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Please find enclosed the addendum to the "Environmental Restoration Operations Consolidated Quarterly Report, June 2011" (ER Quarterly Report) delivered to you on June 29, 2011. The addendum consists of a compact disc (CD) containing the "Appendix: Well Diagrams".

Please include this CD with the June 2011 ER Quarterly Report that was delivered to your office. If you have any questions regarding this Appendix, please contact Carolyn Daniel, Environmental Restoration Operations, at (505) 284-9986.



Well coordinate and elevation data are presented on these the well construction diagrams. Until recently, ER Project provided survey coordinates that were based on the New Mexico State Plane Coordinate System (NMSPC), Central Zone, North American Datum of 1927 (NAD27) and Northern Geographic Vertical Datum of 1929 (NGVD29) for elevations. In order to stay current with SNL/NM Facilities and KAFB survey practices, ER Project survey data is now based on New Mexico State Plane Central NAD 83 and North American Vertical Datum (NAVD) 88 datums. Location information for wells surveyed before August 2010 has been mathematically converted to the new NAD/NAVD using National Geodetic Survey approved software (Arc/Info Workstation Automated Machine Language and Blue Marble Geographics). All previously submitted survey data for the preexisting wells is superseded by this converted data.

Section I, Appendix A Well Diagrams

<b>Well ID</b>	<b>File Name</b>	<b>Location</b>	<b>Associated ER Site/SWMU</b>	<b>Installation Date</b>
CTF-MW1	CTF-MW1_116.pdf	Foothills near Bldg 9990	SWMU 116	8/16/2001
CTF-MW2	CTF-MW2_154.pdf	1.5 miles east of TA I	SWMU 154	8/18/2001
CTF-MW3	CTF-MW3_149.pdf	4000 ft. east of TA III	SWMU 149	8/21/2001
CYN-MW5	CYN-MW5_49.pdf	Lurance Canyon	SWMU 49	8/15/2001
CYN-MW6	CYN-MW6.pdf	Lurance Canyon	NA	12/9/2005
CYN-MW9	CYN-MW9.pdf	Burn Site	NA	7/27/2010
CYN-MW10	CYN-MW10.pdf	Burn Site	NA	7/28/2010
CYN-MW11	CYN-MW11.pdf	Burn Site	NA	7/29/2010
CYN-MW12	CYN-MW12.pdf	Burn Site	NA	7/29/2010
TAV-MW11	TAV-MW11.pdf	TA V	NA	11/19/2010
TAV-MW12	TAV-MW12.pdf	TA V	NA	11/16/2010
TAV-MW13	TAV-MW13.pdf	TA V	NA	11/12/2010
TAV-MW14	TAV-MW14.pdf	TA V	NA	11/8/2010

**Well Name:** CTF-MW1  
**Project Name:** OU 1295 MON. WELLS  
**NMOSE Well File Code:** RG-90065, Point of Diversion: 5  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 08/15/2001  
**Date Well Dev. Completed:** 08/16/2001

**Drilling Contractor:** WDC, INC.  
**Drilling Method:** ARCH AIR ROTARY  
**Borehole Depth (FBGS):** 270  
**Casing Depth (FBGS):** 265  
**Geo Location:** FOOTHILLS NR BLDG 9990  
**Completion Zone:** REGIONAL GROUNDWATER  
**Completion Formation:** PRE-CAMBRIAN GRANITE

**Survey Data**

**Survey Date:** 10/04/2001  
**Surveyed By:** ALBQ. SURVEYING CO. (ASC).  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1578313.5  
**(Y) Northing:** 1450100.26

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6082.99  
**Top of Inner Well Casing:** 6082.63  
**Concrete Pad:** 6080  
**Ground Surface:** 6079.7

**Calculated Depths and Elevations**

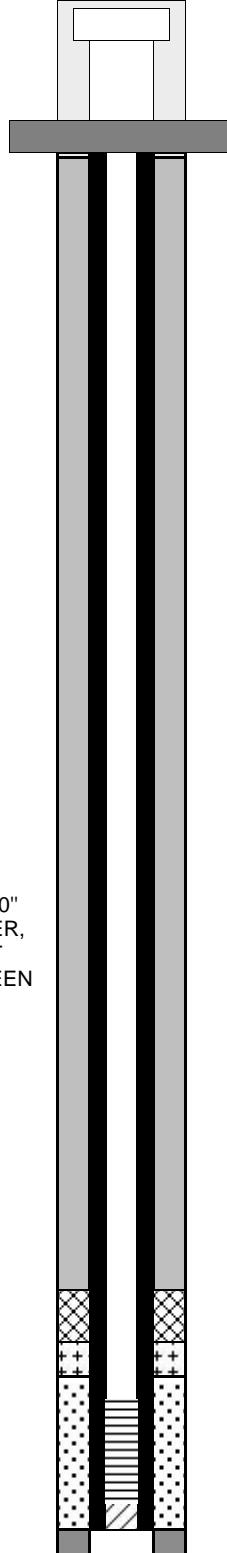
**Initial Water Elevation (FAMSL):** 5845.6  
**Initial Depth to Water (FBGS):** 231.37  
**Last Measured Water Elevation (FAMSL):** 5845.21  
**Date Last Measured:** 1/6/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 12-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:26:27 AM

**Comments:**

0"-7.5" CASED W/ 9-5/8" OD SURF CASING, 7.5"-270" DRILLED W/ AIR ROTARY W/ DOWN HOLE HAMMER, UNCASD. 1/1/11 - ORIGINAL STATE PLANE FEET NAD27/NGVD29 SURVEY COORDINATES HAVE BEEN RE-PROJECTED IN STATE PLANE FEET NAD83/NAVD88 COORDINATES



**Completion Data Measured Depths (FBGS)**

**Casing Stickup: 3**

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE	CASED	0	270	270	/ 8.5
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	265	265	5 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE GROUT	1	219	218	
<input checked="" type="checkbox"/> SEAL	3/8" BENT. CHIPS	219	229	10	
<input checked="" type="checkbox"/> SECONDARY PACK	#2/12 MONTERREY S	229	235.5	6.5	
<input checked="" type="checkbox"/> PRIMARY PACK	#3 MONTERREY SAN	235.5	270	34.5	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	240	260	20	
<input checked="" type="checkbox"/> SUMP	SCHEDULE 80 PVC	260	265	5	
<input type="checkbox"/> PLUG BACK	#3 MONTERREY SAN	265	270	5	

**Well Name:** CTF-MW2  
**Project Name:** OU 1295 MON. WELLS  
**NMOSE Well File Code:** RG-90065, Point of Diversion: 6  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 08/17/2001  
**Date Well Dev. Completed:** 08/18/2001

**Drilling Contractor:** WDC INC.  
**Drilling Method:** ARCH, AIR ROTARY  
**Borehole Depth (FBGS):** 190  
**Casing Depth (FBGS):** 135  
**Geo Location:** ~1.5 MILES E. OF TA III  
**Completion Zone:** REGIONAL GROUNDWATER  
**Completion Formation:** PRE-CAMBRIAN GRANITE

**Survey Data**

**Survey Date:** 10/04/2001  
**Surveyed By:** ALBQ. SURVEYING CO. (ASC)  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1562057.93  
**(Y) Northing:** 1448243.88

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5578.92  
**Top of Inner Well Casing:** 5578.6  
**Concrete Pad:** 5575.9  
**Ground Surface:** 5575.6

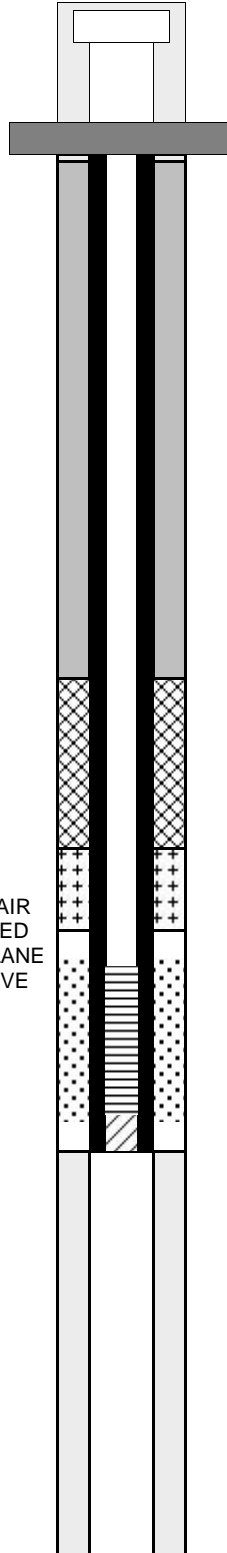
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 5531.07  
**Initial Depth to Water (FBGS):** 41.87  
**Last Measured Water Elevation (FAMSL):** 5534.9  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 12-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:26:57 AM

**Comments:**  
 0"-110" DRILLED W/ ARCH, 110"-190" DRILLED W/ AIR ROTARY W/ DOWN HOLE HAMMER, HOLE UNCASSED CAVED IN 135"-190". 1/1/11 - ORIGINAL STATE PLANE FEET NAD27/NGVD29 SURVEY COORDINATES HAVE BEEN RE-PROJECTED IN STATE PLANE FEET NAD83/NAVD88 COORDINATES



**Completion Data Measured Depths (FBGS)**

**Casing Stickup: 3**

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	190	190	/ 9.625
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	135	135	5 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE GROUT	1	71	70	
<input checked="" type="checkbox"/> SEAL	3/8" BENTONITE CHIP	71	94	23	
<input checked="" type="checkbox"/> SECONDARY PACK	#2/12 MONTERREY S	94	105	11	
<input checked="" type="checkbox"/> PRIMARY PACK	#3 MONTERREY SAN	105	135	30	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	110	130	20	
<input checked="" type="checkbox"/> SUMP	SCHEDULE 80 PVC	130	135	5	

**Well Name:** CTF-MW3  
**Project Name:** OU 1295 MON. WELLS  
**NMOSE Well File Code:** RG-90065, Point of Diversion: 7  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 08/18/2001  
**Date Well Dev. Completed:** 08/21/2001

**Drilling Contractor:** WDC INC.  
**Drilling Method:** ARCH, AIR ROTARY  
**Borehole Depth (FBGS):** 430  
**Casing Depth (FBGS):** 365  
**Geo Location:** ~4000' E. OF TA III  
**Completion Zone:** REGIONAL GROUNDWATER  
**Completion Formation:** PRE-CAM GRANITE & QUARTZITE

**Survey Data**

**Survey Date:** 10/04/2001  
**Surveyed By:** ALBQ. SURVEYING CO. (ASC)  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1559709.35  
**(Y) Northing:** 1446826.06

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5523.29  
**Top of Inner Well Casing:** 5522.82  
**Concrete Pad:** 5520.15  
**Ground Surface:** 5519.8

**Calculated Depths and Elevations**

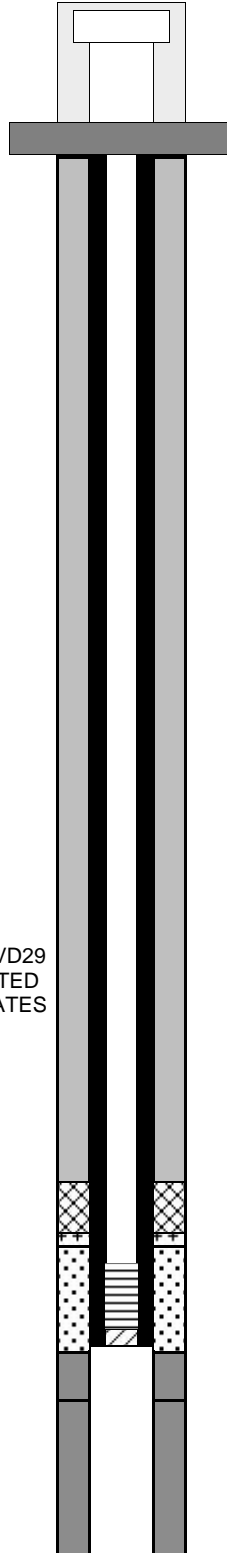
**Initial Water Elevation (FAMSL):** 5220.52  
**Initial Depth to Water (FBGS):** 296.58  
**Last Measured Water Elevation (FAMSL):** 5216.46  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 12-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:27:36 AM

**Comments:**

0'-29' DRILLED W/ ARCH, 29'-420' DRILLED W/ AIR ROTARY W/ DOWN HOLE HAMMER (UNCASED)  
 1/1/11 - ORIGINAL STATE PLANE FEET NAD27/NGVD29 SURVEY COORDINATES HAVE BEEN RE-PROJECTED IN STATE PLANE FEET NAD83/NAVD88 COORDINATES



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 3.1

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	430	430	/ 8.5
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	365	365	5 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE GROUT	1	315	314	
<input checked="" type="checkbox"/> SEAL	3/8" BENTONITE CHIP	315	330.5	15.5	
<input checked="" type="checkbox"/> SECONDARY PACK	#2/12 MONTERREY S	330.5	334.5	4	
<input checked="" type="checkbox"/> PRIMARY PACK	#3 MONTERREY SAN	334.5	367	32.5	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	340	360	20	
<input checked="" type="checkbox"/> SUMP	SCHEDULE 80 PVC	360	365	5	
<input type="checkbox"/> PLUGBACK	#2/12 MONTERREY S	367	382	15	
<input type="checkbox"/> PLUGBACK	BENTONITE GROUT	382	430	63	

**Well Name:** CYN-MW5  
**Project Name:** OU 1295 MON. WELLS  
**NMOSE Well File Code:** RG-90065, Point of Diversion: 25  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 08/14/2001  
**Date Well Dev. Completed:** 08/15/2001

**Drilling Contractor:** WDC INC.  
**Drilling Method:** ARCH, AIR ROTARY  
**Borehole Depth (FBGS):** 170  
**Casing Depth (FBGS):** 160  
**Geo Location:** LURANCE CANYON  
**Completion Zone:** REGIONAL GROUNDWATER  
**Completion Formation:** PRE-CAMBRIAN QUARTZITE

**Survey Data**

**Survey Date:** 10/04/2001  
**Surveyed By:** ALBQ. SURVEYING CO. (ASC)  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1579605.96  
**(Y) Northing:** 1455782.34

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5984.5  
**Top of Inner Well Casing:** 5984.23  
**Concrete Pad:** 5981.55  
**Ground Surface:** 5981.3

**Calculated Depths and Elevations**

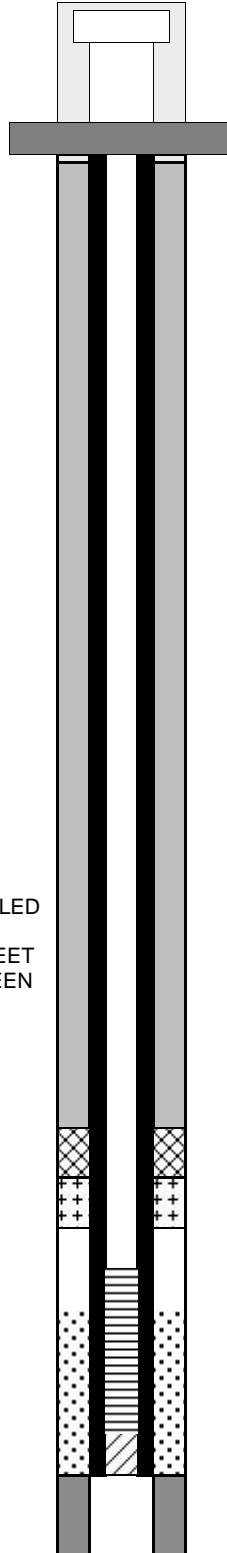
**Initial Water Elevation (FAMSL):** 5875.78  
**Initial Depth to Water (FBGS):** 102.78  
**Last Measured Water Elevation (FAMSL):** 6193.5  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 12-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:25:32 AM

**Comments:**

0-50 FBGS DRILLED W/ ARCH, 50-170 FBGS. DRILLED W/ AIR ROTARY W/ DOWN HOLE HAMMER (UNCASED) 1/1/11 - ORIGINAL STATE PLANE FEET NAD27/NGVD29 SURVEY COORDINATES HAVE BEEN RE-PROJECTED IN STATE PLANE FEET NAD83/NAVD88 COORDINATES



**Completion Data Measured Depths (FBGS)**

**Casing Stickup: 3**

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	170	170	/ 9.625
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	160	160	5 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE GROUT	1	118	117	
<input checked="" type="checkbox"/> SEAL	3/8" BENT. CHIPS	118	124	6	
<input checked="" type="checkbox"/> SECONDARY PACK	#2/12 MONTERREY S	124	130	6	
<input checked="" type="checkbox"/> PRIMARY PACK	#3 MONTERREY SAN	130	170	40	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	135	155	20	
<input checked="" type="checkbox"/> SUMP	SCHEDULE 80 PVC	155	160	5	
<input type="checkbox"/> PLUG BACK	#3 MONTERREY SAN	160	170	10	

**Well Name:** CYN-MW6  
**Project Name:** BURN SITE GROUNDWATER  
**NMOSE Well File Code:** RG-90065, Point of Diversion: 26  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 12/07/2005  
**Date Well Dev. Completed:** 12/09/2005

**Drilling Contractor:** WTER DEVELOPMENT CORP.  
**Drilling Method:** AIR ROTARY AND ARCH  
**Borehole Depth (FBGS):** 165  
**Casing Depth (FBGS):** 161.69  
**Geo Location:** LURANCE CANYON  
**Completion Zone:** BEDROCK AQUIFER  
**Completion Formation:** PHYLLITE

**Survey Data**

**Survey Date:** 08/15/2010  
**Surveyed By:** SURVEYING CONTROL, INC.  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1592563.7  
**(Y) Northing:** 1457170.6

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6343.74  
**Top of Inner Well Casing:** 6343.37  
**Concrete Pad:** 6340.76  
**Ground Surface:** 6340.5

**Calculated Depths and Elevations**

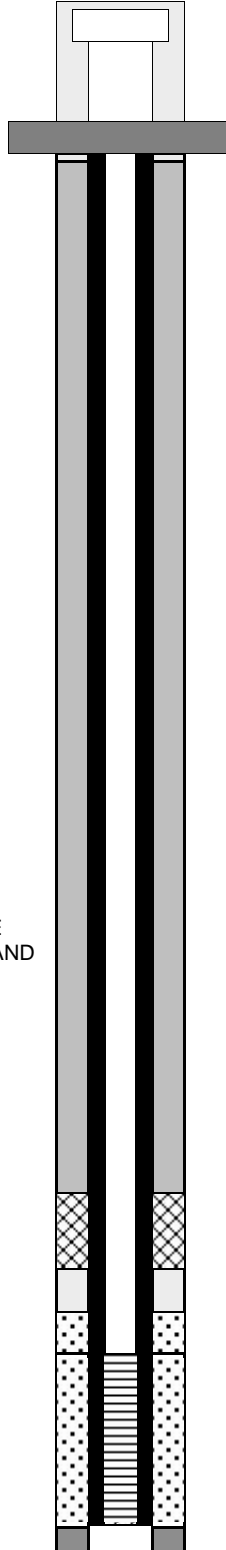
**Initial Water Elevation (FAMSL):** 6204.24  
**Initial Depth to Water (FBGS):** 136.75  
**Last Measured Water Elevation (FAMSL):** 6193.5  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 12-APR-2011  
**Date Printed from EDMS:** 4/20/2011 8:08:51 AM

**Comments:**

NO SUMP INSTALLED IN WELL. NO WATER DETECTED DURING DRILLING. DUST DISCHARGE CHANGE AT 138.5 FBGS. AT 155 FTLET WELL STAND 1 HR., WATER ROSE TO 146 FT. NO WATER OBSERVED DURING DRILLING FROM 155-165 FT.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.9

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	165	165	
<input checked="" type="checkbox"/> CASING	SCHEDULE 80 PVC	0	161.7	161.7	/ 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE GROUT	1	122.6	122.6	
<input checked="" type="checkbox"/> BETNONTONITE CHIP S	HYDRATED BENTONI	122.6	131.5	8.9	
<input checked="" type="checkbox"/> PRIMARY FILTER PACK	10/20 SILICA SAND	136.6	141.5	4.9	
<input checked="" type="checkbox"/> PRIMARY FILTER PACK	10/20 SILICA SAND	141.5	162	20.5	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	141.5	161.3	19.8	/ 5.5
<input checked="" type="checkbox"/> SUMP	SCHEDULE 80 PVC	161.3	161.7	0.4	
<input type="checkbox"/> SLOUGH PLUG BACK		162	165	3.3	



**Well Name:** CYN-MW9  
**Project Name:** ER PROJECT  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 109  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 07/12/2010  
**Date Well Dev. Completed:** 07/27/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 207  
**Casing Depth (FBGS):** 200.8  
**Geo Location:** SNL/NM BURN SITE  
**Completion Zone:** BEDROCK  
**Completion Formation:** PRECAMBRIAN PHYLLITE

**Survey Data**

**Survey Date:** 08/18/2010  
**Surveyed By:** STEPHEN TOLER

State Plane Coordinates: NAD 83

**(X) Easting:** 1593006.71  
**(Y) Northing:** 1457261.48

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6361.18  
**Top of Inner Well Casing:** 6360.67  
**Concrete Pad:** 6358.77  
**Ground Surface:** 6358.5

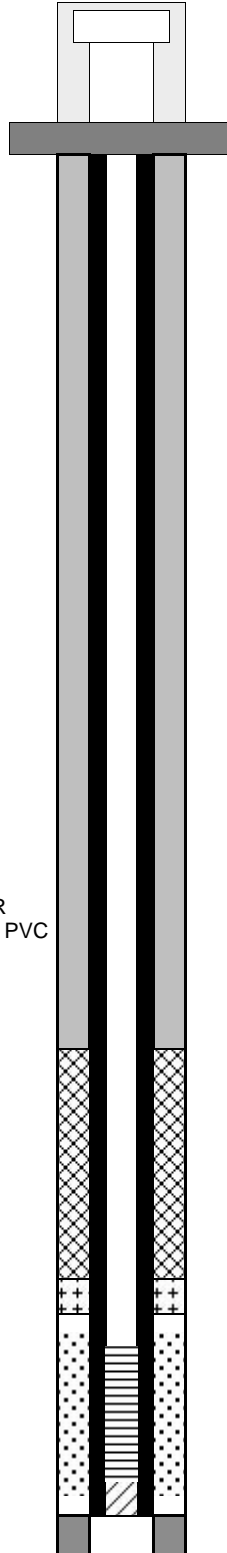
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 6197.04  
**Initial Depth to Water (FBGS):** 163.63  
**Last Measured Water Elevation (FAMSL):** 6196.31  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 22-SEP-2010  
**Date Printed from EDMS:** 4/13/2011 9:30:43 AM

**Comments:**  
 AQUIFER IS SEMI-CONFINED, FIRST FREE WATER SEEN DURING DRILLING WAS AT 180 FBGS. 5 IN. PVC BUNG INSTALLED IN BOTTOM OF SUMP.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.2

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	207	207	/ 9.625
<input type="checkbox"/> CASING	PVC	0	200.8	200.8	4.77 / 5.56
<input type="checkbox"/> GROUT/BACKFILL	BENT. GROUT/CONC	0	132	132	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	132	166	34	
<input checked="" type="checkbox"/> SECONDARY PACK	60 SILICA SAND	166	171	5	
<input checked="" type="checkbox"/> PRIMARY PACK	10-20 SILICA SAND	171	200.8	29.8	
<input type="checkbox"/> SCREEN	PVC	175.8	195.8	20	
<input checked="" type="checkbox"/> SUMP		195.8	200.8	5	
<input type="checkbox"/> PLUG BACK	10-20 SILICA SAND	200.8	207	6.2	

**Well Name:** CYN-MW10  
**Project Name:** ER PROJECT  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 110  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 07/14/2010  
**Date Well Dev. Completed:** 07/28/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 181  
**Casing Depth (FBGS):** 175.4  
**Geo Location:** SNL/NM BURN SITE  
**Completion Zone:** BEDROCK  
**Completion Formation:** PRECAMBRIAN PHYLLITE

**Survey Data**

**Survey Date:** 08/18/2010  
**Surveyed By:** STEPHEN TOLER

State Plane Coordinates: NAD 83

**(X) Easting:** 1593043.38  
**(Y) Northing:** 1456813.04

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6346  
**Top of Inner Well Casing:** 6345.45  
**Concrete Pad:** 6343.32  
**Ground Surface:** 6342.8

**Calculated Depths and Elevations**

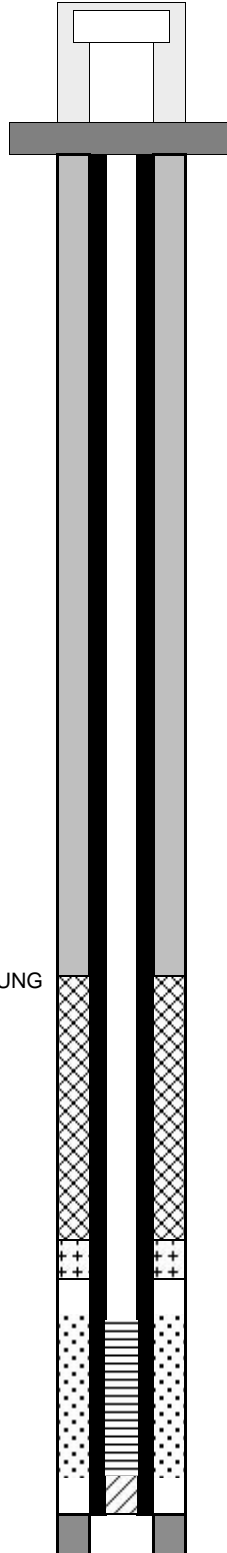
**Initial Water Elevation (FAMSL):** 6224.37  
**Initial Depth to Water (FBGS):** 121.08  
**Last Measured Water Elevation (FAMSL):** 6223  
**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 22-SEP-2010  
**Date Printed from EDMS:** 4/13/2011 9:31:21 AM

**Comments:**

AQUIFER IS SEMI-CONFINED, FIRST VERY DAMP CUTTINGS SEEN DURING DRILLING WAS AT ~160 FBGS. BOREHOLE CUTTINGS AND SAND WERE USED IN THE PLUG BACK INTERVAL. 5 IN. PVC BUNG INSTALLED IN BOTTOM OF SUMP.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.7

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	181	181	/ 9.625
<input type="checkbox"/> CASING	PVC	0	175.4	175.4	4.77 / 5.56
<input type="checkbox"/> GROUT/BACKFILL	BENT. GROUT/CEME	0	106	106	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	106	140.1	34.1	
<input checked="" type="checkbox"/> SECONDARY PACK	60 SILICA SAND	140.1	145	4.9	
<input checked="" type="checkbox"/> PRIMARY PACK	10-20 SILICA SAND	145	175.4	30.4	
<input type="checkbox"/> SCREEN	PVC	150.4	170.4	20	
<input checked="" type="checkbox"/> SUMP		170.4	175.4	5	
<input type="checkbox"/> PLUG BACK	10-20 SILICA SAND	175.4	181	5.6	

**Well Name:** CYN-MW11  
**Project Name:** ER PROJECT  
**NMOSE Well File Code:** RG-90065, POINT IF DIVERSION: 111  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 07/15/2010  
**Date Well Dev. Completed:** 07/29/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 258  
**Casing Depth (FBGS):** 254.8  
**Geo Location:** SNL/NM BURN SITE  
**Completion Zone:** BEDROCK  
**Completion Formation:** PRECAMBRIAN PHYLLITE

**Survey Data**

**Survey Date:** 08/18/2010  
**Surveyed By:** STEPHEN TOLER

State Plane Coordinates: NAD 83

**(X) Easting:** 1593549.25  
**(Y) Northing:** 1457079.74

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6374.87  
**Top of Inner Well Casing:** 6374.41  
**Concrete Pad:** 6372.27  
**Ground Surface:** 6371.9

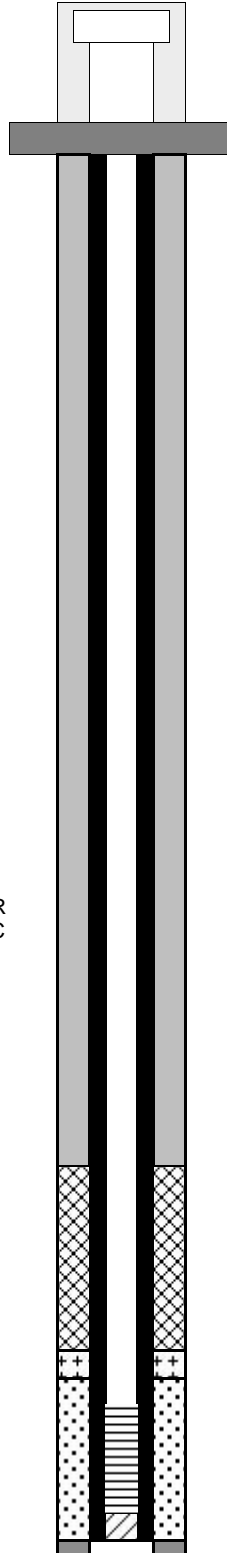
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 6277.75  
**Initial Depth to Water (FBGS):** 96.66  
**Last Measured Water Elevation (FAMSL):** 6275.92  
**Date Last Measured:** 1/13/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 22-SEP-2010  
**Date Printed from EDMS:** 4/13/2011 9:31:57 AM

**Comments:**  
 AQUIFER IS SEMI-CONFINED, FIRST FREE WATER SEEN DURING DRILLING AT ~230 FBGS. 5 IN. PVC BUNG INSTALLED IN BOTTOM OF SUMP.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.5

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	258	258	/ 9.625
<input type="checkbox"/> CASING	PVC	0	254.8	254.8	4.77 / 5.56
<input type="checkbox"/> GROUT/BACKFILL	BENT. GROUT/CEME	0	186	186	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	186	220	34	
<input checked="" type="checkbox"/> SECONDARY PACK	60 SILICA SAND	220	225	5	
<input checked="" type="checkbox"/> PRIMARY PACK	10-20 SILICA SAND	225	254.8	29.8	
<input type="checkbox"/> SCREEN	PVC	229.8	249.8	20	
<input checked="" type="checkbox"/> SUMP		249.8	254.8	5	
<input type="checkbox"/> PLUG BACK	10-20 SILICA SAND	254.8	258	3.2	

**Well Name:** CYN-MW12  
**Project Name:** ER PROJECT  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 112  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 07/20/2010  
**Date Well Dev. Completed:** 07/29/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 290  
**Casing Depth (FBGS):** 277.5  
**Geo Location:** SNL/NM BURN SITE  
**Completion Zone:** BEDROCK  
**Completion Formation:** PRECAMBRIAN PHYLLITE

**Survey Data**

**Survey Date:** 08/18/2010  
**Surveyed By:** STEPHEN TOLER

State Plane Coordinates: NAD 83

**(X) Easting:** 1592251.79

**(Y) Northing:** 1457335.12

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 6345.67

**Top of Inner Well Casing:** 6345.16

**Concrete Pad:** 6343.15

**Ground Surface:** 6342.9

**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 6139.38

**Initial Depth to Water (FBGS):** 205.78

**Last Measured Water Elevation (FAMSL):** 6138.54

**Date Last Measured:** 1/7/2011

**Miscellaneous Information**

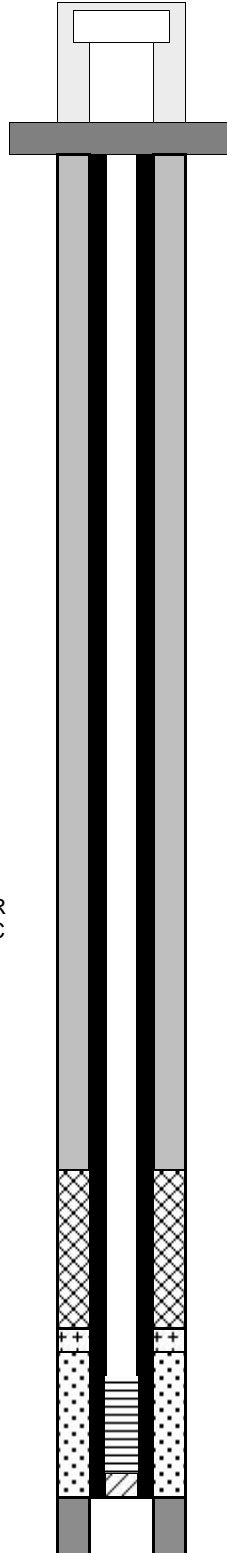
**Date of Last Maintenance:**

**Date Updated:** 22-SEP-2010

**Date Printed from EDMS:** 4/13/2011 9:32:29 AM

**Comments:**

AQUIFER IS SEMI-CONFINED, FIRST FREE WATER SEEN DURING DRILLING AT ~261 FBGS. 5 IN. PVC BUNG INSTALLED IN BOTTOM OF SUMP.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.2

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	290	290	/ 9.625
<input type="checkbox"/> CASING	PVC	0	277.5	277.5	4.77 / 5.56
<input type="checkbox"/> GROUT/BACKFILL	BENT. GROUT/CEME	0	210	210	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	210	242.8	32.8	
<input checked="" type="checkbox"/> SECONDARY PACK	60 SILICA SAND	242.8	247.5	4.7	
<input checked="" type="checkbox"/> PRIMARY PACK	10-20 SILICA SAND	247.5	277.5	30	
<input type="checkbox"/> SCREEN	PVC	252.5	272.5	20	
<input checked="" type="checkbox"/> SUMP		272.5	277.5	5	
<input type="checkbox"/> PLUG BACK	10-20 SILICA SAND	277.5	290	12.5	

**Well Name:** TAV-MW11  
**Project Name:** TA-V GROUNDWATER  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 113  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 11/09/2010  
**Date Well Dev. Completed:** 11/19/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 542  
**Casing Depth (FBGS):** 537  
**Geo Location:** TECH AREA V ON KAFB  
**Completion Zone:** ALLUVIAL FAN FACIES  
**Completion Formation:** SANTA FE

**Survey Data**

**Survey Date:** 03/29/2011  
**Surveyed By:** SURVEYING CONTROL, INC.

State Plane Coordinates: NAD 83

**(X) Easting:** 1555289.81  
**(Y) Northing:** 1454943.33

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5440.39  
**Top of Inner Well Casing:** 5440.12  
**Concrete Pad:** 5440.39  
**Ground Surface:** 5440.4

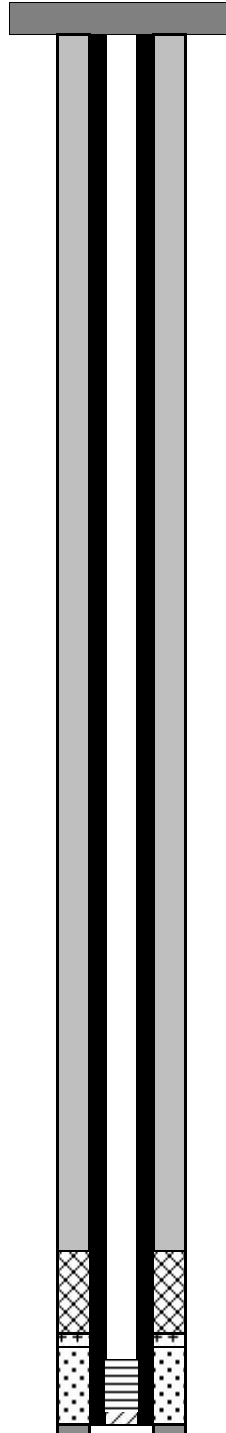
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 4923.48  
**Initial Depth to Water (FBGS):** 516.91  
**Last Measured Water Elevation (FAMSL):** 4923.48  
**Date Last Measured:** 1/14/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 11-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:21:22 AM

**Comments:**  
 BOREHOLE DIAMETER IS 11.75 IN. 0 TO 200 FBGS AND 9.625 IN. FROM 200 TO 542 FBGS.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** -0.3

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	542	542	
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	537	537	4.75 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE, CONCRE	0	470	470	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	470	502	32	
<input checked="" type="checkbox"/> SECONDARY PACK	#60 SILICA SAND	502	507	5	
<input checked="" type="checkbox"/> PRIMARY PACK	#20-40 SILICA SAND	507	542	35	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	512	532	20	/ 5.5
<input checked="" type="checkbox"/> SUMP		532	537	5	
<input type="checkbox"/> PLUG BACK	#20-40 SILICA SAND	537	542	5	

**Well Name:** TAV-MW12  
**Project Name:** TAV-V GROUNDWATER  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 114  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 11/03/2010  
**Date Well Dev. Completed:** 11/16/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 537  
**Casing Depth (FBGS):** 532  
**Geo Location:** TECH AREA V ON KAFB  
**Completion Zone:** ALLUVIAL FAN FACIES  
**Completion Formation:** SANTA FE

**Survey Data**

**Survey Date:** 03/29/2011  
**Surveyed By:** SURVEYING CONTROL, INC.

State Plane Coordinates: NAD 83

**(X) Easting:** 1554808.97  
**(Y) Northing:** 1454429.88

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5436.06  
**Top of Inner Well Casing:** 5435.72  
**Concrete Pad:** 5433.14  
**Ground Surface:** 5432.9

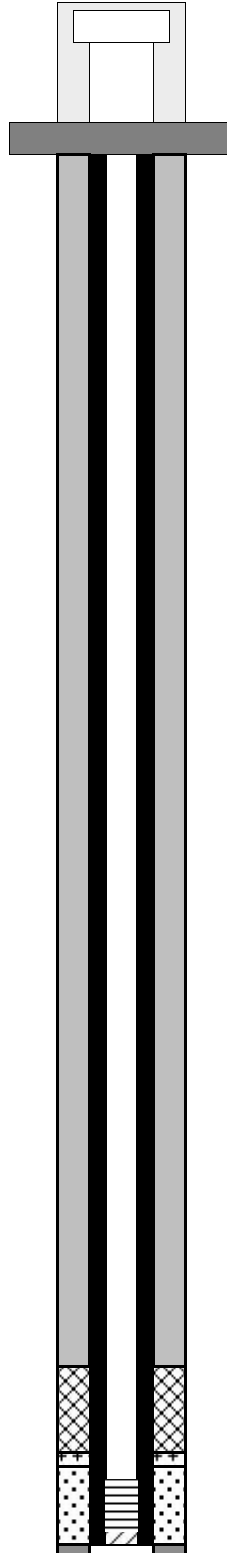
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 4922.92  
**Initial Depth to Water (FBGS):** 509.99  
**Last Measured Water Elevation (FAMSL):** 4922.92  
**Date Last Measured:** 1/17/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 11-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:20:35 AM

**Comments:**  
 BOREHOLE DIAMETER IS 11.75 IN. 0 TO 220 FBGS AND 9.625 IN. FROM 220 TO 537 FBGS.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.8

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	537	537	
<input type="checkbox"/> CASING	SCHEDULE 80 PVC	0	532	532	
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE, CONCRE	0	464	464	
<input checked="" type="checkbox"/> SEAL	3/8 IN BENT. CHIPS	464	497	33	
<input checked="" type="checkbox"/> SECONDARY PACK	#60 SILICA SAND	497	502	5	
<input checked="" type="checkbox"/> PRIMARY PACK	#20-40 SILICA SAND	502	537	35	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	507	527	20	/ 5.5
<input checked="" type="checkbox"/> SUMP		527	532	5	
<input type="checkbox"/> PLUG BACK	20-40 SILICA SAND	532	537	5	

**Well Name:** TAV-MW13  
**Project Name:** TA-V GROUNDWATER  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 115  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 10/21/2010  
**Date Well Dev. Completed:** 11/12/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 597  
**Casing Depth (FBGS):** 550  
**Geo Location:** TECH AREA V ON KAFB  
**Completion Zone:** ALLUVIAL FAN FACIES  
**Completion Formation:** SANTA FE

**Survey Data**

**Survey Date:** 03/29/2011  
**Surveyed By:** SURVEYING CONTROL, INC.  
 State Plane Coordinates: NAD 83  
**(X) Easting:** 1553390.72  
**(Y) Northing:** 1455391.7

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5409.4  
**Top of Inner Well Casing:** 5409.02  
**Concrete Pad:** 5406.23  
**Ground Surface:** 5406

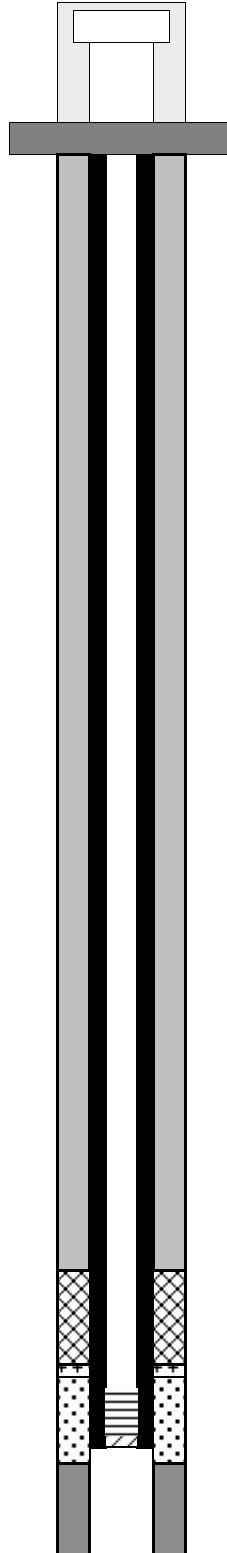
**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 4915.22  
**Initial Depth to Water (FBGS):** 490.82  
**Last Measured Water Elevation (FAMSL):** 4915.22  
**Date Last Measured:** 1/17/2011

**Miscellaneous Information**

**Date of Last Maintenance:**  
**Date Updated:** 11-APR-2011  
**Date Printed from EDMS:** 4/13/2011 9:19:32 AM

**Comments:**  
 BOREHOLE DIAMETER IS 11.75 IN. 0 TO 320 FBGS AND 9.625 IN. FROM 320 TO 597 FBGS.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup: 3**

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	597	597	
<input checked="" type="checkbox"/> CASING	SCHEDULE 80 PVC	0	550	550	4.75 / 5.5
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE, CONCRETE	0	475	475	
<input checked="" type="checkbox"/> SEAL	3/8 IN. BENT. CHIPS	475	515	40	
<input checked="" type="checkbox"/> SECONDARY PACK	#60 SILICA SAND	515	520	5	
<input checked="" type="checkbox"/> PRIMARY PACK	#10-20 SILICA SAND	520	557	37	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	525	545	20	/ 5.5
<input checked="" type="checkbox"/> SUMP		545	550	5	
<input type="checkbox"/> PLUG BACK	3/8 IN. BENT. CHIPS	557	597	40	

**Well Name:** TAV-MW14  
**Project Name:** TA-V GROUNDWATER  
**NMOSE Well File Code:** RG-90065, POINT OF DIVERSION: 116  
**Owner Name:** SNL/NM  
**Date Drilling Started:** 10/22/2010  
**Date Well Dev. Completed:** 11/08/2010

**Drilling Contractor:** WDC EXPLORATION & WELLS  
**Drilling Method:** AIR ROTARY CASING HAMMER  
**Borehole Depth (FBGS):** 549  
**Casing Depth (FBGS):** 538  
**Geo Location:** TECH AREA V ON KAFB  
**Completion Zone:** ALLUVIAL FAN FACIES  
**Completion Formation:** SANTA FE

**Survey Data**

**Survey Date:** 03/29/2011  
**Surveyed By:** SURVEYING CONTROL, INC.

State Plane Coordinates: NAD 83

**(X) Easting:** 1555140.59

**(Y) Northing:** 1454584.97

**Surveyed Evaluations (FAMSL) NAVD 88**

**Protective Casing:** 5441.96

**Top of Inner Well Casing:** 5441.52

**Concrete Pad:** 5438.98

**Ground Surface:** 5438.6

**Calculated Depths and Elevations**

**Initial Water Elevation (FAMSL):** 4921.98

**Initial Depth to Water (FBGS):** 516.6

**Last Measured Water Elevation (FAMSL):** 4921.98

**Date Last Measured:** 1/17/2011

**Miscellaneous Information**

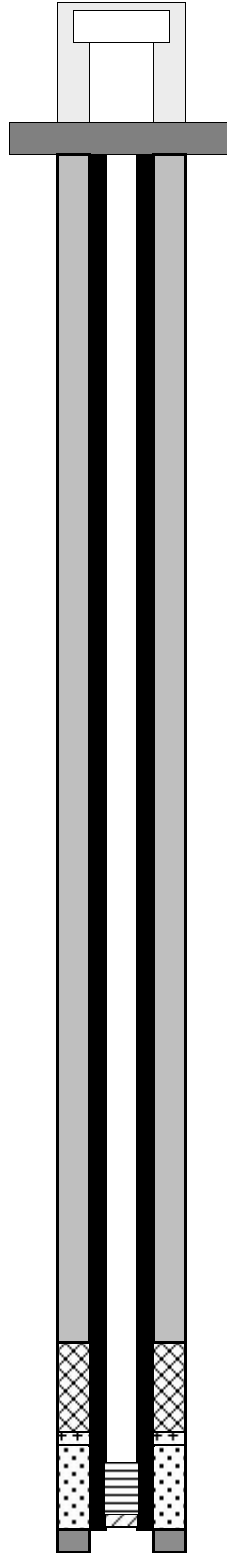
**Date of Last Maintenance:**

**Date Updated:** 11-APR-2011

**Date Printed from EDMS:** 4/13/2011 9:18:36 AM

**Comments:**

BOREHOLE DIAMETER IS 11.75 IN. 0 TO 220 FBGS AND 9.625 IN. FROM 220 FBGS TO 549 FBGS.



**Completion Data Measured Depths (FBGS)**

**Casing Stickup:** 2.9

Interval	Material	Start	Stop	Length	ID / OD (in.)
<input type="checkbox"/> BOREHOLE		0	549	549	
<input checked="" type="checkbox"/> CASING	PVC	0	538	538	4.75 / 5.55
<input type="checkbox"/> GROUT/BACKFILL	BENTONITE, CONCRETE	0	465	465	
<input checked="" type="checkbox"/> SEAL	BAROID HOLE PLUG	465	500	35	
<input checked="" type="checkbox"/> SECONDARY PACK	#60 SILICA SAND	500	505	5	
<input checked="" type="checkbox"/> PRIMARY PACK	#20-40 SILICA SAND	505	545	40	
<input type="checkbox"/> SCREEN	SCHEDULE 80 PVC	512	532	20	/ 5.5
<input checked="" type="checkbox"/> SUMP		532	537	5	
<input type="checkbox"/> PLUG BACK	20-40 SILICA SAND	538	547	9	