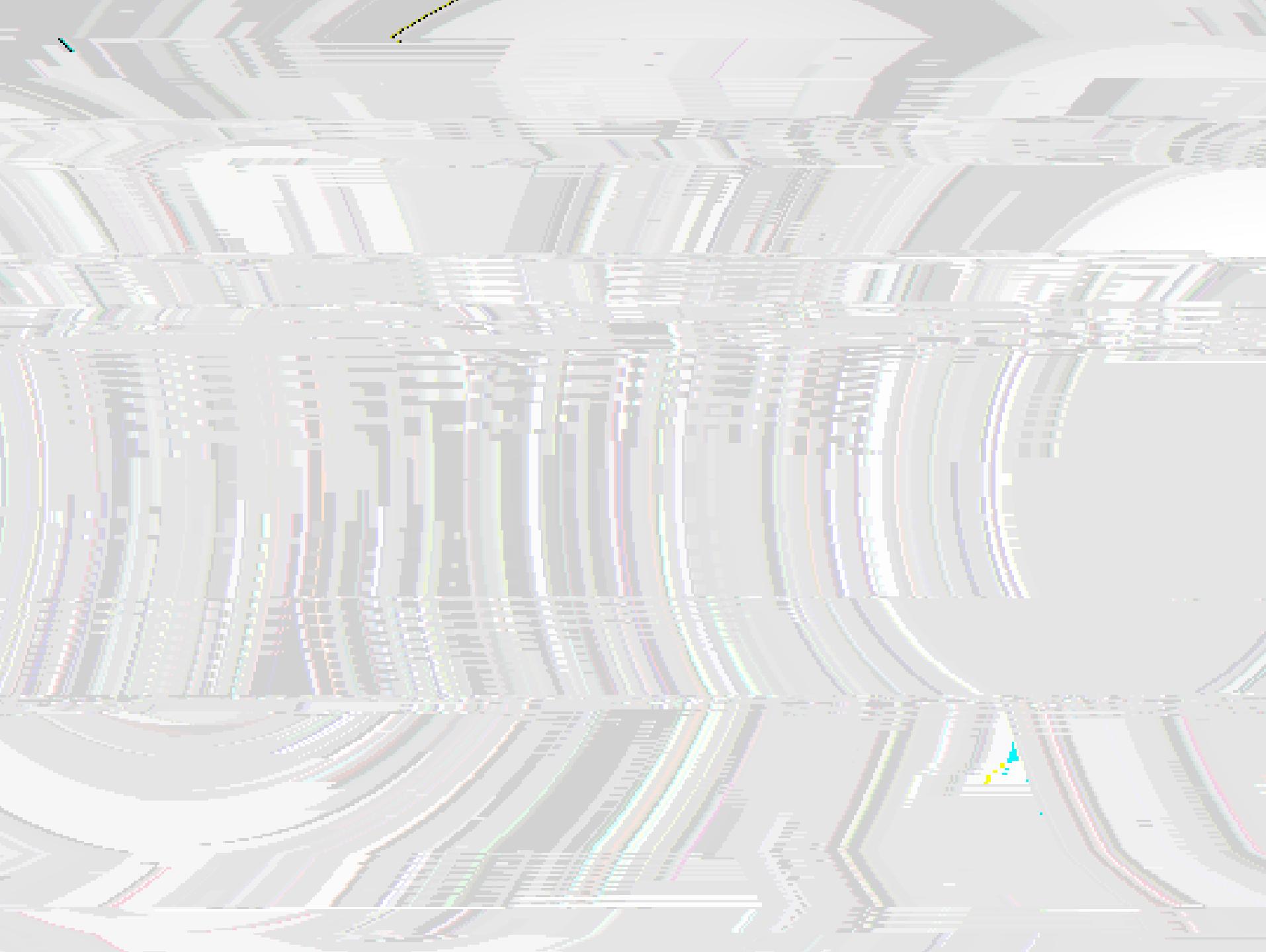


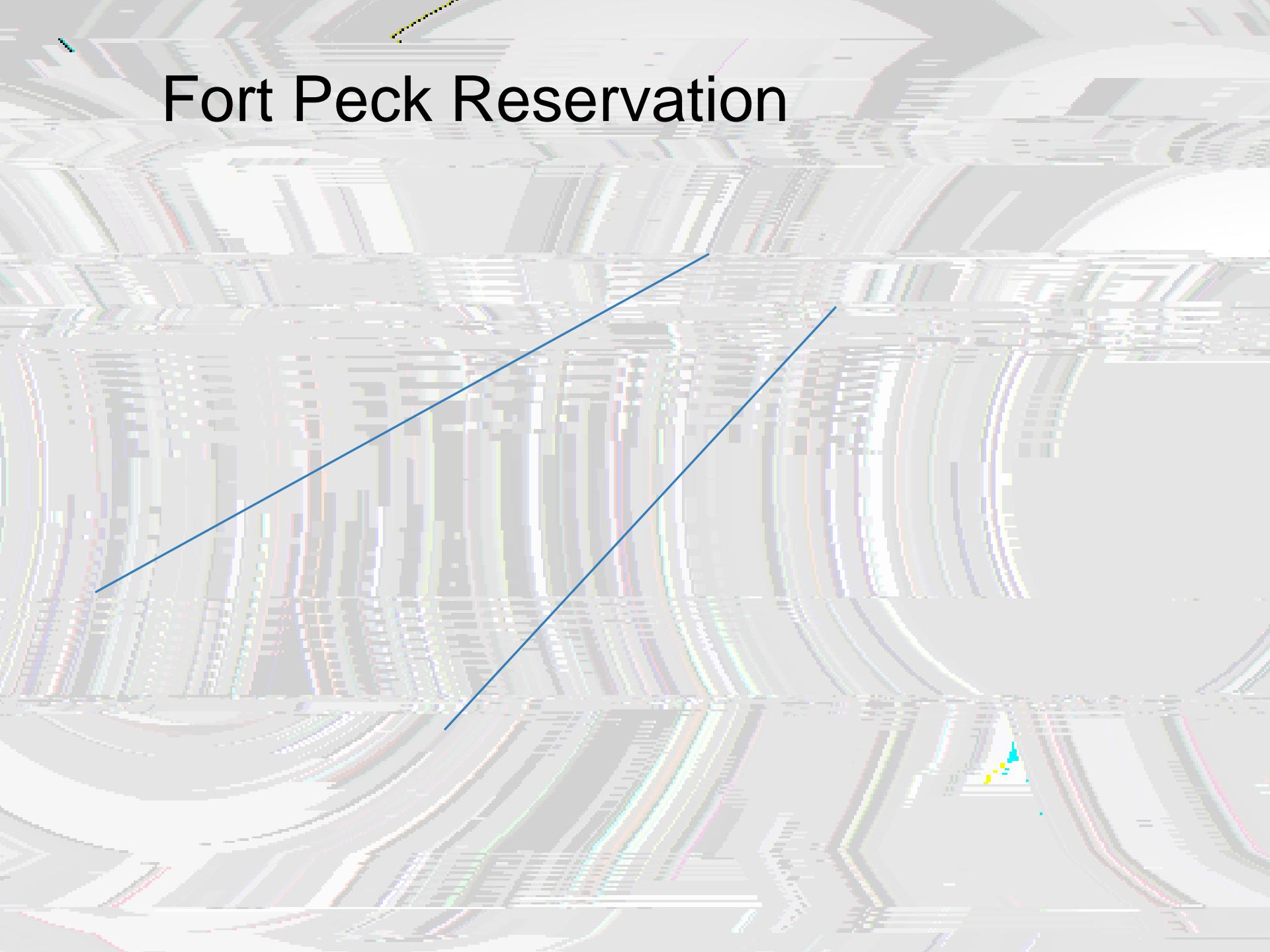
*Geothermal Potential
of Oil and Gas Wells
on the Fort Peck Reservation
in*

Funded by
US Department of Energy
Tribal Energy Program

Grant # DE-EE00052511



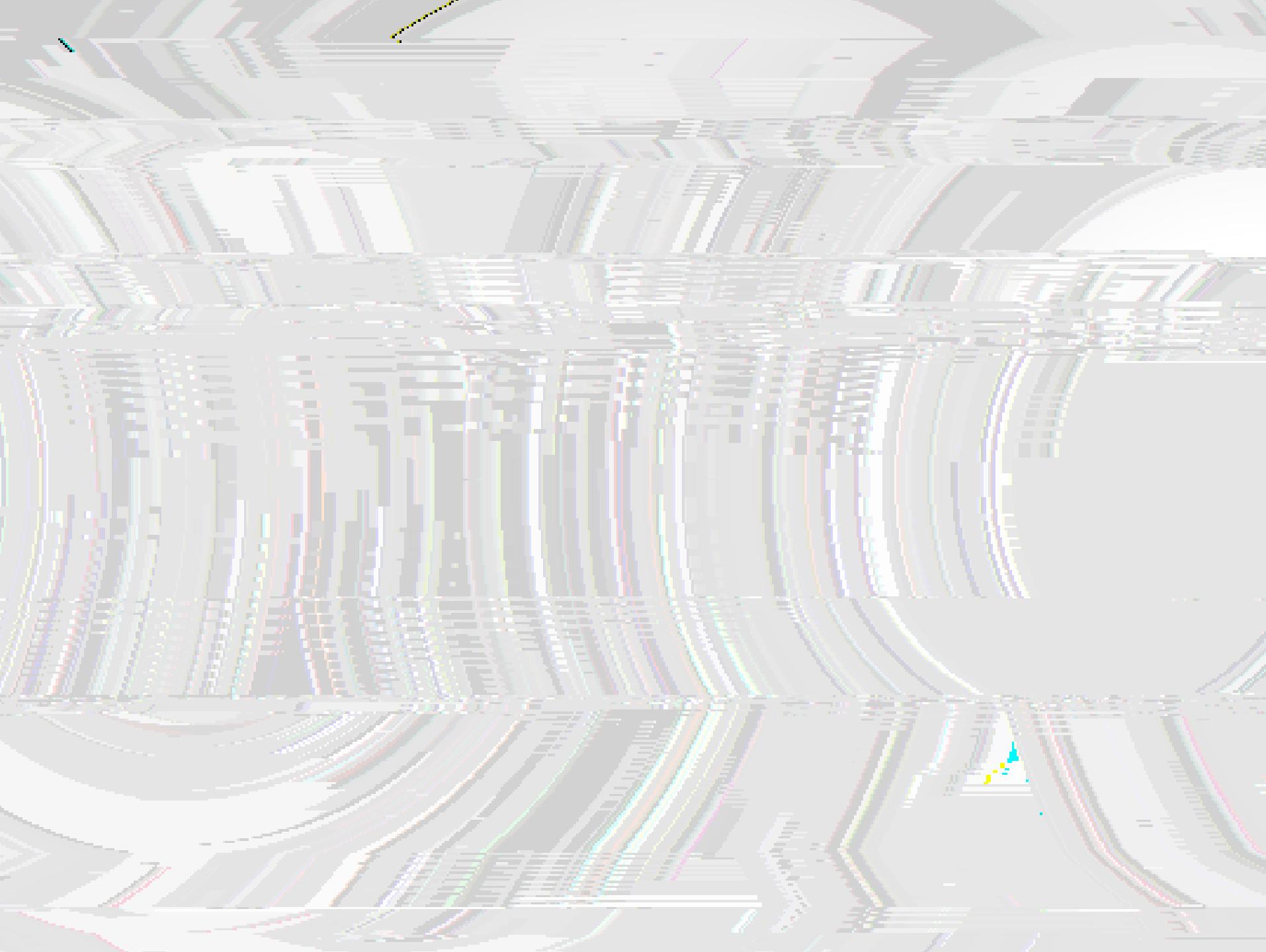
Fort Peck Reservation



WHY IS THIS AREA IMPORTANT?

‡ COPRODUCED OIL AND GAS WELLS

‡ HIGH TEMPERATURE WATER ²many wells



Previous Geothermal Research on the Fort Peck Reservation

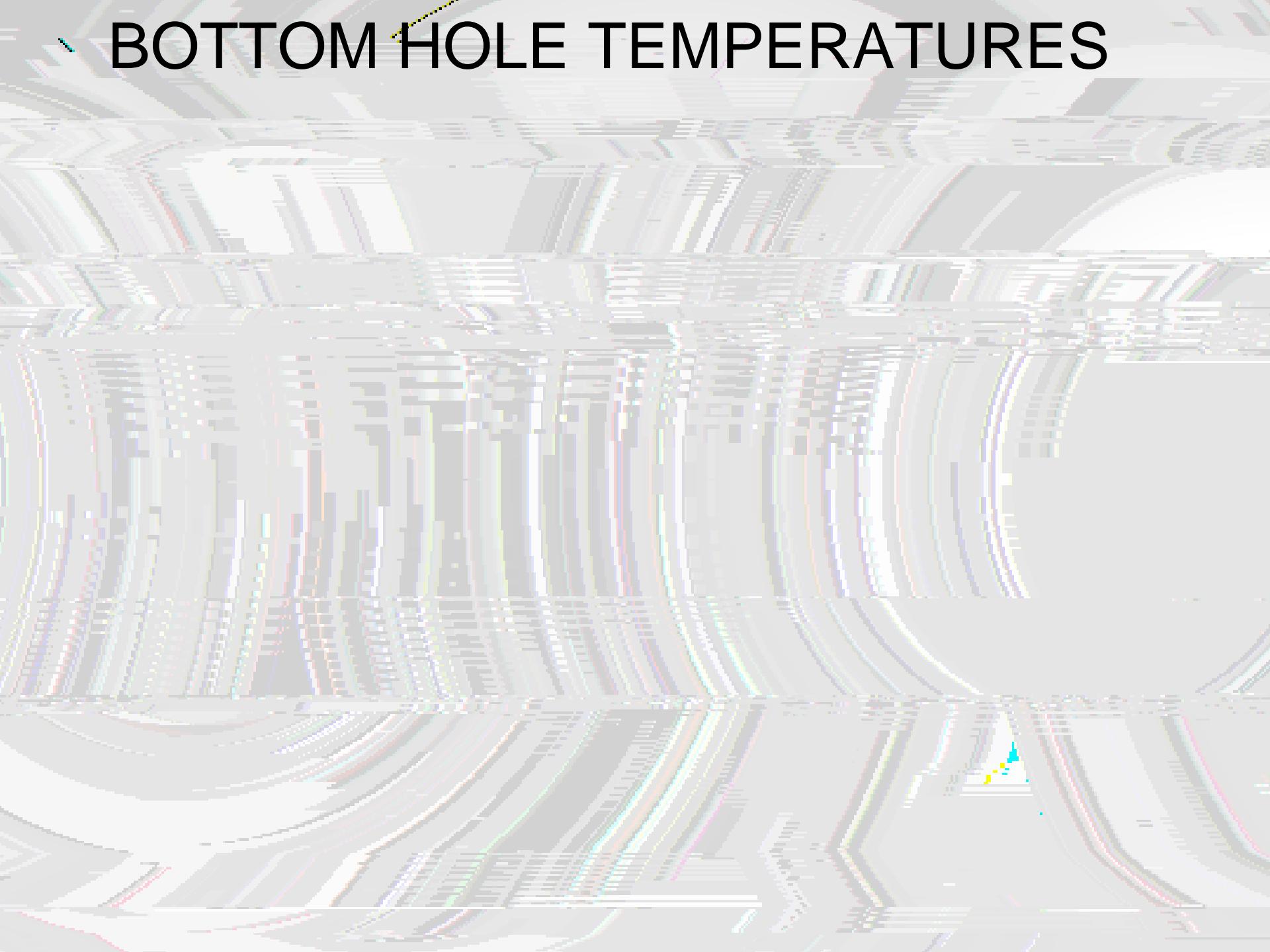
3/4 1979 3 PRC Toups

*Geothermal Space Heating Applications for the
Fort Peck Indian Reservation 2a DOE funded
grant - UHOLHG RQ - V GDWD*

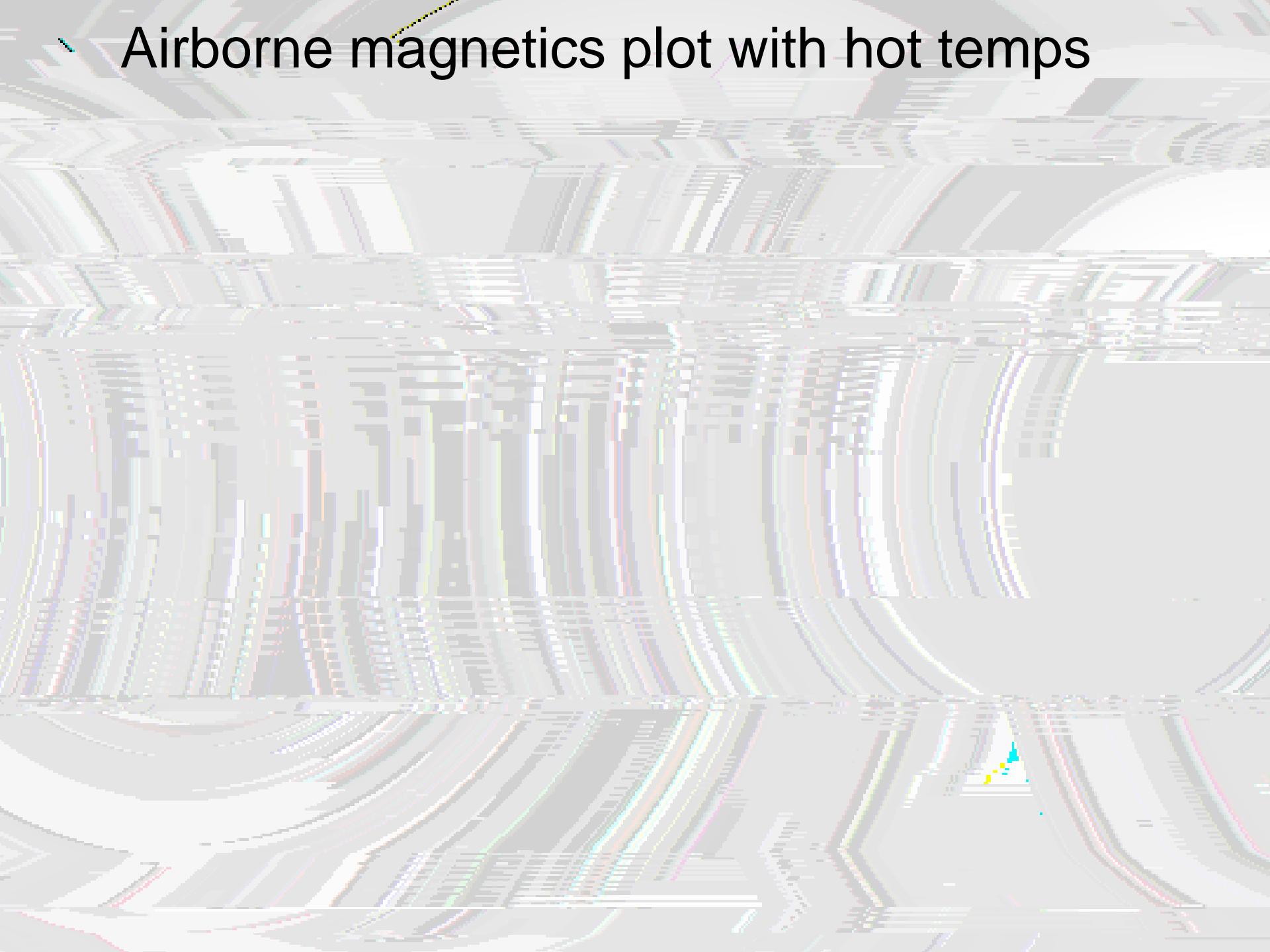
Data Analysis-2012

- † 760 bottom hole temperatures
- † Precise location of drill holes
- † Flow rates for existing wells
- † Re-injection well locations
- † Infrastructure near best wells
- † Land Status ‡ identify favorable land
- † Well intercept stratigraphy
- † Formation thickness
- † Airborne magnetometer and EM data
- † Surface geology and structure map

BOTTOM HOLE TEMPERATURES



Airborne magnetics plot with hot temps



N

*DOORQV RI :DWHU SHU OLQXWH

3 / 27 2) 0 \$ * 1 (7 , &) 6 3 2 3 / \$ 5 ' 2 0 (: (// 6 \$ 1 '
(2005)
, 1) 5 \$ 6 7 5 8 & 7 8 5 (

+ L J K H V W % + 7 W H P S H U D W X U H

ZHOO



5 H L Q M H F W L R Q ZHOO D Q G V W R U D J H I D F L O L W I

^{3/4}, GHQWLILHG WKH KLJKHVW JHRWKHUPDO
WHPSHUDWXUH HYHU UHFRUGHG LQ ORQWDQD
)

^{3/4&} RPSLOHG QHDUO\ % RWWRP +ROH
7HPSHUDWXUHV % +7 HTXDO RU JUHDWHU
WKDQ)

^{3/4}, GHQWLILHG LPSRUWDQW QHZ DUHDV RI
JHRWKHUPDO SRWHQWLDO

^{3/4}(YDOXDWHG VLJQLILFDQW DPRXQW RI QHZ
GULOO KROH GDWD DYDLODEOH IURP %DNNHQ
H[SORUDWLRQ



BIRKBY
CONSULTING

Gradient Geophysics Inc.