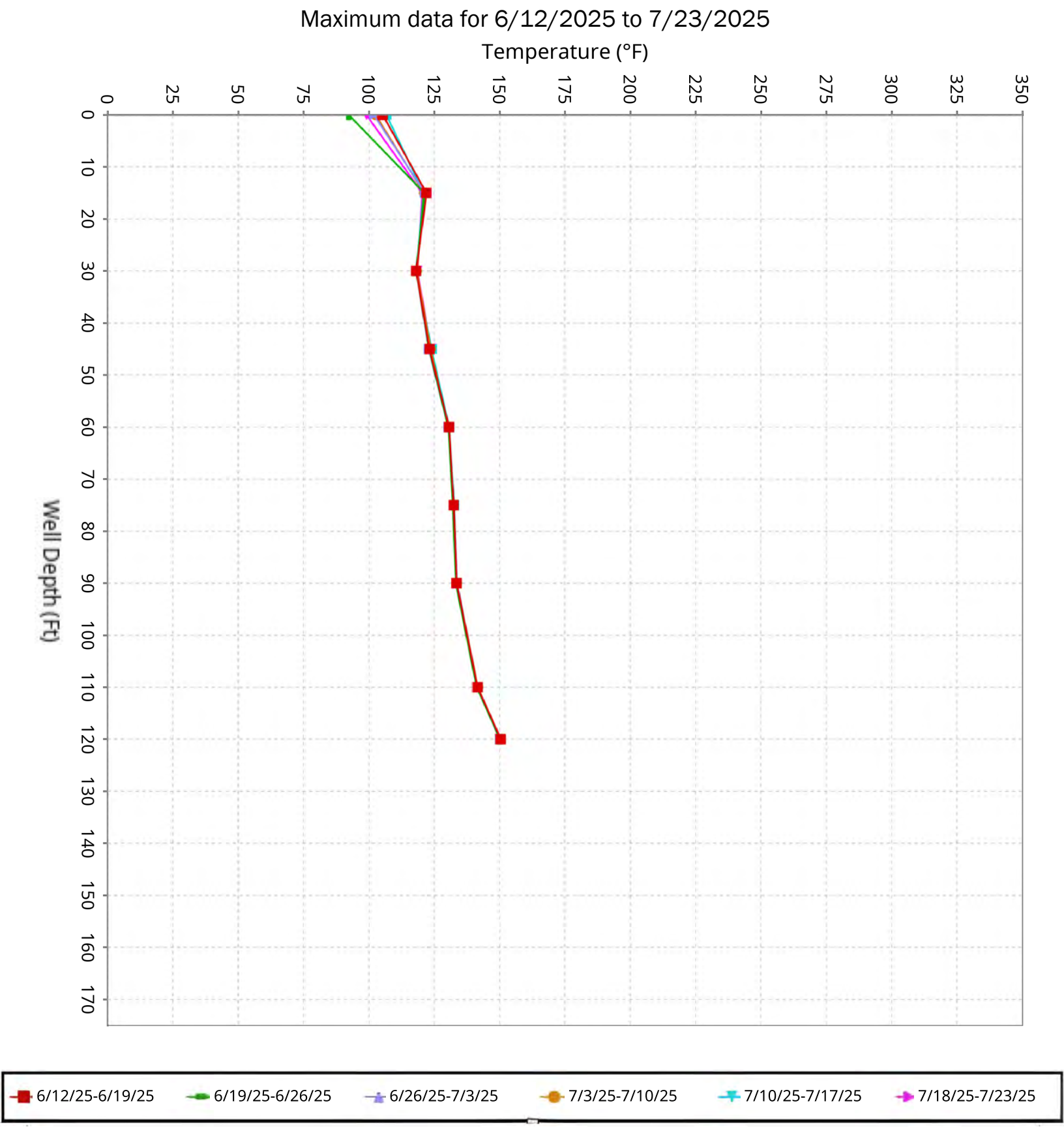
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-32



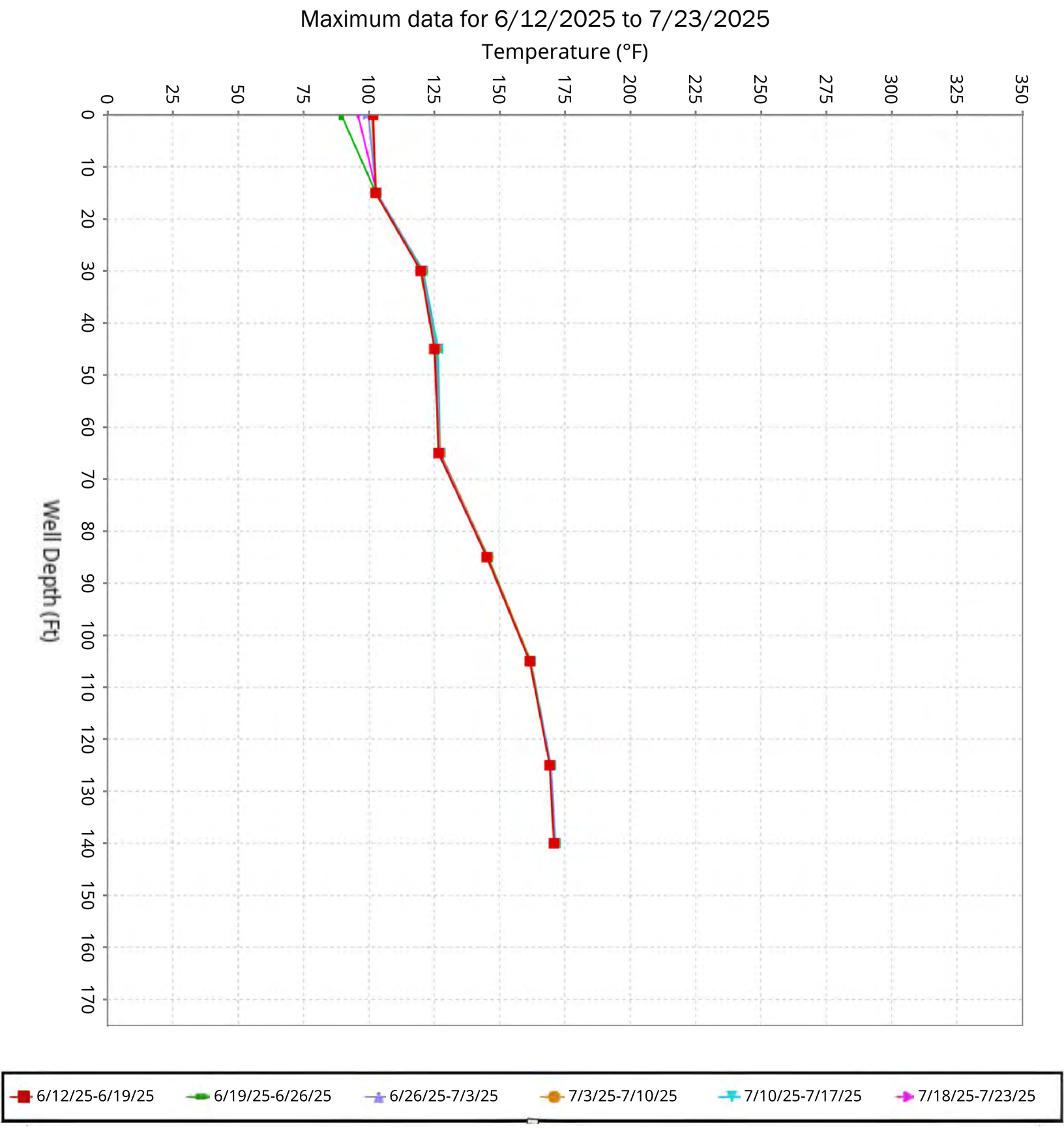
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-34



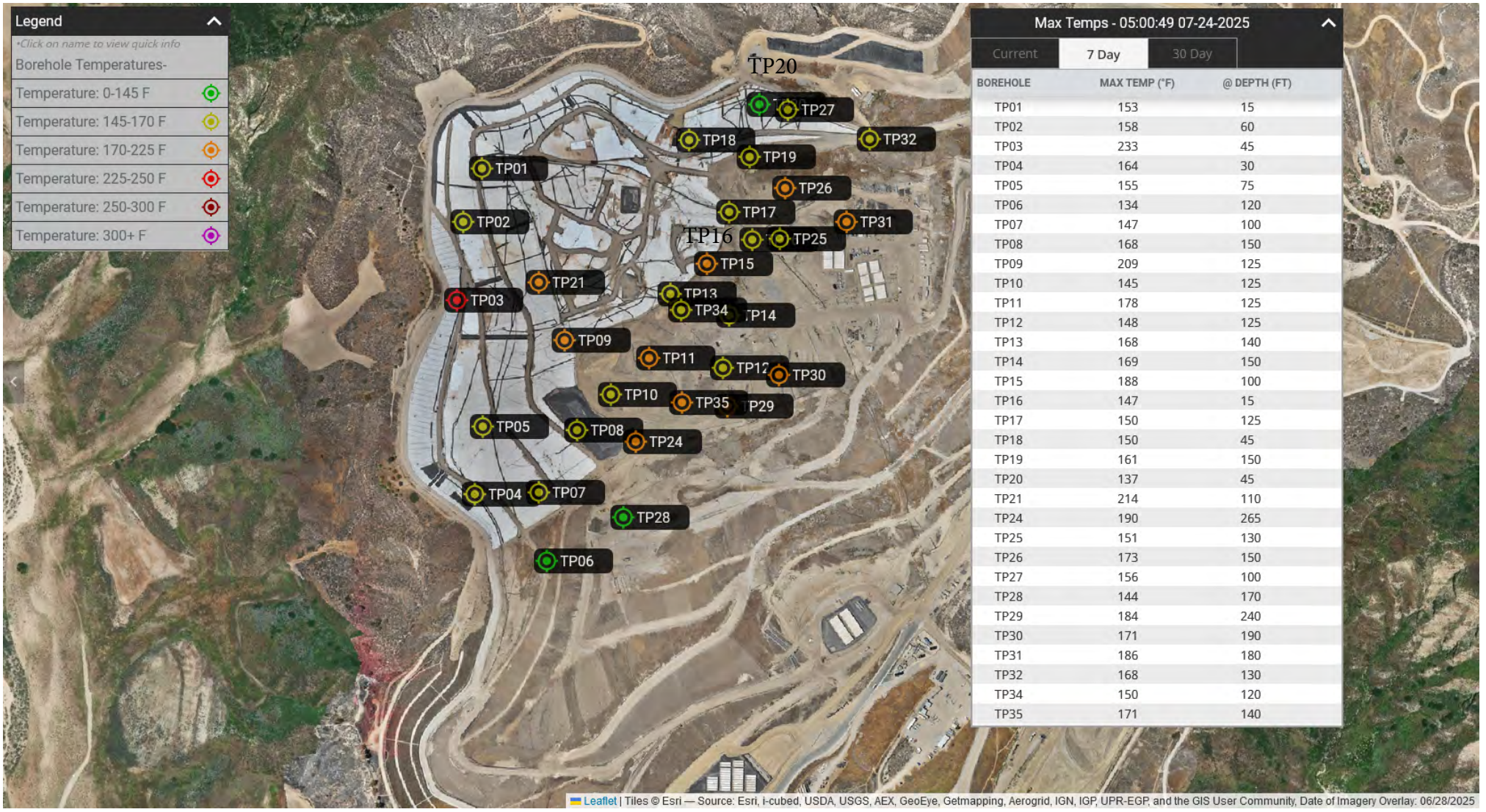
SCS ENGINEERS

Vertical Temperature Profiles from Temperature Probes at Chiquita Landfill for TP-35



SCS ENGINEERS

Maximum Vertical Temperature Map from Temperature Probes at Chiquita Landfill

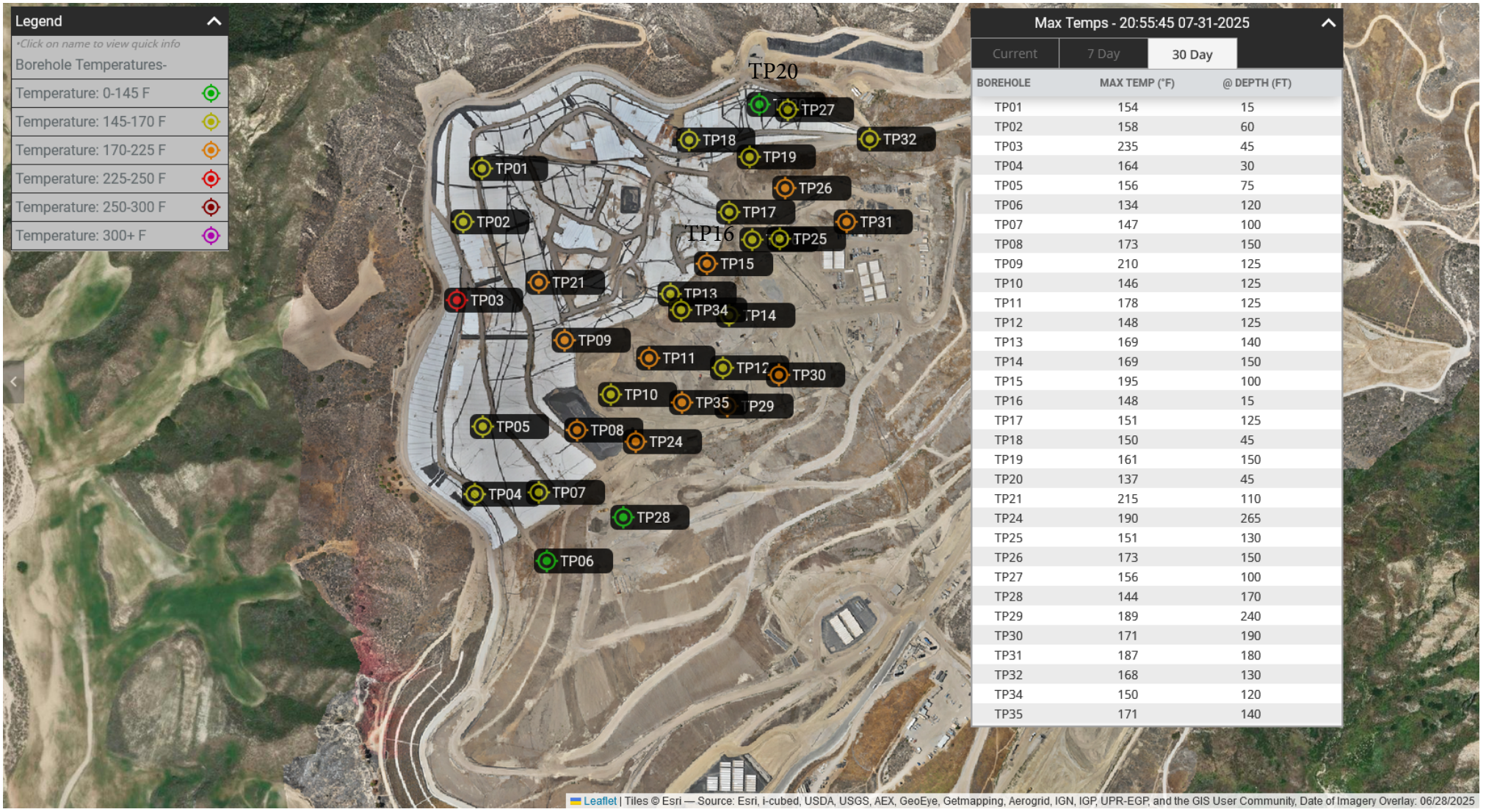


Max Temps - 05:00:49 07-24-2025

Current | 7 Day | 30 Day

BOREHOLE	MAX TEMP (°F)	@ DEPTH (FT)
TP01	153	15
TP02	158	60
TP03	233	45
TP04	164	30
TP05	155	75
TP06	134	120
TP07	147	100
TP08	168	150
TP09	209	125
TP10	145	125
TP11	178	125
TP12	148	125
TP13	168	140
TP14	169	150
TP15	188	100
TP16	147	15
TP17	150	125
TP18	150	45
TP19	161	150
TP20	137	45
TP21	214	110
TP24	190	265
TP25	151	130
TP26	173	150
TP27	156	100
TP28	144	170
TP29	184	240
TP30	171	190
TP31	186	180
TP32	168	130
TP34	150	120
TP35	171	140

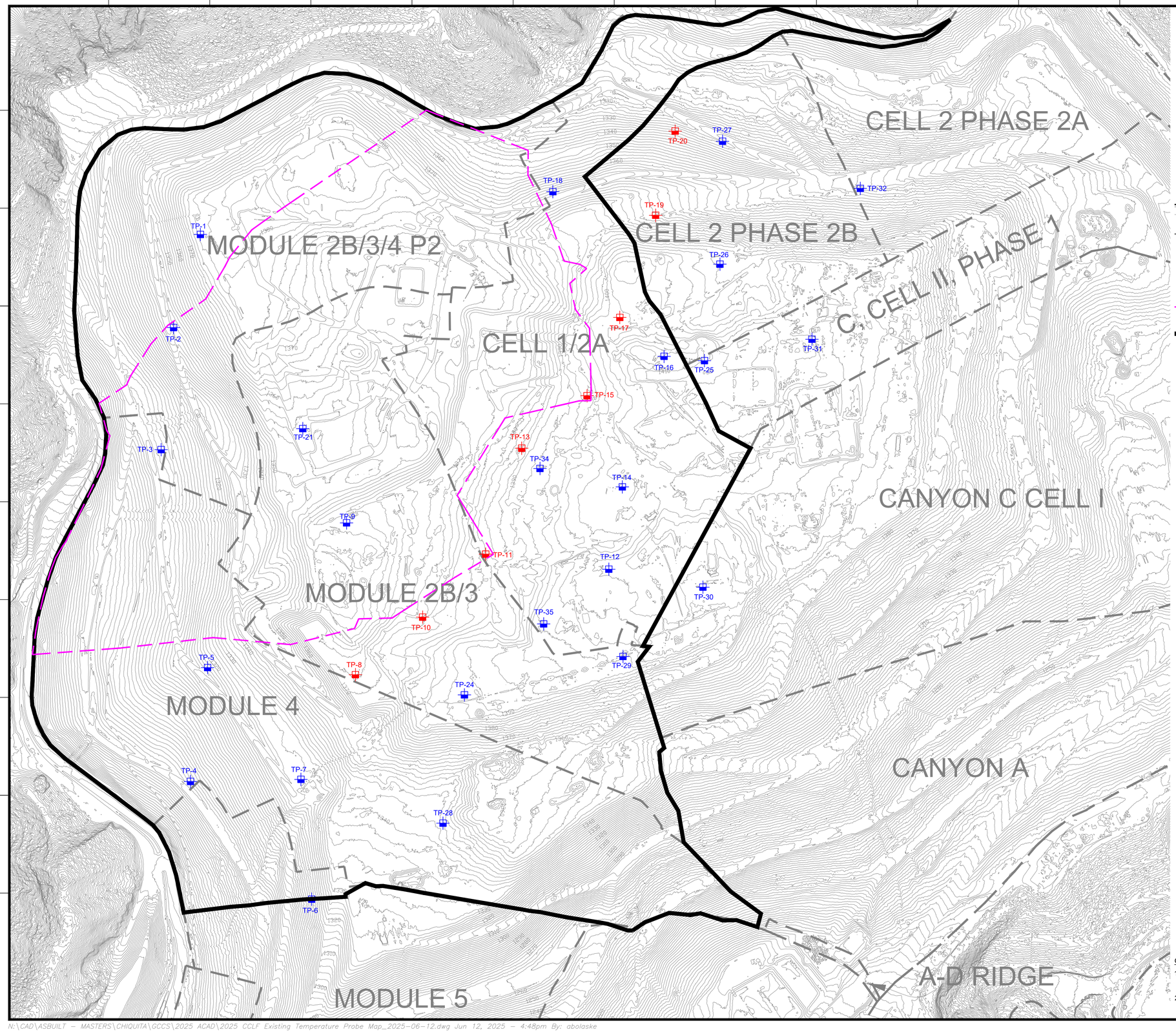
Thirty Day Maximum Vertical Temperature Map from Temperature Probes at Chiquita Landfill



Max Temps - 20:55:45 07-31-2025

Current | 7 Day | 30 Day

BOREHOLE	MAX TEMP (°F)	@ DEPTH (FT)
TP01	154	15
TP02	158	60
TP03	235	45
TP04	164	30
TP05	156	75
TP06	134	120
TP07	147	100
TP08	173	150
TP09	210	125
TP10	146	125
TP11	178	125
TP12	148	125
TP13	169	140
TP14	169	150
TP15	195	100
TP16	148	15
TP17	151	125
TP18	150	45
TP19	161	150
TP20	137	45
TP21	215	110
TP24	190	265
TP25	151	130
TP26	173	150
TP27	156	100
TP28	144	170
TP29	189	240
TP30	171	190
TP31	187	180
TP32	168	130
TP34	150	120
TP35	171	140



N

GRAPHIC SCALE

130 65 0 130 260 390

SCALE: 1"=130'

LEGEND

- 1150 — EXISTING TOPOGRAPHIC CONTOUR
- EXISTING CELL LIMITS (APPROXIMATE)
- TP-XX — INSTALLED TEMPERATURE PROBES - STANDALONE
- TP-XX — INSTALLED TEMPERATURE PROBES - INSTALLED WITHIN WELL CASING
- REACTION AREA BOUNDARY (APPROXIMATE) - BASED ON DATA REVIEW
- REACTION AREA BOUNDARY - CONDITION 9A

GENERAL DRAWING NOTES:

1. EXISTING TOPOGRAPHIC SURVEY INFORMATION SHOWN WAS PROVIDED BY PROPELLER. AERIAL PHOTOGRAPHY DATED MAY 14, 2025.
2. NORTH ARROW SHOWN HERE IS REFERENCE TO THE CALIFORNIA STATE PLANE ZONE V COORDINATE SYSTEM, NAD 83.

NO.	REVISION	DATE

SHEET TITLE: EXISTING TEMPERATURE PROBE MAP

PROJECT TITLE: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

CLIENT: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
3900 KILROY AIRPORT WAY, SUITE 300
LONG BEACH, CA 90806
PH: (562) 426-9544

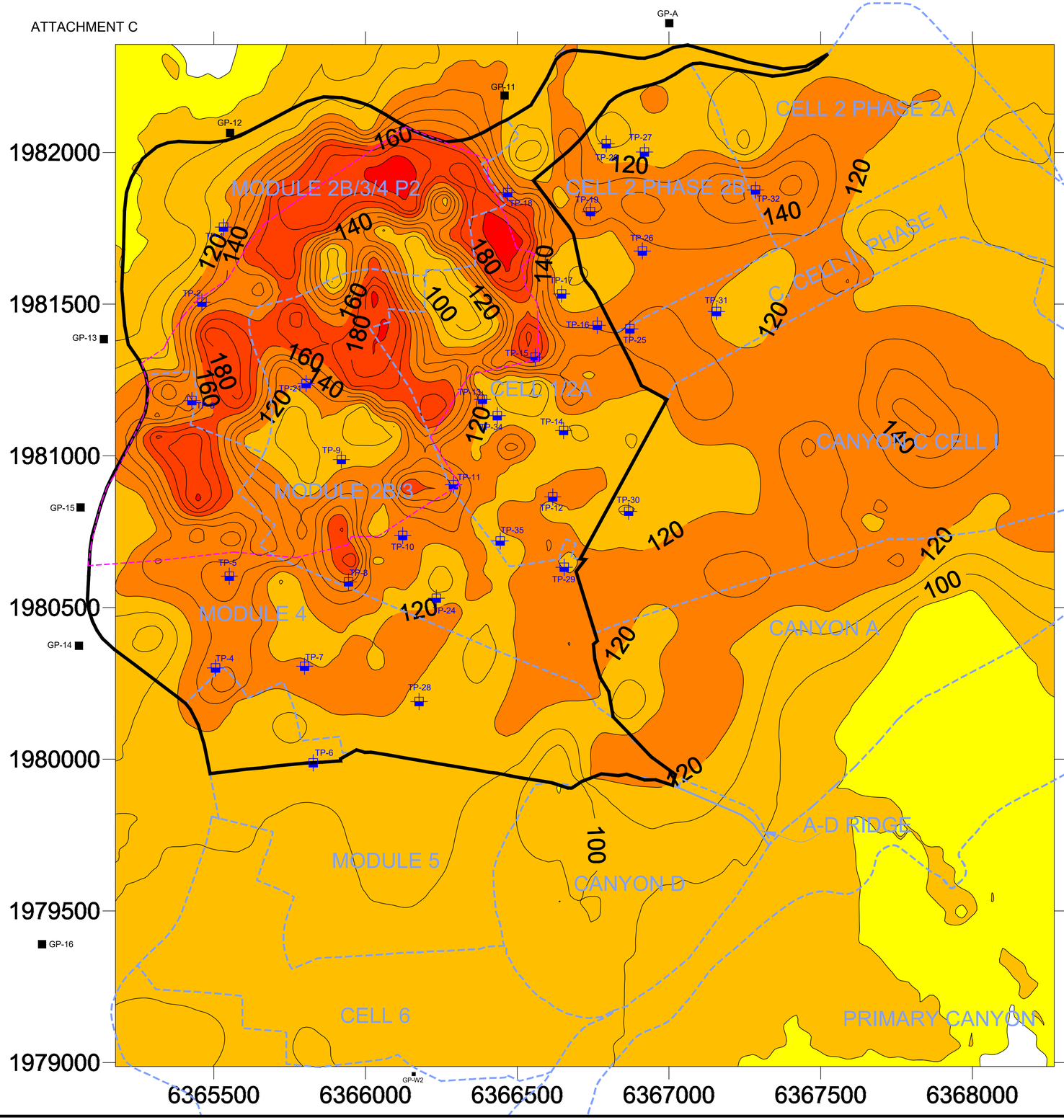
PROJ. NO. 01204123.41 | DSN. BY: - | DWN. BY: - | CHK. BY: - | ACAD FILE ENGINEERS | APP. BY: -

DATE: 05/28/2025

SCALE: AS SHOWN

SHEET: 1

ATTACHMENT C



N

GRAPHIC SCALE

180 90 0 180 360 540

SCALE: 1"=180'

LEGEND

- EXISTING CELL LIMITS (APPROXIMATE)
- REACTION AREA BOUNDARY (APPROXIMATE) - BASED ON DATA REVIEW
- REACTION AREA BOUNDARY - CONDITION 9A
- GP-XX EXISTING PERIMETER MIGRATION PROBE
- TP-XX EXISTING TEMPERATURE PROBE

GENERAL DRAWING NOTES:

1. NORTH ARROW SHOWN HERE IS REFERENCE TO THE CALIFORNIA STATE PLANE ZONE V COORDINATE SYSTEM, NAD 83.
2. THE LOCATION OF ANY EXISTING PIPING, VALVES, TIE-IN LOCATIONS AND OTHER FEATURES ARE APPROXIMATE AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.

DATE | REVISION | NO.

SHEET TITLE: ISOTHERMAL GRADIENT MAP AUGUST 2025

PROJECT TITLE: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

CLIENT: CHIQUITA CANYON LANDFILL CASTAIC, CALIFORNIA

SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
3900 KILROY AIRPORT WAY, SUITE 300
LONG BEACH, CA 90806
PH: (562) 426-9544

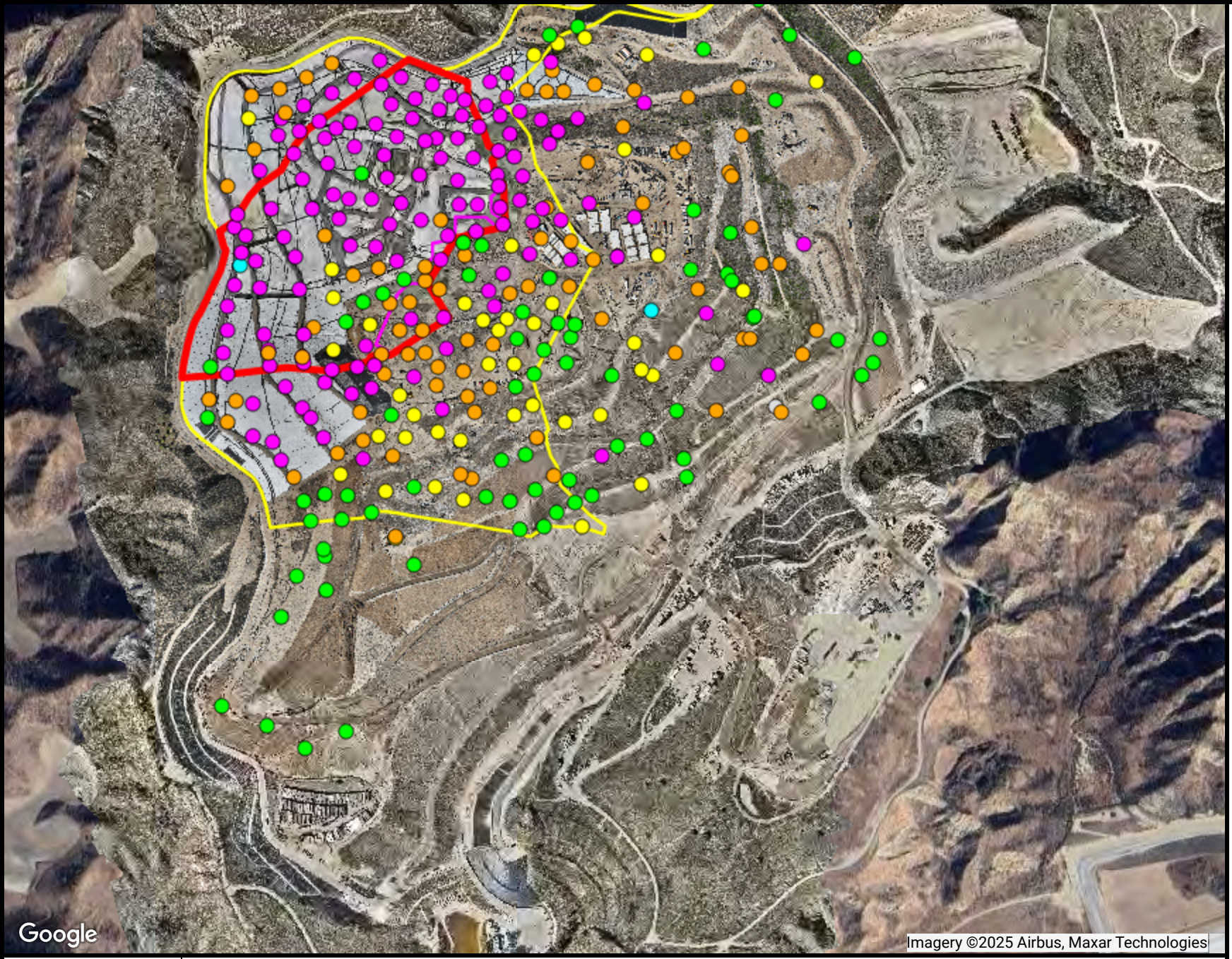
DWN. BY: SRM | CHK. BY: | APP. BY: - | ACAD FILE: -

PROJ. NO. 01204123.41 | DSN. BY: -

DATE: 08/08/2025

SCALE: AS SHOWN

SHEET: 1



Ranges Mapped

				# Points
>=	0	and <	0.5	133
>=	0.5	and <	0.9	82
>=	0.9	and <	1.1	42
>=	1.1	and <	1.5	74
>=	1.5	and <	101	2
	N/A		N/A	1

Point Type Legend

- calibration record
- flare-engine-ghg
- monitoring probe
- sample port
- well

N

SCSeTools

ATTACHMENT D

Chiquita Canyon Landfill

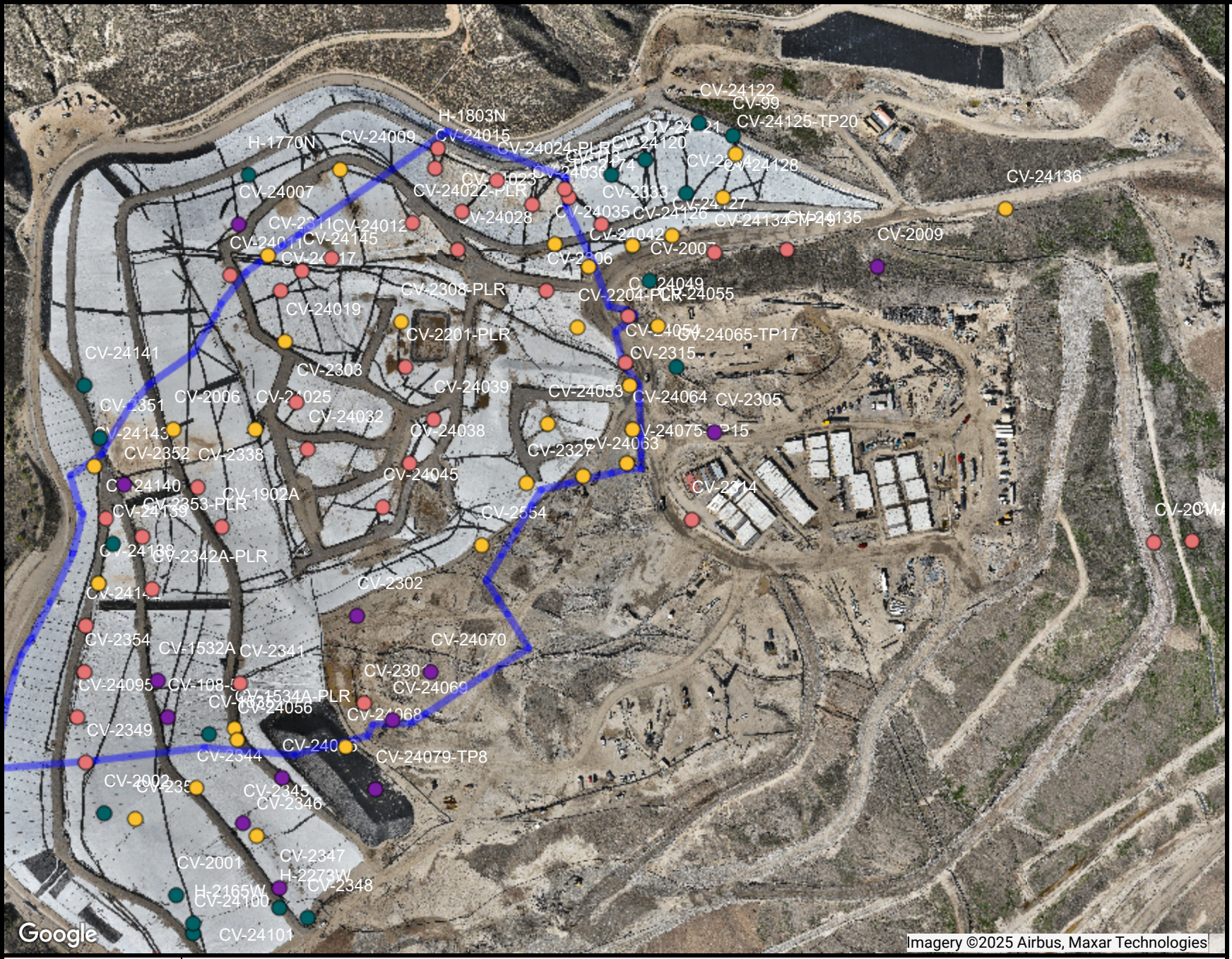
Range Map

Parameter: CH4/CO2 Ratio (high range)

Analysis Method: Average

Date Range: 07/01/2025 - 07/31/2025

Map generation date : 08/08/2025



Ranges Mapped

				# Points
>=	0	and <	20000	19
>=	20000	and <	50000	13
>=	50000	and <	100000	30
>=	100000	and <	1000000	39

The range values noted above are in units of parts per million (ppm). Divide by 10,000 to convert these values to units of percent by volume.

Point Type Legend

well

N

SCSeTools

ATTACHMENT E

Chiquita Canyon Landfill

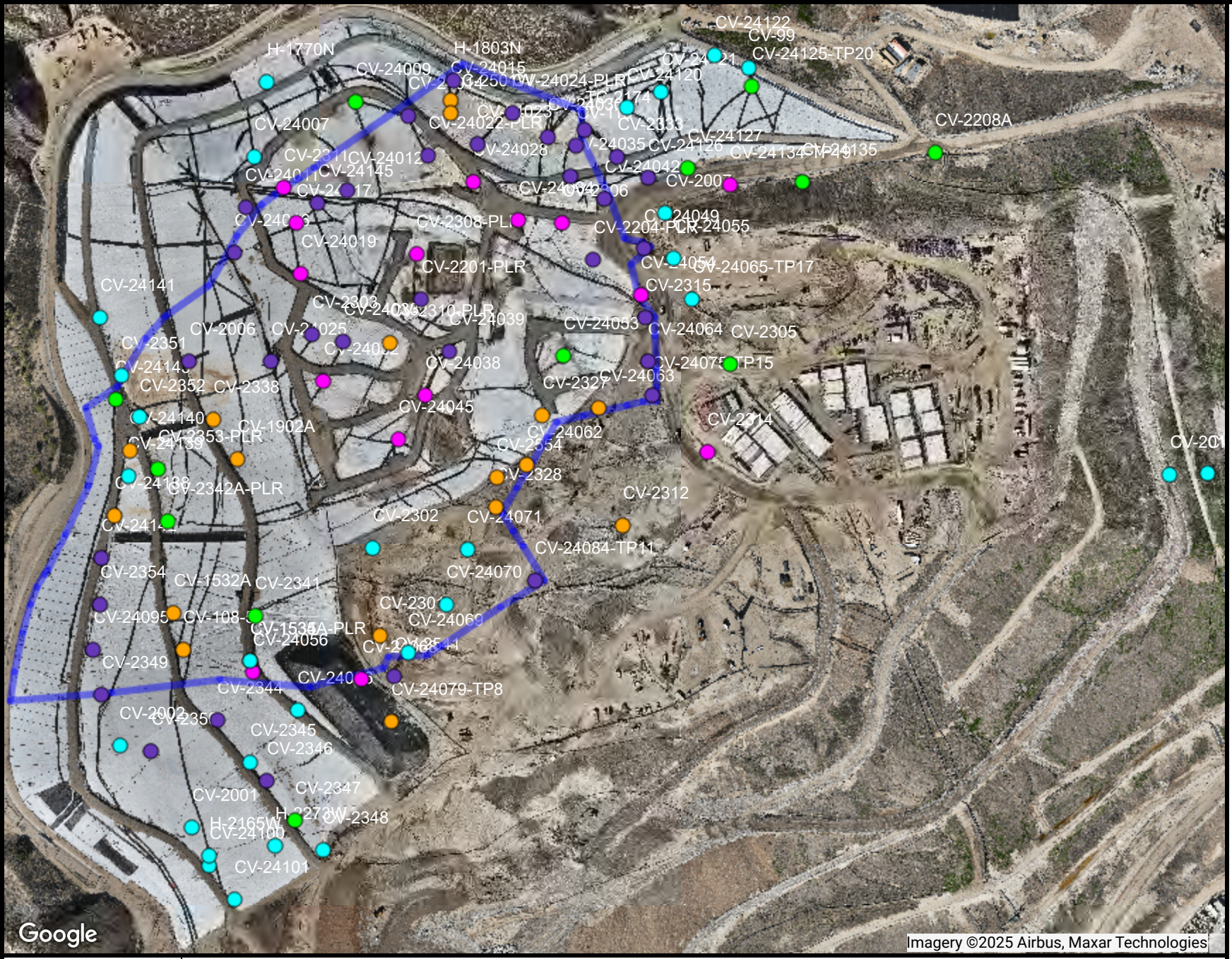
Range Map

Parameter: H2

Analysis Method: Average

Date Range: 07/01/2025 - 07/31/2025

Map generation date : 08/27/2025



Ranges Mapped

	# Points
>= 0 and < 500	29
>= 500 and < 1000	12
>= 1000 and < 1500	18
>= 1500 and < 2000	15
>= 2000 and < 1000000	36

Point Type Legend

well

N

SCSeTools

ATTACHMENT F

Chiquita Canyon Landfill

Range Map

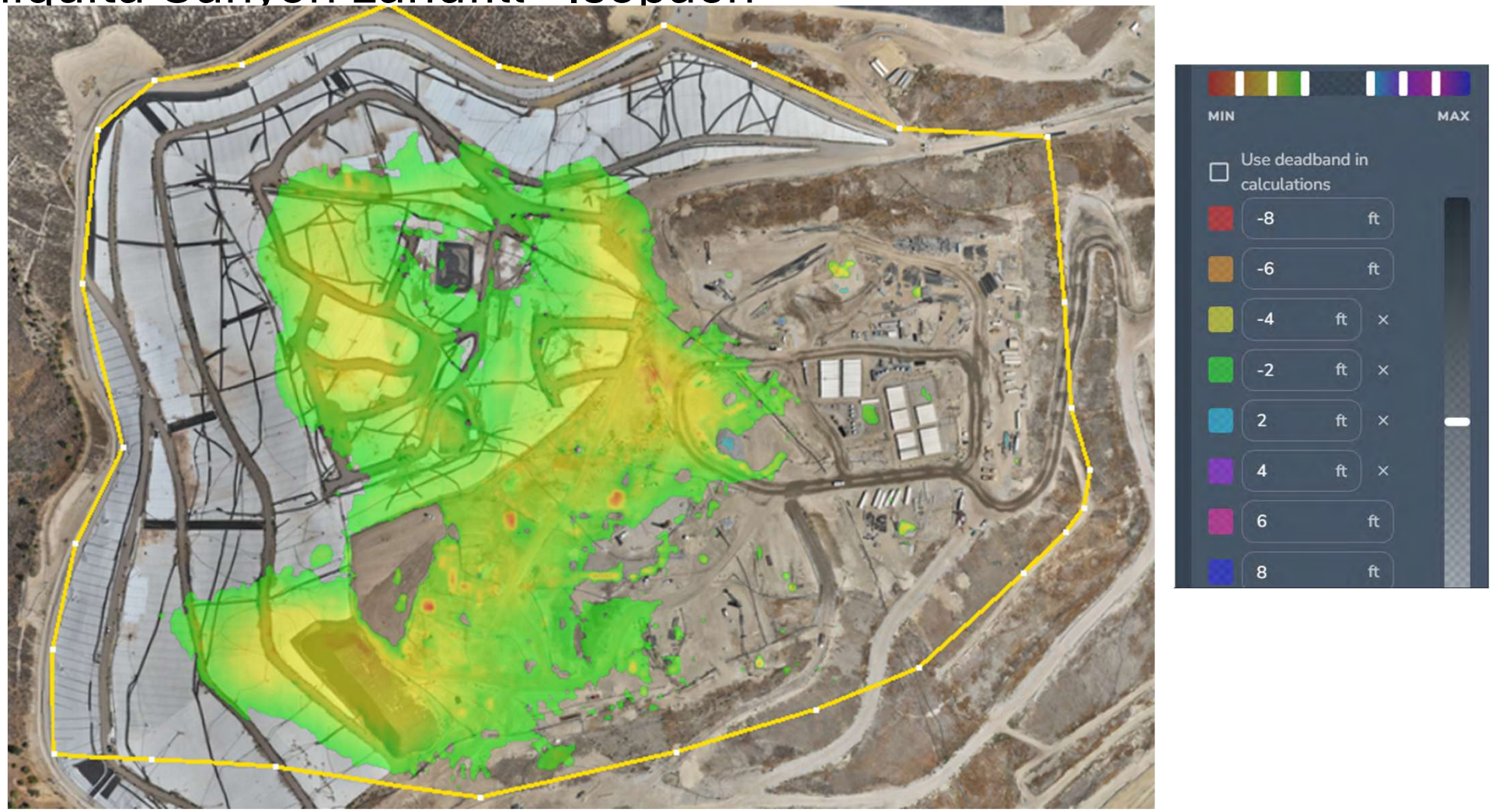
Parameter: CO (mid range)

Analysis Method: Average

Date Range: 07/01/2025 - 07/31/2025

Map generation date : 08/08/2025

Chiquita Canyon Landfill - Isopach



July 2, 2025 Survey Image. April 2, 2025 vs July 2, 2025