

PDR

40-8745

OGLE PETROLEUM INC.

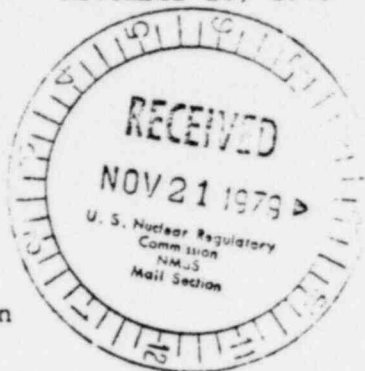
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November 16, 1979

PLEASE DIRECT REPLY TO:

150 North Nichols Avenue
Casper, Wyoming 82601
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Mr. Ronald Kaufmann
Nuclear Regulatory Commission
Mail Stop 905-SS
Washington, D.C. 20555

RE: Docket No. 40-8745


Dear Ron:

Enclosed please find a transcript of the November 1, 1979 scoping meeting prepared by Ogle Petroleum Inc. It is hoped that this material will assist you in your preparation of the record of the meeting.

On a separate matter, I wish to inform you that the copy of the Environmental Report mailed to the Director, Technical Assessment Division (AW-459), Office of Radiation Programs, U.S. Environmental Protection Agency, Crystal Mall #2, Arlington, Virginia 20460, was returned to Ogle Petroleum by UPS with a note indicating that this address was incorrect.

Sincerely,

OGLE PETROLEUM INC.

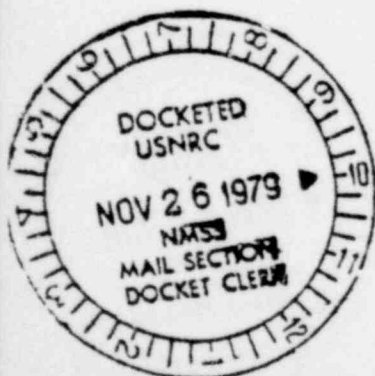

Glenn J. Catchpole, Project Manager

GJC:jm

Enclosure

CC: W. R. Merrill w/out enclosure

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NRC ENVIRONMENTAL SCOPING MEETING

November 1, 1979

INTRODUCTION:

RON KAUFMANN: Good morning to you all. My name is Ron Kaufmann. I'm with the Nuclear Regulatory Commission. I'd like to welcome you all here today for this scoping meeting for Ogle Petroleum's Bison Basin project. This meeting has been called by the NRC in compliance with the Council on Environmental Quality final regulations for implementation of the provisions of NEPA Act of 1969. The NRC is calling this meeting because it is the lead agency in the preparation of the Environmental Impact Statement for the Bison Basin project. Our purpose here today is to brief state, federal, and local agencies and other interested individuals on the Bison Basin project that has been proposed by Ogle Petroleum and to provide an opportunity for input in defining the scope and identifying the major issues that should be addressed in the Environmental Impact Statement.

With me today is another member of the Nuclear Regulatory Commission, senior chemical engineer, Jack Rothfleisch. He and I both work in the Waste Management Division of the NRC. Also here today are members of our independent consulting laboratory, Oak Ridge National Laboratories. They are Dr. Minton Kelly, who is a chemical engineer; he is project manager for the Oak Ridge group. Jeff Baldwin, geologist; Larry LaMonica, who is a chemical engineer also; Pat Mulholland, ecologist; and Al Solomon, also an ecologist. Oak Ridge will be acting as the consultants in this project for the NRC. Also with us today in the audience are various members of Ogle Petroleum Inc. Their project manager is Mr. Glenn Catchpole.

Now, Ogle Petroleum has applied to the NRC for a license to do in-situ uranium extraction from 40 acres of an uranium orebody. This orebody is located approximately 50 miles directly south of Riverton on the southern border of Fremont County. The basis for the action taken by the NRC on this application will be in the Environmental Impact Statement. The objective of the meeting today is to minimize the delay in getting the Environmental Impact Statement finished by getting the comments from various state, local, and federal agencies and other individuals about what the EIS, what topics the EIS should be addressing. If possible, during this meeting, we would like to identify and eliminate from detailed study the issues which are considered significant but have been

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OGLE PETROLEUM INC.

covered in other environmental reports. Those issues that have not been covered in environmental reports and are significant, we would like to identify those and make them a part, ultimately a part, of the Environmental Impact Statement. If we can identify the major issues early in the process of producing the Environmental Impact Statement, we feel the draft for that Impact Statement will be complete and satisfying to all interested individuals. We will be able to address your concerns the first time around when we put out the draft and there won't be a need for a second draft.

The meeting today will be conducted in the following fashion: After my remarks, Glenn Catchpole of Ogle Petroleum will deliver a presentation to describe what Ogle Petroleum is planning to do. Many of you are already familiar with the Environmental Report, we sent it out to many federal, local, and state agencies; but those of you who are not familiar with what Ogle's planning to do, this presentation will give you a basic understanding of what's going on. Following the presentation, we will open the floor for questions relating specifically to the Ogle operation. These are again to help increase your understanding of what they're planning to do. The questioning, the questions will be directed at me rather than at Ogle since this is a Nuclear Regulatory Commission action. If I am unable to answer the questions, I may call on members of Oak Ridge or Ogle to help me out, but in the event we cannot answer your questions now, today, we will get the answers to you later on. Following that, there will be an opportunity for those agencies or individuals who wish to state their concerns about what Ogle is doing to make sure that those concerns are part of the EIS, there will be an opportunity for those people to speak their piece now. After the major concerns are described by you and significant issues defined, we, that is myself with the help of Jack and Oak Ridge and Ogle Petroleum, will recap what has been said here and summarize it. As far as comments go, we, the Nuclear Regulatory Commission, will be accepting comments about this project up until we publish the final Environmental Impact Statement, naturally we want it to be correct so this meeting is not the end of the comment period but the beginning. Okay.

One other thing is, I would like everybody to, I hope everybody has signed in at the door so we know who's been here and have a record of who attended. If you have not, I'd appreciate it if you would sign this. If you've not signed in at the door, please sign your name, the organization you represent, and a telephone number where you can be reached. Are there any questions now about what this meeting is for or do you have other comments about the meeting? Yes sir?

FROM THE AUDIENCE: I have a question. If we aren't here to make a comment later on, would it be possible to give it to you in writing?

RON KAUFMANN: Yes sir. In fact, for those of you who are interested, I'll give you an address. My name is Ron Kaufmann, the comments should be addressed to me. My last name is K-a-u-f-m-a-n-n. My mailing address would be U. S. Nuclear Regulatory Commission. The address is Washington, D.C. 20555. Again, this is not the end of the comment period but the beginning. We'd appreciate it, though, if you do have comments, if you do have problems, or if you do have questions, that you bring them to us as soon as you can because we are interested in getting the application considered and evaluated as soon as possible. Okay, there are a number of the questions of myself, I would like to introduce Glenn Catchpole with Ogle Petroleum to deliver his presentation.

OPI PRESENTATION:

GLENN CATCHPOLE: Good morning. My name is Glenn Catchpole and I'm employed by Ogle Petroleum Inc. as the project manager for a proposed in-situ uranium mine in southern Fremont County, Wyoming. Since both the name Catchpole and Ogle may be a little different, I have spelled those out if you want to take notes on that. This scoping meeting, sponsored by the Nuclear Regulatory Commission, is part of the federal licensing process as Ron just mentioned. The NRC has asked Ogle Petroleum, the license applicant, to describe the proposed in-situ mining operation at this meeting.

The proposed in-situ mining operation is a joint venture known as the OPI-Western Joint Venture. OPI stands for Ogle Petroleum Inc., the operator for the Joint Venture, and Western stands for Western Fuel Inc., a wholly-owned subsidiary of Duke Power, an eastern utility. Again, Ogle Petroleum Inc., my employer, is the operator for the Joint Venture. Once all required licenses and permits have been obtained, Ogle Petroleum intends to construct and operate a commercial-scale in-situ uranium mine. The uranium produced at the mine is intended to be used by Duke Power to generate electrical energy at their nuclear power plants.

Before going any further, at this time I would like to introduce some of the key people associated with this project. I will start on my left or your right. George Hartman is our manager of mining with his offices in Casper, Wyoming. Kurt Brown is our project geologist and is presently living in Casper. Mr. William R. Merrill from Santa Barbara, Vice-President with Ogle Petroleum and President of the Minerals Division. Joe Vialpando is our Mine Superintendent and

he lives in Lander, Wyoming. Jim Ball is our mine foreman and he also lives in Lander, Wyoming.

I'd first like to discuss some of the basic facts of the project before getting into more specific information. We intend, once the plant reaches full capacity, to produce between 300,000 and 400,000 pounds of uranium per year as yellowcake. Our plan, our intent is to start during the summer of 1980 and that, of course, is contingent upon the licensing process. The number of employees at the mine, we estimate at somewhere between 35 and 50. The location of the project is in southern Fremont County, roughly here. For reference, Riverton, Lander, U.S. 287, Sweetwater Station, Jeffrey City, this is the Bison Basin Oil Field Road, Gulf's Oil Field is approximately here, and our site location is here. More specifically, the project is located in Section 25, T27N, R97W and part of the west portion of Section 30, T27N, R96W. Up here on the wall which I know you cannot see but during the break that they're going to have, you are welcome to come up and examine the USGS quad which indicates our permit area. The terrain is a rolling. . . Let me back up just one second. For those of you familiar with the area, we're on sort of the south side of Racetrack Ridge out in Bison Basin. The terrain is a rolling-type topography, sloping about 150 feet per the mile to the southeast. Elevation, average elevation is around 7,100 feet. If I could have the first slide, George. This first slide indicates the type of terrain. This is looking southeast from Racetrack Ridge. In the background on the skyline is Cyclone Ridge. Access to our project, the principal access is by means of the Bison Basin Oil Field Road which connects up with the Atlantic City Three Forks Road and we take that over to the west. This is the Oil Field Road, Atlantic City Three Forks Road runs along here, Atlantic City, and then we depart from it here, about this area.

The process we intend to use is in-situ solution mining, and George if I could have that next slide please. This is an idealized slide of the process. Just to give you general background, Ogle Petroleum intends to drill a series of wells, injection well, and production and recovery wells. A solution consisting of sodium bicarbonate leach solution will be used along with oxygen as the oxidant to leach the chemicals out of the ore zone. It will be injected via the injection well, travel through the ore zone, be recovered at the production wells, taken to the processing plant located at the site. . .

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Ogle Petroleum has conducted an R & D pilot in-situ operation on the property using the same process only on a miniature scale that we intend to use during the commercial operation. The wellfield area for this test was approximately a tenth of an acre (80 feet by 36 feet). This was conducted under NRC and State licenses. They gave us one acre to conduct our test in, a one acre wellfield that is. And as I mentioned, we used the same technology, same chemicals that we'll be using in the commercial operation only on a small scale. We started our R & D mining operations in May; they were completed at the end of July. We started restoration the first part of August, and we completed groundwater restoration on about the 14th of September. When I say completed, we felt that we had satisfactorily restored the groundwater, and we have submitted reports to the NRC and the State to be followed by additional reports for them to evaluate as to whether or not restoration was successful. We must also monitor that aquifer for an additional six months to insure stability of the water quality, that it is back in the state where it started. The technology that was used for restoration involved a surface water cleanup facility, specifically a reverse osmosis unit, to pump water from the ore zone, clean it, and reinject it back into the orebody. By circulating the fresh water through the orebody, we were able to clean up the aquifer. The reject or brine from the R. O. unit was routed to a lined evaporation pond.

The facilities layout, I'd like to discuss just for a minute the geology. This is an idealized cross section - for the geologists in the crowd, you can appreciate how idealized it is - but it is intended to represent, in general terms, the geology of the area. Our orebody is located in what we refer to locally as the "D" sands or the "D" zone. It is a sandstone unit running approximately 15 feet in thickness, it's roughly 380 feet below the surface, there are mudstones below it, there are mudstones and siltstones above it and approximately 115 feet above it is another sand which is referred to as the "B" zone. It is not mineralized, we do not intend to mine it, but it will be monitored during the operation to monitor for the possibility of vertical excursion of chemicals to this upper sandstone. Above that are mudstones, some bentonite stringers, some siltstones.

Water quality is relatively poor in this area. Total dissolved solids, 1300 and 1400 ppm, high in sulfates, high in sodium, radiometrics, that is radium and thorium, are also high.

The plant site, as I mentioned, will be located at the project, it will be housed in the building that we used for our R & D operation with some extensions

of that building to house our more permanent nature, some of our peripheral equipment such as the generators, lab, office facilities.

Waste produced from the process, in the amount of roughly six gallons per minute, will be routed to plastic-lined evaporation ponds via PVC pipe.

The total lands affected by the project are estimated at roughly 56 acres. That includes the orebody, the ponds, and the plant site. The wellfield, as presently delineated, covers approximately 40 acres. We intend to mine it at this time in four different sequences, four different mining areas, or four blocks and restoration will follow the mining of each block. So as we finish the first block and go to the second, we will then start restoration of the first block, and so on.

There will be, in this type of operation, there will be no open pit, there will be no subsidence since we are not using underground mining techniques, there will be no tailings dam, there will be no tailings pond, and there will be no heavy earthmoving equipment. As I previously mentioned, we will restore the groundwater in the area to acceptable federal and state standards using the same technology that we used for our R & D or our pilot operation. At the conclusion of the mining and at the conclusion of the restoration, all equipment will be dismantled, the lands will be revegetated, and our presence in the area within a short time should not be detected.

The socio-economic considerations, this type of mining is not personnel intensive. We anticipate between 35 and 50 employees and we expect that they'll be living in Lander, Riverton, and Hudson. That summarizes, I believe, our proposed operation. I would now like to turn the meeting back over to Ron.

RON KAUFMANN: Thank you very much, Glenn. One aspect that Glenn did not cover in terms of environmental impact, possible environmental impact of their plant has to do with disposal of surface solids and surface liquids at the plant. Currently, Ogle is considering the possibility of even disposing of it on-site or disposing it back in the ground. The NRC, we would like them for the time being anyway to dispose of it at an existing tailings site, this being consistent with the NRC policy that, of not proliferating a lot of small low-level or high-level radiation sites but centralizing disposal in certain areas. This issue has yet to be decided. It will be decided between Ogle, the State of Wyoming, and the NRC. I think now, I would like to just take a five minute break, very short, to give you an opportunity to think about what you've heard, stretch your legs, and see some of these charts a little closer. After five minutes, we

will start again with the question-and-answer period and following that there will be a period when those people who wish to make comments or suggestions about the scope of the EIS can do so. Why don't you all just take five minutes.

QUESTION-AND-ANSWER PERIOD:

RON KAUFMANN: To complete the briefing that myself and Glenn Catchpole had started on this project, we'd like to open up the floor to anyone who has questions about it. Now, if you have questions, the way to do it is to raise your hand, stand up, tell us what your name is, what organization you represent, and then please feel free to give us your questions. So, we'll open it up and say does anyone have a question? Any questions about the operation? Yes sir?

RON MARTIN: My name is Ron Martin. I work for the Fremont County Planning Department. And one thing I missed in Glenn's presentation here, maybe he did and maybe he didn't give it, what is the expected life of the project?

RON KAUFMANN: Glenn, would you comment please.

GLENN CATCHPOLE: Yes, I overlooked that. I was going to mention that and it went by my outline. The expected life for the presently delineated orebody is approximately five years. Location or the finding of additional reserves in the area could extend that life beyond five years but right now it's five years.

RON KAUFMANN: Other questions? Yes sir?

CHARLES NATIONS: I'm Charles Nations from Lander. I'm a conservation committee chairman for the Fremont County Audobon Society. I have a couple of questions, I might have missed the information because I was late. I think you started off by saying that you wanted to eliminate some of the details from the EIS.

RON KAUFMANN: We want to eliminate some of the details from the EIS, we want to eliminate those things from the EIS that have been considered in other documents. In other words, in other environmental reports associated with this particular application and there have been a couple. We don't want to go through the expense, and it is an expense to the taxpayers, of reinvestigating what has already been investigated if it's been adequately done. So, one thing we hope to do today, some of the questions that you raise will be things that have been already looked at.

CHARLES NATIONS: Will they be specifically identified in some future reports so that somebody who is concerned about it can become aware of it?

RON KAUFMANN: Yes, yes, the Environmental Impact Statement that is generated by the NRC should be able to stand by itself. Should ultimately address all of those concerns.

CHARLES NATIONS: Okay, another one. The presentation said that the groundwater quality would be restored and that you would monitor for six months in accordance with state and federal regulations. The R & D test so far has not proved that the water quality can be restored or that it has been successfully restored? Is that not correct?

RON KAUFMANN: The R & D, what has happened is Ogle has completed their mining, their R & D, they completed restoration groundwater solution, that is they pumped through several pore volumes of water to try to get the level of constituents down to background level. The result of this was that, I think just about all, except for bicarbonate, were down below the original baseline starting point before mining, the original baseline level. Now, there's a six month period during which time the groundwater is monitored and to make sure that this is a stable situation, that other things that were put into the ground during mining which didn't come out during the first phase of restoration, when they're pumping these volumes, that they don't suddenly come out. After the six month period, if there have been no significant increases, if everything is still at baseline in the groundwater quality, then the restoration will be considered to have been completed. So that's where it stands. We're waiting now during this time that we will be looking at the full-scale operation, it will take at least ten months minimum for the NRC to provide a license to Ogle. So certainly by that time the restoration should have either been completed or steps will be taken to make sure that it is.

CHARLES NATIONS: Ron, I'm going to pause for just a second up here, they want to talk to me here. I'll get my notes out. . Okay, my concern was that you would permit the mining to begin before the water quality restoration has been satisfactorily proved. You will not?

RON KAUFMANN: No.

CHARLES NATIONS: The other was, Glenn Catchpole mentioned that there would be no subsidence as a positive statement. Is that absolutely true or is this. .?

RON KAUFMANN: It's a positive statement based more on experience than on what will particularly happen at the Ogle site. Now there is no indication that the Ogle site is different from other solution mining operations in that aspect, in other words, the geology, the nature of the deposit. There is no indication that the Ogle case is different from other cases which are going on now and which show no subsidence.

CHARLES NATIONS: Are there any safeguards in your permit or licensing arrangement that in the future if subsidence does occur that you can come back

and require that it is corrected? Or will there be some provision in your license for that?

RON KAUFMANN: I'll have to refer that question to Jack.

JACK ROTHFLEISCH: As far as I know, this particular question has never been addressed neither has there been an indication that there should be any subsidence without the removal of solid materials from below ground. There's no reason that we can visualize unless some geologist here could explain why there could possibly be or how there could be some subsidence when all you've done is removed a fraction of the soluble uranium that down's there.

CHARLES NATIONS: I'm not familiar with the process. What's. .?

JACK ROTHFLEISCH: The process consists of simply running a liquid down and dissolving out a very small percentage of the solids that are down in the ore zone and there is essentially no change in the physical characteristics of the sands at all. So it's very difficult for me to visualize how subsidence could occur.

RON KAUFMANN: Let me address that question a little further in a geologic context. The sandstone was deposited and buried and there long before the uranium was there. What happened is that groundwater rich in uranium from other areas, igneous rock areas, flowed into that particular location and for various reasons, one of which is attributed to a change in the pH of the environment, okay? The uranium was deposited around the sand grains of the sandstone so that what you're doing is you're reversing that process what you mine it out. That's why we feel we've never seen and subsidence and don't expect to see any.

CHARLES NATIONS: That's the point when I said I didn't understand the process. I understand your mining process but I did not understand the process that put the stuff there in the first place. My last question is to the NRC. You said that you would prefer that the Ogle company dispose of solid materials at established sites. Could you not demand that they do that, rather than prefer that they do that?

RON KAUFMANN: This issue is something that we have typically required of other license applications. Ogle has suggested that they might be an exception to the rule. This has simply just not been decided one way or the other.

JACK ROTHFLEISCH: There are presently two commercial in-situ leaching facilities operating in the country, in this area, both of which are required by the State of Wyoming to remove any solid wastes and place them at a licensed facility, in a tailings facility. There is another one that is being considered at the present time. We are very strongly considering making that same requirement for them. I seriously doubt that Ogle will be an exception. We have to

close the door, if Ogle can come up with an alternative method for disposing of their solid wastes, different from what we now require and have required in the past, we will consider. We won't close the door at the present time but the State DEQ has felt the same way as we do. We do not wish to have a proliferation of additional sites in the State that contain radioactive materials. It's not a foregone conclusion that Ogle will not be permitted but it's reasonably certain that they will not be permitted to have it on the site either.

CHARLES NATIONS: For the report, I recommend that you do not permit such action to be taken.

RON KAUFMANN: Thank you very much for your comments and questions. Other questions?

DEBRA EAST: My name is Debra East. I'm a field representative in Lander for the Wyoming Outdoor Council. For the gentlemen who may not be familiar with the Outdoor Council, who come to us from other states, it's a state-wide citizens' organization that works on natural resources issues in the State and helps insure that interested citizens in the State have an understanding and a role in the decision making on those issues. I have a question on the solid waste materials and the liquid from the process. What quantities are you dealing with? What do you anticipate the tons or gallons or whatever you deal with?

RON KAUFMANN: I think I'll refer that particular question to Glenn.

GLENN CATCHPOLE: I'll try and answer your question as I understood it and if I don't come back to me and we'll keep going. At full capacity, the plant will be designed to handle 1,200 gallons per minute of liquid solution. There will be roughly 1,200 gallons of the lixiviant, of the leach solution, going out to the wellfield in the injection wells, through the orebody, and 1,200 gallons coming into the plant. With the exception, there is a process bleed, a waste bleed, from the plant that we estimate will be around six gallons per minute and that bleed will be routed to our evaporation ponds and that's where we get into this waste handling bit. We're not talking about waste in the sense that we're digging up earth or rock, the waste is what will be left after the water in the evaporation pond evaporates, the residue. That's what we're talking about when we're referring to waste disposal in the previous question. One other thing, during restoration, through the reverse osmosis unit, you clean up the water but you have a brine. That brine we estimate will probably run around 15%.

DEBRA EAST: 15% of the product?

GLENN CATCHPOLE: No, of. . The R. O. unit will operate around 300 gallons per minute so it is 15% of the 300 gallons per minute.

DEBRA EAST: So in order to come up with some kind of an understanding of how much solid waste will be left after the evaporation process, we take 15% of that 300 gallons or 15% of the lixiviant?

GLENN CATCHPOLE: What you'd have to know is the concentration in that brine.

DEBRA EAST: Okay, and that's something that you're finding out now?

GLENN CATCHPOLE: That information has not yet been submitted in the application because at the time the application came in we didn't have that information.

DEBRA EAST: Okay.

GLENN CATCHPOLE: We now have it and that's going to be submitted subsequently to the Nuclear Regulatory Commission. Based upon what the concentration of that brine is, we'll determine how much residue we're going to have.

DEBRA EAST: Okay, that may be helpful to my concern if you have it.

GLENN CATCHPOLE: We're interested in it, too.

DEBRA EAST: Just to make sure that I have not misunderstood it, now the lixiviant that is going to be used in all likelihood is sodium bicarbonate?

GLENN CATCHPOLE: I'm sorry. .

DEBRA EAST: The lixiviant that's going to be used is sodium bicarbonate or hydrogen peroxide? Is that correct?

GLENN CATCHPOLE: The lixiviant will be sodium bicarbonate and the oxidant will be oxygen.

DEBRA EAST: From the. . ?

GLENN CATCHPOLE. Not from hydrogen peroxide but oxygen as O₂. We'll have liquid oxygen at the site and that will be the oxidant. In the past, hydrogen peroxide has been the more common form of the oxidant. Oxygen is less expensive and does essentially the same job so we have elected to go with oxygen. And as I said, the lixiviant is the sodium bicarbonate type lixiviant.

DEBRA EAST: There wasn't a mention made in the summary about the water uses, current water uses in the area - if there are any stock ponds in the area that have been monitored or any information in that aspect. Is that information available in the Environmental Statement?

RON KAUFMANN: Yes, it is. I'm not sure that it's there specifically, but it's no problem to address it here now. We were out at the site - that's actually why we're all gathered here today. The ecologists were there to look at the various aspects of the ecology, the geologists were there to take a look at the geology, chemical engineers to look at their process and see how they're set up and if it's a good layout. And there is very little surface water in most of

Fremont County. There is something called Grassy Lake which although it is a large depression, it has nothing in it except grass, no lake, no water. The groundwater is, it's not above the EPA limit of 10,000 parts per million. The EPA considers anything less than 10,000 parts per million, in total dissolved solids, excuse me, to be simply of no use. The standards that they set for livestock, irrigation, or drinking water use are below that quality, too. So, it's less than 10,000 parts per million TDS but above any established water use standards and this goes for not only the aquifer in the ore zone but the aquifer above it as well.

DEBRA EAST: I have just one final question. Could you tell me if Ogle Petroleum has other operations similar to this say in Texas or in other states that have done solution mining?

RON KAUFMANN: No, I do not think that they do have other solution mining operations. They have been involved with other companies that have been doing it but they have not themselves been. This is their first venture.

DEBRA EAST: Thank you.

RON KAUFMANN: Thank you, ma'am. Yes, Glenn?

GLENN CATCHPOLE: I'd like to add one additional comment so that I don't mislead you. Oxygen will be our primary oxidant. We will have a backup of hydrogen peroxide to be used, hydrogen peroxide first of all is used in the plant process, in the above ground processing, and it is also a backup if something should happen to our oxygen supply. If the oxygen companies go on strike, or whatever, and we can't get oxygen, then we would revert to hydrogen peroxide.

DEBRA EAST: Okay, let me point out, my concern about using ammonia lixiviant. I wanted to make sure that it wasn't ammonium bicarbonate. . .

GLENN CATCHPOLE: Right, and we are aware of those problems and we are not using ammonia.

DEBRA EAST: You don't want to mess with that.

RON KAUFMANN: Also, to further address your earlier question about water uses. That in the Environmental Report, which as I told you I will arrange for a copy to be sent to your office, Section 2.11 deals with water rights and water use in that area. So you should be able to find that information there. Also, Glenn, can you give us an estimate on what the total tonnage of solid waste you expect during the total life of the plant?

GLENN CATCHPOLE: I would rather have time to look up the numbers and run it out. I don't have that on the top of my head.

RON KAUFMANN: Okay, fine. Thank you very much. Now, are there other questions? If you have other questions, please feel free to voice them. Yes sir?

CHARLES NATIONS: One more if I may. The mention was made that this material will be shipped as a slurry from the site. What is it's ultimate destination and how will you ship it? By truck, I assume, from there and then where will it go?

JACK ROTHFLEISCH: They'll be special tank trucks that are used for shipping uranium slurry. It will be shipped to the UF₆ plant for the next step in the uranium fuel cycle where they'll convert yellowcake to uranium hexafluoride. This is being done at the present time in Sequoyah, Okalahoma by Kerr-McGee Corporation.

RON KAUFMANN: Yes sir?

KERRY CONNELL: I'm Kerry Connell with Wyoming Game and Fish Department. I'm wondering what plans have been made for the road that goes into the, for the Bison Basin Road. Are they going to upgrade the road or are these trucks going to require better roads than is in there now?

RON KAUFMANN: Glenn, can you answer that question please.

GLENN CATCHPOLE: As you probably know, the first 20 miles of that road are maintained by Gulf Oil back to the oil field site. That road is completely adequate for our purposes and we do not intend to do anything with it. The next three miles is part of the BLM public access road and we will be getting with them to make some improvements in that road like culverts across the low areas and permission to blade it and keep it open. And the last three miles, again improvements, minor improvements, will need to be made. This will be done with us working with the BLM. So there are some but they will not be substantial. There won't be substantial upgrading of the existing road. The slurry, I wish I could say that we are going to be shipping a tank load everyday, but it's not that much, one or two shipments a month.

RON KAUFMANN: Any more questions? Since there don't seem to be anymore questions, we'll close that for the time being. But if you have more questions about this that you're unsure of please feel free, again, if you have questions, write the question down and send it in to me or call it in and we'll be happy to get the answer for you. That's what we're here for. I'd like to turn now to. . . Yes sir?

FROM THE AUDIENCE: I have one final question.

RON KAUFMANN: Your name and your organization, please.

ROBERT PEEL: My name is Robert Peel. I work for Rocky Mountain Energy Co. I'm just curious about the power access to this project. Glenn mentioned that there would be a generator on site. Is that for auxillary purposes, standby purposes, or is there line power to the site?

RON KAUFMANN: Glenn, you'll have to take that one, too.

GLENN CATCHPOLE: There is not line power at the site. We have done an economic study of bringing line power to the site and it is cost prohibitive. So we will be generating on site with fossil-fuel type generators. At this point, we do not know whether it will be diesel or propane or just what the fuel will be but we will have to generate on site.

RON KAUFMANN: Any more questions?

CHARLES VIOX: I'm Charles Viox. I'm a fishery biologist from Lander, Wyoming Game and Fish Department. I would like to ask you about the size of your evaporation ponds. What size they're going to be and what precautions are you taking to keep outbursts from washing the dikes out and carrying this on down into Alkali Creek, West Alkali, then into Alkali, and possibly into the Sweetwater. Some of the cloud bursts that we have here in Wyoming have washed out a number of oil ponds and other types of ponds and caused considerable damage to aquatic habitat and I would be curious to see. .

RON KAUFMANN: That is a significant environmental concern. Have you taken that into consideration?

GLENN CATCHPOLE: Yes, we have. They are earthen type reservoirs and they are lined with a rubber plastic type liner and we locate those reservoirs, they will be off channel, in other words we would not put them in draws, we will not put them across stream beds, they will be off channel located where there will not be significant runoff upstream that could cause an overflow and subsequent failure of the impoundment. A certain freeboard is required by the State and federal government and that freeboard will be adequate for a thunderstorm event. The size you asked about. Based on our R & D results, we anticipate that we will need approximately ten acres of ponds. We will probably build them in stages. We have one out there now, we'll add another, and so we'll have at least two there, and as we need we will add the second and third. We'll probably have three more cells and three more ponds in the area we've chosen for and build as needed.

CHARLES VOIX: Thank you very much.

RON KAUFFMAN: Any more questions now? In that event, I think we'll move on to the part of this meeting in which you let us know if you have a particular concern about this Bison Basin operation. I would direct this directly to the man from the Bureau of Land Management who has a number of concerns and I was wondering if he would like to make those of public record now and let us know how the Bureau feels.

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COMMENT PERIOD:

DALE BRUBAKER: I'm Dale Brubaker from the Bureau of Land Management, and I do have quite a number of concerns. As has been mentioned, water is pretty scarce out there in that area. There is some wells and ponds out there. The capability of this land to support grazing is heavily dependent upon all of those waters being there for all the times and for all of that water to be sufficient for livestock use. And so we would be concerned, one, that we have sustained water availability, that the springs won't dry up, wells won't drop, and this sort of thing, and also that the quality is maintained on a full-time basis. We would be somewhat concerned, I know in the Gas Hills we have been talking about fencing livestock out of the down-wind area of uranium mining for a few miles. So we would be concerned about what kind of fencing requirements may be out there and just how much land would be removed from livestock grazing and normal use. The area is frequented by wild horses and antelope and this area is right in the migration pattern for both of these animals. We would be concerned with those activities that are occurring out there and what the impacts could possibly be and what plans are to remove them.

That entire area out there is known to have a number of archaeological resources out there. I don't know what kind of investigations have been made of these resources and their particular value and what may need to be done as far as reclaiming those areas and historical materials. I don't know if paleological and archaeological inventory has been made of this particular site. I know that in the vicinity of the Bison Basin Oil Field there is a significant archaeological deposit which I know the Smithsonian has done some work on and so I would suggest that possibly this would need to be looked into.

I know that just a few miles north of this area we have discovered a Golden Eagle nest site and there is a potential impact in this area as far as those birds go.

Congress passed a law creating the Continental Trail. The exact location of that Continental Trail is yet to be affixed but it would be in the very close vicinity of this mine operation.

In talking about the roads out there, one of the things that we have discovered in other areas where we have mining operations is that the mine does increase the amount of traffic on those roads; particularly people who live outside of the area and commute to these areas cause very high maintenance costs on these roads because they never drive at a reasonable speed - they very seldom do. And it tears up the road, so that would be a concern. Also, the high speeds would

probably cause some loss of wildlife along these roads from actual hitting.

We would be concerned with waste disposal on site because, there again, that would be removing some land from production use for an extended period of time.

And I was wondering too about the possibility, I realize that it's remote, but what plans are made or are being made for a potential spill? Let's say a truck going out there turns over or whatever in wintertime and ends up dropping its load out there. . . .

RON KAUFMANN: That's quite possible and I think some of those concerns have been addressed in the ER and . . .

TAPE ENDS IN MIDDLE OF SENTENCE

NEXT TAPE BEGINS:

RON KAUFMANN: The main thing here is the mining itself, the fact that they're pumping into the aquifer and then pumping out. Now obviously, we don't want what they're pumping into the aquifer containing uranium to go shooting off in all directions contaminating other people. The way that the NRC has licensed mines and the way that the Ogle operation is designed is that there are monitor wells all around the operation within 200 feet of the operation. And these monitor wells are sampled every two weeks which, according to the rate of flow, should be sufficient to, if there is something flowing out of there that shouldn't be, that could be contaminating, it should be detected. There is a part of the operation that we are approving for them that involves excursions. They do have plans, Ogle has plans that are very typical of in-situ mining operations where they are monitored, as I say, every two weeks and steps are taken to cleanup, to prevent and if an excursion does occur to cleanup so that the water quality and possible uses outside the area or any future uses is not affected.

DALE BRUBAKER: Does the NRC do this monitoring or does Ogle do it?

RON KAUFMANN: The monitoring is done, I believe monitoring is done by Ogle most of the time and then every now and again the State of Wyoming steps in and checks and makes sure that everything is all right. And Ogle is reporting the results of their monitoring to the NRC and the State of Wyoming. Now we have at other sites, we have had excursions and they have been cleaned up. So we feel at this time that the system we have set up for that is a relatively good one. Yes sir?

DALE BRUBAKER: I have a couple of questions about grazing. One, we are concerned about the fact that some land will be taken out of production for at least a period of time during the time that they will be operating, up to 56

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acres which is going to be effected while the licensees are out there but. . . Second, what I want to know is in these areas where you're going to have the settling ponds and the evaporation ponds, will you be having the same concern, the NRC, with the down-wind possible contamination for these ponds as you expressed out in the Gas Hills area?

RON KAUFMANN: I'm not familiar with the operation that you refer to in the Gas Hills.

JACK ROTHFLEISCH: He is talking about the settling ponds, the blowing of tailings. Actually, during a very short period of time when the material, the solvents have evaporated, the liquids have evaporated into solids in the evaporation ponds, you will have the dry materials; however, I would assume that the material will be gathered up before it becomes completely dry and is permitted to dust. In the license condition, we will ascertain that Ogle Petroleum will take necessary measures to prevent any falling dusting dispersion of the evaporated, dry solids.

DALE BRUBAKER: Do you anticipate this possibly could then have an impact regarding fencing on a much larger area than this 56 acres?

JACK ROTHFLEISCH: I'll say that if the material is allowed to become bone dry and you've got wind blowing, and winds are always blowing in Wyoming, you can disperse further down site out of the area. However, what we do is to make sure that Ogle will keep the material moist and will apply necessary chemical compounds on the surface to prevent the blowing. This will be a condition of their license.

DALE BRUBAKER: So then we're not looking at. .?

JACK ROTHFLEISCH: I don't think, what we're looking at because we're going to take necessary steps to prevent it.

RON KAUFMANN: Are there other concerns?

GLENN CATCHPOLE: I might add one additional fact here. We are required or will be required to monitor down wind, in fact the whole area, periodically for contamination of soils and contamination of vegetation, radioactive type contamination. Through that monitoring, if it becomes apparent that we have a problem, then, yes additional fencing might be required. But we really don't anticipate that as Jack has mentioned here. But we are monitoring.

DALE BRUBAKER: Are you anticipating that you are going to require that this 56 acres be fenced?

RON KAUFMANN: O'fhand, I don't have an answer for that. Glenn?

GLENN CATCHPOLE: Our plan is that we will fence the processing plant area which will encompass about 34 acres and we will fence the evaporation pond area. And we do not plan to fence the wellfield area.

DALE BRUBAKER: With water being scarce in that area and if there's water available in some of the ponds, you're going to have a lot of pushing on the fences requiring high maintenance; in other words, to keep the livestock from pushing in there to get at the water so we will see some fence damage. From the sounds of it on your fencing there will probably be a minimal affect on the wild horses and antelope movement. That was my primary concern there was just how extensive the fencing will be. Okay, I don't know if an archaeological and paleo-logical inventories have been made out there yet but they probably will?

RON KAUFMANN: An archaeological and historical survey has been made by the State. At this time, I think there was something about some sort of historic trail being. . .

DALE BRUBAKER: Not a historic trail, it's the Continental Divide Trail.

RON KAUFMANN: . . I don't know if it was considered in the evaluation but the State of Wyoming did do an archaeological and historical look at the site and did, we got a letter from the State saying that the site is not going to affect any archaeological or historical artifacts.

DALE BRUBAKER: Our concerns about the roads we can cover when we issue the right-of-way to them when it comes to that, and I'm sure you will probably address the possibility of a potential spill from one of those trucks that might spill its load. . .

JACK ROTHFLEISCH: I don't recall, is that covered in one of your addresses?

GLENN CATCHPOLE: It's covered in there. It's a brief discussion.

RON KAUFMANN: (mumbles) . . Thank you very much for your comments. Are there other questions about the scope of the EIS or do you have some concern you wish to express about it? Yes ma'am?

DEBRA EAST: I believe that this might be the right time to take these types of questions. If not, you can hold this question till later. This deals with the process where the scoping meeting was announced and procedural questions. Is that the time to ask now?

RON KAUFMANN: I would think this would be as good a time as any.

DEBRA EAST: You stated at the beginning of the meeting that the State of Wyoming had been notified about this particular meeting and I have had communication with the State Planning Coordinator's Office, Land Quality Division, Department of Environmental Quality, and according to them they received notification of this meeting October 23, and yesterday was the day that Land Quality received Ogle Petroleum's report. I don't know where the communication breakdown occurred, I just hope it doesn't occur again. I feel that we are very lucky

to have this many people here today, this many citizens. The notification came out in the paper, in the Casper Star, yesterday. It could have been done a little bit earlier, I believe. We had sufficient notice on the Nine-Mile Lake scoping meeting; and this is a good process. I hate to see it not start out well so there was concern about that. I just think that one reason there isn't a Land Quality representative here is that they didn't have sufficient notice.

RON KAUFMANN: I talked with the Land, let's see I keep forgetting the name of this. .

DEBRA EAST: There's the Land Quality Division and then there's the State Planning Coordinator's Office.

RON KAUFMANN: State Planning Coordinator's Office which has spoken to me also for the other agencies that are associated with it. They called just about the time that Glenn was putting in the mail, at least I hope he was putting in the mail, the Environmental Reports, which was approximately two or three weeks ago, at least, maybe more. Anyway, they called me and said listen, we heard there's a scoping meeting - they had not been told about it. I told them at that time that we were just putting it in the mail to them, told them how many copies they were going to receive. The SR notice also about that time should have gone into the mail to all of those places. I personally don't understand where the communications breakdown was; however, for future scoping meetings, I will try to ascertain what happened and see if perhaps the agencies received them and the individuals didn't or if there was a breakdown somewhere else along the line. But as you say, it's a good process. We have tried to enhance it.

The reason that the Casper paper had it was probably because we arranged to have it printed in the Riverton paper, so that the people here at Riverton would be aware of what was going on. They obviously were not getting copies of the Environmental Report or of the SR notice. So I will try to ascertain for future meetings what happened.

DEBRA EAST: For future reference, for public notices, the Wyoming State Journal is the newspaper in Lander, and there is discussion of a new paper starting in Fremont County called the Fremont County Fruit Basket. It hasn't started publication yet but that is another paper that you might be able to put your information in.

Another request is that, learning from the Nine-Mile Lake experience, copies of the environmental reports and other pertinent information like NRC regulations pertaining to this particular type of process are not available for citizens in Casper. And so I would recommend to the NRC that documents that relate to this

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project throughout the entire process be put in the Fremont County Library in Lander and I'm not sure with Riverton if there's a library that's county in Riverton or the CWC Library would be a better place, but I would suggest that they be there because people will go read them rather than going to Cheyenne. I also have the mailing list of citizens who could not be here today who are interested in receiving information or letting you know that they are interested, and I'll give that to you.

RON KAUFMANN: Thank you, I appreciate your comments. Are there other comments about the scope of the EIS? Other people with problems or concerns? Okay, the comment period as I say for the EIS will continue for probably the next eight months, because it will probably take that long to get the EIS in final form and published. We are very interested in seeing that this document reflects not only the current concerns that we have traditionally run into in trying to license solution mining operations but the specific concerns of the people of this area and of the state. So if you do have problems, you do have questions, please feel free to write them down and send them in. We will try to get you the answer or try to let you know that we are taking your concern into consideration. If there are no other questions or comments. .

DEBRA EAST: For a little information, when would comments have to be put in in order for them to be accepted, like in the next two months?

RON KAUFMANN: Any time that you submit is going to have some affect. But the EIS, the draft of the EIS, will probably be completed, the first draft, we hope that we'll only need one, the first draft will probably be completed sometime in January or February. Does that answer your question then? Sometime in January or February.

MINTON KELLY: Yes, probably February.

RON KAUFMANN: So anything received by then, say in the next three months, is certainly going to have an affect on that document. The final EIS will be some months after that depending on what the comments on the draft are.

I'll try this again, if there are no other comments or questions about this, then I'll adjourn this meeting. I thank you all for coming. Also, a particular thanks to the Elk's Club who let us use this room and provided the coffee.

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