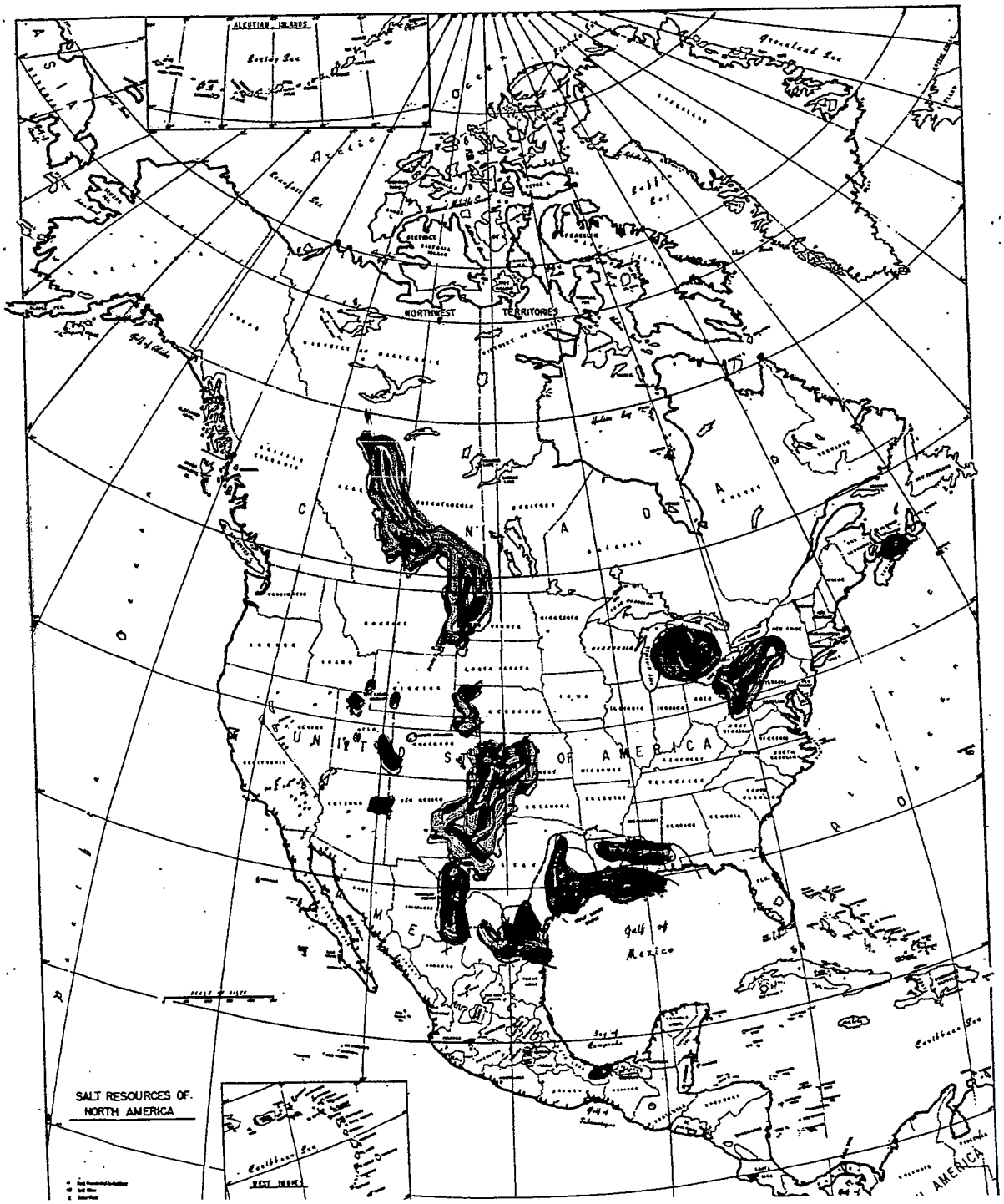
TEXAS BRINE COMPANY, LLC

Houston, Texas

May, 2010



SALT RESOURCES OF NORTH AMERICA

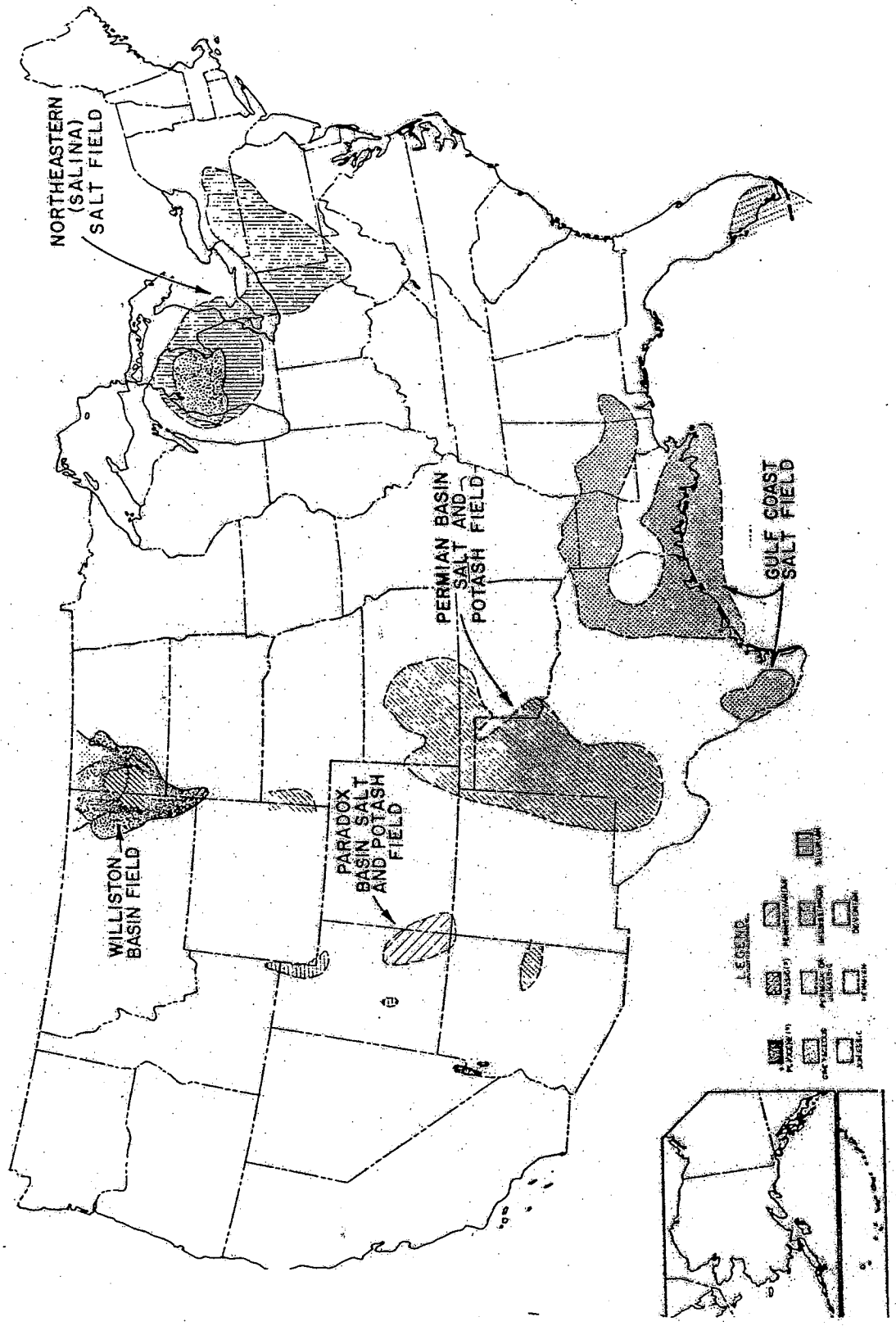


FIGURE 3.1
MAP OF ROCK SALT DEPOSITS IN THE UNITED STATES

REFERENCE: 3-42

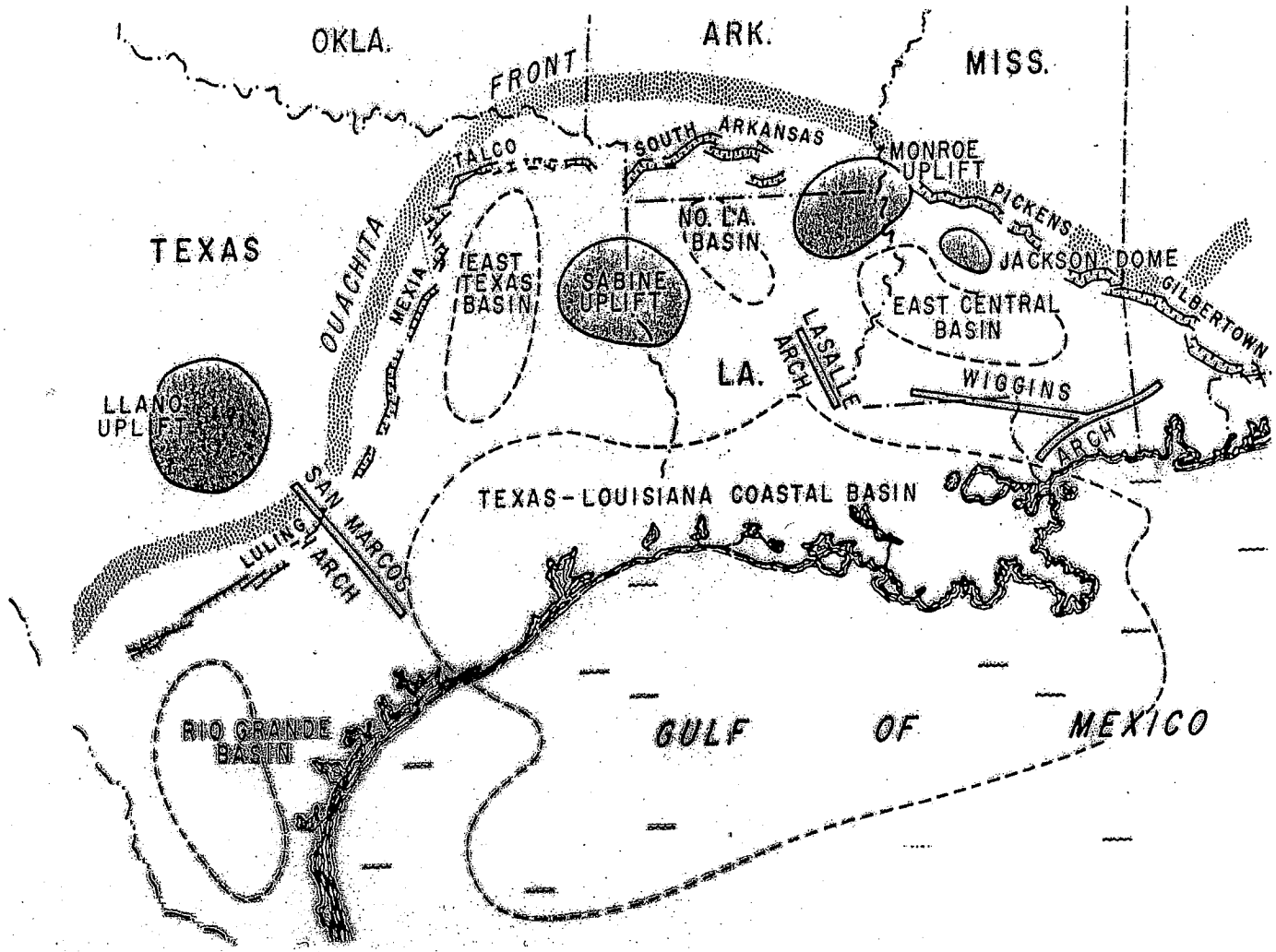
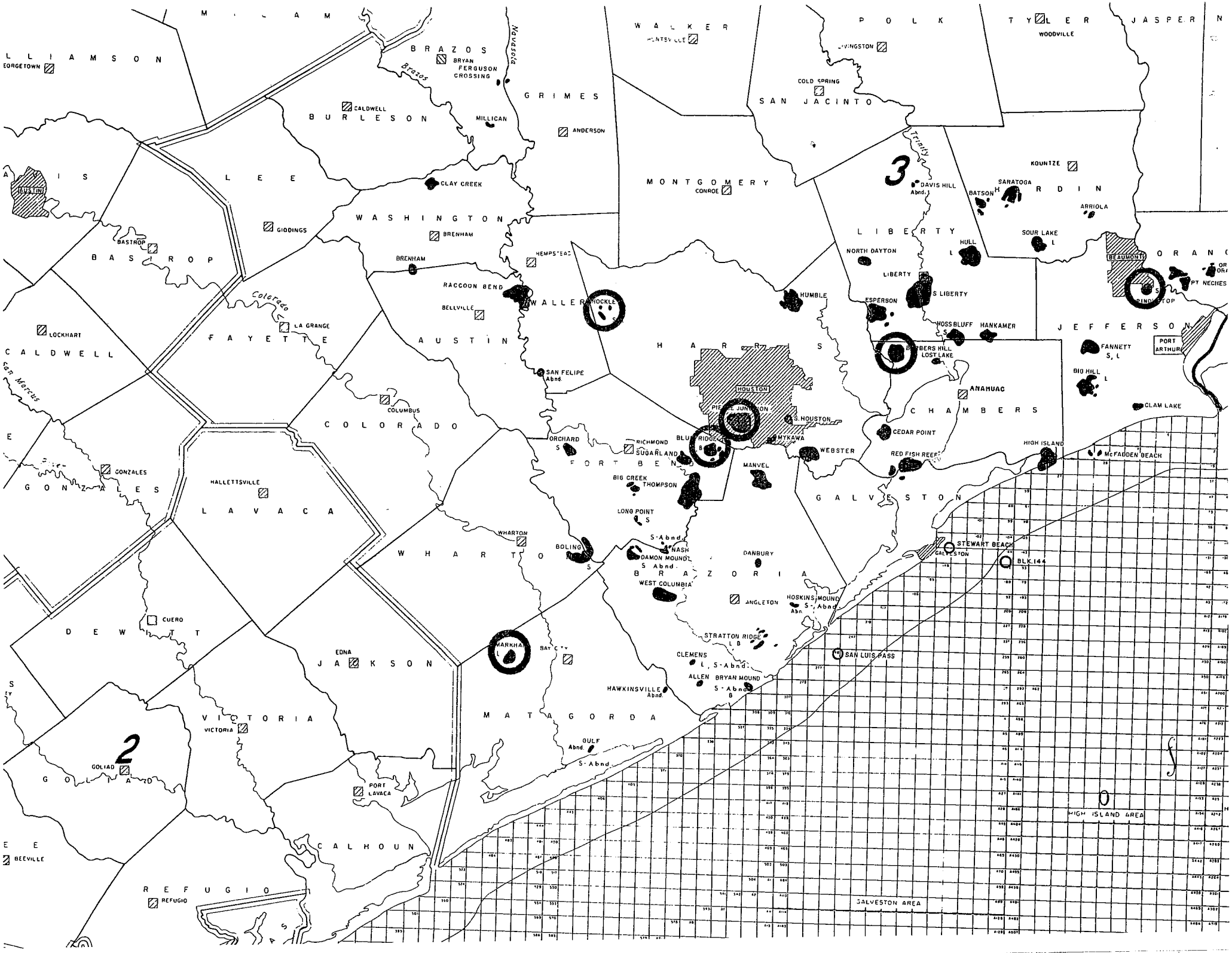


Figure 1-3. Diagrammatic map outlines the major structural features of the U.S. Gulf region including the five salt dome basins and their relationship to positive elements. Salt-controlled structural features are located in the salt-dome basins shown in deep yellow. Light yellow areas are part of the evaporite basin of deposition but in these areas the salt source layer is less thick and no salt structures are known to exist.

Domes - Location



M I L A M
L L I A M S O N
EORGETOWN
B R A Z O S
BRYAN
FERGUSON CROSSING
Brazos
Navasota
CALDWELL
B U R L E S O N
MILLICAN
G R I M E S
ANDERSON
W A L K E R
HUNTSVILLE
P O L K
LIVINGSTON
COLD SPRING
S A N J A C I N T O
T Y L E R
WOODVILLE
J A S P E R
A V I S
AUSTIN
L E E
CLAY CREEK
M O N T G O M E R Y
CONROE
Trinity
3
DAVIS HILL
Abnd.
KOUNTZE
SARATOGA
BATSON
H A R D I N
ARRIOLA
GIDDINGS
W A S H I N G T O N
BRENHAM
BASTROP
B A S T R O P
L I B E R T Y
NORTH DAYTON
HULL
SOUR LAKE
L
BEAUMONT
O R A N G
PT NECHES
HEMPSTEAD
RACCOON BEND
BELLVILLE
W A L L E R
HOCKLEY
HUMBLE
LIBERTY
S LIBERTY
ESPERSON
Colorado
LA GRANGE
LOCKHART
C A L D W E L L
F A Y E T T E
A U S T I N
H A R R I S
HOSS BLUFF
HANKAMER
J E F F E R S O N
PORT ARTHUR
FANNETT
S, L
BIG HILL
L
SAN FELIPE
Abnd.
HOUSTON
ANAHUAC
San Marcus
COLUMBUS
C O L O R A D O
PIERCE JUNCTION
S. HOUSTON
C H A M B E R S
CLAM LAKE
ORCHARD
S
RICHMOND
SUGARLAND
BLUE RIDGE
MYKAWA
WEBSTER
CEDAR POINT
HIGH ISLAND
McFADDEN BEACH
RED FISH REEF
F O R T B E N D
MANVEL
GONZALES
G O N Z A L E S
HALLETTSVILLE
L A V A C A
BIG CREEK
THOMPSON
G A L V E S T O N
LONG POINT
S
WHARTON
BOLING
S-Abnd.
NASH
DAMON MOUND
S Abnd.
DANBURY
STEWART BEACH
GALVESTON
BLK.144
W H A R T O N
B R A Z O R I A
WEST COLUMBIA
ANGLETON
HOSKINS MOUND
S-Abnd.
Abn.
CUERO
D E W I T T
STRATTON RIDGE
L B
SAN LUIS PASS
EDNA
J A K S O N
MARKHAM
L
BAY CITY
CLEMENS
L, S-Abnd.
ALLEN
BRYAN MOUND
S-Abnd.
B
HAWKINSVILLE
Abnd.
V I C T O R I A
VICTORIA
M A T A G O R D A
2
GOLIAD
G O L I A D
GULF
Abnd.
S-Abnd.
PORT LAVACA
HIGH ISLAND AREA
C A L H O U N
BEEVILLE
R E F U G I O
REFUGIO
GALVESTON AREA

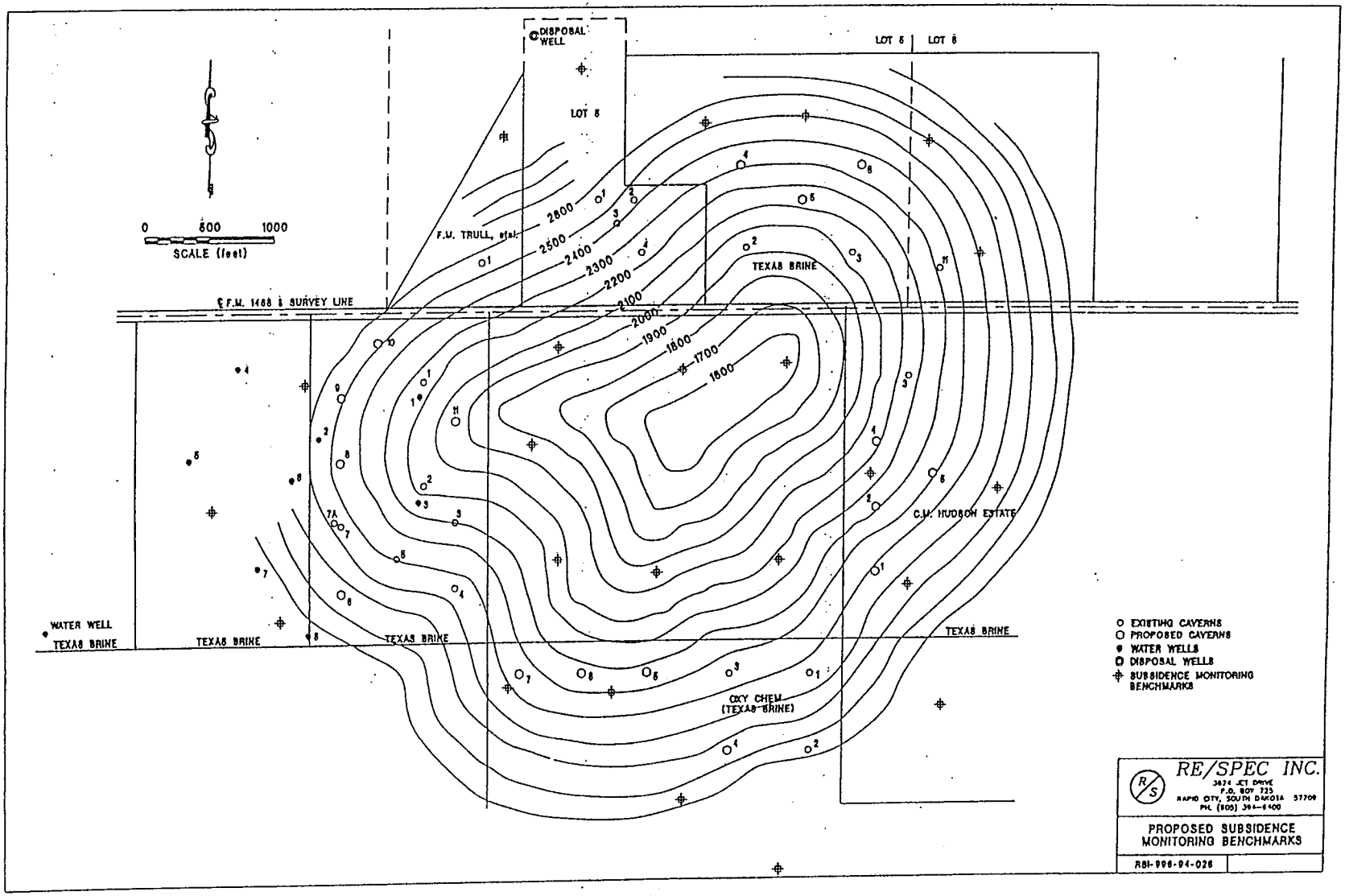
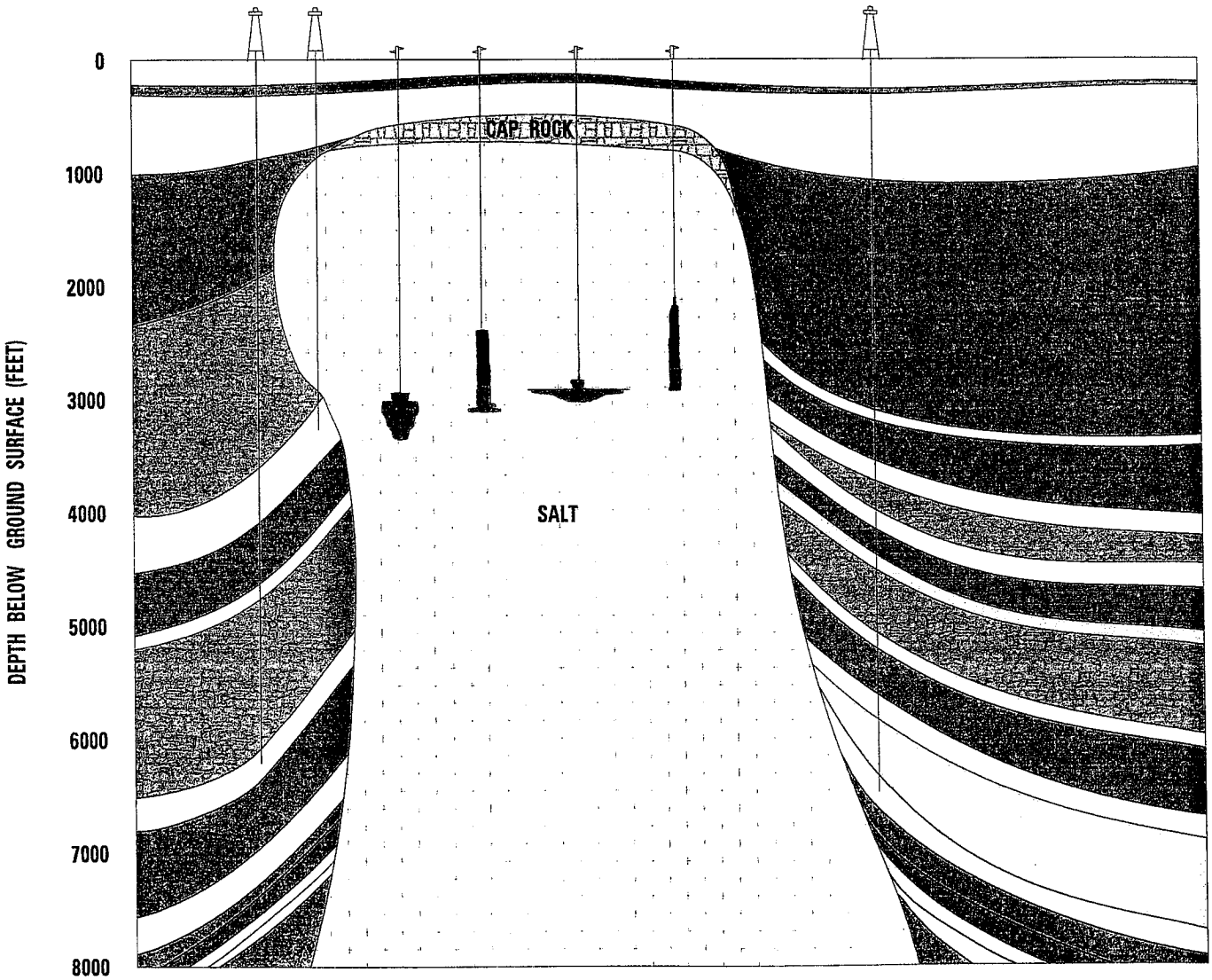
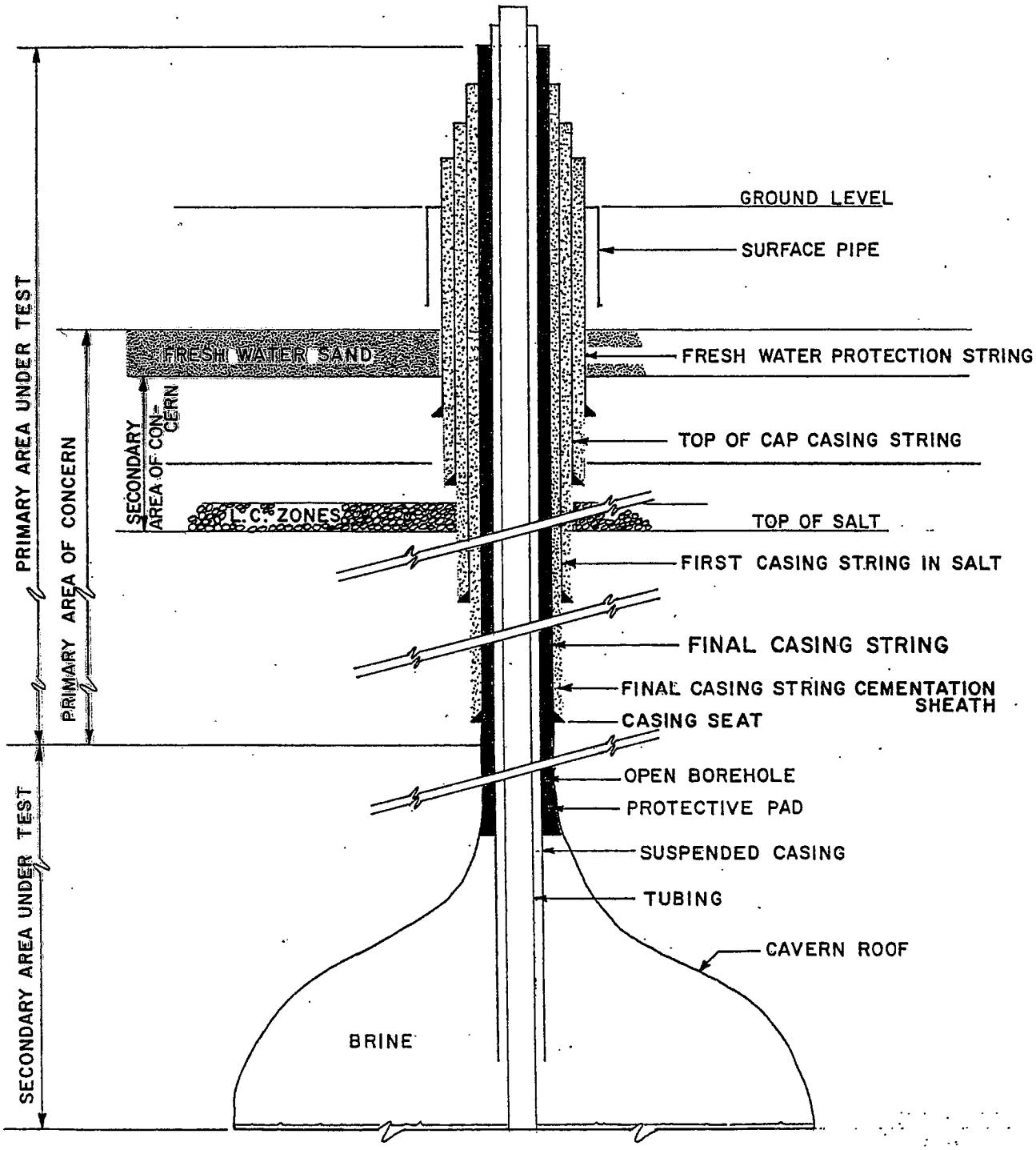


Figure 2-1. Proposed Subsidence Monitoring Network.

GULF COAST SALT DOME

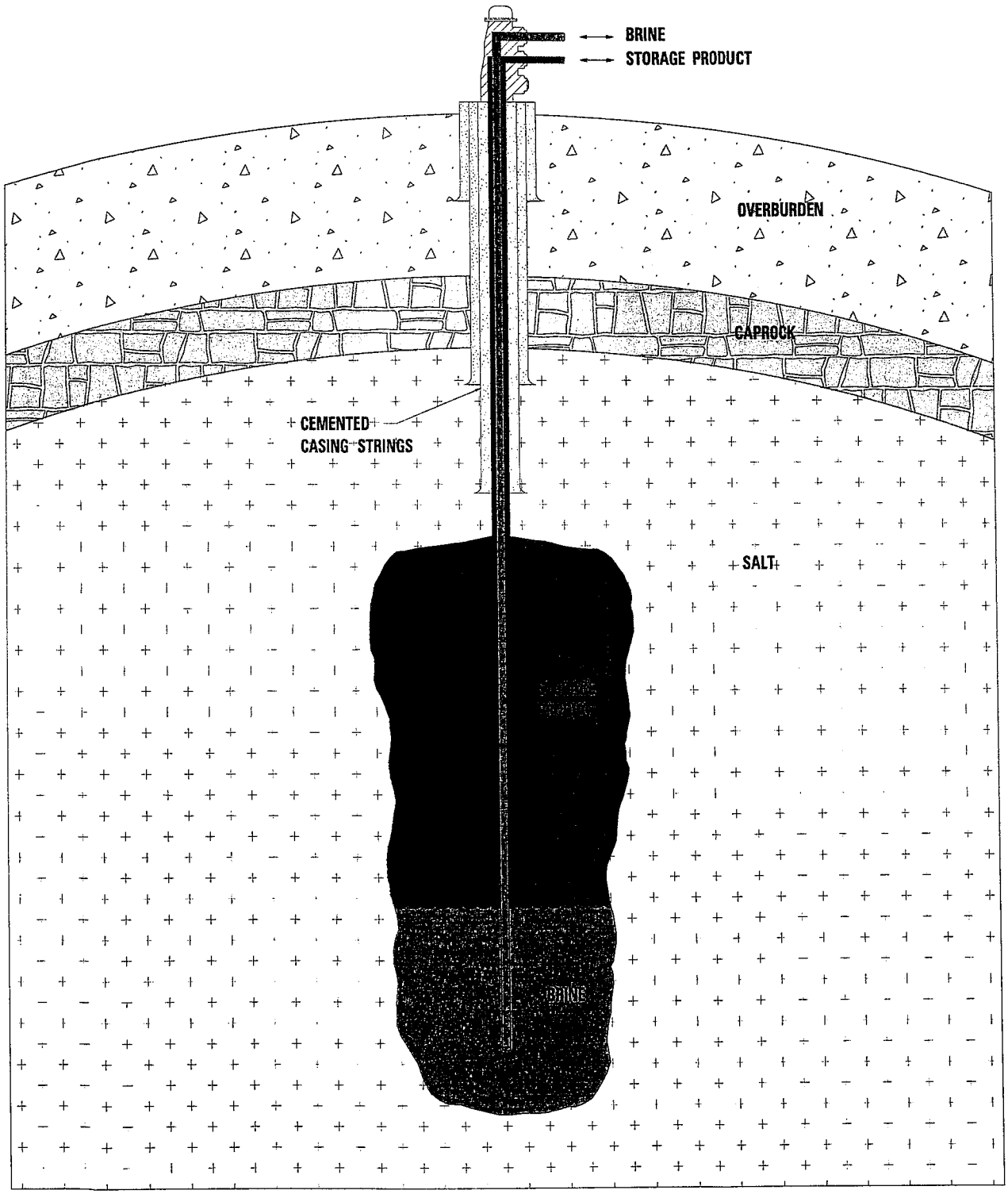


DOW EARTH SCIENCES
Gerd J. Herzing

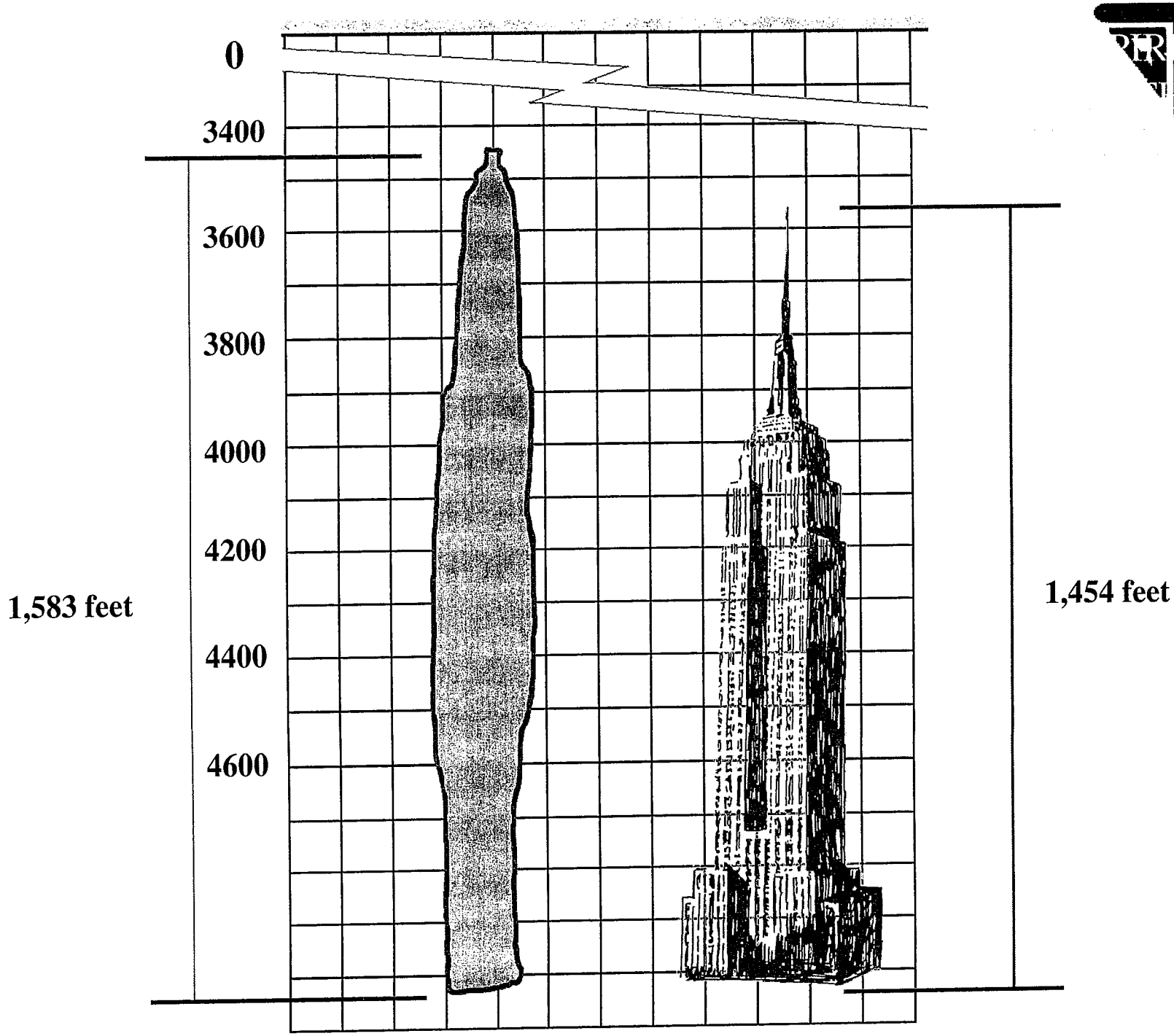


TYPICAL BRINE WELL IN DOMAL SALT

STORAGE WELL



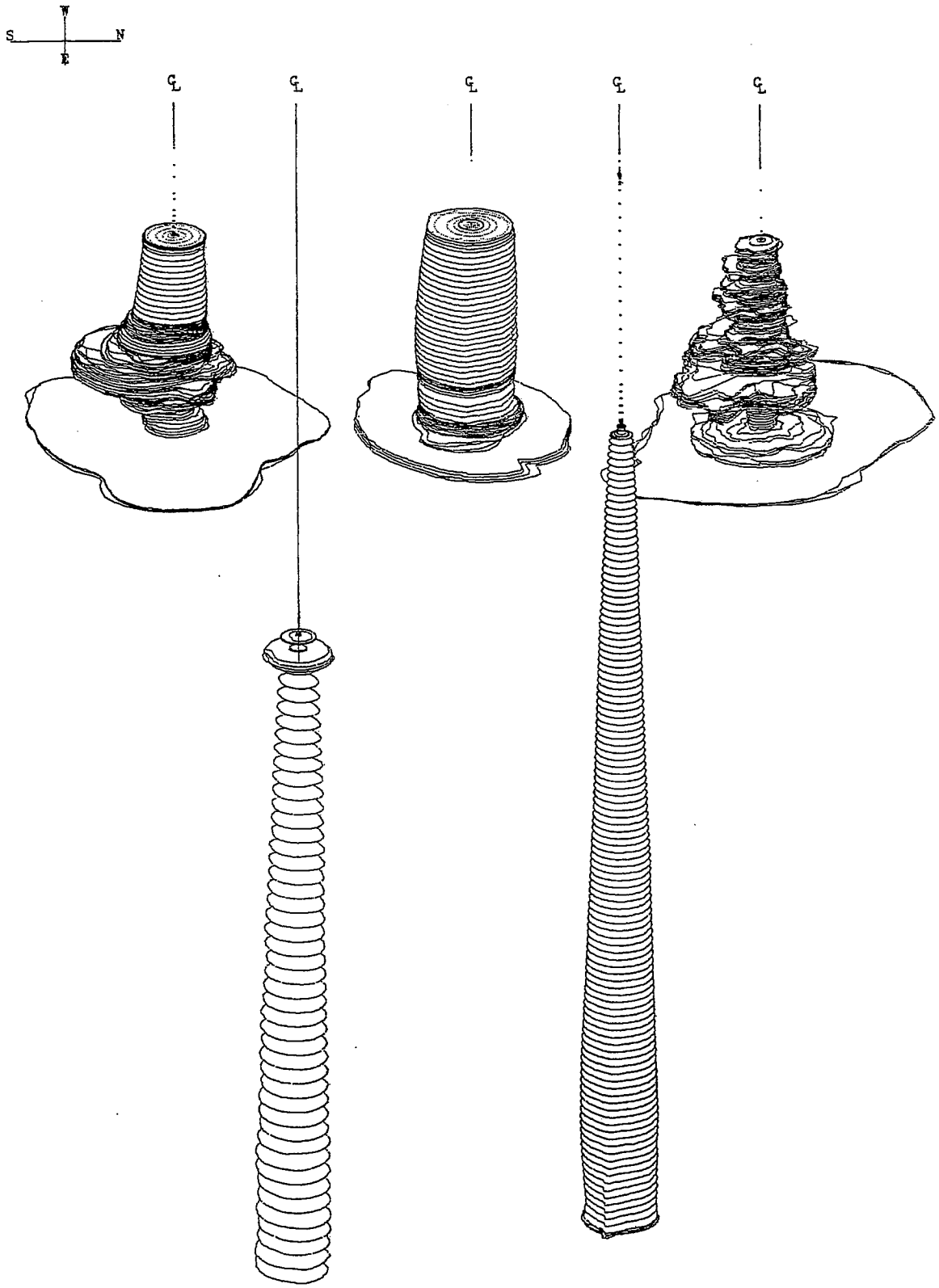
DOW EARTH SCIENCES
Earl J. Hensley


0
3400
3600
3800
4000
4200
4400
4600
1,583 feet
1,454 feet

FROM DEPTH - 1800
THRU DEPTH - 6000
ROT - 25 0 270
RANGE - 250 250

ISOMETRIC VIEW

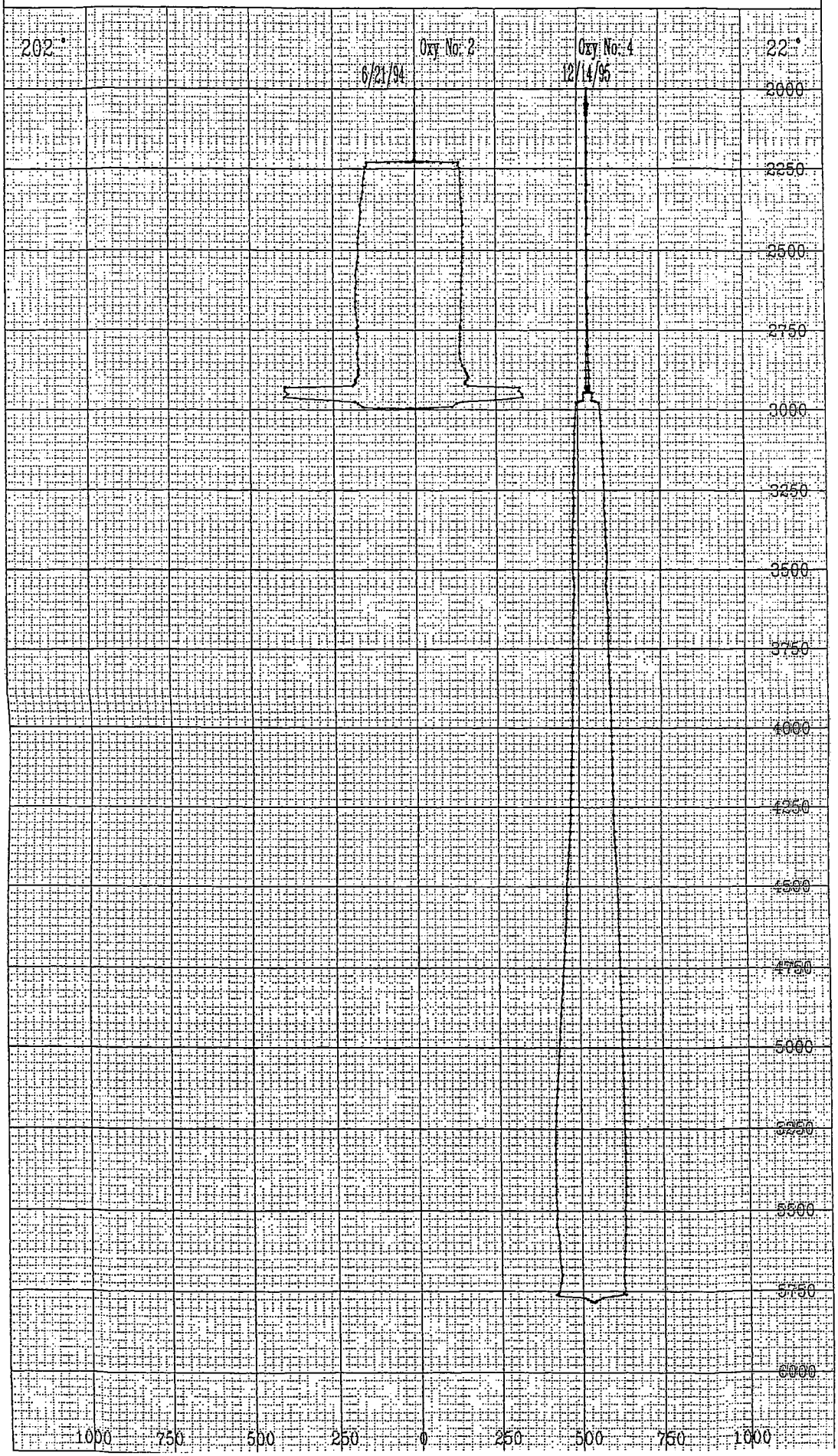
JOB NUMBER - TBC
Texas Brine Corp.
Oxy No: 5
Grand Bayou,Louisiana
March 1,1996



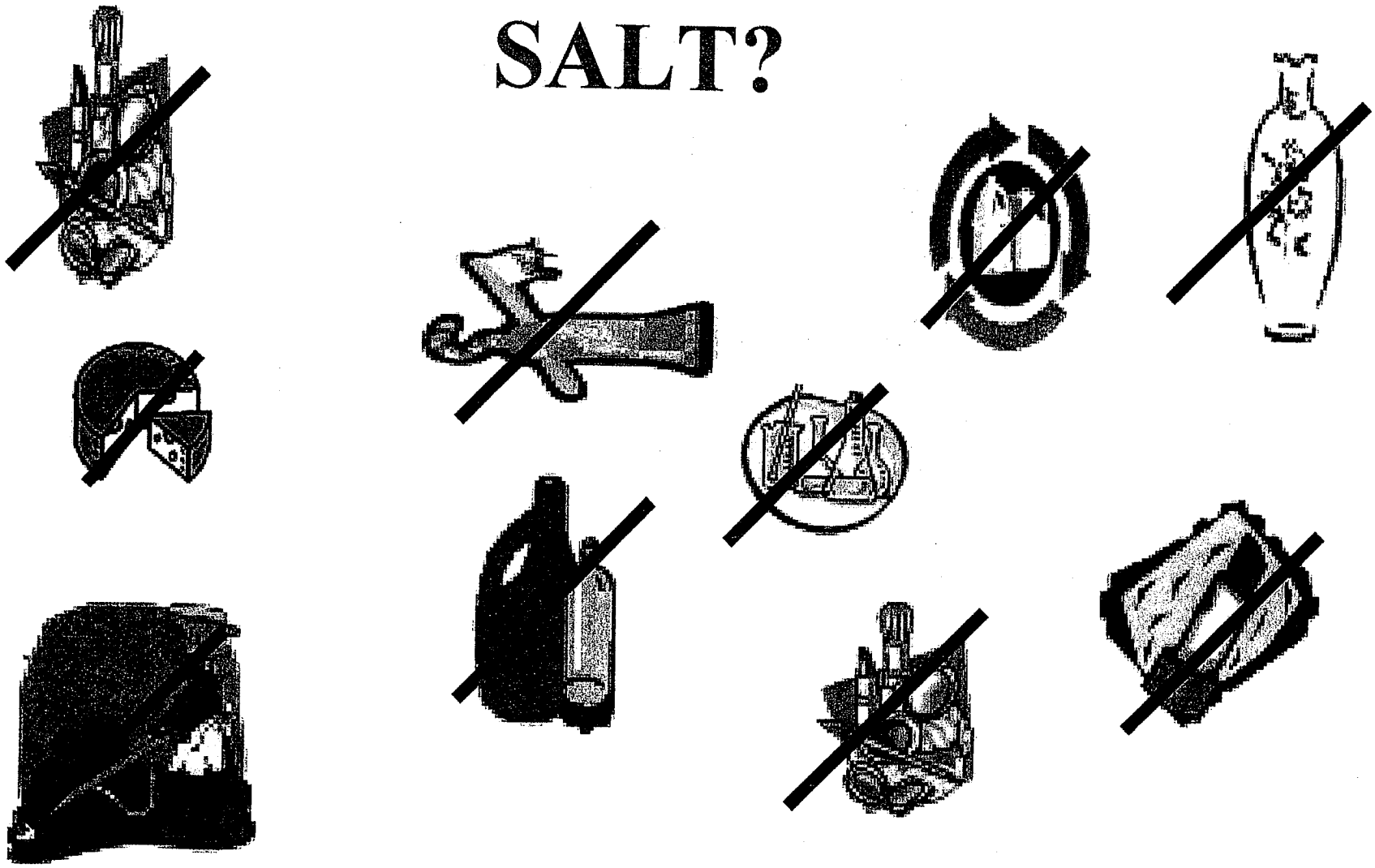
From Depth - 2000
Thru Depth - 6000

VERTICAL CROSS SECTION

Texas Brine
Grand Bayou,Louisian

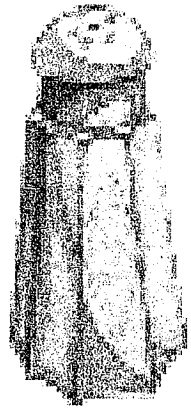


WHAT WOULD YOUR LIFE BE LIKE WITHOUT SALT?



WHAT IS SALT ?

NaCl
(Sodium Chloride)



+

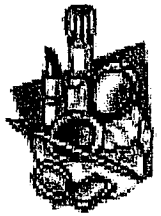
H_2O (Water) =

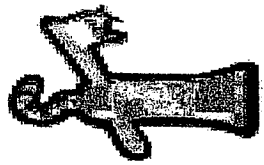
BRINE

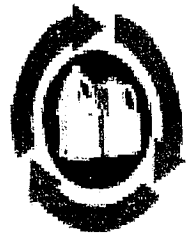
PUBLIC NEED

NINETY SEVEN (97) PERCENT OF ALL PRODUCTS PRODUCED EITHER CONTAIN SALT OR USE SALT IN THE MANUFACTURING PROCESS

THEREFORE, SALT IS USED IN AT LEAST NINETY SEVEN (97) PERCENT OF ALL PRODUCTS PRODUCED







USES OF SALT

CHEMICALS
CHLORINE
PLASTICS
GLASS
HERBICIDES
COSMETICS
TOOTHPASTE
WOOD PULP
WATER SOFTENING
BLEACH
ADHESIVE
DRILLING MUD

ANIMAL NUTRITION
BAKING
BUTTER
CANNING
CHEESE
CURING BACON
DYING TEXTILES
FERTILIZERS
FISHERIES
AGRICULTURAL SALT-ANIMALS
FOOD PRESERVATIVES
HOSPITAL SALINE SOLUTIONS
ICE CONTROL
TANNING
TEXTILES

Salt Demand By Chlor-Alkali Industry

000 Metric Tons

	1998	DEMAND GROWTH 2000-2004
GLOBAL	73,806	3.2%
U.S.	21,195	2.8%

Texas Brine Salt Supply to U.S. Chlor-Alkali Industry is 5,725,000 metric tons, 27% of total salt consumed

Chlorine (Cl):

What Is Chlorine?

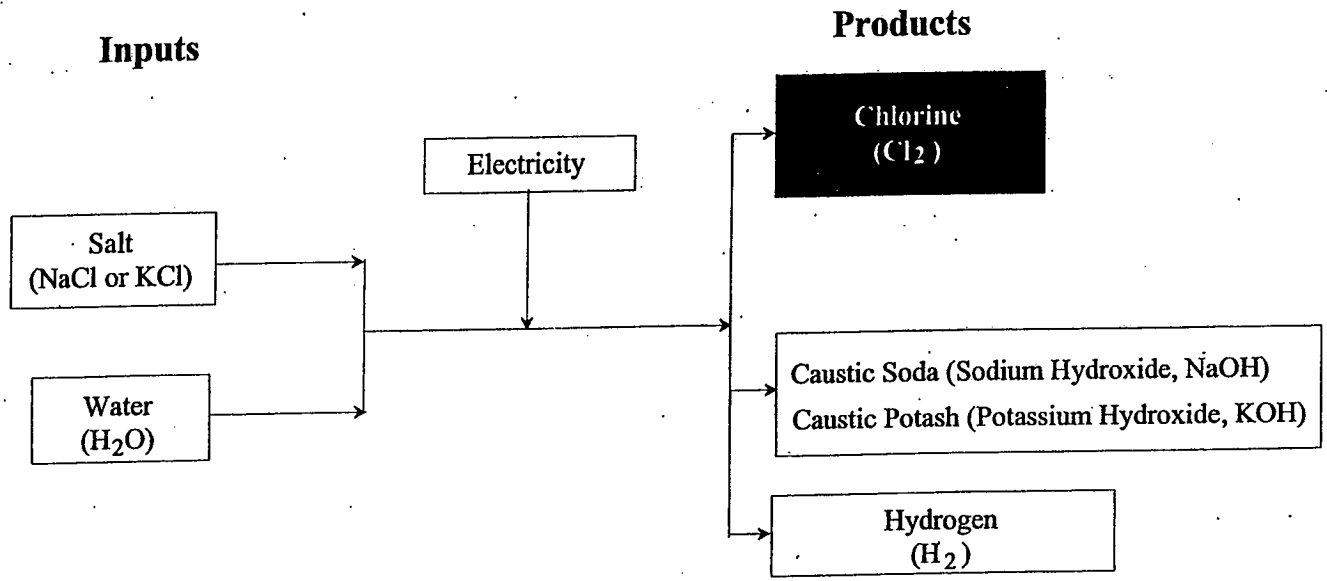
Chlorine is the 11th most abundant of the 107 elements which make up the earth. In nature, chlorine is found most often in combination with other chemicals, such as sodium. Sodium and chlorine combine to form sodium chloride, more commonly known as table salt. Chlorine gas is produced by passing an electric current through a solution of salt and water.

Sodium chloride and many chlorinated compounds occur naturally. And, because of chlorine's extraordinary ability to combine and react with other elements and compounds to produce thousands of useful chemicals and products, it is a key building block of modern chemistry. Chlorine is a vital component in tens of thousands of industrial processes and products. In fact, nearly all man-made products benefit in some way from the use of chlorine.

How Is Chlorine Used?

As illustrated in this booklet, chlorine is used in three principal ways: 1) direct use; 2) to manufacture chlorine-containing products, and 3) to manufacture products that do not contain chlorine, but use chlorine during the production process. Consumers are most familiar with chlorine's direct use to disinfect drinking water and swimming pools, but its broader role is in the production of thousands of chlorine-containing and chlorine-facilitated products that are the foundation of modern society. This publication uses simplified chemical chains to illustrate only a tiny percentage of the multitude of uses of chlorine chemistry.

Chlorine and Caustic Soda Are Produced From Salt, Water & Electricity



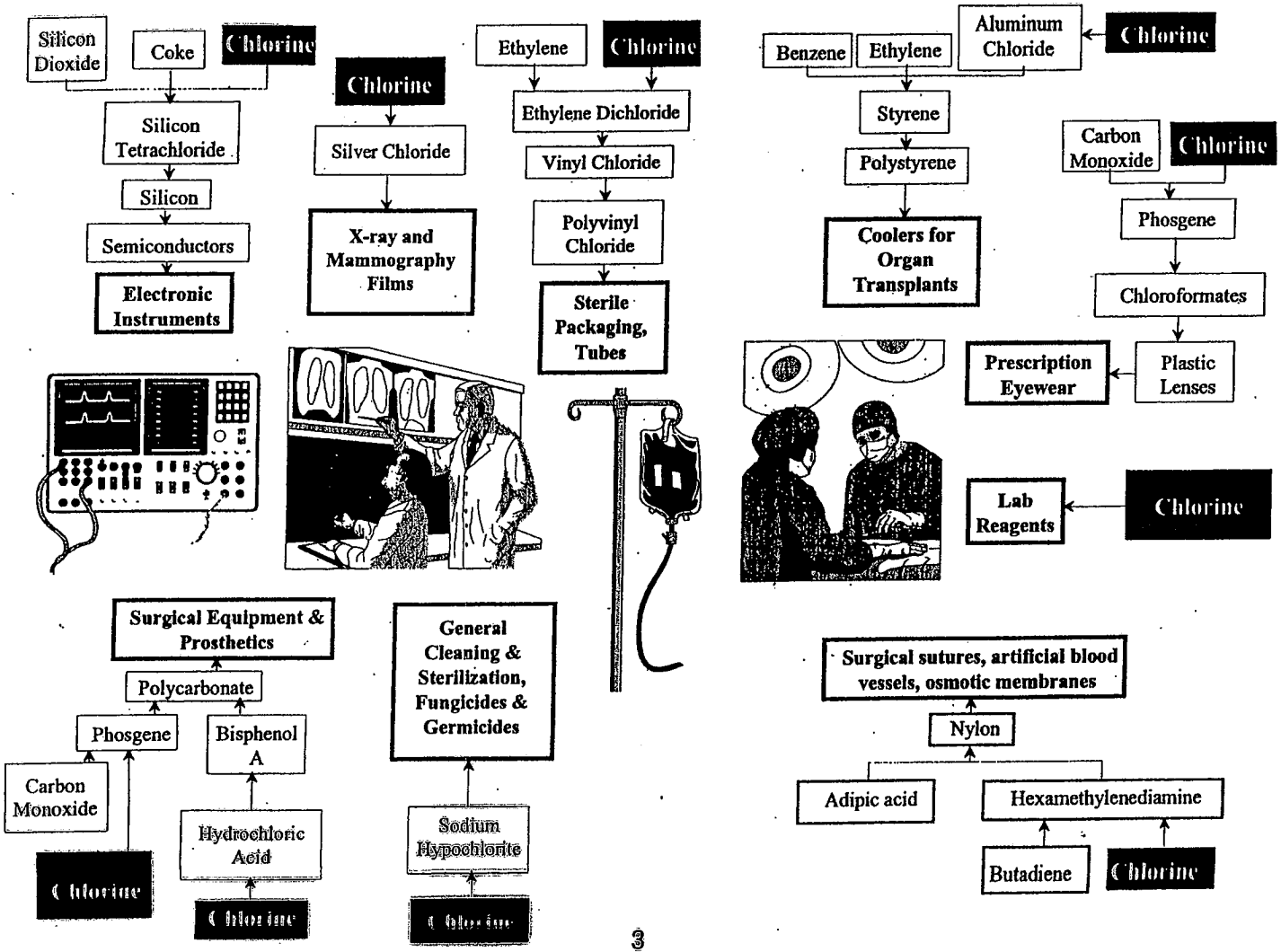
$$2NaCl + 2H_20 + Electricity = Cl_2 + 2NaOH + H_2$$

Or

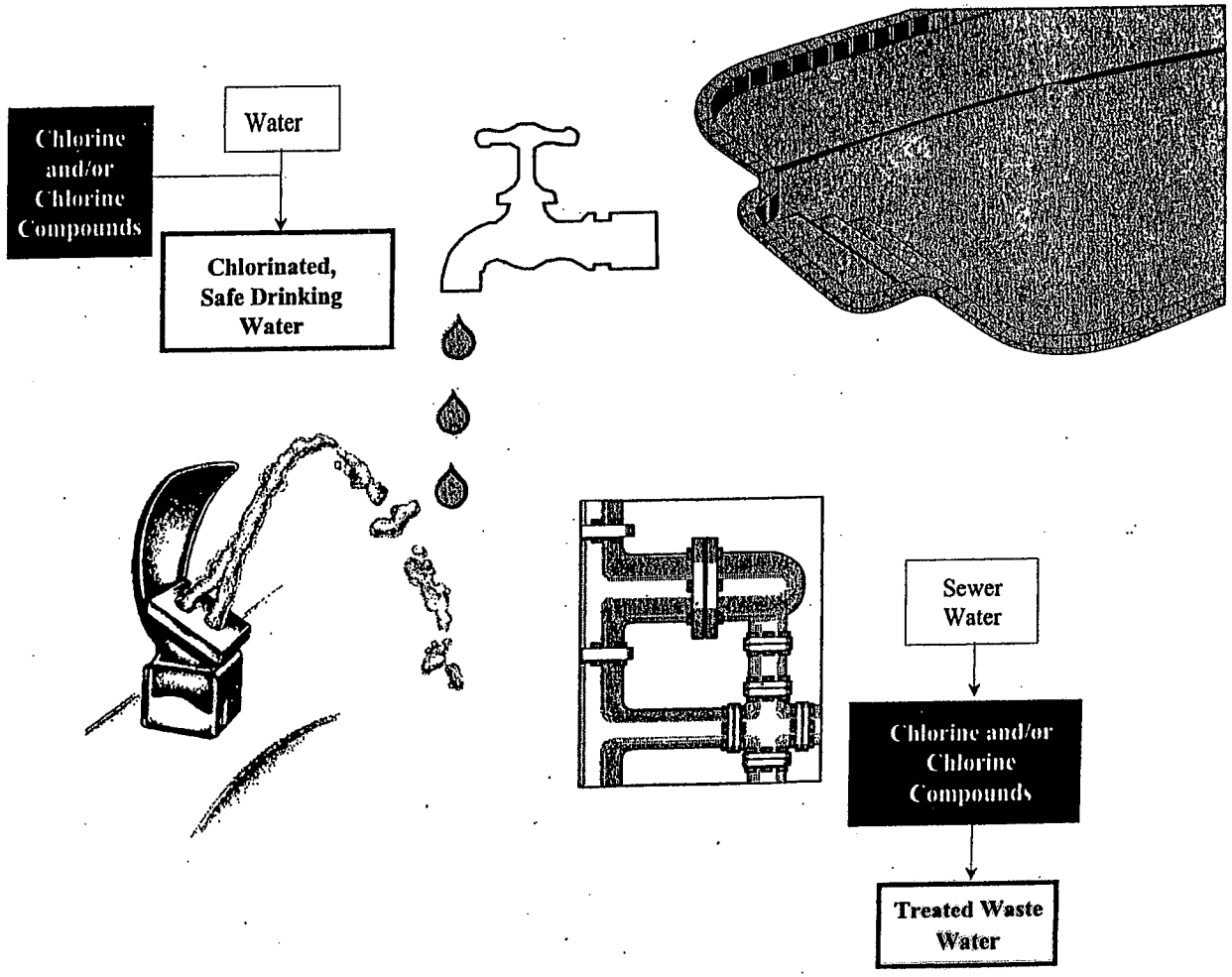
$$2KCl + 2H_20 + Electricity = Cl_2 + 2KOH + H_2$$

Note: Caustic Soda is an important co-product of chlorine production. Some of its uses also are illustrated on the pages that follow.

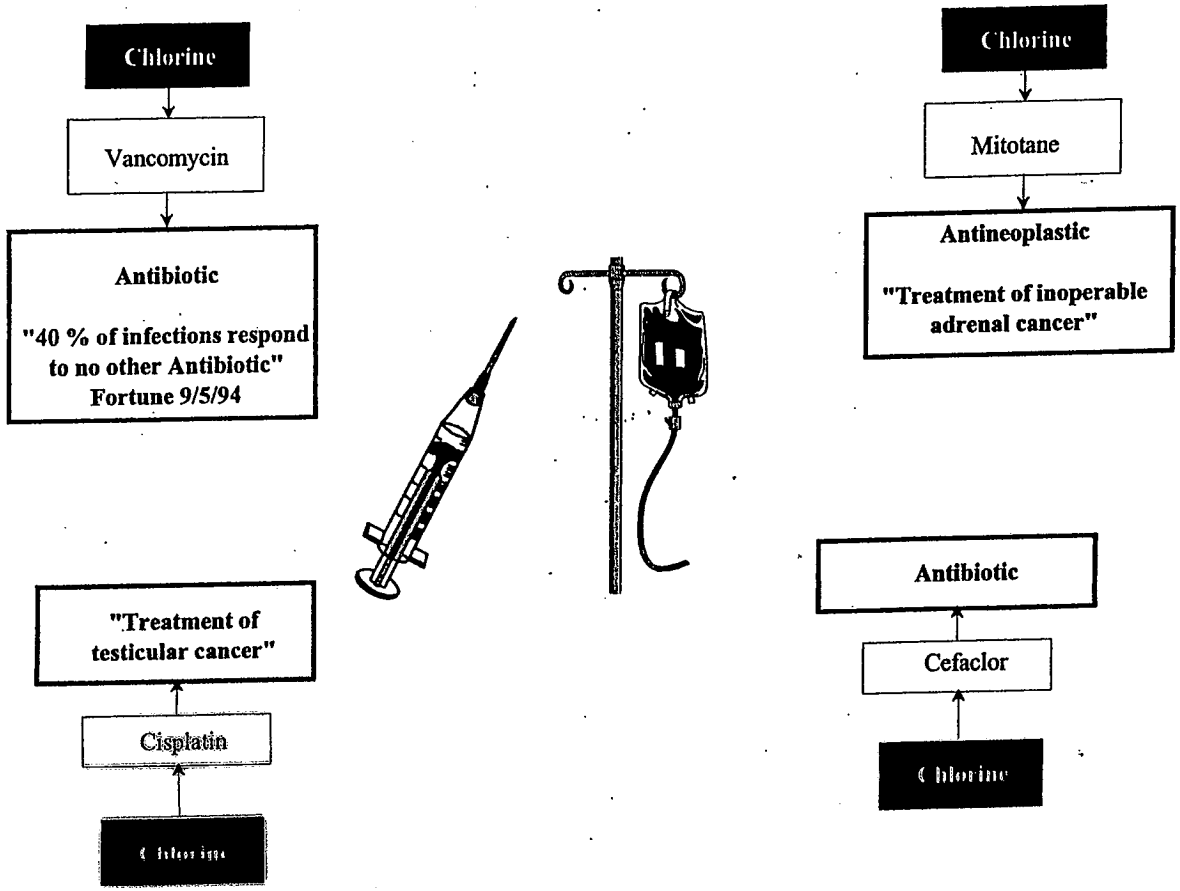
Chlorine and Health Care



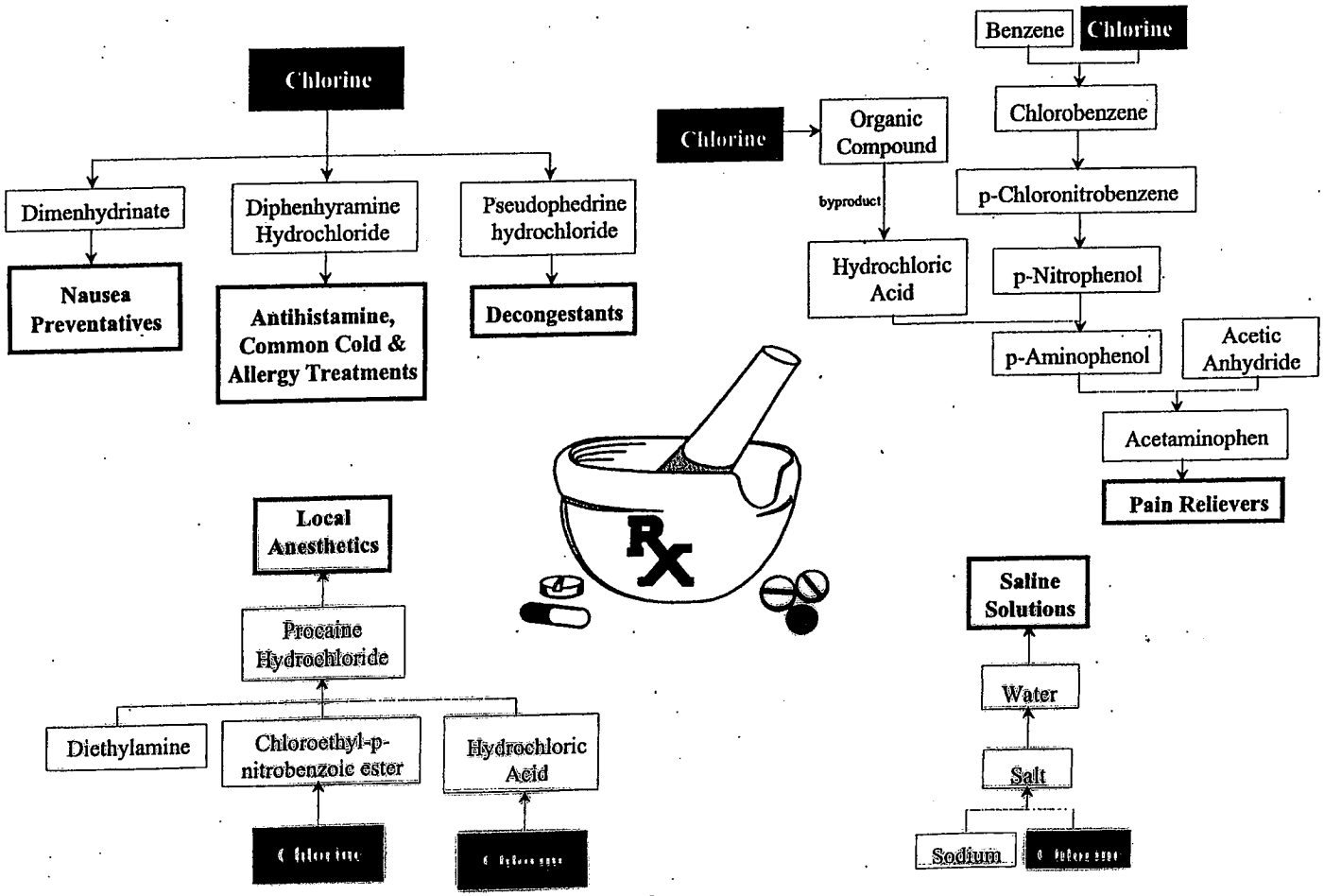
Chlorine and Water Treatment



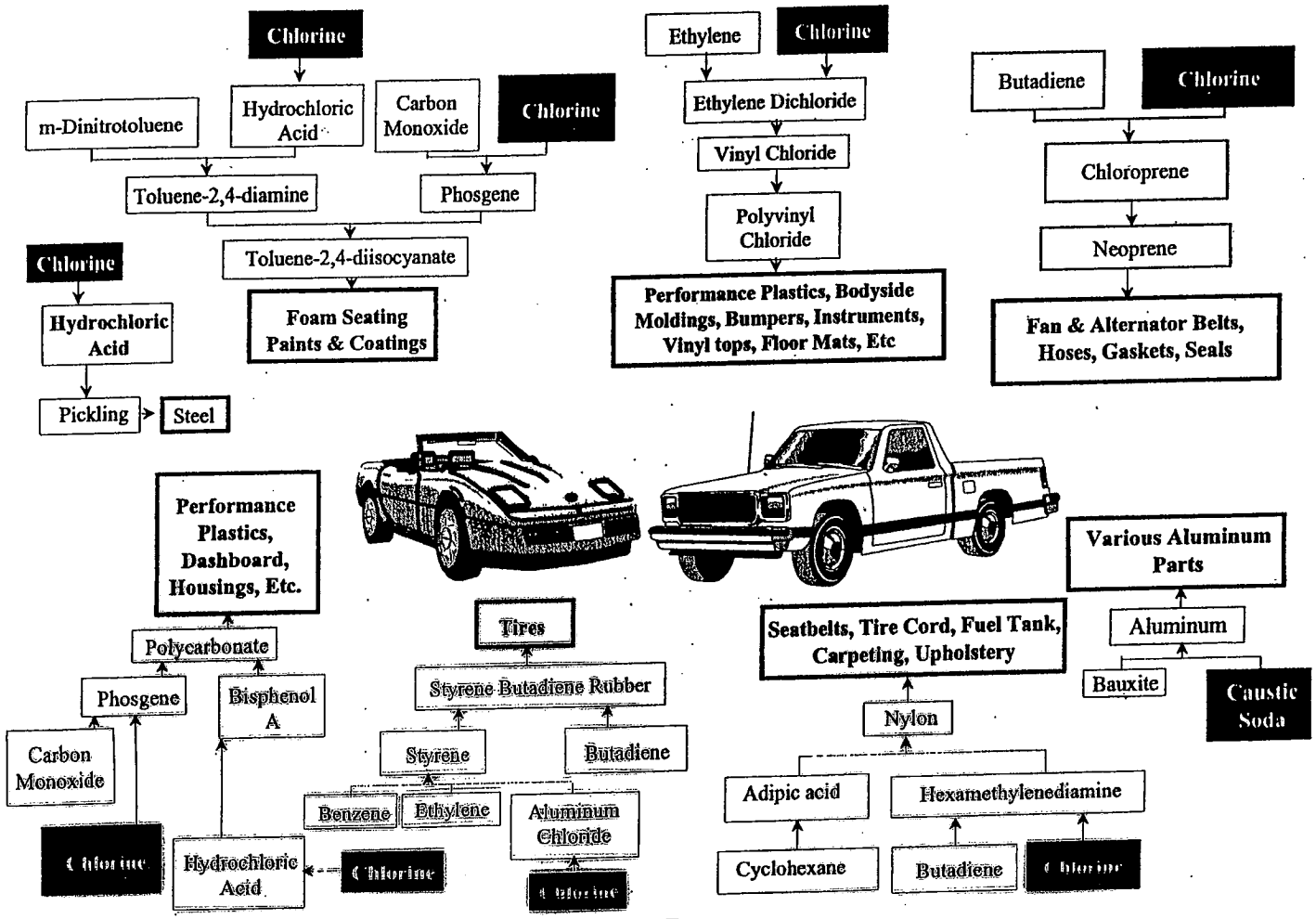
Chlorine and Prescription Medicines



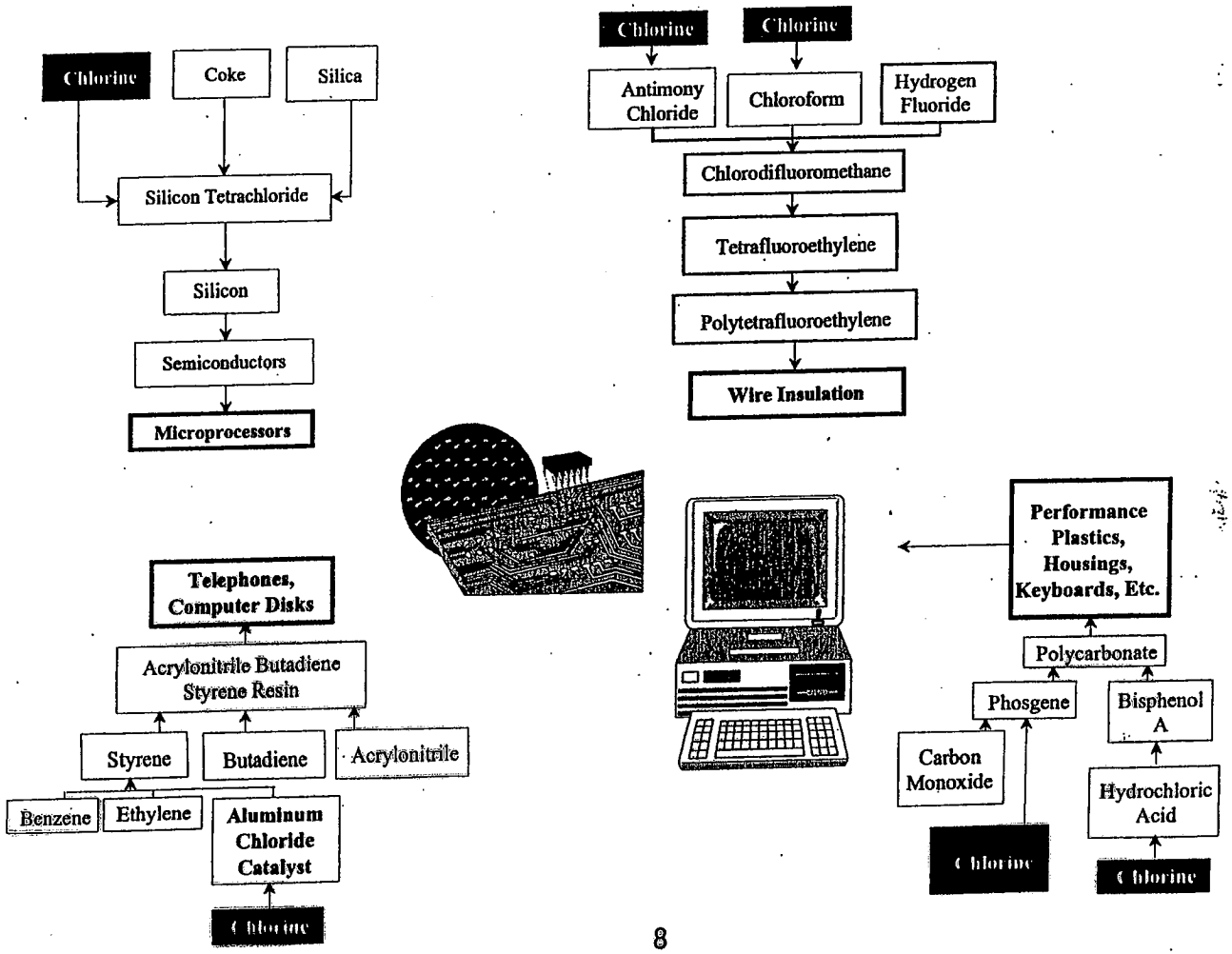
Chlorine and Over-The-Counter Medications



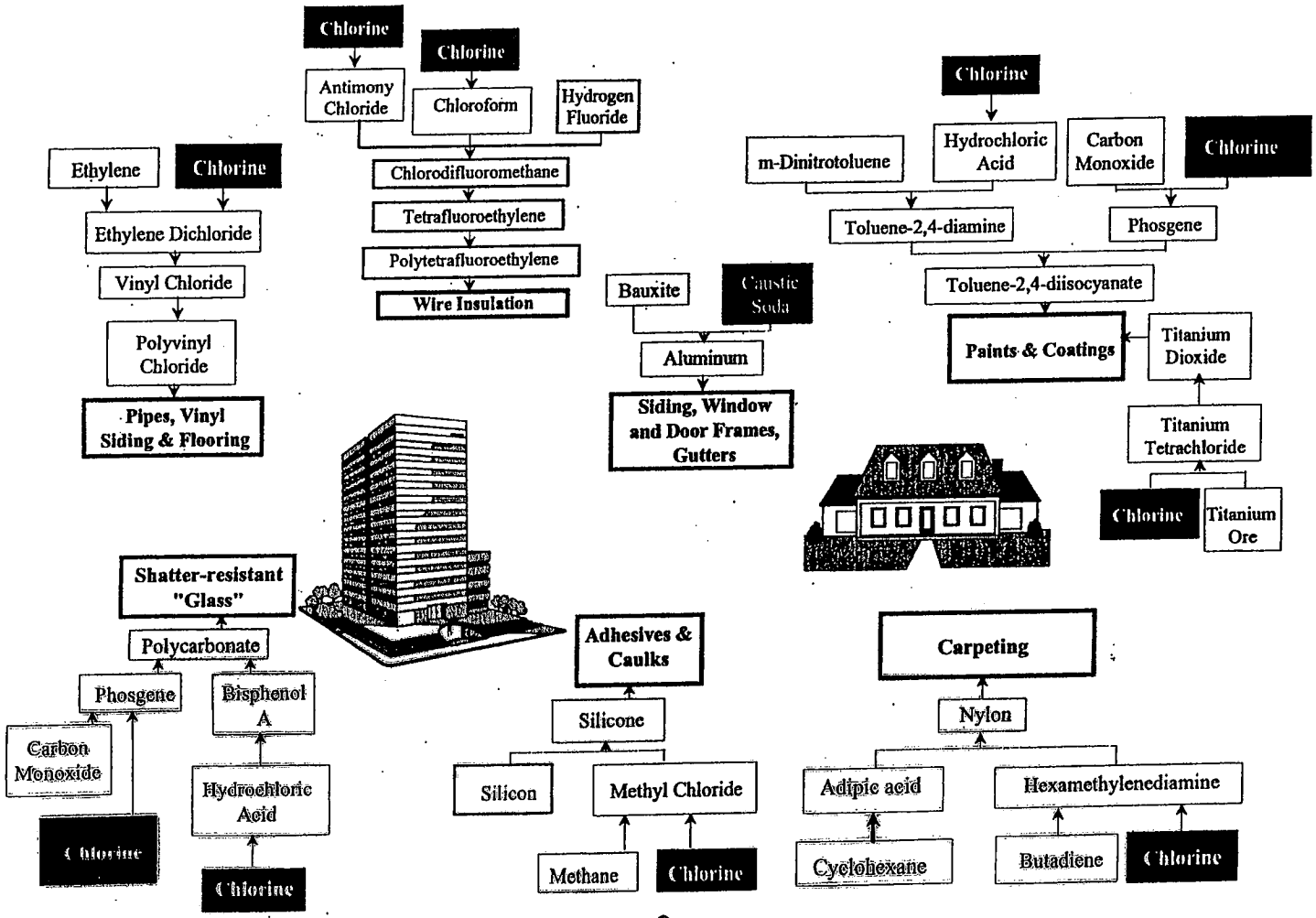
Chlorine and Auto & Truck Production



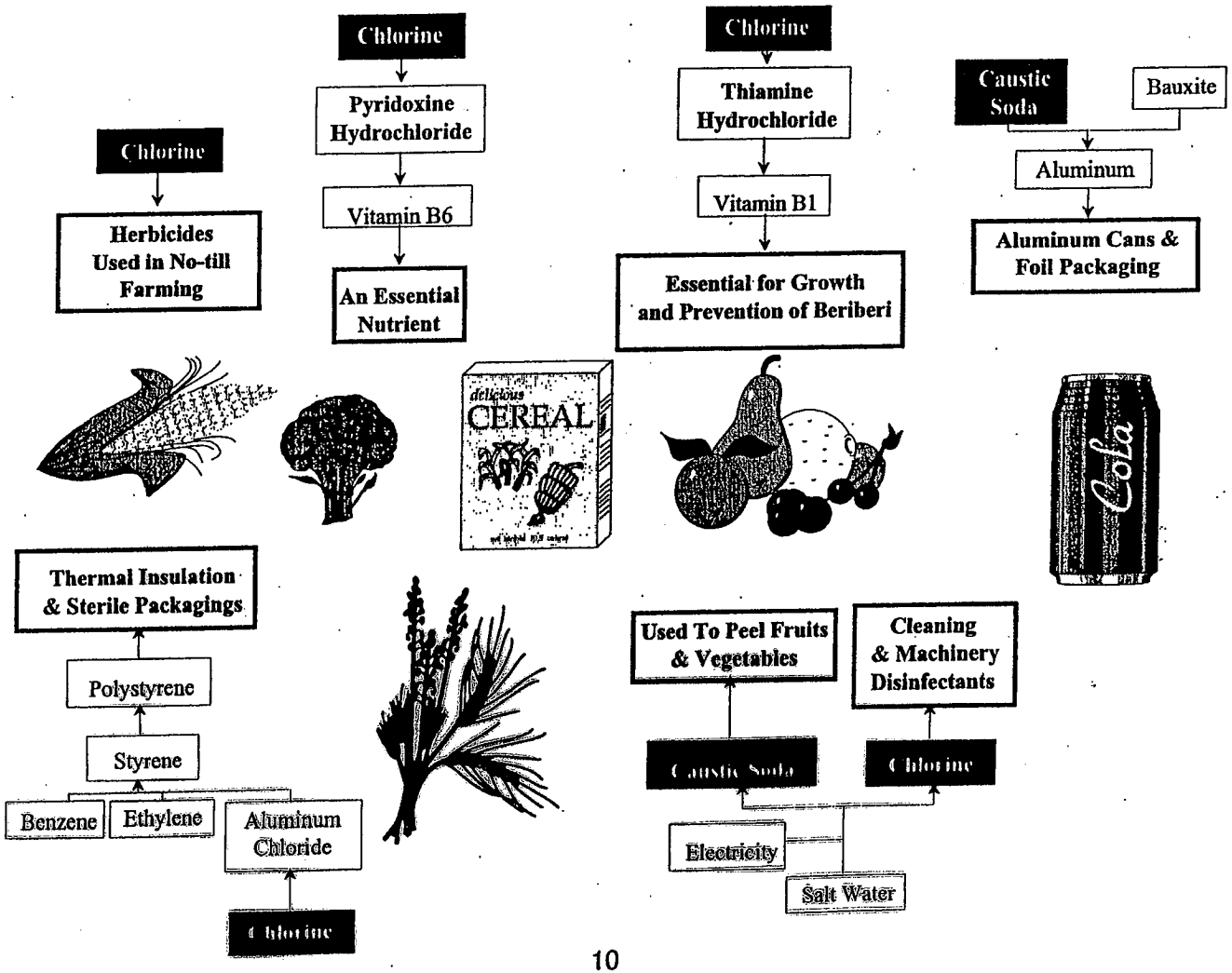
Chlorine and Electronics



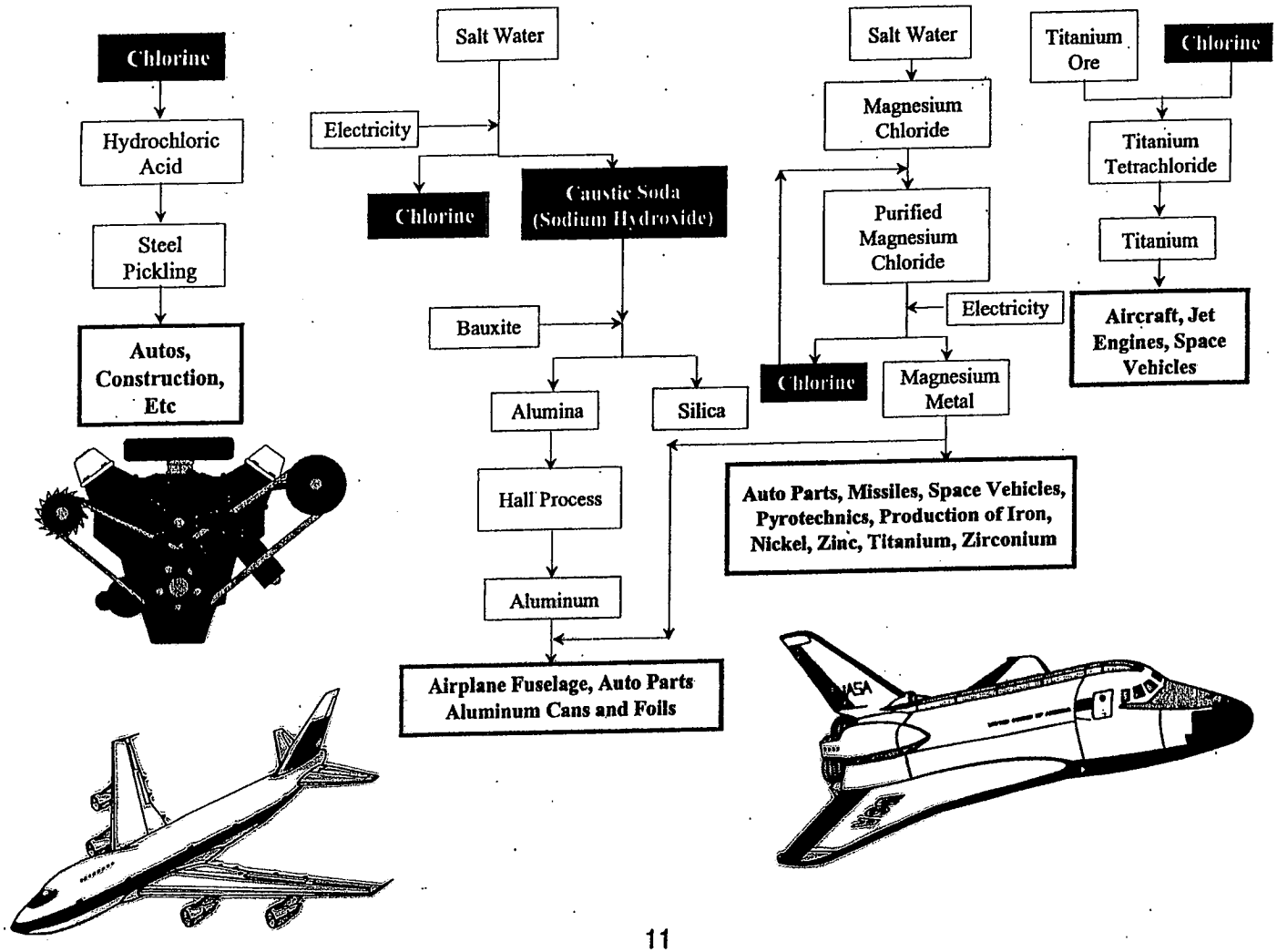
Chlorine and Home & Office Construction



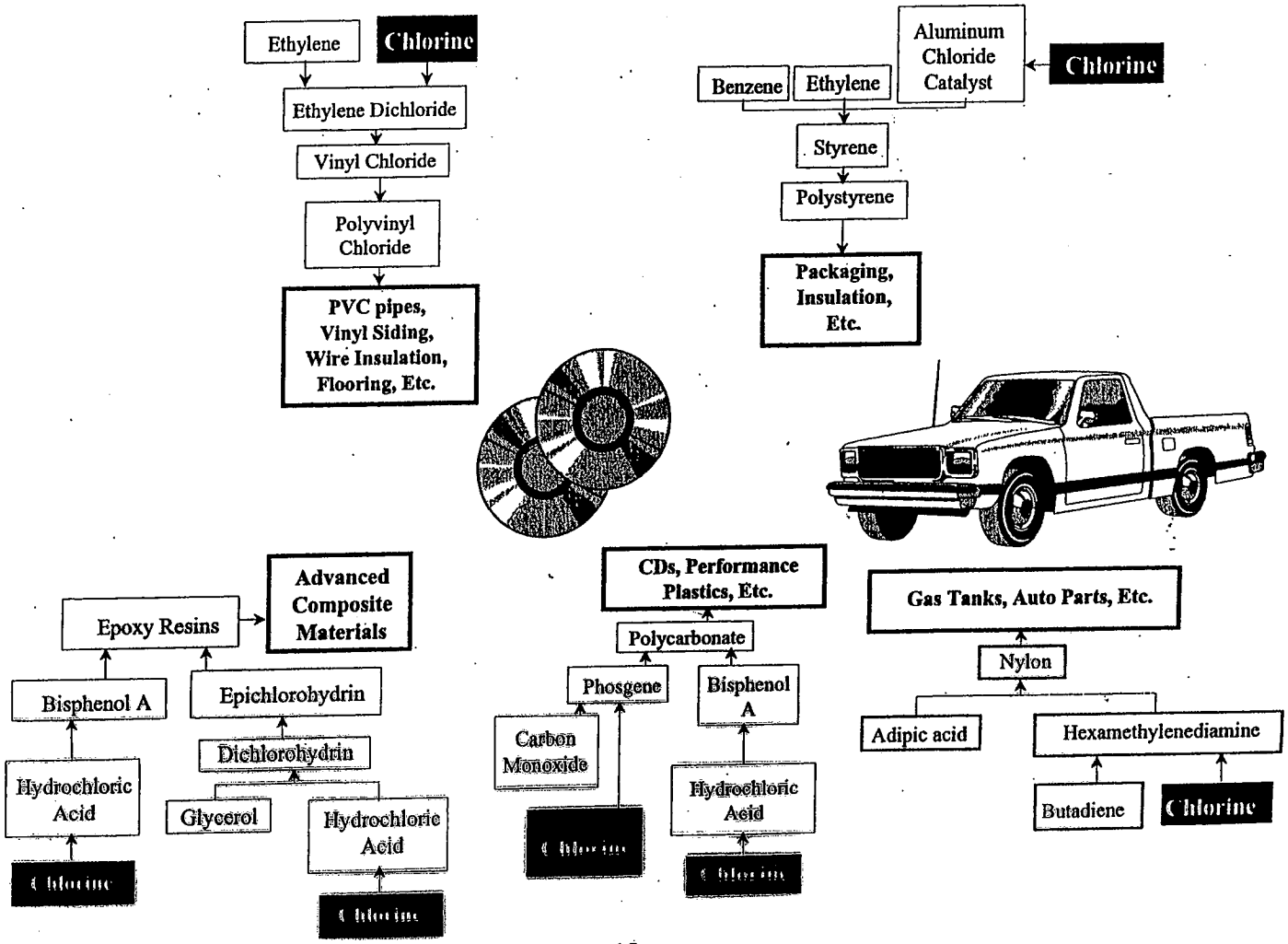
Chlorine and Food Production, Processing & Packaging



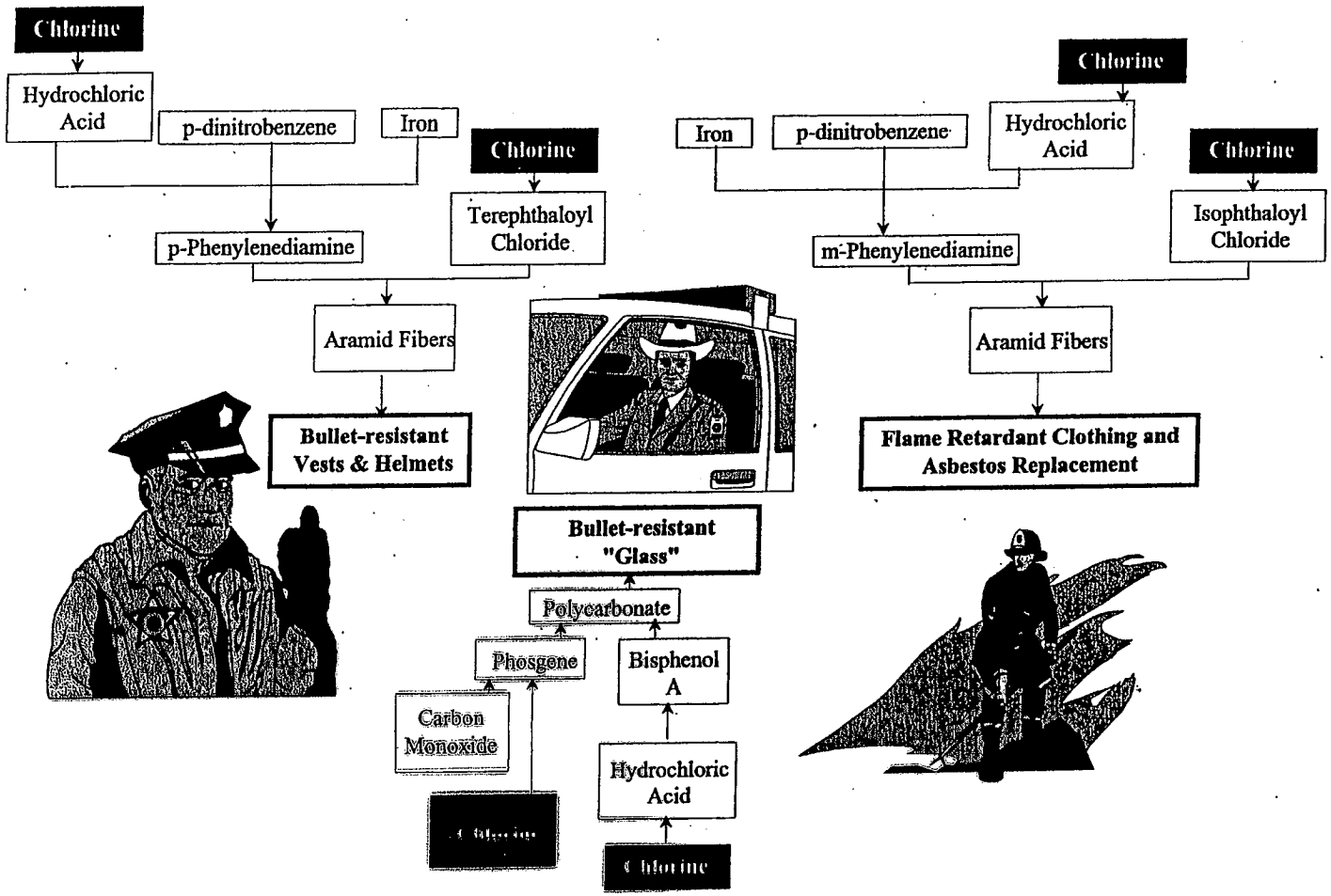
Chlorine and Metal Production



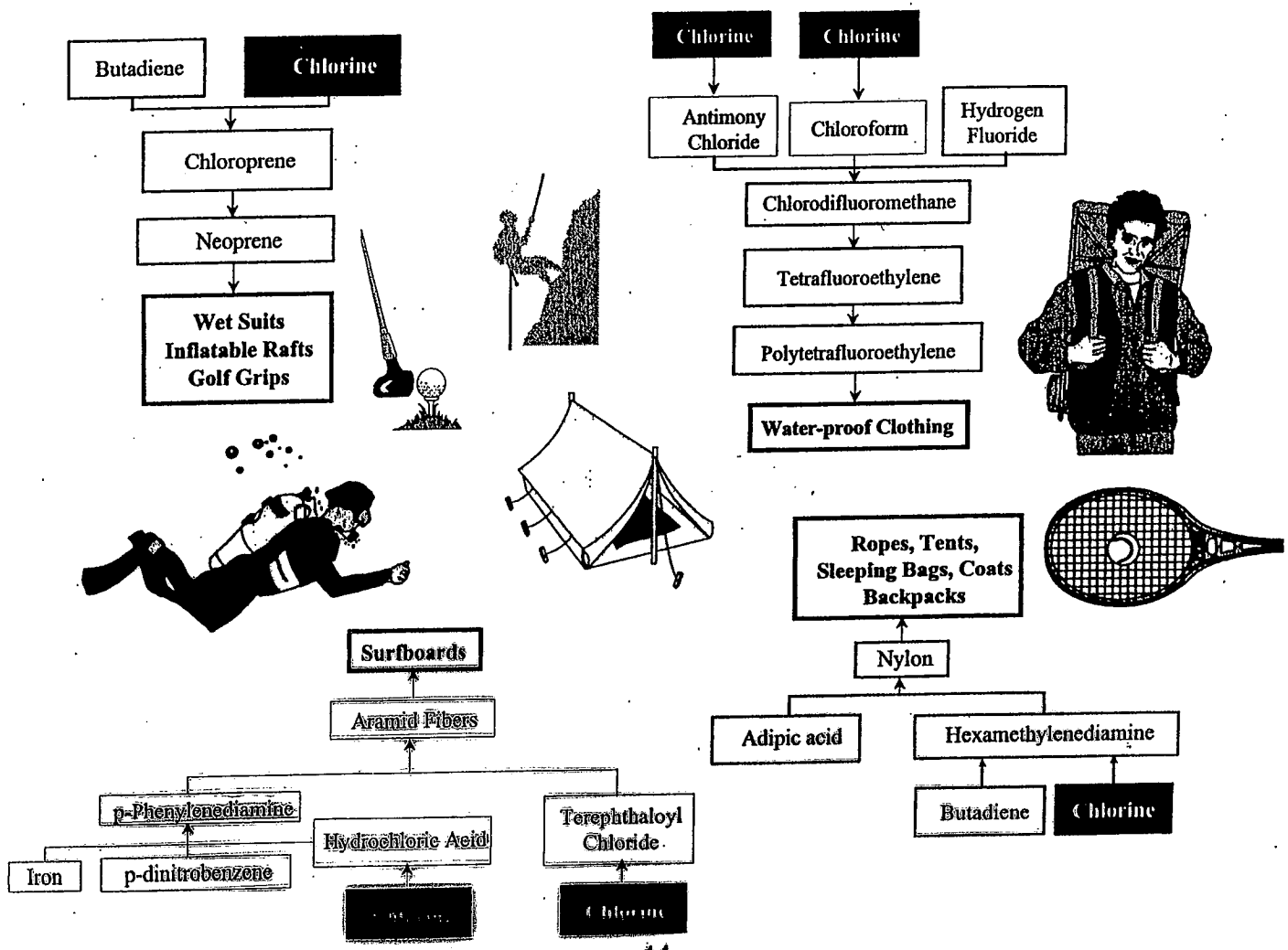
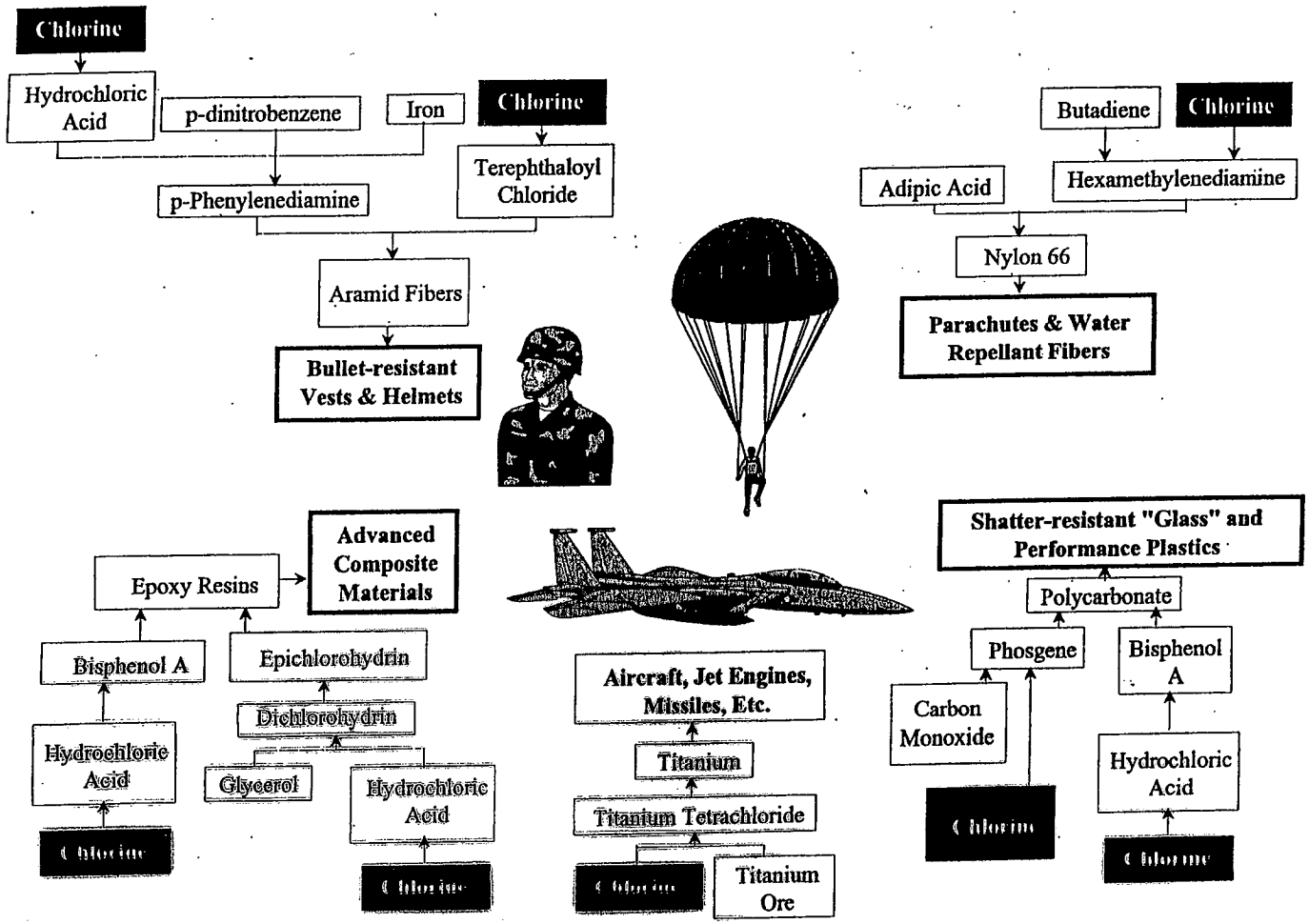
Chlorine and Plastics



Chlorine and Emergency Response-Police & Firefighters



Chlorine and Outdoor Recreation



Chlorine and Defense