

June 22, 2017

TECHNICAL MEMORANDUM

To: Steve Clough
Nevada Environmental Response Trust

From: Jessica Donovan, Ramboll Environ
John Pekala, CEM#2347, Expires 9/20/2018, Ramboll Environ

Re: **RI Phase 2 Modification No. 5**
Nevada Environmental Response Trust Site
Henderson, Nevada
Ramboll Environ Project No. 21-41400C, M03B

This Technical Memorandum presents Ramboll Environ's recommended Modification No. 5 to the scope of work for the Remedial Investigation (RI) Phase 2 Investigation currently in progress at the Nevada Environmental Response Trust Site (the "Site") located in Henderson, Nevada. Based on lithology and soil sample concentrations encountered during drilling of pilot borings, we are recommending small modifications to the well screen intervals in six of the planned Site monitoring wells (M-200, M-230, and M-235 thru M-238) and an adjustment to the location of one planned well (M-234). The wells will be installed in accordance with the procedures in the approved Field Sampling Plan (FSP).

The well construction modifications and the rationale for the modifications are summarized in Table 1, and the well locations are shown on Figure 1. In general, well screens are being raised or lowered to align with the actual depth of the target zone at each boring based on conditions encountered during drilling and preliminary soil concentration data.

In addition to the well screen adjustments detailed in Table 1, Ramboll Environ is proposing to relocate well M-234 from the original planned location adjacent to boring RI-19 to a new location adjacent to boring RI-18 (about 200 feet north). Well M-234 was planned to be screened from 65-85 ft bgs in the deeper portion of the Shallow Water-Bearing Zone, but at boring RI-19 the preliminary soil concentrations in this depth interval were found to be relatively low. However, a zone of relatively higher soil VOC concentrations was encountered at depths of 70-80 feet in nearby boring RI-18, within the target screen interval of well M-234. Therefore, well M-234 will be relocated to monitor the zone of higher soil concentrations at boring RI-18.

New well M-235 will be installed adjacent to boring RI-19 as planned. Since the highest soil VOC concentrations in boring RI-19 were detected at depths of 90-100 feet, the screen for well M-235 will be modified to intercept this depth interval (adjusted to 85-105 ft bgs from the original 95-115 ft bgs, as detailed in Table 1).

Please contact us should you have any questions about the modified well construction details presented in this technical memorandum.

Attachments

Table 1 Modified New Groundwater Monitoring Well Construction Details

Figure 1 RI Phase 2 Investigation - Modification No. 5

TABLE 1. MODIFIED NEW GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS
RI Phase 2 Modification No. 5
Nevada Environmental Response Trust Site; Henderson, Nevada

| Monitoring Well ID | NERT On-Site Location | Initial Planned Well Construction Details | | | | | | Recommended Modifications | | | | | | |
|---|-----------------------|---|--------------------------|----------------------|----------------------------|-----------------------------|----------------|-----------------------------|--------------------------|----------------------|----------------------------|-----------------------------|----------------|----------------------------|
| | | Pilot Boring Depth (ft bgs) | Casing Diameter and Type | Screen Size (inches) | Screened Interval (ft bgs) | Sand Pack Interval (ft bgs) | Sand Pack Size | Pilot Boring Depth (ft bgs) | Casing Diameter and Type | Screen Size (inches) | Screened Interval (ft bgs) | Sand Pack Interval (ft bgs) | Sand Pack Size | Rationale for Modification |
| Central Site Area | | | | | | | | | | | | | | |
| M-200 | North of Well M-186D | 120 | 4" PVC | 0.01 | 100-115 | 98-115 | No. 2/12 | 120 | 4" PVC | 0.01 | 97-112 | 95-112 | No. 2/12 | [a] |
| New Wells Adjacent to RI Borings | | | | | | | | | | | | | | |
| M-230 | Adjacent to RI-5 | 85 | 4" PVC | 0.01 | 65-85 | 63-85 | No. 2/12 | 90 | 4" PVC | 0.01 | 70-90 | 68-90 | No. 2/12 | [b] |
| M-234 | Adjacent to RI-18 | 85 | 4" PVC | 0.01 | 65-85 | 63-85 | No. 2/12 | 85 | 4" PVC | 0.01 | 65-85 | 63-85 | No. 2/12 | [c] |
| M-235 | Adjacent to RI-19 | 115 | 4" PVC | 0.01 | 95-115 | 93-115 | No. 2/12 | 105 | 4" PVC | 0.01 | 85-105 | 83-105 | No. 2/12 | [d] |
| M-236 | Adjacent to RI-21 | 120 | 4" PVC | 0.01 | 95-115 | 93-115 | No. 2/12 | 105 | 4" PVC | 0.01 | 85-105 | 83-105 | No. 2/12 | [d] |
| M-237 | Adjacent to RI-25 | 55 | 4" PVC | 0.01 | 40-55 | 38-55 | No. 2/12 | 60 | 4" PVC | 0.01 | 45-60 | 43-60 | No. 2/12 | [b] |
| M-238 | | 115 | 4" PVC | 0.01 | 95-115 | 93-115 | No. 2/12 | 110 | 4" PVC | 0.01 | 90-110 | 88-110 | No. 2/12 | [d] |

Notes:

See Figure 1 for well locations.

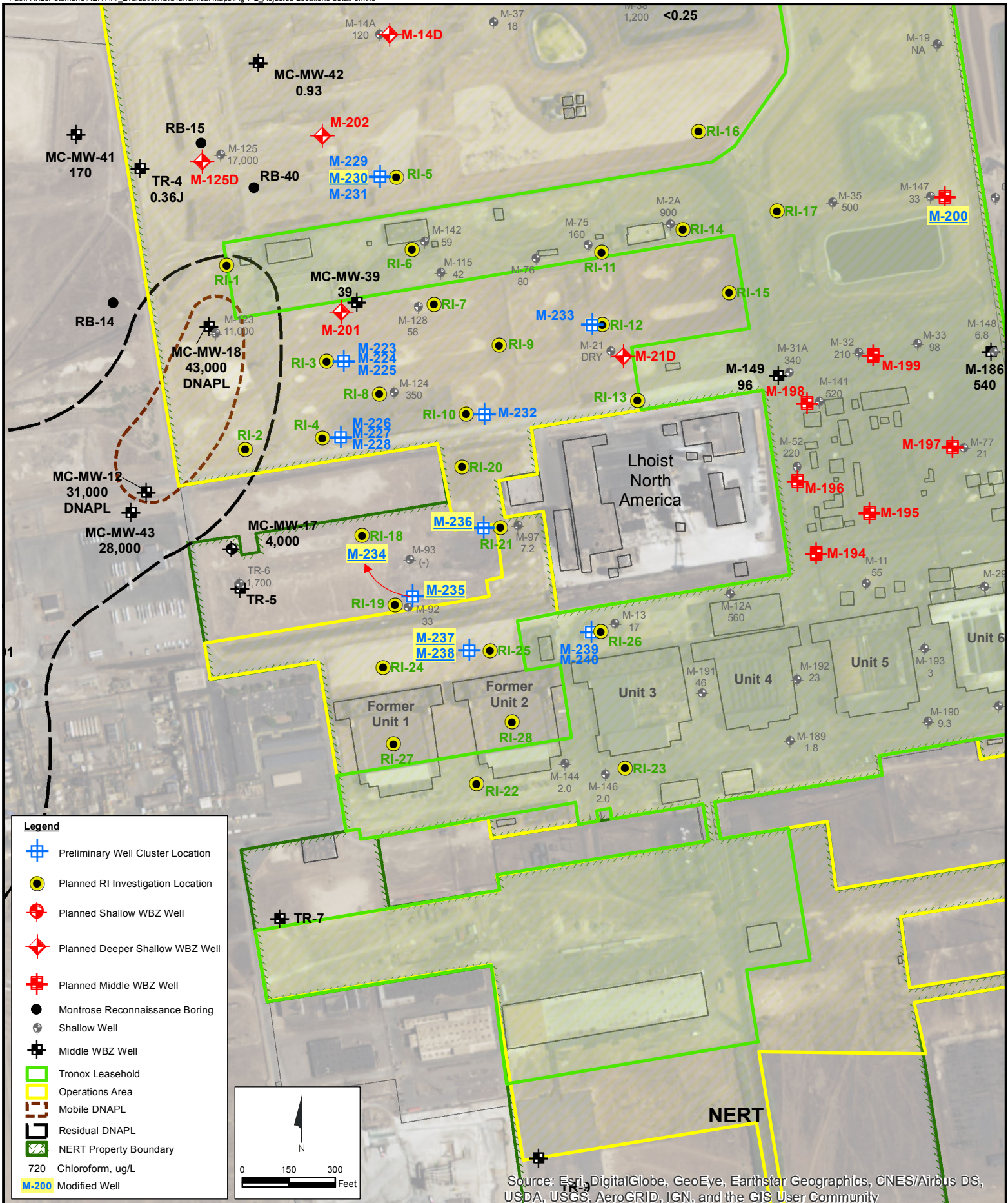
ft bgs: feet below ground surface

[a] Well screen raised based on well pilot boring lithology.

[b] Well screen lowered to intercept an interval of higher COPC concentrations based on adjacent RI boring soil samples and lithology.

[c] Well M-234 location moved 200 feet north from an initial location adjacent to boring RI-19 to a new location adjacent to boring RI-18 based on higher soil sample concentrations in this depth interval at RI-18.

[d] Well screen raised to intercept an interval of higher COPC concentrations based on adjacent RI boring soil samples and lithology.



RI Phase 2 Investigation - Modification No. 5
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
1