

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION**

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

**DE NOVO  
CASE NO. 13367**

**APPLICATION OF BASS ENTERPRISES  
PRODUCTION CO. FOR AN ORDER  
AUTHORIZING THE DRILLING OF A WELL  
IN THE POTASH AREA, EDDY COUNTY,  
NEW MEXICO.**

**ORDER NO. R-12402-A**

**ORDER OF THE OIL CONSERVATION COMMISSION**

**BY THE COMMISSION:**

**THIS MATTER**, having come before the Oil Conservation Commission ("the Commission") on June 5, 2006 at Santa Fe, New Mexico, on Bass Enterprises Production Company's ("Bass") application for an order authorizing the drilling of one well in the potash area, Eddy County, New Mexico, and the Commission, having carefully considered the evidence, the pleadings and other materials the parties submitted, now, on this 13th day of July, 2006,

**FINDS:**

1. Notice has been given of the application and the hearing on this matter, and the Commission has jurisdiction of the parties and the subject matter.
2. The New Mexico Oil and Gas Act, NMSA 1978, Section 70-2-12(B)(17) authorizes the Division "to regulate and, where necessary, prohibit drilling or producing operations for oil and gas within any area containing commercial deposits of potash where the operations would have the effect unduly to reduce the total quantity of the commercial deposits of potash which may reasonably be recovered in commercial quantities or where the operations would interfere unduly with the orderly commercial development of the potash deposits".
3. This matter concerns Bass' application for an order authorizing the drilling of the proposed James Ranch Unit Well No. 93 at a location 660 feet from the North and

East lines (Unit A) of Section 7, Township 23 South, Range 31 East, NMPM in the potash area of Eddy County.

4. The potash area is the area where potash-mining operations are in progress or in which core tests indicate commercial potash reserves. The area is co-terminus with the Known Potash Leasing Area as determined by the United States Department of the Interior, Bureau of Land Management ("BLM").

5. Commission Order R-111-P provides that potash lessees shall file each year with the BLM and the New Mexico State Land Office a designation of the potash deposits the potash lessee considers to be its life-of-mine reserves.

6. Life-of-mine reserves are those potash deposits on state or federal lands that the potash lessee reasonably believes to contain potash ore in sufficient thickness and grade to be mineable using current mining methods, technology and equipment.

7. Order R-111-P's effect is to permit the drilling of oil and gas wells in lower grade marginal or uneconomic potash ore deposits in the potash area while preventing the waste of potash and more fully protecting the higher-grade ore deposits.

8. Section 7, Township 23 South, Range 31 East, NMPM is within an area designated as measured potash ore (the higher grade ore deposits) and contains life-of-mine reserves Mosaic Potash ("Mosaic") has designated pursuant to Order R-111-P.

9. Methane releases from oil and gas wells into potash mine workings can endanger the lives of potash miners and make further mining activities cost prohibitive because of the more expensive safety requirements that the United States Department of Labor, Mine Safety and Health Administration ("MSHA") imposes on mines that contain gas.

10. As a result of the danger of methane releases, Order R-111-P provides that oil and gas wells shall not be drilled within "buffer zones" defined as within one-quarter mile of the life-of-mine reserves for shallow wells and within one-half mile of the life-of-mine reserves for deep wells.

11. Order R-111-P defines deep wells as wells in those formations below the base of the Delaware Mountain Group or those below a depth of 5,000 feet, whichever is less.

12. Drilling for oil and gas after potash mining has occurred is difficult, if not impossible, because of the caverns created during the potash ore's extraction.

13. As such, the development of either oil or gas or potash has the potential to make the development of the other much more difficult.

14. Bass is the owner of all the working oil and gas mineral interests under Section 7, Township 23 South, Range 31 East, NMPM.

15. On August 12, 2004, Bass filed an application for permit to drill ("APD") with the Oil Conservation Division's ("Division's") Artesia district office for the proposed James Ranch Unit Well No. 93.

16. Stacy Mills and his family own the surface and 53 percent of the minerals in the NE/4 NE/4, Section 7, Township 23 South, Range 31 East, NMPM, where Bass proposes to drill the James Ranch Unit Well No. 93. Stacy Mills and the other mineral interest owners have leased the oil and gas minerals to Bass.

17. Bass proposed to vertically drill the James Ranch Unit Well No. 93 to an approximate depth of 14,800 feet to test all formations from the surface to the base of the Morrow formation.

18. The proposed James Ranch Unit Well No. 93 would be the second Morrow well, an infill gas well within the 322.53-acre deep-gas spacing unit comprising the N/2 equivalent of Section 7, Township 23 South, Range 31 East, NMPM.

19. The N1/2 of Section 7, Township 23 South, Range 31 East, NMPM is a proration unit for an existing directionally drilled gas well, the James Ranch Unit Well No. 14.

20. On August 19, 2004, Bass notified all potash lessees within one mile of the proposed well location for the James Ranch Unit Well No. 93. IMC Potash Carlsbad, Inc., now Mosaic, is the only potash lessee within one mile of the proposed well location.

21. Mosaic holds federal potash leases within Sections 5, 6, 7 and 8, Township 23 South, Range 31 East, NMPM except for the privately owned NE/4 NE/4 of Section 7.

22. Currently, there is no potash lease with the owners of the fee mineral underlying the 40 acres comprising the NE/4 NE/4 of Section 7, Township 23 South, Range 31 East, NMPM.

23. Mosaic's current MSHA classification for its type of mine is a Category 4 gassy mine.

24. This means that Mosaic has not had methane gas in its mine in a concentration capable of sustaining combustion and does not have to maintain its belt lines separate from its ventilation system.

25. If an oil and gas well caused methane gas to be introduced into Mosaic's potash mine and increased methane to a concentration capable of sustaining combustion, Mosaic would have to change technology, which is estimated to cost \$200 million.

26. On September 15, 2004, the Division's Artesia district office approved Bass' APD for the proposed James Ranch Unit Well No. 93.

27. On September 17, 2004, Mosaic filed an objection to Bass' proposed James Ranch Unit Well No. 93.

28. On September 18, 2004, the Division's Artesia district office rescinded the APD for the proposed James Ranch Unit Well No. 93.

29. On October 12, 2004, Bass filed an application with the Division for an order approving the drilling of the proposed James Ranch Unit Well No. 93.

30. On December 2, 2004, the Division conducted a hearing on Bass' application.

31. On August 8, 2005, the Director of the Division issued an order authorizing Bass to drill the proposed James Ranch Unit Well No. 93.

32. On September 7, 2005, Mosaic applied for a hearing de novo before the Commission asking that the Commission deny Bass' APD for the proposed James Ranch Unit Well No. 93.

33. Bass has not applied with the BLM to directionally drill a well using the surface location of the James Ranch Well No. 14 and a bottomhole location under the NE/4 NE/4 of Section 7, Township 23 South, Range 31 East, NMPM.

34. Bass' witnesses testified that Bass wants to test all the potentially productive formations under the NE/4 NE/4 of Section 7, Township 23 South, Range 31 East, NMPM, which would require a vertically drilled well.

35. Bass did not provide evidence showing the potential of oil or gas production in formations other than the Morrow formation, such as the Delaware formation. It only showed that there are two directionally drilled wells producing from the Morrow formation under Section 7, Township 23 South, Range 31 East, NMPM.

36. The proposed total depth for the James Ranch Unit Well No. 93 is for depths below 5,000 feet and is, therefore, a deep well and must be more than one-half mile from Mosaic's life-of-mine reserves.

37. The proposed James Ranch Unit Well No. 93 is less than one-half mile from Mosaic's life-of-mine reserves.

38. The proposed James Ranch Unit Well No. 93 is in the center of the measured potash ore leading to the measured potash ore deposits northeast of the Waste Isolation Pilot Project ("WIPP") site.

39. Two previous oil and gas wells on either side of the proposed James Ranch Unit Well No. 93 leave a small corridor to mine potash ore deposits.

40. Within a one-half mile radius of the proposed James Ranch Unit Well No. 93 there would be an additional 0.66 million tons of 4½ percent potash wasted with a value of \$11 million beyond the potash wasted because of the drilling of the previous wells.

41. The estimated waste caused by the James Ranch Unit Well No. 93 only includes the potash that would be wasted within the one-half mile radius of the well. It does not include the additional known deposits of mineable potash ore south and east of the WIPP site. The federal government has withdrawn the WIPP site from potash development and it is therefore not available as access to the areas to its south and east. Therefore, these areas would become inaccessible due to the location of the proposed James Ranch Unit Well No. 93, which would be in the center of the only path to these ores.

42. Given that the proposed James Ranch Unit Well No. 93 is located in measured potash ore and would prevent the mining of not only the 0.66 million tons of 4½ percent ore within a one-half mile radius of the proposed well but would also prevent access to potash ore deposits south and east of the WIPP site, allowing the proposed James Ranch Unit Well No. 93 would “waste” commercial deposits of potash as defined in NMSA 1978, Section 70-2-3.

43. In addition, the proposed James Ranch Unit Well No. 93 is at a location 660 feet from the North and East lines (Unit A) of Section 7, Township 23 South, Range 31 East, NMPM, which is less than one-half mile from Mosaic’s life-of-mine reserves. While the proposed location is on fee land, where life-of-mine reserves are not designated, the location is still less than one-half mile from Mosaic’s life-of-mine reserves located on federal lands. Therefore, Order R-111-P prohibits approval of Bass’ APD.

44. Bass has alternative methods to develop the fee oil and gas minerals in the NE/4 NE/4, Section 7, Township 23 South, Range 31 East, NMPM. There are producing wells, the James Ranch Unit Well No. 14 and James Ranch Unit Well No. 15, that have been directionally drilled and have bottomhole locations under Section 7, Township 23 South, Range 31 East, NMPM. Bass has not applied with the BLM to directionally drill a new well from the James Ranch Unit Well No. 14’s well pad to a bottomhole location under the NE/4 NE/4, Section 7, Township 23 South, Range 31 East, NMPM; and, therefore, has not shown that the James Ranch Unit Well No. 14 well pad is unavailable as a drilling location. Nor has Bass provided evidence that drilling a horizontal or directional well to a bottomhole location under the NE/4 NE/4, Section 7, Township 23 South, Range 31 East NMPM is not technologically feasible.

45. Nor did Bass provide evidence showing that there are significant oil and gas resources in the shallower formations, which cannot be developed by horizontal or directional drilling, and would require a vertical well.

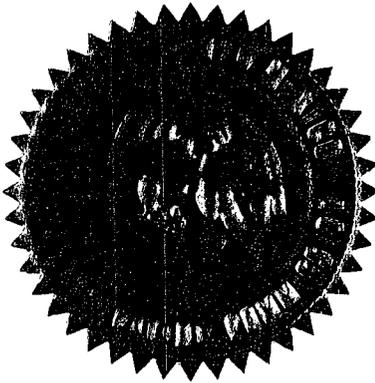
**IT IS THEREFORE ORDERED:**

1. That Bass' application to drill the proposed James Ranch Well No. 93 at its proposed location within the potash area, Eddy County, New Mexico is denied.

2. The Commission retains jurisdiction of this matter for entry of such further orders as may be necessary.

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

**STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION**



Handwritten signature of Jami Bailey in black ink.

**JAMI BAILEY, CPG, MEMBER**

Handwritten signature of William Olson in black ink.

**WILLIAM OLSON, MEMBER**

Handwritten signature of Mark E. Fesmire in black ink.

**MARK E. FESMIRE, P.E., CHAIR**

**S E A L**