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DIVISION OF MINERALS
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RICHARD PERRY
 Administrator

COMMISSION ON MINERAL RESOURCES
 Legislative Counsel Bureau
 401 South Carson St. Room #1214 Carson City, NV 89701

Tuesday, February 20, 2018

9:00 A.M.

MINUTES

CALL TO ORDER

The meeting was called to order by Rich DeLong at 9:01 AM

The Agenda for this meeting of the Commission on Mineral Resources has been properly posted for this date and time in accordance with NRS requirement.

ROLL CALL

Commission	Staff
Rich DeLong	Rich Perry
Dennis Bryan	Mike Visher
John Snow	Bryan Stockton
Art Henderson	Rob Ghiglieri
Nigel Bain	Lowell Price
Mary Korpi	Valerie Kneefel
Dave Parker	Garrett Wake

PLEDGE OF ALLEGIANCE

COMMENTS BY THE GENERAL PUBLIC

No comments were made by the public

I. MINUTES

A. Approval of the November 30, 2017 meeting minutes

Motion: Approval of Minutes by Dennis Bryan

Second: by John Snow

Unanimously Approved

II. NEW BUSINESS

A. NBMG Mineral Industry Report for 2016. This report is compiled annually by the NBMG, with assistance from NDOM. The report is funded annually by the Commission. John Muntean will provide a summary of the report, which was published on-time for last year's AEMA annual convention.

John Muntean: Gave a PowerPoint presentation. He indicated that the 2016 Nevada Mineral Industry Report was completed on time. This was the earliest release since 2011.

Value of Nevada's Mineral and Energy Production: \$7.49B in 2016. Gold: both production and value of production increased. Silver Production dropped, but value was up due to the price increase. Copper: Production

and value dropped significantly. Aggregate: Production down, but value is way up. Geothermal: Up nearly 8% in both megawatt hours and value. Petroleum: Production continued to decline, no exploration. Barite: Tanked due to declining oil prices.

Nevada Gold Production 1998 peak: 8.87 Moz in 2016: 5.47 Moz, 2.4% increase from 2015. 2016: Copper and silver production dropped 10% and 6%, respectively.

Metals Exploration: Gold projects: Barrick's Cortez Hills and Goldrush (underground). Kinross acquired Bald Mountain from Barrick and Barrick's 50% share of Round Mountain, spending \$110 Million on capital expenditures and \$13 Million on exploration. Other notable projects: Gold Standard Ventures: Railroad-Pinion Project. Columbus Gold: Eastside, Premier Gold mines: Cove.

Drilling Projects decreased again in 2016. 55 project drilled in 2017, the lowest since we started recording in 2006. 50 of the 55 known drill projects were drilled for gold.

Locations of 2016 drill projects for metals (mainly gold). The goal is to put all the data from 2006 to 2016 into a web map service. NBMG currently has a search for Geoscience database manager (100% state supported)

There were 197,043 active mining claims in Nevada at the end of 2016, a 4.7% increase from 2015. There were 19,040 new claims located in Nevada in 2016: 54% were for Lithium.

Clayton Valley (Pure Energy Minerals): Lithium in brine resource has 218,000 metric tonnes of lithium carbonate equivalent. The average lithium grade is 123 mg/L. Good chemistry: Mg/Li = 2.9, 1,536 mg/L avg Ca,So4 2-/Li of 18.2. The new recovery process: no evaporation ponds, real time recovery involving removing of cations, solvent extraction, electrolysis, and ion exchange.

Geothermal Energy: Geothermal plants at 16 locations. Ormat runs 9 of them. McGinness Hills passed Steamboat in 2016 to become the leading producer. Fluid production temps ranged from 97 C to 187 C. Drilling has fallen off since its high in 2010, 16 new wells drilled in 2016, 9 for production.

Oil and Barite: only one well spudded in 2016.

Rich DeLong: Is McGinness hills binary only?

John Snow: Yes

Rich DeLong: Is this report done every year?

Rich Perry: These are done every year and the Exploration survey is done every other year.

B. UNR-MSM annual \$2 claim fee approval consideration. Under the current 5-year agreement with the University, the Division designated \$2/claim in annual claim fees to support activities at the Mackay School. This is the last and final payment under the 5-year extension of this agreement, which was approved by the CMR in 2013. The Division has sufficient reserves to cover this item. A letter to the Dean of the College of Science has been

prepared informing UNR that the agreement has been fulfilled.

Rich Perry: Stated that the final payment to UNR would be \$359,870, as long as the commission approves that today.

Rich DeLong: This would be the last year we would be doing this. The Division and Commission have been given direction from the Governor's office stating that the mining claim fees should be used for directed work with measurable deliverables and not for salaries at the University.

Mary Korpi: Asked if the University was aware of this?

Rich Perry: There have been conversations regarding stopping the contributions since 2015.

Rich DeLong: Indicated that he also has had discussions with the Dean.

Motion: Approved motion for the amount of \$359,870 as UNR final payment by Dennis Bryan.

Second: Mary Korpi

Unanimously Approved.

C. Election by Commission of a Chairman for the next biennium. The Commission adopted a practice to choose a Chairman every two years at the first quarter meeting in even years.

Rich DeLong: asked for a discussion on electing a chair. He indicated that he would like to continue as chairman if no one else was interested in the position.

Motion: Dennis Bryan nominated Rich DeLong to continue as Chairman for the Commission on Mineral Resources.

Second: Art Henderson
Unanimously Approved

Rich DeLong: stated that Dennis Bryan would continue as the Vice-Chair.

D. Planning for a Nevada trade booth at PDAC. The 2018-19 budget included \$35,000 for a Nevada trade booth and presence at the Prospectors and Developers Assn of Canada annual trade show in Toronto on March 4-7, 2018. The scope of the project includes a professionally-designed trade booth that could be used by Nevada State agencies, trade associations, and travel expenses for two NDOM employees to attend. Garrett Wake is the project manager for this effort, and has been meeting with representatives from NvMA, GoED, NMEC, GSN, NBMG and BLM in designing the booth with coordinating efforts.

Garrett Wake: (gave a PowerPoint presentation) Mission Statement: To encourage and assist in the responsible exploration for and the production of minerals, oil, gas, and geothermal energy which are economically beneficial to the State. Nevada booth offers a “one-stop shop” for individuals and companies looking for information on exploring and producing minerals within the State. Several partnering organizations: NDOM, NBMG, BLM, NvMA, GSN, NMEC, GoED. This approach sets our state apart from many of the other states, provinces and countries in attendance. We have industry experts from several areas of expertise, not just government. More than 22,000 attendees from 100+ countries are expected to attend PDAC in 2018.

Important resources will be preloaded on USB flash drives such as organization websites, information relating to exploration and production, other information TBD. Data from file server or web can be transferred to these USB flash drives and given to potential investors. Affords us the opportunity to provide interested parties with the specific data they’re looking for in a one-on-one setting. Follows up conversation with specific information they’re looking for.

Functional and promotional – better chance of being held on to by end user.

Art Henderson: Is the booth size comparable to other States?

Garrett Wake: It’s the same size, we just have a much better layout and upgraded information this year.

Dennis Bryan: Stated that this is great for Nevada.

Garrett Wake: Hopefully we will be able to generate more interest in mining in Nevada.

Dave Parker: How will you be able to judge the increase in people at our booth?

Garrett Wake: Not sure at this time. It would be good to have a way to show that this is working.

John Snow: Will you collect name and addresses?

Rich Perry: We hadn’t thought about that but it would be a good idea.

Rich DeLong: Asked for any comments from the public. There were none.

III. OLD BUSINESS

A. DMRE Regulations Task Force update. A task force was formed by the Commission at the August 24, 2017, CMR meeting to review and provide input as the DMRE regulations progress towards an adoption hearing before the CMR. The task force met on January 30, 2018 and will provide an update.

Rich Perry: CMR formed task force at August 24th meeting consisting of; John Snow, Art Henderson, Dave Parker, Rich Perry. The Task Force met on 9/7/17 to review and comment on draft regulations. LCB draft returned 11/29/17, the Public Workshop was held on Dec. 21, 2017 and comments were accepted through 12/31/17. There were 5 oral and 5 written comments.

Regulations development team (NDOM, NDEP, DWR) met January 3rd and made some substantive changes to address comments. We re-submitted to LCB for legal review 1/8/18. The CMR task force met again on 1/30/18 to review the changes. The list of comments and responses is complete. When LCB returns final draft, we will post for CMR adoption hearing.

A 30-day notice is required for adoption hearings. For Public hearings, comments are recorded. CMR can adopt, modify or send back for editing. The timing will likely be in March, but depends on return of draft from LCB legal review. NDOM began regulating program 1/1/2018. The web site is up and running, and includes all forms, and an interactive map 2 well permits issued Jan 16 (4 business days). First borehole NOI approved Feb. 2, 2018.

Permits and approved NOI’s have been posted on web site.

We have developed a one-page communications document, posted on our web site. Communications letter on new program sent to GSN, NWRA, NPGS for their member newsletters. Presentations were made at NPGS meeting on

2/5by Lowell,

at NMA Environmental Committee meeting on 2/8/18 and the lithium regulation panel at NWRRA conference in LV on 2/27/18 by Rich. Once CMR has adopted, final step is adoption by Interim Legislative Commission, date to be determined.

Rich DeLong: Asked if there was any public comment. There was none.

B. AML work planned for 2018 and Arden Mine closure project. At the August 24, 2017 Commission meeting, the CMR instructed Division staff to increase AML hard closure projects by an additional \$100,000 in 2018. The Division is partnering with Clark County on a hard closure project at the Arden Mine near Las Vegas, and has other projects planned in addition to the summer intern work plan.

Rob Ghiglieri: The historic gypsum mining left over 55 abandoned mines in the Arden area. 46 of the abandoned mines are located on land that is owned and maintained by the County, which under NRS 455.010 has the responsibility to safeguard against danger to person and animals. 40 abandoned mines are still open to the public on County land.

NDOM has constructed fencing in front of abandoned mine opening nearly 70 times in the last 4 years. Fencing has been deemed ineffective and backfilling of the portals is recommended as mitigation of these abandoned mine hazards. These are public safety hazards with no known environmental hazards. Wildlife surveys have been completed by NDOW and no significant habitat was found. CMR authorized \$100,000 towards the closures of these hazards in fiscal year 2018. Clark County has verbally approved \$150,000 funding towards the backfilling of the hazards. The Arden Mine Complex Closure Project has 40 hazards to be backfilled and will include an estimate of up to 39 acres of disturbance which includes access road and road between sites. 10' thickness of backfill material is required at the apex of each portal. Access hazards from Fort Apache Road. On site security. 20-25 working days to complete project.

The current status: Interlocal contract, February 20th Clark County Commission is voting on the approval of the \$150,000 funding towards the backfills, BLM approval, BOE approval, permits needed, water source, wildlife issues and on April 2nd, start of construction. Timing of construction to begin April 2 through approximately April 27th.

C. Land Withdrawals update Mike Visher will provide an update on Federal land withdrawal activity in Nevada.

Mike Visher: He went over the Washoe County lands bill. There are 2 components to it: 1.) Land disposal around the greater Reno/Sparks area with the intent that the lands would be transferred over or sold to highest bidder. Those are parcels that are basically adjacent to existing private property within the county as well as inholdings for the Forest Service and BLM that are surrounded by private property. This makes it difficult to manage so they are willing to dispose of those. 2.) There is a wilderness component to this which is largely in the northern 2/3 of Washoe County. This was first put forward by the Friends of Nevada Wilderness over a year ago to try and move WSA wilderness study areas from that status to actual wilderness status. They want to change the boundaries a little bit but, additionally add in some other areas that have not been identified as wilderness study areas. The discussions that were held a year ago were sidelined for a while, until everyone adjusted to the new administration. Once the Pershing County lands bill was moving forward, that became the template for the Washoe County Lands bill. The Pershing County Lands Bill is now passed through the House and now is in the Senate. There is a 30% chance of the bill being passed.

Rich DeLong: On the Washoe and Pershing County Lands bills, is there language in each of those bills to drop the WSAs aren't selected for wilderness and return them to open public lands status?

Mike Visher: In the Pershing County Lands Bill, yes they do address the portion of the existing WSA's that are not being designated as wilderness would go back to multiple use. There is no text yet for Washoe County.

Rich DeLong: As we continue to restrict access to lands in the State of Nevada we limit our ability to find Minerals. And, that's not good for the economic development for the State.

John Snow: So you know if the Interior is doing the study for transfer of fluid minerals to the private entities or are they going to reserve?

Mike Visher: didn't have the answer and was asked to look into it.

Dennis Bryan: In regards to the Washoe County Lands Bill, the upcoming workshop that the stakeholders have been invited to, the Nevada Mineral Exploration Coalition has been very active in testifying so far and helped organize the maps and have not been invited to the workshop. And the explorationists are a big stakeholder in the future as Rich has said. Why weren't they invited?

Mike Visher: I can't answer that. The Mineral Exploration Coalition was told that it was a closed meeting not open to the public and by invitation only. They wanted to make it more of a round table discussion.

Dennis Bryan: I noticed we have the Nevada Mining Association present and I presume they will represent the exploration and industry as well.

Dana Bennett: Nevada Mining Association- Of course we will represent the exploration community. NMEC has been meeting with them and I believe there is another meeting with them on Thursday. We did send a letter to Washoe County in 2016 expressing concern about the process they were putting in place, expressing concern that they were not looking to the future and we were wanting to endorse multiple use. I can provide a copy of that letter with Rich Perry so he can share that with everyone. We are concerned how this process is taking place, it's not a public process.

Rich DeLong: asked for additional comments. Seeing none moved to the next item.

D. NDOM Administrator evaluation plan. At the CMR meeting on November 30, 2017, the Commission discussed conducting a biennial evaluation of the Administrator at the 2Q meeting in even years. Commissioners Korpi and Henderson volunteered to help develop the evaluation form and procedure for the first evaluation, which would be at the May, 2018 meeting.

Rich DeLong: The evaluation of our Administrator for NDOM. The intent is to have the evaluation at the next meeting. The evaluation should be at a public meeting. We can have private meetings in smaller groups.

Bryan Stockton: The individual meetings cannot be about what was said with other commissioners. It needs to be only your own opinion.

Mary Korpi: A lot of standard evaluations are a numbering system. We wanted quality of the Administrator not a numbering system.

Art Henderson: By no means is this the final form. We can change this.

Rich DeLong: Do we send the completed ones to Valerie?

Rich Perry: It can go to anyone you'd like.

Bryan Stockton: You can compile the evaluations with just Art and Mary.

Dennis Bryan: How do we compile this and vote?

Richard DeLong: The only thing at this point we can do is discuss this and then the next meeting we will do the evaluation.

Nigel Bain: I think we should make a comment and score it, like the numbering system.

Mary Korpi: We didn't feel that the scoring method was appropriate, but more of a written explanations.

Art Henderson: Mary and I discussed many reporting levels. He didn't ask for the staff to evaluate him. But more of a feedback to these written questions, a written response to see how he is doing.

John Snow: Does this conform to HR for the State

Bryan Stockton: For unclassified employees there isn't a regulation. This isn't a normal process. This is really new ground.

Rich DeLong: Do we want each of us to take this and make comments on the form and have his evaluation the time after next? Or do we even want to do the evaluation.

Rich Perry: I think it's appropriate to do the evaluation, just as I do one on each employee every December. I like the form that was put together here.

John Snow: Evaluations are usually done one on one. Maybe the chairman should have a one and one with the administrator?

Art Henderson: I expressed that thought with the chairman already. I thought we might give all the input to Rich DeLong and he could have that discussion with him one on one.

Bryan Stockton: I think that would be ok. I'll look into that and see if we need to make public anything.

Rich Perry: I'm ok with doing it in a public meeting. The discussion amongst the commissioners about the expectations of the administrator would be a good thing.

Rich DeLong: We need a consensus about where we want to go with this.

Dave Parker: I like the format that has been provided.

Nigel Bain: I think at some point it should be public.

Mary Korpi: Have everyone fill out form and give comments to me or Art. At the next CMR meeting discuss comments.

Dennis Bryan: We should fill out and be given to both Art and Mary.

Dennis Bryan: We need a deadline to provide the forms.

Mary Korpi: How about one month from today.

Rich DeLong: Let's make March 31st the deadline date.

IV. STAFF REPORTS

1) Oil, Gas, Geothermal and Dissolved Minerals (OGGDM) drilling Permitting and Activity –

Lowell Price: He gave a PowerPoint presentation.

Oil, Gas, and Geothermal Activity 2017-2018 permitting and drilling activity.

Permit Type	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled
	2015	2015	2016	2016	2017	2017	2018	2018
Geothermal - Ind Prod	10	7	9	10	6	4	1	2
Geothermal - Ind Inj	1	2	3	1	4	4	---	---
Geothermal - Obs	1	1	2	4	3	1	1	1
Geothermal - TG	5	5	---	---	19	15	4	4
Geothermal - Com	---	---	---	---	---	---	---	---
Geothermal - Dom	8	5	---	4	2	2	---	---
Geothermal - Project Area	1	---	---	---	1	---	---	---
Geothermal - Total	26	20	14	19	35	26	6	7
Oil & Gas	4	2	3	1	0	1	3	0

Ormat Nevada

Completed drilling three of five production wells permitted for the McGinness Hills Phase 3 plant, with fourth production well nearing completion. Ormat Nevada completed drilling the Carson Lake 84A-31 injection well. Ormat Nevada is currently drilling the Carson Lake 21-31 observation well (for FORGE).

US Geothermal

US Geothermal Nevada is permitting the 25A-28 production well in the southwest extension of the San Emidio Field.

US Geothermal is currently seeking their stockholders approval for Ormat Nevada to acquire the company.

Homestretch Geothermal

Utah based Open Mountain Energy has entered into a partnership with Homestretch Geothermal. Open Mountain is building a new power plant at the Wabuska location, and will own it. Homestretch Geothermal will supply the plant with geothermal fluid.

Star Peak Geothermal (subsidiary of Open Mountain Energy)

Star Peak Geothermal has acquired the Rye Patch wells from Presco Energy. Star Peak Geothermal is currently re-entering each well to evaluate the potential use of the field wells. The wells have been logged and are undergoing a series of flow and injection tests.

Star Peak Geothermal plans on constructing a binary plant if testing of the wells proves to be successful.

Nevada Bureau of Mines and Geology

The Nevada Bureau of Mines and Geology completed five TG wells (geoprobe) in Granite Springs Valley in January.

True Oil

Wyoming based True Oil drilled the well approximately two miles south of the Grant Canyon Field during December and January.

After logging and testing the DY Federal 13-31, True Oil plugged and abandoned the well.

Major Oil International

Texas based Major Oil International permitted the Eblana 3 and Eblana 6 exploration wells in January.

The Eblana 3 and 6 wells will be located in Hot Creek Valley, approximately 60 miles east of Tonopah.

Major Oil International drilled the Eblana 1 in 2011. The Eblana 1 has never produced.

Permitted total depth of the Eblana 3 is 12,600 feet.

Permitted total depth of the Eblana 6 is 12,200 feet

Major Oil International has not indicated when the Eblana 3 and 6 wells will be drilled.

Envy Energy

Texas based Envy Energy permitted the Black Point 1 exploration well in February.

The well is located in White Pine County between Duckwater and Mount Hamilton.

Permitted total depth of the Black Point 1 is 7,000 feet

Envy Energy has not indicated when the Black Point 1 will be drilled.

Summary of Geothermal and Oil Well Inspections for Fiscal Year 2018:

FY 2018 Well Inspections	Total Wells	Wells Needed for FY18	Wells Inspected	% of Total Needed	Wells Remaining
Geothermal (13 Locations)	452	151	153	101.5%	-2
Oil (5 Locations)	119	40	11	28%	29
Totals	571	191	164	86%	26

Recent inspections include the wells located in Ormat Nevada's Wild Rose, McGinness Hills, and Tungsten Mountain geothermal fields during the second full week of February.

After inspecting Wild Rose, I also inspected the three oil wells drilled in the Gabbs area, along with one geothermal observation well belonging to HRH Resources.

Sundry Notice and Transfer of Permit Activity

- Twenty-three geothermal sundry notices were approved during the 4th quarter of 2107.
- A total of fifty-nine geothermal sundry notices were approved during 2017.
- Three oil-related sundry notices were approved during the 4th quarter of 2017.
- A total of thirty-four oil-related sundry notices were approved during 2017.

BLM Lease Sales – Oil & Gas

- The BLM Ely District held an oil and gas lease sale on December 12th.
- A total of 208 parcels were offered.
- The parcels were protested by Center for Biological Diversity, The Wilderness Society, and WildEarth Guardians NGO's. No parcels were removed from the sale as a result of the protests.
- The 208 parcels comprised a cumulative total of 388,697 acres.
- The sale had thirteen bidders.
- Seventeen parcels received bids, putting an additional 33,483.72 acres under lease. Total receipts for the sale were \$119, 931.50.
- The highest bid per acre was the minimum \$2.00 per acre.
- The next oil and gas lease sale is scheduled for March 13th, where the Elko, Ely, and Carson City Districts will offer 40 parcels totaling 69,691 acres in Elko, Eureka, and Nye Counties.
- One parcel of 1900 acres is being offered by Carson City DO, one parcel of 480 acres is offered by the Ely DO, and the remaining 38 parcels totaling 67,311 acres are being offered by the Elko DO.

BLM Lease Sales – Geothermal

- The BLM held a statewide geothermal lease sale on October 24th.
- Twenty parcels were offered in Churchill, Elko, Esmeralda, Eureka, Lander, Mineral, and Washoe Counties by the Battle Mountain, Carson City, Elko, and Winnemucca BLM District Offices.
- None of the parcels were protested.
- Total cumulative acreage offered for the sale was 38,208 acres.
- There were six bidders attending the sale.
- Ten parcels totaling 19,208 acres were bought at the sale.
- The highest bid was the minimum of \$2.00 per acre.
- Receipts for the sale totaled \$78,444.00.
- The BLM has not set a date for the next annual geothermal lease sale.

Dissolved Mineral Resource Exploration

- Database and web page are in place.
- Sierra Lithium LLC submitted DMRE applications for two exploration wells, CB-1 and CB-2, on January 10th. The exploration wells are to be located in Columbus Salt Marsh.
- After review of the applications and additional information was acquired, the applications were posted on the Division's web site on January 12th.
- CB-1 is permitted to be drilled to 3,280 feet, and CB-2 is permitted to 2,624 feet.
- Permits were issued for the CB-1 and CB-2 exploration wells in Columbus Salt Marsh on January 16th, and posted on the Division's web site the same day. The permitted locations are not within an Area with Limitations. Sierra Lithium LLC began drilling the CB-1 well on February 3rd.
- Mathers Lithium Corporation submitted a borehole Notice of Intent (NOI) on February 1st. The proposed borehole is not located within an Area with Limitations, and will be drilled in the southeastern area of Clayton Valley. The NOI was approved on February 2nd.
- The proposed total depth is 1,000 feet.

2) Mining and Reclamation Bond Pool –

Mike Visher: went through the bond pool spreadsheet. He indicated that there was no additional activity for plan level bonds. On the notice level we have some increased activity. January is usually slow but we are expecting things to ramp up. Bond pool is at 127%.

3) Administrator Report and correspondence

Rich Perry: updated the commission on upcoming meetings and trade shows. He indicated that we updated the MOU for dissolved mineral resources. Once it's signed I'll put it in the packet for the next meeting.

COMMISSION BUSINESS

A. Determination of time and place of next CMR meeting
May 17th and 18th in Las Vegas.

COMMENTS BY THE GENERAL PUBLIC

There were no comments by the public.

ADJOURNMENT

11:15 PM