

FORM MUST BE TYPED

SIDE ONE

ORIGINAL

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACD-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

Operator: License # 6926  
Name: Advantage Resources, Inc.  
Address 1775 Sherman Street-Suite 1375  
City/State/Zip Denver, CO 80203-4316  
Purchaser: \_\_\_\_\_  
Operator Contact Person: Lou Bortz  
Phone (303) 831-1912  
Contractor: Name: Duke Drilling Co., Inc.  
License: 5929  
Wellsite Geologist: J. E. Jespersen  
Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  S10W  Temp. Abd.  
 Gas  ENHR  SIGW  
 Dry  Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

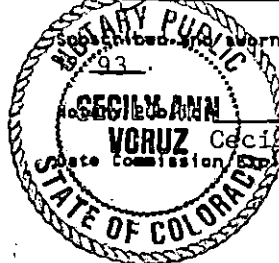
Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_  
 Deepening  Re-perf.  Conv. to Inj/SWD  
 Plug Back  PBTB  
 Commingled Docket No. \_\_\_\_\_  
 Dual Completion Docket No. \_\_\_\_\_  
 Other (SWD or Inj?) Docket No. \_\_\_\_\_  
12-16-92 12-29-92 12-31-92  
Spud Date Date Reached TD Completion Date

API NO. 15- 097-21,348 - 0000  
County Kiowa  
310'S & 10'E of \_\_\_\_\_  
SW NW NE SE Sec. 24 Twp. 28 Rge. 18 X W  
4030' Feet from (S)W (circle one) Line of Section  
2300' Feet from (E)W (circle one) Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
NE, SE, NW or SW (circle one)  
Lease Name Hardy Well # B-1  
Field Name Hardy  
Producing Formation Miss. Chat (Osage)  
Elevation: Ground 2209' KB 2218'  
Total Depth 4940' PBTB \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at 480' Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set \_\_\_\_\_ Feet  
If Alternate II completion, cement circulated from 469  
feet depth to Surface w/ 280 sx cmt.  
Drilling Fluid Management Plan 3-3-93  
(Data must be collected from the Reserve Pit)  
Chloride content 47,000 ppm Fluid volume 2500 bbls  
Dewatering method used Evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name \_\_\_\_\_  
Lease Name \_\_\_\_\_ License No. \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S Rng. \_\_\_\_\_ E/W \_\_\_\_\_  
County \_\_\_\_\_ Docket No. \_\_\_\_\_

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas - 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Louis C. Bortz  
Title Louis C. Bortz, Vice President Date 2/16/93



Cecily Ann Voruz  
Cecily Ann Voruz  
January 27, 1994

RECEIVED  
STATE CORPORATION COMMISSION  
2-18-93  
FEB 18 1993

K.C.C. OFFICE USE ONLY  
F  Letter of Confidentiality Attached  
CONSERVATION DIVISION  
Wichita, Kansas  
 Wireline Log Received  
 Geologist Report Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)

SIDE TWO

Operator Name Advantage Resources, Inc. Lease Name Hardy Well # B-1  
 Sec. 24 Twp. 28 Rge. 18  East County Kiowa  
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	1132'	+1086 (Smpl.)
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	4060'	-1842
List All E.Logs Run:		Lansing	4238'	-2020
Dual Induction Log	3850' - 4939'	B/Kansas City	4630'	-2412
Comp. Density-Neutron	3850' - 4918'	Miss.	4822'	-2604
Radiation Guard	3850' - 4939'	Kinderhook	4874'	-2656
		TD	4941'	-2723

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4"	8-5/8"	23#	480'	60/40 poz	280	4% cc 2% gel

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type		Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or Inj.	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION:  Open Hole  Perf.  Dually Comp.  Commingled  Other (Specify) \_\_\_\_\_

Production Interval \_\_\_\_\_

Phone 913-483-2627, Russell, Kansas

Phone Plainville 913-434-2812

Phone 913-793-5641, Great Bend, Kansas

Phone Ness City 913-798-0849

# ALLIED CEMENTING CO., INC. ORIGINAL

Home Office P. O. Box 31

Russell, Kansas 67665

New

12-16-92

12-17-92

Date	12-17-92	Sec	24	Twp	28	Range	18	Called Out	8:30 PM	On Location	11:50 AM	Job Start	2:30 AM	Finish	3:30 AM
Lease	Hardy	Well No.	B-1			Location			Braham, W. 1/2, S. 1/4, 1/2			County	KS.	State	KS.
Contractor	Duke Rig #9														
Type Job	Surface														
Hole Size	12 1/4"			I.D. 480'											
Cas.	8 5/8" 25' MSW			Depth 480'											
The Size	Depth														
Drill Pipe	Depth														
Tool	Depth														
Cement Left in Cas.	15'			Shoe Joint											
Press Max.	Minimum														
Mens Line				Displace 29 3/4 bbl											
Part															

Owner Advantage  
 To Allied Cementing Co., Inc.  
 You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.

Charge To Duke Drilling Co. Inc.  
 Street Box 823  
 City Great Bend Kas. 67530

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. \_\_\_\_\_  
 X Hydromagnum  
 CEMENT

### EQUIPMENT

Pumpjack	No.	Computer	TIM
	181	Helper	
Pumpjack	No.	Computer	VANCY
	179	Helper	
Ballstnk	No.	Driver	
	179	Driver	

DEPTH of Job	Reference:	Amount
	25' Hump Pk Charge	380.00
	25' Hump Pk Mileage	50.00
	1 8 5/8" wooden Plug	42.00
	180' at .39	70.20
	<b>Total</b>	<b>542.20</b>

Remarks: Cement did circulate,

Amount Ordered	280 SKS @ 47cc, 27081		
Consisting of			
Common	168	5.50	924.00
Poz. Mix	112	2.50	280.00
Gal.	6	6.75	40.50
Chloride	11	21.00	231.00
Quickset			
Handling	280	1.00	280.00
Mileage	25		280.00
		Sub Total	995.00
		Total	995.00
Flooding Equipment			
Total	2537.20		
Disc	507.44		
			2029.76

*Handwritten signature*

ALLIED CEMENTING CO.  
STATE CORPORATION COMMISSION

FEB 18 1993

WICHITA DIVISION  
Wichita, Kansas

ORIGINAL

DST 4821-4875

15"-60"-60"120"

IF - Weak building to a strong blow in 4 min.

FF - Weak building to a strong blow in 45 min.

Rec 600' Gas in pipe.

65' Mud.

IH 2368

FP 41-41, 52-62

SIP 1174 - 1008

FH 2368

RECEIVED  
STATE CORPORATION COMMISSION

FEB 18 1993

CONSERVATION DIVISION  
Wichita, Kansas

ORIGINAL

**J E J**

J.E. JESPersen  
**PETROLEUM Geologist**  
P.O. Box 16418  
Wichita, KS 67216

DECEMBER 31, 1992

BUS: (316) 267-6248  
RES: (316) 684-5074  
MOB: (316) 264-7772

Geological Report

ADVANTAGE RESOURCES - Schulein Company  
**HARDY "B" #1**  
**4030' FSL & 2300' FEL, SE/4**  
**SECTION 24-T28S-R18W**  
KIOWA COUNTY, KANSAS

RECEIVED  
STATE GEOLOGICAL COMMISSION

FEB 18 1993

CONSERVATION DIVISION  
Wichita, Kansas

ORIGINAL

January 1, 1993

Advantage Resources / Schulein Company  
Hardy "B" #1  
4030' FSL & 2300' FEL SE/4  
Section 24-T28S-R18W  
Kiowa County, Kansas

Field: Hardy Extension  
Elevations: 2218 Kelly Bushing  
2215 Derrick Floor  
2209 Ground Level

Wellsite Geologist: J.E. Jespersen  
Contractor: Duke Drilling - Rig #5  
Commenced: December 16, 1992  
Completed: December 30, 1992  
Rotary Total Depth: 4940 feet  
Log Total Depth: 4941 feet  
Surface Casing: 8-5/8" @ 480' w/280 sacks  
Production Casing: None - Dry & Abandoned  
Electrical Surveys: ELI: Dual Induction-Compensated Density-Neutron  
Hole Size: 12-1/4" from surface to 480'  
7-7/8" from 480 to 4940' (RTD)

General Information: Samples saved from 3600-4940' (RTD)  
Drilling time kept from 1050-1160' and  
3600 to 4940' (RTD). Samples examined from  
4000 to 4940' (RTD). Drilling supervised from  
4070' to RTD. Mud up at 4070'.  
Mud type, Chemical.

ORIGINAL

Formation	LOG TOPS		SAMPLE TOPS		Structural Comparison
	Top	/ Datum	Top	/ Datum	
T/Anhydrite	Not logged		1132	+1086	3' Low
B/Anhydrite	Not logged		1154	+1064	1' Low
Heebner	4060	-1842	4060	-1842	11' Low
Douglas	4111	-1893	4108	-1888	12' Low
Brown Lime	4220	-2002	4218	-2000	11' Low
Lansing	4238	-2020	4230	-2012	14' Low
B/Kansas City	4630	-2412	4634	-2416	7' Low
Cherokee	4701	-2543	4761	-2543	9' Low
Mississippian	4822	2604	4820	-2602	17' Low
Kinderhook	4874	-2656	4872	-2654	13' Low

Note: Pipe strap at 4070' was 2.91' long to the board.  
 4875' 2.17' long to the board

Reference Well or Structural Comparison: Advantage Resources/Schulein Company  
 W.E. Keller #1, 750' FNL & 1000' FWL, NW/4, Sec 24-18S-18W.

**Chronological History**

**DAILY PENETRATION**

Date	Depth	Remarks
12/16/92	0	Spud 6:15 PM - Set 8 5/8" @ 480' w/280 sx. Plug down 3:30 AM 12/17/92
12/17	480	Drilled plug 12:00 Noon
12/18	2000	Lost 6 1/4 hrs - pump repairs
12/19	2656	Drilling
12/20	3340	Drilling
12/21	3955	Shut down for Christmas
12/22, 23,	4070	CHRISTMAS
24, 25, 26	4070	Drlg at 11: AM 12/26
12/27	4500	Drilling
12/28	4820	<u>DST #1</u> <u>4821-4875</u>
12/29	4940	RTD 4:30 AM - Run ELI Dual Induction, Compensated Density, and Neutron logs Logging tool stuck @ 3843' to 4941' - fished - Dry and Abandoned

ORIGINAL

Chronological History (Cont'd)

BIT RECORD

No.	Size	Make	Type	Depth Out	Feet	Hours
1	12 1/4	HTC	J1RT	480	480	3 1/2
2	7 7/8	Reed	HP 11	1486	1000	6 1/4
3	7 7/8	Reed	HP 52	4820	3334	100 1/2
4	7 7/8	W/M	52 SF	4940	120	3 3/4

MUD RECORD

(Mud-Co)

Chk.	Depth	Wt.	Vis	Fil	Ph	PV	YP	Gels	Chlorides	Solids
1	0		---	NATIVE SOLIDS				---		
2	2682	9.7	28	N/C	7.0	-	-	-/-	75,000	5.5%
3	3473	8.7	39	20	7.5	12	18	10/24	8,000	2.4%
4	4000	9.3	35	20	7.5	8	16	8/22	13,000	6.4%
5	4092	8.7	44	12	11.0	10	17	11/27	10,000	2.5%
6	4524	9.0	47	11.2	11.0	10	19	14/26	11,000	4.4%
7	4870	9.3	56	12.8	11.0	11	20	12/34	10,000	6.5%

Reserved Pit Volume 2,500 bbls - Chl 47,000 - CA 2,480

D R I L L S T E M T E S T S

(Western Testing)

No.	Interval	IFP	ISIP	FFP	FSIP	IHH-FHH
1	4821-4875 Recovered:	41-41/15 600' Gas in pipe 65' Mud	1174/60	52-62/60	1008/120	2368-2368



ORIGINAL

Geological Formations and Porosity Zones

A detailed lithological log was 4000 feet to 4940 feet (RTD). The following are formation tops, recoveries of drill stem tests, descriptions of reservoirs containing shows of oil and descriptions of reservoirs felt pertinent to the accumulation of hydrocarbons in the area. The depths are interpolated from drillers measurements and measured from the kelly bushing.

T/Anhydrite                      Sample      1132 +1086  
   E-Log        NO LOG

B/Anhydrite                      Sample      1154 +1064  
   E-Log        NO LOG

Logging tool stuck at 3843 feet. Fished with side door overshot. Logged from 3843 to 4941 feet. No log above 3843 feet.

Heebner                            Sample      4060    -1842  
   E-Log        4060    -1842

Toronto                            Sample      4073    -1855  
   E-log        4072    -1854

SL 4077-4085                      Limestone, light grey, fine crystalline, fossiliferous. Fair  
EL 4072-4084                      interfossiliferous porosity. No shows. No fluorescence. No  
   odor.  
   Judged this zone to be of no commercial value.

Douglas                            Sample      4106    -1888  
   E-Log        4111    -1893

SL 4125-4136                      Sandstone, grey, fine grained micaceous, shaley. Fair  
EL 4127-4136                      intergranular porosity. No shows. No fluorescence. No odor.  
   Judged this zone to be of no commercial value.

Brown Lime                        Sample      4218    -2000  
   E-Log        4220    -2002

Lansing                            Sample      4230    -2012  
   E-Log        4238    -2020

SL 4236-4240                      Limestone, buff to tan, fine crystalline, oolitic. Good  
EL 4238-4242                      interoolitic and oolitic porosity. No shows. No  
   fluorescence. No odor.  
   Judged this zone to be of no commercial value.

ORIGINAL

Geological Formations and Porosity Zones (Cont'd)

- SL 4265-4277 Limestone, light grey, fine crystalline, fossiliferous,  
EL 4266-4278 cherty. Fair interfossiliferous porosity. No shows. No  
fluorescence. No odor.  
Judged this zone to be of no commercial value.
- SL 4289-4297 Limestone, light buff to buff, fine crystalline,  
EL 4290-4297 fossiliferous. Fair interfossiliferous porosity. No shows.  
No fluorescence. No odor.  
Judged this zone to be of no commercial value.
- SL 4326-4337 Limestone, light buff to buff, fine crystalline,  
EL 4328-4337 fossiliferous. Fair to good intercrystalline and vugular  
porosity. No shows. No fluorescence. No odor.  
Judged this zone to be of no commercial value.
- SL 4347-4364 Limestone, buff, fine to medium crystalline, oolitic,  
EL 4350-4368 sucrosic. Good interoolitic and intercrystalline porosity.  
No shows. No fluorescence. No odor.  
Judged this zone to be of no commercial value.
- |      |        |      |       |
|------|--------|------|-------|
| Drum | Sample | 4395 | -2177 |
|      | E-Log  | 4397 | -2179 |
- SL 4397-4408 Limestone, grey to tan, fine crystalline, sucrosic, oolitic.  
EL 4400-4410 Good interoolitic and oolitic porosity. No shows. No  
fluorescence. No odor.  
Judged this zone to be of no commercial value.
- SL 4420-4425 Limestone, light buff, fine crystalline, sucrosic. Poor to  
EL 4422-4425 fair intercrystalline porosity. No shows. No fluorescence.  
No odor.  
Judged this zone to be of no commercial value.
- SL 4444-4451 Limestone, cream to light buff, fine crystalline,  
EL 4448-4450 fossiliferous. Oolitic, fair interfossiliferous porosity. No  
shows. No fluorescence. No odor.  
Judged this zone to be of no commercial value.
- SL 4459-4464 Limestone, cream to light buff, fine crystalline,  
EL 4461-4466 fossiliferous. Fair interfossiliferous porosity. No shows.  
No fluorescence. No odor.  
Judged this zone to be of no commercial value.

ORIGINAL

Geological Formations and Porosity Zones (Cont'd)

SL 4498-4511 Limestone, light buff, fine crystalline, fossiliferous. Poor  
EL 4492-4495 intercrystalline and interfossiliferous porosity. No shows.  
No fluorescence. No odor.  
Judged this zone to be of no commercial value.

SL 4554-4561 Limestone, light buff, fine crystalline, fossiliferous,  
EL 4554-4560 sucrosic. Fair interfossiliferous and intercrystalline  
porosity. No shows. No fluorescence. No odor.  
Judged this zone to be of no commercial value.

Base Kansas City	Sample	4634	-2416
	E-Log	4630	-2412

Cherokee	Sample	4761	-2543
	E-Log	4761	-2543

Mississippian	Sample	4820	-2602
	E-Log	4822	-2604

SL 4820-4847 Chert, white, milky, amber, fresh to tripolitic, fractured.  
No Zone *Trace brown live free oil.* Fair show gas in tripolitic chert.  
Gilsonitic stain on fractured edges. Very slight odor.  
Scattered dull fluorescence. Tested this zone. (See DST #1)  
Due to the test results, judged this zone to be of no  
commercial value.

SL 4847-4872 Chert, white, milky, amber, fresh to tripolitic, fractured.  
No Zone *Trace brown live free oil.* Rare show gas in tripolitic chert.  
Gilsonitic stain on fractured edges, very slight odor.  
Scattered dull fluorescence. Tested this zone. (See DST #1)  
Due to the test results, judged this zone to be of no  
commercial value.

Drill Stem Test #1

4821-4875

Weak blow bldg to strong blow IFP  
Weak blow bldg to strong blow FFP  
Recovered:

600' Gas in pipe  
65' Mud  
41# to 41# in 15 min.  
1174# / 60 min.  
52# to 52# / 60 min.  
1008# / 120 min.  
2368#  
2368#  
120 degrees

Initial Flow Pressures:  
Initial Shut-In Pressure:  
Final Flow Pressures:  
Final Shut-In Pressure:  
Initial Hydrostatic Pressure:  
Final Hydrostatic Pressure:  
Bottomhole Temperature:

Geological Formations and Porosity Zones (Cont'd)

Kinderhook	Sample	4872	-2654
	E-Log	4874	-2656

SL 4920-4936  
No Zone

Sandstone, white to grey, fine to medium subangular grains, friable. Fair intergranular porosity. No shows. No fluorescence. No odor.  
Judged this zone to be of no commercial value.

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Rotary Total Depth 4940 -2722

Electric Log Total Depth 4941 -2723

ELI: Dual Induction, Compensated Density-Neutron Logs

Dry and Abandoned

Note: Logging tool stuck at 3843 feet. Fished. No log above 3843 feet.

ORIGINAL

REMARKS & RECOMMENDATIONS

Recommend this well be plugged and abandoned.

Structurally this well ran 10 to 15 feet low as compared to Advantage Resources-Schulein Company's #1 W.E. Keller, located 1/2 mile west.

The results of DST #1, covering the Mississippi-Chat, were negative and the charts and recovery indicated lack of reservoir development.

No other zones merited any further testing throughout the Douglas, Kansas City, Marmaton or Cherokee sections.

Respectfully submitted,

J.E. Jespersen