REVISED MINE PLAN

FOR

POND SYSTEM V

AT

REILLY INDUSTRIES, INC.

WENDOVER, UTAH

OCTOBER 1, 2002

RECEIVED
JUN 30 2004
DIV OF OIL GAS & MINING

ADDRESS AND NAME OF MINE

CORPORATE ADDRESS:	Reilly Industries, Inc. 300 North Meridian Suite 1500 Indianapolis, Indiana 46204
V.P. BRINE DIVISION	John Craun (315) 248-6556

MINE NAME:	Reilly Industries, Inc. P.O. Box 580 Wendover, Utah 84083
MINE/ PLANT MANAGER:	Greg Foy (435) 665-2241

LANDOWNER(S) AND MINERAL OWNER(S)

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
2370 SOUTH 2300 WEST
SALT LAKE CITY, UTAH 84119
TELEPHONE NUMBER: (801) 977-4358

STATE TRUST LANDS
675 EAST 500 SOUTH
SUITE 500
SALT LAKE CITY, UTAH 84102-2818

REILLY INDUSTRIES, INC.
300 NORTH MERIDIAN
SUITE 1500
INDIANAPOLIS, INDIANA 46204
TELEPHONE NUMBER: (315) 248-6556

LEASE NUMBERS OF LANDS AFFECTED

FEDERAL

LEASE NUMBER		ACRES
U-087809		2,500.04
U-087810		2,527.36
U-087811		2,550.61
U-087812		2,489.34
U-087813		2,560.00
	TOTAL	21,627.35

STATE TRUST LANDS

LEASE NUMBER		ACRES
ML-18962		640.00
ML-18964		160.00
ML-18965		320.00
	TOTAL	1,120.00

INTRODUCTION

The Bonneville area of the Great Salt Lake Desert has been a subject of study and interest since the last century. In the early part of this century it was recognized as a potential source of potash, and there was some production during World War 1. The operation closed because of the post war decline in potash demand. During this pioneer operation, known as the Salduro Works, certain lands were acquired in fee on which a system of collection ditches was made.

Subsequently, in the mid-thirties, a successor company, Bonneville LTD., acquired more land in fee to the west of the original fee land, built a concentrator and other installations at the present site and constructed primary and harvest ponds.

Between 1961 and 1963 various potash leases were acquired from the Federal and State Governments. With the exception of certain school sections lying within the fee lands, these leases lie along the eastern border of the fee lands and extend approximately eight miles in a northeasterly direction. To date, the use of these leases has been limited to brine collection.

The property, plant and leases were acquired by Reilly Industries, Inc. from Kaiser Aluminum & Chemical Corporation in 1988. The potash operation presently employees 43 people.

Potash is produced through solar evaporation of naturally occurring brines collected from the sedimentary basin east and south of the plant. By evaporation, the potash content of the brine is concentrated to the point that solids are precipitated and can be collected. During this concentration process large quantities of sodium chloride salt are deposited on the primary pond floor, and the result of this buildup is a limitation on the economic life of a pond to

about 20 years. Thus to date five primary evaporation ponds have been utilized and replaced.

LOCATION AND LAND

The Wendover potash operation is located in the western most part of Tooele County, Utah. Plant and offices are approximately three miles east of Wendover, Utah, on old U.S. 40.

The collection and evaporation systems encompass approximately 87,000 acres to the south and east of the plant. Reilly Industries, Inc. owns in fee 57, 518 acres in Township 1 North, Range 18 West, Township 1 South, Ranges 17, 18 and 19 West: Township 2 South, Ranges 18 and 19 West, and Township 3 South, Ranges 18 and 19 West, SLBM. Excluded from this area are certain lands quitclaimed for highway and utility purposes.

In addition, Reilly Industries, Inc. holds under lease from the U.S. Government 24,699.83 acres adjoining the fee lands on the east. Interspersed among the fee lands and the Federal leased lands are certain school sections totaling 5,600 acres which Reilly Industries, Inc. leases from the State of Utah under mineral and special use leases. The locations and areas of all leases are shown on Reilly Industries, Inc. drawing #04PLMP01-001 Rev. 0, which was submitted on September 6, 2002.

Development, operation and the allocation of production of brines from these lands are governed by a unit agreement between the U.S. Government, the State of Utah, and Reilly Industries, Inc.

DESCRIPTION OF PRODUCTION METHOD

The production of marketable potash at the Reilly Industries, Inc. facility is accomplished in four basis steps:

1. Collection of naturally occurring brines.

2. Concentration of brines using solar energy for evaporation.
3. Selective precipitation and collection of the potash.
4. Concentration and drying of the potash ore at the mill.

Since the start of the operation in 1939, these basic steps have remained unchanged. Improvements in operating techniques, pond design, and equipment have been incorporated as they became available. Production had been increased during this period by expanding the brine collection system and enlarging the evaporation ponds. The annual production of the operation varies from year to year as a result of the following factors:

1. Quality and quantity of the collected brine, which is a function of the meteoric moisture in the area.
2. The evaporation rate that results from the spring and summer weather.

Production, after losses in pond operation and milling, averages approximately 85,000 short tons per year of potash products from the current pond system of a nominal 8,000 acres and approximately 580,000 feet of collection ditch.

Brine recharge is a natural phenomenon. Meteoric moisture directly on the collection area, and occasional flooding from surface runoff of the surrounding area, supplies fresh water that displaces the brines in the lacustrine sediments.

The proportions of the various salts in solution are essentially constant, but the water content of the brine varies annually and is dependent on the amount or dilution from moisture and flooding. This condition, which is completely outside the control of the operation, results in variation in the concentration, or grade, of the collected brine from year to year.

Further, the quality of the brine is interrelated with the quantity of brine available for collection. During a year of heavy winter and spring moisture the brine will be

somewhat diluted but the supply available for collection will be plentiful. Conversely, if moisture is light, the brines will be more concentrated, but quantity available will be reduced.

The brine composition for the two conditions stated above and for typical brine might be:

		Weight %		
		Lean	Typical	Good
Sodium Chloride	NaCl	16.0	21.0	23.0
Potassium Chloride	KCl	0.7	0.9	1.0
Magnesium Chloride	$MgCl_2$	1.0	1.3	1.4
All Others		0.3	0.4	0.5
Water		82.0	76.4	74.1
	Total	100.0	100.0	100.0

Brine Collection

The naturally occurring brine is gathered from the sedimentary basin with a system of 20-foot deep collection ditches. Brine flows through the playa sediments via a series of vertical shrinkage cracks, and horizontal sand lenses. Brine drainage into the ditches is by gravity and is thus directly related to the elevation of the brine in the collection ditch. Ditch spacing is designed to try and balance the annual extraction rate with the annual moisture recharge.

Brine flow in the ditches has been assisted by booster pumps through the collection network to the primary pumps for transfer into the evaporating pond system. Presently there are only two booster pumps in the collection system and they are located on Federal leases. Booster #1 is located in section 26 T.1N.,R.17W., SLBM. Booster #2 is located in section 18 T.1S.,R.17W., SLBM. Booster #1 has been circumvented by a collection ditch around the pumping facility and Booster #2 is the only pump presently operational in the system. Brine generation comes from the vast collection system and is supplemented by

two areas outside the main collection area. The first source is from collection ditches constructed through retired primary ponds. The second source of brine is from drilling brine wells drilled on Fee land. Presently, there are no brine wells operational, however deep brine wells are needed to off set the fluctuations of brine availability and brine wells may be utilized from time to time in the systems.

Brine Concentration

Collected brine is concentrated in the primary pond by evaporating water from the brine. Solar energy is utilized to heat the ponded brine so that evaporation may proceed. Multiple ponding stages are used to continually concentrate the brine to a point just short of potash (KCl) precipitation. As the brine is concentrated to a specific gravity of approximately 1.245, the brine is transferred into the harvest pond for selective precipitation of the potash crude salt. Typical brine composition at 1.245 specific gravity is:

	Weight %
NaCl	12.5
KCl	7.5
$MgCl_2$	9.8
Others	1.7
Water	68.5
Total	100.0

As water evaporation continues in the harvest pond, sylvinite, a physical mixture of NaCl and KCl. Is precipitated to the pond floor at nominally 30 % KCl by weight. Precipitation of sylvinite continues with evaporation until the brine specific gravity increases to approximately 1.257. At this point the brine is removed from the harvest pond to prevent dilution of the sylvinite with carnallite and other salts. The brine is then transferred to a holding pond for the end brine, magnesium chloride.

Potash Ore Processing

The sylvinite precipitated in the harvest pond is processed to produce agricultural grade potash. The layer of sylvinite salts is mechanically removed from the harvest pond floor with self-loading elevating scrapers and hauled to the flotation mill for benefication.

Concentration of the KCl is accomplished by conventional milling methods consisting of grinding and flotation to produce a float concentrate averaging 86% to 88% KCL. This concentrate is then leached with fresh water to remove most of the remaining NaCl. The leached product, nominally 96% KCl is centrifuged and dried. A part of the dried product is compacted to produce granular potash and the remainder is sold as standard product.

Spent brine from the mill contains potassium chloride and sodium chloride. This brine flows by gravity back to a collection ditch located on fee land. The purpose of this closed system is to re-introduce the brine into the system to maximize and utilize the KCl value contained in the brine.

The life of primary evaporation ponds is variable but finite from an economic standpoint. Brine concentration involves precipitation of salt (NaCl), which is laid down on the pond floor. The annual increase in the elevation of the pond floor results in an equivalent increase in brine elevation in order to maintain proper brine depth. Consequently, the increase in hydrostatic head differential between the ponded brine and the brine in the surrounding sediments induces a greater brine leakage rate from the ponds back to the sedimentary basin under, and possibly through, the seal ditch cut-off walls. When leakage increases to the point where it becomes and economic burden, the pond must be retired from service.

The present Primary Pond V was constructed during the late 70's, and was retired at the close of 2000. Pond system V was constructed on Federal and

State Trust Lands (Federal leases U-087809 through U-087813 and State leases ML-18962, ML-18964 and ML-18965) as a primary containment evaporation surface mine for the purpose of recovering Potash, Metal Recovery Salt, Magnesium Chloride Brine and Sodium Chloride. Pond system V reached maturity at the close of 2000 and a new primary evaporation pond VI was constructed on Fee land. A description of Pond V as build and retired is as follows.

POND V

Pond system V was constructed in the latter part of the 1970's as a Primary Solar evaporation containment until its closure in 2000. (See reclamation and future use). The Primary containment used for ponding is approximately 8,000 acres in size, and is located in Sections 29,30,31,32 T.1S,R17W., Sections 5,6,7,8,17 T.2S.,R.17W., Sections 36 T.1S.,R.18W., and Sections 1,11,12,13,14,15,16 T.2S.,R18W., SLBM and is encompassed by Federal leases U-0878098 through U-087813 and State leases ML-18962, ML-18964 and ML-18965.

The Primary dike was originally constructed to a height of 12 to 15 feet, approximately 90,800 feet in length that formed a containment area of approximately 8,000 acres in size. The repose of the mud dike is approximately 1:1. The 8,000 acre containment is divided by an interior mud dike of about 8 to 10 feet in height, approximately 21,600 feet in length creating two independent containment areas, five-east and five-west. Five-east containment is approximately 5,500 acres in size and five-west containment is approximately 2,500 acres in size. Contained within five-east is approximately 34,700 feet of baffle wall and in five-west approximately 5,800 feet of baffle wall.

Located in the SE1/4, section 36, T.1S.,R,18W., State Trust Leases ML-18964 is a pumping station that sat on the dike that separated five-east from five-west. The facility contained five (5) elevators for the purpose of controlling brine movement between five-east and five-west.

A three phase power line approximately 600 feet in length furnished energy to this pumping station and is also located on State Trust Lease ML-18964. At the egress of five-west pond located in Section 16, State Trust Lease, ML-18965 is a control point consisting of a steel pipe and mud flume. Brine flow through this control point was by gravity.

Two shunts were constructed in pond V. One shunt was in five-east pond and one is constructed in five-west pond. The location of the shunt in five-east is in Section 36 T.,1S.,R.,18W., SLBM, State Lease ML-18964 and is approximately 2,300 feet in length. The location of the shunt in five-west is in Sections 14 and 15 T.,2SR.,18W., Federal Leases U-087809 and U-087810 and Section 16 T.,2S.,R18W., SLBM, State Lease ML-18965 approximately 15,800 feet in length. The purpose of he shunts is to recover trapped brine upstream in five-east and five-west. The shunts were constructed approximately 4 feet in width and down through the deposited salt to the pre-existing surface.

OPERATIONS

Reilly's solar evaporation mine operates by collecting low-grade brine from a source outside the containment area. The brine is pumped into the large containment areas for the purpose of evaporating the free water and through a number of stages down stream concentrate the brine to the point of precipitation of solids

Pond System V is a containment built at ground level and its sole purpose is to impound brine that comes from areas outside the area of the Primary containment area. By Unit Agreement the brines are allocated by acreage within the entire mine area which is 24.1% Federal leases, 6.4% State Trust leases and the remaining 69.5% Fee land. Primary V containment area did not produce brine when it served as a primary evaporation pond even though the area is included in the Unit Agreement. The containment area just stores the brine until

the concentration of the brine dictates when to move the brine down stream for further staging. There are no production maps for Pond V.

RECLAMATION AND FUTURE USE

Pond V is retired as a solar evaporation containment area. However, Pond V will remain in service as an area for collecting brines. To provide part of the brine to compliment Pond VI approximately 36,900 feet of new collection ditch has been dug in retired Pond V. The collection ditches are located in Section 4,5,6,7,8,9,17,18 T.2S.,R17W., and sections 1,11,12,13,14 T.2S.,R18W., SLBM. The initial dimensions of the collection ditches are approximately 15 feet in depth and approximately 10 feet in width. From time to time the ditches will require cleaning and each time the ditches are cleaned, the dimensions of the collection ditches will increase.

Any existing dikes or baffles from Pond V that will enhance the production of brines will also remain until such time as Pond V is decommissioned.

Any and all Pond V dikes or baffles that do not enhance the operation and recovery of brine will be considered for reclamation. The power line supplying power to the five-east, five-west control point will be removed.

The surface area of Pond V is not conducive for the growing of vegetation or maintaining plant life. Any seeding or planting of vegetation will not be included in any reclamation.

OBSERVATION WELLS

There were observation wells installed in the area of Pond V. The observation wells were installed by both pre-Reilly people and by BLM personnel. It becomes necessary to determine what wells, if any, still exist before any reclamation can be planned. The obligation for reclamation will be determined once ownership of existing wells have been determined and those wells belonging to Reilly will be

addressed for reclamation. Removal of the casings will be tried and if the casings cannot be removed, the casings will be cut-off below ground level and the well packed with locally obtained mud.

Additional reclamation will be conducted in accordance with applicable regulations.