DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

A contribution of the
BUREAU OF LAND MANAGEMENT
Prepared in cooperation with the
IDAHO BUREAU OF MINES AND GEOLOGY

MINERAL INVESTIGATIONS
RESOURCE MAP MR–73
SHEET 3 OF 3

Base from U.S. Geological Survey, 1980

SCALE 1:24 000

1 MILE — 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET — 1 KILOMETER

TRUE NORTH — MAGNETIC NORTH — 15 ½°

APPROXIMATE MEAN DECLINATION, 1984

INTERIOR—GEOLOGICAL SURVEY, RESTON, VA—1984—C82255

Geology compiled by Pamela Palmer from Conner (1980); geologic interpretation by Bea Johnston and R. David Hovland; overburden isopachs by Bea Johnston; resource blocks by Pamela Palmer; leases and ownership compiled by Alexandra Zemanek; assisted by Susan C. Cooper and Ken Paul; cartography by David Taylor and Gibb C. Johnson

LAND STATUS

FEDERAL PHOSPHATE TITLE, FEDERAL SURFACE TITLE

* FEDERAL PHOSPHATE TITLE, STATE SURFACE TITLE

FEDERAL PHOSPHATE TITLE, PRIVATE SURFACE TITLE

* STATE PHOSPHATE TITLE, FEDERAL SURFACE TITLE

STATE PHOSPHATE TITLE, STATE SURFACE TITLE

STATE PHOSPHATE TITLE, PRIVATE SURFACE TITLE

* PRIVATE PHOSPHATE TITLE, FEDERAL SURFACE TITLE

PRIVATE PHOSPHATE TITLE, PRIVATE SURFACE TITLE

Note:–Land status shown for Idaho part of quadrangle only.

LEASE DATA

KNOWN PHOSPHATE LEASING AREA

GRAYS WOOLEY RANGE–RANGE

PHOSPHATE LEASE — I-05975

Federal Leases – number with I or BL prefix

Federal Preference Right Lease Application – number with I prefix and PRLA suffix

State Leases – Four digit number with or without R suffix

Private Leases – not shown

References:

Leasable Mineral Plats, effective 12-79, Bureau of Land Management, Boise, Idaho

State Records, effective 8-80, Department of Lands, Boise, Idaho

Note.—Lot locations compiled from Master Title Plats. Legal descriptions of lot locations, lot acreages, and updated surveys of section boundaries are on file with Bureau of Land Management.

Ppm — MEADE PEAK PHOSPHATIC SHALE MEMBER OF THE PHOSPHORIA FORMATION (LOWER PERMIAN) – Phosphorite and mudstone. Approximately 148 ft thick

* PHOSPHATE MINE PIT BOUNDARY – As of September 1979

* FAULT SEPARATION – No calculated resource

FAULT OVERLAP – Twice calculated resources if covered by 1500 ft. or less of overburden

600 — OVERBURDEN ISOPACHS—On top of the Meade Peak Phosphatic Shale Member of the Phosphoria Formation. Only 300, 600, 1500-feet isopachs are shown. Dashed where isopachs are projected past control points or where structure is uncertain

RESOURCE BLOCK END BOUNDARY

IDENTIFIED PHOSPHATE RESOURCES-Excluding outcrop or projected outcrop of the Meade Peak Phosphatic Shale Member

(*) — Map units and symbols shown with an asterisk are not on this map.

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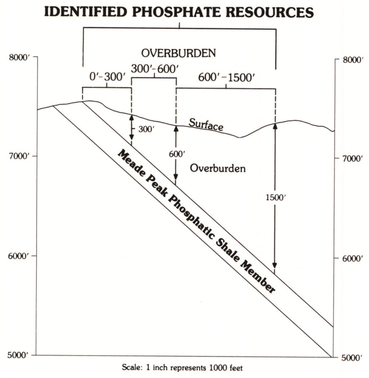
IDENTIFIED PHOSPHATE RESOURCES

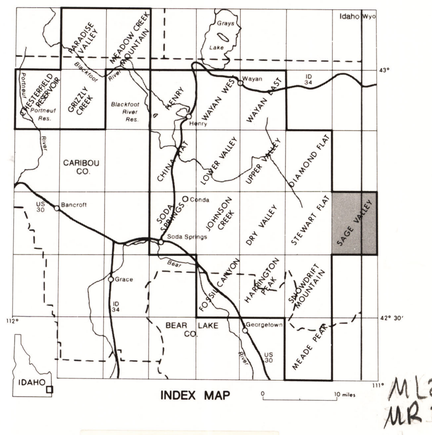


Scale: 1 inch represents 1000 feet

RESOURCES FOR SAGE VALLEY QUADRANGLE

Overburden	0′–300′	300′–600′	600′–1500′	TOTAL
Million Short Tons	107	61.4	145	313

Resources calculated to three significant figures for phosphate rock containing ≥16% P_2O_5



INDEX MAP

IDENTIFIED PHOSPHATE RESOURCES, LEASES, AND OWNERSHIP

MAPS SHOWING SELECTED GEOLOGY AND PHOSPHATE RESOURCES OF THE SAGE VALLEY QUADRANGLE, CARIBOU COUNTY, IDAHO

By

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[1]Idaho Bureau of Mines and Geology
[2]Bureau of Land Management

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