



OGMCOAL DNR &lt;ogmcoal@utah.gov&gt;

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## FW: South Fork of Quitchupah Monitoring

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**Vicky Miller** <vmiller@bowieresources.com>

Mon, Aug 10, 2015 at 9:13 AM

To: Steve Christensen <stevechristensen@utah.gov>, Amanda Daniels <amandadaniels@utah.gov>, "Hamilton, Rob -FS (rhamilton@fs.fed.us)" <rhamilton@fs.fed.us>, "OGMCOAL@utah.gov" <OGMCOAL@utah.gov>  
Cc: Wyatt Shakespear <WShakespear@bowieresources.onmicrosoft.com>, John Byars <jbyars@bowieresources.com>, Vicky Miller <vmiller@bowieresources.com>

A drawing showing the location of mining through August 9, has been attached.

On July 28<sup>th</sup>, the majority of the length of South Fork was hiked and the water was observed to be flowing from the top of the monitoring locations (Spring 006) to the confluence of the South and North Forks of the Quitchupah. Along the channel survey route the water drops into the alluvium for approximately 200' of the channel prior to reappearing. We are working on getting the flow back on the surface for the 200'. Our efforts have been delayed due to storms and the potential for flash flooding causing unsafe working conditions in the canyon. The flow was approximately 60 gpm at the culvert road crossing to the confluence.

The approximately flow at Amanda Spring was 0.5 gpm and at the Wedge Spring it was 8 gpm. The source of Wedge Spring has relocated about 500' downstream.

The approximate 60 gpm flow was muddy on July 29<sup>th</sup>. Where the stream channel was wide and shallow the channel had filled in with sediment which has elevated the water to overflow its banks. The next major storm will likely scour the channel. Impacts from livestock were note the length of the creek. Several of the springs upstream has be trampled and laid in by the cattle, making it impossible to measure flow. The two intact springs we flowing at their normal rate. We noticed a bug hatch near Spring 006. The three ponds were dry with vegetation growing in the bottom (7/29 and 8/3). Throughout the inventoried area the vegetation was thick and vigorous.

On August 3 and 4, the flow at the culvert was 70 – 80 gpm. Water flow could be seen or heard the entire length of the South Fork during the visit. The stock ponds were empty. Bags of bentonite was placed in the canyon by helicopter at the repair location. Repairs will be done as weather allows.

If you require additional information or have questions, please contact me at this e-mail address or by office phone (435) 286-4481. Thanks, Vicky

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**From:** Vicky Miller

**Sent:** Monday, July 27, 2015 10:57 AM

**To:** Steve Christensen <stevechristensen@utah.gov>; 'Amanda Daniels' <amandadaniels@utah.gov>; 'Hamilton, Rob -FS (rhamilton@fs.fed.us)' <rhamilton@fs.fed.us>; 'OGMCOAL@utah.gov'

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**Cc:** John Byars <[jbyars@bowieresources.com](mailto:jbyars@bowieresources.com)>; Wyatt Shakespear <[WShakespear@BowieResources.onmicrosoft.com](mailto:WShakespear@BowieResources.onmicrosoft.com)>; Vicky Miller <[vmiller@bowieresources.com](mailto:vmiller@bowieresources.com)>

**Subject:** FW: South Fork of Quitchupah Monitoring

Drawing showing the location of mining through July 26, 2015 has been attached. This report contains one week of creek survey information, since three weeks were reported on Monday July 20<sup>th</sup>.

July 22 – There was some cattle activity on the creek late in the afternoon of this day below the road culvert creek crossing. The springs were flowing at a rate similar to the previous weeks measurement. The beaver pond previously reported has silted in with the recent storms. The sediment laden flow at the culvert road crossing is estimated at 60-70 gpm. All ponds were dry but with tall grasses covering the pond footprint. At the western most photo location on the canyon rim the flow appears to similar to the 60-70 gpm at the road crossing. The tall grasses obscure view of the creek in many locations.

July 23- Water observed flowing from the canyon rim at the western and middle photo locations, the flow appeared similar at both locations.

July 24- South Fork was flowing at 45-50 gpm, the water was muddy, likely from cattle drinking form the creek upstream. The water flowing through the rubble area was estimated to be similar to the flow at the road culvert creek crossing. Ponds were all dry with grass growing in the bottom.

Please contact me with questions or if you need additional information. Thanks, Vicky

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**From:** Vicky Miller

**Sent:** Monday, July 20, 2015 9:41 AM

**To:** Steve Christensen <[stevechristensen@utah.gov](mailto:stevechristensen@utah.gov)>; 'Amanda Daniels' <[amandadaniels@utah.gov](mailto:amandadaniels@utah.gov)>; 'Hamilton, Rob -FS ([rhamilton@fs.fed.us](mailto:rhamilton@fs.fed.us))' <[rhamilton@fs.fed.us](mailto:rhamilton@fs.fed.us)>; '[OGMCOAL@utah.gov](mailto:OGMCOAL@utah.gov)' <[OGMCOAL@utah.gov](mailto:OGMCOAL@utah.gov)>

**Cc:** John Byars <[jbyars@bowieresources.com](mailto:jbyars@bowieresources.com)>; Wyatt Shakespear <[WShakespear@BowieResources.onmicrosoft.com](mailto:WShakespear@BowieResources.onmicrosoft.com)>; Vicky Miller <[vmiller@bowieresources.com](mailto:vmiller@bowieresources.com)>

**Subject:** FW: South Fork of Quitchupah Monitoring

A map showing the location of mining through July 12, 2015 has been attached. We have included three weeks of creek survey information with this report.

June 29<sup>th</sup> the creek flow at the culvert was approx. 45 gpm, No. Duncan Flat pond had a puddle in the bottom, the other two ponds were dry. Water was observed to be flowing above the rubble area. Springs were observed to be flowing at a rate similar to previous observations.

June 30<sup>th</sup>, water at the road crossing was flowing at 50 gpm, water could be seen flowing in the canyon.

Plans have been formulated to hike the channel in the bottom of the canyon to verify that water is flowing the entire length. Because of vegetation most of the channel is obscured from the rim of the canyon.

On the 6<sup>th</sup> of July the flow at the road crossing through the culvert was estimated at 50 gpm. The water was muddy due to rain and cattle watering on the creek. No. Duncan Flat pond contained water but the other two ponds were dry. Water could be seen or heard above monitoring site 006C, but not below the rubble area.

July 8 the flow at the culvert was 60 to 80 gpm again due to rain. The vegetation is still green and the grasses are tall. The bottom of South Fork was hiked below the rubble area to check flow and water was not running immediately below the rubble. We repaired several cracks in the stream channel which improved the flow below the rubble.

July 13<sup>th</sup> the creek was still running at approximately 60 -80 gpm at the culvert road crossing. Flow was observed through the length of the creek varying from the approximate 80 gpm to 10 gpm.

July 14<sup>th</sup> flow at the road crossing was approximately 110 gpm due to a storm. Flow below the rubble area was approximately 70 gpm. No. Duncan Pond contained water but the other two ponds were dry. The springs above the road crossing were observed to be flowing at their regular rate.

Please contact me with questions or if you need additional information. Thanks, Vicky

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**From:** Vicky Miller

**Sent:** Sunday, July 5, 2015 7:54 AM

**To:** 'Steve Christensen; 'Amanda Daniels ([amandadaniels@utah.gov](mailto:amandadaniels@utah.gov))'; 'Hamilton, Rob -FS ([rhamilton@fs.fed.us](mailto:rhamilton@fs.fed.us))'; [OGMCOAL@utah.gov](mailto:OGMCOAL@utah.gov)

**Cc:** John Byars; Wyatt Shakespear; Vicky Miller

**Subject:** South Fork of Quitcupah Monitoring

South Fork was monitored on June 15, 17, 22 and 26th. The conditions were as follows:

June 15 - Flow at the culvert road crossing was approximately 25 gpm. The vegetation continues to be green and vigorous along the creek corridor. Flow was observed in the upper canyon.

June 17 - North Duncan Flat pond was 1/4 full, the other two ponds were dry but the bottoms were well vegetated. Flow at the culvert crossing was about 20 gpm. Water could be seen flowing from the western most canyon rim observation point. The remainder of the channel to the junction of the south fork and north fork was obscured by vegetation or rock falls. Crack located in the channel at the eastern end of the canyon was filled with bentonite. Springs west of the culvert were flowing

at a rate similar to previous observations.

June 22 - Flow at the culvert road crossing continues between 20-25 gpm. The flow at the junction of the south and north fork from the south fork was approximately 3 gpm. We continue to assess the flow over the length of the South Fork.

June 26 - Flow remains consistent with the measurement earlier in the week, North Duncan Flat pond was just a puddle. Flowing water was observed along the length of the channel from the top spring to mid canyon.

A drawing showing the location of mining is attached. Please contact us with questions or concerns.

Regards, Vicky

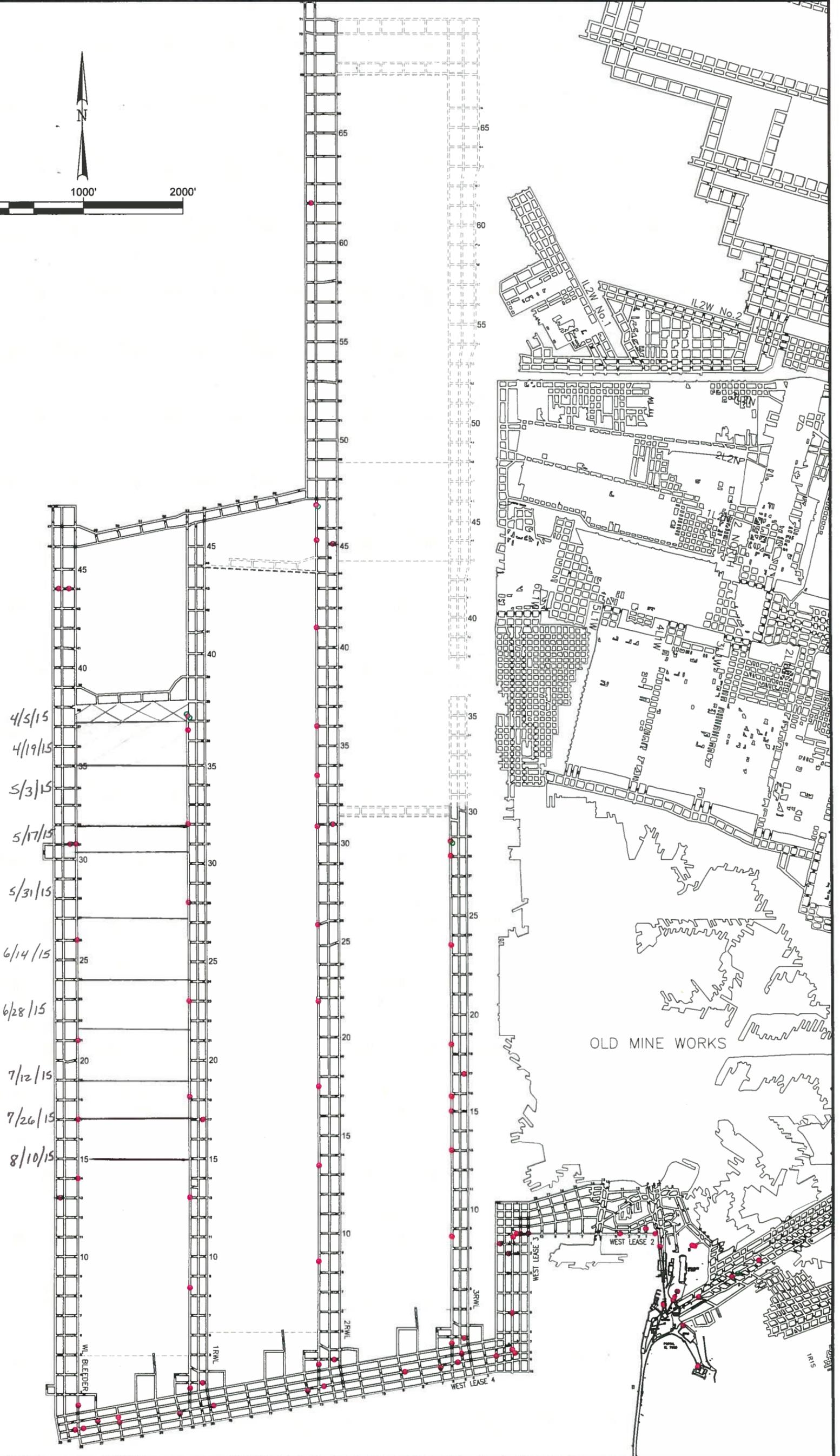
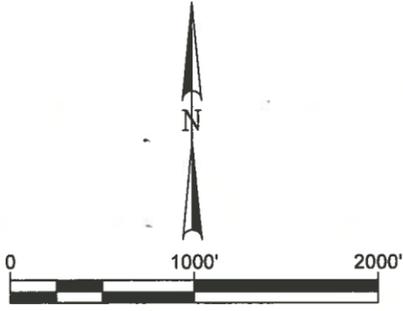
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**2 attachments**

**Bowie Resource Partners - Scan Image from Sufco Lunch Room.pdf**  
231K



**Presentation Aug 10.pptx**  
7001K



Trent Brown: 3/30/2015 10:03 AM



**Canyon Fuel Company, LLC**  
**SUFCO Mine**  
 597 South SR 24 - Salina, UT 84654  
 (435) 286-4880 Phone  
 (435) 286-4499 Fax

WEST LEASE		
LONGWALL MINING SECTIONS		
SCALE: 1" = 1,000'	DATE: 3/30/2015	DRAWN BY: T.R.B.
ENGINEER:	CHECKED BY:	PROJ: ###
FILE NAME: H:\DRAWINGS\LONGWALL\WESTLEASE\LONGWALL_PANELS.dwg		

SHEET NO.  
1

Springs in Lower Canyon



Springs above road culvert Upper Canyon





07 28 2015



07 28 2015



Ponds

06 03 2015



07 28 2015



07 28 2015

Lower Canyon



07 28 2015



