

FACT SHEET
CLASS III WELLS

I. Background Information:

1. Owner/Operator: Morton International, Inc.
Address: 1000 Morton Drive, South Hutchinson, Kansas 67505
Contact Person: Bryan Smith
Phone Number: (620) 669-6439
2. Applications have been filed with the Department to permit five salt solution mining wells drilling in NE 22-23-6W, Reno County, Kansas

The locations of the wells are listed below:

Well and Permit Number	Location
NW 3-1 KS-03-155-152	3265 feet from south line and 1567 feet from east line of Section 22-23-6W, Reno County, Kansas (SE SW NE)
NW 3-2 KS-03-155-153	3570 feet from south line and 1610 feet from east line of Section 22-23-6W, Reno County, Kansas (NE SW NE)
NW 3-3 KS-03-155-154	3875 feet from south line and 1610 feet from east line of Section 22-23-6W, Reno County, Kansas (NE SW NE)
NW 3-4 KS-03-155-155	4180 feet from south line and 1610 feet from east line of Section 22-23-6W, Reno County, Kansas (SE NW NE)
NW 3-5 KS-03-155-156	4485 feet from south line and 1610 feet from east line of Section 22-23-6W, Reno County, Kansas (SE NW NE)
NW 3-6 KS-03-155-157	4790 feet from south line and 1610 feet from east line of Section 22-23-6W, Reno County, Kansas (NE NW NE)

II. Injection Details:

1. Injection is made into the Hutchinson Salt member of the Wellington formation. Mining shall not extent into the upper 40 feet of the salt member.

2. The maximum operational injection pressure is not to exceed 165 pounds per square inch at the wellhead.

III. Description of Fluids Injected:

The injection fluids consists of fresh water and weak brine.

IV. Description of Injection Formation:

The Wellington formation consists of interbedded salt and shale deposits with minor amount of gypsum. The upper portion of the formation is primarily clayey shale with small amounts of gypsum present. The lower portion, which is known as the Hutchinson Salt member, is mainly salt with interbedded shale deposits. The salt deposits beneath Morton's salt mining operations described herein are first encountered about 485 feet below ground surface and extend to a depth of about 820 feet.

V. Chemical Characteristics of Injection Formation Waters:

The connate formation waters of the Hutchinson Salt member in the vicinity of the wells exceed the "usable" water standards of 10,000 mg/l total dissolve solids. Therefore, the Hutchinson Salt member of the Wellington formation need not be protected from the injection of fluids for purposes of salt solution mining.

VI. Construction, Monitoring, and Operation of Wells:

All construction, monitoring and operation of these wells will meet the requirements that apply to Class III injection wells under the K.A.R. 28-43-1 through K.A.R. 28-43-11 and Kansas Underground Injection Control Regulations, K.A.R. 28-46-1 through 28-46-44.

VII. Basis for Draft Permit Conditions:

1. General

- (a) Applicable federal laws
- (b) Applicable federal regulations
- (c) Applicable state statutes
- (d) Applicable state regulations
- (e) Applicable state and federal waste quality standards
- (f) Technical guidance and reference documents
- (g) Technical expertise and professional judgment of permit writers and Department technical staff.
- (h) Technical input and consultation with federal, state and local agencies and representatives of citizen groups.

2. Specific

The following specific documents were used to draft permit limitations, conditions, operating procedures, monitoring and reporting requirements:

- (a) Clean Water Act (Public Law 100-4)
- (b) Resource Conservation and Recovery Act (Public Law 94-580)
- (c) Safe Drinking Water Act (Public Law 93-523)
- (d) Toxic Substances Control Act (Public Law 94-469)
- (e) 40 CFR Parts 122-125, 136, 144-148, 233, 251, 260-271 and Guidance 1425
- (f) K.S.A. Chapter 65
- (g) House Bill No. 2740
- (h) Hazardous Waste Management Articles 31 and 34
- (i) Kansas UIC Regulations 28-46-1 through 28-46-44
- (j) Water Quality Criteria 1972 EPA March 1973
- (k) Drinking Water Standards (Federal Register December 24, 1975)
- (l) Quality Criteria for Water EPA July 1976
- (m) Suggested No Adverse Response Levels (SNARLS)
- (n) EPA-600/2-77-240, An Introduction to the Technology of Subsurface Wastewater Injection
- (o) Type Logs of Kansas published by the Kansas Geological Society
- (p) U.S.G.S. Professional Paper 708, Groundwater Hydraulics
- (q) Freeze and Cherry - Groundwater
- (r) Davis and DeWiest - Hydrogeology
- (s) Applicable bulletins and other related publications by the Kansas Geological Survey
- (t) Applicable publications by the U.S. Geological Survey
- (u) Kansas Administrative Regulations 28-43-1 through 11

VIII. Area of Review:

The area of review, as specified in K.A.R. 28-46-32, has been examined by the Department.

IX. Evidence of Financial Responsibility by financial test.

X. Final Determination Procedures

In anticipation of public interest and a desire to comment, the agency has allowed 30 days from the date of the public notice to submit comments.

XI. Additional information may be obtained from:

Kansas Department of Health and Environment
Kirk Hoeffner
Bureau of Water
Geology Section
1000 SW Jackson St. Suite 420
Topeka, Kansas 66612-1367