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Minutes of the
Board of Minerals and Environment
Matthew Environmental Education and Training Center
523 East Capitol Avenue
Pierre, South Dakota

May 19, 2016
10:00 a.m. CT

CALL TO ORDER: The meeting was called to order by Chairman Rex Hagg, who participated via telephone. Chairman Hagg turned the gavel over to Vice Chairman Glenn Blumhardt, who was present in-person at the meeting.

Vice Chairman Blumhardt appointed Doyle Karpen as secretary pro tem. Mr. Karpen declared that a quorum was present.

BOARD MEMBERS PRESENT: Glenn Blumhardt, Dennis Landguth, Doyle Karpen, Gregg Greenfield, Daryl Englund, Pete Bullene, and Bob Morris. Rex Hagg participated via telephone conference call.

BOARD MEMBER ABSENT: Linda Hilde.

OTHERS PRESENT: See attached attendance sheet.

APPROVAL OF MINUTES FROM MARCH 17, 2016, MEETING: Motion by Greenfield, seconded by Landguth, to approve the minutes from the March 17, 2016, Board of Minerals and Environment meeting. Motion carried unanimously.

MINING ISSUES

Consent Calendar: Prior to the meeting, the board received a table listing the department recommendations for transfers of liability and release of liability (see attachment).

Bret Graves, DENR Minerals and Mining Program, answered questions from the board.

Motion by Morris, seconded by Karpen, to accept the department recommendations for transfers of liability and release of liability. Motion carried unanimously.

ORAL MINING REPORTS: The annual large-scale gold mine oral reports were presented to the board by LAC Minerals (Richmond Hill Mine), Homestake, Wharf Resources, VMC (Deadwood Standard Project), and by DENR for the Gilt Edge Superfund Site. The mine operators reported on production and reclamation activities during 2015 and discussed plans for 2016. The annual oral mining presentations are required by statute.

LAC Minerals – Mark Tieszen

During 2015, LAC continued water treatment, discharging 27.3 million gallons. LAC also submitted a closure petition for release of reclamation liability and a post closure plan for the site, which were heard by the board late in the year. The board released reclamation liability for 266 acres of land at LAC and approved the post closure care and maintenance plan for the site.

Homestake Mining Company – Mark Tieszen

In 2015, Homestake finished removing asbestos pipe and contaminated PCP soils at Grizzly Gulch, upgraded its Yates Water Treatment Plant, and continued water treatment at its Blacktail Plant in Central City.

Wharf Resources – Ron Waterland

In 2015, Wharf continued mining in the Harmony (Golden Reward), Deep Portland, Green Mountain and Bald Mountain pits. Wharf also completed the West Liberty cap project over a sulfide waste pile. In 2016, Wharf plans to complete mining in the Harmony Pit and continue mining the Green Mountain and Bald Mountain Pits. Wharf produced 89,496 ounces of gold and 70,276 ounces of silver during 2015.

VMC, LLC – Mark Nelson (via telephone conference call)

VMC, LLC (Deadwood Standard) reported on its proposed operation on the rim of Spearfish Canyon. VMC continues to reassess the project and does not have any immediate mining plans.

Gilt Edge Superfund Site – Mike Cepak

Mr. Cepak reported that 162,000,000 gallons of acid water was treated at the Gilt Edge Superfund Site in 2015. The next phase of remediation work at Gilt Edge will begin later this year and will involve the construction of a new sludge cell, dewatering, sludge removal, and partial backfilling of the Sunday and Dakota Maid Pits.

PETE LIEN & SONS, INC. RECLAMATION BOND INCREASE FOR PERMIT 58: Eric Holm reported that the department recently recalculated the reclamation bond for Pete Lien & Son's Large Scale Mine Permit No. 58 to account for increased disturbance and inflation. The mine site is located approximately nine miles southwest of Pringle. The new bond amount calculated by the department is \$284,500, which is an increase of \$160,850 over the current reclamation bond. To cover the increase, Pete Lien & Sons submitted an amendment to its letter of credit, which serves as its reclamation bond.

The department recommended the board accept the amendment to Irrevocable Letter of Credit No. S500996, UMB Bank, Kansas City, MO, increasing the bond to the new amount of \$284,500.

Motion by Greenfield, seconded by Englund, to accept the amendment to Irrevocable Letter of Credit No. S500996, UMB Bank, Kansas City, MO, increasing the bond to the new amount of

\$284,500 for Pete Lien & Sons, Inc., Rapid City, SD, Mine Permit 58. A roll call vote was taken, and the motion carried unanimously.

WHARF RESOURCES (USA), INC. POST CLOSURE BOND REDUCTION: Mr. Holm reported that in 2014, Wharf Resources began discussions with DENR to reduce its \$30,800,000 post closure bond.

When the original post closure bond amount was set during the Wharf expansion permit hearing in 2011, Wharf just finished construction of its carbon column and blue water treatment facilities. At that time, Ron Waterland from Wharf provided the department with the company's estimated costs to operate these facilities. After operating the facilities for three years, Wharf discovered it overestimated the actual costs of operating the facilities, especially the amount of carbon needed in the carbon column facility.

In early 2014, Wharf asked the department to revise the water treatment costs in the post closure bond and use the actual costs instead of the estimated costs. Mr. Holm noted that actual water treatment costs have been used in the LAC and Homestake post closure bonds approved by the board.

After applying the actual water treatment costs and maintaining a 25 percent contingency cost, the department calculated a new post closure bond amount of \$26,800,000, which is about a \$4,000,000 decrease from the current \$30,800,000 bond.

Mr. Holm noted that in addition to the post closure bond, the department also holds a \$37,379,300 reclamation bond, which was increased in March, 2016, and a \$612,400 cyanide spill bond.

The department's recommendation is to accept the rider to Surety Bond No. SUR0032045, Argonaut Insurance Company decreasing the bond to \$26,800,000.

Motion by Morris, seconded by Bullene, to accept the rider to Surety Bond No. SUR0032045, Argonaut Insurance Company decreasing the bond to \$26,800,000 for Wharf Resources (USA), Inc., Lead, SD, Mine Permit Nos. 356, 434, 435, 464, and 476. A roll call vote was taken, and the motion carried unanimously.

UPDATE ON THE QUARTZ NORTHERN POINTS WELL SITE: Mike Lees reported that Quartz Operations, LLC (Quartz) was originally managed by an attorney from Las Vegas and an individual from Deadwood, SD. Neither had any apparent experience in oil and gas drilling. Quartz solicited local investors and apparently raised several million dollars for its project. Quartz is currently managed by Leon Somsen, an insurance agent from Yankton.

Quartz wanted to drill deep, multi-million dollar wells near Wasta to test for hydrocarbons in the Precambrian basement rock. Two complete applications for permit to drill (APDs) were submitted to DENR. As a rule, oil and gas are found in sedimentary rocks deposited above basement rock so the DENR was dubious of Quartz's plan.

Typically the department issues drill permits for oil and gas wells. However, on March 21, 2013, the department brought Quartz's permit applications before the Board of Minerals and Environment

with the recommendation to increase the bond amount to \$130,000 per well as allowed by SDCL 45-9-15. The Board issued the drill permits with the \$130,000 per well bonding condition. Only the Northern Points 1 well was bonded and drilled. Quartz's second drill permit expired in 2014.

In April 2013, Quartz drilled for ten days, penetrating the top of the Madison Formation at a depth of approximately 4,800 feet. However, further drilling became impossible after a 150-foot section of pipe and attached equipment became irretrievably stuck at an approximate depth of 2,600 to 2,750-feet.

On May 7, 2013 Quartz informed DENR by phone that Quartz did not have the financial resources to plug the well in accordance with state rules. Ultimately, Quartz managed to plug only the upper 1,090 feet of the borehole.

Currently, DENR holds a \$130,000 plugging and performance bond for the Quartz Northern Points 1 well. The site has been graded and revegetated; surface restoration is complete.

The unplugged borehole below the 150-foot section of stuck drill stem penetrates the Inyan Kara, Minnekahta, Minnelusa, and Madison aquifers and is not cased with production casing. Failure to isolate these aquifers with appropriate cement plugs does not comply with state plugging rules (ARSD 74:12:03:02(4)(a)(i)) and Northern Points 1 permit conditions (Condition 4.k.(3)(a)).

Plugging costs significantly exceed the bond. Plugging the Inyan Kara, Minnekahta, Minnelusa, and Madison aquifers would require directional drilling around the stuck drill stem at an estimated cost of \$2,000,000.

Locally, the Inyan Kara Aquifer is utilized as a municipal and domestic source of fresh water. The unplugged portion of the wellbore provides a pathway for upward flow of poor-quality Minnelusa ground water into the Inyan Kara Aquifer. Assuming poor quality water migrates up the unplugged hole into the Inyan Kara Aquifer over the next 50 years, the calculated radius of impact to the Inyan Kara aquifer is approximately 1,000 feet. The nearest down gradient Inyan Kara well is over six miles from the Northern Points 1 well.

The \$130,000 surety is a plugging and performance bond, and Quartz failed to perform according to state plugging regulations and permit requirements. Releasing the bond would set a bad precedent from a public policy standpoint. Therefore, DENR believes the bond should not be released.

DENR recommends two options:

- 1) Retain the bond in force until the well is properly plugged, or;
- 2) Act on the bond with disbursement of funds to the Mined Land Reclamation Fund, find Quartz in violation, and revoke its Northern Points 1 drill permit.

Board discussion took place with Mr. Lees answering questions from the board. The board asked Assistant Attorney General Steve Blair to look into options the board has regarding this matter and report back to them at the June 16 board meeting.

TRANSCANADA PIPELINE FREEMAN SPILL UPDATE: Brian Walsh provided background information and an update on the spill near Freeman.

On April 2, 2016, TransCanada responded to a landowner report of surfacing crude oil near its pipeline south of Freeman. TransCanada shut in the pipeline and sent responders to the scene. On April 3 and April 7, Mr. Walsh, who is with the DENR Ground Water Quality Program, went to the site to observe TransCanada's response actions. TransCanada estimates lost crude oil at approximately 400 barrels (16,800 gallons). Approximately 7,000 yards of contaminated soil have been excavated and are being temporarily stored pending final characterization and disposal.

The leak location was identified as a girth weld anomaly at the 6:00 position on a transition weld. The leak was repaired and the pipeline operations restarted at a reduced pressure with approval from the U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA continues to work with TransCanada to identify the cause of the failure.

Mr. Walsh answered questions from the board.

NEXT MEETING: The next meeting will be June 16, 2016. The board will tour the Aberdeen Energy, LLC ethanol plant at Mina.

Dennis Landguth, who was previously appointed by Chairman Hagg as the hearing chairman, requested that the board set a hearing date for the Ring Neck Energy air quality construction permit application. The board members agreed that the hearing will take place on August 18, 2016.

Eric Holm reported that the deadline for submitting petitions nominating lands to be placed on the preliminary list of special, exceptional, and critically unique lands was May 1, 2016. No petitions were submitted.

ADJOURN: Motion by Karpen, seconded by Greenfield, that the meeting be adjourned. Motion carried unanimously.



Secretary

6-16-2016

Date



Witness

6-16-16

Date

**South Dakota Board of Minerals & Environment
Consent Calendar**

May 19, 2016

<u>License Holder</u>	<u>License No.</u>	<u>Site No.</u>	<u>Surety Amount</u>	<u>Surety No.</u>	<u>Surety Company or Bank</u>	<u>DENR Recommendation</u>
<u>Transfers of Liability:</u>						
Aggregate Construction, Inc. Minot, ND	89-382		\$20,000	5301306	Ohio Farmers Insurance Company	Transfer liability.
		382038	E1/2 Section 31 & Section 32; T5N-R11E, Meade County			
Transfer to:						
William Scott Phillips New Underwood, SD	15-996		\$1,000	6701000373	First Interstate Bank, New Underwood	
Beilke Construction, Inc. Wetonka, SD	83-221		\$20,000	RC-0008	Sun Surety Insurance Company	Transfer liability.
		221017	NW 80 Acres, Section 6; T125N-R69W, McPherson County			
		221021	E1/2 Section 29; T120N-R66W, Faulk County			
Transfer to:						
HF Jacobs & Son Construction Inc. Aberdeen, SD	83-188		\$20,000	964 93 46	Fidelity & Deposit Company of Maryland	

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May 19, 2016

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<u>Transfers of Liability:</u>						
HF Jacobs & Son Construction Inc. Aberdeen, SD	83-188		\$20,000	964 93 46	Fidelity & Deposit Company of Maryland	Transfer liability.
		188008	SW1/4 Section 18; T121N-R64W, Brown County			
Transfer to:						
Matthew R. Vogel Aberdeen, SD	13-956		\$1,000	200016738	First State Bank, Aberdeen	
HF Jacobs & Son Construction Inc. Aberdeen, SD	83-188		\$20,000	964 93 46	Fidelity & Deposit Company of Maryland	Transfer liability.
		188030	NE1/4 Section 33; T120N-R66W, Faulk County			
Transfer to:						
Arvin Taylor Northville, SD	03-775		\$1,000	78462	First National Bank, Pierre	

**South Dakota Board of Minerals & Environment
Consent Calendar**

May 19, 2016

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<u>Transfers of Liability:</u>						
Opperman, Inc. Gregory, SD	83-4		\$20,000	RC-0012	Sun Surety Insurance Company	Transfer liability.
		4014	Section 34; T105N-R71W, Lyman County			
Transfer to:						
William Bahr Chamberlain, SD	12-942		\$7,000	7000313493	First Dakota National Bank, Chamberlain	
<u>Release of Liability:</u>						
Oldcastle Materials Group Midwest Des Moines, IA	83-42		\$20,000	8881210	Fidelity & Deposit Company of Maryland	Release liability.
		42024	SW1/4, S1/2 NW1/4, NW1/4 NW1/4 Section 34; T9S-R7E, Fall River County			

South Dakota Board of Minerals & Environment

May 19, 2016

<u>Permit Holder</u>	<u>Permit No.</u>	<u>Legal</u>	<u>Surety Amount</u>	<u>Surety No.</u>	<u>Surety Company or Bank</u>	<u>DENR Recommendation</u>
<u>Reclamation Bond Increase for Pete Lien & Sons, Inc.:</u>						
Pete Lien & Sons, Inc. Rapid City, SD	58		\$123,650	ILOC No. S500996	UMB Bank, Kansas City, MO	Accept Amendment to Irrevocable Letter of Credit No. S500996, UMB Bank, increasing the bond amount by \$160,850 to the new amount of \$284,500.
<u>Request for Post Closure Bond Reduction for Wharf Resources (USA), Inc.:</u>						
Wharf Resources (USA), Inc. Lead, SD	356, 434, 435, 464, & 476		\$30,783,000	SUR0032045	Argonaut Insurance Company	Accept rider to Bond No. SUR0032045, Argonaut Insurance Company, decreasing the bond by \$3,983,000 to the new amount of \$26,800,000.