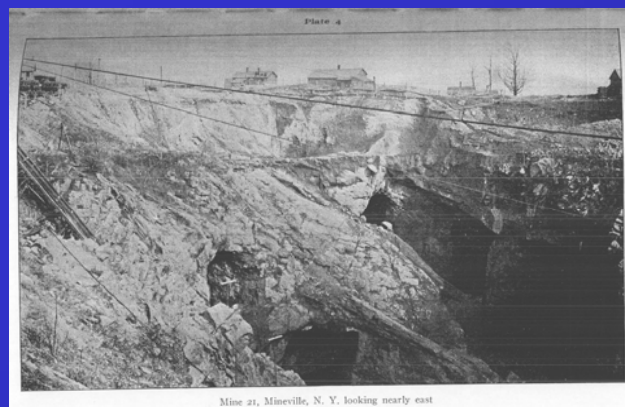
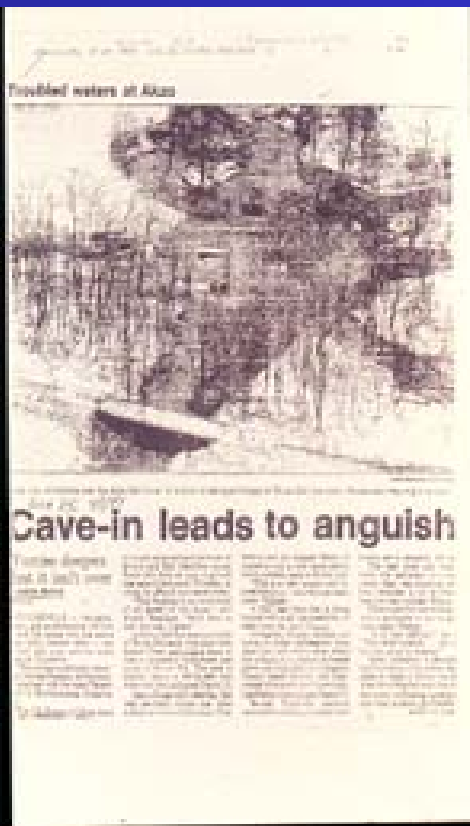
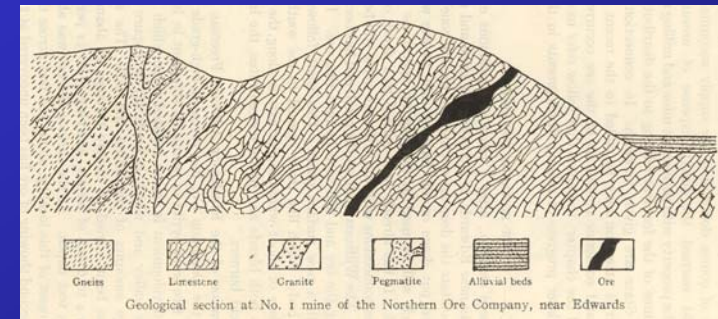
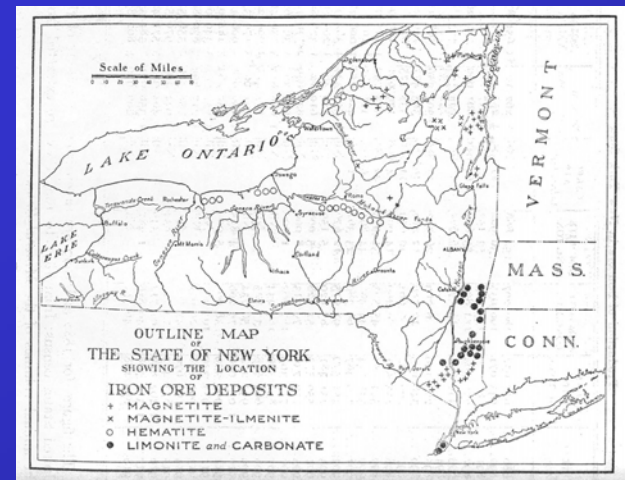


# Underground Mine Mapping in New York State


New York Geological Survey/NYSM  
 New York State Department of Environmental Conservation



Mine 21, Mineville, N. Y. looking nearly east



# Background of Underground Mine Mapping Project

- Six mines still operating 
- Abandoned mines cause damage to land, homes, and people
- Had some data, but no plan to put it together
- 3 Phase Project
  - Phase 1: Create database
  - Phase 2: Locate and scan existing mine maps  
Digitize scanned images  
Create up-to-date map of the mine locations
  - Phase 3: Make information available to the public

## Status of Underground Mines in New York

### *Still Operating*

- Crushed Stone(Granitic gneiss):
  - 1- Dutchess County
- Salt:
  - 1- Livingston County
  - 1- Tompkins County
- Talc:
  - 1- St Lawrence County
- Wollastonite:
  - 1- Lewis County
- Zinc:
  - 1- St Lawrence County

### *All Closed*

Arsenic	Natural Cement
Graphite	Gypsum
Iron	Lead
Pyrite	

# Database in Microsoft Access -Datasheet View

- 12 commodities
- 24 fields →
- 256 mines

ID	Com2
Name	Comments
Name2	Year opened
Company	Year closed
County	Owner(s)
Township	Description
Quad	Production Data
Lat	Elevation
Long	Waste
Location	Maps
Type	Scanned images
Commodity	Cross-sections

Microsoft Access - [Underground Mines : Table]

File Edit View Insert Format Records Tools Window Help

ID	Name	Name2	Company	County	Township	Quad	Lat	Long	Location	Type	Com	Com2	Comments	Y op	Y clo	Ow	Description	Production	Ele	W	Map	Scar	Crc	
SLT01	LEHIGH SA		Lehigh Mi	Genese	LeRoy	Staffc	42.95	-78.0	2.5 m S c	Unde	Salt		In July 189	betwe	before	Leh					Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SLT02	Retsof mine	AKZO-1	AKZO-No	Livingst	York	Leice	42.83	-77.8	at Retsof	Unde	Salt		Retsof mine	1885	1996	Em	bottomed at	90% for roc			Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SLT03	Mine at Grei		Greigsville	Livingst					at Greigs	Unde	Salt		In July 189	betwe	before	Gre	the portion of				Y	<input type="checkbox"/>	<input type="checkbox"/>	
SLT04	FULLER SH	apart of	Internatio	Livingst	York	Leice	42.82	-77.8	1 m S of	Unde	Salt		new plant c	1921	close	Ret	the portion of	1 million tor				<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SLT05	LIVONIA SA		Livonia Sa	Livingst	Livonia	Livon	42.78	-77.6	S of Livor	Unde	Salt		In July 189	betwe	before	Livc	the portion of				Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SLT06	STERLING	Mine ar	Sterling S	Livingst	Leiceste	Gene	42.78	-77.8	at Cuyler	Unde	Salt		closed after	1906	1930	Ster	the portion of				Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SLT07	Cargill Inc. r	CAYUG	Cargill Inc	Tompki	Lansing	Ludlc	42.52	-76.5	at Portlan	Unde	Salt		has not bee	1917	still o	Roc	2000' vertical	rock salt				Y	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SLT08	SENECA LA		MORTON	Yates	Milo	Dunc	42.58	-76.9		Unde	Salt				close						0	<input type="checkbox"/>	<input type="checkbox"/>	
TLC01	Carbola Che	Natural	Carbola C	Lewis	Diana	Natur	44.06	-75.4	1.5 m NE	Unde	Talc	WOLL	Clark Miner	1911	1949	St. L	MINE OPENI	15,000 to 3890				<input type="checkbox"/>	<input type="checkbox"/>	
TLC02	Newton Hill			St. Lawi	Fowler	Edwa	44.31	-75.2	NE of Tal	Unde	Talc		in 1942, Jol	1880	1890	W.F	LENGTH:350		780			<input type="checkbox"/>	<input type="checkbox"/>	
TLC03	Reynolds Ta		Reynolds	St. Lawi					NE of Tal	Unde	Talc		open pit acc	1955	1956							<input type="checkbox"/>	<input type="checkbox"/>	
TLC04	Uniform Fib	Winterc	Uniform F	St. Lawi	Edward	Edwa	44.30	-75.3	@ and S	Unde	Talc		deposit in th	1911	June	Unit	SHAFT: verti	the product	610			(M)	<input type="checkbox"/>	<input type="checkbox"/>
TLC05	United State	U.S. Ta	Internatio	St. Lawi	Edward	Edwa	44.30	-75.3	@ and S	Unde	Talc		based on a	1900	1947	U.S		15,000 tons	75			(M)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TLC06	Loomis #1 n	Woodc		St. Lawi	Fowler	Gouv	44.25	-75.3	E of Sylvi	Unde	Talc		W.H. Loom	1919	1954	W.F	mining is car		670			(M)	<input type="checkbox"/>	<input type="checkbox"/>
TLC07	Dominion C		Dominion	St. Lawi	Fowler	Gouv	44.25	-75.4	E of Sylvi	Unde	Talc	Zinc			before		results of exp		710			<input type="checkbox"/>	<input type="checkbox"/>	
TLC08	Arnold mine		Internatio	St. Lawi	Fowler	Gouv	44.26	-75.3	SE of Fov	Unde	Talc		W.H. Loom	1880	1954	Uni	OPENING: 3		650			(M)	<input type="checkbox"/>	<input type="checkbox"/>
TLC09	Johnson mir			St. Lawi	Fowler	Edwa	44.27	-75.3	SE of Fov	Unde	Talc				before		SHAFT: form		630			<input type="checkbox"/>	<input type="checkbox"/>	
TLC10	WIGHT MIN		Internatio	St. Lawi	Fowler	Gouv	44.26	-75.3	SE of Fov	Unde	Talc	LEAD		1870	close		LENGTH: 25		660			(M)	<input type="checkbox"/>	<input type="checkbox"/>
TLC11	WALLACE I			St. Lawi	Edward	Edwa	44.31	-75.3		Unde	Talc				before							<input type="checkbox"/>	<input type="checkbox"/>	

Record: 11 | 218 | of 256

Datasheet View

# Database -Table of References

Microsoft Access - [References : Table]

File Edit View Insert Format Records Tools Window Help

ID	Name	Reference1	Reference2	Reference3	Reference4	Reference5	Reference6	Reference7
SLT01	LEHIGH SALT SHAFT	Previous Database	Hartnagel, C.A., and	Newland, David H.,	Alling, Harold L., 1			
SLT02	AKZO-Nobel Inc. mine	Previous Database	Hartnagel, C.A., and	Newland, David H.,	Newland, D.H. and	Sterling Salt at Rets	Alling, Harold L., 1	
SLT03	Mine at Greigsville	Hartnagel, C.A., and	Newland, David H., 1	Alling, Harold L., 19				
SLT04	FULLER SHAFT	Previous Database	Sterling Salt at Rets	Newland, David H.,				
SLT05	LIVONIA SALT SHAFT	Previous Database	Hartnagel, C.A., and	Newland, David H.,	Alling, Harold L., 1			
SLT06	STERLING SALT SHAFT	Previous Database	Hartnagel, C.A., and	Newland, David H.,	Alling, Harold L., 1			
SLT07	Cargill Inc. mine	Previous Database	Hartnagel, C.A., and	Newland, David H.,	Hartnagel, C.A., ar	Alling, Harold L., 19		
SLT08	SENECA LAKE MINE	Previous Database						
TLC01	Carbola Chemical Co. mi	Newland, D.H. & Har	Newland, David H, 19	Engel, Albert and Ec	Previous Database	Childester, A.H., En	Ladoo, R.B., 1920,	Minerals Year
TLC02	Newton Hill mine	Engel, A.E.J., 1962,						
TLC03	Reynolds Talc Co. mine	Kaufman, Alvin and C	(Minerals Yearbook, 19					
TLC04	Uniform Fibrous Talc Co.	Newland, David H, 19	Cushing, H.P. and Ne	Previous Database				
TLC05	United States mine	Cushing, H.P. and N	Newland, D.H. & Hart	Previous Database	Brinsmade, Rober			
TLC06	Loomis #1 mine	Newland, D.H. & Har	Brown, J.S. and Enge	Kaufman, Alvin and	Minerals Yearbook			
TLC07	Dominion Co. mine	Newland, David H, 19	Cushing, H.P. and Ne	Previous Database				
TLC08	Arnold mine	Newland, D.H. & Har	Newland, David H, 19	Cushing, H.P. and N	Previous Database	Kaufman, Alvin and		
TLC09	Johnson mine	Newland, D.H. & Har	Previous Database	Brinsmade, R.B., 19				
TLC10	WIGHT MINE	Previous Database	Newland, David H, 19					
TLC11	WALLACE MINE	Previous Database						

Record: 1 of 256

Datasheet View

# Database - Form View

Underground Mines

ID SLT02

Name Peter Fr...

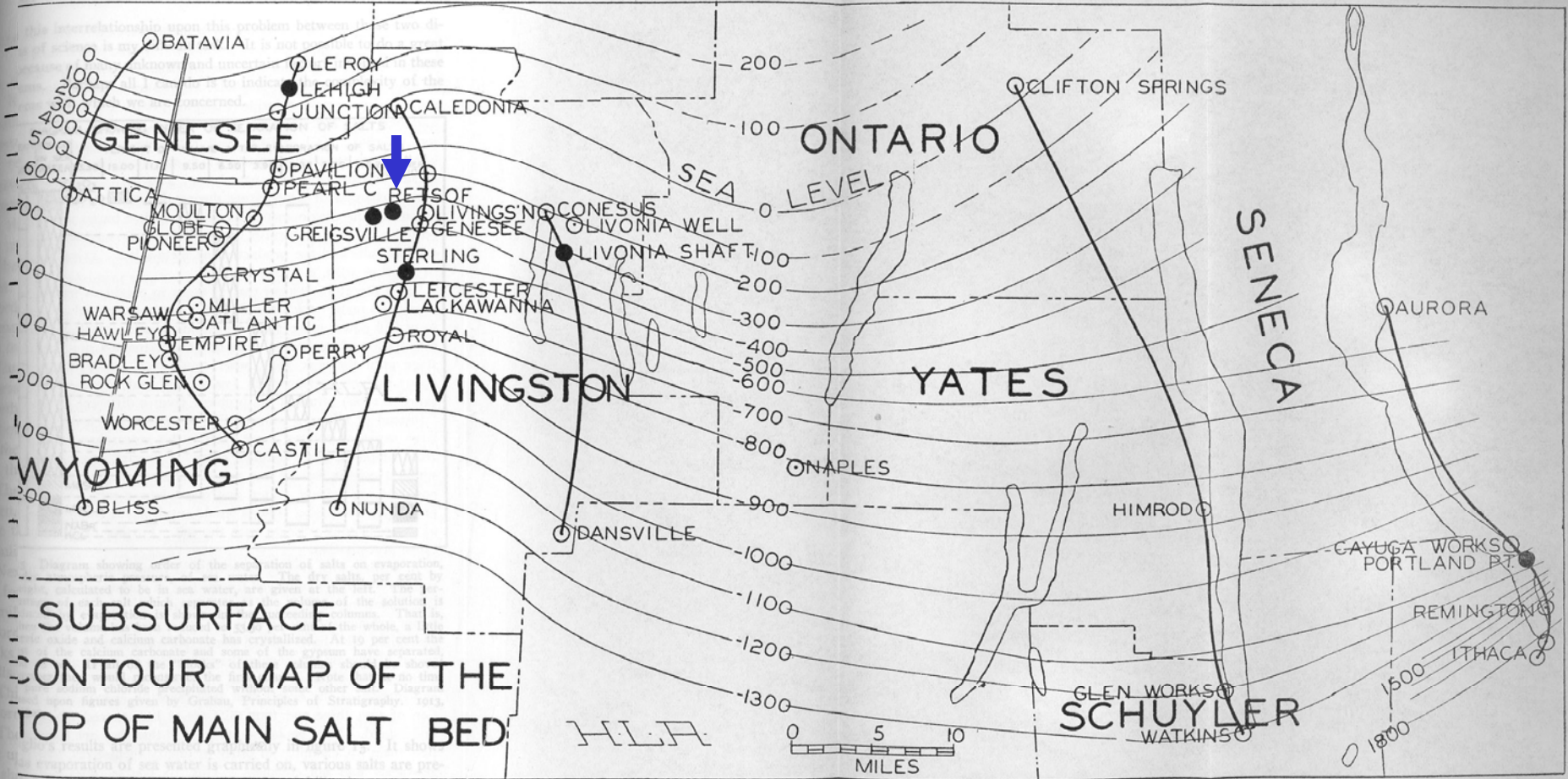


Fig. 14 Map of the New York State salt field showing tentative subsurface contouring of the top of the main salt bed. Constructed from the geologic cross sections which are indicated by the heavy lines passing through the wells. The shafts are shown by black circles, the wells by circles and dots. This map differs considerably from a similar one published by Merrill in 1893, as he drew his contours 610' below the top of the Onondaga limestone, as an "average" position for the salt. The many departures from this figure show that his method has many disadvantages. The present map shows the position of the salt as found. Contour interval, 100 feet; reference plane, sea level. The Clarendon-Linden fault is shown interrupting the contours on western margin of the map.

H.L.A.

55 20' SALT GREEN SHALE

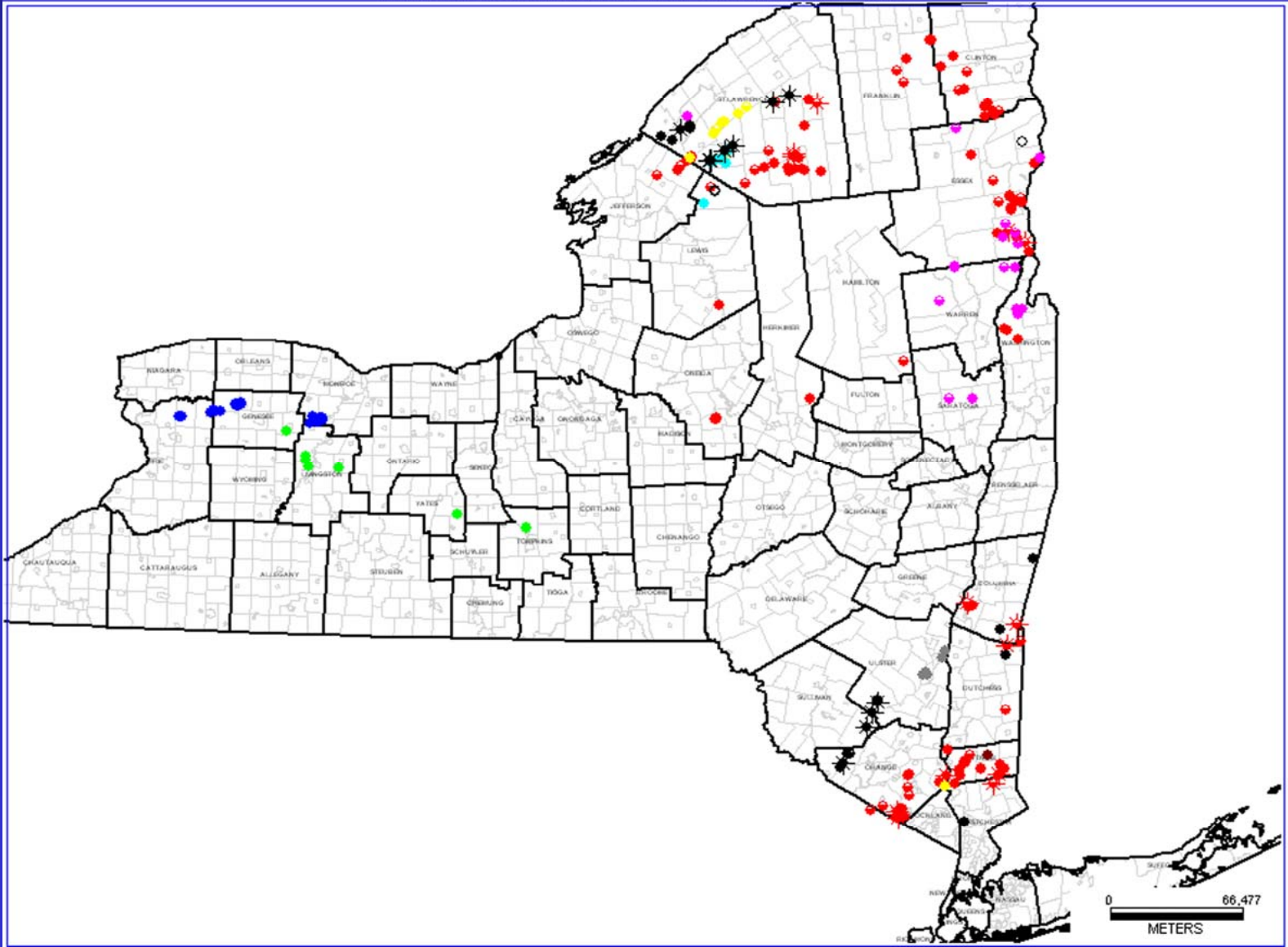
58 SALT SHALE

Fig. 6 Diagrammatic representation of the records of the Livonia, Lehigh and Retsof shafts. Data secured from D. Dana Luther and John M. Clarke as given in New York State Museum Report 47. Modified by Ruedemann, Hartnagel, Chadwick and myself. The three sections have been arranged with the base of the Onondaga limestone at the same level. Note that correlation from the Oriskany sandstone upwards is wholly satisfactory while attempts in the Camillus are impracticable.

CHARLON W0775254



# New York State Underground Mines -In mapping program

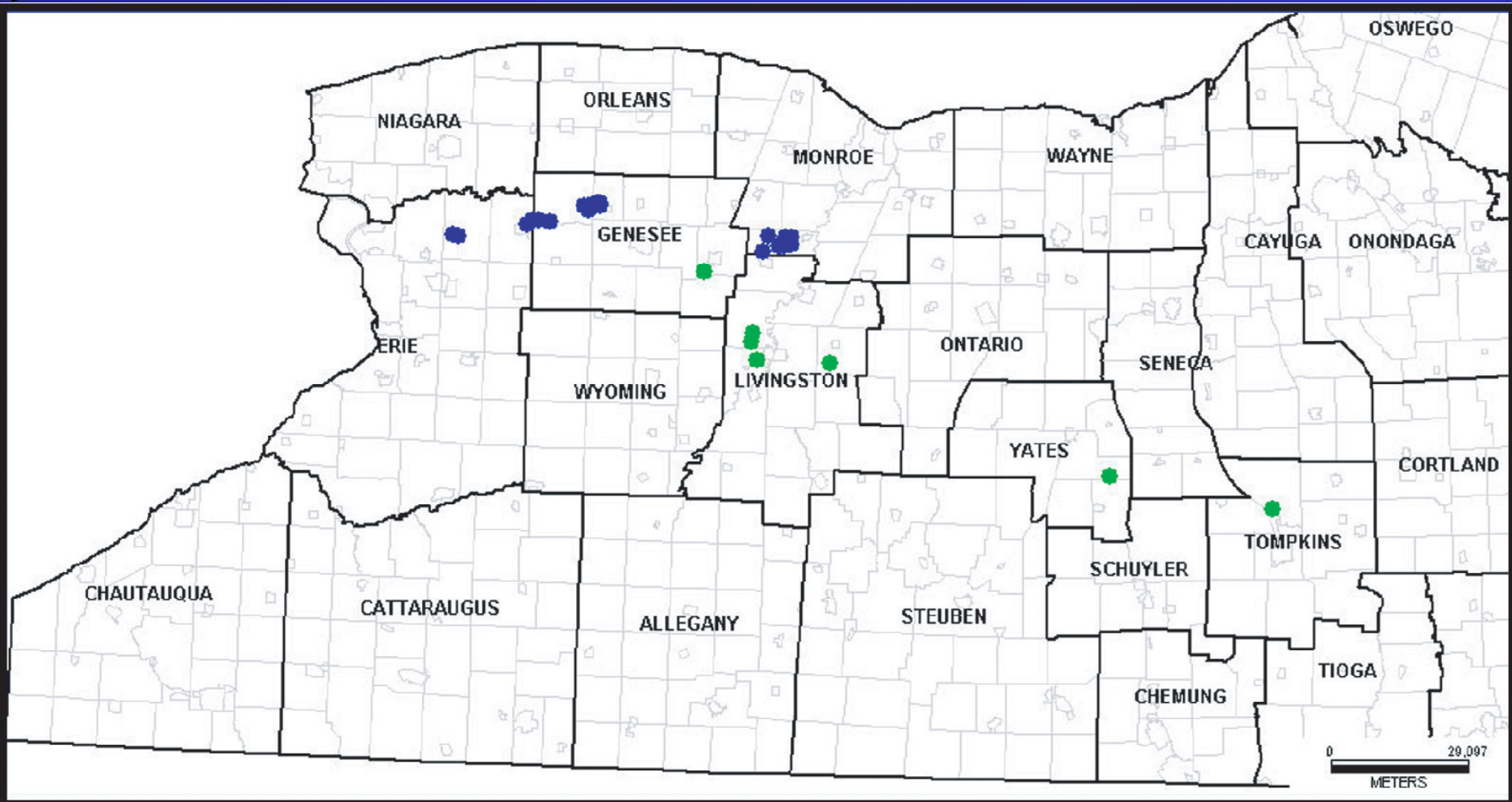
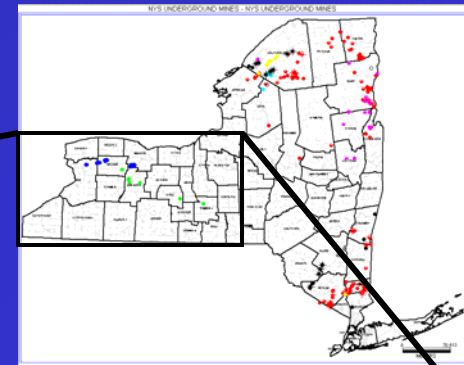
NYS UNDERGROUND MINES - NYS UNDERGROUND MINES



# Mines of Western New York

## Symbols key

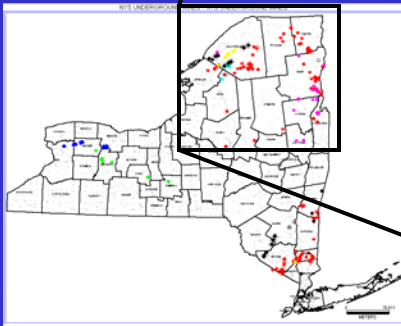
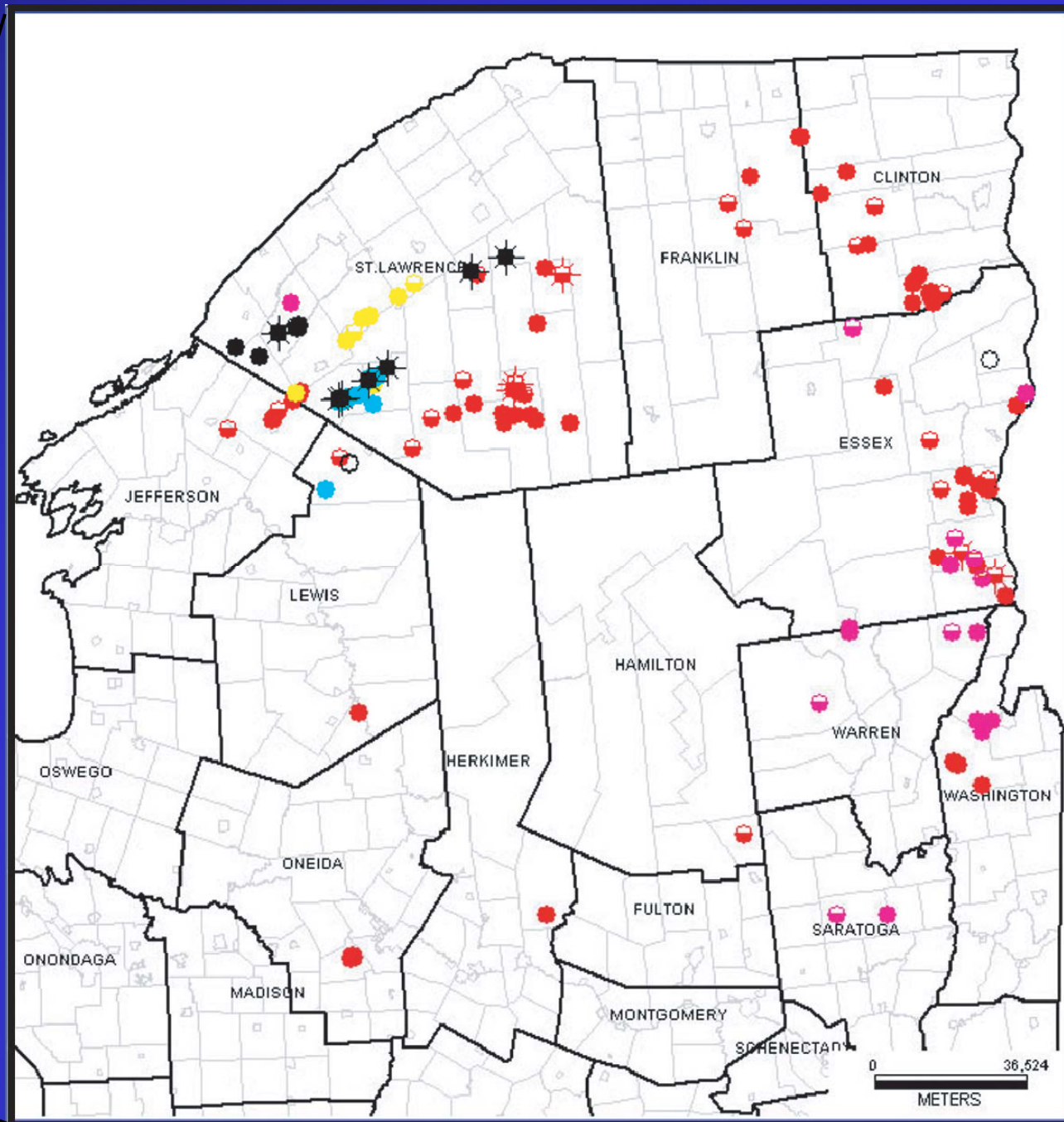
-  -Gypsum mines (underground)
-  -Salt mines (underground)



# Mines of the Adirondack Region

## Symbols key

- -Graphite mines (underground)
- -Graphite mines (surface/underground)
- -Iron mines (underground)
- -Iron mines (surface/underground)
- ☀ -Iron mines (unknown)
- -Lead mines (underground)
- -Lead mines (surface/underground)
- -Pyrite mines (underground)
- -Pyrite mines (surface/underground)
- -Talc mines (underground)
- -Wollastonite mines (underground)
- ☀ -Zinc mines (underground)







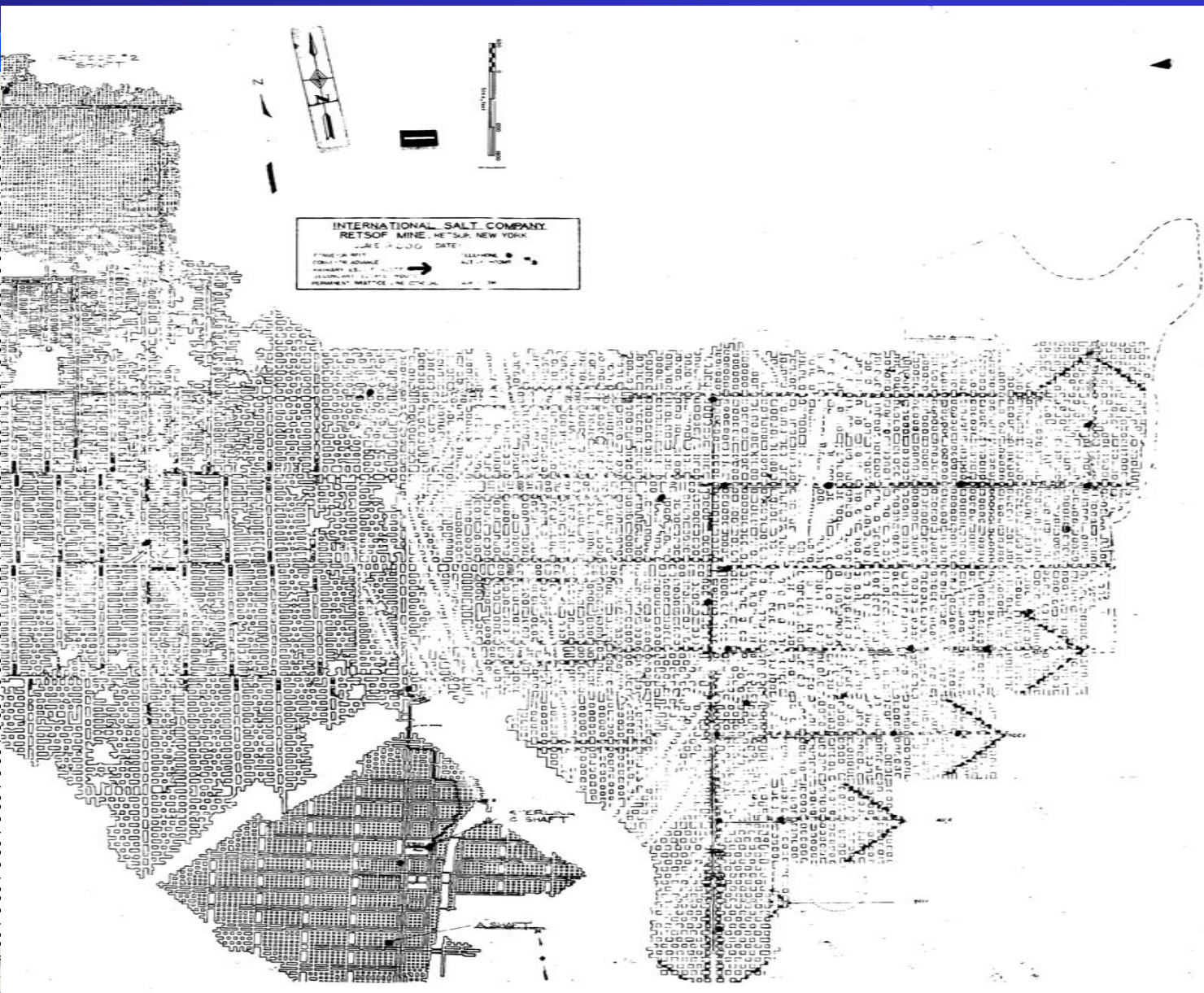
# OSM Mine Map Repository NY Maps Index Database

Microsoft Access - [New York Min

File Edit View Insert Format Records

Mine name	State
RETSOF	NY
RETSOF MINE	NY
REXFORD DE	NY
ROCK POND	NY
ROGERS M F	NY
ROSE HAUPT	NY
ROSE ROCK	NY
ROSS PIT	NY
ROSS PROSP	NY
ROWLAND GF	NY
RUBY MOUNT	NY
RUSSIA STAT	NY
RUSSIA STAT	NY
RUSSIA STAT	NY
RUSSIA STAT	NY
RUSSIA STAT	NY
SACANDAGA	NY
SACANDAGA	NY

Record: 1009 of 1009  
Datashet View



Microsoft Access - [New York Min

File Edit View Insert Format Records

Id	Field	Notes
2	EST AT	
2	AT RETS	
1	PRIVATE	
1	PRIVATE	
1	PRIVATE	
1		
1	PRIVATE	
1	ADIRON	
1	PRIVATE	
1	PRIVATE	
1	PRIVATE	
1		
1		
1		
1		
1	STATE F	
1		

Record: 1009 of 1009  
Datashet View

# Future Work

## Phase 2:

- Merge 2 databases
- Create an up-to-date map of mine locations
- Geo-reference abandoned underground mines
- Acquire most recent mine maps

Large flat-bed scanner purchased with NYS DEC funds



- Scan existing mine maps
- Scanned map images
  - digitized
  - used in making up-to-date map of mine locations

# Phase 3:

- Make information available to the public through NYS DEC website



These actions need to be taken to ensure the safety of the land, homes and people all over New York State! Unless funds become available, this project will not be able to continue.