Company W. K. Black, Inc. Lease & Well No. Randle #2

Elevation 1880 Ground Level Formation Chase Effective Pay - Ft. Ticket No. 4056

Date 10/22/79 Sec. 15 Twp. 29S Range 13W County Pratt State Kansas

Test Approved by William K. Black Western Representative Bill Hager

Formation Test No. 1 Interval Tested from 2098 ft. to 2110 ft. Total Depth 2110 ft.

Packer Depth 2093 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2098 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2103 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 2106 ft. Recorder Number 6074 Cap. 5100

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Gabbert & Jones Drilling Rig #9 Drill Collar Length 240 I. D. 2¼ID in.

Mud Type premix-starch Viscosity 35 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss - cc. Drill Pipe Length 1830 I. D. 3.8 in.

Chlorides 80,000 P.P.M. Test Tool Length 28 ft. Tool Size 5½OD in.

Jars: Make WTC Serial Number 407 Anchor Length 12 ft. Size 5½OD in.

Did Well Flow? No Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Good blow throughout test.

Recovered 30 ft. of slightly gas cut mud

Recovered 240 ft. of slightly gas salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: OUTSIDE CLOCK STOPPED CHLORIDES 100,000 ppm

Time Set Packer(s) 12:15 ~~A.M.~~ P.M. Time Started Off Bottom 3:15 ~~A.M.~~ P.M. Maximum Temperature 88°

Initial Hydrostatic Pressure ..... (A) 1123 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 75 P.S.I. to (C) 92 P.S.I.

Initial Closed In Period ..... Minutes 60 (D) 709 P.S.I.

Final Flow Period ..... Minutes 30 (E) 149 P.S.I. to (F) 154 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 689 P.S.I.

Final Hydrostatic Pressure ..... (H) 1075 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 10/22/79 Test Ticket No. 4056

Recorder No. 2604 Capacity 4150 Location 2103 Ft.

Clock No. --- Elevation 1880 Ground Level Well Temperature 88 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1123 P.S.I.		Open Tool	12:15P M	
B	First Initial Flow Pressure	75 P.S.I.		First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	92 P.S.I.		Initial Closed-in Pressure	60 Mins.	60 Mins.
D	Initial Closed-in Pressure	709 P.S.I.		Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	149 P.S.I.		Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	154 P.S.I.				
G	Final Closed-in Pressure	689 P.S.I.				
H	Final Hydrostatic Mud	1075 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	75
P 2	5	66
P 3	10	64
P 4	15	68
P 5	20	75
P 6	25	83
P 7	30	92
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	92
	3	153
	6	322
	9	455
	12	527
	15	567
	18	594
	21	613
	24	629
	27	644
	30	655
	33	665
	36	676
	39	680
	42	686
	45	692
	48	699
	51	701
	54	704
	57	707
	60	709

Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	149
	5	149
	10	145
	15	144
	20	147
	25	151
	30	154

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	154
	3	267
	6	419
	9	498
	12	540
	15	573
	18	594
	21	611
	24	621
	27	633
	30	643
	33	650
	36	659
	39	666
	42	670
	45	674
	48	678
	51	680
	54	684
	57	686
	60	689

2607

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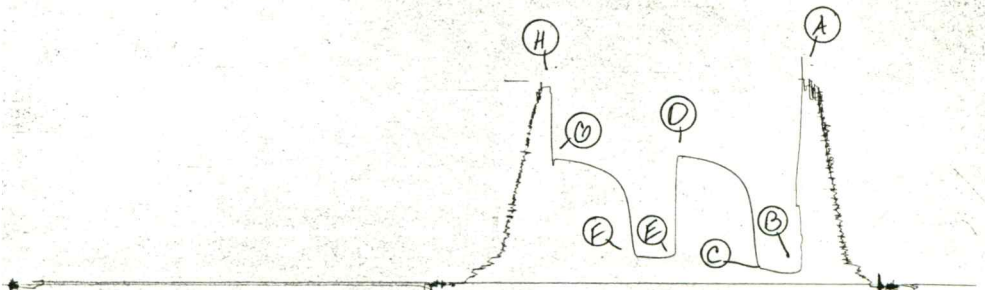

Company W. K. Black, Inc. Lease & Well No. Randle #2

Elevation 1880 Ground Level (Est.) Formation Mississippi Effective Pay --- Ft. Ticket No. 4015

Date 10/28/79 Sec. 15 Twp. 29S Range 13W County Pratt State Kansas

Test Approved by Jerry A. Smith Western Representative Dave Sloan

Formation Test No. 2 Interval Tested from 4402 ft. to 4424 ft. Total Depth 4424 ft.

Packer Depth 4397 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4402 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4416 ft. Recorder Number 5673 Cap. 5400

Bottom Recorder Depth (Outside) 4419 ft. Recorder Number 6246 Cap. 5200

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Gabbert-Jones Rig #9 Drill Collar Length 240 I. D. 3.2 in.

Mud Type starch Viscosity 44 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 12 cc. Drill Pipe Length 4134 I. D. 3.8 in.

Chlorides 28,000 P.P.M. Test Tool Length 28 ft. Tool Size 5½OD in.

Jars: Make WTC Serial Number 406 Anchor Length 22 ft. Size 5½OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Strong blow throughout test. Gas to surface in twenty-four minutes. See attached sheet for gas measurements.

Recovered 20 ft. of drilling mud. Gas cut.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 6:45 ~~A.M.~~ P.M. Time Started Off Bottom 10:00 ~~A.M.~~ P.M. Maximum Temperature Thermometer Broken

Initial Hydrostatic Pressure			(A)	2340	P.S.I.	
Initial Flow Period	Minutes 30	(B)	27	P.S.I. to (C)	27	P.S.I.
Initial Closed In Period	Minutes 60	(D)	1519	P.S.I.		
Final Flow Period	Minutes 45	(E)	22	P.S.I. to (F)	22	P.S.I.
Final Closed In Period	Minutes 60	(G)	1465	P.S.I.		
Final Hydrostatic Pressure		(H)	2275	P.S.I.		

GAS FLOW REPORT

Date 10/28/79 Ticket 4015 Company W. K. Black, Inc.

Well Name and No. Randle #2 Dst No. 2 Interval Tested 4402'-4424'

County Pratt State Kansas Sec. 15 Twp. 29S Rg. 13W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
6 min.		18 min.	1/4" orifice			7,120 CFPD
SECOND FLOW						
10 min.		5 lbs.	1/4" orifice			20,700 CFPD
20 min.		2 lbs.	1/4" orifice			12,700 CFPD
30 min.		52" of water	1/4" orifice			12,100 CFPD
40 min.		48" of water	1/4" orifice			11,600 CFPD
45 min.		48" of water	1/4" orifice			11,600 CFPD

GAS BOTTLE

Serial No. ----- Date Bottle Filled -------- Date to be Invoiced 10/28/79

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1% per month, equal to 12% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME W. K. Black, Inc.

Authorized by Davle Sloan

WESTERN TESTING CO., INC.

Pressure Data

Date 10/28/79 Test Ticket No. 4015

Recorder No. 5673 Capacity 5400 Location 4416 Ft.

Clock No. -- Elevation 1880 Ground Level (Est.) Well Temperature --- °F

Point		Pressure	
A	Initial Hydrostatic Mud	2340	P.S.I.
B	First Initial Flow Pressure	27	P.S.I.
C	First Final Flow Pressure	27	P.S.I.
D	Initial Closed-in Pressure	1519	P.S.I.
E	Second Initial Flow Pressure	22	P.S.I.
F	Second Final Flow Pressure	22	P.S.I.
G	Final Closed-in Pressure	1465	P.S.I.
H	Final Hydrostatic Mud	2275	P.S.I.

	Time Given	Time Computed
Open Tool	6:45P M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	60 Mins.	60 Mins.
Second Flow Pressure	45 Mins.	45 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	27
P 2 5	27
P 3 10	27
P 4 15	27
P 5 20	27
P 6 25	27
P 7 30	27
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	27
3	303
6	511
9	677
12	833
15	989
18	1116
21	1224
24	1316
27	1384
30	1424
33	1454
36	1473
39	1486
42	1493
45	1500
48	1504
51	1511
54	1514
57	1517
60	1519

Second Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	22
5	22
10	22
15	22
20	22
25	22
30	22
35	22
40	22
45	22

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	22
3	208
6	361
9	519
12	637
15	776
18	883
21	986
24	1084
27	1168
30	1249
33	1295
36	1332
39	1373
42	1395
45	1416
48	1430
51	1443
54	1450
57	1457
60	1465

RANDLE #1
DST #1

TKL # 4045
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