

BW - ____39__

Closure Plan

2018

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, July 31, 2018 8:33 AM
To: Gallegos, Denise, EMNRD
Cc: Griswold, Jim, EMNRD; Kautz, Paul, EMNRD
Subject: RE: [FWD: Rio Blanco 4 Fed #2 (BW-39) API# 30-025-34605 Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]
Attachments: Rio Blanco 4 Fed #2 Plans - Closure, Financial Assurance, Ground Subsidence 072018.pdf; OCD FA Approval on FA Amount 7-26-18.pdf

Denise:

Re: Llano Disposal, LLC, Rio Blanco 4 Fed #2 (API# 30-025-34605) (and Delaware Basin Brine Station

Surface Location: UL: M Section 4, Township 23 South, Range 34 East, 660 FSL, 660 FWL
Lat/Long: 32.3282394,-103.4814301 NAD83

OCD Environmental Bureau Approved Amount is \$108,000 Financial Assurance.

Thank you.

From: Gallegos, Denise, EMNRD
Sent: Monday, July 30, 2018 4:29 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: RE: [FWD: Rio Blanco 4 Fed #2 (BW-39) Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]

Hi Carl,

I received the bond. Can you send me the description so I can verify all information on the bond is correct.

*Thank you,
Denise Gallegos
Compliance Officer/Bond Administrator
Oil Conservation Division
Energy, Minerals & Natural Resources Department
1220 South Saint Francis Drive
Santa Fe, NM 87505
Office: 505.476.3453
Fax: 505.476.3462*

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 26, 2018 11:12 AM
To: danny@pwillc.net
Cc: Marvin Burrows <burrowsmarvin@gmail.com>; Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Kautz, Paul, EMNRD <paul.kautz@state.nm.us>; Gallegos, Denise, EMNRD <Denise.Gallegos@state.nm.us>
Subject: RE: [FWD: Rio Blanco 4 Fed #2 (BW-39) Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]

Danny:

Re:

Financial Assurance Plan

Llano currently has no well plugging bond for the proposed brine well. However, Llano proposes to provide financial assurance for the Rio Blanco 4 Fed #2 Brine Well and Delaware Basin Brine Station via a single surety bond in the amount of **\$108,000** covering well plugging and abandonment, surface restoration and surface subsidence monitoring for 5 years after ceasing operations as detailed below.

The New Mexico Oil Conservation Division (OCD) hereby **approves** the Water Quality Control Commission (WQCC) financial assurance amount listed above for this prospective brine well. I have copied the OCD Bond Administrator and OCD- Hobbs for communication purposes. Llano Disposal LLC plans to enter the well, perform various logging to determine the adequacy of the well for a brine well, and decide whether to move forward with a WQCC Brine Well Application submittal to OCD.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: danny@pwillc.net <danny@pwillc.net>
Sent: Thursday, July 26, 2018 8:54 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Marvin Burrows <burrowsmarvin@gmail.com>
Subject: RE: [FWD: Rio Blanco 4 Fed #2 Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]

Carl,
Yes, there will be pipeline decommissioned and abandoned in place. Basically, the pipeline will be flushed with fresh water, then drained, capped at both ends then abandoned in place. So the cost to plug both ends is not dependent on the length of the pipeline. The applicant owns the surface land where this pipeline is installed. The cost estimate includes these costs.

If you have any additional questions, please let me know.

Thanks,

Danny J. Holcomb
Cell: 806-471-5628
Email: danny@pwillc.net

----- Original Message -----

Subject: RE: [FWD: Rio Blanco 4 Fed #2 Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]
From: "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us>
Date: Thu, July 26, 2018 9:43 am
To: "danny@pwillc.net" <danny@pwillc.net>

Danny:

Good morning. I'm reviewing now. Is there going to be pipeline(s) that need to be decommissioned and accounted for in the closure plan?

Thx.

From: danny@pwillc.net <danny@pwillc.net>
Sent: Wednesday, July 25, 2018 10:35 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Marvin Burrows <burrowsmarvin@gmail.com>
Subject: [FWD: Rio Blanco 4 Fed #2 Closure Plan, Financial Assurance Plan, Surface Subsidence Plan]

Carl,
I'm just checking on status of approval of the bond amount on this well.

I also spoke with Paul Kautz on Monday. He confirmed that all regulatory filings for the well portion of this application would go through the BLM, not District 1. The BLM copies District 1 on all filings.

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Subject: Rio Blanco 4 Fed #2 Closure Plan, Financial Assurance Plan, Surface Subsidence Plan
From: <danny@pwillc.net>
Date: Fri, July 20, 2018 4:27 pm
To: "Carl Chavez" <CarlJ.Chavez@state.nm.us>
Cc: "Marvin Burrows" <burrowsmarvin@gmail.com>

Carl,
Per your request, attached for your approval are copies of Llano Disposal, LLC's plans to meet the WQCC bonding requirements. The attachment includes the plugging portion of the WQCC bonding. As this candidate well is a BLM well, we will confirm with the BLM whether they will accept this WQCC plugging bond in lieu of requiring dual plugging bonds.

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Surface Subsidence Plan

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Llano Disposal, LLC
Rio Blanco 4 Fed #2 and Delaware Basin Brine Station
Surface Subsidence Monitoring Plan, Closure Plan and Financial Assurance Plan

Surface Subsidence Monitoring Plan

To monitor potential changes in surface conditions at the proposed brine well, Llano proposes to establish three surface subsidence monuments suitable for three dimensional surface monitoring as well as establishing an X, Y, and Z position on the proposed brine well. The monuments will be Berntsen's 9/16" stainless steel floating sleeved rod monuments (see Attachment "P") which are well suited for monitoring positional changes in the ground surface. The monuments are designed so that frost heave and swelling and shrinking soil conditions have no effect on the stainless steel rod on which measurements will be made. A location point on the wellhead will also be established so that the well itself will be used as a fourth subsidence monument. Rod monuments will be installed in a triangular configuration around the brine well wellhead at a maximum distance of 150 feet from the well or in accordance with OCD directives.

1. Monument Installation Procedure

A 12" diameter hole will be augered to a depth of about 3-1/2 feet. The stainless steel rod will be manually driven into the ground, a section at a time, to a depth of 8 feet. The top of the rod would be about 6" below ground level. A finned floating sleeve (filled with NO-TOX grease) is placed over the rod and the datum point added on the rod end. A 6" diameter x 42" long PVC pipe conduit with access cover glued to top end is then placed over the finned sleeve. The inside of the PVC conduit is then filled with fine sand to a level about 3" below the top of the rod. The outside of the PVC conduit will be filled with sand to about 1 foot below ground level, then concrete will be placed from 1 foot depth to ground level.

2. Annual Subsidence Surveys

The survey contractor will use modern survey equipment to establish X, Y, Z positions on the surface subsidence monuments on an annual basis. Survey grade GPS equipment will be utilized to establish the horizontal position of each subsidence monument relative to the New Mexico Coordinate System North American Datum 1983 (2007). Using Static and Fast Static observations the expected horizontal accuracy of the GPS equipment as established by the manufacturer for the subsidence monuments is ± 0.01 ft. A digital level will be utilized to establish the vertical position of the surface subsidence monuments relative to the North American Vertical Datum of 1988 (NAVD88). Using differential leveling techniques the expected vertical accuracy of the equipment as established by the manufacturer for the subsidence monuments is ± 0.01 ft.

The initial survey will be conducted prior to first injection into the proposed brine well. This survey will establish horizontal and vertical coordinate baseline values on the three monuments and the well. Additional surveys will be performed annually in order to compare coordinate values checking for movement in the monuments and well. After cease of operations of the proposed brine well, annual surface subsidence surveys will be conducted for a minimum of five

Llano Disposal, LLC
Rio Blanco 4 Fed #2 and Delaware Basin Brine Station
Surface Subsidence Monitoring Plan, Closure Plan and Financial Assurance Plan

additional years. Reports of these surveys will be submitted to the NMOCD in the annual (January 31) operating report.

Closure Plan

Per OCD and WQCC regulations, upon cease of operations and after regulatory approval, Llano will plug and abandon the brine well, remove all surface equipment, restore the surface to original contour and reseed it with native grasses. In addition, Llano will continue surface subsidence monument surveys for a minimum of 5 years after well plugging.

1. Well Plug and Abandonment

The brine well will be plugged and abandoned per WQCC regulations section 5-209 and BLM rules in place at that time. The plugging plan includes swabbing approximately one foot of water out of the cavern, removing the tubing string, setting a cast iron bridge plug at 10 feet above the 9-5/8" casing window and filling the casing with a Class C high strength salt resistant cement. The wellhead will be cut off and a dry hole marker installed. Over time, large portions of the resulting salt cavern will re-solidify.

2. Surface Restoration

All surface equipment at the brine well location and brine station will be emptied, decommissioned and removed either through recycle, scrapping, sale or used by the owner elsewhere. The disturbed surface at the well location and brine station will be reclaimed and re-contoured to near original condition. The disturbed area will be reseeded with a BLM grass seed mixture to establish 70% minimum regrowth coverage.

3. Surface Subsidence Monitoring

The annual surface subsidence monitoring program (discussed in detail in the proposed discharge plan) will be continued for a minimum of 5 years following plugging and abandonment of the brine well.

Financial Assurance Plan

Llano currently has no well plugging bond for the proposed brine well. However, Llano proposes to provide financial assurance for the Rio Blanco 4 Fed #2 Brine Well and Delaware Basin Brine Station via a single surety bond in the amount of \$108,000 covering well plugging and abandonment, surface restoration and surface subsidence monitoring for 5 years after ceasing operations as detailed below.

Llano Disposal, LLC
Rio Blanco 4 Fed #2 and Delaware Basin Brine Station
Surface Subsidence Monitoring Plan, Closure Plan and Financial Assurance Plan

1. Well Plugging - \$41,475

Based on recently obtained bids and experience in plugging wells, Llano proposes a well plugging bond amount of \$41,475. See cost breakdown below.

\$17,400	Well plugging contractor labor/equipment including cement
\$8,925	Equipment rental (workstring, flowback tanks, BOPE, porta-john, etc)
\$4,725	Transportation of equipment
\$3,150	Supervision
\$2,730	Purchase/transportation of brine and fresh water
\$2,100	Disposal of tank fluids
\$1,260	Excavate/cutoff wellhead and anchors; weld on flat plate and PxA marker
\$1,185	Miscellaneous

2. Surface Restoration - \$47,625

Based on recently obtained surface restoration cost quotes, these costs total \$47,625 as detailed below:

\$8,400	Equipment/Labor – washout tanks for disposal, haul fluids and solids to disposal
\$2,200	Backhoe/Labor - 2 days to crush fiberglass tanks and PVC components at brine station
\$2,520	35 Yd Roll-off Dumpsters - delivery, rental and hauling to landfill
\$551	Lea County Landfill Charges – 3 ea 35 yd dumpsters = 105 cy x 300 lbs = 15.75 tons @ \$35/ton
\$1,700	Onsite Supervision
\$20,059	Equipment/Labor – pull all fencing, remove all concrete, disassemble all metal components, re-contour land to original grade, rebuild barbed wire fence to original ranch configuration, remove underground piping, electrical conduit, wiring, high line poles, wiring and signage
\$2,300	Trucking/Disposal – of concrete to Lea County Landfill @ \$35/ton
\$3,700	Trucking – haul metal components to Hobbs Iron & Metal for recycle
\$4,725	Decommission buried polyethylene brine pipeline - costs include fresh water, trucking and pumping to wash pipeline clean and disposal of brine and wash water, then leave pipeline in place for ranching, fresh water sales use
\$1,470	Reseeding BLM mix grass on estimated 2 acres at well location and brine station

3. Surface Subsidence Monitoring - \$18,900

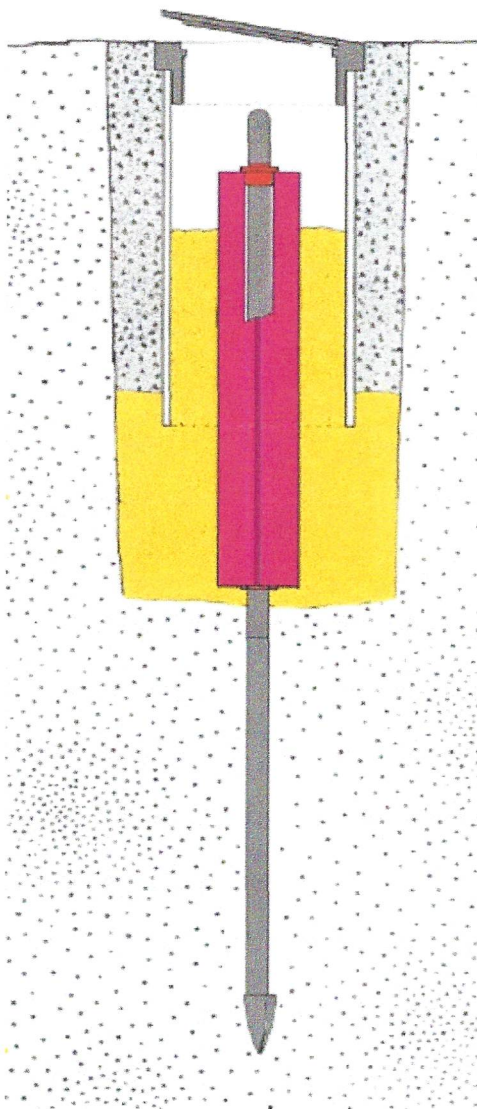
Based on recently obtained surface subsidence survey cost quotes, these costs total \$18,900 for 5 years of follow-on subsidence monument monitoring. Cost estimate is \$1260 per year per monument surveyed. Annual cost to survey three monuments is \$3780 per year or \$18,900 for 5 years.

Sectional Rod Monuments

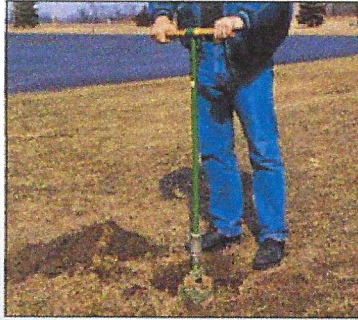
Berntsen
Survey Markers

Monument Design

SLEEVED ROD MONUMENT WITH FLOATING SLEEVE



Monument Installation Procedure



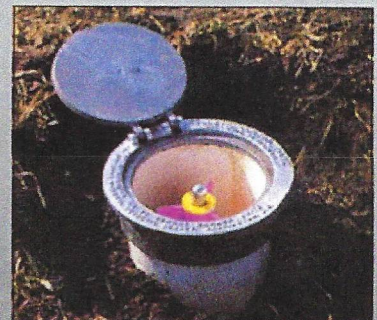
A 12 inch (300 mm) hole is augered to a depth of about 3 1/2 feet (1050 mm).



The rod monument is driven into the ground, a section at a time, to refusal*. The top of the last rod should be about 6 inches (150 mm) below the surface. *See page 15



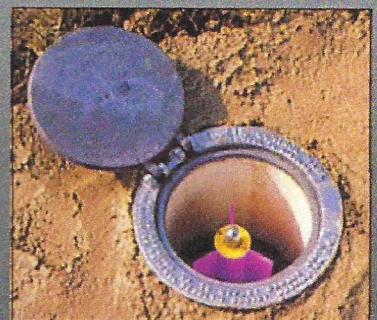
The finned sleeve (filled with grease) is placed over the rod and the datum point added (or filed onto the rod end).



A 6 inch (150 mm) diameter PVC pipe 3 feet (915 mm) long, with access cover glued on, is placed over the finned sleeve (pipe should not touch the fins). Back-fill (INSIDE the PVC Pipe) with sand.



The hole and pipe are carefully back-filled with sand. The top 12 inches (300 mm) of the hole (OUTSIDE of the PVC Pipe) are back-filled with concrete.



The finished mark - a well protected first-order benchmark.