

OIL AND GAS INVESTIGATIONS NO. 3

PRELIMINARY IDENTIFICATIONS OF FORAMINIFERA FROM GENERAL PETROLEUM CORP. LONG BELL NO. 1 WELL, OREGON

by W. W. Rau

No foraminifera were found in the well samples taken between the surface and a depth of 4,350 feet. Most of these samples were arkosic, micaceous sandstone with a few intervals of carbonaceous siltstone. These general lithologies suggest that this interval penetrated the Tyee Formation.

Fauna found in well samples between the interval 4,350 and 6,080 feet, although meager in many of the samples and slides, are best referred to the Ulatisian Stage of Mallory (1959), which is generally regarded as middle Eocene age.

In the interval 6,080 feet to 9,000 feet, the fauna define a stratigraphic position at least as low as the Ulatisian Stage, but may be as low as, but no lower than, the Penutian Stage of Mallory (1959). The rocks penetrated in this part of the well could therefore be as old as the lower part of the Eocene.

General note: Lithology and fauna from 4,350 feet to total depth are typical of the Eocene Umpqua Formation of Oregon.

References

- Mallory, V. S., 1959, Lower Tertiary biostratigraphy of the California Coast Ranges: *Am. Assoc. Petroleum Geologists*, 416 p., 42 pls.
- Rau, W. W., 1958, Stratigraphy and foraminiferal zonation in some of the Tertiary rocks of southwestern Washington: *U.S. Geol. Survey Oil and Gas Investigation Chart OC-57*, 2 sheets.

General Petroleum Corp. Long Bell No. 1
SW $\frac{1}{4}$ sec. 27, T. 20 S., R. 10 W.
Douglas County, Oregon

Generalized Well Log

- 0 - 700' Siltstone: dark-gray to brownish-gray, carbonaceous, with interbeds of fine-grained grayish-green, argillaceous, micaceous sandstone.
- 700 - 1,100' Siltstone: brown and gray, carbonaceous and micaceous; some interbeds of fine sandstone.
- 1,100 - 2,500' Sandstone: gray, fine- to coarse-grained, micaceous, with interbeds of brownish-gray siltstone.
- 2,500 - 4,350' - Sandstone: gray to grayish-green, fine- to coarse-grained, angular to subangular, micaceous with some interbeds of gray to grayish-brown, tuffaceous siltstone; some pyrite.
- 4,350 - 5,900' Shale: light-gray, silty, with some interbeds of sandstone and buff-colored limestone; some pyrite in shale. Fractures in shale are filled with calcite. Hydrocarbon fluorescence between 5,300 and 5,900'.
- 5,900 - 6,800' Siltstone and shale: grayish-green with interbeds of fine, silty sandstone containing chloritic and limy material and volcanic fragments. Hydrocarbon fluorescence between 6,450 and 6,700'.
- 6,800 - 7,600' Shale: dark-gray, silty, carbonaceous, tuffaceous with some light-green, silty, carbonaceous sandstone. Volcanic material increases with depth. Hydrocarbon fluorescence between 6,800 and 7,000'. Tar staining and some coal.
- 7,600 - 8,550' Varicolored tuff and tuffaceous silty shale
- 8,550 - 9,004' Basalt: altered, chloritic with some zeolite-filled veins.

Age	Middle to lower Eocene																			
Stages	Ulatisian to Penutian																			
<i>Bulminella</i> cf. <i>B. declivis</i> (Reuss)																				R
<i>Globorotalia</i> cf. <i>G. pseudomencardii</i> Bolli <i>Vitulina</i> ? sp.																				R
<i>Allomorphina conica</i> Cushman and Todd <i>Robulus ulatensis</i> Boyd																				R
<i>Globigerina</i> cf. <i>G. bakeri</i> Cole <i>Globigerina</i> cf. <i>G. mackannai</i> White <i>Globorotalia crassata</i> (Cushman) <i>Cibicides ouachitanaensis</i> alhambrensis Smith <i>Amphistegina</i> cf. <i>A. californica</i> Cushman and M. A. Hanna																				R
<i>Globigerinoides</i> sp. <i>Glomospira charoides</i> (Jones and Parker) <i>Globorotalia aragonensis</i> Nuttall <i>Pullenia eocenica</i> Cushman and Siegfus																				R
<i>Anomalina</i> cf. <i>A. regina</i> Martin <i>Nonion micrum</i> Cole <i>Nonion</i> spp.																				R
<i>Gyroldina simiensis</i> Cushman and McMasters <i>Eponides</i> cf. <i>E. dorfi</i> Toulmin <i>Globigerina nitida</i> Martin																				R
<i>Pleurostomella acuta</i> Hantken <i>Bulmina corrugata</i> Cushman and Siegfus <i>Globorotalia</i> cf. <i>G. nicoli</i> Martin <i>Bolivina explicata lodoensis</i> Mallory <i>Bulmina elongata</i> d'Orbigny																				R
<i>Uvigerina elongata</i> Cole <i>Catapydrax</i> cf. <i>C. unicus</i> Bolli, Loeblich, and Tappan <i>Globorotalia membranacea</i> (Ehrenberg) <i>Cibicides</i> cf. <i>C. cushmani</i> Nuttall																				R
<i>Bulmina tirata</i> Cushman and Parker <i>Quinqueloculina</i> spp. <i>Gaudryina coalingsensis</i> (Cushman and G. D. Hanna) <i>Robulus</i> cf. <i>R. pseudocultratus</i> Cole <i>Robulus convergens</i> (Bornemann)																				R
<i>Nodosaria</i> cf. <i>N. latejugata</i> Gumbel <i>Anomalina dorti aragonensis</i> Nuttall <i>Uvigerina lodoensis miriamae</i> Mallory <i>Ceratobulmina</i> cf. <i>C. perplexa</i> (Plummer)																				R
<i>Chilostomella</i> cf. <i>C. cylindroides</i> Reuss <i>Silicosigmollina californica</i> Cushman and Church <i>Globorotalia rex</i> Martin <i>Globigerina decepta</i> Martin <i>Spiroplectamina directa</i> Cushman and Siegfus																				R
<i>Cibicides whitei</i> Martin <i>Eponides</i> cf. <i>E. minimus</i> Cushman <i>Cibicides</i> cf. <i>C. martinensis</i> Cushman and Barksdale <i>Dentalina</i> spp.																				R
<i>Vitulina curta</i> Cushman and Siegfus <i>Dorothyia principiensis</i> Cushman and Bermudez <i>Robulus alato-limbatus</i> (Gumbel) <i>Globorotalia cerro-azulensis</i> Cole <i>Globigerina triloculinoides</i> Plummer																				R
<i>Gyroldina obicularis planata</i> Cushman <i>Eponides umbonatus</i> (Reuss) <i>Asterigerina crassaformis</i> Cushman and Siegfus <i>Pseudoglandulina</i> cf. <i>P. conica</i> (Neugeboren) <i>Cibicides pachyderma</i> (Rzehak)																				R
<i>Bifarina nuttalli</i> Cushman and Siegfus <i>Globigerina bulloides</i> d'Orbigny <i>Discorbis baintoni</i> Mallory <i>Valvulineria childei</i> (Martin) <i>Alabamina wilcoxensis californica</i> Mallory																				R
<i>Tritaxilina colei</i> Cushman and Siegfus <i>Bulimina pupoides</i> d'Orbigny <i>Robulus</i> spp. <i>Globobulimina pacifica</i> Cushman																				R
<i>Cibicides</i> spp. <i>Globigerina</i> spp. <i>Buccella eocenica</i> (Cushman and Hanna)																				R
Ditch	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																			
Core	I																			
Depth in feet	6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000																			