

Geochemical hydrocarbon data of extracts from the following core:

Husky Oil NPR Operations Inc. (U. S. Geological Survey) J. W. Dalton Core No. 6 (8,011'),  
Husky Oil NPR Operations Inc. (U. S. Geological Survey) J. W. Dalton Core No. 7 (8072.2'),  
Husky Oil NPR Operations Inc. (U. S. Geological Survey) J. W. Dalton Core No. 10 (8,148.2'),  
Husky Oil NPR Operations Inc. (U. S. Geological Survey) Drew Point Core No. 7 (6,983.8'),  
Husky Oil NPR Operations Inc. (U. S. Geological Survey) Drew Point Core No. 10(7,564.2'), &  
Husky Oil NPR Operations Inc. (U. S. Geological Survey) Drew Point Core No. 14 (7,806.8').



Received 29 July 2004

Total of 6 pages in report

Alaska Geologic Materials Center Data Report No. 315

## Oil Information Library System

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### GEOCHEMICAL SUMMARY SHEET

Country: USA

Depth (ft): 8011

27-Jul-04

Basin: North Slope

Age:

Sample ID: ECAS004

Field:

Formation:

LAT:

Well: J.W. Dalton Core 6

LONG:

#### BULK PROPERTIES

API Gravity:

% S:

ppm V:

% < C15:

ppm Ni:

#### Stable Carbon Isotope Composition

δ per mil PDB

C15+ Saturate: -30.06

C15+ Aromatic: -30.16

Canonical Variable: -2.55

#### C15 + Composition

% Sat: 12.9

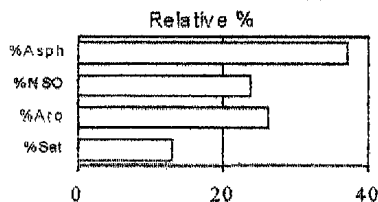
% Aro: 26.2

% NSO: 23.9

% Asph: 36.9

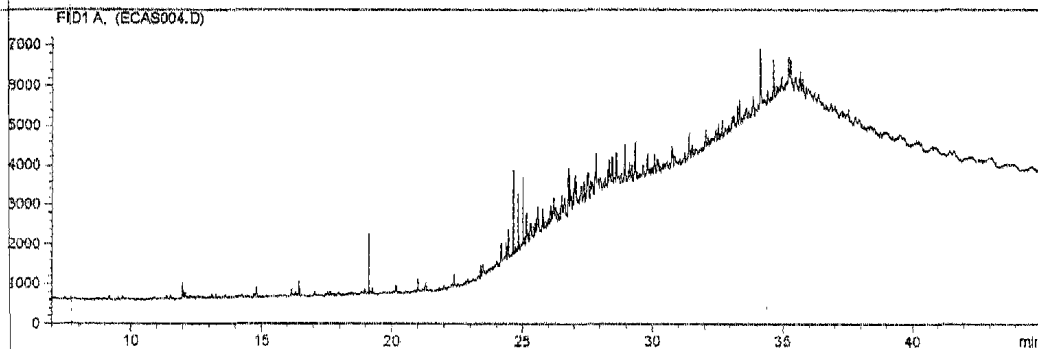
Sat/Aro=0.49

n-Paraffin/Naphthene=0.95



Miscellaneous:

EOM = 15,974 ppm



#### WHOLE CRUDE GAS CHROMATOGRAPHY

Pr/Ph=

Pr/n-C17=

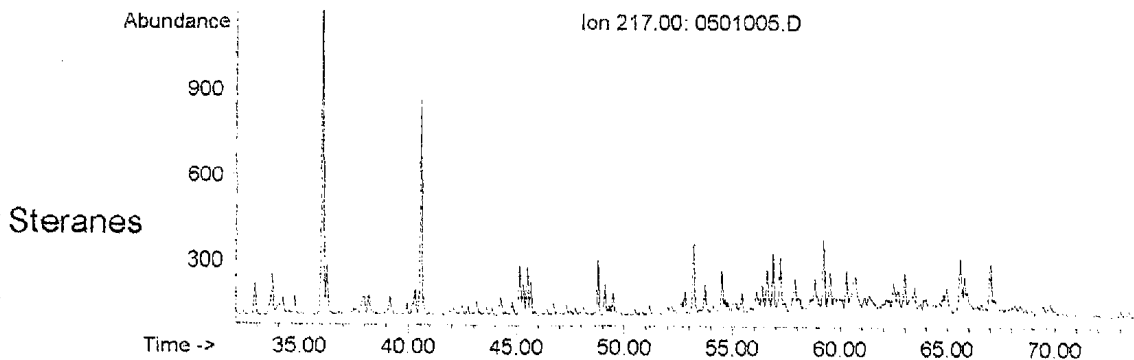
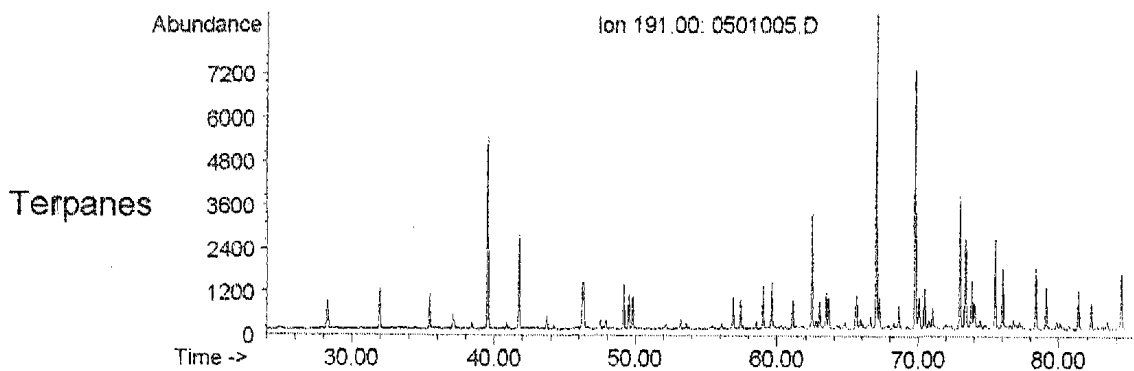
Ph/n-C18=

n-C27/n-C17=

CPI=

#### BIOMARKERS

ppm C30 Hopane: 341



#### OilMod Ratios

C19/C23=0.02

C22/C21=0.84

C24/C23=0.51

C26/C25=0.78

Tet/C23=0.23

C27T/C27=0.05

C28/H=0.13

C29/H=1.20

C30X/H=0.01

OL/H=0.01

C31R/H=0.35

GA/C31R=0.51

C35S/C34S=1.41

Ster/Terp=0.07

Rearr/Reg=1.92

%C27=39.6

%C28=30.1

%C29=30.3

C29 20S/R=0.48

C27 Ts/Tm=0.26

C29 Ts/Tm=0.10

DM/H=0.01

TAS3(CR)=0.53

Projected Source Rock Type:

Age:

Thermal Maturity Level

Degree of Biodegradation:

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### GEOCHEMICAL SUMMARY SHEET

Country: USA Depth (ft): 8072.2  
Basin: North Slope Age:  
Field: Formation:  
Well: J.W. Dalton Core 7

27-Jul-04  
Sample ID: ECAS005  
LAT:  
LONG:

#### BULK PROPERTIES

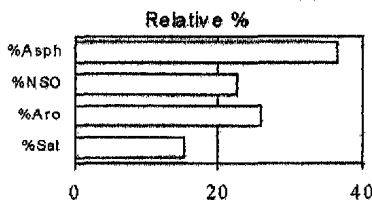
##### C15 + Composition

% Sat: 15.3  
% Aro: 25.8  
% NSO: 22.6  
% AspH: 36.4  
Sat/Aro=0.59

API Gravity:  
% < C15:

% S:

ppm V:  
ppm Ni:



#### Stable Carbon Isotope Composition

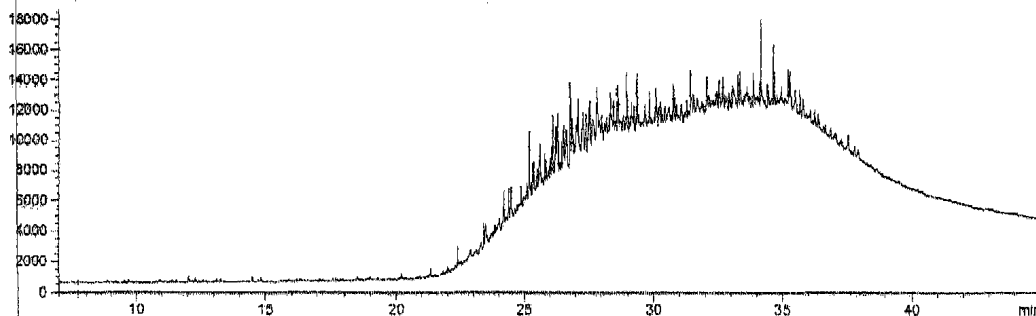
δ per mil PDB  
C15+ Saturate: -29.97  
C15+ Aromatic: -29.93  
Canonical Variable: -2.27

n-Paraffin/Naphthene=0.26

Miscellaneous:

EOM = 5,846 ppm

FID1A, (ECAS005.D)



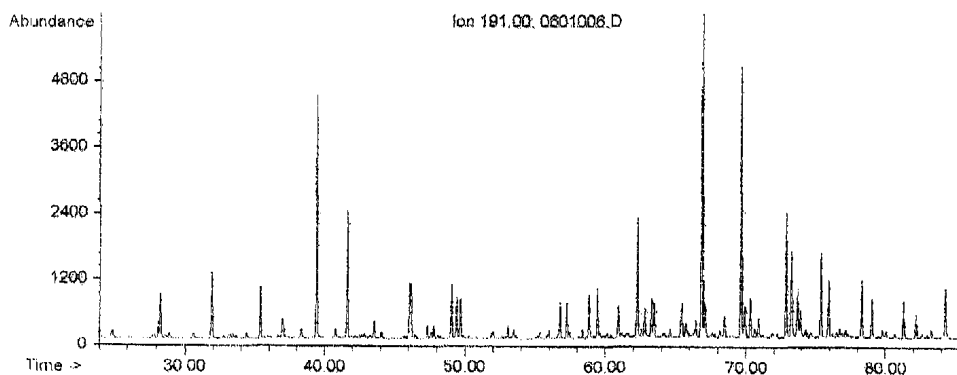
#### WHOLE CRUDE GAS CHROMATOGRAPHY

Pr/Ph=  
Pr/n-C17=  
Ph/n-C18=  
n-C27/n-C17=  
CPI=

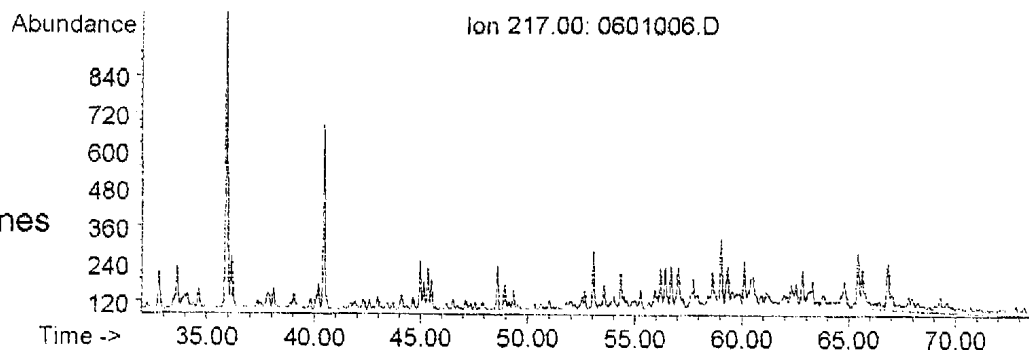
#### BIOMARKERS

ppm C30 Hopane: 292

##### Terpanes



##### Steranes



#### OilMod Ratios

C19/C23=0.03  
C22/C21=0.77  
C24/C23=0.52  
C26/C25=0.74  
Tet/C23=0.22  
C27T/C27=0.05  
C28/H=0.12  
C29/H=1.20  
C30X/H=0.02  
OL/H=0.01  
C31R/H=0.32  
GA/C31R=0.54  
C35S/C34S=1.30  
Ster/Temp=0.09  
Rearr/Reg=1.26  
%C27=38.5  
%C28=28.4  
%C29=33.1  
C29 20S/R=0.64  
C27 Ts/Tm=0.28  
C29 Ts/Tm=0.10  
DM/H=0.01  
TAS3(CR)=0.35

Projected Source Rock Type:

Age:

Thermal Maturity Level

Degree of Biodegradation:

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## Oil Information Library System

### GEOCHEMICAL SUMMARY SHEET

Country: USA Depth (ft): 8148.2  
Basin: North Slope Age:  
Field: Formation:  
Well: J.W. Dalton Core 10

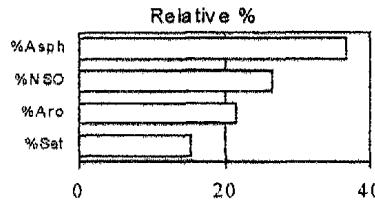
27-Jul-04  
Sample ID: ECAS006  
LAT:  
LONG:

#### BULK PROPERTIES

##### C15 + Composition

% Sat: 15.3  
% Aro: 21.5  
% NSO: 26.4  
% AspH: 36.7  
Sat/Aro=0.71  
n-Paraffin/Naphthene=0.19

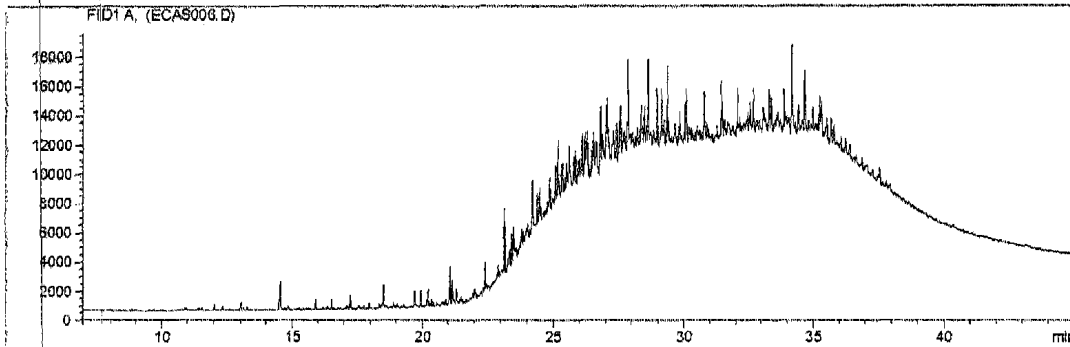
API Gravity: % S: ppm V:  
%< C15: ppm Ni:



#### Stable Carbon Isotope Composition δ per mil PDB

C15+ Saturate: -29.90  
C15+ Aromatic: -29.82  
Canonical Variable: -2.20

Miscellaneous: EOM = 2,655 ppm



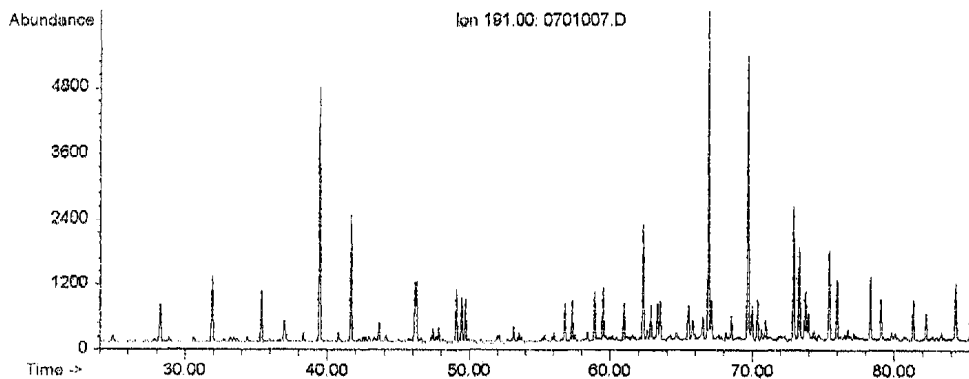
#### WHOLE CRUDE GAS CHROMATOGRAPHY

Pr/Ph=  
Pr/n-C17=  
Ph/n-C18=  
n-C27/n-C17=  
CPI=

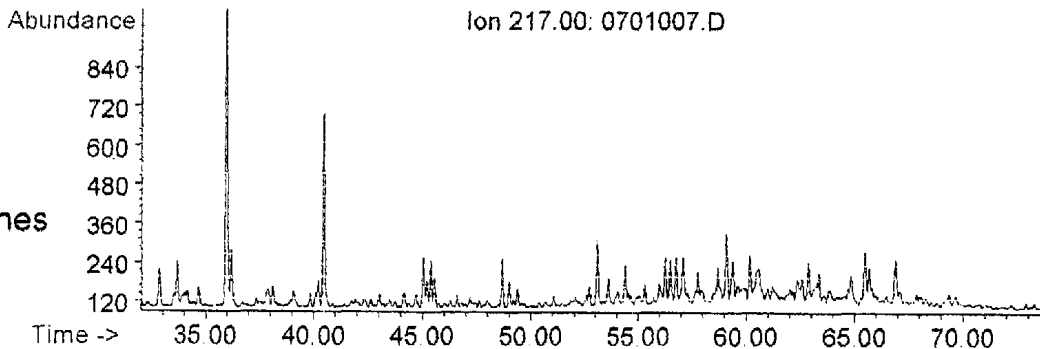
#### BIOMARKERS

ppm C30 Hopane: 247

##### Terpanes



##### Steranes



#### OilMod Ratios

C19/C23=0.02  
C22/C21=0.78  
C24/C23=0.50  
C26/C25=0.74  
Tet/C23=0.21  
C27T/C27=0.05  
C28/H=0.12  
C29/H=1.16  
C30X/H=0.02  
OL/H=0.00  
C31R/H=0.33  
GA/C31R=0.51  
C35S/C34S=1.43  
Ster/Terp=0.08  
Rearr/Reg=1.42  
%C27=38.6  
%C28=30.9  
%C29=30.5  
C29 20S/R=0.55  
C27 Ts/Tm=0.33  
C29 Ts/Tm=0.12  
DM/H=0.02  
TAS3(CR)=0.32

Projected Source Rock Type:

Age:

Thermal Maturity Level

Degree of Biodegradation:



## Oil Information Library System

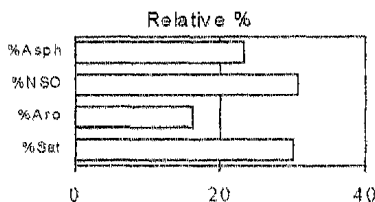
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### GEOCHEMICAL SUMMARY SHEET

Country: USA      Depth (ft): 7564.2      27-Jul-04  
 Basin: North Slope      Age:      Sample ID: ECAS002  
 Field:      Formation:      LAT:  
 Well: Drew Point Core 10      LONG:

#### BULK PROPERTIES

API Gravity:      % S:      ppm V:  
 % < C15:      ppm Ni:  
 C15 + Composition  
 % Sat: 30.0  
 % Aro: 16.1  
 % NSO: 30.6  
 % Asph: 23.3  
 Sat/Aro=1.87  
 n-Paraffin/Naphthene=0.54

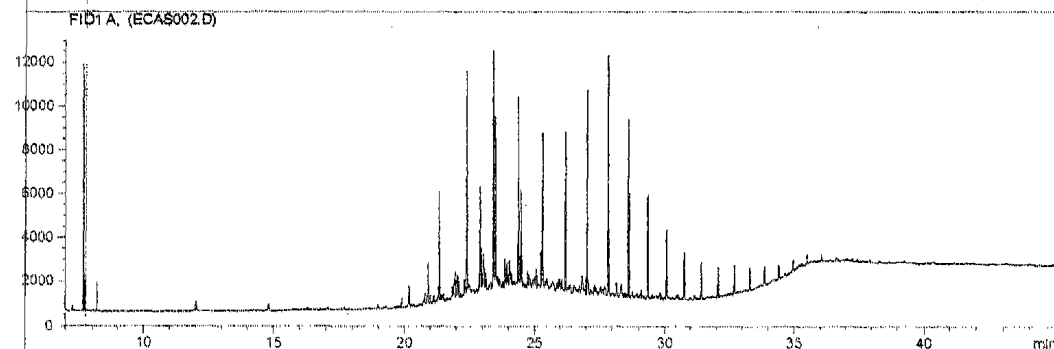


#### Stable Carbon Isotope Composition

δ per mil PDB

C15+ Saturate: -30.36  
 C15+ Aromatic: -29.70  
 Canonical Variable: -0.77

Miscellaneous:      EOM = 760 ppm

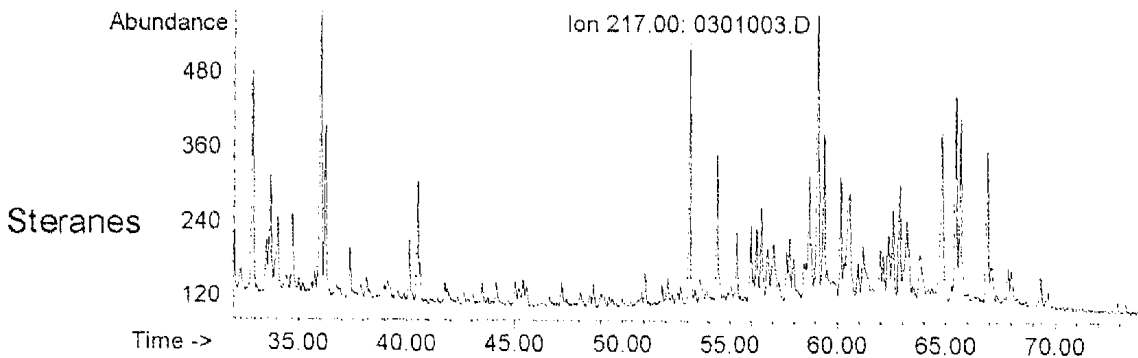
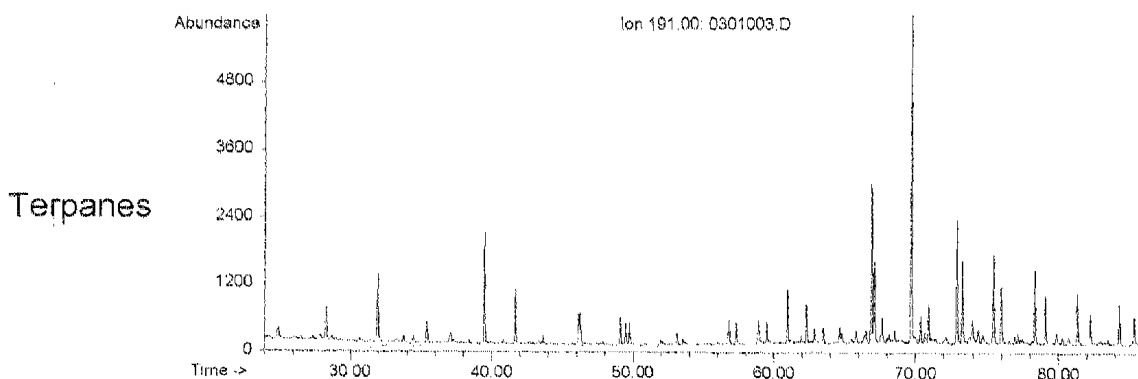


#### WHOLE CRUDE GAS CHROMATOGRAPHY

Pr/Ph=1.82  
 Pr/n-C17=0.72  
 Ph/n-C18=0.51  
 n-C27/n-C17=0.15  
 CPI=1.053

#### BIOMARKERS

ppm C30 Hopane: 140



#### OilMod Ratios

C19/C23=0.11  
 C22/C21=0.32  
 C24/C23=0.50  
 C26/C25=0.70  
 Tet/C23=0.27  
 C27T/C27=0.01  
 C28/H=0.01  
 C29/H=0.50  
 C30X/H=0.08  
 OL/H=0.00  
 C31R/H=0.26  
 GA/C31R=0.09  
 C35S/C34S=0.76  
 Ster/Terp=0.21  
 Rcarr/Reg= 2.02  
 %C27= 33.5  
 %C28= 23.7  
 %C29= 42.9  
 C29 20S/R= 1.14  
 C27 Ts/Tm=1.34  
 C29 Ts/Tm=0.50  
 DM/H=0.00  
 TAS3(CR)=0.46

Projected Source Rock Type:  
 Thermal Maturity Level

Age:  
 Degree of Biodegradation:

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### GEOCHEMICAL SUMMARY SHEET

Country: USA  
Basin: North Slope  
Field:  
Well: Drew Point Core 14

Depth (ft): 7806.8  
Age:  
Formation:

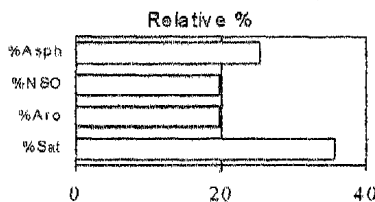
27-Jul-04  
Sample ID: ECAS003  
LAT:  
LONG:

#### BULK PROPERTIES

API Gravity:  
%< C15:  
% S:  
ppm V:  
ppm Ni:

#### C15 + Composition

% Sat: 35.6  
% Aro: 19.7  
% NSO: 19.6  
% Asph: 25.2  
Sat/Aro=1.81  
n-Paraffin/Naphthene=0.71

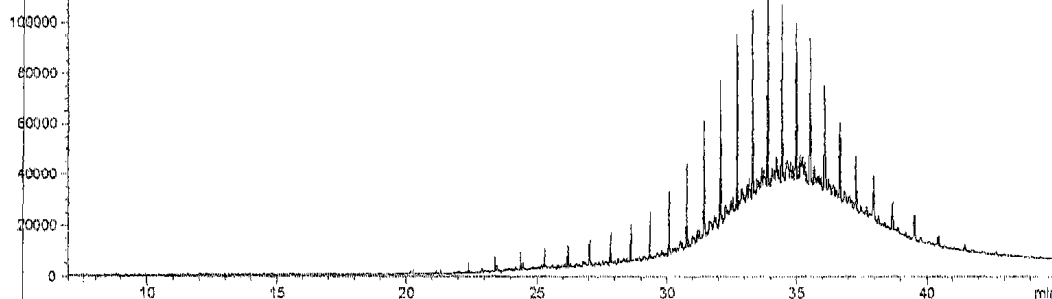


#### Stable Carbon Isotope Composition δ per mil PDB

C15+ Saturate: -28.78  
C15+ Aromatic: -29.30  
Canonical Variable: -3.88

Miscellaneous: EOM = 7,572 ppm

FID1A (ECAS003.D)

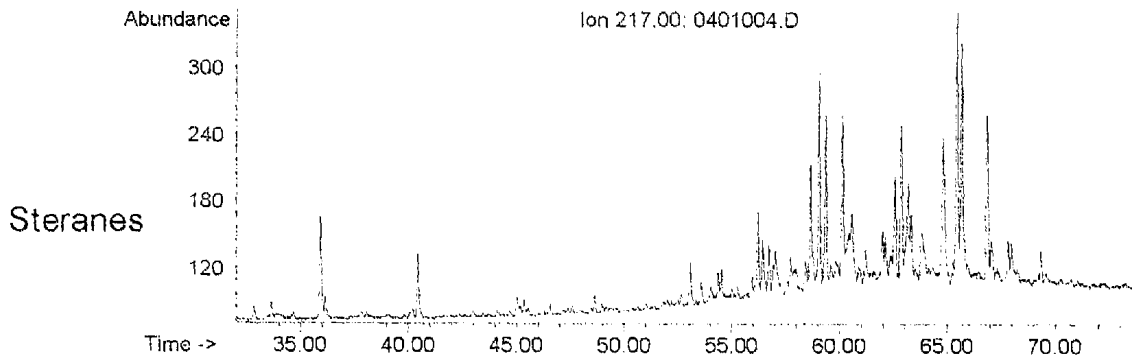
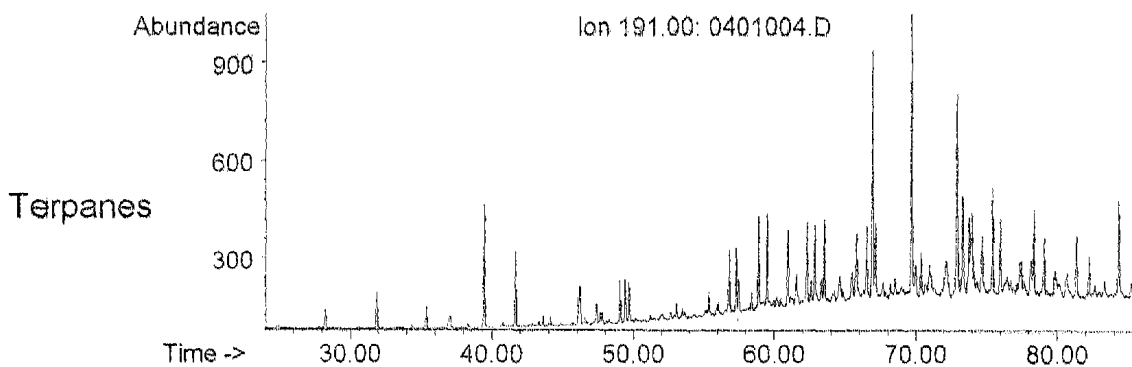


#### WHOLE CRUDE GAS CHROMATOGRAPHY

Pr/Ph=0.90  
Pr/n-C17=0.38  
Ph/n-C18=0.36  
n-C27/n-C17=7.49  
CPI= 1.024

#### BIOMARKERS

ppm C30 Hopane: 40



#### OilMod Ratios

C19/C23=0.03  
C22/C21=0.59  
C24/C23=0.60  
C26/C25=1.07  
Tet/C23=0.35  
C27T/C27=0.06  
C28/H=0.10  
C29/H=0.89  
C30X/H=0.05  
OL/H=0.01  
C31R/H=0.35  
GA/C31R=0.78  
C35S/C34S=1.54  
Ster/Terp=0.47  
Rcarr/Reg=0.27  
%C27=31.4  
%C28=25.1  
%C29=43.5  
C29 20S/R=0.89  
C27 Ts/Tm=0.95  
C29 Ts/Tm=0.30  
DM/H=0.03  
TAS3(CR)=0.43

Projected Source Rock Type:

Age:

Thermal Maturity Level

Degree of Biodegradation: