ELECTRIC LOGS

Number in column is depth, in feet

Olds Oil Company
Government 12-B
NE¼SW¼NE¼ sec. 24
T. 44 N., R. 63 W.

Spontaneous potential | Resistivity

Pierre Shale: Middle part; Niobrara Formation: Gammon Ferruginous Member; Carlile Shale: Mitten Black Shale Member, Sage Breaks Member, Turner Sandy Member, Lower unnamed member; Greenhorn Formation; Belle Fourche Shale; Mowry Shale; Newcastle Sandstone

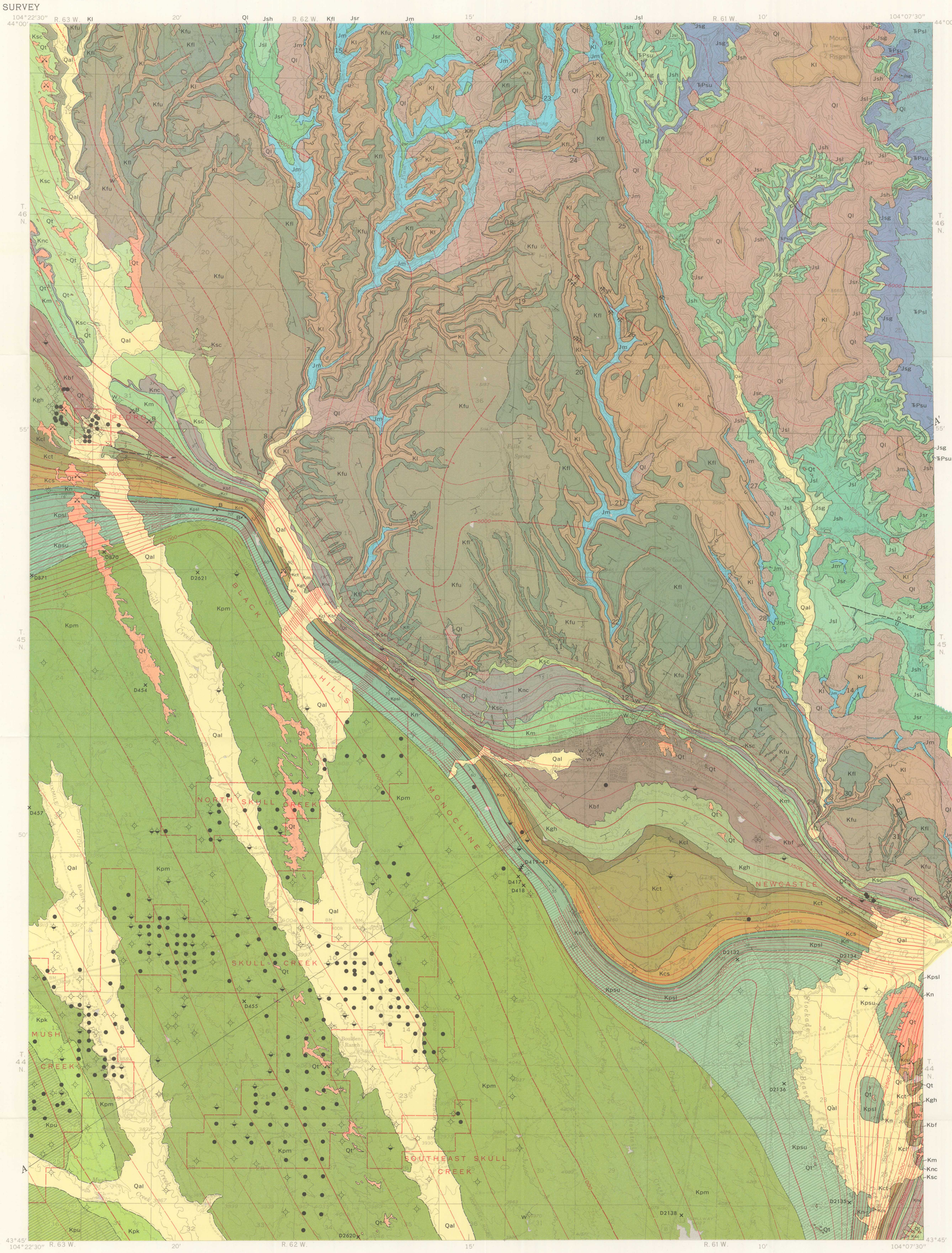
Bentonite zone including Ardmore Bed of Spivey (1940)

Bentonite bed F

Bentonite bed E

Coronado Petroleum Company
LAK Ranch 1
Center SW¼SW¼ sec. 12
T. 44 N., R. 61 W.

Newcastle Sandstone; Skull Creek Shale; Lakota and Fall River Formations; Morrison Formation; Sundance Formation; Gypsum Spring Formation; Spearfish Formation; Minnekahta Limestone; Opeche Shale; Minnelusa Formation



Base from U.S. Geological Survey topographic quadrangles: Newcastle 15', 1958, and Osage SE 7.5', 1951 (modified). Topography in northwest quarter compiled by C. L. Pillmore by photogrammetric methods

APPROXIMATE MEAN DECLINATION, 1963

Geology by W. J. Mapel and C. L. Pillmore, 1956–58

EXPLANATION

QUATERNARY

- Qal — Alluvium
- Ql — Landslide material
- Qt — Terrace deposits

CRETACEOUS

Upper Cretaceous

- Kpu, Kpk, Kpm, Kpsu, Kpsl — Pierre Shale
  - Kpu, *upper part.*
  - Kpk, *Kara Bentonitic Member.*
  - Kpm, *middle part.*
  - Kpsu, *upper part of the Mitten Black Shale Member.*
  - Kpsl, *lower part of the Mitten Black Shale Member and the Gammon Ferruginous Member undifferentiated*
- Kn — Niobrara Formation
- Kcs, Kct, Kcl — Carlile Shale
  - Kcs, *Sage Breaks Member.*
  - Kct, *Turner Sandy Member.*
  - Kcl, *Lower unnamed member*
- Kgh — Greenhorn Formation
- Kbf — Belle Fourche Shale
- Km — Mowry Shale
- Knc — Newcastle Sandstone
- Ksc — Skull Creek Shale

Lower Cretaceous

Inyan Kara Group

- Kfu, Kfl, Kf — Fall River Formation
  - Kfu, *upper part.*
  - Kfl, *lower part.*
  - Kf, *Fall River Formation undifferentiated, shown only on section*

UNCONFORMITY

- Kl, u, Kl — Lakota Formation
  - u, *local unconformity*

JURASSIC

Middle and Upper Jurassic

- Jm — Morrison Formation
- Jsr, Jsl, Jsh, Jsg, Jsgu — Sundance and Gypsum Spring Formations
  - Jsr, *Redwater Shale Member.*
  - Jsl, *Lak Member.*
  - Jsh, *Hulett Sandstone Member.*
  - Jsg, *Stockade Beaver Shale and Canyon Springs Sandstone Members of the Sundance Formation and Gypsum Spring Formation undifferentiated.*
  - Jsgu, *Sundance and Gypsum Spring Formations undifferentiated; shown only on section*

UNCONFORMITY

PERMIAN TRIASSIC

- ŦPsu, ŦPsl, ŦPs — Spearfish Formation
  - ŦPsu, *upper part.*
  - ŦPsl, *lower part.*
  - ŦPs, *Spearfish Formation shown only on section*

OLDER ROCKS SHOWN ONLY ON SECTION

PERMIAN

- Pmo — Minnekahta Limestone and Opeche Shale undifferentiated

UNCONFORMITY

PENNSYLVANIAN

- PIPm — Minnelusa Formation

UNCONFORMITY

MISSISSIPPIAN — CARBONIFEROUS

Lower Mississippian

- Mpe — Pahasapa and Englewood Limestones undifferentiated

UNCONFORMITY

CAMBRIAN

Upper Cambrian

- Ꞓd — Deadwood Formation

UNCONFORMITY

PRECAMBRIAN

- pꞒ — Precambrian rocks

Contact
Dashed where approximately located

Fault
Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side

Strike and dip of beds

Structure contours
Drawn on top of the Fall River Formation. Long dashes where control less accurate; short dashes where contour horizon is above the land surface. Interval 100 feet; datum is mean sea level

Anticline
Dashed where approximately located

Record of oil production

Record of gas production

Show of oil

Show of gas

Show of oil and gas

Dry hole

Dry hole completed as water well

Well drilled for oil or gas, to January 1961
Located from well descriptions on file, U. S. Geological Survey Conservation Division

PEDRO
Name and boundary of producing oil field for purposes of Federal leasing-law administration, January 1961

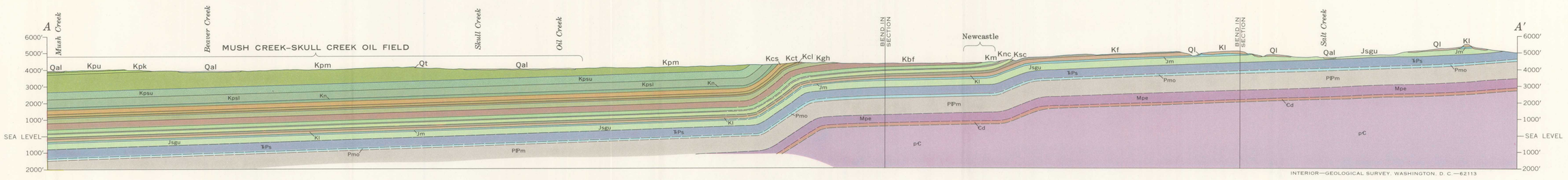
Coal mine

Bentonite pit

Gravel pit

15
Location of measured section shown graphically on plate 3

D418
Fossil collecting locality, Pierre Shale



INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—62113

GEOLOGIC MAP, ELECTRIC LOGS, AND CROSS SECTION, NEWCASTLE AREA, WESTON COUNTY, WYOMING

SCALE 1:48000

CONTOUR INTERVALS 40 AND 100 FEET
DATUM IS MEAN SEA LEVEL