5.0 Falls City, Texas, Disposal Site

5.1 Compliance Summary

The Falls City, Texas, Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I Disposal Site (site) was visited on March 5, 2020 and September 23, 2020. No changes were observed in the disposal cell or associated drainage features, and personnel found no cause for a follow-up inspection.

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) conducts annual groundwater monitoring as a best management practice. The most recent sampling event occurred in January 2020. The compliance strategy for groundwater protection at the site, which is designated as limited use, is no further remediation and application of supplemental standards due to widespread ambient contamination that is not due to milling and is not reasonably treatable. Therefore, no concentration limits or points of compliance (POCs) have been established. Site-related contamination in the uppermost aquifer poses no risk to human health because groundwater from this aquifer is not used for human consumption and is designated as limited use.

5.2 Compliance Requirements

Requirements for the long-term surveillance and maintenance of the site are specified in the site-specific LM Long-Term Surveillance Plan (LTSP) (DOE 2008) in accordance with procedures established to comply with the requirements of the U.S. Nuclear Regulatory Commission (NRC) general license at Title 10 *Code of Federal Regulations* Section 40.27 (10 CFR 40.27). Table 5-1 lists these requirements.

Table 5-1. License Requirements for the Falls City, Texas, Disposal Site

Requirement	LTSP	This Report	10 CFR 40.27
Annual Inspection and Report	Section 3.3	Section 5.4	(b)(3)
Follow-Up Inspections	Section 3.4	Section 5.5	(b)(4)
Maintenance	Section 3.5	Section 5.6	(b)(5)
Emergency Response	Section 3.6	Section 5.7	(b)(5)
Environmental Monitoring	Section 3.7	Section 5.8	(b)(2)

5.3 Institutional Controls

The 231-acre site, identified by the property boundary shown in Figure 5-1, is owned by the United States and was accepted under the NRC general license in 1997. DOE is the licensee and, in accordance with the requirements for UMTRCA Title I sites, is responsible for the custody and long-term care of the site. Institutional controls (ICs) at the site include federal ownership of the property, administrative controls, and the following physical ICs that are inspected annually: the disposal cell and associated drainage structures, entrance gate and sign, perimeter fence and signs, site markers, survey and boundary monuments, and wellhead protectors.

An adjacent 513-acre offsite property was sold by the State of Texas to Alamo Funding Group in 2005. The State initially acquired this land as part of the designated processing site, but this portion of the processing site was not incorporated into the final DOE-owned site. The warranty deed stipulates that the new owners agree not to use any groundwater underlying the property for commercial or industrial uses in accordance with requirements for parcel transfers stipulated in UMTRCA. No human habitation structures shall be constructed on the property, and nothing may be done to affect groundwater quality or interfere with UMTRCA groundwater remediation activities. Permission must be obtained from the Texas Commission on Environmental Quality (TCEQ) and LM before (1) constructing wells or otherwise exposing groundwater to the surface; (2) performing construction, excavation, or soil removal of any kind; or (3) selling the property. Alamo Funding Group subdivided the land and sold it to two parties in 2011 and 2012. LM confirmed that the deed restrictions remained in recorded real property documents. The two landowners will seek approval from LM and the State for any future construction.

5.4 Inspection Results

The site, 8 miles southwest of Falls City, Texas, was visited on March 5, 2020, and September 23, 2020. The first site visit was conducted by C. Boger of the Legacy Management Support contractor and T. Jasso (LM site manager). R. Thomas, M. Kawasmi, T. Gonzalez, K. Tu, and B. Wishert (TCEQ), and B. Von Till, D. Mandeville, S. Poy, and J. Saxton (NRC) attended the site visit. Much of the site was observed during that visit including the top and side slopes of the disposal cell. A second visit was conducted by the site's local grazing licensee, Roger Lyssy, on September 23, 2020. The purposes of the latter site visit were to confirm the integrity of visible features at the site, identify changes in conditions that might affect conformance with the LTSP, and evaluate the need, if any, for maintenance or additional inspection and monitoring. Due to the imposition of COVID-19 travel restrictions, LM and NRC agreed to utilize observations from both of these site visits as the basis for the 2020 annual inspection at the site. The results and photos presented here are from observations that were made during both site visits. LM will resume inspections as outlined in the LTSP for the site in 2021.

5.4.1 Site Surveillance Features

Figure 5-1 shows the locations of site features in black and gray font, including site surveillance features and inspection areas. Site features that are present but not required to be inspected are shown in italic font. Observations from previous inspections that are currently monitored are shown in blue text. There are no new observations in 2020. Photographs to support specific observations are noted in the text and in Figure 5-1 by photograph location (PL) numbers. The photographs and photograph log are presented in Section 5.10.

5.4.1.1 Site Access, Entrance Gate, and Entrance Sign

Access to the site is from Farm-to-Market Road 1344. The entrance gate at the east corner of the site and the vehicle gate at the north corner were locked and functional. The entrance sign is next to the main entrance gate. No maintenance needs were identified.

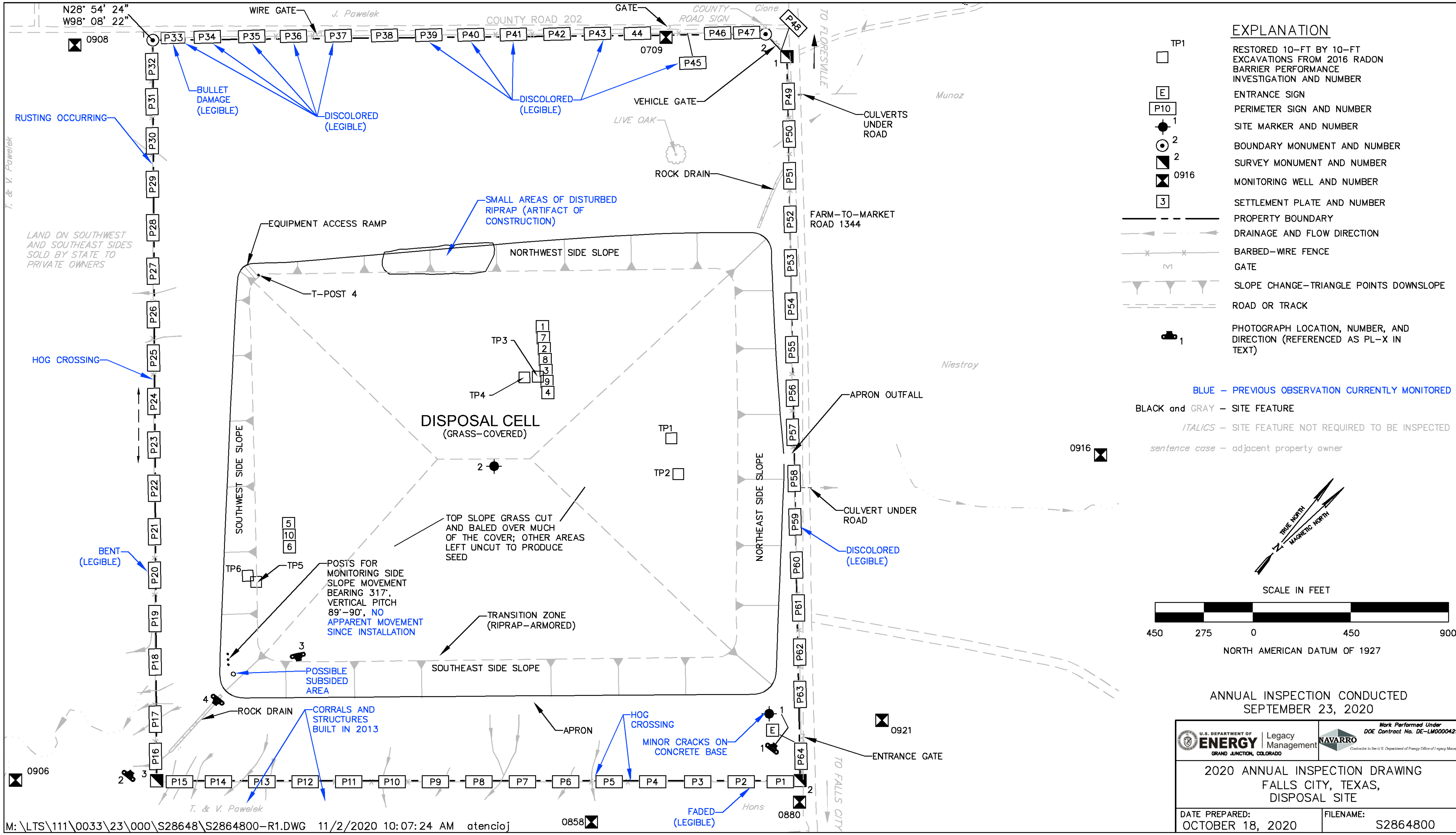

Figure 5-1. 2020 Annual Inspection Drawing for the Falls City, Texas, Disposal Site

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5.4.1.2 Perimeter Fence and Signs

A five-strand barbed-wire perimeter fence encloses the site. As noted in previous inspections, perimeter fence strands and posts are beginning to rust except along the northwest side, where the fence was replaced in 2006.

There are 64 perimeter signs attached to steel posts set in concrete positioned along the property boundary and set back 5 feet (ft). Perimeter sign P33 has bullet damage but remains legible. Additional perimeter signs are fading but remain legible. No maintenance needs were identified.

5.4.1.3 Site Markers

The site has two site markers. Site marker SMK-1 is just inside the entrance gate (PL-1). The corners of the concrete base around the marker are cracked. The cracks consistently are unchanged and repairs are not needed. Site marker SMK-2 is on the top slope of the disposal cell. No maintenance needs were identified.

5.4.1.4 Survey and Boundary Monuments

Three survey monuments and two boundary monuments delineate the corners of the property (PL-2). All monuments were located. No maintenance needs were identified.

5.4.1.5 Monitoring Wells

There is one monitoring well onsite; 11 monitoring wells are offsite. All monitoring wells were inspected during the January 2020 sampling event, and wellhead protectors were undamaged and locked. No maintenance needs were identified.

5.4.2 Inspection Areas

In accordance with the LTSP, the site is divided into three inspection areas (referred to as "transects" in the LTSP) to ensure a thorough and efficient inspection. The inspection areas are (1) the top and side slopes of the disposal cell, apron outfall, and rock drains; (2) the region between the apron at the toe of the side slopes and the site perimeter; and (3) the outlying area. Inspectors examined specific site surveillance features within each area and looked for evidence of erosion, settling, slumping, or other modifying processes that might affect the site's conformance with LTSP requirements.

5.4.2.1 Top and Side Slopes of the Disposal Cell, Apron Outfall, and Rock Drains

The disposal cell, completed in 1994, occupies 127 acres. Its vegetated cover consists primarily of well-established coastal Bermudagrass and kleingrass, with other species interspersed. The site, including the disposal cell, is managed for hay production, which ensures that turf vitality is maintained. The site maintenance subcontractor can take as many as three cuttings of hay each year from the site. The maintenance subcontractor will spot-spray woody vegetation that inspectors found distributed sporadically in the uncut grass. At the time of the September 2020 site visit, hay bales were present on the property.

There was no evidence of erosion, settling, slumping, or other modifying processes that might affect the integrity of the disposal cell. No areas of ponded water or areas of settlement were observed on top of the disposal cell during the September 2020 site visit.

The disposal cell side slopes and a transition zone where the top slope meets the side slopes are armored with riprap (PL-3). LM has monitored several small depressions on the northwest side slope of the disposal cell since 2010. These depressions do not compromise the protectiveness of the riprap side slope, and no changes have been observed since 2010. Inspectors will continue to monitor these areas.

Fractured riprap has been observed on the disposal cell side slopes since it was completed. Pieces of riprap are fractured in place, indicating that the fracturing occurred after placement. Fracturing is likely a consequence of mechanical placement or thermal expansion and contraction; the riprap condition appears stable. LM periodically takes photos of riprap at the base of T-post 4 on the west corner of the disposal cell. On the basis of a qualitative evaluation of the photos in 2018, there is no indication that the riprap is degrading, but its durability will continue to be monitored. If the number of fractured rocks appears to be increasing, LM will establish a more quantitative monitoring program.

In 2007, inspectors noted possible subsidence in the riprap at the toe of the south corner of the side slope. In 2008, three T-posts were installed in a straight line running at an orientation of 317 degrees to monitor side slope movement. Each post was installed at a vertical pitch of 90 degrees. These three posts provide reference points to assess whether the area is undergoing movement: If a post moves out of line with the other two posts or the pitch of an individual post changes, it indicates possible movement. The three posts remain in the same straight line in which they were installed and are at the same vertical pitch.

An equipment access ramp to the top of the disposal cell is at the west corner of the side slope. The ramp was installed in 2008 using clean, angular riprap of progressively smaller rock sizes to provide a free-draining and stable driving surface that does not encourage vegetation encroachment. Some displacement of smaller rock has occurred, as would be expected from use, but the ramp continues to provide a stable driving surface.

There were no issues with the vegetation management on top of the disposal cell and on side slopes. Much of the vegetation observed on the side slopes was dead or dormant grass. The grass does not affect disposal cell performance. Because deep roots of woody vegetation could penetrate the radon barrier, woody vegetation is controlled annually through cutting and applying herbicide. No additional maintenance concerns were noted on the top and side slopes of the disposal cell.

LM participated in a project sponsored by NRC to investigate the effect of soil-forming processes on the performance of the radon barrier on UMTRCA disposal cells. In April 2016, researchers excavated through the cover materials (cover soil and underlying radon barrier) at six locations to measure radon flux and document soil structure (Figure 5-1). Although significant soil structure was developing, radon flux did not exceed the U.S. Environmental Protection Agency (EPA) standard. LM will continue to monitor these locations to confirm that positive drainage is preserved and vegetation continues to thrive at the grass-covered test pits.

No water was flowing in the south rock drain during the inspection (PL-4). Willows that grow along the south drain are periodically removed by the maintenance subcontractor. No water was observed in the north rock drain. Vegetation is left uncut at the outlets of the rock drains to help dissipate the energy of stormwater runoff and to reduce soil erosion. Vegetation in the apron outfall, midway along the northeast side slope, was cut back before the 2020 inspection. No maintenance needs were identified.

5.4.2.2 Region Between the Apron at the Toe of the Side Slopes and the Site Perimeter

The area between the perimeter fence and the apron at the toe of the disposal cell side slopes is covered with well-established grass, which is primarily kleingrass with some coastal Bermudagrass. Grass is cut and baled one to three times annually, depending on precipitation. It is usually left uncut along the fence, along rock drains, and around some surveillance features such as survey monuments that cannot be accessed with conventional farming equipment.

Wild hogs dig under the perimeter fence line in some areas. Their crossings are filled in by the site maintenance contractor, as they can potentially compromise the integrity of the perimeter fence or damage haying equipment. No maintenance needs were identified.

5.4.2.3 Outlying Area

The area beyond the site boundary for a distance of 0.25 mile was visually observed for erosion, changes in land use, or other phenomena that might affect the long-term integrity of the site. No such impacts were observed. The remainder of the adjacent former processing site is used for occasional livestock grazing. The owners have removed some of the brush to facilitate grazing.

Karnes County Road 202 runs along the northwest side of the property boundary. Public access to the road was restricted by a locked gate before 2011. The road has been open since then, but this has not led to increased vandalism or trespassing at the site.

5.5 Follow-Up Inspections

LM will conduct follow-up inspections if (1) a condition is identified during the annual inspection or other site visit that requires a return to the site to evaluate the condition or (2) LM is notified by a citizen or outside agency that conditions at the site are substantially changed. No need for a follow-up inspection was observed.

5.6 Maintenance

No maintenance needs were identified.

5.7 Emergency Response

Emergency response is action LM will take in response to unusual damage or disruption that threatens or compromises site safety, security, or integrity in compliance with 10 CFR 40 Appendix A Criterion 12. No need for an emergency response was found.

5.8 Environmental Monitoring

5.8.1 Groundwater Monitoring

In accordance with the LTSP, annual groundwater monitoring is conducted as a BMP. The compliance strategy for groundwater protection at the site is no further remediation and application of supplemental standards in accordance with 40 CFR 192.21(g). The most recent sampling event occurred in January 2020.

As prescribed in the LTSP, the site groundwater monitoring program has the following purposes:

- Disposal cell performance monitoring
- Groundwater compliance monitoring to demonstrate that potential users of groundwater downgradient of the site are not exposed to contamination related to the former processing site

Two hydraulically connected groundwater units comprise the uppermost aquifer beneath the site. The shallower of the two units consists of sandstone units of the Deweesville Sandstone and Conquista Clay of the Whitsett Formation. The deeper unit is in the Dilworth Sandstone of the Whitsett Formation. The Dilworth Sandstone is underlain by the Manning Clay, a 300-foot-thick aquitard that isolates the uppermost aquifer from better-quality groundwater in deeper aquifers. Samples are collected from the Deweesville/Conquista and the Dilworth groundwater units.

Table 5-2 and Figure 5-2 describe and illustrate the groundwater monitoring network at the site, which includes the groundwater compliance monitoring wells and the disposal cell performance monitoring wells. The disposal cell performance monitoring wells are near the disposal cell and are all completed in the Deweesville and Conquista units. The groundwater compliance monitoring wells are downgradient of the site and completed in the Deweesville and Conquista units and the Dilworth unit.

Table 5-2. Groundwater Monitoring Network for the Falls City, Texas, Disposal Site

Groundwater Monitoring Purpose	Monitoring Wells
Disposal cell performance monitoring	0709, 0858, 0880, 0906, 0908, 0916, and 0921
Groundwater compliance monitoring	0862, 0886, 0891, 0924, and 0963

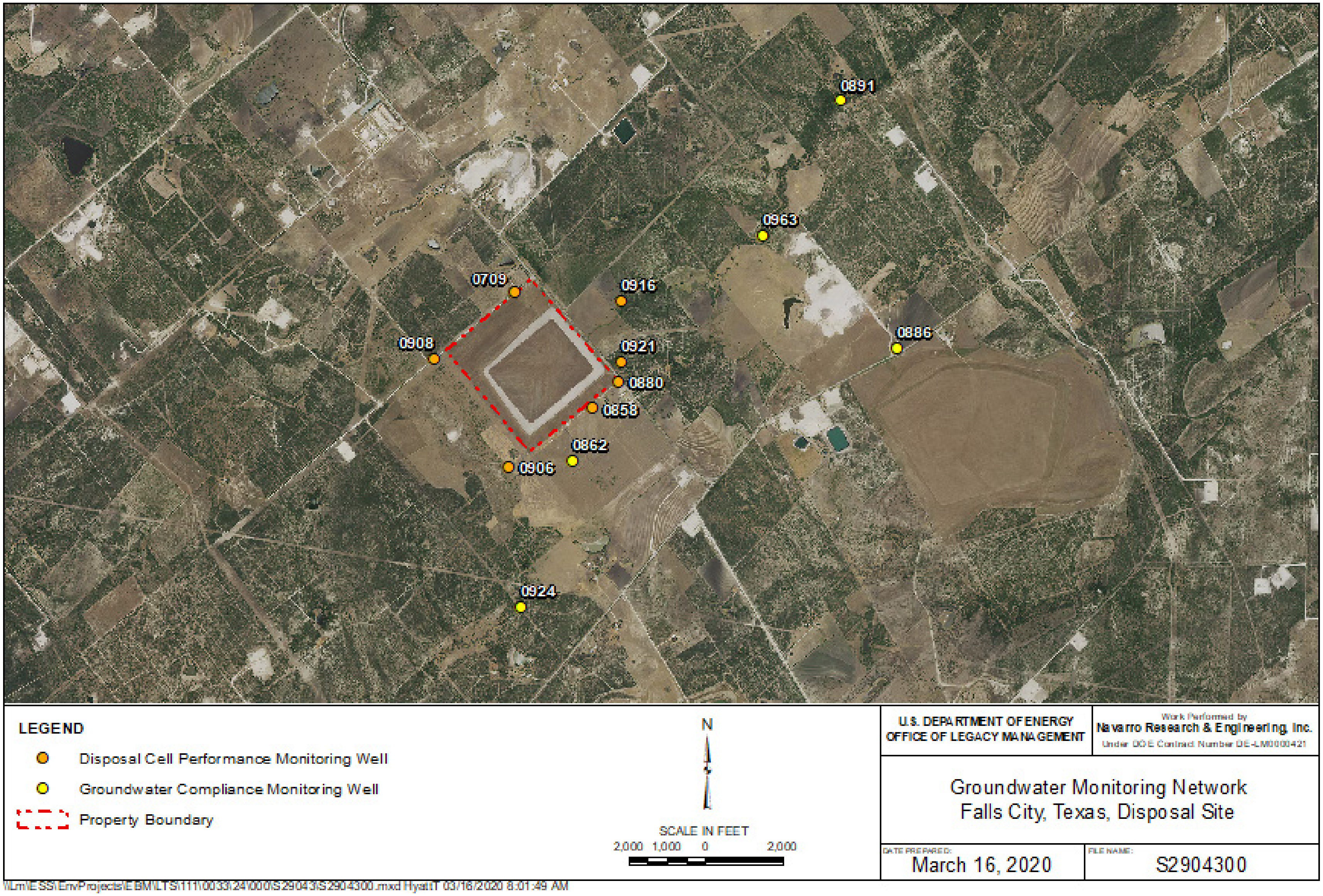

Figure 5-2. Groundwater Monitoring Well Network at the Falls City, Texas, Disposal Site

Groundwater is sampled annually for total uranium and field measurements of water level, temperature, pH, conductivity, turbidity, alkalinity, dissolved oxygen, and oxidation-reduction potential. Of particular interest are total uranium, pH, and water level. The LTSP identifies low pH levels in groundwater as an indicator of the extent and movement of the legacy groundwater plumes. Because tailings pore fluids were lower in pH than background groundwater, changes in geochemical conditions might also indicate leachate movement from the disposal cell into the uppermost aquifer. However, because pH levels and other signature contaminants in tailings pore fluids are essentially indistinguishable from processing-related contamination, it is difficult to assess whether contamination comes from the disposal cell or from legacy processing activities.

Monitoring results indicate that pH is not an indicator of contaminant concentrations at the site (DOE 2008). This is an indication that other factors, such as natural redistribution of uranium in this active ore-forming environment or buffering of low-pH groundwater, contribute to uranium distribution in the uppermost aquifer. Therefore, increasing uranium levels at a monitoring well without an attendant drop in pH might still indicate movement of processing-related contamination. Groundwater chemistry at monitoring wells near the formation subcrop can also be influenced by residence time as a response to precipitation or by changes in the oxidation state within the formation.

Because narrative supplemental standards apply to the uppermost aquifer at the site, no concentration limits or POCs have been established. Groundwater in the uppermost aquifer beneath the site meets the EPA definition of limited use (Class III) because it is not currently or potentially a source of drinking water due to widespread ambient contamination that cannot be cleaned up using methods reasonably employed by public water supply systems (40 CFR 192.11[e]).

Background groundwater quality in the uppermost aquifer varies by orders of magnitude in the area because it is in contact with naturally occurring uranium mineralization. Figure 5-3 and Figure 5-4 show the water level measurements over time at both the disposal cell performance monitoring wells and the groundwater compliance monitoring wells. Figure 5-5 through Figure 5-8 show the time-concentration plots for pH and uranium at both disposal cell performance monitoring wells and groundwater compliance monitoring wells. All groundwater monitoring results for the site are reported and published on the LM Geospatial Environmental Mapping System (GEMS) website (https://gems.lm.doe.gov/#site=FCT).

5.8.2 Groundwater Level Monitoring Results

Water levels in all disposal cell performance wells had significant decreasing trends since 1996 based on Mann Kendall trend analyses (Figure 5-3). Water levels in these wells appear to have stabilized since 2014. Wells 0709, 0880, and 0906 have had apparent increase in water level since 2014. Groundwater compliance wells 0862, 0886, and 0963 had significant increasing water level trends since 1996, and wells 0891 and 0924 had no statistically significant trend (Figure 5-4). Wells with increasing water level trends each had a water elevation increase of about 5 ft since 1996.

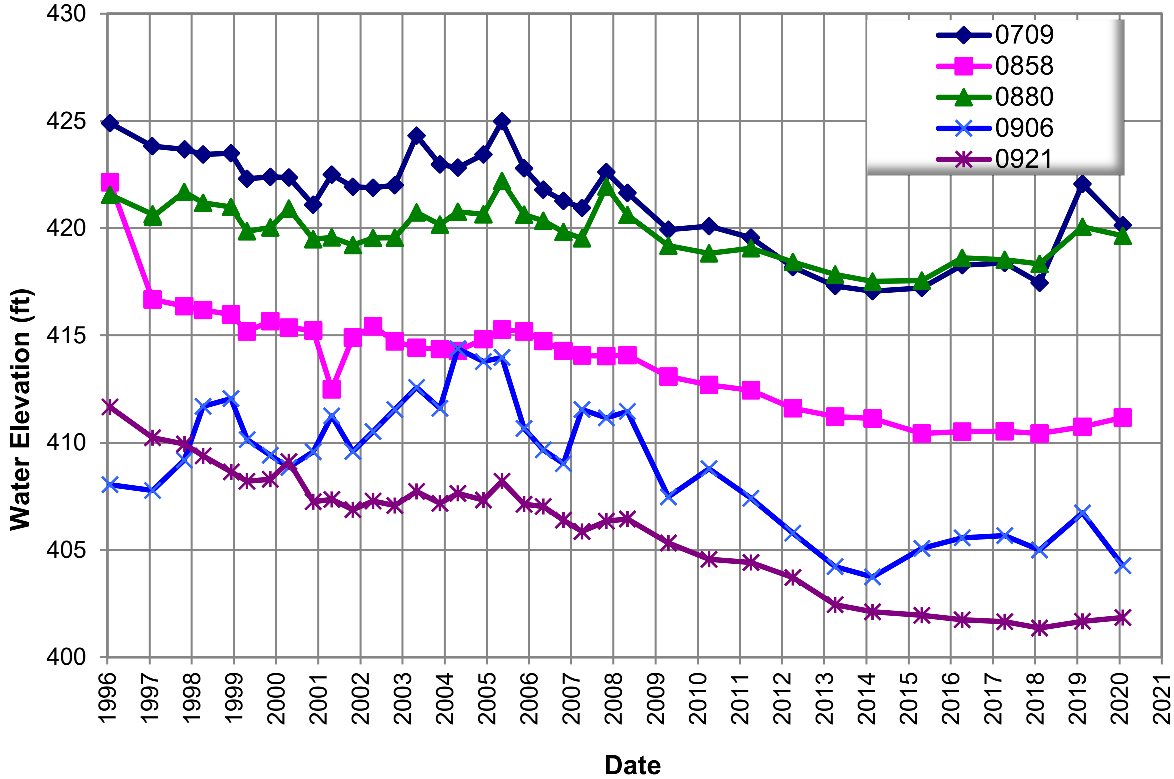

Figure 5-3. Water-Level Measurements at Disposal Cell Performance Monitoring Wells at the Falls City, Texas, Disposal Site

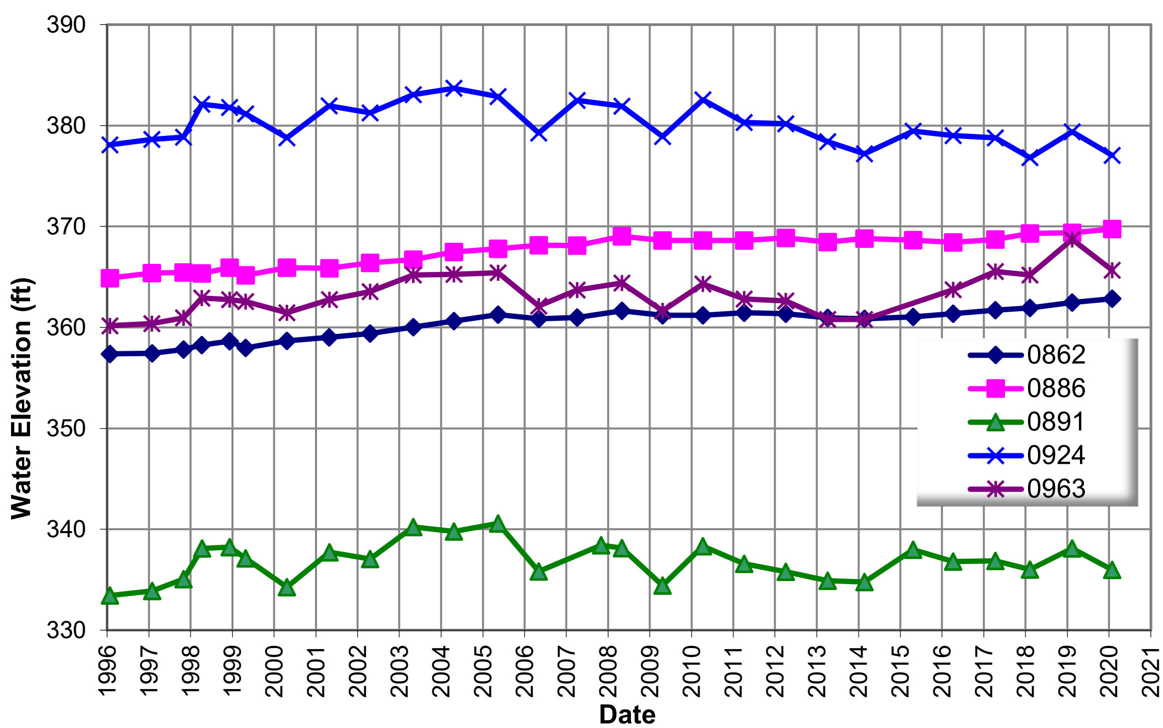

Figure 5-4. Water-Level Measurements at Groundwater Compliance Monitoring Wells at the Falls City, Texas, Disposal Site

5.8.3 Groundwater Quality Monitoring Results

pH: Wells 0858 and 0921 had significant increasing pH trends since 1996, based on Mann Kendall trend analyses, and all other disposal cell performance wells had no significant trend. At the disposal cell performance monitoring wells, pH levels have historically been greater than the pH in tailings pore fluids (pH level of 2.93). The 2020 pH levels were within the range of historical values for all disposal cell performance monitoring wells (Figure 5-5).

Statistically significant increasing trends in pH were in wells 0886, 0891 and 0924 since 1996, with no significant trends in wells 0862 and 0963 (Figure 5-6). The 2020 pH levels were within the range of historical values for all groundwater compliance monitoring wells. The pH in monitoring well 0963 historically has been lower than at the other groundwater compliance wells, with a pH of 3.8 in 2020 compared to between 6.0–7.0 in the other wells. Overall, groundwater in well 0963 had a similar pH to that of the tailings pore fluids, even compared to the wells adjacent to the disposal cell.

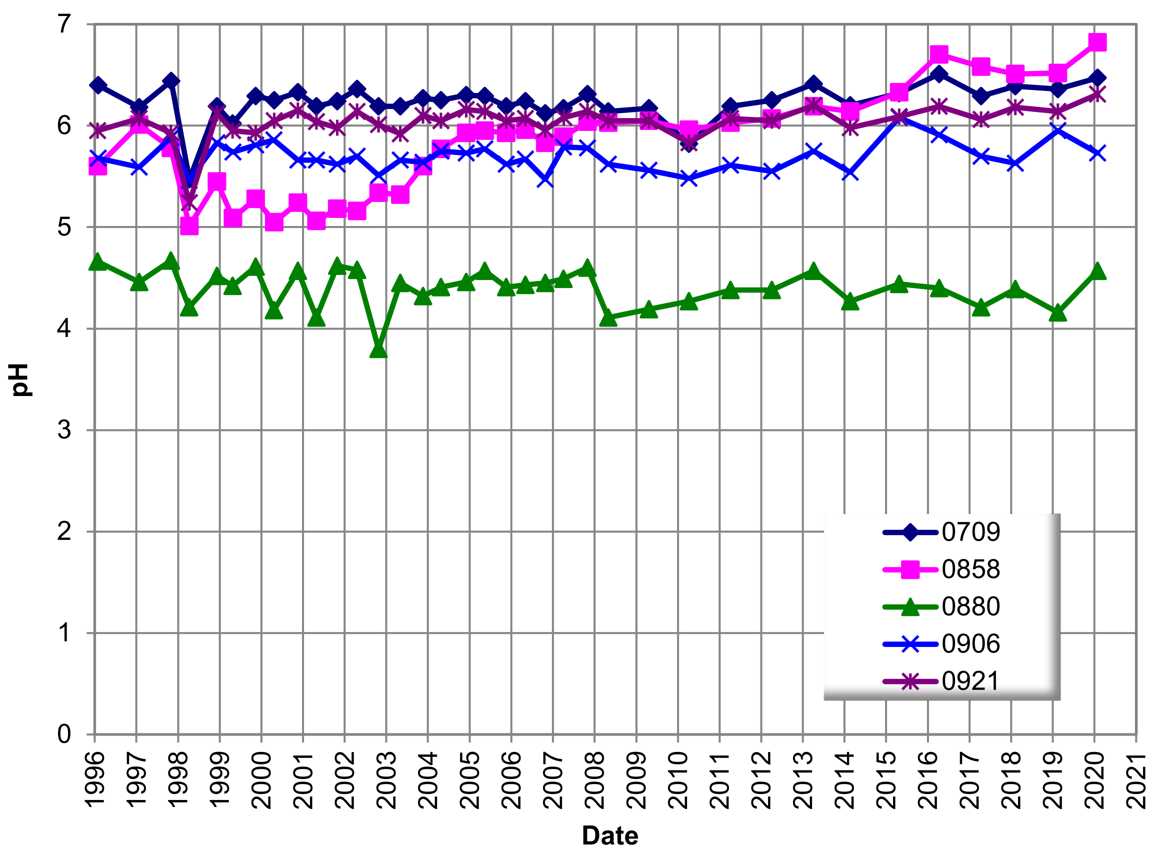

Figure 5-5. pH at Disposal Cell Performance Monitoring Wells at the Falls City, Texas, Disposal Site

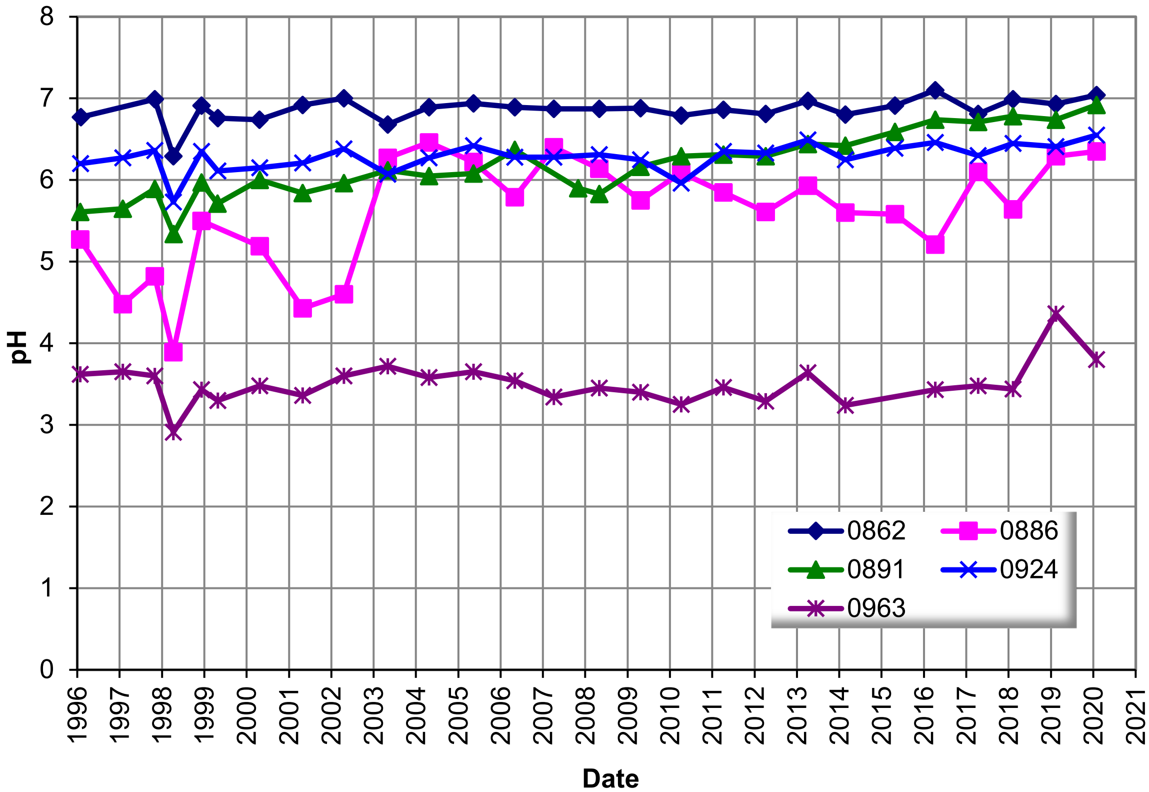

Figure 5-6. pH at Groundwater Compliance Monitoring Wells at the Falls City, Texas, Disposal Site

Uranium: The 2020 uranium concentrations for disposal cell performance monitoring wells were within the range of historical values for all groundwater compliance monitoring wells (Figure 5-7). In 2020, the uranium concentrations for monitoring wells 0709, 0906, and 0858 remained generally constant when compared with previous results. The uranium concentration in monitoring wells 0921 and 0880 decreased. Uranium concentrations in monitoring well 0880 show considerable variation, ranging from a low of 1.38 milligrams (mg/L) in 2008 to a high of 14 mg/L in 2004. The 2020 uranium concentrations for groundwater compliance monitoring wells were within the range of historical values for all groundwater compliance monitoring wells (Figure 5-8).

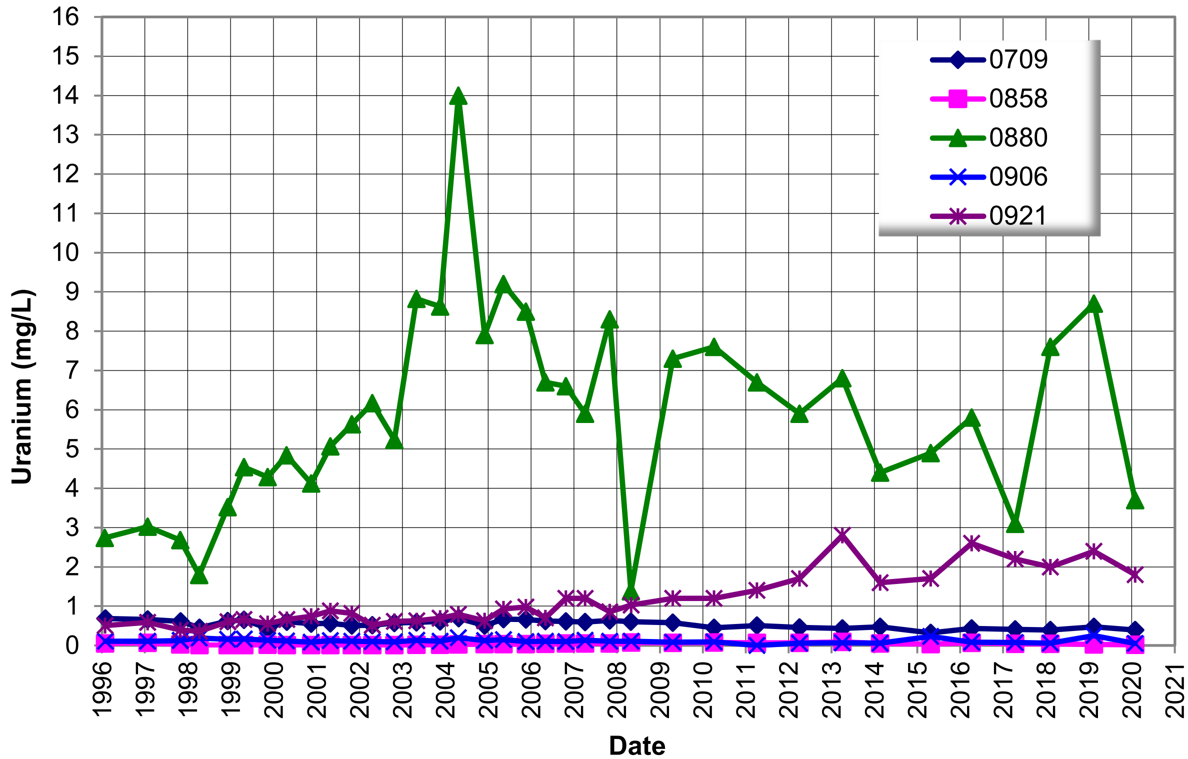

Figure 5-7. Uranium Concentrations at Disposal Cell Performance Monitoring Wells at the Falls City, Texas, Disposal Site

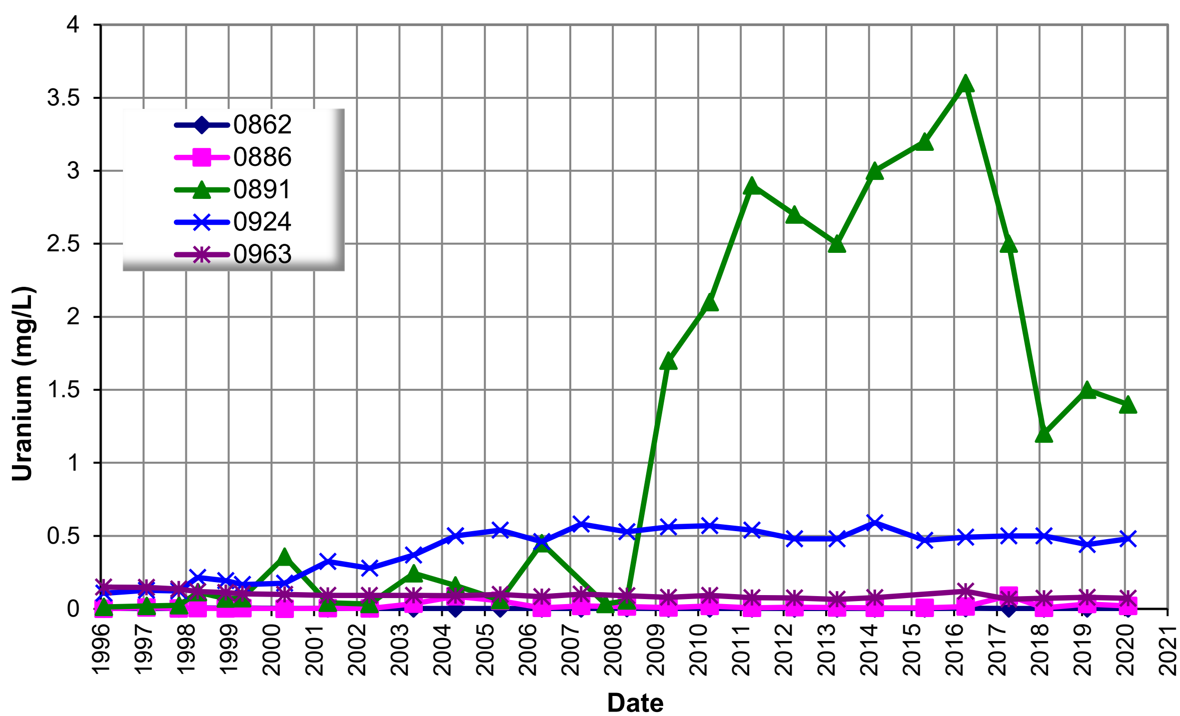

Figure 5-8. Uranium Concentrations in Groundwater Compliance Monitoring Wells at the Falls City, Texas, Disposal Site

The uranium concentration at monitoring wells 0862, 0886, and 0963 remains less than 0.2 mg/L. The uranium concentration at monitoring well 0924 has been relatively stable since 2004, fluctuating between 0.4 mg/L and 0.6 mg/L. Since 2008, the uranium concentrations measured at monitoring well 0891 have been greater than at other monitoring wells and are currently elevated when compared to the historical range for the well but not for the historical range of the aquifer (DOE 2010). The 2020 uranium result (1.4 mg/L) at monitoring well 0891 remains significantly less than the 2016 uranium result of 3.7 mg/L and less than the uranium concentration value used for groundwater in the Dilworth aquifer in the *Baseline Risk Assessment of Ground Water Contamination at the Uranium Mill Tailings Site Near Falls City, Texas* (3.04 mg/L) (DOE 1994). This suggests that a slug of groundwater with elevated uranium has flowed past this location.

5.8.4 Evaluation of Groundwater Monitoring

Uranium concentrations in disposal cell performance monitoring well 0880 have varied considerably since 1996, ranging from 1.38 mg/L in 2008 to 14 mg/L in 2004 (Figure 5-7). The uranium concentration was 3.7 mg/L in 2020. The pH at this location is less than at other disposal cell performance monitoring wells. Water levels at all the cell performance monitoring wells trended lower from 2007 until 2016, then increased in recent years (Figure 5-3). Because the uranium concentrations at some of the cell performance monitoring wells have been steady and concentrations vary at other locations, local conditions are likely influencing uranium concentrations. This is reasonable because (1) the disposal cell is located on tailings that were placed in existing open pit mines, (2) subeconomic ore remains in unmined areas, (3) the uppermost aquifer beneath the cell is oxidized and near the aquifer recharge area, and (4) uranium mineralization processes, which involve redistributing and concentrating uranium in the formation materials, are ongoing. Given the local conditions it is difficult to assess whether elevated uranium concentrations in the uppermost aquifer are a result of disposal cell performance or existing background conditions.

The high uranium concentrations in groundwater compliance well 0891 since 2008, trending downward since 2016, likely reflects the passage of a slug of groundwater with elevated uranium flowing from the direction of the former processing site. Historical data from upgradient monitoring wells that were abandoned in 2001 show a uranium anomaly moved past them (Figure 5-9) (DOE forthcoming). LM defined the groundwater flow directions in the Deweesville and the Dilworth aquifers and identified areas of low pH where tailings-derived fluids have consumed all the natural buffering capacity (DOE 2008; Figure 2-7; Figure 2-8). Monitoring well 0891 is completed in the Dilworth aquifer. Monitoring well 0963 (completed in the Deweesville Sandstone) is in a zone of low pH where groundwater in the Deweesville aquifer flows into the underlying Dilworth aquifer. Monitoring well 0966 is the next downgradient Dilworth aquifer well.

Figure 5-9 shows uranium concentration spikes in both wells (0963 and 0966) in 1992, with slowly declining uranium concentrations in 0963 over time (data for monitoring well 0966 are limited). This is likely due to an initial release of uranium and low pH tailings fluids during tailings deposition and subsequent acid leaching, with tailings removal by 1994 (DOE forthcoming). Monitoring well 0891 is the next Dilworth well directly downgradient of the low pH zone. Additionally, the elevated uranium at monitoring well 0891 is accompanied by elevated alkalinity and chloride, which also supports the conclusion that the elevated uranium is the result of passage of a slug of groundwater containing processing-related constituents.

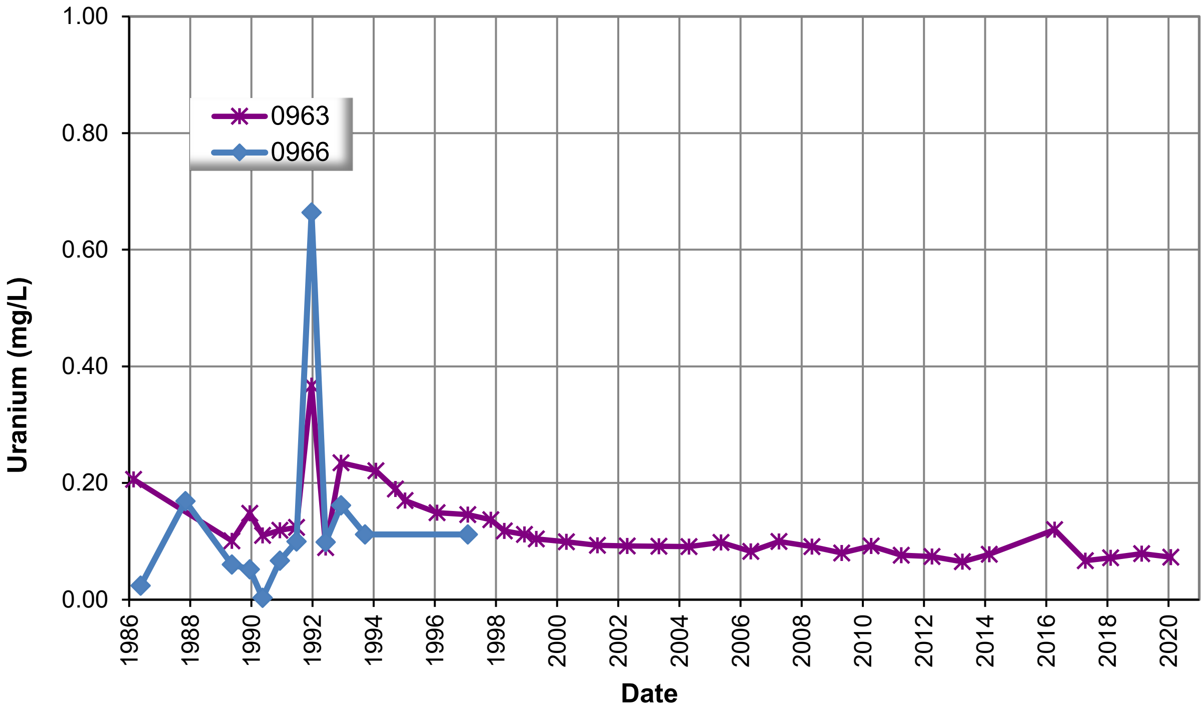

Figure 5-9. Uranium Concentrations in Monitoring Wells 0963 (in the Deweesville Aquifer) and 0966 (in the Dilworth Aquifer)

Site-related contamination in the uppermost aquifer poses no risk to human health because groundwater from this aquifer is not used for human consumption and is designated as limited use. Potable water is produced locally from the Carrizo Sandstone that lies 2000 ft beneath the surface near the site. Additionally, a 300-foot-thick aquitard isolates the uppermost aquifer from the better-quality groundwater in deeper aquifers.

LM evaluated the groundwater monitoring program at the site in 2010 as required by the LTSP (DOE 2010). Groundwater monitoring data collected from 2006 through 2010 were compared to previous data (1996 through 2005). The comparison showed that contaminant concentrations continued to fluctuate in the uppermost aquifer, but the fluctuations were within the historical range reported for the aquifer near the site. The comparison also showed no unexpected water level changes. The 2010 evaluation recommended that, after the collection of samples in 2011, groundwater monitoring activities at the site be discontinued. Recommendations made in the 2010 evaluation continue to undergo NRC review. In 2016, NRC received comments on the 2010 report from TCEQ, which concurred that monitoring could be halted at all Falls City wells except (1) monitoring well 0891 until a horizontal or decreasing trend is observed (this condition has been met, as shown in Figure 5-8) and (2) monitoring wells 0880 and 0886, which are completed in the Deweesville Sandstone and should be retained until the groundwater remedy for the downgradient Conquista site is established.

5.9 References

10 CFR 40 Appendix A. U.S. Nuclear Regulatory Commission, "Criteria Relating to the Operation of Uranium Mills and the Disposition of Tailings or Wastes Produced by the Extraction or Concentration of Source Material from Ores Processed Primarily for Their Source Material Content," *Code of Federal Regulations*.

10 CFR 40.27. U.S. Nuclear Regulatory Commission, "General License for Custody and Long-Term Care of Residual Radioactive Material Disposal Sites," *Code of Federal Regulations*.

40 CFR 192. U.S. Environmental Protection Agency, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," *Code of Federal Regulations.*

DOE (U.S. Department of Energy), 1994. *Baseline Risk Assessment of Ground Water Contamination at the Uranium Mill Tailings Site Near Falls City, Texas*, DOE/AL/62350-64, Rev. 1, Environmental Restoration Division, Albuquerque, New Mexico, September.

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DOE (U.S. Department of Energy), 2010. *Groundwater Monitoring Assessment, Falls City, Texas, Disposal Site*, LMS/FCT/S07069, December.

DOE (U.S. Department of Energy), forthcoming. *Groundwater Monitoring Assessment and Chronology of Groundwater Compliance Activities at the Falls City, Texas, UMTRCA Title I Disposal Site,* LMS/FCT/S25289, Office of Legacy Management, to be published.

5.10 Photographs

Photograph Location Number	Azimuth	Photograph Description
PL-1	—	Site Marker SMK-1
PL-2	—	Survey Monument SM-3
PL-3	130	South Side of Disposal Cell Side Slope
PL-4	180	Rock Drain on South Corner of Disposal Cell

Note:
— = Photograph taken from vertically above.

PL-1. Site Marker SMK-1

PL-2. Survey Monument SM-3

PL-3. South Side of Disposal Cell Side Slope

PL-4. Rock Drain on South Corner of Disposal Cell

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