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July 10, 2024
Project#01349-0001

Bowie Resources, LLC
43659 Bowie Road
Paonia, Colorado 81428

Attention: Mr. Basil Bear

Subject: Summary of Instrumentation Monitoring
2nd Quarter 2024
Bowie Coal Waste Disposal Area No. 3
Paonia, Colorado

Reference: *Summary of Instrumentation Monitoring, 1st Quarter 2024, Bowie Coal Waste Disposal Area No. 3, Paonia, Colorado* by Huddleston-Berry Engineering & Testing, LLC for Bowie Resources, LLC, April 8, 2024.

Stability Evaluation, Gob Pile #3, Bowie No. 2 Mine by Huddleston-Berry Engineering & Testing, LLC for Bowie Resources, LLC, July 15, 2014.

Dear Mr. Bear,

At the request of the Colorado Division of Reclamation, Mining and Safety (DRMS), Huddleston-Berry Engineering & Testing, LLC (HBET) prepared this letter regarding quarterly monitoring of vibrating wire piezometers at Coal Waste Disposal Area No. 3 (CWDA No. 3) at the Bowie mine near Paonia, Colorado. The intent of the monitoring was to detect significant changes in the pore water pressures within the coal waste which may impact the stability of the waste pile.

Vibrating Wire Piezometers

Five vibrating wire piezometers were installed in CWDA No. 3 in October 2014. The piezometers were installed at three locations within the footprint of the gob pile as shown on the attached figure. Monitoring of the functioning piezometers was completed by Buckhorn Engineering (Buckhorn) on June 28th, 2024. The attached monitoring report prepared by Buckhorn includes the piezometer monitoring data and the data is summarized in the following table.

VWP ID	Initial Pore Pressure 10/31/14 (psi)	03/26/24 Pore Pressure (psi)	06/28/24 Pore Pressure (psi)	Difference Since Installation (psi)	Difference Since Last Reading (psi)
VWP-A Deep	10.4	2.2	5.7	-4.7	+3.0
VWP-A Shallow	4.7	2.0	2.1	-2.6	+0.1
VWP-B Deep	0.2	-0.2	0.9	0.7	+1.1
VWP-B Shallow	13.9	5.9	5.9	-8.0	0.0
VWP-D	7.1	5.4	5.7	-1.4	+0.3

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Discussion of Vibrating Wire Piezometers

VWP-A Deep

VWP-A Deep was installed on October 6, 2014 near the northern edge of CWDA No. 3. VWP-A Deep was installed in the foundation soil approximately eight feet below the bottom of the gob. The pore pressures recorded at VWP-A Deep generally decreased since installation until September 2015. After that, the pore pressures have generally fluctuated in a narrow range; however, a significant increase in pore pressures was observed in September of 2019, June of 2022 and 2023, and the 2nd Quarter of 2024. These 'spikes' may reflect climatic conditions during the summer months. However, HBET does not believe that the pore pressure changes in VWP-A Deep are an indication of instability in CWDA No. 3.

VWP-A Shallow

VWP-A Shallow was installed on October 6, 2014 near the northern edge of CWDA No. 3. VWP-A Shallow was installed approximately ten feet above the base of the gob. After installation, the pore pressures dropped until November 2014. Between November 2014 and September 2015, increases in the pore pressures were recorded at VWP-A Shallow. However, between September 2015 and December 2016, the pore pressures decreased. Since then, the data have fluctuated within a narrow range; with a general downward trend. In general, HBET does not believe that the pore pressure changes in VWP-A Shallow are an indication of instability in CWDA No. 3.

VWP-B Deep

VWP-B Deep was installed on October 6, 2014 in the west-central portion of CWDA No. 3. VWP-B Deep was installed in the foundation soil approximately ten feet below the bottom of the gob. Since installation, the pore pressures recorded at VWP-B Deep have fluctuated within a narrow range. In general, HBET does not believe that the pore pressure changes in VWP-B Deep are an indication of instability in CWDA No. 3.

VWP-B Shallow

VWP-B Shallow was installed on October 6, 2014 in the west-central portion of CWDA No. 3. VWP-B Shallow was installed approximately ten feet above the base of the gob. Since installation, the pore pressures recorded at VWP-B Shallow have fluctuated with periods of slight increase and slight decrease; likely associated with activity on the gob pile. However, the pore pressures have shown a decreasing trend over the last several years. In general, HBET does not believe that the pore pressure changes in VWP-B Shallow are an indication of instability in CWDA No. 3.

VWP-D

VWP-D was installed on October 7, 2014 in the east-central portion of CWDA No. 3. VWP-D was installed approximately ten feet above the base of the gob. Since installation, the pore pressures recorded at VWP-D have fluctuated. However, the pore pressures increased significantly in June 2022 before leveling out. Since then, the fluctuations have been within a narrow range and HBET does not believe that the pore pressure changes in VWP-D are an indication of instability in CWDA No. 3.

General

Based upon the results of the most recent VWP monitoring data, HBET does not believe that there is any reduction in the stability of CWDA No. 3.

We are pleased to be of service to your project. Please contact us if you have any questions or comments regarding the contents of this report.

Respectfully Submitted:
Huddleston-Berry Engineering and Testing, LLC

Michael A. Berry, P.E.
Vice President of Engineering

ATTACHMENTS

BUCKHORN ENGINEERING

June 30, 2024

Mr. Mike Berry, PE
Huddleston-Berry Engineering and Testing, LLC
2789 Riverside Parkway
Grand Junction, CO 81501

SUBJECT: Summary Report, 2nd Quarter 2024, Vibrating Wire Piezometers
April – June 2024, Bowie Mine #2
Coal Waste Disposal Area (CWDA) #3

Greetings Mr. Berry,

Buckhorn Engineering, Inc. (BEI) conducted quarterly monitoring of installed vibrating wire piezometers (VWP) at Coal Waste Disposal Area #3 (CWDA #3), Bowie Resources, LLC Bowie Mine #2. This report is for the period of April through June 2024 (2nd Quarter). VWP data was recorded on June 28, 2024. Per the Colorado Division of Reclamation, Mining & Safety (CDRMS) and at your direction, vibrating wire piezometer readings for all active piezometers are currently taken quarterly.

We present a graph of measured pore pressures on the attached Figure 1 and numerically in Table 1 below. Table 1 is a summary of the initial, last year, last quarter, and current readings. In addition, we present the difference between the current pore pressures and those at the time of installation, the previous year, and the previous quarter.

Table 1. Summary of Pore Pressure Readings

VWP ID #	Pore Pressure (psi)				Pressure Difference (psi)		
	Installation 10/31/2014	Last Year (Qtr 2) 6/20/2023	Last Quarter (Qtr 1) 3/26/2024	Current (Qtr 2) 6/28/2024	Since Installation	Since Last Year (Qtr 2)	Since Last Quarter (Qtr 1)
VWP-A Deep	10.4	6.1	2.7	5.7	-4.7	-0.4	3.0
VWP-A Shallow	4.7	2.3	2.0	2.1	-2.6	-0.2	0.1
VWP-B Deep	0.2	0.1	-0.2	0.9	0.7	0.8	1.1
VWP-B Shallow	13.9	6.5	5.9	5.9	-8.0	-0.6	0.0
VWP-D	7.1	5.4	5.4	5.7	-1.4	0.3	0.3

As seen on Figure 1 and Table 1, when compared with the previous quarter, two VWP's increased a relatively large amount of 1.1 to 3.0 psi (VWP-B Deep and WVP-A Deep), increased slightly by 0.1 to 0.3 psi (VWP-A Shallow and VWP-D), and one (VWP-B Shallow) had no change in pore pressure. When compared with the 2nd quarter of last year, three VWP's decreased -0.2 to -0.6 psi and two increased 0.3 to 0.8 psi in pore pressure. Since installation in 2014, four VWP's have generally decreased in pore pressure (by -1.4 to -8.0 psi), while VWP-B Deep has increased 0.7 psi in pore pressure. Although there is a general trend of decreasing pore pressure over time, two of the piezometers (VWP-A Deep and VWP-B-Deep) exhibit seasonal fluctuations in pore pressure since 2019 that roughly mirror each other. VWP-D had a general decline in pore pressures through much of its history until the second quarter of 2022 when pore pressures rose and then have stayed at a similar elevated level since then.

If you have any questions regarding this letter or the instrumentation monitoring at CWDA #3, please contact me at (970) 497-8821 or *lbrandt@buckhornengineering.com*.

Respectfully Submitted,
BUCKHORN ENGINEERING, INC.

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Attachment: Figure 1 – Vibrating Wire Piezometer Data Graph

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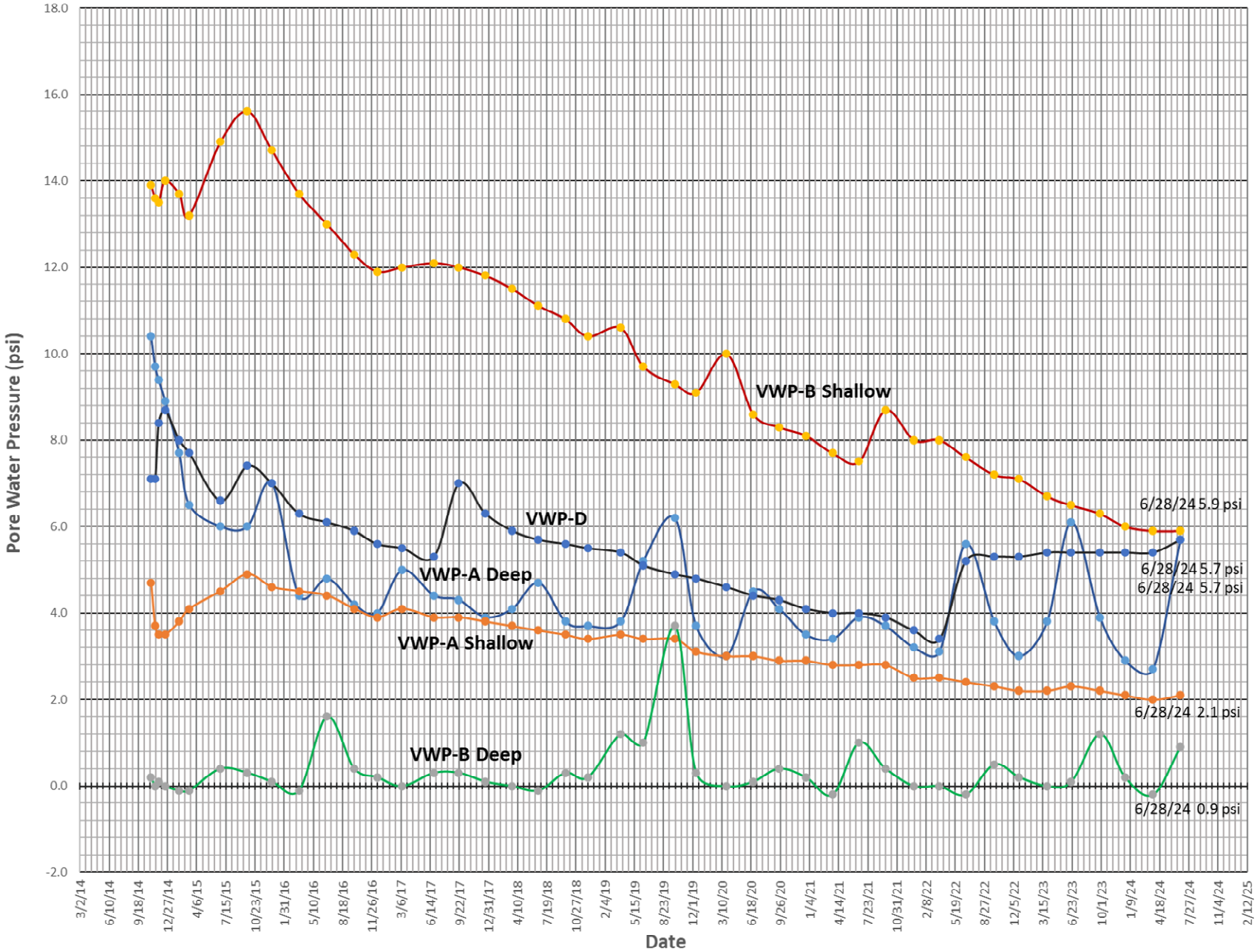
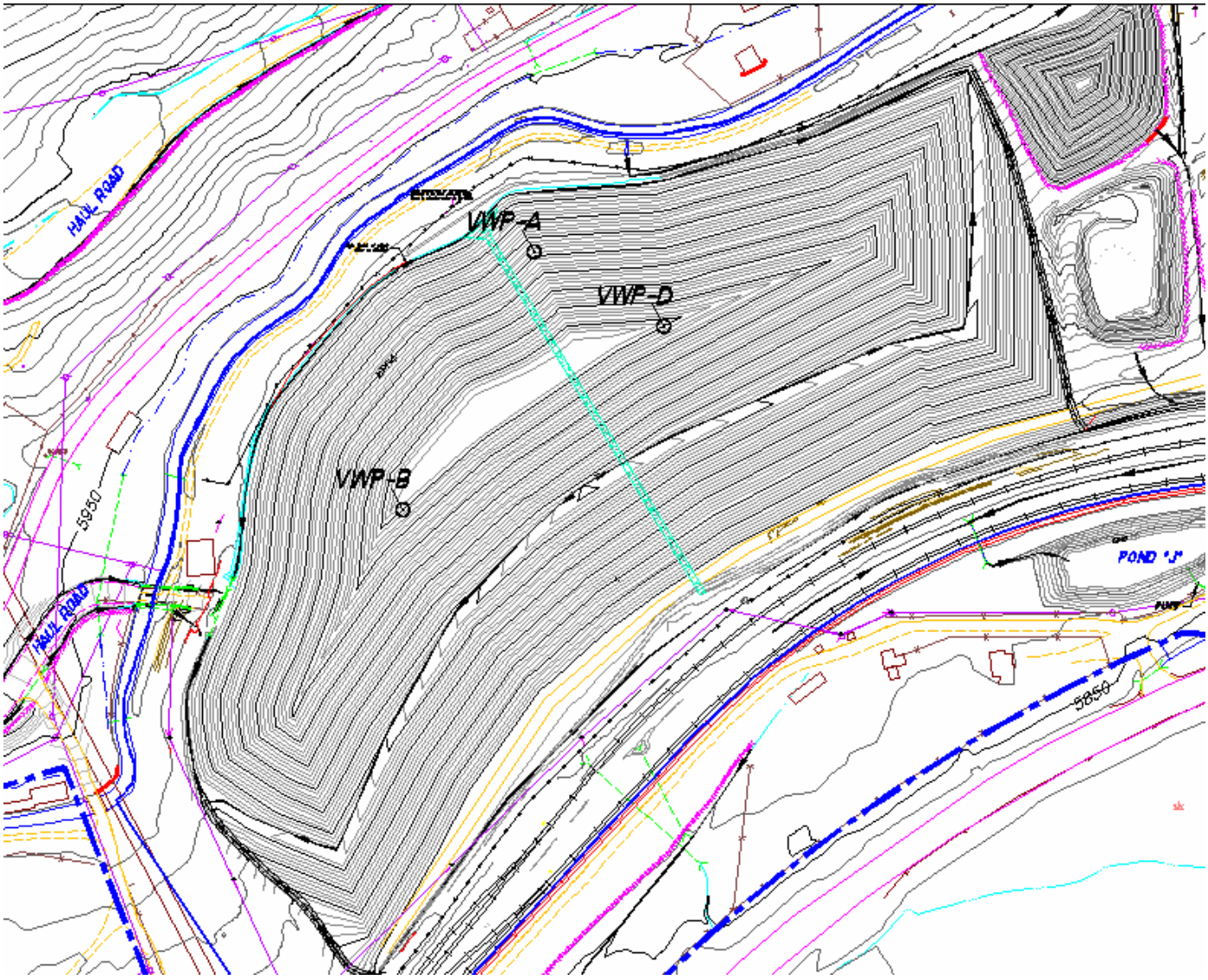
Figure 1 - Bowie Mine #2 - CWDA #3
Vibrating Wire Piezometer Data




HAUL ROAD
VWP-A
VWP-D
VWP-B
5950
HAUL ROAD
POND "J"
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