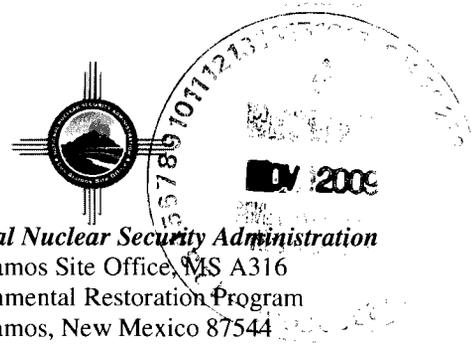




Environmental Programs
 P.O. Box 1663, MS M991
 Los Alamos, New Mexico 87545
 (505) 606-2337/FAX (505) 665-1812

TAB9



National Nuclear Security Administration
 Los Alamos Site Office, MS A316
 Environmental Restoration Program
 Los Alamos, New Mexico 87544
 (505) 667-4255/FAX (505) 606-2132

Date: *Nov 16, 2009*
 Refer To: EP2009-0619

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

Subject: Notification of Completion of Well R-27i and Submittal of the Summary Fact Sheets for R-27i

Dear Mr. Bearzi:

Intermediate perched aquifer well R-27i was completed per the Compliance Order on Consent (IV.A.3.e.iv) on October 17, 2009. Completion of this well meets the date of December 15, 2009, set forth in the New Mexico Environment Department letter of August 24, 2009, entitled "Approval with Direction of Drilling Work Plan for Intermediate Aquifer Well R-27i." Also, please find two hard copies with electronic files of the Well Completion Summary Fact Sheets for Well R-27i.

If you have any questions, please contact Mark Everett at (505) 667-5931 (meverett@lanl.gov) or Woody Woodworth at (505) 665-5820 (lwoodworth@doeal.gov).

Sincerely,

Michael J. Graham, Associate Director
 Environmental Programs
 Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
 Environmental Operations
 Los Alamos Site Office



MG/DG/PH/ME:sm

Enclosures: Two hard copies with electronic files – Well Summary Data Sheet R-27i Borehole Stratigraphy and R-27i As-Built Well Construction Diagram (LA-UR-09-7479)

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Woody Woodworth, DOE-LASO, MS A316
Mark Everett, EP-LWSP, MS M992
RPF, MS M707 (with two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
Steve White, TerranearPMC, Los Alamos, NM (w/MS Word file on CD)
Kristine Smeltz, EP-WES, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Annette Russell, DOE-LASO (date-stamped letter emailed)
Michael J. Graham, ADEP, MS M991
Ted Ball, PMF-SEC, MS M992
Paul Huber, EP-LWSP, MS M992
IRM-RMMSO, MS A150 (date-stamped letter emailed)

TOTAL LENGTH OF CASING AND SCREEN (FT) 633.1
 DEPTH TO WATER FOLLOWING INSTALLATION (FT BGS) 616.4 (10/17/09)
 DIAMETER OF BOREHOLE
 16 (IN) FROM 0 TO 351.6 (FT BGS)
 12 (IN) FROM 351.6 TO 632.7 (FT BGS)

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

SURFACE COMPLETION

PROTECTIVE CASING
 TYPE STEEL SIZE (IN) 10
 PROTECTIVE POSTS INSTALLED YES
 SURFACE SEAL AND PAD
 CHECK FOR SETTLEMENT YES
 PAD MATERIAL CONCRETE
 REINFORCED MESH
 PAD DIMENSIONS (FT) 10 (L) 10 (W) 0.5 (H)

UPPER SURFACE SEAL 3.0 TO 250.1 (FT BGS)

BENTONITE SEAL 250.1 TO 348.2 (FT BGS)

LOWER SURFACE SEAL 348.2 TO 559.2 (FT BGS)

BENTONITE SEAL 559.2 TO 612.0 (FT BGS)

FINE SAND COLLAR 612.0 TO 614.0 (FT BGS)

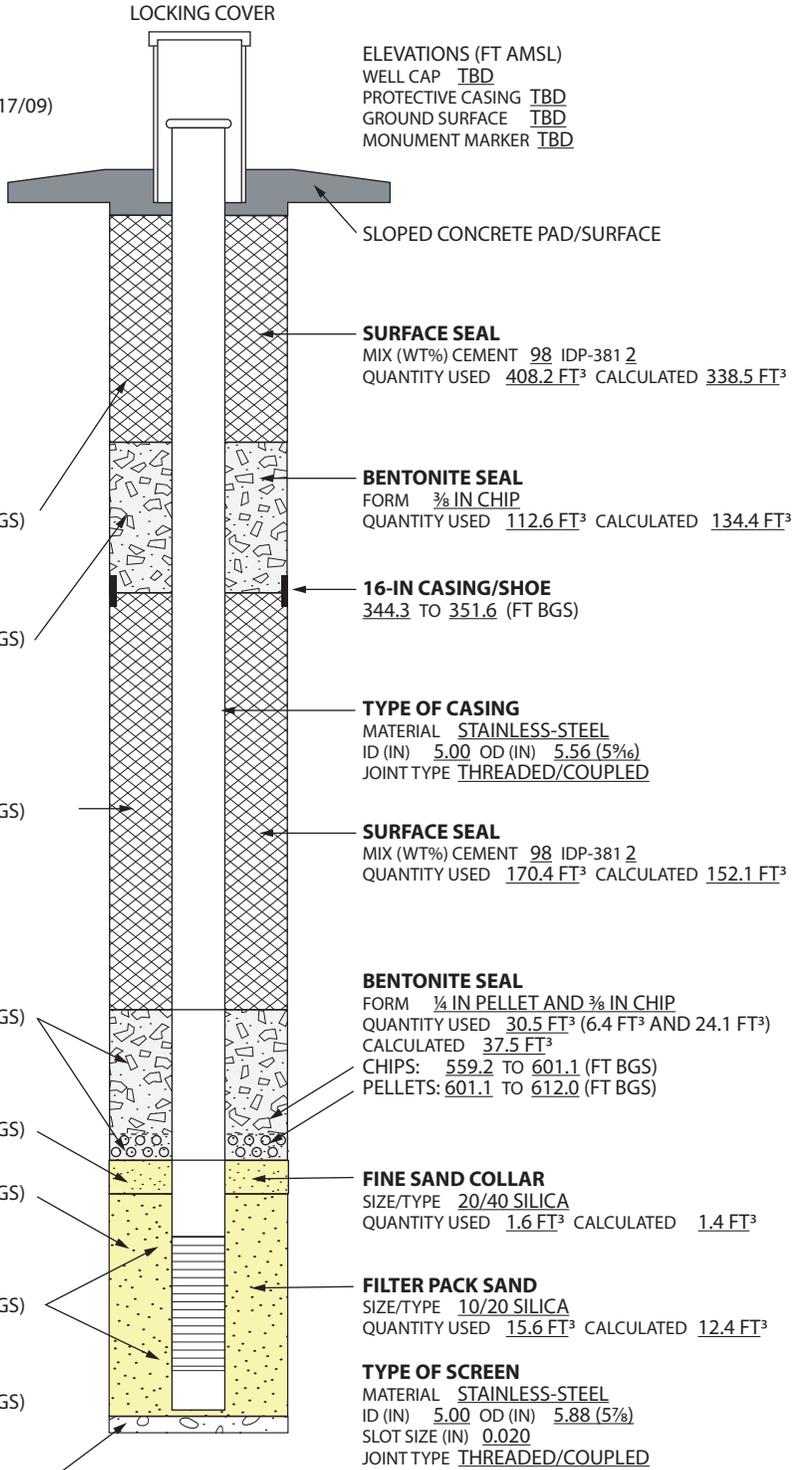
FILTER PACK 614.0 TO 631.2 (FT BGS)

SCREENED INTERVAL 619.0 TO 629.0 (FT BGS)

BOTTOM OF CASING 630.2 (FT BGS)

SLOUGH 631.2 TO 633.0 (FT BGS)

BOTTOM OF BORING 633.0 (FT BGS)



SURFACE SEAL
 MIX (WT%) CEMENT 98 IDP-381 2
 QUANTITY USED 408.2 FT³ CALCULATED 338.5 FT³

BENTONITE SEAL
 FORM 3/8 IN CHIP
 QUANTITY USED 112.6 FT³ CALCULATED 134.4 FT³

16-IN CASING/SHOE
344.3 TO 351.6 (FT BGS)

TYPE OF CASING
 MATERIAL STAINLESS-STEEL
 ID (IN) 5.00 OD (IN) 5.56 (5⁹/₁₆)
 JOINT TYPE THREADED/COUPLED

SURFACE SEAL
 MIX (WT%) CEMENT 98 IDP-381 2
 QUANTITY USED 170.4 FT³ CALCULATED 152.1 FT³

BENTONITE SEAL
 FORM 1/4 IN PELLETS AND 3/8 IN CHIP
 QUANTITY USED 30.5 FT³ (6.4 FT³ AND 24.1 FT³)
 CALCULATED 37.5 FT³
 CHIPS: 559.2 TO 601.1 (FT BGS)
 PELLETS: 601.1 TO 612.0 (FT BGS)

FINE SAND COLLAR
 SIZE/TYPE 20/40 SILICA
 QUANTITY USED 1.6 FT³ CALCULATED 1.4 FT³

FILTER PACK SAND
 SIZE/TYPE 10/20 SILICA
 QUANTITY USED 15.6 FT³ CALCULATED 12.4 FT³

TYPE OF SCREEN
 MATERIAL STAINLESS-STEEL
 ID (IN) 5.00 OD (IN) 5.88 (5⁷/₈)
 SLOT SIZE (IN) 0.020
 JOINT TYPE THREADED/COUPLED

STAINLESS-STEEL CENTRALIZERS
 USED YES AT 2.0 ft ABOVE AND
 BELOW WELL SCREEN

WELL COMPLETION BEGAN
 DATE 09/28/09 TIME 2304
WELL COMPLETION FINISHED
 DATE 10/17/09 TIME 0425

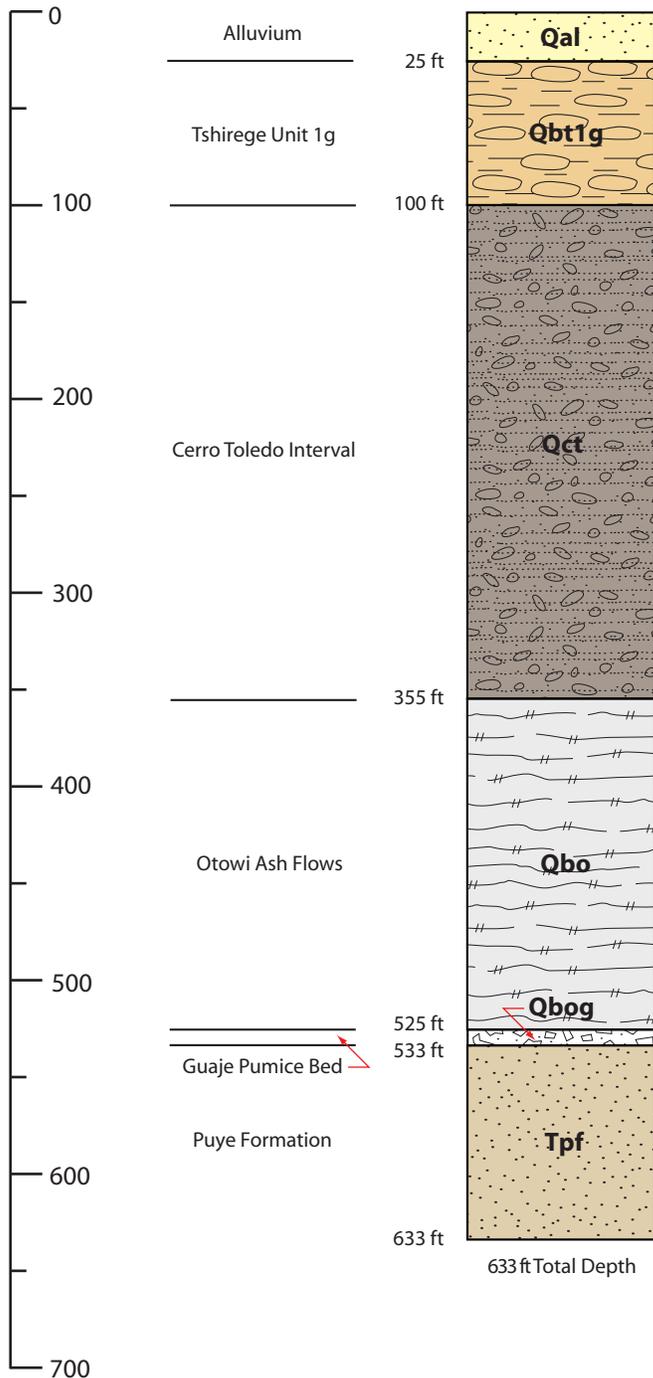


Drafted By: TPMC
 Project Number: 80004
 Date: November 09, 2009
 File Name: R27i_AsBuilt_WellConstruction

WELL R-27i AS-BUILT WELL CONSTRUCTION
 Water Canyon
 Los Alamos National Laboratory
 Los Alamos, New Mexico

Fact Sheet
 NOT TO SCALE

DEPTH (FT BGS)



DRILLING INFORMATION

DRILLING COMPANY/PERSONNEL:

Boart Longyear
G. Burton, M. Cross (Drillers)

DRILL RIG: Foremost DR-24HD

DRILLING METHOD:

DUAL ROTARY

DRILLING FLUID TYPE:

0-507 ft bgs	507-633 ft bgs
<input checked="" type="checkbox"/> WATER	<input checked="" type="checkbox"/> WATER
<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> AIR
<input checked="" type="checkbox"/> AQF-2 FOAMING AGENT	

DRILLING START/FINISH:

DATE: 09/10/2009 TIME: 0116
DATE: 09/24/2009 TIME: 2227

▼ 616.4 ft bgs 10/17/09
after well installation



Drafted By: TPMC
Project Number: 8000X

Date: November 09, 2009
Filename: R27i_Lithology_FactSheet

R-27i BOREHOLE STRATIGRAPHY

Water Canyon (TA-39)
Los Alamos National Laboratory
Los Alamos, New Mexico

FACT SHEET
NOT TO SCALE