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Independent
Casper, Wyoming
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DISCOVERY WELL
Name: Atlantic and Pacific, 5 Gov't
Location: E NW SE 36-43N-94W
Date of Completion: October, 1917
Initial Potential: Unknown Phosphoria - Permian
Total Depth: 1020
Elevation: 5110 Topo
Casing: Unknown
Perforations: Open hole
Treatment: None
Pressures: Unknown

GENERAL FIELD DATA
Regional Setting: Southern Bighorn Basin
Other Formations with Shows: None
Exploration Method Leading to Discovery:
Surface mapping
Trap Type: Structural, anticline
Surface Formations: Chugwater - Triassic
Oldest Formation Penetrated: Granite - Precambrian
Well: H. O. Batzer, 6 State, SENE 36-43N-94W
Spacing Order: Vacate Rule 302, 2 1/2 acre spacing
Logging Practice: Past; DL, GRN, Recent; DILL, SONL, CNDL, GRN
Completion Practice: Past; set casing top
Phosphoria, drill pay, complete open hole, Present;
drill through, set casing, perforate, acidize w/1000
gal 15% HCL
Productive Area: 240 acres
Number of Producing Wells: 31
Number of Abandoned producers: 21
Number of Dry Holes: 4
Number of Shut-in Wells: 4 temporarily abandoned;
3 shut-in injection wells
Number of Disposal Wells: 0
Number Pressure Maintenance Injection Wells: 21 water injection
Market for Production: Marathon Oil Company
Major Operators: RAM Asset Management
Company

RESERVOIR DATA
Formation: Phosphoria - Permian
Lithology: Dolomite, sucrosic, "granular"
Discovery Date: October, 1917
Porosity: 22% average (operator)
Permeability: 30 + md average, Core (operator)
Average Pay Thickness: 12 feet
Oil/Gas Column: 170 feet
Gas/Oil/Water Contact: +4150 feet (estimated)
Gas Oil Ratio: TSTM
Initial Pressure: 400 + psi (operator)
Present Pressure: 100 psi artificially maintained

WARM SPRINGS, EAST
T43N R93-94W
Hot Springs County, Wyoming
Phosphoria

Drive Mechanism: Solution gas; currently water
flood
Rw and/or Salinity: 0.8 @ 68° F?
Bottom hole Temperature: 100° F. (operator)
Character of oil or gas: Recent: Gravity - 19-23°
API; Past: Gravity - 18.6° API; Pour point - <5° F;
Sulfur - 3.64%, Viscosity - 610 sec @ 100° F;
Specific gravity - 0.943; Nitrogen - 0.33%; Color -
brownish-black
Continuity of Reservoir: Homogenous w/possible
cross faulting
Cumulative Production: 370,031 BO, 2,647,900
BW? 1/1/89
Primary Recovery: 335,000 + BO
Secondary: 281,000 + BO
Estimated Ultimate Recovery: 616,000 + BO
Decline Curve: Appendix; includes Warm Springs,
West

DISCUSSION
At East Warm Springs, production is found at an
average depth of 850 feet. Development has been
sporadic since the discovery due to low production
rates. In 1981 an effort was made to improve recovery
and production rates by increasing the well density
and initiating a peripheral line drive waterflood
project, which was unsuccessful.

In 1985, IC Gas Amcana, Inc. took over operations
and began a waterflood on two and one-half acre
spacing. The current "crestal" waterflood program is
similar to the project at East Warm Springs.

Presently, 79,000 BWPM are injected with 3200 BO
and 13,500 BWPM being produced. RAM Asset
Management Company purchased IC Gas Amcanas
interest in the unit and took over operations
September 1, 1988.

REFERENCES
data, East Warm Springs.

REFER TO POCKET FOR MAP.