

**HYDROCARBON
SHOW
REPORT**

DATE: 25 November 1984 SHOW NO. 1
OPERATOR: Steele Energy Corporation
WELL: Keys 1-28
COUNTY and STATE: Wheeler County, Oregon

TYPE SHOW: Gas INTERVAL: From 1190 To 1200
DRILLING RATE: Before 80'/hr During 60'/hr After 80'/hr
MUD WEIGHT: Before 9.0 During 8.9 After 8.9
SALINITY: Before - During - After -

HOT WIRE ANALYSIS

AVERAGE GAS: Before 0.5 units During 17 units After 5.0 units
MAXIMUM GAS DURING SHOW: 22 units MUD WEIGHT CUT TO: 8.9

INFRARED GAS ANALYSIS

C₁ 100 % C₂ - % C₃ - % C₄ - %
O₂ - % N₂ - % CO₂ - % H₂S - %

CHROMATOGRAPHIC ANALYSIS

	Before	Maximum Range During	After
C ₁	<u>0</u> %	<u>100</u> %	<u>100</u> %
C ₂			
C ₃			
C ₄			

FLUORESCENCE

PERCENT: None % COLOR: _____ TYPE CUT: _____
REMARKS: _____

SHOW RATING

_____ NON-PRODUCTIVE _____ POSSIBLY PRODUCTIVE
X _____ PROBABLY NON-PRODUCTIVE _____ PROBABLY PRODUCTIVE

DST RESULTS

SERVICE COMPANY: _____ TEST TYPE: _____
TIME OPEN: _____ CHOKE: _____ BLOW: _____ EST. MCFPD: _____
FLUID RECOVERY: _____ EST. GRAVITY: _____ EST. BOPD: _____
IHP: _____ ISIP: _____ FP: _____ FSIP: _____ FHP: _____
LITHOLOGY: Fractured andesite underlying 150+ feet of tight tuff

REMARKS: First gas show of well. Apparently high pressure, low volume gas
in a fractured andesite flow capped by impermeable clayey tuff.

GEOLOGIST: Lanny H. Fisk
SIGNATURE: Lanny H. Fisk

**HYDROCARBON
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DATE: 26 November 1984 SHOW NO. 2
OPERATOR: Steele Energy Corporation
WELL: Donnelly Dome No. 1 (Keys 1-28)
COUNTY and STATE: Wheeler County, Oregon

TYPE SHOW: Gas INTERVAL: From 1985' To 2050'
DRILLING RATE: Before 100'/h During 150'/h After 120'/h
MUD WEIGHT: Before 9.3 During 9.0 After 9.0
SALINITY: Before _____ During _____ After _____

HOT WIRE ANALYSIS

AVERAGE GAS: Before 12 units During 45 units After 15 units
MAXIMUM GAS DURING SHOW: 45 units MUD WEIGHT CUT TO: 9.0

INFRARED GAS ANALYSIS

C₁ 98 % C₂ 2 % C₃ ---- % C₄ ---- %
O₂ _____ % N₂ _____ % CO₂ _____ % H₂S _____ %

CHROMATOGRAPHIC ANALYSIS

	Before	Maximum Range During	After
C ₁	<u>100</u> %	<u>98</u> %	<u>100</u> %
C ₂	<u>0</u> %	<u>2</u> %	<u>0</u> %
C ₃	<u>---</u> %	<u>---</u> %	<u>---</u> %
C ₄	<u>---</u> %	<u>---</u> %	<u>---</u> %

FLUORESCENCE

PERCENT: None % COLOR: _____ TYPE CUT: _____
REMARKS: _____

SHOW RATING

_____ NON-PRODUCTIVE _____ POSSIBLY PRODUCTIVE
X _____ PROBABLY NON-PRODUCTIVE _____ PROBABLY PRODUCTIVE

DST RESULTS

SERVICE COMPANY: _____ TEST TYPE: _____
TIME OPEN: _____ CHOKE: _____ BLOW: _____ EST. MCFPD _____
FLUID RECOVERY: _____ EST. GRAVITY: _____ EST. BOPD: _____
IHP: _____ ISIP: _____ FP: _____ FSIP: _____ FHP: _____
LITHOLOGY: Tuff with interbedded dirty coal

REMARKS: Probably coal gas but 2% ethane indicates that it is thermogenic.

GEOLOGIST: Lanny H. Fisk
SIGNATURE: Lanny H. Fisk

**HYDROCARBON
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DATE: 26 November 1984 SHOW NO. 3
OPERATOR: Steele Energy Corporation
WELL: Donnelly Dome No. 1 (Keys 1-28)
COUNTY and STATE: Wheeler County, Oregon

TYPE SHOW: Gas INTERVAL: From 2306' To 2323'
DRILLING RATE: Before 60'/h During 150'/h After 70'/h
MUD WEIGHT: Before 9.0 During 8.9 After 9.0
SALINITY: Before _____ During _____ After _____

HOT WIRE ANALYSIS

AVERAGE GAS: Before 16 units During 30 units After 18 units
MAXIMUM GAS DURING SHOW: 34 units MUD WEIGHT CUT TO: 9.9

INFRARED GAS ANALYSIS

C₁ 100 % C₂ --- % C₃ --- % C₄ --- %
O₂ _____ % N₂ _____ % CO₂ _____ % H₂S _____ %

CHROMATOGRAPHIC ANALYSIS

	Before	Maximum Range During	After
C ₁	<u>100</u> %	<u>100</u> %	<u>100</u> %
C ₂	<u>---</u> %	<u>---</u> %	<u>---</u> %
C ₃	_____ %	_____ %	_____ %
C ₄	_____ %	_____ %	_____ %

FLUORESCENCE

PERCENT: None % COLOR: _____ TYPE CUT: _____

REMARKS: _____

SHOW RATING

_____ NON-PRODUCTIVE _____ POSSIBLY PRODUCTIVE
X _____ PROBABLY NON-PRODUCTIVE _____ PROBABLY PRODUCTIVE

DST RESULTS

SERVICE COMPANY: _____ TEST TYPE: _____

TIME OPEN: _____ CHOKE: _____ BLOW: _____ EST. MCFPD _____

FLUID RECOVERY: _____ EST. GRAVITY: _____ EST. BOPD: _____

IHP: _____ ISIP: _____ FP: _____ FSIP: _____ FHP: _____

LITHOLOGY: Coal interbedded with tuffs

REMARKS: Coal gas

GEOLOGIST: Lanny H. Fisk
SIGNATURE: Lanny H. Fisk

**HYDROCARBON
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DATE: 29 November 1984 SHOW NO. 4
OPERATOR: STEELE ENERGY CORPORATION
WELL: Donnelly Dome No. 1 (Keys 1-28)
COUNTY and STATE: Wheeler County, Oregon

TYPE SHOW: Gas INTERVAL: From 3279' To 3355'
DRILLING RATE: Before 25'/h During 40'/h After 15'/h
MUD WEIGHT: Before 10.5 During 10.5 After 10.5
SALINITY: Before --- During --- After ---

HOT WIRE ANALYSIS

AVERAGE GAS: Before 2.0 units During 10 units After 3.0 units
MAXIMUM GAS DURING SHOW: 15 units MUD WEIGHT CUT TO: _____

INFRARED GAS ANALYSIS

C₁ _____ % C₂ _____ % C₃ _____ % C₄ _____ %
O₂ _____ % N₂ _____ % CO₂ _____ % H₂S _____ %

CHROMATOGRAPHIC ANALYSIS

	Before	Maximum Range		After
		Top	Bottom	
C ₁	100	97	96	98
C ₂	---	3	0	0
C ₃	---	---	4	2 and decreasing
C ₄	---	---	---	---

FLUORESCENCE

PERCENT: 2-5 % COLOR: yel-grn and golden orn TYPE CUT: None
REMARKS: Mineral fluorescence of calcite and an unknown mineral.

SHOW RATING

NON-PRODUCTIVE POSSIBLY PRODUCTIVE
 PROBABLY NON-PRODUCTIVE PROBABLY PRODUCTIVE

DST RESULTS

SERVICE COMPANY: _____ TEST TYPE: _____
TIME OPEN: _____ CHOKE: _____ BLOW: _____ EST. MCFPD: _____
FLUID RECOVERY: _____ EST. GRAVITY: _____ EST. BOPD: _____
IHP: _____ ISIP: _____ FP: _____ FSIP: _____ FHP: _____
LITHOLOGY: Sh, dk brn, slty, carb, cly, sft

REMARKS: Although a small show, quite significant. Propane component demonstrates organic thermal maturation has produced thermogenic gases.

GEOLOGIST: Lanny H. Fisk
SIGNATURE: Lanny H. Fisk

**HYDROCARBON
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DATE: 10 December 1984 SHOW NO. 5
OPERATOR: Steele Energy Corporation
WELL: Donnelly Dome No. 1 (Keys 1-28)
COUNTY and STATE: Wheeler County, Oregon

TYPE SHOW: Gas INTERVAL: From 3990' To 5000'
DRILLING RATE: Before 10'/h During 20'-200'/h After 12'/h
MUD WEIGHT: Before 10.8 During 8.7-9.1 After 8.7
SALINITY: Before --- During --- After ---

HOT WIRE ANALYSIS

AVERAGE GAS: Before 2-3 units During 6 units After 2 units
MAXIMUM GAS DURING SHOW: 14 units MUD WEIGHT CUT TO: ---

INFRARED GAS ANALYSIS

C₁ 100% C₂ --- % C₃ --- % C₄ --- %
O₂ --- % N₂ --- % CO₂ --- % H₂S --- %

CHROMATOGRAPHIC ANALYSIS

	Before	Maximum Range During	After
C ₁	<u>100 %</u>	<u>99.6 %</u>	<u>100 %</u>
C ₂	<u>---</u>	<u>0.4 %</u>	<u>---</u>
C ₃	<u>---</u>	<u>---</u>	<u>---</u>
C ₄	<u>---</u>	<u>---</u>	<u>---</u>

FLUORESCENCE

PERCENT: None % COLOR: --- TYPE CUT: ---

REMARKS: ---

SHOW RATING

--- NON-PRODUCTIVE X POSSIBLY PRODUCTIVE
--- PROBABLY NON-PRODUCTIVE --- PROBABLY PRODUCTIVE

DST RESULTS

SERVICE COMPANY: --- TEST TYPE: ---
TIME OPEN: --- CHOKE: --- BLOW: --- EST. MCFPD: ---
FLUID RECOVERY: --- EST. GRAVITY: --- EST. BOPD: ---
IHP: --- ISIP: --- FP: --- FSIP: --- FHP: ---
LITHOLOGY: Sandstone, gy-grn, volc, por cons or frac, calc, w some tuf

REMARKS: Although small, gas shows from this thick interval may be significant because they clearly represent trapped accumulation of gas in reservoir quality sandstone. Thus, this interval could contain commercial quantities of low-pressure, high-volume gas.

GEOLOGIST: Lanny H. Fisk
SIGNATURE: Lanny H. Fisk