

From: [Michael Neumann](#)
To: [Mayerson, David, NMENV](#); [Vollbrecht, Kurt, NMENV](#)
Cc: [Daniel Kapostasy](#); [Clark, David, EMNRD](#); [Mariano, Michael F.](#); [Myers, Kevin, OSE](#); [Wunder, Matthew, DGF](#); [Diane Tafoya](#)
Subject: Rio San Jose Work Plan
Date: Wednesday, October 08, 2014 2:06:31 PM
Attachments: [image20fcd.PNG](#)
[RSJ Workplan - Response to Comments - October 2014.pdf](#)
[RSJ Workplan - Replacement Pages - October 2014.pdf](#)
[100814 Response ltr to NMED re RSJ Work Plan.pdf](#)

David and Kurt,

Attached is Roca Honda Resources' response to NMED's 9/10/14 comments on the plan to characterize the Rio San Jose in the vicinity of the proposed new reuse pipeline discharge point. In addition to the transmittal letter, there is a table presenting NMED's comment, followed by our response, and three replacement pages for the Work Plan that we submitted in early August. Please don't hesitate to call Dan or me if any questions or concerns.



[Michael Neumann](#)
Manager, New Mexico Operations

t: 505-474-6161
4001 Office Court Dr, Ste 102
Santa Fe, NM, US, 85707

<http://www.energyfuels.com>

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Via Electronic Delivery

October 8, 2014

Mr. David Mayerson
Mining Environmental Compliance Section
New Mexico Environment Department
1190 St. Francis Dr.
Santa Fe, NM

RE: DP-1717, Roca Honda Mine Southern Pipeline Alternative

Dear Mr. Mayerson:

Enclosed are Roca Honda Resources (RHR) responses to NMED's 9/10/14 comments on the Rio San Jose Characterization Work Plan that was submitted to NMED on 8/5/14. We very much appreciate the Department's timely review of the work plan and opportunity to clarify the characterization plans. We are anxious to move forward with the field characterization work while weather conditions are favorable, and intend to initiate the program described in the enclosed revised pages of the Work Plan in the next couple weeks, absent any further NMED concerns regarding how the work will be done. Accordingly, please advise as soon as possible if there are any further questions or concerns at this time.

Again, thanks for the prompt review and guidance regarding this project.

Sincerely,

A handwritten signature in blue ink that reads "Michael Neumann". The signature is fluid and cursive, with the first name "Michael" and last name "Neumann" clearly legible.

Michael R. Neumann
Manager, New Mexico Operations

Enclosures:
Response to Comments Table
Work Plan Replacement pages

cc: Mr. Kurt Vollbrecht, NMED
Mr. David Clark, MMD
Mr. Michael Mariano, NMSLO
Mr. Kevin Myers, NMOSE
Mr. Mathew Wonder, NMDG&F
Ms. Diane Tafoya, USFS

Roca Honda Resources
4001 Office Court Dr., Suite 107
Santa Fe, NM 87507
Phone: 505-474-6161

Roca Honda Resources Response to New Mexico Environment Department 09-10-2014 Comments of Roca Honda Project Mine Discharge Plan-1717, Work Plan for Evaluation of the Potential Effects of Discharge Along the Rio San Jose dated August 2014

October 8, 2014

NMED Review of Roca Honda Resources Work Plan Evaluation of Discharge to Rio San Jose			
Reviewer: David L. Mayerson Agency: NMED		Review Date: September 10, 2014	
Item #	Section/Page (or general)	Quoted Text	Comment
1.	Page 4, Section 2, first paragraph	San Mateo Creek received discharge from various uranium mines in the past and there was concern about possible remobilization of contaminants from mine water discharge.	Since ephemeral surface flow in San Mateo Creek joins the Rio San Jose (RSJ) near the proposed discharge location, this study also should determine if similar concerns are warranted for the Rio San Jose.

NMED Review of Roca Honda Resources Work Plan Evaluation of Discharge to Rio San Jose

Reviewer: David L. Mayerson Agency: NMED			Review Date: September 10, 2014
Item #	Section/Page (or general)	Quoted Text	Comment
	RHR Response		<p>RHR agrees and the purpose of this work plan is to outline the evaluation of a portion of the Rio San Jose above and below the proposed pipeline discharge point in the same fashion as the evaluation conducted for San Mateo Creek. The results of the San Mateo Creek evaluation are reported in the BDR Revision 1 dated May 2013. Execution of this work plan should determine if there is any contamination from San Mateo Creek reaching the Rio San Jose, or other sources of contamination in or entering the Rio San Jose. It should be noted that in previous investigations by RHR on San Mateo Creek (Appendix 8-A in the BDR), there is no direct hydrologic connection between the San Mateo Creek and the Rio San Jose. The San Mateo Creek channel tapers out north of Homestake mill, and surface flow would only reach the Rio San Jose in extreme flood events. The results of the Rio San Jose evaluation will establish the baseline of the existing chemical constituents before the RHR treated water enters.</p> <p>A literature review was conducted prior to the writing of this work plan and no evidence of contamination due to uranium mining was detected in the Rio San Jose.</p>
2.	Page 5, Section 2.1, third paragraph	Samples will be collected...at two depths: 0.5 and 1.5 feet below streambed surface.	Please explain the rationale for these proposed sample depths, and present any available information about the range of alluvial thickness along the RSJ.

NMED Review of Roca Honda Resources Work Plan Evaluation of Discharge to Rio San Jose

Reviewer: David L. Mayerson Agency: NMED			Review Date: September 10, 2014
Item #	Section/Page (or general)	Quoted Text	Comment
	RHR Response		<p>The 0.5 foot sample of sediment is collected to analyze for constituents that attach to particles and remain near the surface. The 1.5 foot sample is collected to analyze for constituents that migrate into the channel bottom material. Section 2.3 of the work plan discusses the installation of ten well points to determine alluvium depth, saturation depth, and collection of water for analysis, if enough water is available. If concern over contamination arises in the deeper samples, RHR will work with NMED to determine if further characterization at deeper intervals is necessary</p> <p>Dinwiddie and Motts (1964) studied water available in the alluvium downstream of Grants in Acoma and Laguna Pueblo and give alluvial thickness of 0-150 ft. Risser (1982) gives no alluvial thicknesses in his report on the Rio San Jose.</p>
3.	Page 5, Section 2.1, Fifth paragraph	One of the sample locations is at the USGS gaging station 08343000 and another is at the former discharge location of the city of Grants wastewater treatment facility.	<p>Please identify these locations on Figure 2-1 (NMED acknowledges that the USGS gaging station location is shown on Figure 1-1).</p> <p>Please explain the rationale for the proposed two adjacent locations west of the “final sample location.”</p>
	RHR Response		<p>The USGS station and former WWTP discharge point will be labeled on Figure 2-1. (See Replacement Page)</p> <p>The two adjacent locations are now labeled on Figure 2-1. One of the samples is in a tributary to the RSJ draining Lobo Canyon. The purpose of this sample is described in the text to see what, if any, contamination is entering from this tributary. The sample next to it is a regularly spaced sample in the RSJ channel and if contamination is found in the tributary should show if that contamination is moving into the RSJ.</p>

NMED Review of Roca Honda Resources Work Plan Evaluation of Discharge to Rio San Jose

Reviewer: David L. Mayerson Agency: NMED			Review Date: September 10, 2014
Item #	Section/Page (or general)	Quoted Text	Comment
4.	Page 8, Section 2.4, Second paragraph	The three sample locations used for sediment organic analysis will be used for organic analysis in the three ground water samples...	From this statement, MECS infers that RHR proposes to analyze only three sediment and co-located ground water samples for organic constituents. Please explain how these three locations will be determined, and why these three locations would suffice to characterize the organic chemistry profile of the sediments and ground water.
	RHR Response		The three sample locations will include the discharge point, the former WWTP discharge point, and one within the Grants chlorinated solvent plume superfund site. The results of sediment sample analyses taken from 17 locations along San Mateo Creek in September 2008 did not indicate the presence of volatile or nonvolatile organics. If any of the analytical results from the three sample locations indicate organics, RHR will discuss a proposal to identify the source with NMED.

1.0 Introduction

Roca Honda Resources, LLC (RHR) has prepared this Work Plan at the request of the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) Mining Environmental Compliance Section following a meeting with NMED staff on July 10, 2014 regarding Discharge Permit Application DP-1717. Due to a proposed change in the location of the discharge of treated mine water from the Roca Honda Mine, it was deemed appropriate to 1) determine extent, if any, of previous contamination in the Rio San Jose (RSJ); and 2) evaluate the effects, if any, on the receiving drainage of the mine water, the RSJ.

Current plans describe RHR as treating mine water onsite in a water treatment plant and discharging the water approximately 8 miles north of the project site into an irrigation system designed for a local rancher. The water would be stored in the Laguna Polvadera, a natural impoundment, a storage tank, or discharged into San Lucas Canyon. A proposed alternative is to discharge the treated water into the RSJ near the Village of Milan. The purpose of this Work Plan is to provide details regarding characterization of the RSJ to better evaluate this alternative.

The treated mine water will be discharged under a National Pollutant Discharge Elimination System (NPDES) permit and will be treated to meet effluent limitations established by the U.S. EPA. The discharged treated mine water will also meet New Mexico Water Quality Control Commission (WQCC) standards as set forth in NMAC Section 206.2.3103, human health standards for groundwater.

This Work Plan will further detail the approach and methods to collect, analyze, and evaluate the data to address potential impacts on the RSJ from treated mine water discharge. The results will be utilized for the Discharge Plan, the Mine Permit Application, the NPDES Permit, and the Environmental Impact Statement.

1.1 Background

The Rio San Jose forms at the confluence of Bluewater Creek and Mitchell Draw approximately 10 miles northwest of the village of Milan and the RHR proposed discharge point (Figure 1-1). Most of the upstream section of the channel (above Grants) is highly engineered and the channel has been straightened, dredged, and leveed for agricultural use and flood control. The Rio San Jose receives water from the Bluewater Dam which flows down Bluewater Creek into the Rio San Jose. Additional water inflow from Mitchell Draw is seasonal and flows correspond with the summer monsoon season. Downstream of the discharge point on the eastern side of Grants, the city's wastewater treatment plant supplied a perennial flow of approximately 1-2 cubic feet per second since about 1978 (Risser, 1982). The wastewater treatment plant closed in the early 1990s and current wastewater from a new plant is used as irrigation on the city's golf course. Further downstream, east of the city of Grants, the RSJ is perennial due to flow from Horace Springs. The RSJ channel passes through both the Pueblo of Acoma and Laguna Pueblo towards the southeast where it joins the Rio Puerco.

collected from the same depth along the transect and mixed to form a composite sample. Samples will be collected and composited at two depths: 0.5 and 1.5 feet below streambed surface. The number of samples from each transect will be based on the areal size of the channel; that is, the wider the channel, the greater the number of sub-samples collected. Compositing sub-samples from the same depth across a stream transect will smooth the local scale variability and provide samples that are more representative of the average or mean contaminant concentrations at that depth.

The sample collection strategy for bed sediment focuses on obtaining samples of sediments from natural depositional zones, i.e., locations in streams where the energy regime is low and fine-grained particles accumulate in the stream bed. Depositional zones can cover large areas at some sites and small pockets at other sites.

The approximate locations of the ten (10) sediment sampling sites are shown in Figure 2-1. The proposed RHR treated mine water discharge point is indicated as a reference point. The first two sample locations are located upstream from the proposed discharge and will be used to determine the contamination, if any, in sediments upstream of the proposed discharge. Sample location three is located at the current proposed discharge location. Six of the remaining seven locations are in the channel of the RSJ and will be used to determine baseline quality of the stream bed and determine the extent of contamination, if any, downstream of the discharge point. One of the sample locations is at the USGS gaging station 08343000 and another is at the former discharge location of the city of Grants wastewater treatment facility. The final sample location is in a tributary to the RSJ coming out of Lobo Canyon. This location was selected to determine the contamination, if any, being contributed by tributaries to the RSJ. Only three (3) of these ten (10) sites will be sampled for volatile and semi-volatile organic constituents. These three locations are shown in Figure 2-1. While organic constituents are not thought to be present in the RSJ, RHR proposes sampling at these locations to verify that claim.

To date none of these sample locations have been field checked for access or suitability. The exact locations of the samples are subject to change, but the number and purpose of these samples will not.

2.2 Task 2 – Collect Sediment Samples for Analysis

2.2.1 General Sampling Procedures

The following procedures will be performed before the field team enters the first location or collects the first sample. The Field Leader will secure permission to enter the property and explain to the land owners what work is being conducted. Additional steps that will be performed before sampling such as health and safety and quality assurance and quality control briefings are discussed in Section 3 of this Work Plan. The details of equipment decontamination and sample handling/chain-of-custody are discussed in Strathmore Standard Operating Procedures (SOPs) Nos. 003 and 006 (adopted by Energy Fuels).

Stakes or flags will be used to identify and mark the sampling locations prior to sample collection. Field personnel will use topographic maps and aerial maps on which the sample sites have been identified and global positioning system (GPS) coordinates noted, so that future samples could be collected at the same locations if desired. Walking and placement of non-sampling equipment in the sample collection area will be avoided.

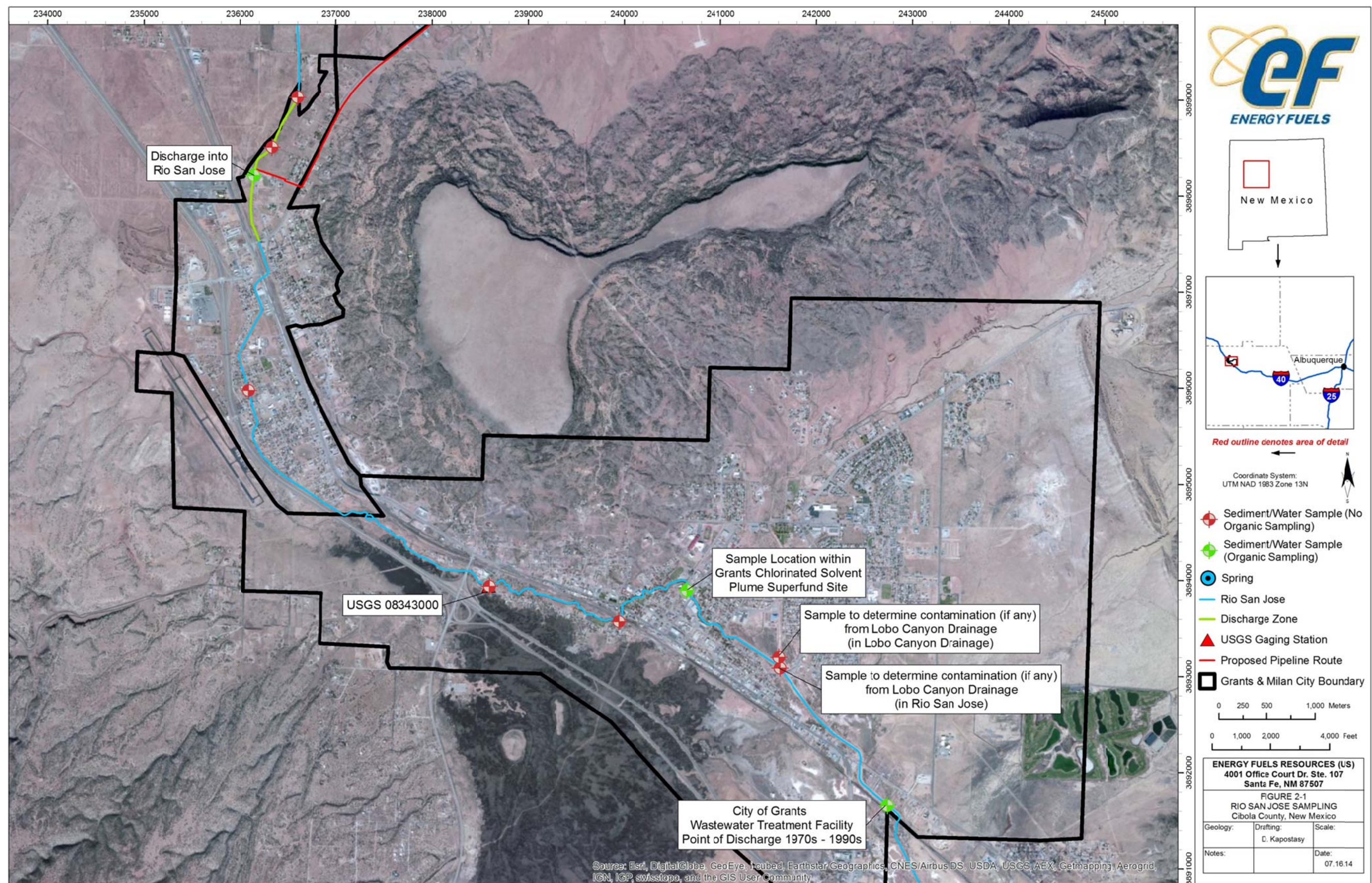


Figure 2-1. Sediment and Well Point Location Map