[redacted] [redacted]

ENTERED

Return To Library > Records 2 > ERID-108500 through ERID-108999 > ERID-108563 1) FIELD WORK PLAN TO PLUG AND ABANDON TEST WELLS TW-2 TW-2A AND TW2B

Created By:	Aurelia A. Martinez/USERS/LANL
File name:	Master-Media Target.pdf
Version:	1.0
Document Type:	RFF Record
Description:	SUBMITTED BY VANESSA TRONCOSO, WES-RS REFERENCE CITED

Document Details:

Title:	ERID-108563 1) FIELD WORK PLAN TO PLUG AND ABANDON TEST WELLS TW-2 TW-2A AND TW2B
ERID Number.StartPage:	ERID-108563
Office of Record:	WES-DO
Date Received:	02/11/2010
Official Use Only:	N
Page Count:	13
Record Type:	Letter
Document Date:	02/08/2010
To:(Addressees - Organization)	N/A
From:(Senders - Organization)	TED BALL
Other Document Number(s):	PKG-1828, EP2010-0081
TA:	N/A

October 22nd, 2009

*** Denotes Fields that are mandatory.**

To download this file, right mouse click on the file and select 'Save to Disk' or 'Save Target as'

Master-Media Target.pdf <-- This link points to this version.

To check-out and/or edit this file, select Edit Document or Check Out Document from the Document menu above.

File Cabinet: Records 2

Binder Category: ERID-100000 through ERID-109999

Binder: ERID-108500 through ERID-108999

33381

N8563

November 2009

Field Work Plan to Plug and Abandon Test Wells TW-2, TW-2a, and TW-2b

RECEIVED
FEB 11 2010
By AM

RECEIVED
FEB 11 2010
By AM

Field Work Plan to Plug and Abandon Test Wells TW-2, TW-2a, and TW-2b

November 2009

Responsible LANS representative:

Printed Name	Signature	Title	Organization	Date
Mark Everett		Technical Lead	ADEP	1-13-10

Subcontract Technical Representative:

Printed Name	Signature	Title	Organization	Date
Robin Reynolds		STR	ADEP	1-13-10

Responsible subcontractor representatives:

Printed Name	Signature	Title	Organization	Date
Peter Gram		Program Manager	TerranearPMC	01/13/2010
Andrew Crowder		Project Manager	TerranearPMC	1/13/10

CONTENTS

1.0 INTRODUCTION **1**

2.0 PRE-ABANDONMENT ACTIVITIES **1**

2.1 Removal of Appurtenances 1

2.2 Inspection and Geophysical Data Collection 1

3.0 WELL CONSTRUCTION AND ABANDONMENT **1**

3.1 Well Construction 1

3.2 Plugging and Abandonment 2

3.2.1 TW-2 Abandonment 2

3.2.2 TW-2A Abandonment 3

3.2.3 TW-2B Abandonment 3

4.0 SURFACE COMPLETION **4**

5.0 WASTE **4**

6.0 HEALTH AND SAFETY **4**

7.0 REPORTING **4**

8.0 REFERENCES **4**

1.0 INTRODUCTION

This field work plan provides technical guidance for field activities associated with the plugging and abandonment of Test Well 2 (TW-2), TW-2a, and TW-2b located in Pueblo Canyon, Los Alamos, New Mexico as shown in Figures 1.0-1 and 1.0-2. Well abandonment of these wells will be consistent with the requirements and guidelines of Sections IV.B.1.b.v and X.D (Well Abandonment) of the Compliance Order on Consent (the Consent Order).

Specific details including pre-abandonment activities and well construction and abandonment details of the three wells are presented below.

2.0 PRE-ABANDONMENT ACTIVITIES

The following activities will be conducted prior to mobilizing well abandonment crews and equipment onsite.

2.1 Removal of Appurtenances

All aboveground and belowground appurtenances will be removed, including pumps, transducers, data loggers, control panels, concrete pad, etc. TW-2 and TW-2a are currently outfitted with submersible pumps. TW-2b is not outfitted with any dedicated hardware.

2.2 Inspection and Geophysical Data Collection

The wells will be inspected with a downhole video camera and a natural gamma log will be collected to document the existing conditions. Final water-level measurements will also be collected.

3.0 WELL CONSTRUCTION AND ABANDONMENT

This section describes the construction of TW-2, TW-2a, and TW-2b and the methods that will be employed to plug and abandon the each well.

3.1 Well Construction

TW-2 was installed in 1949 to monitor the water in the regional aquifer in Pueblo Canyon down gradient from the waste treatment plant at TA-45. TW-2 was completed to 789 ft, with a slotted screen section from 779-789 ft (Figure 3.1-1). The screen was removed and the well was deepened to 834 ft in 1991. Construction details are as follows:

- 0-57 ft: 16-in. inside diameter (I.D.) steel casing
- 0-197 ft: 12-in. I.D. steel casing
- 0-519 ft: 10-in. I.D. steel casing
- 0-779 ft: 8-in. I.D. steel casing
- 0-834 ft: 6-in. I.D. steel casing, with slotted screen section from 768-824 ft

Groundwater monitoring well TW-2A was installed in 1950 to monitor intermediate perched groundwater in Pueblo Canyon down gradient from the waste treatment plant at TA-45. Construction details are as follows (Figure 3.1-2):

- 0-12 ft: 12-in. inside diameter (I.D.) steel casing
- 0-118 ft: 8-in. I.D. steel casing
- 0-128 ft: 6-in. I.D. steel casing
- 128-133 ft: 6-in diameter screen

Groundwater monitoring well TW-2B was installed in 1950 in an attempt to isolate a zone of perched water above the regional aquifer identified during the drilling of TW-2 in Pueblo Canyon. At the time of drilling TW-2B, the perched aquifer was either not present or was of such limited extent that it could not be located. Construction details are as follows (Figure 3.1-3):

- 0-112 ft: 12-in. inside diameter (I.D.) steel casing
- 0-130 ft: 6-in. I.D. steel casing
- 130-225 ft: (potential) open hole

3.2 Plugging and Abandonment

The three wells will be plugged and abandoned per the direction of the New Mexico Environment Department (NMED). The TW-2 group of wells may be plugged and abandoned in any order that LANL deems appropriate. The well abandonments are listed in alphanumeric order in this field plan.

Older well completions like TW-2, TW-2A, and TW-2B represent some challenges in determining a specific abandonment approach because of incomplete and sometimes discrepant completion records, multiple casing strings, and old casing. Plugging and abandonment at these wells will generally take the approach of removing as much/many of the internal casing strings as possible in order to gain access to outer casing strings for the purpose of perforating and sealing via grouting. Attempts will be made at each well to remove all casing strings from the boreholes. This approach represents some risks of separating (parting) the casing strings. A conservative approach of pulling the casing strings at 125% of the string weight will be employed. The field crew will evaluate the reported length of each casing string while pulling and use readings from the hydraulic gauges on the drill rig to establish approximate pull back forces. Attachment A details general pipe weights and dimensions. Work will take place within the well from inside to outside, working on the smallest diameter casing first. Grouting will take place in stages at TW-2 in order to mitigate very high hydrostatic pressures that will be present in this telescopic hole, which will be capable of "blowing out" formations. Grouting in stages will also allow time for the grout to set while other work with larger casing strings is happening simultaneously. Casing cutters and perforators will be pneumatic tools run in the hole on drill rods. Perforation intervals will be oriented with four (vertical) rows of perforations spaced at 90 degrees. This approach will require the use of a rotary drilling rig.

3.2.1 TW-2 Abandonment

Based on the available well-completion notes, TW-2 does not have an annular seal or a filter pack around the screen. Completion notes disagree on the exact screen interval; one source places the top of the screen at 774 ft bgs. Completion notes are also unclear about the status of annular seals between strings of casing. Most likely, given TW-2 was installed with a cable-tool rig, there are no seals (e.g. cement) between casing strings. The actual conditions at the well will be determined by the video camera survey and other examinations at the start of field activities. Figure 3.1-1 details the construction specifics, casing schedule, and lithologic intervals at TW-2.

To plug and abandon TW-2, an effort will be made to remove the entire section of 6-in. casing and screen. Since the 6-in. casing was fished out of the hole in 1990 to deepen the hole (and very likely the hole was deepened with 8-in. tooling), it is probable that the entire section of 6-in. casing will be able to be pulled out. If the 6-in. casing string is not able to be removed, it will be perforated from 800 to 820 ft bgs, then cut off near the bottom of the 8-in. casing at 780 ft bgs and removed from the hole. After the 6-in. casing has been removed, an attempt will be made to remove the entire string of 8-in. casing. If the entire string of 8-in. casing is unable to be removed, it will be perforated from 720 to 770 ft bgs. The first grouting sequence will be initiated at this point. The 8-in. casing will be pressure-grouted with Portland Type I/II cement from the bottom to approximately 540 ft bgs using a tremie pipe. This 294 ft interval of grout will have substantial enough hydrostatic pressure to achieve the sealing objective without having too much pressure to potentially "blow out" the loose Totavi Lentil formation logged at the bottom of the hole. The 8-in. casing will then be cut off at 520 ft bgs and removed from the hole. An attempt will be made to remove the entire string of 10-in. casing. If the entire string of 10-in. casing is unable to be removed, it will be perforated from 380 to 420 ft bgs before being cut off at 200 ft bgs and removed from the hole. An attempt will be made to remove the entire string of 12-in. casing. If the entire string of 12-in. casing is unable to be removed, it will be perforated from 130 to 160 ft bgs. The second grouting sequence will be initiated at this point. The previously installed grout will be physically measured with a tag line and the second lift of grout will be installed from the top of the first lift to approximately 100 ft bgs. The 12-in. casing will be cut off at 60 ft bgs and removed from the hole. The 16-in. casing will either be removed from the hole entirely (if possible), cut off at 30 ft bgs and removed from the hole, or perforated from 10 to 30 ft bgs and left in place. The third grouting sequence will be initiated at this point. The previously installed grout will be physically measured with a tag line and the third lift of grout will be installed from the top of the second lift to approximately 2 ft bgs. Removing and/or perforating the 16-in. casing will ensure that any alluvial water that may be present will be sealed off from the well casing.

3.2.2 TW-2A Abandonment

Based on the available well-completion notes, TW-2A does not have an annular seal or a filter pack around the screen. Completion notes are not in agreement on the location and/or length of the 6-in. casing at TW-2A. One source reports that the 6-in. casing is only a single 10-ft piece swaged into the bottom of the 8-in. casing while another source states that the 6-in. casing is a continuous string from ground surface to 128 ft bgs. The actual conditions at the well will be determined by the video camera survey and other examinations at the start of field activities. Figure 3.1-2 details the construction specifics, casing schedule, and lithologic intervals at TW-2A.

To plug and abandon TW-2A, the screened interval will be evaluated to determine the need for either ripping or perforating. An attempt will be made to remove the entire section of 6-in. casing and screen. Based on the age of the well, it is difficult to predict the outcome of this approach. If removing the section of 6-in. casing and screen is determined to be either too risky or too time consuming to attempt, the lowermost 20-ft section will be perforated. If the 6-in. casing is found to be a continuous string, it will be cut off near the bottom of the 8-in. casing at approximated 188 ft bgs. An attempt will be made to remove the entire string of 8-in. casing. If the entire string of 8-in. casing is unable to be removed, it will be perforated in two intervals: 10 to 30 ft bgs and 95 to 115 ft bgs. An attempt will be made to remove the 12-ft piece of 12-in. casing at the surface. This may require minor excavation, but given its short length removal should be achievable. Removal of the 12-in. surface casing is desirable in order to eliminate any potential conduit for alluvial water (alluvium logged to 11-ft bgs).The top of the 8-in. casing will be cut off approximately 2-ft bgs. The entire well will be pressure-grouted in one continuous lift with Portland Type I/II cement from the bottom to approximately 2-ft bgs using a tremie pipe to force cement through the well screen and perforated intervals and into the formation.

3.2.3 TW-2B Abandonment

Based on the available well-completion notes, TW-2B does not have an annular seal or a screened interval. Completion notes are not in agreement on the location of the 6-in. casing at TW-2B. One source

places the bottom of the 6-in. casing at 223-ft bgs and another at 130-ft bgs, with the total depth of 225-ft bgs having been achieved in an open hole. The actual conditions at the well will be determined by the video camera survey and other examinations at the start of field activities. Figure 3.1-3 details the construction specifics, casing schedule, and lithologic intervals at TW-2B.

TW-2B will be abandoned by first grouting the open hole portion of the hole (if present) to 140 ft bgs. An attempt will be made to remove the entire 130-ft string of 6-in. casing. Based on the age of the well, it is difficult to predict the outcome of this approach. If the 6-in. casing is unable to be removed, it will be perforated from 105 to 125 ft bgs and then cut off at approximately 110-ft bgs near the bottom of the 12-in. casing string. After the 6-in. casing is removed, an attempt will be made to remove the entire string of 12-in. casing. If the entire string of 12-in. casing is unable to be removed, the 12-in. casing will be perforated at one interval: 10 to 30-ft bgs. The remaining portion of the well will be pressure-grouted in one continuous lift with Portland Type I/II cement from the bottom to approximately 2-ft bgs using a tremie pipe to force cement through the perforated intervals and into the formation in order to seal the open hole portion.

4.0 SURFACE COMPLETION

The holes will be cement-grouted to within 2.0 ft of ground surface. A 2-ft X 2-ft X 2-ft concrete surface pad will be installed at ground surface with a brass survey marker and will be surveyed in accordance with the Section IX.B.2.f of the Consent Order, which states that pertinent structures may be horizontally located with a global-positioning system to within 0.5 ft.

5.0 WASTE

No sampling will take place during plugging and abandonment of this well. The intent is to reuse and recycle all materials. If some materials cannot be recycled, they will be disposed of in accordance with the waste characterization strategy form that applies to this activity.

6.0 HEALTH AND SAFETY

Tailgate safety meetings will be conducted and daily site, drill rig, and heavy equipment inspection forms will be filled out prior to starting work. An IWD briefing will be conducted if the work scope changes or new hazards are introduced.

Copies of the emergency contact list and route to the hospital maps will be kept onsite.

7.0 REPORTING

A brief report will be prepared detailing the methods used, presenting borehole logs (video and natural gamma), quantities of materials used, and providing the final abandonment details. Figures depicting the location of the abandoned well and backfill completion will also be included in the report.

8.0 REFERENCES

Los Alamos Technical Associates, February 9, 1998. "Engineering, Geology, and Construction Data of Twenty-five Test Holes and Test Wells on and Adjacent to the Pajarito Plateau," report prepared for Los Alamos National Laboratory, (LA-UR-05-2230)

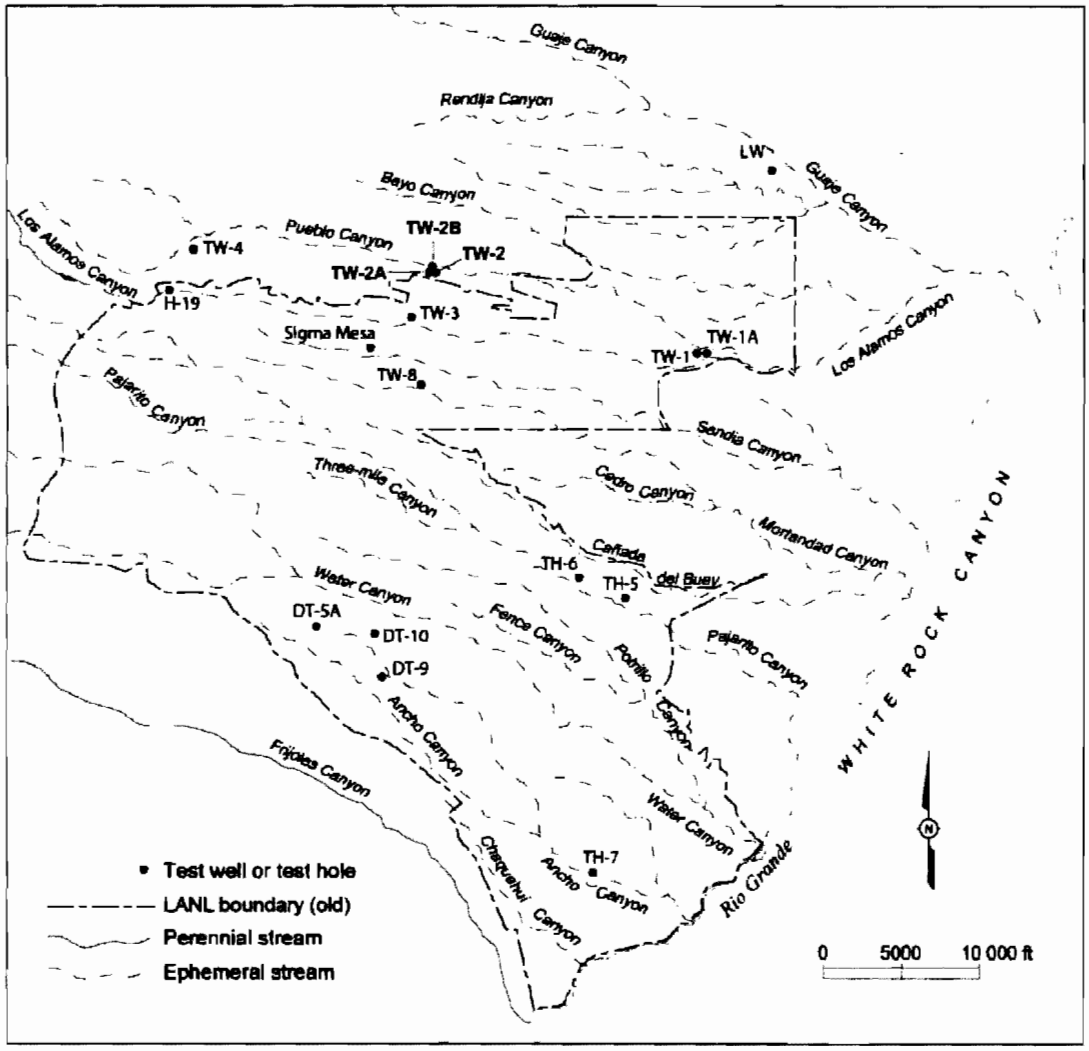


Figure 1.0-1 General location of wells TW-2, -2A, and -2B

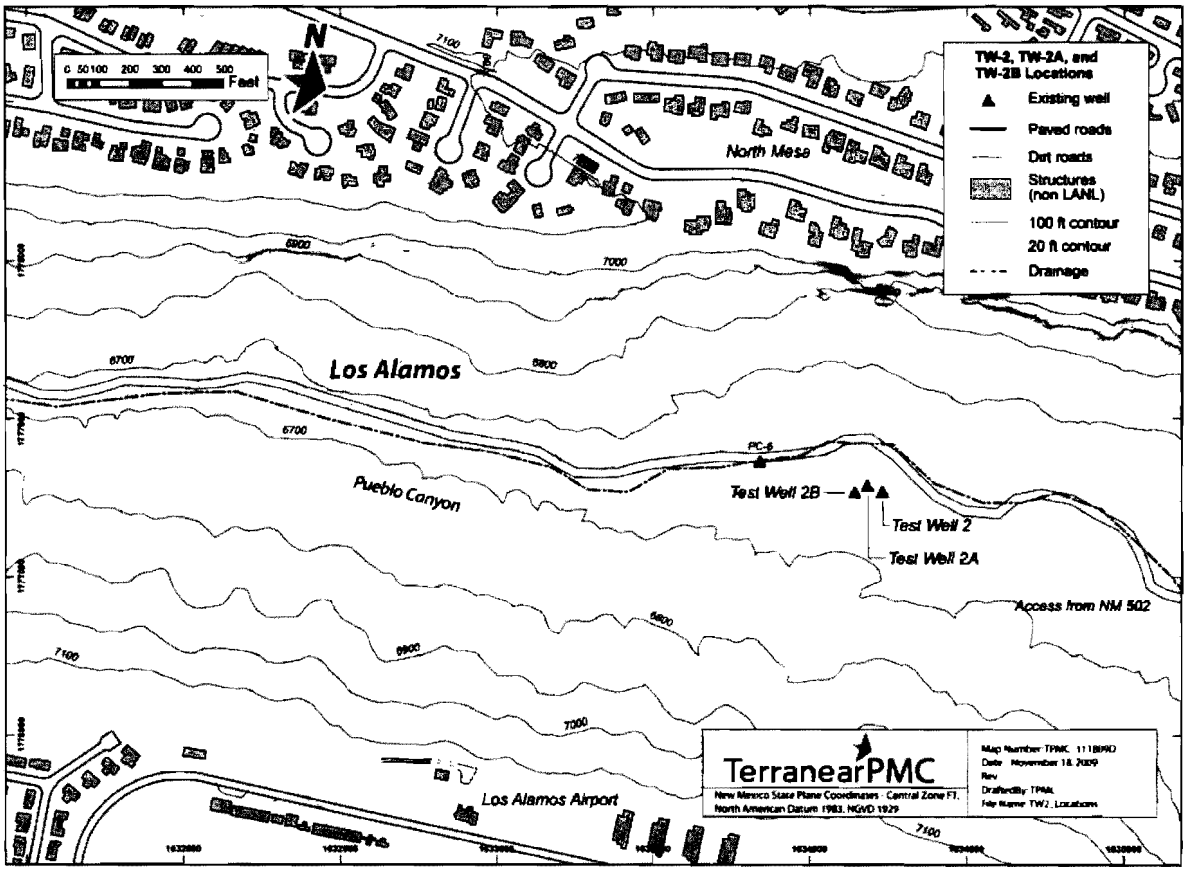


Figure 1.0-2 Detailed location of wells TW-2, -2A, and -2B

Test Well TW-2

Elevation (LSD): 6648.1 ft

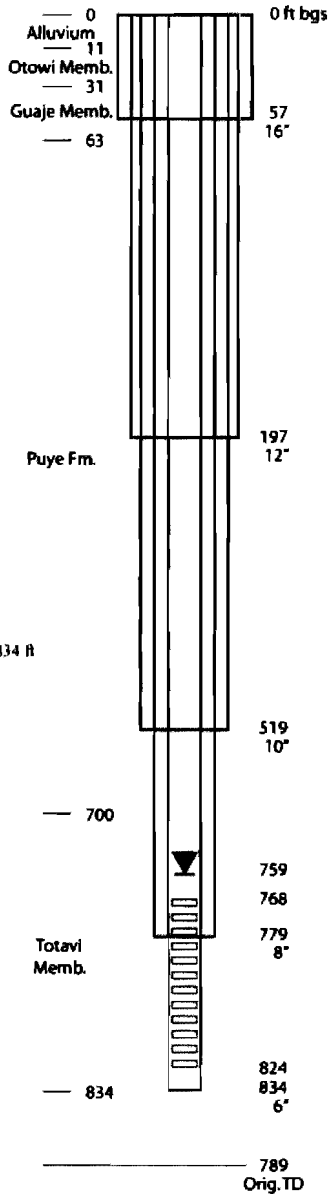
Water Level: 759 ft (1950)

Geologic Log	Thickness (ft)	Depth (ft)
Alluvium	11	11
Bandelier Tuff		
Otowi Member	20	31
Guaje Member	32	63
Puye Conglomerate		
Fanglomerate member	637	700
Totavi Lentil	134	834

Casing Schedule

Inner Diam (in.)	Depth (ft)	
16	0-57	
12	0-197	
10	0-519	
8	0-779	
6	0-834	(with slotted section 768 to 824 ft)

Note: Well completed to 789 ft in 1949; screen removed 779 to 789 ft and drilled and cased 0 to 834 ft December 1990.



TerranearPMC

Drafted By: TPMC
Project Number:
Date: November 12, 2009
File Name: TW2_WellDiagram

TW-2 WELL DIAGRAM
Pueblo Canyon
Los Alamos National Laboratory
Los Alamos, New Mexico

Fig. 3.1-1
NOT TO SCALE

Figure 3.1-1 Monitoring well TW-2 as-built well construction diagram

Test Well TW-2A

Elevation (LSD): 6650.4 ft

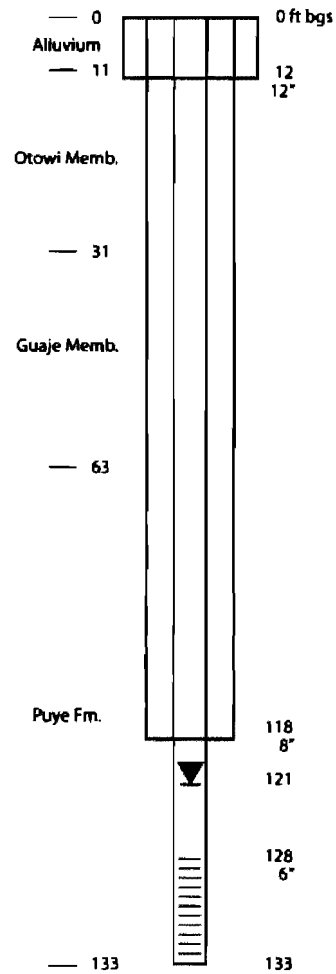
Water Level: 121 ft (1950)

Geologic Log	Thickness (ft)	Depth (ft)
Alluvium	11	11
Bandelier Tuff		
Otowi Member	20	31
Guaje Member	32	63
Puye Conglomerate		
Fanglomerate member	70	133

Casing Schedule

Inner Diam (in.)	Depth (ft)
12	0-12
8	0-118
6	0-128

5 ft of 6-in.-diam screen run from the bottom of the 6-in. casing 128-133 ft.



TerranearPMC

Drafted By: TPMC
Project Number:
Date: November 12, 2009
File Name: TW2A_WellDiagram

TW-2A WELL DIAGRAM
Pueblo Canyon
Los Alamos National Laboratory
Los Alamos, New Mexico

Fig. 3.1-2
NOT TO SCALE

Figure 3.1-2 Monitoring well TW-2A as-built well construction diagram

Test Well TW-2B

Elevation (LSD): 6647 ft

Water Level: See Note

Geologic Log	Thickness (ft)	Depth (ft)
Alluvium	11	11
Bandelier Tuff		
Otowi Member	20	31
Guaje Member	32	63
Puye Conglomerate		
Fanglomerate member	160	223

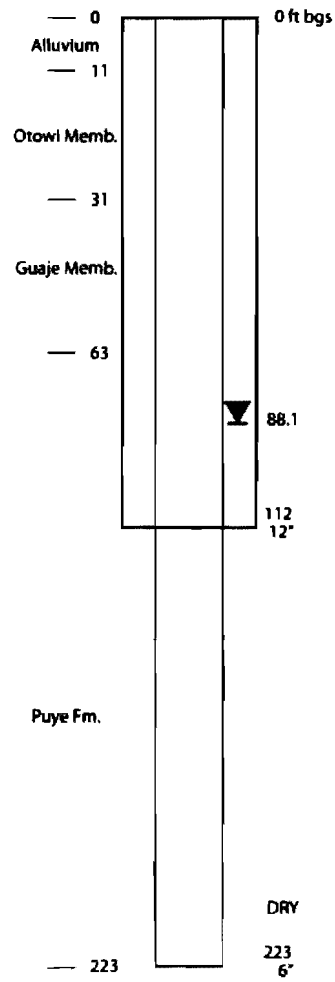
Casing Schedule

Inner Diam (in.)	Depth (ft)
12	0–112
6	0–223

Geophysical Log

Caliper (3-20-69), files available from the ESH-18 Geohydrology section.

Note: Between 12-in. and 6-in. casing: water level 88.1 ft; in 6-in. casing, dry at 223 ft.



TerranearPMC

Drafted By: TPMC
Project Number:
Date: November 12, 2009
File Name: TW2B_WellDiagram

TW-2B WELL DIAGRAM
Pueblo Canyon
Los Alamos National Laboratory
Los Alamos, New Mexico

Fig. 3.1-3
NOT TO SCALE

Figure 3.1-3 Monitoring well TW-2B as-built well construction diagram

UPPER FIGURES = WALL THICKNESS IN INCHES LOWER FIGURES = WEIGHT PER FOOT IN POUNDS

Pipe Size	O.D. in Inch	Dimensions and Weights of Seamless and Welded Pipe															DBLE. E.H.
		5s	5	10s	10	20	30	40s & Std.	40	60	80s & E.H.	80	100	120	140	160	
1/8	.405		.035 .1383	.049 .1863	.049 .1863			.068 .2447	.068 .2447		.095 .3145	.095 .3145					
1/4	.540		.049 .2570	.065 .3297	.065 .3297			.088 .4248	.088 .4248		.119 .5351	.119 .5351					
3/8	.675		.049 .3276	.065 .4235	.065 .4235			.091 .5676	.091 .5676		.126 .7338	.126 .7338					
1/2	.840	.065 .5383	.065 .5383	.083 .6710	.083 .6710			.109 .8510	.109 .8510		.147 1.088	.147 1.088				.187 1.304	.294 1.714
3/4	1.050	.065 .6838	.065 .6838	.083 .8572	.083 .8572			.113 1.131	.113 1.131		.154 1.474	.154 1.474				.218 1.937	.308 2.441
1	1.315	.065 .8678	.065 .8678	.109 1.404	.109 1.404			.133 1.679	.133 1.679		.179 2.172	.179 2.172				.250 2.844	.358 3.659
1 1/4	1.660	.065 1.107	.065 1.107	.109 1.806	.109 1.806			.140 2.273	.140 2.273		.191 2.997	.191 2.997				.250 3.765	.382 5.214
1 1/2	1.900	.065 1.274	.065 1.274	.109 2.085	.109 2.085			.145 2.718	.145 2.718		.200 3.631	.200 3.631				.281 4.859	.400 6.408
2	2.375	.065 1.604	.065 1.604	.109 2.638	.109 2.638			.154 3.653	.154 3.653		.218 5.022	.218 5.022				.343 7.444	.436 9.029
2 1/2	2.875	.083 2.475	.083 2.475	.120 3.531	.120 3.531			.203 5.793	.203 5.793		.276 7.661	.276 7.661				.375 10.01	.562 13.70
3	3.500	.083 3.029	.083 3.029	.120 4.332	.120 4.332			[illegible]	.216 7.576		.300 10.25	.300 10.25				.437 14.32	.600 18.58
3 1/2	4.000	.083 3.472	.083 3.472	.120 4.973	.120 4.973			.226 9.109	.226 9.109		.318 12.51	.318 12.51					.636 22.85
4	4.500	.083 3.915	.083 3.915	.120 5.613	.120 5.613			.237 10.79	.237 10.79	.281 12.66	.337 14.98	.337 14.98		.437 19.01		.531 22.51	.674 27.54
4 1/2	5.000							.247 12.53			.355 17.61						.710 32.53
5	5.563	.109 6.349	.109 6.349	.134 7.770	.134 7.770			.258 14.62	.258 14.62		.375 20.78	.375 20.78		.500 27.04		.625 32.96	.750 38.55
6	6.625	.109 7.585	.109 7.585	.134 9.290	.134 9.289			.280 18.97	.280 18.97		.432 28.57	.432 28.57		.562 36.39		.718 45.30	.864 53.16
7	7.625							.301 23.57			.500 38.05						.875 63.08
8	8.625	.109 9.914	.109 9.914	.148 13.40	.148 13.40	.250 22.36	.277 24.70	.322 28.55	.322 28.55	.406 35.64	.500 43.39	.500 43.39	.593 50.87	.718 60.93	.812 67.76	.906 74.69	.885 72.42
9	9.625							.342 33.90			.500 48.72						
10	10.750	.134 15.19	.134 15.19	.165 18.65	.165 18.70	.250 28.04	.307 34.24	.365 40.48	.365 40.48	.500 54.74	.500 54.74	.593 64.33	.718 76.93	.843 89.20	1.000 104.1	1.125 115.7	
11	11.750							.375 45.55			.500 60.07						
12	12.750	.156 21.07	.165 22.18	.180 24.16	.180 24.20	.250 33.38	.330 43.77	.375 49.56	.406 53.53	.562 73.16	.500 65.42	.687 88.51	.843 107.2	1.000 125.5	1.125 139.7	1.312 160.3	
14	14.000	.156 23.07		.188 27.73	.250 36.71	.312 45.68	.375 54.57	.375 54.57	.437 63.37	.593 84.91	.500 72.09	.750 106.1	.937 130.7	1.093 150.7	1.250 170.2	1.406 189.1	
16	16.000	.165 27.90		.165 31.75	.250 42.05	.312 52.36	.375 62.58	.375 62.58	.500 82.77	.656 107.5	.500 82.77	.843 136.5	1.031 164.8	1.218 192.3	1.437 223.5	1.593 245.1	
18	18.000	.165 31.43		.165 35.76	.250 47.39	.312 59.03	.437 82.06	.375 70.59	.562 104.8	.750 138.2	.500 93.45	.937 170.8	1.156 208.0	1.375 244.1	1.562 274.2	1.781 308.5	
20	20.000	.188 39.78		.218 46.05	.250 52.73	.375 78.60	.500 104.1	.375 78.60	.593 122.9	.812 166.4	.500 104.1	1.031 208.9	1.280 256.1	1.500 296.4	1.750 341.1	1.968 379.0	
22	22.000	.188 43.8		.218 50.71	.250 58.07	.375 86.61	.500 114.81	.375 86.61		.875 197.41	.500 114.81	1.125 250.81	1.375 302.88	1.625 353.61	1.875 403.0	2.125 451.06	
24	24.000	.218 55.37		.250 63.41	.250 63.41	.375 94.62	.562 140.8	.375 94.62	.687 171.2	.968 238.1	.500 125.5	1.218 296.4	1.531 367.4	1.812 429.4	2.062 483.1	2.344 542.13	
26	26.000				.312 85.60	.500 136.17		.375 102.63			.500 136.17						
28	28.000				.312 92.26	.500 146.85	.625 182.73	.375 110.64									
30	30.000	.250 79.43		.312 98.93	.312 98.93	.500 157.53	.625 196.08	.375 118.65			.500 157.53						
32	32.000				.312 105.59	.500 168.21	.625 209.43	.375 126.66	.688 230.08		.500 168.21						
34	34.000				.312 112.25	.500 178.89	.625 222.78	.375 134.67	.688 244.77								
36	36.000				.312 118.92		.625 236.13	.625 236.13	.750 282.35		.500 189.57						

Attachment A Pipe Dimensions and Weights

LANL Environmental Programs (EP) Directorate, Record Transmittal Form

[redacted]

To complete this form, see instructions on following pages. Use continuation version of form to list more records. See EP-DIR-SOP-4004 for more information.

Transmittal date: 02/11/2010 Priority Processing? Yes ☐ No ☑ **Official Use Only?** Yes ☐ No ☑ **UCNI?** Yes ☐ No ☑ Page 1 of 1

Reference Cited in NMED Deliverables? Yes ☑ No ☐ **Receipt Acknowledgement:** Do you need this form returned to you? Yes ☑ No ☐

Transmitter Information

Z # : 236166 Name: Vanessa Troncoso E-mail: tronco@lanl.gov Transmitters Organization: WES-RS

Contamination Potential

☑ To the best of my knowledge, the record(s) has no *radioactive* contamination. Signature: V. Troncoso

Record Type: Individual Record (no package) ☐ New package ☐ E-mail ☐ Add to existing package (fill in # and title below) ☑ Resubmitted/superseded record (record #) ☐

Package(s) # : 1828 Package title(s):

Reference/Retrieval Information

Organization: TA-21- PKG # 1828

Record (Package) Contents

Record Title	Media Type	Document Date	Author/Originator	Other Doc. # (e.g. Doc. Catalog #)	Page Count	ERID (RPF only)
Field Work Plan to Plug and Abandon Test Wells TW-2, TW-2a, and TW-2b	Paper (letter)	02/08/2010	Ted Ball	EP2010-0081	13	10[illegible]63
	-					
	-					
	-					

RPF Use Only (names and dates)

Accepted [illegible] Entered [illegible] Scanned [illegible] QC [illegible]

[redacted]

EP-DIR-SOP-4004, R1, IPC-1