



*Associate Directorate for Environmental Management*

P.O. Box 1663, MS M992  
Los Alamos, New Mexico 87545  
(505) 606-2337



*Environmental Management*

1900 Diamond Drive, MS M984  
Los Alamos, New Mexico 87544  
(505) 665-5658/FAX (505) 606-2132

Date: JUN 01 2017

Refer To: ADEM-17-0130

LAUR: 17-24262

Locates Action No.: n/a

John Kieling, Bureau Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

**Subject: Fact Sheets for CrEX-2**

Dear Mr. Kieling:

Enclosed please find two hard copies with electronic files of the Fact Sheets for CrEX-2. CrEX-2 was completed on May 1, 2017.

Extraction well CrEX-2 was installed under the Drilling Work Plan for Groundwater Extraction Well CrEX-2, approved by the New Mexico Environment Department (NMED) on February 20, 2017. The well completion report will be submitted 150 days after the NMED-complete date of May 1, 2017.

If you have any questions, please contact Stephani Swickley at (505) 606-1628 (sfuller@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (cheryl.rodriguez@em.doe.gov).

Sincerely,

Bruce Robinson, Program Director  
Environmental Remediation Program  
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Director  
Office of Quality and Regulatory Compliance  
Los Alamos Environmental Management  
Field Office

BR/DR/SS:sm

Enclosures: Two hard copies with electronic files – Fact Sheets for CrEX-2 (EP2017-0090)

Cy: (w/enc.)  
Cheryl Rodriguez, DOE-EM-LA  
Stephani Swickley, ADEM ER Program

Cy: (w/electronic enc.)  
Laurie King, EPA Region 6, Dallas, TX  
Raymond Martinez, San Ildefonso Pueblo  
Dino Chavarria, Santa Clara Pueblo  
Steve Yanicak, NMED-DOE-OB, MS M894  
emla.docs@em.doe.gov  
Ted Ball, ADEM ER Program  
Steve White, ADEM ER Program  
Public Reading Room (EPRR)  
ADESH Records  
PRS Database

Cy: (w/o enc./date-stamped letter emailed)  
lasomailbox@nnsa.doe.gov  
Peter Maggiore, DOE-NA-LA  
Kimberly Davis Lebak, DOE-NA-LA  
David Rhodes, DOE-EM-LA  
Bruce Robinson, ADEM ER Program  
Randy Erickson, ADEM  
Jocelyn Buckley, ADESH-EPC-CP  
Mike Saladen, ADESH-EPC-CP  
John Bretzke, ADESH-EPC-DO  
Michael Brandt, ADESH  
William Mairson, PADOPS  
Craig Leasure, PADOPS

TOTAL LENGTH OF CASING AND SCREEN (FT) 1192.2  
 DEPTH TO WATER FOLLOWING INSTALLATION (FT BGS) 1113.7 (05/06/17)

ELEVATIONS (FT AMSL)  
 WELL CASING TBD  
 GROUND SURFACE TBD  
 BRASS CAP (MARKER) TBD

DIAMETER OF BOREHOLE  
18.00 (IN) FROM 0 TO 55 (FT BGS)  
17.00 (IN) FROM 55 TO 920 (FT BGS)  
15.00 (IN) FROM 920 TO 1201.5 (FT BGS)  
10.75 (IN) FROM 1201.5 TO 1240 (FT BGS)

SURFACE SEAL 10.0 TO 60.1 (FT BGS)

SURFACE SEAL  
 MIX (WT%) PORTLAND CEMENT 100  
 QUANTITY USED 77.5 FT<sup>3</sup> CALC 68.2 FT<sup>3</sup>

BENTONITE SEAL 60.1 TO 1122.9 (FT BGS)

TYPE OF CASING  
 MATERIAL PASSIVATED A304 STAINLESS STEEL  
 ID (IN) 8.00 OD (IN) 8.625 (8%)  
 JOINT TYPE WELDED

HYDRATED BENTONITE SEAL  
 FORM 3/8-IN BENTONITE CHIP  
 QUANTITY USED 1618.3 FT<sup>3</sup> CALC 1185.2 FT<sup>3</sup>

FINE SAND COLLAR 1122.9 TO 1125.0 (FT BGS)

FINE SAND COLLAR  
 SIZE/TYPE 20/40 SILICA  
 QUANTITY USED 1.3 FT<sup>3</sup> CALC 1.7 FT<sup>3</sup>

FILTER PACK 1125.0 TO 1185.5 (FT BGS)

FILTER PACK SAND  
 SIZE/TYPE 10/20 SILICA  
 QUANTITY USED 44.7 FT<sup>3</sup> CALC 49.7 FT<sup>3</sup>

SCREENED INTERVAL 1129.9 TO 1179.9 (FT BGS)

TYPE OF SCREEN(S)  
 MATERIAL A304 STAINLESS STEEL  
 ID (IN) 8.00 OD (IN) 8.625  
 SLOT SIZE (IN) 0.040  
 JOINT TYPE WELDED

BOTTOM OF CASING 1189.7 (FT BGS)

HYDRATED BENTONITE BACKFILL  
 MATERIAL 3/8-IN BENTONITE CHIP and 1/4-IN BENTONITE PELLET  
 QUANTITY USED 15.9 FT<sup>3</sup> CALC 14.2 FT<sup>3</sup>

BENTONITE 1185.5 TO 1198.6 (FT BGS)

14-IN CSG AND SHOE 1198.2 TO 1201.5 (FT BGS)

SLOUGH AND SAND 1198.6 TO 1240.0 (FT BGS)

10-IN CSG AND SHOE 1233.9 TO 1240.0 (FT BGS)

BOTTOM OF BORING 1240.0 (FT BGS)

STAINLESS-STEEL CENTRALIZERS  
 USED 4 ea. AT 5 FT  
 ABOVE AND BELOW  
 WELL SCREEN

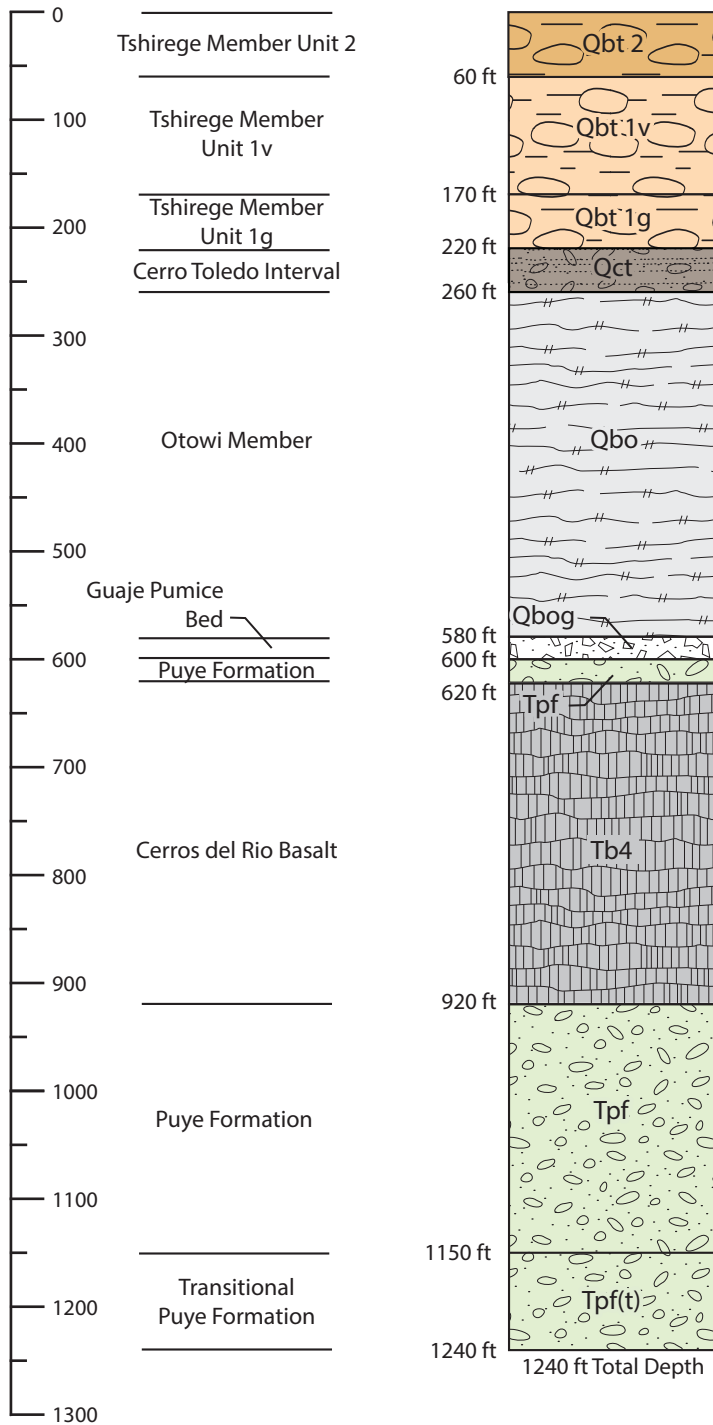
WELL COMPLETION BEGAN  
 DATE 04/13/17 TIME 1400h  
 WELL COMPLETION FINISHED  
 DATE 05/01/17 TIME 1500h



Well CrEX-2 As-Built Well Construction Diagram  
 Technical Area 05 (TA-05)  
 Los Alamos National Laboratory  
 Los Alamos, New Mexico

Fact Sheet  
 NOT TO SCALE

DEPTH  
(LINEAR FT)



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL:  
Holt Services  
D. Sandy, T. Mecham, M. McCoy

DRILL RIG:  
Foremost DR-24HD

DRILLING METHOD:  
☒ 0-1240 ft bgs: DUAL ROTARY WITH CASING ADVANCE

DRILLING FLUID TYPE:  
0-1240 ft bgs  
AIR, WATER, AQF-2 FOAMING AGENT, EZ-MUD POLYMER

DRILLING START/FINISH:  
DATE: 03/05/17 20:00  
DATE: 04/12/17 16:00

▼ 1112.6 ft (04/11/17)  
(prior to well installation)



Well Summary Data Sheet  
CrEX-2 Borehole Stratigraphy  
Technical Area 05 (TA-05)  
Los Alamos National Laboratory  
Los Alamos, New Mexico

Fact Sheet  
NOT TO SCALE