

May 21, 2019

Division of Reclamation, Mining, and Safety Department of Natural Resources 1313 Sherman Street, Room 215 Denver, CO 80203

RE: 112c Reclamation Permit - Attachments for Annual Fee and Annual Report

To Whom It May Concern:

PERMITTEE:	L. G. Everist, Inc.
PERMIT NO.:	M-1999-120
OPERATION NAME:	Fort Lupton Sand and Gravel Mine
ANNIVERSARY DATE:	June 1 (annually)
ANNUAL FEE:	\$791.00

The DRMS Annual Report for Fort Lupton Sand and gravel (M1999120) has been submitted online. The annual fee has been paid online with a credit card.

Enclosed with this letter are the attachments for the DRMS Annual Report. They include:

- <u>Exhibit F Reclamation Plan Map</u> which shows the current permit area and reclamation plan. Areas of the map are marked to show the active mining areas (MINING), recently completed mining areas (MINING COMPLETE), future mining areas (MINE-2019+), recently seeded areas and areas to be seeded within this year (colored green), and settling pond areas (POND).
- Groundwater Monitoring Report includes recent data, overview, and wells map.

If you have any questions, feel free to contact me at 303-286-2247 or Imshults@lgeverist.com.

Sincerely,

Lynn Mayer Shults Regulatory Manager

cc: Richard Schneider



DRMS ANNUAL REPORT - GROUNDWATER MONITORING REPORTSITE:L.G. Everist, Inc. - Fort Lupton Sand and Gravel, M-1999-120DATE:May 21, 2019

Fort Lupton monitoring well data from January-2018 through April-2019 is attached. Prior data has been submitted in prior reports and permit amendments. A map of the active monitoring well locations is also attached. (MW = monitoring well). All wells that are listed in the attached data and shown on the map are active wells. (Monitoring wells that have been mined out as mining progresses no longer exist, and so are not on the map or listed in the data.)

The majority of the monitoring wells have maintained groundwater levels within their baseline ranges established in L.G. Everist's (LGE) final adequacy response for the DRMS permit amendment in October-2012. This includes wells in areas where we are not yet mining, and also wells within and outside the perimeters of slurry walls - showing that the water is flowing around the slurry walls in natural patterns.

A few monitoring wells at Fort Lupton have fluctuated in and out of their baseline ranges. L.G. Everist has investigated the data and compared monitoring well results with their locations and nearby activities. Most wells that have been outside of baseline ranges are internal to LGE operations, and any fluctuating water levels would only affect the operator, so no mitigation is necessary. Three external wells that tend to be outside baseline ranges are MW-08, MW-09 and MW-10. They seem to be affected by the unlined mining operations in a neighboring mine (see details below). For all three wells, LGE's lined operations are not the cause of the groundwater decrease, so no mitigation is required by LGE.

ACTIVE WELLS

Following is a listing of all active monitoring wells - with notes on whether the well is internal or external to the site, whether it is in or out of baseline ranges, any other notable changes, and explanations of the raw data and any contributing external (or internal) factors. Investigation and mitigation are also noted. There have been no adverse effects on neighbors with any of changes indicated in these wells. We continue to monitor all our active wells monthly.

MW-02 - internal to site - south third of site - within baseline ranges for 10+ years, and within baseline ranges when last accessed. Can't access, due to Little Dry Creek and other ditches.

MW-04 - internal to site - near processing plant - within baseline ranges for late spring through fall months, slightly below baseline for winter through early spring months.

MW-06 - internal to site - located west side of the Swingle-South slurry wall, with Sandstead phase located to the west. Can't access, due to Little Dry Creek and field conveyor.

MW-08 - external - edge of site - located on the south side of CR18, outside of the Swingle-North slurry wall, and directly across from a neighboring unlined mining operation. Not in baseline range. Note: The neighboring mine's dewatering efforts are having an effect on the groundwater levels because their mine is unlined. MW-08 was within baseline ranges for the first few years - prior to the other mining operation commencing. Since the other mine started, the well has generally been below the low baseline number. There are no residential neighbors nearby to be affected.

MW-09 - external - quite far north of any LGE operations. Not in baseline range.

Note: The well is located across CR25 from the neighboring unlined mine's main entrance (see MW-08). Their dewatering efforts seem to be causing the local groundwater levels to decrease. The same well conditions exist as noted under MW-08. There are no residential neighbors nearby to be affected.

MW-10 - external - farther north than MW-09, about 3000+ feet north of LGE operations, and adjacent to an irrigation ditch. In and out of baseline ranges - currently slightly out.

Note: This well is so far from LGE operations, it really makes no sense to be on LGE's well list. It is closer to another mine (see MW-08 and MW-09), than to any LGE permitted areas. There are no residential neighbors nearby to be affected.

DRMS ANNUAL REPORT - GROUNDWATER MONITORING REPORTSITE:L.G. Everist, Inc. - Fort Lupton Sand and Gravel, M-1999-120DATE:May 21, 2019

MW-14 - internal to site - located in the southeast corner of the Parker-Panowitz phase, within an approved slurry wall. Groundwater levels are below baseline ranges, which indicates that the approved slurry wall is working.

Note: The Parker-Panowitz phase is nearly complete - it is mined out and reclamation sloping is complete around three sides of the area. Changes in groundwater levels around this well could only affect LGE, therefore no mitigation is necessary.

MW-20 and MW-25 - edge of site - these two wells are located at the southwest and northeast corners of the Sandstead phase, respectively. MW-20 has stayed within baseline ranges. MW-25 was slightly out of baseline ranges for a few winter months, but been within baseline ranges for the past year. Note: The unlined mining operation first mentioned in MW-08 is across the road to the north of MW-25. No residential neighbors were affected.

MW-21, **MW-22**, **MW-24** - internal to site - these three wells are located around the south and east sides of the Sandstead phase. They are within baseline ranges.

MW-26, **MW-27**, **MW-28**, **MW-29**, **MW-30**, **MW-31** - all six of these wells are located in the south third of the site where mining has not yet begun. Once mining starts in this area, MW-30 will be internal to the site, the other five wells are located along site boundaries. All wells are within baseline ranges.

MW-32 - was internal to site, now edge of site - located on northeast corner of south third of site where mining has not begun. The location is also the southeast corner of the released Meadows Lake phase. The well in within baseline ranges.

MW-33 - internal to site - located at the southeast corner of the Vincent West phase. The well in within baseline ranges.

MW-34, MW-37 - edge of site – located along the western side of the Vincent West phase. Both wells are within baseline ranges.

MW-45 - edge of site - on the north side of Parker-Panowitz. It is within baseline ranges.

MW-52 - internal to site - located within the Swingle-South slurry wall. It is within baseline ranges.

NEW WELLS

MW-54 and MW-55 - new wells located in the Sandstead phase. MW-54 is internal to the site, MW-55 is along the western edge of the Sandstead phase. The 2-year baseline time period will be complete in May-2019. The baseline data through April-2019 is included.

FORT LUPTON S&G								
MONITOR WELL NO.	MW-02	MW-04	MW-06	MW-08	MW-09	MW-10	MW-14	MW-20
NORTHING, FT	1280952.82	1283290.42	1283728.10	1285900.46	1287365.87	1288925.73	1284654.27	1283584.51
EASTING, FT	3187993.46	3187818.84	3185934.31	3186592.51	3187426.10	3188991.48	3188830.71	3185761.31
ELEVATION (TOG), FT	4880.09	4,875.66	4,873.53	4,869.20	4,866.27	4,863.10	4,874.69	4878.63
CASING HEIGHT, FT	3.05	2.36	3.02	3.18	3.20	3.08	2.88	3.24
ELEVATION (TOC), FT	4,883.14	4,878.02	4,876.55	4,872.38	4,869.47	4,866.18	4,877.57	4881.87
HIGH (max of first 2 yrs + 1)	4,880.69	4,875.43	4,874.39	4,866.30	4,863.12	4,859.88	4,867.40	4,876.48
LOW (min of first 2 yrs - 1)	4,875.22	4,868.67	4,867.68	4,857.83	4,855.35	4,854.00	4,861.77	4,859.47
01/10/18	ditch too high	4,868.22	can't access	4,838.48	-	-	obstructed	4,869.77
02/09/18	-	4,868.22	-	4,838.48	4,834.37	4,853.28	-	4,869.62
03/07/18	4,878.69	4,868.07	-	4,838.48	4,834.12	4,853.18	-	4,869.37
04/04/18	4,878.79	4,868.17	-	4,838.48	4,834.37	4,853.48	-	4,869.17
05/07/18	-	4,869.07	-	4,839.08	4,835.17	4,854.78	-	4,870.42
06/14/18	-	4,869.17	-	4,840.88	4,845.92	4,855.33	-	4,871.92
07/03/18	-	4,869.27	-	4,838.48	4,838.17	4,855.48	-	4,871.62
08/20/18	-	4,869.17	-	4,839.43	4,838.82	4,855.23	-	4,872.12
09/07/18	-	4,869.32	-	4,838.58	4,839.12	4,855.43	-	4,872.47
10/19/18	-	4,869.42	-	4,838.48	4,836.87	4,854.53	4,856.77	4,872.17
11/16/18	-	4,869.12	-	4,838.58	4,835.57	4,854.23	4,856.07	4,871.87
12/07/18	-	4,868.92	-	4,838.58	4,835.17	4,853.83	4,855.12	4,871.37
01/07/19	-	4,868.57	-	4,838.58	4,834.62	4,853.43	4,854.27	4,870.77
02/15/19	-	4,868.37	-	4,838.58	4,834.22	4,853.28	4,853.77	4,870.07
03/12/19	-	4,868.42	-	4,838.58	4,834.32	4,853.33	4,853.67	4,869.87
04/09/19	-	4,868.52	-	4,838.48	4,834.22	4,853.33	4,859.57	4,869.52
	can't acces, but		can't acces, but	out of range,	out of range,	slightly out,		
	internal	internal	internal	next to NCCI	next to NCCI	closer to NCCI	internal	within range

FORT LUPTON S&G								
MONITOR WELL NO.	MW-21	MW-22	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29
NORTHING, FT	1283603.67	1283651.45	1285220.96	1286191.14	1278473.10	1278442.03	1278427.71	1279705.24
EASTING, FT	3186195.02	3186672.94	3186629.91	3186587.77	3190083.81	3188252.28	3185716.95	3185920.94
ELEVATION (TOG), FT	4876.93	4877.39	4870.81	4868.97	4887.10	4885.69	4895.11	4891.42
CASING HEIGHT, FT	3.31	3.10	3.08	3.68	2.94	2.95	2.60	3.30
ELEVATION (TOC), FT	4880.24	4880.49	4873.89	4872.65	4890.04	4888.64	4897.71	4894.72
HIGH (max of first 2 yrs + 1)	4,875.84	4,875.53	4,870.89	4,866.45	4,891.04	4,889.64	4,898.71	4,895.72
LOW (min of first 2 yrs - 1)	4,854.54	4,856.59	4,856.19	4,853.95	4,878.03	4,880.84	4,884.39	4,880.89
01/10/18	4,868.74	4,865.64	4,855.29	4,849.40	4,879.04	4,881.49	4,884.86	4,883.02
02/09/18	4,868.74	4,864.64	4,854.64	4,849.55	4,878.94	4,881.34	4,884.61	4,882.82
03/07/18	4,868.69	4,864.19	4,854.44	4,850.75	4,878.79	4,881.29	4,884.46	4,882.72
04/04/18	4,868.39	4,863.99	4,857.49	4,851.55	4,878.74	4,881.34	4,884.46	4,882.67
05/07/18	4,869.24	4,865.99	4,860.24	4,856.35	4,879.49	4,882.34	4,885.66	4,883.72
06/14/18	4,869.79	4,866.54	4,862.29	4,858.90	4,879.29	4,882.14	4,886.41	4,884.92
07/03/18	4,869.64	4,865.89	4,862.29	4,858.50	4,879.14	4,882.39	4,886.41	4,884.97
08/20/18	4,869.54	4,866.54	4,863.09	4,857.90	4,879.89	4,882.79	4,886.51	4,885.17
09/07/18	4,869.59	4,866.59	4,863.34	4,857.65	4,879.34	4,882.19	4,886.21	4,884.82
10/19/18	4,869.84	4,866.99	4,863.69	4,857.45	4,879.09	4,881.99	4,886.06	4,883.92
11/16/18	4,869.74	4,866.74	4,863.59	4,856.75	4,879.04	4,881.64	4,885.51	4,883.97
12/07/18	4,869.64	4,865.79	4,862.79	4,856.15	4,878.99	4,881.49	4,885.16	4,883.57
01/07/19	4,869.29	4,865.79	4,862.44	4,855.65	4,878.89	4,881.34	4,884.81	4,882.97
02/15/19	4,868.79	4,864.99	4,860.64	4,854.60	4,878.94	4,881.24	4,884.41	4,882.72
03/12/19	4,868.94	4,865.24	4,860.69	4,854.60	4,878.94	4,881.24	4,884.26	4,882.62
04/09/19	4,868.39	4,864.29	4,860.54	4,854.85	4,878.54	4,881.24	4,884.51	4,882.82
	within range							

FORT LUPTON S&G			MAA 20					
MONITOR WELL NO.	MW-30	MW-31	MW-32	MW-33	MW-34	MW-37	MW-45	MW-52
NORTHING, FT	1279612.81	1279702.73	1281049.34	1281023.27	1280976.36	1282451.42	1286212.47	1284875.58
EASTING, FT	3188258.35	3190495.90	3190074.13	3186869.81	3185167.73	3185753.31	3189018.10	3188125.52
ELEVATION (TOG), FT	4883.91	4884.66	4882.40	4883.59	4887.04	4883.69	4870.99	
CASING HEIGHT, FT	2.83	3.53	3.07	2.70	3.72	3.49	3.28	
ELEVATION (TOC), FT	4886.74	4888.19	4885.47	4886.29	4890.76	4887.18	4874.27	4878.28
HIGH (max of first 2 yrs + 1)	4,887.74	4,889.19	4,886.47	4,887.29	4,891.76	4,888.18	4,875.27	4,874.40
LOW (min of first 2 yrs - 1)	4,877.04	4,875.56	4,873.15	4,877.98	4,878.96	4,864.78	4,851.42	4,858.08
01/10/18	4,879.44	4,876.94	4,874.47	4,880.99	4,884.06	4,870.68	4,852.42	4,870.88
02/09/18	4,879.34	4,876.84	4,874.47	4,880.89	4,883.36	4,870.38	4,852.27	4,871.28
03/07/18	4,879.34	4,876.79	4,874.52	4,880.79	4,883.26	4,870.03	4,852.12	4,871.08
04/04/18	4,879.44	4,876.74	4,874.52	4,880.74	4,883.26	4,869.83	4,854.07	4,870.43
05/07/18	4,880.49	4,877.34	4,875.27	4,881.69	4,883.76	4,871.33	4,857.62	4,870.58
06/14/18	4,880.04	4,877.34	4,874.97	4,881.94	4,886.16	4,873.68	4,859.17	4,870.73
07/03/18	4,880.89	4,877.09	4,874.97	4,881.64	4,886.51	4,873.38	4,858.07	4,870.48
08/20/18	-	4,877.39	4,875.07	4,882.34	4,886.26	4,873.83	4,857.37	4,870.33
09/07/18	-	4,877.29	4,875.17	4,882.09	4,886.16	4,874.28	4,856.77	4,869.88
10/19/18	-	4,876.94	4,875.22	4,882.09	4,885.76	4,873.78	4,854.42	4,870.63
11/16/18	-	4,876.94	4,874.62	4,881.64	4,885.46	4,873.23	4,854.02	4,870.98
12/07/18	-	4,876.89	4,874.52	4,881.39	4,884.91	4,872.58	4,853.27	4,871.48
01/07/19	4,879.44	4,876.74	4,874.32	4,881.09	4,884.26	4,871.78	4,852.57	4,872.18
02/15/19	4,879.34	4,876.84	4,874.37	4,880.84	4,883.71	4,870.88	4,852.27	4,872.13
03/12/19	4,879.44	4,876.89	4,874.37	4,880.89	4,883.56	4,870.53	4,852.27	4,872.78
04/09/19	4,879.44	4,876.49	4,874.22	4,880.89	4,883.46	4,870.33	4,852.47	4,870.08
	within range							

FORT LUPTON S&G MONITOR WELL NO.	MW-54	MW-55
NORTHING, FT	1285027.37	1285705.08
EASTING, FT	3186385.20	3185816.56
ELEVATION (TOG), FT		
CASING HEIGHT, FT		
ELEVATION (TOC), FT	4887.35	4879.99
	jun17-may19	jun17-may19
HIGH (max of first 2 yrs + 1)	4,866.40	4,868.59
LOW (min of first 2 yrs - 1)	4,854.65	4,854.99
01/10/18	4,856.85	4,855.99
02/09/18	4,856.35	4,857.19
03/07/18	4,855.65	4,857.64
04/04/18	4,859.45	4,858.09
05/07/18	4,861.10	4,860.69
06/14/18	4,863.45	4,863.54
07/03/18	4,863.75	4,863.74
08/20/18	4,864.65	4,864.79
09/07/18	4,865.10	4,865.19
10/19/18	4,865.40	4,865.34
11/16/18	4,865.30	4,865.09
12/07/18	4,864.90	4,864.69
01/07/19	4,864.35	4,864.04
02/15/19	4,862.45	4,862.24
03/12/19	4,862.35	4,861.99
04/09/19	4,862.15	4,861.84
	first 2 yrs	first 2 yrs



@ MW 28	27	9.11W 26	
		REV. # BY DATE DESCRIPTION	
	DRAWN BY: HGK DATE: 5/29/2018	L.G. Everist, Inc. Aggregate Producers	Active MW Locations
	SCALE: Not to sca SIZE: 11×17		L.G.E. Ft. Lupton Resource Weld County, CO