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COMMISSION ON MINERAL RESOURCES  
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Administrator

**COMMISSION ON MINERAL RESOURCES**  
Grant Sawyer Building, Governor's Conference Room  
555 E. Washington Avenue  
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Meeting ID: 971 282 5638

Passcode: NDOM

Thursday, March 10, 2022

1:00 P.M.

**AGENDA**

**CALL TO ORDER**

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**

**PLEDGE OF ALLEGIANCE**

**COMMENTS BY THE GENERAL PUBLIC**

Pursuant to N.R.S. 241, this time is devoted to comments by the public, if any, and discussion of those comments. No action may be taken upon a matter raised under this item on the agenda until the matter itself has been specifically included on a successive agenda and identified as an item for possible action. Public comments may be limited to 5 minutes for each person.

**ACTION WILL NOT BE TAKEN**

**I. AGENDA**

A. Approval of the Agenda

**FOR POSSIBLE ACTION**

**II. MINUTES**

A. Approval of the December 15, 2021, meeting minutes

**FOR POSSIBLE ACTION**

**III. NEW BUSINESS**

A. Introduction of New Staff

Dustin Holcomb was hired to fill the vacant AML/Fluid Minerals Field Specialist position in the Carson City office and started on December 27, 2021.

**FOR DISCUSSION ONLY**

B. Nevada Business Environmental Program Presentation

An overview of the program, within UNR's College of Business, and the services provided will be presented by its Director, Christopher Lynch

**FOR DISCUSSION ONLY**

- C. Federal Hardrock AML and Good Sam Legislation Update **FOR DISCUSSION ONLY**  
An update will be provided on the development of a new federal hardrock abandoned mine lands program, its funding status, and possible mechanisms for financial support to states. Proposed legislation for a Good Samaritan Hardrock AML Pilot Program will also be reviewed.  
Rob Ghiglieri

- D. Agency Education and Outreach Activities Update **FOR DISCUSSION ONLY**  
An update will be provided of education and outreach events and activities conducted by agency staff in 2021 along with plans and goals for 2022.  
Rebecca Ely

- E. Fluid Minerals Program Update **FOR DISCUSSION ONLY**  
A presentation of oil, gas, geothermal, and dissolved mineral resource exploration permitting, drilling activity and production will be provided. A review will also be provided on financial impacts from the temporary regulation change to NAC 522 affecting the administrative fee paid on oil production.  
Cortney Luxford

#### **IV. OLD BUSINESS**

- A. Financial Update **FOR POSSIBLE ACTION**  
A review will be provided of the agency's 2021 – 2023 budget and forecast to include a discussion on mining claim revenue and appropriate projections to use for 2024-2025 budget planning.  
Mike Visher

#### **COMMISSION BUSINESS**

- A. Staff update on status of various agency contracts **FOR DISCUSSION ONLY**  
B. Review of staff monthly activity reports. **FOR DISCUSSION ONLY**  
C. Set date for next Commission meeting **FOR DISCUSSION ONLY**

#### **COMMENTS BY THE GENERAL PUBLIC**

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**ACTION WILL NOT BE TAKEN**

#### **ADJOURNMENT**

#### **NOTICE TO PERSONS WITH DISABILITIES**

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify the Division of Minerals, 400 W. King Street, Suite 106, Carson City, NV 89703 or contact Sherrie Nuckolls at (775) 684-7043 or Email [SNuckolls@minerals.nv.gov](mailto:SNuckolls@minerals.nv.gov)

The Commission will be attending a tour of the Lhoist IMV Nevada Plant on Friday, March 11, 2022, at 9:00 am. We will meet at the plant site located at 498 Imvite Rd., Amargosa Valley, NV 89020. Steel toed shoes are required. Members of the public may attend but must provide their own transportation and all required safety equipment. Advanced notification is required. Please call Sherrie Nuckolls at (775) 684-7043.

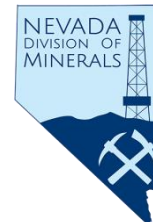
## II. MINUTES



**STEVE SISOLAK**  
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Wednesday, December 15, 2021

1:00 P.M.

**MINUTES**

Commissioners	Staff	Public
Josh Nordquist	Mike Visher	Robert Ernaut, R&R Partners
Mary Korpi	Rob Ghiglieri	David Goldstein, Tovo Labs
Art Henderson	Sherrie Nuckolls	Drew McGregor, NvMA
Bob Felder	Sean Derby	
Nigel Bain	Garrett Wake	
Stephanie Hallinan	Becky Ely	
Randy Griffin	Anthony Walsh, DAG	

**CALL TO ORDER**

1:03 PM

**COMMENTS BY THE GENERAL PUBLIC**

None

**AGENDA**

A. Approval of the Agenda

**Motion to approve the agenda made by:** Mary Korpi

**Seconded by:** Randy Griffin

**Unanimously approved**

**II. MINUTES**

A. Approval of the October 27, 2021, quarterly meeting minutes

**Motion to approve the October 27, 2021 minutes made by:** Stephanie Hallinan

**Seconded by:** Nigel Bain

**Unanimously approved**

**III. NEW BUSINESS**

**A. AML Enhancement Options**

At the October 27, 2021, Commission meeting, Commissioners asked NDOM staff to provide additional information regarding AML Enhancement option B) "Stay Out Stay Alive" digital marketing campaign and option C) "Stay Out Stay Alive" billboard advertisement campaign. Sean Derby introduced guest speakers, Drew McGregor with Nevada Mining Association and David Goldstein with Tovo Labs in New York City; Sean provided a PowerPoint presentation covering



digital marketing in practice with examples, a graph of the State of Nevada's vaccination outcomes for Nevada residents during a promotional and digital marketing outreach drive.

David Goldstein went over social and digital marketing in practice with key performance indicators of outreach, click-thru-rate, engagements, and sales; the successful proof of campaign efficacy side of the presentation, including massive reach, superior data and targeted delivery, engagement and increase in sales as examples.

Sean Derby reiterated where we'll be starting from in terms of how do we gauge performance, is it because people aren't going into abandoned mine lands or is it because we're not having incidents? If you look at the numbers that we know like how many abandoned mine lands features get reported by the public, how often do we get call ins about concerns for vandalized sites, how often are people visiting the AML page and how often are people looking at our stay out stay alive video. All those things can be gauged on one hand annually, NDOM gets very limited interaction of what we have out there for the public to hold on to. Sean wants to re-focus our thinking about what success could look like with visibility and look at the numbers, count the numbers more than on two hands, he thinks that is how we can gauge success and beyond.

David Goldstein (Tovo Labs) then showed a sample reporting dashboard on a weekly and monthly basis, on what metrics we would get back. David explained a very fine-tuned idea of how the campaign is performing on a very granular basis so that it can be optimized as they go along. David explained how they used the live data captured to better target audiences between Twitter, Instagram, Facebook and Google, essentially within 4-5 days.

**Josh Nordquist:** Keys points to highlight, this is one of the reasons people are moving to this type of advertising campaigns is because it's more flexible, you can adapt to the audience that you're finding, and you're not locked in one round or another. You're not locked into a certain period of radio time or certain period of TV ads or monthly rates on billboards, you can adapt in days and move to different platforms.

**Nigel Bain:** Asked David about the ad impressions on the graph, is that based on an ad that popped up when someone was surfing?

**David Goldstein:** Yes, an impression is like an opportunity to see, we can tell if the ad popped up while you were looking at a certain page and either hadn't scrolled away or hadn't moved away.

**Nigel Bain:** Asked Sean and David where the best place to put the ads, like Facebook where someone searched for old mine tours or a phrase like that and an ad pops up?

**Sean Derby:** We'd be working with David, there are so many YouTube, Facebook, there's a whole culture of this and it's not even geology related. It's not even mining related; it's thrill seekers who want to see these things. I think there's an element of it on our side to identify what those words are, but David has the technology to identify these things in mass.

**David Goldstein:** We can target people who subscribe to these channels, people who are already searching for abandoned mines. But we can also say we want to target people who are searching for where they can find an abandoned mine. We can also say people from a geolocation basis are coming into these areas from out of town that might be tempted to do a touristy thing like visit an abandoned mine. So, any of their activity online that indicates an excellent target for this kind of advertising we can grab that.

**Sean Derby** explained the agency recommendations for item B) "Stay Out Stay Alive" digital marketing campaign with 2 Digital Strategies and 2 executions including timeframe and deliverables. He then explained the location targeting and cost elements for item C) "Stay Out Stay Alive" billboard advertisement campaign.

**Drew McGregor:** Thanked Sean for inviting him and talked about what the Nevada Mining Association is currently doing with advertising and what their plans are for 2022 with the possibility of partnering with NDOM to promote AML and other initiatives.

**Nigel Bain:** Going back to the dashboard with sample reporting, at the last meeting I was in the "red" of the gauge (for conversions), congratulations to you, David, and Drew. You've done everything I thought the Commission had asked for, thanks for doing all the work, you've got me in the green now.

**Randy Griffin:** I second that, Nigel.

**Nigel Bain:** Another comment, during my time in Winnemucca and working at Hycroft Mines, I was surprised at the number of California plates visiting the Black Rock desert with 4x4, racing dragsters, things like that I think we're definitely we've got to get a billboard on I-80 before Fernley, so you catch people from California.

**Sean Derby:** There is availability at the Wadsworth exit which is that first availability to turn off.

**Josh Nordquist:** Regarding the advertising campaigns, two biggest things we brought up is our interest level is impact and the number of views, how much exposure do we get out of people and the other important fact is presence. It's going to be very interesting no matter what path we take from here to see how things evolve as far as we measure the success of these advertising campaigns. I foresee involvement in a campaign where we get direct feedback and we're able to quantify impacts of these campaigns is going to draw a lot more attention and confidence in the success of those campaigns. A more traditional path would get much more limited feedback on what the real impact is. In general, I agree, this is a great presentation to help us better understand how this work and how successful they are today, it leads me to a question for David. With your experience with other companies and other campaigns, how do you see companies, organizations evolve once they start building a more online targeted campaign strategy? Do you see them dropping off the traditional methods a lot because they're getting direct quantitative feedback on how well things are going, or do you see a more universal approach now that they still hold?

**David Goldstein:** It depends on the client themselves. About 80% to 85% of the US population is online with access to broadband. Even with clients I think who must comply with that percent who aren't reachable and need to be reached with direct mail or TV, a lot of the more sophisticated clients will use their online methodology to test concept and approaches to optimize for the advertisements for the creative even for the offline world. It's just a phenomenal amount of data that's been created through these, so the sophisticated folks are investing more heavily even to learn before they jump offline for their purchase.

**Josh Nordquist:** Especially since a month's time you'll already have a feedback loop and making changes to optimize your approach in that short period.

**David Goldstein:** Even less.

**Nigel Bain:** What's our historical spend on AML advertising?

**Rob Ghiglieri:** Explained that in the past there has been very little spent on advertisements. The Division relied on getting into the classrooms and providing the information directly to the audience. But even before the pandemic, NDOM noticed that it was not as effective as the online options. This online platform is something that we've thought about for a while, and the initial investment will greatly benefit the data that we're going to acquire to see long term what we need to set aside for a good AML outreach campaign. There were billboards in the past, but it's been quite a few years since we've had billboards up.

**Mike Visher:** The billboard campaign was before my time, in the 1990's, and the last time we had any advertising was through PSAs, but we didn't pay for placement of those. We didn't have the budget to do that, so we were subject to the whims of the television companies and when they wanted to place it. We did get a little bit of exposure from news and on-site interviews to address the issue but with regards to money spent on advertisement, none to speak of.

**Randy Griffin:** \$120,000 is a lot of money, especially since we haven't been spending that much. One thing we might want to think about doing, would we have some way to figure how many people who are actually typing in abandoned mines or whatever phraseology we want to use? Let's say we're getting 3,000 hits a month, people looking for abandoned mines in Nevada, if we could narrow it down or maybe we couldn't. That way you would really have something really concrete to say yes there's a lot of people out there interested in abandoned mines in Nevada and those are the people we really want to reach through a digital method. The billboards certainly alert people, the only thing is, I'm going to use myself as an example, if I already decided and looked online for some abandoned mine and had all my equipment bought and ready to go, that billboard isn't going to stop me when I pass it on the highway.

**David Goldstein:** I think that's a great point and just so you all know in order to arrive at this budget we did some preliminary analysis over how many we think would fit into a strategic targeted population. We already looked into how many folks were searching for these things, how many people were on these channels, how many people match certain population demographics, and can also be considered within the area or likely to come within the area. That is one of the efficiencies that we'll have over time, we'll be able to drop to a broader group into a much more focused group.

**Nigel Bain:** I think some of the interest in the billboard, if an accident happens it makes front page news and it's really the audience, we want to have it known that the State of Nevada is interested in repairing and eliminating the hazards of abandoned mines. We want that knowledge out and the people who would never go near an abandoned mine. You're right, it maybe you're seeing data that says we can catch that group as well just by flashing something on a Facebook or Instagram feed.

**Randy Griffin:** Drew, would the Association have any interest or money they would want to do some sharing, with us, on any of this as far as digital point of view, would Tyre be open to something like that?

**Nigel Bain:** I'd second that motion.

**Drew McGregor:** I think it's something we can certainly look at; we would absolutely be interested in sharing that content that information on our own channels. I think it's something to we can expand on the association and the membership too. It's a nice thing about the NVMA is that something that fits within our budget there's always some mine operators out there, they have more access than we get but I think it's worth a conversation we can have, we're always happy to partner with NDOM.

**Randy Griffin:** Could you put that on an agenda with Tyre? The reason I say this is as an example, what if someone is killed in an abandoned gold mine, that really is a black eye against the whole industry no matter how old that mine is. So, they might have some interest in footing some of the bill for this. Like you said someone like Kinross or Nevada Gold Mines have a little money for that.

**Art Henderson:** I think some of the search words should be a little simpler than just abandoned mines, for example bats, caves or snakes things like that people search those things that kind of leads them to abandoned mines as well. I'm looking at the future when I'm driving my Apple car down I-80 I can pass a certain spot then these guys can pop up an ad that says abandoned mines are in this area be safe or something like that. I think there's a lot to go on in the future as well as the present.

**David Goldstein:** 100% agreed.

**Josh Nordquist:** A couple points of clarity that came up, Mike mentioned maybe the last real advertising came from a billboard campaign was between 20-30 years ago and really, we haven't been putting much into advertising other than recently producing videos and some other pieces of media we can use. We have the time to reinvigorate the advertising side of the AML program.

**Randy Griffin:** I would agree with Art on the words, maybe something like prospecting, we know people who would like to go to abandoned mines looking for their fortune.

**Mary Korpi:** I would comment as Nigel did, this is a great presentation and hits on some of the concerns that some of us had, so thanks again for pulling it together. I'm concerned and I don't want us to start too small then we're going to have to keep going back to this expanding. If we're going to do it lets jump in and do it because I think we're going to have to do it eventually. We've got more chance, listening to David, that if we start here, it may automatically just start to decrease based on the information we gather. I'm concerned if we start small, we're going to have to keep growing because we're going to have questions. I don't know if I'm interpreting that correctly or not but that's where I am right now.

**David Goldstein:** I want to reassure you that what we do when I say narrow, we narrow down kind of the best people to reach out to. When we identify those people, we actually expand based upon their characteristics, so our target is essentially the total addressable market. It's everybody who we think is the most likely to be amenable and accessible via these methods. This definitely is not going to narrow over time it's definitely going to expand and be more relevant for the people who are most susceptible to fall victim to these kinds of accidents.

**Mary Korpi:** Thanks David.

**Art Henderson:** We're fortunate now to have a budget to pay for this program but how sustainable do you think our budget is going forward that we can start something and continue it instead of just a onetime thing. I know it's hard to predict, we've been through the ups and downs of the budget but, Mike, what is your idea here? If we start this year, do we think we can sustain it for several years to come?

**Mike Visher:** Yes, Art, I think there's an opportunity for us to spend and invest so that we can be more targeted on our messaging and on our approach to the right communities. I think they'll be efficiencies going forward. It may not be as expensive because we'll know more about the communities that we're trying to hit and what the impacts are. We'll have that feedback, so that we know what the successes are. Right now, we're seeing more mining claims than we forecast

even since the last time I put the forecast in front of you, and I don't see that changing over the next year or two, beyond that who knows. I would expect that this is something that we're likely to see success on and it's something we'll want to continue but probably not quite at this level. It's going to depend on what we see from this. We have to dip our toe in the water to figure out what works and then from that we'll know what costs are and what gives us the biggest bang for our buck.

**Sean Derby:** If I could just comment, once we develop the content and implement the strategy, if we did all of this and spent the money this year and wanted to use that same content to do a campaign, we could do that at a fraction of the cost that's going to cost us here with the upfront work of the production and getting your platform off the ground, is that right David?

**David Goldstein:** Yes, that's correct.

**Sean Derby:** So, it would be much more affordable in the future including the fact that we have more knowledge on how to use it.

**Bob Felder:** This has been very interesting just to listen to all this. Sean, great job pulling the outside input from David and Drew, it's been very useful. I think we should jump in, the feedback that we get over the first one, two, three months is going to help drive what we want to keep doing in the future, but I do think it's a really good thing to be doing. Back to the comment about the keyword search I'm not sure who will make the decisions on what keywords are going to be pertinent to this, but I want to caution that we shouldn't go too wide. I think it's really good and I think it's going to be really interesting to see what we get out of it. The big challenge that I still see, which we've already talked about, is we're going to get plenty of feedback on impressions and hits but at the end of the day the safety aspect of this is going to be hard to gauge. I still think we need to do it; I think it's the right thing for the State to take on and like we do with everything else we'll be nimble about how we need to change it in the future and whether we think it's working or not, so I think it's all good.

**Sean Derby:** Bob, I think in the annual report this year I'm going to try to outline what kind of interaction we're getting from the public. How many people called in with reports about vandalized or new sites and a number of those things so we can gage that. I don't want to have an AML incident during my career here at all and that's partly why I'm doing this. So, we'll keep tracking those things when we make this leap from analog to digital so hopefully, we can see that.

**Bob Felder:** I think one aspect the people that go out on weekend adventuring on their all-terrain vehicles and their pickup trucks, is they may or may not be looking for old prospects or abandoned mines, they may just be looking for cool places to go 4-wheeling and they happen to come across them. I think that crowd may not ever get touched by digital marketing campaign and I don't think we can do anything about that they're just looking for cool off-road trails to go weekend. Maybe that part of the keyword search can include stuff like that, good off-roading. It's hard because there's a universe of possibilities out there.

**Sean Derby:** I think some of that could get captured by the geolocation element, David can you comment on that? We definitely have areas where people are heading out to do these things, they might just interact with AML features, part of this is geolocation right?

**David Goldstein:** Yes, a huge part of it is and on top of that Google is very aggressive about surfacing other keywords that they think you should take a look at based upon the criteria that you already entered. So once we put in caves, prospecting, abandoned, Google will auto generate a list of other words based also upon geolocation targeting that we've been doing. It will help us all the more to make sure we're covering as many bases as possible. That just makes business sense for Google but then also helps us increase our efficiency in the power to reach folks exactly when we need to be reaching them

**Nigel Bain:** That may pick up another audience. For example, an area partway between Lovelock and the intersection with highway US 95 that's up on the hill side. There's probably 50 to 100 trucks and trailers out there every weekend all carrying ATVs getting away from wherever they're from. So, Google picking up those geo stats would show up because there's a lot of people involved in those.

**Bob Felder:** Something else comes to mind, I don't know much about this but there's an activity called geocaching that a lot of people take part in. I think there's a lot of website content and information online about this, but people go out in their vehicles, and they go out to find certain things it's a day where they can reach all the points. I'm not sure what it's all about but these people out driving these roads as well and they come in contact with abandoned mine lands so whatever we do might overlap with that.

**David Goldstein:** Yes, I wouldn't be at all surprise if it happened.

**Bob Felder:** I've never Googled geocaching but I'm sure there's something there because it's so popular.

**Rob Ghiglieri:** There actually has been instances where there was geocaching in abandoned mines. Some of those sites have been found where the BLM has worked to remove them by contacting the geocaching community.

**Stephanie Hallinan:** I think this is very exciting and I think it's the way to move forward, we will learn a whole lot and then as Mary pointed out and Bob and a few others that we definitely have our platform to move forward. I think it's also a good idea to coordinate with Nevada Mining Association, encourage links on their site about abandoned mine lands, maybe something as simple as that and start connecting the dots that way and we might reach a larger audience that way. All good things.

**Nigel Bain:** I'll make a motion to proceed with Digital Strategy 1 to start with.

**Josh Nordquist:** You're suggesting, Nigel, to focus on Digital Strategy 1?

**Nigel Bain:** Yes. Question for Sean, what are you asking for?

**Sean Derby:** I'm recommending we go with Digital Strategy 2 and Execution at \$120,000. I think this is the best for us to look at this whole picture and get the most out of this first investment and then parse it down and be able to reimplement this, because as Mary pointed out we don't reach as many groups with Digital strategy 1.

**Motion to fund Digital Strategy 2 Execution 2 for \$120,000 and keep track of monies spent made by:** Nigel Bain

**Seconded by:** Randy Griffin with the provision that we coordinate this with NVMA and see what they're willing to do.

**Josh Nordquist:** We have a motion and a second for approving Strategy 2 Execution 2 with some conditions, let's move on to some discussion points and clarify them a little better.

**Nigel Bain:** We can make a comment to Drew, if he can take the request to Tyre to fund some of it because we are tied at the hip on this, it will be bad for the State and industry if someone is killed at an abandoned mine.

**Randy Griffin:** I would agree, Stephanie had a great idea that NVMA add a link on their website for abandoned mines or whatever we decide to do.

**Sean Derby:** I can approach Drew about doing that, I'm sure they would be happy to post a link to the video and hopefully our page. Travel Nevada hosts a live link for us too.

**Drew McGregor:** I'd be happy to do that and make sure there's information about that via website and social media. There are certainly opportunities to partner with a number of operators here in the state to launch a statewide campaign. Maybe there's a day or week where different operators or major suppliers share that content too just to drive awareness.

**Mary Korpi:** I think we need to clarify are we willing to do the \$120K now or are we adding the stipulations on that or saying we're not? I think it's going to be hard to go forward not knowing what we're committing to, are we willing to do the \$120K, even though we'll go out and ask for assistance to cut some of those costs. We need to make sure for Mike and the staff when they go out and put this scope together are we committing? I think we should commit, if we get support from others along the way terrific but at this point are we willing to do the \$120K?

**Josh Nordquist:** I think it's a very good point, Mary, I'll summarize the 2 conditions presented. Condition 1 is a reporting condition so that as the funds are being spent or as the activities are moving that we have a feedback loop from the Division on how things are going and determining that they're successful so that we see that the decisions are being made all along the way that make sense and in line with seeing success and not the opposite. Condition 2 was outreach for other interest to potentially help with the costs, that one's a little more loaded because the question as well are we putting a condition down that says if we don't receive some help or assistance to a certain level that we don't move forward or what does that mean? Or do we reach out and look for interest in hopes that we get some? But the strategy is to move forward with the project with or without help. These are the two points that we need to focus on in this discussion so we can clarify the motion on the table.

**Nigel Bain:** I support what you and Mary are saying that we go ahead with the program as presented for \$120K but seek other funding but be willing to spend the full \$120K if we can't get some help.

**Randy Griffin:** I agree with Nigel.

**Josh Nordquist:** Sean, thinking on the reporting side, let's say we vote today, and things are approved what's an appropriate reporting time to check back? I know you have some time you need for producing the new media to be used what would you present as a good way of reporting back to us on how things are going? Schedule I should say.

**Sean Derby:** I would say that we would give them their 6-week time period just to develop the content that we're proposing that this newly developed content imagery, the cartoon work, and then look at what's going to be put out there and have them either come back and talk to us about what that first week's going to look like. I can see that having a meeting after the content gets done then looking at the launch right after that 6-week period, that would be a good time to come back and look at what the dashboard is going to be delivering and all that.

**Josh Nordquist:** Thinking about that schedule which puts us, with the holidays coming, sometime in February I'd say.

**Rob Ghiglieri:** Real quick, before we can even move forward with that, this contract is going to be over \$50K. This is going to have to go out for bid and any process through that is going to go through State Purchasing because it's over the amount that we're allowed to handle inside of agency. That's going to add a minimum of 3 months before we even get to the point where we can have a selected vendor to do this type of work.

**Josh Nordquist:** Ok, is that a surprise to Sean or anyone else in the program here? Just to make we're all on the same page.

**Sean Derby:** No and I've forgotten that point but it's something we go through all the time.

**Josh Nordquist:** Proposed that as once the digital media is developed and NDOM is able to put together the plan for the roll out, would that be an appropriate time to discuss with the Commission? It seems like that would be a milestone in the production of the strategy before its it's been developed and ready to go public.

**Sean Derby:** Yes, I think so. The process of getting through RFP I'll have to keep in close touch with Rob, that is the moment where we should be checking in.

**Josh Nordquist:** Just thinking appropriate wise when this milestone is achieved, it's going to be months into next year, at that point and time before we hit go and it goes public that it's presented to the Commission.

**Sean Derby:** Ok.

**Josh Nordquist:** Does that seem reasonable Commissioners? Anyone disagree?

**Mary Korpi:** Sounds good.

**Bob Felder:** Sounds good.

**Josh Nordquist:** I don't know that it's worth discussing the milestones after that point because we can bring it up at that time to review where we'd like to see feedback for things to roll out to the public. On the 2<sup>nd</sup> condition, the outreach we potentially agreed upon was an effort to reach out and make sure we touch base with the other major organizations like the NVMA for any interest to be involved here so I think that can be lightly tasked to someone to do that and be able to provide feedback.

**Nigel Bain:** Randy, you're still on the board, right?

**Randy Griffin:** No, I'm not. I think Stephanie is.

**Josh Nordquist:** Is it reasonable to ask Stephanie or should it come from Sean or Mike from the Division.

**Mike Visser:** I think it's more appropriate for it to come from me, so I'll have that conversation with Tyre.

**Josh Nordquist:** I think if the Association has any questions, they can lean on Stephanie to help get them answered as well. Josh proceeded to review the motion and the conditions that were just discussed

**Revised motion to move forward with Digital Strategy 2 Execution 2 for \$120K with 2 conditions, 1)before the advertising campaign goes public and all the media has been completed that both the media and the release plan will be presented at a Commission meeting at the appropriate time, and 2) Mike Visser will reach out to major mining organizations for potential interest to be involved with this program as well.**

**Unanimously approved**

**Art Henderson:** Regarding AML Enhancement Item C, are we discounting that completely, not putting into use any billboards on I-80 or anything like that?

**Josh Nordquist:** I think that's what we should discuss that next.

**Art Henderson:** Ok.

**Josh Nordquist:** Let's spend a few minutes on this again and determine where we want to go. Sean, the total amount for this budget was revised from the October meeting initially presented potentially up to \$50K and with more detail you summarized it down to \$30K at this point for a 4-month program with catching all the major corridors in the State.

**Sean Derby:** That's correct.

**Art Henderson:** If we have the money to do this, I like the ideas from all the Commissioners have said, it gives us some exposure, so if we have the money Mike can probably tell us that but I'm in favor of item C as well.

**Mike Visher:** Yes, we do have sufficient funding for \$30K annually in support of this project.

**Josh Nordquist:** To reiterate as was stated this hasn't been done in 20 years or more it will be an impactful change as it would be signage that has not been seen in a long time.

**Art Henderson:** I like the idea of spring and summer I think that's the best time, I don't think a lot of people are heading out there now in the middle of winter, Sean do you agree with that?

**Sean Derby:** Yes, we go all year-round, but the most visitation we see is in the late spring. This might be different for Beatty though, being the Gateway to Death Valley, we can discuss that with David after our launch maybe in a year or two and get real information about who's going up there and how to target billboards. In the meantime, I agree late spring early summer months are the time to do it.

**Art Henderson:** I think I would be proud to see a billboard on the highway that tries to protect the public from those thrill seekers and things like that, I think it would be a big statement.

**Mary Korpi:** And this one you won't have to go out for bid, right? Because it's under the \$50K?

**Mike Visher:** That's correct, we'll have to approach at least 3 potential vendors, but we can do that ourselves.

**Josh Nordquist:** The media that we have used, you have an example picture in your presentation, is that what your focused on for the media to be used here or do you see any other action maybe that's going to be produced?

**Sean Derby:** I'd like to use the new developed content. That's one of the benefits of doing this level of work and the level of production that the group that we end up working with is getting those striking images up and in front of people. The current sign we have is great, but if we're already paying for the new product, we should apply it to these signs. If the timeframes don't work out to use the new images, we have existing content I'm happy to work in house to come up with something.

**Josh Nordquist:** So, thinking budget years and what we discussed, it's likely if we wanted to use the newly developed material that we wouldn't make it for the prime season next year and it puts us in a different budget year if I'm seeing that right.

**Mike Visher:** What I think would be easiest for us is if we try and get something done in this current fiscal year. We're starting our budgeting process in February next year for FY24 and FY25 so it's not too early to think about how we're going to be doing that. Let's see what we can do for content, but it would be nice to get something started even if we don't spend all \$30K.

**Art Henderson:** Sean, on these billboards is there some way that you could put a message where people could go to additional sites? I don't know, a QR code going 80 miles an hour might be hard to do but something similar that on a billboard you can read and go to digital content, then maybe you pick them up from our other program.

**Sean Derby:** Yes, I think one thing we haven't done yet is put our web address on there so that's a start but also put links to other partners like NVMA.

**Art Henderson:** So, they can get more information than just seeing the sign.

**Sean Derby:** Exactly.

**Mike Visher:** SOSA.com is available.

**Josh Nordquist:** In light of our previous conversations, if we decide to move forward with this and as we develop the media for clarity to assume to take an effort to share with the Commission for any comment before it actually goes into production. I don't know if it necessarily needs to be at a meeting at least it can be shared and reviewed, it's always good to have a second set of eyes for any random spelling errors.

**Bob Felder:** If we don't have new content are we going to use existing content for billboards this spring/summer or are we going to use old content until we have new content?

**Mike Visher:** Yes, I think so.

**Art Henderson:** I would support that.

**Josh Nordquist:** I would say current content, it's not old content yet.

**Bob Felder:** Also, I think it's worth mentioning I'm sure the people that study these things know but when you're driving down the highway at 80 miles per hour, like Art mentioned, you may have a 10 second view so the message must get delivered very quickly and if there's website addresses I'm not sure that's going to be effective. We want to make sure we're delivering an instantaneous message rather than too much detail.

**Motion to approve Item C for implementation in FY21, \$30K made by:** Art Henderson

**Seconded by:** Mary Korpi

**Josh Nordquist:** I'd like to add that once the media is ready and drafted that it be shared with the Commission for final comment.

**Unanimously approved**

**Josh Nordquist:** I think this is a huge step forward and how we're advertising the AML program, it can only have positive impact with it since we've gone from very little to a significant change to that strategy. Thanks again Sean, Mike and the whole team that's worked on this and for putting this information together and presenting it.

**Mike Visser:** Thank you for your support, I wholeheartedly agree Josh, it's going to be interesting to see the fruits of this work as we embark on something as big and bold as this.

#### **COMMENTS BY THE GENERAL PUBLIC**

None

#### **ADJOURNMENT**

2:41p.m.



### **III. NEW BUSINESS**

### **III. A Introduction of New Staff**

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### **III. B Nevada Business Environmental Program Presentation**

**Nevada  
Commission on Mineral Resources**

**March 10, 2022  
Meeting**

---

**Christopher Lynch  
Director  
The College of Business  
University of Nevada, Reno**



**BUSINESS  
ENVIRONMENTAL  
PROGRAM  
NEVADA**

# Who we are

- established in 1988 as part of the Nevada Small Business Development Center (SBDC)
- based in the College of Business at the University of Nevada, Reno
- neutral third party
- statewide assistance program
- small team



# What we do

- BEP is a resource to assist businesses and organizations throughout the State of Nevada
  - Environmental regulatory compliance and permitting
  - Waste reduction and avoiding pollution
  - Energy efficiency and renewable energy
  - Environmental sustainability strategies
- no charge for BEP services
- everything is confidential





# Who we help

Businesses, state and local government agencies, school districts, and non-profits with environmental regulatory compliance concerns

- all stages of business development: pre-venture, start-up, existing
- all sectors: manufacturing, commercial, retail, service
- all sizes of businesses and organizations: assistance is primarily targeted to small and medium sized businesses that lack the in-house resources
- all locations: urban and rural



# How we provide assistance

- one on one business advisory services – phone, email, online video calls (zoom), in-office meetings
- on-site assessment visits – a fresh set of eyes
- trainings – seminars, classes and group presentations
- website & publications – fact sheets, guidance documents, e-newsletter



# The business case

## Regulatory compliance and permitting

Businesses must comply and must obtain necessary permits

- waste management: waste determinations, obtaining EPA ID numbers, on-site hazardous waste management requirements and disposal, and recycling
- air quality: applicability determinations, permit applications, permit renewals, maintaining regulatory compliance

Assistance with “return to compliance” strategies

## The business case for beyond compliance

Reduce your environmental footprint and save money with environmental sustainability strategies to:

- minimize waste and cutting pollution
- increase energy efficiency & renewables
- identify safer/greener substitutes – green purchasing
- market your efforts to attract new customers





# Nevada economic development

## Effective Partnerships Provide Business Referrals

- Nevada Division of Environmental Protection
- Nevada Department of Business & Industry
- Governor's Office of Economic Development
- Regional Economic Development Authorities (i.e., EDAWN, NNDA, NNRDA, LVGEA)
- Nevada Small Business Development Center
- NV Energy economic development team
- City and County Managers and planning departments
- City and county environmental agencies
- Trade Associations



The background of the slide features several interlocking puzzle pieces in a dark grey color, set against a solid dark brown background. The puzzle pieces are arranged in a way that suggests they are being put together, with some pieces missing or slightly offset, creating a sense of assembly and completion.

# Putting it all together

- making it easier for new start-ups, expanding businesses, and relocating businesses so they can prosper, hire employees, and grow in Nevada
- BEP transcends agency jurisdictions and environmental media programs to give business owners and managers the complete picture of applicable environmental requirements and the agencies they will need to work with to operate in Nevada
- do it right the first time – working with BEP can streamline the process of getting up and running or growing a business, eliminating back and forth delays

# Business Examples

- hotels and casinos
- restaurants
- dry cleaners
- funeral homes and crematories
- residential and commercial cleaning/disinfecting businesses
- automotive servicing and repair (body shops)
- large retailers
- public and private schools
- state and federal agencies
- health care facilities and hospitals
- lithographic printers
- indoor shooting ranges
- mining operations
- foundries
- scrap tire recyclers
- mobile car and truck washing
- automotive and aerospace parts manufacturers
- battery manufacturers
- cosmetics manufacturers
- paper products manufacturers
- paints and specialty chemical manufacturers
- plastics extrusion and injection molding manufacturers
- snack food manufacturers
- woodworking and cabinet manufacturers

---

# Septic system manufacturer

---

## BEP team approach

- existing firm relocating to Nevada from California
- air quality permitting – assistance with preparing and reviewing an air quality operating permit applicability determination (no permit required)
- hazardous waste – assistance answering questions related to hazardous waste generation, management, and disposal (very small quantity generator)

---

# Air permitting for a new mine

*Thanks to your assistance we were issued our air permit without a hitch*

---

## BEP team approach

- new mining operation locating in Nevada
- called BEP for a confidential consultation after which it was determined the mine would need a Nevada Division of Environmental Protection (NDEP) air quality permit based on emissions
- BEP educated the business on permitting requirements and assisted with completing the permit application so it could be submitted in a reasonable period of time based on opening timetable
- smooth process: once submitted, the permit was deemed complete and issued with no problems
- client returned for BEP assistance a year later for an air quality permit revision. BEP Assistance was provided on the revision which NDEP approved and issued

---

# Air permit renewal

*It was a real pleasure meeting you both, more importantly... we thank you for your help in this matter with NDEP/BAPC... Eric & Chris were a joy to work with and I/we highly recommend*

---

## BEP team approach

- mining operation contacted BEP a week before the deadline for submittal of a permit renewal. Consequence of missing the deadline – having to submit a brand new application rather than a renewal.
- through frequent communication and advising, BEP was able to assist the facility with quickly and properly completing the permit renewal application which, on the day before the deadline, was personally driven by the company principal to NDEP in Carson City.
- permit renewal versus new permit avoided:
  - Higher fees
  - Longer processing time
  - Shut down due to expired operating permit (no interim permit available)
    - Job losses
    - Capital losses
- once submitted, the permit renewal application was deemed complete within ten days and the permit was issued two months after submittal. Since the permit renewal was submitted and deemed complete before the existing permit expired, the operation was able to continue and no work time was lost.

*Eric & Chris of BEP are a joy to work with, thru them all parties stayed on task to complete the work accurately and timely resulting in a end result that mitigated the impact of the lapse in filing as much as possible*



---

# Casino sustainability

---

## Sustainability

- on-site assessment visit to help a casino establish a strategy for where to get started to go green
- identified large amounts of old, inefficient 1970's lighting technology in back of house corridors – on all day, seven days a week
- linked casino with NV Energy rebate programs for upgrade financial assistance
- on return visit, casino was already saving \$30,000 per month on electricity costs
- investigated recycling options for hard to recycle items

# Contacting BEP



B|E|P

BUSINESS  
ENVIRONMENTAL  
PROGRAM  
N E V A D A

- toll free hotline:  
800.882.3233
- website: [www.unrbep.org](http://www.unrbep.org)
- email: [help@unrbep.org](mailto:help@unrbep.org)

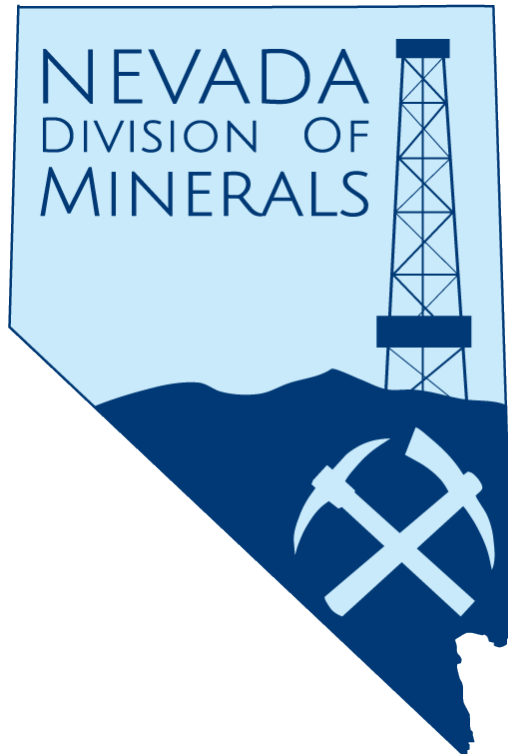
### **III. C Federal Hardrock AML and Good Sam Legislation Update**

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HAND OUTS AND PRESENTATION WILL BE GIVEN AT THE  
MEETING.

### **III. D Agency Education and Outreach**

#### **Activities Update**

# 2021 Education & Outreach Update



**Commission on Mineral Resources Meeting**

**10 March 2022**

Rebecca Ely

Nevada Division of Minerals

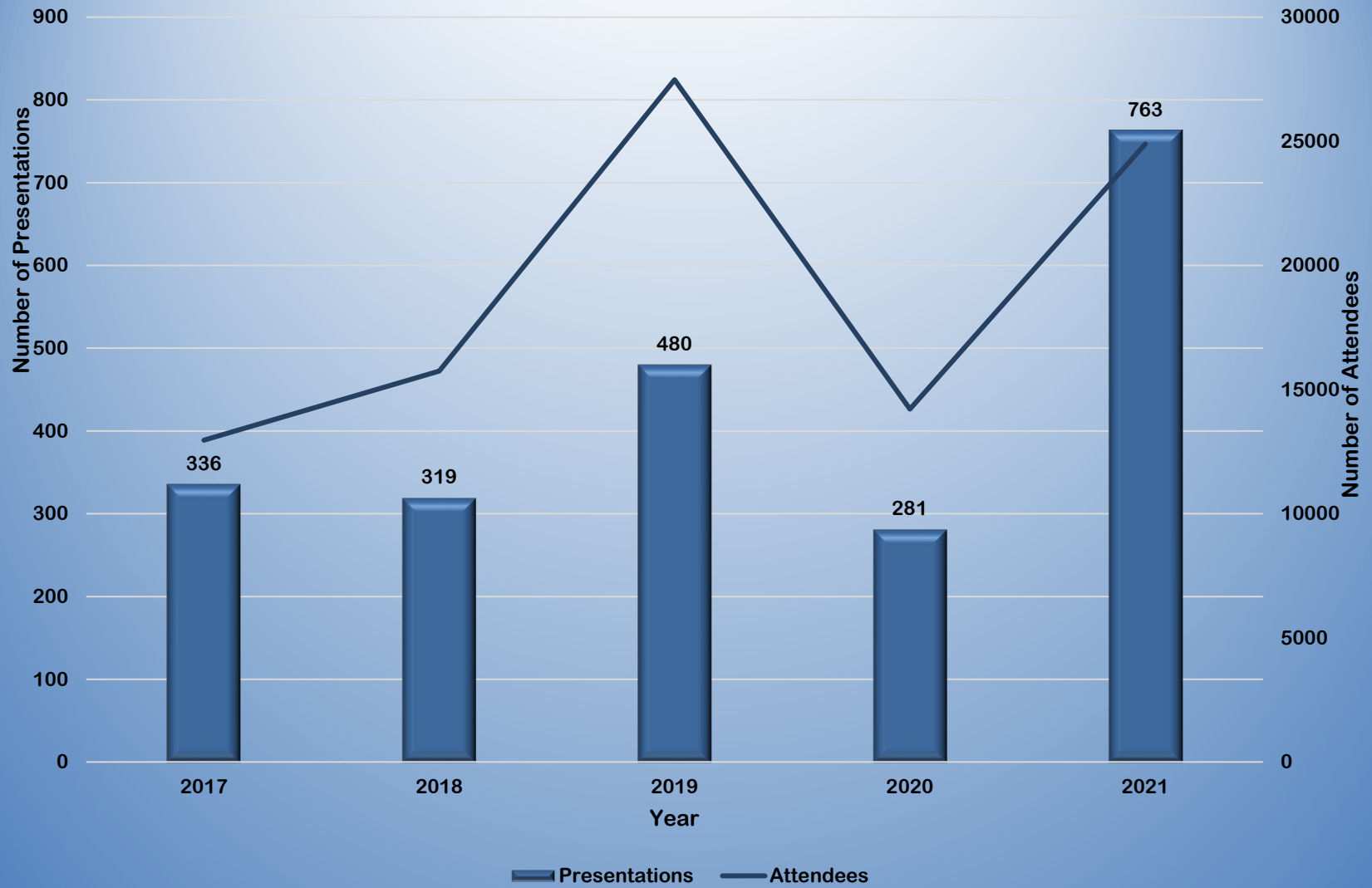
[rely@minerals.nv.gov](mailto:rely@minerals.nv.gov)

[Minerals.nv.gov](http://Minerals.nv.gov)

# Overview

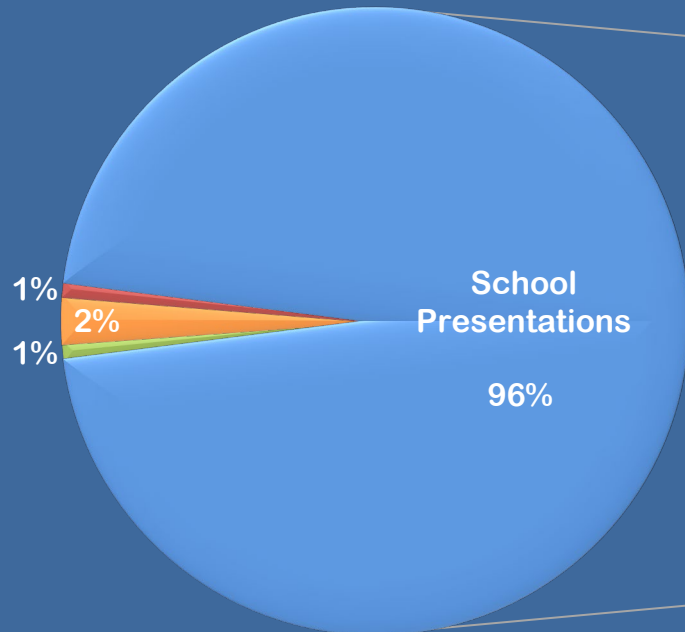
- 5-year View of Outreach
- Outreach by category:
  - K – 12 schools
  - Distance Learning Videos
  - Trade shows, conferences and workshops
  - Civic, government, and professional organizations and clubs
  - Public Events
- Distance Learning Videos
- CHOLLA / Community Partnership
- Teachers' Workshops
  - 2021 Northern NV Mineral Education Workshop
  - Mining for a STEAM Education
- Plans for the Future
- Questions

## 5-Year View of Outreach

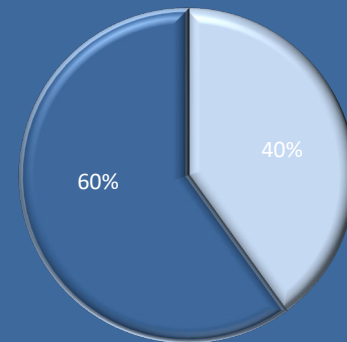




# Outreach by Category 2021



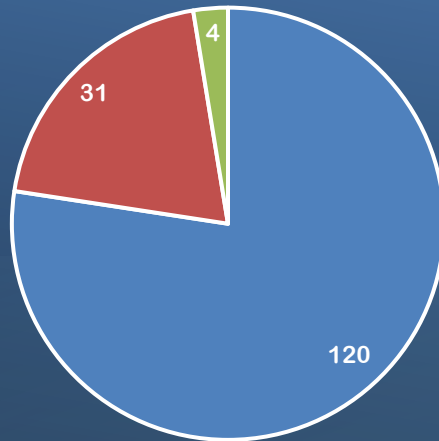
Live School Presentations



■ School Presentations: Career Events ■ School Presentations: Educational Activities

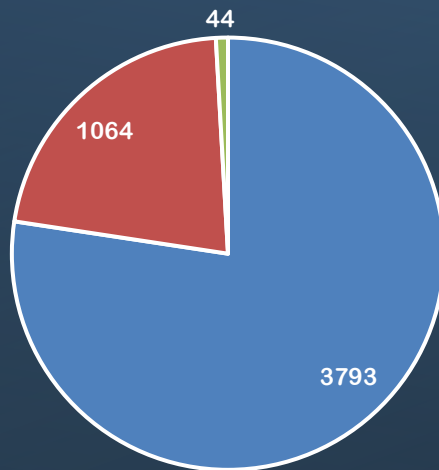
- Conferences and Tradeshows
- Civic, Gov't, Professional Org's, and Clubs
- Public Events
- 
- School Presentations: Career Events
- School Presentations: Educational Activities
- School Presentations: Distance Learning Videos

## K-12 Presentations by Grade Level



■ Elementary School ■ Middle School ■ High School

## K-12 Students Reached by Grade Level



■ Elementary School ■ Middle School ■ High School

- 39 Unique Schools
- 4901 Students Reached
- *Caveat: This data does not include Distance Learning Videos*

# Outreach by Category 2021

## K-12 Mineral Education

### Classroom Presentations and Activities: In-Person and Virtual

- **NDOM Staff:**
  - Conducted **172** K-12 Classroom & Career Day presentations
  - Visited **39** unique schools
  - Reaching **4901** students
  - Providing unique experiences to each grade level



# Outreach by Category 2021

## K-12 Career Events

*69 Career Presentations at 8 unique schools, reaching 2273 students, given in 2021*

- Elementary
  - In-person, Live Virtual, Pre-recorded video
    - 5-30 minute presentations
    - *What are minerals?*
    - *Why are minerals important?*
    - *How do find them?*
  - Host table at event
- Middle Schools & High Schools
  - In-person
  - Host table at event





# Outreach by Category 2021

## Trade shows, conferences and workshops

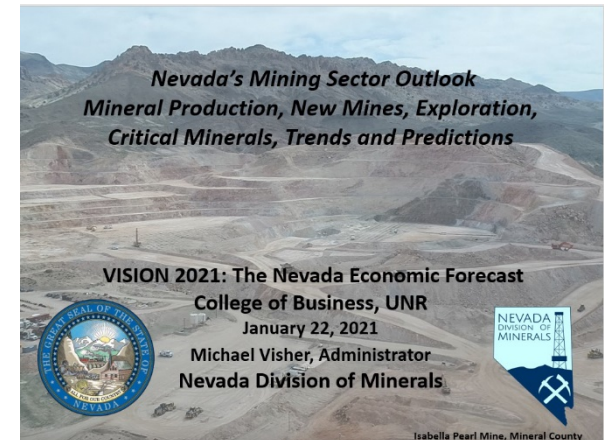
- MALRI Conference
- NWRA 2021 Conference
- International MINExpo 2021
- American Exploration and Mining Association (AEMA)
  - December 7-10, 2021
  - Talks on AML
  - Held in Sparks, NV
- North American Abandoned Mine Lands Program (NAAMLPL)
- Geothermal Rising
- Teachers' Workshops and others



# Outreach by Category 2021

## Civic, government, professional organizations and clubs

- Nevada Landmen's Association
- Vision 2021, UNR College of Business
- Nevada Mining Association
- Nevada Mineral Exploration Coalition
- Reno Gem and Mineral Society
- Truckee Meadows Regional Planning Agency
- And many others



# Outreach by Category 2021 Public Events

- Community Family Science Night
  - Virtual Event
  - Statewide
- Fourth Ward Museum Kids Fair
- Live 'Ologists Series
  - Live Stream on Facebook
  - Answered Questions from public
- 'Ologists Series
  - YouTube

Meet our Geologist



Rebecca Ely  
Nevada Division of  
Minerals







# Lessons in Support of Distance Education

- NDOM team continued making videos to support virtual learning
  - 19 videos
  - Available to view on multiple platforms:
    - NDOM website
    - NDOM Open Data Site
    - NDOM YouTube Channel
      - 11,055 YouTube views in 2021
    - CHOLLA website
    - CCSD platforms
      - Classroom Cast





## CHOLLA

- Presenters from school district
- Awareness of school district events
- Members share experiences
- Collaboration Opportunities
- Support and Guidance



# Northern NV Earth Science Workshop

- 64 Attendees
- Smaller Classes
- More one-on-one instruction time with teachers

Teachers dig into mine of information at Carson City workshop



Beverly Vugteveen, forefront, who will begin the 2021-22 school year at Under the Magic Pine Tree, a preschool in Gardnerville this fall, examines various rocks and minerals Tuesday along with volunteer Patti McClelland, left, and with Karen Kimber, far left, of Flag View Intermediate School of Elko also participating, at the Nevada Mining Association's 36th annual Northern Nevada Mineral Education workshop Tuesday in Carson City. (Photo: Jessica Garcia/Nevada Appeal)

By Jessica Garcia

Sunday, June 27, 2021

[Discuss](#)

[Share this](#)

[Comment, Blog about](#)

[Email, Facebook, Twitter](#)

Teachers Shaun Minor of Sutro Elementary School in Lyon County and Diana DiSalvo of Tony Alamo Elementary School in Clark County were busy trying to figure out the physical properties of popcorn salt and eyeshadow at their station Tuesday at Bethlehem Lutheran School. They went through each item referring to a colorful chart delineating qualities of hardness, color, streak, luster and fracture often determined by geologists or via laboratory equipment. When Minor and DiSalvo go back to their classrooms in the fall, they want to be able to tell their students that the items



# Mining for a STEAM Education

## General comments on the course.

- Collaboration between Colorado Mining Association Education Foundation, Nevada Mining Association, and NDOM
- First offered in Fall of 2021
  - 9 participants completed in Fall
  - All CCSD teachers
  - Positive Feedback
- Spring of 2022 in progress
  - 17 participants
- Approval for Summer 2022 is in-progress
  - Many have expressed interest in the summer course

*"I really enjoyed this class. I have had many conversations with my family about what I am learning."*

*"This was really fun!"*

*"Thank you so much for allowing us to learn in the format."*

*"Sign me up for a part 2!"*

*"I learned so much about mining. I want to know more about it. I think that it was very interesting. Thanks"*

*"I learned a lot about mining and its industry. Rebecca is wonderful and very helpful. Thank you so much for giving us this opportunity!"*

*"Overall, very interesting! I like how self-paced it was."*



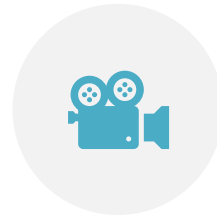
Increase in-person presentations



Create new activities for the classroom



Attend more community events



Continue to produce educational videos

## Plans for the Future



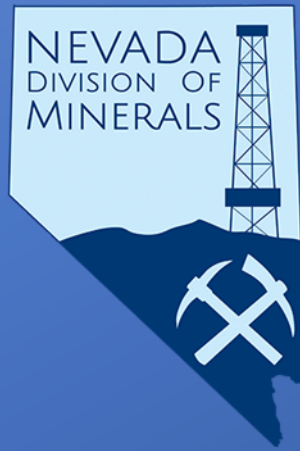


Questions?

Thank You!



### **III. E Fluid Minerals Program Update**



# ***Summary of Oil, Geothermal, and Dissolved Minerals Activity 2021-2022***

**Commission on Mineral Resources  
March 10<sup>th</sup>, 2022**

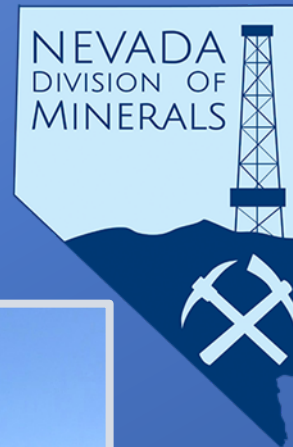
**Cortney Luxford  
Fluid Minerals Program Manager  
Nevada Division of Minerals**





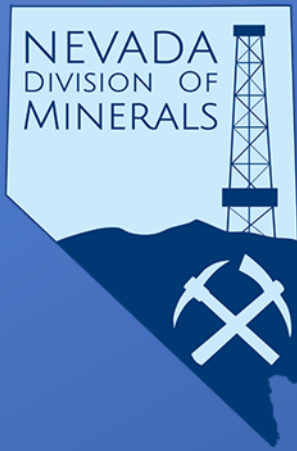
## **Lowell Price Retired in May 2021**

*He was with the Division from 2008-2021*

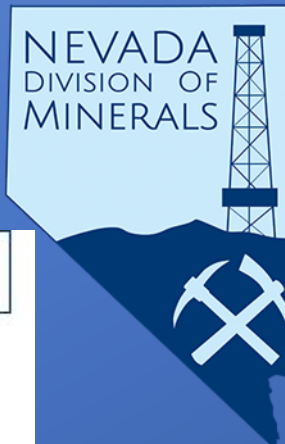


**Lowell's last well inspection(of many)**





# *Oil and Gas*



## WTI Crude (Apr'22)

@CL1:New York Mercantile Exchange

\*Data is delayed | USD

EXPORT

WATCHLIST

Last | 10:48 AM EST

**112.29** ▲ +4.62 (+4.2909%)

Volume  
**262,878**

1D 5D 1M 3M 6M YTD 1Y 5Y **ALL**

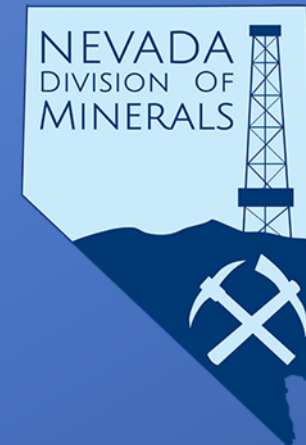
+ Comparison

1M Display Studies





# *Oil and Gas Temporary Amendment of Regulations*



## Explanation of the need for the temporarily adopted regulation change to NAC 522

The need for, and the purpose of the temporary amendment of regulation was to provide temporary economic relief to Nevada oil producers by reducing the administrative fee from 15 cents to 5 cents per barrel of oil or per 50,000 cubic feet of natural gas.

This temporary regulation change was in effect from December of 2020 to October of 2021 for a total of 11 months. The reduction from 15 cents to 5 cents a barrel saved Nevada producers a total of \$16,270.32.

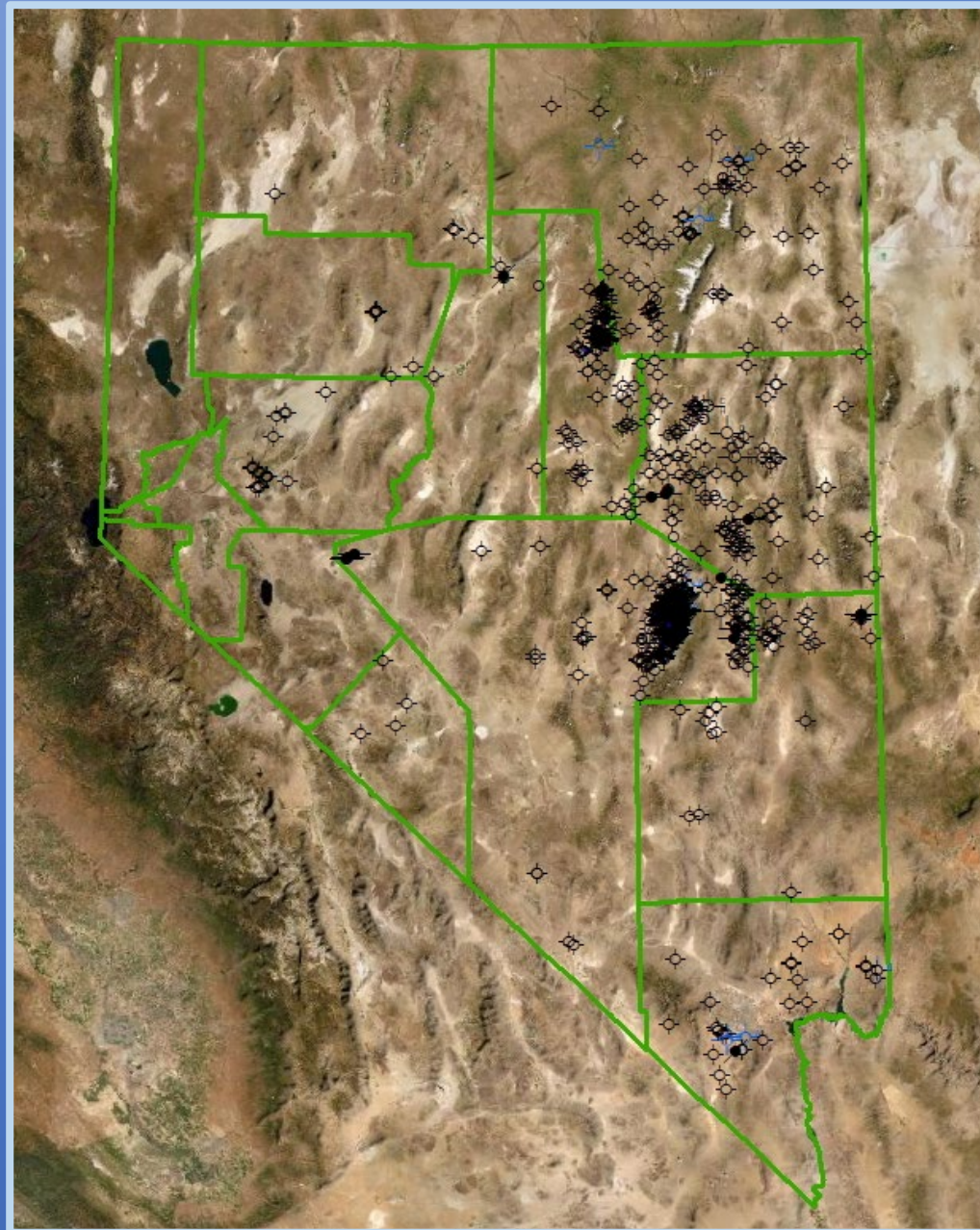




## *Oil Wells Drilled in Nevada ~742 Total Wells Drilled*

### **121 Open Wells**

- 54 Producers Active Wells
- 52 Producers Shut In
- 12 Active Injection Wells
- 3 Shut In Injection Wells
- 6 Orphan Wells(BLM surface)







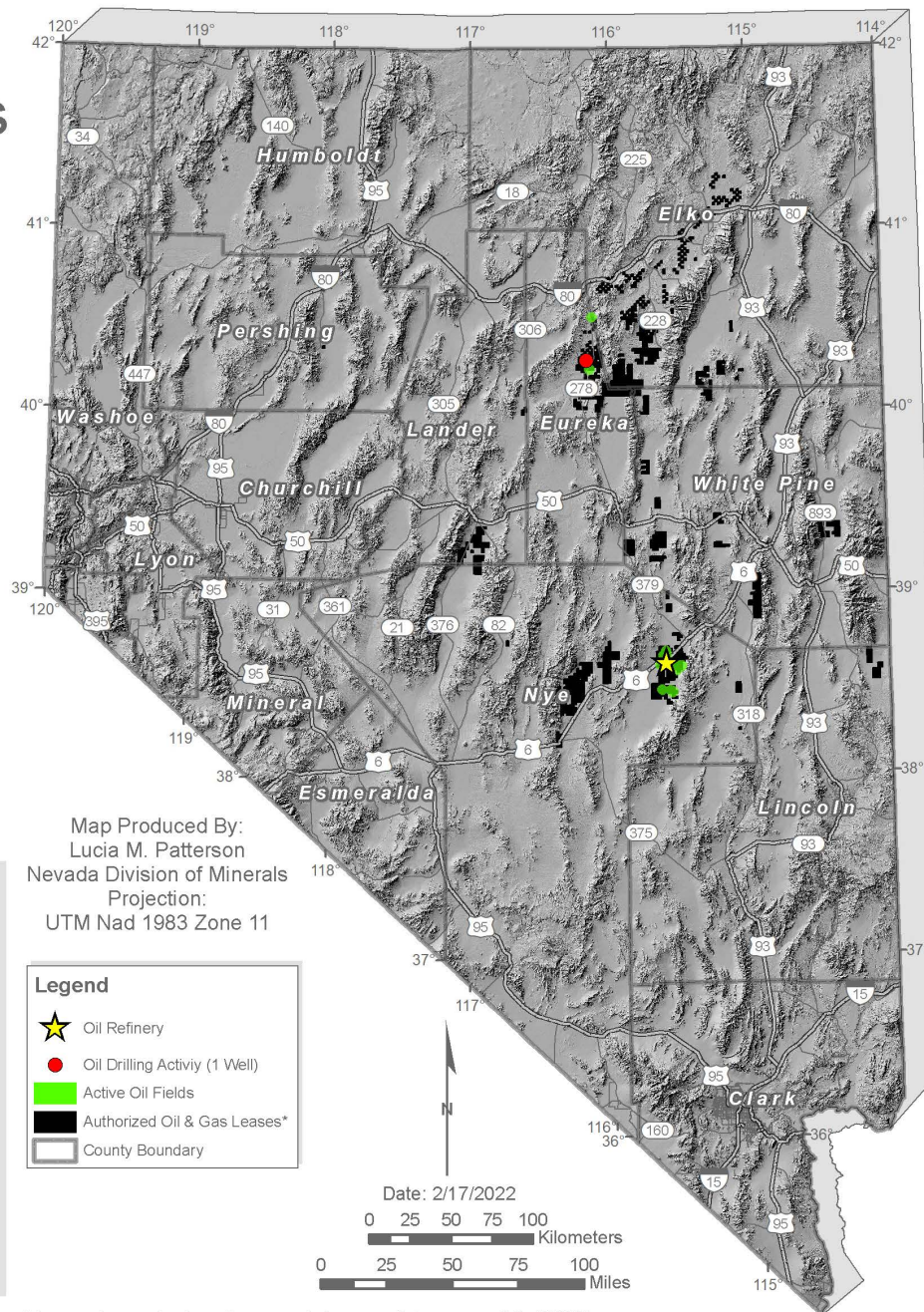
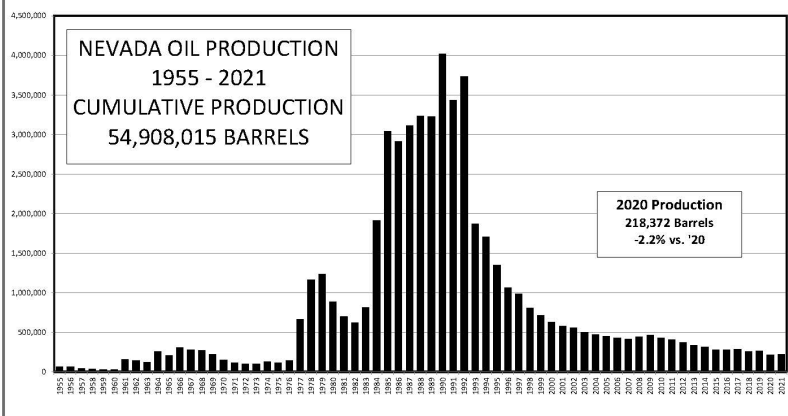
# Nevada Oil-Gas Drilling, Production & Federal Leases 2021

As of February 7, 2022 there were 121 permitted oil wells that are active or shut-in.

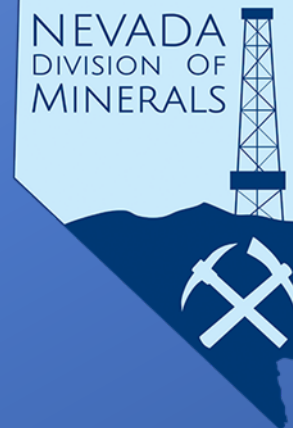
There are currently 10 active oil fields in Nevada

As of January 20, 2022 there were 394 authorized oil leases which total 705,861 acres

There is one oil refinery in Nevada



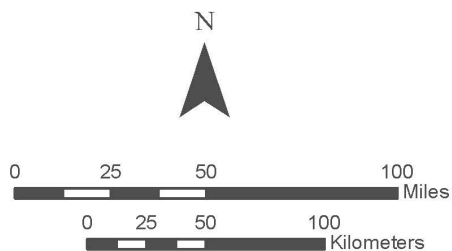
\*Authorized leases are plotted by section and do not necessarily depict actual lease boundaries. Lease data as of January 20, 2022



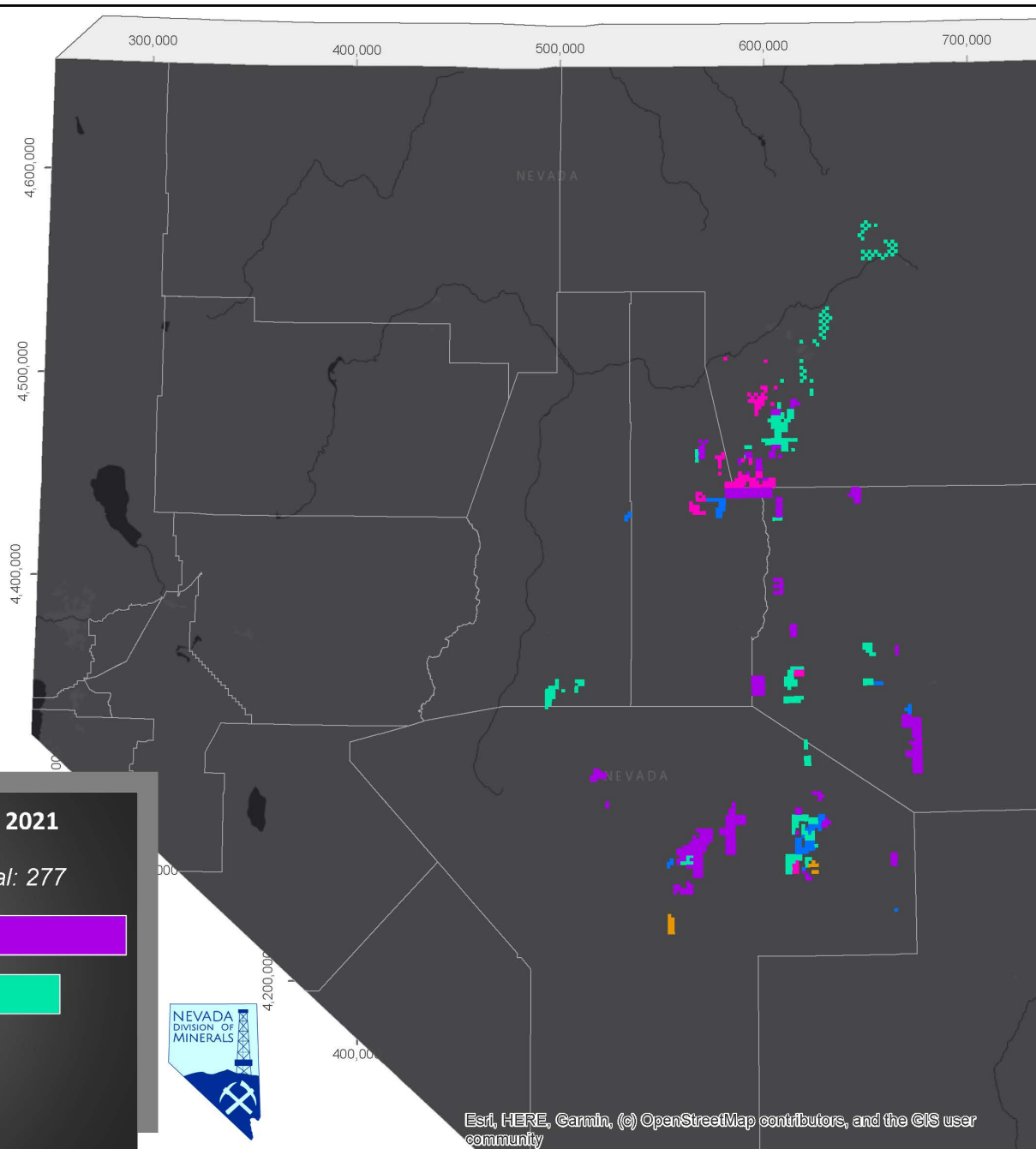
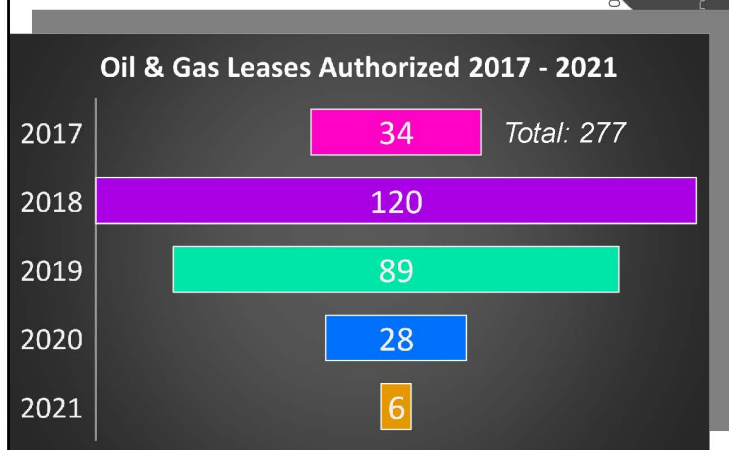


# Oil & Gas Leases Issued 2017 - 2021

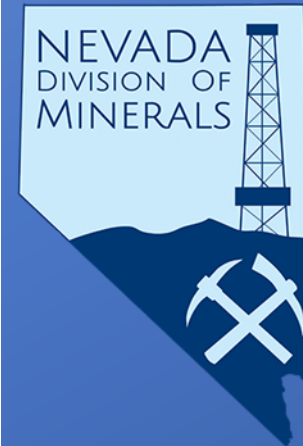
Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 15, 2022



Leases plotted using BLM LR2000 case type codes:  
311121, 312021, 311211, & 311111  
Action Codes:  
237, 209, & 553  
Data as of: January 20, 2022



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



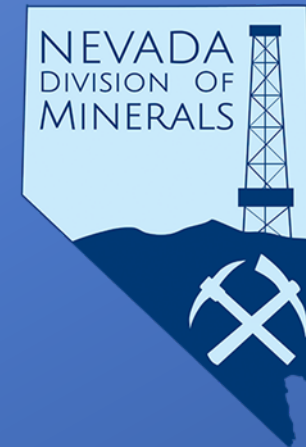




# Bureau of Land Management Nevada State Office

## Competitive Oil & Gas Lease Sale Results Summary

### Tuesday, September 8, 2020




Total Number of Parcels Posted in Original Sale Notice:	14
Total Number of Acres Posted in Original Sale Notice:	16,914
Total Number of Parcels Protested:	7
Total number of Acres Protested:	10,459
Total Number of Protests Received on the Sale:	1
Total Number of Parcels Removed as a Result of Protests:	0
Total Number of Parcels Removed for Other Reasons:	0
Total Number of Parcels Offered (Day of Sale):	11
Total Number of Acres Offered (Day of Sale):	15,445
Total Number of Registered Bidders:	9
Total Number of Parcels Receiving Bids:	11
Total Number of Acres Receiving Bids:	15,445
Total Sum of High Bids:	\$63,382.00
High Bid Per Parcel:	\$21,150.00
High Bid Per Acre:	\$9.00
Total Receipts:	\$88,422.50

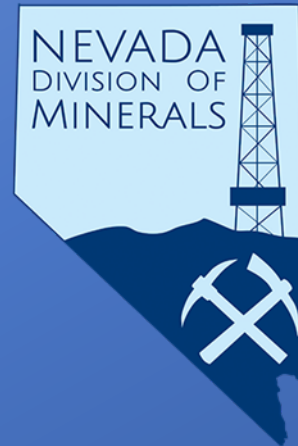
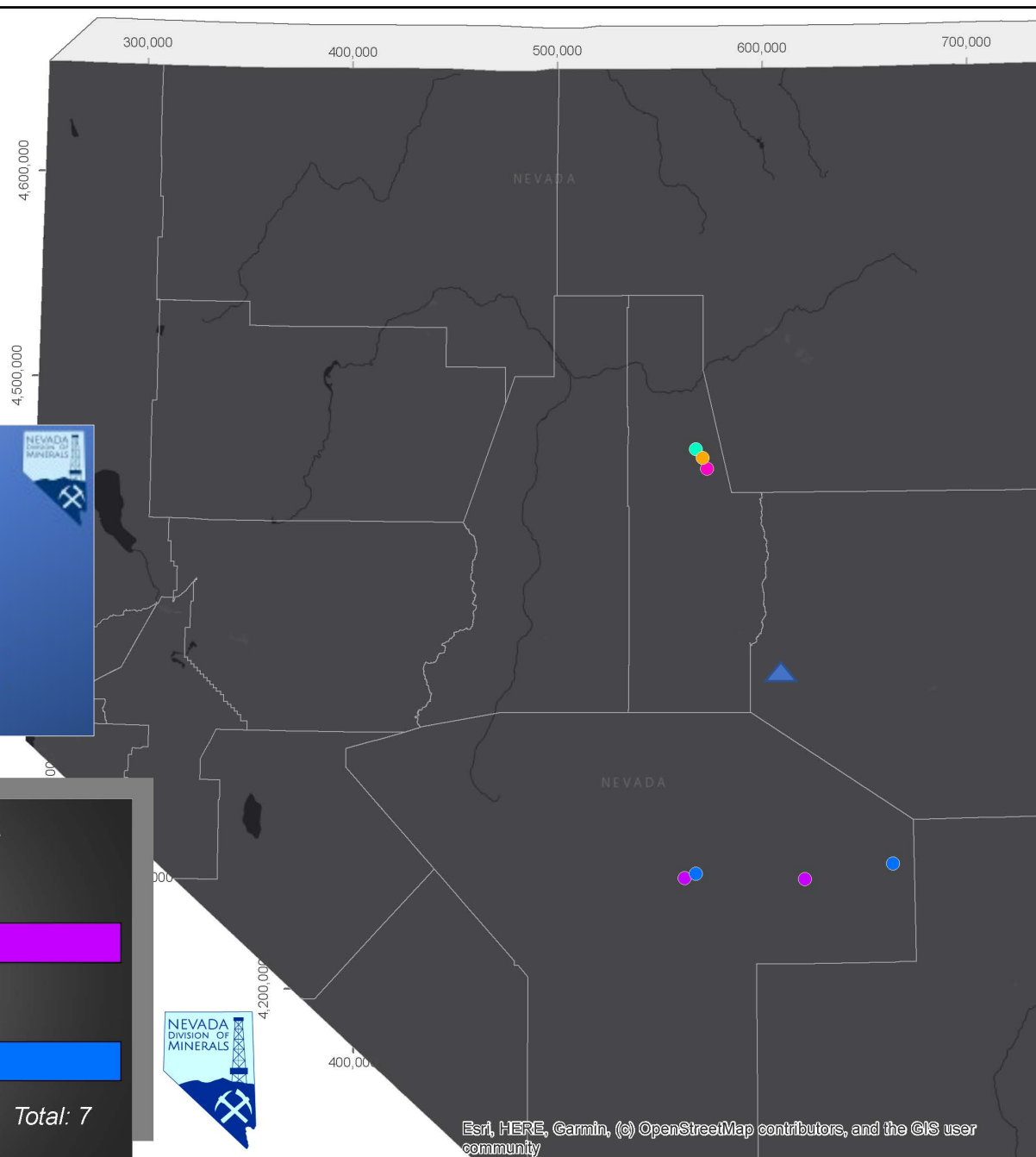
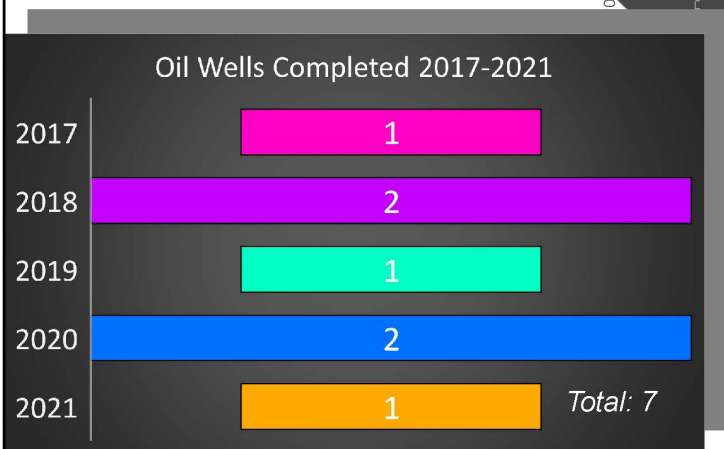


# Oil Wells Drilled 2017 - 2021

Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 15, 2022

 Bureau of Land Management Nevada State Office  
Competitive Oil & Gas Lease Sale Results Summary  
Tuesday, September 8, 2020

Total Number of Parcels Posted in Original Sale Notice:	14
Total Number of Acres Posted in Original Sale Notice:	16,954
Total Number of Parcels Protested:	7
Total Number of Acres Protested:	10,459
Total Number of Protests Received on the Sale:	1
Total Number of Parcels Removed as a Result of Protests:	0
Total Number of Parcels Removed for Other Reasons:	0
Total Number of Parcels Offered (Day of Sale):	11
Total Number of Acres Offered (Day of Sale):	15,445
Total Number of Registered Bidders:	9
Total Number of Parcels Receiving Bids:	11
Total Number of Acres Receiving Bids:	15,445
Total Sum of High Bids:	\$63,382.00
High Bid Per Parcel:	\$21,550.00
High Bid Per Acre:	\$9.06
Total Receipts:	\$88,422.50







## Oil Exploration Permitting 2017- Present



### **Envy Energy, Railroad Valley(Northern Part of Valley, White Pine County)**

- Permitted Black Point East #1, approved February 2018, expired February 2020

### **West Grant Canyon Development, LLC, Railroad Valley, Nye County**

- Permitted Butterfield Federal 1, approved June 2019, expired June 2021

### **Western Oil Exploration, Newark Valley, White Pine County**

- Permitted Scott Federal 25-1, approved May 2020, expires May 2022

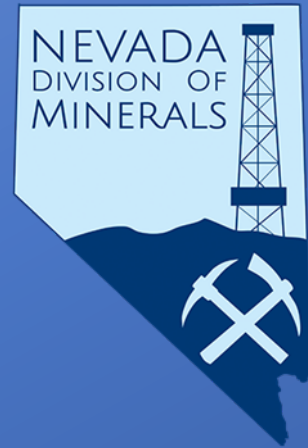
### **Kebo Oil and Gas, Inc., Railroad Valley, Nye County**

- Permitted Ragged Ridge 1, approved November 2020, expires November 2022

Permit Type	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled
Year	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022
Oil & Gas	0	1	3	1	3	1	4	3	1	2	0	0



## ***Oil Exploration Drilling 2017- Present***



### ***True Oil, Railroad Valley, Nye County (1 well)***

- Spudded DY Federal 13-31 in December 2017, P&A January 2018

### ***Major Oil International, Hot Creek Valley, Nye County (2 wells)***

- Spudded Eblana 3 in April 2018, completed drilling in May 2018, P&A in May 2019
- Spudded Eblana 9 in November 2020, completed in December 2020, P&A April 2021

### ***Grant Canyon Oil and Gas, Three Bar, Pine Valley, Eureka County (2 wells)***

- Spudded Three Bar Federal 25-2 in May of 2019, completed well in August of 2019, well is averaging 944 bbls of oil and 807 bbls water per month during the 28 months of production.
- Spudded Three Bar Federal 6R July 2021, re-entry of existing well, completed October 2021, well is averaging 87 bbls oil and 574 bbls water per month in 3 months of production.

### ***Sam Oil, LLC, White River Valley, Nye County (1well)***

- Spudded White River Valley 1-9 May 2018, well is shut in and waiting on re-entry.

### ***Western Oil Exploration, Newark Valley, White Pine County (1 well)***

- Spudded Scott Federal 35-1 in July 2020, BLM shut down operations due to violations, re-entry in September of 2021 and shut down again due to Sage Grouse restrictions. Plan to re-enter in July 2022



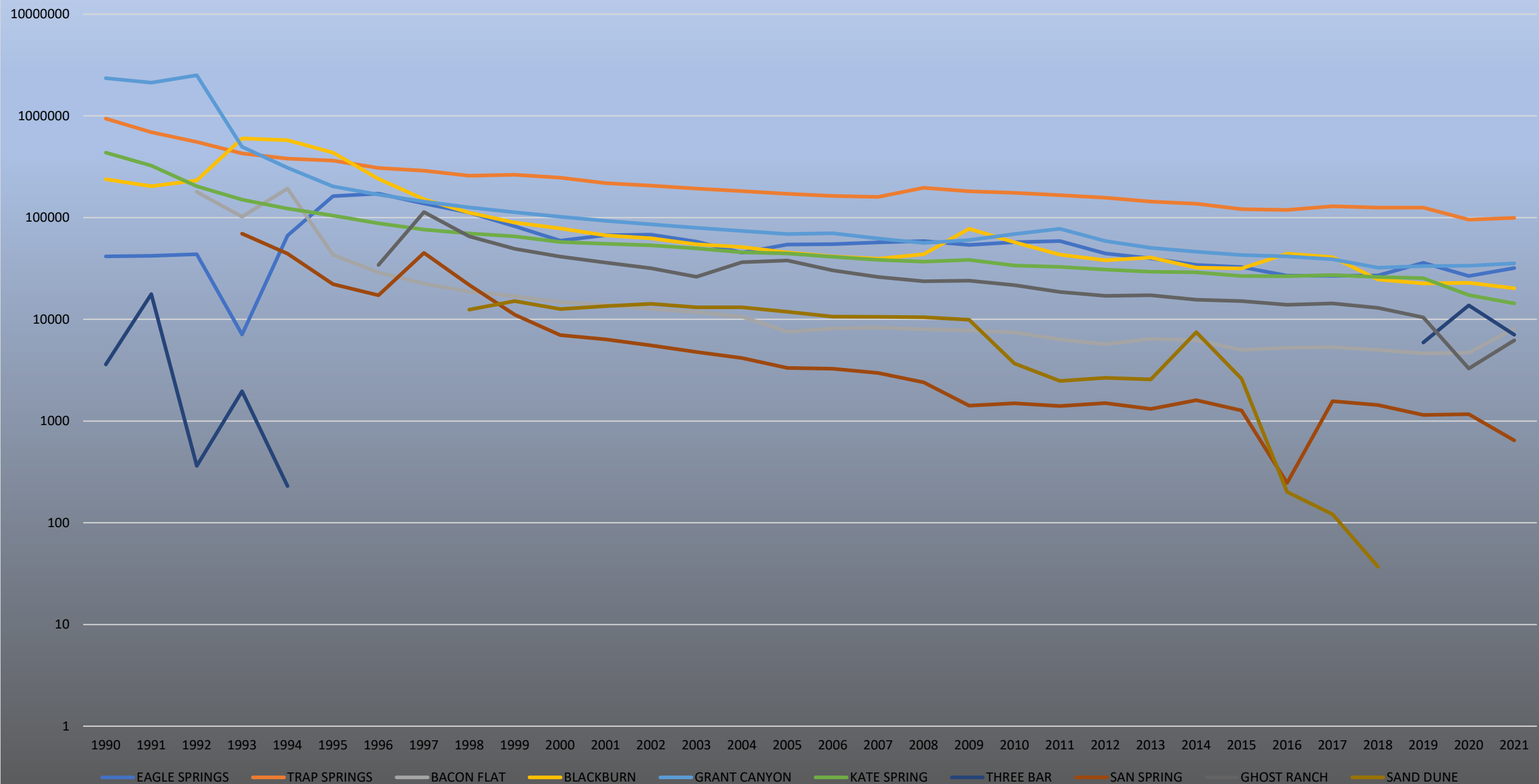
## BLM Oil Leases/Permitted and Drilled Wells 2017-Present

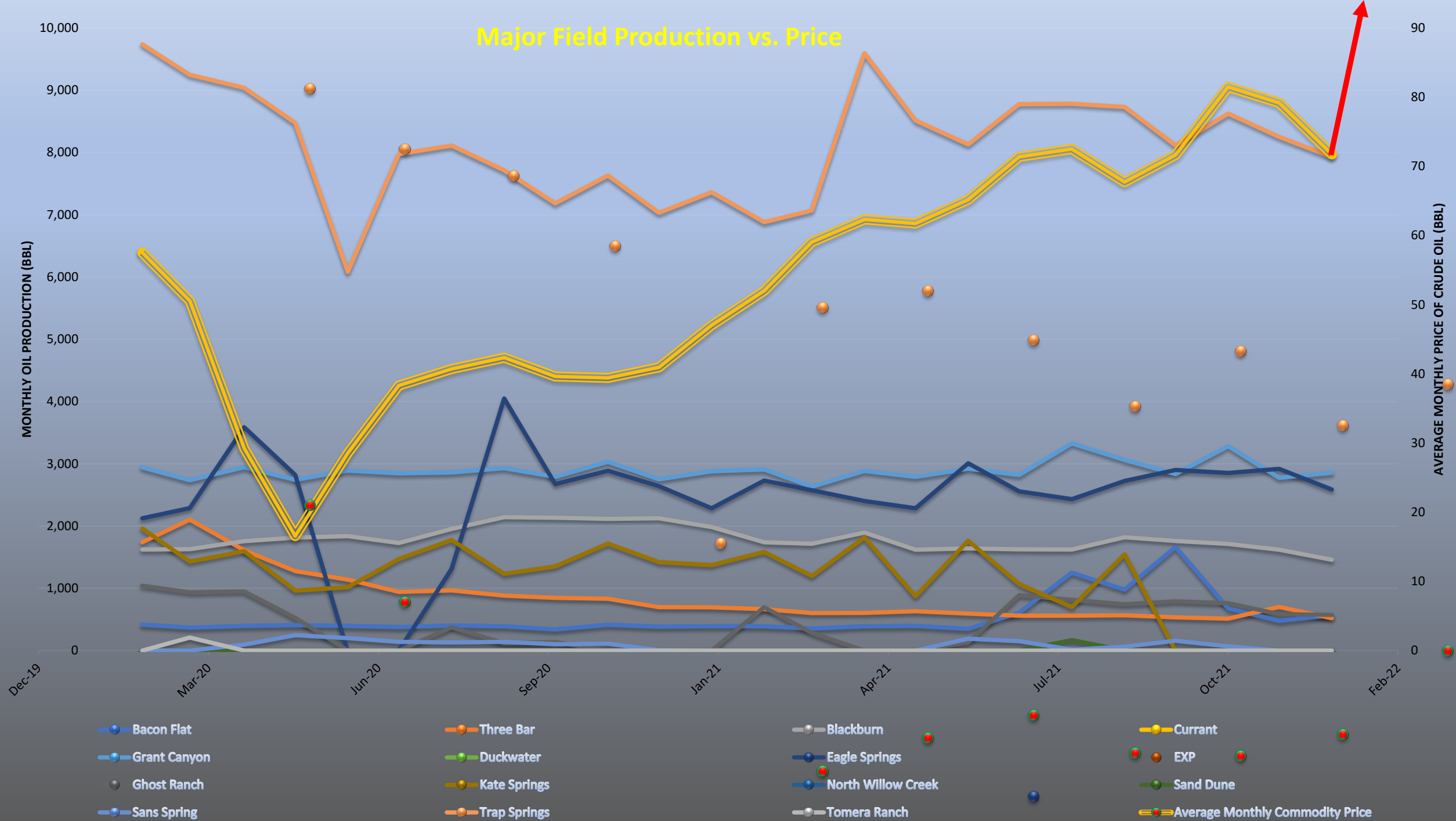




Nevada Oil Production 1954-2021																			
Year	Eagle Springs	Trap Springs	Currant	Bacon Flat	Blackburn	Grant Canyon	Kate Spring	Tomera Ranch	N Willow Creek	Three Bar	Duck-Water	Sans Spring	Ghost Ranch	Dead-Man Creek	Sand Dune	Toana Draw	Humboldt	Huntington	Total Prod.
1954-1989	3,945,917	7,901,672	641	314,660	1,905,504	11,838,587	271,148	6,478	13,493										26,198,100
1990	41,609	939,910	0	0	238,240	2,345,858	434,349	2,605	3,169	3,601	3,095								4,012,436
1991	42,043	690,697	0	0	203,023	2,124,021	324,207	3,067	2,365	17,684	4,190								3,411,297
1992	43,691	554,410	0	178,845	231,719	2,499,831	203,274	2,295	4,491	362	2,764								3,721,682
1993	7,075	427,150	0	102,030	599,857	495,934	150,309	2,140	3,928	1,961	2,256	69,478							1,862,118
1994	66,565	378,829	0	192,601	576,853	308,709	122,544	1,970	3,737	229	1,269	44,279							1,697,585
1995	162,296	362,985	278	43,057	435,975	202,129	104,574	1,405	6,419	0	655	22,174							1,341,947
1996	171,638	306,858	0	28,891	239,934	168,163	87,789	387	3,619	0	433	17,228	34,166						1,059,106
1997	137,278	288,686	202	22,465	151,151	143,707	76,280	659	1,478	0	168	45,001	113,016	109					980,200
1998	111,562	257,921	230	18,757	112,008	126,128	69,768	574	1,502	0	491	21,759	65,370	258	12,465				798,793
1999	82,067	263,566	28	16,849	89,400	112,715	65,315	398	123	0	93	11,127	49,348	0	15,122				706,151
2000	59,394	246,725	55	14,766	78,136	102,113	57,644	488	146	0	116	6,990	41,454	0	12,624				620,651
2001	67,024	218,198	33	13,898	66,899	92,899	55,198	0	144	0	968	6,356	36,173	0	13,461				571,251
2002	67,908	206,424	21	12,647	62,412	85,722	53,408	11,901	573	0	869	5,532	31,814	0	14,211				553,442
2003	57,946	193,191	23	11,763	54,623	79,293	49,698	1,981	349	0	436	4,775	26,129	0	13,123				493,330
2004	45,176	181,937	9	10,612	51,372	73,879	45,656	124	377	0	200	4,169	36,423	0	13,124				463,058
2005	54,362	170,896	3	7,556	45,369	68,944	44,288	0	2,064	0	185	3,324	37,874	0	11,878				446,743
2006	54,708	163,299	0	8,112	41,491	70,158	41,124	0	2,552	0	122	3,265	30,255	0	10,618				425,704
2007	56,992	159,821	81	8,301	39,477	62,236	38,411	0	1,256	0	150	2,971	26,070	0	10,562	1,916			408,244
2008	58,683	196,089	108	7,968	43,600	56,247	36,863	0	56	0	120	2,407	23,615	0	10,467	48			436,271
2009	53,851	181,320	111	7,764	77,730	60,036	38,347	0	0	0	120	1,419	24,011	0	9,883	0			454,592
2010	57,394	175,352	109	7,427	57,260	68,927	33,825	0	0	0	118	1,493	21,630	0	3,687	0			427,222
2011	58,900	166,415	119	6,358	43,198	77,683	32,719	0	0	0	115	1,404	18,605	0	2,483	0			407,999
2012	44,422	156,991	159	5,690	38,004	58,897	30,833	11,705	0	0	117	1,498	17,022	0	2,656	0			367,994
2013	39,818	143,909	194	6,447	40,392	50,517	29,402	3,757	0	0	119	1,318	17,231	0	2,567	0			335,671
2014	34,217	136,651	143	6,223	32,217	46,263	28,934	2,016	0	0	124	1,604	15,564	0	7,467	0	2,756	2,248	316,426
2015	32,675	120,762	25	5,000	31,605	42,810	26,672	1,224	0	0	45	1,268	15,106	0	2,606	0	0	1,584	281,382
2016	26,872	118,847	0	5,261	44,180	41,631	26,486	961	0	0	0	246	13,914	0	201	0	0	854	279,453
2017	26,716	129,104	0	5,325	40,767	38,861	27,287	854	0	0	0	1,567	14,345	0	121	0	0	9	284,956
2018	27,035	125,262	0	5,000	24,625	32,126	26,102	385	0	0	0	1,437	12,959	0	37	0	0	0	254,968
2019	35,979	125,540	0	4,623	22,559	33,314	25,428	372	0	5,910	0	1,148	10,450	0	0	0	0	0	265,323
2020	26,648	95,587	0	4,692	22,838	33,591	17,307	208	0	13,737	0	1,170	3,290	0	0	0	0	0	219,068
2021	31,971	99,400	0	8,103	20,235	35,389	14,304	0	0	7,054	0	646	6,224	0	167	0	0	0	223,493
TOTAL	5,830,432	15,884,405	2,572	1,091,691	5,762,653	21,677,318	2,689,492	57,954	51,841	50,538	19,338	287,053	742,059	367	169,530	1,964	2,756	4,694	54,326,657

# Nevada Major Fields Production 1990-2021(log scale)







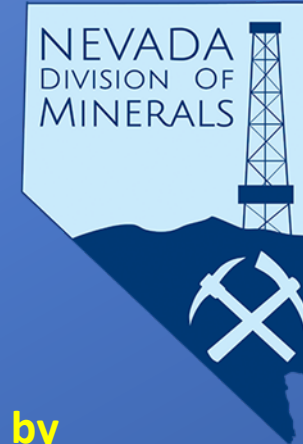
## Three Bar Fed. #6R Eureka County, NV Project Overview



- Why the shallow Tertiary was targeted?
  - The Tertiary was proven in 2019 in Well #25-2
    - High oil cut
    - Large, Thick oil resource (>700 ft vertical in Upper Tertiary)
    - Shallow depth target
    - 26,850 bbls oil produced thru Dec.2021 from Well #25-2
- Why the plan for horizontal wellbore?
  - More exposure in target pay improves initial oil rate, economics, and long-term recovery
  - Higher oil prices in 2021 (deferred from 2020)



## Three Bar Fed. #6R Eureka County, NV Project Overview

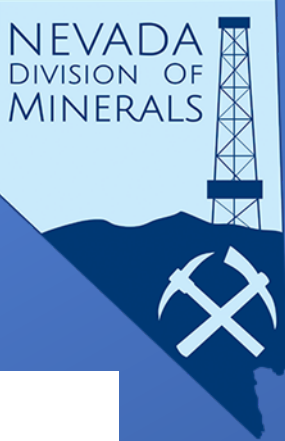


- **Upper Tertiary Proven –**
  - Initially in #25-2 –current Producer.
  - Drilling Well #6R encountered nearly 2,000 ft lateral of oil bearing reservoir as exhibited by surface samples and mass spectrometer shows
- **Lower Tertiary Proven –**
  - Discovered and produced in well #25A during 1991
    - Oil cut peaked at 50% and cumulative 18,250 bbls, non-stimulated (Andesite section)
    - Deeper #25A pump test produced 50%-90% oil cut, non-stimulated (U.IW Oligocene)
    - Well #25-2 confirmed two oil show intervals by cuttings and mass spec'
- Westward extension from previous offset wells proven –essentially drilled 3-4 vertical wells with single horizontal cutting multiple horizons
- Well #6R drilled to base of Tertiary and proved structure of both Upper and Lower Tertiary zones to the west

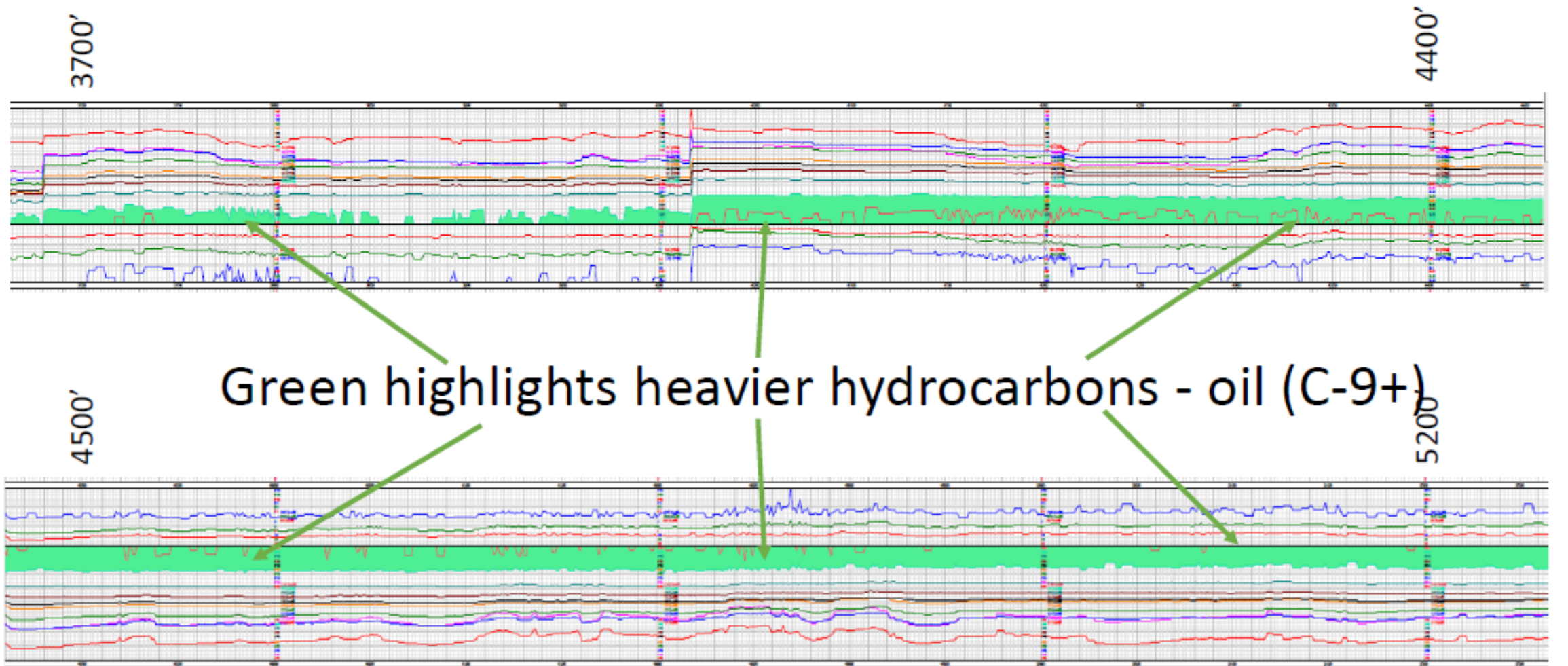




# Three Bar Fed. #6R Eureka County, NV Project Overview



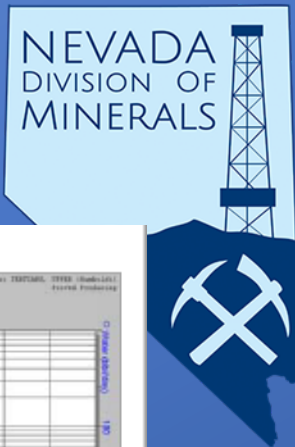
Well #6R Upper Tertiary: Example of mass spectrometer log while drilling (continuous zone-strong behavior, not spotty)



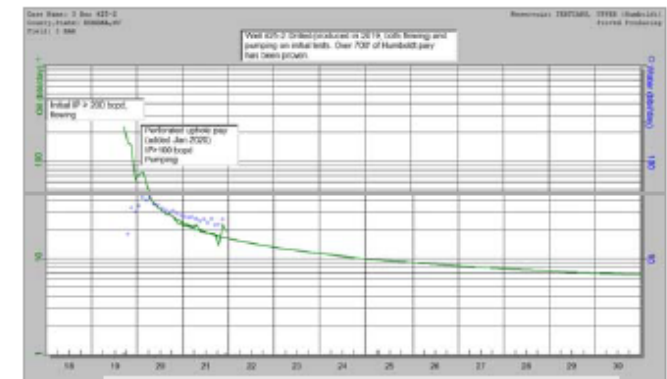
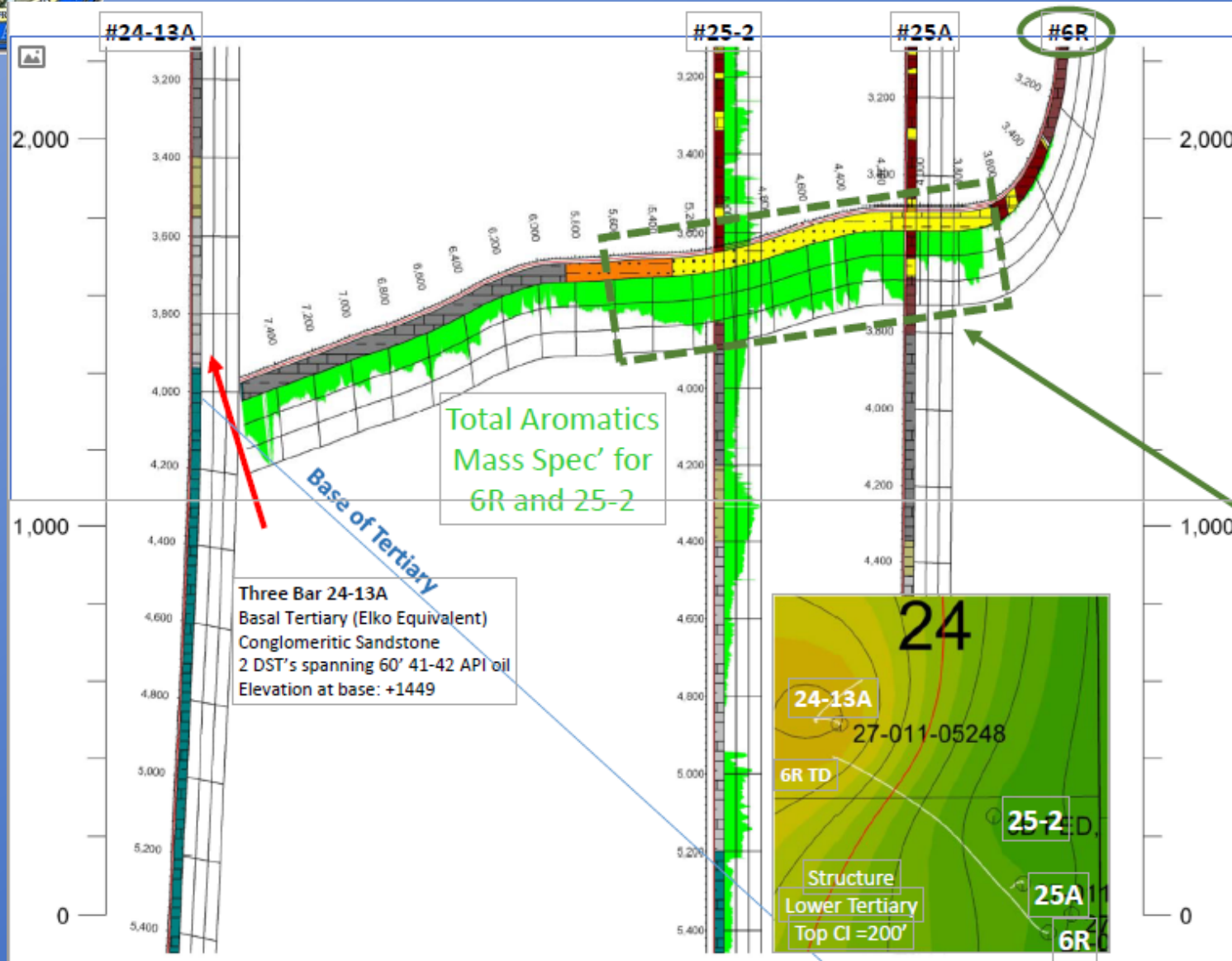
Courtesy Grant Canyon Oil And Gas



# Three Bar Fed. #6R Eureka County, NV Project Overview



## Well #6R Upper Tertiary



Upper Tertiary :Well #25-2  
Vertical wellbore  
26,850 bo to date

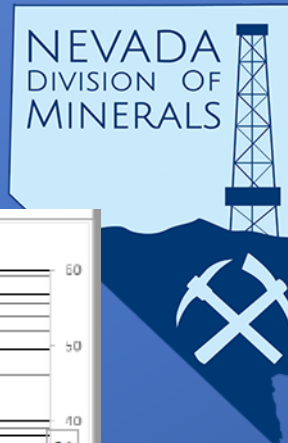
Upper Tertiary : Well #6R  
Successful cut in lateral pay  
nearly 2,000 ft in strong oil  
shows/presence

Courtesy Grant Canyon Oil And Gas

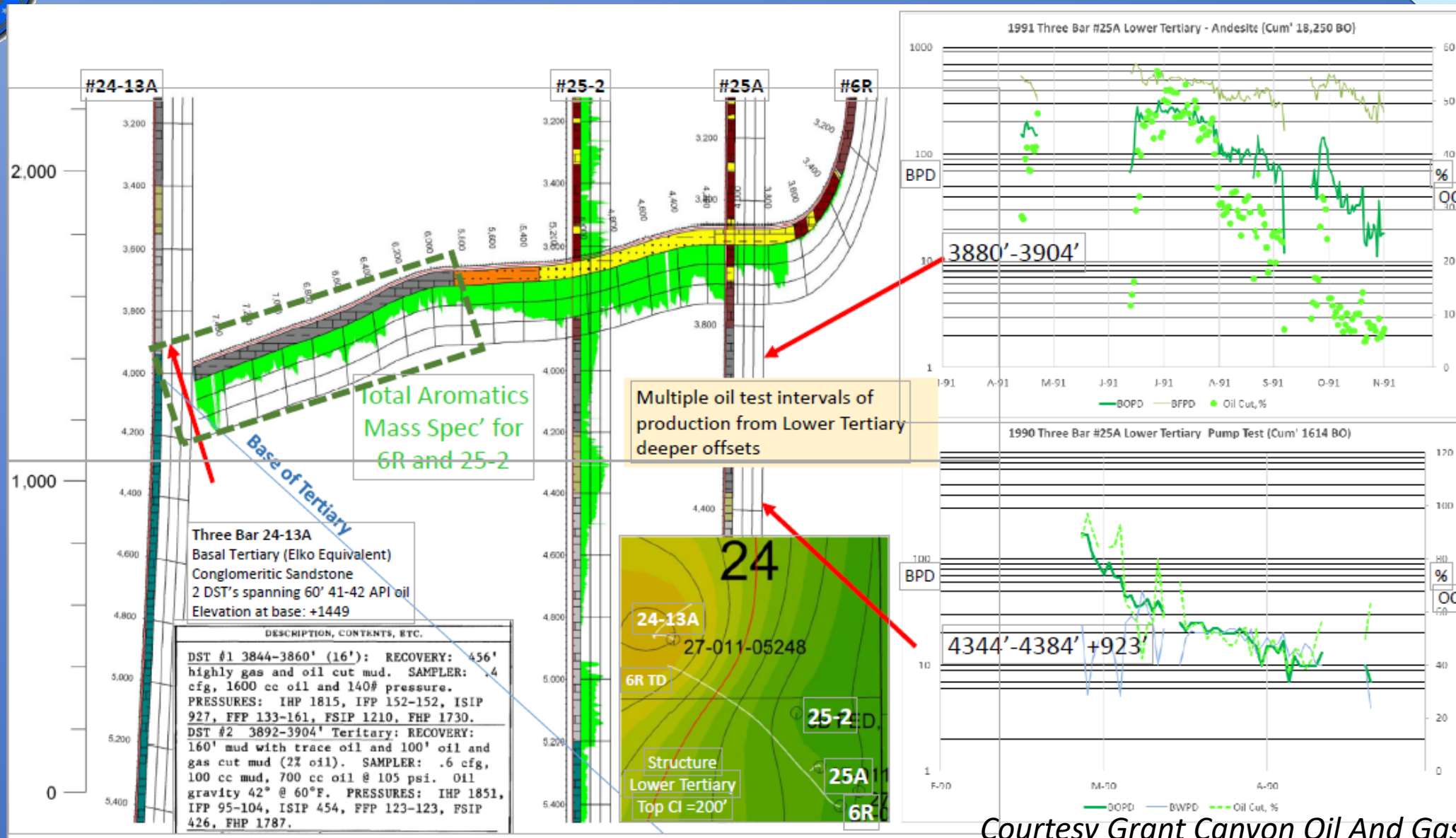




# Three Bar Fed. #6R Eureka County, NV Project Overview



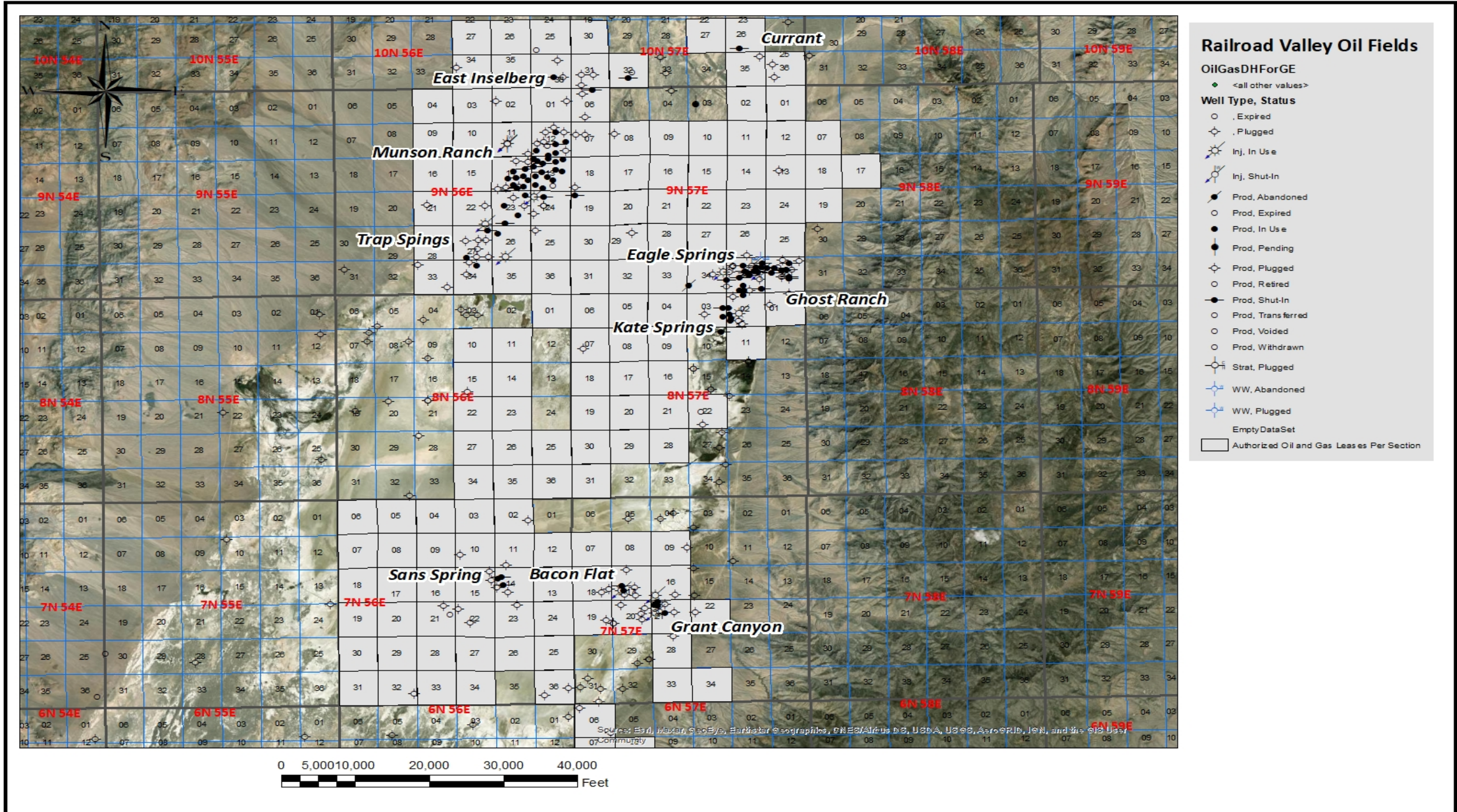
## Well #6R Lower Tertiary



Courtesy Grant Canyon Oil And Gas



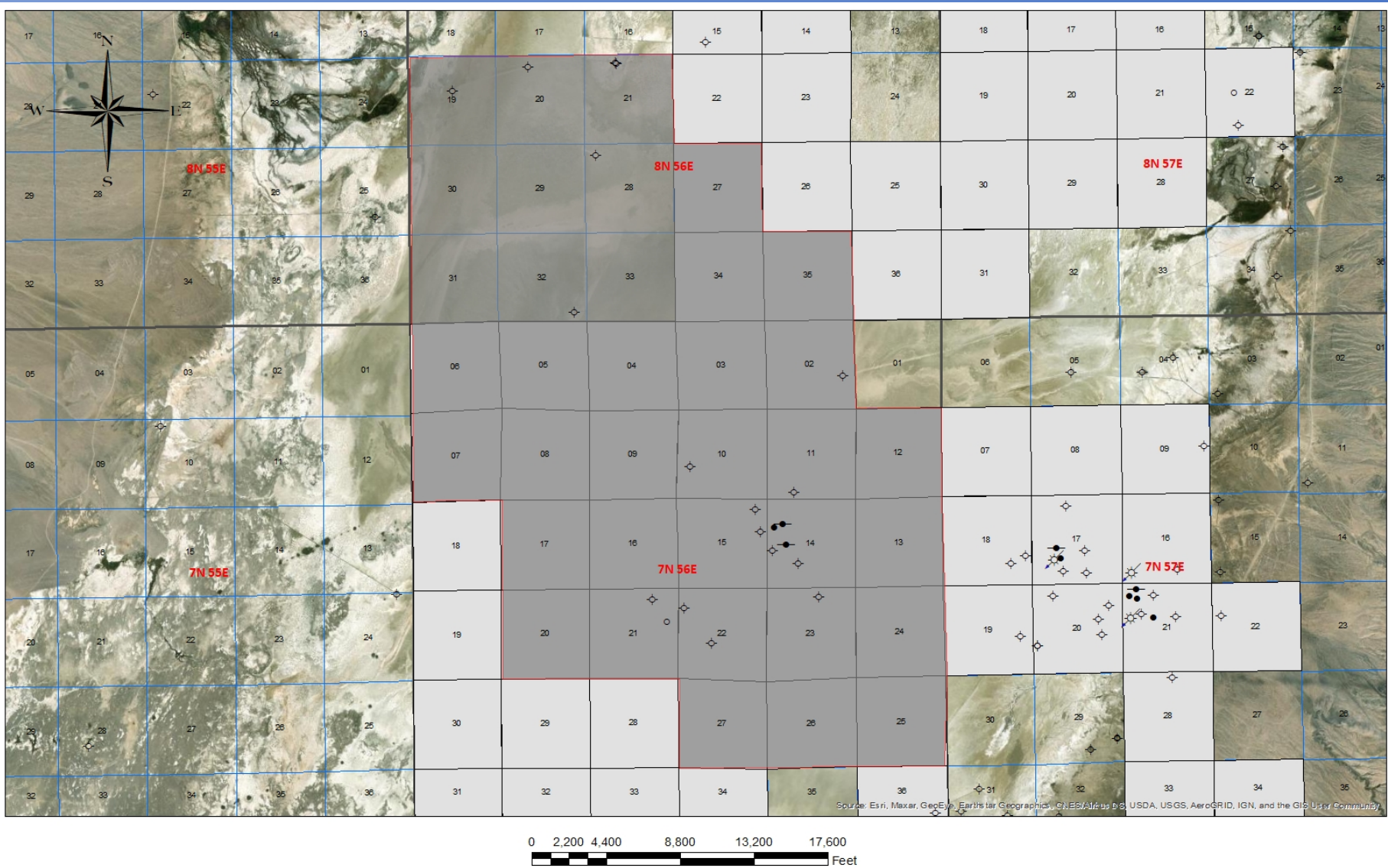
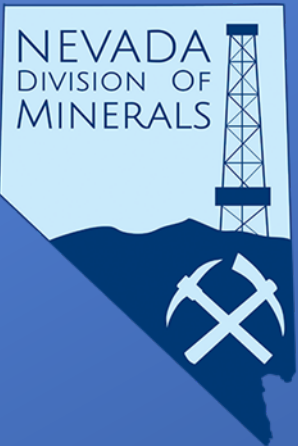
# Oil Fields Railroad Valley







# Nasa Proposed Withdrawal Railroad Valley







# The Ongoing Battle for Railroad Valley

NEVADA  
DIVISION OF  
MINERALS



- **Relevance:** Earth Science Missions use the large, homogeneous Railroad Valley playa (RRV) for vicarious radiometric calibration of passive optical instruments
  - RRV is well characterized and instrumented and its surface is ideal for quantitative calibration traceable to international standards
  - Railroad Valley, NV, is the only site in the U.S. that is homogeneous over a large enough area to accommodate large-footprint sensors, such as OCO-2, OCO-3, GOSAT, GOSAT-2, Sentinel 5p, and GeoCarb and for cross-calibration of these instruments with reference instruments, such as MODIS
- **Problem:** Mining claims threaten to disrupt the playa floor, rendering this critical asset useless for large footprint instruments
  - Railroad Valley is under the jurisdiction of the Bureau of Land Management and currently available for multiple uses
- **Objective:** Submit a “Withdrawal” application to preserve RRV
  - To preserve Railroad Valley in its natural state, the OCO-2 team is working with NASA HQ to prepare a “withdrawal application” to preclude the mining and other activities that will disturb the playa floor

Source: [http://www.3ploperating.com/3PL%20Website/NASA\\_JPL%20Ongoing%20Battle%20for%20Railroad%20Valley.pdf](http://www.3ploperating.com/3PL%20Website/NASA_JPL%20Ongoing%20Battle%20for%20Railroad%20Valley.pdf)





## GOSAT/OCO Experiments



- The OCO/GOSAT programs are examples of large footprint sensors that have been using RRV since 2009
- NASA Orbiting Carbon Observatory (OCO) and Japanese Greenhouse gases Observing SATellite (GOSAT) teams formed a close partnership to cross-calibrate their measurements and cross-validate their products
  - Missions include OCO-2 (2014), OCO-3 (Feb. 2019), GOSAT (2009) and GOSAT-2 (Oct. 2018)
  - All four missions require unprecedented calibration accuracy to meet their demanding (0.3%) data product accuracy requirements
  - Many of their science goals can only be addressed by combining data from all four missions, to produce a harmonized, continuous climate data record that spans the lifetimes of both missions
- Cross-calibration methods pioneered by the OCO/GOSAT collaboration have been adopted as best practice for cross-calibrating atmospheric composition sensors by the CEOS Atmospheric Composition-Virtual Constellation (AC-VC)

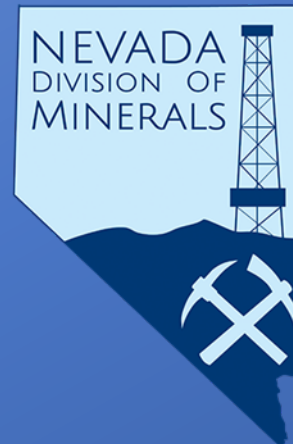
Source: [http://www.3ploperating.com/3PL%20Website/NASA\\_JPL%20Ongoing%20Battle%20for%20Railroad%20Valley.pdf](http://www.3ploperating.com/3PL%20Website/NASA_JPL%20Ongoing%20Battle%20for%20Railroad%20Valley.pdf)



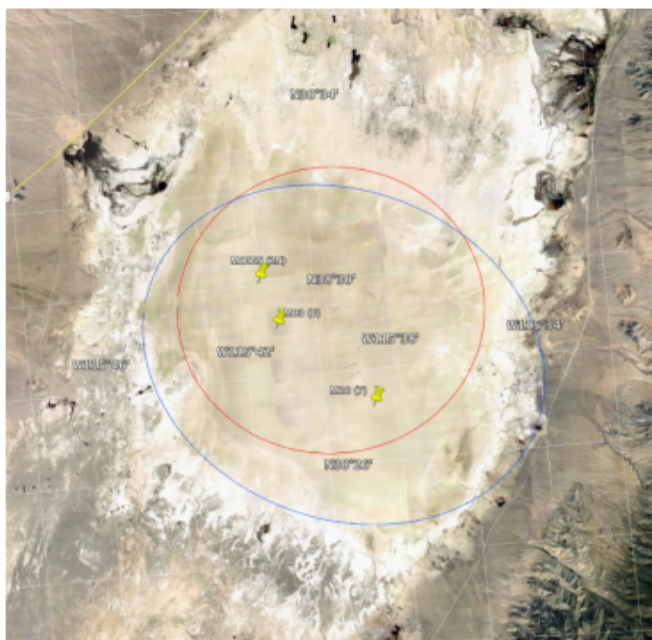




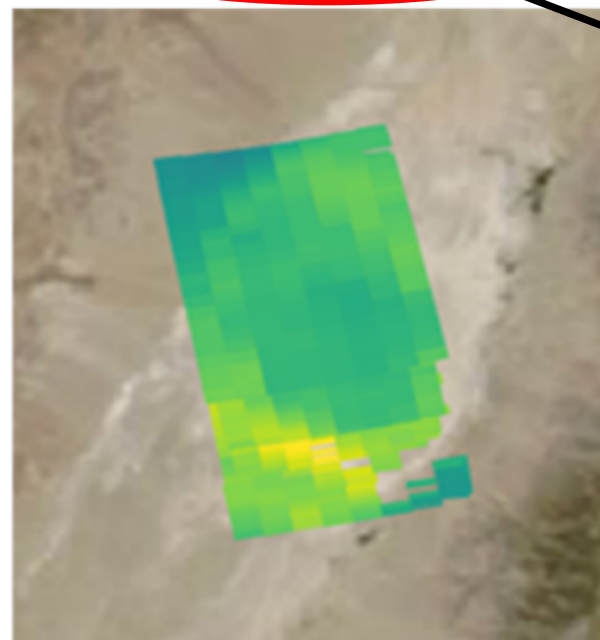
## Withdrawal request suitable for AC-VC needs



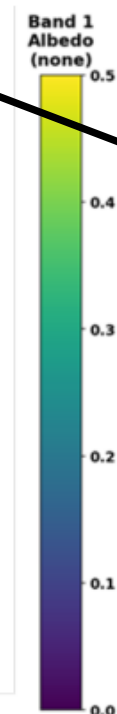
NASA will request that the dry lakebed playa at Railroad Valley (RRV), NV be withdrawn and preserved in its current state so that it can continue to be used for the routine calibration and validation of Earth observation instruments flown by NASA and its partners. The subject area of NASA's withdrawal request is an approximately 43,000-acre flat playa.



GOSAT footprints on the RRV Playa



OCO-2 Target Observations over RRV

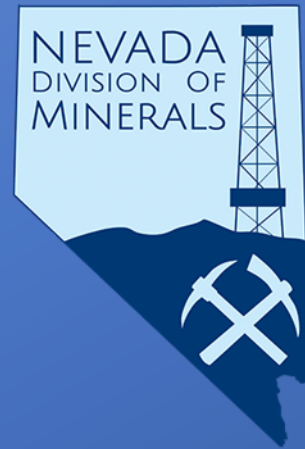


23,000 acres

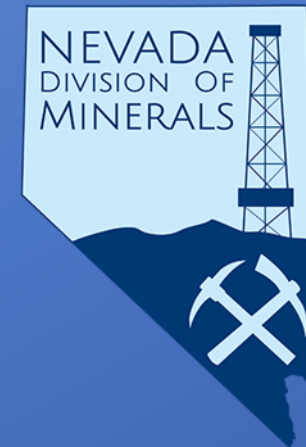




# *Future of Oil in Nevada*



- Reserves continue to decline-new discoveries could reverse this trend.
- Geology of Nevada makes large new field discoveries difficult because of highly faulted and complex stratigraphy, plus volcanics can interfere with seismic interpretation.
- Higher prices due to global instability could entice out of state operators to explore Nevada.
- New techniques to extract from existing fields could increase production.
- Federal leases and permitting could become more difficult depending on the political environment.



# *Geothermal*





# Geothermal Development 2021

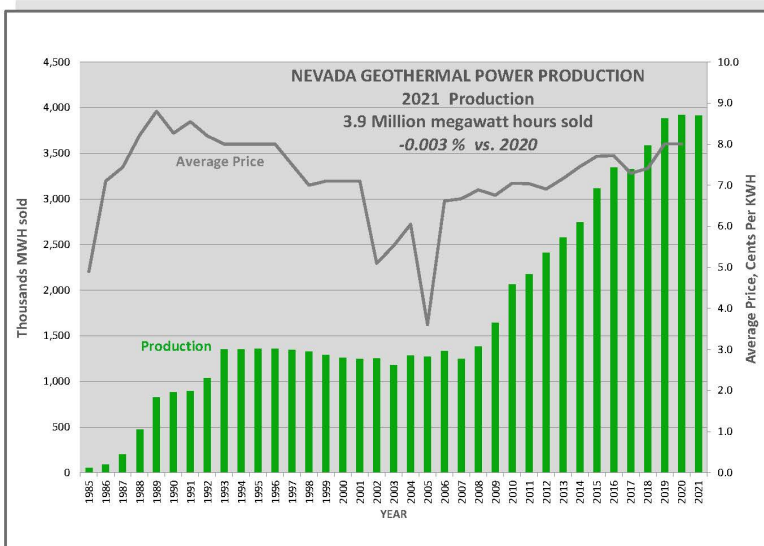


**Wells Completed**  
1 Industrial Injection  
1 Industrial Production

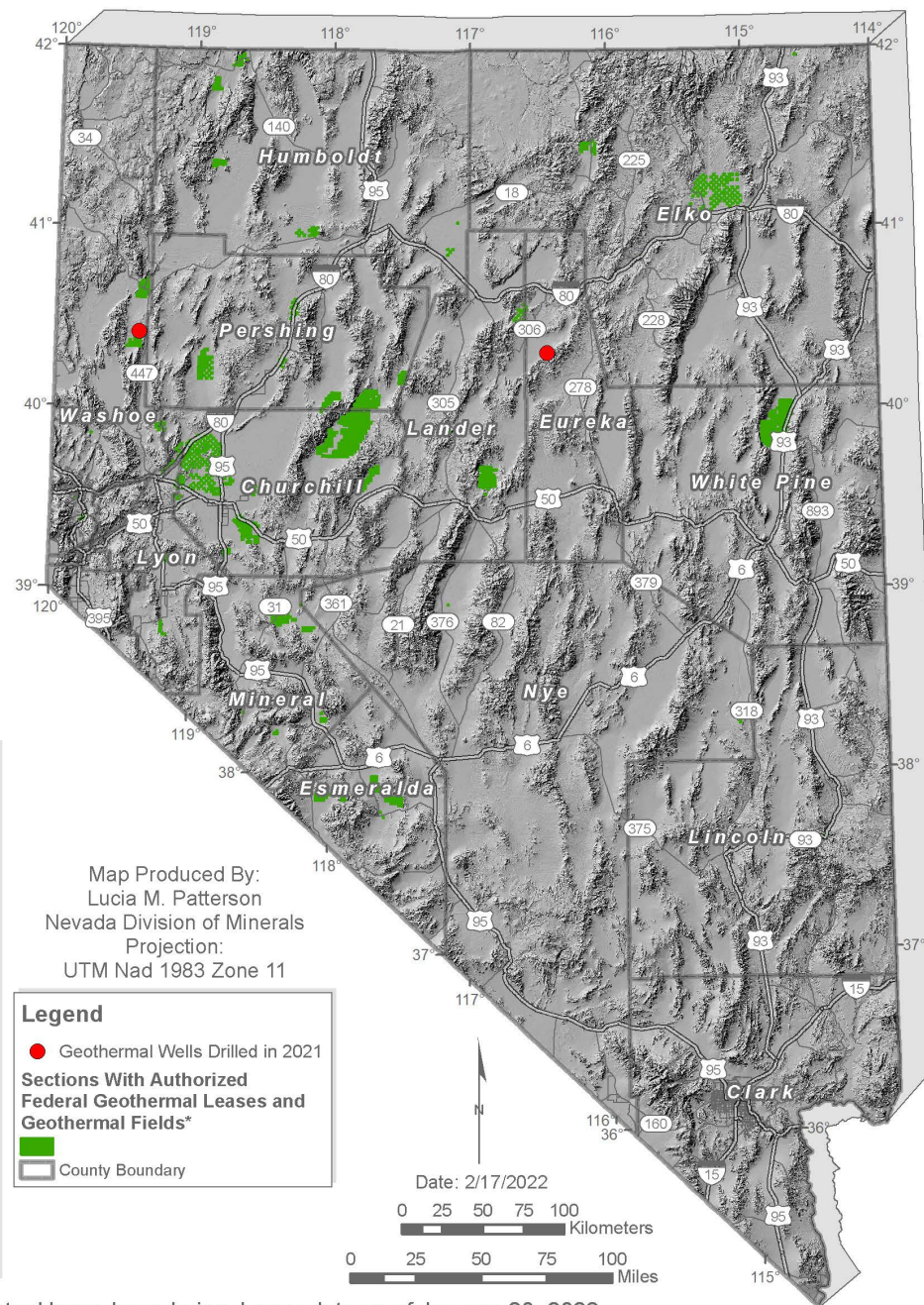
As of January 20, 2022 there were 463 permitted commercial and industrial geothermal wells.  
(Injection, production or observation wells that are ; active or shut-in)

There are 25 active geothermal plants in Nevada

There are 319 authorized geothermal leases as of January 20, 2022 which total 676,434 acres



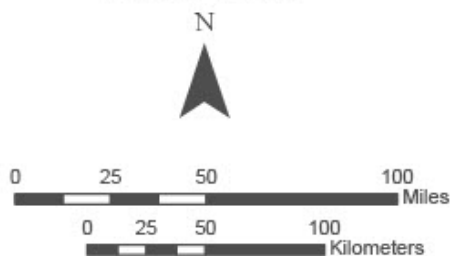
\*Authorized leases are plotted by section and do not necessarily depict actual lease boundaries. Lease data as of January 20, 2022



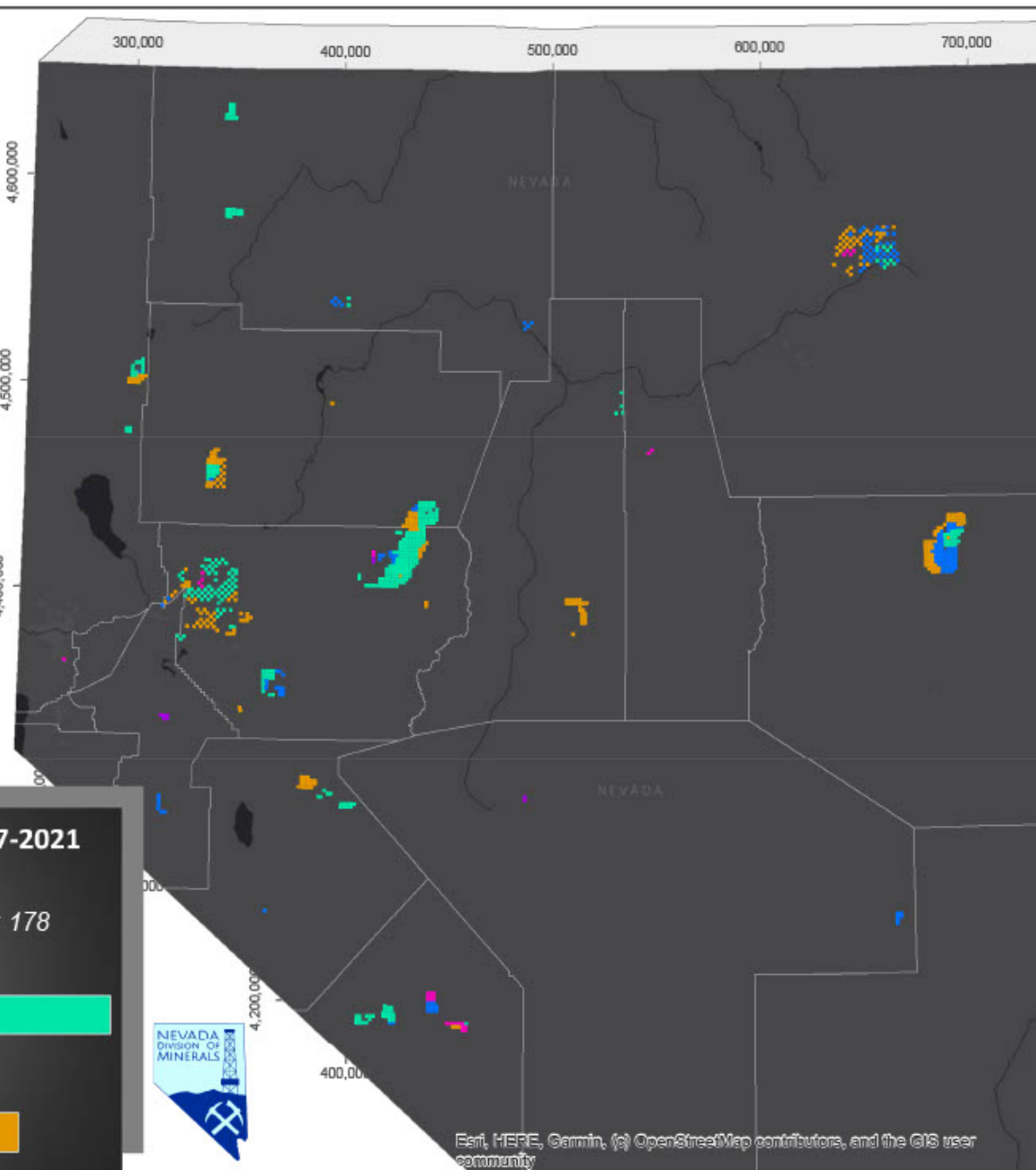


# Geothermal Leases Authorized 2017 - 2021

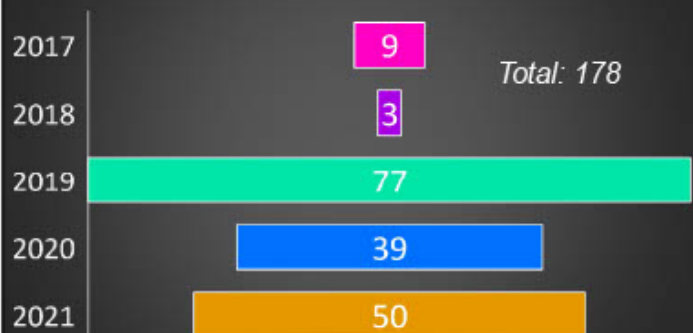
Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 15, 2022



Authorized leases plotted using BLM case type codes:  
321200, 321000, 321300, 322000, & 322300  
Action Codes:  
237, 209, & 553  
Data as of: January 20, 2022



## Geothermal Leases Authorized 2017-2021



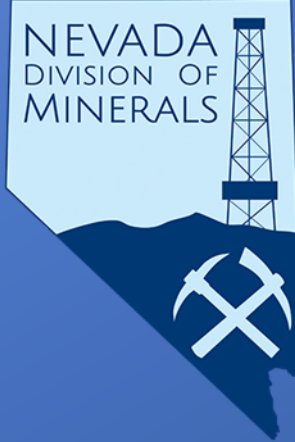
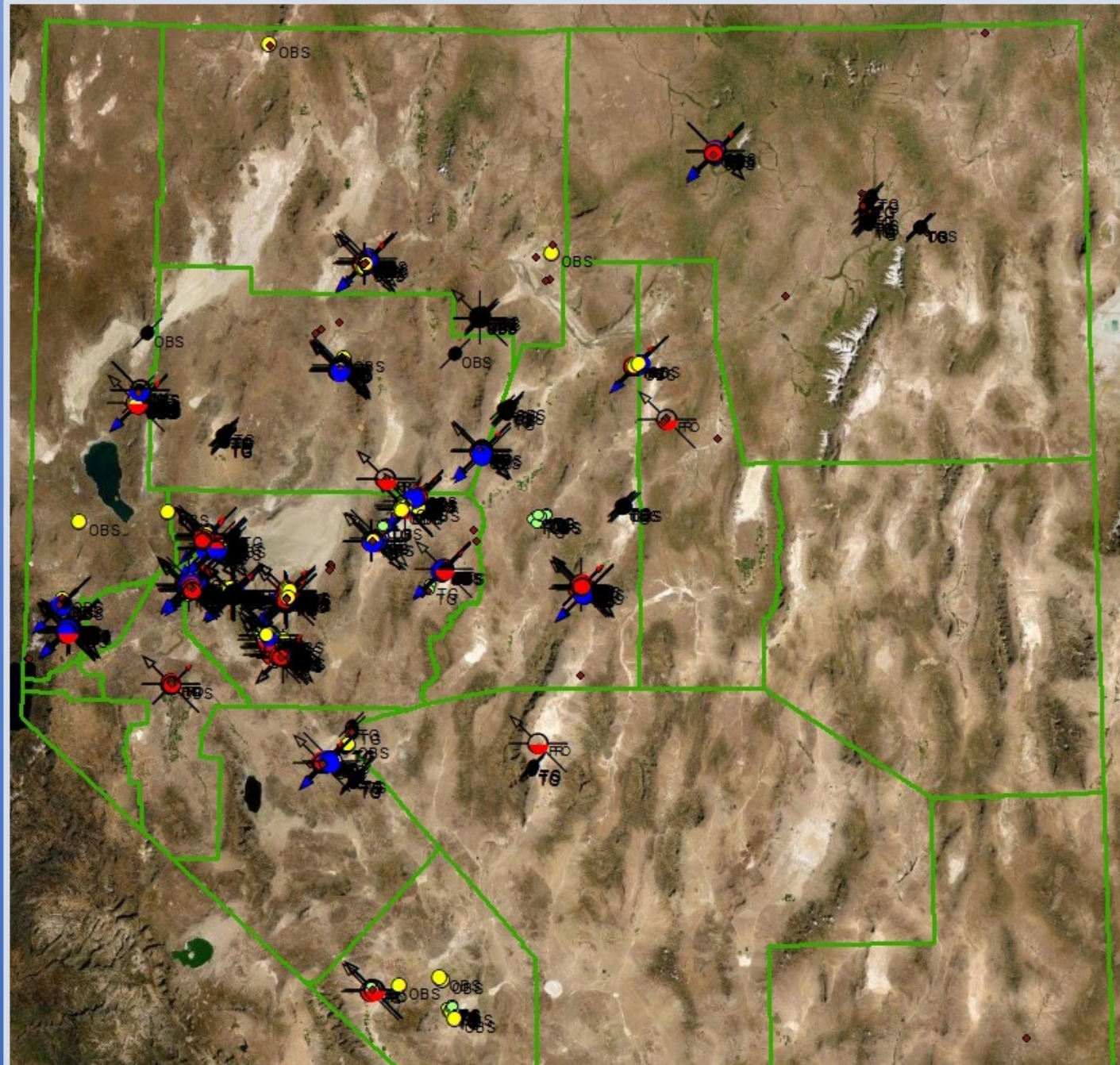
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



# 637 Open Wells

- 121 Active Industrial Production Wells
- 72 Shut In Industrial Production Wells
- 79 Active Industrial Injection Wells
- 36 Shut In Industrial Injection Wells
- 3 Active Commercial Production Wells
- 7 Shut In Commercial Production Wells
- 4 Active Commercial Injection Wells
- 5 Shut In Commercial Injection Wells
- 136 Observation Wells
- 85 Thermal Gradient Wells
- 89 Domestic Wells

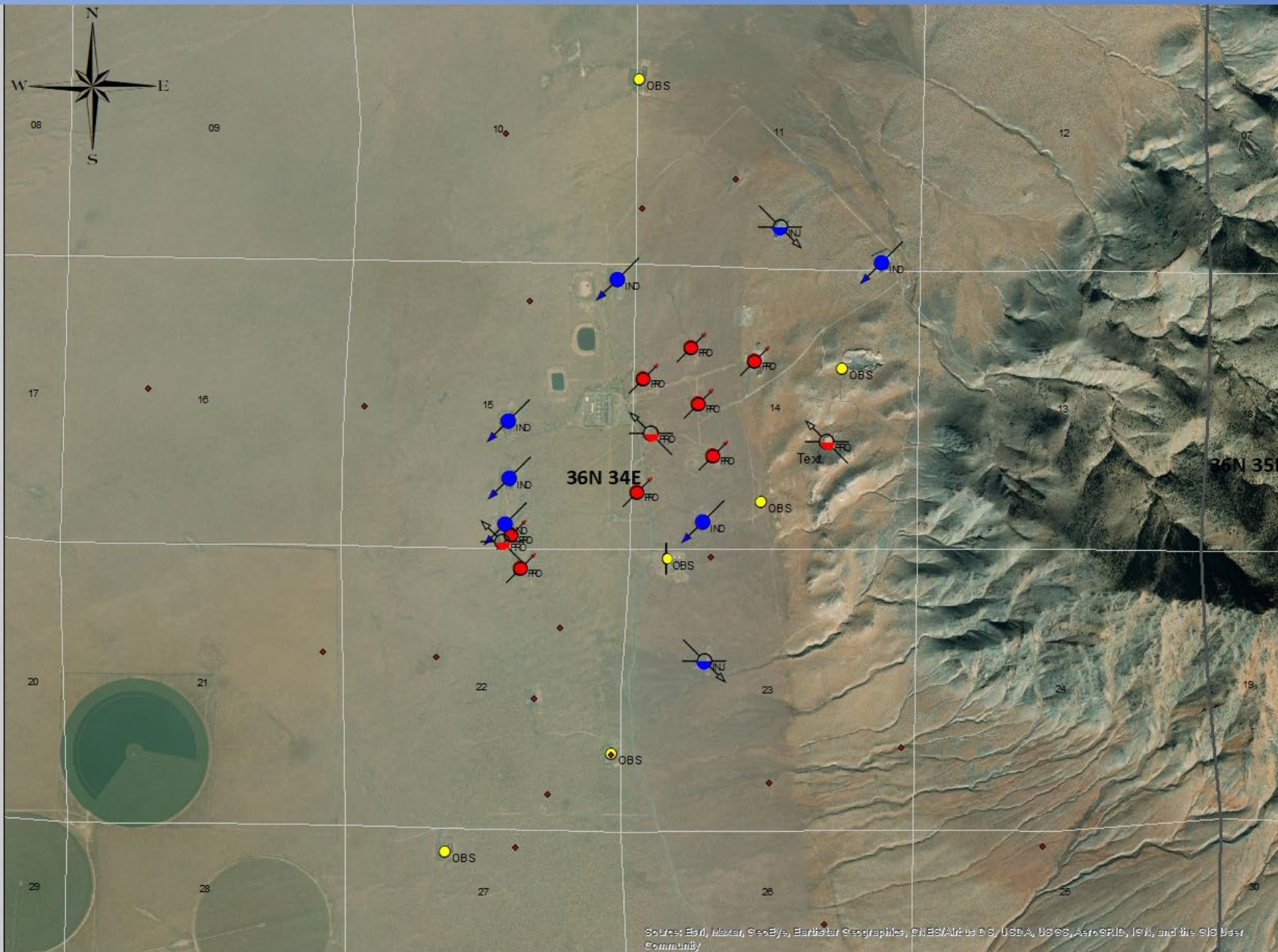
## Nevada Geothermal Wells ~881 Wells Drilled



### Well Type, Status

	Ind-Inj, In Use
	Ind-Inj, P&A
	Ind-Inj, Shut-In
	Ind-Prod, In Use
	Ind-Prod, P&A
	Ind-Prod, Shut-In
	Obs, In Use
	Obs, P&A
	Obs, Shut-In
	TG, In Use
	TG, P&A
















# Blue Mountain Geothermal Field

## GeoDHForGE

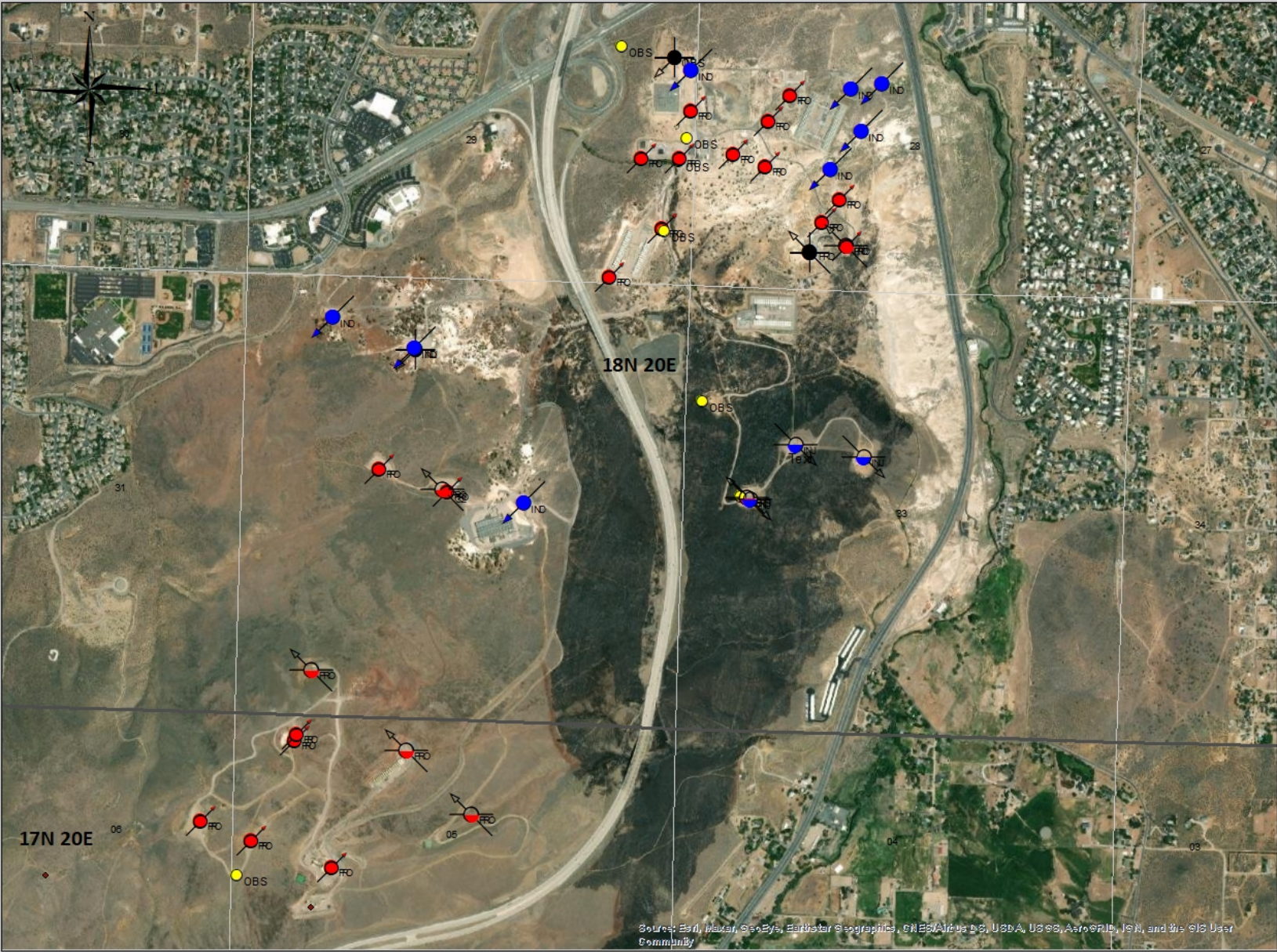
• <all other values>

## Well Type, Status

-  Ind-Inj, In Use
-  Ind-Inj, P&A
-  Ind-Inj, Shut-In
-  Ind-Prod, In Use
-  Ind-Prod, P&A
-  Ind-Prod, Shut-In
-  Obs, In Use
-  Obs, P&A
-  Obs, Shut-In
-  TG, In Use
-  TG, P&A



# Steamboat Geothermal Field



## Steamboat Geothermal Field

### GeoDHForGE

• <all other values>

### Well Type, Status

- Ind-Inj, In Use
- Ind-Inj, P&A
- Ind-Inj, Shut-In
- Ind-Prod, In Use
- Ind-Prod, P&A
- Ind-Prod, Shut-In
- OBS, In Use
- OBS, P&A
- OBS, Shut-In
- TG, In Use
- TG, P&A

Source: Esri, DeLorme, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



# Nevada Geothermal Wells Permitted and Drilled 2017-2022



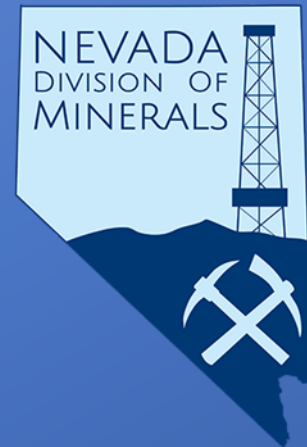
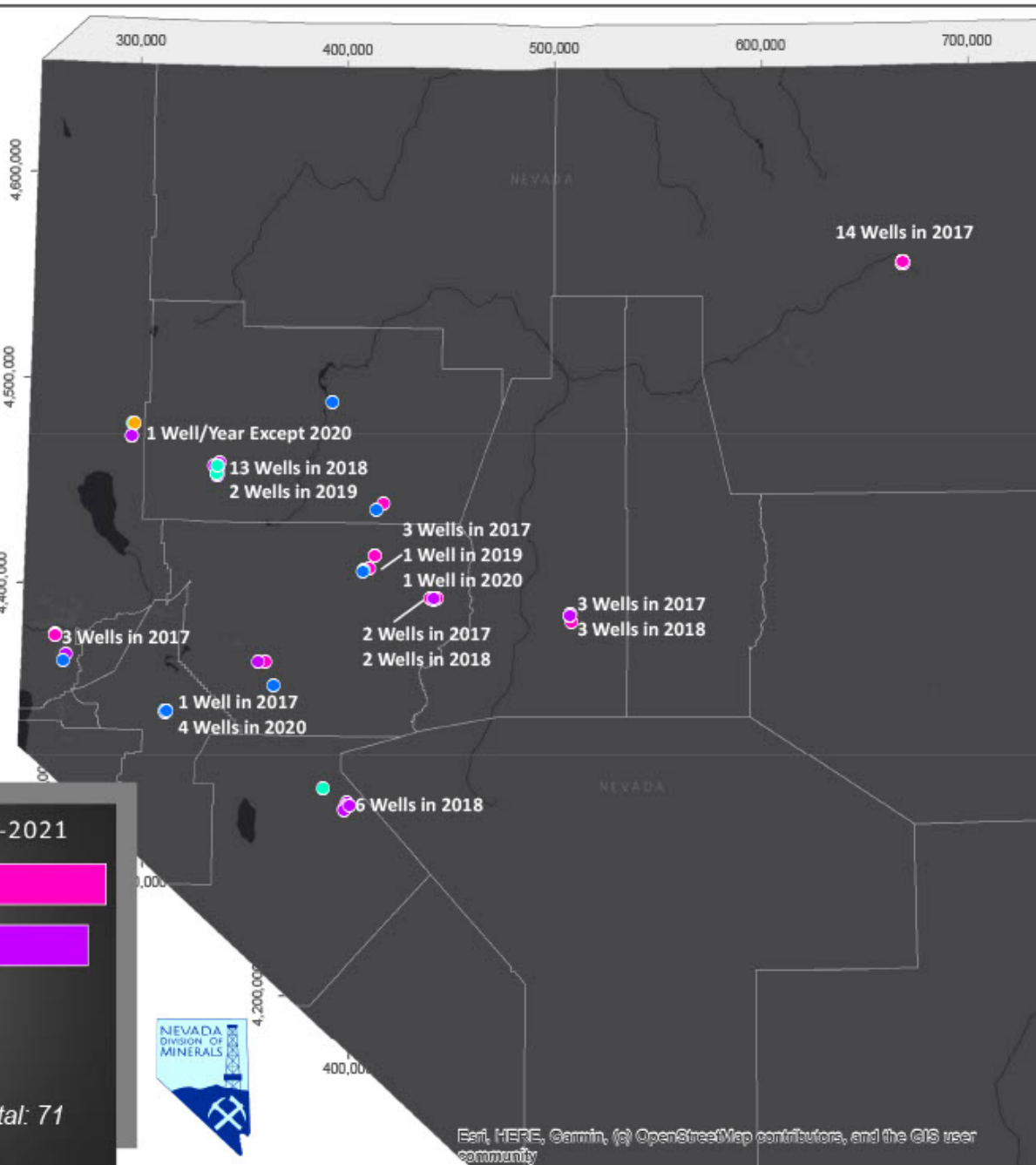
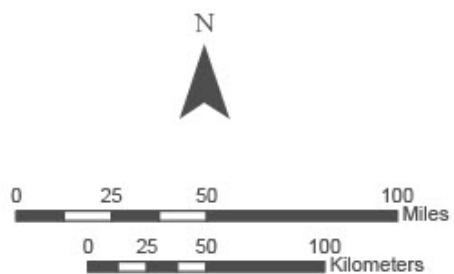
Permit Type	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled	Issued	Drilled
	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021
Geothermal - Ind Production	6	4	3	4	1	1	2	1	14	1
Geothermal - Ind Inj	4	4	1	1	3	2	1	1	10	---
Geothermal - Observation	3	1	3	3	1	1	4	---	2	1
Geothermal - TG	19	15	18	19	2	2	1	1	---	---
Geothermal - Com	---	---	---	---	---	---	---	---	---	---
Geothermal - Dom	2	2	---	---	---	---	---	---	---	---
Geothermal - Project Area	1	---	---	---	---	---	---	---	1	---
Geothermal - Total	35	26	25	27	7	6	8	3	27	2
Oil & Gas	0	1	3	1	3	1	2	1	2	2





# Geothermal Wells Completed 2017 - 2021

Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 15, 2022

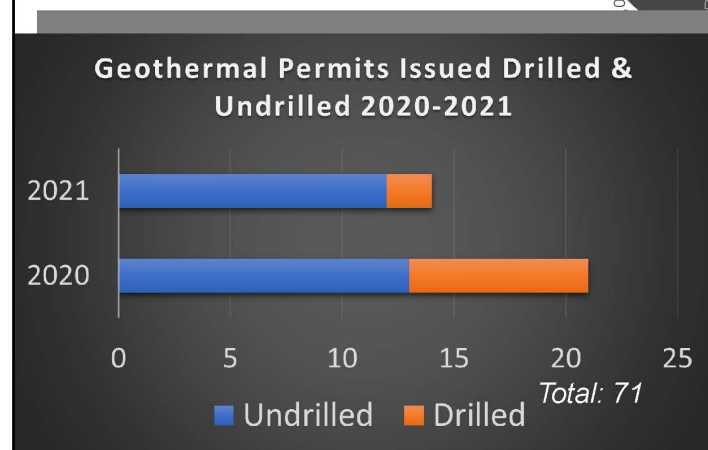
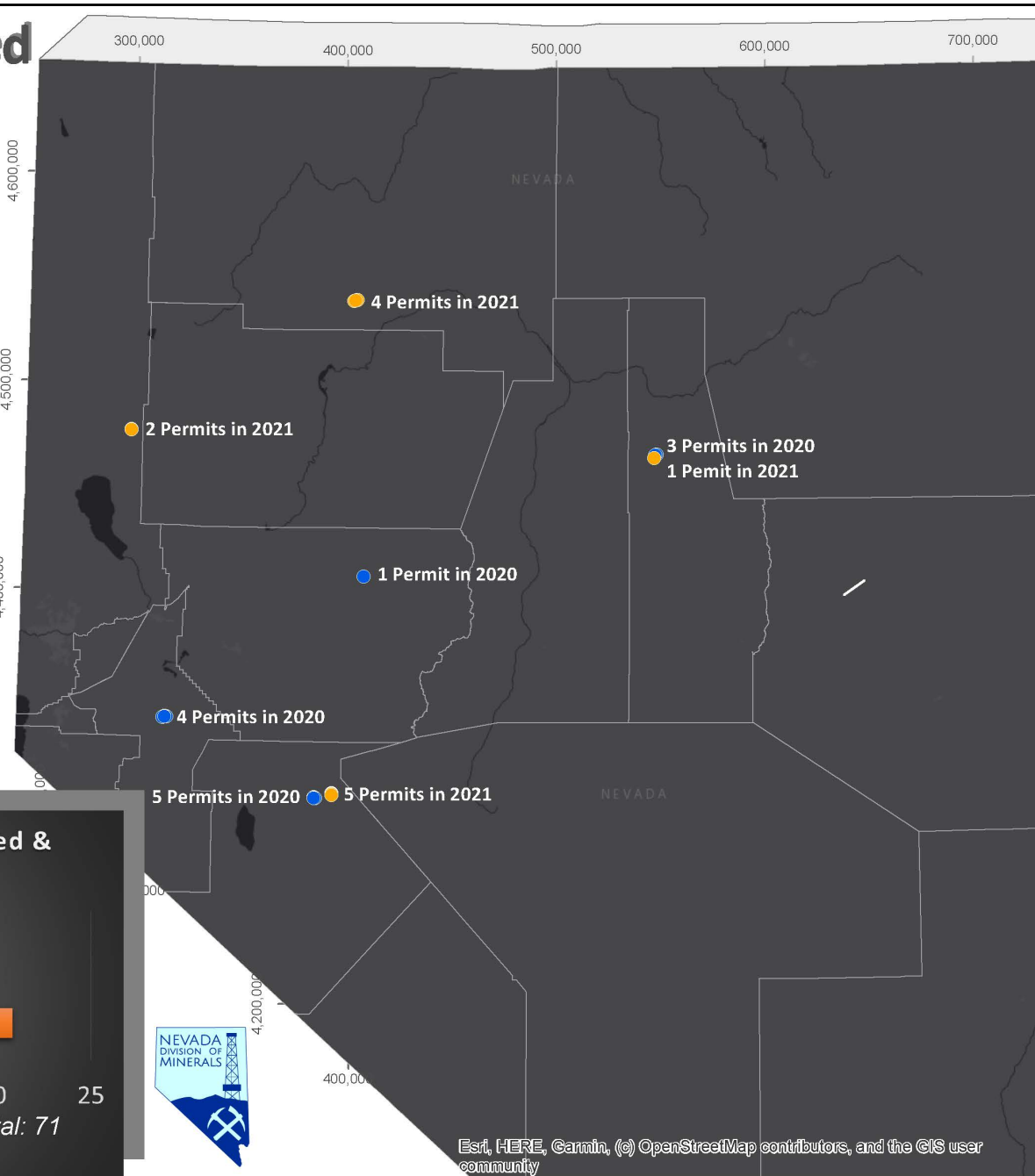
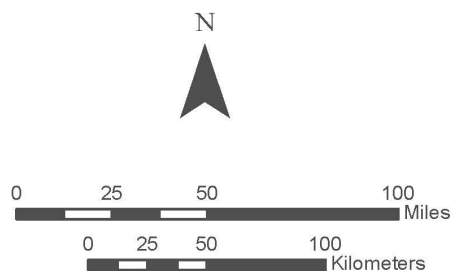


Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

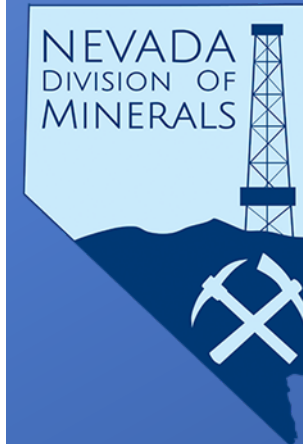


# Geothermal Undrilled Permits Issued 2020 - 2021

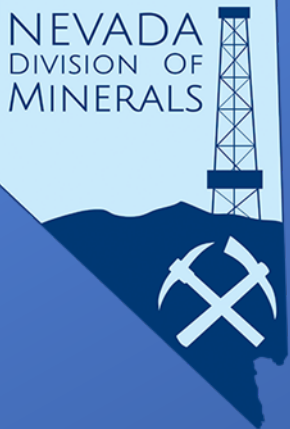
Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 15, 2022



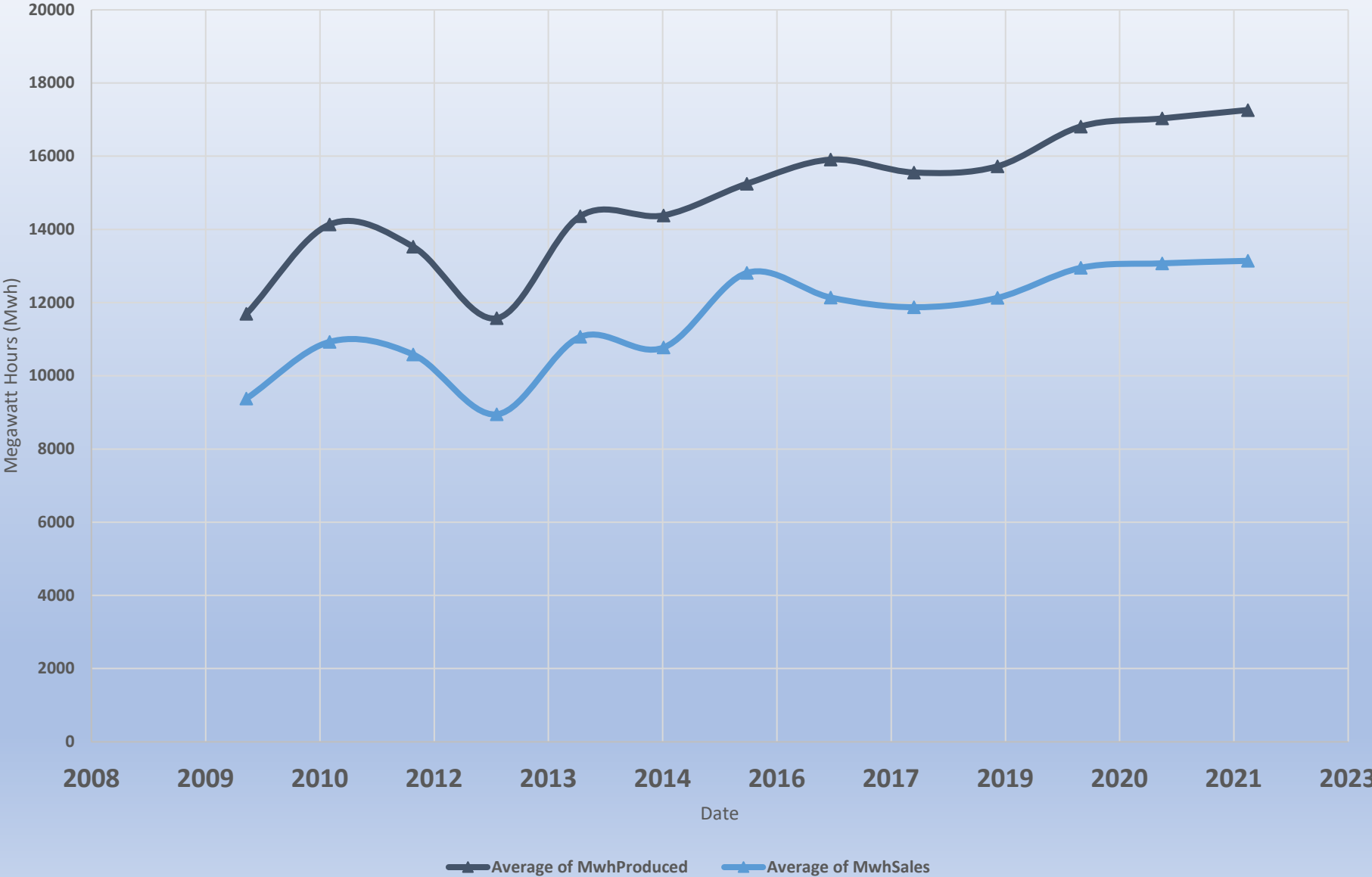
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community







# Average Geothermal Mwh Produced and Sold in Nevada



Average=77.8%  
Sold to market



## *NV Energy Greenlink Nevada*

NEVADA  
DIVISION OF  
MINERALS





## The transmission initiative will be made up of:

- Greenlink West will be a 525 kV line that spans approximately 350 miles from Las Vegas, NV to Yerington, NV.
- Greenlink North will be a 525 kV line that spans approximately 235 miles from Ely, NV to Yerington, NV.
- Greenlink Nevada will also include three 345 kV lines from Yerington, NV to the Reno, NV area.

## Environmental Benefits

Greenlink Nevada is essential to helping Nevada achieve its climate action and de-carbonization goals and increased renewable portfolio standard, moving Nevada closer to a future powered by 100% renewable energy and reducing Nevada's carbon footprint.

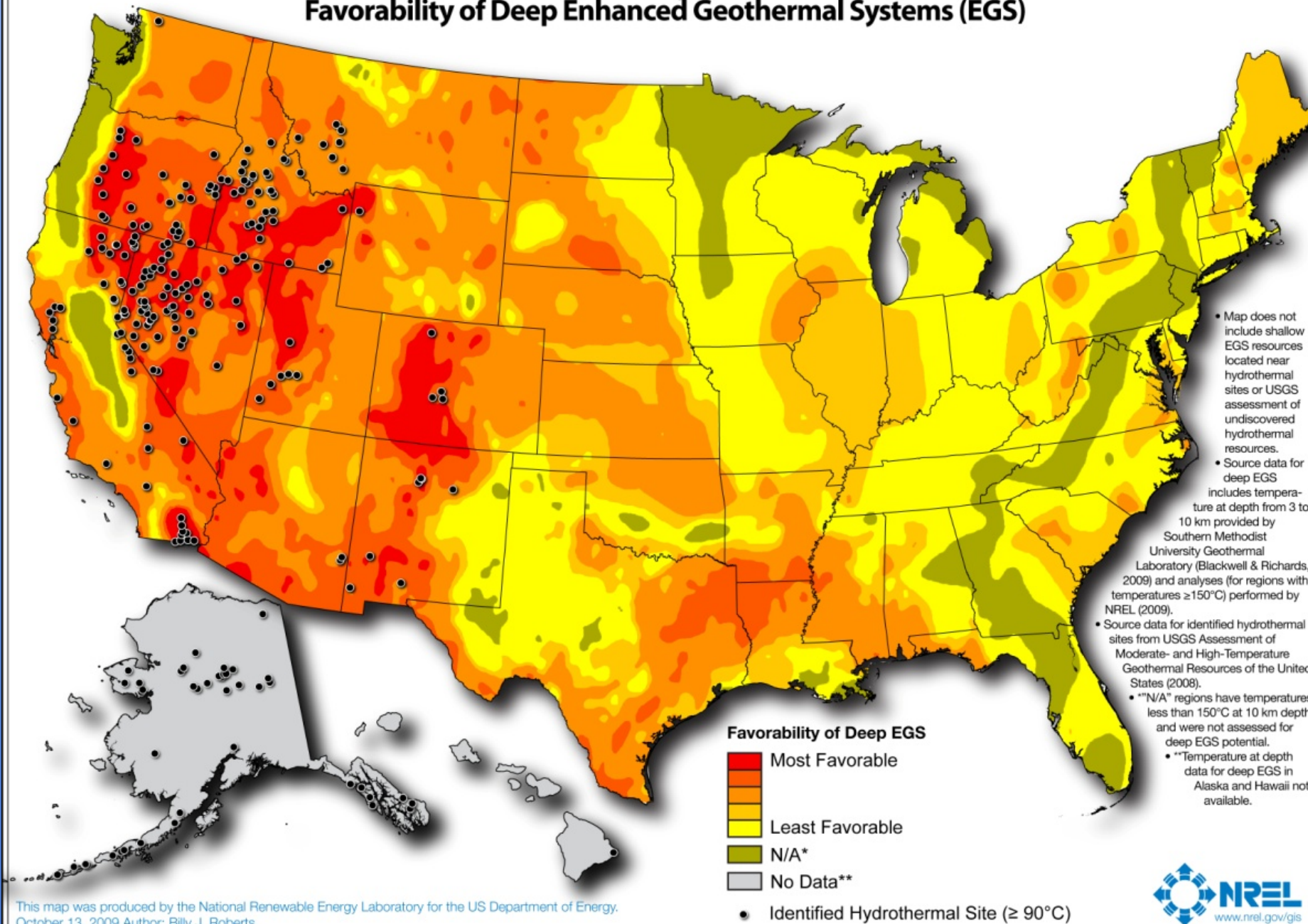
- Creates a renewable energy highway that allows access to Nevada's resource-rich renewable energy zones, containing about 4,000 megawatts of undeveloped renewable resources, that could not previously be developed due to the lack of necessary transmission infrastructure
- Diversifies Nevada's renewable portfolio by creating access to affordable geothermal, wind and hydro energy across the Western United States





# Geothermal Resource of the United States

## Locations of Identified Hydrothermal Sites and Favorability of Deep Enhanced Geothermal Systems (EGS)



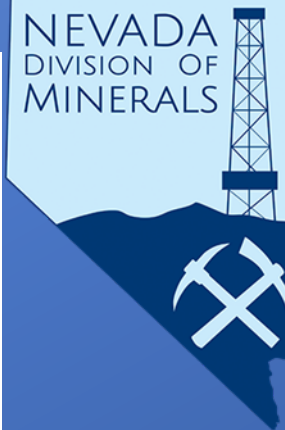
NEVADA  
DIVISION OF  
MINERALS



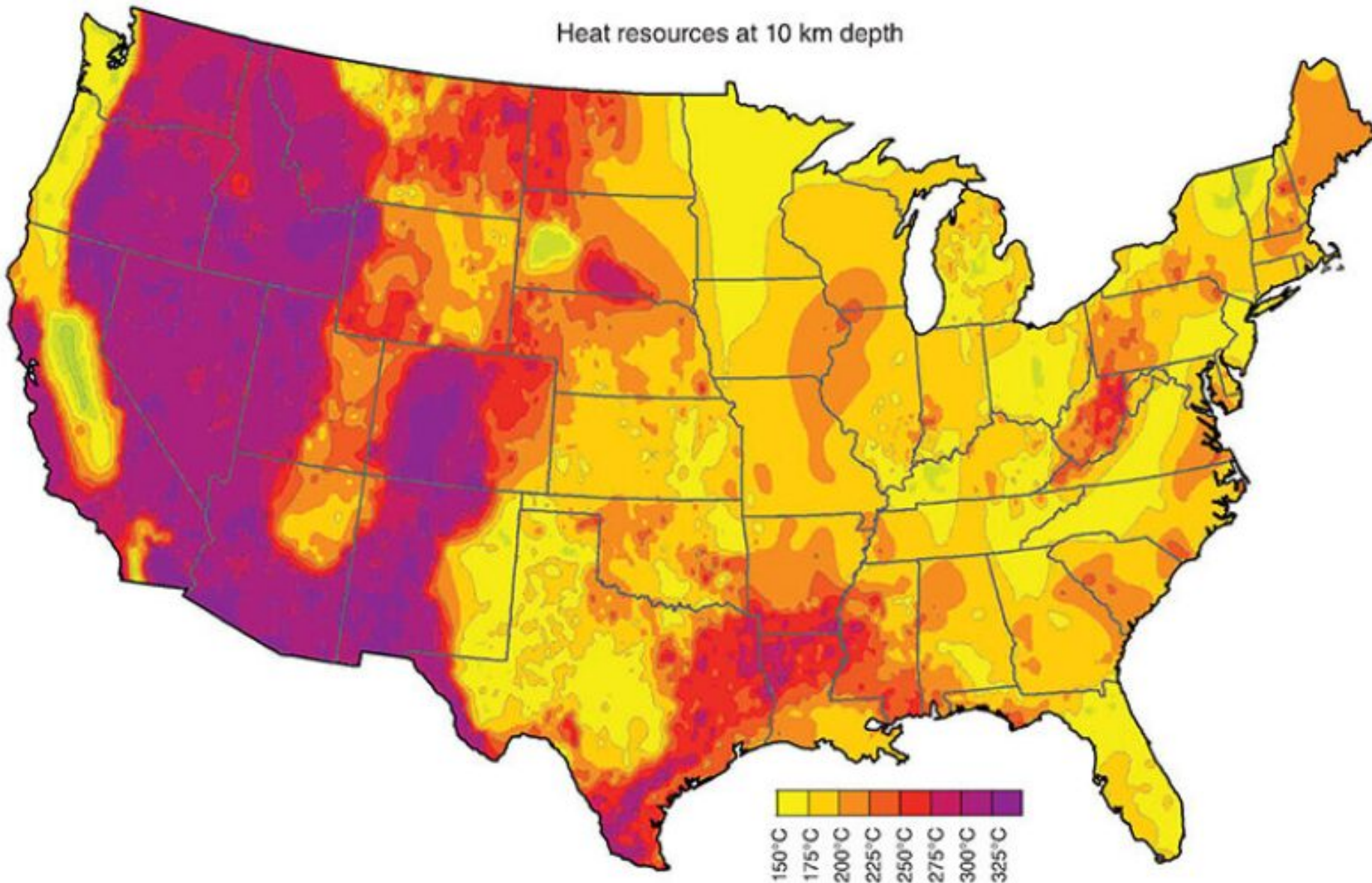
[https://www.api.org/news-policy-and-issues/blog/2012/08/07/~media/EnergyTomorrow/blog/geothermal\\_map.jpg.ashx](https://www.api.org/news-policy-and-issues/blog/2012/08/07/~media/EnergyTomorrow/blog/geothermal_map.jpg.ashx)







Heat resources at 10 km depth



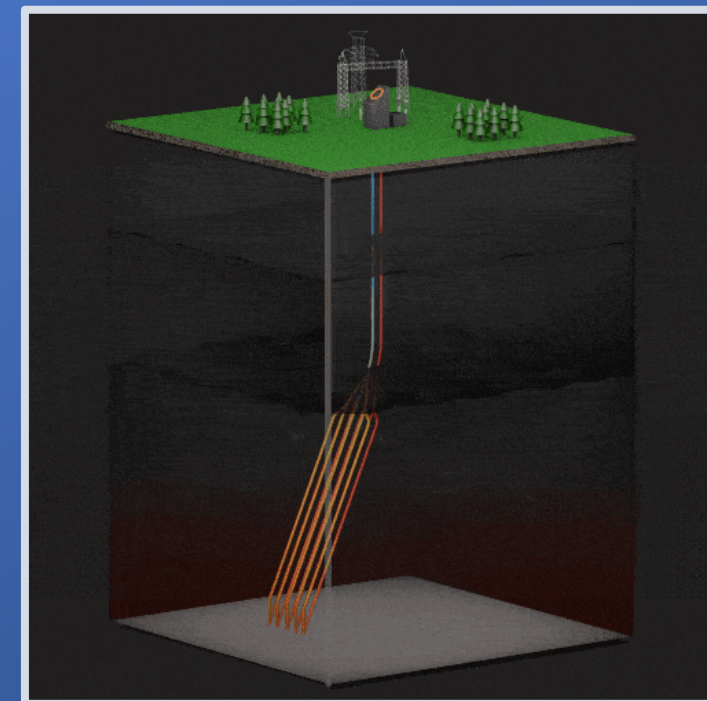
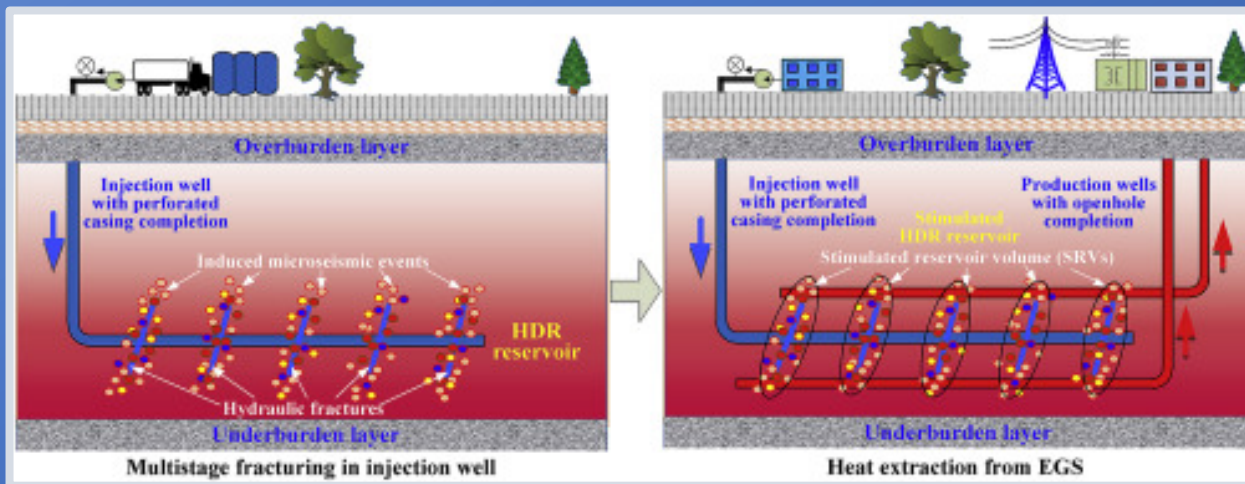
<https://jpt.spe.org/google-taps-ferro-energy-to-develop-enhanced-geothermal-systems-in-nevada>



# Future of Geothermal in Nevada



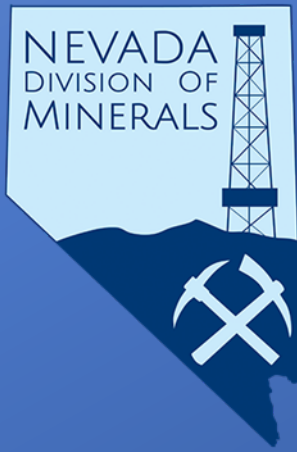
- Continued exploration of traditional geothermal systems.
- EGS- Enhanced Geothermal System, closed loop and hydraulically stimulated systems, combination of solar and geothermal systems.
- Improved power plant efficiency.
- More remote areas available due to increased infrastructure (NV Energy Greenlink).
- Government funded projects in existing oilfields.
- Lithium extraction from brine water.



<https://www.eavor.com/>

<https://www.sciencedirect.com/science/article/abs/pii/S0960148119316118>





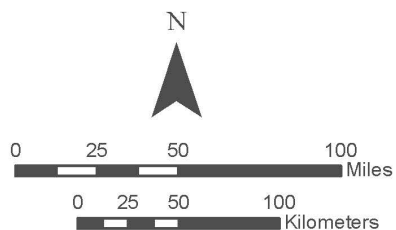
# Dissolved Mineral Resource Exploration (DMRE)





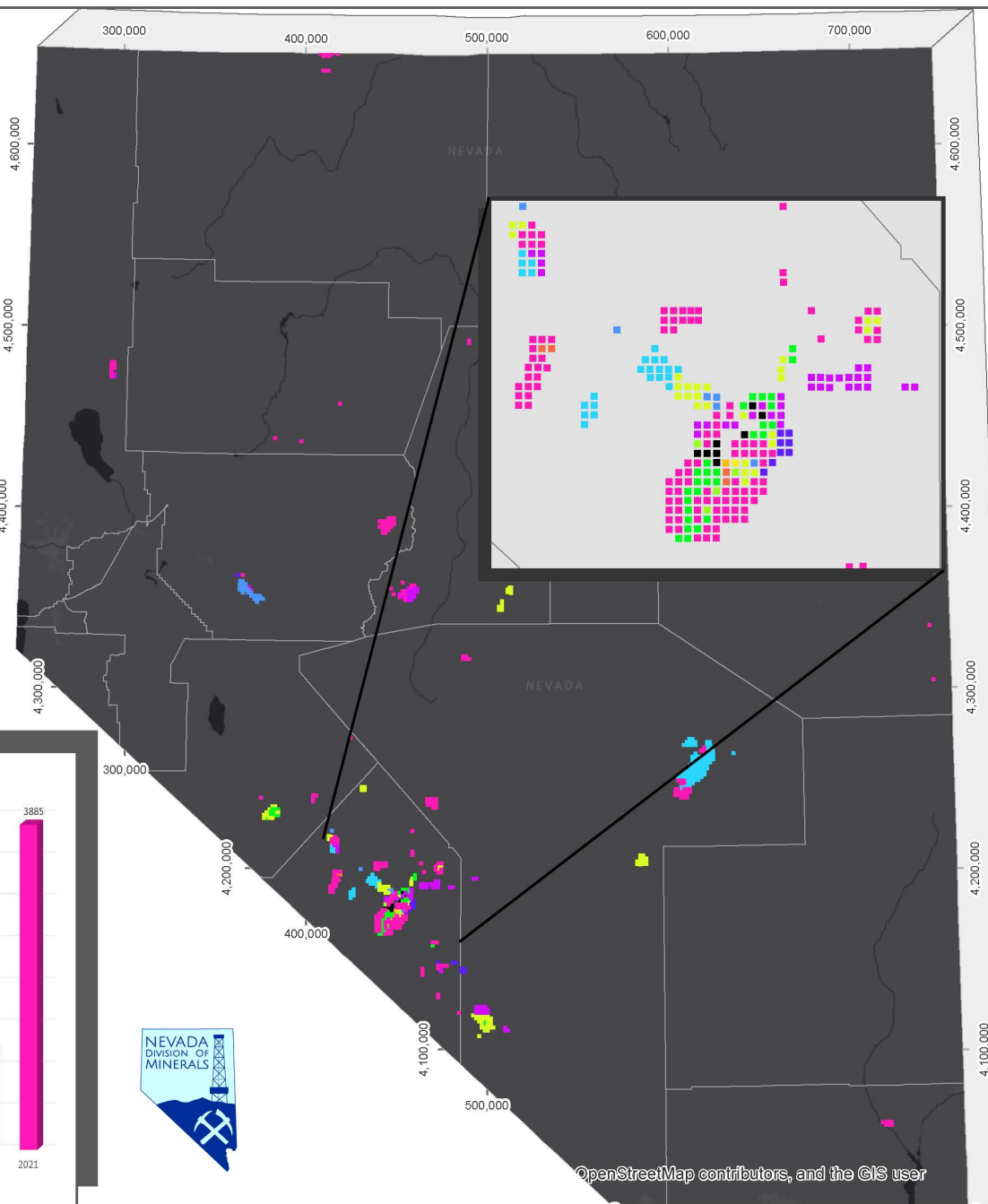
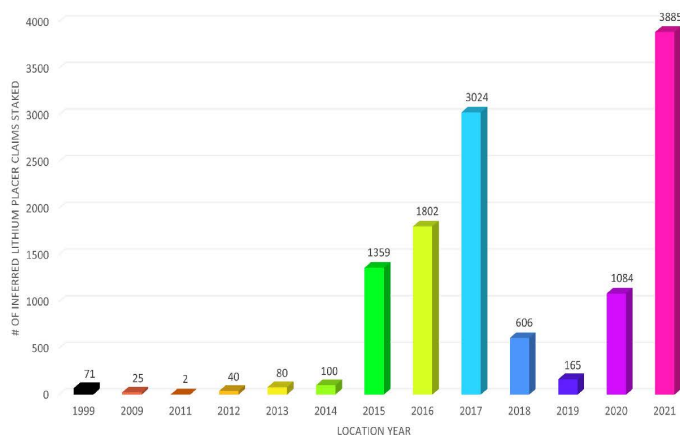
# Inferred Lithium Placer Claims Location 2017 - 2021

Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 23, 2022



*There is an estimated 12,291 active, filed, and submitted placer claims in the BLM's MLRS database, presumably for lithium brine, as of January 24, 2022.*

# OF INFERRED LITHIUM PLACER CLAIMS STAKED/YEAR



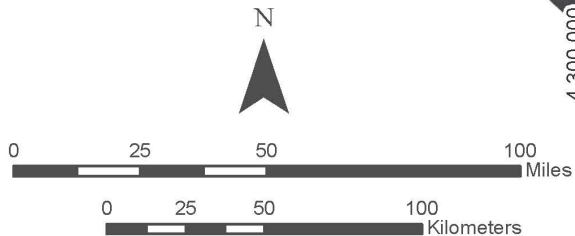
OpenStreetMap contributors, and the GIS user



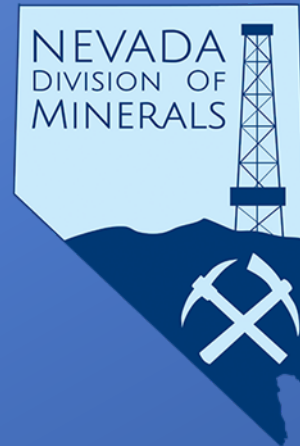
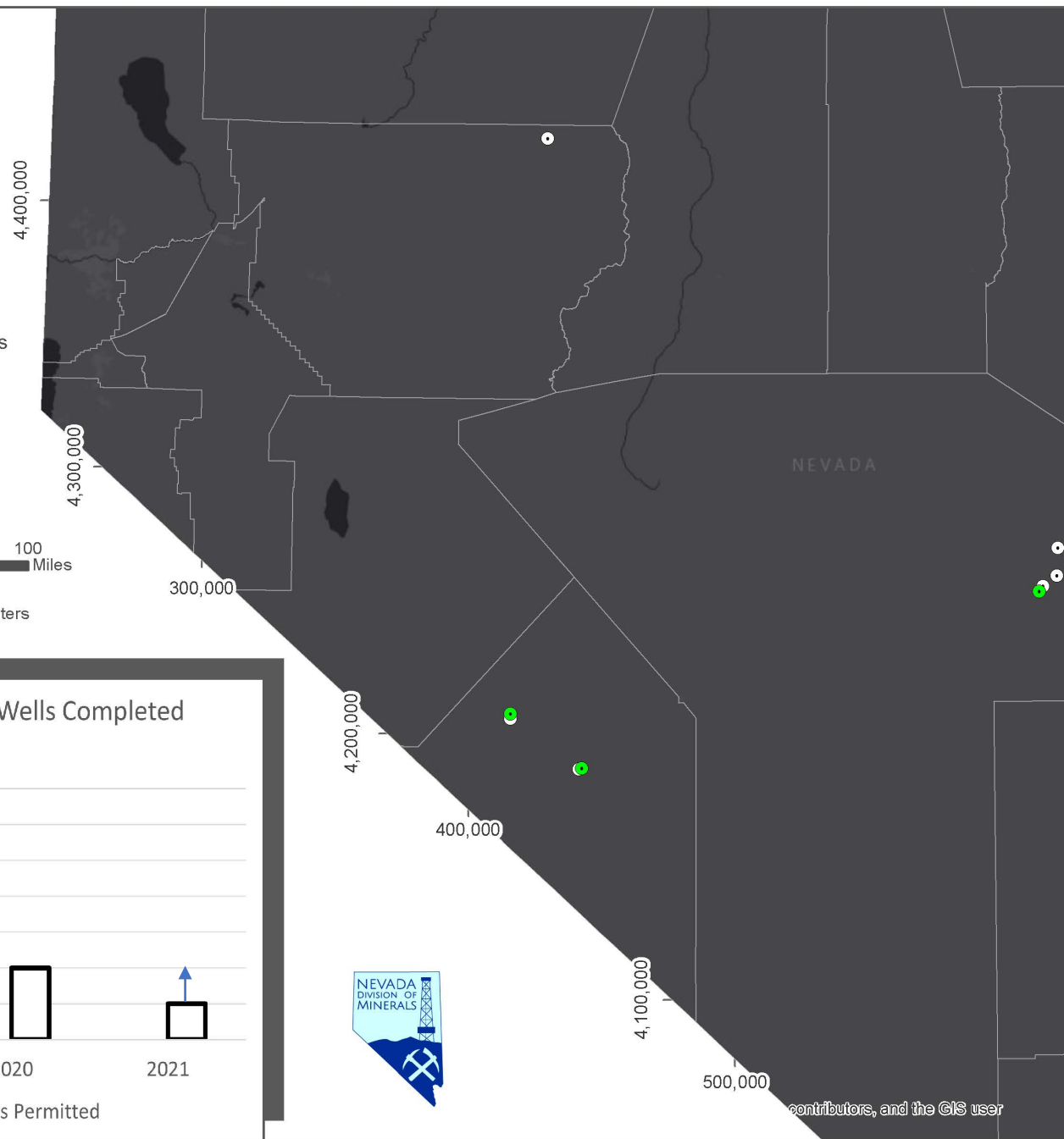
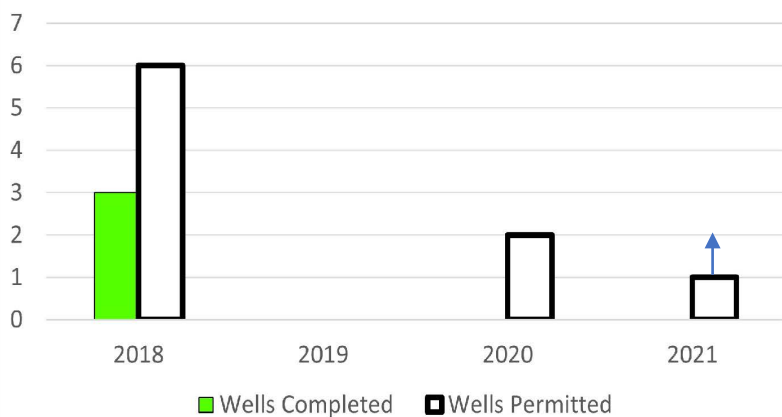


# DMRE Wells Permitted & Completed 2018 - 2021

Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 23, 2022



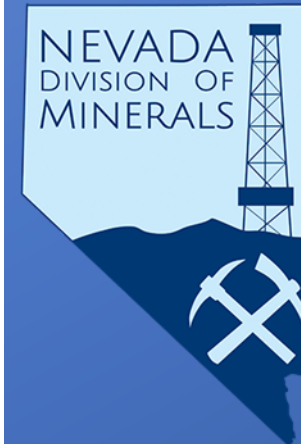
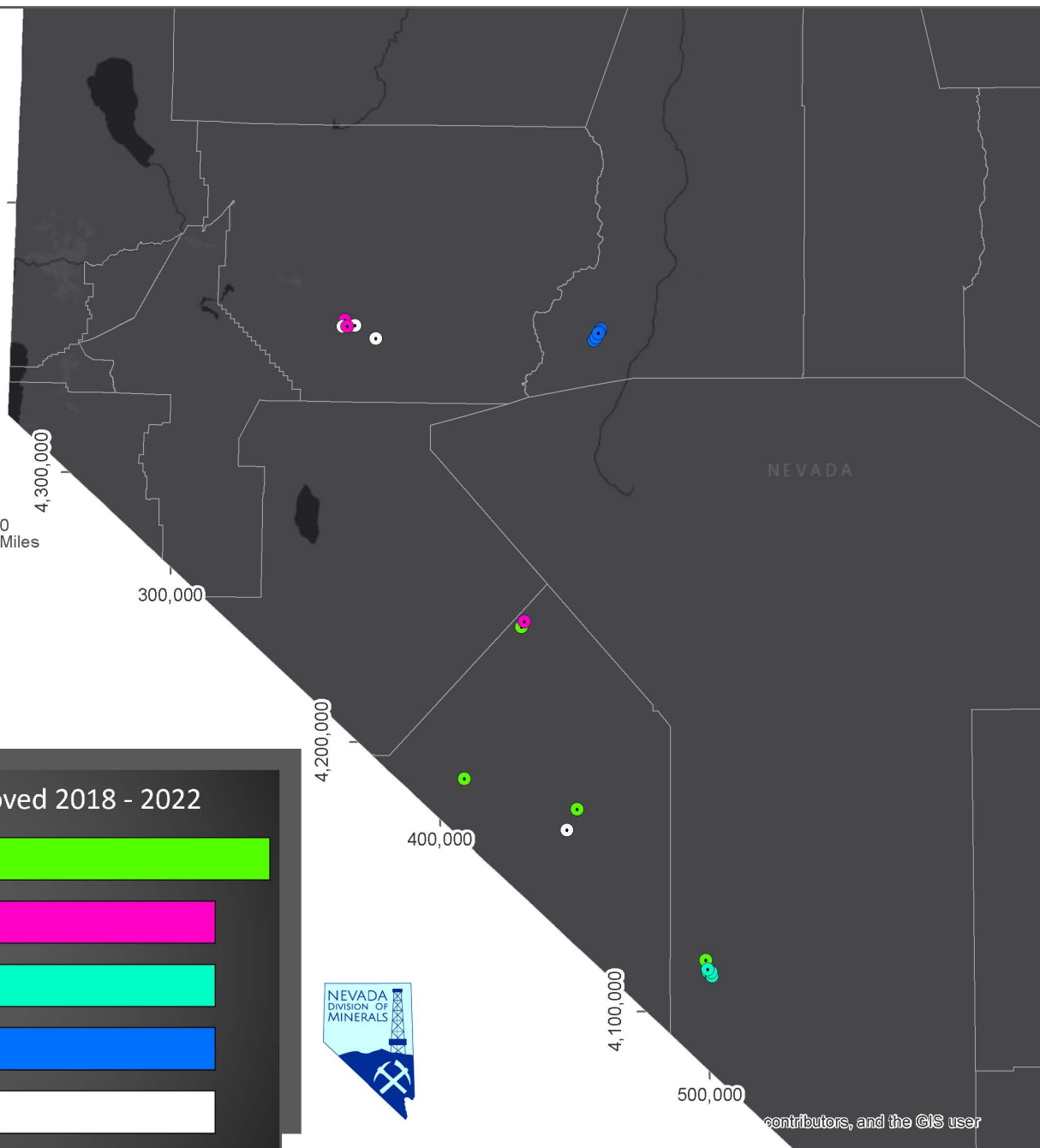
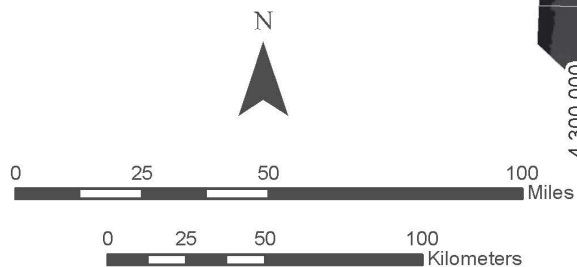
### DMRE Wells Permitted Versus Wells Completed 2018-2022





# DMRE Borehole Notices Approved 2018 - 2021

Map Produced By:  
Lucia Patterson, Nevada Division of Minerals  
UTM NAD 1983 Zone 11  
February 23, 2022





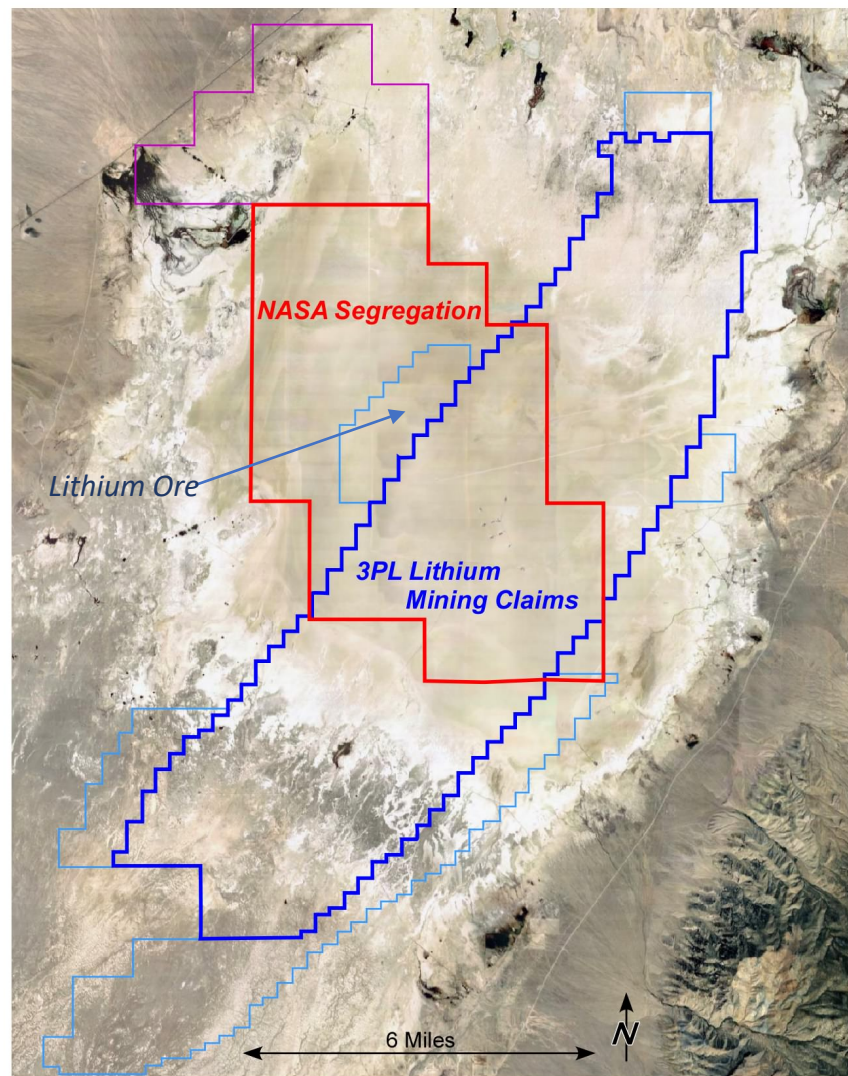
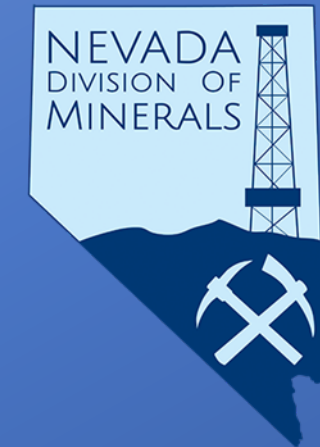
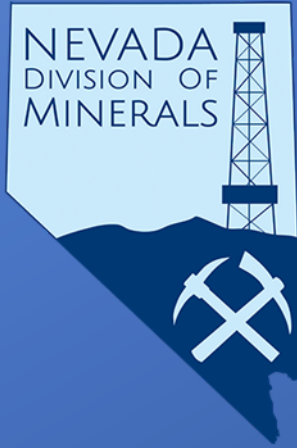


Figure 1. The NASA Segregation area in Railroad Valley is 23,000 acres. 3PL lithium mining claims (dark blue) and other mining claim blocks are shown in light blue and purple. NASA intends to use 5,000 acres, but requests to stop public use in the Segregated area. They currently use 6 acres.



# ***Future of Dissolved Mineral Resource Exploration in Nevada***



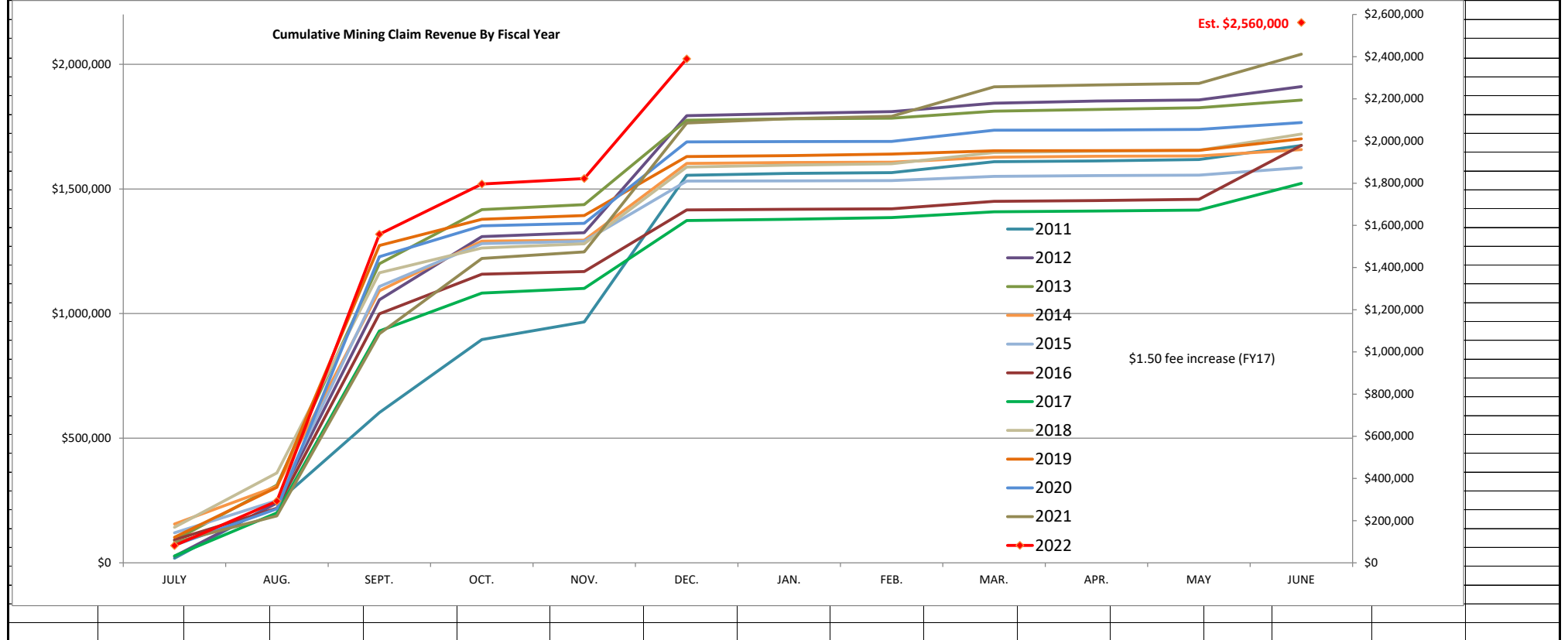
- Increase in demand and price of lithium.
- Direct lithium extraction, removes need for evaporation ponds and provides timely production of high-grade lithium.
- Exploration of new claims.
- Government support to become less reliant on foreign lithium resources.

## **IV. OLD BUISNESS**



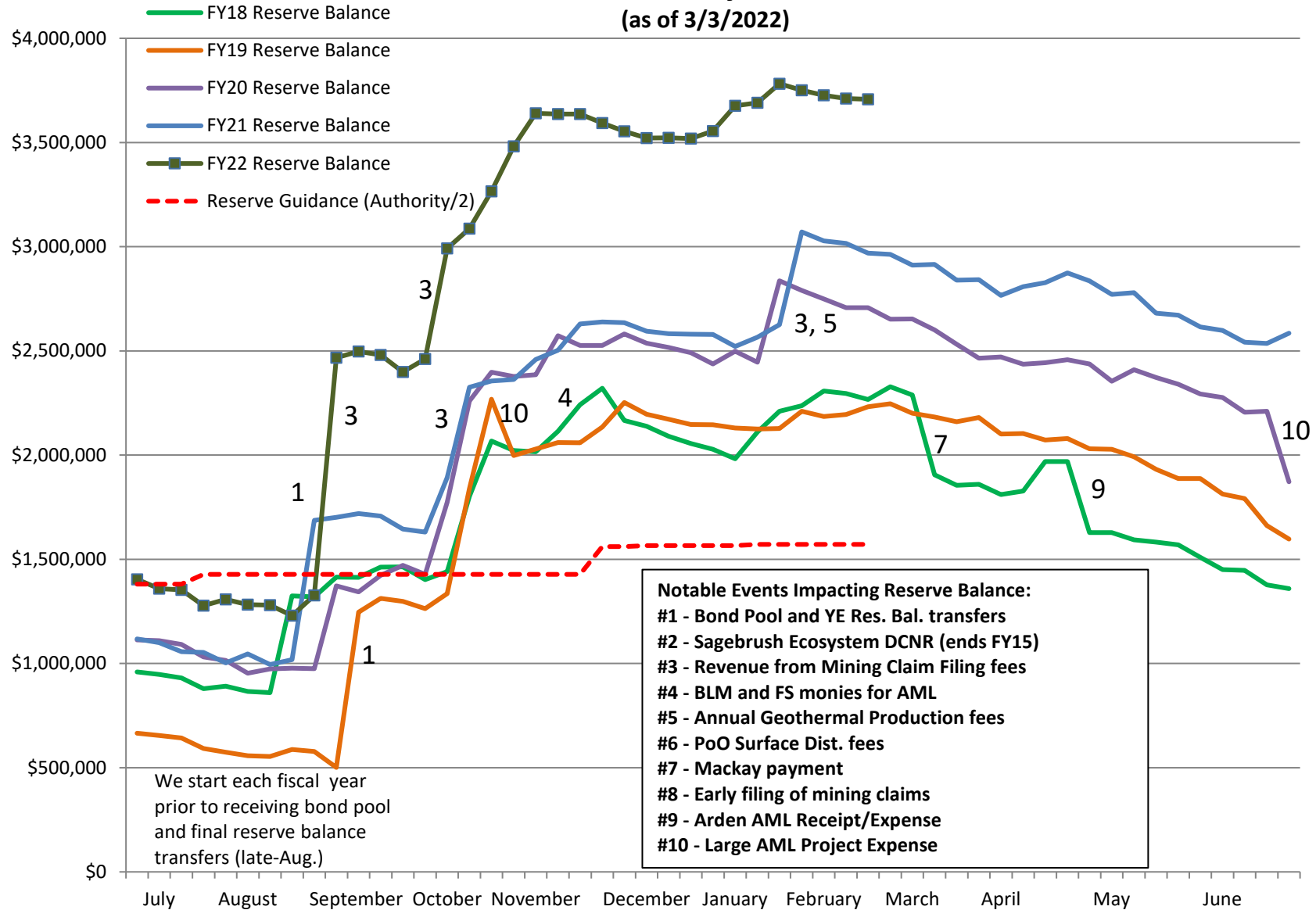
**Fiscal Year Cumulative Mining Claim Revenue By Month**

Fiscal Year	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	\$ YOY	Total Claim Filings	Claim Filings YOY	Dec to Jun change
2022	\$81,700	\$292,160	\$1,557,970	\$1,796,170	\$1,821,730	\$2,389,380						\$2,561,963	14.6%			
2021	\$97,190	\$222,510	\$1,085,820	\$1,443,520	\$1,474,160	\$2,085,310	\$2,105,650	\$2,116,960	\$2,257,030	\$2,265,460	\$2,273,190	\$2,411,530	15.5%	241,153	15.5%	13.53%
2020	\$83,720	\$256,070	\$1,450,980	\$1,597,760	\$1,609,370	\$1,995,430	\$1,997,180	\$1,997,950	\$2,050,880	\$2,051,660	\$2,054,840	\$2,087,470	3.7%	208,747	3.8%	4.41%
2019	\$121,080	\$357,900	\$1,504,660	\$1,628,710	\$1,646,750	\$1,926,020	\$1,930,460	\$1,937,910	\$1,953,500	\$1,954,140	\$1,955,820	\$2,010,510	-1.1%	201,051	-1.1%	4.20%
2018	\$168,630	\$425,870	\$1,374,840	\$1,493,090	\$1,512,540	\$1,876,580	\$1,885,390	\$1,892,210	\$1,945,520	\$1,951,080	\$1,955,670	\$2,032,980	13.0%	203,298	13.0%	7.69%
2017	\$32,650	\$236,939	\$1,099,584	\$1,278,775	\$1,301,335	\$1,622,635	\$1,629,225	\$1,636,885	\$1,664,685	\$1,668,165	\$1,672,765	\$1,799,065	7.4%	179,935	-8.7%	9.81%
2016	\$92,072	\$219,020	\$999,082	\$1,158,219	\$1,168,827	\$1,415,769	\$1,418,574	\$1,420,520	\$1,450,134	\$1,453,118	\$1,458,388	\$1,674,866	5.6%	197,043	5.6%	15.47%
2015	\$120,352	\$250,079	\$1,108,417	\$1,280,687	\$1,290,241	\$1,531,683	\$1,532,431	\$1,533,349	\$1,550,247	\$1,553,571	\$1,555,211	\$1,585,539	-4.4%	186,534	-4.4%	3.40%
2014	\$155,703	\$306,646	\$1,090,754	\$1,290,496	\$1,294,661	\$1,602,233	\$1,606,177	\$1,607,656	\$1,627,283	\$1,631,235	\$1,632,417	\$1,657,789	-10.7%	195,034	-10.7%	3.35%
2013	\$90,253	\$311,806	\$1,199,622	\$1,417,171	\$1,437,104	\$1,775,803	\$1,781,575	\$1,783,870	\$1,812,217	\$1,818,745	\$1,825,571	\$1,856,460	-2.8%	218,407	-2.8%	4.34%
2012	\$26,248	\$239,904	\$1,055,539	\$1,309,017	\$1,324,445	\$1,793,687	\$1,802,901	\$1,810,432	\$1,843,795	\$1,852,541	\$1,857,012	\$1,910,562	14.1%	224,772	14.1%	6.12%
2011	\$18,504	\$241,374	\$602,803	\$895,475	\$966,603	\$1,554,871	\$1,562,053	\$1,565,649	\$1,609,424	\$1,612,118	\$1,618,145	\$1,674,304	3.8%	196,977	3.8%	7.13%
2010	\$34,315	\$252,520	\$866,626	\$1,120,355	\$1,151,704	\$1,527,997	\$1,532,639	\$1,537,911	\$1,566,170	\$1,569,088	\$1,574,207	\$1,613,142		189,781		
FY22 data as of 3/3/22 (Pending CC)																
12 Counties pay quarterly: CC, CH, DO, ES, HU, LA, LI, LY, NY, PE, ST and WP																
*Claim payments in June 2016 are skewed due to early payments ahead of \$2 fee increase																



# NDOM Reserve Balance by Week for FY18 - FY22

(as of 3/3/2022)



CMR-Division of Minerals - 2021-2023 Budgets and Forecasts (as of 3/4/2022)							
Revenue							
GL #	Description	FY21 Actuals	FY22 Budget	FY22 YTD	FY22 Forecast	FY23 Forecast	Remarks
2511	Balance Forward Previous Year	1,871,712	2,585,143	2,585,143	2,585,143	2,531,050	
3578	BLM Grant	202,473	200,000	46,983	100,000	100,000	BLM grant funding AML work. \$200k grant awarded 9/6/21
3580	USFS Assistance Agreement	28,039	10,772	80,349	80,349	0	USFS assistance funding AML work
3584	NPS Grant		94,092	0	77,000	0	National Park Service funding for AML work
3654	Oil Production Fee	20,508	37,907	10,839	20,000	25,000	\$0.15 per bbl fee for oil production annually (\$0.05 from 12/20 - 10/21)
3717	Oil Permit Fees	2,500	3,300	3,100	4,500	4,500	Permit fees for new oil and gas wells
3718 & 3727	Mining Claim Fees	2,411,550	2,114,150	2,168,070	2,560,000	2,560,000	Mining Claim fees @ \$10/claim filing
3736	Geothermal Fees	143,850	160,800	147,500	150,000	150,000	Annual fee and permit fees for geothermal wells and permitting
3740	Dissolved Mineral Resource Fees	0	2,000	6,000	8,000	8,000	Permit fees for DMR (lithium brine) well permits
3770	Surface Disturbance Fee (AML)	102,180	81,740	6,860	91,000	80,000	\$20 per acre fee for new mine surface disturbance, FY23=12-year avg.
4011	Copy Machines - Sales to Public	15	27	0	0	0	Copying charge for Public Records Request
4027	Publication Sales (AML signs)	1,556	1,210	1,969	2,100	2,100	AML signs sold at office
4311	Medallion Royalty Fee	788	1,304	0	253	500	Fee for minting of medallions with State seal remitted to NDOM
4326	Treasurer's Interest	12,998	40,990	7,742	12,998	12,998	Interest we receive for money deposited with Treasurer
4620	Transfer from Recl. Bond Pool	63,695	80,793	0	63,695	63,695	Fee from Bond Pool for NDOM Management
4669	CARES Act Reimbursement	10,320			0	0	Federal funds used to offset pandemic related expenditures
	REVENUE TOTAL	\$4,872,185	\$5,414,228	\$5,064,554	\$5,755,038	\$5,537,844	
Expenditures							
CAT #	Description	FY21 Actuals	FY22 Budget	FY22 YTD	FY22 Forecast	FY23 Forecast	Remarks
01	Personnel (Sal.,WC, PERS,OT)	1,156,212	1,296,101	705,750	1,336,101	1,372,893	FY22/23 is as in Leg-Approved Budget plus \$40k (OT), 1% COLA (FY23), plus \$30k retirement payout ('23)
02	Out-of-State Travel (Staff, CMR)	0	23,365	4,142	18,000	25,000	Includes PDAC (3), AEMA (3), NAAML P (2), FY22/23 as in budget
03	In-State Travel (Non-AML)	2,084	12,049	4,905	12,049	12,900	Travel, lodging and per-diem within State, as in budget
04	Carson Operating Expenses+Equipment	95,031	112,893	70,378	112,893	113,134	Rent, Operating supplies, as in budget
05	Equipment	0	1,297	780	1,297	1,706	Desks, chairs, as in budget
08	CMR Travel (In-State)	422	7,128	428	7,128	7,128	As in Budget
09	Special Projects (Mackay, NBMG)	209,936	224,506	59,154	224,506	144,200	FY22/FY23 \$97.2k (NBMG), \$27k (PDAC), \$5k (AME), \$15k (NvMA Ed), \$37.8k (FY22 only NBMG-RRV), \$49.5k (FY22 only Discovery Exhibit)
14	Las Vegas Operating Expenses	32,667	44,078	31,384	44,078	44,078	FY22/23 as in budget
17	Fluid Minerals	7,583	15,561	6,992	11,981	11,983	Field expenses for OGG and DMRE, as submitted in State Budget
18	AML Support (per diem, trucks, fuel, AML supplies and travel, SOSA supplies)	146,764	195,179	78,710	195,179	197,017	8 summer interns and 3 winters FY22/23; FY22/23 as in State Budget, includes one new truck each year
25	CARES Act Expenditures	10,320	0	0	0	0	
26 & 82	Computer and IT	43,754	40,701	21,121	40,701	35,871	Computer hardware/replacements; EITS services and support
30	Training	4,721	7,092	4,655	7,092	7,092	ESRI and other training
39	AML Enhancements(contracts, equip.)	481,463	1,072,290	287,778	1,122,290	1,150,000	\$800k/yr contracted AML closure and related work. Work not completed in '21 pushed into '22. \$50k/yr CL Cty revisits, \$30k LV UTV (FY22), \$50k/yr geo analysis, \$75k/yr cultural surveys, \$25k/yr helicopter surveys, \$30k/yr billboards, \$120k digital media campaign (FY23)
87 & 88 & 89	Cost Allocations (State, Purchasing, AG)	96,085	90,693	52,760	90,693	71,998	Purchasing assessment, AG cost allocation, State cost allocation
	EXPENDITURE TOTAL	\$2,287,042	\$3,142,933	\$1,328,935	\$3,223,988	\$3,195,000	
86	Reserve - Balance Forward to Next Year	\$2,585,143	\$2,271,295	\$3,735,618	\$2,531,050	\$2,342,844	
					\$959,584	\$745,344	Reserve Amount in excess of "50% of Expenditures" guidance



# COMMISSION BUSINESS

# STAFF REPORTS

# **STAFF REPORTS – October 2021**





STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
400 W. King Street, Suite 106  
Carson City, Nevada 89703  
(775) 684-7040 • Fax (775) 684-7052  
<http://minerals.nv.gov/>



**STEVE SISOLAK**  
Governor

**Las Vegas Office:** 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119  
Phone: (702) 486-4343; Fax: (702) 486-4345

**MICHAEL VISHER**  
Administrator

## MONTHLY ACTIVITY REPORTS

### October 2021

#### Administrator

1. Provided a presentation on critical minerals at the annual business meeting for NMEC.
2. Provided a presentation on Nevada mineral occurrences and production at the joint meeting of the Nevada Chapters of the American Planning Association and American Society of Landscape Architects.
3. The Mining Oversight and Accountability Commission (MOAC) convened its first meeting in over six years. Five members have been appointed; two vacancies remain. A brief overview of the agency was provided to the members.
4. Presented the 2020 and 2021 Excellence in Mine Reclamation awards at the NvMA Awards Luncheon. Representatives from KGHM (Robinson Mine) and NOV (Big Ledge Mine) were present to receive awards. Issued a press release on the 2021 award and provided additional information to the Elko Daily Free Press.
5. Provided 2020 Nevada mineral production to the Elko Daily Free Press and Northern Nevada Business Weekly.
6. Provided annual update of agency fees and revenues to the Nevada Taxpayers Association.
7. Provided answers to questions on mineral estate ownership, geophysical permitting requirements, notice-level bonding, and mining claim filing requirements.
8. Responded to public records request relating to Clayton Valley lithium exploration, agency contacts and vendor information.
9. Continued providing requested information to an attorney with the Texas State Securities Board regarding a fraud investigation.
10. Spaces have been purchased for in-person exhibition at AME Roundup and PDAC.
11. Meetings attended: Sagebrush Ecosystem Council, IOGCC update on orphan well legislation, NBMG Advisory Board, Grant Canyon Oil and Gas, Eavor Geothermal, Greenlink West Cooperating Agency, BLM Fluid Minerals, NvMA Education, Governor's Cabinet, and State PIOs.

#### Deputy Administrator

1. Bond pool activity in October consisted of one notice-level release and submission of the quarterly reconciliation report, with zero variance, to the Controller's Office.
2. Provided basic domain, PC, and Local Area Network (LAN) IT support for NDOM staff.
3. Worked and scheduled with EITS the NDOM transition to the Divisions full IT support by EITS including PC/LAN and server support. The transition will take place in early November.
4. Submitted a Work Program with Valerie for the \$200,000 in funding from the new BLM grant, L21AC10403-00. This Work Program is scheduled for the December IFC meeting.
5. Researched and compiled all expected in-person travel to conferences and conventions for the remainder of FY22. Confirmed budget authority for each event and assigned staff for attendance.
6. Attended the annual Nevada Mineral Exploration Coalition meeting.
7. Attended and presented on AML enhancement options, NDOM FY22 travel, and the NAAMLPP conference at the Quarterly Commission meeting.
8. Attended the Nevada Joint Military Affairs Committee meeting.

Nigel Bain; *Large-Scale Mining*  
Robert Felder; *Exploration and Development*  
Randy Griffin; *Small-Scale Mining and Prospecting*

**Commission on Mineral Resources**  
Josh Nordquist, *Chairman; Geothermal Resources*

Stephanie Hallinan; *Large-Scale Mining*  
Art Henderson; *Oil and Gas*  
Mary Korpi; *Public at Large*

9. Attended the monthly State Information Security Officer monthly update meeting.
10. Started to finalize the NAAMLTP conference accounting. We are still awaiting one refund from Vail Resorts for the deposit on a dinner venue. The final proceeds check from NDOM to NAAMLTP should be sent in November or December.
11. End-of-October financial summary of bond pool:

Reclamation Bond Pool Status Report		Current to: 11/1/2021						
Plan-level Bonds -Company	Project	Entry Date	Bond Amount	% of Pool	Comments	Deposit	Premiums Paid	% Bond Whole
Custom Details	Bovie-Lew	11/17/2006	\$14,643.00	0.82%		\$7,328.32	\$18,784.75	178.3%
New Gold Nevada (NV Rae)	Black Rock Canyon	4/15/2005	\$66,673.00	3.73%	bond reduced from \$244,482 4/21	\$33,715.62	\$171,375.76	307.6%
SNL Sand LLC	Money Pit	5/21/2004	\$430,088.00	24.04%		\$233,171.91	\$293,186.04	122.4%
Western Mine Dev.	Victorine Mine	5/24/2000	\$45,875.39	2.56%	terminated	\$0.00	\$0.00	
Western Mine Dev.	Kingston Mill	5/24/2000	\$100,450.00	5.61%	terminated	\$0.00	\$0.00	
TNT Venture	Big Canyon	1/27/2010	\$78,161.00	4.37%		\$39,615.03	\$50,538.87	115.3%
Dun Glen Mining	Dun Glen	8/11/2014	\$439,240.00	24.55%		\$238,536.99	\$207,929.61	101.6%
Statewide Notice-Level	Various	various	\$613,920.00	34.32%	53 Notice-level bonds			
Total Bond Amount			\$1,789,050.39					
Cash in Pool's Account (From BSR - 10/28/2021)			\$2,946,803.35					
Unfunded Amount			-\$1,157,752.96					
Percent funded			164.7%					

### Chief, Abandoned Mine Lands Program

1. AML staff have been tracking claimant responses daily from first and second round notifications mailouts throughout October
2. NDOM contractor EPS (Environmental Protection Services) began work on the Poinsettia hard closure project in Mineral County.
3. AML staff continued with project supervision of Geological Site Characterization with McGinley and Associates in Carson City and Douglas counties.
4. AML staff identified new project areas for near term hard closure work in White Pine, Pershing, and Mineral counties.
5. AML staff confirmed 4 returning interns for the 2021/2022 winter season.
6. Staff continued work with TerraSpectra to overhaul our notification process, providing better tracking and reporting, automating parts of the process.
7. NDOM staff assisted NDOW with wildlife survey work in Carson City and Douglas counties, contributing to an upcoming large scale hard closure project.
8. Categorical exclusion requests were submitted to the BLM Black Rock Field Office for a proposed hardrock closure project.
9. AML inventory and securing status for end-of-October:

	SITES INVENTORIED	SITES SECURED	% Secured
Since 1987	23,911	19,880	83%
2021 To Date	230	403	175%

### GIS/ Field Specialist

1. Responded to AML mailout recipients.
2. Compiled the critical minerals presentation along with all maps for NMEC.
3. Updated AML photos on server.
4. Worked on edits to the 2020 Major Mines publication final draft and submitted it to NBMG for review.
5. Updated notices, plans, and mining claims on the open data site.
6. Updated production data for minerals, oil, gas and geothermal on the open data site.
7. Updated the major mines layer on the open data site.
8. Recorded the videos for both the critical minerals presentation given at NMEC and the rock collecting presentation given at the Reno Gem and Mineral Society's September meeting.
9. Began troubleshooting base maps for AML field maps, now awaiting a resolution from ESRI.

10. Presented Mining in Nevada/cupcake core drilling/AML safety to Bordewich Bray's 3<sup>rd</sup> graders.
11. Updated annual October mining claims tracking graph.
12. Evaluated a new web app for the open data site, ESRI will need to support the add data widget before we can proceed.
13. Updated the inferred lithium claims layer for the open data site, which involved reviewing all placer claims and associated companies.
14. Produced drill hole layer for OGG and updated leases on open data site.
15. Updated all maps and made sure widgets were functional.

#### **AML/Public Outreach – Southern Nevada Programs Manager**

1. Responded to claimants regarding the annual hazard notification letter mailouts from September. Provided maps, photos and other AML-related information to more than 40 claimants.
2. Created a web-based spreadsheet to better facilitate So. NV Teachers Workshop staff sign-up and scheduling. Contacted five tour locations and received tentative confirmations from mining operations and related facilities.
3. Received and began testing a Getac T-800 demonstration tablet for field testing in preparation of ordering a new set of AML field tablets.
4. Prepared and loaded into field tablets the necessary revisit data for the AML revisit contract work in Southern Nevada.
5. Created the 2021 Excellence in Mine Reclamation Award Flyer.
6. Participated in a Nevada Mining Association Education Committee meeting.
7. Participated in two RAMS meetings on updates to the SOSA platform.
8. Virtually attended the quarterly CMR meeting.
9. Organized and led a PDAC 2022 planning committee meeting which includes representatives from NBMG, BLM, GOED, GSN, Northeastern Nevada Regional Development Authority, NMEC, and the Nevada Mining Association.
10. Chaired a McCaw School of Mines quarterly board meeting.

#### **AML/Public Outreach and Education – Southern Nevada Field Specialist**

1. Attended a class on Professional Learning Education from the Clark County School District to learn about the Nevada Standards for Professional Learning.
2. Worked on land research for sites visited by the summer interns.
3. Finished setting up All About Mining: Mining for a STEAM Education in Canvas for CCSD teachers.
4. Hosted a live virtual session introducing Mining for a STEAM Education virtual course to CCSD teachers.
5. Participated in the education committee meeting in preparation of the 2022 Southern Nevada Workshop.
6. Worked on owner responses (calls and emails) to AML 2<sup>nd</sup> notification letters, providing additional information to owners when requested.

#### **Fluid Minerals Program Manager:**

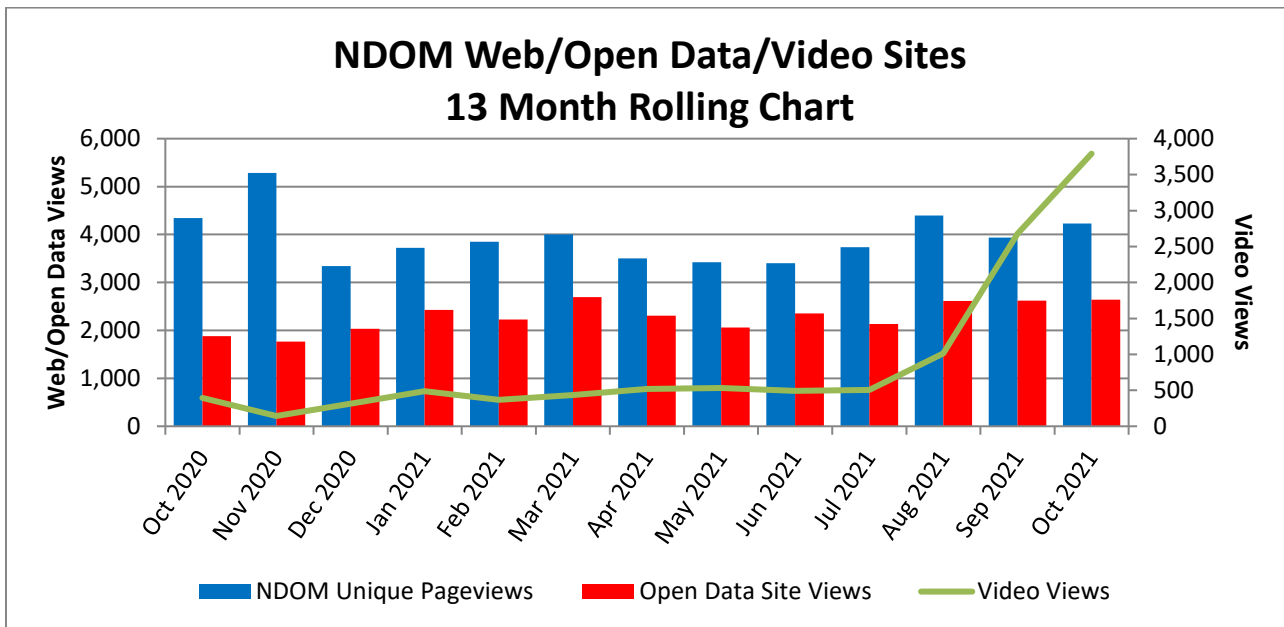
1. Two geothermal and no oil permits were issued in October. The Crescent Valley 67(66)-9 industrial injection permit and San Emidio 55-4 industrial injection permit were both approved by NDOM. Both wells are located on private leases.
2. Six geothermal and two oil sundries were reviewed in October.
3. Grant Canyon Oil & Gas re-entered and completed a sidetrack of the 3 Bar 6R well (Permit 0983), awaiting the final completion report.
4. Western Oil continued to drill the Scott Federal 35-1 wildcat oil well, their BLM lease stipulates No Surface Occupancy beginning November 1. The BLM denied their request for a 45-day extension and are awaiting a sundry addressing how the wellbore will be secured.
5. 3PL Operating had submitted Permit Applications for four DMRE exploration wells on their claims in Railroad Valley, however, the well locations are within the NASA mineral segregation boundary and the BLM is now requiring a mining claim validity exam if they wish to proceed.
6. Attended the Geothermal Rising Conference in San Diego. Manned NDOM's booth at the event, interacted with approximately 150 people. Attendance lower than previous years primarily due to COVID-19. Attended lectures on geothermal exploration, casing design, drilling techniques, seismic interpretation, and specific field overviews. Attended a multi-day High Temperature Cement Workshop as part of the conference. The workshop covered a variety of topics with industry/academic presentations and discussions.

7. Met with representatives from Eavor Geothermal Company, NDEP and the BLM and regarding a potential project in Nevada.
8. Met with UC Won/NDEP-UIC regarding proposed injection testing at Salt Wells.
9. Coordinated with BLM state and field offices to monitor drilling operations, review permit applications and sundries for fluid minerals.
10. Continued to organize digital files, specifically naming photos, creating digital permit folders for geothermal and oil wells, and organize files in network drives before data transfer occurs.

FY 2022 Well Inspections	Total Wells	Wells Needed for FY22	Wells Inspected	% of Total Needed	Wells Remaining
Geothermal (19 Locations)	456	152	15		
Oil (22 Locations)	121	40	18		
Totals	577	192	33	17%	159

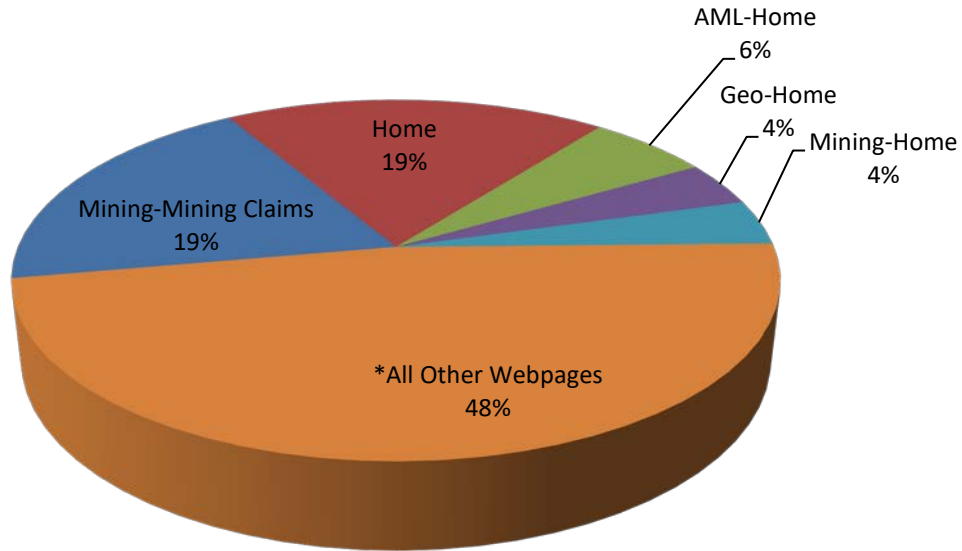
#### **Website Activity:**

Period	NDOM Website Pageviews	NDOM Website Unique Pageviews	NDOM Website Top 5 Pageviews	NDOM Open Data Site Views	NDOM Video Views
Oct 2021	5,857	4,229	Mining-Mining Claims, Home, AML-Home, Geo-Home, and Mining-Home.	2,644	3,791
Oct 2020-Oct 2021	69,916	51,172		29,764	11,672





### NDOM Website - Top 5 Unique Page Views for October 2021



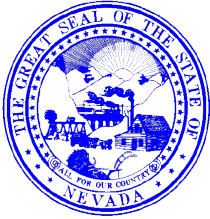
\*All Other Webpages - Site pages including Home Pages, Current Information, About Us, Commission, Programs, News, FAQs, and Contact Us pages.

#### Top Visitors

Oct-2021	Country	United States, Canada, India, Australia, and United Kingdom.
	State	Nevada, California, Texas, Colorado, and Virginia.
	City	Reno, Las Vegas, (unknown), Carson City, and Ashburn.

<u>Video Views</u> <u>in</u> <u>October 2021</u>	<u>Top 5 Video Views</u>	<u>Dist Learn</u> <u>Trkr # of</u> <u>Classes</u>	<u>No.</u> <u>NV</u> <u>45%</u>	<u>So.</u> <u>NV</u> <u>55%</u>
3,791	Weathering & Erosion Part 1; Mining in Nevada - 18:22 mins.; Weathering & Erosion Part 2; Building a Web Mapping Platform; Ore Deposits an Overview.	152	68	84

# **STAFF REPORTS – November 2021**



STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
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Governor

**Las Vegas Office:** 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119  
Phone: (702) 486-4343; Fax: (702) 486-4345

**MICHAEL VISHER**  
Administrator

## MONTHLY ACTIVITY REPORTS

### November 2021

#### Administrator

1. Responded to claimant/property owner calls regarding AML notifications.
2. Interviewed four finalists for the Field Specialist position. Dustin Holcomb was offered the position and accepted with a start date of December 27, 2021.
3. Worked with Mine Safety and Training Section, Division of Industrial Relations to secure a large number of historic mining documents from their storage shed which must soon be emptied. Documents include mining, inspection, and safety records as well as claim documents and reports. The NBMG has agreed to take possession of the records and scan pertinent documents as time and funding allow. A date for relocation has not yet been determined.
4. Attended Nevada State Agency GIS users meeting with Lucia. Worked with the Department of Taxation and State Demographer to get the parcel shapefiles for 14 Nevada counties to aid in AML ownership research.
5. Met with DCNR, NDOW, Sagebrush Ecosystem Program, and Governor's Office staff to discuss state response to BLM's revisit of SFA Withdrawal EIS and LUPA amendments.
6. Provided interview to a reporter from Politico, on geothermal regulations, exploration, and production in Nevada and potential impacts from the recently passed Infrastructure Bill and proposed Build Back Better legislation.
7. Provided an interview to a professor from Providence College doing research on the history of lithium mining.
8. Meetings attended: Governor's Cabinet, NPGS, IOGCC, EITS, BLM Fluid Minerals team, Greenlink West EIS, Agency PIOs, Ormat, and Smart from the Start Renewable Energy Development.

#### Deputy Administrator

1. Bond pool activity in November consisted of one new plan-level bond, the first in seven years, one notice-level increase and release.
2. Worked with EITS on the transition to full IT support by EITS, including PC/LAN and server support. The transition has been completed; however, I'm still acting as the Information Security Officer for our agency.
3. Held a meeting with Women in Mining and introduced them to the NvMA/NDOM Earth Science Workshops. They are looking to see how they can participate in the next workshop.
4. Held a meeting with the BLM Nevada State Office and Sierra Front Field Office for upcoming projects and was informed of a re-opened shaft in Carson City. I inventoried the shaft and submitted an emergency Categorical Exclusion (CX) request to close the shaft. The CX was received, and the shaft was closed by contractor EPS in early December.
5. Started organizing and compiling information for the first Nevada Abandoned Mine Land Environmental Team (NAMLET) meeting held in 2 years. Since the last meeting, there has been a large turnover in AML partners and this meeting will provide an introduction to new partners and to everyone's AML programs.
6. Started compiling the RFP for the future Helicopter survey contract. This will be sent to purchasing in December with a release date in January.
7. With Courtney, we held a meeting with a new company looking to apply for a dissolved mineral permit. We reviewed the regulations and their options for their operation.

8. Attended the monthly State Information Security Officer monthly update meeting.
9. End-of-November financial summary of bond pool:

Reclamation Bond Pool Status Report		Current to:	12/1/2021					
Plan-level Bonds -Company	Project	Entry Date	Bond Amount	% of Pool	Comments	Deposit	Premiums Paid	% Bond Whole
Allegiant Gold	Eastside	11/19/2021	\$163,064.00	8.25%		\$84,036.27	\$1,833.35	52.7%
Custom Details	Bovie-Lew	11/17/2006	\$14,643.00	0.74%		\$7,328.32	\$18,784.75	178.3%
New Gold Nevada (NV Rae)	Black Rock Canyon	4/15/2005	\$66,673.00	3.37%		\$33,715.62	\$171,375.76	307.6%
SNL Sand LLC	Money Pit	5/21/2004	\$430,088.00	21.75%		\$233,171.91	\$293,186.04	122.4%
Western Mine Dev.	Victorine Mine	5/24/2000	\$45,875.39	2.32%	terminated	\$0.00	\$0.00	
Western Mine Dev.	Kingston Mill	5/24/2000	\$100,450.00	5.08%	terminated	\$0.00	\$0.00	
TNT Venture	Big Canyon	1/27/2010	\$78,161.00	3.95%		\$39,615.03	\$50,538.87	115.3%
Dun Glen Mining	Dun Glen	8/11/2014	\$439,240.00	22.21%		\$238,536.99	\$207,929.61	101.6%
<b>Statewide Notice-Level</b>	<b>Various</b>	<b>various</b>	<b>\$639,194.00</b>	<b>32.33%</b>	<b>52 Notice-level bonds</b>			
<b>Total Bond Amount</b>			<b>\$1,977,388.39</b>					
<b>Cash in Pool's Account (From BSR - 11/30/2021)</b>			<b>\$3,035,475.52</b>					
<b>Unfunded Amount</b>			<b>-\$1,058,087.13</b>					
<b>Percent funded</b>			<b>153.5%</b>					

### Chief, Abandoned Mine Lands Program

1. AML staff have been tracking claimant responses daily from first and second round notifications mailouts throughout November with 555 responses from claimants; approximately 27% response rate to date.
2. NDOM contractor EPS (Environmental Protection Services) finalized work on the Poinsettia hard closure project in Mineral County and responded to an urgent hard closure request from BLM Sierra Front Field Office concerning a site on Duck Hill in Carson City.
3. McGinley and Associates completed the initial geological site characterization of the Pine Nuts hard closure project in Carson City and Douglas counties. A draft report was submitted to NDOM for review and rock chip samples will be submitted to American Assay in Sparks, NV for geochemical analysis.
4. AML staff submitted a hard closure project overview to BLM for review addressing AML sites at Egan Canyon in White Pine County.
5. AML staff completed planning for returning interns for the 2021/2022 winter season.
6. NDOM staff continued in assisting wildlife survey work in Carson City and Douglas counties, contributing to the upcoming Pine Nuts hard closure project.
7. AML staff completed inventory and sites survey efforts in Mineral and northern Nye counties while evaluating potential hard closure project potential.
8. AML status at the end of November:

	SITES INVENTORIED	SITES SECURED	% SECURED
Since 1987	23,924	19,916	83%
2021 To Date	244	439	180%

### GIS/ Field Specialist

1. Responding to AML mailout recipients.
2. Updated AML photos on server.
3. Spent several weeks trying to process imagery for use in digital tablet field maps.
4. Worked on AML forms for data collection in field maps.
5. Organized the rock and mineral shed.
6. Developed an application for rock and mineral inventory.
7. Set up both computers after switch to EITS and helped others with GIS set up.
8. Started compiling scripts to help us visualize the distribution of claims in nine other states.
9. Made modifications to the PLSS layers available in other states in order to plot all claims possible.

### AML/Public Outreach – Southern Nevada Programs Manager

1. Conducted 11 classroom presentations across six schools on minerals in society and the dangers of abandoned mine hazards; more than 305 students and teachers reached.



2. Responded to claimants regarding the annual hazard notification letter mailouts from September 2021. Provided maps, photos and other AML-related information to more than 12 claimants.
3. Completed field testing of a new model of field tablet and made a recommendation to procure several for use during the 2022 intern season.
4. Continued to manage the Southern Nevada Revisit Contract with EPS; contractor currently working in the Goodsprings area.
5. Completed winter intern planning for areas in Southern Nevada; exported maps and data to be uploaded and printed at the Carson City office in December.
6. Planned for and visited an area near Goodsprings for an AML Eagle Scout Project to be conducted in Spring, 2022.
7. Chaired an NDOM Safety Committee meeting.
8. Participated in one RAMS meeting with TerraSpectra staff on updates to the SOSA platform.

#### **AML/Public Outreach and Education – Southern Nevada Field Specialist**

1. Provided two first grade presentations on the Rock Cycle to Beckley Elementary School.
2. Presented on Minerals in Society to a 2<sup>nd</sup> grade class at Nevada Learning Academy.
3. Presented on Minerals in Society and the Lifecycle of a Mine to twelve 7<sup>th</sup> grade classes at Monaco Middle School.
4. Presented on Minerals in Society and the Lifecycle of a Mine at Del Sol High School.
5. Attended and participated in CHOLLA meeting and assumed the role of secretary for the year.
6. Presented on Mineral Identification to three 5<sup>th</sup> grade classes at Sister Robert Joseph Bailey Elementary School.
7. Attended career fair at Vegas Verdes Elementary School.
8. Attended the 4<sup>th</sup> quarter Safety Committee meeting.
9. Graded work submitted for Mining for a STEAM Education virtual teacher course and provided support and feedback for participants.

#### **Fluid Minerals Program Manager:**

1. Five geothermal and no oil permits were issued in November. The Don Campbell 87-3, 83-3, 83A-3, 85-3, and the 87A-3 industrial injection permits were approved by NDOM. All wells are located on private leases.
2. Seven geothermal sundries and 1 oil sundry were processed in November.
3. Western Oil Exploration's drilling operations on the 35-1 well in Newark Valley were shut down on orders from the BLM, due to sage grouse timing restrictions. The well was capped with a wellhead and the rig is being demobilized.
4. Two DMRE exploration wellbores were approved for 3PL Operating in Railroad Valley, the wells are south and east of the NASA segregation.
5. BLM is asking for comments on the Environmental Assessment (EA) for the February 2022 Oil and Gas Lease sale of 10 parcels in the Battle Mountain District. The comment period ran through November 27<sup>th</sup>. The lease sale will occur February 28, 2022, at [www.energynet.com](http://www.energynet.com).
6. The BLM Carson City District, Stillwater Field Office has completed the Decision Record, Finding of No Significant Impact (FONSI) and Environmental Assessment (EA) for the Dixie Meadows Geothermal Development Project in Churchill and Pershing counties. The project includes the development and operation of up to two 30-Megawatt net-rated geothermal power plants; drilling, testing, and operating up to 18 geothermal production and injection well sites and eight core hole sites; constructing and operating pipelines to carry geothermal fluid between well fields and the power plants; and constructing either a 120-kilovolt (kV) or a 230-kV gen-tie and associated structures. A copy of the final environmental analysis, decision record, and other related documents are available at <https://go.usa.gov/xAPfE>.
7. Met with Randy Henkel and Jim McKay of Great Basin Geopower, Inc. to discuss a project in Steptoe Valley.
8. Had meeting with Ormat engineer at NDOM. Went to Ormat's office in Reno to discuss thermal gradient wells and general permit information.
9. Met with Waterleaf Minerals to discuss a planned DMRE project in Dixie Valley.
10. Did outreach at North Lake Tahoe Middle School, five presentations on the geologic timescale to 7<sup>th</sup> grade science students.
11. Coordinated with BLM state and field offices to monitor drilling operations, review permit applications and sundries for fluid minerals.

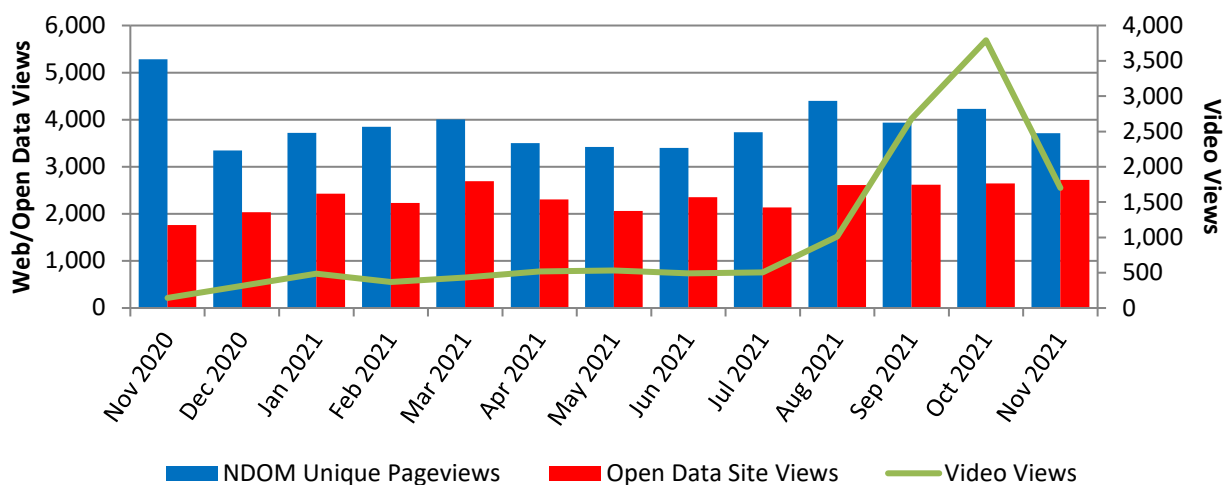
12. Conducted 33 well inspections at Ormat's Steamboat geothermal field. Several cellar-fluid and signage issues were documented, and a notification letter was sent to Ormat. A follow-up visit will be scheduled for early next year.
13. Fiscal year well inspection status as of November 30, 2021:

FY 2022 Well Inspections	Total Wells	Wells Needed for FY22	Wells Inspected	% of Total Needed	Wells Remaining
Geothermal (19 Locations)	456		63		
Oil (22 Locations)	121		18		
Totals	577	192	81	42%	111

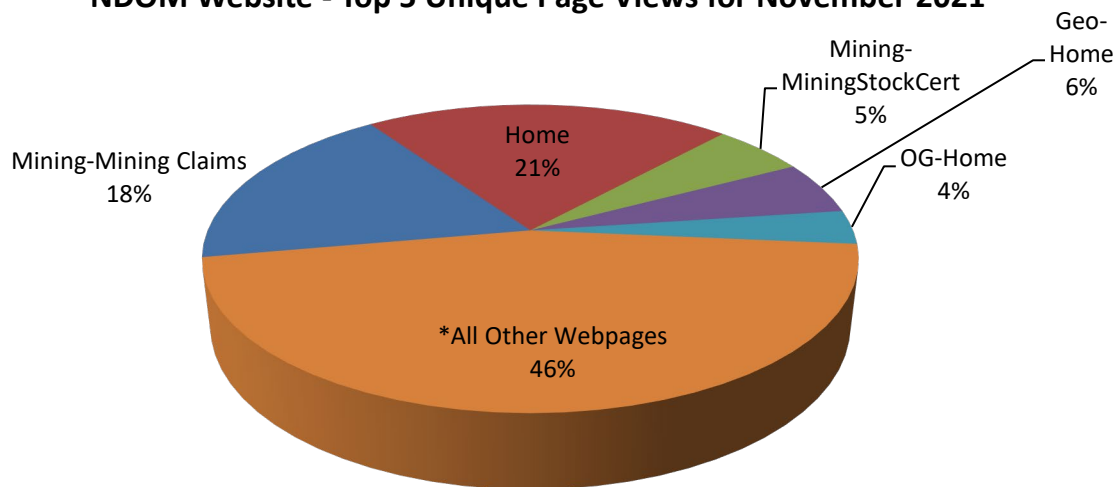
### Website Activity

Period	NDOM Website Pageviews	NDOM Website Unique Pageviews	NDOM Website Top 5 Pageviews	NDOM Open Data Site Views	NDOM Video Views
Nov 2021	5,221	3,714	Mining Claims, Home, MiningStockCert, Geo-Home, and OG-Home	2,721	1,702
Nov 2020-Nov 2021	69,172	50,543		30,605	12,980

**NDOM Web/Open Data/Video Sites  
13 Month Rolling Chart**



### NDOM Website - Top 5 Unique Page Views for November 2021



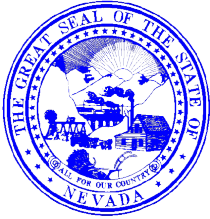
\*All Other Webpages - Site pages including Home Pages, Current Information, About Us, Commission, Programs, News, FAQs, and Contact Us pages.

#### Top Visitors

Nov-2021	Country	United States, Canada, United Kingdom, India, and South Korea.			
	State	Nevada, California, Texas, Colorado, and Virginia.			
	City	Reno, Las Vegas, (unknown), Los Angeles, and Sacramento.			
<u>Video Views in November 2021</u>	<u>Top 5 Video Views</u>		<u>Dist Learn # of Classes</u>	<u>No.NV 45%</u>	<u>So.NV 55%</u>
1,702	Mining in Nevada - 18:22 mins.; Weathering & Erosion Part 1; Basics of Mineral Identification; Weathering & Erosion Part 2; Ore Deposits an Overview.		68	31	37

# **STAFF REPORTS – December 2021**





STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
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**STEVE SISOLAK**  
Governor

**Las Vegas Office:** 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119  
Phone: (702) 486-4343; Fax: (702) 486-4345

**MICHAEL VISHER**  
Administrator

**December 2021**

**MONTHLY ACTIVITY REPORTS**

**Administrator**

1. Worked with State Demographer at Taxation to get county parcel shapefile data for use in various programs' ownership research activities.
2. Assisted Cort in providing requested information on various fluid mineral well drilling requirements to operators and permitting agents.
3. Attended the Nevada Mining Industry Supply Chain Strategy Summit sponsored by the Governor's Office of Economic Development along with representatives from industry and regulators to begin discussions on impacts, challenges, data collection, communication, employment, transportation, etc.
4. Provided two interviews regarding lithium in Nevada – The Nevada Independent and Providence College.
5. Meetings attended: Governor's Cabinet, State Environmental Commission, NvMA Environmental Committee, IOGCC, Sagebrush Ecosystem Council, CMR, AEMA, Truckee Meadows Regional Planning Agency, NAMLET, BOE, BLM Fluid Minerals team, Greenlink West EIS, Agency PIOs.

**Deputy Administrator**

1. Bond pool activity in December consisted of one new notice-level bond and two notice-level decreases (pending payment once companies are registered as a state vendor).
2. Worked with EITS to create Dustin Holcomb's email and NDOM user accounts. Prepared and onboarded Dustin for his first week.
3. Presented an update on AML in Nevada to the Nevada Bat Working Group. Sean provided the most recent data, and I discussed the long-term issues with bat compatible closures and suggested alternatives for prioritization of bat habitat.
4. Held the first Nevada Abandoned Mine Land Environmental Team (NAMLET) meeting since pre-Covid. Reviewed ongoing legislation at the Federal level, ongoing partner projects, and planned future project with partners. There were a lot of new partners at the meeting including new HTNF and Inyo USFS AML partners and all new NDEP AML staff.
5. After a four-year process, the CX for the Virginia City AML project was received. Work by EPS will begin under Sean's supervision once weather allows.
6. Attended and presented at the AEMA conference. I presented on the Division's Arden AML project and participated as a panelist in a discussion for AML Good Samaritan federal legislation needs.
7. Submitted all required annual reports for the BLM and NPS agreements.
8. With Valerie, we submitted and received approval for a work program in CAT 26 (IT) to the Governors Finance Office to increase the spending authority to upgrade some IT hardware.
9. Worked with NBMG to modify the deliverable timeline for the Lithium Report special project. The contract Amendment will be signed in January and sent to the Governor's Finance Office for final signature.
10. Attended the CMR Special meeting regarding the AML public awareness digital marketing campaign proposal.

11. Developed the RFP and Scope of Work for the AML helicopter survey project with Garrett. The RFP was sent to State Purchasing in early January and will hopefully be released in mid-late January for proposals.
12. End-of-December financial summary of bond pool:

Reclamation Bond Pool Status Report		Current to:	1/1/2022					
Plan-level Bonds -Company	Project	Entry Date	Bond Amount	% of Pool	Comments	Deposit	Premiums Paid	% Bond Whole
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Western Mine Dev.	Victorine Mine	5/24/2000	\$45,875.39	2.34%	terminated	\$0.00	\$0.00	
Western Mine Dev.	Kingston Mill	5/24/2000	\$100,450.00	5.12%	terminated	\$0.00	\$0.00	
TNT Venture	Big Canyon	1/27/2010	\$78,161.00	3.98%		\$39,615.03	\$50,538.87	115.3%
Dun Glen Mining	Dun Glen	8/11/2014	\$439,240.00	22.38%		\$238,536.99	\$207,929.61	101.6%
<b>Statewide Notice-Level</b>	<b>Various</b>	<b>various</b>	<b>\$624,246.00</b>	<b>31.81%</b>	<b>53 Notice-level bonds</b>			
<b>Total Bond Amount</b>			<b>\$1,962,440.39</b>					
<b>Cash in Pool's Account (From BSR - 12/30/2021)</b>			<b>\$3,074,540.35</b>					
<b>Unfunded Amount</b>			<b>-\$1,112,099.96</b>					
<b>Percent funded</b>			<b>156.7%</b>					

### Chief, Abandoned Mine Lands Program

1. NDOM contractor EPS finalized work on the National Park Service Copper Butte hard closure project with eight sites secured in Clark County and also completed repairs to 12 hard closures requested by BLM Las Vegas office as a result of vandalism.
2. Broadbent and Associates completed cultural survey work of the Pine Nuts Mountains within Carson City and Douglas counties. A draft report was submitted to NDOM and BLM for review. Broadbent began cultural survey field work in the Olinghouse district in Washoe County. AML staff, Broadbent, and BLM Winnemucca completed cooperative agreement terms to begin cultural survey work at the proposed Twin Buttes hard closure project in Pershing County.
3. AML staff began the 2021/2022 intern season responding to a report of unsecured hazards in Churchill County. Interns also relocated NDOM supplies and materials to a new storage facility on state property in Carson City.
4. NDOM staff continued in assisting wildlife survey work in the Carson City and Douglas County, contributing to the upcoming Pine Nuts hard closure project.
5. AML staff completed inventory and sites survey efforts in Mineral and northern Nye counties while evaluating potential hard closure project potential.
6. AML status at the end of December:

	SITES INVENTORIED	SITES SECURED	% Secured
Since 1987	23,948	20,115	84%
2021 To Date	268	638	238%

### GIS/ Field Specialist

1. Finished compiling and editing sections to plot all active mining claims in the western US.
2. Updated Nevada Mining Claims twice.
3. Updated several maps for and attended AEMA.
4. Got field maps application readied for OGG inspections.
5. Processed OGG data.
6. Updated all Mesa tablets that were here in Carson City.
7. Prepared field maps for interns.
8. Attended the Sagebrush Ecosystem Council meeting.
9. Completed a two-day ESRI training course covering Imagery Analysis.
10. Created a presentation and video for Great Basin Outdoor School which covered the late Cenozoic Ice Age.
11. Helped to move materials from our old sheds to a new location.
12. Helped to set up computer (GIS) for our new employee.

### **AML/Fluid Minerals Field Specialist**

1. Completed new-hire paperwork and reviewed employee handbook.
2. Established credentials to use agency desktop, laptop, and cell phone including remote access to network and the SOSA AML database.
3. Entered claimants' securing information in SOSA
4. Reviewed Fluid Minerals Program workflow and participated in review of a DMRE well permit application.

### **AML/Public Outreach – Southern Nevada Programs Manager**

1. Conducted six classroom presentations at two schools on Minerals in Society and AML; more than 180 students and teachers reached.
2. Attended the AEMA annual convention in Sparks, Nevada. Manned the Division of Minerals' booth in the trade show hall and attended a short course on Mining Law.
3. Managed EPS' revisit contract throughout southern Nevada. Revisit work in December was focused around the Goodsprings area with 77 sites investigated.
4. Prepared AML data, maps and equipment for winter intern work near Goldfield.
5. Drafted a Request for Proposal (RFP) development form and attachments to solicit bids for AML helicopter survey work across the state.
6. Met with company 3saurus (Reno Discovery Museum exhibit contractor) to kick-off the museum exhibit contract. Work scheduled to begin in January 2022.
7. Hosted a committee meeting to prepare for the Prospectors and Developers Association of Canada conference in March 2022.
8. Responded to claimants regarding the annual hazard notification letter mailouts from September 2021. Provided maps, photos and other AML-related information.

### **AML/Public Outreach and Education – Southern Nevada Field Specialist**

1. Hosted a live session for Mining for a STEAM Education with a panel of industry professionals.
2. Finalized grading and submitted paperwork to CCSD Professional Learning Education office to give PDE credit to nine teachers for completing Mining for a STEAM Education in the Fall 2021 semester.
3. Attended AEMA conference in Sparks, NV and completed short course on Mining Law.
4. Attended Commission on Mineral Resources Special Meeting.
5. Presented "What am I made of?" to second graders at Nevada Learning Academy.
6. Continued receiving responses from claimants/owners that received a notification of an unsecured AML hazard.
7. Made edits to the narratives (applications) for the in-person Earth Science Education workshop and Mining for a STEAM Education and resubmitted to provide PDE credit to teachers for both courses.
8. Edited Mining for a STEAM Education on Canvas, reducing the workload for participants and NDOM staff.

### **Fluid Minerals Program Manager:**

1. One geothermal and no oil permits were issued in December. Geothermal permit 1517 for the Ormat 67-4 industrial injection well on a private lease in the San Emidio geothermal field was approved.
2. One geothermal sundry and no oil sundries were processed in December.
3. The Crescent Valley 37(48)-3 was drilled and completed to 5,536' MD on a private lease in Eureka County.
4. NDOM requested and received complete daily drilling reports for the Scott Federal 35-1 oil well, permit 0980.
5. Met with Cyrq/Fervo group for discussion about changing plans for proposed wells at Blue Mountain.
6. Assisted Valerie Kneefel in conducting QA/QC for preparation of annual geothermal fee invoicing and requested operators correct status of shut-in and active wells.
7. Had a meeting and discussions with Waterleaf Minerals about drilling a DMRE exploration well in Dixie Valley.
8. Spoke with an oil explorer interested in drilling two oil wells in Railroad Valley on Federal leases.
9. Coordinated with BLM state and field offices to monitor drilling operations, review permit applications and sundries for fluid minerals.
10. Inspected 41 wells at Brady Hot Springs and Desert Peak geothermal fields. Inspected one well at St. Mark's Lutheran Church. Performed a tour of, and inspections at, the Peppermill's geothermal system.

11. Fiscal-year well inspection status as of December 31, 2021:

FY 2022 Well Inspections	Total Wells	Wells Needed for FY22	Wells Inspected	% of Total Needed	Wells Remaining
Geothermal (19 Locations)	462		116		
Oil (22 Locations)	121		18		
Totals	583	194	134	69%	60

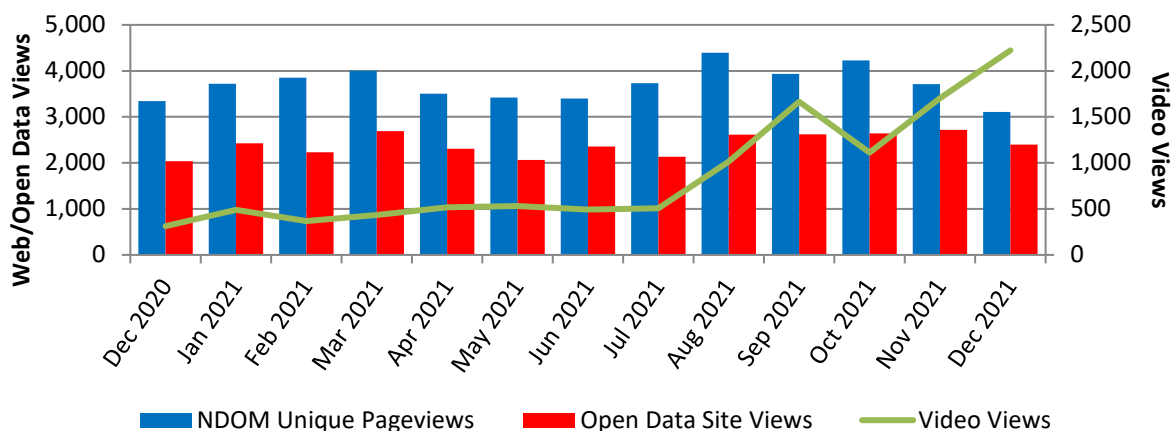
**Website Activity**

Period	NDOM Website Pageviews	NDOM Website Unique Pageviews	NDOM Website Top 5 Pageviews	NDOM Open Data Site Views	NDOM Video Views
Dec 2021	4,058	3,107	Home, Mining Claims, MiningStockCert, Geo-Home, and AML-Home	2,395	2,223
Dec 2020- Dec 2021	66,496	48,367		31,236	11,368

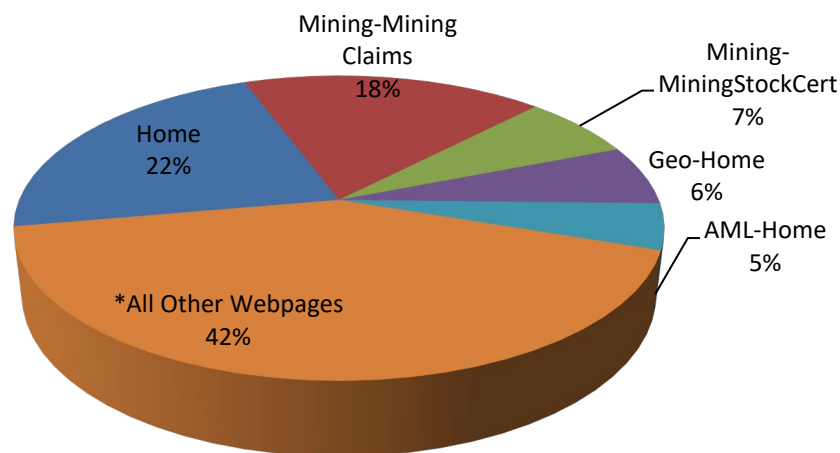
**NDOM Web/Open Data/Video Sites**

**13 Month Rolling Chart**

(Sept and Oct 2021 Video Views - corrected)



**NDOM Website - Top 5 Unique Page Views for December 2021**

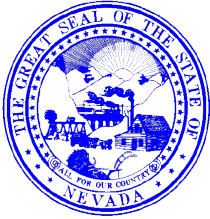


\*All Other Webpages - Site pages including Home Pages, Current Information, About Us, Commission, Programs, News, FAQs, and Contact Us pages.



Top Visitors					
Dec-2021	Country	United States, Canada, China, India, and Germany/South Korea.			
	State	Nevada, California, Texas, Virginia, and Utah.			
	City	Las Vegas, Reno, (unknown), Los Angeles/Carson City, and Houston.			
<u>Video Views in December 2021</u>	<u>Top 5 Video Views</u>		<u>Dist Learn Trkr # of Classes</u>	<u>No. NV 45%</u>	<u>So. NV 55%</u>
2,223	Mining in Nevada - 18:22 mins.; The Basics of Mineral Identification; Ore Deposits an Overview; Weathering & Erosion Part 1; Mining in Nevada, an Overview with Everyday Uses of Minerals		89	40	49

# **STAFF REPORTS – January 2022**



STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
400 W. King Street, Suite 106  
Carson City, Nevada 89703  
(775) 684-7040 • Fax (775) 684-7052  
<http://minerals.nv.gov/>



**STEVE SISOLAK**  
Governor

**Las Vegas Office:** 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119  
Phone: (702) 486-4343; Fax: (702) 486-4345

**MICHAEL VISHER**  
Administrator

## MONTHLY ACTIVITY REPORTS

### January 2022

#### MONTHLY ACTIVITY REPORTS

##### Administrator - Mike

1. DRI is preparing a summary report on lithium in Nevada, similar to one prepared by New Energy Nexus for California's Lithium Valley ([New-Energy-Nexus Building-Lithium-Valley.pdf \(newenergynexus.com\)](https://newenergynexus.com/)). The Division is one of several agencies answering questions and providing background information to assist them in preparation of the report.
2. Responded to two requests for information on concentrate processors in Nevada.
3. Met with, and provided information to, NASA contractor who is preparing a report on the mineral potential within the segregation boundary in Railroad Valley proposed for mineral withdrawal.
4. Attended the AME Roundup annual conference, held both in-person in Vancouver and virtually. The Division had a virtual booth containing an introductory video and numerous maps and links. The booth received 72 unique visitors during the 4-day event.
5. Provided presentation on Nevada's Mining Sector Outlook to the Storey County Planning Commission.
6. Meetings attended: Governor's Cabinet, NvMA Policy Committee, Tesla update, multi-agency lithium working group, IOGCC, MOAC, Wildlife Commission, Tax Commission, Greenlink West EIS, Agency PIOs, SMART21.

##### Deputy Administrator - Rob

1. Bond pool activity in January consisted of two notice-level increases and the submission to the Controller's Office the quarterly reconciliation report.
2. Submitted a request for an additional \$200,000 in funding under the current BLM AML agreement to be authorized for expenditures. This funding will be utilized for upcoming AML contracted work on BLM lands.
3. With Sean, we compiled the annual USFS Humboldt-Toiyabe National Forest (HTNF) AML report and annual invoice for work completed on HTNF lands. Minerals completed a total of \$83,348.86 worth of work on HTNF lands and reimbursement is expected in February. The current cost share agreement that allows for reimbursement ends in February 2022. I am currently working with the HTNF to create a new agreement for the next five years.
4. Presented to Women in Mining on the NvMA Earth Science Workshops and how they can help volunteer.
5. With Valerie, we submitted and received approval for work programs in CAT 14 (Las Vegas Office) & CAT 17 (Fluid Minerals) to the Governor's Finance Office to increase the authority to cover the rest of FY22.
6. After submitting the Helicopter RFP to Purchasing, the Controller's Office informed us that they are now requiring a \$25 million insurance policy for new helicopter contracts. Purchasing recommended reaching out to Nevada Division of Forestry (NDF) to see if they would be amenable to an interlocal for providing helicopter surveys for AML. NDF is willing to support Minerals and an interlocal will be developed in February and hopefully executed by early March.
7. Received the final refund from Vail Resorts for the NAAMLTP conference. Minerals made the final proceeds payment to NAAMLTP. The conference netted \$106,435.90 setting a record for the most revenue in the 40+ year history of NAAMLTP conferences.

8. Attended several meetings with IMCC regarding the development of the new Department of Interior AML Hardrock program.
9. Helped NDEP by being an evaluator for their Anaconda AML Remediation RFP.
10. End-of-January financial summary of bond pool:

Reclamation Bond Pool Status Report		Current to: 2/1/2022						
Plan-level Bonds -Company	Project	Entry Date	Bond Amount	% of Pool	Comments	Deposit	Premiums Paid	% Bond Whole
Allegiant Gold	Eastside	11/19/2021	\$163,064.00	8.22%		\$84,036.27	\$5,761.96	55.1%
Custom Details	Bovie-Lew	11/17/2006	\$14,643.00	0.74%		\$7,328.32	\$18,784.75	178.3%
New Gold Nevada (NV Rae)	Black Rock Canyon	4/15/2005	\$66,673.00	3.36%		\$33,715.62	\$172,042.50	308.6%
SNL Sand LLC	Money Pit	5/21/2004	\$430,088.00	21.68%		\$233,171.91	\$295,336.48	122.9%
Western Mine Dev.	Victorine Mine	5/24/2000	\$45,875.39	2.31%	terminated	\$0.00	\$0.00	
Western Mine Dev.	Kingston Mill	5/24/2000	\$100,450.00	5.06%	terminated	\$0.00	\$0.00	
TNT Venture	Big Canyon	1/27/2010	\$78,161.00	3.94%		\$39,615.03	\$50,538.87	115.3%
Dun Glen Mining	Dun Glen	8/11/2014	\$439,240.00	22.14%		\$238,536.99	\$207,929.61	101.6%
<b>Statewide Notice-Level</b>	<b>Various</b>	<b>various</b>	<b>\$645,349.00</b>	<b>32.54%</b>	<b>53 Notice-level bonds</b>			
<b>Total Bond Amount</b>			<b>\$1,983,543.39</b>					
<b>Cash in Pool's Account (From BSR - 1/31/2022)</b>			<b>\$3,077,859.51</b>					
<b>Unfunded Amount</b>			<b>-\$1,094,316.12</b>					
<b>Percent funded</b>			<b>155.2%</b>					

#### **Chief, Abandoned Mine Lands Program - Sean**

1. NDOM contractor EPS (Environmental Protection Services) continued work on a large-scale revisit program in Southern Nevada completing 258 revisits in Clark, Esmeralda, and Nye counties.
2. Broadbent and Associates continued with cultural survey field work in the Olinghouse district in Washoe County.
3. AML staff finished the 2021/2022 winter intern season with securings, loggings, and revisits in Churchill, Lyon, Esmeralda, and Nye counties.
4. NDOM staff completed assisting NDOW wildlife survey work in Carson City and Douglas counties, contributing to the upcoming Pine Nuts hard closure project.
5. AML staff completed inventory and sites survey efforts in Lyon and Mineral counties while evaluating potential hard closure project potential.
6. AML staff compiled and mailed annual AML reports and attachments to each county commission.
7. AML staff delivered an annual AML update report and attachment to the regional USFS office.
8. AML staff completed a draft of an Agency Request for Proposal for a digital marketing campaign focusing on SOSA messaging.
9. AML received quotes and timelines for a billboard campaign focusing on SOSA messaging.
10. AML statistics at the end of January:

	SITES INVENTORIED	SITES SECURED	% Secured
Since 1987	23,988	19,675	82%
2022 To Date	30	31	103%

#### **GIS/ Field Specialist - Lucia**

1. Updated AML photos on server.
2. Updated Nevada Mining Claims and BLM Plan and Notice data for open data site.
3. Worked on compiling mineral survey numbers for patented mining claims in Nevada.
4. Processed OGG drill hole data.
5. Worked on configuring field maps for AML field work, which EPS then beta tested.
6. Completed ESRI training on working with LIDAR data.
7. Worked with Sean and Dustin on land research methodologies.
8. Processed wintern data with Garrett.
9. Updated BLM oil and gas lease data.
10. Completed some minor updates to the AML database (updating forms, adding values to domains, and helping to import notification data).
11. Started reviewing topo ranking and intern planning processes to update methodologies.
12. Designed and uploaded files and graphics for AME Roundup Virtual Exhibit booth; attended technical sessions.



13. Processed geothermal well field inspection data from Cort and Dustin.

**AML/Fluid Minerals Field Specialist - Dustin**

1. Performed a downhole camera survey of one shaft and revisited three other abandoned mine sites in the Pine Nut Range with the winter interns and Sean.
2. Inspected 18 wells with Cort at Ormat's Don Campbell/Wild Rose geothermal field.
3. At the request of the USFS, inspected eight abandoned mine sites for closures in the Pine Nut Range with Sean.
4. Learning land research methods and strategy with Lucia; applying research to Nye County.
5. Assisted Sean in transferring State Mine Inspection historical paperwork from Carson City storage to Nevada Bureau of Mines and Geology in Reno.

**AML/Public Outreach – Southern Nevada Programs Manager - Garrett**

1. Supervised two interns near the townsite of Gold Point in Esmeralda County over two days. Interns worked 10 days in Nye and Esmeralda counties and secured 11 hazards, logged 56 new hazards, revisited 215 hazards and recorded 404 non hazards.
2. Logged and secured three AML hazards reported by the BLM near the town of Sandy Valley. Secured one hazard near Henderson in Sloan Canyon, NCA. Revisited seven additional hazards throughout Clark County.
3. Corrected and uploaded EPS revisit data from Winter 2021 into SOSA for the Goodsprings area; 109 hazards revisited.
4. Participated in two in-person High School career events in the Las Vegas area reaching more than 160 students and teachers.
5. Conducted an Eagle Scout recon project in the Goodsprings area. Planned Eagle Scout project for March of 2022.
6. Edited an introduction video and created a flyer for NDOM's virtual AME conference exhibit.
7. Recertified CPR/FA/AED certification through the American Red Cross.
8. Participated in an ESRI-instructed Introduction to LIDAR course.
9. Prepared and submitted the Division's annual safety report to Risk Management.
10. Drafted an RFP to contract for helicopter transportation to and aerial survey of AML features across the state.
11. Participated in a NvMA Education Committee meeting, a McCaw School of Mines board meeting, a monthly Remediation of Abandoned Mine Sites (RAMS) meeting with Terra Spectra, and a PDAC committee meeting.

**AML/Public Outreach and Education – Southern Nevada Field Specialist- Becky**

1. Prepared for and completed AML field work with the winter interns.
2. Met with an NDEP employee sharing resources and contacts so they can design a teacher training course in Clark County.
3. Participated in meeting with Lucia, Garrett, and Debbie discussing AML data check-in process.
4. Attended AML team meeting.
5. Worked on presentation for Commission on Mineral Resources meeting.
6. Participated in education committee meeting.
7. Attended home and office fire safety and extinguisher course.
8. Continued editing narratives to provide PDE credit for Southern Nevada Earth Science Teacher Workshop and Mining for a STEAM Education; received approval for both courses.
9. Worked on adapting weathering and erosion activity for middle school and high school.

**Fluid Minerals Program Manager - Cort**

1. No geothermal and no oil permits were issued in January. One DMRE well permit was approved. The Waterleaf Minerals, LLC Dixie Valley 1 well in Churchill County to a depth of 2,500'.
2. Six geothermal sundries and two oil sundries were reviewed in January.
3. Five wells commenced drilling in January. The 87-3, 85-3, 83-3 shallow injection wells at Ormat's Don Campbell field on a private lease were completed. Ormat is conducting tests on the wells to determine viability. The Blue Mountain 73-22 observation well spudded on 1/15/2022 and is still drilling. The Don Campbell 48-11 production well spudded on 01/29/2022 and is still drilling.
4. Assisted Valerie Kneefel in quality control of annual geothermal fees, correcting and resending invoices.
5. Started training new hire Dustin Holcomb for Fluid Minerals. Took him into field and showed him the well inspection process and inspected a rig during drilling operations. Went over fluid mineral regulations NRS and NAC 522, 534A, and 534B. Went over Fluid Minerals database and how to perform data entry. Provided him with technical papers and API standards to review.

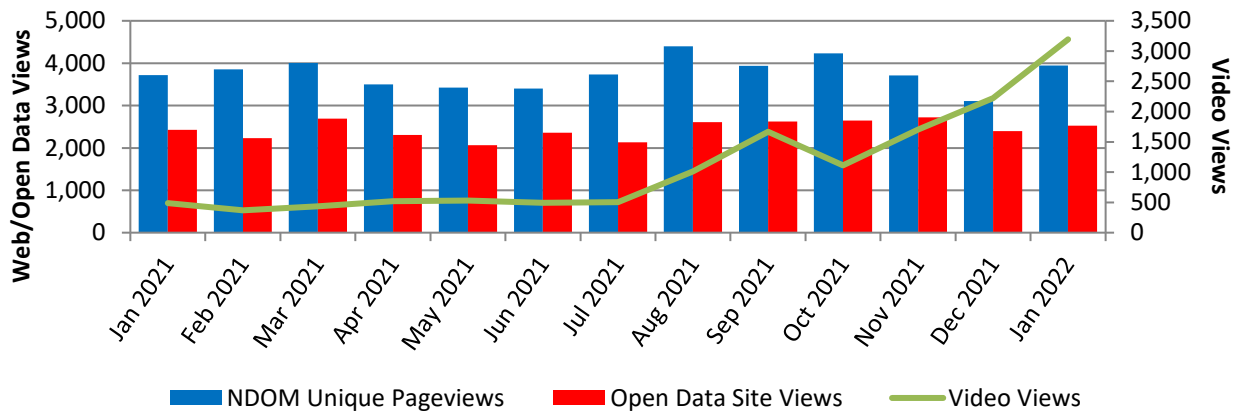
6. Signed up for TOPCORP class in Austin, TX. Started pre-class online training.
7. Spoke with CYRQ/ Fervo representatives regarding casing design and cement job on the Blue Mountain 73-22 observation well.
8. Worked with Western Oil to get a comprehensive completion report and requested hard copies of electronic logs. NDOM received one copy, a 2<sup>nd</sup> copy was requested. They plan to resume operations once the BLM sage grouse restrictions are lifted.
9. Began compiling information and creating PowerPoint slides for 2020-2021 Fluid Minerals permitting, drilling, production, and electrical generation activity to present yearly review to CMR and NPGS.
10. Coordinated with BLM state and field offices to monitor drilling operations, review permit applications and sundries for fluid minerals.
11. Inspected 18 geothermal wells at Don Campbell I and II. Inspected new drilling pad for the Don Campbell 48-11 production well. Inspected drilling operations at the nearby 87-3 injection well.

FY 2022 Well Inspections	Total Wells	Wells Needed for FY22 (1/3)	Wells Inspected	% Of Total Needed	Wells Remaining
Geothermal (19 Locations)	463		134		
Oil (22 Locations)	121		18		
Totals	584	195	152	78%	43

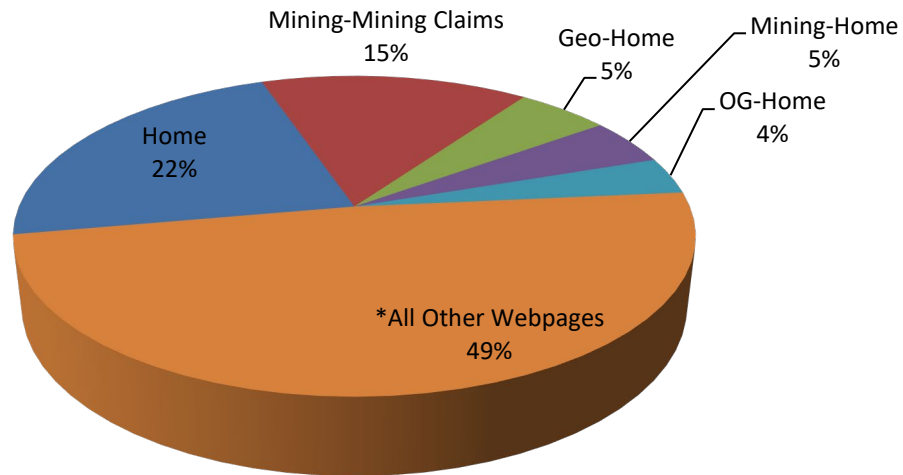
### Website Activity

Period	Website Pageviews	Website Unique Pageviews	Website Top 5 Pageviews	Open Data Site Views	Video Views
Jan 2022	5,409	3,943	Home, Mining-Mining Claims, Geo-Home, Mining-Home, and OG-Home	2,526	3,194
Jan 2021-Jan 2022	67,227	48,967		31,729	14,249

**NDOM Web/Open Data/Video Sites  
13 Month Rolling Chart**



## NDOM Website - Top 5 Unique Page Views for January 2022



\*All Other Webpages - Site pages including Home Pages, Current Information, About Us, Commission, Programs, News, FAQs, and Contact Us pages.

### Top Visitors

Jan-2022	Country	United States, Canada, China/India, United Kingdom, and Australia			
	State	Nevada, California, Texas. Colorado, and Virginia			
	City	Reno, Las Vegas, (unknown), Los Angeles, and Carson City			
<u>Video Views in January 2022</u>		<u>Top 5 Video Views</u>	<u>Dist Learn Trkr # of Classes</u>	<u>No. NV</u> <u>45%</u>	<u>So. NV</u> <u>55%</u>
3,194		Mining in Nevada The Basics of Mineral Identification; Ore Deposits an Overview; Weathering & Erosion Part 1; Nevada Geology & Mineral Deposits...On a Brownie	128	58	70