ICG5

MAY 2 0 2006 CONFIDENTIAL

Steven P. Murphy, PG American Warrior, Inc. P.O. Box 399 Garden City, KS 67846

## **GEOLOGICAL REPORT**

RECEIVED MAY 2 2 2006 KCC WICHITA

# AMERICAN WARRIOR, INC.

Welch #4-30 400' FWL – 400' FNL Section 30-T20S-R12W Barton County, Kansas OPERATOR:

AMERICAN WARRIOR, INC.

WELL:

WELCH #4-30

API NUMBER:

15-009-24909-00-00

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LOCATION:

400' NL - 400' FWL

30-T20S-R12W

BARTON COUNTY, KS

WELLSITE:

WHEAT

COMMENCED:

MARCH 17, 2006

COMPLETED:

MARCH 23, 2006

**ELEVATIONS:** 

1847' G.L. 1855' K.B.

TOTAL DEPTH:

3598' (DRILLER)

3600' (LOG)

CASING:

SURFACE: 8 5/8" @ 311'

PRODUCTION: 5 1/2" @ 3596' W/150 SX

EA-2

SAMPLES:

10' FROM 2750' TO T.D.

**DRILL STEM TESTS:** 

TWO (2) BY TRILOBITE TESTING, INC.

LOGS

COMPENSATED NEUTRON DENSITY,

SONIC, MICROLOG & DUAL INDUCTION BY LOG-TECH

DRILLING CONTRACTOR:

**DUKE RIG #8** 

REMARKS:

GEOLOGICAL SUPERVISION FROM

2900' TO T.D.

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| FORMATION<br>TOPS | LOG          | SAMPLE       |
|-------------------|--------------|--------------|
| Anhydrite         | 669 (+1186)  | Not called   |
| B. Anhydrite      | 693 (+1162)  | Not called   |
| Heebner           | 3077 (-1222) | 3076 (-1221) |
| Brown Lime(Iatan) | 3200 (-1349) | 3202 (-1347) |
| Lansing           | 3214 (-1363) | 3216 (-1361) |
| BKC               | 3431 (-1576) | 3432 (-1577) |
| Reworked Arbuckle | 3482 (-1627) | Not Called   |
| Arbuckle          | 3514 (1641)  | 3497 (-1628) |

CONTENDED LINE

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### SAMPLE DESCRIPTIONS/SHOWS (Log Measurements)

### LANSING-KANSAS CITY

3235-3249: (B Zone) Limestone; white, fine crystalline, oolitic, fair vugular porosity, slight show of free oil/stain, slight odor. Included in DST #1, perforate 3235-3239. (51 units hotwire)

3258-3273: (D Zone) Limestone; cream-tan, fine crystalline, oolitic, dense, trace of vugular porosity, very slight show of free oil/stain, fair odor. Included in DST #1, log shows this zone to be tight, not worthy of further testing.

3275-3280: (E Zone): Limestone; white-gray, fine crystalline, oolitic & oolicastic, slightly fossiliferous, poor-fair vugular porosity, fair show of free oil, good stain, strong odor. Included in DST #1, log shows this zone to be tight, not worthy of further testing.

3286-3300: (F Zone) Limestone; tan, fine-medium crystalline, fossiliferous, fair-good intercrystalline porosity, fair show of free oil/stain, strong odor. Included in DST #1, log shows this zone to be tight, not worthy of further testing.

3302-3338: (G Zone) Limestone; white-clear-tan, medium crystalline, oolicastic in part, excellent intercrystalline & vugular porosity, good show of free oil, saturated stain, strong odor. Included in DST #1, perforate 3302-3311. (69 units hotwire)

**DST #1:** 3235-3315 (30-45-45-60)

Recovered:

435' gas in pipe,

85' gas & oil cut mud (24% gas, 16% oil, 60% mud)

60' gas & oil cut watery mud (20% gas, 13% oil, 22% water, 45% mud)

IHP: 1566 IFP: 54-55 ISIP: 920 FFP: 50-75

FSIP: 919 FHP: 1535

BHT: 98° F

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3346-3361: (H Zone) Limestone; cream-lt brown, fine crystalline, very fossiliferous, poor-fair intercrystalline porosity, slight show of free oil, saturated stain, strong odor. Included in DST #2, log shows this zone to be tight, not worthy of further testing. (75 units hotwire)

3364-3376: (I Zone) Limestone; white, fine crystalline, good vugular porosity, fair show of free oil, good stain, strong odor. Included in DST #2, log shows this zone to be tight, not worthy of further testing. (45 units hotwire)

3378-3396: (J Zone) Limestone; white-cream, fine crystalline, fossiliferous, good vugular porosity, good show of free oil, fair stain, strong odor (gassy on break). Included in DST #2, perforate 3478-3485. (Hotwire 118 units)

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**DST #2:** 3340-3395 (30-45-45-60)

Recovered:

950' gas in pipe,

63 gas & oil cut mud (18% gas, 26% oil, 56% mud)

IHP: 1628 IFP: 17-26

ISIP: 627 (building)

FFP: 25-38

FSIP: 777 (building)

FHP: 1574

BHT: 96°F

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3400-3418: (K Zone) Limestone; white-tan, fine crystalline, oolitic in part, fossiliferous in part, mostly dense, very slight show of free oil/stain in rare vugular porosity. Included in DST #2, log shows this zone to be tight, not worthy of further testing. (100 units hotwire)

3423-3428: (L Zone) Limestone; cream-tan, mostly dense, some fair intercrystalline & vugular porosity, slight show of free oil/stain, no odor. Log shows this zone to be tight, not worthy of further testing. (24 units hotwire)

#### REWORKED ARBUCKLE

3482-3496: Dolomitic limestone; white-tan, fine-medium crystalline, poor-fair intercrystalline porosity, slight show of free oil/stain. Chert; white-cream, fresh, sharp, vitreous, poor vugular porosity, some with fair staining, mostly barren. Log shows this zone to be non-productive, not worthy of further testing. (157 units hotwire)

#### **ARBUCKLE**

3498-3512: Dolomite, cream-light brown, fine-medium crystalline, rhombic & sucrosic, good intercrystalline porosity, much dense, fair-good show of free oil/stain, strong odor (much white chert). Log shows this interval to be potentially productive, perforate 3498-3505. (100 units hotwire).

Below 3512, show decreased, with about 50% of samples barren with some gilsonite, log calculates wet.

### **SUMMARY AND RECOMMENDATIONS**

Sample and log analysis and the results of drillstem testing indicate that the Lansing-Kansas City B, G & J Zones, as well as the Arbuckle, should be productive. 5-1/2" casing was set at 3596' to further test these zones.

Perforate the Arbuckle @ 3498-3505. Perforate the J Zone @ 3478-3485. Perforate the G Zone @ 3302-3311. Perforate the B Zone @ 3235-3239.

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Respectfully submitted,

Steven P. Murphy, P.G. Kansas License #228

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