

STATE 40175: SUPPL. OF INFORMATION-
AL MEMORANDUM & CHEMICAL CORP. FOR
AMENDMENT OF ORDER NO. R-111-A.

Case Number.

4175

Application

Transcripts.

Small Exhibits

ETC.

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 23, 1969
EXAMINER HEARING

1969 AUG 27 AM 3 18

IN THE MATTER OF:

Application of International
Minerals & Chemical Corpora-
tion for the amendment of
Order No. R-1111-A, Eddy County,
New Mexico.

Case No. 4175

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

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MR. UTZ: Case 4175.

MR. HATCH: Case 4175, Application of the International Minerals & Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico.

MR. MATKINS: I am Jerome D. Matkins, Carlsbad, appearing for the Applicant. We have one witness.

MR. UTZ: Will you stand and be sworn, please?
(Witness sworn.)

MR. UTZ: Are there any other appearances?

MR. KELLAHIN: Jason Kellahin of Kellahin and Fox of Santa Fe. I am appearing for Phillips Petroleum Company and Skelly Oil Company.

MR. UTZ: You may proceed.

CHARLES E. CHILDERS

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MATKINS:

Q Will you state your name and where you live?

A Charles E. Childers, Carlsbad, New Mexico.

Q And you are employed by International Minerals & Chemical Corporation?

A Yes, sir, I am.

Q For the record, International Minerals and Chemical Corporation is often for purposes of brevity referred to as I.M.C., is it not?

A Yes, sir.

Q Do you hold a degree in mining engineering?

A Yes, sir, I do.

Q Where did you obtain that degree?

A At the University of Illinois in January of 1955.

Q How long have you been associated with the Potash Basin near Carlsbad, Eddy County, New Mexico?

A I began working in the Potash Basin in 1952 for Duval Corporation, at that time known as Duval Sulfur and Potash. I worked summers there for '52, '53 and '54 until I was graduated from the University in 1955. At that time I went to work for Duval and have been connected with Duval or I.M.C. since that time.

Q How long have you been with I.M.C.?

A Since February 1st, 1963.

Q What is your present title with the Company?

A General Superintendent, Maintenance and Engineering.

Q Are you familiar with this Application being made by I.M.C. to amend the order of the O.C.C. No. R-111-A as amended?

A Yes, sir, I am.

MR. MATKINS: Is the Examiner satisfied with his qualifications?

MR. UTZ: Yes, he is qualified.

MR. MATKINS: All right, sir.

BY MR. MATKINS:

Q Mr. Childers, I would refer you to Exhibit No. 1 which is on the wall and ask that you move to the wall with a pointer. Was this exhibit prepared by your or under your supervision?

A Yes, sir, it was.

(Whereupon, Applicant's Exhibit No. 1 was previously marked for identification.)

Q Can you tell us what it purports to show?

A The area outlined in red is the area that is presently included in Order R-1111-A. The area outlined in blue is the area to which we would have the Order extended.

Q The purpose of that exhibit is simply to show the relationship of the subject of this Application to the remainder of the area covered by the Order?

A Yes, sir, this is an extension.

(Whereupon, Applicant's Exhibit No. 2 was previously marked for identification.)

Q Now, referring you to Exhibit No. 2 also on the wall, can you tell us what that exhibit shows?

A The area outlined in red, again, is the bottom half of this area which you can see pretty well. It cuts across right through here. The area outlined in red is cross-hatched in red. The area shaded blue in Exhibit 1 is cross-hatched and outlined in blue on Exhibit 2. The area shaded in green is the limits or the area in which we draw the ore body only for the extension, not on up through here. I won't bother you with all of this -- extending the ore body down in this area -- but only in the area that we are petitioning to be extended, the ore body as we calculate it.

Q Does that particular exhibit show the locations of core tests made in this area?

A Yes, sir. This is rather small. I am sure you can see the writing down here. There are drill holes all through here. These are all drill holes.

(Whereupon, Applicant's Exhibit No. 3 was previously marked for identification.)

Q I hand you what is marked Exhibit 3 and ask you what that constitutes?

A Exhibit No. 3 is the numbers of the leases that

I.M.C. holds that are involved in this area that we are petitioning to have extended. The complete lease, obviously, is not being asked to be included, but the area that we are asking to be included in one of these leases.

Q Those are Federal Potassium leases, are they not?

A Yes. It shows the expiration dates for these leases, and this date for all of these leases is April 8, 1988.

Q And you are only applying for those portions of the leases which you have found these commercial quantities as of the present time?

A This is true, sir.

Q All right. Now, referring you to Exhibit 4 which is also on the wall, can you explain to the Examiner what that consists of?

(Whereupon, Applicant's Exhibit No. 4 was previously marked for identification.)

A This is a generalized section of the Carlsbad Potash district. It has other information on it that is not relevant to this case, but because it best shows the various ore zones. The reason for this exhibit is to point out that Potash is not found in only one bed in the Carlsbad area. There are several mineralized zones.

U. S. G. S. has marked these off starting from the earliest, in deposits, the lowest, No. 1 working itself up through the column and each mineralized zone is numbered in succession, first ore zone, second ore zone, third ore zone and so forth. These various beds have been given other names by other people. Some of the early geologists and engineers in the area, I believe, were U. S. Potash and Old Union Potash, numbered what they found to be the economical ore zone or what they thought might be. They started from the top and went down, and they have four different area zones that they marked off. They call them No. 1 Bed, No. 2 Bed, No. 3 Bed, No. 4 Bed. At I.M.C. the areas are more commonly known by the miners and the people that work at the property, other than geologists or engineers, as the 800 level, the 850 level or the 900 level which is a generally accepted mining method of defining an area. These numbers come from the depth below the surface that the bed was intersected.

In this particular case, the little notes on here indicate that the 5th ore zone which is also known as No. 2 bed is known at I.M.C. as the 800 level. We cut through that at No. 1 shaft, the first shaft that was sunk by I.M.C. at 800 feet below the surface.

Now, the next ore zone that is profitable, No. 3 Bed, and is sometimes called or referred to as the 850 level at I.M.C., and the next one is the first ore zone which is the bottom and referred to by some geologists as the No. 4 bed, commonly known at I.M.C. as the 900 foot level.

Q So on that chart you are just simply showing the three levels that have been mined by I.M.C. at the 800, the 850 and 900 level, is that correct?

A Yes, sir.

Q And the level we are talking about at this Hearing is what level?

A The ore body is outlined on Exhibit 2 which is the ore zone known at I.M.C. as the 850 level, and known by the U.S.G.S. terminology as the 4th ore zone.

Q Before we move away from Exhibit 4, can you tell us if in the experience of I.M.C. different types of ore have been found in the different ore zones?

A Yes, sir. The first ore zone, the lowest of the mineralized zones, is primarily a Sylvite ore zone. The mineral Sylvite or Potassium Chloride is found in this ore zone. There are other minerals that are also found in this ore zone, but it is primarily Sylvite ore body.

On the 850 level or the 4th ore zone which we

are showing here, the ore in this horizon is primarily a Langbeinite ore which is a Potassium and Magnesium Sulfate, and always in the past we have used this as a Langbeinite ore source.

The 800 level or the 5th ore zone at I.M.C. is what we refer to as a true mixed ore body. It has both of these commercial ores located in it and sometimes it will be -- have more Sylvite than Langbeinite and other times it will have more Langbeinite than Sylvite.

So to recap, then, the first ore zone is primarily a Sylvite zone. The fourth ore zone is primarily a Langbeinite zone and the fifth ore zone is primarily a mixed ore zone, having values of both.

Q All right. Now, the test results that we are going to show the Examiner today relate to this 850 level, is that not correct?

A Yes, sir. The only values that we are showing as far as this ore body is concerned are values that exist on the fourth zone, fourth ore zone.

Q When I.M.C. drilled these cores, were they primarily looking for the Langbeinite ore under those leases?

A This is correct. This area was drilled and the

area was taken underneath for the values contained in the langbeinite ore.

(Whereupon, Applicant's Exhibit No. 5 was previously marked for identification.)

Q Now, I would like for you to refer to Exhibit No. 5 and perhaps you will want to be seated and explain to the Examiner what the data therein contained means?

A We have broken down here some basic information concerning the two minerals that are of primary interest in this case, Sylvite and Langbeinite. Sylvite is the ore that is mined by all companies in the Carlsbad area. It is also the mineral that is mined in Utah by Texas Gulf Sulphur and it also is a mineral that is mined in Canada by the various companies engaged in Potash mining in Canada.

The formula for Sylvite is KCl . Now, the next part of the next line on the exhibit which shows percent K_2O , is included for some kind of clarification because of the fact that Potash from the time it is drilled and evaluated by the geologists to the time that it is put out of our refinery or anyone's refinery as a finished product, is referred to by units of K_2O , Potassium Oxide. This is standard all over, all State records, all Federal records.

Everything is shown as units of K₂O. This is the common denominator for the Potash.

So to refer to Potash as K₂O, we have to understand that it depends on what mineral you are talking about because you can get K₂O from any of several minerals. In the mineral Sylvite case, this means that if we had a product that was 100 percent KCl, if our refinery was successful in removing all of the gang material so that we had our ore refined to pure Sylvite, which is what we are actually trying to do. This is the ultimate. If we had 100 pounds of this material, it would be equivalent to 63.17 pounds of K₂O.

The analysis for the pure mineral KCl would be 100 percent KCl. The analysis in units of K₂O would be 63.17 percent K₂O. Maybe it would help to explain and say that we guarantee our products to be 60 percent K₂O. It gives our refinery some leeway in removing gang material.

Q This is Sylvite that you are guarantying?
A Yes, sir. We are talking only about Sylvite now. The product that comes from Sylvite is a product that is commonly known as a muriates of Potash.

The next line there under Sylvite more or less shows the conversion factor. This is a factor that you would

use to find out how much mineral you are talking about. So that if you were talking about something that was Sylvite ore, you are talking about 10 percent K₂O as Sylvite. This means that you have actually 15.8 percent mineral. The ore has 15.8 percent Sylvite. So this is just a conversion factor where you can convert back when you want to find out how much mineral you are talking about as opposed to percent of K₂O.

I point out again that all analyses of any Potash ore are made in percent of K₂O, because this is the ultimate value.

The next line shows Langbeinite and the next grouping down here shows the same information for the mineral Langbeinite. There are only two companies in the world that are mining the langbeinite ore, I.M.C. and Duval. Duval began several years ago mining Langbeinite. Until that time, I.M.C. was the only miner of Langbeinite. It is, as we have stated, a Magnesium Sulphate, Potassium Sulphate mineral.

Q Excuse me. Is there a reason why only Duval and I.M.C. are mining Langbeinite?

A We, as far as we know, have the leases on the only known deposits of Langbeinite in the world. There are no

other known deposits of langbeinite in the world, to my knowledge.

Now, as you can see, the percentage of K2O is much lower in Langbeinite than it is in Sylvite, whereas, something that -- pure Langbeinite which is 100 percent Langbeinite would only give you 22.69 percent K2O. So that if your analysis showed you to have 22.69 percent K2O Langbeinite, then you are talking about the pure mineral. If we were mining this, for example, we wouldn't have a refinery. The ore would just come up the shaft and go into the boxcars and be shipped off as the product. The conversion factor shows to be 4.41 which means that on any of your information on Langbeinite ore, you multiply the percent of K2O of Langbeinite by 4.41 to find the amount of mineral. A simple example is one that is 10 percent K2O and the Langbeinite is actually 44.1 percent mineral.

Q Is that basically the data contained on that exhibit?

A Yes, sir. I think I have shown it.

Q Let me ask you: Are the refining processes for Sylvite and Langbeinite the same?

A No, sir.

Q Can you briefly describe the difference in the

refining processes?

A The most common process for mining or refining Langbeinite ore or the method that we use, is to simply wash the mine-run ore. Correction. It is not mine-run. It has been crushed down after it came from the mine. It is run through the crusher so it is not mine-run, but the raw ore coming from the mine is washed. The gang material and all of the potash ore is primarily light sodium chloride, and it is very soluble as is Sylvite. So that when you put fresh water with your ore, you take the gang material for langbeinite into solutions. Langbeinite, although it is soluble, is very slowly soluble; so slow, in fact, that you can run it through your refinery and put fresh water to it and take your gang material into solution and run it through the **centrifuge** where you separate your solids from the liquids, and you come out with solid Langbeinite and the gang material is in the solution as a liquid. This is primarily and very simply a method of refining Langbeinite.

The Sylvite, as far as processes are concerned, is just about backwards, in that you lose all of your material through your refinery in a brine that is already saturated so that you will not take any of the Sylvite ore

into the solution. You must carry it into a brine. The basic separation method is by floatation where the reagents are mixed, you depress them in, you put in the floating reagent, it attaches to Sylvite, it attaches to air; it will not attach to salt. You put with your ore, insert air bubbles to the bottom and they float to the top and it sticks to the air and sticks to the Sylvite, the Sylvite material floats to the top and large paddles rake it off. This is the separation method for Sylvite.

Q Now, you have already testified that at the 900-foot level, you primarily find the Sylvite ore, is that correct?

A That is correct.

Q Is there any Langbeinite ever found in that Sylvite ore?

A Yes, sir.

Q Does the same hold true for the 850 level; do you find Sylvite in your predominately Langbeinite ore?

A Yes, sir.

Q And at your 800 level which is a mixture of both ores of various consistencies?

A Yes, sir. At different areas in the 800 level,

one would be more predominate. You will find either of them predominant in one area or another.

Q Now, I.M.C. has been mining and processing both of these ores for a number of years, is that correct?

A Yes, sir.

Q If you get predominately Sylvite and run it through your Sylvite process in the past, what has happened to your Langbeinite ore?

A It goes in the tailing pond. It goes out as waste.

Q What happens in your old process to the Sylvite ore that is contained in your predominately Langbeinite ore?

A When you add fresh water to your ore, the Sylvite goes into the solution very rapidly, and it ultimately ends up, also, in the tailing pond.

Q So in either process if you are under your old refining system, if you were refining for one ore, you are going to lose the value of the other?

A Yes, sir, prior to this January when we brought ore up from the mine, we had to make a choice as to whether we wanted to consider that ore as Sylvite ore or Langbeinite ore. Once you made that decision and started it on its way through the refinery, we gained values that we selected, and the values of the other ore were lost.

Q Now, in this area of proposed addition to R-111-A, I believe you previously testified that you were looking primarily for a Langbeinite bed, is that correct?

A That's correct.

Q We will get into some detail about its commercial value in a short while, but under your old process with the Langbeinite found there, was it thought to be commercial under recent experience by I.M.C.?

A Yes, sir, without any question.

Q Not discarding the Sylvite value in that bed?

A This is true. The ore body was drilled and the ore outline delineated and the area taken to lease, and it was because of the Langbeinite values.

Q Now, has the company developed a new process whereby they can now get both Langbeinite and Sylvite values from the same ore?

A That's correct. Yes, they have.

(Whereupon, Applicant's Exhibit No. 6 was previously marked for identification.)

Q We have on the wall what has been marked Exhibit 6, which is a blank piece of paper, and I am wondering if you can take this marking pencil.

(Discussion held off the record.)

Q Now, I wonder if you could by drawing, show your refining process of the ore taken from the ground prior to the new process you have developed commencing the beginning of this calendar year?

A Yes, sir. If I would show up here a figure that we can refer to as No. 1 Shaft, we can begin right here. Prior to No. 1 Shaft in this diagram is our mine. If we had more than one shaft we might be utilizing both of them. Before our process, we actually had in effect the Langbeinite mine and the Sylvite mine. As we stated here, one was known as the 850 level and the other one was the 900-foot level. They had their own power systems and their own belt conveyor systems. However, we only had one shaft where we had a hoisting cable built. So underground, both of these mines, you might say both of these producing areas delivered to the bottom of this shaft. The ore was hoisted up from this shaft and into the crude bins.

If it was Langbeinite that was being hoisted, then it was put into the "Lang crude bin."

Q Why don't you write "bin" or something after that?
(Witness complies.)

A However, if we were hoisting Sylvite ore, then it was placed into the "Sylvite crude bin." Once the ore was

placed in either of these bins, then it was marked for where it was going to go. The circuits were not interchangeable. They were two different refineries. The Lang ore went down through -- I will abbreviate Langbeinite as L-A-N-G -- to the Lang refinery. This is where we washed the ore and took the solids off the product.

What was placed into the Sylvite crude bin was sent down through our Sylvite refinery. So that if we had ore that we sent up, just for example, that was 8 percent K2O as Sylvite and 5 percent K2O as Langbeinite, we would make a choice to send to one refinery or the other. If we chose the Sylvite refinery, then what we would be feeding our refinery was 8 percent K2O Sylvite ore. The value of the Lang meant nothing. It could be discarded. However, if we selected to send this to the Langbeinite refinery, then we would be sending ore which was 5 percent K2O as Langbeinite. Whatever Sylvite value was in the ore -- and its value was 8 percent K2O -- is discarded or was lost.

Do you want me to explain the new process?

Q Just before you do, the product out of your Sylvite refinery is the product that has been mined in Carlsbad Basin for years and years, is that correct?

A This is correct.

Q And that is called muriate of Potash on the market?

A Yes, sir. There are various types. The most that we do is the screen types, standard, coarse, granular, but it is all the same thing. It is just in different particle sizes.

Q Is the product from your Langbeinite refinery the same product or a different product from your Sylvite refinery?

A It is a different product because -- it is a Potassium product but it has Sulphate and Magnesium where the muriates of Potash do not. The trade name for I.M.C. Langbeinite is Sul-po-mag, which stands for Sulphate, Potassium and Magnesium.

Q Both products are used in fertilizer, are they not?

A This is correct.

Q Are there some uses for fertilizer containing Sul-po-mag as opposed to fertilizer containing muriates of Potash?

A Yes, sir. Some agricultural products or some users of Potassium cannot use Potassium muriates of Potash to obtain the required Potassium because of the chlorine. Two examples are tobacco and citrus products. So they prefer to use our Sul-po-mag in which they can obtain the necessary

Potassium and also get some benefit from the Sulphates and Magnesium without having the chlorine. There is a definite market for all of it.

Q All right, sir. Now, can you on this same Exhibit No. 6 explain to the Examiner the new process that has been put into effect at I.M.C., how it operates and what advantages it has?

A Yes, sir, if you don't expect anymore detail. Essentially what we have done at I.M.C. is to add additional equipment that is set up to do heavy-media work on the ore. Heavy media is the term used to explain the method of separation where you use a liquid of certain density and as you put various solids into this liquid, some will float and some will sink, and by controlling the density of the liquid, you can control what floats, what sinks and what is in the middle is called the mid.

Q You have drawn a rectangle between your ore bins and your refinery. Could you indicate that as heavy media, put an "H.M." out to the side of it or some designation?

(Witness complies.)

A Now, what we do, there is no longer such a thing as a Langbeinite crude bin and a Sylvinite crude bin. There is only a crude bin. These two bins are tied together.

Actually there are still two bins there. One was not removed. They are both used, but now ore coming up the shaft is not designated as Langbeinite or Sylvite ore. It is only designated as ore. It makes no difference what the primary mineral is in that ore. So that we would say now that these two lines are going to be removed and they are going to feed back together from these bins into our heavy-media plant. Here in the heavy-media plant, we will break the ore down into three factions. One faction will be Sylvite. One faction will be Langbeinite. The other faction will be waste. So that now if we had this same percentage of ore -- if I may add here 3000 tons to indicate one shift's mining -- if we mine in one shift and hoist it up our shaft, 3000 tons of this percent ore, 8 percent K₂O Sylvite and 5 percent K₂O Langbeinite, we could end up -- these aren't exact figures by any means -- but essentially what we are doing, we are going to grab all the Sylvite plus some of the waste, and we could perhaps end up with 1000 tons that we are now going to send through our Sylvite refinery, and its value is going to be 24 percent, because all of the Sylvite that is in this is still here. It is not a complete process by itself so that we grab off just the Sylvite and throw the rest away because we will have

some material with us to assure ourselves of getting all of the Sylvite and there is waste taken with it.

Now, we have 1000 tons of 24 percent K2O Sylvite, and over here on the Langbeinite refinery we are going to be sending this same 1000 tons but it is not going to be 5 percent K2O as Langbeinite because we gathered all of that Langbeinite material and we are going to have some waste with it also. So we are going to have, say, 1000 tons and it is going to be upgraded to about 15 percent K2O Langbeinite. The other 1000 tons is the mid and it has no value, Sylvite or minerals in it, so it bypasses both refineries completely.

Q Is it a fair statement in summary to say that the new process enables you now not to be required to lose one ore in order to process the other?

A Yes, sir.

Q So that in the proposed addition to R-111-A, you will also have Sylvite value although you initially went in there looking for Langbeinite, is that a fair statement?

A That is entirely correct.
(Discussion held off the record.)

(Whereupon, Applicant's Exhibit No. 7 was previously marked for identification.)

Q I would now refer you to Exhibit No. 7 and ask you if that is the core test results of the core tests shown in Exhibit 2?

A Yes, sir.

Q Can you indicate the sequence in which those test holes appear on Exhibit 7? In other words, you've got them listed here, but could you point to Exhibit 2 and show from top to bottom on Exhibit 7 where these holes appear?

A Yes, sir. 384, 373, 385, 370, D-5-A, 369, 371, 372, and 387.

Q All right. Now, I want to call your attention to the last column on Exhibit 7 which are the ore grades of Langbeinite shown in these core tests, and I want to ask you, discounting the Sylvite altogether, if in the experience of I.M.C. in Langbeinite to date if those core tests show percentages constituting a commercial quantity of ore?

A With the exception of D-5-A, they do.

Q Why do you say that?

A The lowest grade -- again with the exception of

D-5-A -- that is shown is 7.3 percent K2O as Langbeinite. And we have in the last 6 months that we were running ore through just the Lang refinery before we had the heavy-media process, we had several months where the feed grade to the refinery was lower than the lowest grade shown here, again, with the exception of D-5-A.

Q That is up to December of '68 that you are talking about?

A Yes, sir. Just glancing through the 6 months -- which we work on a fiscal year and keep our records that way -- so the first 6 months of the fiscal year we just completed, we operated as was shown on Exhibit -- without having any media -- where the ore feed that was considered to be Langbeinite went straight to the Langbeinite refinery. Looking at those 6 months, there were several ore grades lower for a whole month. The average grade for the month lower than the lowest that we see here.

Q Have you mined lower grades in past years than some of the grades you see here?

A Yes, sir. Some of these grades -- in fact, we never had a year that was -- any year that was as high as some of the grades that are shown here.

Q That was without any Sylvite recovery at all?

A Yes, sir.

Q Now, again referring to Exhibit 7, should you mine this new area, that is, the subject of the proposed addition to R-111-A, would you now also have a Sylvite value in addition to the Langbeinite value?

A Very definitely.

Q Does this even make the property more commercially desirable than it was prior to this new process?

A Yes, sir. All Sylvite values shown there in Exhibit 7 will now be recovered.

Q Can you tell me what is meant by "Current Feed Grade Budget"?

A At I.M.C. the Current Feed Grade Budget means the budget that we are now operating on as far as what we expect to send to our refinery. Our profit plan is based upon -- as you can quite obviously see -- the number of tons we are going to mine. Then the values that are in those tons -- because if the value is twice as good mineral, the tonnage is going to be worth twice as much -- but the tons you are going to mine, the percent of mineral that is going to be in that ore, your percent of recovery, and the different product that you are going to make from this. Then they take the value of the various products and they

decide upon what the profit picture will look like during this period. We have a grade -- the lowest period for which we set a budget in one year. We also have a longer range plan, but the minimum time is one year. So your Current Feed grade would be the grade that was planned to be sent to our refinery during the current year.

Q Can you tell the Examiner what your Current Feed Grade Budget is?

A Yes, sir, 7.6 percent K2O as Sylvite and 4.8 percent K2O as Langbeinite.

MR. UTZ? 4.8?

THE WITNESS: Yes, sir.

BY MR. MATKINS:

Q Does I.M.C. at the present time have a 5-year Feed Grade Budget?

A Yes, they do.

Q Can you give us those figures?

A 8.1 percent K2O as Sylvite and 4.4 percent K2O as Langbeinite.

Q Now, do the core test results as shown on Exhibit 7 indicate ore deposits which will allow you to operate within that Feed Grade plan?

A Yes, sir.

Q Is my question clear?

A I think you might restate it to make sure.

Q Looking at the findings as to percent of ore grade of Sylvite and Langbeinite from your core tests as shown in Exhibit 7, are there commercial quantities of ore there that will allow you to operate within this five-year Feed Grade plan?

A Yes, sir.

Q Actually, I.M.C. is somewhat enthusiastic about this Langbeinite find, are they not?

A Yes, sir, very much so.

Q The reason being that there seems to be such a limited quantity of it and the different products from that being produced everywhere else?

A Yes, sir. We have only one source of competition in the Langbeinite fertilizer.

Q Why don't you go back to Exhibit 1 and show about where I.M.C. mines Langbeinite and about where Duval mines Langbeinite, if you can.

A These four squares that I have shaded in --

Q (Interrupting) Roughly in Township and so forth -- can you give that detail?

A We are in Township 22 South, Range 29 East. We

have four shafts on our property. They, all four, are located in that same Township, as you can see here on the map. We mine off of 3 levels. This is No. 1 Shaft and generally in a southeasterly direction is our ore body we are mining now and hoisting up No. 1 shaft, which lies down in here in a southeasterly direction.

Duval has a mine right here up in Range 32 East, Township 20 South where they mine Sylvite. They have another mine up here in Range 30 East, Township 18 South where they are not presently working the mine. The mine has been shut down. It was a Sylvite mine. They also have a mine down here which they refer to as their Nash Draw property. There are two shafts located there, the Duval 5 and 6 shafts. This is where they mine Langbeinite ore.

Q Approximately how far north are their mining operations of Langbeinite from the proposed addition which is the subject of this Hearing?

A Three miles.

Q Are you talking about to their shaft or to the extent of their mining?

A To the extent of their mining -- of course, I don't have that information available as to how far they are. This is only hearsay from talking to various people

who work there, but I do know that they have mined in a southerly direction, and so they are closer to this ore body now than they were when they put the shaft down. Exactly how far south they are, I don't know.

Q It would be anticipated, then, that if you are able to put that Langbeinite and Sylvite that is shown in the proposed addition into production, it is going to provide more wells for the State and more jobs for people in the Carlsbad Basin, and continuing longer than if you were not allowed to produce that ore for one reason or another?

A Yes, sir, that is correct.

Q And the purpose of this application is to insure protection, the same protection that other Potash miners receive under R-111-A and nothing more?

A This is true.

Q Have any definitive estimates been made of the value of the product which might be taken from this proposed addition, the finished product value, or is that possible at this time?

A Yes, sir.

Q Do you have a rough estimate yourself?

A Yes, sir.

Q What is that estimate?

A In the neighborhood of \$250,000,000.

Q That is talking about value of finished product?

A Yes, sir.

Q Now, you are now mining Langbeinite in a southerly direction, are you not?

A From our No. 1 shaft?

Q Yes.

A Yes, sir.

Q And there still remains a decision as to which is the better method of getting into the Langbeinite and its proposed addition when you need it, whether to drill another shaft or whether to funnel; this decision has not been made, has it?

A No, it hasn't.

Q Because at the present time you are producing Langbeinite ore from other leases?

A This is true.

Q Some of the ore that you are producing now is of a lower grade than some of the log tests that were shown here on Exhibit 7?

A Very definitely.

MR. MATKINS: I believe that is all the questions

that I have.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Childers, according to my understanding of your testimony regard to Exhibit 7, you have mined lower grade Langbeinite ore than either your current year or your five-year Feed Grade Budget, is that correct?

A As far as Langbeinite values are concerned?

Q Yes.

A Yes, sir.

Q You stated that that was commercial ore, is that correct?

A Yes, sir.

Q So at the same time you stated that your D-5-A hole was 2.9 percent Langbeinite was not commercial?

A The response that I gave you, I believe, in reference to a question looking only at that column, so I would have to include that. If you were mining only for Langbeinite and the Sylvite values contained in that area could not be recovered, then we couldn't say that we mined ores as low as 2.9 percent K₂O because we haven't. I might point out, sir, this is not our hole. If you will also take a fairly close look at the value there, it looks very queer,

but I include it in here because we did have information -- how ever reliable it is -- but if you will notice that in our drill pattern where we put our hole -- this is D-5-A -- we drilled here, here and here. The information we have from all the holes all around us is such that it doesn't lend too much reliability, their information, but we have the information and we had the hole. If their information is correct, it shows very high values in Sylvite which we now will recover. The Sylvite values on this sheet are just as valuable as the Langbeinite values because of our new process.

Q Well, would it follow, then, that a commercial body of Langbeinite ore would be somewhere between 2.9 and 7.3 to be commercial?

A From our experience, I think this is true, sir.

Q It would be closer to 7.3, I presume?

A Closer to 7.3 than the 2.9?

Q Yes.

A Yes. We have values as low as 6.3. We went for a whole month saying 6.3 K2O and everybody seemed to be happy. So we were making money on it and we know that we can do that commercially.

Q Yes. Then if you had an ore body of 6.3, you

would mine it and you would consider it commercial?

A Yes, sir.

Q So anything you had in Sylvite above that would be great?

A Yes, sir. We have a little problem here. We keep repeating Sylvite. Sylvite is the mineral. Sylvinite is the ore that contains Sylvite. So when you say Sylvite you are talking about the mineral itself. When you say Sylvinite, you are talking about an ore that contains Sylvite.

Q Now, did I understand you to say that you had 3 or 4 shafts?

A Yes, sir, 4 shafts.

Q Are you mining more than one ore body in each of those shafts?

A Well, I don't know if I can answer that correctly for you. Two of our shafts -- one of our shafts intersect two of the ore zones. And one of our shafts intersect three ore zones. Two of our shafts only have -- there is only ore in one zone. The zones are there in all instances throughout the Basin, but the ore isn't always there. So two of our shafts, when we went through the fourth ore zone and fifth ore zone, there was no ore there. But when we got to the first ore zone, it was there. No. 1 Shaft

had ore in -- I am sorry, I said one of them had two and the other one had three -- they both have three. No. 1 and No. 2, when those shafts were put down, they went through the ore zones, the commercial ore in each one of them. Two of the shafts intersect three ore bodies. Two of the shafts only intersect one.

Q So you've got two single completions and two triple completions?

A I am not familiar with your terminology but that sounds like it ought to be right.

Q So that you will be able to mine this area here that you are requesting to be extended or added to on R-111-A through a single shaft providing you have all three ore bodies overlying each other, I presume?

A I don't know if I am sure that I understand your question. We could mine that ore body as outlined in blue where we are applying for the extension without sinking any other shafts. We can get to it from where we are. These shafts -- these ore levels that we talk about in our mind are only 50 feet apart, and we go up and down once we get inside the mine -- we can go up and down from one level to another with no difficulty. In mining terminology it is a slope. You drive a slope and you can

go up and down. These areas intersect.

Q So you could run a drift from one of your other shafts clear down to this area?

A This is a question that Mr. Matkins asked, had I.M.C. decided which way they would go and the answer was, no. This means that we could from this shaft -- we could -- we are down in here somewhere mining right now from this shaft -- we could come right on over here with a drift underground, and we could haul the ore from here up over in No. 1. Our refinery sits right on top of No. 1 Shaft.

So we have a choice, then, of hauling it underground and hoisting it or sinking another shaft down here. We may decide it would be more economical to sink a shaft here and hoist the ore at this point and carry it overland to the No. 1 Shaft. See, this is what Duval did. You see, Duval didn't have any choice because of the fact they don't have all the leases along the way. But here is their first mine. This is where their refinery sits and they are mining langbeinite down here, and they hoist it and carry it in railroad cars up to their refinery. So we would have this choice, but as you can see, the choice is not so clear to us and the various things that would enter into it. We could mine it with the shafts we have right now or

we could sink another shaft and carry it to the refinery overland.

Q But at any rate it is mineable and it will be mined one way or the other?

A Yes.

Q I am not real sure I understood and this might not be pertinent to the record, but I would like to clear it up in my mind just what you meant from your heavy-media portion of your plant on the Langbeinite site; what was the process there to recover your Langbeinite?

A Through the heavy-media?

Q Well, after you passed the heavy-media?

A The ore from the mine comes up and goes through the heavy-media plant, and here it is separated. The separation is based on the density. So the Langbeinite is heavier than Sylvite or Halite, the gang material. So that this heavier fraction is pulled off, but it is not pure Langbeinite. We made no attempt to try and break it down that fine with our media. We separate it and then we have -- of course, in essence, we actually have upgraded the Langbeinite. We got rid of the Sylvite. We sent it the other direction without losing it. But now once it comes out --

Q (Interrupting) In the solution?

A Yes. Not at that point but it will be. It is carried by a brine. It doesn't go into the solution. Now, the Langbeinite, once it gets out of the heavy-media or in our old process before we had heavy-media, either that or this, it goes into the Langbeinite refinery and very simply it is washed with fresh water so that the waste material, salt, will go in a solution because of the fact you are using fresh water. Sylvite also goes right into the solution. The Langbeinite does not go into the solution in our process. You cannot say it isn't soluble because it is, but it is very very solidified and it is not in the circuit long enough for any of it to dissolve in our plant. So what we do, is we just wash it just like if you put a bunch of it in a bucket and fill it full of water and stir it all around and you pour off the liquids and the solids are still in the bottom, and this would be the Langbeinite. This is how we separate it. Of course, when you throw the liquids off, if there is any Sylvite there, it would have gone in the solution and it would have gone right down with the waste.

Q The Langbeinite is quite valuable because it can be used on certain crops like tobacco and citrus fruits and that is what makes this lease more valuable?

A Yes, generally speaking for New Mexico, for Eddy County, for the people down there, this is true. It is true for I.M.C. It is also valuable to us because we have less competition in this market. As you may be aware, the muriates of Potash market is very overcrowded at the present time.

Q The K2O that is derived from the Sylvite has chlorine in it, did I understand?

A Yes, sir. Sylvite is Potassium.

Q Is it the chlorine that causes it to be unusable?

A For certain products, yes.

Q The plants absorb the chlorine, I presume? I just thought that might be a good idea to break people from smoking cigarettes if there was chlorine in it.

A You would start fertilizing the tobacco crops with Sylvite instead of Langbeinite? We've kind of got mixed emotions about that stopping smoking.

MR. UTZ: Any other questions of the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Childers, what is the Commission's past adopted criterion for inclusion of land in the area defined by 111-A insofar as Sylvite is concerned?

A Insofar as Sylvite is concerned?

Q K20 Sylvite?

A It is my understanding that the guideline has been 4 feet of 15 percent of K20 as Sylvite.

Q Which would be, to combine the figures, 56 percent feet, is that correct?

A Yes, sir. Some companies in the Potash Basin do this, multiply feet by percent and come up with such a figure.

Q Now, what is the Commission's criterion with respect to Langbeinite K20?

A It is my understanding that they have used the guidelines of 4 feet of 8 percent K20 Langbeinite.

Q Which would be 32 percent feet?

A Yes, sir.

Q Now, turning to your Exhibit No. 7, I believe it is --

A (Interrupting) Yes, sir.

Q Hole No. 384 there would meet the criterion insofar as the Langbeinite is concerned, is that correct?

A This is true.

Q Hole No. 373 would also meet that criterion?

A Yes, sir.

Q Hole No. 370?

A Yes, sir.

Q How about hole D-5-A, would that meet the criterion in percent feet so far as K2O as Sylvite is concerned?

A Yes, sir, by some large number.

Q Hole No. 369?

A Yes, sir, very definitely.

Q Hole 371?

A 371 in percent feet of Langbeinite, it does meet the criteria.

Q Of 32 percent feet?

A Yes, sir.

Q While it is low in grade, the excess footage is there which brings the percent feet up to --

A (Interrupting) Yes, sir, past the guideline.

Q How about Hole No. 372?

A Yes, sir, very much.

Q And 387?

A Yes, sir.

Q That leaves only Hole 385. Now, is there any way that you can add the value of the Sylvite ore there and the value of the Langbeinite ore and come up with a minimum criterion in percent feet of K2O as one or the other?

A Well, we could take the minimum thickness which the O.C.C. has placed in the past which is the same for both minerals and multiply it by -- well, excuse me -- since it is the same, we could take the percent of mineral, percent K₂O as mineral and multiply it by this conversion factor and obtain what percent mineral the Commission is talking about. For example, they say it has to be 14.0 and we could multiply that by --

Q (Interruption) Would you please do that and show us whether the value of the ore in Hole No. 385 would meet the Commission's criteria of K₂O either as Sylvite or Langbeinite?

A We see here that in the case of Sylvite, the Commission's criteria would call for 22 percent mineral. In the case of Langbeinite, the criteria calls for 35 percent mineral. We have in this hole 385 -- we have something over 34 percent mineral combined, where in one instance the Commission has asked for 22 percent mineral, and in the other instance, they have asked for 35 percent mineral. We have approximately something over 34 percent mineral when combined.

Q When the two are combined?

A Yes, sir, plus the fact that 34 to 35 -- they asked --

I don't know how we would do this. If you want to average the 22 and the 35 -- in Sylvite they have asked for 22 percent mineral and in Langbeinite they have asked for 35 percent mineral, and if we take an average of that, that would be -- it would be approximately $28\frac{1}{2}$. So the average of those two, if you are going to talk about both values, would be 28.5 percent mineral. We have in this hole a show of 34 percent mineral.

Q Well, it would seem reasonable to average them since your process is going to extract the two of them?

A Yes, sir.

Q Under that criterion, then, Hole No. 385 would also have commercial quantities of ore?

A Yes, sir.

MR. NUTTER: I believe that's all.

MR. UTZ: Are there any other questions?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Childers, as I understand you are mining at the present time in the vicinity of this proposed extension, or are you?

A It depends, sir, on what you mean by "vicinity."

Q Well, how close are you both with your shaft and

your underground workings?

A I don't have a current mining map with me. We are mining down in this area which would be in the neighborhood -- if you want to draw this line right in here -- perhaps 5 miles.

Q Now, this is the shaft you say you could extend to reach this property?

A Yes, sir.

Q No leases in between?

A Yes, there are some right up over in here that adjoin this area that Duval owns, but these leases are ours.

Q Do you own leases or permits on all of the area proposed to be included in the extension?

A Yes, sir.

Q When did you acquire those leases?

A Sometime in the vicinity of two or three years ago.

Q Now, let's assume for a moment that you would extend your present underground workings to reach this property. How long would it take to get over there?

A Do you mean how long would it take if we were mining in the routine mining manner or if we decided to drive drift over there?

Q Well, first let's ask, then, how would you do it

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if you were going to extend your present drift over to this property; would you mine it in a routine manner until you reached it?

A Well, of course, this hasn't been decided at this time. You could do it this way. You could decide to have a regular operating underground panel and operate just the way you always operate and drive in that direction and when you reach it, you will be there or if you decided you would need that ore body more quickly, then you could put a development through. We have a continuous mining machine where you can drive only one or two drifts and just head out right for the area. In this case, you could go there much faster. It all depends upon the situation in the rest of the mine.

Q Could you give us a time estimate on each process, please?

A Not very accurate. I haven't thought of this before, so I can't do it very accurately without --

Q (Interrupting) Can you put on a basis of months, years or what basis could you give it to me on?

A We can mine down there -- if we wanted to mine down there in less than a year, if we put all of our effort into it -- I mean, if we decided we wanted to drive a

development entry and get to the ore body to exploit it, we could be there in less than a year.

Q But you don't know whether that will be done or not, do you?

A No, sir.

Q Now, assume that they are going to mine it in a routine fashion, how long would it take to get there?

A Well, let's say maybe up to three years.

Q Three years. Now, were all of the cores you made listed on your Exhibit No. 7?

A Were all of the cores that we made --

Q (Interrupting) Yes, sir, in the area that we are talking about for an extension?

A Only the holes which are inside the ore body as we have shown it were included, and all of those were included.

Q So then you had a total of 9 cores?

A I believe we had 8. Is there 9? One isn't on there.

Q But you do list 9 cores?

A Yes, sir.

Q Of the 9 cores, as I understand your exhibit, they are located on 7 Sections?

A Yes, sir.

Q And you are proposing to extend the Potash area to include portions of or all of the total of 13 Sections?

MR. MATKINS: I don't believe it is that much.

BY MR. KELLAHIN:

Q There could be quite a bit of variation across that area, could there not, Mr. Childers?

A Across this area?

Q The area you propose to include in this Potash zone. For example, I call your attention to a core drilled -- I don't have the numbers of the cores -- but the ones in Section 11 -- Section 13 -- you had two cores, as I understand it, your No. 370 and your D-5-A, one of which according to your testimony would be commercial and one which would not?

A That is partially correct and partially incorrect. There are two holes in there but they are both commercial ore.

Q Both commercial ore, but not as to your Langbeinite; you have to consider the combination?

A In the one hole, D-5-A, if you considered only langbeinite values, then, we wouldn't say that it was commercial.

Q But it would be as to the other core?

A As far as we are concerned, both of those holes are very commercial.

Q Well, you are saying, in effect, that the D-5-A is commercial because of the Sylvinite?

A Yes, sir.

Q Now, you got quite a range, though, in the presence of the Langbeinite in that one section, from 11.3 to 2.9?

A That is true.

Q Now, this could occur on the sections which you did not core, could it not?

A I couldn't say that it couldn't.

Q You couldn't say that it couldn't, is that your answer?

A Well, I obviously can't say that it couldn't occur somewhere else. There is no drill hole information to indicate that.

Q Now, you made no core at all in Section 26 of 23 South, 30 East?

A Where this half section is?

Q Yes, sir.

A No, sir, 387 is right on the line.

Q Right on the line. So you are relying on the information from that one core to cover a section and a half?

A Yes, sir, this core -- well, what you said there is not correct, but extending this ore body is based on that hole.

Q On that one hole?

A Yes, sir, but not the entire section because up in this corner, there is another drill hole.

Q What is the number of that one?

A 372.

Q What is the first one you referred to, Mr. Childers?

A 387.

Q 387. And that showed 8.4 percent of langbeinite?

A Yes, sir.

Q Which would barely meet the standards set by the Commission, is that correct?

A It is quite a bit more than "barely," since there is 6.3 feet of it.

Q Mr. Childers, can you give this Commission and the Examiner any estimate as to when you anticipate these 13 sections would be developed by your company?

A No, sir, I cannot.

Q Can anyone in your company give us such an estimate?

A This has been discussed as studies were being made as recent as this spring on whether we should move in

immediately or try and do other mining other places. At the time, our management was not able to set a definite period, so I would assume I would have to answer your question by saying that there isn't anyone in the company that could tell you exactly when it will be mined.

MR. KELLAHIN: Thank you, sir.

MR. MATKINS: May I ask just another question or two?

MR. UTZ: Yes.

REDIRECT EXAMINATION

BY MR. MATKINS:

Q We have talked about the standards that have been used, and I think that you have been down this list to show that at least by combining your ore, that these tests meet those standards in one form or another, but is it not a fact that I.M.C. has been existing and profiting and operating under those standards for the past 5, 6, 7 or 8 years?

A Yes, sir.

MR. MATKINS: That's all I have.

MR. UTZ: Any other questions?

MR. MATKINS: Mr. Utz, I move the introduction of Exhibits 1 through 7.

MR. UTZ: Without objection, exhibits 1 through 7 will be entered in the record of this case.

(Whereupon, Applicant's Exhibits Nos. 1 through 7 were offered and admitted in evidence.)

RECROSS EXAMINATION

BY MR. UTZ:

Q I have one additional question with regard to Exhibit 3. I note the expiration date on the leases that are in this area where you are requesting this extension is April 8th, 1988. Are those 20-year leases? In the oil business, that is a mighty long lease.

MR. MATKINS: I am sorry, I don't have them here, but I will be glad to get you the information.

MR. UTZ: I would imagine that would probably be pretty good information to have in the record.

MR. MATKINS: I will be glad to get it for you.

(Discussion held off the record.)

MR. UTZ: Your lease expiration on this area, then, has almost 19 years to go?

MR. MATKINS: Mr. Utz, we will examine those individually and advise you if that is incorrect in each case.

MR. UTZ: All right, sir. Other questions?

The witness may be excused.

(Witness excused.)

MR. UTZ: Statements?

MR. KELLAHIN: If the Examiner please, I appear here on behalf of Phillips Petroleum Company which owns leases in the following sections in Township 23 South, Range 30 East: Sections 11, 13, 14, 24, 25 and 26.

MR. UTZ: Give me those again, would you?

MR. KELLAHIN: 23 South, 30 East, in Sections 11, 13, 14, 24, 25 and 26. And in 23 South, 31 East, they hold the SE of the SE of 18. Phillips Petroleum Company is opposed to the extension of the Potash area to include the acreage proposed for the reason, in the first place, of course, they hold a mineral interest in here which they wish to develop which would be precluded by such an extension. On the basis of the testimony that has been offered here today, we are talking about granting an extension and calling a halt to any oil and gas development on a total of 13 Sections based on a total of 9 cores located in 7 of those 13 Sections which seems to be rather skinny information. I think it is particularly true when we look at the list of Sections which I have just named as being owned by Phillips. I am only referring, of course, to the core as listed on Exhibit 7 as being located in the particular Section,

and admittedly, some of those core holes would be on the line and this would have to be adapted back and forth but I have not had an opportunity to make that examination. So on the basis of Exhibit No. 7, we say in Section 11, there was no core. Phillips owns a mineral interest in there. In Section 13, the core information would indicate that there is a commercial deposit of Potash. In Section 14, 24, the cores there would indicate that neither of those Sections meet the minimum standards set by the Commission for inclusion in a Potash area, either as to either of the two minerals involved or the combination. In Section 26, we have no core. In 23 South, 31 East, Section 18, there is no core. So on the basis of that information, it would certainly indicate that out of all of those sections listed as being owned by Phillips, only two meet the minimum standards which have been set by this Commission for inclusion in a Potash area. We submit that a great injustice would be done to include this in this area at the present time, and forestall any oil and gas development.

I am also authorized to state on behalf of Skelly Oil Company that they are opposed to any extension of this Potash zone for the reason that it is, in their opinion,

productive oil and gas which should be developed.

I would also like to point out that the witness offered by the Applicant here cannot give us any estimate whatever as to when, if ever, this area will be developed for Potash. It is in the realm of rank speculation to say when it is going to be developed. They say they could extend their shafts, and if they went all out, they could get over there in a year, and if they mined in the ordinary fashion, maybe in three years. We don't know whether they will do this or whether they will ever do anything in this area, and until they are ready to submit a concrete program for development of the area with more pertinent information as to presence of commercial ore deposits, we feel the Application should be denied.

MR. UTZ: Mr. Kellahin, does either Phillips or Skelly have any production in this area?

MR. KELLAHIN: No, sir, I don't believe either one of them have drilled in there. If they have, I have no information on it.

MR. UTZ: Then they don't know if it is productive for oil?

MR. KELLAHIN: No, they don't. We are in the same situation as the Potash company, but we feel that we

should have the opportunity to find out.

MR. UTZ: Other statements?

MR. MATKINS: Just a brief comment, Mr. Utz.

Mr. Kellahin seems to discount the height of the ore body in taking into consideration whether it is of commercial quantity. Of course, these standards have been set down, and I think they date back some many years. What is commercial ore, in effect, is ore that can be produced under present mining technology and refined and sold on the market at the current price, finding a market and making a profit. That is commercial ore. There has been testimony here that I.M.C. has mined 6.3 Langbeinite and made a profit; that it has mined under the 14 percent on Sylvite and made a profit, and that their projected income feed grades are within the percentages found in these core tests. I think a very important aspect of this whole proceeding is the distinction between Langbeinite and Sylvinite. You will note that there is no testimony that there has ever been any Langbeinite found north. It is found in the southern portion of R-111-A which has been core tested in the proposed addition. The testimony is to the effect that this is a valuable product because it is so rare apparently, and that in all of the drilling

and mining that has taken place in that Carlsbad Basin since the '30's, that the Langbeinite has only been found there. It hasn't been found in Canada or elsewhere, and that it is a different product and it has a special market.

By conservative estimate, when processed, it may have a value of \$250,000,000. Recognizing that the oil companies have their rights and their needs and duties to explore for their well, the evidence seems clear to me that there are deposits there that are much too valuable to risk the

loss of. The statement of Mr. Childers was that it will be developed. Whether they will drill a shaft down in the blue portion is different from coming down from underground. The company has not resolved this. Perhaps there are some cost analysis and time tables, but we feel that this is just too valuable a deposit to endanger without the protection afforded by the rule. Then if the companies feel that they need to come in and develop and explore for their oil and gas, that they should do so under the restrictions of the rule to protect this valuable deposit.

MR. UTZ: It is my understanding, if I understand you correctly, that you would object to any drilling whatsoever in this area, regardless of how they were completed?

MR. MATKINS: I am afraid I can't answer that.

Do you want to try to answer that?

MR. CHILDERS: I think that we probably would.

I wouldn't want to say without any question at all that we would. We certainly want to have the protection afforded whereby the oil companies would have to request permission for each hole, and then we could be in on a Hearing to protest if we wanted to.

MR. UTZ: All right. The case will be taken under advisement.

(Whereupon, the Hearing was concluded at approximately 3:10 P.M.)

STATE OF NEW MEXICO)
) SS.
 COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify
 that the foregoing and attached Transcript of Hearing
 before the New Mexico Oil Conservation Commission was
 reported by me, and the same is a true and correct
 record of the said proceedings, to the best of my knowledge,
 skill and ability.

Richard L. Nye
 COURT REPORTER

My commission expires April 8, 1971.

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the hearing held on April 4, 1970
 held by me on *4475*
John C. [Signature]
 New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 4, 1969

Re: Case No. 4175
Order No. R-111-G
Applicant:
International Minerals &
Chemical Corporation

Mr. Jerome D. Matkins
Attorney at Law
P. O. Drawer N
Carlsbad, New Mexico 88220

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

Other

Mr. Jason W. Kellahin

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4175
Order No. R-111-G

APPLICATION OF INTERNATIONAL MINERALS
& CHEMICAL CORPORATION FOR THE AMEND-
MENT OF ORDER NO. R-111-A, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 23, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of August, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, International Minerals & Chemical
Corporation, is the owner of certain potash leases in Township
23 South, Ranges 30 and 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-
111-A, as amended, to extend the Potash-Oil Area as set forth in
said order to include the following-described acreage in Eddy
County, New Mexico:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 8: S/2 and S/2 NW/4
Section 9: S/2 SW/4, NW/4 SW/4, and
S/2 SE/4

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CASE No. 4175
Order No. R-111-G

(Continued from Page 1)

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM

Section 10: SE/4

Sections 11 through 15: All

Sections 24 and 25: All

Section 26: E/2

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM

Section 7: S/2, NW/4, S/2 NE/4, and
NW/4 NE/4

Section 18: All

(4) That the evidence presented indicates that the entire area described above contains potash deposits in commercial quantities.

(5) That to promote the orderly development of natural resources in the Potash-Oil Area, Order No. R-111-A, as amended, should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

(1) That Order No. R-111-A, as amended, is hereby amended to include the following-described acreage within the Potash-Oil Area in Lea and Eddy Counties, New Mexico:

EDDY COUNTY, NEW MEXICO

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM

Section 8: S/2 and S/2 NW/4

Section 9: S/2 SW/4, NW/4 SW/4, and
S/2 SE/4

Section 10: SE/4

Sections 11 through 15: All

Sections 24 and 25: All

Section 26: E/2

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM

Section 7: S/2, NW/4, S/2 NE/4, and
NW/4 NE/4

Section 18: All

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CASE No. 4175

Order No. R-111-G

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

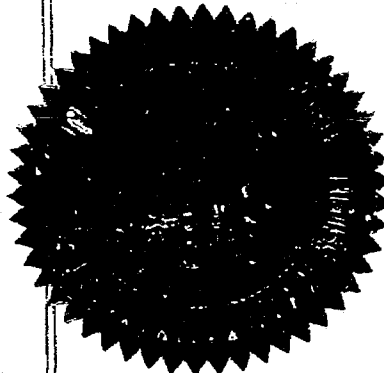
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Member


A. L. PORTER, Jr. Member & Secretary



esr/

Docket No. 21-69

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 23, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 4160: (Continued and Readvertised)

Application of Roger C. Hanks for pool redelineation, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the NW/4 and NE/4 of Sections 28 and 29, respectively, from the South Prairie-Cisco Pool and the extension of the Middle Allison-Pennsylvanian Pool to include all of Section 29, the SE/4 of Section 30, the N/2 of Section 32, and the N/2 of Section 33, all in Township 8 South, Range 36 East, Roosevelt County, New Mexico.

CASE 4172: (This case will be continued to August 6, 1969)

Application of Pennzoil United, Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Lovington-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre oil proration units.

CASE 4173: Application of Amerada Hess Corporation for special pool rules and pool extension, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Hobbs-Drinkard Pool, Lea County, New Mexico, including a provision for 80-acre oil proration units. Applicant further requests that said pool be extended to include the following-described acreage:

TOWNSHIP 18 SOUTH, RANGE 38 EAST

Section 28: SW/4
Section 29: S/2
Section 32: All
Section 33: W/2

TOWNSHIP 19 SOUTH, RANGE 38 EAST

Section 4: NW/4
Section 5: N/2

CASE 4174: Application of Amerada Hess Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Amerada Petroleum Corporation State "A" Well No. 5, located in the NE/4 NE/4 of Section 32, Township 18 South, Range 38 East, Lea County, New Mexico, to produce oil from the Hobbs-Blinbry and Hobbs-Drinkard Pools through parallel strings of tubing.

CASE 4175: Application of International Minerals & Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to include the following-described lands in the Potash-Oil Area defined by said order:

4' 8" 14 1/2
K₂O sylvite
4' 0" 8 1/2 K₂O as
Langbeinite

TOWNSHIP 23 SOUTH, RANGE 30 EAST
Section 8: S/2 & S/2 NW/4
Section 9: S/2 SW/4, NW/4 SW/4, S/2 SE/4
Section 10: SE/4
Sections 11 thru 15: All
Sections 24 and 25: All
Section 26: E/2

TOWNSHIP 23 SOUTH, RANGE 31 EAST
Section 7: S/2, NW/4, S/2 NE/4,
and NW/4 NE/4
Section 18: All

CASE 4176: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider excepting from the provisions of Order No. R-3221, as amended, certain wells in Eddy County, New Mexico. The Commission will consider excepting all wells producing from the Corral Canyon-DeLaware Pool, Eddy County, New Mexico, from the provisions of Order (3) of Commission Order No. R-3221, as amended, which prohibits the disposal of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico.

CASE 4177: Application of Roger C. Hanks for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the West Milnesand-Pennsylvanian Pool, Roosevelt County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

Examiner Hearing - July 23, 1969
-3-

Docket No. 21-69

CASE 4178: Application of Aztec Oil & Gas Company for two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 29 North, Range 9 West, Aztec-Pictured Cliffs Gas Pool, San Juan County, New Mexico:

A 146.27-acre non-standard unit comprising the SW/4 of Section 30 and the N/2 NW/4 of Section 31, to be dedicated to its Cain Well No. 16, located in Unit N of said Section 30 if said well is recompleted in the Pictured Cliffs formation or to a new well which may be drilled on the same location.

A 147.61-acre non-standard unit comprising the S/2 NW/4 and the SW/4 of Section 31 to be dedicated to its Cain Well No. 4, located in Unit N of said Section 31.

CONFIDENTIAL

LEASES INVOLVED

IN

R-111A EXTENSION APPLICATION

LEASE NUMBER

EXPIRATION DATE

NM-0359157

April 8, 1988

NM-6829

April 8, 1988

NM-0359158

April 8, 1988

NM-0359159

April 8, 1988

NM-6830

April 8, 1988

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
IMC EXHIBIT NO. 3
CASE NO. 4175

CONFIDENTIAL

MINERALOGY OF PRINCIPAL MINERALS

SYLVITE

Formula

KCl

% K₂O

100% KCl = 63.17% K₂O

Conversion Factor

1.58 (Multiply % K₂O by 1.58 to find
% mineral)

LANGBEINITE

Formula

2MgSO₄ · K₂SO₄

% K₂O

100% 2MgSO₄ · K₂SO₄ = 22.69% K₂O

Conversion Factor

4.41 (Multiply % K₂O by 4.41 to find
% mineral)

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
IMC EXHIBIT NO. 5
CASE NO. 4175

CONFIDENTIAL

CORE TESTS RESULTS IN ORE BODY

AS SHOWN ON EXHIBIT II

<u>Hole #</u>	<u>Location</u>			<u>Thickness</u>	<u>Ore Grades*</u>	
	<u>Sec</u>	<u>Twp</u>	<u>Range</u>		<u>Syl.</u>	<u>Lang</u>
384	7	23S	31E	4.4'	4.8	8.8
373	10	23S	30E	5.8'	0.2	11.0
385	14	23S	30E	4.1'	1.3	7.3
370	13	23S	30E	8.4'	0.2	11.3
D5A	13	23S	30E	5.9'	12.0	2.9
369	18	23S	31E	11.3'	4.8	9.2
371	24	23S	30E	4.3'	2.1	7.7
372	25	23S	30E	6.7'	0.3	11.6
387	25	23S	30E	6.3'	0.2	8.4

*Reported as percent K_2O as Mineral

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
IMC EXHIBIT NO. 7
CASE NO. 4175

AGRICULTURAL CHEMICALS DIVISION
P.O. BOX 71 • CARLSBAD, NEW MEXICO 88220
TELEPHONE: AREA CODE 505 • TUXEDO 7-2871



INTERNATIONAL MINERALS & CHEMICAL CORPORATION

July 2, 1969

MAIN OFFICE
JUL 3 AM 11 23

Docket 4175

Mr. A. L. Porter, Jr., Secretary
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Porter:

This is to confirm my telephone conversation of July 2 with Mr. Nutter, in which I requested that representatives of International Minerals & Chemical Corporation be permitted to petition for an extension of the "Potash - Oil Area" at the Commission Hearing to be held at 9:00 a.m., July 23, in the State Land Building, at Santa Fe, for the purpose of considering such petitions. Mr. Nutter assured me this petition would be included on the docket.

International Minerals & Chemical Corporation respectfully petitions an amendment of Order No. R111-A as amended by Orders No. R-111-B through F to extend the Potash - Oil Area, as set forth in said orders, to include the following described acreage in Eddy County:

Township 23 South, Range 30 East, N.M.P.M.

- Section 8: S/2 and S/2 NW/4 ✓
- Section 9: S/2 SW/4, NW/4 SW/4 and SW/4 SE/4, ✓
also SE/4 SE/4 (not presently under lease)
- Section 10: SE/4 ✓
- Section 11: ~~S/2, NE/4, S/2 NW/4 and NE/4 NW/4~~ ✓
- Section 12: All ✓
- Section 13: All ✓
- Section 14: All ✓
- Section 15: All ✓
- Section 24: All ✓
- Section 25: All ✓
- Section 26: E/2 ✓

DOCKET MAILED

Date 7-16-69

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

Mr. A. L. Porter, Jr., Secretary

-2-

MAIN OFFICE

'69 JUL 3 AM 11 13

July 2, 1969

and in:

Township 23 South, Range 31 East, N.M.P.M.

Section 7: S/2, NW/4, S/2 NE/4 and NW/4 NE/4
Section 18: All

We are anticipating receipt of a copy of the docket for the aforementioned hearing, which will confirm to us that our petition will be given consideration at that time. All such communications should be directed to the above address to my attention.

We appreciate the opportunity of presenting this case at this time.

Sincerely yours,



G. Scott Turnbull
Manager of Engineering

GST:jw

cc: S. A. White
R. W. Hougland
C. E. Childers

WILDCAT

~~On the 23rd of January~~
~~proceeding for allowable income~~
~~indicated~~

~~Mr. Rod~~ near

23rd
Hocket to

Scott Turnbull

887-2871 Carlsbad

P.O. Box 71

Interkation Minerals and Chem.

- Potash area -

would leases included in

Potash area -

23 30
See 10 SE/4

4175

Heard 7-23-69

Rec. 7-29-69

Grant I M C an expansion
of the R-111 order, for
expansion of the Potomac
Area as requested & listed
on the application.

Thurs 8/1/69

20 11 12 02
JEROME D. MATKINS
LAWYER
601 NORTH CANAL STREET
P. O. DRAWER N
CARLSBAD, NEW MEXICO 88220

July 24, 1969

Rec-7-25-69
AREA CODE 505
885-2445
885-2312

Mr. Elvis A. Utz
Hearing Examiner
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

Re: Case No. 4175, Application of I. M. C.
for Amendment of Order #R-111-A

Dear Mr. Utz:

You will recall that during the Hearing of this case, you inquired as to the accuracy of the expiration date on the Federal Potassium leases involved as shown on Exhibit 3, which was introduced into evidence.

This is to advise that we have reviewed the Leases and the expiration dates recited therein are correct. These are twenty-year Federal Potassium Leases, the terms of which may be reviewed every twenty years according to federal regulations.

I trust this is the information you desired.

Yours very truly,


Jerome D. Matkins

JDM:mr

cc: Mr. Jason W. Kellahin

Mr. C. E. Childers

DRAFT

GMH/esr
July 29, 1969

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

RECORDS CENTER

CASE No. 4175

Order No. R-111-G

APPLICATION OF INTERNATIONAL MINERALS
& CHEMICAL CORPORATION FOR THE AMEND-
MENT OF ORDER NO. R-111-A, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 23, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of _____, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, International Minerals & Chemical
Corporation, is the owner of certain potash leases in Township
23 South, Ranges 30 and 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicant seeks an amendment of Order No. R-
111-A, as amended, to extend the Potash-Oil Area as set forth in
said order to include the following-described acreage in Eddy
County, New Mexico:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM

Section 8: S/2 and S/2 NW/4

Section 9: S/2 SW/4, NW/4 SW/4, and
S/2 SE/4

Section 10: SE/4

Sections 11 through 15: All

Sections 24 and 25: All

Section 26: E/2

CASE No. 4175

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 7: S/2, NW/4, S/2 NE/4, and
NW/4 NE/4
Section 18: All

(4) That the evidence presented indicates that the entire area described above contains potash deposits in commercial quantities.

(5) That to promote the orderly development of natural resources in the Potash-Oil Area, Order No. R-111-A, as amended, should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

(1) That Order No. R-111-A, as amended, is hereby amended to include the following-described acreage within the Potash-Oil Area in Lea and Eddy Counties, New Mexico:

EDDY COUNTY, NEW MEXICO
TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 8: S/2 and S/2 NW/4
Section 9: S/2 SW/4, NW/4 SW/4, and
S/2 SE/4
Section 10: SE/4
Sections 11 through 15: All
Sections 24 and 25: All
Section 26: E/2

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 7: S/2, NW/4, S/2 NE/4, and
NW/4 NE/4
Section 18: All

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

1/23

Eddy Co

Township 23 South R 30 E

Sec 8: $S/2$ & $S/2 NW/4$

Sec 9: $S/2 SW/4$, $NW/4 SW/4$,

Sec 11: $SW/4 SE/4$, $SE/4 SE/4$

Sec 12: $S/2$, $NE/4$, $S/2 NW/4$, $NE/4 NW/4$

13: All

14: All

15: All

24: All

25: All

26: $E/2$

T 23S R 31E

Sec 7: $S/2$, $NW/4$, $S/2 NE/4$, $NW/4 NE/4$

Sec 18: All

R. Scott Turnbull
Box 71
Col

International Minerals
& Chemical Corp.



DOCKET MAILED

DATE