

STATE OF NEVADA COMMISSION ON MINERAL RESOURCES

DIVISION OF MINERALS

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ALAN R. COYNER

Administrator

ACTIVITY AND ACHIEVEMENTS January 2009

ADMINISTRATION (ALAN)

- 1. Met with Tim Crowley, NvMA to discuss his new position as President and coordination with NDOM on minerals education and AML projects.
- 2. Arranged the Washoe County High School Mining Field Trip for May 19, 2009 at Newmont's Twin Creeks mine.
- 3. Made several reminder calls to Notice Level Bond Pool participants concerning premium payments that were due on December 31.
- 4. Travelled to Winnemucca to make a presentation concerning "Update on Mining and Exploration in Nevada" to the monthly meeting of Society of Mining Engineers. Made several AML field checks in the Seven Troughs district on the way to Winnemucca.
- 5. Provided input to the Nevada Mining Association and the Audubon Society concerning SB108 providing for solid mining claim monuments. Provided information concerning the bill to the Geological Society of Nevada and the Nevada Landman's Association.
- 6. Attended a governor's meeting concerning homeland security at the state Fusion Center.
- 7. Met with Jennifer Ruedy and Michelle Van Geel of the Legislative Counsel Bureau to review NDOM programs and any BDR's affecting the agency. Jennifer represents the Assembly Committee on Natural Resources, Agriculture and Mining, and Michelle represents the Senate Natural Resources Committee.
- 8. Met with John Bokich of St. Cloud Resources to discuss reclamation capabilities.
- 9. Participated in a WGA/IMCC sponsored conference call with EPA concerning an additional financial assurance system that would be enacted on mining by EPA under CERCLA authorities.
- 10. Contacted Round Mountain Gold concerning AML sites in Pablo Canyon and Jefferson Canyon to mediate concerns with bat habitat as expressed by NDOW.
- 11. Notified the Great Basin Center for Geothermal Energy that their funding requests to the CMR would be agendized for the May CMR meeting.
- 12. Met with Commissioner Snow to discuss possible geothermal legislation.
- 13. Met with Fred Schmidt and Tom Clark of Holland & Hart concerning a BDR to address geothermal unitization. Fred's client is Aqua Caliente of Idaho using the operational name of Standard Steam in Nevada.
- 14. Facilitated an informal meeting of geothermal industry reps to discuss the 10% surface casing rule at the NDOM office in CC.
- 15. Assisted Rich Perry, Water Resources, concerning NDOM domestic geothermal permits for closed loop ground source heat pump systems.
- 16. Attended the annual meeting of the Great Basin Center for Geothermal Energy Advisory Board at UNR.
- 17. Met with Commissioners Parratt and Bryan and MSESE Director Taranik and Mining Department Chair Taylor to discuss the second half of FY09 budget for the mining claim fee money.

- 18. Attended the meeting of the NDOM/BLM/USFS/NDOW AML closure working group.
- 19. Met with Liz Ball and several Mackay students concerning a professional produced recruitment video for MSESE.
- 20. Attended the monthly meetings of the NvMA Education Committee, the SME, the GSN Symposium 2010 committee, the GSN, and the RETAAC meeting in CC.

RECLAMATION BOND POOL (DOUG)

- 1. Initiated refunds for partial releases of 2 bonds for AuEx, Inc., total releases of 2 bonds for MGC Resources (one a notice level and one a plan of operations).
- 2. Sent out late notices for 8 unpaid premiums that were due by December 31. This is a higher than usual amount. Spoke with Alan Holmes in England regarding Specialty Clays, Mitch Geisler of Nevada Rae Gold, Bill Potts of the Bovie-Lew project, and Buster Hunsaker, formerly of Britiannia Gold, about late premium payments.
- 3. Spoke with Russ Fields about a notice level bond for a company wanting to mine a bulk sample of silicified wonderstone to determine whether it is locatable or leasable.
- 4. Responded to Jipangu's auditors about the status of their notice level bond.
- 5. Spoke with Kent Barnes, a private investigator representing the Martin Family Trust, about the situation at the Gooseberry Mine.
- 6. Received word from NDEP that equipment from the Gooseberry Mine had been removed by Plum Mining. Plum bought the equipment from International Resource Development (aka AAA Manufacturing), who had bought it from Stan Leevers, who supposedly had the scrap removal contract with the bankruptcy court. Janet Hess is checking into this.
- 7. Began processing a bond reduction for Nevada Cement.

MINING, LAND AND OTHER ISSUES (DOUG)

- 1. Prepared 2 contract amendments for the continuation of Geotemps, Inc's abandoned mine logging and securing contract. The reason for 2 amendments was the timing of the next Board of Examiners meeting.
- 2. Sent out 98 questionnaires for the 15th annual exploration survey.
- 3. Sent information on the mining industry to Greg Lambert of NV Energy for use in their annual report.
- 4. Sent out the annual status and production report forms to the industrial and precious metal producers.
- 5. Contacted all the federal and state regulators of mining and milling in Nevada to get updates to L-6 (Permits required in Nevada before mining or milling can begin).
- 6. Sent historical production information on the Relief Canyon to Ann Loring.
- 7. Attended the Nevada Miners & Prospectors meeting in Reno.
- 8. Fielded 2 questions about mine investment.
- 9. Sent information on our federal fund tracking to Erik Scheetz at the Controller's Office.
- 10. Met with John Bokich of St. Cloud Resources. His company is a reclamation and environmental construction company in New Mexico.
- 11. Cut up 40 AML white boards for field use by interns and others.
- 12. Figured out the cumulative gold production in Nevada for Ed Tomany. Through the end of 2007, Nevada's mines have produced 175.67 million ounces of gold.

AML / PUBLIC AWARENESS - NORTH (MIKE)

1. Updated hazard ID sheets with 2008 backfill information and update database.

- 2. Began process of researching and populating database with land status information for nearly 700 hazards logged and 180 hazards secured in 2008.
- 3. Continue work on annual U.S. Forest Service report.
- 4. Communicated with Geotemps and their contractors regarding next year's start-up schedule and the return of some original field maps.
- 5. Complete entry of logged non-hazard information from 2008 into Access database.
- 6. Nearly complete with database entry of all 2008 hazard inventory information and December securing work.
- 7. Assist with data backup and scheduled replacement of three office computers and associated hardware/software.
- 8. Met with Scott Hall (Geotemps, Inc) to get contract signatures and discuss contractor performance issues. Contractors John Morley and Ken Wilson started back up on their field work on January 8, with planned target areas in northern and central Nye County.
- 9. Review contractors' accomplishments for last work period. John Morley was asked not to return for work due to poor work performance. Geotemps began looking for a replacement. Ken Wilson was retained for a probationary period pending performance improvements. Pending final invoicing and payment to Geotemps, the fall contract should be complete and new work will be charged to the spring contract.
- 10. Met with Brian Breiter (Environmental Protection Services) to discuss his interest in and ideas for AML inventory, inspection, and securing work.
- 11. Updated list of sites secured with bat gates and made appropriate changes to current AML database.
- 12. Kris Urquhart (NDOW-Fallon) called to his replacement as Wildlife Diversity Manager (Western Region) will be Kenny Pirkle. Kenny will work out of the Winnemucca office and assist on AML hard closure matters.
- 13. Communicated with Leslie Rumph (Mackay) to plan dates/times for summer internship interviews. Planned for February 3rd and 4th at UNR.
- 14. Received requests for Rocks/Minerals/AML presentations at Wooster and Desert Heights Head Start programs later this month.
- 15. Requested and received additional pumice samples from DD LaPointe for use in outreach programs.
- 16. Continued working on updating land status on 2008 loggings and securings.
- 17. Continued updating hazard ID sheets and AML database with information of 2008 work provided by USFS, BLM and NDOW.
- 18. Updated bat gating list for distribution at Bats and Mines subcommittee meeting.
- 19. Completed data entry of all 2008 work into AML database and began to run end-of-year numbers.
- 20. Attended (Nevada Bat Working Group) Bats and Mines subcommittee meeting held with representatives from BLM, NDOW, Natural Heritage, and USFS. 2008 accomplishments and future plans for permanent and bat-compatible closures were discussed. NDOM's spreadsheets and maps of known 2008 work and a priority bat gating wish list were distributed to all attendees and subsequently sent via email for corrections/edits.
- 21. Two interviews (one via phone) were held at Geotemps for a new contractor to assist Ken Wilson performing AML work this spring.
- 22. Paul and I fenced one shaft on Peavine Mountain.
- 23. Received a call Tom Seley (BLM Tonopah Field Station Manager) regarding a report from Fred and Betty Hockett (Rhyolite volunteers) about recently vandalized bat gates on what is believed to be Barrick patents. Information and contact numbers were forwarded

- to Rocky Chase (Barrick) who forwarded them to Melissa Brito (Bullfrog facility manager) for investigation and potential mitigation.
- 24. Assist with estimates for Category 18 AML expenses for remainder of FY09 so a Work Program can be submitted for additional expenses in excess of current authority.
- 25. Pete Herrera was interviewed and accepted as a new contractor for the current Geotemps AML contract. Ken Wilson completed his second work period with 1 securing, 2 hazards and 307 non-hazards logged in Lyon County west of Yerington. Their next work period will involve logging and securing work along Hwy 95 south of Goldfield.
- 26. Rick Jones (Western Energy Development Corp.) called to request securing guidelines for several AML hazards on their active claims in Humboldt County. Copies of ID sheets and photos were emailed and 5 warning signs provided to assist with securing work.
- 27. Continued work on Annual FS Report; QA/QC has uncovered a few errors and omissions in data collected which are being resolved.
- 28. Katie Miller (NDOW-Elko) submitted hazard ID sheets and photos of three AML hazards in Stafford Canyon (Eureka County). Six nearby non-hazards were also recorded.
- 29. Attended webcast of Adapx digital pen, enabling digital capture of written information on user generated forms. This technology would allow field personnel to continue using our existing paper forms while simultaneously capturing data in Excel and GIS-compatible formats for direct import to our existing database.
- 30. Inventory available rock and mineral samples at shed for use at Teachers Workshops.
- 31. Updated computer software on two new computers.
- 32. Attended NvMA Education Meeting and continued planning for 2009 Workshops. Several photo CD's provided to Joe Riney for inclusion on NvMA's new Education website; http://www.nvmineraleducation.org/
- 33. Barbara Farber-Brooks at Ester Bennett E.S. has requested four educational activities to occur on a rotation for four 3rd-grade classes of approximately 20 students each. Doug, Linda, Paul and Alan have agreed to assist with this to occur on March 10th.
- 34. Provided a Rocks/Minerals/AML presentation to 16 students and three adults at Wooster High School Head Start Program. (1 presentation 19 people)
- 35. Provided a Rocks/Minerals/AML presentation to 17 students and five adults at Desert Heights Elementary School Head Start Program. (1 presentation 22 people)

AML / GIS (PAUL)

- 1. Continued updating hazard ID sheets with information gathered on revisit with Mike Visher to the Ludwig mine.
- 2. Worked on exporting GIS data to Excel spreadsheet for work done on USFS in 2008.
- 3. Proofed hazard ID sheets and Cultural Resource Avoidance Certification (CRAC) forms turned in by the Geotemp contractors for work done out in the field.
- 4. Updated revisits on hazard ID sheets for work done in the field by the Geotemp contractors.
- 5. Backed up the AML computer and photo database to get ready for the AML computer to be replaced.
- 6. Contacted Ron Hess about a shape file for Nevada land status for the GIS computers. Ron directed me to a website where I could download the newest land status shape file. Downloaded the shape file to the H drive on my computer.
- 7. Sorted 2008 CRAC forms and started making copies of hazard ID sheets and CRAC forms for the annual USFS report.

- 8. Lined out the Geotemp contractors for work to be done in the field and helped them equip their trucks with fencing supplies to use fencing hazards.
- 9. Jeff Bixler with the State Mine Inspectors Office in Carson City asked us to contact Don Ostrat concerning a group of hazards in Pablo Canyon near Don's ranch. Mr. Ostrat was concerned about the amount of visitation these hazards were getting and said that the kids from town had been going up to the site and starting fires and having parties. Don said that the fences around the hazards had been vandalized and were not secure.
- 10. Contacted Tracy Kipke with NDOW and Ken Maas with USFS about possible gating of the hazards in Pablo Canyon and relayed to them the concerns of Don Ostrat about the fires and visitation of the site. The Forest Service is very interested in securing the site and possibly gating the hazards.
- 11. Constructed a statewide map of all of the securing in the NDOM database and organized them by hazard degree and length of time since last revisit to help us prioritize any revisit work done in the future.
- 12. Created a map using ArcGIS showing the backfills, foamings, steel mesh, and bat gates/bat cupolas done on USFS land from our database for 2008.
- 13. Mike Visher, Alan Coyner and I attended the annual meeting of the Bats and Mines Subcommittee of the Nevada Bat Working Group. The meeting was also attended by Ken Maas of the USFS, Rory Lamp, Jason Williams, and Katie Miller with NDOW, Chris Ross with the BLM, and Jennifer Newmark with Nevada Natural Heritage. At the meeting we discussed AML/bat projects from each group completed in the previous year and projects to be focused on in the upcoming year.
- 14. Mike Visher and I met with Scott and Ann with Geotemps and conducted interviews at the Geotemps office in Reno. It was decided that the new Geotemap contractor to be working along with Ken Wilson out in the field would be Pete Herrera. Pete is a geologist with an impressive background and plenty of field experience.
- 15. Mike Visher and I fenced off a shaft located in the Peavine area on the edge of Reno.
- 16. Received backfill photos from Liz Lane with the BLM Carson City office. Downloaded the photos, labeled them, and added them to the NDOM database.
- 17. Worked on georeferencing a plat map from the Nevada Land Records site to a GIS map of USFS land in the Treasure Hill area.
- 18. Started training the new Geotemp contractor Pete Herrera. Showed Pete around the office, explained to him what the Geotemp contractors responsibilities in the office and out in the field were. Provided equipment required to be supplied by NDOM to the Geotemps. Took Pete out into the field on the North edge of Carson City to train him on fieldwork. Pete and I revisited 4 hazards and logged 5 non-hazards.
- 19. Pete Herrera and I traveled to Hot Springs Mountain just north of Minden. Pete and I revisited 8 hazards and logged 17 non-hazards in the area.
- 20. Created two maps for a presentation Alan Coyner is giving at the Gold Hill Hotel. The maps depicted the hazards in the area of Virginia City from the NDOM database, the Highway going to Virginia City, and the V and T Railroad route. Sent the maps to Alan via e-mail as a jpeg and pdf.

AML / PUBLIC AWARENESS - SOUTH (BILL)

1. Las Vegas office staff working on report to Las Vegas BLM Field Office summarizing AML fencing work completed in Clark County during Calendar Year 2008.

- 2. Participated in the monthly SNPLMA conference calls regarding work completed in Clark County (Round 5), and planning for work proposed for Lincoln County (Round 7) and White Pine County (Round 8).
- 3. Met with new NvMA president Tim Crowley to discuss the McCaw School of Mines and future AML backfill projects.
- 4. Conducted AML land status research at the White Pine County courthouse in Ely.
- 5. Completed the Cultural Resource Avoidance Certification report for the Las Vegas BLM Field Office for AML hazards fenced by NDOM staff and volunteers in Clark County during Calendar Year 2008. A total of 38 hazards were secured or repaired.
- 6. Las Vegas office staff worked on updating hazard inventory sheets with land status and ownership information and prep of location maps for AML hazards researched last week in White Pine County.
- 7. Hazard inventory sheets, location maps and hazard/non-hazard AML database data has been compiled and provided to the National Park Service for the Death Valley Nevada Triangle.
- 8. Chief-SNO conducted reconnaissance visit to Eagle Scout candidate Daniel Herrera's AML fencing project area near Goodsprings (Scout #117).
- 9. Conducted reconnaissance visit to Eagle Scout candidate Bread Iverson's AML fencing project area near Crescent Peak west of Searchlight (Scout #113).
- 10. Contacted by Eagle Scout candidate Justin Myhre (#118) requesting an AML securing project. The project proposed will involve PUF closure of two formerly backfilled adits at Arden Quarries southwest of Las Vegas. Chris Ross has offered to assist.
- 11. Completed Myles Putnam's Eagle Project (Saturday, Jan. 24). Three hazards were secured south of Nelson in Clark County. This is the 95th Scout project completed.
- 12. Chief-SNO made classroom presentations on Nevada mining and reclamation, minerals and products, "Birdseed Mining" and AML to one earth science class and 5 environmental science classes at Sierra Vista High School Las Vegas total of 165 students.
- 13. Debbie Selig worked on installation of new computer systems in the Carson City office.
- 14. Debbie Selig worked on materials for the 2009 Las Vegas teacher workshop.
- 15. Las Vegas staff attended a Nevada Mining Association Education Committee meeting in Reno.
- 16. New information has been received that the re-opening of the McCaw School of Mines will be delayed until at least mid-February due to delays in construction and rejection of some of the work by the City of Henderson building inspector.
- 17. Chief-SNO chaired a McCaw School of Mines Foundation Board meeting (January 30). Election of new officers was held. Former Nevada First Lady Sandy Miller is the incoming Board Chairman, Henderson City Councilwoman Gerri Schroder is incoming Vice-Chairman and Don Horsman of Olin Chlor-Alkali is incoming Secretary/Treasurer.

GEOTHERMAL (LOWELL)

- 1. Spoke with Teresa Conner of JBR Environmental about permitting issues for EIF Investments pertaining to their Hot Sulphur Springs property. Sent Teresa Conner appropriate NDOM forms.
- 2. Spoke with Christian Schonlau of Wells Fargo Bank Nevada about the \$50,000 CD Magma Energy placed with Wells Fargo to cover State bonding. I asked Mr. Schonlau to draft a letter indicating the funds could not be withdrawn without the permission of the Nevada Division of Minerals and that the Division has the authority to obtain any or all

- of the funds at any time for any reason. I, in turn, drafted a letter to Christian Schonlau explaining the purpose of the certificate of deposit Magma Energy placed with Wells Fargo and why NDOM sets certain restrictions on access to the funds.
- 3. Reviewed the Nevada Geothermal Power sundry notice to change the 14-14 drilling program (requesting a variance to 10% surface casing rule). Alan approved. Contacted Bill Rickard and NGP about COA to the approved sundry notice, NGP must run 13.375" intermediate casing string to surface and cement in place.
- 4. Reviewed the Nevada Geothermal Power sundry notice to change the 17-14 drilling program (requesting a variance to 10% surface casing rule).
- 5. Updated geothermal data base.
- 6. Reviewed Vulcan Power's sundry notice to re-enter Salt Wells 35A-11. Alan approved.
- 7. Reviewed Vulcan Power's Salt Wells 34-33 sundry notice to deepen proposed total depth of well. Waiting on BLM to approve.
- 8. Reviewed Vulcan Power's Patua 28-13 sundry notice to drill top hole to 3500' with rotary rather than core out of surface casing shoe. Alan approved.
- 9. Reviewed Nevada Geothermal Power's sundry notice to change the Blue Mountain 17-14 drilling program (requested variance to 10 percent surface casing rule). Alan approved.
- 10. Requested cementing report for Terra-Gen's Dixie Valley 38A-32 in order to evaluate sundry notice for three day injection test. Coordinated evaluation with Russ Land and John Menghini.
- 11. Drafted summary tables for 2007 and 2008 OGG permitting activities.
- 12. Reviewed Vulcan Power's Patua 44-1 sundry notice to drill top hole to 3500' with rotary rather than core out of surface casing shoe. Alan approved.
- 13. Reviewed Ormat Nevada's sundry notices to P&A seven TG holes in Buffalo Valley and three TG holes in Grass Valley. Waiting on BLM review at the request of John Menghini.
- 14. Researched statutes and regulations regarding surface casing in the States of Idaho, Oregon, Utah, and Washington. Gene Kozlowski had already forwarded a copy of California'
- 15. Spoke with Dan Roble of Boart Longyear Drilling about various aspects of drilling a commercial geothermal hole to 3000 feet at the Peppermill Casino in Reno.
- 16. Researched geothermal unitization in the western States of California, Idaho, Oregon, Utah, and Washington due to Standard Steam (Agua Caliente in Idaho) approaching Alan about their lobbying efforts for geothermal unitization in Nevada.
- 17. Discussed bonding and injection issues with Scott Nichols, Sierra Geothermal Power, pertaining to their future work at San Emidio and Alum Projects. Referred Mr. Nichols to Russ Land, UIC, concerning injection issues.
- 18. Met with Bob Marshall of Reno. Discussed the process of permitting geothermal wells with Mr. Marshall, and gave him copies of NRS 534A and NAC 534A.
- 19. Reviewed Ormat Nevada's 21-27 sundry notice to move well to 11-27 location. Informed Tim Jayne of Ormat that a new well permit application would have to be submitted with the sundry request.
- 20. Discussed expiration of permits for Gerlach Green Energy 68-3 with Sam Monteleone at NDEP.
- 21. Spoke with Adam Sneller about geothermal permitting issues. Mr. Sneller was concerned that competitors could protest his permitting wells and prevent him from getting a permit(s). I informed Mr. Sneller that as long as he was the rightful lease holder he had every right to apply for a well permit, explaining to him he would not be able to drill closer than 100 feet to his lease boundaries, a public road, street, or highway.

- 22. Reviewed Ormat Nevada's P&A sundries for temperature gradient holes in Buffalo Valley (7) and Grass Valley (3). Alan approved.
- 23. Reviewed Terra-Gen Dixie Valley 38A-32 injection well sundry with Alan. The sundry requested approval to perform a three day injection test. Russ Land, UIC, approved the testing program. Alan approved.
- 24. Met with Russ Land and Jess McCulloch, Terra-Gen, at NDEP to discuss Terra-Gen's drilling, testing, and potential leases at Dixie Valley and Beowawe.
- 25. Reviewed Vulcan Power Company's SW 1-10, SW 1-11, and SW 1-33 temperature gradient well permits with Alan. Alan approved.
- 26. Reviewed Sierra Geothermal Power Alum Project Area with Alan. Alan approved.
- 27. Reviewed Sierra Geothermal Power 58-30 temperature gradient well permit in the Alum Project Area. Alan approved.
- 28. Met with Teresa Conner of JBR Environmental Consultants in Elko, along with Matt Brown and Ajit Chadha of HandsOn Ventures, LLC, to discuss permitting procedures for geothermal project areas and the drilling of industrial geothermal wells.
- 29. Reviewed Vulcan Power's sundry notice to utilize a nitrogen lift to clean out well bore and flow test the SW 62-15 well.
- 30. Drafted letter to Alycia Goody, representing Energy Investors Funds/HSS II LLC, concerning their takeover of TG Power LLC through a loan default. HSS II LLC is requesting a transfer of ownership of the TG Power LLC geothermal wells at Hot Sulphur Springs to HSS II LLC. I informed Ms. Goody NDOM would need supporting legal documentation of Energy Investors Funds takeover of TG Power LLC, supporting legal documentation illustrating Energy Investors Funds relationship to HSS II LLC, a listing of all geothermal wells involved, an organization report for HSS II LLC, and a new \$50,000 bond in the name of HSS II LLC covering all wells in order to transfer TG Power's wells at Hot Sulphur Springs to HSS II, LLC.
- 31. Met with Kyle Chisholm, representing Ohm Geothermal. Discussed all aspects of permitting, including project areas and drilling permits. Gave Mr. Chisholm copies of NRS 534A, NAC 534A, and all appropriate forms.
- 32. Reviewed Ormat Nevada's Desert Peak 11-27 production well sundry notice to move well within same quarter section. Alan approved.
- 33. Reviewed Vulcan Power's sundry notice to utilize a nitrogen lift in the Salt Wells 62-15 production well with Alan. Alan approved.
- 34. Reviewed Nevada Geothermal Power's sundry notice to move the 63-11 injection well and change the drilling program. New location would be 58B(52-22)-15, where the well would be direction drilled to the south from a private lease (top hole) into a BLM lease (bottom hole). Coordinating review with John Menghini, BLM.
- 35. Reviewed Nevada Geothermal Power's sundry notice to change the drilling program for Blue Mountain 15-14 production well. Asking for a variance to the 10 percent surface casing rule, 300 feet rather than 600 feet in a proposed 6,000 foot hole.
- 36. Discussed geothermal drilling activities and contacts for geothermal operators with Dan Benedict, Aspen Drilling in Denver, Colorado. Mr. Benedict is looking for work for Aspen's inactive rigs due to downturn in oil and gas drilling in the Rockies and midcontinent.
- 37. Reviewed Noresco temperature gradient well permit for well to be drilled on State Land at the Lovelock Correction Center. Noresco received the contract, RFP 1418, through the State Administration Purchasing Division. The temperature gradient hole is a portion of RFP 1418, energy retrofitting of the Nevada Department of Corrections facilities.

- 38. Wells drilling: Vulcan Power Carson Lake Basin 51-20 (3,623', ran HQ rods to bottom, cemented in place); Vulcan Power Carson Lake Basin 24-21 (4,430'); Vulcan Power Patua 21A-19 (3,704'); Vulcan Power Patua 77-19 (1,957'; repairing substructure of rig) Vulcan Power Patua 33-23 (1,070'); Nevada Geothermal Power BM 14-14 (105'); Nevada Geothermal Power BM 17-14 (rigging up).
- 39. Wells drilling: Vulcan Power Carson Lake Basin 51-20 (3,623', drilling cement); Vulcan Power Carson Lake Basin 24-21 (5,103'); Vulcan Power Patua 21A-19 (4,215'); Vulcan Power Patua 77-19 (2,267'); Vulcan Power Patua 33-23 (3,490'); Vulcan Power Patua 28-13 (330'); Nevada Geothermal Power BM 14-14 (2,003'); Nevada Geothermal Power BM 17-14 (327'); Ormat Nevada Desert Peak 62-28 (330').
- 40. Wells drilling: Vulcan Power Carson Lake Basin 51-20 (3,623', rigged down); Vulcan Power Carson Lake Basin 24-21 (6,005'); Vulcan Power Patua 21A-19 (4,814'); Vulcan Power Patua 77-19 (3,483'); Vulcan Power Patua 33-23 (3,570'; waiting on core rig to drill out from cased hole); Vulcan Power Patua 28-13 (2,091'); Vulcan Power Patua 23A-17 (rigging up); Nevada Geothermal Power BM 14-14 (3,075'); Nevada Geothermal Power BM 17-14 (525'); Ormat Nevada Desert Peak 62-28 (920').
- 41. Wells drilling: Vulcan Power Carson Lake Basin 24-21 (6,721'); Vulcan Power Patua 21A-19 (5,094'); Vulcan Power Patua 77-19 (4,393'); Vulcan Power Patua 33-23 (3,570'; waiting on core rig to drill out from cased hole); Vulcan Power Patua 28-13 (3,061'); Vulcan Power Patua 23A-17 (510'; set conductor; moved rig off location); Vulcan Power Patua 44-1 (720'); Nevada Geothermal Power BM 14-14 (4,178'); Nevada Geothermal Power BM 17-14 (1,720'); Ormat Nevada Desert Peak 62-28 (920'; completed, moving off location).
- 42. Wells drilling: Vulcan Power Carson Lake Basin 24-21 (8,057'); Vulcan Power Patua 21A-19 (5,824'); Vulcan Power Patua 77-19 (4,877'); Vulcan Power Patua 33-23 (3,570'; waiting on core rig to drill out from cased hole); Vulcan Power Patua 28-13 (3,510'; waiting on core rig to drill out from cased hole); Vulcan Power Patua 23A-17 (510'; set conductor; moved rig off location); Vulcan Power Patua 44-1 (1,880'); Nevada Geothermal Power BM 14-14 (4,413', TD; rig moved and is rigging up BM 15-14); Nevada Geothermal Power BM 17-14 (2,710'); Ormat Nevada Desert Peak 11-27 (rigging up to spud).

OIL AND GAS (LOWELL)

- 1. Reviewed sundry notice for Makoil Trap Spring 27-41, progress report. Alan approved.
- 2. Reviewed sundry notices for Makoil Trap Spring 27-41, progress reports.
- 3. Drafted summary tables for 2007 and 2008 OGG permitting activities.
- 4. Forwarded forms needed to permit an oil well in Elko County to Peter Lersey, Rock Investment Group.
- 5. Provided Argonne National Laboratory produced water data for oil fields.
- 6. Reviewed sundry notices for Makoil Trap Spring 27-41, progress reports.
- 7. Reviewed Rock Investment Group's well permit for their Isaiah 16-1 well in Elko County. Advised Peter Lersey of Rock Investment Group that a proper sequential drilling program would have to be included in well permit and provided Mr. Lersey an example. Mr. Lersey provided the drilling program.
- 8. Reviewed sundry notices for Makoil Trap Spring 27-41, progress reports.
- 9. Researched State Land's tract in Railroad Valley for Jerry Walker.
- 10. Reviewed sundry notices for Makoil Trap Spring 27-41, progress reports.
- 11. Wells drilling: Makoil Trap Spring 27-41 (45', conductor set).

- 12. Wells drilling: Makoil Trap Spring 27-41 (503').
- 13. Wells drilling: Makoil Trap Spring 27-41 (3,905').
- 14. Wells drilling: Makoil Trap Spring 27-41 (4,119').
- 15. Wells drilling: Makoil Trap Spring 27-41 (4,294').

OTHER (LOWELL)

- 1. Attended Nevada Petroleum Society meeting. Skip Matlick, Drilling Manager for Ormat Nevada, discussed Ormat's acquisition of two new drilling rigs, the rigs capabilities, and the activity associated with the rigs. Skip also spoke about Ormat Nevada's exploration activities in Nevada, where drilling in Buffalo Valley, Rock Hill, and Grass Valley indicated geothermal temperatures are lower than the 300° Fahrenheit threshold Ormat Nevada requires. Ormat Nevada will be concentrating their exploration efforts in Smith Creek Valley and the previously drilled Jersey Valley area in 2009.
- 2. Alan and I held an informal meeting with representatives from numerous geothermal operators to discuss the 10 percent surface casing rule (NAC 534A.260). The meeting was initiated by Bill Rickard's appearance before the Commission on Minerals during its 3rd Quarter 2008 meeting on November 7, 2008. The meeting was held to allow the operators representatives to freely express their opinions on the 10 percent surface casing rule and any problems they have had abiding by the rule. Twelve individual representing Ehni Enterprises, Enel North America, Geothermal Resource Group, Magma Energy, Nevada Geothermal Power, Ram Power, Sierra Geothermal Power, Terra-Gen, and Vulcan Power Company attended the meeting either in person or via conference call. John Snow, John Menghini of the BLM, and Russ Land of NDEP/UIC also attended. Most representatives were in favor of eliminating the 10 percent rule, or at least changing the language of the regulation. Representatives of Sierra Geothermal Power were the most vocal in their opposition to the rule. However, once Alan indicated that NDOM is open to operators asking for variances to the rule, based on sound geology and well design reflective of the geology, as well as Alan explaining what would be involved in having the regulation changed or eliminated, opposition to the 10 percent surface casing rule fell to the wayside. Alan asked for a 'vote' from the representatives as to whether to pursue changing the language of the 10 percent surface casing regulation. Only Sierra Geothermal persisted the rule should be eliminated or at least changed. Skip Matlick, Ormat Nevada, also indicated his total opposition to the 10% surface casing rule in discussions I had with Skip prior to the meeting. Ormat Nevada did not send a representative to the meeting. Alan decided the 10 percent surface casing regulation should stand as is.
- 3. Attended Nevada Geothermal Council meeting on January 29th. Sharlet Berentsen and Ann Carpenter discussed integrating mining and renewable energy, primarily geothermal renewable energy. Spoke of utilizing geothermal energy during mining operations to help alleviate energy costs and continuing geothermal electrical generation post mining of properties to sell to the grid. Sharlet Berentsen is Chairman of Nevada's Humboldt-Pershing Sustainable & Renewable Development Partnership. Ann Carpenter is a former CEO of US Gold, currently consulting.
- 4. Met with Russ Land, NDEP/UIC, to discuss UIC programs and coordination between Divisions.