



March 8, 2024

Mr. Todd DeGarmo
U.S. EPA Region 8
Regional Response Team (RRT)
1595 Wynkoop Street
Denver, Colorado 80202

Subject: **Well Abandonment Report**
 JC Hunt – Wolf Creek Pass Spill
 US Highway 160 Milepost 179.5
 Apex Project No. 4910

Dear Mr. DeGarmo:

On behalf of JC Hunt, Apex Companies, LLC (Apex) is providing this Well Abandonment Report for the above-referenced site. The report is intended to document the well abandonment activities in the investigation area, and to confirm that Apex, on behalf of JC Hunt, has completed all site closure activities associated with the Wolf Creek Pass Spill.

Site Setting

A gasoline tanker truck spill occurred at the west side of mile marker 179.5 on US Highway 160, a few miles north of Wolf Creek Pass, in November 2009. The spill occurred at an elevation of approximately 8,500 feet above sea level. The terrain in the area is mountainous and rocky, with vertical cliffs immediately west of the highway, and a steep rip-rap slope dropping approximately 15 to 20 feet in ground surface level, just east of the highway. A wetlands area with shrubs, grasses, and small trees is present below and to the east of the highway, and borders a stream to the east (South Fork of the Rio Grande River). The area receives heavy snowfall during the winter and early spring months, making site work difficult during that time of year.

Site Background

The gasoline tanker truck spill resulted in the release of approximately 3,800 gallons of gasoline to the subsurface adjacent to Highway 160 in November 2009. As a result, a dissolved gasoline hydrocarbon plume formed under the highway, and to the east of the spill location. Total fluids recovery (TFR) was initiated soon after the spill to recover both mobile non-aqueous phase liquid (NAPL) and groundwater with dissolved hydrocarbons, and many TFR events have been conducted since then. An interceptor trench was installed in the wetlands area to prevent NAPL migration and to assist with recovery via TFR. No mobile NAPL has been observed at any monitoring locations since the spring of 2010. Source area soils along the side of the highway were excavated to a depth of approximately 2 feet, disposed of offsite, and the excavation was backfilled with clean fill.

Monitoring wells were installed along the right-of-way Of Colorado Highway (Hwy) 160 and in the wetlands below the highway between November 2009 and July 2012. Apex performed two chemical oxidation infiltration events in the source area in September and November 2012.

In May 2013, all pits, holes, and trenches previously excavated were backfilled and compacted to begin restoring the site to natural conditions, maximize the effectiveness of the planned remediation system, and allow proper system operation. Following removal of the plastic liner along the interceptor trench sidewall, the interceptor trench and the 3-foot diameter recovery holes in the treatment area were abandoned and filled. Most of the native vegetation has recovered throughout the wetlands area since then. In 2018, nine wells were removed along with the remains of the stairway that was installed to facilitate wetland access.

Vegetation Site Restoration

In October 2010, a Baseline Vegetation and Site Condition Assessment (BVSCA) was completed by SWCA Environmental Consultants on a 5.44-acre parcel.

According to the SWCA BVSCA, the construction of the staircase and imported gravel for remedial actions appears to have directly impacted approximately 0.01 acre of this habitat. No indirect impacts or stressors to this community were observed. The staircase was significantly damaged during a flood and subsequently removed in 2018 and left to naturally revegetate.

The SWCA BVSCA also noted “It is anticipated that once chemical constituents related to the fuel spill are removed from wetland soils and subsurface water within the immediate area of impact and flushed by annual high flows, stressed and indirectly impacted vegetation will likely regenerate after several growing seasons.”

Site Work

In accordance with closure requirements for the spill, Apex abandoned all site wells, including 12 monitoring wells (MW-1 through -4, -6 through -8, MP-1A/1B, MP-2A/2B, and T-10). Another search was conducted for MW-5 along Hwy 160, but the well could not be located. The investigation area was searched for any remaining wells; however, no other wells were present and appear to have been abandoned when remedial efforts were completed in 2018. The total combined depth of wells abandoned was 217.6 feet. All monitoring wells were abandoned by filling the well casing with sand to the top of the average groundwater elevation in the screened zone, followed by hydrated bentonite chips to the top of casing. The upper portion of the casing was removed in most of the wells. Well abandonment details are presented on Table A-1 and former well locations are illustrated on Figure A-1.

Roadway Wells

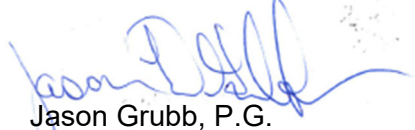
Monitoring wells MW-1 through MW-4 were located along Colorado Hwy 160 either in the gravel shoulder or partially in the asphalt roadway and gravel shoulder. Along Hwy. 160, the well boxes were removed, and the void was filled with compacted gravel and sand mixture. High traffic asphalt was used to repair the asphalt roadway and gravel was used to repair the shoulder.

Wetland Wells

Monitoring wells MW-6 through MW-8, MP-1A/1B, MP-2A/2B, and T 10 were in the wetlands below Hwy 160. The well boxes and associated concrete were removed at all locations. Apex field staff were able to remove all of the well casing and screen in monitoring wells MW-6 through MW-8 and T-10. The upper 5 feet of casing was removed in monitoring wells MP-1A/1B and MP-2A/2B. After the abandonment of the wells, the upper 2 feet of the well was backfilled with topsoil for natural revegetation.


This will be the final written correspondence on this project by Apex, and concludes all project work. Please contact Jason Grubb at 720.985.8453 with any questions regarding this letter, or any other aspect of the project.

Sincerely,
Apex Companies, LLC



Jason Grubb, P.G.
Project Manager

Approved by:



Alison Hastings, REP
Program Manager

Cc: Stephen Bouton, Action Environmental

Attachments:
Figures
Tables

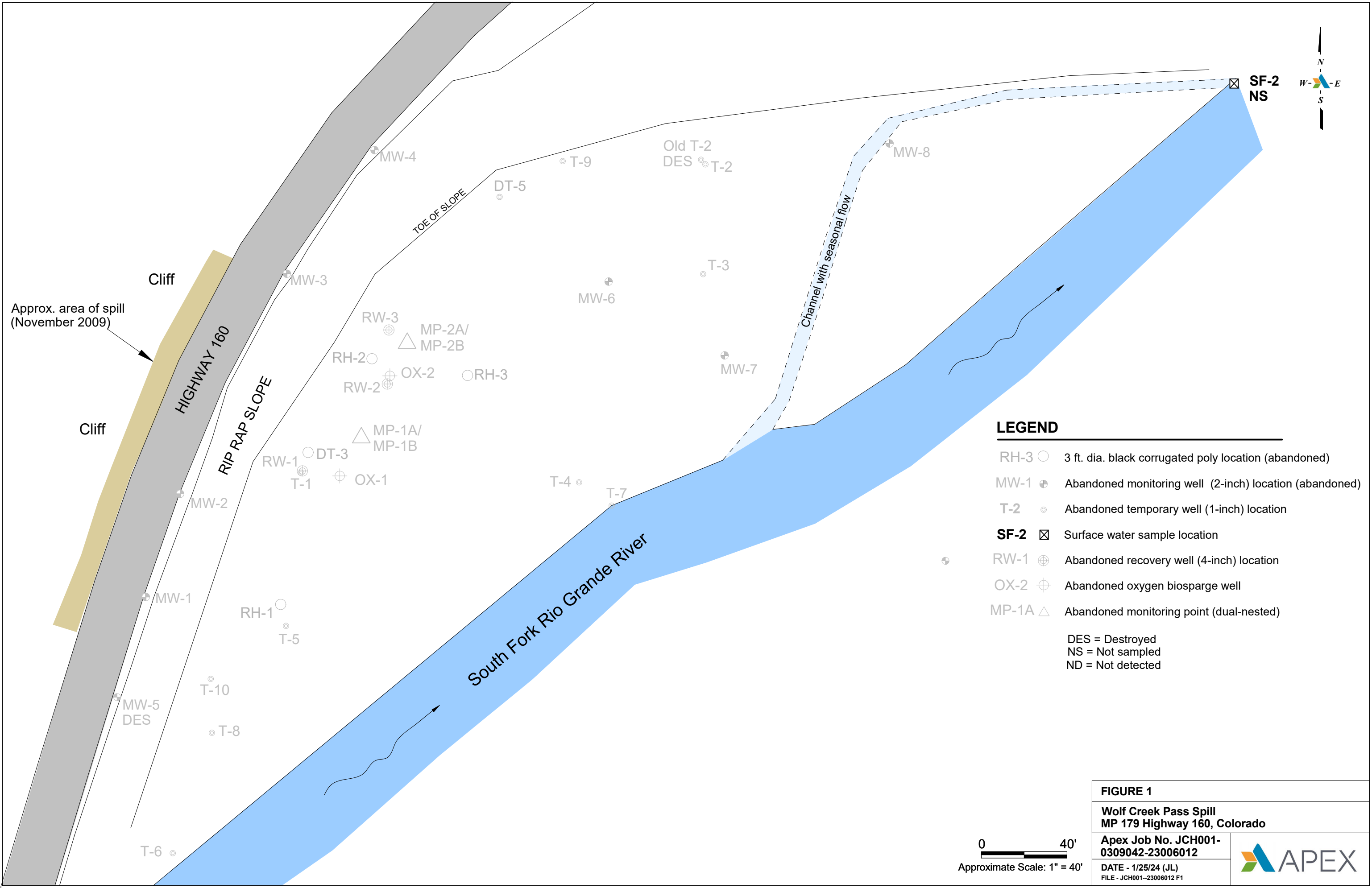


Table A-1
Well Abandonment Details

Well ID	Date	Casing Size (in)	Length of Screen Interval (ft)	Total Well Depth (ft)	Length of Riser (ft)	Approximate Sand Used (gal)	Approximate Bentonite Used (gal)
MW-1	10/25/23	2.00	20.00	41.00	21.00	3.29	3.36
MW-2	10/25/23	2.00	20.00	32.25	12.25	2.17	3.00
MW-3	10/25/23	2.00	25.00	40.00	15.00	3.44	3.00
MW-4	10/25/23	2.00	20.00	39.70	19.70	2.24	4.19
MW-5	-	2.00	Destroyed	Destroyed	Destroyed	-	-
MW-6	9/25/23	2.00	5.50	7.25	1.75	0.22	0.97
MW-7	9/25/23	2.00	8.00	9.45	1.45	0.60	0.97
MW-8	9/25/23	2.00	8.50	10.05	1.00	0.82	0.82
MP-1A	9/25/23	2.00	4.00	5.55	1.55	0.45	0.52
MP-1B	9/25/23	2.00	2.00	14.90	12.90	0.97	1.50
MP-2A	9/25/23	2.00	4.00	5.44	1.44	0.52	0.30
MP-2B	9/25/23	2.00	2.00	12.00	10.00	1.50	0.52
T-10	9/25/23	2.00	2.00	5.93	3.93	0.67	0.30
Total 2"			121.00	223.52	101.97	16.89	19.45

Notes:

in = inches

ft = linear feet

gal = gallons