



October 2, 1974

INTER-OFFICE CORRESPONDENCE / SUBJECT: Palynology Zonation of Phillips Petroleum Co.'s Norwegian Well 2/4-11  
BARTLESVILLE, OKLAHOMA

MGR.	PK
EXEC.	
ASST.	
CH. GEOL.	✓
CH. GEOPH.	
ADL.	
MGR.	
ENG.	
REP.	

Received by:  
Phillips Pet. Co. Norway  
7 OCT. 1974

L. M. Rickards  
London Office

Attention: C. F. Darling

The following age determinations have been tentatively assigned to side wall cores from Phillips Petroleum Co. Norwegian Well 2/4-11. Age determinations are based on both a palynological range chart compiled from well documented English surface samples of Jurassic and Neocomian age beds, as well as published ranges of palynomorphs.

Level	9,200'	Barren
Level	9,300'	Upper Cretaceous/Lower Tertiary (Undifferentiated)
Level	9,400'	Upper Cretaceous/Lower Tertiary (Undifferentiated)
Level	9,500'	Upper Cretaceous/Lower Tertiary (Undifferentiated)
Level	9,600'	Indeterminate
Level	9,700'	Upper Cretaceous/Lower Tertiary (Undifferentiated)
Level	9,900'	Upper Cretaceous/Lower Tertiary (Undifferentiated)
Level	12,470'	Indeterminate
Level	12,618'	Kimmeridgian
Level	12,885'	Kimmeridgian
Level	13,075'	Indeterminate
Level	13,320'	Kimmeridgian
Level	13,510'	Kimmeridgian
Level	13,710'	Indeterminate

Levels 9,300' - 9,900' are dominated a diverse and abundant marine assemblage, the genera of which range stratigraphically from the Upper Cretaceous through the lower Tertiary. Speciation of these genera, necessary to better define the age of these samples, is beyond the scope of the present Jurassic study.

Level 12,470' contains only non-marine Tertiary pollen and spores. This assemblage is similar to that found in certain drilling muds. If sample was taken from the mud cake, this could explain the low R<sub>o</sub> value reported by Logan Urban in his letter of April 18, 1974.

Level 12,618 contains the following age significant species

<u>Gonyaulacysta globata</u>	(middle/upper Kimmeridgian)
<u>Gonyaulacysta cf. G. giuseppei</u>	(Kimmeridgian)
<u>Gonyaulacysta eisackei</u>	(middle Callovian-middle Kimmeridgian)

Level 12,885' contains Gonyaulacysta cf. G. giuseppe (Kimmeridgian) and Gonyaulacysta eisnackei (Middle Callovian-Middle Kimmeridgian).

Level 13,075' contains no age significant species.

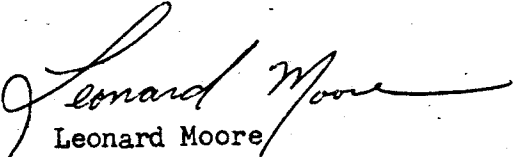
Level 13,320' contains Gonyaulacysta cf. G. giuseppe (Kimmeridgian) and Meiourogonyaulax dicryptos (Middle Kimmeridgian)

Level 13,510' contains Gonyaulacysta globata (middle/upper Kimmeridgian).

Level 13,712' contains no age significant species.

Environment of Deposition:

Levels 9,300-9,500'	(Upper Cretaceous/lower Tertiary) - Open Marine - Offshore (?) (Abundant and diverse marine assemblage with relatively few terrestrial species)
Level 9,600	(Indeterminate) - Indeterminate
Levels 9,700-9,900'	(Upper Cretaceous/lower Tertiary) - Open Marine - Offshore (?) (Abundant and diverse marine assemblage with relatively few terrestrial species)
Level 12,470'	(Indeterminate) - Indeterminate
Levels 12,618-12,885'	(Kimmeridgian - Marine)
Level 13,075'	(Indeterminate) - Indeterminate
Levels 13,320-13,510'	(Kimmeridgian) - Marine
Level 13,712'	(Indeterminate) - Indeterminate

  
Leonard Moore

Miss

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