



VIA ELECTRONIC MAIL

December 21, 2011

Mr. Jack Yates
Nevada Division of Environmental Protection
901 South Steward Street, Suite 4001
Carson City, NV 89701

Re: ESA103278 Onda Verde LLC
Phase II Environmental Site Investigation
North Side of Coleman Road and East of Highway 50
Fallon, NV 89510
URS Project No. 14950361

Dear Mr. Yates:

URS Corporation (URS) is pleased to provide this report describing the Phase II Environmental Site Investigation (ESI) at the above-referenced property, which is located within the boundaries of the Carson River Mercury Superfund Site (CRMS). The Phase II ESI was conducted according to the Sampling and Analysis Plan (SAP), dated September 27, 2011, and approved by the Nevada Division of Environmental Protection (NDEP) on September 27, 2011. The SAP was based on the Draft Long-Term Sampling and Response Plan (LTSRP), dated August 5, 2011, for the CRMS and conversations between URS and NDEP.

ENVIRONMENTAL ISSUES

A Phase I Environmental Site Assessment (ESA) was prepared for the Site by ATC, dated November 5, 2010. At the time of the Site reconnaissance, the Site consisted of approximately 27 acres of generally undeveloped, graded land that contained a 50% complete model home in the northwestern portion of the Site and two stormwater retention basins in the southwestern and southeastern portions of the Site. The Site was described as mostly vacant, desert land with evidence of past grading activities. Paved access roads were located on the Site.

ATC identified the following recognized environmental condition (REC) associated with the Site.



Mr. Jack Yates
March 11, 2013
Page 2

- The Site is located within the CRMS, per the NDEP. The NDEP website dedicated to the CRMS depicts a map of the sampling locations, and the closest data points to the Site are located in Fallon. ATC states that the designation of what is within the CRMS in itself does not mean that the area is impacted, just that the potential exists. As a portion of the Site falls within the 100-year flood zone, that area of the Site would need to follow the sampling protocol for moderate risk.

According to Mr. Jack Yates, the case officer with the NDEP Bureau of Corrective Actions, based on the Site's location within a 100-year flood zone (Zone AE), the Site is in the CRMS area and needs to undergo sampling per the LTSRP.

Mr. Yates provided the Carson River Mercury Superfund LTSRP Risk Assessment and Management Guidelines to ATC. Based on the information provided by Mr. Yates, portions of the Site are within the boundary of the CRMS, which is a REC to the Site.

SCOPE OF WORK

The purpose of the investigation is to evaluate if impacts related to the CRMS are present on the 138 undeveloped residential lots and one partially developed lot at the Site. One developed lot was present on Site (Lot 14); however, this lot was identified to be owned by others, and was not included in this investigation. There are other areas of the Site that are not proposed for residential development (Figure 1). The two stormwater retention basins were not included in this assessment. The LTSRP guidelines are required to be followed for any future development or construction activities in these areas.

URS spoke with Mr. Yates of NDEP on August 31, 2011, to clarify the scope of work required for the Site. Mr. Yates indicated that the LTSRP had been updated on August 5, 2011. URS discussed the scope of work proposed for the Site in a subsequent email message, and Mr. Yates confirmed that the sampling on the moderate risk sites could remain at four soil borings per lot, per the previous draft of the LTSRP. However, upon review of the Draft SAP for the Site on September 20, 2011, Mr. Yates advised URS to select lots to sample as moderate risk per the new LTSRP, which requires 10 soil borings and eight soil samples per lot. The changes to the low-risk lots included collecting five samples from the ground surface to 6 inches in the front and back portions of each lot (for



Mr. Jack Yates
March 11, 2013
Page 3

a total of ten 6-inch deep holes per lot) and analyzing two 5-point composite samples for the constituents of concern (COCs), consisting of mercury, arsenic, and lead. He also indicated that lots that are mapped primarily outside of the 100-year flood plain may be designated as low risk.

The approved SAP and letter from the NDEP are presented in Appendix A.

HEALTH AND SAFETY AND GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Prior to mobilizing equipment to the site, a health and safety plan was prepared and kept on Site during all field activities in accordance with Code of Federal Regulations (CFR) Title 29, part 1910.120.

The local public utility identification service was contacted to mark utilities crossing the Site from the Site boundary to a metering point. URS assumed that utilities had been installed in the roads that were developed on the Site, but had not been extended onto the 47 vacant lots on the Site, as no houses had been constructed. However, natural gas and electrical utilities were marked by Southwest Gas in the front of each lot. As a result of these utilities being present on Site, URS met with Southwest Gas on October 24, 2011, to conduct a Site walk and clear the soil boring locations. URS did not advance the borings until these safety measures had been completed.

URS acquired the lot and parcel information for the Site from the Churchill County Assessor. URS used Geographic Information System (GIS) to outline the lot boundaries and identify sampling locations prior to mobilizing to the Site. These locations were programmed into a Trimble GeoXT Global Positioning System (GPS) unit, with an accuracy of less than 1 meter horizontally, for use by field personnel. The field team used the GPS to navigate to the soil boring locations, which were marked in the field prior to the drilling activities. The sampling locations were pre-designated in the GPS, which including identifying the samples that were composited for analysis.

The soil borings were named with an A through E for the five borings completed in the front of each lot and with an F through J for the five borings completed in the back of each lot. The soil boring locations that were marked with the GPS unit are presented on Figures 2 through 4.



Mr. Jack Yates
March 11, 2013
Page 4

A construction silt fence for stormwater control, followed by wooded land was observed on the lots in the northern portion of the Site. The wooded land extended from the silt fence to the Carson River. Due to the dense vegetation on the lots, the soil boring locations F through J in the back of Lots 20, 22, 23, 24, 25, and 84 had to be relocated into areas that were accessible with either the direct push technology (DPT) drill rig or with a hand auger. In addition, soil sampling location I on Lot 31 was originally located over soft fill material that would not support the DPT drill rig. This soil boring was relocated a few feet to the north, towards soil sampling location F. The locations actually sampled were surveyed using the GPS unit. The final soil boring locations on these lots are presented on Figure 2.

The GIS data that was collected as part of this investigation is included on a CD in Appendix B.

FIELD IMPLEMENTATION

The LTSRP specified collecting composite samples from specific depth intervals down to 2 feet below grade in moderate risk areas and to 6 inches below grade in low risk areas. The floodplain sediments were anticipated to potentially include gravel or cobbles, which would be difficult to penetrate with manual sampling tools. Therefore, the soil borings were advanced with a DPT drill rig. Any modifications to boring locations were resurveyed with the GPS, as discussed above.

Mr. Yates of the NDEP provided a map that depicted the Site location relative to the low and moderate risk areas that are described in the LTSRP. The moderate risk areas generally corresponded to the extent of the mapped Federal Emergency Management Agency (FEMA) 100-year flood zone. URS then used GIS to overlay the proposed lot locations onto the map and determined that 112 lots would be assessed as low-risk and 28 lots would be assessed as moderate-risk, according to the definition in the LTSRP and based on comments provided by NDEP. The location of the lots relative to the moderate and low risk areas is presented on Figure 1.

According to the requirements of the LTSRP and subsequent correspondence with NDEP, two sets of five soil samples each were collected from the ground surface to



Mr. Jack Yates
March 11, 2013
Page 5

6 inches below ground surface (bgs) on each lot proposed for residential development in areas that are defined as low-risk.

Two sets of five soil borings were advanced to 2 feet bgs on each lot proposed for residential development in areas that are defined as moderate risk, five borings in the front of the lot (A through E) and five borings in the back of the lot (F through J). The soil boring locations on the low and moderate risk sites are presented on Figures 2 through 4.

Based on the requirements of the LTRSP, URS advanced 280 soil borings on the moderate risk lots at the Site. Soil samples were collected in 6-inch intervals (0 to 6 inches, 6 inches to 12 inches, 12 inches to 18 inches, and 18 inches to 24 inches) to the total depth of 2 feet bgs, either with the DPT drill rig or with a hand auger (e.g., several locations in the back of lots 20, 21, 22, 23, 24, and 84). Samples from each discrete depth interval, from the front and back of the lot each, was composited by the laboratory into two 5-point composite samples and analyzed (e.g., two 5-point composites from 0 to 6 inches, two 5-point composites from 6 inches to 12 inches, two 5-point composites from 12 inches to 18 inches, and two 5-point composites from 18 inches to 24 inches). Eight soil samples were submitted for analysis from each lot, for a total of 224 samples from the moderate risk lots.

On the low-risk lots, the LTRSP requires that 10 samples from the ground surface to 6 inches be collected, five samples each from the front (A through E) and back (F through J) of the lots. Based on these requirements, URS collected 1,110 samples with a hand auger or trowel. Lot 14 was not sampled, as originally proposed, as this lot is owned by another party and is not part of this project. The 10 discrete soil samples from each lot will be composited into two 5-point composite samples that were submitted for analysis. Two samples were submitted for analysis from each lot, for a total of 222 samples.

A total of 446 soil samples were collected for submittal to the laboratory for analysis from both the low and moderate risk lots.

Soil cores from the DPT drilling or hand augering on the moderate risk lots were collected continuously in 6-inch or 2-foot intervals to a maximum depth of 2 feet bgs for



Mr. Jack Yates
March 11, 2013
Page 6

the 280 soil borings on the moderate risk lots. These samples were collected into acetate sleeves, which were cut in the field by the geologist to the desired 6-inch intervals, or soil sampling jars. During the soil sampling activities, there was no visual or olfactory evidence of impacts observed.

The soil materials on Site were generally classified as sand, silt, silty sand, sandy silt, and silt with minor sand from the ground surface to 2 feet bgs on the moderate risk lots. These observations were generally consistent across the entire Site (both low and moderate risk lots). Some of the lots had sparse gravel across the surface, which resulted from prior grading of the lots at the Site.

On lots 18, 22, 24, and 84, adjacent to the south of the Carson River, and on lots 130 and 155 sand, sand with minor silt, and sandy silt was observed to a depth of approximately 1 to 1.5 feet bgs, which was underlain by slightly moist to moist clayey silt or clay with very fine sand to the boring termination depths of 5 feet. These observations were made in the soils to the back of lots 18, 22, 24, and 84, adjacent to the Carson River.

Decontamination and Investigation Derived Waste

All reusable drilling and sampling tools that contacted subsurface materials were decontaminated between uses as appropriate by washing with a non-phosphate detergent solution, rinsing with potable water, and air drying.

Soil cuttings were not generated during this investigation, due to the nature of the soil sampling. The soil borings on the moderate risk lots were sealed with bentonite grout to the ground surface. The soil borings on the low risk lots were filled with native material present on Site.

Disposable sampling equipment and personal protective equipment was managed as solid waste in plastic garbage bags and placed in a receptacle for disposal.

Laboratory Analysis

In accordance with the LTSRP, dated August 5, 2011, all of the samples analyzed were laboratory sieved to 250 microns (60 mesh) prior to analysis.



Mr. Jack Yates
March 11, 2013
Page 7

The soil samples were analyzed for arsenic, lead, and mercury by Environmental Protection Agency (EPA) Method 6010B/7471, as specified in the LTSRP. The soil samples were analyzed by Pace Analytical of Lenexa, Kansas, on standard turnaround.

URS directed the laboratory to analyze 50 field duplicate soil samples, at a frequency of approximately 10% of the total samples. The duplicate samples were analyzed for quality assurance (QA)/quality control (QC) to evaluate the validity of the sample results for a total of 496 samples analyzed.

The laboratory data validation is presented in Appendix C.

ANALYTICAL RESULTS

URS compared the soil sample results to the CRMS action levels defined in the LTSRP. The action levels defined for arsenic, lead, and mercury are as follows:

- Arsenic – 32 milligrams per kilogram (mg/kg)
- Lead – 400 mg/kg
- Mercury – 80 mg/kg

The individual lots are identified by the lot number provided by the Churchill County Assessor. The lots in the southeastern portion of the Site repeated numbers; therefore, a 1 was placed in front of these lot numbers to differentiate them from the other lot of the same name on the Site. For example, if the lot number is Lot 24 in this area, it is identified on Table 1 and in the text as Lot 124. The soil analytical results compared to the CRMS action levels are presented on Table 1. The mercury, arsenic, and lead analytical results are presented on Figures 5 through 19. The complete analytical laboratory reports are included as Appendix D.

Moderate Risk Lots

Twenty-eight lots (lots 2, 3, 9 through 12, 18, 20, 22, 24, 28, 31, 40, 44, 64, 71, 76, 82, 84, 102, 107, 121, 126, 130, 135, 138, 148, and 155) on the Site were selected as moderate risk lots based on their proximity to the Carson River and randomly throughout the site in the FEMA 100-year floodplain. A total of eight 5-point composite samples



Mr. Jack Yates
March 11, 2013
Page 8

were analyzed per lot in discrete 6-inch intervals from the ground surface to 24 inches bgs, for a total of 224 samples.

Mercury was detected above the laboratory reporting limits in 211 of the 224 samples analyzed at concentrations that ranged from 0.043 mg/kg (Lot 126 18-24 Front) to 15.7 mg/kg (Lot 20 18-24 Back). None of the mercury results from the moderate risk lots exceeded the CRMS action level of 80 mg/kg.

Arsenic was detected above the laboratory reporting limits in all 224 of the samples analyzed. Concentrations ranged from 4.6 mg/kg (Lot 28 18-24 Front) to 27.6 mg/kg (Lot 155 12-18 Back). None of the arsenic results from the moderate risk lots exceeded the CRMS action level of 32 mg/kg.

Lead was detected above the laboratory reporting limits in all 224 of the samples at concentrations that ranged from 2.7 mg/kg (Lot 28 6-12 Back) to 24.2 mg/kg (Lot 130 12-18 Back). None of the lead results from the moderate risk lots exceeded the CRMS action level of 400 mg/kg.

The results of the duplicate samples analyzed were comparable to the original sample results, and none of these results exceeded their respective CRMS action levels.

Low Risk Lots

The remaining 110 lots on the Site were characterized as low risk. Lot 14 is owned by others; therefore, no sampling was conducted as the lot is not part of the project. These lots were identified as low risk based on the location of the lots relative to the Carson River 100-year floodplain and conversations with the NDEP. A total of two 5-point composite samples were analyzed from each lot, for a total of 222 samples analyzed. The discrete samples were collected from the ground surface to 6 inches bgs, as discussed above.

Mercury was detected above the laboratory reporting limit in 221 of the 222 samples analyzed, and the concentrations ranged from 0.056 mg/kg (Lot 33 Front) to 52.8 mg/kg (Lot 57 Front). None of the mercury results from the low risk lots exceeded the CRMS action level of 80 mg/kg.



Mr. Jack Yates
March 11, 2013
Page 9

Arsenic was detected above the laboratory reporting limits in all 222 of the samples analyzed. Concentrations ranged from 5.2 mg/kg (Lot 25 Front) to 28.5 mg/kg (Lot 57 Front). None of the arsenic results from the low risk lots exceeded the CRMS action level of 32 mg/kg.

Lead was detected above the laboratory reporting limits in all 222 of the samples analyzed at concentrations ranging from 3.3 mg/kg (Lot 25 Back) to 18.7 mg/kg (Lot 109 Front). None of the lead results from the low risk lots exceeded the CRMS action level of 400 mg/kg.

The results of the duplicate samples analyzed were comparable to the original sample results, and none of these results exceeded their respective CRMS action levels.

SUMMARY

This investigation generally followed the scope of the SAP, dated September 27, 2011, and approved by the NDEP on September 27, 2011. The SAP was based on the Draft LTSRP, dated August 5, 2011, for the CRMS and conversations between URS and NDEP.

URS used GIS to overlay the proposed lot locations onto the Site map and determined that there were 28 lots to be assessed as moderate risk and 110 lots to be assessed as low risk, according to the definition in the LTSRP, the location of the lots relative to the 100-year FEMA floodplain, and based on comments provided by NDEP.

Lots 2, 3, 9 through 12, 18, 20, 22, 24, 28, 31, 40, 44, 64, 71, 76, 82, 84, 102, 107, 121, 126, 130, 135, 138, 148, and 155 were evaluated as moderate risk lots, based on their location proximal to the Carson River and randomly on Site within the 100-year FEMA floodplain. Ten soil borings were advanced to 2 feet bgs on each moderate risk lot, five borings each in the front (A through E) and back (F through J) of the lot. Soil samples from these lots were collected in 6-inch intervals (0 to 6 inches, 6 inches to 12 inches, 12 inches to 18 inches, and 18 inches to 24 inches) to the total depth of 2 feet bgs. Each discrete depth interval, from the front and back of the lot each, were composited by the laboratory into two 5-point composite samples and analyzed (e.g., two 5-point composites from 0 to 6 inches, two 5-point composites from 6 inches to 12 inches, two 5-point composites from 12 inches to 18 inches, and two 5-point composites from



Mr. Jack Yates
March 11, 2013
Page 10

18 inches to 24 inches). Eight samples were submitted for analysis from each lot, for a total of 224 samples from the moderate risk lots.

The remaining lots were evaluated as low risk. URS collected 1,110 samples with a hand auger or trowel on these low risk lots, five from the front (A through E) and five from the back (F through J) of each lot. The 10 discrete soil samples from each lot were composited by the laboratory into two 5-point composite samples for analysis, for a total of 222 soil samples analyzed.

No visual or olfactory evidence of impacts was observed in any of the soil borings.

A total of 446 soil samples and 50 field duplicate samples were submitted to the laboratory for analysis of mercury, arsenic, and lead by EPA Method 6010/7471.

On the moderate risk lots arsenic and lead were detected above the laboratory reporting limits in all 224 of the soil samples analyzed, and mercury was detected above the laboratory reporting limits in 211 of the 224 samples analyzed. None of the soil results exceeded the CRMS action levels of 80 mg/kg for mercury, 32 mg/kg for arsenic, or 400 mg/kg for lead.

On the low risk lots, mercury was detected above the laboratory reporting limits in 221 of the 222 samples, and arsenic and lead were detected above the laboratory reporting limits in all 222 of the samples analyzed. None of the soil results exceeded the CRMS action levels of 80 mg/kg for mercury, 32 mg/kg for arsenic, or 400 mg/kg for lead.

The results of the duplicate samples analyzed were comparable to the original sample results, and none of these results exceeded their respective CRMS action levels.

Based on the results of this investigation, none of the soil results for arsenic, lead, or mercury exceeded the action levels of the CRMS. The Site does not appear to have been negatively impacted by flooding of the Carson River. The Site is acceptable for residential development with no further action required at this time. URS requests that a no further action letter be issued for the Site.



Mr. Jack Yates
March 11, 2013
Page 11

If there are any questions or comments regarding this report or if you desire additional information regarding this project, please call the undersigned.

Very truly yours,

URS Corporation

Renee McFarlan
Project Manager

Donald Brice, PG, CPG
Principal Geologist

Attachments

14950361



Mr. Jack Yates
March 11, 2013
Page 12

JURAT: I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

Signature

Earl James Leaver, P.E., C.E.M.

Environmental Engineer

URS Corporation

EM Certification Number: 2282

EM Expiration Date: March 22, 2013

Date