Gallup wells

March 2011

ENTERED

VanHorn, Kristen, NMENV

From: Johnson, Cheryl [Cheryl.Johnson@wnr.com]
Sent: Tuesday, March 22, 2011 3:12 PM
To: VanHorn, Kristen, NMENV
Cc: Riege, Ed; Cobrain, Dave, NMENV
Subject: RE: Weekly readings GWM-2 & 3
Attachments: GWM-WTR levels 2011.xls

Kristen: Attached is the table for the GWM and NAPIS wells for this year. I included GWM-1 quarterly and weekly checks. During the weekly checks I did not bail any of the water from the wells. We did get a couple of snow storms which did create a lot of moisture recently.

Cheryl Johnson
Environmental Specialist

Western Refining - Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
505 722 0231 Direct
505 722 0210 Fax
505 722 3833 Main
cheryl.johnson@wnr.com

From: VanHorn, Kristen, NMENV [mailto:Kristen.VanHorn@state.nm.us]
Sent: Monday, March 21, 2011 9:18 AM
To: Johnson, Cheryl
Cc: Riege, Ed; Cobrain, Dave, NMENV
Subject: RE: Weekly readings GWM-2 & 3

Cheryl,
Can you calculate the elevations of the wells (and depth to water) for GWM-2 and 3 and then also the wells around the API Separator? I'm interested in trying to figure out why there is water in the GWM wells and why the levels are fluctuating. Did you bail water out at all when you took the depths? Has it rained recently?

Thanks for your help.

Also, you can stop going out weekly after this and go out twice a month instead.

Thanks,
Kristen

Kristen Van Horn
NMED Hazardous Waste Bureau
2905 Rodeo Park Drive East Building 1
Santa Fe, NM 87505
Phone: 505-476-6046

From: Johnson, Cheryl [mailto:Cheryl.Johnson@wnr.com]
Sent: Thursday, March 17, 2011 3:41 PM
To: VanHorn, Kristen, NMENV
Cc: Riege, Ed
Subject: Weekly readings GWM-2 & 3

Afternoon Kristen: Below are the weekly depth to water readings on GWM-2 and GWM-3. If you have any questions, please call or e-mail me. Thanks, cj

LOCATION	DATE	TIME	DTW (FT)
GWM-2	2/24/2011	1520 hrs	15.2
GWM-2	3/3/2011	1344 hrs	15.65
GWM-2	3/10/2011	1335 hrs	16.13
GWM-2	3/17/2011	1341 hrs	15.77
GWM-3	2/24/2011	1515 hrs	12.84
GWM-3	3/3/2011	1345 hrs	13.78
GWM-3	3/10/2011	1328 hrs	14.40
GWM-3	3/17/2011	1352 hrs	11.51

Cheryl Johnson
Environmental Specialist

Western Refining - Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
505 722 0231 Direct
505 722 0210 Fax
505 722 3833 Main
cheryl.johnson@wnr.com

Date of Installation	Well ID Number	Measure-ment Date	Casing Diameter (Inch)	A Ground Level Elevations (ft)****	Well Casing Rim Elevations (ft)**	Stick-up length (in)	Well Casing Bottom Elevations (ft)
7/8/2004	GWM-1	3/3/2010	2.00	6,912.65	6,912.65	46.50	6,888.95
		6/3/2010	2.00	6,912.65	6,912.65	46.50	6,888.95
		9/16/2010	2.00	6,912.65	6,912.65	46.50	6,888.95
		11/2/2010	2.00	6,912.65	6,912.65	46.50	6,888.95
WEEKLY Measurement		2/24/2011	2.00	6,912.65	6,912.65	46.50	6,888.95
		3/3/2011	2.00	6,912.65	6,912.65	46.50	6,888.95
		3/10/2011	2.00	6,912.65	6,912.65	46.50	6,888.95
		3/17/2011	2.00	6,912.65	6,912.65	46.50	6,888.95
9/25/2005	GWM-2	2/24/2011	2.00	6,913.17	6,913.17	57.00	6,896.97
		3/3/2011	2.00	6,913.17	6,913.17	57.00	6,896.97
		3/10/2011	2.00	6,913.17	6,913.17	57.00	6,896.97
		3/17/2011	2.00	6,913.17	6,913.17	57.00	6,896.97
9/25/2008	GWM-3	2/24/2011	2.00	6,912.65	6,912.65	58.25	6,896.15
		3/3/2011	2.00	6,912.65	6,912.65	58.25	6,896.15
		3/10/2011	2.00	6,912.65	6,912.65	58.25	6,896.15
		3/17/2011	2.00	6,912.65	6,912.65	58.25	6,896.15
3/14/2008	NAPIS 1	3/2/2011	2.00	6,918.43	6,918.43	3.50	6,904.40
		3/8/2010	2.00	6,918.43	6,918.43	3.50	6,904.40
		6/8/2010	2.00	6,918.43	6,918.43	3.50	6,904.40
		9/15/2010	2.00	6,918.43	6,918.43	3.50	6,904.40
		11/2/2010	2.00	6,918.43	6,918.43	3.50	6,904.40
3/14/2008	NAPIS 2	3/2/2011	2.00	6,917.27	6,917.27	1.25	6,902.80
		3/8/2010	2.00	6,917.27	6,917.27	1.25	6,902.80
		6/8/2010	2.00	6,917.27	6,917.27	1.25	6,902.80
		9/15/2010	2.00	6,917.27	6,917.27	1.25	6,902.80
		11/2/2010	2.00	6,917.27	6,917.27	1.25	6,902.80
3/14/2008	NAPIS 3	3/2/2011	2.00	6,917.31	6,917.31	3.50	6,886.60
		3/8/2010	2.00	6,917.31	6,917.31	3.50	6,886.60
		6/10/2010	2.00	6,917.31	6,917.31	3.50	6,886.60
		9/15/2010	2.00	6,917.31	6,917.31	3.50	6,886.60
		11/2/2010	2.00	6,917.31	6,917.31	3.50	6,886.60
6/11/2007	KA-3	3/2/2011	2.00	6,917.17	6,917.17	2.00	6,892.40
		3/8/2010	2.00	6,917.17	6,917.17	2.00	6,892.40
		6/10/2010	2.00	6,917.17	6,917.17	2.00	6,892.40
		9/15/2010	2.00	6,917.17	6,917.17	2.00	6,892.40
		11/2/2010	2.00	6,917.17	6,917.17	2.00	6,892.40

NAPIS Well Water Levels

Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness (ft)	C Depth to Water (ft)	D = A-C Groundwater Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
23.70	NA	NA	19.81	6,892.84	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	18.14	6,894.51	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	17.90	6,894.75	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	18.41	6,894.24	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	15.99	6,896.66	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	16.31	6,896.34	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	16.81	6,895.84	N/A	17.5 - 23.5	Chinle/alluvium
23.70	NA	NA	16.02	6,896.63	N/A	17.5 - 23.5	Chinle/alluvium
18.97	NA	NA	15.08	6,898.09	N/A	3.2 - 16.2	Chinle/alluvium
18.97	NA	NA	15.65	6,897.52	N/A	3.2 - 16.2	Chinle/alluvium
18.97	NA	NA	16.13	6,897.04	N/A	3.2 - 16.2	Chinle/alluvium
18.97	NA	NA	15.77	6,897.40	N/A	3.2 - 16.2	Chinle/alluvium
17.94	NA	NA	12.84	6,899.81	N/A	3 - 15	Chinle/alluvium
17.94	NA	NA	13.78	6,898.87	N/A	3 - 15	Chinle/alluvium
17.94	NA	NA	14.40	6,898.25	N/A	3 - 15	Chinle/alluvium
17.94	NA	NA	11.51	6,901.14	N/A	3 - 15	Chinle/alluvium
14.00	NA	NA	7.47	6,910.96	N/A	3.7 - 13.7	Chinle/alluvium
14.00	NA	NA	8.69	6,909.74	N/A	3.7 - 13.7	Chinle/alluvium
14.00	NA	NA	8.37	6,910.06	N/A	3.7 - 13.7	Chinle/alluvium
14.00	NA	NA	7.77	6,910.66	N/A	3.7 - 13.7	Chinle/alluvium
14.00	NA	NA	7.62	6,910.81	N/A	3.7 - 13.7	Chinle/alluvium
14.50	NA	NA	9.14	6,908.13	N/A	4.2 - 14.2	Chinle/alluvium
14.50	NA	NA	9.19	6,908.08	N/A	4.2 - 14.2	Chinle/alluvium
14.50	NA	NA	8.93	6,908.34	N/A	4.2 - 14.2	Chinle/alluvium
14.50	NA	NA	8.57	6,908.70	N/A	4.2 - 14.2	Chinle/alluvium
14.50	NA	NA	8.55	6,908.72	N/A	4.2 - 14.2	Chinle/alluvium
30.70	NA	NA	8.11	6,909.20	N/A	25.4 - 30.4	Chinle/alluvium
30.70	NA	NA	9.24	6,908.07	N/A	25.4 - 30.4	Chinle/alluvium
30.70	NA	NA	8.87	6,908.44	N/A	25.4 - 30.4	Chinle/alluvium
30.70	NA	NA	7.31	6,910.00	N/A	25.4 - 30.4	Chinle/alluvium
30.70	NA	NA	8.65	6,908.66	N/A	25.4 - 30.4	Chinle/alluvium
25.00	NA	NA	8.51	6,908.66	N/A	15 - 25	Chinle/alluvium
25.00	NA	NA	8.74	6,908.43	N/A	15 - 25	Chinle/alluvium
25.00	NA	NA	8.39	6,908.78	N/A	15 - 25	Chinle/alluvium
25.00	NA	NA	8.69	6,908.48	N/A	15 - 25	Chinle/alluvium
25.00	NA	NA	8.52	6,908.65	N/A	15 - 25	Chinle/alluvium