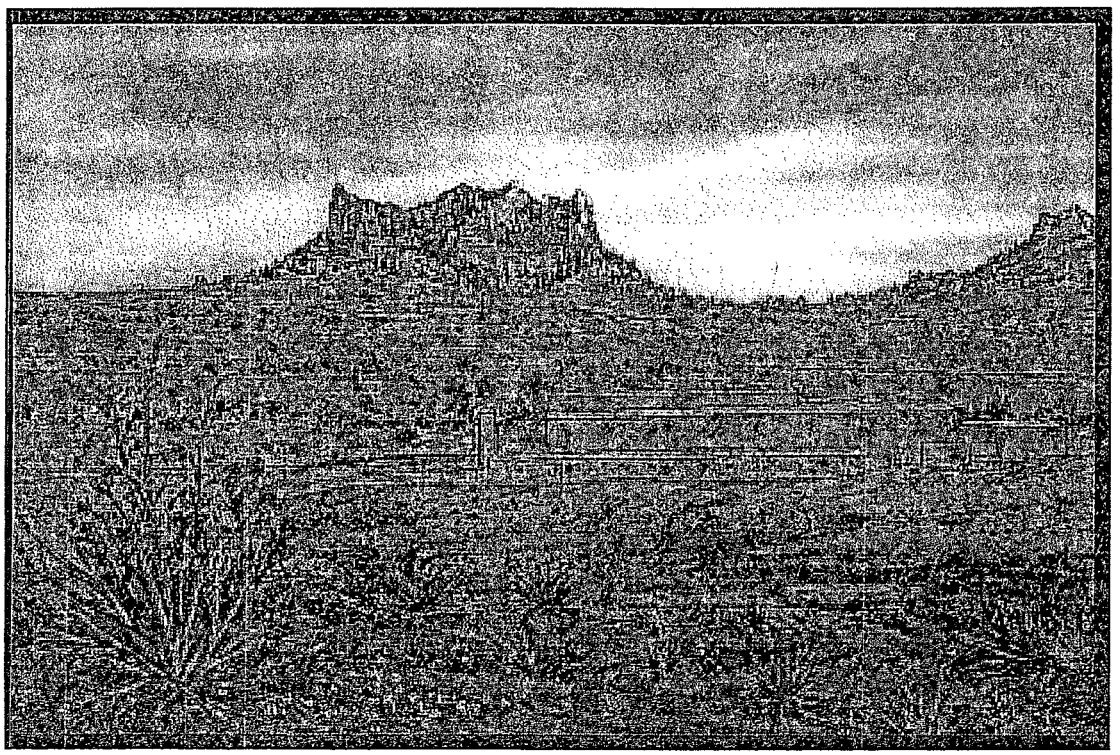
Crow Butte Resources, Inc.

Three Crow Expansion Area
Petition for Aquifer Exemption
Appendices

COPY



Prepared by
Crow Butte Resources, Inc.
86 Crow Butte Road
Crawford, Nebraska 69339

May 2010

20108051945

ARCADIS

Infrastructure, environment, buildings

Imagine the result

Crow Butte Resources, Inc.

Petition for Aquifer Exemption

Appendices

Three Crow Expansion Area

May 2010

Appendices

A Geophysical Boring Logs

B Mineralogical and Particle Size Distribution Analyses

C Well Completion Reports

D Groundwater Analytical Lab Reports

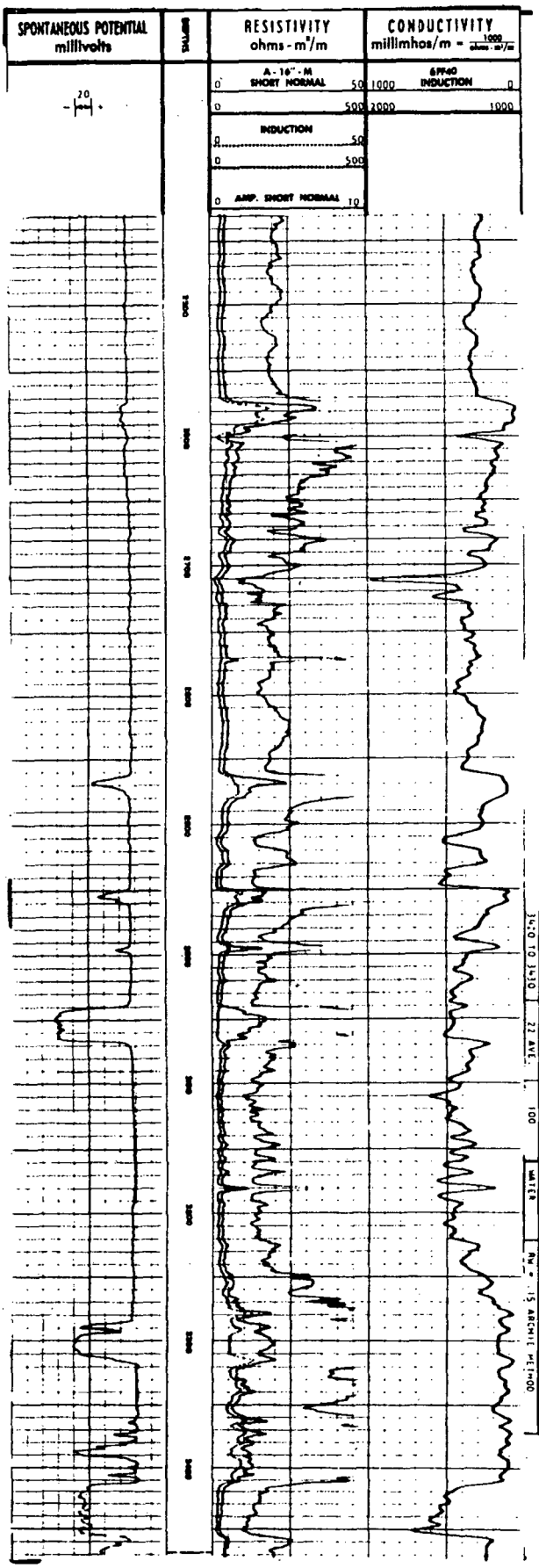
E Water User Survey Information for Active Water Supply Wells in 2.25-Mile Area of Review

F Water User Survey Information for Abandoned Water Supply Wells in 2.25-Mile Area of Review

ARCADIS

Appendix A

Geophysical Boring Logs



ABRIDGE-A-LOG

ROCKY MOUNTAIN WELL LOG SERVICE

ORD. REF. # K 5551H

ELSI

SCHLUMBERGER INDUCTION ELECTRICAL LOG

COMPANY G. S. CAMPBELL AND BRINKERHOFF DRILLING COMPANY
WELL F. ARNER NO. 1
FIELD WILDCAT
COUNTY DAWES STATE NEBRASKA

COUNTY DAWES
FIELD OR WILDCAT
LOCATION SEC. 26 T.31N. R.52W
WELL F. ARNER NO. 1
COMPANY G. S. CAMPBELL AND BRINKERHOFF DRILLING COMPANY

LOCATION: C NW SW
Sec. 26 Twp. 31N Rge. 52W

Other Services: FDC/GR SNP/GR

Permanent Datum: G.L. Elev. 3899
Log Measured From K.B. 10 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 3909 D.F. ---- G.L. 3899

Date	8-27-69			
Run No.	ONE			
Depth—Driller	3463			
Depth—Logger	3465			
Bot. Log Interval	3468			
Top Log Interval	138			
Casing—Driller	8-5/8 @ 138	@	@	@
Casing—Logger	138			
Bit Size	7-7/8			
Type Fluid in Hole	FGM			
Dens. / Visc.	N/A N/A			
pH / Fluid Loss	--- / --- ml	ml	ml	ml
Source of Sample	MUD PIT			
Rm @ Meas. Temp.	3.06 @ 94 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	2.90 @ 94 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	---- @ --- °F	@ °F	@ °F	@ °F
Source: Rmf Rmc	M			
Rm @ BHT	2.2 @ 119 °F	@ °F	@ °F	@ °F
Time Since Circ.	1.5 HOURS			
Max. Rec. Temp.	119 °F	°F	°F	°F
Equip. / Location	3874 / FH			
Recorded By	H. RHIOLD			
Witnessed By	MR. CAMPBELL			

COMPANY G. S. CAMPBELL AND BRINKERHOFF DRILLING
WELL F. ARNER NO. 1
FIELD WILDCAT
COUNTY DAWES STATE NEBRASKA

SCHL. Rm 1.66
SCHL. Rmf 1.45
SCHL. Rmc ----
BHT 119
Elev. KB 3909
DF ----
GL 3899

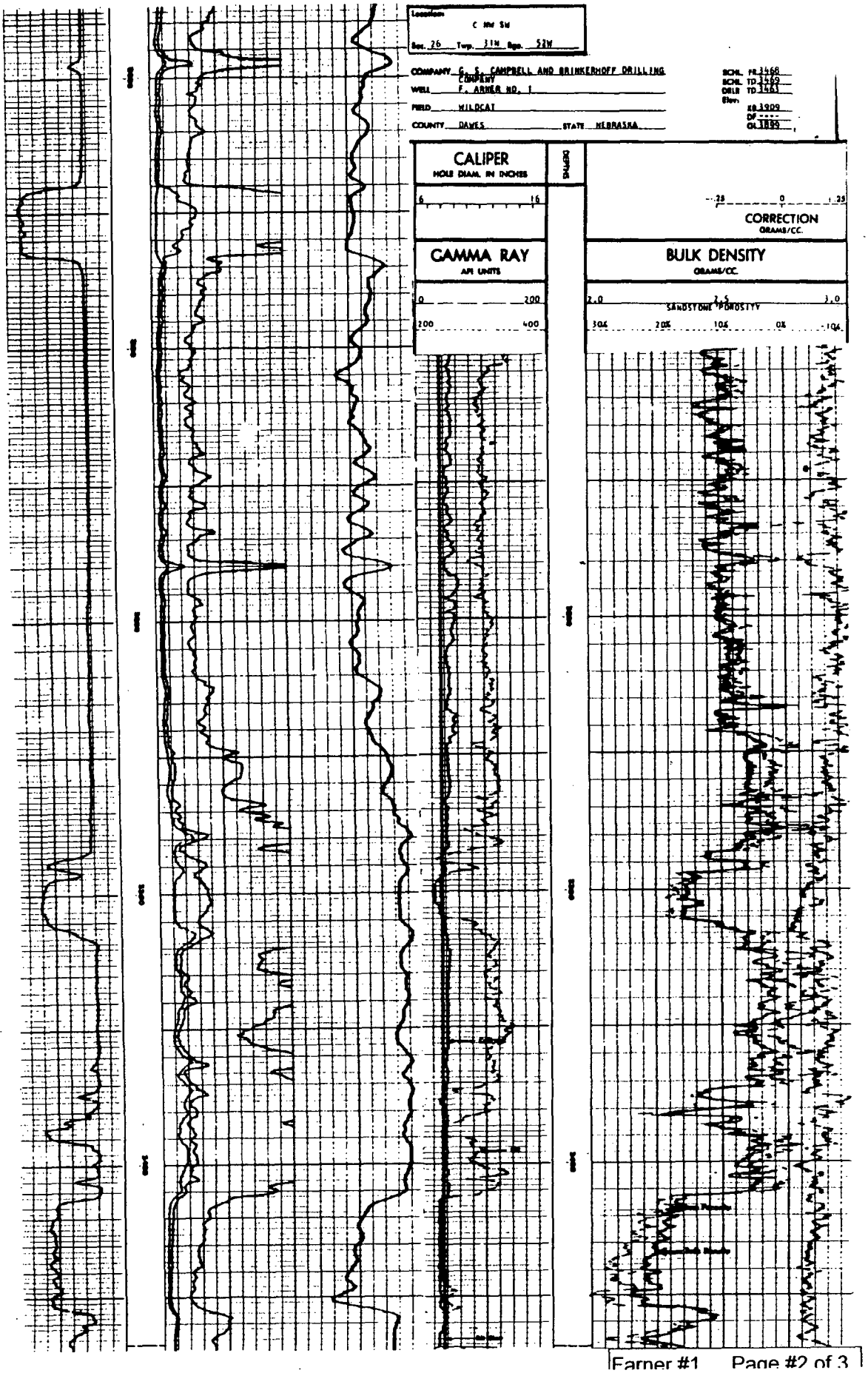
QUANTITATIVE ANALYSIS

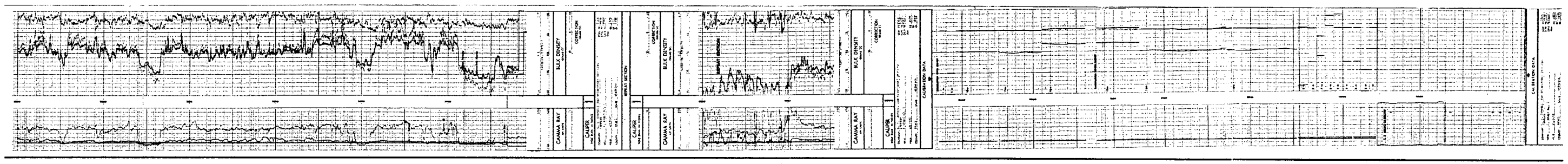
All interpretations are opinions based on inferences from electrical or other measurements, and we cannot, and do not, guarantee the correctness or accuracy of any interpretation, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 7 of our General Terms and Conditions as set out in our current Price Schedule.

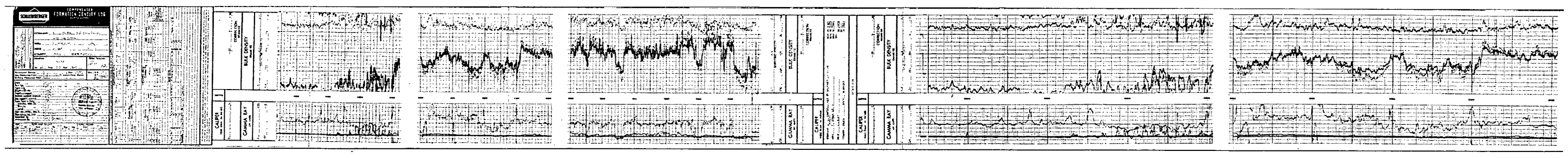
ZONE	EFFECTIVE POROSITY φe % DENSITY	WATER SATURATION Sw %	PRODUCIBLE PRODUCTION	PARAMETERS USED (WPC Chart Book)
2950 to 2963	10	100	WATER	Rw = .6 FROM SP
2957 to 2967	17	100	WATER	Rw = .6 FROM SP
3041 to 3066	20 AVE.	100	WATER	Rw = .11 ARCHIE MET-OC
3285 to 3291	12	100	WATER	Rw = .22 ARCHIE MET-OC
3291 to 3295	TIGHT	100	---	Rw = .22 ARCHIE MET-OC
3295 to 3311	17	100	WATER	Rw = .22 ARCHIE MET-OC
3181 to 3190	8	100	WATER	Rw = .2 FROM SP
3470 to 3410	22 AVE.	100	WATER	Rw = .15 ARCHIE MET-OC

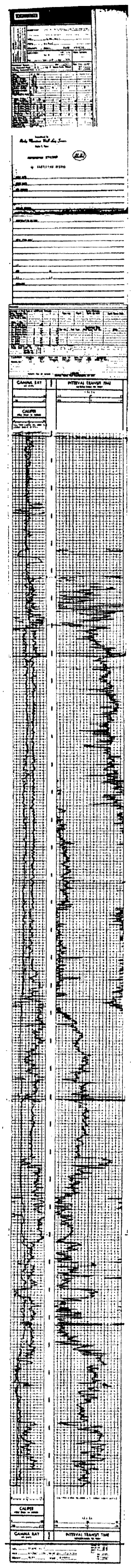
RECEIVED
NOV 10 1969

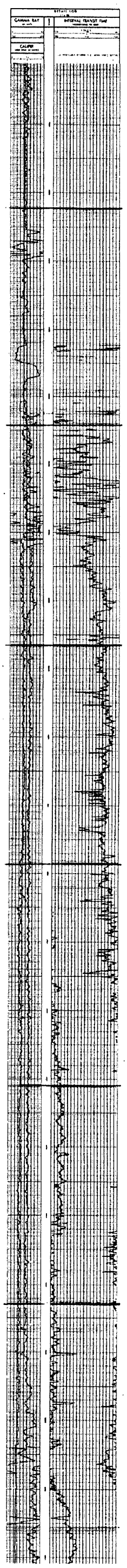
Farner #1 Page #1 of 3

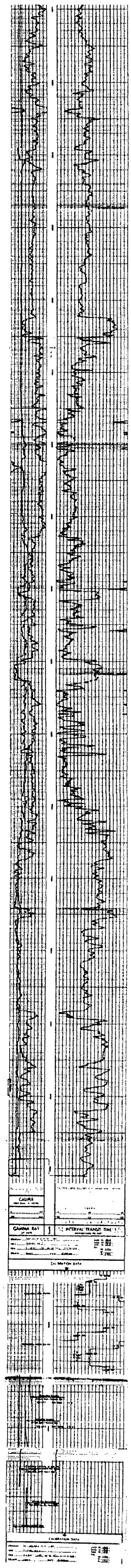

Location
C NW SW
Sec. 26 Twp. 31N Rge. 52W
COMPANY C. S. CAMPBELL AND BRINKERHOFF DRILLING COMPANY
WELL F. ARMER NO. 1
FIELD WILDCAT
COUNTY DAWES STATE NEBRASKA
BCNL FR 3468
BCNL TD 3469
DRLR TD 3481
Elev.
KB 3909
DF ----
GL 3895
CALIPER
HOLE DIAM. IN INCHES
6
16
GAMMA RAY
API UNITS
0
200
200
400
CORRECTION
GRAMS/CC.
-.25
0
.25
BULK DENSITY
GRAMS/CC.
2.0
2.5
3.0
SANDSTONE POSITIVE
30%
20%
10%
0%
-10%

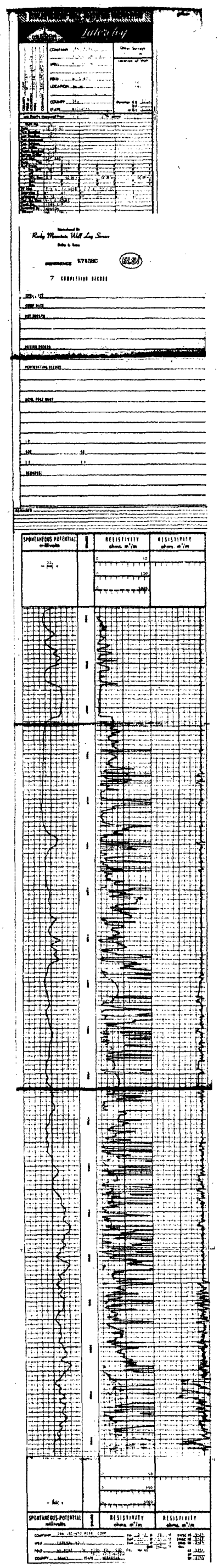

BULK DENSITY
CORRECTION
GAMMA RAY
CALIPER
CALIBRATION DATA

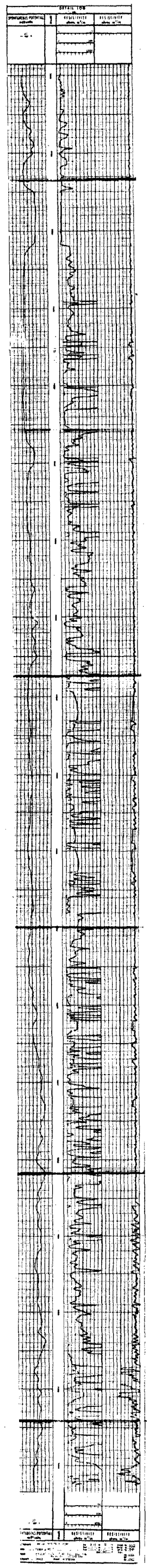

BULK DENSITY
CORRECTION
GAMMA RAY
CALIPER

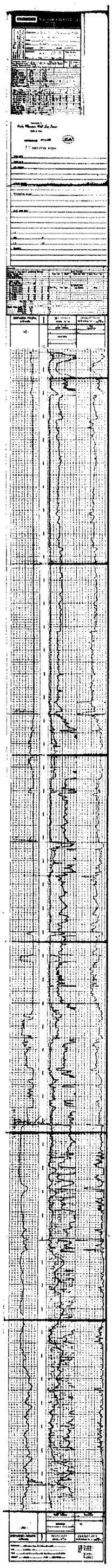

CALIPER
GAMMA RAY
INTERVAL TRANSIT TIME

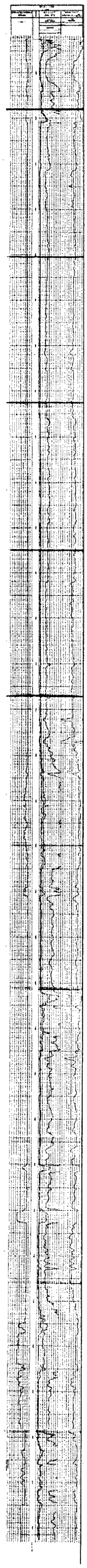

GAMMA RAY
INTERVAL TRANSIT TIME
CALIPER

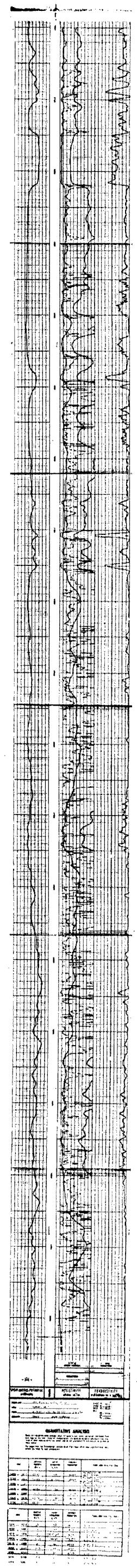

CALIPER
GAMMA RAY
INTERVAL TRANSIT TIME

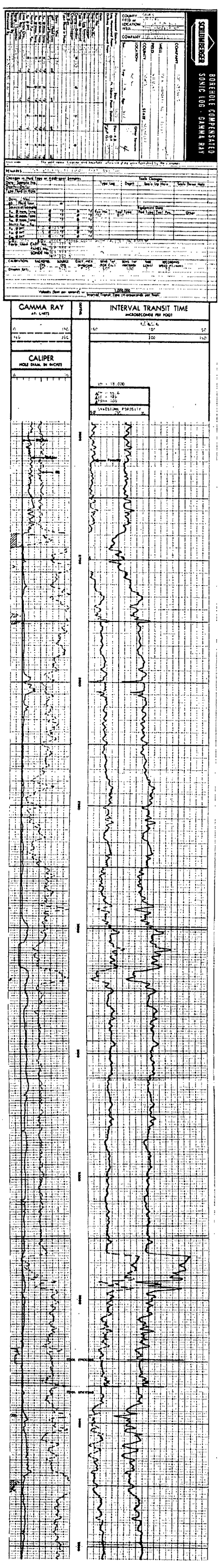

Rocky Mountain Well Log Service
SPONTANEOUS POTENTIAL millivolts
RESISTIVITY ohms m²/m
RESISTIVITY ohms m²/m

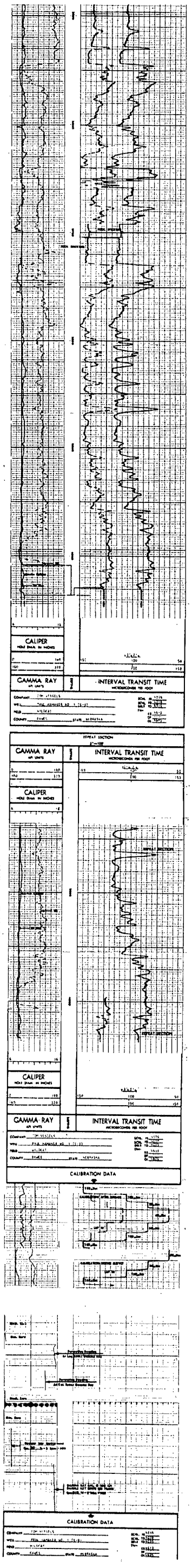

DETAIL LOG
SPONTANEOUS POTENTIAL millivolts
RESISTIVITY ohms m²/m
RESISTIVITY ohms m²/m



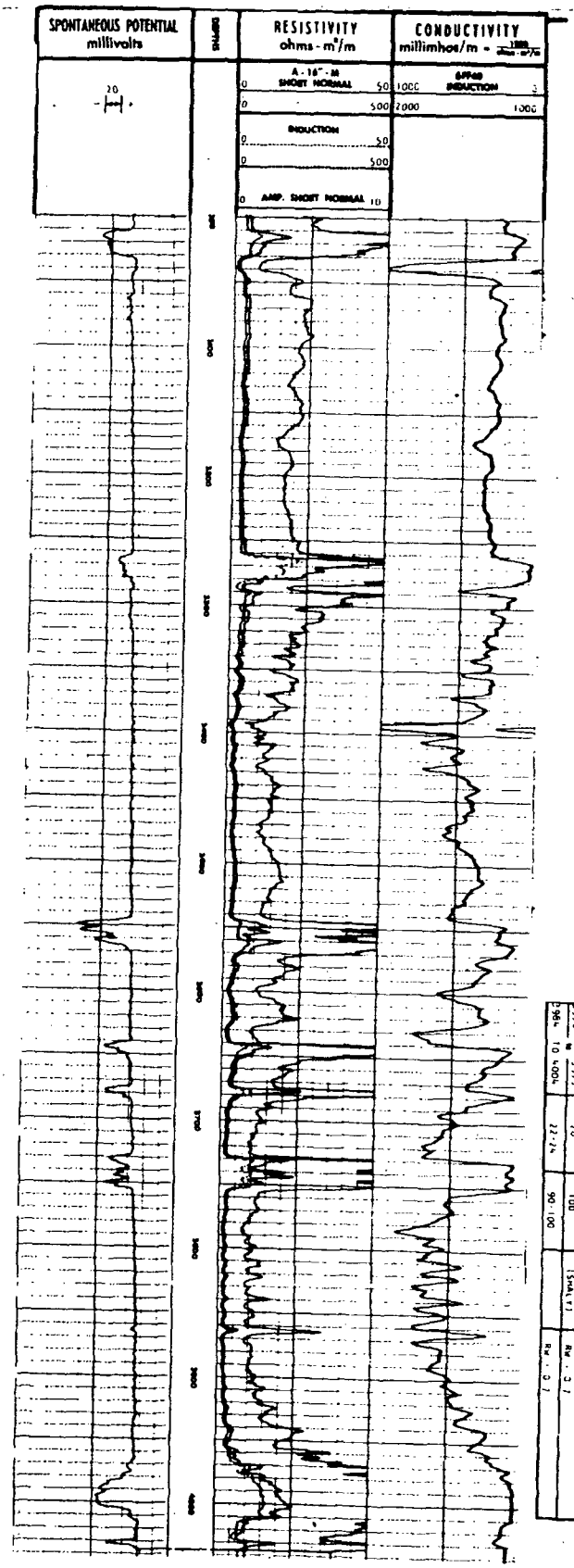








Hamaker #1 Page #1 of



ABRIDGE-A-LOG

ROCKY MOUNTAIN WELL LOG SERVICE

ORD. REF. # K 522811

ELSI

SCHLUMBERGER

COMPANY TOM VESSELS

WELL PAUL HAMAKER NO. 1 (5-9)

FIELD WILDCAT

COUNTY DAWES STATE NEBRASKA

LOCATION NW NW Sec. 26 Twp. 30N Rge. 52W

Other Services: BHC GR S1

Permanent Datum: G.L. Elev. 4605

Log Measured From K.B. 11 Ft. Above Perm. Datum

Drilling Measured From K.B.

Elev.: K.B. 4611 D.F. G.L. 4605

Date	2-25-69
Run No.	ONE
Depth - Driller	4035
Depth - Logger	4037
Btm. Log Interval	4036
Top Log Interval	257
Casing - Driller	8-5/8 @ 255
Casing - Logger	257
Bit Size	7-7/8
Type Fluid in Hole	GEL
Dens. / Visc.	10.7 / 66
pH / Fluid Loss	8.5 / 7.7 ml
Source of Sample	MUD PIT
R_m @ Meas. Temp.	6.71 @ 56 °F
R_mf @ Meas. Temp.	7.01 @ 61 °F
R_mc @ Meas. Temp.	@ °F
Source: R_mf / R_mc	-
R_m @ BHT	3.7 @ 170 °F
Time Since Circ.	4 HOURS
Max. Rec. Temp.	170 °F
Equip. / Location	1874 / FH
Recorded By	MILDERSON
Witnessed By	MR. POUNDSTONE

RECEIVED
SEP 12 1969
Nebraska Oil & Gas Cons. Commission

COMPANY TOM VESSELS

WELL PAUL HAMAKER NO. 1 (5-9)

FIELD WILDCAT

COUNTY DAWES STATE NEBRASKA

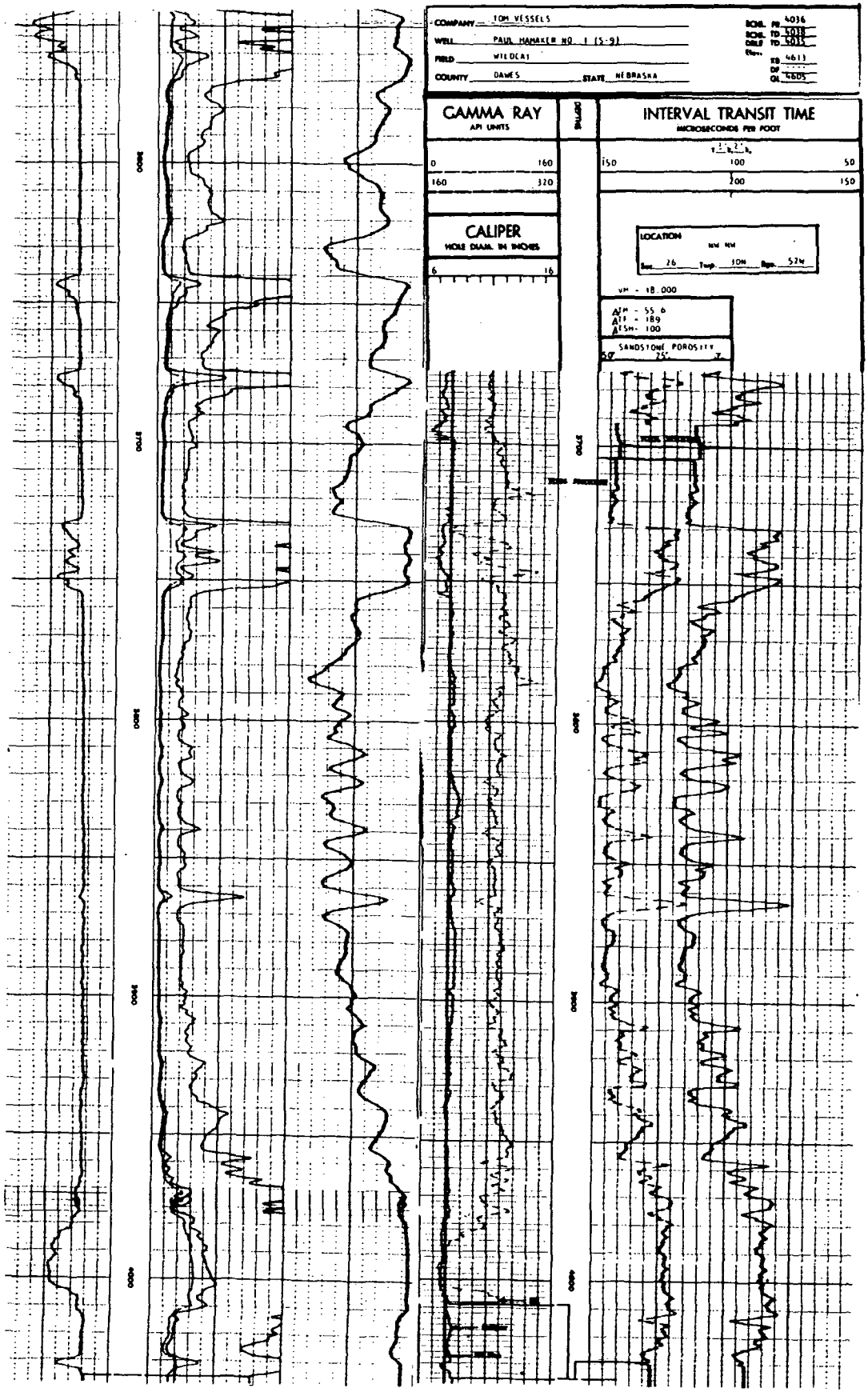
SCHL. No. -016
DATE 10-2-69
Elev. KB 4611 DF GL 4605

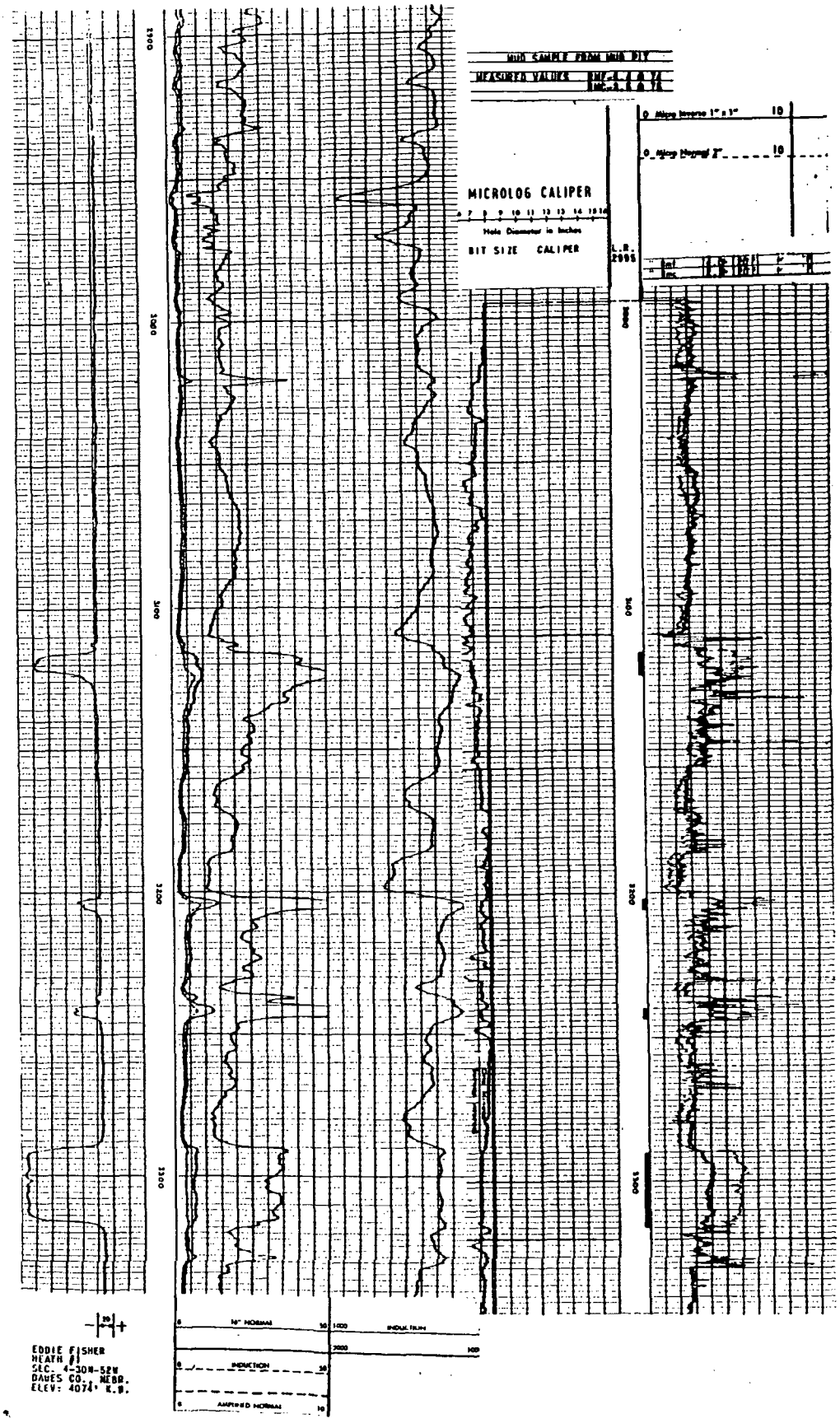
QUANTITATIVE ANALYSIS

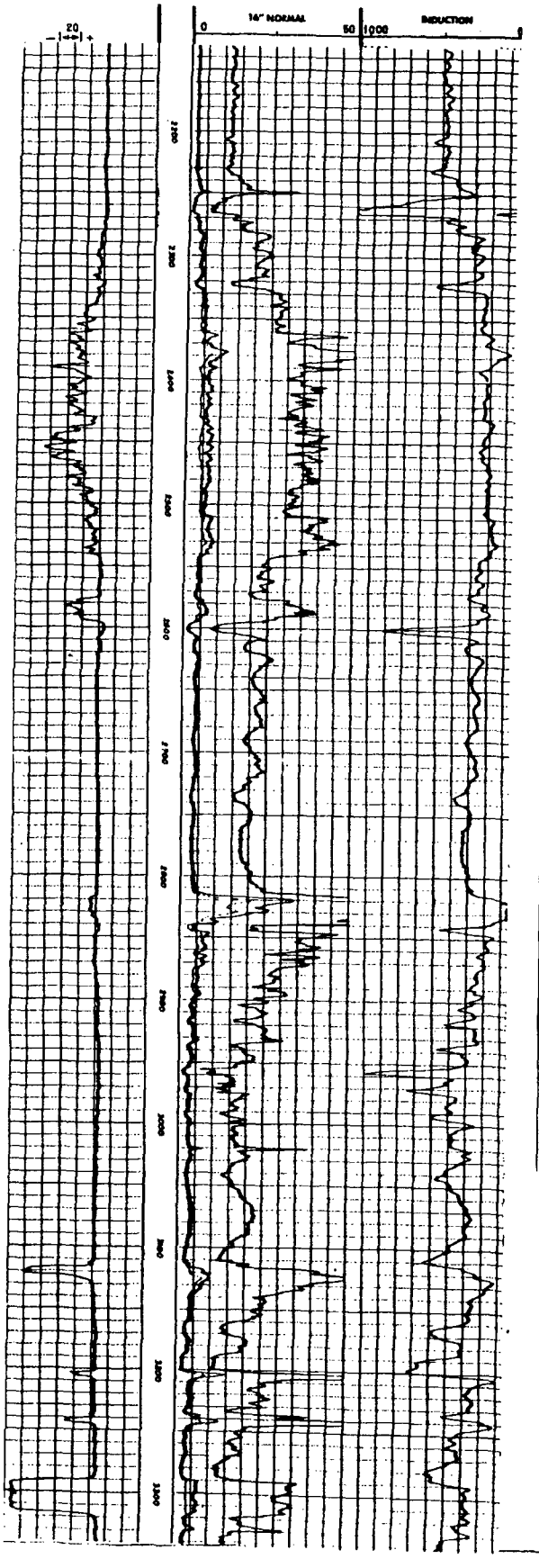
Below are tabulated some average values of porosity and water saturation calculated from field logs on this well. Since of interpretation are uncertain, based on laboratory tests and field or other measurements, we cannot and do not guarantee the accuracy or correctness of these values.

The pages from the Schlumberger Interpretation Chart Book which were used for these calculations are filed for your convenience.

ZONE	EFFECTIVE POROSITY φe %	WATER SATURATION Sw %	PERMEABILITY PERMEABILITY	FLUID USED (BHC Chart Book)
1546 to 1550	24	90		Rw = 3.3
1560 to 1561	17-20	90-100		Rw = 3.3
1641 to 1644	21	100		Rw = 6.5
1655 to 1660	18	100		Rw = 6.5
1710 to 1714	20	95		Rw = 6.3
1970 to 1973	20	100		Rw = 3.7
2984 to 4004	22-24	90-100	(small)	Rw = 0.7


COMPANY TOM VESSELS
WELL PAUL HAMAKER NO 1 (5-9)
FIELD WILDCAT
COUNTY DAWES
STATE NEBRASKA
GAMMA RAY
API UNITS
0
160
160
320
CALIPER
HOLE DIAM. IN INCHES
6
16
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
150
100
50
200
150
LOCATION
Sec. 26
Twp. 30N
Rge. 52W
SANDSTONE POROSITY
50
25
7
3800
3900
4000


MUD SAMPLE FROM MUD PIT
MEASURED VALUES
MICROLOG CALIPER
Hole Diameter in Inches
BIT SIZE CALIPER
L.R. 2995
3900
3800
3700
3600
3500
3400
3300
16" NORMAL
INDUCTION
AMPERED NORMAL
EDDIE FISHER
HEATH #1
SEC. 4-30N-52W
DAWES CO., NEBR.
ELEV: 4074' K.B.



LOG NO. 16997 IE

Distributed by Petroleum Information

COMPANY Eddie Fisher

WELL #1 Heath

FIELD Wildcat

LOC (P.I.) C NW NE 4 30N 52W

Dawes, Nebr.

P.I. COMPLETION INFORMATION

SCHLUMBERGER WELL SURVEYING CORPORATION

Induction Electrical Log

COMPANY EDDIE FISHER

WELL HEATH #1

FIELD WILDCAT

LOCATION NW NE SEC. 4-30N-52W

COUNTY DAWES

STATE NEBRASKA

Other Surveys NL

Location of Well

Elevation: D.F., K.B., 4074 or G.L. 4048

FILING No. 07/61

COUNTY DAWES
FIELD or LOCATION WILDCAT Sec. 4-30N-52W
WELL HEATH #1
COMPANY EDDIE FISHER

RUN No.	ONE			
Date	5-8-61			
Int. Reading	3300			
Int. Reading	3100			
Test Recovered	200			
Csg. Driller	3300			
Csg. Logger	3300			
Depth Reached	3300			
Bottom Driller	3300			
Depth Datum	KB			
Mud Mat.	CHEM. GEL			
Dens. / Vis.	10 / 100			
Mud Resist.	1.60 / 74			
Rm. Bht	1.40 / 100			
Rmf	1.40 / 100			
Rmc	1.40 / 85			
Rm@	0 / 0			
Ver. Loss	CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.
Bit Size	7 7/8"			
Spacing	4 in.			
Rig No.	10			
Hrs	27			

Run	Depth	Size	Type	Wt.	Thickness
1	3300	7	Steel	23	.317
2	3224	7	Steel	23	.317
3	3202	7	Steel	23	.317
4	3115	7	Steel	23	.317

Casing No. 1 2 3 4
Depth No. 3300 3224 3202 3115
Size No. 7 7 7 7
Type No. Steel Steel Steel Steel
Wt. No. 23 23 23 23
Thickness No. .317 .317 .317 .317

Run	Operating Permit A/P %	Water Resistivity R.W.	Formation Production	Phase Shift Corr. Chart
1	19	.100	Water	C-4; C-12; D-2
2	12	.90	Water	C-4; C-12; D-2
3	12	.90	Water	C-4; C-12; D-2
4	20-25	.100	Water	C-4; C-12; D-2

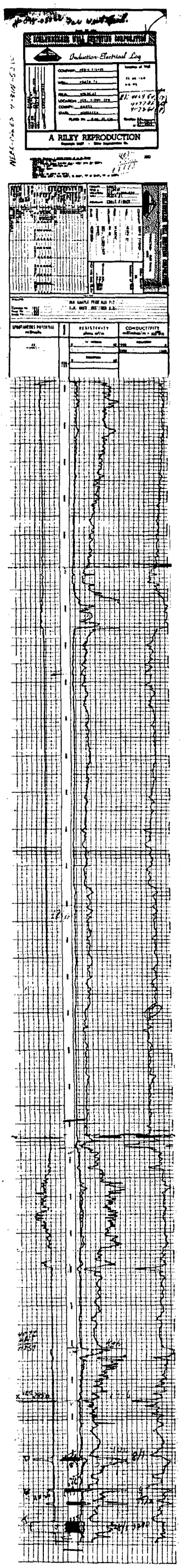
QUANTITATIVE ANALYSIS

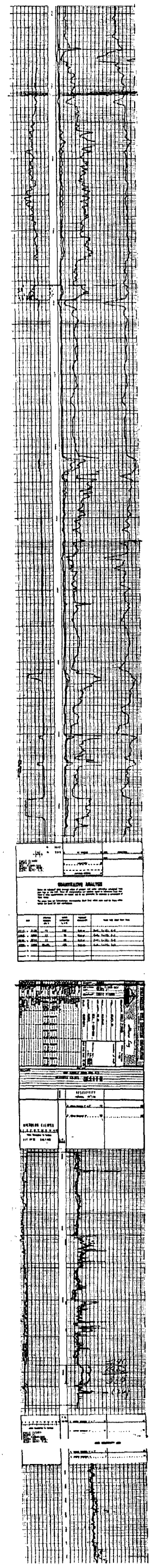
PETROLEUM INFORMATION

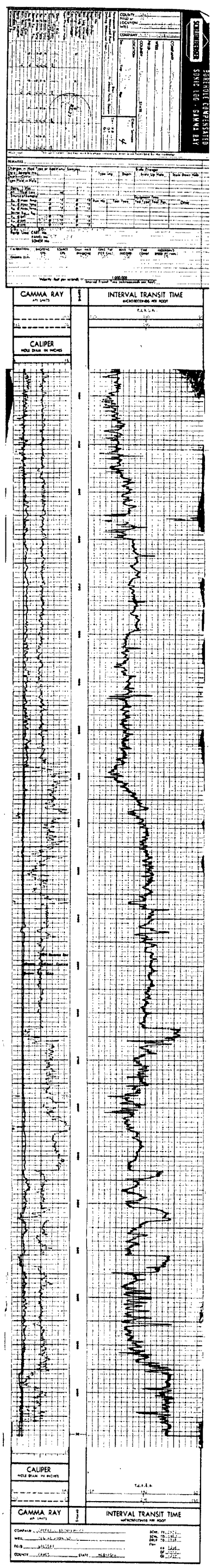
DENVER-JULESBURG BASIN
SPECIAL LOG

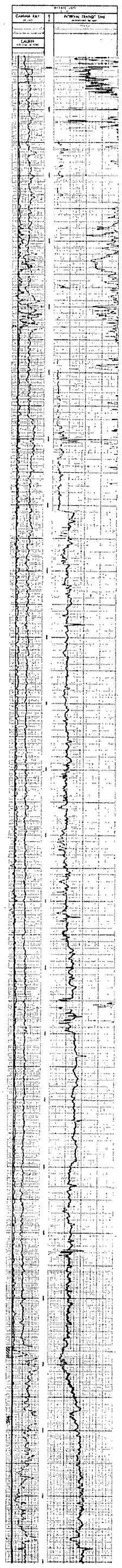
COPYRIGHT 1955

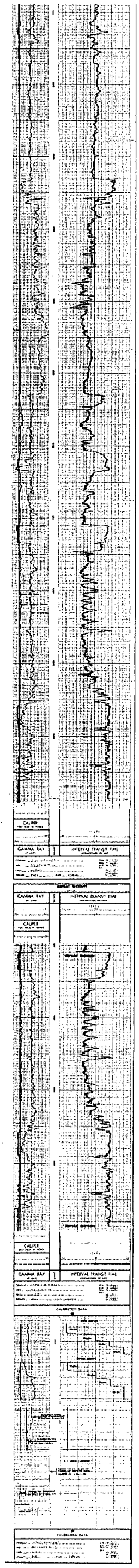
The reverse side of this log has the detail sand section and microlog and micro caliper when available.

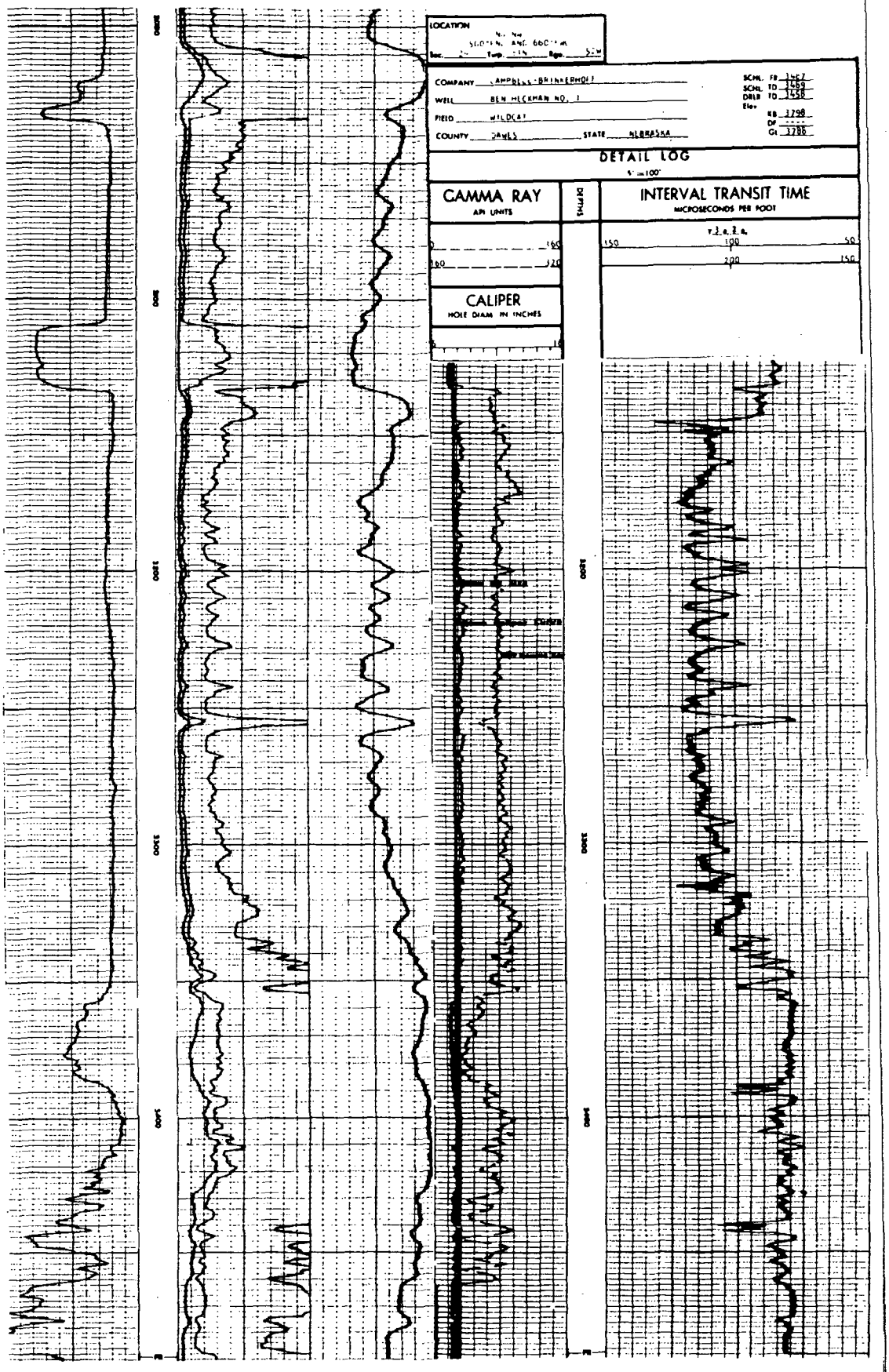

Induction-Electrical Log
A RILEY REPRODUCTION
SPONTANEOUS POTENTIAL
RESISTIVITY
CONDUCTIVITY

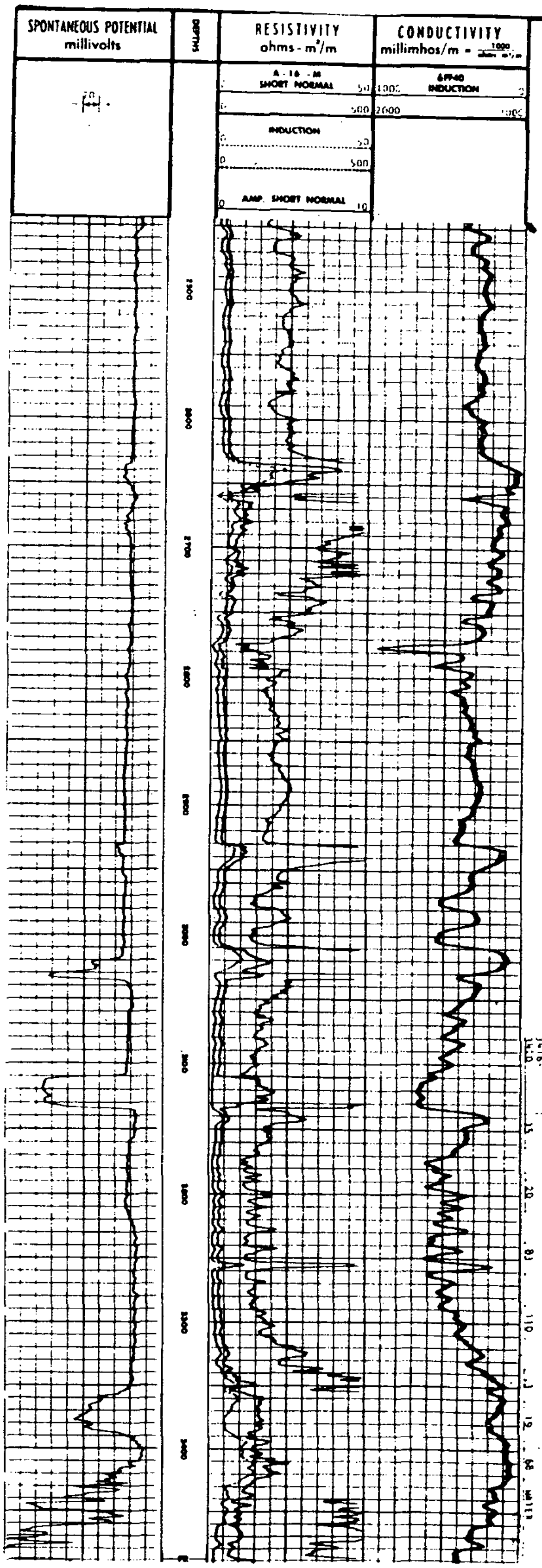

QUANTITATIVE ANALYSIS
CALIPER


SCHLUMBERGER
BOREHOLE COMPENSATED
SONIC LOG - GAMMA RAY
CAMMA RAY
INTERVAL TRANSIT TIME
CALIPER
HOLE DIAM IN INCHES
COMPANY
WELL
FIELD
COUNTY
STATE


CAMMA RAY
INTERVAL TRANSIT TIME
CALIPER


CALIPER
CAMMA RAY
INTERVAL TRANSIT TIME
CALIBRATION DATA


LOCATION
COMPANY CAMPBELL-BRINKERHOFF
WELL BEN HECKMAN NO. 1
FIELD WILDCAT
COUNTY DAWES STATE NEBRASKA
SCHL. FB 1467
SCHL. TD 1469
DRLR TD 1458
Elev.
KB 3798
DF
GL 3788
DETAIL LOG
5" = 100'
GAMMA RAY
API UNITS
DEPTHS
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
CALIPER
HOLE DIAM IN INCHES



ABRIDGE-A-LOG

ROCKY MOUNTAIN WELL LOG SERVICE

ORD. REF. # K5445H

ELSI

SCHLUMBERGER INDUCTION ELECTRICAL LOG

COMPANY: CAMPBELL-BRINKERHOFF
WELL: BEN HECKMAN NO. 1
FIELD: WILDCAT
COUNTY: DAWES STATE: NEBRASKA
LOCATION: NW NW 500 FNL AND 660 FWL
Sec. 26 Twp. 33N Rge. 52W
Other Services: BHC-GR

Permanent Datum: G.L., Elev. 3768
Log Measured From K.B. 10 Ft. Above Perm. Datum
Drilling Measured From K.B.
Elev.: K.B. 3798 D.F. ---- G.L. 3788

Date	8-17-69
Run No.	ONE
Depth—Driller	3458
Depth—Logger	3490
Btm. Log Interval	3489
Top Log Interval	118
Casing—Driller	8 5/8 @ 118
Casing—Logger	118
Bit Size	7 7/8
Type Fluid in Hole	FGM
Dens. / Visc.	9.6 / 36
pH / Fluid Loss	9.0 / 7.2 ml
Source of Sample	FLOW LINE
R_m @ Meas. Temp.	2.44 @ 79°F
R_{mf} @ Meas. Temp.	3.20 @ 79°F
R_{mc} @ Meas. Temp.	--- @ --- °F
Source: R_{mf} / R_{mc}	M / ---
R_m @ BHT	1.97 @ 118°F
Time Since Circ.	2 HOURS
Max. Rec. Temp.	118 °F
Equip. / Location	5617 / ALL
Recorded By	CARLING
Witnessed By	MR. CAMPBELL

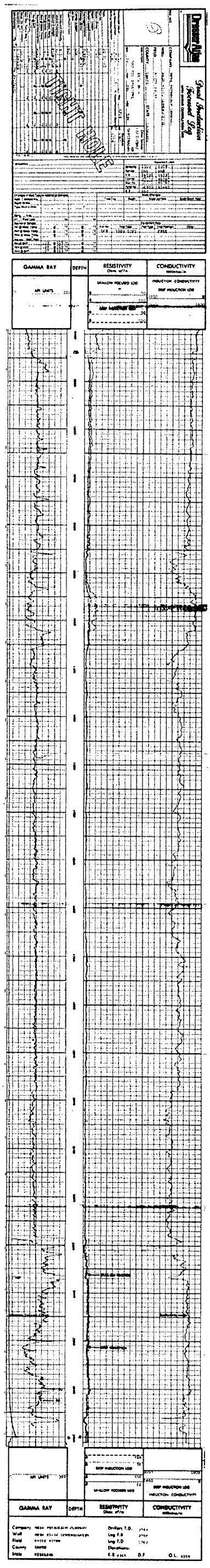
RECEIVED
OCT 17 1969
Nebraska Oil & Gas Cons. Commission

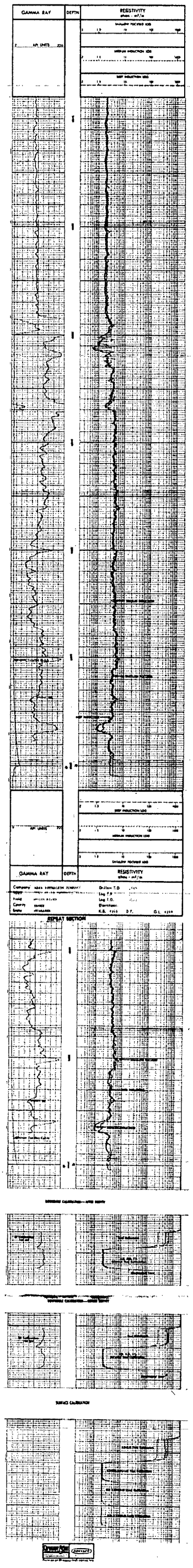
COMPANY: CAMPBELL-BRINKERHOFF
WELL: BEN HECKMAN NO. 1
FIELD: WILDCAT
COUNTY: DAWES STATE: NEBRASKA
SCHL. FL 1489
SCHL. TD 1490
DRLR. TD 3458
Elev.: KB 3798 DF ---- GL 3788

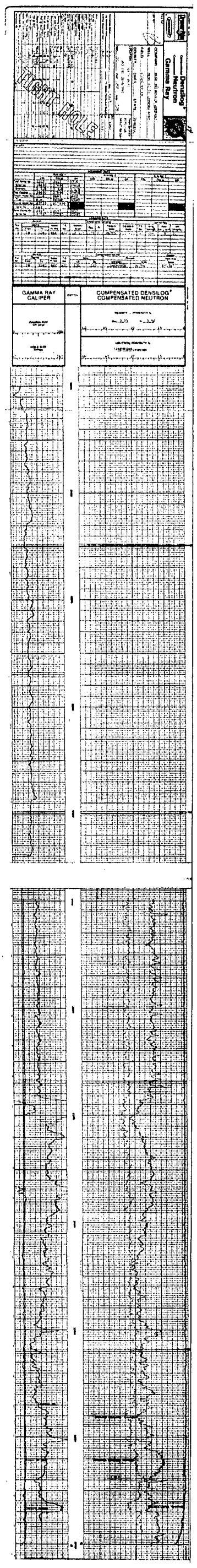
Log Analysis

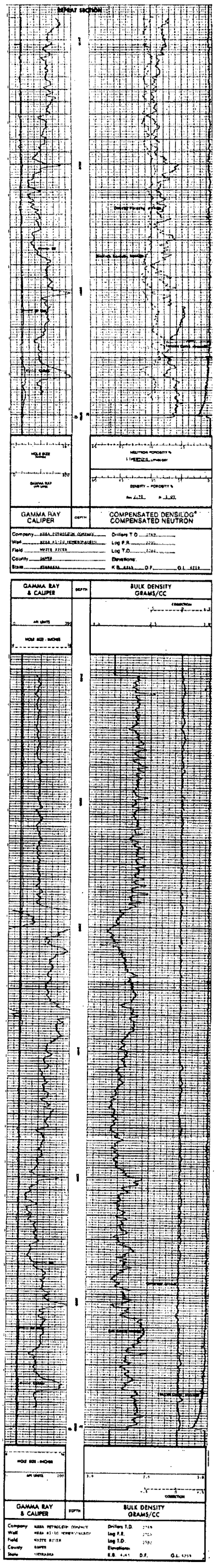
CAMPBELL-BRINKERHOFF — BEN HECKMAN NO. 1
WILDCAT — DAWES — NEBRASKA

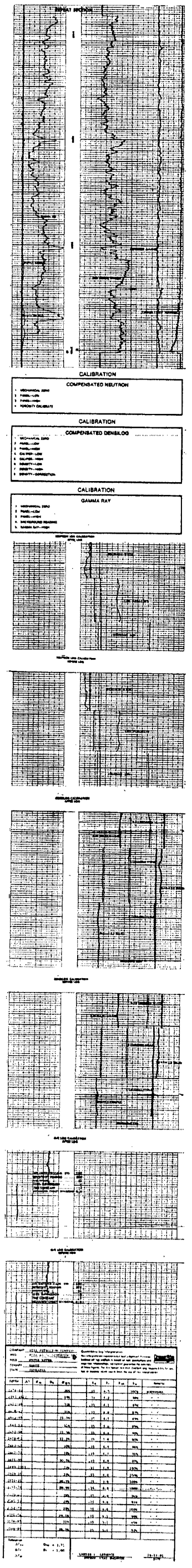
DEPTH	R6FF40	R16	ΔT	ΔTSH	Rw	% POROSITY	% WATER	REMARKS
2931-2940	7	11	87	110	.5	22	100	WATER
3010-3020	9	13	87	110	.5	22	100	WATER
3010-3014	8	17	83	110	.5	19	100	WATER
3017-3035	3	16	81	110	.5	17.5	100	WATER
3104-3113	2	17	82	110	.5	18	100	WATER
[illegible]	2	12	77	110	.3	15	100	WATER
[illegible]-3153	5	7	80	110	.3	17	87	WATER
3155-3157	8	12	87	110	.3	21.5	75	WATER
3166-3188	6	16	80	110	.3	17	100	WATER
3191-3196	13	12	77	110	.3	15	95	WATER
3408-3410	16	18	77	110	.3	15	78	WATER
3410-3414	14	20	80	110	.3	17	80	WATER
3414-3416	14	17	83	110	.3	19	72	WATER
3416-[illegible]	15	20	83	110	.3	19	68	WATER


Dresser Atlas
Dual Induction Focused Log
GAMMA RAY
DEPTH
RESISTIVITY
CONDUCTIVITY
API UNITS
SHALLOW FOCUSED LOG
DEEP INDUCTION LOG
INDUCTION CONDUCTIVITY
Company
Well
Field
County
State
Drillers T.D.
Log T.D.
Elevations:
K.B.
D.F.
G.L.


GAMMA RAY
DEPTH
RESISTIVITY
API UNITS
DEEP INDUCTION LOG
MEDIUM INDUCTION LOG
SHALLOW FOCUSED LOG
Company
Drillers T.D.
Log T.D.
Elevations:
K.B.
D.F.
G.L.
REPEAT SECTION
SURFACE CALIBRATION


Densilog
Neutron
Gamma Ray
GAMMA RAY
CALIPER
DEPTH
COMPENSATED DENSILOG
COMPENSATED NEUTRON


REPEAT SECTION
HOLE SIZE
GAMMA RAY
CALIPER
DEPTH
COMPENSATED DENSILOG
COMPENSATED NEUTRON
Company
Well
Field
County
State
Drillers T.D.
Log F.R.
Log T.D.
Elevations
K.B.
D.F.
G.L.
GAMMA RAY
& CALIPER
BULK DENSITY
GRAMS/CC


REPEAT SECTION
CALIBRATION
COMPENSATED NEUTRON
CALIBRATION
COMPENSATED DENSILOG
CALIBRATION
GAMMA RAY

Dresser Atlas

Spectralog

COMPANY	NESA PETROLEUM COMPANY
WELL	NESA #1-10 HOMERGHAUSEN
FIELD	WHITE RIVER
COUNTY	DAWES
STATE	NEBRASKA
LOCATION	SEC 10 TWP 30N RGE 52W

Equipment Used	
Series No	2704
Plug No	ONE
BO	18533
Tube No	385
Det No	385
Panel No	2771

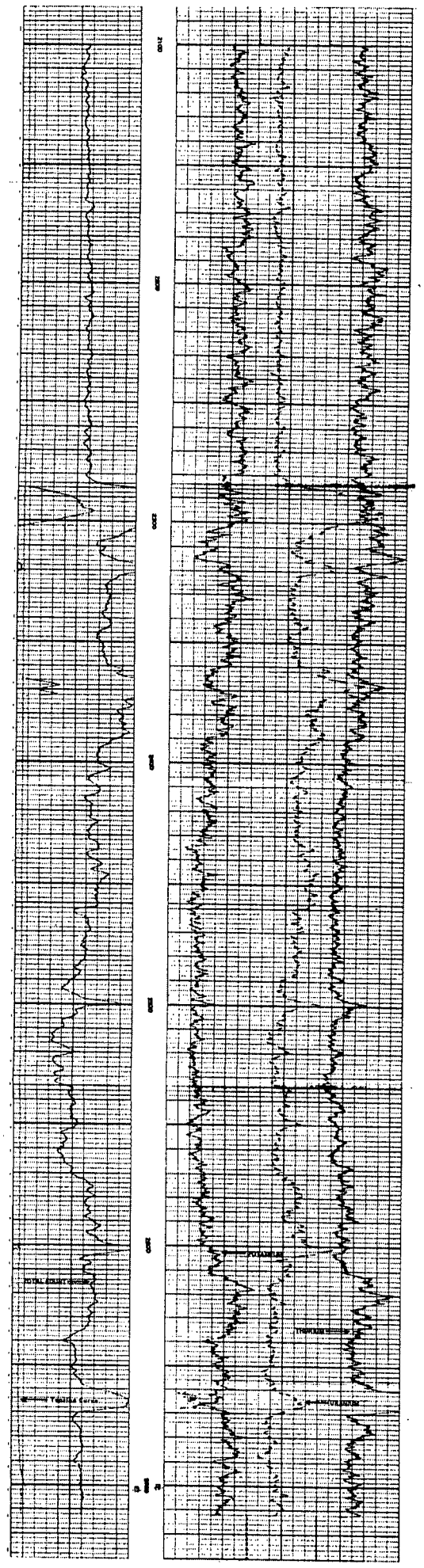
REMARKS

Equipment Data				Original Ranges							
Run No	ONE		Run No	Log	Lower Limit MEV	Lower Limit Ch No	Upper Limit MEV	Upper Limit Ch No
Total Model No	2704			Total	.04	034	1.33	377
Drum	1 5/8			K	1.28	1.6	1.55	161
Detect Model No	0202			U	1.57	161	1.90	211
Type	BC12F2			Th	2.42	261	2.89	323
Length	48			Total				
Det Tube Source				K				
	General			U				
Hand Truth No	111-9180			Th				
Net Truth No	111-8180							
Total Serial No	195							

Logging Data

General						Sensitivity Settings					
Run No	Depths From	Depths To	Speed F/Min	Total	T.C. Sec	Potassium	T.C. Sec	Uranium	T.C. Sec	Thorium	T.C. Sec
1	TD	2100	REC	154	0	1880	8	2120	8	7970	8

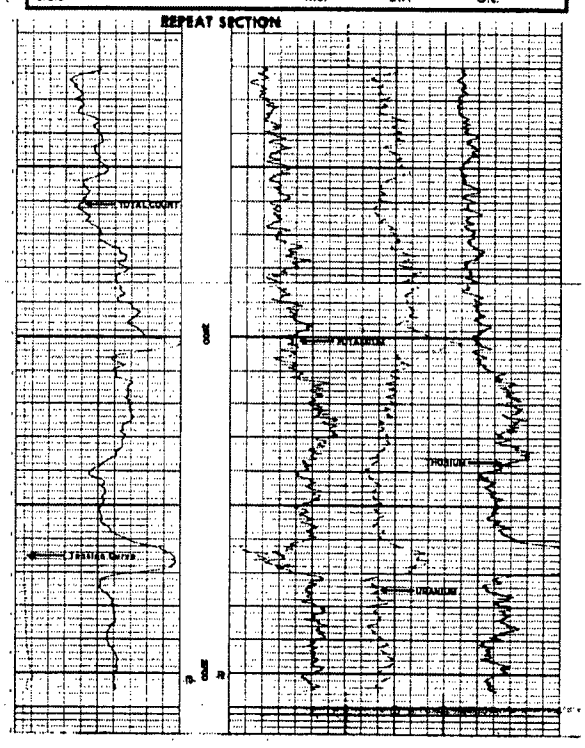
TOTAL COUNTS	DEPTH	COUNTS PER MINUTE
0 CPM 200		Potassium .75%/CD Uranium 5PPM/CD Thorium 5 PPM/CD



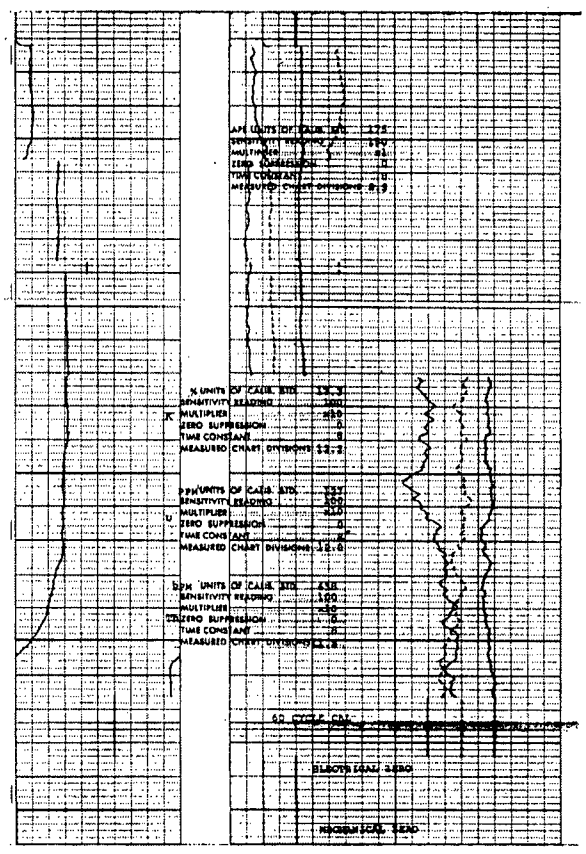
TOTAL COUNTS	DEPTH	COUNTS PER MINUTE
0 CPM 200		Thorium 5 PPM/CD Uranium 5 PPM/CD Potassium .75%/CD

Company	NESA PETROLEUM COMPANY	Drillers T.D.	2749
Well	NESA #1-10 HOMERGHAUSEN	Log F.R.	2701
Field	WHITE RIVER	Log T.D.	2702
County	DAWES	Elevations:	
State	NEBRASKA	K.B. 4265 D.F.	G.L. 4259

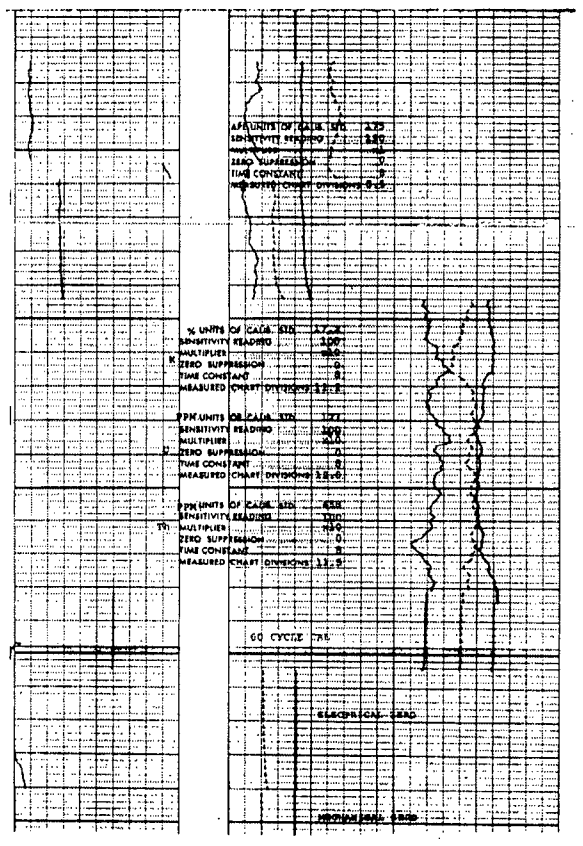
REPEAT SECTION

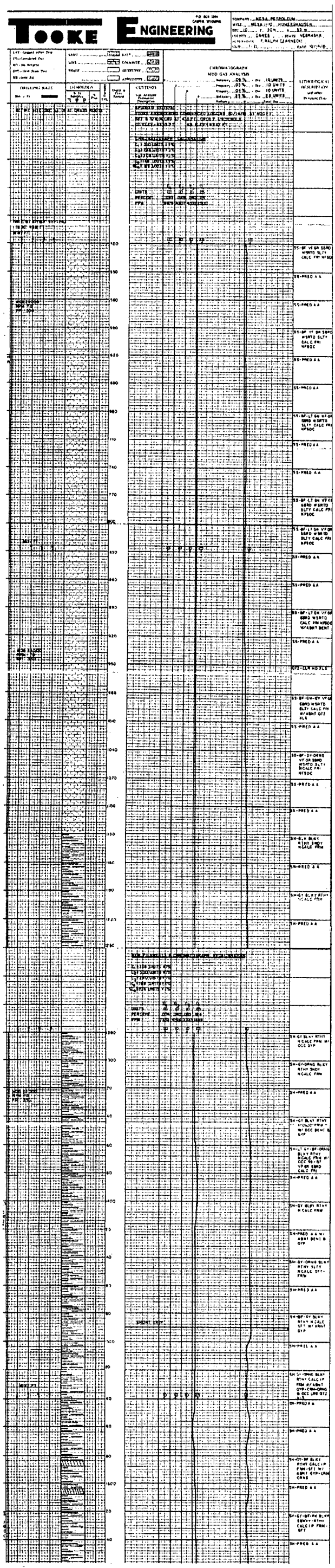


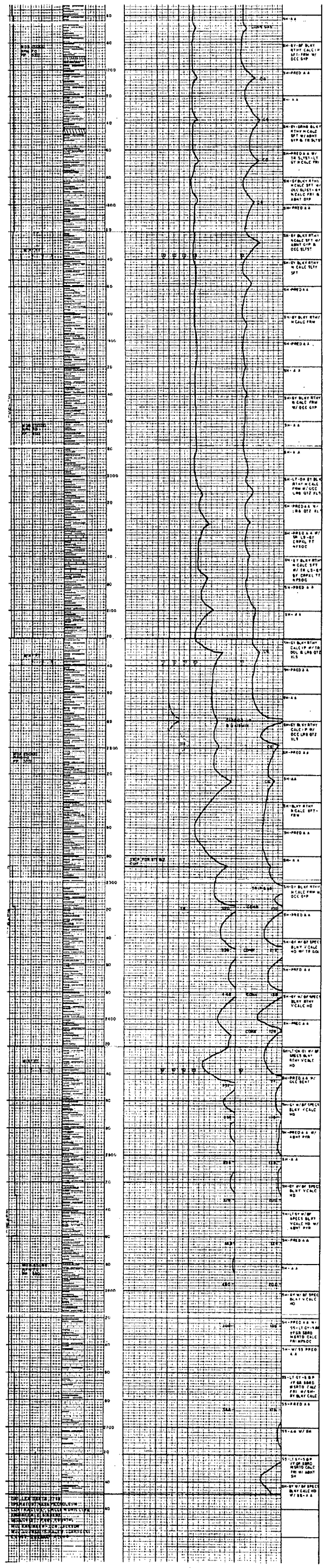
CALIBRATION—BEFORE SURVEY

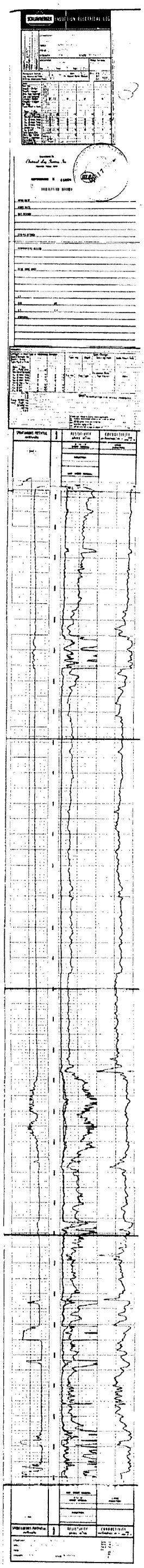


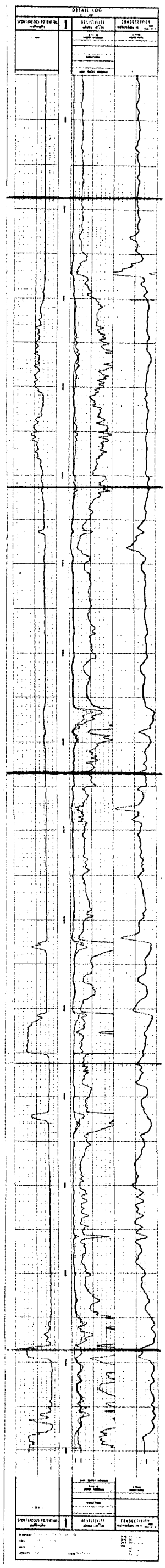
CALIBRATION—AFTER SURVEY

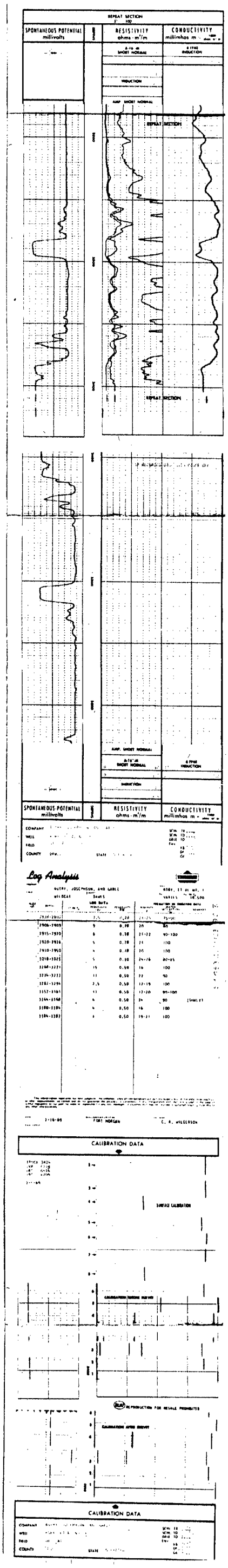


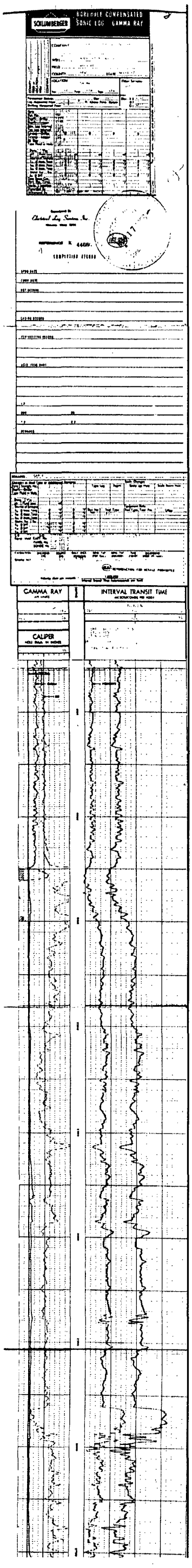

TOOKE ENGINEERING
CHEYENNE, WYOMING
COMPANY MESA PETROLEUM
WELL MESA 1-10 HOMERSHAUSEN
COUNTY DAWES STATE NEBRASKA
ENGINEER F. RALPH CLARNECKI
DATE 10/14/8
DRILLING RATE
LITHOLOGY
CUTTINGS
CHROMATOGRAPH
MUD GAS ANALYSIS
LITHOLOGICAL DESCRIPTION

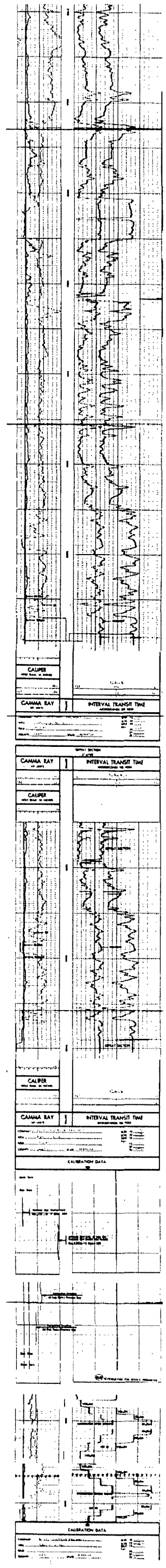


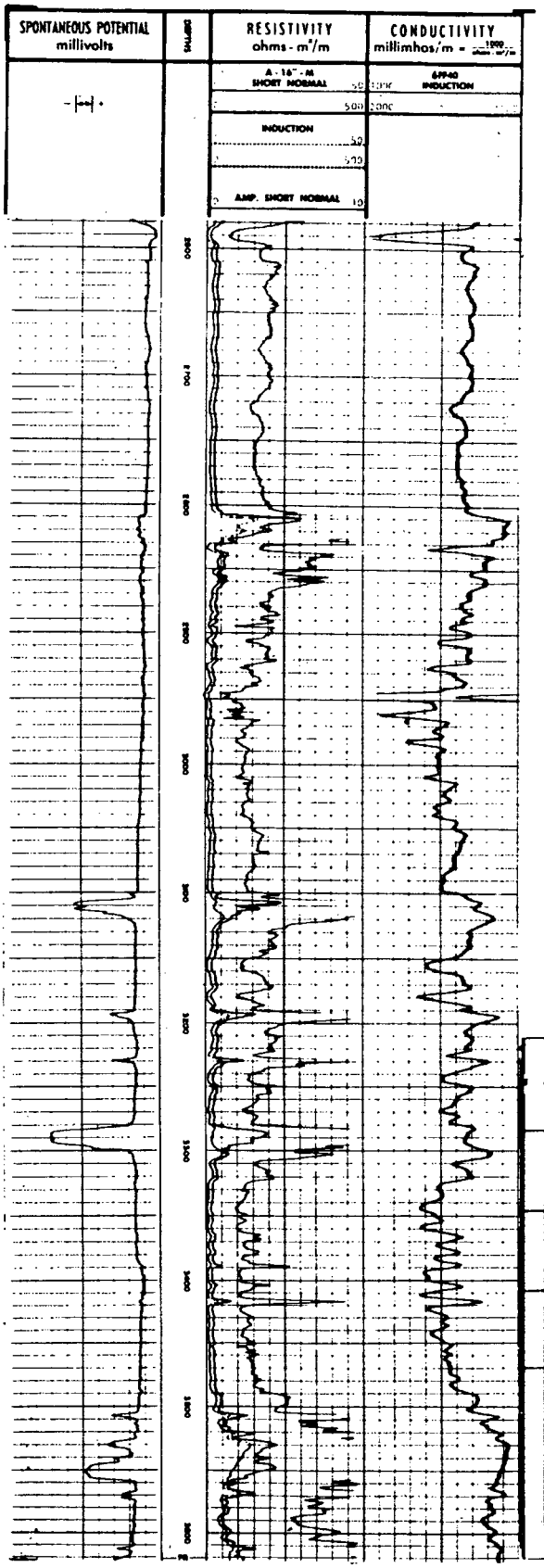

SCHLUMBERGER
SPONTANEOUS POTENTIAL
RESISTIVITY
CONDUCTIVITY


DETAIL LOG
SPONTANEOUS POTENTIAL
RESISTIVITY
CONDUCTIVITY


REPEAT SECTION
SPONTANEOUS POTENTIAL
millivolts
RESISTIVITY
ohms · m²/m
CONDUCTIVITY
millimhos m
SHORT NORMAL
INDUCTION
COMPANY
WELL
FIELD
COUNTY
STATE
Log Analysis
CALIBRATION DATA
SURFACE CALIBRATION
CALIBRATION DATA


SCHLUMBERGER
GAMMA RAY
CAMMA RAY
INTERVAL TRANSIT TIME
CALIPER


CALIPER
CAMMA RAY
INTERVAL TRANSIT TIME
CALIBRATION DATA



ABRIDGE-A-LOG

ROCKY MOUNTAIN WELL LOG SERVICE

ORD. REF. # K 5445L

ELSI

SCHLUMBERGER INDUCTION ELECTRICAL LOG

COMPANY: G. S. CAMPBELL-BRINKERHOFF
WELL: RALPH C. SIKORSKI NO. 1
FIELD: WILDCAT
COUNTY: DAWES STATE: NEBRASKA

LOCATION: NW NW 500' FNL AND 660' FWL
Sec. 10 Twp. 20N Rge. 52W

Other Services: BHC-GR

Permanent Datum: Elev. 4176
Log Measured From: 10 Ft. Above Perm. Datum
Drilling Measured From:

Elev.: K.B. 4186 D.F. G.L. 4176

Date			
Run No.	ONE		
Depth-Driller			
Depth-Logger			
Btm. Log Interval			
Top Log Interval			
Casing-Driller	8 5/8 @ 416		
Casing-Logger			
Bit Size			
Type Fluid in Hole			
Dens. / Visc.			
pH / Fluid Loss	8.5 / 9.6 ml	ml	ml
Source of Sample			
Rm @ Meas. Temp.	°F	°F	°F
Rmf @ Meas. Temp.	°F	°F	°F
Rmc @ Meas. Temp.	°F	°F	°F
Source Rmf / Rmc			
Rm @ BHT	°F	°F	°F
Time Since Circ.			
Max. Rec. Temp.	°F	°F	
Equip. Location			
Recorded By			
Witnessed By			

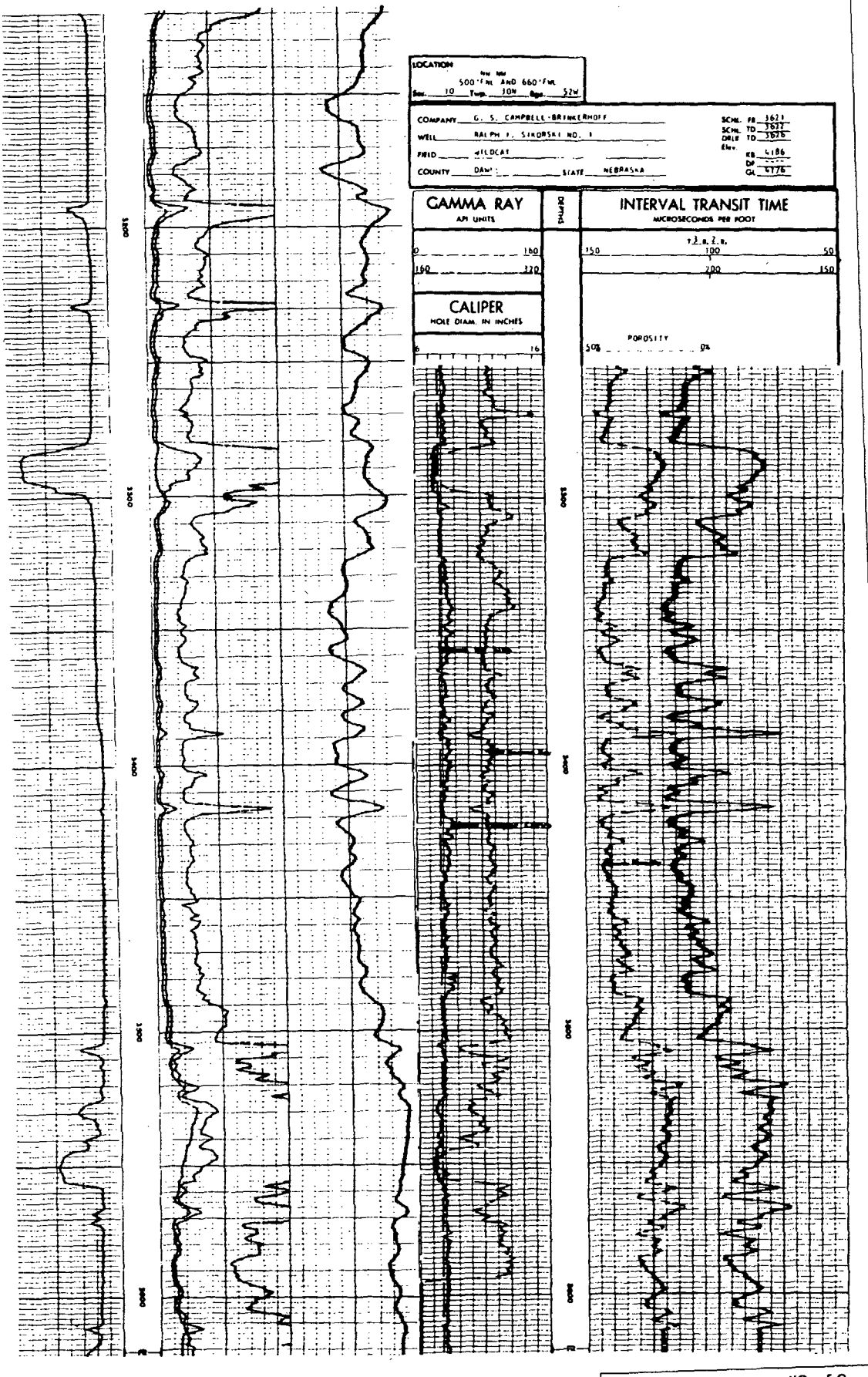
RECEIVED
OCT 17 1969
Nebraska Oil & Gas
Cons. Commission

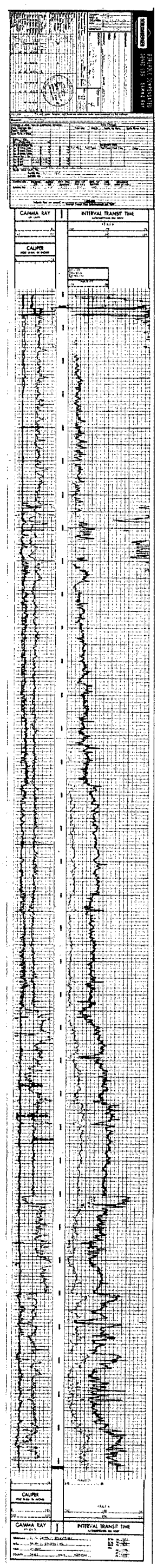
COMPANY: G. S. CAMPBELL-BRINKERHOFF
WELL: RALPH C. SIKORSKI NO. 1
FIELD: WILDCAT
COUNTY: DAWES STATE: NEBRASKA

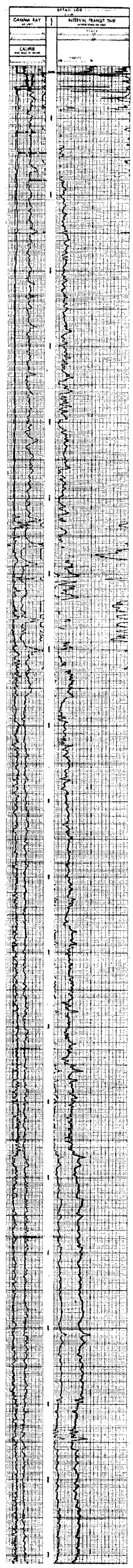
KOP TO 1671
KOP TO 1671
DRLR TD 1676
Rmf 4186
Rmc 4176
Rm 4176

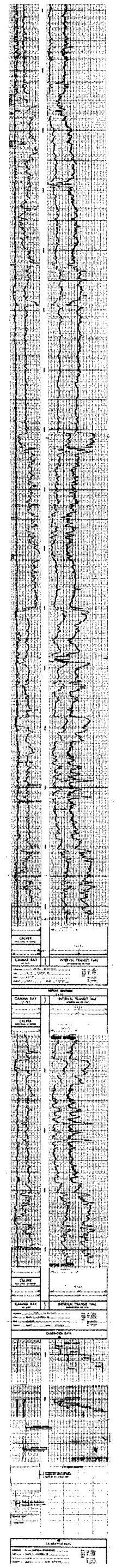
QUANTITATIVE ANALYSIS

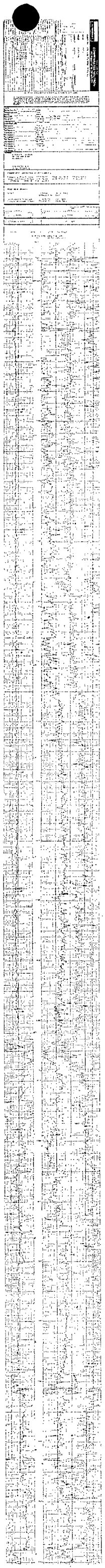
ZONE	EFFECTIVE POROSITY ϕ_e %	WATER SATURATION S_w %	PROBABLE PRODUCTION	PAGES NOTED (SEPIA Chart Book)
846 - 856	40	72	water	Rw=2.0 VERY SHALLY
856 - 869	40	80	water	Rw=2.0 VERY SHALLY
869 - 888	40	96	water	Rw=2.0 VERY SHALLY
888 - 1110	40	80	water	Rw=2.0 VERY SHALLY
1110 - 1116	23	100	water	Rw=.45
1191 - 1195	20	95	water	Rw=.45
1195 - 1241	15	90	water	Rw=.45
1241 - 1290	20	90	water	Rw=.45
1290 - 1340	[illegible]	85	water	Rw=.4
1340 - 1360	[illegible]	78	water	Rw=.4 SHALLY
1360 - 1508	19	120	water	Rw=.35
1508 - 1518	15	100	water	Rw=.35
1518 - 1522	15	100	water	Rw=.35
1522 - 1526	17	65	water	Rw=.35
1526 - 1551	20	72	water	Rw=.35
1551 - 1565	20	75	water	Rw=.35
1565 - 1570	14	100	water	Rw=.35

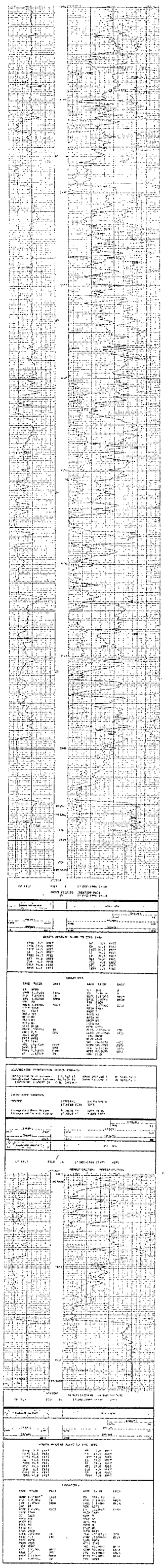

LOCATION
NW NW
500' FNL AND 660' FWL
Sec. 10 Twp. 30N Rge. 52W
COMPANY G. S. CAMPBELL-BRINKERHOFF
WELL RALPH F. SIKORSKI NO. 1
FIELD WILDCAT
COUNTY DAWES STATE NEBRASKA
SCHL. PB 3621
SCHL. TD 3622
DRLR TD 3626
Elev.
KB 4186
DF
GL 4176
GAMMA RAY
API UNITS
0 160
160 220
CALIPER
HOLE DIAM. IN INCHES
6 16
DEPTHS
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
150 100 50
200 150
POROSITY
50% 0%
3500
3600
3700
3800
3900
4000

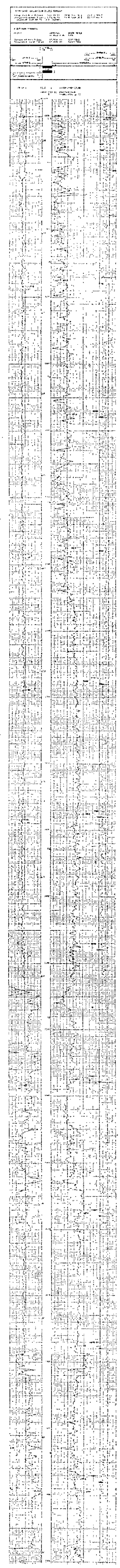

GAMMA RAY
INTERVAL TRANSIT TIME
CALIPER

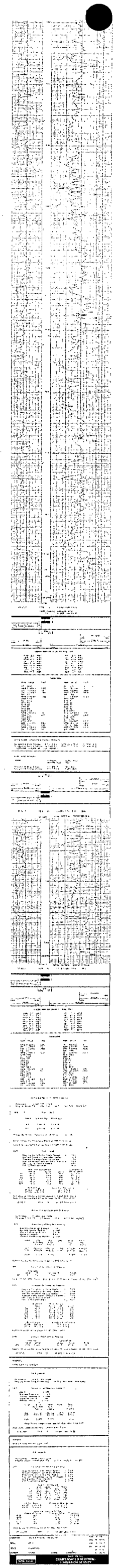

GAMMA RAY
INTERVAL TRANSIT TIME
CALIPER

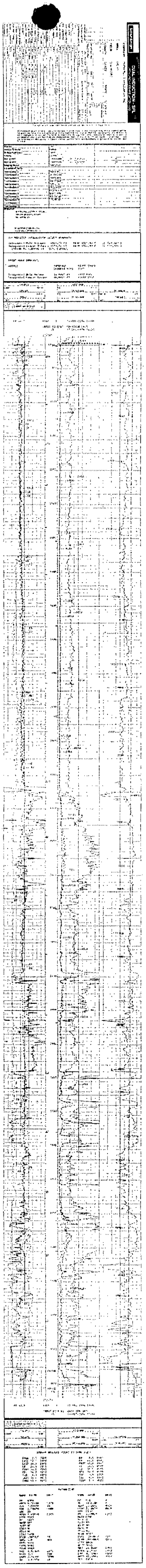

CALIPER
GAMMA RAY
INTERVAL TRANSIT TIME

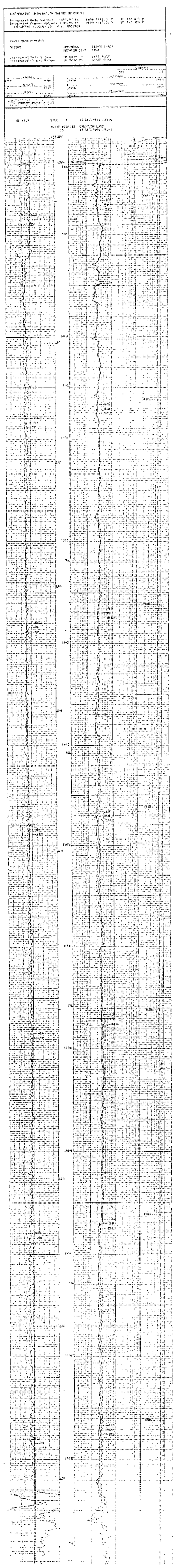


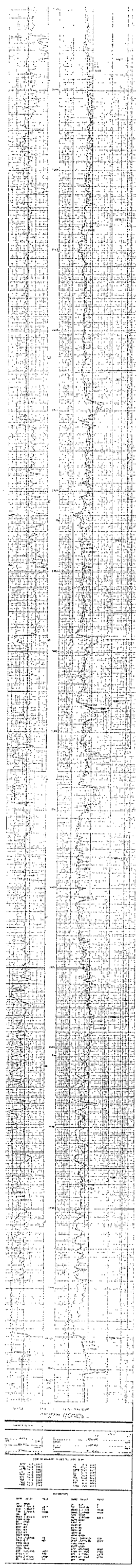


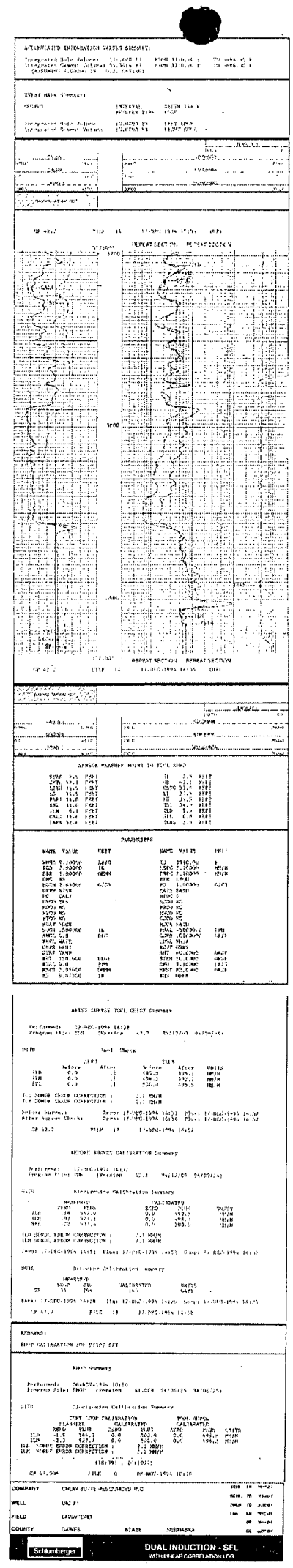




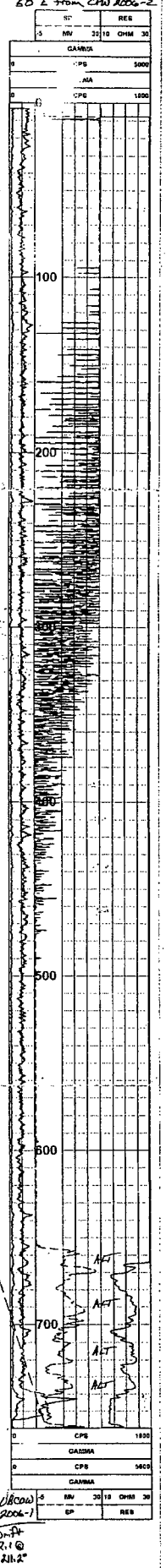







Schlumberger
DUAL INDUCTION - SFL
WITH LINEAR CORRELATION LOG
COMPANY CROW BUTTE RESOURCES INC
WELL UIC #1
FIELD CROWFORD
COUNTY DAWES
STATE NEBRASKA

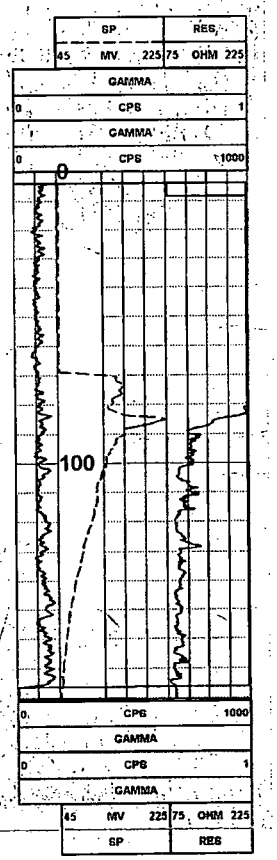
UPCOW 2006-1
3915
Sec 27 SWNE SW 5 2 W
60' E from CPW 2006-2

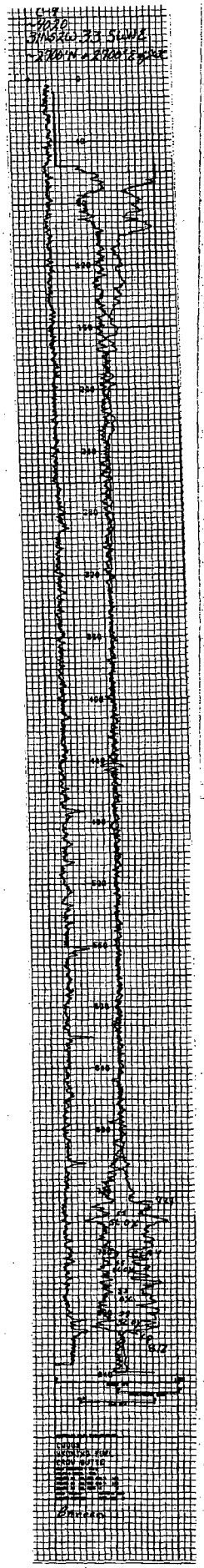


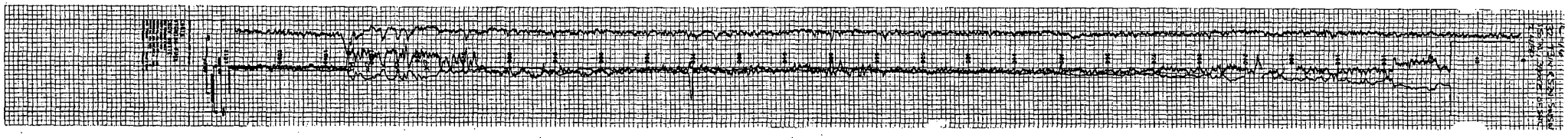
UPCOW
2006-1

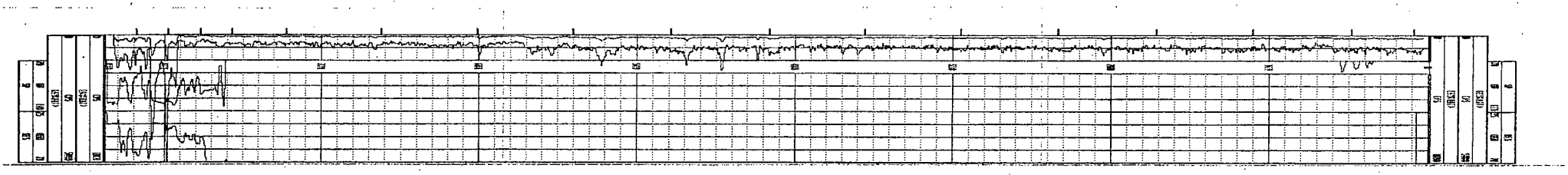
Drill
2:10
2h:2"

Bow-2008-2A

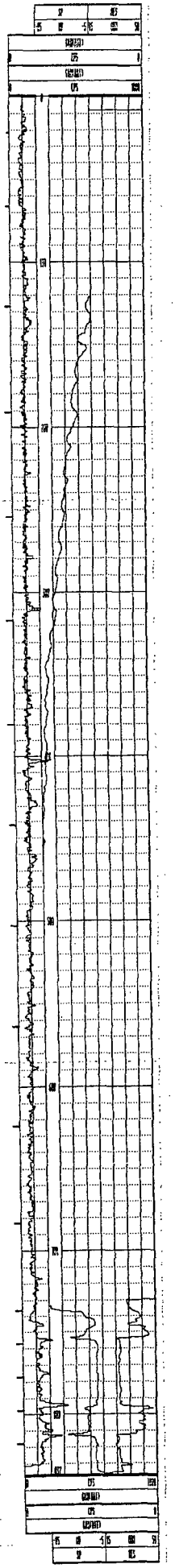

SP
RES
45 MV 225
75 OHM 225
GAMMA
0 CPS 1
GAMMA
0 CPS 1000
0
100
0 CPS 1000
GAMMA
0 CPS 1
GAMMA
45 MV 225
75 OHM 225
SP
RES



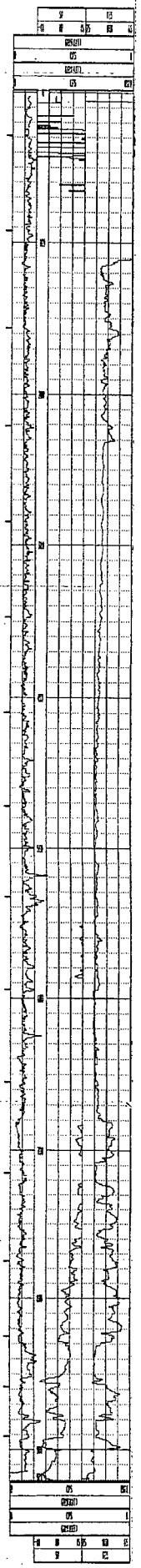




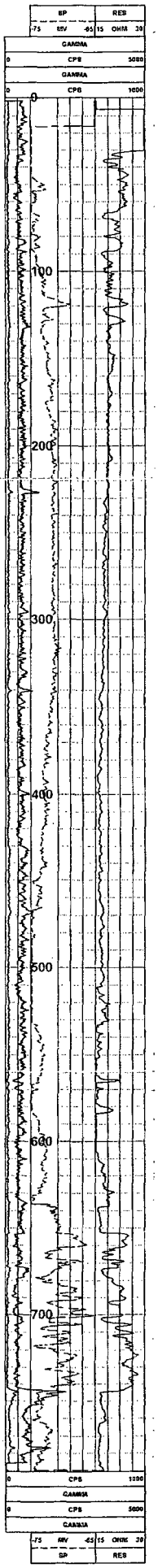
CDW2006-3



CBW-2006-5



PW-2006-1

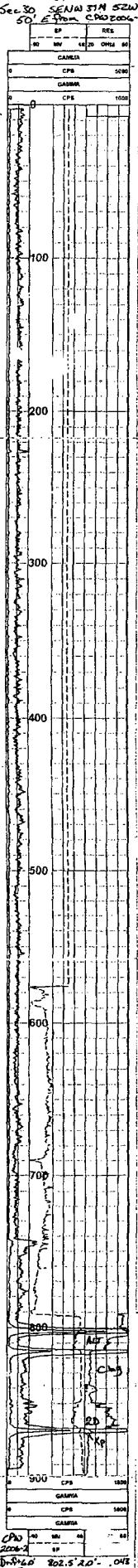

SP
RES
-75 mV -45
15 OHM 30
GAMMA
0 CPS 5000
GAMMA
0 CPS 1000
0
100
200
300
400
500
600
700
0 CPS 1000
GAMMA
0 CPS 5000
GAMMA
-75 mV -45
15 OHM 30
SP
RES

CPW-2006-2

3915

Sec 30 SENW 31N 52W

50' E from CPW2006-

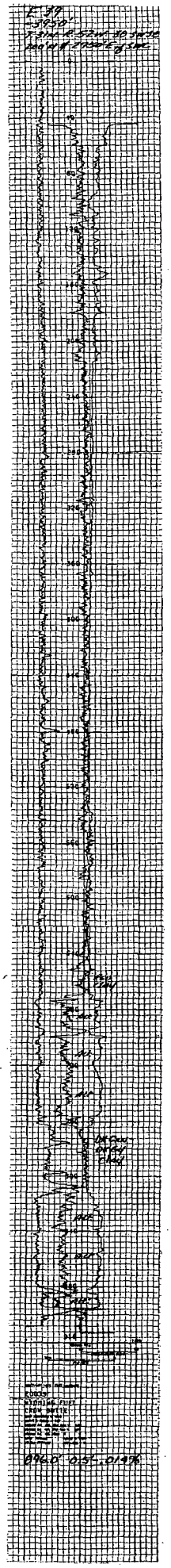


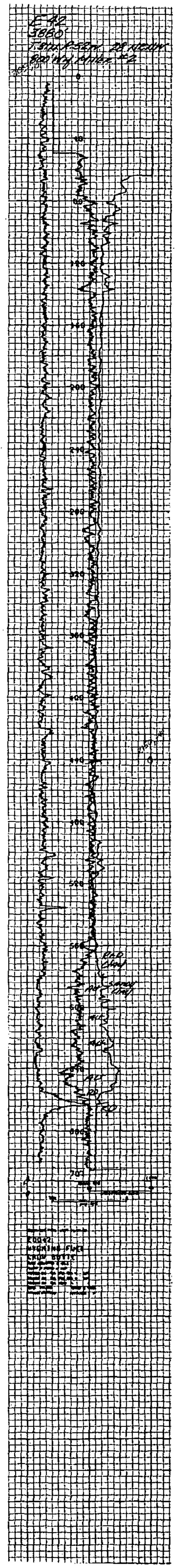
Drilled 60 SE

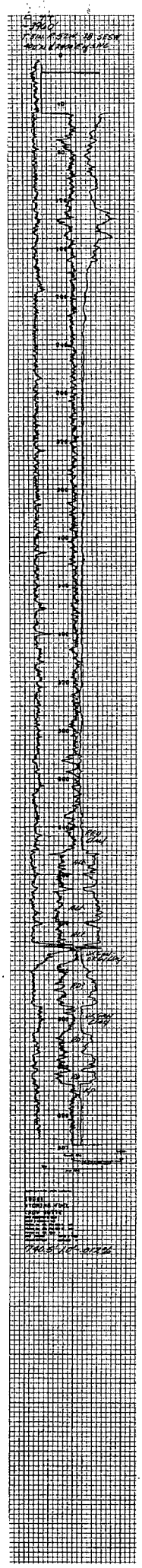
802.5 2.0 - .042

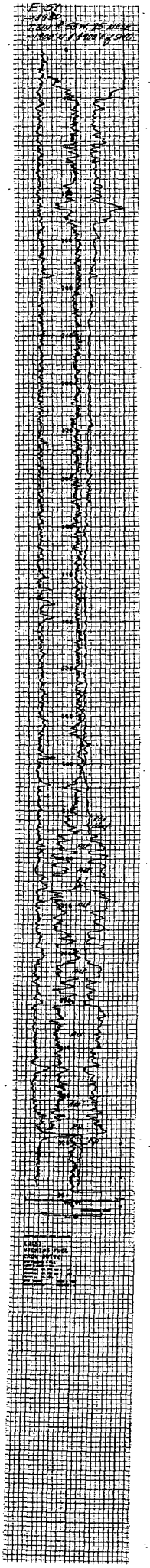
815.5 2.0 - .019

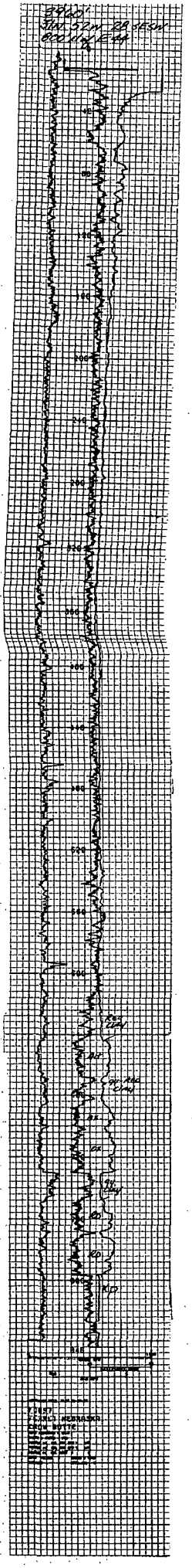
867.5 2.0 - .025


0960 0.5 .01%


E 42
3880'

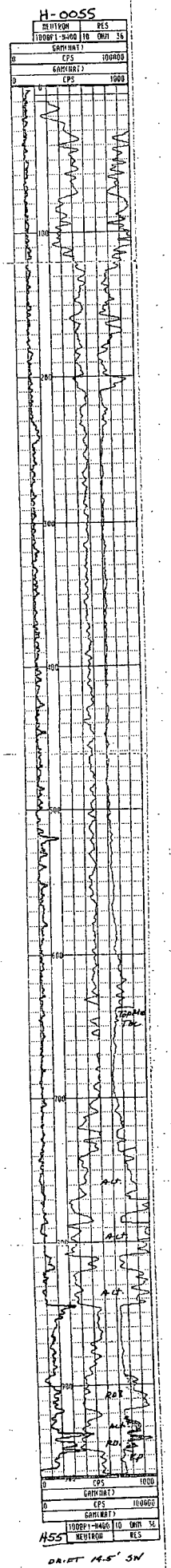






31N-52W 29 SWSW
200' E of G79

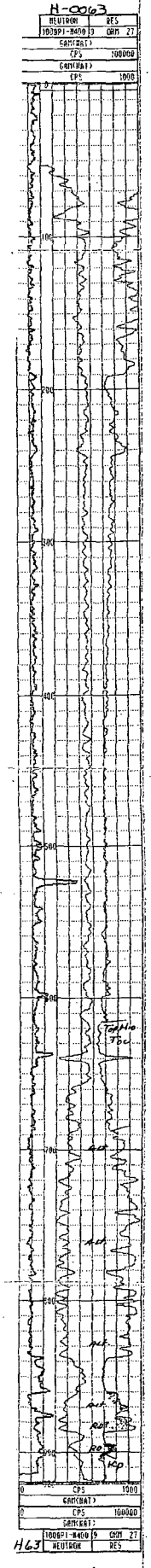
H-0055



DRIFT 14.5' SW

300' E of H61

H-0063

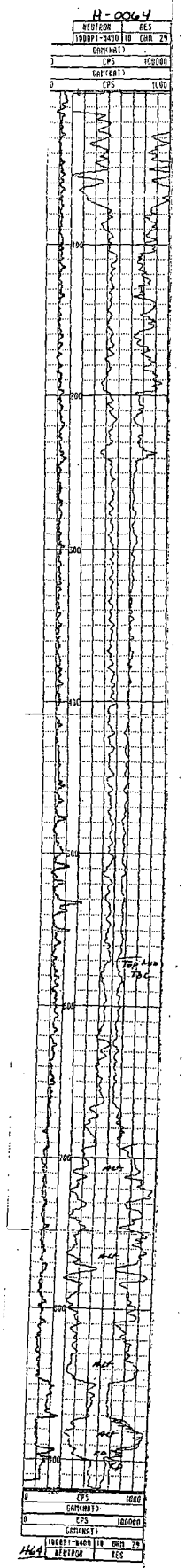


H63

DRIFT 5.7' SE

H64
4000'
S1/2 S2W. S2 NE NW
750' E of H59

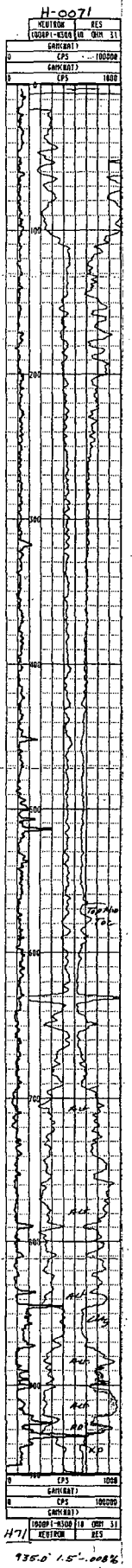
H-0064



DMT 46' SSE

H71
3990'
31N. 52W. 29SWSW
190' W of H53

H-0071



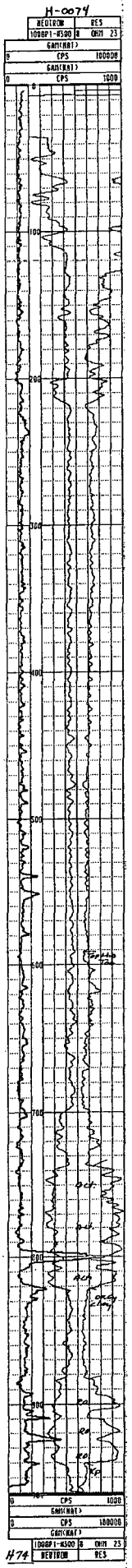
H71

935.0' 1.5'-.008%

DRIFT 19.5'S

3990'
31N. 52W. 29 NWSW
200' of C77

H-0074



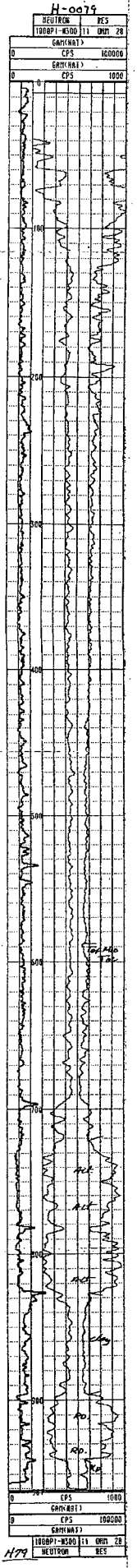
H74

800.5' 2.0'-.010%

DRIFT 11' WSW

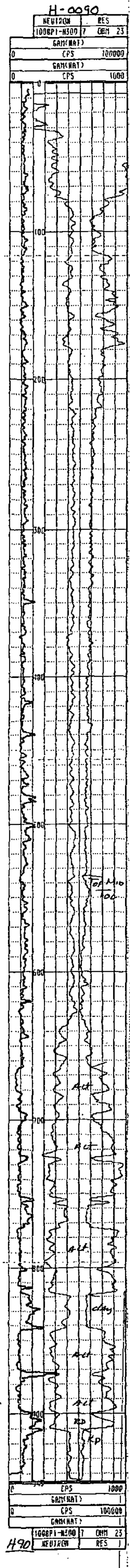
3990'
31N. 52W. 29 NNSW
400' E of H74

H-0079



H79

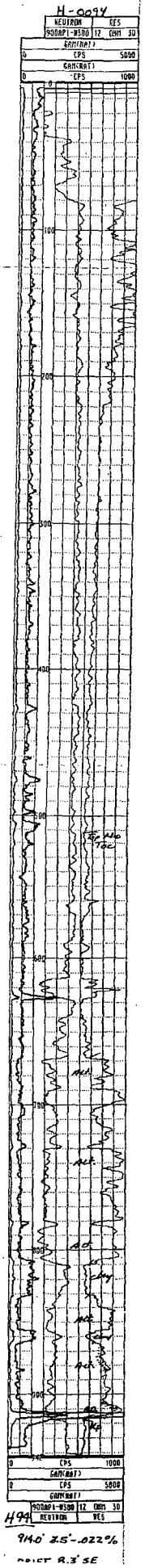
31N. 52W. 32 NWNW
400' W of H89



DRIFT 6.3'
Azimuth 150 E

3970'
31N.52W.29 SWSW
100'N & 25'W of H88

H-0094



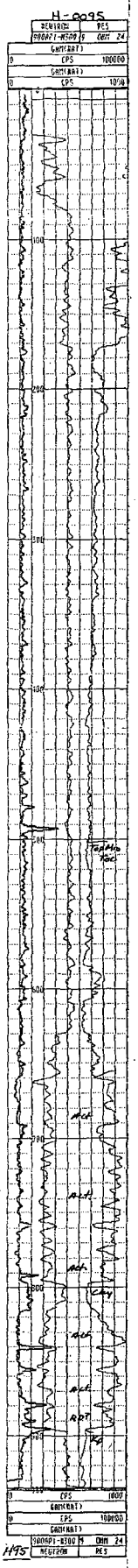
H99

914.0' 7.5'-.022%

POINT 9.3' SE

H95
8960'
31N.52W.31 NENE
400'W of H90

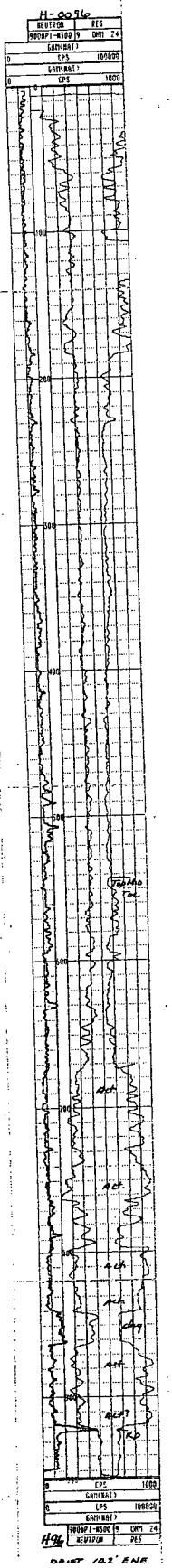
H-0095



H95

DRLCT 8.5'S

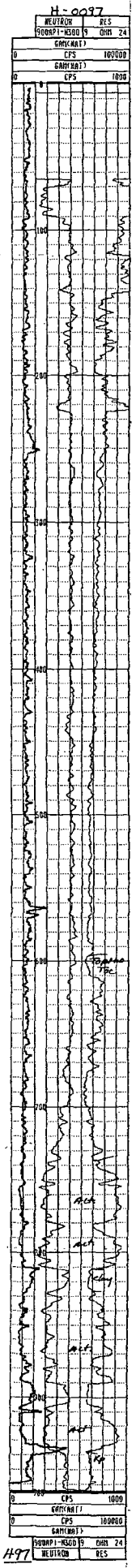
H96
3980'
31N. 52W. 32 NNNW
400'S of H90



DRILT 102' ENE

4049
31N.52W 325WNW
600'S of H91

H-0097

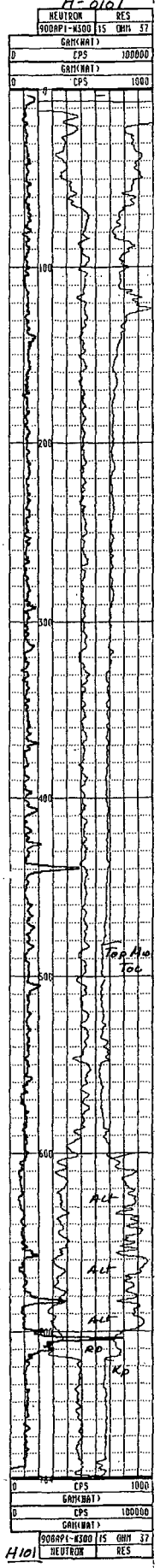


H97

DRIFT 24.1' S

5920'
31N.52W. 28NGSE
~2650'N & 5000'E
of SWC

H-0101



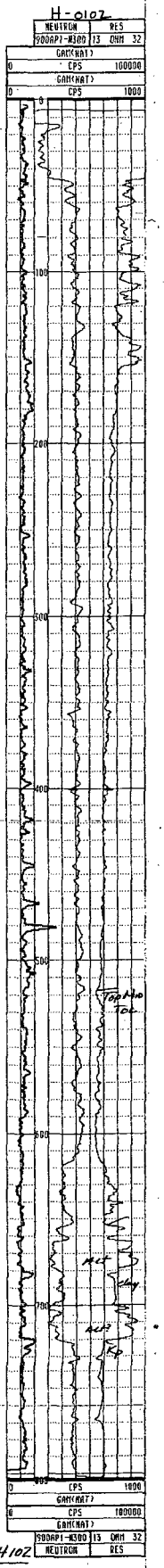
H101

704.0' 2.0'-009%

DRIFT 7.3' SE

H 102
3940'
31N. 52W. 32 NENE
~5050'N & 4050'E
of SWC

H-0102

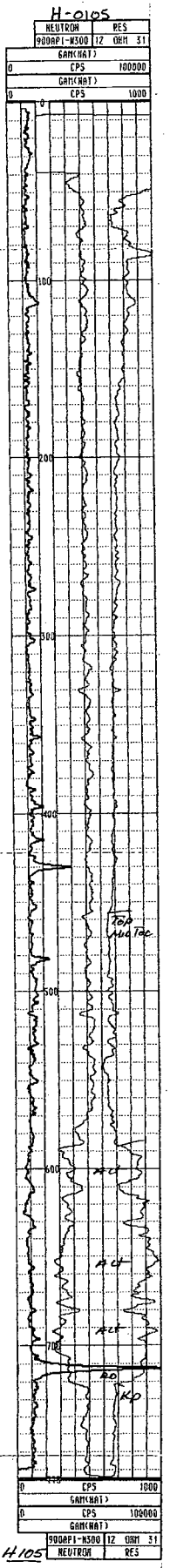


H102

DRIFT 11.7'S

3900'
31N. 52W. 27 NWSW
325'E of H 101

H-0105

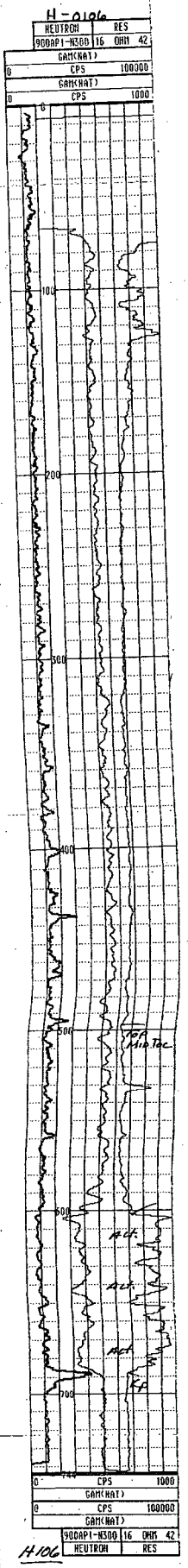


H105

712.0' 3.0°-.010%

DRIFT 20'S

H 106
3900'
31N.52W, 28NGSE
400' W of H101

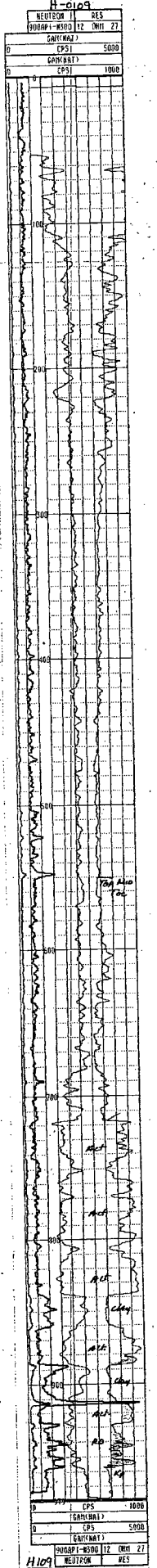


H106

DRIFT 21.5' NW

4000
31N. 52W. 29 6WSW
200' S of H-72

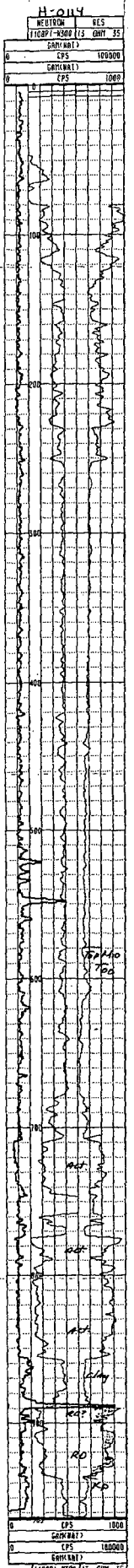
H-0109



913.5' 2.0'-.010%

H114
4010'
31N. 52W 29 SWSW
200' E of H67

H-0114



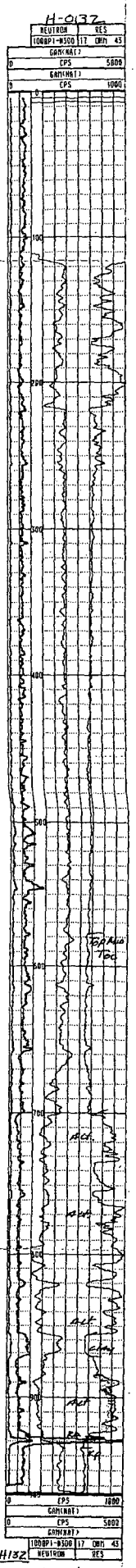
H114

888.0' Z.0'-.010%

DRIFT 12.8' SW

4000
S/W. 52W. 32 NWNW
100' Sof H60

H-0132

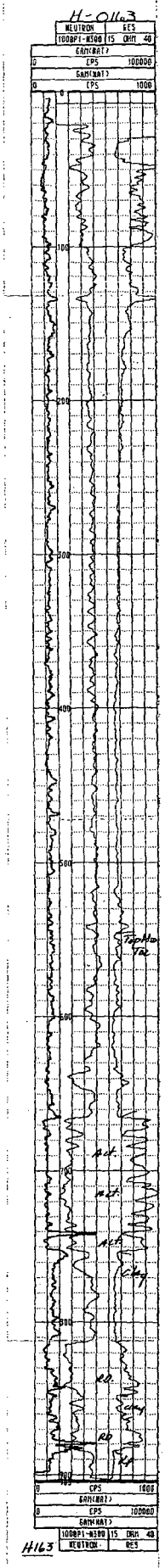


H132

929.5' 3.5'-.011%

DRIFT 2.9' E

H163
3925'
S1W. 52W. 30 SENE
200' E of H161

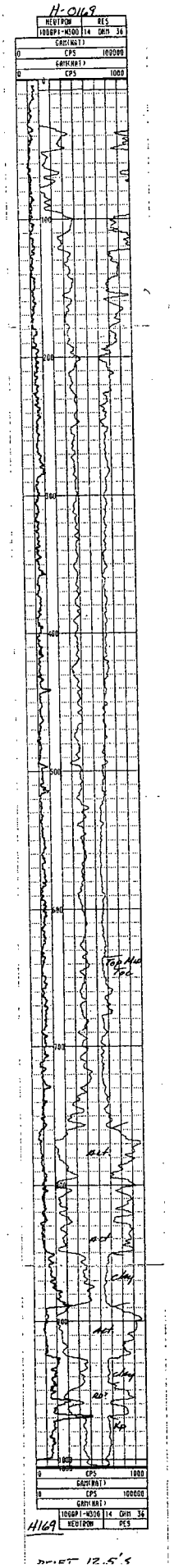


H163

DRIFT 16.5' SSE

T0-4Q
31N. 52W. 32 NESW
~2300'N & 2100'E
of SWC

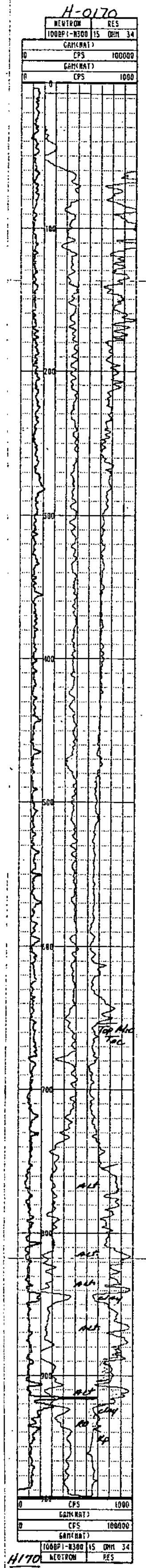
H-0169



DRIFT 12.5'S

4049'
31N. 52W. 32 NWSE
~2300'N & 3700'E of SWc

H-0170



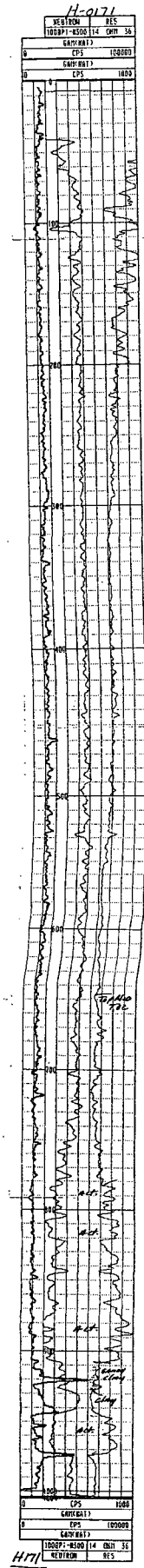
H170

917.0' 1.0'-.010%

DRIFT 14.2' SE

~~[illegible]~~ 4052'
31N. 52W. 32 SWSE
~1300' N & 2800' E of
SWC

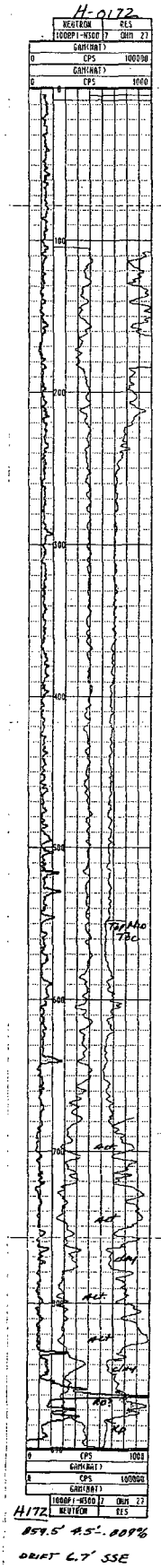
H-0171



H171

DRILL FLOOR

3980'
31N. 52W. 32 NWNE
700' W of H103

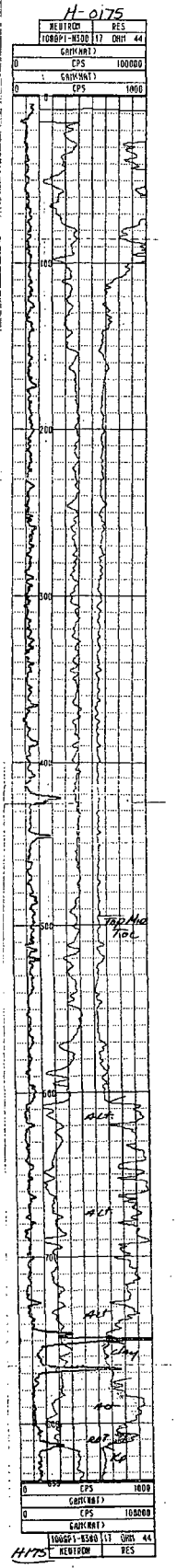


859.5' 4.5°-.009%

DRIFT 6.7' SSE

3070
3N.53W.25 SENE
375' W of F93

H-0175



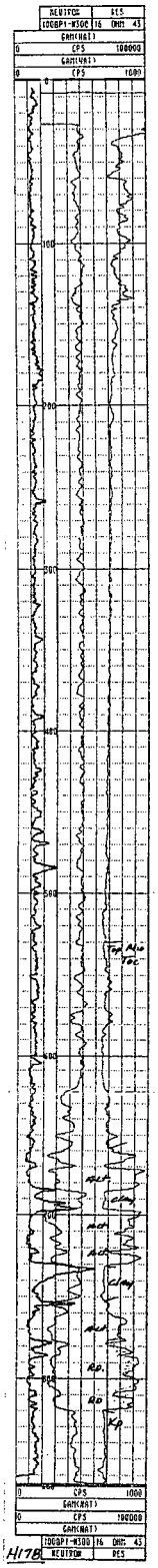
H175

749.5' 2.0'-.013%
767.5 2.0'-.009%

DRIFT 13.5' E

H 1 10
3950'
31N.52W 33NWNW
~1000' E of H176

H-0178



H178

DRIFT 7.6' SSW

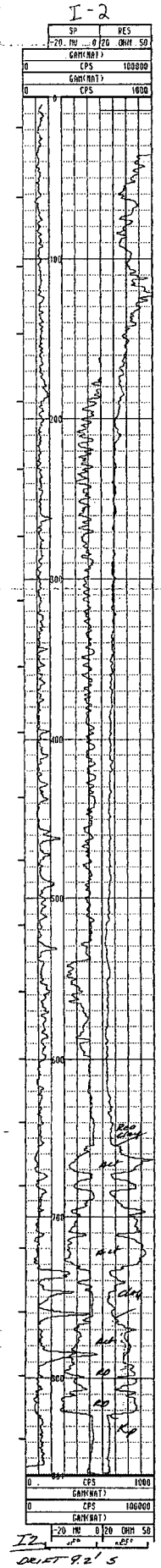
I2

3960'

31N. 52W 33NNNW

400'E & 25' S of H178

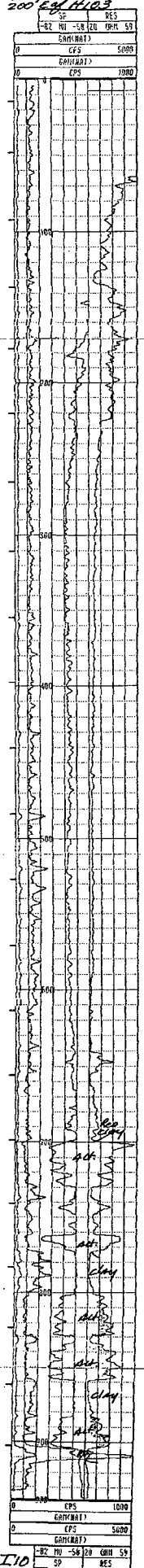
I-2



I2

DRIFT 9.2' S

4000'
31N.52W. 32 NENE
200' EOL H103

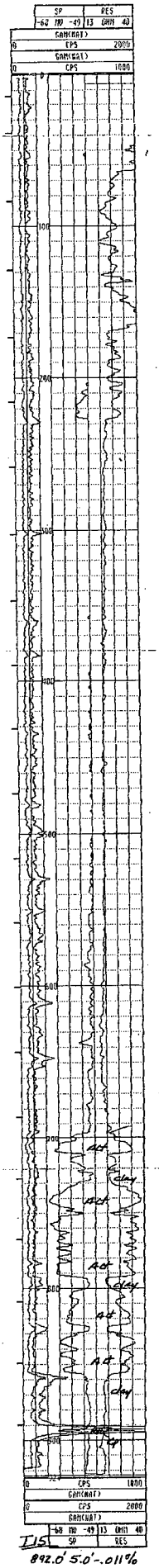


I10

904.5' 7.5'-.008%

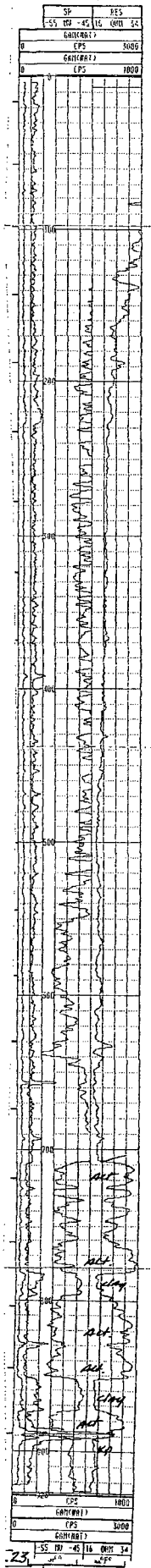
DRIFT 15.4' SE

I-13
3990'
31N.52W.32NENE
200'Eof I13



DIS
892.0' 5.0'-.011%
DRIFT 10'S

#
4000'
3W. 5ZW. 325ENW
600' N 1300' W of H169

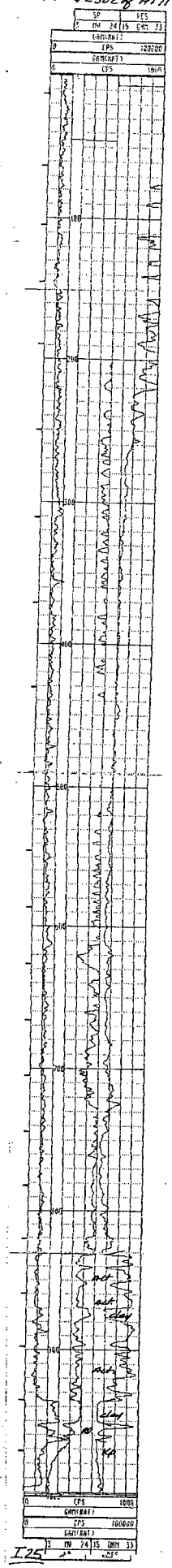


I-25

4070'

31N. 52W. 32 SWSE

400'S & 250'E of H171



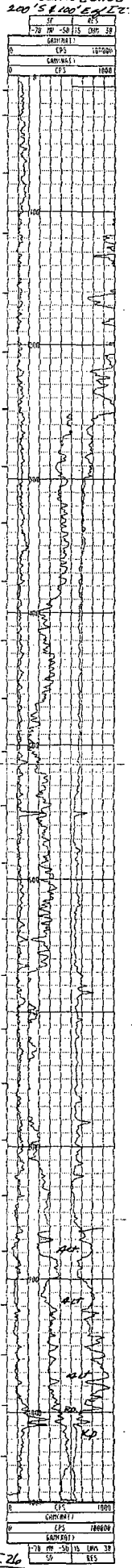
DRIFT 4.4' NW

I-26

#100'

5N.52W.32 SWSE

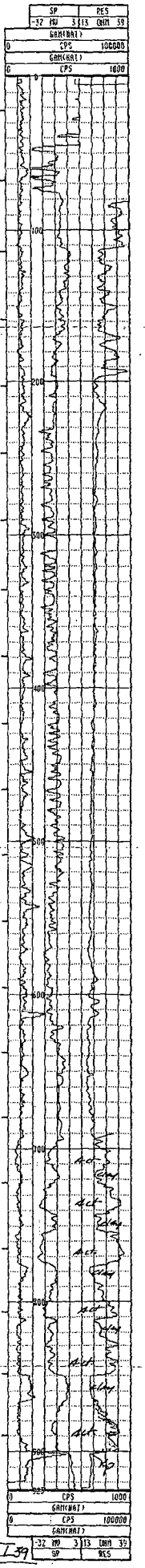
200'S & 100'E of L2:



I26

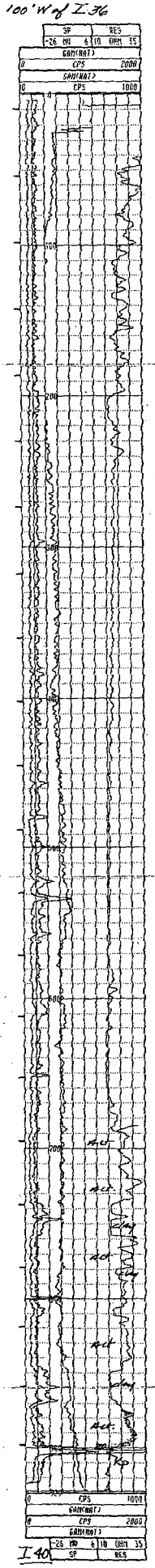
DRIFT 17' NNE

4000'
31N. 52W. Sec. 32 NENW
400'E of H91



I-39

4000'
31N.52W.32NENW
100' W of I36

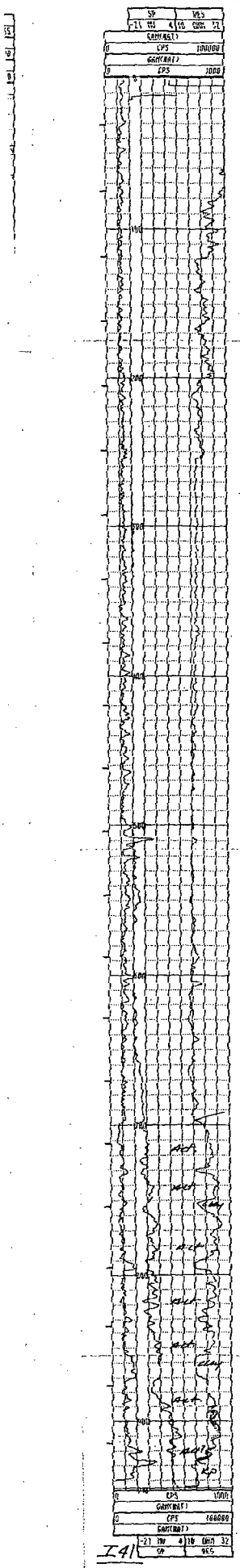


I40

902.5' 2.0'-.014%

DRIFT 6.2' W

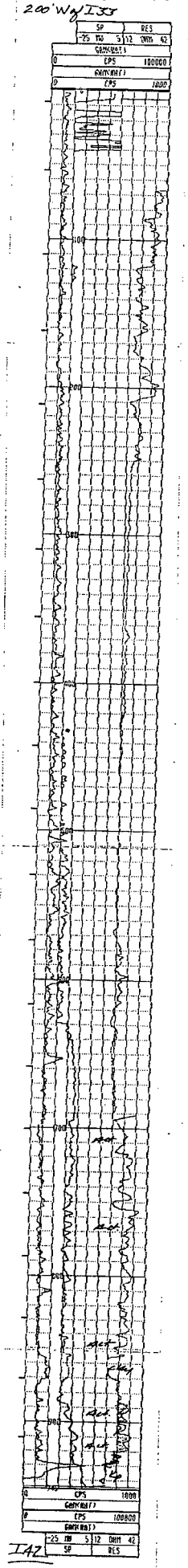
7000
3W. 52W. 32 NWNW
100' W of H-59



I41

DRIFT 4.5' ESE

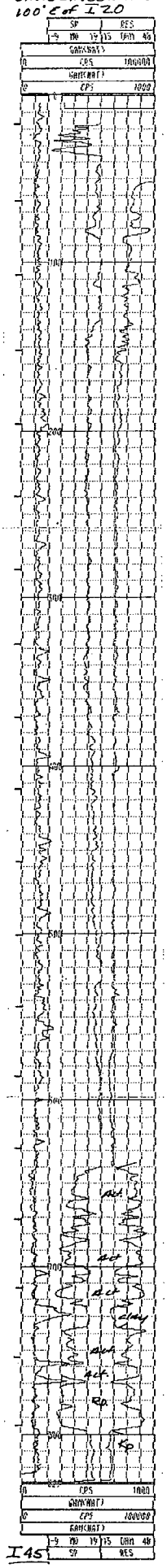
1 of
4000'
3W, 52W, 32NWNW
200' W of I33



I42

DRIFT 7.2' SE

3940
31N.52W.33NWNW
100' E of I20



I45

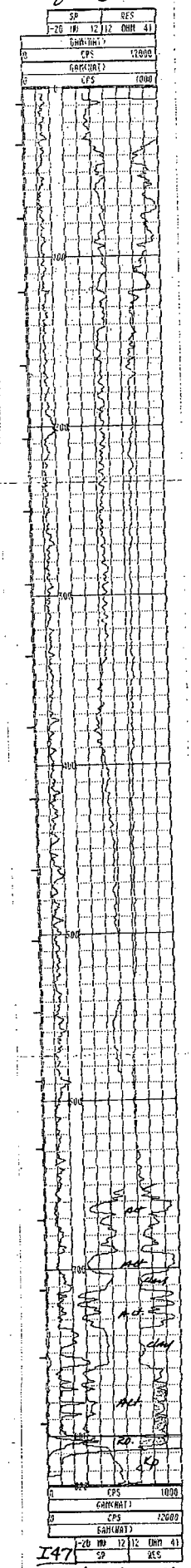
DRIFT 6.7' WSW

I-47

3950'

3W 52W 33WNW

200' E of I43

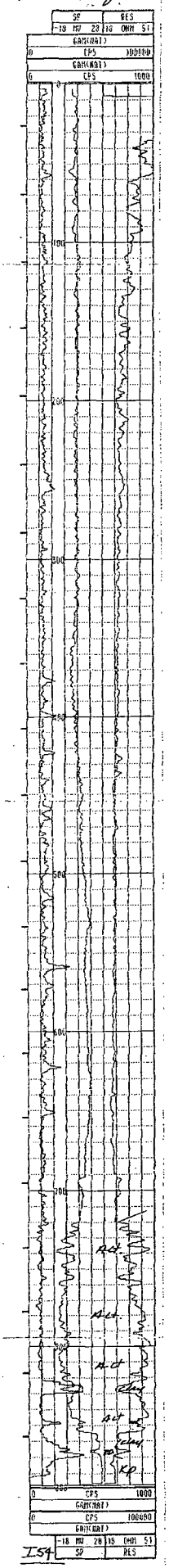


I47

802.5' 6.5'-.029%

DRIFT 4.3' E

4000'
31W.52W. 33 SENW
400'S & 400'E of I50



I54

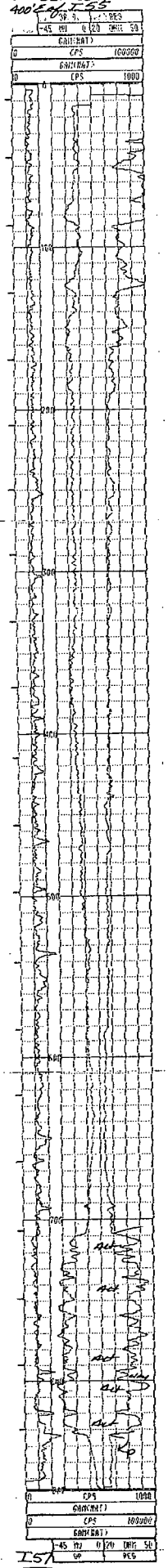
DRIFT 2.9' SE

I-51

4000'

31N. 52W. 33 SENW

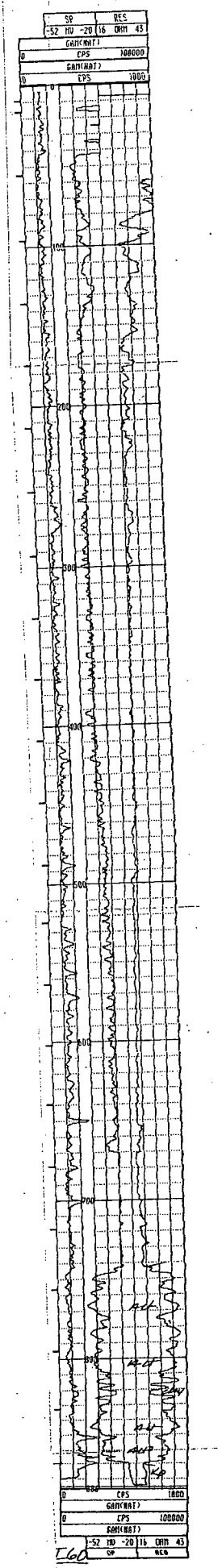
400' E of I-55



I-51

DRIFT 6.2' SSE

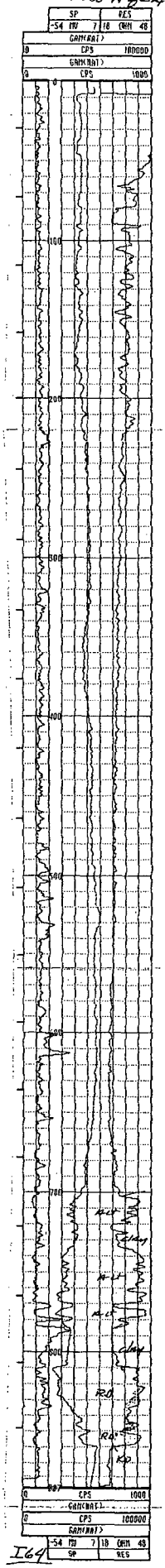
4010
31N. 52W. 33 WESW
400' S of I54



I60

DRIFT 2.6' NNE

3980'
31N. 5 2W. 28 SWSW
800' N & 200' W of I4

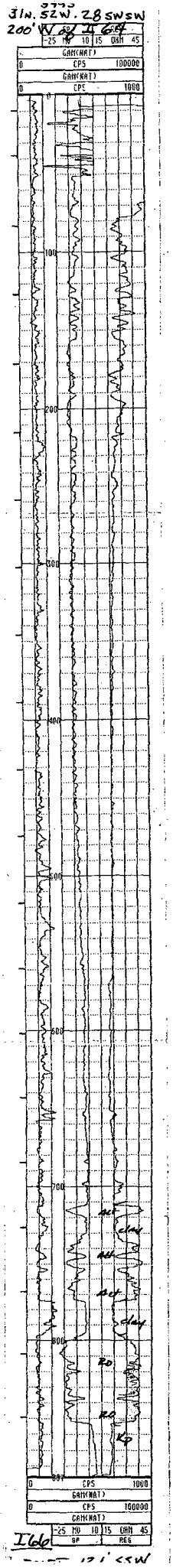


I64

Drift 9.5' SSW

3N. 5ZW. 28 SWSW

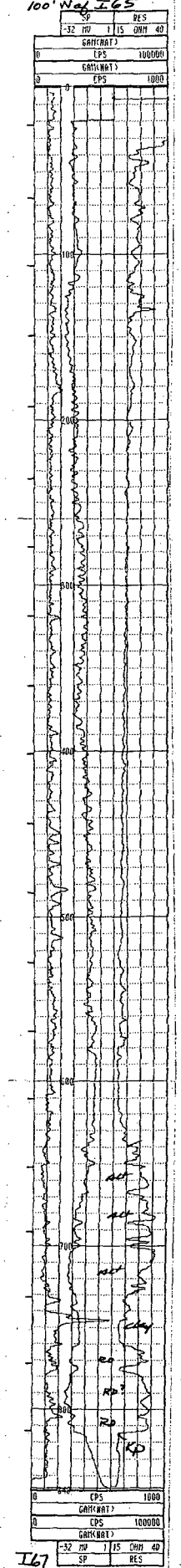
200' W of I 66



I66

121' <SW

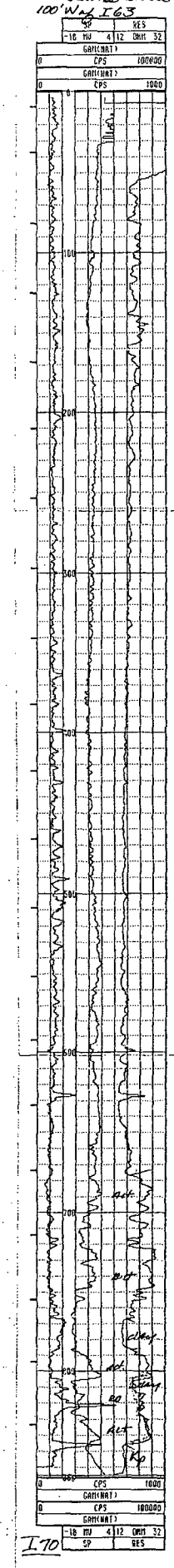
#91
3935
31N 52W 28 SWSW
100' N of I65



I67

DrilET 4.1 SSE

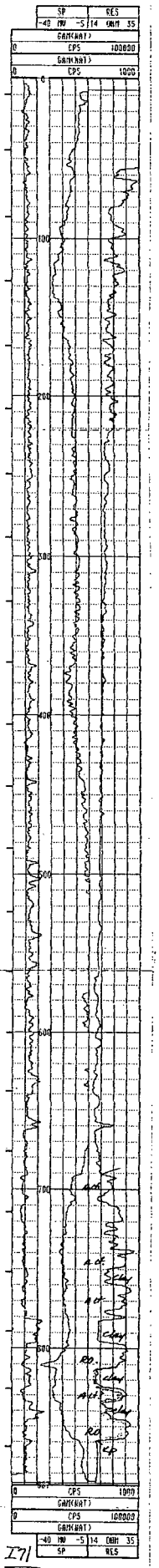
I-70
3950'
31N. 52W. 28 SWSW
100' W of I63



I70

DRILL 17.3' SSE

5990'
31N.52W. 29 SESE
200'N of I69



I71

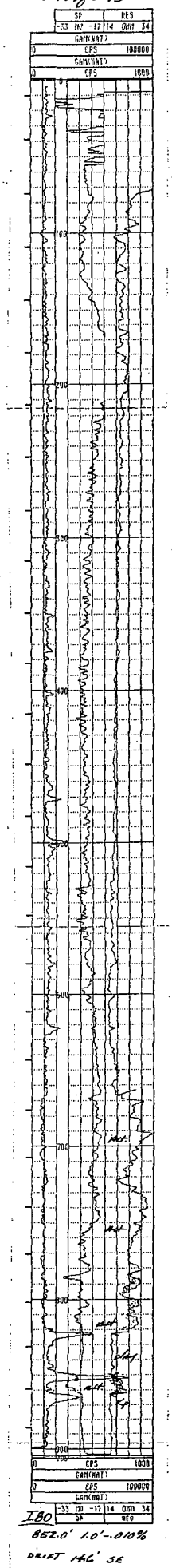
DRIFT 7.0' S

I-80

3960'

31N 52W 29 SESE

375' W of I75

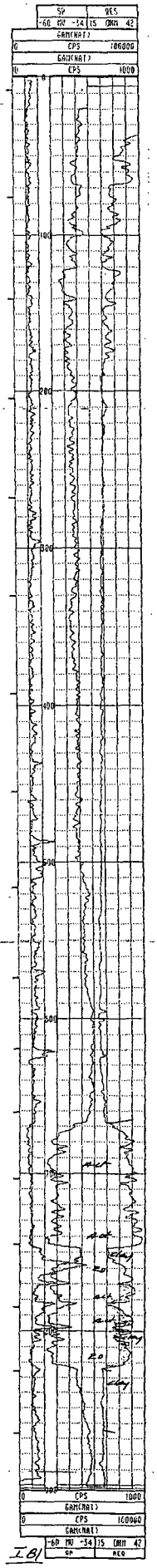


I80

852.0' 1.0'-.010%

DRIFT 14L' SE

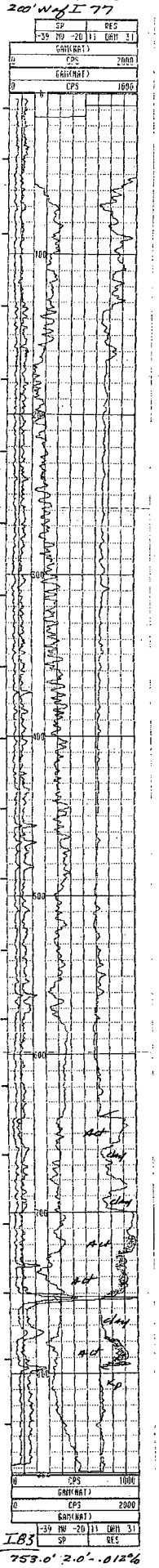
I-81
3960'
31N 52W 29SE SE
200' E of I-79



I-81

DRIFT 18.3' SE

3940'
31N 52W 29 NESE
200' W of I 77



IB3

753.0' 2.0' -.012%

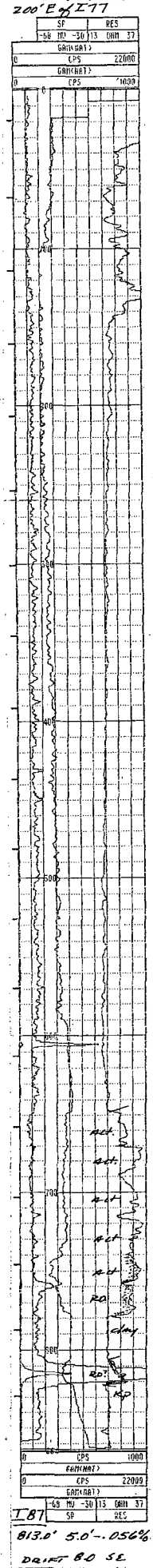
DRIFT 7.4' E

I-87

3960+ 3951

31N 52W 29NESE

200' E of I77



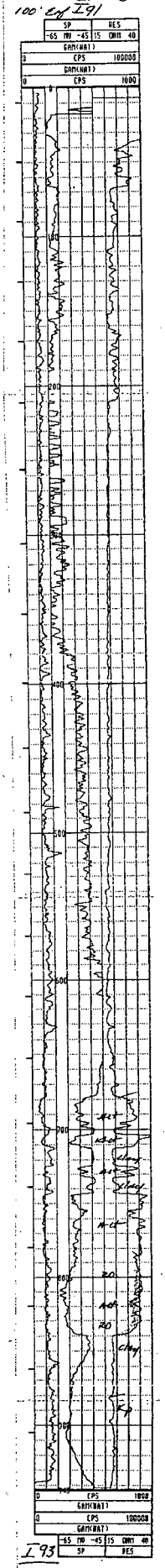
813.0' 5.0'-.056%

DRIFT 8.0 SE

3985

31N 52W. 29 SESE

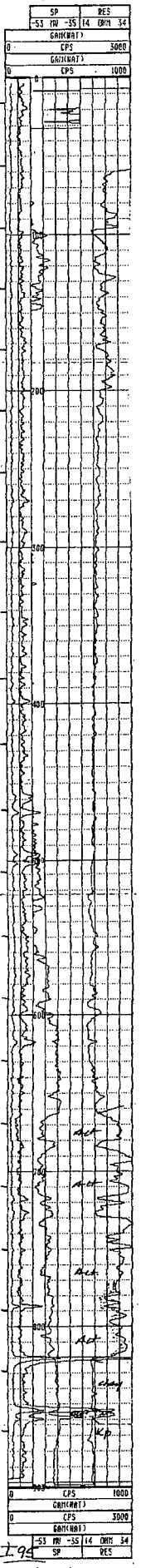
100' Ent I91



I 93

DRIFT 4.5' ENE

3960'
3IN 52W 29SCSE
100'W of I-91

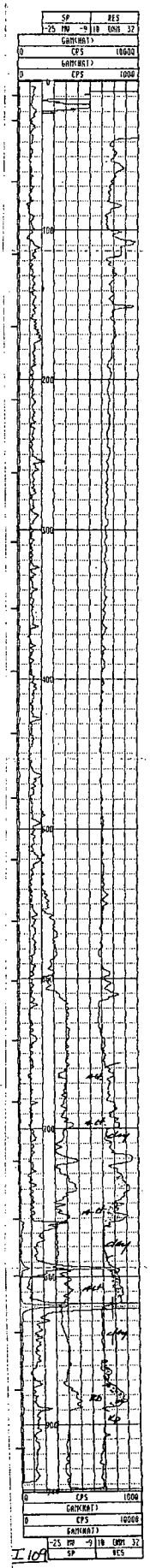


I-94

820.0' 3.0'-.011%
854.5' 1.0'-.011%

DRIFT 5.2' ESE

I-104
3840'
3/N 52W 30 SENE
300'E of I-106

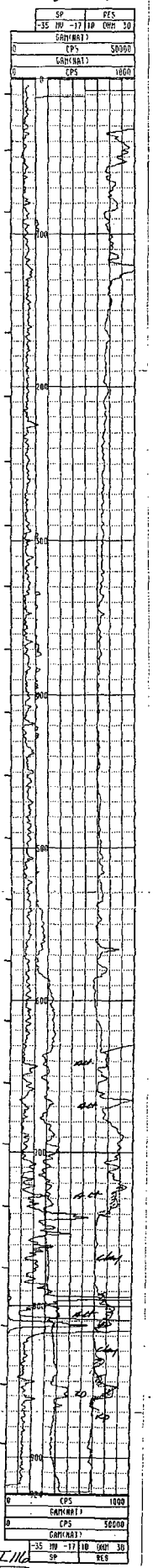


I 109

7940' 2.0' - .008%
819.6' 3.5' - .081%

DRIFT 6.4' E

3910'
31N 52W. 30 SENE
200' E of H154

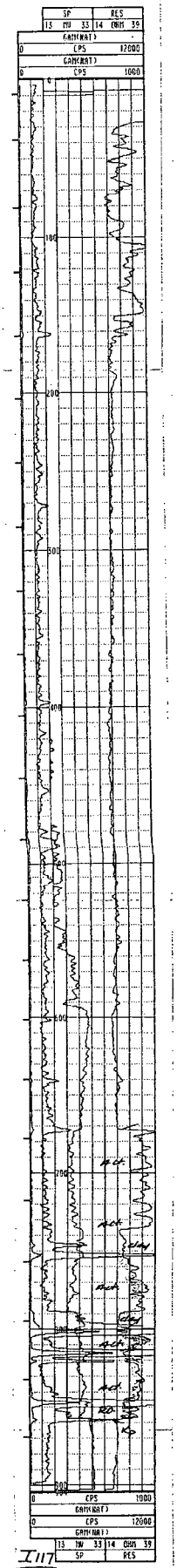


Ill

794.5' 1.0' - .025%
811.0' 3.5' - .347%

DELFT 10.7' N

I-117
3940'
31N 52W 30 SWNE
200'W of I112

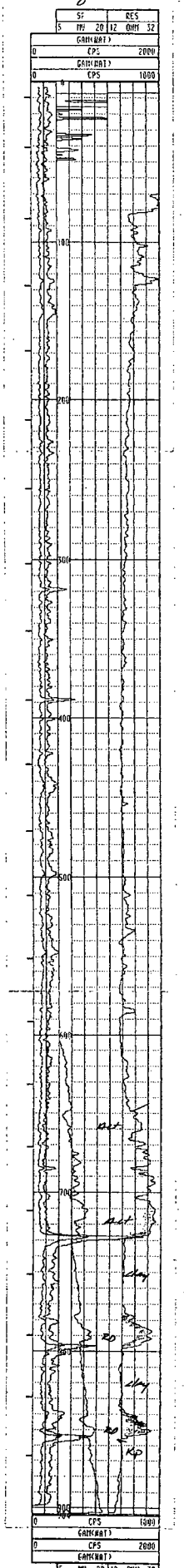


I117

753.0' 2.0'-.012%
798.5' 1.5'-.011%
801.5' 1.5'-.087%
815.5' 2.5'-.075%
849.0' 3.5'-.033%

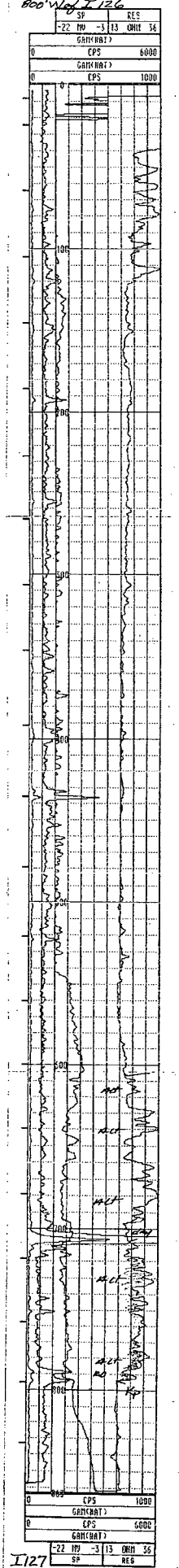
DRIFT 4.4' W

I-124
3920'
31N 52W 30 SENE
200' W of I 122



I-124
728.5' 2.0'-.011°/0
DRIFT 12.4' SE

I-A1
3890'
31N 52W 30 SWNW
800' N of I 126



I127

705.5' 4.0'-.029%

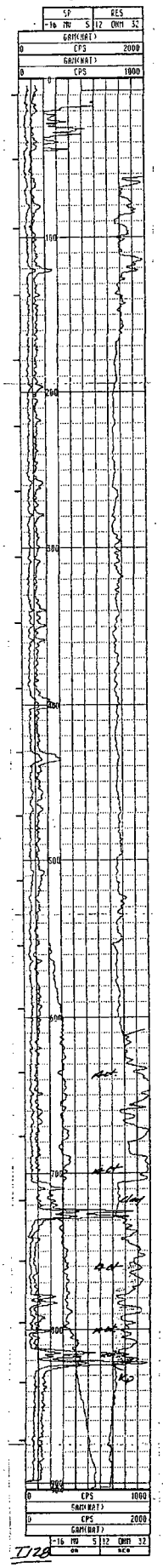
DRIFT 13.7' NNE

I-128

3890'

31N 52W 30 SWNW

800' W of I127



I128

724.5' 1.0'-.019%

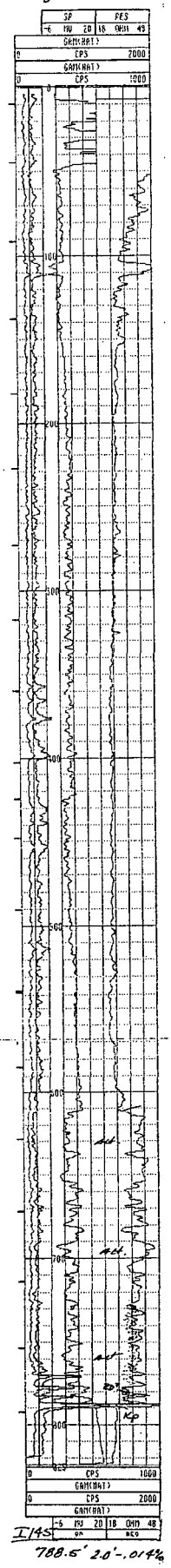
821.5' 3.0'-.010%

I-145

5890'

31N. 52W. 30 NWNW

400' N of I 128



I145

788.5' 2.0'-.014%

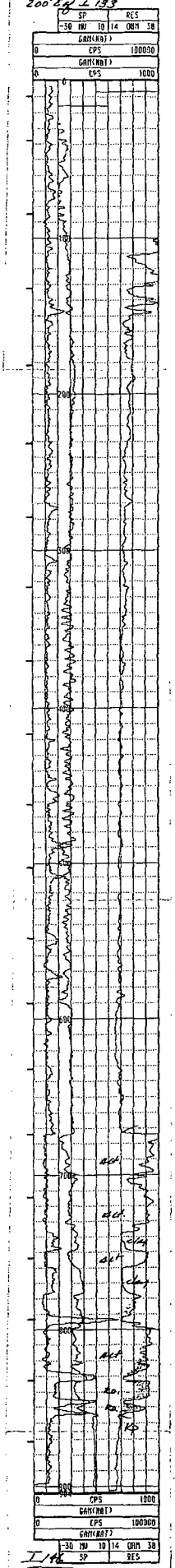
DRIFT 6.5' NE

I-176

3920'

31N 52W 30 NENW

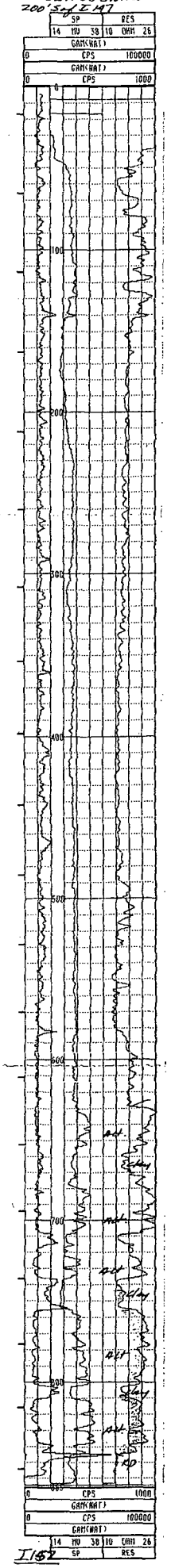
200' FN I 133



I-176

DRIFT 50' NNE

I 152
3890'
31N 52W 30 SWNW
200' S of I 147



I 152

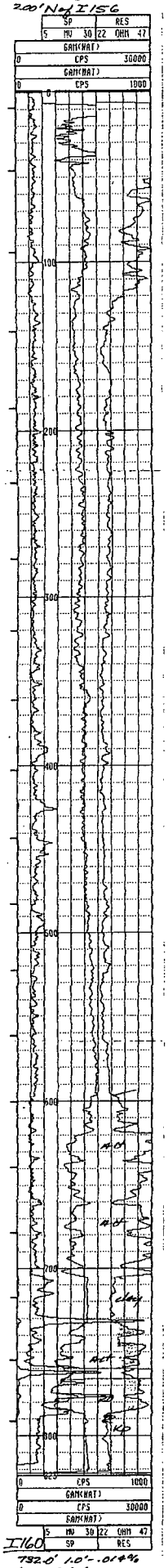
DRIFT 13.5' S

I-160

3880'

S/N 52 W 30 NWNW

200' N of I-156



I-160

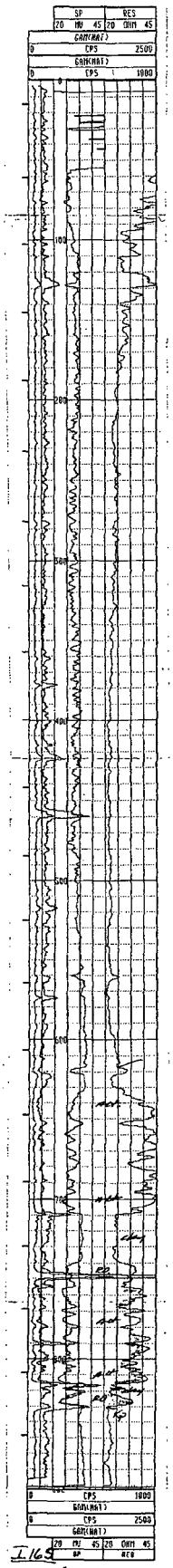
732.0' 1.0'-.014%

762.5' 4.5'-.109%

776.5' 1.0'-.01%

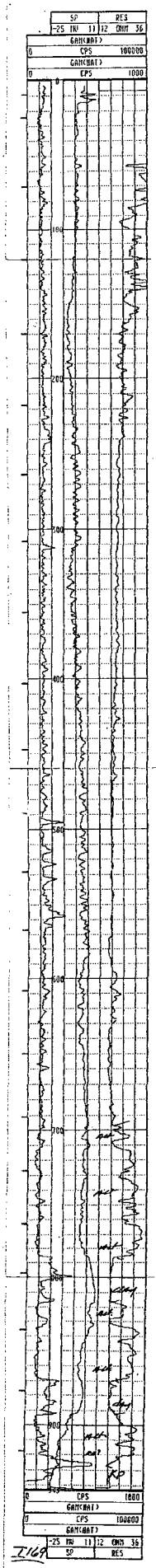
DRIFT 1' NE

I-165
39.0'
31N 52W 30 NENW
200' N of I 126



I165
748.5' 2.5'-015°6
DRIFT 12.6' NNE

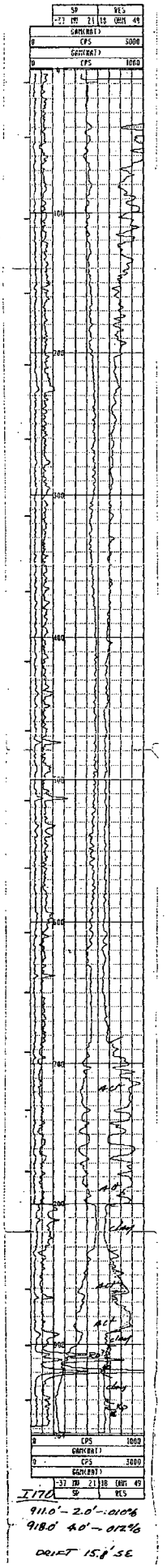
4000'
3'N 52.W 32.SWNE
1000'S & 100'W of I169



I169

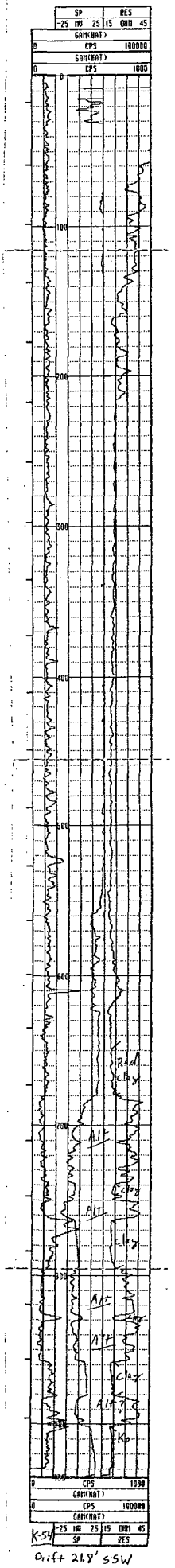
DRFT 18.9' SE

I170
3989'
3/N 52W 32 SENE
1000' EofI169



I170
911.0' – 2.0' – .010%
918.0' 4.0' – .012%
DRIFT 15.0' SE

31N 52W 32 NWNE
190' W of I 168

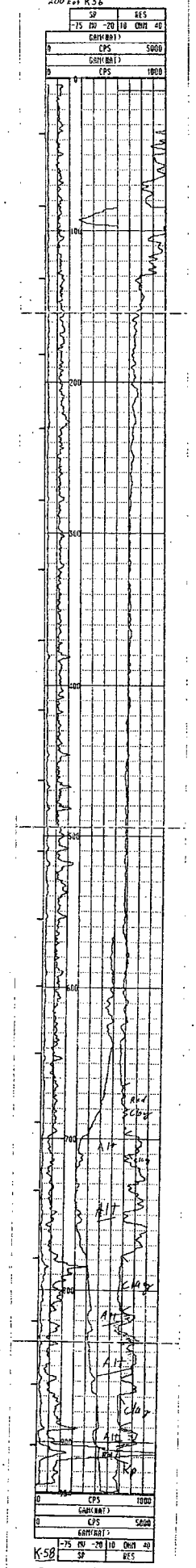


K-54

Drift 21.8' SSW

31N 52W-32 ⅗
SW NE

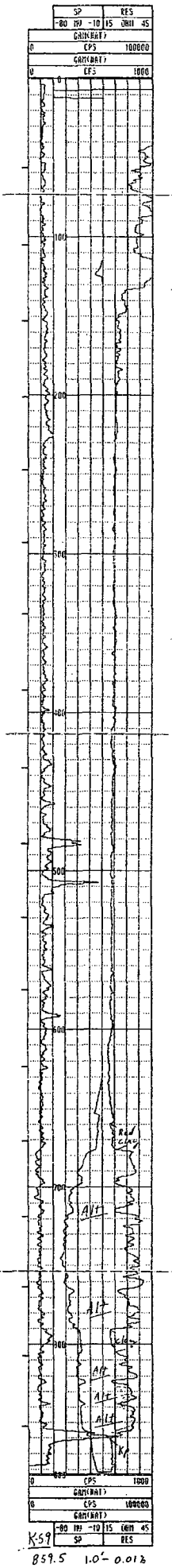
200' E of K56



K-58

Drift 9.1' SW
907.5 2.0'-0.014%

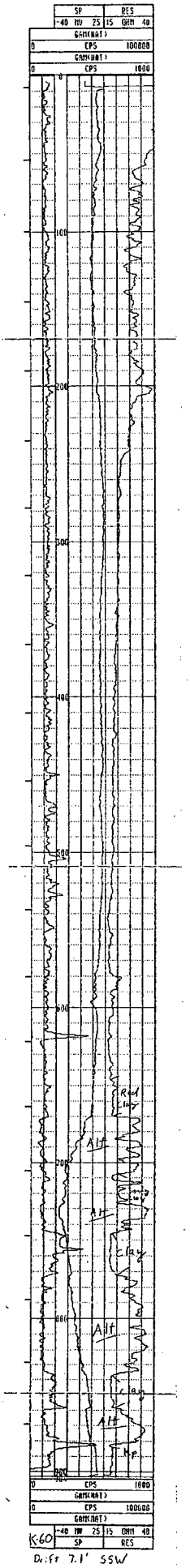
3970
31N 52W 33SWNW
400'E of J 13



K-59

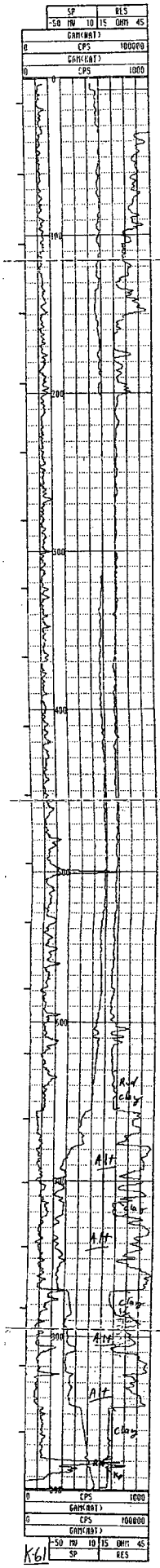
859.5 1.0'- 0.012

K-60
3970
31N 52W 32 NENE
200' W of K 57



Drift 7.1' SSW

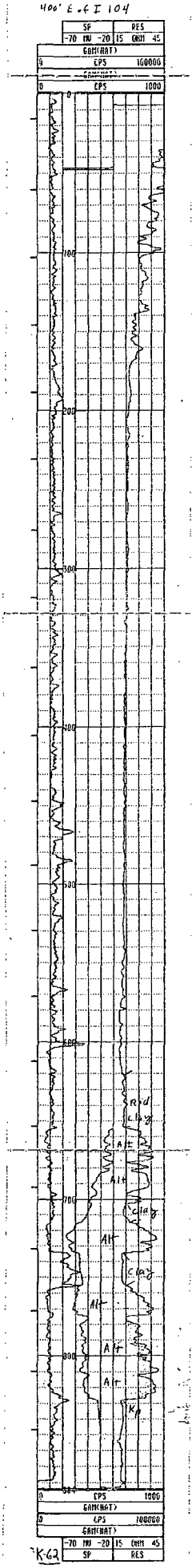
31N 52W 32NENE
200'E of K57



K61

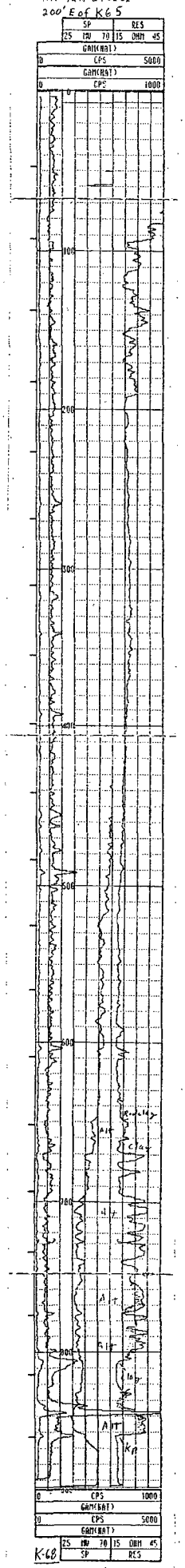
881.0 1.0'-0.011%
Drift 11.5' SSE

K-6α
3950'
31N 52W 32 NENE
400' E of I 104



K-62
Drift 4.8' NW.

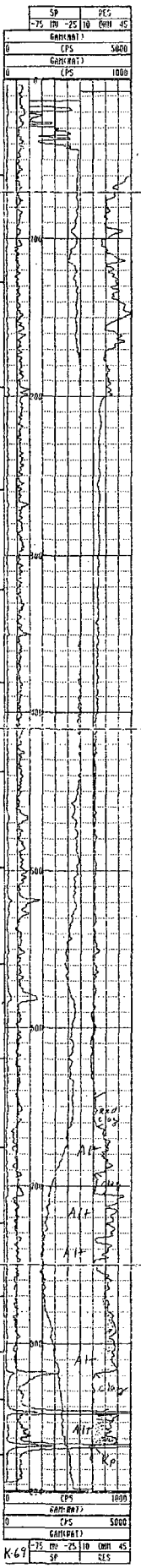
3950
31N 52W 29 SESE
200' E of K65



K-68

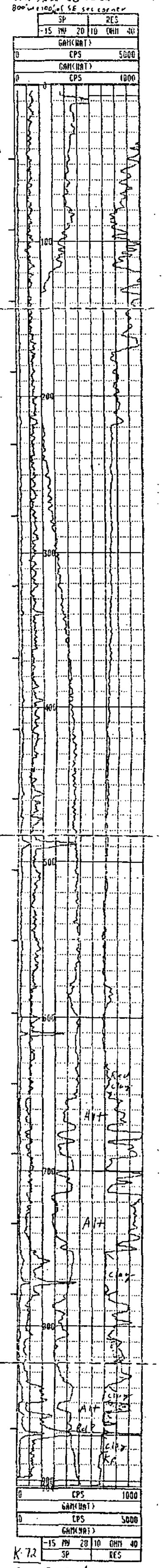
837.0 2.0'-0.014%
Drift 7.6' SSE

K-69
3960
21N 52W 29 SW SE
200' W of K66



843.5 2.0' 0.013%
864.0 2.0' 0.020%
Dist 21.3' S

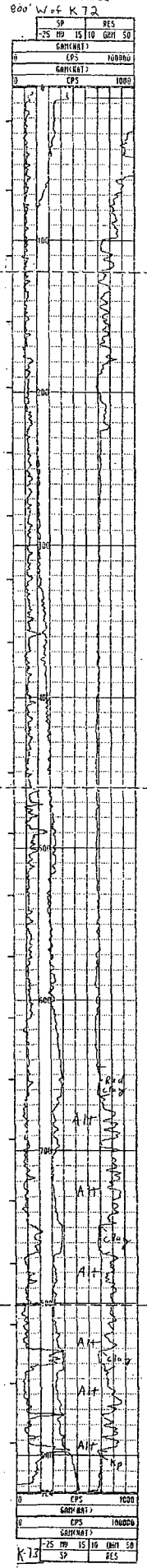
3955
31N 52W 30 SESE
800'W+100'N of SE sec corner



K-72

870.50 2.0'-0.0137.
Drift 19.6' ESE

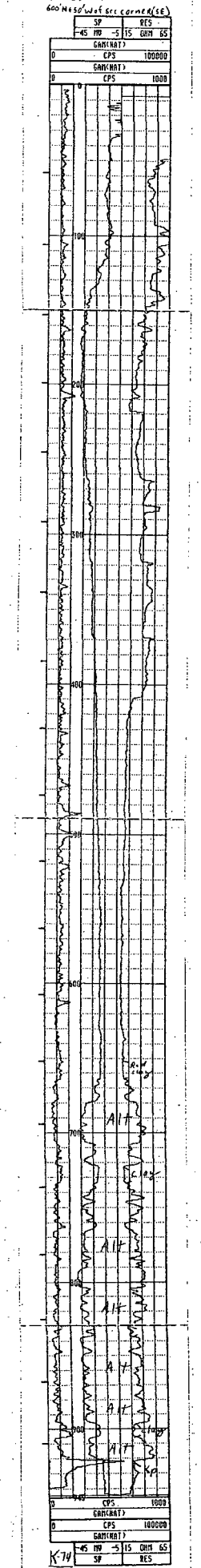
3965
31N 32W 30 SW/SE
800' W of K 72



K 73

Drift 10.2' SE

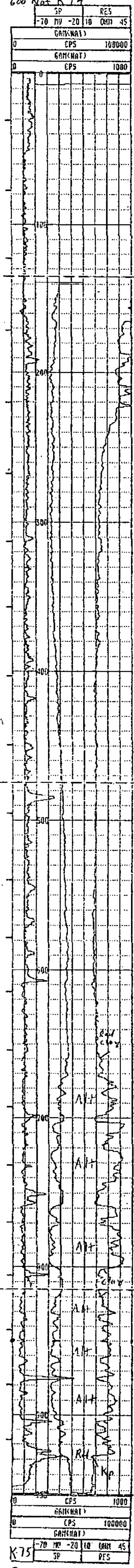
3965
31N 53W 25 SESE
600' N & 50' W of SEC CORNER (SE)



K-74

Drift 15.5'
Az 230.9

K-75
3950
31N 53W 25SESE
600' N of K74



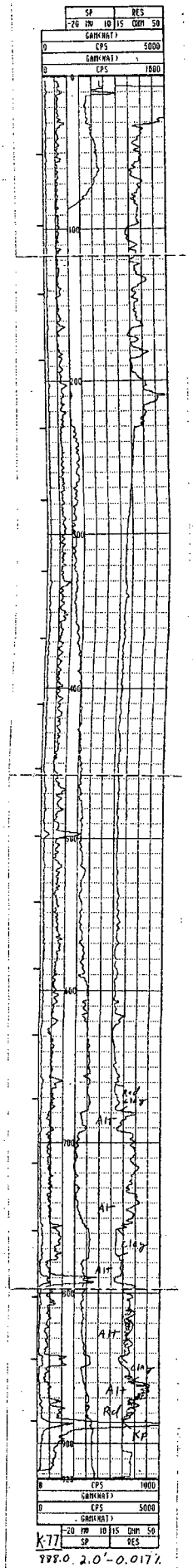
Drift 8.6' SSW

K-77

3970

31N 52W 30 SESE

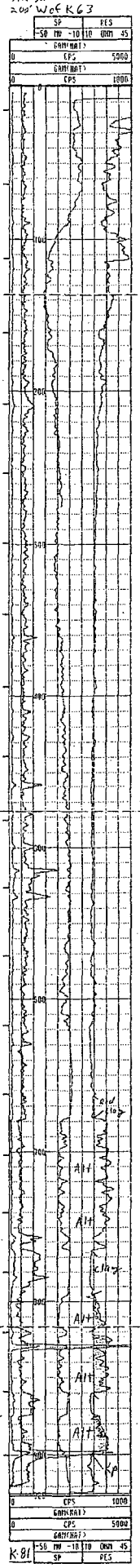
400' W of K 72



888.0 2.0'-0.017%

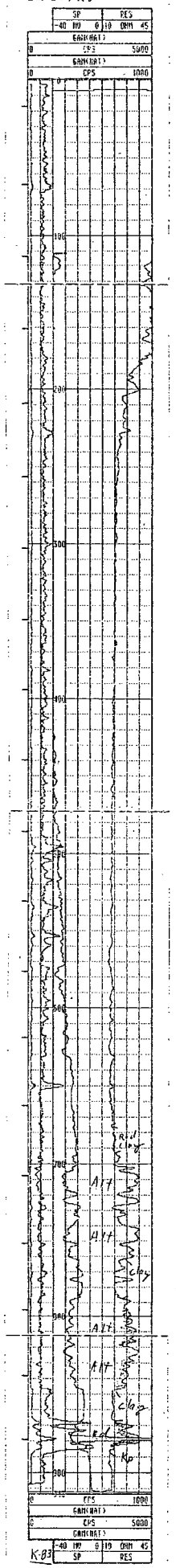
Drift 7.0' SSE

3970
T1N S2W T25W/NE
200' W of K63



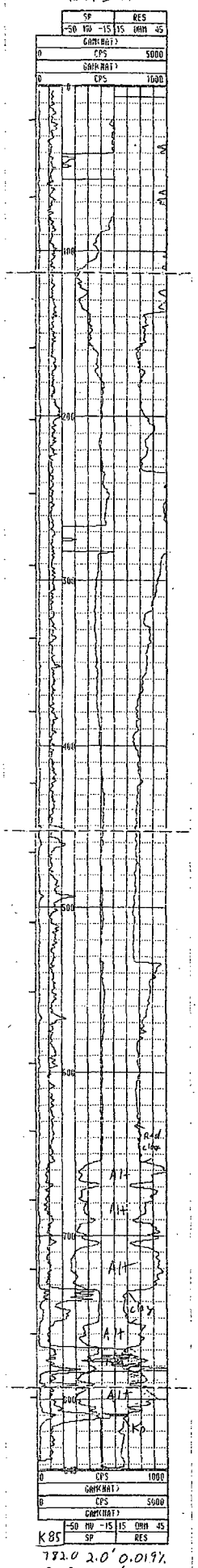
Dist 13.3' SW
898.5 2.0'-0.01%

K-83
3990
31N 32W 32NWNE
200'E of K80



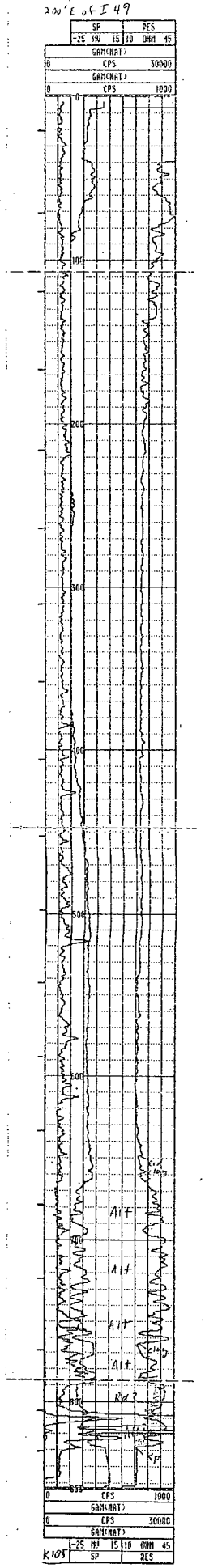
879.0 2.0'-0.013'.
Drift 11.2' ESE

3970
T31N R2W 33 NWNW
200' W of I 44



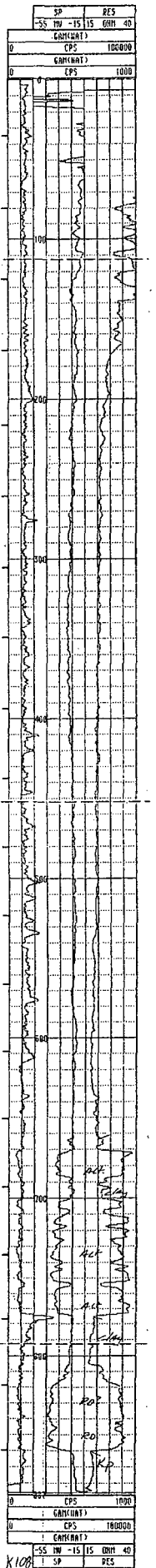
782.0 2.0' 0.019%
Drift 8.6'
Az 241.0

?960
T1N 5.2W 33 SW NW
200' E of I 49



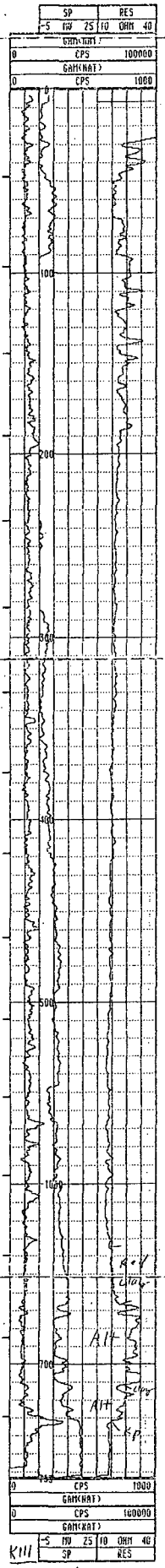
810.0 3.5'- 0.165%
819.0 1.0'- 0.028%
Drift 14.3' SE

K 108
3960
31N 52W 33NE NW
100' W of K 79



K108
Drift: 1.7' ENE

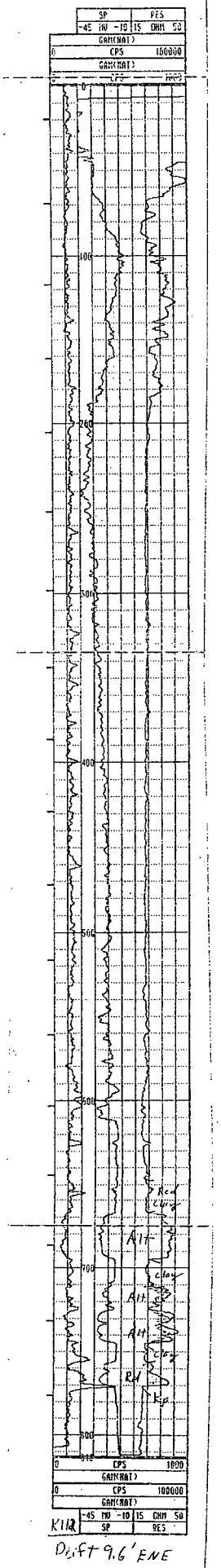
3945
31N 52W 28 SWNW
3720'N & 400'E of
SWC Sec 28



K111

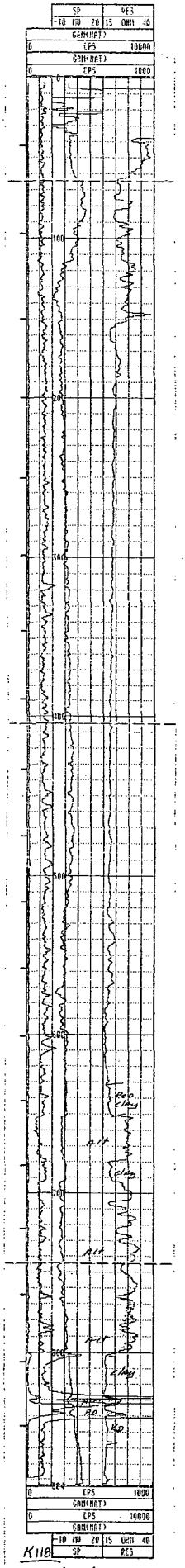
Drift 6.1' W

K112
3960
T1N R2W 29 NESE
200' W of I 97



K112
Drift 9.6' ENE

3950'
31N 51W 29 SWSE
300'N & K71

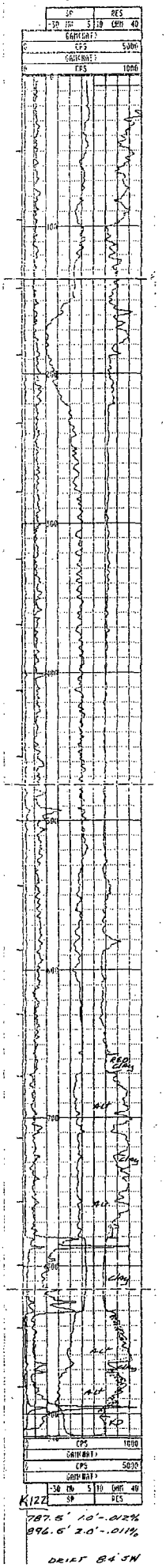


K118

829.0' 1.0'-.018%
834.0' 8.0'-.037%

DRIFT 11.5' S

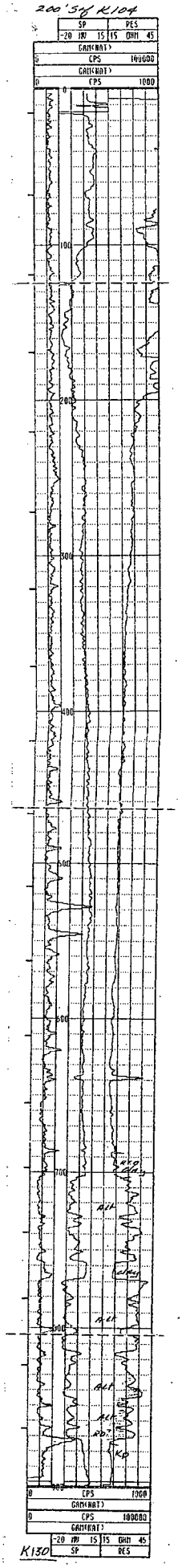
K122
3955'
31N 52W 30 SNSE
200' W of K92



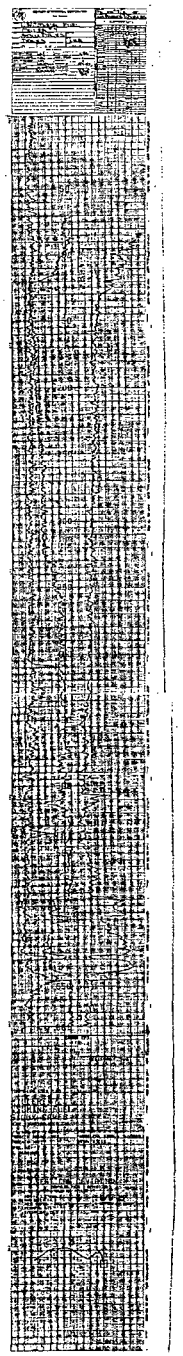
787.8' 1.0'-.012%
896.6' 2.0'-.011%

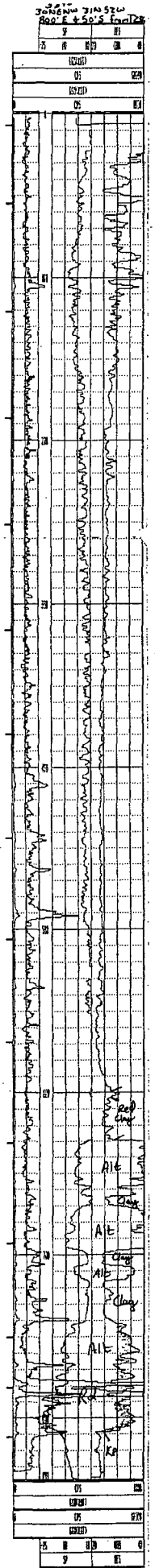
DRIFT 84' SW

K 130
5990'
31N 52W 33 SENW
200' S of K104



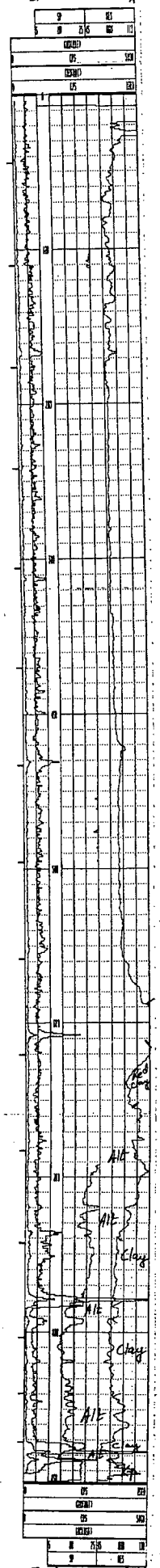
DRIFT 1.6' SE





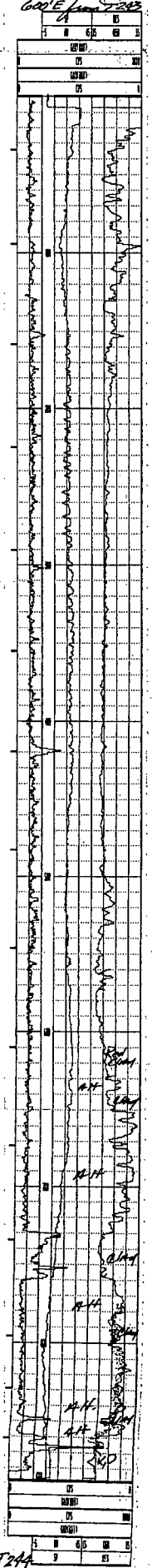
T237
Drilled
779.5 2.0'~.015
785.5 2.0'~.056

SIGW
30SWNW 31N 52W
2700'N & 100'E from SW X



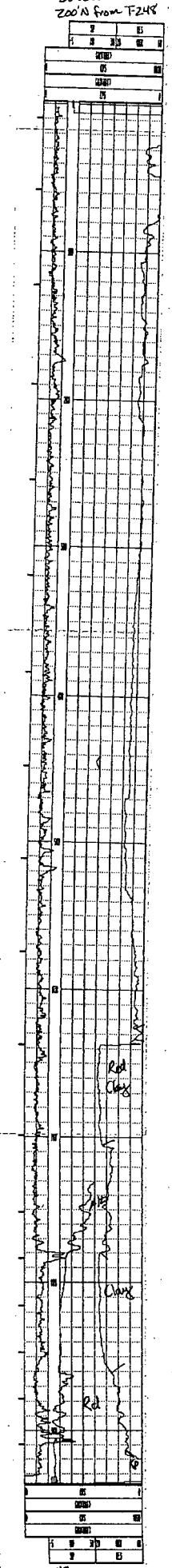
T-243
Dr. ft 12.7'
Az 207.5°
779.5 1.0'-.019

T-244
3910
20 3/4 S 2W (Sum)
600'E from T243



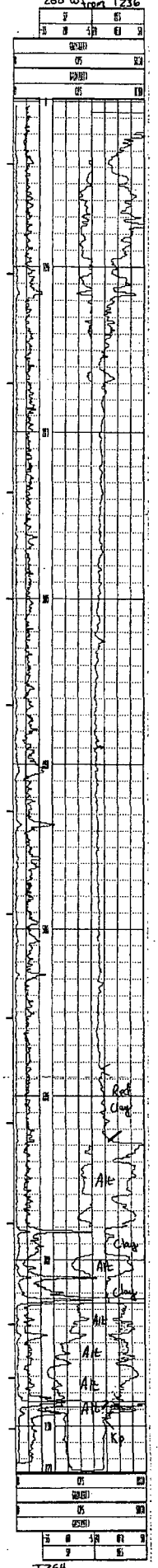
T244
967.8' 1.8'-012
drift 7.9'
AZ 32.6

5763
30NESE 31N 52W
200'N from F248



I-249
Drift 5.0'
Az 182.8°

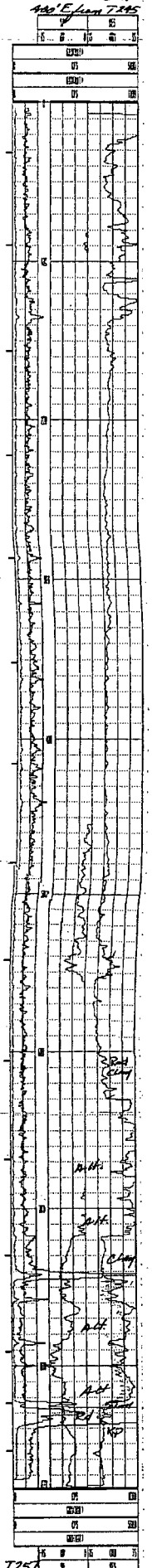
3890
30NWNW3IN 52W
200' W from T236



T254
Drift 3.9'
Az 37.7°
725.0 2.5'-.028
787.0 3.0'-.019

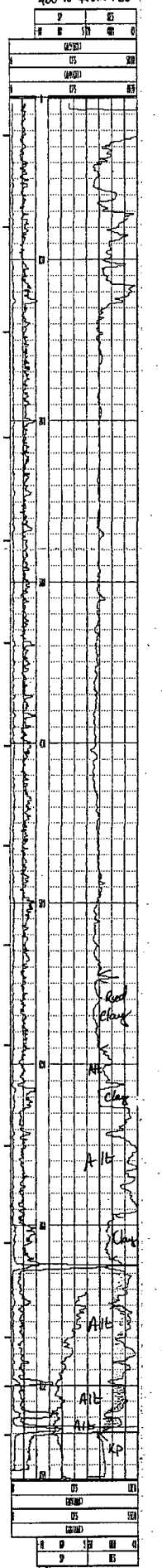
T-257

3900
Sec. 30 31N 52W
400' E from T245



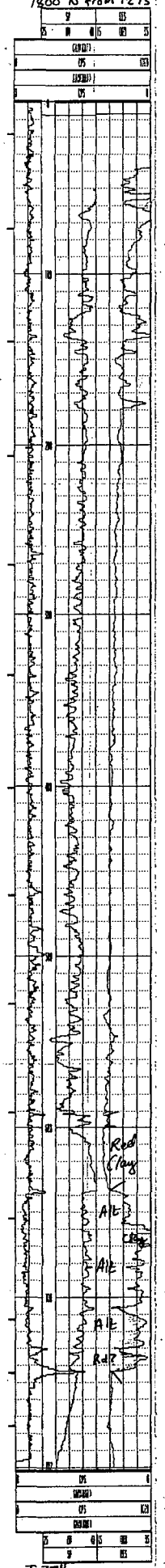
742.5' 3.0' -.013
828.5 10.0' -.023
dnet 13.3
AZ 133.8

T-258
3900
30SENW 31N52W
400' N from T257



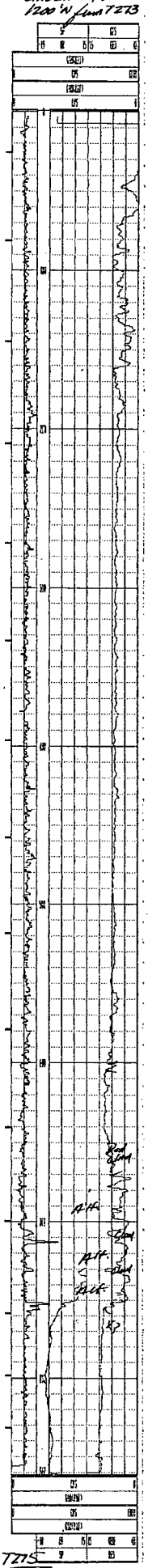
T258
Drift 17.1'
Az 45.4°
726.0 2.0°-.013
827.5 2.5°-.026

T-274
3960
29SENE 31N52W
1800' N from T273



T-274
Drift 13.6'
Az 249.1°

3965
3N5ZW 29SENE
1200'W from T273



T275

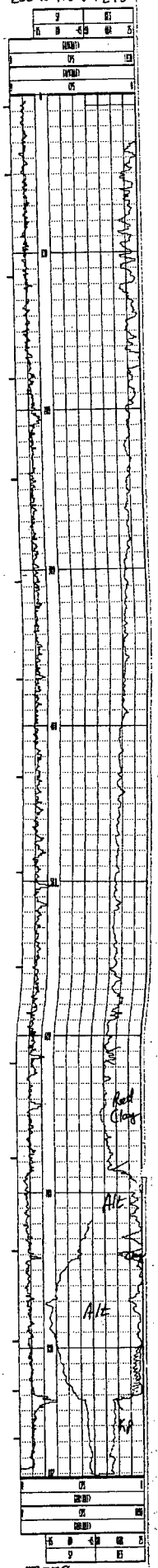
drift 14.4

T-278

~~3750~~

29NESE 31N 62W

200' N from T-273



T-278

Drift 18.0'

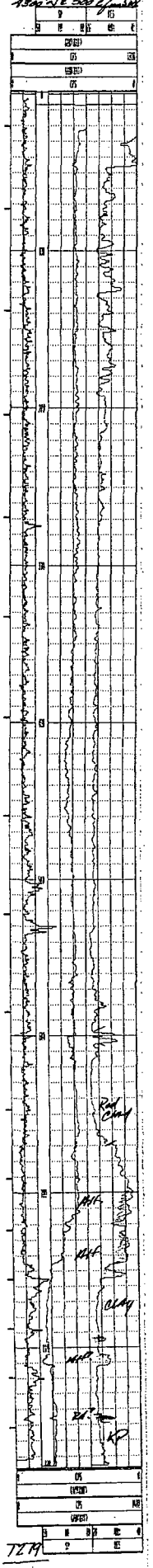
Az 168.3°

T-279

3950

3N 52W 29 NWNW

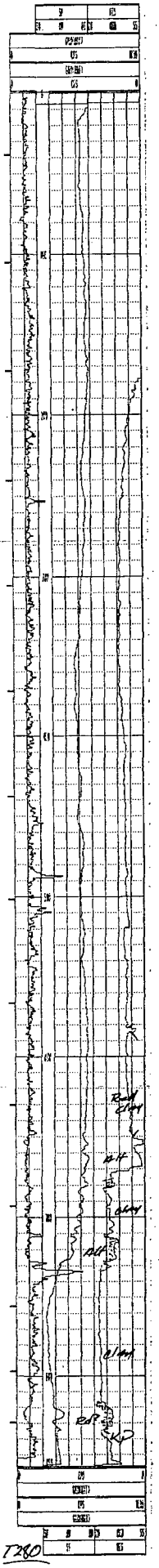
1500'N & 500'E from SW



TZM

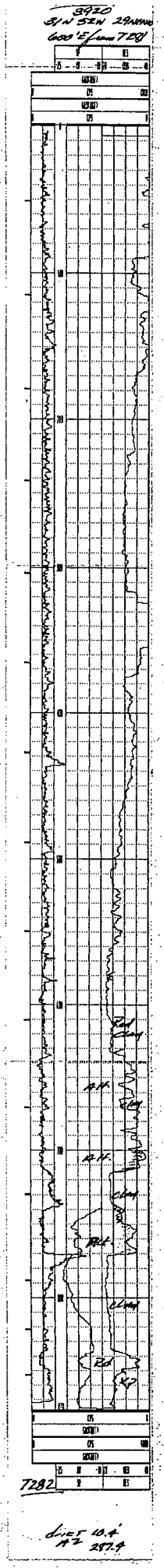
drill 14.7
AZ 252.4

1-28U,
3900
31N 52W 29NWNW
600'E from T27

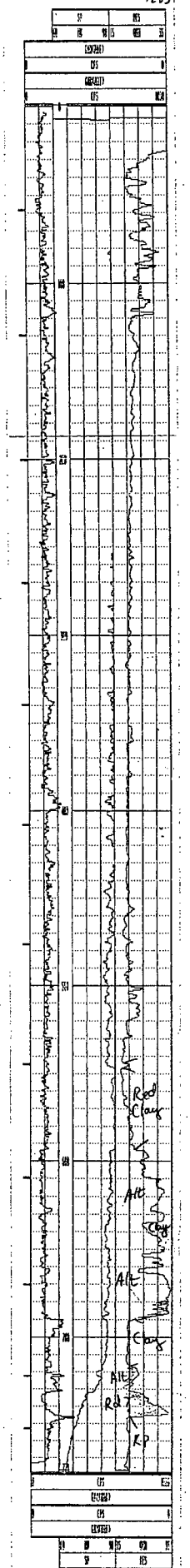


T280

drift 103'
AZ 307.4

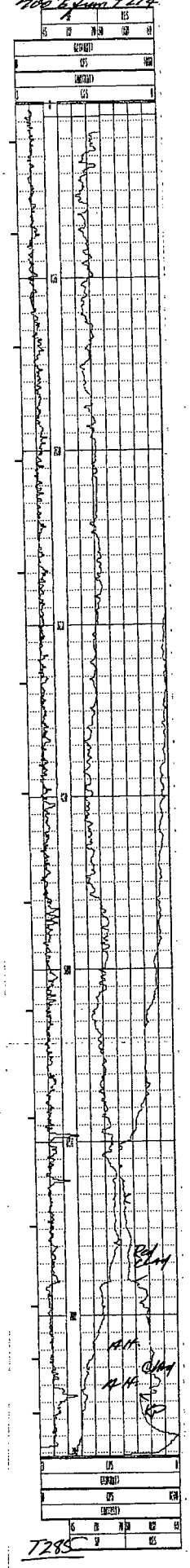

3920
31' N 52' W 29 [illegible]
600'E from TEX
7282
diff 10.4'
#2 297.4

3880
29 NWNE 31 N52W
600'E & 75'S from T283



T284
Drift 11.4'
Az 302.2°

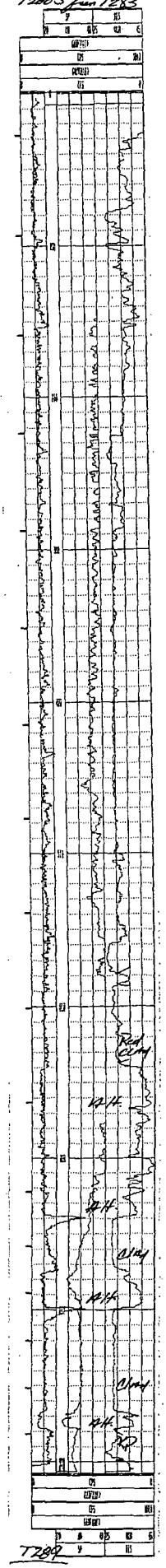
3860
3LN 52W, 28SWNW
700' E from T274



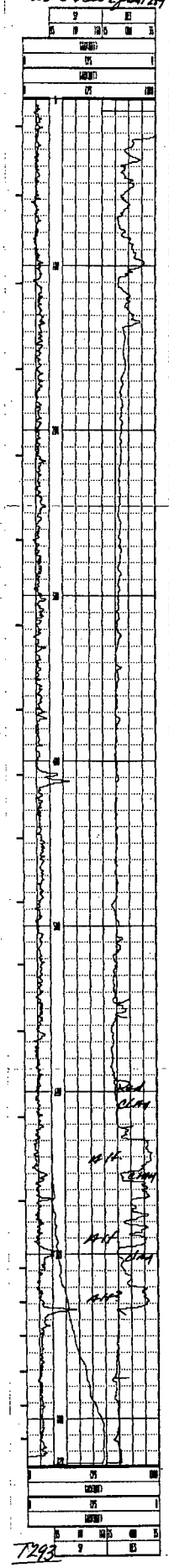
T285

drilled 15.7'
H2 272.3

2-WX7
3920
3W 5ON 29 SWNE
12005 from 7283



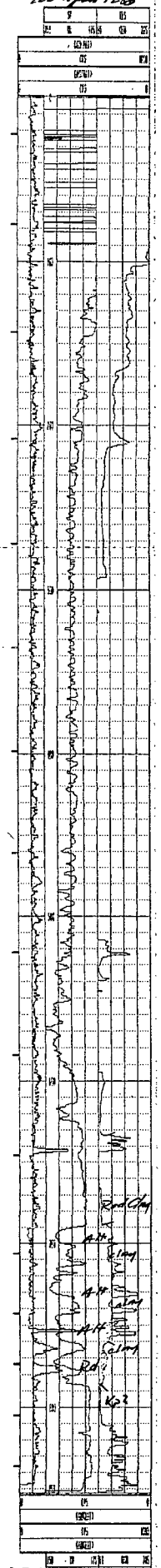
3910'
29 sawe SW 52W
400' S & 600' E from T29



T293

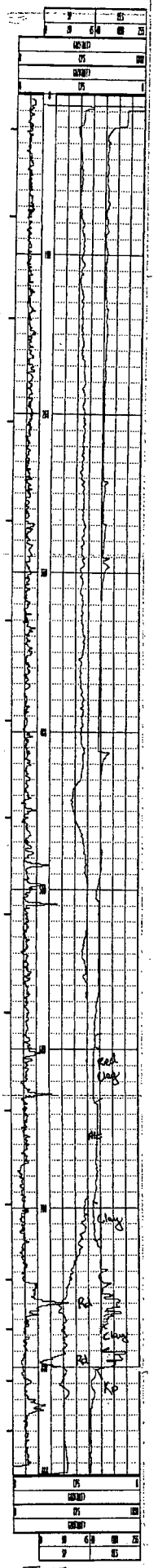
drill 7.5'
Ft 101.7

29NESE 31N52W
100'N from T288



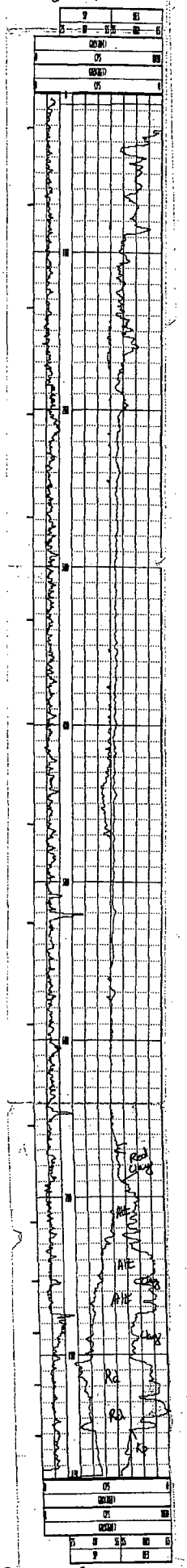
T292
7540' 1.0'-01
drift 3.0'
AZ 88.3

1-071
3970
29 NESE 31N 52W
100'S from 2 T-273



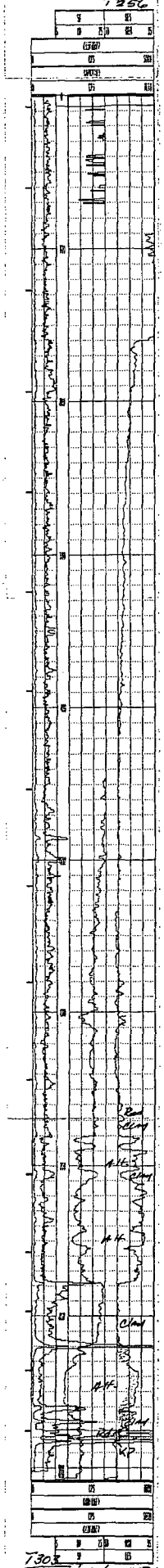
T-297
Draft 24.5'
Az 155.2°

3985
Z8N W5W 31N 5ZW
600'E from T-297

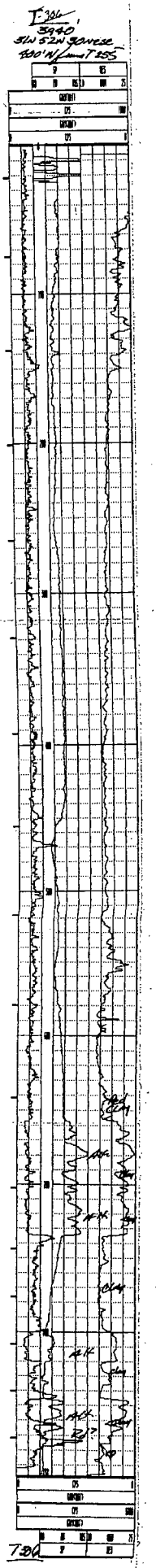


T-299
drift 7.9
Az 153.2°

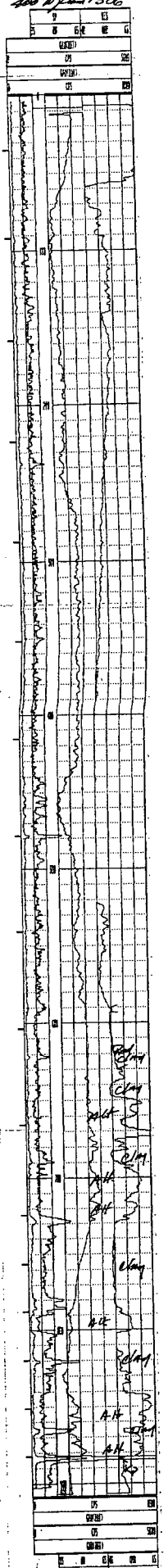
3955
3/N 52W 30 SE
400' S & 20' W of cor
T256



T303
820.5' 1.0' - .025
876.5' 1.0' - .020
879.0' 1.0' - .026
883.0' 1.0' - .026
dip ft 10.5 Az 195

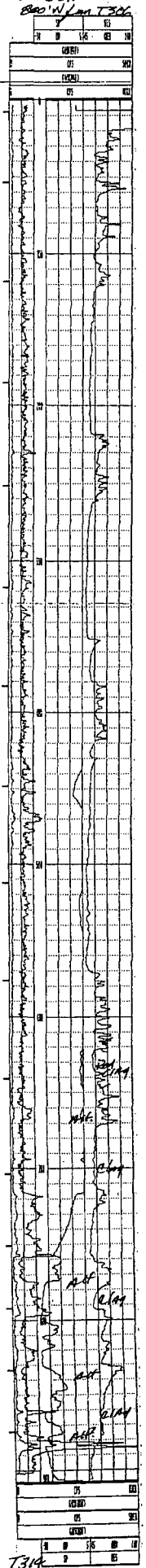

T-304
3940'
SW SW SW NE SE
990'N from T255
T-304
dist 19'
az 37.3

T313
3430
31N 52W 30 NESE
400' W from T306



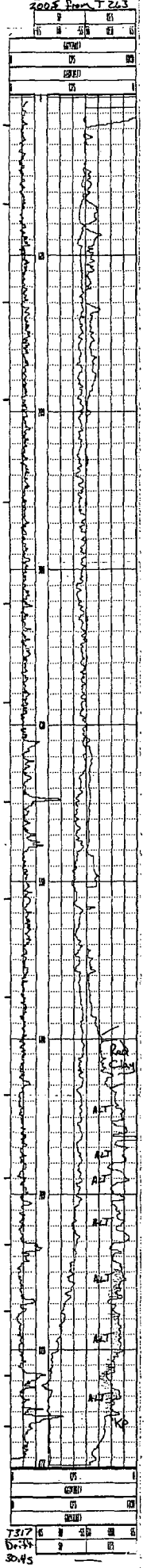
T313
8835 20'-025
1..-- 21

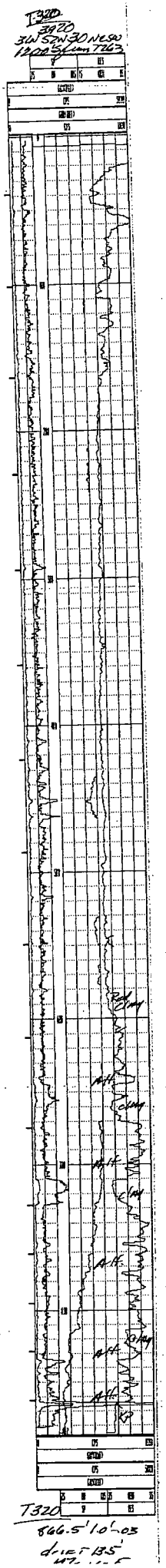
T-314
36 30
31N 52W 30 NWSE
880'W/ on T306



T314
BB38' 1.0'-014
BBS.5 1.5'-013
drift 25.4

T-317
3920
Sec 30 SESW 31N 8W
200S from T 243

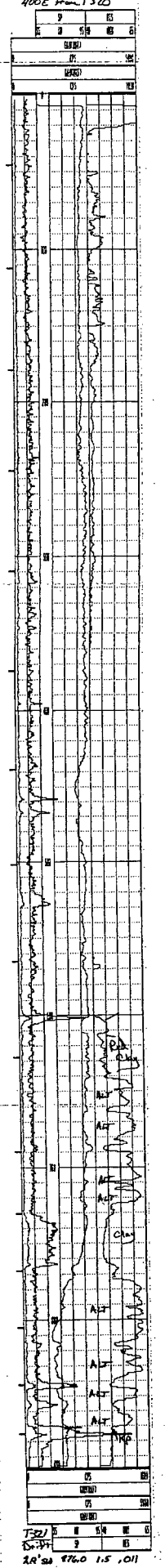



T320D
3920
3W S2W 30 NE90
1200 S Lum 7263
T320
866.5' 1.0'-03
drill 13.5'

3930

Sec 30 SESW S/N SEW

400E from T320

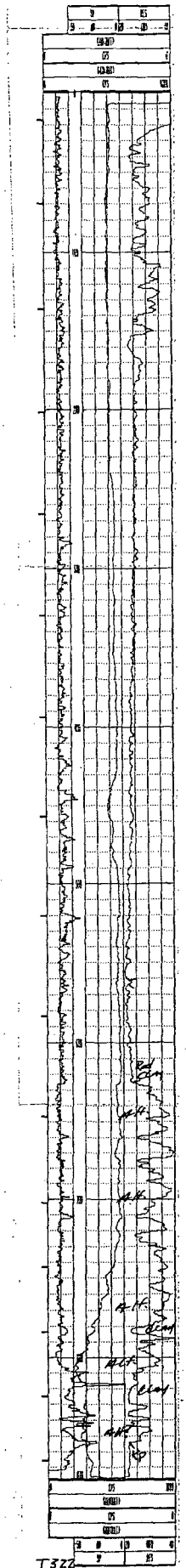


T-321

Sw-34

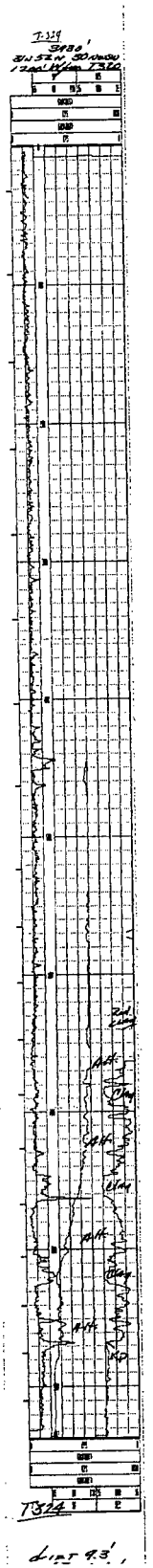
2R'SW 876.0 1.5 .011

T-320
8920
31N 52W 30NESW
400'N/Jan T320

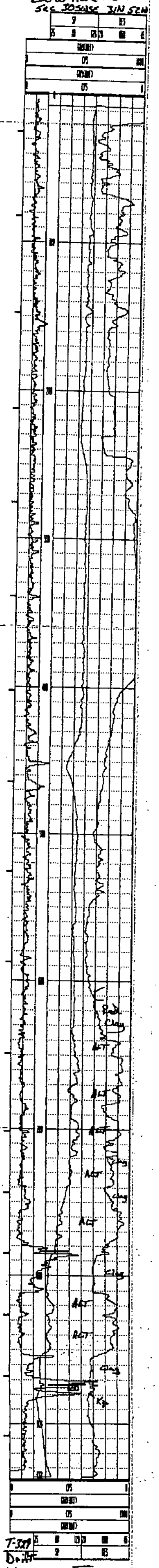


T322
818.0' 1.0'-.01

drift 5.7'
Az 208.7

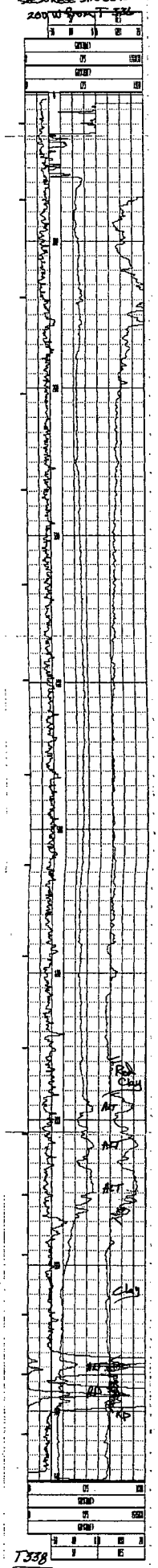

T-329
3439'
T324
dip 9.3'

34/3
200 W from T 215
Sec 30 SWSE 31N 52W



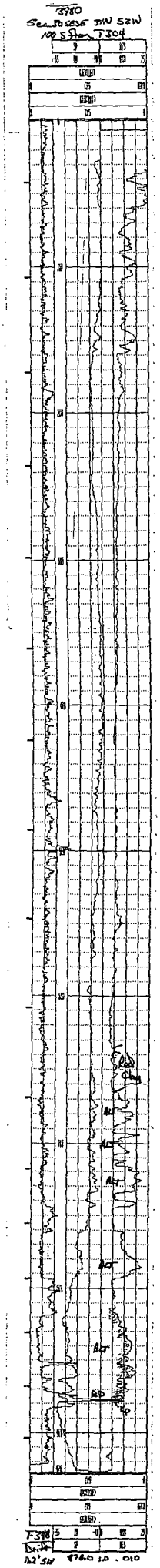
T-329
D=25
18' SWD

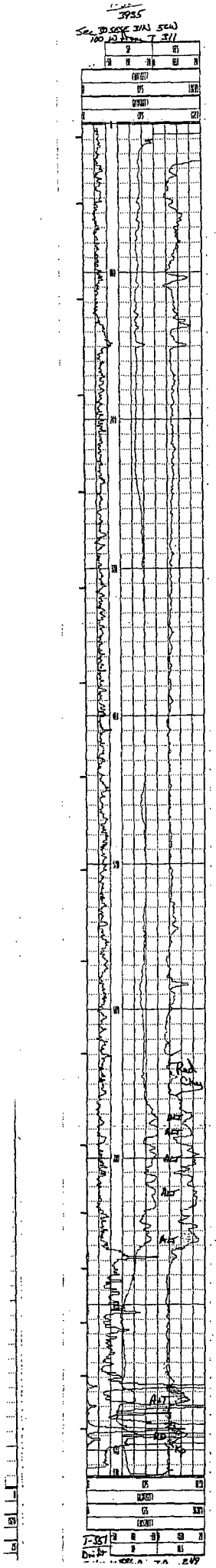
J-338
3920
Sec 30 R6SE T1N 52 N
200 W of T 336



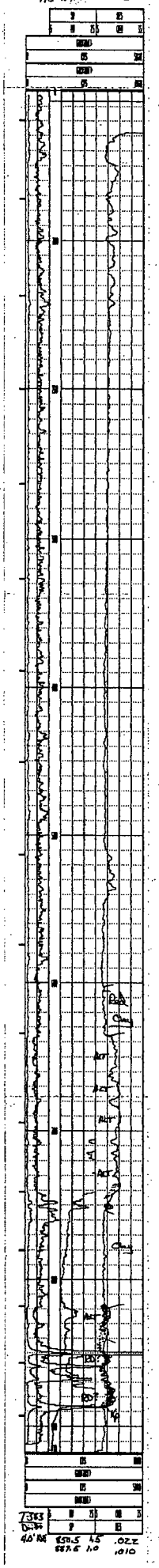
T338

844.5 2.0'-.081
872.0 2.0'-.131
888.5 3.5'-.969


3980
Seismograms TIN S2W
100 S Flow T304
T-398
Drift
12' SW
$760 10 . 010



7-20-J
3940
Sec 30 NESE 3N 6EW
175 W from T 35R

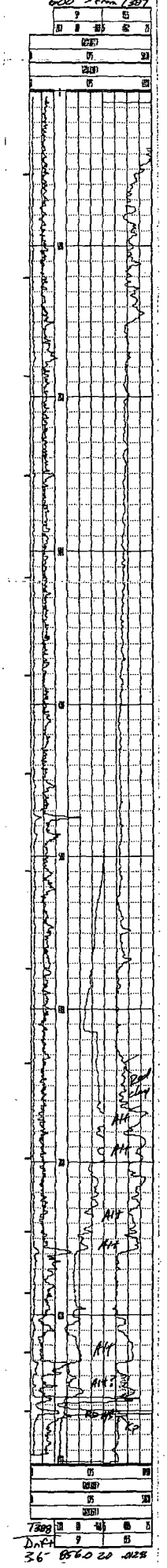


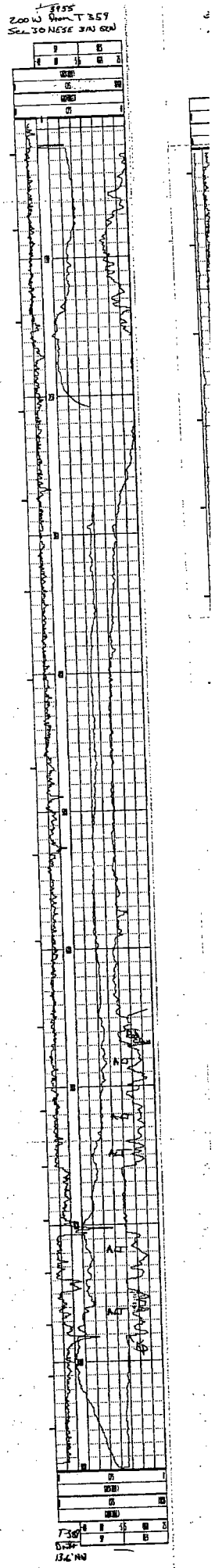
7-3-83
Dr-Pr
40' RE
8570.5 4.5 .022
8572.6 1.0 .010

1-330
3965

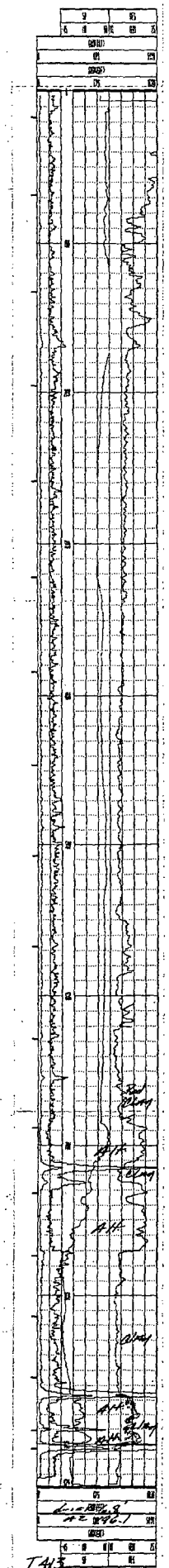
Sec 30 SESE 31N 52W

600' S from T309




8935
200 W from T 359
Sec 30 NESE 3N 6W
T 360
13.6' NW

3IN S2N SCHEE
100' N of Jan T40

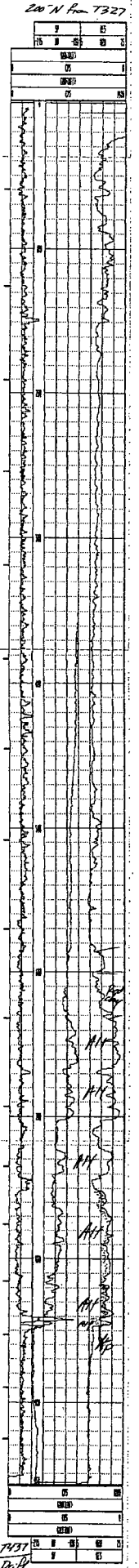


T413
716.0' 1.0'-.014
866.5 2.5'-.021
902.5 3.0'-.031

3910

sec 30 NE NW T15N

200' N from 7327



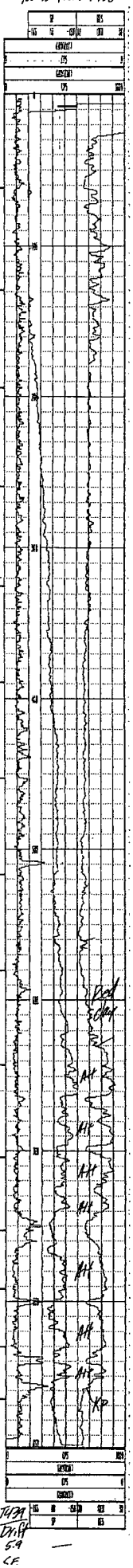
7437

Dr. A

4.5'

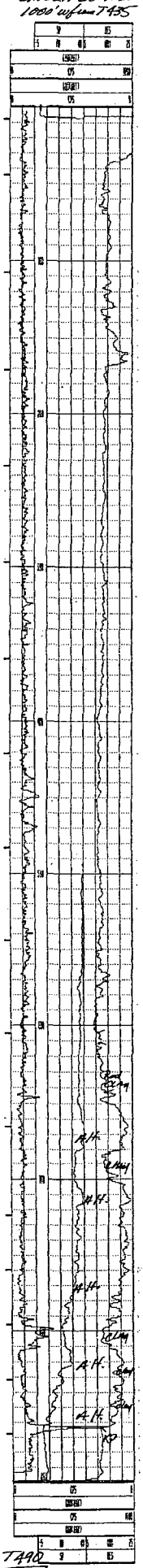
SW

T-651
3920
SEC 30 NESW 31N 5W
400' W from T438

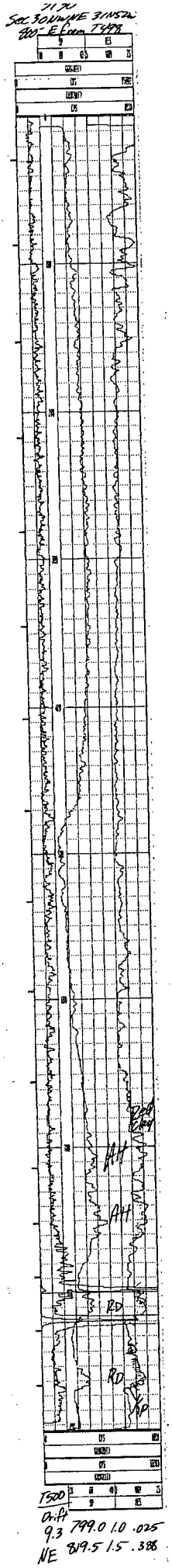


T439
Drift
5.9
CF

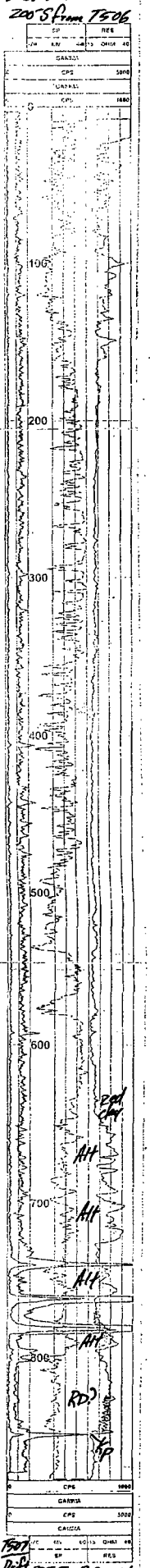
3930'
3N5ZN 30'NWSW
1000' w/ from T435



T490
8640' 10'-OM
drift 109'
A2 3459

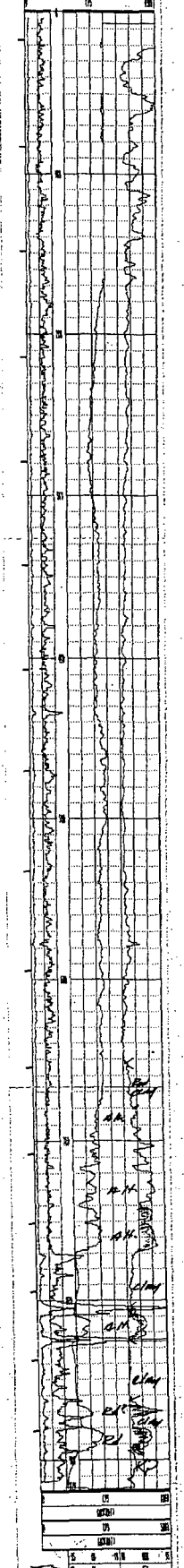

31.70
Sec 30 NW NE 31N 52W
800' E from T49N
AH
AH
RD
RD
T500
Drift
9.3 799.0 1.0 .025
NE 819.5 1.5 .388

1-507
3930
Sec 30 SW NE S1N S2W
200'S from T506



Drift 775.5 2.0 .014
Bd 775.5 4.0 .023
Sw 776.0 4.0 .039
790.5 1.0 .013
896.0 1.0

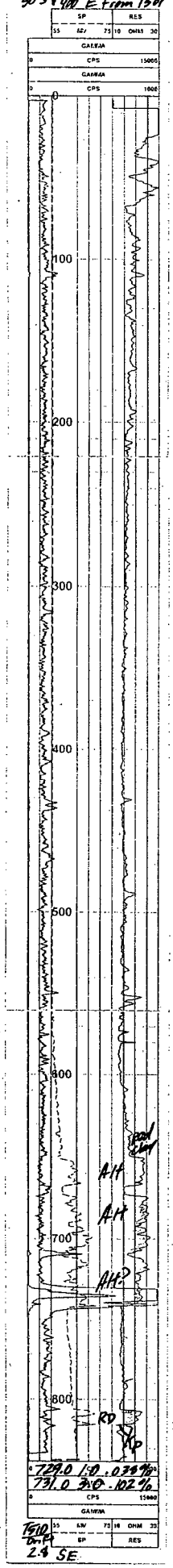
T-509
39555
31N52W 30sqne
200'E 200'S fnw
T502



T509
805.5 1.0-022
826.0 1.0-036
Lnst 17.0 Aug 83

I-31V
3895

SEC 30, NENE 3N 62W
50' & 400' E from T501

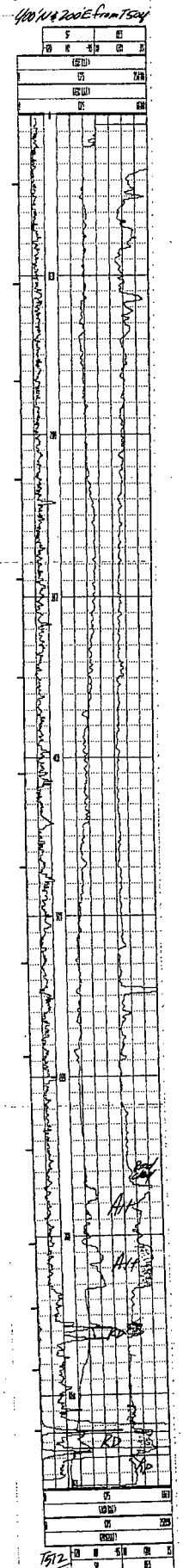


T510
Dr RP
2.4 SE

3905

Sec 30 SENE 31N52W

400'N & 200E from TS04



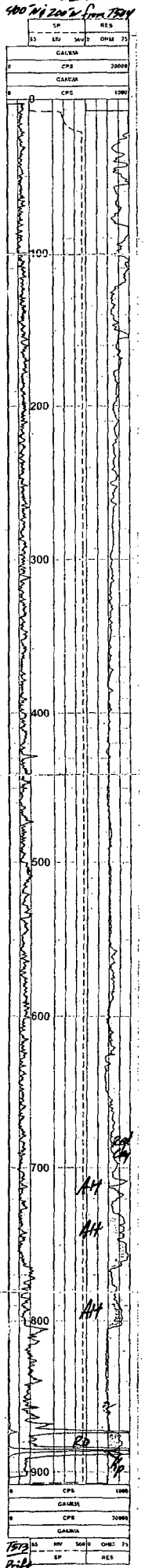
TS12

Drift

8.5 824.0 1.0 .259

SE 836.5 3.0 .084

400 W 200 W from TSH

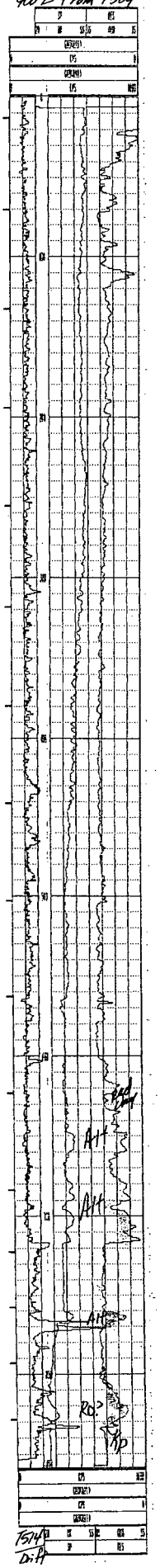


4.0 885.0 25 .160

3410

SEC 30 SENE 31N62W

400'E from TS04



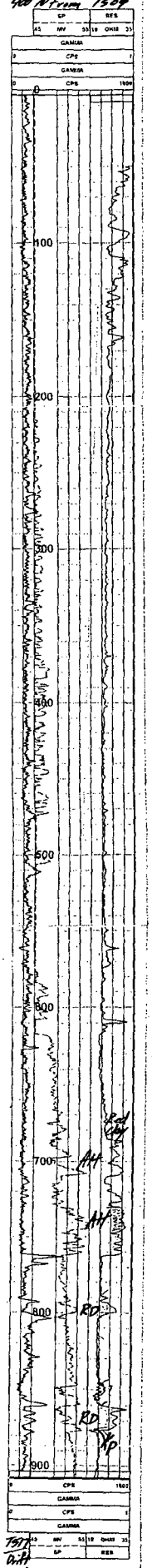
TS14

Dip

7.3

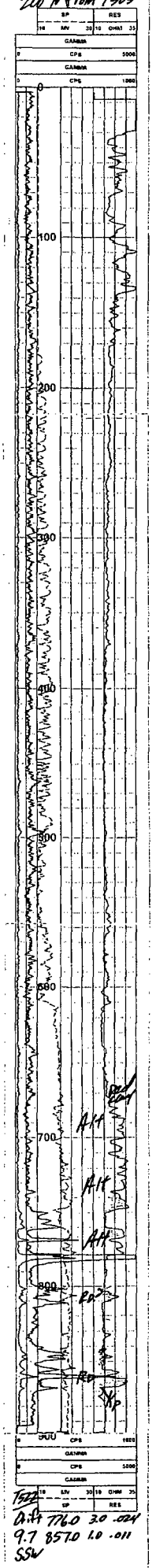
SSW

T-517
3945
Sec 30 Tw 4E 31N 52W
400' N from T509



T517
D.H
11.4
SE

3946
Sec 30 4N R7 1N 52W
200'N from T505

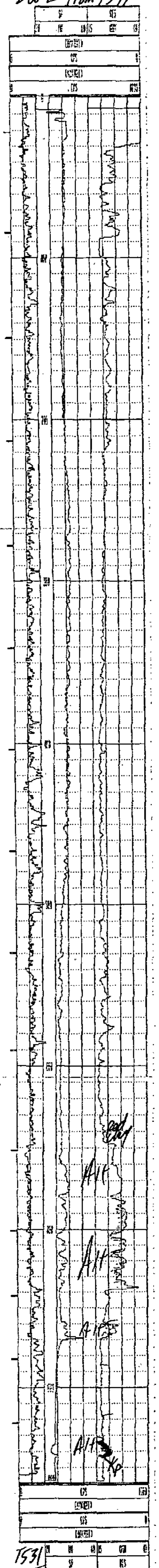


T522
Dil 776.0 3.0 .024
9.7 857.0 1.0 .011
SSW

3925

Sec 30 NENE 7N 52W

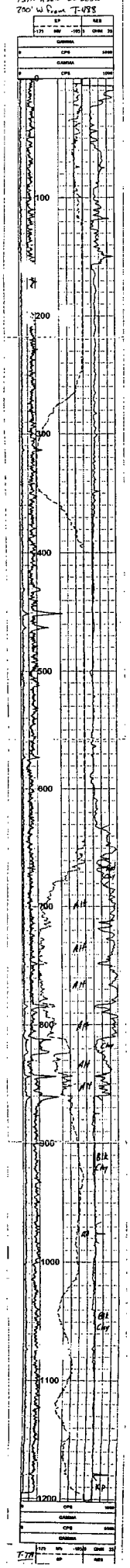
200'E from TS11



TS31

Drift
7.8
NE

3930
T31N R52W 30 SESW
700' W from T-488

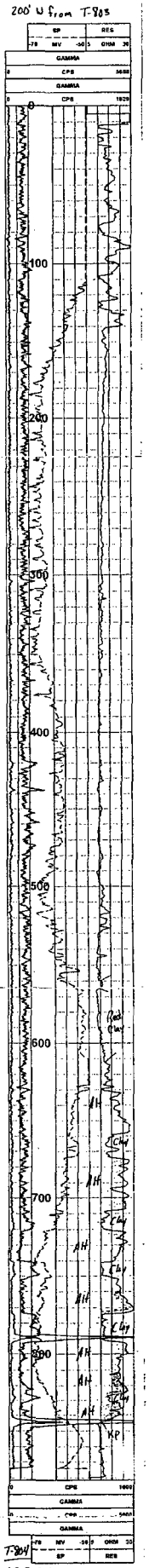


T-804

3920

T31N R51W 30 NWSE

200' W from T-803



T-804

23.8 ESE

789.5 1.8' – .014

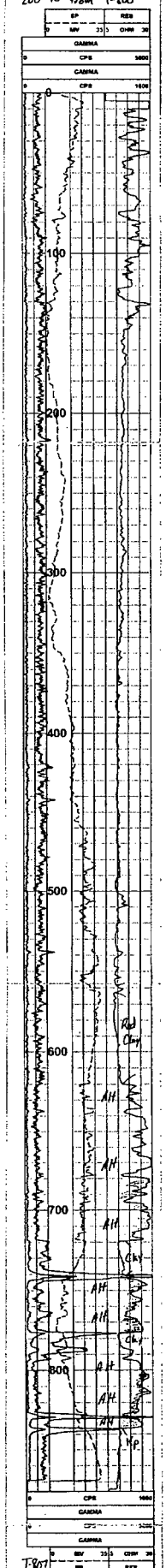
844.0 1.5' – .021

T-807

3720'

T31N R52W 30SWNE

200' N from T-800



2.9' ESE

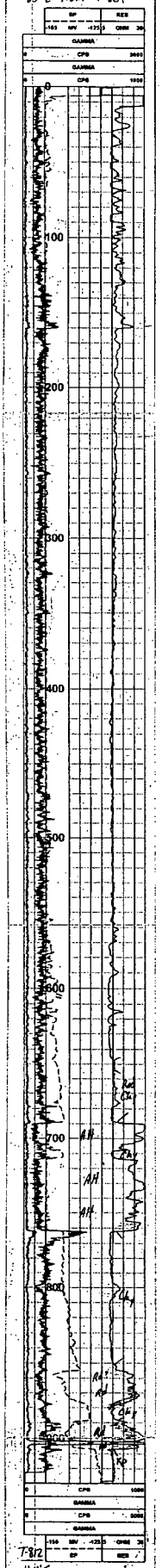
741.0 1.5'-.027

T-812

3943

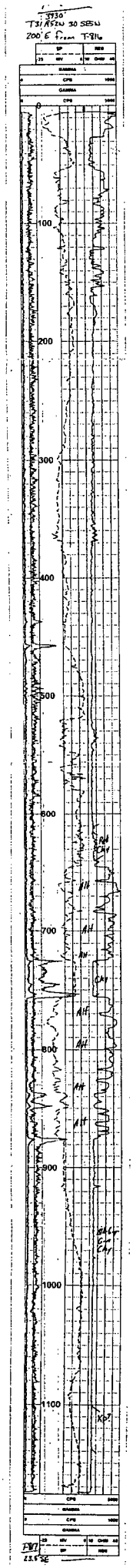
T31N R5EW.20 SENE

85' E from T-809

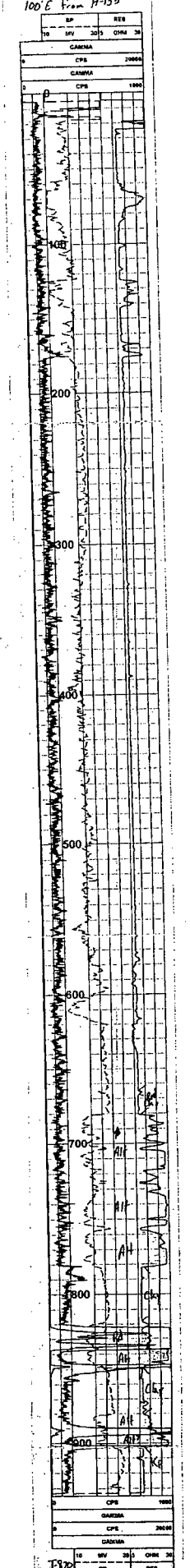


11.4'S

902.5 .16-.016


3930'
T31 R52W 30 SESW
200' E from T-816
SP
RES
GAMMA
CPS
100
200
300
400
500
600
700
800
900
1000
1100
FWT
23.5° SE

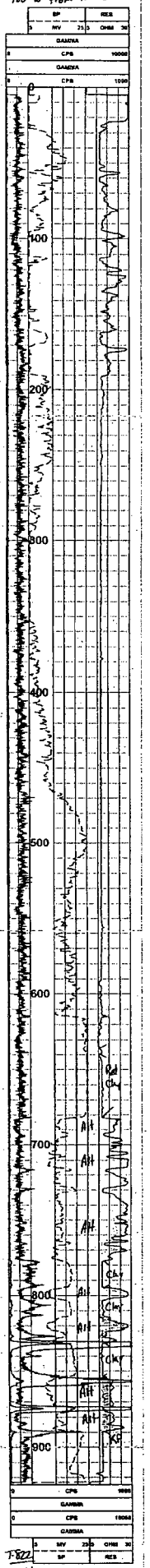
T-820
3940
T3N R52W 30 SENE
100'E from H-155



T-820

824.0 6.5' – .112
839.0 2.0' – .269
848.5 1.0' – .051

3955
T31N R52W 30SWNE
100' W from H-158

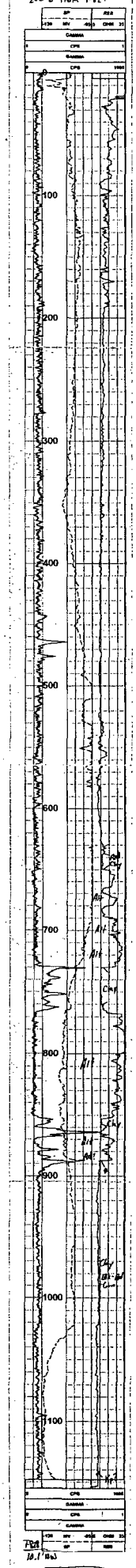


T-822
10.6' SSW
881.0 1.5'-.058
873.5 1.5'-.037

3950

T31N R52W SEC30SE¼

200'S from T-827



T-828

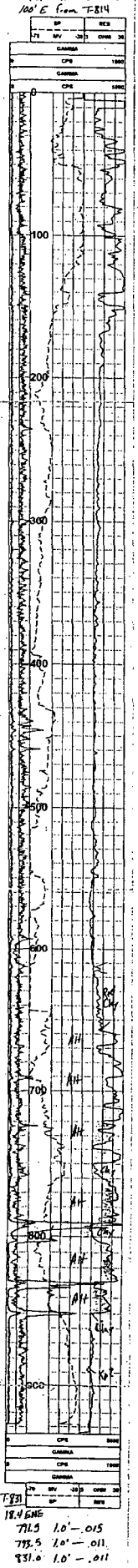
10.1' Bus

T-831

3935

T31N R52W 30SWNE

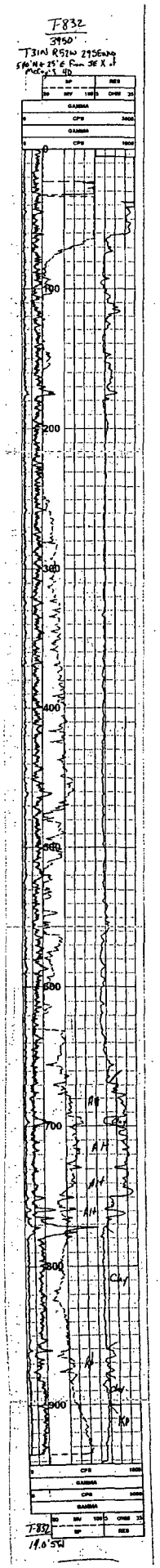
100' E from T-814



711.5 1.0' — .015

733.5 1.0' — .011

831.0 1.0' — .011

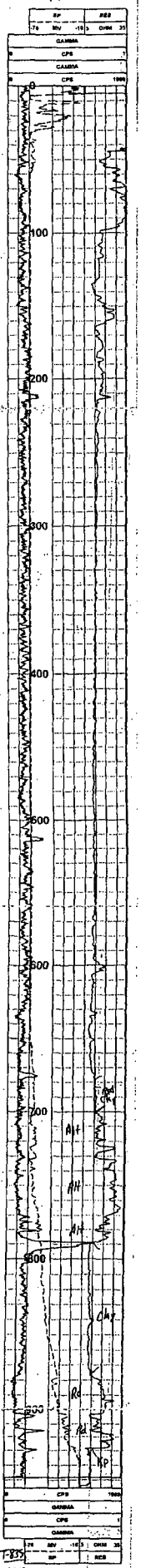

T-832
3950'
T31N R51W 295E and
560'N & 25'E from SE X of
McCoy's 4D
SP
RES
GAMMA
CPS
GAMMA
CPS
100
200
300
400
500
600
700
800
900
Ag
Ah
Ah
Ah
Clay
Ag
Ag
CPS
GAMMA
CPS
GAMMA
SP
RES
T-832
14.0'SW

T-835

3970

T31N R52W 27SWNW

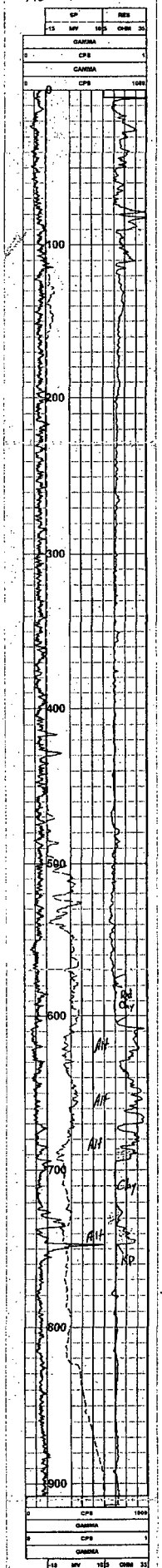
400' W from T-834



T-835

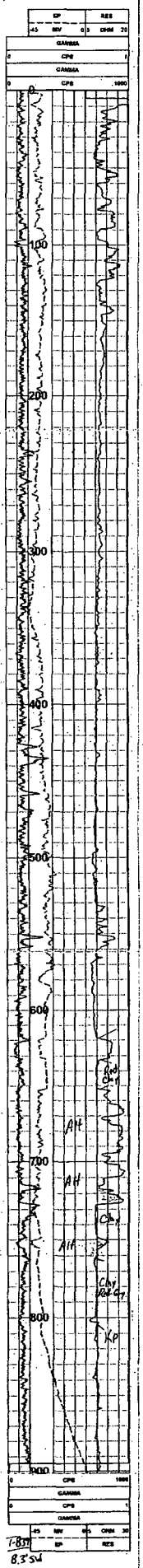
17.1' ENE

T-838
3885
T31N R52W 29SENE
170' W from T-837

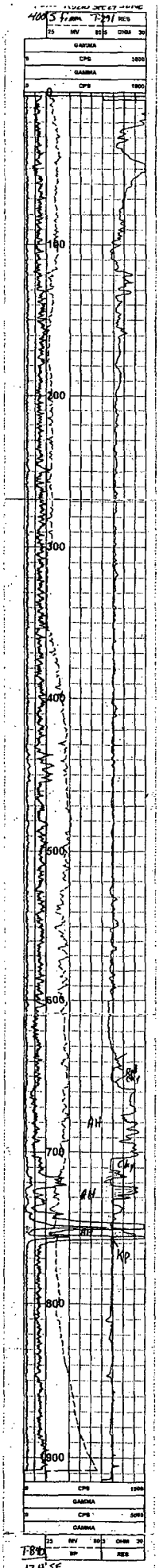


T-838
19.4'ENE

T-857
3930
T31N R52W 29SENE
130'W + 30'S from ~T-791



T-857
8.3 SW

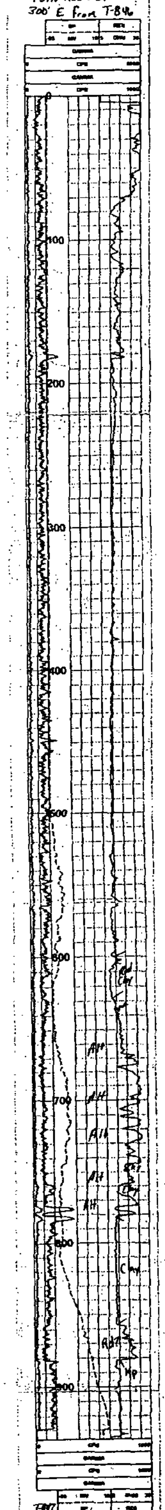


12.4'SE

747.0 3.5'—.023

755.5 1.5'—.020

T-847
3945'
T31N R52W 29SENW
300' E From T-846



T-847

ARCADIS

Appendix B

Mineralogical and Particle Size Distribution Analyses

PTS File No: 39978
Client: Crow Butte Resources

X-RAY DIFFRACTION ANALYSIS DATA

Project Name: Three Crow Core Samples
Project Number: N/A

	Sample ID:	T-1050c Run 1 310-315'	T-1050c Run 2 440-445'	T-1050c Run 3 560-565'	T-1050c Run 5 900-905'
Mineral Constituents	Chemical Formula	Relative Abundance, percent			
Quartz	SiO_2	24	17	23	31
Cristobalite	SiO_2			8	
Tridymite	SiO_2			4	
Plagioclase Feldspar	$(Na,Ca)AlSi_3O_8$	8	7	6	1
K-Feldspar	$KAlSi_3O_8$	2	2	3	7
Calcite	$CaCO_3$	26	8	trc	trc
Dolomite	$(Ca,Mg)CO_3$			1	2
Siderite	$FeCO_3$			1	
Gypsum	$CaSO_4 . 2H_2O$			2	
Fluorapatite	$Ca_5F(PO_4)_3$	1			trc
Pyrite	FeS_2				1
Hematite	$alpha\text{-}Fe_2O_3$			1	
Kaolinite	$Al_2Si_2O_5(OH)_4$				3
Chlorite	$(Mg,Al)_6(Si,Al)_4O_{10}(OH)_8$				5
Illite / Mica	$KAl_2(Si_3AlO_{10})(OH)_2$	2	2	3	17
Montmorillonite	$Na_{0.3}(Al,Mg)_2Si_4O_{10}(OH)_2 . xH_2O$	37	64		
Mixed-Layered Illite/ Smectite	$K_{0.5}Al_2(Si,Al)_4O_{10}(OH)_2 . 2H_2O$			48	33
% Illite Layers in M. L. I/S				*10-30%*	*10-30%*
TOTAL		***100***	***100***	***100***	***100***

PTS File No: 39978
Client: Crow Butte Resources

X-RAY DIFFRACTION ANALYSIS DATA

Project Name: Three Crow Core Samples
Project Number: N/A

	Sample ID:	T-1051c Run 1 290-295'	T-1051c Run 2 480-485'	T-1051c Run 3 600-605'	T-1051c Run 5 890-895'
Mineral Constituents	Chemical Formula	Relative Abundance, percent			
Quartz	SiO_2	25	12	36	40
Cristobalite	SiO_2				
Tridymite	SiO_2				
Plagioclase Feldspar	$(Na,Ca)AlSi_3O_8$	9	5	2	5
K-Feldspar	$KAlSi_3O_8$	3	2	2	3
Calcite	$CaCO_3$	trc	17		
Dolomite	$(Ca,Mg)CO_3$				5
Siderite	$FeCO_3$				
Gypsum	$CaSO_4 . 2H_2O$		24		
Fluorapatite	$Ca_5F(PO_4)_3$			trc?	
Pyrite	FeS_2				1
Hematite	$alpha\text{-}Fe_2O_3$				
Kaolinite	$Al_2Si_2O_5(OH)_4$				trc
Chlorite	$(Mg,Al)_6(Si,Al)_4O_{10}(OH)_8$	trc			3
Illite / Mica	$KAl_2(Si_3AlO_{10})(OH)_2$	2	2	1	6
Montmorillonite	$Na_{0.3}(Al,Mg)_2Si_4O_{10}(OH)_2 . xH_2O$	61		59	37
Mixed-Layered Illite/ Smectite	$K_{0.5}Al_2(Si,Al)_4O_{10}(OH)_2 . 2H_2O$		38		
% Illite Layers in M. L. I/S			*0-10%*		
TOTAL		***100***	***100***	***100***	***100***

PTS Laboratories, Inc.

Crow B[illegible] Resources
PTS File No: 39978

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Three Crow Core Samples
PROJECT NO: N/A

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
T-1050c Run 1	310-315	Silt	0.036	0.00	0.00	0.00	17.84	70.18	11.99	82.16
T-1050c Run 2	440-445	Silt	0.032	0.00	0.00	6.31	21.01	56.33	16.35	72.68
T-1050c Run 3	560-565	Silt	0.016	0.00	0.00	0.00	14.99	58.22	26.80	85.01
T-1050c Run 5	900-905	Silt	0.004	0.00	0.00	0.00	0.01	42.13	57.86	99.99
T-1051c - Run 1	290-295	Silt	0.037	0.00	0.00	6.07	21.94	58.42	13.58	72.00
T-1051c - Run 2	480-485	Silt	0.012	0.00	0.00	0.00	4.64	65.90	29.46	95.36
T-1051c - Run 3	600-605	Clay	0.004	0.00	0.00	0.00	0.00	38.39	61.61	100.00
T-1051c - Run 5	890-895	Silt	0.007	0.00	0.00	0.00	2.77	57.41	39.81	97.23

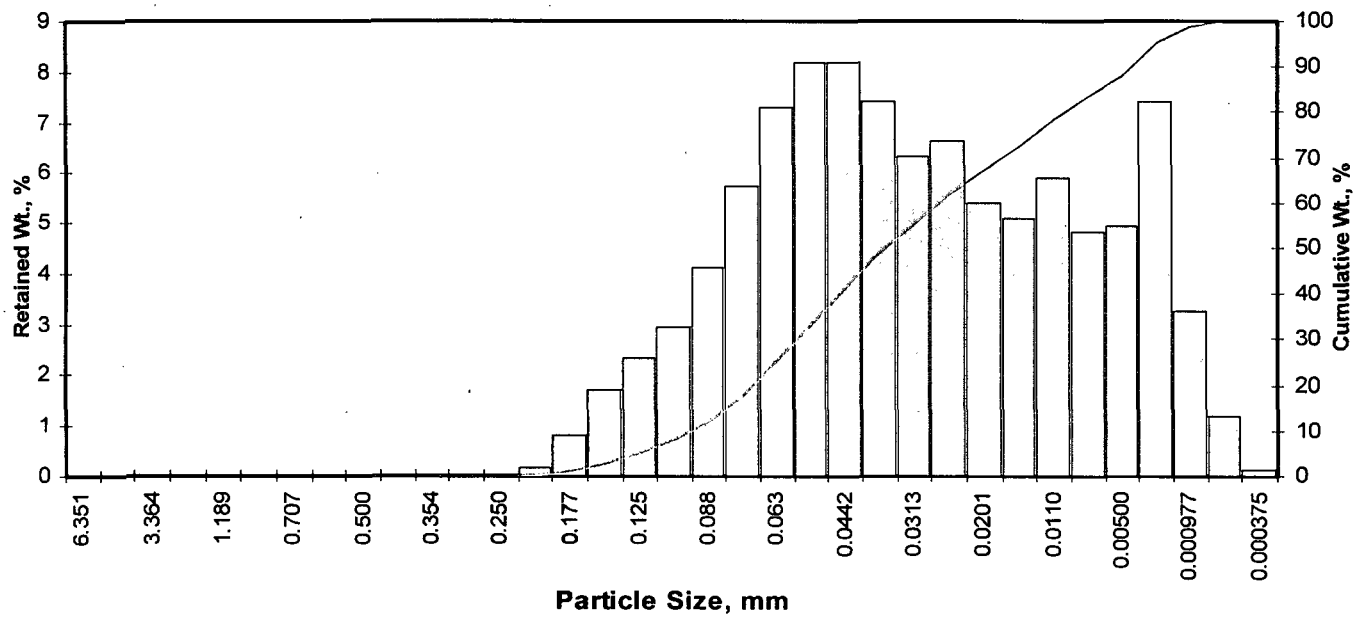
(1) Based on Mean from Trask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1050c Run 1
Project No:	N/A	**Depth, ft:**	310-315

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.01	0.01	0.01
0.0083	0.210	2.25	70	0.17	0.17	0.18
0.0070	0.177	2.50	80	0.82	0.82	1.00
0.0059	0.149	2.75	100	1.71	1.71	2.71
0.0049	0.125	3.00	120	2.32	2.32	5.03
0.0041	0.105	3.25	140	2.96	2.96	7.99
0.0035	0.088	3.50	170	4.11	4.11	12.10
0.0029	0.074	3.75	200	5.74	5.74	17.84
0.0025	0.063	4.00	230	7.30	7.30	25.14
0.0021	0.053	4.25	270	8.17	8.17	33.31
0.00174	0.0442	4.50	325	8.19	8.19	41.50
0.00146	0.0372	4.75	400	7.42	7.42	48.92
0.00123	0.0313	5.00	450	6.34	6.34	55.26
0.000986	0.0250	5.32	500	6.62	6.62	61.87
0.000790	0.0201	5.64	635	5.40	5.40	67.27
0.000615	0.0156	6.00		5.10	5.10	72.37
0.000435	0.0110	6.50		5.91	5.91	78.28
0.000308	0.00781	7.00		4.82	4.82	83.10
0.000197	0.00500	7.65		4.91	4.91	88.01
0.000077	0.00195	9.00		7.40	7.40	95.41
0.000038	0.000977	10.00		3.27	3.27	98.68
0.000019	0.000488	11.00		1.22	1.22	99.90
0.000015	0.000375	11.38		0.10	0.10	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.00	0.0049	0.125
10	3.37	0.0038	0.097
16	3.67	0.0031	0.079
25	4.00	0.0025	0.063
40	4.45	0.0018	0.046
50	4.79	0.0014	0.036
60	5.23	0.0010	0.027
75	6.22	0.0005	0.013
84	7.12	0.0003	0.007
90	8.01	0.0002	0.004
95	8.92	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.79	4.79	4.79
Median, in.	0.0014	0.0014	0.0014
Median, mm	0.036	0.036	0.036
Mean, phi	4.72	5.39	5.19
Mean, in.	0.0015	0.0009	0.0011
Mean, mm	0.038	0.024	0.027
Sorting	2.164	1.724	1.760
Skewness	0.803	0.349	0.371
Kurtosis	0.266	0.719	1.091
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	17.84
Silt	>0.005 mm	70.18
Clay	<0.005 mm	11.99
	Total	**100**

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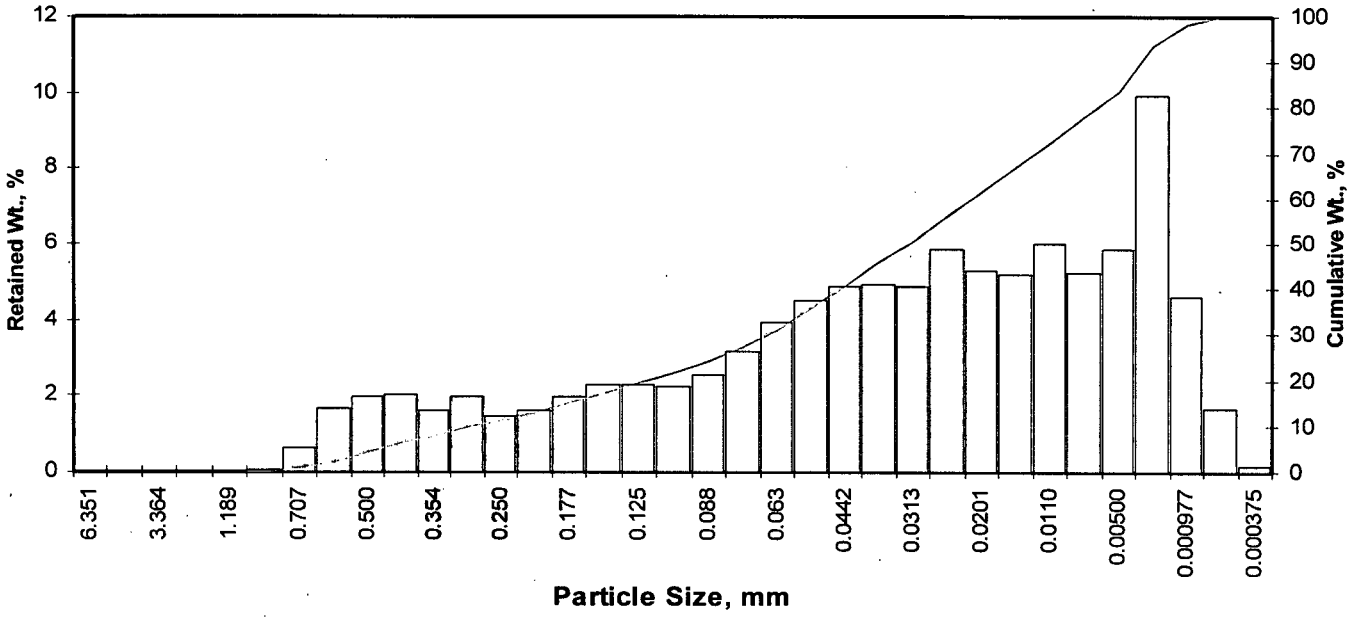
Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1050c Run 2
Project No:	N/A	**Depth, ft:**	440-445

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.05	0.04	0.04
0.0278	0.707	0.50	25	0.64	0.64	0.68
0.0234	0.595	0.75	30	1.67	1.67	2.35
0.0197	0.500	1.00	35	1.94	1.94	4.29
0.0166	0.420	1.25	40	2.02	2.02	6.31
0.0139	0.354	1.50	45	1.61	1.61	7.92
0.0117	0.297	1.75	50	1.94	1.94	9.86
0.0098	0.250	2.00	60	1.47	1.47	11.33
0.0083	0.210	2.25	70	1.60	1.60	12.93
0.0070	0.177	2.50	80	1.97	1.97	14.90
0.0059	0.149	2.75	100	2.27	2.27	17.17
0.0049	0.125	3.00	120	2.26	2.26	19.43
0.0041	0.105	3.25	140	2.22	2.22	21.65
0.0035	0.088	3.50	170	2.51	2.51	24.16
0.0029	0.074	3.75	200	3.16	3.16	27.32
0.0025	0.063	4.00	230	3.92	3.92	31.24
0.0021	0.053	4.25	270	4.49	4.49	35.73
0.00174	0.0442	4.50	325	4.84	4.84	40.57
0.00146	0.0372	4.75	400	4.93	4.93	45.50
0.00123	0.0313	5.00	450	4.84	4.84	50.34
0.000986	0.0250	5.32	500	5.83	5.83	56.17
0.000790	0.0201	5.64	635	5.29	5.29	61.46
0.000615	0.0156	6.00		5.15	5.15	66.61
0.000435	0.0110	6.50		6.01	6.01	72.62
0.000308	0.00781	7.00		5.21	5.21	77.83
0.000197	0.00500	7.65		5.82	5.82	83.65
0.000077	0.00195	9.00		9.95	9.95	93.60
0.000038	0.000977	10.00		4.61	4.61	98.21
0.000019	0.000488	11.00		1.66	1.66	99.87
0.000015	0.000375	11.38		0.13	0.13	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.09	0.0185	0.471
10	1.77	0.0115	0.293
16	2.62	0.0064	0.163
25	3.57	0.0033	0.084
40	4.47	0.0018	0.045
50	4.98	0.0012	0.032
60	5.55	0.0008	0.021
75	6.73	0.0004	0.009
84	7.69	0.0002	0.005
90	8.51	0.0001	0.003
95	9.30	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.98	4.98	4.98
Median, in.	0.0012	0.0012	0.0012
Median, mm	0.032	0.032	0.032
Mean, phi	4.41	5.16	5.10
Mean, in.	0.0018	0.0011	0.0011
Mean, mm	0.047	0.028	0.029
Sorting	2.992	2.536	2.513
Skewness	0.892	0.069	0.060
Kurtosis	0.129	0.620	1.065
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	6.31
Fine Sand	200	21.01
Silt	>0.005 mm	56.33
Clay	<0.005 mm	16.35
	Total	**100**

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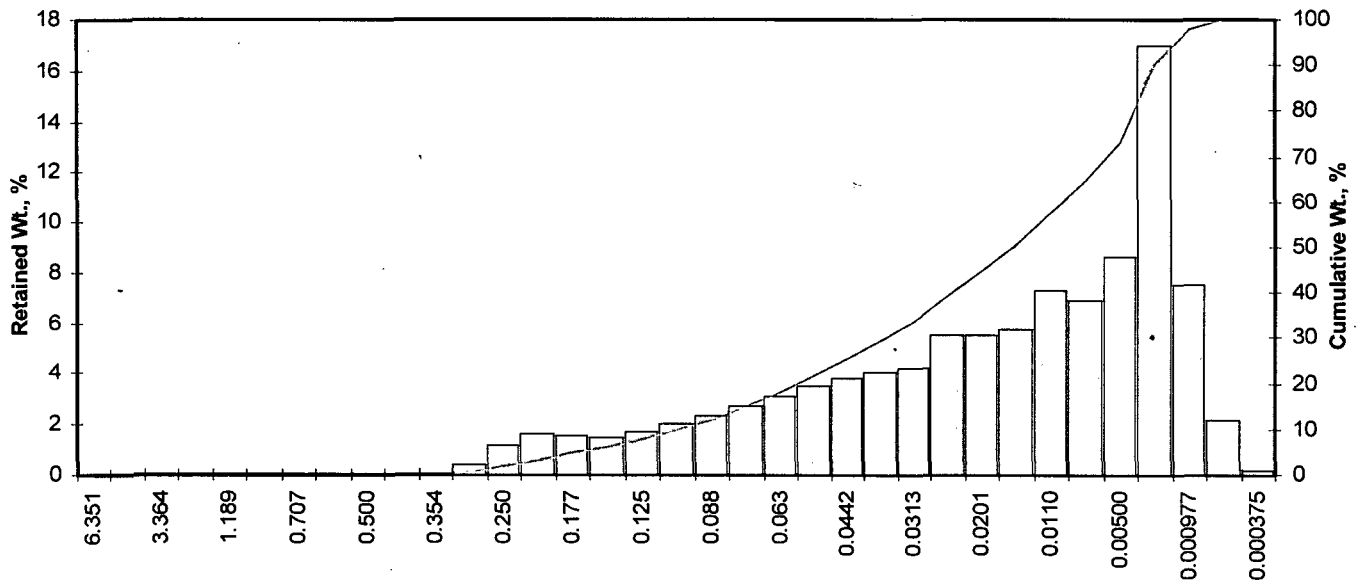
Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1050c Run 3
Project No:	N/A	**Depth, ft:**	560-565

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.01	0.01	0.01
0.0117	0.297	1.75	50	0.36	0.36	0.37
0.0098	0.250	2.00	60	1.16	1.16	1.53
0.0083	0.210	2.25	70	1.65	1.65	3.18
0.0070	0.177	2.50	80	1.53	1.53	4.71
0.0059	0.149	2.75	100	1.44	1.44	6.15
0.0049	0.125	3.00	120	1.71	1.71	7.86
0.0041	0.105	3.25	140	2.05	2.05	9.91
0.0035	0.088	3.50	170	2.35	2.35	12.27
0.0029	0.074	3.75	200	2.72	2.72	14.99
0.0025	0.063	4.00	230	3.14	3.14	18.13
0.0021	0.053	4.25	270	3.49	3.49	21.62
0.00174	0.0442	4.50	325	3.80	3.80	25.42
0.00146	0.0372	4.75	400	4.03	4.03	29.45
0.00123	0.0313	5.00	450	4.21	4.21	33.66
0.000986	0.0250	5.32	500	5.49	5.49	39.15
0.000790	0.0201	5.64	635	5.47	5.47	44.62
0.000615	0.0156	6.00		5.74	5.74	50.37
0.000435	0.0110	6.50		7.30	7.30	57.67
0.000308	0.00781	7.00		6.92	6.92	64.59
0.000197	0.00500	7.65		8.61	8.61	73.20
0.000077	0.00195	9.00		17.00	17.00	90.21
0.000038	0.000977	10.00		7.50	7.50	97.71
0.000019	0.000488	11.00		2.15	2.15	99.86
0.000015	0.000375	11.38		0.14	0.14	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.55	0.0067	0.171
10	3.26	0.0041	0.104
16	3.83	0.0028	0.070
25	4.47	0.0018	0.045
40	5.37	0.0010	0.024
50	5.98	0.0006	0.016
60	6.67	0.0004	0.010
75	7.79	0.0002	0.005
84	8.51	0.0001	0.003
90	8.98	0.0001	0.002
95	9.64	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.98	5.98	5.98
Median, in.	0.0006	0.0006	0.0006
Median, mm	0.016	0.016	0.016
Mean, phi	5.33	6.17	6.10
Mean, in.	0.0010	0.0005	0.0006
Mean, mm	0.025	0.014	0.015
Sorting	3.156	2.337	2.243
Skewness	0.899	0.082	0.057
Kurtosis	0.198	0.516	0.876
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

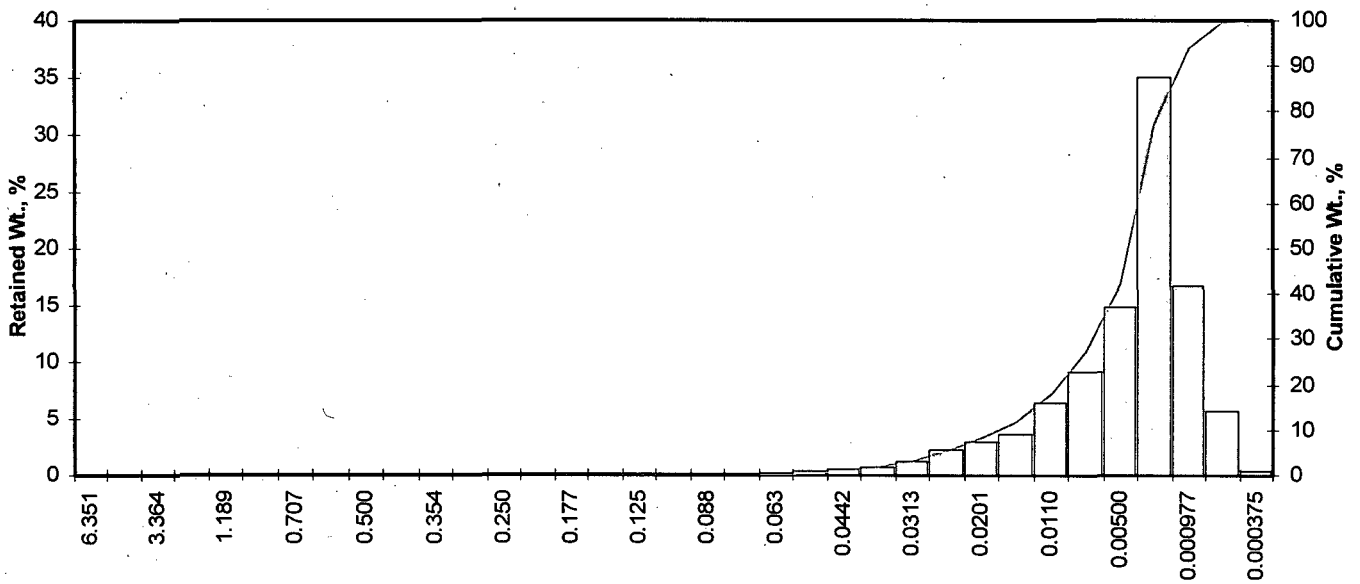
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	14.99
Silt	>0.005 mm	58.22
Clay	<0.005 mm	26.80
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1050c Run 5
Project No:	N/A	**Depth, ft:**	900-905

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.01	0.01	0.01
0.0025	0.063	4.00	230	0.14	0.14	0.15
0.0021	0.053	4.25	270	0.35	0.35	0.50
0.00174	0.0442	4.50	325	0.45	0.45	0.95
0.00146	0.0372	4.75	400	0.73	0.73	1.68
0.00123	0.0313	5.00	450	1.25	1.25	2.93
0.000986	0.0250	5.32	500	2.30	2.30	5.23
0.000790	0.0201	5.64	635	2.85	2.85	8.07
0.000615	0.0156	6.00		3.60	3.60	11.67
0.000435	0.0110	6.50		6.47	6.46	18.14
0.000308	0.00781	7.00		9.12	9.11	27.25
0.000197	0.00500	7.65		14.90	14.89	42.14
0.000077	0.00195	9.00		35.00	34.97	77.11
0.000038	0.000977	10.00		16.80	16.79	93.89
0.000019	0.000488	11.00		5.68	5.68	99.57
0.000015	0.000375	11.38		0.43	0.43	100.00
TOTALS				**100.10**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	5.29	0.0010	0.026
10	5.83	0.0007	0.018
16	6.33	0.0005	0.012
25	6.88	0.0003	0.009
40	7.55	0.0002	0.005
50	7.95	0.0002	0.004
60	8.34	0.0001	0.003
75	8.92	0.0001	0.002
84	9.41	0.0001	0.001
90	9.77	0.0000	0.001
95	10.19	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.95	7.95	7.95
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.004	0.004	0.004
Mean, phi	7.56	7.87	7.90
Mean, in.	0.0002	0.0002	0.0002
Mean, mm	0.005	0.004	0.004
Sorting	2.029	1.538	1.512
Skewness	1.037	-0.050	-0.067
Kurtosis	0.196	0.595	0.985
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

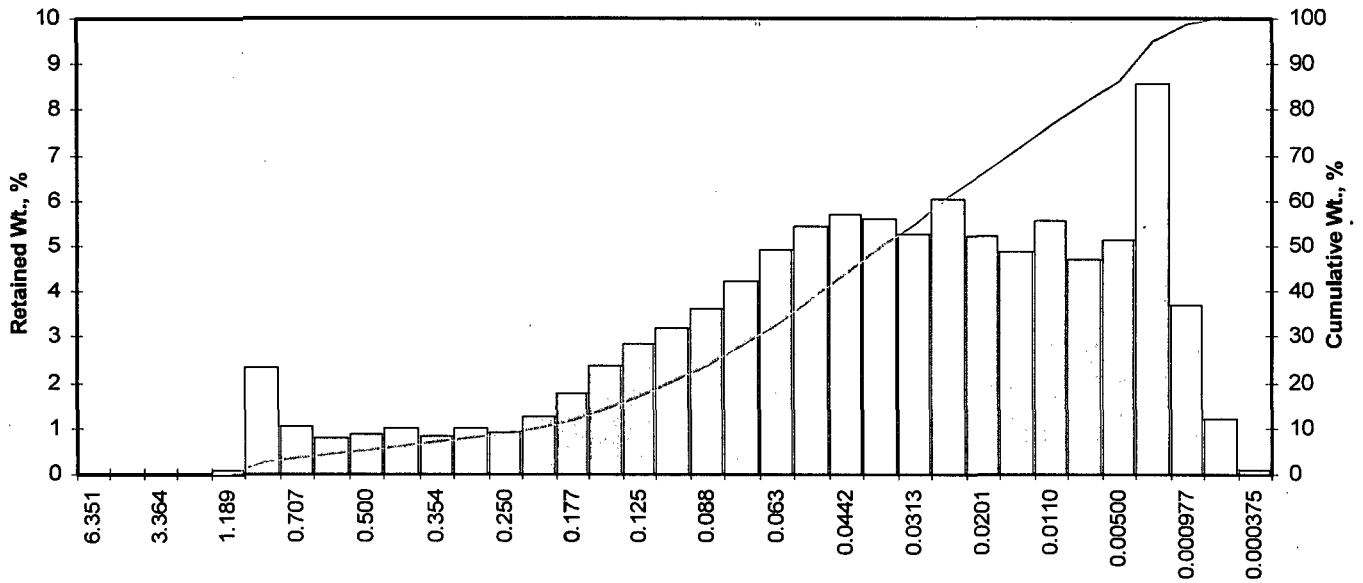
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.01
Silt	>0.005 mm	42.13
Clay	<0.005 mm	57.86
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1051c - Run 1
Project No:	N/A	**Depth, ft:**	290-295

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.09	0.09	0.09
0.0331	0.841	0.25	20	2.32	2.32	2.41
0.0278	0.707	0.50	25	1.05	1.05	3.46
0.0234	0.595	0.75	30	0.78	0.78	4.24
0.0197	0.500	1.00	35	0.85	0.85	5.09
0.0166	0.420	1.25	40	0.98	0.98	6.07
0.0139	0.354	1.50	45	0.80	0.80	6.87
0.0117	0.297	1.75	50	1.01	1.01	7.88
0.0098	0.250	2.00	60	0.91	0.91	8.79
0.0083	0.210	2.25	70	1.23	1.23	10.01
0.0070	0.177	2.50	80	1.77	1.77	11.78
0.0059	0.149	2.75	100	2.38	2.38	14.16
0.0049	0.125	3.00	120	2.83	2.83	16.99
0.0041	0.105	3.25	140	3.17	3.17	20.16
0.0035	0.088	3.50	170	3.61	3.61	23.77
0.0029	0.074	3.75	200	4.23	4.23	28.00
0.0025	0.063	4.00	230	4.92	4.92	32.92
0.0021	0.053	4.25	270	5.44	5.44	38.36
0.00174	0.0442	4.50	325	5.70	5.70	44.06
0.00146	0.0372	4.75	400	5.59	5.59	49.65
0.00123	0.0313	5.00	450	5.25	5.25	54.90
0.000986	0.0250	5.32	500	6.04	6.04	60.93
0.000790	0.0201	5.64	635	5.21	5.21	66.14
0.000615	0.0156	6.00		4.89	4.89	71.03
0.000435	0.0110	6.50		5.58	5.58	76.61
0.000308	0.00781	7.00		4.68	4.68	81.29
0.000197	0.00500	7.65		5.13	5.13	86.42
0.000077	0.00195	9.00		8.59	8.59	95.01
0.000038	0.000977	10.00		3.72	3.72	98.73
0.000019	0.000488	11.00		1.19	1.19	99.92
0.000015	0.000375	11.38		0.08	0.08	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.97	0.0200	0.509
10	2.25	0.0083	0.211
16	2.91	0.0052	0.133
25	3.57	0.0033	0.084
40	4.32	0.0020	0.050
50	4.77	0.0014	0.037
60	5.27	0.0010	0.026
75	6.36	0.0005	0.012
84	7.34	0.0002	0.006
90	8.21	0.0001	0.003
95	9.00	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.77	4.77	4.77
Median, in.	0.0014	0.0014	0.0014
Median, mm	0.037	0.037	0.037
Mean, phi	4.38	5.13	5.01
Mean, in.	0.0019	0.0011	0.0012
Mean, mm	0.048	0.029	0.031
Sorting	2.623	2.214	2.323
Skewness	0.872	0.162	0.109
Kurtosis	0.173	0.812	1.182
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

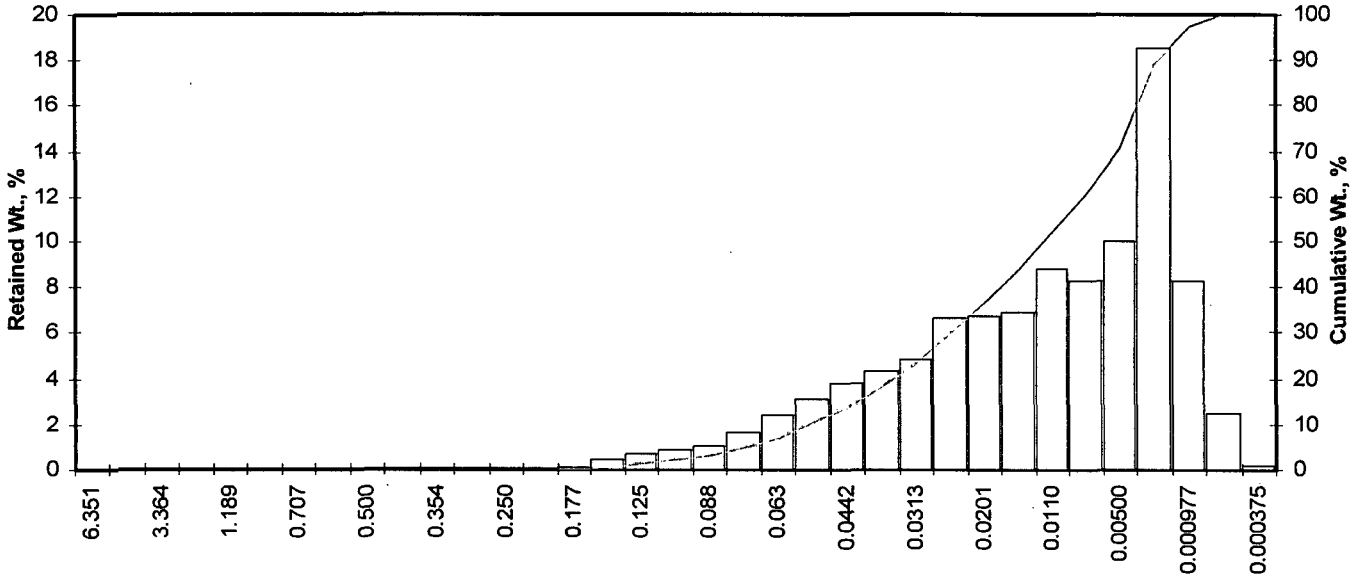
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	6.07
Fine Sand	200	21.94
Silt	>0.005 mm	58.42
Clay	<0.005 mm	13.58
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1051c - Run 2
Project No:	N/A	**Depth, ft:**	480-485

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.08	0.08	0.09
0.0059	0.149	2.75	100	0.39	0.39	0.48
0.0049	0.125	3.00	120	0.69	0.69	1.17
0.0041	0.105	3.25	140	0.82	0.82	1.99
0.0035	0.088	3.50	170	1.05	1.05	3.04
0.0029	0.074	3.75	200	1.60	1.60	4.64
0.0025	0.063	4.00	230	2.40	2.40	7.04
0.0021	0.053	4.25	270	3.14	3.14	10.18
0.00174	0.0442	4.50	325	3.77	3.77	13.95
0.00146	0.0372	4.75	400	4.31	4.31	18.26
0.00123	0.0313	5.00	450	4.84	4.84	23.10
0.000986	0.0250	5.32	500	6.67	6.67	29.77
0.000790	0.0201	5.64	635	6.72	6.72	36.50
0.000615	0.0156	6.00		6.93	6.93	43.43
0.000435	0.0110	6.50		8.80	8.80	52.23
0.000308	0.00781	7.00		8.31	8.31	60.54
0.000197	0.00500	7.65		10.00	10.00	70.54
0.000077	0.00195	9.00		18.50	18.50	89.05
0.000038	0.000977	10.00		8.26	8.26	97.31
0.000019	0.000488	11.00		2.52	2.52	99.83
0.000015	0.000375	11.38		0.17	0.17	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.79	0.0029	0.072
10	4.24	0.0021	0.053
16	4.62	0.0016	0.041
25	5.09	0.0012	0.029
40	5.82	0.0007	0.018
50	6.37	0.0005	0.012
60	6.97	0.0003	0.008
75	7.97	0.0002	0.004
84	8.63	0.0001	0.003
90	9.12	0.0001	0.002
95	9.72	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	6.37	6.37	6.37
Median, in.	0.0005	0.0005	0.0005
Median, mm	0.012	0.012	0.012
Mean, phi	5.91	6.62	6.54
Mean, in.	0.0007	0.0004	0.0004
Mean, mm	0.017	0.010	0.011
Sorting	2.714	2.006	1.902
Skewness	0.896	0.125	0.127
Kurtosis	0.247	0.479	0.844
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

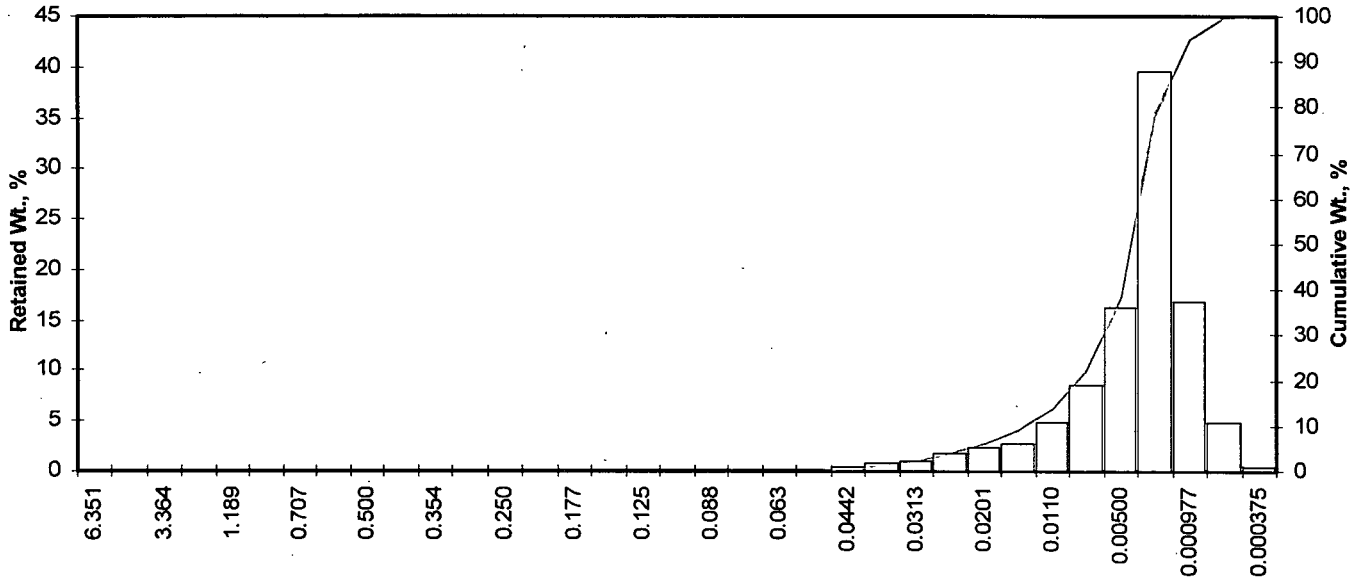
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	4.64
Silt	>0.005 mm	65.90
Clay	<0.005 mm	29.46
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1051c - Run 3
Project No:	N/A	**Depth, ft:**	600-605

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.00	0.00	0.00
0.0025	0.063	4.00	230	0.00	0.00	0.00
0.0021	0.053	4.25	270	0.07	0.07	0.07
0.00174	0.0442	4.50	325	0.36	0.36	0.43
0.00146	0.0372	4.75	400	0.72	0.72	1.15
0.00123	0.0313	5.00	450	1.02	1.02	2.17
0.000986	0.0250	5.32	500	1.75	1.75	3.92
0.000790	0.0201	5.64	635	2.27	2.27	6.19
0.000615	0.0156	6.00		2.69	2.69	8.88
0.000435	0.0110	6.50		4.81	4.81	13.69
0.000308	0.00781	7.00		8.49	8.49	22.19
0.000197	0.00500	7.65		16.20	16.20	38.39
0.000077	0.00195	9.00		39.50	39.51	77.90
0.000038	0.000977	10.00		16.80	16.80	94.71
0.000019	0.000488	11.00		4.94	4.94	99.65
0.000015	0.000375	11.38		0.35	0.35	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	5.47	0.0009	0.023
10	6.12	0.0006	0.014
16	6.64	0.0004	0.010
25	7.11	0.0003	0.007
40	7.70	0.0002	0.005
50	8.04	0.0001	0.004
60	8.39	0.0001	0.003
75	8.90	0.0001	0.002
84	9.36	0.0001	0.002
90	9.72	0.0000	0.001
95	10.06	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	8.04	8.04	8.04
Median, in.	0.0001	0.0001	0.0001
Median, mm	0.004	0.004	0.004
Mean, phi	7.75	8.00	8.01
Mean, in.	0.0002	0.0002	0.0002
Mean, mm	0.005	0.004	0.004
Sorting	1.859	1.364	1.377
Skewness	1.026	-0.032	-0.077
Kurtosis	0.194	0.682	1.051
Grain Size Description (ASTM-USCS Scale)		Clay (based on Mean from Trask)	

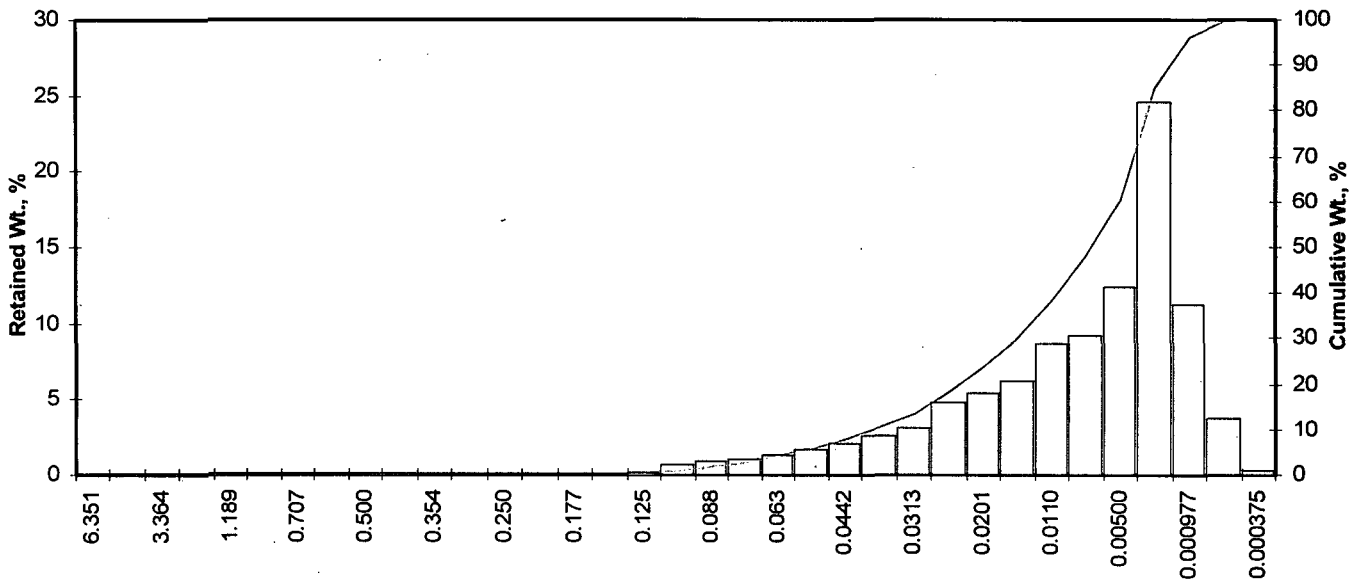
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.00
Silt	>0.005 mm	38.39
Clay	<0.005 mm	61.61
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources	**PTS File No:**	39978
Project:	Three Crow Core Samples	**Sample ID:**	T-1051c - Run 5
Project No:	N/A	**Depth, ft:**	890-895

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.01	0.01	0.01
0.0049	0.125	3.00	120	0.19	0.19	0.20
0.0041	0.105	3.25	140	0.60	0.60	0.80
0.0035	0.088	3.50	170	0.89	0.89	1.69
0.0029	0.074	3.75	200	1.08	1.08	2.77
0.0025	0.063	4.00	230	1.33	1.33	4.10
0.0021	0.053	4.25	270	1.67	1.67	5.77
0.00174	0.0442	4.50	325	2.10	2.10	7.88
0.00146	0.0372	4.75	400	2.56	2.56	10.44
0.00123	0.0313	5.00	450	3.11	3.11	13.55
0.000986	0.0250	5.32	500	4.76	4.76	18.31
0.000790	0.0201	5.64	635	5.44	5.44	23.76
0.000615	0.0156	6.00		6.16	6.16	29.92
0.000435	0.0110	6.50		8.62	8.63	38.54
0.000308	0.00781	7.00		9.23	9.24	47.78
0.000197	0.00500	7.65		12.40	12.41	60.19
0.000077	0.00195	9.00		24.60	24.61	84.80
0.000038	0.000977	10.00		11.20	11.21	96.01
0.000019	0.000488	11.00		3.72	3.72	99.73
0.000015	0.000375	11.38		0.27	0.27	100.00
TOTALS				**99.90**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.13	0.0022	0.057
10	4.71	0.0015	0.038
16	5.16	0.0011	0.028
25	5.71	0.0008	0.019
40	6.58	0.0004	0.010
50	7.12	0.0003	0.007
60	7.64	0.0002	0.005
75	8.46	0.0001	0.003
84	8.96	0.0001	0.002
90	9.46	0.0001	0.001
95	9.91	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.12	7.12	7.12
Median, in.	0.0003	0.0003	0.0003
Median, mm	0.007	0.007	0.007
Mean, phi	6.51	7.06	7.08
Mean, in.	0.0004	0.0003	0.0003
Mean, mm	0.011	0.007	0.007
Sorting	2.592	1.896	1.823
Skewness	1.020	-0.029	-0.031
Kurtosis	0.220	0.524	0.862
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	2.77
Silt	>0.005 mm	57.41
Clay	<0.005 mm	39.81
	Total	**100**

ARCADIS

Appendix C

Well Completion Reports

10302008-194934-WWRF(2)

Mail to
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

BOW2006 1

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194934 Registration No. 6-15108
Owner Code No. 39475 Receipt No. R23418 UNN NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the NE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 2260 feet from the (North) section line and 916 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-1

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information 6-151081 BOW2006-1

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 15 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 120 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 135 feet. b. Static water level: 52.8 feet.

c. Pumping water level 103 feet. d. Well Construction began 06/09/06

e. Well construction completed 07/09/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	45	Casing	4.320	4.950	0.297	PVC		Certa-lok
45	135	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	45	Grout	Neat Cement
45	135	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	40	Quaternary Alluvium			
40	132	ST/SS Interbedded			
132	170	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature October 8, 2008 Date

BOW2006-1

10302008 - 194935 - WWRF(2)

October 2001
DNR Form 145

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

BOW2006 2

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194935 Registration No. 6-151182
Owner Code No. 39475 Receipt No. R23418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SW 1/4 of the SE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 945 feet from the (South) section line and 2490 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-2

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

G-151082 BOW2006-2

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 15 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 160 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 180 feet. b. Static water level: 60 feet.

c. Pumping water level 110 feet. d. Well Construction began 06/11/07

e. Well construction completed 07/11/07 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	75	Casing	4.320	4.950	0.297	PVC		Certa-lok
75	180	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	75	Grout	Neat Cement
75	180	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	40	Quaternary Alluvium			
40	175	ST/SS Interbedded			
175	180	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature October 8, 2008 Date

BOW2006-2

10302008_194936_-WWRF(2)

Department of Natural Resources

October 2001
DNR Form 145

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

BOW2006 3

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194936 Registration No. 6-151083

Owner Code No. 39475 Receipt No. R23418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the SE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 125 feet from the (South) section line and 30 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-3

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638))
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

G-151083

BOW2006-3

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 15 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 180 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 190 feet. b. Static water level: 77 feet.

c. Pumping water level 127 feet. d. Well Construction began 04/29/05

e. Well construction completed 05/29/05 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	50	Casing	4.320	4.950	0.297	PVC		Certa-lok
50	190	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	50	Grout	Neat Cement
50	190	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	40	Quaternary Alluvium			
40	190	ST/SS Interbedded			
190	200	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

October 8, 2008
Date

BOW2006-3

Mail to:
DNR.
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
WATER WELL REGISTRATION

BOW2006-4

FOR DEPARTMENT USE ONLY

Registration Date _____ Sequence No. _____ Registration No. _____
Owner Code No. _____ Receipt No. _____ _____ NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SW 1/4 of the SW 1/4 of Section 28, Township 31 North, Range 52 West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1275 feet from the (South) section line and 790 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 28 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-4

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 5 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 180 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 280 feet. b. Static water level: 105 feet.

c. Pumping water level 155 feet. d. Well Construction began 11/28/08

e. Well construction completed 12/28/08 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	115	Casing	4.320	4.950	0.297	PVC		Certa-lok
115	205	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	115	Grout	Neat Cement
115	205	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	20	Quaternary Alluvium			
20	260	ST/SS Interbedded			
260	280	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

December 8, 2009
Date

BOW2006-4

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
WATER WELL REGISTRATION

BOW2006-5

FOR DEPARTMENT USE ONLY

Registration Date _____ Sequence No. _____ Registration No. _____
Owner Code No. _____ Receipt No. _____ _____ NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: NE 1/4 of the NE 1/4 of Section 25, Township 31 North, Range 53 West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1106 feet from the (North) section line and 93 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 25 T 31N R53W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-5

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ____ No

Is pump installed by well owner in section 1? X Yes ____ No Is pump installed by contractor in section 2? ____ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 5 gallons per minute. ____ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 140 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ____ No

9. Well Construction Information

a. Total well depth 180 feet. b. Static water level: 50.4 feet.

c. Pumping water level 100 feet. d. Well Construction began 10/23/09

e. Well construction completed 11/22/09 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ____ Glued ____ Threaded ____ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	60	Casing	4.320	4.950	0.297	PVC		Certa-lok
60	155	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	60	Grout	Neat Cement
60	155	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	20	Quaternary Alluvium			
20	155	ST/SS Interbedded			
155	180	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

December 3, 2009
Date

BOW2006-5

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
WATER WELL REGISTRATION

BOW2006-6

FOR DEPARTMENT USE ONLY

Registration Date _____ Sequence No. _____ Registration No. _____
Owner Code No. _____ Receipt No. _____ _____ NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SW 1/4 of the SW 1/4 of Section 30, Township 31 North, Range 52 [redacted] West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 70 feet from the (South) section line and 7 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-6

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 5 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 140 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 230 feet. b. Static water level: 50.3 feet.

c. Pumping water level 100 feet. d. Well Construction began 10/23/09

e. Well construction completed 11/22/09 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	60	Casing	4.320	4.950	0.297	PVC		Certa-lok
60	195	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	60	Grout	Neat Cement
60	195	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	20	Quaternary Alluvium			
20	195	ST/SS Interbedded			
195	230	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

December 8, 2009
Date

BOW2006-6

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
WATER WELL REGISTRATION

BOW2006-7

FOR DEPARTMENT USE ONLY

Registration Date _____ Sequence No. _____ Registration No. _____
Owner Code No. _____ Receipt No. _____ _____ NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SW 1/4 of the NW 1/4 of Section 33, Township 31 North, Range 52 West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1326 feet from the (North) section line and 1096 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 33 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable BOW2006-7

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ____ No

Is pump installed by well owner in section 1? X Yes ____ No Is pump installed by contractor in section 2? ____ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 5 gallons per minute. ____ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 140 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ____ No

9. Well Construction Information

a. Total well depth 180 feet. b. Static water level: 46.9 feet.

c. Pumping water level 96.9 feet. d. Well Construction began 10/23/09

e. Well construction completed 11/22/09 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ____ Glued ____ Threaded ____ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	60	Casing	4.320	4.950	0.297	PVC		Certa-lok
60	155	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	60	Grout	Neat Cement
60	155	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil			
10	20	Quaternary Alluvium			
20	155	ST/SS Interbedded			
155	180	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature December 8, 2009 Date

BOW2006-7

10302008 - 194926 - WWRF(2)

October 2001
DNR Form 145

Mail to
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2006 I

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194926 Registration No. 6-151074
Owner Code No. 39475 Receipt No. R23418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: NE 1/4 of the NE 1/4 of Section 25, Township 31 North, Range 53 West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1180 feet from the (North) section line and 45 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 29 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-1

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

6-151674

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 829 feet. b. Static water level: 181 feet.

c. Pumping water level 281 feet. d. Well Construction began 08/25/06

e. Well construction completed 09/24/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	764	Casing	4.320	4.950	0.297	PVC		Certa-lok
764	829	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	764	Grout	Neat Cement
764	829	Grout	Neat Cement

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	695	830	Sandstone w/ Clay Interbeds
10	30	Quaternary Alluvium	830	840	Shale
30	170	ST/SS Interbedded			
170	695	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature — October 27, 2008 Date

COW2006-1

10302008 - 194929 - WWRF(2)

Department of Natural Resources

October 2001
DNR Form 145

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2006 Z

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194929 Registration No. 6-15075
Owner Code No. 39475 Receipt No. R23418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: NW 1/4 of the NE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 845 feet from the (North) section line and 2460 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-2

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

675/075 COW2006-2

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 851 feet. b. Static water level: 212 feet.

c. Pumping water level 312 feet. d. Well Construction began 08/23/06

e. Well construction completed 09/22/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	781	Casing	4.320	4.950	0.297	PVC		Certa-lok
781	851	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	781	Grout	Neat Cement
781	851	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	681	862	Sandstone w/ Clay Interbeds
10	35	Quaternary Alluvium	862	880	Shale
35	195	ST/SS Interbedded			
195	681	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature October 8, 2008 Date

10302008 - 194930 - WWRF(2)

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

Department of Natural Resources

October 2001
DNR Form 145

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2008 3

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194930 Registration No. 6-151076
Owner Code No. 39475 Receipt No. R23413 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: NE 1/4 of the NE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1240 feet from the (North) section line and 410 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-3

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638))
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

6-151076 COW2006-3

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 811 feet. b. Static water level: 185 feet.

c. Pumping water level 285 feet. d. Well Construction began 08/18/06

e. Well construction completed 09/17/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	731	Casing	4.320	4.950	0.297	PVC		Certa-lok
731	811	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	731	Grout	Neat Cement
731	811	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	640	814	Sandstone w/ Clay Interbeds
10	45	Quaternary Alluvium	814	840	Shale
45	200	ST/SS Interbedded			
200	640	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature October 8, 2008 Date

COW2006-3

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

10302008-194931-WWCP(2)

October 2001
DNR Form 145

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2006 4

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194931 Registration No. 6-15/077
Owner Code No. 39475 Receipt No. R23418 UNIN NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the SE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 206 feet from the (South) section line and 17 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-4

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

675177

COW2006-4

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 878 feet. b. Static water level: 233 feet.

c. Pumping water level 333 feet. d. Well Construction began 08/21/06

e. Well construction completed 09/20/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	783	Casing	4.320	4.950	0.297	PVC		Certa-lok
783	878	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	783	Grout	Neat Cement
783	878	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	660	885	Sandstone w/ Clay Interbeds
10	40	Quaternary Alluvium	885	910	Shale
40	230	ST/SS Interbedded			
230	660	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

October 8, 2008
Date

COW2006-4

10302008-194927-WWRF(2)

Department of Natural Resources

October 2001
DNR Form 145

Mail to:
DNR
PO Box 94676
Lincoln NE 68509-4676
Phone (402) 471-2363

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2006 5

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194927 Registration No. 6-151078
Owner Code No. 39475 Receipt No. 223418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the SW 1/4 of Section 29, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 141 feet from the (South) section line and 1940 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 29 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-5

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

6-15/678

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 901 feet. b. Static water level: 261 feet.

c. Pumping water level 361 feet. d. Well Construction began 08/29/06

e. Well construction completed 09/28/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	851	Casing	4.320	4.950	0.297	PVC		Certa-lok
851	901	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	851	Grout	Neat Cement
851	901	Gravel Pack	Natural Gravel

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	680	901	Sandstone w/ Clay Interbeds
10	40	Quaternary Alluvium	901	920	Shale
40	255	ST/SS Interbedded			
255	680	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature October 20, 2008 Date

COW2006-5

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

0104201D - 202684 WNRF(2)

October 2001
DNR Form 145

Department of Natural Resources
STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

COW2006-6

FOR DEPARTMENT USE ONLY

Registration Date 1/4/10 Sequence No. 202684 Registration No. 6-154913
Owner Code No. 39475 Receipt No. R24339 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the SW 1/4 of Section 28, Township 31 North, Range 52 [redacted] West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 62 feet from the (South) section line and 2311 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) _____
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-6

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638))
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ____ No

Is pump installed by well owner in section 1? X Yes ____ No Is pump installed by contractor in section 2? ____ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ____ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ____ No

9. Well Construction Information

a. Total well depth 940 feet. b. Static water level: 269 feet.

c. Pumping water level 369 feet. d. Well Construction began 11/24/08

e. Well construction completed 12/24/08 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ____ Glued ____ Threaded ____ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	836	Casing	4.320	4.950	0.297	PVC		Certa-lok
836	881	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	836	Grout	Neat Cement
836	881	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	675	881	Sandstone w/ Clay
10	20	Quaternary Alluvium	881	940	Shale
20	320	ST/SS Interbedded			
320	675	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

December 3, 2009
Date

COW2006-6

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
WATER WELL REGISTRATION

COW2006-7

FOR DEPARTMENT USE ONLY

Registration Date _____ Sequence No. _____ Registration No. _____
Owner Code No. _____ Receipt No. _____ _____ NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the NW 1/4 of Section 28, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 1338 feet from the (North) section line and 2525 feet from the (West) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 28 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable COW2006-7

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 11/30/2009 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 720 feet. b. Static water level: 213 feet.

c. Pumping water level 313 feet. d. Well Construction began 11/19/08

e. Well construction completed 12/19/08 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	645	Casing	4.320	4.950	0.297	PVC		Certa-lok
645	695	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	645	Grout	Neat Cement
645	695	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	629	694	Sandstone w/ Clay
10	20	Quaternary Alluvium	694	720	Shale
20	280	ST/SS Interbedded			
280	629	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

December 8, 2009
Date

COW2006-7

CPW-1

Oct 2007
DNR DECO

Submit to:
Department of Natural Resources
301 Centennial Mall South
P.O. Box 94676
Lincoln, Nebraska 68509-4676
Phone (402) 471 2363

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

This form is required to be filed within 60 days of decommissioning of the water well.

NOTICE OF WATER WELL DECOMMISSIONING

FOR DEPARTMENT USE ONLY

Date Filed 9/12/08 Owner Code No. 39475 Registration No. —

09122008 - 194217 - DECF (1) UPPER NIOBRARA- WHITE NRD
Well ID

1. Well Owner's First Name _____ Last Name _____
OR Company Name Crow Butte Resources, Inc.
Attention Name Wade Beins
Address PO BOX 169
City Crawford State NE Zip 69339 Telephone 308 665 2215 ext 113

2. Contractor (if applicable). Landrill Exploration Telephone Number (308) 665 2493
Address 102 Pine St. Contractor License No. 19019
City Crawford State NE Zip Code 69339 +
Email: -

3a. Well Registration No. Well was not registered
3b. Purpose of Well: Pump Test Well (monitoring)
3c. Date Well Last Operated. Well was not completed 3d. Date of Decommissioning. 8-1-06
3e. List complete well location: Legal, Footage and/or GPS Coordinates
Well location: SE ¼ of the NE ¼ of Section 30, Township 31 North, Range 52 E☐W☑, Dawes County.
The well is 2420 feet from the (N☑or S☐) section line and 950 feet from the (E☑W☐) section line.

OR Latitude Degree: _____ Minute: _____ Second: _____
Longitude Degree: _____ Minute: _____ Second: _____

3f. Location of Water Use: Same as well location

4. Actual Method for Decommissioning of Well

Placement Depth in Feet		Detailed Description of Material
From	To	
768'	692'	20 tubes of bentonite chips
692'	0'	13 bags of Plug Gel abandonment mud weighing
		8.8 lbs/gallon -
		Marsh Funnel Data TD vis 27 - Final vis 75

5a. Well Casing Size: 4.5' Certalok 5b. Bore Hole Diameter: 8 inch

I hereby certify that the information provided on this form is true and accurate to the best of my knowledge.

RECEIVED
SEP 12 2008
DEPARTMENT OF NATURAL RESOURCES

Wade Beins 9-10-08
Contractor (**owner) Date

* *Owner may sign on wells prior to 7/1/2001 or sandpoint or if well no longer exists and it is unknown when decommissioning occurred

The Department reserves the right to request verification of information provided.

10302008 - 194928 - WWRF (2)

Mail to
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

October 2001
DNR Form 145

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

CPW2006 2

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194928 Registration No. 6-151073
Owner Code No. 39475 Receipt No. R23418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the NE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 2290 feet from the (North) section line and 890 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable CPW2006-2

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638))
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

6-151073 CPW2006-2

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 871 feet. b. Static water level: 192 feet.

c. Pumping water level 292 feet. d. Well Construction began 07/26/06

e. Well construction completed 08/25/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	791	Casing	4.320	4.950	0.297	PVC		Certa-lok
791	871	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	791	Grout	Neat Cement
791	871	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	665	869	Sandstone w/ Clay Interbeds
10	40	Quaternary Alluvium	869	900	Shale
40	230	ST/SS Interbedded			
230	665	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

October 8, 2008
Date

CPW2006-2

Mail to
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

10302008 - 194932 - WWRF(2)

October 2001
DNR Form 145

STATE OF NEBRASKA

Department of Natural Resources

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

UBCOW2(

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194932 Registration No. 6-151079
Owner Code No. 39475 Receipt No. 123418 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the NE 1/4 of Section 30, Township 31 North, Range 52 West, Dawes County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 2294 feet from the (North) section line and 845 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 30 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable UBCOW2006-1

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one):
   ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

8. Pump Information

6-151079

UBCOW2006-1

a. Is pump installed at this time? X Yes ____ No

Is pump installed by well owner in section 1? X Yes ____ No Is pump installed by contractor in section 2? ____ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ____ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ____ No

9. Well Construction Information

a. Total well depth 744 feet. b. Static water level: 193 feet.

c. Pumping water level 243 feet. d. Well Construction began 07/28/06

e. Well construction completed 08/27/06 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ____ Glued ____ Threaded ____ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	654	Casing	4.320	4.950	0.297	PVC		Certa-lok
654	744	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	654	Grout	Neat Cement
654	744	Gravel Pack	Natural Gravel Pack

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	655	742	Sandstone w/ Clay Interbeds
10	40	Quaternary Alluvium	742	760	Clay
40	230	ST/SS Interbedded			
230	655	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature

October 8, 2008
Date

UBCOW2006-1

10302008 - 194933 - WWRF(2)

October 2001
DNR Form 145

Mail to:
DNR
PO Box 94676
Lincoln, NE 68509-4676
Phone (402) 471-2363

Department of Natural Resources

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

WATER WELL REGISTRATION

UBCOW2(

FOR DEPARTMENT USE ONLY

Registration Date 10/30/08 Sequence No. 194933 Registration No. G-151080

Owner Code No. 39475 Receipt No. R23478 UNW NRD

1. a. Well Owner's First Name _____ Last Name _____
   b. Company Name Crow Butte Resources
   c. Correspondent Name _____ Attention Wade Beins
   Address PO BOX 169, 86 Crow Butte Road
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

2. Contractor's License No. 19019 Contractor's Name Gale Land
   Contractor's Email Address NA
   Drilling Firm Name Landrill Exploration
   Address 102 Pine Street
   City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2493
   Drilling Firms Email Address NA

3. a. Well Location: SE 1/4 of the SE 1/4 of Section 30, Township 31 North, Range 52 West, Sioux County.
   b. Natural Resources District Upper Niobrara/White NRD
   c. The well is 218 feet from the (South) section line and 36 feet from the (East) section line.
   (CIRCLE ONE) (CIRCLE ONE)
   or Latitude Degree _____ Minute _____ Second _____
   Longitude Degree _____ Minute _____ Second _____ Differential Correction _____ Yes _____ No
   d. Street address and subdivision, if applicable _____
   Block _____ Lot _____
   e. Location of water use, if applicable(give legal descriptions) Section 29 T 31N R52W
   f. If for irrigation, the land to be irrigated is _____ acres.
   g. Well reference letter(s), if applicable UBCOW2006-2

4. Permits
   Management Area Permit Number _____
   Geothermal Permit Number _____
   Municipal Permit Number _____
   Well Spacing Permit Number _____
   Surface Water Permit Number _____
   Industrial Permit Number _____
   Transfer Out-of-State Permit Number _____
   Conduct Permit Number _____
   Other Permit Number _____

5. Purpose of well (indicate one): ____ Aquaculture ____ Commercial/Industrial ____ Dewatering (over 90 days)
   ____ Domestic ____ Ground Heat Exchanger ____ Groundwater Source Heat Pump ____ Irrigation ____ Injection
   ____ Livestock X Monitoring ____ Observation ____ Public Water Supply (with spacing (46-638)
   ____ Public Water Supply (without spacing) ____ Recovery ____ Other _____ (indicate use)

6. Wells in a Series.
   a. Is this well a part of a series? ____ Yes go to part b of this section. X No go to part 7 of this application.
   b. If one or more of the wells in the series is currently registered, give the well registration number. _____
   c. How many wells in the series are you registering at this time? _____

7. Replacement and abandoned well information.
   a. Is this well a replacement well? ____ Yes X No
   b. Registration number of abandoned well: _____ If not registered, date abandoned well was constructed (m) /(d /(y)
   c. Replacement well is _____ feet from abandoned well. d. Abandoned well last operated (m) /(d /(y)
   e. Original well pump column size: _____ inches. f. Completion of original well abandonment on (m) /(d /(y)
   g. Location of water use of abandoned well: _____

G-151080

8. Pump Information

a. Is pump installed at this time? X Yes ___ No

Is pump installed by well owner in section 1? X Yes ___ No Is pump installed by contractor in section 2? ___ Yes X No

If pump is installed by pump installer, please fill out license number below

b. Pump Installer's License No. 29370 Pump Installer's Name Robert L Dunn

Pump Installer's Email Address NA

Pump Installer's Firm Name Crow Butte Resources

Pump Installer's Firm Address PO Box 169, 86 Crow Butte Road

City Crawford State NE Zip Code 69339 Telephone Number (308) 665 - 2215

Pump Installer's Firm Email Address NA

c. Pumping Rate 25 gallons per minute. ___ Measured X Estimated

d. Drop pipe diameter 2 inches e. Length of drop pipe 400 feet

f. Pumping equipment installed 2/14/2008 g. Pump Brand Grundfos

h. This well will be used to pump less than 50 gpm X Yes ___ No

9. Well Construction Information

a. Total well depth 766 feet. b. Static water level: 234 feet.

c. Pumping water level 284 feet. d. Well Construction began 06/12/07

e. Well construction completed 07/12/07 f. Bore hole diameter in inches Top 8 Bottom 8

g. Casing and Screen Joints are Welded ___ Glued ___ Threaded ___ Other Spline & Groove

10. Well Construction (Casing & Screen)- c, d, e & g measurements should be in inches to three decimal places

a		b	c	d	e	f	g	h
Placement Depth in Feet		Casing or Screen	Inside Diameter	Outside Diameter	Wall Thickness	Type of Material	Screen Slot Size	Trade Name
From	To							
0	666	Casing	4.320	4.950	0.297	PVC		Certa-lok
666	766	Screen	3.000	3.500	0.250	PVC	0.020	Johnson

11. Grout and Gravel Pack

Placement Depth in Feet		Grout or Gravel Pack	Material Description
From	To		
0	666	Grout	Neat Cement
666	766	Grout	Neat Cement

12. Geologic Materials Logged

Depth in Feet From	To	Description	Depth in Feet From	To	Description
0	10	Topsoil	660	769	Sandstone w/ Clay Interbeds
10	40	Quaternary Alluvium	769	770	Shale
40	230	ST/SS Interbedded			
230	660	Clay			

(Additional Sheets may be submitted)

13. I am familiar with the information submitted on this registration, and to the best of my knowledge it is true.

Water Well Contractor's Signature — October 28, 2008 Date

UBCOW2006-2

ARCADIS

Appendix D

Groundwater Analytical Lab Reports

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-001
Client Sample ID: Miller 1

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	246	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Bicarbonate as HCO3	301	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Calcium	71	mg/L		1		E200.7	12/02/09 15:12 / cp
Chloride	6	mg/L		1		E300.0	12/01/09 23:33 / ijl
Fluoride	0.6	mg/L		0.1		A4500-F C	11/25/09 09:21 / dvg
Magnesium	6	mg/L		1		E200.7	12/02/09 15:12 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:36 / jal
Nitrogen, Nitrate+Nitrite as N	2.2	mg/L		0.1		E353.2	12/01/09 16:46 / jal
Potassium	8	mg/L		1		E200.7	12/02/09 15:12 / cp
Silica	64.1	mg/L		0.2		E200.7	12/02/09 15:12 / cp
Sodium	19	mg/L		1		E200.7	12/02/09 15:12 / cp
Sulfate	10	mg/L		1		E300.0	12/01/09 23:33 / ijl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	471	umhos/cm		1		A2510 B	11/25/09 10:58 / th
pH	8.12	s.u.		0.01		A4500-H B	11/25/09 10:58 / th
Solids, Total Dissolved TDS @ 180 C	320	mg/L		10		A2540 C	11/24/09 14:59 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Arsenic	0.003	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Barium	0.1	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:12 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:13 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:13 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:12 / cp
Lead	ND	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:13 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Uranium	0.0137	mg/L		0.0003		E200.8	11/26/09 00:13 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Zinc	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:30 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-001
Client Sample ID: Miller 1

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:45 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:45 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:45 / plj
Radium 226	<0.19	pCi/L	U	0.19		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.13	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.19	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.8	pCi/L	U	2.8		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.8	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	<0.04	pCi/L	U	0.04		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.04	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-4.48	%				Calculation	12/04/09 09:45 / kbh
Anions	5.50	meq/L				Calculation	12/04/09 09:45 / kbh
Cations	5.02	meq/L				Calculation	12/04/09 09:45 / kbh
Solids, Total Dissolved Calculated	359	mg/L				Calculation	12/04/09 09:45 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	12/04/09 09:45 / kbh

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-002
Client Sample ID: BOW 2006-5

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	392	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Bicarbonate as HCO3	478	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Calcium	100	mg/L		1		E200.7	12/07/09 12:49 / cp
Chloride	14	mg/L		1		E300.0	12/01/09 23:50 / ljl
Fluoride	1.2	mg/L		0.1		A4500-F C	11/25/09 09:28 / dvg
Magnesium	14	mg/L		1		E200.7	12/07/09 12:49 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:44 / jal
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	12/01/09 16:48 / jal
Potassium	12	mg/L		1		E200.7	12/07/09 12:49 / cp
Silica	53.1	mg/L		0.2		E200.7	12/02/09 15:16 / cp
Sodium	34	mg/L		1		E200.7	12/07/09 12:49 / cp
Sulfate	24	mg/L		1		E300.0	12/01/09 23:50 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	730	umhos/cm		1		A2510 B	11/25/09 11:01 / th
pH	8.14	s.u.		0.01		A4500-H B	11/25/09 11:01 / th
Solids, Total Dissolved TDS @ 180 C	499	mg/L		10		A2540 C	11/24/09 14:59 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Arsenic	0.006	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Barium	0.2	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:16 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:20 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:20 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:20 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:16 / cp
Lead	0.002	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Manganese	0.07	mg/L		0.01		E200.8	11/26/09 00:20 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:20 / ts
Selenium	ND	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Uranium	0.0227	mg/L		0.0003		E200.8	11/26/09 00:20 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Zinc	1.14	mg/L		0.01		E200.8	11/26/09 00:20 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:39 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-002
Client Sample ID: BOW 2006-5

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<1.0	pCi/L	U	1.0		E912.0	12/29/09 14:45 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:45 / plj
Polonium 210 MDC	1.0	pCi/L				E912.0	12/29/09 14:45 / plj
Radium 226	<0.17	pCi/L	U	0.17		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.17	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.7	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	<0.03	pCi/L	U	0.03		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.02	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-4.89	%				Calculation	12/08/09 09:32 / kbh
Anions	8.78	meq/L				Calculation	12/08/09 09:32 / kbh
Cations	7.96	meq/L				Calculation	12/08/09 09:32 / kbh
Solids, Total Dissolved Calculated	502	mg/L				Calculation	12/08/09 09:32 / kbh
TDS Balance (0.80 - 1.20)	0.990					Calculation	12/08/09 09:32 / kbh

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-003
Client Sample ID: BOW 2006-6

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	172	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Bicarbonate as HCO3	210	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Calcium	46	mg/L		1		E200.7	12/02/09 15:20 / cp
Chloride	4	mg/L		1		E300.0	12/02/09 00:06 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	11/25/09 09:30 / dvg
Magnesium	7	mg/L		1		E200.7	12/02/09 15:20 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:46 / jal
Nitrogen, Nitrate+Nitrite as N	1.8	mg/L		0.1		E353.2	12/01/09 16:51 / jal
Potassium	6	mg/L		1		E200.7	12/02/09 15:20 / cp
Silica	62.8	mg/L		0.2		E200.7	12/02/09 15:20 / cp
Sodium	14	mg/L		1		E200.7	12/02/09 15:20 / cp
Sulfate	10	mg/L		1		E300.0	12/02/09 00:06 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	348	umhos/cm		1		A2510 B	11/25/09 11:04 / th
pH	8.12	s.u.		0.01		A4500-H B	11/25/09 11:04 / th
Solids, Total Dissolved TDS @ 180 C	242	mg/L		10		A2540 C	11/24/09 15:00 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Arsenic	0.004	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Barium	0.2	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:20 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:27 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:27 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:27 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:20 / cp
Lead	0.001	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 00:27 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:27 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Uranium	0.0083	mg/L		0.0003		E200.8	11/26/09 00:27 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Zinc	0.62	mg/L		0.01		E200.8	11/26/09 00:27 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:43 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-003
Client Sample ID: BOW 2006-6

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.17	pCi/L	U	0.17		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.17	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.7	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	0.04	pCi/L		0.03		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.91	%				Calculation	12/04/09 09:48 / kbh
Anions	3.76	meq/L				Calculation	12/04/09 09:48 / kbh
Cations	3.62	meq/L				Calculation	12/04/09 09:48 / kbh
Solids, Total Dissolved Calculated	190	mg/L				Calculation	12/04/09 09:48 / kbh
TDS Balance (0.80 - 1.20)	1.27					Calculation	12/04/09 09:48 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-004
Client Sample ID: BOW 2006-7

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	162	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Bicarbonate as HCO3	197	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Calcium	30	mg/L		1		E200.7	12/02/09 15:24 / cp
Chloride	4	mg/L		1		E300.0	12/02/09 00:55 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	11/25/09 09:38 / dvg
Magnesium	3	mg/L		1		E200.7	12/02/09 15:24 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:48 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/07/09 13:06 / jal
Potassium	8	mg/L		1		E200.7	12/02/09 15:24 / cp
Silica	68.4	mg/L		0.2		E200.7	12/02/09 15:24 / cp
Sodium	35	mg/L		1		E200.7	12/02/09 15:24 / cp
Sulfate	15	mg/L		1		E300.0	12/02/09 00:55 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	338	umhos/cm		1		A2510 B	11/25/09 11:06 / th
pH	8.13	s.u.		0.01		A4500-H B	11/25/09 11:06 / th
Solids, Total Dissolved TDS @ 180 C	266	mg/L		10		A2540 C	11/25/09 09:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Arsenic	0.007	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Barium	0.1	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 01:01 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 01:01 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 01:01 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:24 / cp
Lead	ND	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 01:01 / ts
Mercury	ND	mg/L		0.001		E200.8	11/30/09 19:50 / sml
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 01:01 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Uranium	0.0100	mg/L		0.0003		E200.8	11/26/09 01:01 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Zinc	0.29	mg/L		0.01		E200.8	11/26/09 01:01 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:47 / ts

Report Definitions:
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QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-004
Client Sample ID: BOW 2006-7

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.16	pCi/L	U	0.16		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.16	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.8	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 11:11 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 11:11 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 11:11 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 14:56 / jah
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/15/09 14:56 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 14:56 / jah
Thorium 230	<0.06	pCi/L	U	0.06		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.06	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.34	%				Calculation	12/04/09 09:49 / kbh
Anions	3.67	meq/L				Calculation	12/04/09 09:49 / kbh
Cations	3.43	meq/L				Calculation	12/04/09 09:49 / kbh
Solids, Total Dissolved Calculated	192	mg/L				Calculation	12/04/09 09:49 / kbh
TDS Balance (0.80 - 1.20)	1.39					Calculation	12/04/09 09:49 / kbh

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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-001
Client Sample ID: Miller 1

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	241	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Bicarbonate as HCO3	294	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Calcium	72	mg/L		1		E200.7	12/14/09 16:20 / cp
Chloride	6	mg/L		1		E300.0	12/09/09 22:48 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/08/09 11:51 / dvg
Magnesium	5	mg/L		1		E200.7	12/14/09 16:20 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:20 / jal
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	12/11/09 11:17 / jal
Potassium	9	mg/L		1		E200.7	12/14/09 16:20 / cp
Silica	61.7	mg/L		0.2		E200.7	12/14/09 16:20 / cp
Sodium	21	mg/L		1		E200.7	12/14/09 16:20 / cp
Sulfate	10	mg/L		1		E300.0	12/09/09 22:48 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	477	umhos/cm		1		A2510 B	12/07/09 17:31 / lr
pH	7.75	s.u.		0.01		A4500-H B	12/07/09 17:31 / lr
Solids, Total Dissolved TDS @ 180 C	319	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Arsenic	0.003	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Barium	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:20 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:19 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:19 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:19 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:20 / cp
Lead	ND	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:19 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:19 / ts
Selenium	0.002	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Uranium	0.0150	mg/L		0.0003		E200.8	12/09/09 03:19 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Zinc	0.01	mg/L		0.01		E200.8	12/09/09 03:19 / ts
METALS - SUSPENDED							
Uranium	0.0142	mg/L		0.0003		E200.8	12/11/09 16:13 / ts

Report Definitions:
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QCL - Quality control limit.
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-001
Client Sample ID: Miller 1

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.5	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.14	pCi/L	U	0.14		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.14	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	0.1	pCi/L		0.09		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.09	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	8.1	pCi/L		0.05		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.9	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.18	%				Calculation	12/16/09 12:05 / kbh
Anions	5.30	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	5.17	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	351	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.910					Calculation	12/16/09 12:05 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-002
Client Sample ID: BOW 2006-5

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	381	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Bicarbonate as HCO3	464	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Calcium	101	mg/L		1		E200.7	12/14/09 16:24 / cp
Chloride	13	mg/L		1		E300.0	12/09/09 23:53 / ijl
Fluoride	1.2	mg/L		0.1		A4500-F C	12/08/09 12:05 / dvg
Magnesium	14	mg/L		1		E200.7	12/14/09 16:24 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:22 / jal
Nitrogen, Nitrate+Nitrite as N	2.1	mg/L		0.1		E353.2	12/11/09 11:20 / jal
Potassium	12	mg/L		1		E200.7	12/14/09 16:24 / cp
Silica	52.5	mg/L		0.2		E200.7	12/14/09 16:24 / cp
Sodium	35	mg/L		1		E200.7	12/14/09 16:24 / cp
Sulfate	25	mg/L		1		E300.0	12/09/09 23:53 / ijl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	735	umhos/cm		1		A2510 B	12/08/09 14:10 / ijl
pH	7.78	s.u.		0.01		A4500-H B	12/08/09 14:10 / ijl
Solids, Total Dissolved TDS @ 180 C	470	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Arsenic	0.005	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Barium	0.2	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:26 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:26 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:26 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:24 / cp
Lead	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Manganese	0.06	mg/L		0.01		E200.8	12/09/09 03:26 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:26 / ts
Selenium	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Uranium	0.0242	mg/L		0.0003		E200.8	12/09/09 03:26 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Zinc	1.07	mg/L		0.01		E200.8	12/09/09 03:26 / ts
METALS - SUSPENDED							
Uranium	0.0005	mg/L		0.0003		E200.8	12/11/09 16:17 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-002
Client Sample ID: BOW 2006-5

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.7	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.13	pCi/L	U	0.13		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.13	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	<0.08	pCi/L	U	0.08		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	0.1	pCi/L		0.03		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.86	%				Calculation	12/16/09 12:05 / kbh
Anions	8.71	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	8.06	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	506	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.930					Calculation	12/16/09 12:05 / kbh

Report Definitions:
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MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-003
Client Sample ID: BOW 2006-6

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	171	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Bicarbonate as HCO3	209	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Calcium	40	mg/L		1		E200.7	12/14/09 16:28 / cp
Chloride	4	mg/L		1		E300.0	12/10/09 00:10 / ijl
Fluoride	0.4	mg/L		0.1		A4500-F C	12/08/09 12:08 / dvg
Magnesium	5	mg/L		1		E200.7	12/14/09 16:28 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:29 / jal
Nitrogen, Nitrate+Nitrite as N	2.5	mg/L		0.1		E353.2	12/11/09 11:22 / jal
Potassium	7	mg/L		1		E200.7	12/14/09 16:28 / cp
Silica	61.6	mg/L		0.2		E200.7	12/14/09 16:28 / cp
Sodium	25	mg/L		1		E200.7	12/14/09 16:28 / cp
Sulfate	11	mg/L		1		E300.0	12/10/09 00:10 / ijl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	347	umhos/cm		1		A2510 B	12/08/09 14:14 / ijl
pH	7.94	s.u.		0.01		A4500-H B	12/08/09 14:14 / ijl
Solids, Total Dissolved TDS @ 180 C	253	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Arsenic	0.006	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Barium	0.2	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:28 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:33 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:33 / ts
Copper	0.01	mg/L		0.01		E200.8	12/09/09 03:33 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:28 / cp
Lead	0.002	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:33 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:33 / ts
Selenium	0.002	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Uranium	0.0086	mg/L		0.0003		E200.8	12/09/09 03:33 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Zinc	0.70	mg/L		0.01		E200.8	12/09/09 03:33 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/11/09 16:21 / ts

Report Definitions:
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MCL - Maximum contaminant level.
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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-003
Client Sample ID: BOW 2006-6

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.14	pCi/L	U	0.14		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.14	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	0.1	pCi/L		0.08		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	0.06	pCi/L		0.03		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.88	%				Calculation	12/16/09 12:05 / kbh
Anions	3.95	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	3.73	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	285	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	12/16/09 12:05 / kbh

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-004
Client Sample ID: BOW 2006-7

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	163	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Bicarbonate as HCO3	199	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Calcium	33	mg/L		1		E200.7	12/14/09 16:44 / cp
Chloride	16	mg/L		1		E300.0	12/10/09 00:26 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/08/09 12:11 / dvg
Magnesium	3	mg/L		1		E200.7	12/14/09 16:44 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:31 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/11/09 11:25 / jal
Potassium	8	mg/L		1		E200.7	12/14/09 16:44 / cp
Silica	66.5	mg/L		0.2		E200.7	12/14/09 16:44 / cp
Sodium	42	mg/L		1		E200.7	12/14/09 16:44 / cp
Sulfate	11	mg/L		1		E300.0	12/10/09 00:26 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	375	umhos/cm		1		A2510 B	12/08/09 14:16 / ljl
pH	8.00	s.u.		0.01		A4500-H B	12/08/09 14:16 / ljl
Solids, Total Dissolved TDS @ 180 C	276	mg/L		10		A2540 C	12/08/09 16:32 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Arsenic	0.004	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Barium	0.1	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:44 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:40 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:40 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:40 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:44 / cp
Lead	0.001	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:40 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:40 / ts
Selenium	0.003	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Uranium	0.0103	mg/L		0.0003		E200.8	12/09/09 03:40 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Zinc	0.36	mg/L		0.01		E200.8	12/09/09 03:40 / ts
METALS - SUSPENDED							
Uranium	0.0004	mg/L		0.0003		E200.8	12/11/09 16:25 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-004
Client Sample ID: BOW 2006-7

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.13	pCi/L	U	0.13		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.13	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.06	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	12/21/09 23:40 / trs
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/21/09 23:40 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	12/21/09 23:40 / trs
Thorium 230	0.06	pCi/L		0.05		E907.0	12/20/09 14:33 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	12/20/09 14:33 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	12/20/09 14:33 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.35	%				Calculation	12/16/09 12:06 / kbh
Anions	4.05	meq/L				Calculation	12/16/09 12:06 / kbh
Cations	3.94	meq/L				Calculation	12/16/09 12:06 / kbh
Solids, Total Dissolved Calculated	301	mg/L				Calculation	12/16/09 12:06 / kbh
TDS Balance (0.80 - 1.20)	0.920					Calculation	12/16/09 12:06 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-001
Client Sample ID: Miller 1

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	243	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Bicarbonate as HCO3	296	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Calcium	72	mg/L		1		E200.7	12/31/09 14:05 / cp
Chloride	6	mg/L		1		E300.0	12/23/09 21:35 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/22/09 10:24 / dvg
Magnesium	6	mg/L		1		E200.7	12/31/09 14:05 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:28 / jal
Nitrogen, Nitrate+Nitrite as N	2.5	mg/L		0.1		E353.2	12/29/09 13:52 / jal
Potassium	9	mg/L		1		E200.7	12/31/09 14:05 / cp
Silica	65.4	mg/L		0.2		E200.7	12/31/09 14:05 / cp
Sodium	19	mg/L		1		E200.7	12/31/09 14:05 / cp
Sulfate	10	mg/L		1		E300.0	12/23/09 21:35 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	475	umhos/cm		1		A2510 B	12/22/09 10:55 / lr
pH	7.68	s.u.		0.01		A4500-H B	12/22/09 10:55 / lr
Solids, Total Dissolved TDS @ 180 C	312	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:05 / cp
Arsenic	0.003	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Barium	0.1	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:05 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 13:32 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 13:32 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 13:32 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 13:32 / sml
Lead	ND	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 13:32 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 13:32 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Uranium	0.0168	mg/L		0.0003		E200.8	12/22/09 13:32 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Zinc	ND	mg/L		0.01		E200.8	12/24/09 00:05 / sml
METALS - SUSPENDED							
Uranium	0.0009	mg/L		0.0003		E200.8	01/05/10 00:04 / ts

Report Definitions:
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QCL - Quality control limit.
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-001
Client Sample ID: Miller 1

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.5	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.7	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.19	pCi/L	U	0.19		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.19	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.09	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.09	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.07	pCi/L	U	0.07		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.07	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.32	%				Calculation	01/04/10 09:58 / kbh
Anions	5.43	meq/L				Calculation	01/04/10 09:58 / kbh
Cations	5.08	meq/L				Calculation	01/04/10 09:58 / kbh
Solids, Total Dissolved Calculated	360	mg/L				Calculation	01/04/10 09:58 / kbh
TDS Balance (0.80 - 1.20)	0.870					Calculation	01/04/10 09:58 / kbh

Report Definitions:
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MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-002
Client Sample ID: BOW 2006-5

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	383	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Bicarbonate as HCO3	467	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Calcium	97	mg/L		1		E200.7	12/31/09 14:17 / cp
Chloride	13	mg/L		1		E300.0	01/08/10 17:05 / ljl
Fluoride	1.3	mg/L		0.1		A4500-F C	12/22/09 10:27 / dvg
Magnesium	14	mg/L		1		E200.7	01/05/10 13:52 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:30 / jal
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	12/29/09 13:54 / jal
Potassium	12	mg/L		1		E200.7	12/31/09 14:17 / cp
Silica	55.6	mg/L		0.2		E200.7	12/31/09 14:17 / cp
Sodium	31	mg/L		1		E200.7	12/31/09 14:17 / cp
Sulfate	23	mg/L		1		E300.0	01/08/10 17:05 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	728	umhos/cm		1		A2510 B	12/22/09 11:01 / lr
pH	7.86	s.u.		0.01		A4500-H B	12/22/09 11:01 / lr
Solids, Total Dissolved TDS @ 180 C	442	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:17 / cp
Arsenic	0.006	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:10 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 13:37 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 13:37 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 13:37 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 13:37 / sml
Lead	0.003	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Manganese	0.08	mg/L		0.01		E200.8	12/22/09 13:37 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 13:37 / sml
Selenium	0.001	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Uranium	0.0264	mg/L		0.0003		E200.8	12/22/09 13:37 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Zinc	1.22	mg/L		0.01		E200.8	12/24/09 00:10 / sml
METALS - SUSPENDED							
Uranium	0.0005	mg/L		0.0003		E200.8	01/05/10 00:08 / ts

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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-002
Client Sample ID: BOW 2006-5

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.18	pCi/L	U	0.18		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.12	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.18	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.06	pCi/L	U	0.06		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.06	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-5.62	%				Calculation	01/12/10 09:59 / kbh
Anions	8.58	meq/L				Calculation	01/12/10 09:59 / kbh
Cations	7.67	meq/L				Calculation	01/12/10 09:59 / kbh
Solids, Total Dissolved Calculated	493	mg/L				Calculation	01/12/10 09:59 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	01/12/10 09:59 / kbh

- The Anion / Cation balance was confirmed by re-analysis.

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-003
Client Sample ID: BOW 2006-6

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	173	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Bicarbonate as HCO3	211	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Calcium	46	mg/L		1		E200.7	12/31/09 14:25 / cp
Chloride	4	mg/L		1		E300.0	12/23/09 22:41 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	12/22/09 10:30 / dvg
Magnesium	6	mg/L		1		E200.7	12/31/09 14:25 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:38 / jal
Nitrogen, Nitrate+Nitrite as N	1.8	mg/L		0.1		E353.2	12/29/09 13:57 / jal
Potassium	6	mg/L		1		E200.7	12/31/09 14:25 / cp
Silica	64.7	mg/L		0.2		E200.7	12/31/09 14:25 / cp
Sodium	16	mg/L		1		E200.7	12/31/09 14:25 / cp
Sulfate	9	mg/L		1		E300.0	12/23/09 22:41 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	345	umhos/cm		1		A2510 B	12/22/09 11:04 / lr
pH	7.96	s.u.		0.01		A4500-H B	12/22/09 11:04 / lr
Solids, Total Dissolved TDS @ 180 C	221	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:25 / cp
Arsenic	0.005	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:15 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 14:05 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 14:05 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 14:05 / sml
Iron	0.04	mg/L		0.03		E200.8	12/22/09 14:05 / sml
Lead	0.003	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 14:05 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 14:05 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Uranium	0.0097	mg/L		0.0003		E200.8	12/22/09 14:05 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Zinc	0.64	mg/L		0.01		E200.8	12/24/09 00:15 / sml
METALS - SUSPENDED							
Uranium	0.0011	mg/L		0.0003		E200.8	01/05/10 00:12 / ts

Report Definitions:
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QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-003
Client Sample ID: BOW 2006-6

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.3	pCi/L		1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.8	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.20	pCi/L	U	0.20		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.12	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.20	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.1	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	0.2	pCi/L		0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	0.2	pCi/L		0.05		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.84	%				Calculation	01/04/10 09:59 / kbh
Anions	3.92	meq/L				Calculation	01/04/10 09:59 / kbh
Cations	3.63	meq/L				Calculation	01/04/10 09:59 / kbh
Solids, Total Dissolved Calculated	281	mg/L				Calculation	01/04/10 09:59 / kbh
TDS Balance (0.80 - 1.20)	0.790					Calculation	01/04/10 09:59 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-004
Client Sample ID: BOW 2006-7

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	168	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Bicarbonate as HCO3	205	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Calcium	33	mg/L		1		E200.7	12/31/09 14:29 / cp
Chloride	9	mg/L		1		E300.0	01/08/10 17:20 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/22/09 10:33 / dvg
Magnesium	3	mg/L		1		E200.7	12/31/09 14:29 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:40 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/29/09 13:59 / jal
Potassium	8	mg/L		1		E200.7	12/31/09 14:29 / cp
Silica	72.2	mg/L		0.2		E200.7	12/31/09 14:29 / cp
Sodium	33	mg/L		1		E200.7	01/05/10 14:00 / cp
Sulfate	11	mg/L		1		E300.0	01/08/10 17:20 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	351	umhos/cm		1		A2510 B	12/22/09 11:07 / lr
pH	7.96	s.u.		0.01		A4500-H B	12/22/09 11:07 / lr
Solids, Total Dissolved TDS @ 180 C	229	mg/L		10		A2540 C	12/22/09 12:01 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:29 / cp
Arsenic	0.005	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:20 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 14:11 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 14:11 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 14:11 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 14:11 / sml
Lead	0.001	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 14:11 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 14:11 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Uranium	0.0122	mg/L		0.0003		E200.8	12/22/09 14:11 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Zinc	0.30	mg/L		0.01		E200.8	12/24/09 00:20 / sml
METALS - SUSPENDED							
Uranium	0.0009	mg/L		0.0003		E200.8	01/05/10 00:33 / ts

Report Definitions:
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QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-004
Client Sample ID: BOW 2006-7

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.18	pCi/L	U	0.18		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.11	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.18	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.08	pCi/L	U	0.08		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.08	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-5.53	%				Calculation	01/12/10 10:05 / kbh
Anions	3.96	meq/L				Calculation	01/12/10 10:05 / kbh
Cations	3.55	meq/L				Calculation	01/12/10 10:05 / kbh
Solids, Total Dissolved Calculated	295	mg/L				Calculation	01/12/10 10:05 / kbh
TDS Balance (0.80 - 1.20)	0.780					Calculation	01/12/10 10:05 / kbh

- The Anion / Cation balance was confirmed by re-analysis.

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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ANALYTICAL SUMMARY REPORT

February 03, 2010

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C09120215 Quote ID: C1125 - Crow Butte Uranium Project

Project Name: Three Crow Baseline Samples

Energy Laboratories, Inc. received the following 4 samples for Crow Butte Resources on 12/7/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C09120215-001	Miller 1	12/04/09 00:00	12/07/09	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Suspended Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C09120215-002	BOW 2006-5	12/04/09 00:00	12/07/09	Aqueous	Same As Above
C09120215-003	BOW 2006-6	12/04/09 00:00	12/07/09	Aqueous	Same As Above
C09120215-004	BOW 2006-7	12/04/09 00:00	12/07/09	Aqueous	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-001
Client Sample ID: Miller 1

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	241	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Bicarbonate as HCO3	294	mg/L		5		A2320 B	12/09/09 10:43 / dvg
Calcium	72	mg/L		1		E200.7	12/14/09 16:20 / cp
Chloride	6	mg/L		1		E300.0	12/09/09 22:48 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/08/09 11:51 / dvg
Magnesium	5	mg/L		1		E200.7	12/14/09 16:20 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:20 / jal
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	12/11/09 11:17 / jal
Potassium	9	mg/L		1		E200.7	12/14/09 16:20 / cp
Silica	61.7	mg/L		0.2		E200.7	12/14/09 16:20 / cp
Sodium	21	mg/L		1		E200.7	12/14/09 16:20 / cp
Sulfate	10	mg/L		1		E300.0	12/09/09 22:48 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	477	umhos/cm		1		A2510 B	12/07/09 17:31 / lr
pH	7.75	s.u.		0.01		A4500-H B	12/07/09 17:31 / lr
Solids, Total Dissolved TDS @ 180 C	319	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Arsenic	0.003	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Barium	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:20 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:19 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:19 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:19 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:20 / cp
Lead	ND	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:19 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:19 / ts
Selenium	0.002	mg/L		0.001		E200.8	12/09/09 03:19 / ts
Uranium	0.0150	mg/L		0.0003		E200.8	12/09/09 03:19 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:19 / ts
Zinc	0.01	mg/L		0.01		E200.8	12/09/09 03:19 / ts
METALS - SUSPENDED							
Uranium	0.0142	mg/L		0.0003		E200.8	12/11/09 16:13 / ts

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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-001
Client Sample ID: Miller 1

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.5	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.14	pCi/L	U	0.14		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.14	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	0.1	pCi/L		0.09		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.09	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	8.1	pCi/L		0.05		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.9	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.18	%				Calculation	12/16/09 12:05 / kbh
Anions	5.30	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	5.17	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	351	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.910					Calculation	12/16/09 12:05 / kbh

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-002
Client Sample ID: BOW 2006-5

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	381	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Bicarbonate as HCO3	464	mg/L		5		A2320 B	12/09/09 10:52 / dvg
Calcium	101	mg/L		1		E200.7	12/14/09 16:24 / cp
Chloride	13	mg/L		1		E300.0	12/09/09 23:53 / ljl
Fluoride	1.2	mg/L		0.1		A4500-F C	12/08/09 12:05 / dvg
Magnesium	14	mg/L		1		E200.7	12/14/09 16:24 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:22 / jal
Nitrogen, Nitrate+Nitrite as N	2.1	mg/L		0.1		E353.2	12/11/09 11:20 / jal
Potassium	12	mg/L		1		E200.7	12/14/09 16:24 / cp
Silica	52.5	mg/L		0.2		E200.7	12/14/09 16:24 / cp
Sodium	35	mg/L		1		E200.7	12/14/09 16:24 / cp
Sulfate	25	mg/L		1		E300.0	12/09/09 23:53 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	735	umhos/cm		1		A2510 B	12/08/09 14:10 / ljl
pH	7.78	s.u.		0.01		A4500-H B	12/08/09 14:10 / ljl
Solids, Total Dissolved TDS @ 180 C	470	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Arsenic	0.005	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Barium	0.2	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:26 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:26 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:26 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:24 / cp
Lead	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Manganese	0.06	mg/L		0.01		E200.8	12/09/09 03:26 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:26 / ts
Selenium	ND	mg/L		0.001		E200.8	12/09/09 03:26 / ts
Uranium	0.0242	mg/L		0.0003		E200.8	12/09/09 03:26 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:26 / ts
Zinc	1.07	mg/L		0.01		E200.8	12/09/09 03:26 / ts
METALS - SUSPENDED							
Uranium	0.0005	mg/L		0.0003		E200.8	12/11/09 16:17 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-002
Client Sample ID: BOW 2006-5

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.7	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.13	pCi/L	U	0.13		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.13	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	<0.08	pCi/L	U	0.08		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	0.1	pCi/L		0.03		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.86	%				Calculation	12/16/09 12:05 / kbh
Anions	8.71	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	8.06	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	506	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.930					Calculation	12/16/09 12:05 / kbh

Report Definitions:
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MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-003
Client Sample ID: BOW 2006-6

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	171	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Bicarbonate as HCO3	209	mg/L		5		A2320 B	12/09/09 11:00 / dvg
Calcium	40	mg/L		1		E200.7	12/14/09 16:28 / cp
Chloride	4	mg/L		1		E300.0	12/10/09 00:10 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	12/08/09 12:08 / dvg
Magnesium	5	mg/L		1		E200.7	12/14/09 16:28 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:29 / jal
Nitrogen, Nitrate+Nitrite as N	2.5	mg/L		0.1		E353.2	12/11/09 11:22 / jal
Potassium	7	mg/L		1		E200.7	12/14/09 16:28 / cp
Silica	61.6	mg/L		0.2		E200.7	12/14/09 16:28 / cp
Sodium	25	mg/L		1		E200.7	12/14/09 16:28 / cp
Sulfate	11	mg/L		1		E300.0	12/10/09 00:10 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	347	umhos/cm		1		A2510 B	12/08/09 14:14 / ljl
pH	7.94	s.u.		0.01		A4500-H B	12/08/09 14:14 / ljl
Solids, Total Dissolved TDS @ 180 C	253	mg/L		10		A2540 C	12/08/09 16:31 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Arsenic	0.006	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Barium	0.2	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:28 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:33 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:33 / ts
Copper	0.01	mg/L		0.01		E200.8	12/09/09 03:33 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:28 / cp
Lead	0.002	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:33 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:33 / ts
Selenium	0.002	mg/L		0.001		E200.8	12/09/09 03:33 / ts
Uranium	0.0086	mg/L		0.0003		E200.8	12/09/09 03:33 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:33 / ts
Zinc	0.70	mg/L		0.01		E200.8	12/09/09 03:33 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/11/09 16:21 / ts

Report Definitions:
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-003
Client Sample ID: BOW 2006-6

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.14	pCi/L	U	0.14		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.14	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	0.1	pCi/L		0.08		E903.0	12/21/09 17:09 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/21/09 17:09 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	12/21/09 17:09 / trs
Thorium 230	0.06	pCi/L		0.03		E907.0	12/18/09 17:19 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/18/09 17:19 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.88	%				Calculation	12/16/09 12:05 / kbh
Anions	3.95	meq/L				Calculation	12/16/09 12:05 / kbh
Cations	3.73	meq/L				Calculation	12/16/09 12:05 / kbh
Solids, Total Dissolved Calculated	285	mg/L				Calculation	12/16/09 12:05 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	12/16/09 12:05 / kbh

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-004
Client Sample ID: BOW 2006-7

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	163	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Bicarbonate as HCO3	199	mg/L		5		A2320 B	12/09/09 11:27 / dvg
Calcium	33	mg/L		1		E200.7	12/14/09 16:44 / cp
Chloride	16	mg/L		1		E300.0	12/10/09 00:26 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/08/09 12:11 / dvg
Magnesium	3	mg/L		1		E200.7	12/14/09 16:44 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/10/09 11:31 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/11/09 11:25 / jal
Potassium	8	mg/L		1		E200.7	12/14/09 16:44 / cp
Silica	66.5	mg/L		0.2		E200.7	12/14/09 16:44 / cp
Sodium	42	mg/L		1		E200.7	12/14/09 16:44 / cp
Sulfate	11	mg/L		1		E300.0	12/10/09 00:26 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	375	umhos/cm		1		A2510 B	12/08/09 14:16 / ljl
pH	8.00	s.u.		0.01		A4500-H B	12/08/09 14:16 / ljl
Solids, Total Dissolved TDS @ 180 C	276	mg/L		10		A2540 C	12/08/09 16:32 / dvg
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Arsenic	0.004	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Barium	0.1	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Boron	ND	mg/L		0.1		E200.7	12/14/09 16:44 / cp
Cadmium	ND	mg/L		0.005		E200.8	12/09/09 03:40 / ts
Chromium	ND	mg/L		0.05		E200.8	12/09/09 03:40 / ts
Copper	ND	mg/L		0.01		E200.8	12/09/09 03:40 / ts
Iron	ND	mg/L		0.03		E200.7	12/14/09 16:44 / cp
Lead	0.001	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Manganese	ND	mg/L		0.01		E200.8	12/09/09 03:40 / ts
Mercury	ND	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Molybdenum	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Nickel	ND	mg/L		0.05		E200.8	12/09/09 03:40 / ts
Selenium	0.003	mg/L		0.001		E200.8	12/09/09 03:40 / ts
Uranium	0.0103	mg/L		0.0003		E200.8	12/09/09 03:40 / ts
Vanadium	ND	mg/L		0.1		E200.8	12/09/09 03:40 / ts
Zinc	0.36	mg/L		0.01		E200.8	12/09/09 03:40 / ts
METALS - SUSPENDED							
Uranium	0.0004	mg/L		0.0003		E200.8	12/11/09 16:25 / ts

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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09120215-004
Client Sample ID: BOW 2006-7

Report Date: 02/02/10
Collection Date: 12/04/09
DateReceived: 12/07/09
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	01/04/10 09:45 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	01/04/10 09:45 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	01/04/10 09:45 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.13	pCi/L	U	0.13		E903.0	12/16/09 01:08 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/16/09 01:08 / jah
Radium 226 MDC	0.13	pCi/L				E903.0	12/16/09 01:08 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/17/09 13:31 / ep
Thorium 230 precision (±)	0.06	pCi/L				E907.0	12/17/09 13:31 / ep
Thorium 230 MDC	0.1	pCi/L				E907.0	12/17/09 13:31 / ep
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0M	01/06/10 10:15 / dm
Lead 210 precision (±)	0.9	pCi/L				E909.0M	01/06/10 10:15 / dm
Lead 210 MDC	1.6	pCi/L				E909.0M	01/06/10 10:15 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 10:10 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 10:10 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 10:10 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	12/21/09 23:40 / trs
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/21/09 23:40 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	12/21/09 23:40 / trs
Thorium 230	0.06	pCi/L		0.05		E907.0	12/20/09 14:33 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	12/20/09 14:33 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	12/20/09 14:33 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.35	%				Calculation	12/16/09 12:06 / kbh
Anions	4.05	meq/L				Calculation	12/16/09 12:06 / kbh
Cations	3.94	meq/L				Calculation	12/16/09 12:06 / kbh
Solids, Total Dissolved Calculated	301	mg/L				Calculation	12/16/09 12:06 / kbh
TDS Balance (0.80 - 1.20)	0.920					Calculation	12/16/09 12:06 / kbh

Report Definitions:
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R127497
Sample ID: MBLK	3	Method Blank				Run: MANTECH_091209A				12/09/09 09:38
Alkalinity, Total as CaCO3		4	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		5	mg/L	1						
Sample ID: LCS1		Laboratory Control Sample				Run: MANTECH_091209A				12/09/09 09:55
Alkalinity, Total as CaCO3		190	mg/L	5.0	93	90	110			
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091209A				12/09/09 10:05
Alkalinity, Total as CaCO3		53.5	mg/L	5.0	99	90	110			
Sample ID: C09120215-003AMS		Sample Matrix Spike				Run: MANTECH_091209A				12/09/09 11:10
Alkalinity, Total as CaCO3		293	mg/L	5.0	97	80	120			
Sample ID: C09120215-003AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091209A				12/09/09 11:18
Alkalinity, Total as CaCO3		290	mg/L	5.0	95	80	120	0.9	20	
Method: A2510 B										Analytical Run: ORION555A-2_091207A
Sample ID: ICV2_091207_1		Initial Calibration Verification Standard								12/07/09 15:12
Conductivity @ 25 C		1380	umhos/cm	1.0	97	90	110			
Method: A2510 B										Batch: 091207_1_PH-W_555A-2
Sample ID: MBLK1_091207_1		Method Blank				Run: ORION555A-2_091207A				12/07/09 15:07
Conductivity @ 25 C		0.9	umhos/cm	0.2						
Sample ID: C09120215-001ADUP		Sample Duplicate				Run: ORION555A-2_091207A				12/07/09 17:35
Conductivity @ 25 C		477	umhos/cm	1.0				0	10	
Method: A2510 B										Analytical Run: ORION555A-2_091208A
Sample ID: ICV2_091208_1		Initial Calibration Verification Standard								12/08/09 14:02
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B										Batch: 091208_1_PH-W_555A-2
Sample ID: MBLK1_091208_1		Method Blank				Run: ORION555A-2_091208A				12/08/09 13:58
Conductivity @ 25 C		1	umhos/cm	0.2						
Sample ID: C09120233-005ADUP		Sample Duplicate				Run: ORION555A-2_091208A				12/08/09 14:29
Conductivity @ 25 C		5020	umhos/cm	1.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 091208_1_SLDS-TDS-W	
Sample ID: MBLK1_091208		Method Blank				Run: BAL-1_091208B			12/08/09 16:39	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_091208		Laboratory Control Sample				Run: BAL-1_091208B			12/08/09 16:18	
Solids, Total Dissolved TDS @ 180 C		1000	mg/L	10	100	90	110			
Sample ID: C09120215-004BMS		Sample Matrix Spike				Run: BAL-1_091208B			12/08/09 16:32	
Solids, Total Dissolved TDS @ 180 C		2240	mg/L	10	98	90	110			
Sample ID: C09120215-004BMSD		Sample Matrix Spike Duplicate				Run: BAL-1_091208B			12/08/09 16:33	
Solids, Total Dissolved TDS @ 180 C		2270	mg/L	10	100	90	110	1.5	10	
Method: A4500-F C									Batch: R127406	
Sample ID: MBLK		Method Blank				Run: MANTECH_091208B			12/08/09 11:37	
Fluoride		ND	mg/L	0.05						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091208B			12/08/09 11:42	
Fluoride		0.960	mg/L	0.10	96	90	110			
Sample ID: C09120215-001AMS		Sample Matrix Spike				Run: MANTECH_091208B			12/08/09 11:54	
Fluoride		1.66	mg/L	0.10	105	80	120			
Sample ID: C09120215-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091208B			12/08/09 12:00	
Fluoride		1.63	mg/L	0.10	102	80	120	1.8	10	
Method: A4500-H B									Analytical Run: ORION555A-2_091207A	
Sample ID: ICV1_091207_1		Initial Calibration Verification Standard							12/07/09 15:10	
pH		6.84	s.u.	0.010	100	98	102			
Method: A4500-H B									Batch: 091207_1_PH-W_555A-2	
Sample ID: C09120215-001ADUP		Sample Duplicate				Run: ORION555A-2_091207A			12/07/09 17:35	
pH		7.87	s.u.	0.010				1.5	10	
Method: A4500-H B									Analytical Run: ORION555A-2_091208A	
Sample ID: ICV1_091208_1		Initial Calibration Verification Standard							12/08/09 14:00	
pH		6.87	s.u.	0.010	100	98	102			
Method: A4500-H B									Batch: 091208_1_PH-W_555A-2	
Sample ID: C09120182-010ADUP		Sample Duplicate				Run: ORION555A-2_091208A			12/08/09 15:43	
pH		7.78	s.u.	0.010				0.1	10	

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R127515
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091210A				12/10/09 09:38
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091210A				12/10/09 09:40
Nitrogen, Ammonia as N		20.8	mg/L	0.20	104	80	120			
Sample ID: C09120215-002FMS		Sample Matrix Spike				Run: TECHNICON_091210A				12/10/09 11:24
Nitrogen, Ammonia as N		1.79	mg/L	0.050	90	80	120			
Sample ID: C09120215-002FMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091210A				12/10/09 11:26
Nitrogen, Ammonia as N		1.81	mg/L	0.050	91	80	120	1.1	20	
Method: E300.0										Batch: R127514
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_091209A				12/09/09 15:08
Chloride		9.73	mg/L	1.0	97	90	110			
Sulfate		39.5	mg/L	1.0	99	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_091209A				12/09/09 15:24
Chloride		ND	mg/L	0.04						
Sulfate		ND	mg/L	0.1						
Sample ID: C09120206-001AMS	2	Sample Matrix Spike				Run: IC2-C_091209A				12/09/09 22:15
Chloride		22.0	mg/L	1.0	99	80	120			
Sulfate		106	mg/L	1.0	102	80	120			
Sample ID: C09120206-001AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_091209A				12/09/09 22:31
Chloride		21.5	mg/L	1.0	97	80	120	2.1	20	
Sulfate		105	mg/L	1.0	100	80	120	1.3	20	
Sample ID: C09120215-004AMS	2	Sample Matrix Spike				Run: IC2-C_091209A				12/10/09 00:42
Chloride		26.1	mg/L	1.0	54	80	120			S
Sulfate		83.3	mg/L	1.0	92	80	120			
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										
Sample ID: C09120215-004AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_091209A				12/10/09 00:59
Chloride		25.8	mg/L	1.0	52	80	120	1.4	20	S
Sulfate		82.5	mg/L	1.0	91	80	120	1	20	
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 01/13/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R127628
Sample ID: MB-091214A	7	Method Blank				Run: ICP2-C_091214A				12/14/09 14:57
Boron		ND	mg/L	0.03						
Calcium		ND	mg/L	0.2						
Iron		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.09						
Potassium		ND	mg/L	0.1						
Silicon		0.01	mg/L	0.01						
Sodium		ND	mg/L	0.2						
Sample ID: LFB-091214A	7	Laboratory Fortified Blank				Run: ICP2-C_091214A				12/14/09 15:01
Boron		0.951	mg/L	0.10	95	85	115			
Calcium		48.1	mg/L	0.50	96	85	115			
Iron		0.944	mg/L	0.030	94	85	115			
Magnesium		47.0	mg/L	0.50	94	85	115			
Potassium		43.2	mg/L	0.50	86	85	115			
Silicon		0.451	mg/L	0.015	97	85	115			
Sodium		45.9	mg/L	0.50	92	85	115			
Sample ID: C09120111-001BMS2	7	Sample Matrix Spike				Run: ICP2-C_091214A				12/14/09 15:59
Boron		2.00	mg/L	0.10	95	70	130			
Calcium		163	mg/L	1.0	99	70	130			
Iron		2.01	mg/L	0.030	97	70	130			
Magnesium		105	mg/L	1.0	95	70	130			
Potassium		101	mg/L	1.0	93	70	130			
Silicon		8.19	mg/L	0.10		70	130			A
Sodium		126	mg/L	1.0	95	70	130			
Sample ID: C09120111-001BMSD	7	Sample Matrix Spike Duplicate				Run: ICP2-C_091214A				12/14/09 16:03
Boron		2.02	mg/L	0.10	96	70	130	0.9	20	
Calcium		163	mg/L	1.0	100	70	130	0.1	20	
Iron		2.00	mg/L	0.030	97	70	130	0.1	20	
Magnesium		107	mg/L	1.0	97	70	130	1.9	20	
Potassium		98.9	mg/L	1.0	91	70	130	1.9	20	
Silicon		8.19	mg/L	0.10		70	130	0	20	A
Sodium		127	mg/L	1.0	97	70	130	1.5	20	

Qualifiers:

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ND - Not detected at the reporting limit.

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MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 01/13/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 24614
Sample ID: MB-24614		Method Blank				Run: ICPMS2-C_091211A				12/11/09 14:37
Uranium		0.002	mg/filter	6E-05						
Sample ID: LCS2-24614		Laboratory Control Sample				Run: ICPMS2-C_091211A				12/11/09 14:42
Uranium		0.0987	mg/filter	0.00030	97	85	115			
Sample ID: C09120097-006AMS		Sample Matrix Spike				Run: ICPMS2-C_091211A				12/11/09 15:36
Uranium		1.23E-05	mg/filter	1.0E-05	99	75	125			
Sample ID: C09120097-006AMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_091211A				12/11/09 15:40
Uranium		1.19E-05	mg/filter	1.0E-05	97	75	125	2.9	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 01/13/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127442
Sample ID: LRB	15	Method Blank				Run: ICPMS2-C_091208A				12/08/09 12:56
Aluminum		ND	mg/L	0.002						
Arsenic		ND	mg/L	0.0003						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	6E-05						
Chromium		ND	mg/L	8E-05						
Copper		ND	mg/L	4E-05						
Lead		ND	mg/L	2E-05						
Manganese		ND	mg/L	5E-05						
Mercury		ND	mg/L	4E-05						
Molybdenum		ND	mg/L	4E-05						
Nickel		ND	mg/L	9E-05						
Selenium		ND	mg/L	0.001						
Uranium		ND	mg/L	8E-06						
Vanadium		ND	mg/L	9E-05						
Zinc		0.0009	mg/L	6E-05						
Sample ID: LFB	15	Laboratory Fortified Blank				Run: ICPMS2-C_091208A				12/08/09 13:03
Aluminum		0.0520	mg/L	0.0022	104	85	115			
Arsenic		0.0500	mg/L	0.0010	100	85	115			
Barium		0.0494	mg/L	0.0010	99	85	115			
Cadmium		0.0497	mg/L	0.0010	99	85	115			
Chromium		0.0503	mg/L	0.0010	101	85	115			
Copper		0.0502	mg/L	0.0010	100	85	115			
Lead		0.0501	mg/L	0.0010	100	85	115			
Manganese		0.0502	mg/L	0.0010	100	85	115			
Mercury		0.00504	mg/L	0.0010	101	85	115			
Molybdenum		0.0491	mg/L	0.0010	98	85	115			
Nickel		0.0501	mg/L	0.0010	100	85	115			
Selenium		0.0497	mg/L	0.0014	99	85	115			
Uranium		0.0492	mg/L	0.00030	98	85	115			
Vanadium		0.0504	mg/L	0.0010	101	85	115			
Zinc		0.0511	mg/L	0.0010	100	85	115			
Sample ID: C09120215-004CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_091208A				12/09/09 03:46
Aluminum		0.0454	mg/L	0.0010	90	70	130			
Arsenic		0.0529	mg/L	0.0010	98	70	130			
Barium		0.185	mg/L	0.10	99	70	130			
Cadmium		0.0484	mg/L	0.010	97	70	130			
Chromium		0.0456	mg/L	0.0010	90	70	130			
Copper		0.0497	mg/L	0.010	92	70	130			
Lead		0.0497	mg/L	0.0010	97	70	130			
Manganese		0.0440	mg/L	0.010	88	70	130			
Mercury		0.00480	mg/L	0.0010	96	70	130			
Molybdenum		0.0500	mg/L	0.0010	97	70	130			

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 01/13/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127442
Sample ID: C09120215-004CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_091208A				12/09/09 03:46
Nickel		0.0472	mg/L	0.0010	94	70	130			
Selenium		0.0519	mg/L	0.0010	98	70	130			
Uranium		0.0582	mg/L	0.00030	96	70	130			
Vanadium		0.0537	mg/L	0.0010	91	70	130			
Zinc		0.409	mg/L	0.010		70	130			A
Sample ID: C09120215-004CMSD	15	Sample Matrix Spike Duplicate				Run: ICPMS2-C_091208A				12/09/09 03:53
Aluminum		0.0468	mg/L	0.0010	93	70	130	3	20	
Arsenic		0.0528	mg/L	0.0010	97	70	130	0.3	20	
Barium		0.184	mg/L	0.10	98	70	130	0.4	20	
Cadmium		0.0485	mg/L	0.010	97	70	130	0.2	20	
Chromium		0.0460	mg/L	0.0010	91	70	130	0.8	20	
Copper		0.0495	mg/L	0.010	92	70	130	0.4	20	
Lead		0.0498	mg/L	0.0010	97	70	130	0.2	20	
Manganese		0.0445	mg/L	0.010	89	70	130	1	20	
Mercury		0.00488	mg/L	0.0010	98	70	130	1.6	20	
Molybdenum		0.0502	mg/L	0.0010	97	70	130	0.4	20	
Nickel		0.0467	mg/L	0.0010	93	70	130	1.1	20	
Selenium		0.0509	mg/L	0.0010	96	70	130	1.9	20	
Uranium		0.0584	mg/L	0.00030	96	70	130	0.3	20	
Vanadium		0.0540	mg/L	0.0010	92	70	130	0.6	20	
Zinc		0.403	mg/L	0.010		70	130	1.4	20	A

Qualifiers:

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MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R127554
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091211A				12/11/09 09:55
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.03						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091211A				12/11/09 09:57
Nitrogen, Nitrate+Nitrite as N		2.64	mg/L	0.10	106	90	110			
Sample ID: C09120215-004FMS		Sample Matrix Spike				Run: TECHNICON_091211A				12/11/09 11:30
Nitrogen, Nitrate+Nitrite as N		3.35	mg/L	0.10	106	90	110			
Sample ID: C09120215-004FMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091211A				12/11/09 11:32
Nitrogen, Nitrate+Nitrite as N		3.29	mg/L	0.10	103	90	110	1.8	10	
Method: E903.0										Batch: 24614
Sample ID: C09120215-004GMS		Sample Matrix Spike				Run: BERTHOLD 770-2_091211A				12/21/09 23:40
Radium 226		16	pCi/L		83	70	130			
Sample ID: C09120215-004GMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_091211A				12/21/09 23:40
Radium 226		18	pCi/L		91	70	130	10	20.3	
Sample ID: LCS-24614		Laboratory Control Sample				Run: BERTHOLD 770-2_091211A				12/21/09 23:40
Radium 226		13	pCi/L		82	70	130			
Sample ID: MB-24614	3	Method Blank				Run: BERTHOLD 770-2_091211A				12/21/09 23:40
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Method: E903.0										Batch: RA226-4233
Sample ID: C09120215-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-2_091208A				12/16/09 01:08
Radium 226		16	pCi/L		102	70	130			
Sample ID: C09120215-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_091208A				12/16/09 01:08
Radium 226		16	pCi/L		101	70	130	0	19.9	
Sample ID: MB-RA226-4233	3	Method Blank				Run: BERTHOLD 770-2_091208A				12/16/09 05:49
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.06	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Sample ID: LCS-RA226-4233		Laboratory Control Sample				Run: BERTHOLD 770-2_091208A				12/16/09 05:49
Radium 226		8.7	pCi/L		112	70	130			

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E907.0										Batch: R127854
Sample ID: LCS-RA-TH-ISO-1053		Laboratory Control Sample				Run: EGG-ORTEC_091215A				12/17/09 13:31
Thorium 230		4.6	pCi/L		88	70	130			
Sample ID: C09120111-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_091215A				12/17/09 13:31
Thorium 230		13	pCi/L		104	70	130			
Sample ID: C09120111-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091215A				12/17/09 13:31
Thorium 230		11	pCi/L		87	70	130	18	37.5	
Sample ID: MB-RA-TH-ISO-1053	3	Method Blank				Run: EGG-ORTEC_091215A				12/18/09 08:42
Thorium 230		0.1	pCi/L							U
Thorium 230 precision (±)		0.10	pCi/L							
Thorium 230 MDC		0.1	pCi/L							
Method: E907.0										Batch: R127855
Sample ID: C09120097-001AMS		Sample Matrix Spike				Run: EGG-ORTEC_091214A				12/17/09 18:04
Thorium 230		11.3	pCi/Filter		106	70	130			
Sample ID: C09120097-001AMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091214A				12/17/09 18:04
Thorium 230		10.7	pCi/Filter		101	70	130	5.3	39.8	
Sample ID: LCS-24614		Laboratory Control Sample				Run: EGG-ORTEC_091214A				12/20/09 14:33
Thorium 230		2.33	pCi/Filter		120	70	130			
Sample ID: MB-24614	3	Method Blank				Run: EGG-ORTEC_091214A				12/20/09 14:33
Thorium 230		0.0007	pCi/Filter							U
Thorium 230 precision (±)		0.10	pCi/Filter							
Thorium 230 MDC		0.2	pCi/Filter							
Method: E909.0M										Batch: 24614
Sample ID: C09120215-004GMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100106B				01/06/10 10:15
Lead 210		150	pCi/L		104	70	130			
Sample ID: C09120215-004GMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100106B				01/06/10 10:15
Lead 210		140	pCi/L		98	70	130	6.9	30	
Sample ID: MB-R128663	3	Method Blank				Run: BECKMAN 6100TA_100106B				01/06/10 10:15
Lead 210		-4	pCi/L							U
Lead 210 precision (±)		5	pCi/L							
Lead 210 MDC		8	pCi/L							
Sample ID: LCS-R128663		Laboratory Control Sample				Run: BECKMAN 6100TA_100106B				01/06/10 10:15
Lead 210		570	pCi/L		107	70	130			

Qualifiers:

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U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/02/10
Work Order: C09120215

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0M										Batch: R128649
Sample ID: C09071109-001CMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		310	pCi/L		137	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the MSD are acceptable the batch is approved.										
Sample ID: C09071109-001CMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		260	pCi/L		114	70	130	18	30	
Sample ID: MB-R128649	3	Method Blank				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		0.1	pCi/L							U
Lead 210 precision (±)		6	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-R128649		Laboratory Control Sample				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		100	pCi/L		91	70	130			
Method: E912.0										Batch: PO210-0274
Sample ID: C09110863-004EMS		Sample Matrix Spike				Run: EGG-ORTEC_091228B				12/29/09 14:45
Polonium 210		22	pCi/L		82	70	130			
Sample ID: C09110863-004EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091228B				12/29/09 14:45
Polonium 210		30	pCi/L		109	70	130	29	59.6	
Sample ID: LCS-PO210-0274		Laboratory Control Sample				Run: EGG-ORTEC_091228B				12/29/09 14:44
Polonium 210		17	pCi/L		104	70	130			
Sample ID: MB-PO210-0274	3	Method Blank				Run: EGG-ORTEC_091228B				12/29/09 14:44
Polonium 210		0.1	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.6	pCi/L							
Method: E912.0										Batch: R128148
Sample ID: LCS-24576		Laboratory Control Sample				Run: EGG-ORTEC_091228A				12/29/09 10:10
Polonium 210		8.50	pCi/g-dry		106	70	130			
Sample ID: MB-24576	3	Method Blank				Run: EGG-ORTEC_091228A				12/29/09 10:10
Polonium 210		0.1	pCi/g-dry							U
Polonium 210 precision (±)		0.2	pCi/g-dry							
Polonium 210 MDC		0.2	pCi/g-dry							
Sample ID: C09120215-004GMS		Sample Matrix Spike				Run: EGG-ORTEC_091228A				12/29/09 10:10
Polonium 210		20	pCi/L		95	70	130			
Sample ID: C09120215-004GMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091228A				12/29/09 10:10
Polonium 210		19	pCi/L		92	70	130	4.4	54.1	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name, PWS, Permit, Etc. Three Crow Baseline Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169 Crawford, NE 69339	Contact Name: Larry Teahon Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass Rhonda Pelton
Invoice Address: P.O. Box 169 Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	Miller 1	12/4/09		Water	.5	1	1	.5	4	4	4						Please report 1/10/10
2	BOW 2006-5	12/4/09		Water	.5	1	1	.5	4	4	4						Please report 1/10/10
3	BOW 2006-6	12/4/09		Water	.5	1	1	.5	4	4	4						Please report 1/10/10
4	BOW 2006-7	12/4/09		Water	.5	1	1	.5	4	4	4						Please report 1/10/10
5																	
6																	
7																	
8																	
9																	
10																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

LABORATORY USE ONLY

Shipped by: Hand

Cooler ID(s): Various

Receipt Temp: 2 °C

On Ice: Yes (No)

Custody Seal Y (N)

Intact Y N

Signature Match Y N

09120215

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Walter Wilson	12/7/09 12:00	[signature]			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: Andrew	Date/Time: 12-7-09 1200	Signature: [signature]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc
Workorder Receipt Checklist

C09120215

Crow Butte Resources

Login completed by: Corinne Wagner

Date and Time Received: 12/7/2009 12:00 PM

Reviewed by:

Received by: al

Reviewed Date:

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples for dissolved metals and radionuclides were subsampled, filtered and preserved with 2 mL HNO3 in lab upon receipt to pH <2.

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CLIENT: Crow Butte Resources
Project: Three Crow Baseline Samples
Sample Delivery Group: C09120215

Date: 02-Feb-10

CASE NARRATIVE

PB210 ANALYSIS
The MDC for Pb-210 per RG 4.14 is 1 pCi/L. The current technique can achieve an MDC of about 2 pCi/L to 5 pCi/L if we have sufficient sample to process 1.0 L, and this is reported on a sample specific basis. Please consult with your local regulatory agency prior to using these results for compliance purposes.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505
Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

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ANALYTICAL SUMMARY REPORT

February 26, 2010

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C09110829 Quote ID: C1125 - Crow Butte Uranium Project

Project Name: Three Crow Baseline Samples

Energy Laboratories, Inc. received the following 4 samples for Crow Butte Resources on 11/24/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C09110829-001	Miller 1	11/20/09 00:00	11/24/09	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Suspended Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C09110829-002	BOW 2006-5	11/20/09 00:00	11/24/09	Aqueous	Same As Above
C09110829-003	BOW 2006-6	11/20/09 00:00	11/24/09	Aqueous	Same As Above
C09110829-004	BOW 2006-7	11/20/09 00:00	11/24/09	Aqueous	Same As Above

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-001
Client Sample ID: Miller 1

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	246	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Bicarbonate as HCO3	301	mg/L		5		A2320 B	11/25/09 19:41 / dvg
Calcium	71	mg/L		1		E200.7	12/02/09 15:12 / cp
Chloride	6	mg/L		1		E300.0	12/01/09 23:33 / ijl
Fluoride	0.6	mg/L		0.1		A4500-F C	11/25/09 09:21 / dvg
Magnesium	6	mg/L		1		E200.7	12/02/09 15:12 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:36 / jal
Nitrogen, Nitrate+Nitrite as N	2.2	mg/L		0.1		E353.2	12/01/09 16:46 / jal
Potassium	8	mg/L		1		E200.7	12/02/09 15:12 / cp
Silica	64.1	mg/L		0.2		E200.7	12/02/09 15:12 / cp
Sodium	19	mg/L		1		E200.7	12/02/09 15:12 / cp
Sulfate	10	mg/L		1		E300.0	12/01/09 23:33 / ijl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	471	umhos/cm		1		A2510 B	11/25/09 10:58 / th
pH	8.12	s.u.		0.01		A4500-H B	11/25/09 10:58 / th
Solids, Total Dissolved TDS @ 180 C	320	mg/L		10		A2540 C	11/24/09 14:59 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Arsenic	0.003	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Barium	0.1	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:12 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:13 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:13 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:12 / cp
Lead	ND	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:13 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 00:13 / ts
Uranium	0.0137	mg/L		0.0003		E200.8	11/26/09 00:13 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:13 / ts
Zinc	ND	mg/L		0.01		E200.8	11/26/09 00:13 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:30 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-001
Client Sample ID: Miller 1

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:45 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:45 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:45 / plj
Radium 226	<0.19	pCi/L	U	0.19		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.13	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.19	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.8	pCi/L	U	2.8		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.8	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	<0.04	pCi/L	U	0.04		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.04	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-4.48	%				Calculation	12/04/09 09:45 / kbh
Anions	5.50	meq/L				Calculation	12/04/09 09:45 / kbh
Cations	5.02	meq/L				Calculation	12/04/09 09:45 / kbh
Solids, Total Dissolved Calculated	359	mg/L				Calculation	12/04/09 09:45 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	12/04/09 09:45 / kbh

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-002
Client Sample ID: BOW 2006-5

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	392	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Bicarbonate as HCO3	478	mg/L		5		A2320 B	11/30/09 17:58 / dvg
Calcium	100	mg/L		1		E200.7	12/07/09 12:49 / cp
Chloride	14	mg/L		1		E300.0	12/01/09 23:50 / ljl
Fluoride	1.2	mg/L		0.1		A4500-F C	11/25/09 09:28 / dvg
Magnesium	14	mg/L		1		E200.7	12/07/09 12:49 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:44 / jal
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	12/01/09 16:48 / jal
Potassium	12	mg/L		1		E200.7	12/07/09 12:49 / cp
Silica	53.1	mg/L		0.2		E200.7	12/02/09 15:16 / cp
Sodium	34	mg/L		1		E200.7	12/07/09 12:49 / cp
Sulfate	24	mg/L		1		E300.0	12/01/09 23:50 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	730	umhos/cm		1		A2510 B	11/25/09 11:01 / th
pH	8.14	s.u.		0.01		A4500-H B	11/25/09 11:01 / th
Solids, Total Dissolved TDS @ 180 C	499	mg/L		10		A2540 C	11/24/09 14:59 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Arsenic	0.006	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Barium	0.2	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:16 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:20 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:20 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:20 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:16 / cp
Lead	0.002	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Manganese	0.07	mg/L		0.01		E200.8	11/26/09 00:20 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:20 / ts
Selenium	ND	mg/L		0.001		E200.8	11/26/09 00:20 / ts
Uranium	0.0227	mg/L		0.0003		E200.8	11/26/09 00:20 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:20 / ts
Zinc	1.14	mg/L		0.01		E200.8	11/26/09 00:20 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:39 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-002
Client Sample ID: BOW 2006-5

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<1.0	pCi/L	U	1.0		E912.0	12/29/09 14:45 / plj
Polonium 210 precision (±)	0.4	pCi/L				E912.0	12/29/09 14:45 / plj
Polonium 210 MDC	1.0	pCi/L				E912.0	12/29/09 14:45 / plj
Radium 226	<0.17	pCi/L	U	0.17		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.17	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.7	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	<0.03	pCi/L	U	0.03		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.02	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-4.89	%				Calculation	12/08/09 09:32 / kbh
Anions	8.78	meq/L				Calculation	12/08/09 09:32 / kbh
Cations	7.96	meq/L				Calculation	12/08/09 09:32 / kbh
Solids, Total Dissolved Calculated	502	mg/L				Calculation	12/08/09 09:32 / kbh
TDS Balance (0.80 - 1.20)	0.990					Calculation	12/08/09 09:32 / kbh

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MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-003
Client Sample ID: BOW 2006-6

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	172	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Bicarbonate as HCO3	210	mg/L		5		A2320 B	11/30/09 18:34 / dvg
Calcium	46	mg/L		1		E200.7	12/02/09 15:20 / cp
Chloride	4	mg/L		1		E300.0	12/02/09 00:06 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	11/25/09 09:30 / dvg
Magnesium	7	mg/L		1		E200.7	12/02/09 15:20 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:46 / jal
Nitrogen, Nitrate+Nitrite as N	1.8	mg/L		0.1		E353.2	12/01/09 16:51 / jal
Potassium	6	mg/L		1		E200.7	12/02/09 15:20 / cp
Silica	62.8	mg/L		0.2		E200.7	12/02/09 15:20 / cp
Sodium	14	mg/L		1		E200.7	12/02/09 15:20 / cp
Sulfate	10	mg/L		1		E300.0	12/02/09 00:06 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	348	umhos/cm		1		A2510 B	11/25/09 11:04 / th
pH	8.12	s.u.		0.01		A4500-H B	11/25/09 11:04 / th
Solids, Total Dissolved TDS @ 180 C	242	mg/L		10		A2540 C	11/24/09 15:00 / th
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Arsenic	0.004	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Barium	0.2	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:20 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 00:27 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 00:27 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 00:27 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:20 / cp
Lead	0.001	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 00:27 / ts
Mercury	ND	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 00:27 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 00:27 / ts
Uranium	0.0083	mg/L		0.0003		E200.8	11/26/09 00:27 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 00:27 / ts
Zinc	0.62	mg/L		0.01		E200.8	11/26/09 00:27 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:43 / ts

Report Definitions:
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-003
Client Sample ID: BOW 2006-6

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.17	pCi/L	U	0.17		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.17	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.7	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 09:00 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/11/09 09:00 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 09:00 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 13:21 / jah
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/15/09 13:21 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 13:21 / jah
Thorium 230	0.04	pCi/L		0.03		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.91	%				Calculation	12/04/09 09:48 / kbh
Anions	3.76	meq/L				Calculation	12/04/09 09:48 / kbh
Cations	3.62	meq/L				Calculation	12/04/09 09:48 / kbh
Solids, Total Dissolved Calculated	190	mg/L				Calculation	12/04/09 09:48 / kbh
TDS Balance (0.80 - 1.20)	1.27					Calculation	12/04/09 09:48 / kbh

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U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-004
Client Sample ID: BOW 2006-7

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	162	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Bicarbonate as HCO3	197	mg/L		5		A2320 B	11/30/09 18:42 / dvg
Calcium	30	mg/L		1		E200.7	12/02/09 15:24 / cp
Chloride	4	mg/L		1		E300.0	12/02/09 00:55 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	11/25/09 09:38 / dvg
Magnesium	3	mg/L		1		E200.7	12/02/09 15:24 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/01/09 10:48 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/07/09 13:06 / jal
Potassium	8	mg/L		1		E200.7	12/02/09 15:24 / cp
Silica	68.4	mg/L		0.2		E200.7	12/02/09 15:24 / cp
Sodium	35	mg/L		1		E200.7	12/02/09 15:24 / cp
Sulfate	15	mg/L		1		E300.0	12/02/09 00:55 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	338	umhos/cm		1		A2510 B	11/25/09 11:06 / th
pH	8.13	s.u.		0.01		A4500-H B	11/25/09 11:06 / th
Solids, Total Dissolved TDS @ 180 C	266	mg/L		10		A2540 C	11/25/09 09:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Arsenic	0.007	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Barium	0.1	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Boron	ND	mg/L		0.1		E200.7	12/02/09 15:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	11/26/09 01:01 / ts
Chromium	ND	mg/L		0.05		E200.8	11/26/09 01:01 / ts
Copper	ND	mg/L		0.01		E200.8	11/26/09 01:01 / ts
Iron	ND	mg/L		0.03		E200.7	12/02/09 15:24 / cp
Lead	ND	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Manganese	ND	mg/L		0.01		E200.8	11/26/09 01:01 / ts
Mercury	ND	mg/L		0.001		E200.8	11/30/09 19:50 / sml
Molybdenum	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Nickel	ND	mg/L		0.05		E200.8	11/26/09 01:01 / ts
Selenium	0.003	mg/L		0.001		E200.8	11/26/09 01:01 / ts
Uranium	0.0100	mg/L		0.0003		E200.8	11/26/09 01:01 / ts
Vanadium	ND	mg/L		0.1		E200.8	11/26/09 01:01 / ts
Zinc	0.29	mg/L		0.01		E200.8	11/26/09 01:01 / ts
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	12/04/09 01:47 / ts

Report Definitions:
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MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Baseline Samples
Lab ID: C09110829-004
Client Sample ID: BOW 2006-7

Report Date: 02/26/10
Collection Date: 11/20/09
DateReceived: 11/24/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0M	02/18/10 18:47 / dm
Lead 210 precision (±)	0.4	pCi/L				E909.0M	02/18/10 18:47 / dm
Lead 210 MDC	0.7	pCi/L				E909.0M	02/18/10 18:47 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 14:44 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 14:44 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 14:44 / plj
Radium 226	<0.16	pCi/L	U	0.16		E903.0	12/08/09 03:28 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	12/08/09 03:28 / trs
Radium 226 MDC	0.16	pCi/L				E903.0	12/08/09 03:28 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/10/09 14:20 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E907.0	12/10/09 14:20 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/10/09 14:20 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<2.7	pCi/L	U	2.7		E909.0M	01/13/10 15:43 / dm
Lead 210 precision (±)	1.6	pCi/L				E909.0M	01/13/10 15:43 / dm
Lead 210 MDC	2.8	pCi/L				E909.0M	01/13/10 15:43 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/11/09 11:11 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/11/09 11:11 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/11/09 11:11 / plj
Radium 226	<0.2	pCi/L	U	0.2		E903.0	12/15/09 14:56 / jah
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/15/09 14:56 / jah
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/09 14:56 / jah
Thorium 230	<0.06	pCi/L	U	0.06		E907.0	12/14/09 19:45 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E907.0	12/14/09 19:45 / dmf
Thorium 230 MDC	0.06	pCi/L				E907.0	12/14/09 19:45 / dmf
- See Case Narrative regarding Pb210 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.34	%				Calculation	12/04/09 09:49 / kbh
Anions	3.67	meq/L				Calculation	12/04/09 09:49 / kbh
Cations	3.43	meq/L				Calculation	12/04/09 09:49 / kbh
Solids, Total Dissolved Calculated	192	mg/L				Calculation	12/04/09 09:49 / kbh
TDS Balance (0.80 - 1.20)	1.39					Calculation	12/04/09 09:49 / kbh

Report Definitions:
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QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R127006
Sample ID: MBLK	3	Method Blank				Run: MANTECH_091125B				11/25/09 11:15
Alkalinity, Total as CaCO3		4	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		5	mg/L	1						
Sample ID: LCS1		Laboratory Control Sample				Run: MANTECH_091125B				11/25/09 11:33
Alkalinity, Total as CaCO3		191	mg/L	5.0	94	90	110			
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091125B				11/25/09 11:42
Alkalinity, Total as CaCO3		56.5	mg/L	5.0	105	90	110			
Sample ID: C09110785-001AMS		Sample Matrix Spike				Run: MANTECH_091125B				11/25/09 18:49
Alkalinity, Total as CaCO3		312	mg/L	5.0	102	80	120			
Sample ID: C09110785-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091125B				11/25/09 18:57
Alkalinity, Total as CaCO3		308	mg/L	5.0	99	80	120	1.3	20	
Sample ID: C09110830-002AMS		Sample Matrix Spike				Run: MANTECH_091125B				11/25/09 20:59
Alkalinity, Total as CaCO3		712	mg/L	5.0	100	80	120			
Sample ID: C09110830-002AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091125B				11/25/09 21:09
Alkalinity, Total as CaCO3		714	mg/L	5.0	102	80	120	0.3	20	
Method: A2320 B										Batch: R127091
Sample ID: MBLK	3	Method Blank				Run: MANTECH_091130B				11/30/09 13:48
Alkalinity, Total as CaCO3		2	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		3	mg/L	1						
Sample ID: LCS1		Laboratory Control Sample				Run: MANTECH_091130B				11/30/09 14:06
Alkalinity, Total as CaCO3		188	mg/L	5.0	93	90	110			
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091130B				11/30/09 14:16
Alkalinity, Total as CaCO3		53.0	mg/L	5.0	101	90	110			
Sample ID: C09110785-001AMS		Sample Matrix Spike				Run: MANTECH_091130B				11/30/09 16:54
Alkalinity, Total as CaCO3		307	mg/L	5.0	98	80	120			
Sample ID: C09110785-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091130B				11/30/09 17:02
Alkalinity, Total as CaCO3		307	mg/L	5.0	98	80	120	0.1	20	
Sample ID: C09110830-001AMS		Sample Matrix Spike				Run: MANTECH_091130B				11/30/09 19:00
Alkalinity, Total as CaCO3		539	mg/L	5.0	94	80	120			
Sample ID: C09110830-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091130B				11/30/09 19:09
Alkalinity, Total as CaCO3		541	mg/L	5.0	95	80	120	0.4	20	

Qualifiers:

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_091125A		
Sample ID: ICV2_091125_1		Initial Calibration Verification Standard								11/25/09 10:44
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 091125_1_PH-W_555A-2		
Sample ID: MBLK1_091125_1		Method Blank				Run: ORION555A-2_091125A				11/25/09 10:39
Conductivity @ 25 C		1	umhos/cm	0.2						
Sample ID: C09110830-002ADUP		Sample Duplicate				Run: ORION555A-2_091125A				11/25/09 11:13
Conductivity @ 25 C		2950	umhos/cm	1.0				0.3	10	

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QA/QC Summary Report

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Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 091124_2_SLDS-TDS-W	
Sample ID: MBLK1_091124		Method Blank				Run: BAL-1_091124B			11/24/09 13:51	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_091124		Laboratory Control Sample				Run: BAL-1_091124B			11/24/09 13:51	
Solids, Total Dissolved TDS @ 180 C		991	mg/L	10	99	90	110			
Sample ID: C09110808-001AMS		Sample Matrix Spike				Run: BAL-1_091124B			11/24/09 14:00	
Solids, Total Dissolved TDS @ 180 C		2240	mg/L	10	102	90	110			
Sample ID: C09110808-001AMSD		Sample Matrix Spike Duplicate				Run: BAL-1_091124B			11/24/09 14:01	
Solids, Total Dissolved TDS @ 180 C		2250	mg/L	10	102	90	110	0.7	10	
Method: A2540 C									Batch: 091125_1_SLDS-TDS-W	
Sample ID: MBLK1_091125		Method Blank				Run: BAL-1_091125A			11/25/09 09:22	
Solids, Total Dissolved TDS @ 180 C		10	mg/L	10						
Sample ID: LCS1_091125		Laboratory Control Sample				Run: BAL-1_091125A			11/25/09 09:22	
Solids, Total Dissolved TDS @ 180 C		1020	mg/L	10	101	90	110			
Sample ID: C09110832-005AMS		Sample Matrix Spike				Run: BAL-1_091125A			11/25/09 09:26	
Solids, Total Dissolved TDS @ 180 C		2100	mg/L	10	103	90	110			
Sample ID: C09110832-005AMSD		Sample Matrix Spike Duplicate				Run: BAL-1_091125A			11/25/09 09:26	
Solids, Total Dissolved TDS @ 180 C		2070	mg/L	10	101	90	110	1.2	10	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R126984
Sample ID: MBLK		Method Blank				Run: MANTECH_091125A				11/25/09 09:02
Fluoride		ND	mg/L	0.05						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091125A				11/25/09 09:05
Fluoride		1.04	mg/L	0.10	104	90	110			
Sample ID: C09110829-003AMS		Sample Matrix Spike				Run: MANTECH_091125A				11/25/09 09:33
Fluoride		1.44	mg/L	0.10	105	80	120			
Sample ID: C09110829-003AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091125A				11/25/09 09:36
Fluoride		1.44	mg/L	0.10	105	80	120	0	10	

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QA/QC Summary Report

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Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: ORION555A-2_091125A	
Sample ID: ICV1_091125_1		Initial Calibration Verification Standard							11/25/09 10:42	
pH		6.97	s.u.	0.010	102	98	102			
Method: A4500-H B									Batch: 091125_1_PH-W_555A-2	
Sample ID: C09110830-002ADUP		Sample Duplicate				Run: ORION555A-2_091125A			11/25/09 11:13	
pH		8.21	s.u.	0.010				0.4	10	

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QA/QC Summary Report

Client: Crow Butte Resources
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Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R127121
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091201A				12/01/09 09:54
Nitrogen, Ammonia as N		0.04	mg/L	0.02						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091201A				12/01/09 09:56
Nitrogen, Ammonia as N		19.5	mg/L	0.20	97	80	120			
Sample ID: C09110829-001FMS		Sample Matrix Spike				Run: TECHNICON_091201A				12/01/09 10:38
Nitrogen, Ammonia as N		1.89	mg/L	0.050	95	80	120			
Sample ID: C09110829-001FMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091201A				12/01/09 10:40
Nitrogen, Ammonia as N		1.93	mg/L	0.050	96	80	120	2.1	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R127230
Sample ID: MB-091202A	7	Method Blank				Run: ICP2-C_091202A				12/02/09 13:44
Boron		ND	mg/L	0.03						
Calcium		ND	mg/L	0.2						
Iron		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.09						
Potassium		ND	mg/L	0.1						
Silicon		ND	mg/L	0.01						
Sodium		0.3	mg/L	0.2						
Sample ID: LFB-091202A	7	Laboratory Fortified Blank				Run: ICP2-C_091202A				12/02/09 13:48
Boron		0.945	mg/L	0.10	94	85	115			
Calcium		47.5	mg/L	0.50	95	85	115			
Iron		0.926	mg/L	0.030	93	85	115			
Magnesium		46.7	mg/L	0.50	93	85	115			
Potassium		44.4	mg/L	0.50	89	85	115			
Silicon		0.449	mg/L	0.015	100	85	115			
Sodium		46.9	mg/L	0.50	93	85	115			
Sample ID: C09110830-004CMS2	7	Sample Matrix Spike				Run: ICP2-C_091202A				12/02/09 15:56
Boron		2.75	mg/L	0.10	96	70	130			
Calcium		138	mg/L	1.0	102	70	130			
Iron		1.96	mg/L	0.030	96	70	130			
Magnesium		110	mg/L	1.0	99	70	130			
Potassium		111	mg/L	1.0	91	70	130			
Silicon		9.35	mg/L	0.10		70	130			A
Sodium		648	mg/L	1.0		70	130			A
Sample ID: C09110830-004CMSD	7	Sample Matrix Spike Duplicate				Run: ICP2-C_091202A				12/02/09 16:00
Boron		2.75	mg/L	0.10	96	70	130	0.1	20	
Calcium		131	mg/L	1.0	94	70	130	5.6	20	
Iron		1.90	mg/L	0.030	93	70	130	3	20	
Magnesium		107	mg/L	1.0	96	70	130	2.8	20	
Potassium		111	mg/L	1.0	91	70	130	0.2	20	
Silicon		9.13	mg/L	0.10		70	130	2.4	20	A
Sodium		639	mg/L	1.0		70	130	1.5	20	A

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MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R127379
Sample ID: MB-091207A	4	Method Blank				Run: ICP2-C_091207A				12/07/09 11:36
Calcium		ND	mg/L	0.2						
Magnesium		ND	mg/L	0.09						
Potassium		ND	mg/L	0.1						
Sodium		ND	mg/L	0.2						
Sample ID: LFB-091207A	4	Laboratory Fortified Blank				Run: ICP2-C_091207A				12/07/09 11:40
Calcium		47.0	mg/L	0.50	94	85	115			
Magnesium		48.6	mg/L	0.50	97	85	115			
Potassium		45.1	mg/L	0.50	90	85	115			
Sodium		45.6	mg/L	0.50	91	85	115			
Sample ID: C09120141-001AMS2	4	Sample Matrix Spike				Run: ICP2-C_091207A				12/07/09 12:57
Calcium		260	mg/L	0.51	104	70	130			
Magnesium		120	mg/L	0.50	97	70	130			
Potassium		110	mg/L	0.50	85	70	130			
Sodium		410	mg/L	0.50	105	70	130			
Sample ID: C09120141-001AMSD	4	Sample Matrix Spike Duplicate				Run: ICP2-C_091207A				12/07/09 13:01
Calcium		260	mg/L	0.51	102	70	130	0.9	20	
Magnesium		120	mg/L	0.50	97	70	130	0.3	20	
Potassium		110	mg/L	0.50	86	70	130	0.5	20	
Sodium		400	mg/L	0.50	105	70	130	0.2	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127019
Sample ID: LRB	15	Method Blank				Run: ICPMS2-C_091125A				11/25/09 15:40
Aluminum		ND	mg/L	0.002						
Arsenic		ND	mg/L	0.0003						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	6E-05						
Chromium		0.0002	mg/L	8E-05						
Copper		5E-05	mg/L	4E-05						
Lead		ND	mg/L	2E-05						
Manganese		ND	mg/L	5E-05						
Mercury		ND	mg/L	4E-05						
Molybdenum		ND	mg/L	4E-05						
Nickel		ND	mg/L	9E-05						
Selenium		ND	mg/L	0.001						
Uranium		ND	mg/L	8E-06						
Vanadium		ND	mg/L	9E-05						
Zinc		0.0001	mg/L	6E-05						
Sample ID: LFB	15	Laboratory Fortified Blank				Run: ICPMS2-C_091125A				11/25/09 16:00
Aluminum		0.0510	mg/L	0.10	102	85	115			
Arsenic		0.0529	mg/L	0.0010	106	85	115			
Barium		0.0529	mg/L	0.10	106	85	115			
Cadmium		0.0524	mg/L	0.010	105	85	115			
Chromium		0.0538	mg/L	0.050	107	85	115			
Copper		0.0536	mg/L	0.010	107	85	115			
Lead		0.0529	mg/L	0.050	106	85	115			
Manganese		0.0534	mg/L	0.010	107	85	115			
Mercury		0.00526	mg/L	0.0010	105	85	115			
Molybdenum		0.0531	mg/L	0.10	106	85	115			
Nickel		0.0536	mg/L	0.050	107	85	115			
Selenium		0.0523	mg/L	0.0010	105	85	115			
Uranium		0.0508	mg/L	0.00030	102	85	115			
Vanadium		0.0534	mg/L	0.10	107	85	115			
Zinc		0.0556	mg/L	0.010	111	85	115			
Sample ID: C09110830-004CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_091125A				11/26/09 01:34
Aluminum		0.0519	mg/L	0.0010	104	70	130			
Arsenic		0.0833	mg/L	0.0010	112	70	130			
Barium		0.0721	mg/L	0.0010	115	70	130			
Cadmium		0.0537	mg/L	0.010	107	70	130			
Chromium		0.0522	mg/L	0.050	104	70	130			
Copper		0.0550	mg/L	0.010	101	70	130			
Lead		0.0566	mg/L	0.050	112	70	130			
Manganese		0.0713	mg/L	0.010	105	70	130			
Mercury		0.00601	mg/L	0.0010	120	70	130			
Molybdenum		0.230	mg/L	0.10	123	70	130			

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127019
Sample ID: C09110830-004CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_091125A				11/26/09 01:34
Nickel		0.0548	mg/L	0.050	102	70	130			
Selenium		0.0596	mg/L	0.0010	107	70	130			
Uranium		2.37	mg/L	0.00030		70	130			A
Vanadium		0.532	mg/L	0.10		70	130			A
Zinc		0.0560	mg/L	0.010	101	70	130			
Sample ID: C09110830-004CMSD	15	Sample Matrix Spike Duplicate				Run: ICPMS2-C_091125A				11/26/09 01:41
Aluminum		0.0509	mg/L	0.0010	102	70	130	1.8	20	
Arsenic		0.0820	mg/L	0.0010	109	70	130	1.5	20	
Barium		0.0717	mg/L	0.0010	114	70	130	0.6	20	
Cadmium		0.0535	mg/L	0.010	107	70	130	0.3	20	
Chromium		0.0519	mg/L	0.050	104	70	130	0.7	20	
Copper		0.0547	mg/L	0.010	100	70	130	0.5	20	
Lead		0.0559	mg/L	0.050	111	70	130	1.2	20	
Manganese		0.0706	mg/L	0.010	103	70	130	1	20	
Mercury		0.00565	mg/L	0.0010	113	70	130	6.2	20	
Molybdenum		0.229	mg/L	0.10	121	70	130	0.5	20	
Nickel		0.0543	mg/L	0.050	101	70	130	0.8	20	
Selenium		0.0579	mg/L	0.0010	104	70	130	2.9	20	
Uranium		2.31	mg/L	0.00030		70	130	2.3	20	A
Vanadium		0.527	mg/L	0.10		70	130	1	20	A
Zinc		0.0554	mg/L	0.010	99	70	130	1	20	
Method: E200.8										Batch: 24536
Sample ID: MB-24536		Method Blank				Run: ICPMS2-C_091203A				12/03/09 17:29
Uranium		0.0003	mg/L	1E-05						
Sample ID: LCS2-24536		Laboratory Control Sample				Run: ICPMS2-C_091203A				12/03/09 17:34
Uranium		0.103	mg/L	0.00030	103	85	115			
Sample ID: C09110829-004GMS		Sample Matrix Spike				Run: ICPMS2-C_091203A				12/04/09 01:51
Uranium		0.0566	mg/L	0.00030	113	70	130			
Sample ID: C09110829-004GMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_091203A				12/04/09 01:55
Uranium		0.0567	mg/L	0.00030	113	70	130	0.2	20	

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MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127119
Sample ID: LRB		Method Blank				Run: ICPMS4-C_091130A				11/30/09 14:57
Mercury		ND	mg/L	4E-05						
Sample ID: LFB		Laboratory Fortified Blank				Run: ICPMS4-C_091130A				11/30/09 15:03
Mercury		0.00487	mg/L	0.0010	97	85	115			
Sample ID: C09110737-002BMS4		Sample Matrix Spike				Run: ICPMS4-C_091130A				11/30/09 20:17
Mercury		0.00538	mg/L	0.0010	108	70	130			
Sample ID: C09110737-002BMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_091130A				11/30/09 20:52
Mercury		0.00504	mg/L	0.0010	101	70	130	6.5	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R127247
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_091201A				12/01/09 17:49
Chloride		9.89	mg/L	1.0	99	90	110			
Sulfate		39.6	mg/L	1.0	99	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_091201A				12/01/09 18:05
Chloride		ND	mg/L	0.04						
Sulfate		ND	mg/L	0.1						
Sample ID: C09110829-003AMS	2	Sample Matrix Spike				Run: IC2-C_091201A				12/02/09 00:23
Chloride		23.4	mg/L	1.0	98	80	120			
Sulfate		86.7	mg/L	1.0	98	80	120			
Sample ID: C09110829-003AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_091201A				12/02/09 00:39
Chloride		24.6	mg/L	1.0	104	80	120	5	20	
Sulfate		91.4	mg/L	1.0	104	80	120	5.2	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R127149
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091201B				12/01/09 15:38
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.03						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091201B				12/01/09 15:41
Nitrogen, Nitrate+Nitrite as N		2.49	mg/L	0.10	100	90	110			
Sample ID: C09110889-001AMS		Sample Matrix Spike				Run: TECHNICON_091201B				12/01/09 16:34
Nitrogen, Nitrate+Nitrite as N		2.49	mg/L	0.10	100	90	110			
Sample ID: C09110889-001AMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091201B				12/01/09 16:36
Nitrogen, Nitrate+Nitrite as N		2.52	mg/L	0.10	101	90	110	1.2	10	
Method: E353.2										Batch: R127364
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091207A				12/07/09 10:19
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.03						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091207A				12/07/09 10:21
Nitrogen, Nitrate+Nitrite as N		2.46	mg/L	0.10	98	90	110			
Sample ID: C09110837-001AMS		Sample Matrix Spike				Run: TECHNICON_091207A				12/07/09 13:14
Nitrogen, Nitrate+Nitrite as N		2.14	mg/L	0.10	103	90	110			
Sample ID: C09110837-001AMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091207A				12/07/09 13:16
Nitrogen, Nitrate+Nitrite as N		2.16	mg/L	0.10	104	90	110	0.9	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-4217
Sample ID: C09110859-001EMS		Sample Matrix Spike				Run: BERTHOLD 770-1_091130A				12/08/09 03:28
Radium 226		19	pCi/L		92	70	130			
Sample ID: C09110859-001EMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_091130A				12/08/09 03:28
Radium 226		20	pCi/L		97	70	130	4.7	21.8	
Sample ID: MB-RA226-4217	3	Method Blank				Run: BERTHOLD 770-1_091130A				12/08/09 11:45
Radium 226		-0.1	pCi/L							U
Radium 226 precision (±)		0.06	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-4217		Laboratory Control Sample				Run: BERTHOLD 770-1_091130A				12/08/09 11:45
Radium 226		6.7	pCi/L		86	70	130			
Method: E903.0										Batch: 24536
Sample ID: C09110877-006FMS		Sample Matrix Spike				Run: BERTHOLD 770-1_091207A				12/15/09 14:56
Radium 226		13	pCi/L		120	70	130			
Sample ID: C09110877-006FMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_091207A				12/15/09 14:56
Radium 226		14	pCi/L		128	70	130	5.5	23	
Sample ID: MB-24536	3	Method Blank				Run: BERTHOLD 770-1_091207A				12/15/09 16:31
Radium 226		-0.3	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.4	pCi/L							
Sample ID: LCS-24536		Laboratory Control Sample				Run: BERTHOLD 770-1_091207A				12/15/09 16:31
Radium 226		17	pCi/L		113	70	130			

Qualifiers:

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U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E907.0										Batch: R127565
Sample ID: LCS-RA-TH-ISO-1043		Laboratory Control Sample				Run: EGG-ORTEC_091208B				12/10/09 09:00
Thorium 230		5.5	pCi/L		105	70	130			
Sample ID: C09110877-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_091208B				12/10/09 14:20
Thorium 230		12	pCi/L		101	70	130			
Sample ID: C09110877-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091208B				12/10/09 14:20
Thorium 230		11	pCi/L		101	70	130	3.3	41.2	
Sample ID: MB-RA-TH-ISO-1043	3	Method Blank				Run: EGG-ORTEC_091208B				12/11/09 08:56
Thorium 230		0.003	pCi/L							U
Thorium 230 precision (±)		0.08pCi/L								
Thorium 230 MDC		0.2	pCi/L							
Method: E907.0										Batch: 24536
Sample ID: C09110665-006FMS		Sample Matrix Spike				Run: EGG-ORTEC_091210C				12/14/09 19:45
Thorium 230		0.91pCi/L			104	70	130			
Sample ID: C09110665-006FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091210C				12/14/09 19:45
Thorium 230		0.90pCi/L			101	70	130	0.9	43.4	
Sample ID: LCS-24536		Laboratory Control Sample				Run: EGG-ORTEC_091210C				12/15/09 12:22
Thorium 230		1.9	pCi/L		99	70	130			
Sample ID: MB-24536	3	Method Blank				Run: EGG-ORTEC_091210C				12/15/09 12:22
Thorium 230		0.03pCi/L								U
Thorium 230 precision (±)		0.09pCi/L								
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

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MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0M										Batch: R128649
Sample ID: C09071109-001CMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		310	pCi/L		137	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the MSD are acceptable the batch is approved.										
Sample ID: C09071109-001CMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		260	pCi/L		114	70	130	18	30	
Sample ID: MB-R128649	3	Method Blank				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		0.1	pCi/L							U
Lead 210 precision (±)		6	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-R128649		Laboratory Control Sample				Run: BECKMAN 6100TA_100104A				01/04/10 09:45
Lead 210		100	pCi/L		91	70	130			
Method: E909.0M										Batch: 24536
Sample ID: C09110877-002FMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100113B				01/13/10 15:43
Lead 210		130	pCi/L		98	70	130			
Sample ID: C09110877-002FMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100113B				01/13/10 15:43
Lead 210		120	pCi/L		94	70	130	3	30	
Sample ID: MB-24536	3	Method Blank				Run: BECKMAN 6100TA_100113B				01/13/10 15:43
Lead 210		-10	pCi/L							
Lead 210 precision (±)		10	pCi/L							
Lead 210 MDC		20	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Baseline Samples

Report Date: 02/26/10
Work Order: C09110829

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: R127563
Sample ID: LCS-24468		Laboratory Control Sample				Run: EGG-ORTEC_091210A				12/11/09 09:00
Polonium 210		72	pCi/L		91	70	130			
Sample ID: MB-24468	3	Method Blank				Run: EGG-ORTEC_091210A				12/11/09 09:00
Polonium 210		-0.10	pCi/L							U
Polonium 210 precision (±)		0.9	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: C09110877-007FMS		Sample Matrix Spike				Run: EGG-ORTEC_091210A				12/11/09 11:11
Polonium 210		16	pCi/L		117	70	130			
Sample ID: C09110877-007FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091210A				12/11/09 11:11
Polonium 210		15	pCi/L		106	70	130	9.6	57.5	
Method: E912.0										Batch: PO210-0274
Sample ID: C09110863-004EMS		Sample Matrix Spike				Run: EGG-ORTEC_091228B				12/29/09 14:45
Polonium 210		22	pCi/L		82	70	130			
Sample ID: C09110863-004EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091228B				12/29/09 14:45
Polonium 210		30	pCi/L		109	70	130	29	59.6	
Sample ID: LCS-PO210-0274		Laboratory Control Sample				Run: EGG-ORTEC_091228B				12/29/09 14:44
Polonium 210		17	pCi/L		104	70	130			
Sample ID: MB-PO210-0274	3	Method Blank				Run: EGG-ORTEC_091228B				12/29/09 14:44
Polonium 210		0.1	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.6	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name, PWS, Permit, Etc. Three Crow Baseline Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169 Crawford, NE 69339	Contact Name: Larry Teahon Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass Rhonda Pelton
Invoice Address: P.O. Box 169 Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O
Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	HNO3, Metals, U dissolved	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	HNO3-F, Ra226 dissolved	HHO3-F, Pb210 dissolved	HNO3-F, Th230 dissolved	HCL-F, Po210 dissolved	Raw, UF, Ra226, Unat, Th230, Pb210, Po210, suspended	SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	Miller 1	11/20/09		Water	2	1	1	.5	2	2	2	1	8				Please report 12/30/09
2	BOW 2006-5	11/20/09		Water	2	1	1	.5	2	2	2	1	8				Please report 12/30/09
3	BOW 2006-6	11/20/09		Water	2	1	1	.5	2	2	2	1	8				Please report 12/30/09
4	BOW 2006-7	11/20/09		Water	2	1	1	.5	2	2	2	1	8				Please report 12/30/09
5																	
6																	
7																	
8																	
9																	
10																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

LABORATORY USE ONLY

Shipped by: Hand
Cooler ID(s): Various
Receipt Temp: 5 °C
On Ice: Yes No
Custody Seal Y N
Intact Y N
Signature Match Y N
L09110829

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print): Walter D. Wilson	Date/Time: 11/24/09 10:45 am	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: No	Lab Disposal: YES		Received by Laboratory:	Date/Time: 11/24/09 1043	Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 11/22/09

ANALYST: sm

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.10			
Abs	0	032	164	330			
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^-, mg/L
1 Miller 1	10 ml	1	0.001	<0.01
2 BOW-2006-5	10 ml	1	0.006 0.003	<0.01
3 BOW-2006-6	10 ml	1	0.018	<0.01
4 BOW-2006-7	10 ml	1	0.014	<0.01
5				
Dup BOW-2006-7	10 ml	1	0.016	<0.01
6				
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

Energy Laboratories Inc
Workorder Receipt Checklist

C09110829

Crow Butte Resources

Login completed by: Corinne Wagner

Reviewed by: BL2000\tedwards

Reviewed Date: 11/30/2009

Date Received: 11/24/2009

Received by: ckw

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	5°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples were filtered and preserved with HNO3 by lab for Dissolved analyses.

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CLIENT: Crow Butte Resources
Project: Three Crow Baseline Samples
Sample Delivery Group: C09110829

Report Date: 02/26/10

CASE NARRATIVE

PB210 ANALYSIS
The MDC for Pb-210 per RG 4.14 is 1 pCi/L. The current technique can achieve an MDC of about 2 pCi/L to 5 pCi/L if we have sufficient sample to process 1.0 L, and this is reported on a sample specific basis. Please consult with your local regulatory agency prior to using these results for compliance purposes.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505
Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

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ANALYTICAL SUMMARY REPORT

February 22, 2010

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C09120699 Quote ID: C1125 - Crow Butte Uranium Project

Project Name: Three Crow Butte Baseline Samples

Energy Laboratories, Inc. received the following 4 samples for Crow Butte Resources on 12/21/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C09120699-001	Miller 1	12/18/09 00:00	12/21/09	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Suspended Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C09120699-002	BOW 2006-5	12/18/09 00:00	12/21/09	Aqueous	Same As Above
C09120699-003	BOW 2006-6	12/18/09 00:00	12/21/09	Aqueous	Same As Above
C09120699-004	BOW 2006-7	12/18/09 00:00	12/21/09	Aqueous	Same As Above

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By: Stephanie D. Waldrop

Stephanie D. Waldrop
Reporting Supervisor

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-001
Client Sample ID: Miller 1

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	243	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Bicarbonate as HCO3	296	mg/L		5		A2320 B	12/22/09 12:49 / dvg
Calcium	72	mg/L		1		E200.7	12/31/09 14:05 / cp
Chloride	6	mg/L		1		E300.0	12/23/09 21:35 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/22/09 10:24 / dvg
Magnesium	6	mg/L		1		E200.7	12/31/09 14:05 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:28 / jal
Nitrogen, Nitrate+Nitrite as N	2.5	mg/L		0.1		E353.2	12/29/09 13:52 / jal
Potassium	9	mg/L		1		E200.7	12/31/09 14:05 / cp
Silica	65.4	mg/L		0.2		E200.7	12/31/09 14:05 / cp
Sodium	19	mg/L		1		E200.7	12/31/09 14:05 / cp
Sulfate	10	mg/L		1		E300.0	12/23/09 21:35 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	475	umhos/cm		1		A2510 B	12/22/09 10:55 / lr
pH	7.68	s.u.		0.01		A4500-H B	12/22/09 10:55 / lr
Solids, Total Dissolved TDS @ 180 C	312	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:05 / cp
Arsenic	0.003	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Barium	0.1	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:05 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 13:32 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 13:32 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 13:32 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 13:32 / sml
Lead	ND	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 13:32 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 13:32 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 13:32 / sml
Uranium	0.0168	mg/L		0.0003		E200.8	12/22/09 13:32 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 13:32 / sml
Zinc	ND	mg/L		0.01		E200.8	12/24/09 00:05 / sml
METALS - SUSPENDED							
Uranium	0.0009	mg/L		0.0003		E200.8	01/05/10 00:04 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-001
Client Sample ID: Miller 1

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.5	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.7	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.19	pCi/L	U	0.19		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.19	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.09	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.09	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.07	pCi/L	U	0.07		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.07	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.32	%				Calculation	01/04/10 09:58 / kbh
Anions	5.43	meq/L				Calculation	01/04/10 09:58 / kbh
Cations	5.08	meq/L				Calculation	01/04/10 09:58 / kbh
Solids, Total Dissolved Calculated	360	mg/L				Calculation	01/04/10 09:58 / kbh
TDS Balance (0.80 - 1.20)	0.870					Calculation	01/04/10 09:58 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-002
Client Sample ID: BOW 2006-5

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	383	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Bicarbonate as HCO3	467	mg/L		5		A2320 B	12/22/09 12:58 / dvg
Calcium	97	mg/L		1		E200.7	12/31/09 14:17 / cp
Chloride	13	mg/L		1		E300.0	01/08/10 17:05 / ljl
Fluoride	1.3	mg/L		0.1		A4500-F C	12/22/09 10:27 / dvg
Magnesium	14	mg/L		1		E200.7	01/05/10 13:52 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:30 / jal
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	12/29/09 13:54 / jal
Potassium	12	mg/L		1		E200.7	12/31/09 14:17 / cp
Silica	55.6	mg/L		0.2		E200.7	12/31/09 14:17 / cp
Sodium	31	mg/L		1		E200.7	12/31/09 14:17 / cp
Sulfate	23	mg/L		1		E300.0	01/08/10 17:05 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	728	umhos/cm		1		A2510 B	12/22/09 11:01 / lr
pH	7.86	s.u.		0.01		A4500-H B	12/22/09 11:01 / lr
Solids, Total Dissolved TDS @ 180 C	442	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:17 / cp
Arsenic	0.006	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:10 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 13:37 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 13:37 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 13:37 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 13:37 / sml
Lead	0.003	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Manganese	0.08	mg/L		0.01		E200.8	12/22/09 13:37 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 13:37 / sml
Selenium	0.001	mg/L		0.001		E200.8	12/22/09 13:37 / sml
Uranium	0.0264	mg/L		0.0003		E200.8	12/22/09 13:37 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 13:37 / sml
Zinc	1.22	mg/L		0.01		E200.8	12/24/09 00:10 / sml
METALS - SUSPENDED							
Uranium	0.0005	mg/L		0.0003		E200.8	01/05/10 00:08 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-002
Client Sample ID: BOW 2006-5

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.3	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.5	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.18	pCi/L	U	0.18		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.12	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.18	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.06	pCi/L	U	0.06		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.06	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-5.62	%				Calculation	01/12/10 09:59 / kbh
Anions	8.58	meq/L				Calculation	01/12/10 09:59 / kbh
Cations	7.67	meq/L				Calculation	01/12/10 09:59 / kbh
Solids, Total Dissolved Calculated	493	mg/L				Calculation	01/12/10 09:59 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	01/12/10 09:59 / kbh

- The Anion / Cation balance was confirmed by re-analysis.

Report Definitions:
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MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-003
Client Sample ID: BOW 2006-6

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	173	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Bicarbonate as HCO3	211	mg/L		5		A2320 B	12/22/09 13:06 / dvg
Calcium	46	mg/L		1		E200.7	12/31/09 14:25 / cp
Chloride	4	mg/L		1		E300.0	12/23/09 22:41 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	12/22/09 10:30 / dvg
Magnesium	6	mg/L		1		E200.7	12/31/09 14:25 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:38 / jal
Nitrogen, Nitrate+Nitrite as N	1.8	mg/L		0.1		E353.2	12/29/09 13:57 / jal
Potassium	6	mg/L		1		E200.7	12/31/09 14:25 / cp
Silica	64.7	mg/L		0.2		E200.7	12/31/09 14:25 / cp
Sodium	16	mg/L		1		E200.7	12/31/09 14:25 / cp
Sulfate	9	mg/L		1		E300.0	12/23/09 22:41 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	345	umhos/cm		1		A2510 B	12/22/09 11:04 / lr
pH	7.96	s.u.		0.01		A4500-H B	12/22/09 11:04 / lr
Solids, Total Dissolved TDS @ 180 C	221	mg/L		10		A2540 C	12/22/09 12:00 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:25 / cp
Arsenic	0.005	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:15 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 14:05 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 14:05 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 14:05 / sml
Iron	0.04	mg/L		0.03		E200.8	12/22/09 14:05 / sml
Lead	0.003	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 14:05 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 14:05 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 14:05 / sml
Uranium	0.0097	mg/L		0.0003		E200.8	12/22/09 14:05 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 14:05 / sml
Zinc	0.64	mg/L		0.01		E200.8	12/24/09 00:15 / sml
METALS - SUSPENDED							
Uranium	0.0011	mg/L		0.0003		E200.8	01/05/10 00:12 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-003
Client Sample ID: BOW 2006-6

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.3	pCi/L		1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.8	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.4	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.20	pCi/L	U	0.20		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.12	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.20	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.1	pCi/L	U	0.1		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.1	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	0.2	pCi/L		0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	0.2	pCi/L		0.05		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.05	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.84	%				Calculation	01/04/10 09:59 / kbh
Anions	3.92	meq/L				Calculation	01/04/10 09:59 / kbh
Cations	3.63	meq/L				Calculation	01/04/10 09:59 / kbh
Solids, Total Dissolved Calculated	281	mg/L				Calculation	01/04/10 09:59 / kbh
TDS Balance (0.80 - 1.20)	0.790					Calculation	01/04/10 09:59 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-004
Client Sample ID: BOW 2006-7

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	168	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Carbonate as CO3	ND	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Bicarbonate as HCO3	205	mg/L		5		A2320 B	12/22/09 13:14 / dvg
Calcium	33	mg/L		1		E200.7	12/31/09 14:29 / cp
Chloride	9	mg/L		1		E300.0	01/08/10 17:20 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	12/22/09 10:33 / dvg
Magnesium	3	mg/L		1		E200.7	12/31/09 14:29 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	12/30/09 11:40 / jal
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	12/29/09 13:59 / jal
Potassium	8	mg/L		1		E200.7	12/31/09 14:29 / cp
Silica	72.2	mg/L		0.2		E200.7	12/31/09 14:29 / cp
Sodium	33	mg/L		1		E200.7	01/05/10 14:00 / cp
Sulfate	11	mg/L		1		E300.0	01/08/10 17:20 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	351	umhos/cm		1		A2510 B	12/22/09 11:07 / lr
pH	7.96	s.u.		0.01		A4500-H B	12/22/09 11:07 / lr
Solids, Total Dissolved TDS @ 180 C	229	mg/L		10		A2540 C	12/22/09 12:01 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	12/31/09 14:29 / cp
Arsenic	0.005	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Barium	0.2	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Boron	ND	mg/L		0.1		E200.8	12/24/09 00:20 / sml
Cadmium	ND	mg/L		0.005		E200.8	12/22/09 14:11 / sml
Chromium	ND	mg/L		0.05		E200.8	12/22/09 14:11 / sml
Copper	ND	mg/L		0.01		E200.8	12/22/09 14:11 / sml
Iron	ND	mg/L		0.03		E200.8	12/22/09 14:11 / sml
Lead	0.001	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Manganese	ND	mg/L		0.01		E200.8	12/22/09 14:11 / sml
Mercury	ND	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Molybdenum	ND	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Nickel	ND	mg/L		0.05		E200.8	12/22/09 14:11 / sml
Selenium	0.003	mg/L		0.001		E200.8	12/22/09 14:11 / sml
Uranium	0.0122	mg/L		0.0003		E200.8	12/22/09 14:11 / sml
Vanadium	ND	mg/L		0.1		E200.8	12/22/09 14:11 / sml
Zinc	0.30	mg/L		0.01		E200.8	12/24/09 00:20 / sml
METALS - SUSPENDED							
Uranium	0.0009	mg/L		0.0003		E200.8	01/05/10 00:33 / ts

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QCL - Quality control limit.
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Lab ID: C09120699-004
Client Sample ID: BOW 2006-7

Report Date: 02/22/10
Collection Date: 12/18/09
DateReceived: 12/21/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0M	01/15/10 09:00 / dm
Lead 210 precision (±)	0.7	pCi/L				E909.0M	01/15/10 09:00 / dm
Lead 210 MDC	1.2	pCi/L				E909.0M	01/15/10 09:00 / dm
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	12/29/09 12:19 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	12/29/09 12:19 / plj
Polonium 210 MDC	0.6	pCi/L				E912.0	12/29/09 12:19 / plj
Radium 226	<0.18	pCi/L	U	0.18		E903.0	01/04/10 14:53 / jah
Radium 226 precision (±)	0.11	pCi/L				E903.0	01/04/10 14:53 / jah
Radium 226 MDC	0.18	pCi/L				E903.0	01/04/10 14:53 / jah
Thorium 230	<0.2	pCi/L	U	0.2		E907.0	12/30/09 13:45 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E907.0	12/30/09 13:45 / dmf
Thorium 230 MDC	0.2	pCi/L				E907.0	12/30/09 13:45 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.5	pCi/L	U	0.5		E909.0M	02/09/10 16:14 / dm
Lead 210 precision (±)	0.3	pCi/L				E909.0M	02/09/10 16:14 / dm
Lead 210 MDC	0.5	pCi/L				E909.0M	02/09/10 16:14 / dm
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	01/04/10 09:49 / plj
Polonium 210 precision (±)	0.2	pCi/L				E912.0	01/04/10 09:49 / plj
Polonium 210 MDC	0.3	pCi/L				E912.0	01/04/10 09:49 / plj
Radium 226	<0.1	pCi/L	U	0.1		E903.0	01/04/10 23:58 / jah
Radium 226 precision (±)	0.08	pCi/L				E903.0	01/04/10 23:58 / jah
Radium 226 MDC	0.1	pCi/L				E903.0	01/04/10 23:58 / jah
Thorium 230	<0.08	pCi/L	U	0.08		E907.0	01/05/10 15:10 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E907.0	01/05/10 15:10 / dmf
Thorium 230 MDC	0.08	pCi/L				E907.0	01/05/10 15:10 / dmf
DATA QUALITY							
A/C Balance (± 5)	-5.53	%				Calculation	01/12/10 10:05 / kbh
Anions	3.96	meq/L				Calculation	01/12/10 10:05 / kbh
Cations	3.55	meq/L				Calculation	01/12/10 10:05 / kbh
Solids, Total Dissolved Calculated	295	mg/L				Calculation	01/12/10 10:05 / kbh
TDS Balance (0.80 - 1.20)	0.780					Calculation	01/12/10 10:05 / kbh

- The Anion / Cation balance was confirmed by re-analysis.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R127928
Sample ID: MBLK	3	Method Blank				Run: MANTECH_091222B				12/22/09 12:07
Alkalinity, Total as CaCO3		4	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		5	mg/L	1						
Sample ID: LCS1		Laboratory Control Sample				Run: MANTECH_091222B				12/22/09 12:23
Alkalinity, Total as CaCO3		192	mg/L	5.0	94	90	110			
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091222B				12/22/09 12:33
Alkalinity, Total as CaCO3		53.8	mg/L	5.0	99	90	110			
Sample ID: C09120699-004AMS		Sample Matrix Spike				Run: MANTECH_091222B				12/22/09 13:22
Alkalinity, Total as CaCO3		286	mg/L	5.0	94	80	120			
Sample ID: C09120699-004AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091222B				12/22/09 13:31
Alkalinity, Total as CaCO3		284	mg/L	5.0	92	80	120	0.9	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Analytical Run: ORION555A-2_091222A	
Sample ID: ICV2_091222_1		Initial Calibration Verification Standard							12/22/09 10:41	
Conductivity @ 25 C		1380	umhos/cm	1.0	97	90	110			
Method: A2510 B									Batch: 091222_1_PH-W_555A-2	
Sample ID: MBLK1_091222_1		Method Blank				Run: ORION555A-2_091222A			12/22/09 10:37	
Conductivity @ 25 C		0.9	umhos/cm	0.2						
Sample ID: C09120699-004ADUP		Sample Duplicate				Run: ORION555A-2_091222A			12/22/09 11:10	
Conductivity @ 25 C		350	umhos/cm	1.0				0.3	10	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 091222_1_SLDS-TDS-W	
Sample ID: MBLK1_091222		Method Blank				Run: BAL-1_091222B			12/22/09 11:59	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_091222		Laboratory Control Sample				Run: BAL-1_091222B			12/22/09 11:59	
Solids, Total Dissolved TDS @ 180 C		992	mg/L	10	99	90	110			
Sample ID: C09120707-002AMS		Sample Matrix Spike				Run: BAL-1_091222B			12/22/09 12:09	
Solids, Total Dissolved TDS @ 180 C		2630	mg/L	10	105	90	110			
Sample ID: C09120707-002AMSD		Sample Matrix Spike Duplicate				Run: BAL-1_091222B			12/22/09 12:09	
Solids, Total Dissolved TDS @ 180 C		2600	mg/L	10	102	90	110	1.2	10	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R127908
Sample ID: MBLK		Method Blank				Run: MANTECH_091222A				12/22/09 10:16
Fluoride		ND	mg/L	0.05						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_091222A				12/22/09 10:18
Fluoride		1.00	mg/L	0.10	100	90	110			
Sample ID: C09120705-001BMS		Sample Matrix Spike				Run: MANTECH_091222A				12/22/09 10:38
Fluoride		1.47	mg/L	0.10	103	80	120			
Sample ID: C09120705-001BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_091222A				12/22/09 10:41
Fluoride		1.47	mg/L	0.10	103	80	120	0	10	

Qualifiers:

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_091222A		
Sample ID: ICV1_091222_1	Initial Calibration Verification Standard								12/22/09 10:39	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 091222_1_PH-W_555A-2		
Sample ID: C09120699-004ADUP	Sample Duplicate					Run: ORION555A-2_091222A			12/22/09 11:10	
pH		7.98	s.u.	0.010				0.3	10	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R128144
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091230A				12/30/09 10:48
Nitrogen, Ammonia as N		0.03	mg/L	0.02						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091230A				12/30/09 10:50
Nitrogen, Ammonia as N		18.0	mg/L	0.20	90	80	120			
Sample ID: C09120699-002DMS		Sample Matrix Spike				Run: TECHNICON_091230A				12/30/09 11:32
Nitrogen, Ammonia as N		2.29	mg/L	0.050	113	80	120			
Sample ID: C09120699-002DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091230A				12/30/09 11:34
Nitrogen, Ammonia as N		2.32	mg/L	0.050	115	80	120	1.3	20	

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R128212
Sample ID: MB-091231A	6	Method Blank				Run: ICP2-C_091231A				12/31/09 13:07
Aluminum		ND	mg/L	0.03						
Calcium		ND	mg/L	0.2						
Magnesium		ND	mg/L	0.09						
Potassium		ND	mg/L	0.1						
Silicon		0.04	mg/L	0.01						
Sodium		ND	mg/L	0.10						
Sample ID: LFB-091231A	6	Laboratory Fortified Blank				Run: ICP2-C_091231A				12/31/09 13:11
Aluminum		0.906	mg/L	0.10	91	85	115			
Calcium		47.8	mg/L	0.50	96	85	115			
Magnesium		47.6	mg/L	0.50	95	85	115			
Potassium		44.7	mg/L	0.50	89	85	115			
Silicon		0.459	mg/L	0.015	93	85	115			
Sodium		44.6	mg/L	0.50	89	85	115			
Sample ID: C09120699-001CMS2	6	Sample Matrix Spike				Run: ICP2-C_091231A				12/31/09 14:09
Aluminum		1.94	mg/L	0.10	95	70	130			
Calcium		166	mg/L	1.0	92	70	130			
Magnesium		102	mg/L	1.0	94	70	130			
Potassium		99.0	mg/L	1.0	89	70	130			
Silicon		30.2	mg/L	0.10		70	130			A
Sodium		113	mg/L	1.0	93	70	130			
Sample ID: C09120699-001CMSD	6	Sample Matrix Spike Duplicate				Run: ICP2-C_091231A				12/31/09 14:13
Aluminum		2.00	mg/L	0.10	98	70	130	2.8	20	
Calcium		171	mg/L	1.0	97	70	130	2.9	20	
Magnesium		104	mg/L	1.0	97	70	130	2.4	20	
Potassium		101	mg/L	1.0	90	70	130	1.8	20	
Silicon		30.8	mg/L	0.10		70	130	2	20	A
Sodium		116	mg/L	1.0	96	70	130	2.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R128322
Sample ID: MB-100105A	2	Method Blank				Run: ICP2-C_100105A				01/05/10 12:40
Magnesium		ND	mg/L	0.09						
Sodium		ND	mg/L	0.10						
Sample ID: LFB-100105A	2	Laboratory Fortified Blank				Run: ICP2-C_100105A				01/05/10 12:44
Magnesium		48.0	mg/L	0.50	96	85	115			
Sodium		46.4	mg/L	0.50	93	85	115			
Sample ID: C10010007-004AMS2	2	Sample Matrix Spike				Run: ICP2-C_100105A				01/05/10 14:44
Magnesium		590	mg/L	1.0	91	70	130			
Sodium		1750	mg/L	2.3	96	70	130			
Sample ID: C10010007-004AMSD	2	Sample Matrix Spike Duplicate				Run: ICP2-C_100105A				01/05/10 14:48
Magnesium		596	mg/L	1.0	92	70	130	1	20	
Sodium		1800	mg/L	2.3	106	70	130	2.8	20	

Qualifiers:

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 24761B
Sample ID: MB-24761		Method Blank				Run: ICPMS2-C_100104A				01/04/10 23:39
Uranium		0.0002	mg/L	6E-05						
Sample ID: LCS2-24761		Laboratory Control Sample				Run: ICPMS2-C_100104A				01/04/10 23:43
Uranium		0.107	mg/L	0.00030	107	85	115			
Sample ID: C09120802-002IMS4		Sample Matrix Spike				Run: ICPMS2-C_100104A				01/05/10 00:45
Uranium		0.0623	mg/L	0.00030	122	70	130			
Sample ID: C09120802-002IMSD4		Sample Matrix Spike Duplicate				Run: ICPMS2-C_100104A				01/05/10 00:49
Uranium		0.0614	mg/L	0.00030	120	70	130	1.4	20	

Qualifiers:
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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127956
Sample ID: LRB	14	Method Blank				Run: ICPMS4-C_091222A				12/22/09 11:40
Arsenic		ND	mg/L	5E-05						
Barium		ND	mg/L	4E-05						
Cadmium		ND	mg/L	4E-05						
Chromium		ND	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Iron		ND	mg/L	0.0006						
Lead		ND	mg/L	2E-05						
Manganese		ND	mg/L	3E-05						
Mercury		7E-05	mg/L	4E-05						
Molybdenum		ND	mg/L	0.0001						
Nickel		ND	mg/L	6E-05						
Selenium		ND	mg/L	3E-05						
Uranium		ND	mg/L	3E-05						
Vanadium		ND	mg/L	4E-05						
Sample ID: LFB	14	Laboratory Fortified Blank				Run: ICPMS4-C_091222A				12/22/09 11:46
Arsenic		0.0531	mg/L	0.0010	106	85	115			
Barium		0.0515	mg/L	0.0010	103	85	115			
Cadmium		0.0526	mg/L	0.0010	105	85	115			
Chromium		0.0524	mg/L	0.0010	105	85	115			
Copper		0.0534	mg/L	0.0010	107	85	115			
Iron		1.29	mg/L	0.0010	103	85	115			
Lead		0.0526	mg/L	0.0010	105	85	115			
Manganese		0.0523	mg/L	0.0010	105	85	115			
Mercury		0.00523	mg/L	0.0010	103	85	115			
Molybdenum		0.0526	mg/L	0.0010	105	85	115			
Nickel		0.0527	mg/L	0.0010	105	85	115			
Selenium		0.0534	mg/L	0.0010	107	85	115			
Uranium		0.0519	mg/L	0.00030	104	85	115			
Vanadium		0.0522	mg/L	0.0010	104	85	115			
Sample ID: C09120527-006CMS4	14	Sample Matrix Spike				Run: ICPMS4-C_091222A				12/22/09 13:15
Arsenic		0.0567	mg/L	0.0010	100	70	130			
Barium		0.0860	mg/L	0.0010	109	70	130			
Cadmium		0.0522	mg/L	0.010	104	70	130			
Chromium		0.0540	mg/L	0.050	107	70	130			
Copper		0.0522	mg/L	0.010	104	70	130			
Iron		1.35	mg/L	0.030	108	70	130			
Lead		0.0530	mg/L	0.050	105	70	130			
Manganese		0.0612	mg/L	0.010	118	70	130			
Mercury		0.00514	mg/L	0.0010	103	70	130			
Molybdenum		0.0520	mg/L	0.0010	102	70	130			
Nickel		0.0511	mg/L	0.050	102	70	130			
Selenium		0.0514	mg/L	0.0010	100	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R127956
Sample ID: C09120527-006CMS4	14	Sample Matrix Spike				Run: ICPMS4-C_091222A				12/22/09 13:15
Uranium		0.0619	mg/L	0.00030	109	70	130			
Vanadium		0.0539	mg/L	0.0010	108	70	130			
Sample ID: C09120527-006CMSD	14	Sample Matrix Spike Duplicate				Run: ICPMS4-C_091222A				12/22/09 13:21
Arsenic		0.0571	mg/L	0.0010	101	70	130	0.7	20	
Barium		0.0878	mg/L	0.0010	112	70	130	2.1	20	
Cadmium		0.0525	mg/L	0.010	105	70	130	0.6	20	
Chromium		0.0541	mg/L	0.050	108	70	130	0.3	20	
Copper		0.0528	mg/L	0.010	106	70	130	1.2	20	
Iron		1.37	mg/L	0.030	109	70	130	1.5	20	
Lead		0.0533	mg/L	0.050	106	70	130	0.5	20	
Manganese		0.0619	mg/L	0.010	120	70	130	1.2	20	
Mercury		0.00517	mg/L	0.0010	103	70	130	0.6	20	
Molybdenum		0.0518	mg/L	0.0010	101	70	130	0.4	20	
Nickel		0.0515	mg/L	0.050	103	70	130	0.7	20	
Selenium		0.0513	mg/L	0.0010	100	70	130	0.1	20	
Uranium		0.0619	mg/L	0.00030	109	70	130	0.1	20	
Vanadium		0.0540	mg/L	0.0010	108	70	130	0.2	20	
Method: E200.8										Batch: R128000
Sample ID: LFB	2	Laboratory Fortified Blank				Run: ICPMS4-C_091223A				12/23/09 11:35
Boron		0.0524	mg/L	0.0010	105	85	115			
Zinc		0.0590	mg/L	0.0010	105	85	115			
Sample ID: LRB	2	Method Blank				Run: ICPMS4-C_091223A				12/23/09 13:25
Boron		ND	mg/L	0.0004						
Zinc		0.006	mg/L	0.0002						
Sample ID: C09120705-003CMS4	2	Sample Matrix Spike				Run: ICPMS4-C_091223A				12/24/09 01:03
Boron		0.884	mg/L	0.10		70	130			A
Zinc		0.0606	mg/L	0.010	106	70	130			
Sample ID: C09120705-003CMSD	2	Sample Matrix Spike Duplicate				Run: ICPMS4-C_091223A				12/24/09 01:08
Boron		0.898	mg/L	0.10		70	130	1.6	20	A
Zinc		0.0614	mg/L	0.010	107	70	130	1.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R128035
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_091223A				12/23/09 18:01
Chloride		9.95	mg/L	1.0	99	90	110			
Sulfate		38.7	mg/L	1.0	97	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_091223A				12/23/09 18:18
Chloride		ND	mg/L	0.04						
Sulfate		ND	mg/L	0.1						
Sample ID: C09120699-004AMS	2	Sample Matrix Spike				Run: IC2-C_091223A				12/23/09 23:13
Chloride		28.7	mg/L	1.0	100	80	120			
Sulfate		87.4	mg/L	1.0	98	80	120			
Sample ID: C09120699-004AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_091223A				12/23/09 23:30
Chloride		28.9	mg/L	1.0	101	80	120	0.6	20	
Sulfate		88.8	mg/L	1.0	100	80	120	1.6	20	
Method: E300.0										Batch: R128432
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_100108A				01/08/10 16:03
Chloride		9.59	mg/L	1.0	96	90	110			
Sulfate		38.5	mg/L	1.0	96	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_100108A				01/08/10 16:18
Chloride		ND	mg/L	0.04						
Sulfate		ND	mg/L	0.1						
Sample ID: C10010095-032AMS	2	Sample Matrix Spike				Run: IC2-C_100108A				01/08/10 18:06
Chloride		94.6	mg/L	1.0	101	80	120			
Sulfate		310	mg/L	1.0	100	80	120			
Sample ID: C10010095-032AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_100108A				01/08/10 18:22
Chloride		94.2	mg/L	1.0	100	80	120	0.5	20	
Sulfate		312	mg/L	1.0	101	80	120	0.6	20	

Qualifiers:
RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R128102
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_091229A			12/29/09 11:50	
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.03						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_091229A			12/29/09 11:54	
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	102	90	110			
Sample ID: C09120797-001AMS		Sample Matrix Spike				Run: TECHNICON_091229A			12/29/09 13:44	
Nitrogen, Nitrate+Nitrite as N		2.35	mg/L	0.10	90	90	110			
Sample ID: C09120797-001AMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_091229A			12/29/09 13:47	
Nitrogen, Nitrate+Nitrite as N		2.33	mg/L	0.10	89	90	110	0.9	10	S

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-4261
Sample ID: C09120781-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-2_091223A				01/04/10 16:41
Radium 226		17.0	pCi/L		109	70	130			
Sample ID: C09120781-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_091223A				01/04/10 16:41
Radium 226		14.8	pCi/L		95	70	130	14	24.7	
Sample ID: MB-RA226-4261	3	Method Blank				Run: BERTHOLD 770-2_091223A				01/04/10 16:41
Radium 226		-0.05	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-4261		Laboratory Control Sample				Run: BERTHOLD 770-2_091223A				01/04/10 16:41
Radium 226		9.1	pCi/L		116	70	130			
Method: E903.0										Batch: 24761
Sample ID: C09120709-001FMS		Sample Matrix Spike				Run: G542M_091229B				01/04/10 23:58
Radium 226		10	pCi/L		111	70	130			
Sample ID: C09120709-001FMSD		Sample Matrix Spike Duplicate				Run: G542M_091229B				01/04/10 23:58
Radium 226		11	pCi/L		119	70	130	6.3	23.6	
Sample ID: LCS-24761		Laboratory Control Sample				Run: G542M_091229B				01/05/10 01:57
Radium 226		17	pCi/L		114	70	130			
Sample ID: MB-24761	3	Method Blank				Run: G542M_091229B				01/05/10 01:57
Radium 226		0.2	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.3	pCi/L							

Qualifiers:

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MDC - Minimum detectable concentration
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U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E907.0										Batch: R128245
Sample ID: LCS-RA-TH-ISO-1058		Laboratory Control Sample				Run: EGG-ORTEC_091228F				12/30/09 13:45
Thorium 230		5.7	pCi/L		106	70	130			
Sample ID: C09120709-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_091228F				12/30/09 13:45
Thorium 230		10	pCi/L		77	70	130			
Sample ID: C09120709-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091228F				12/30/09 13:45
Thorium 230		13	pCi/L		104	70	130	24	42.1	
Sample ID: MB-RA-TH-ISO-1058	3	Method Blank				Run: EGG-ORTEC_091228F				12/30/09 13:45
Thorium 230		0.05	pCi/L							U
Thorium 230 precision (±)		0.07	pCi/L							
Thorium 230 MDC		0.1	pCi/L							
Method: E907.0										Batch: 24761
Sample ID: C09120699-001GMS		Sample Matrix Spike				Run: EGG-ORTEC_091230C				01/05/10 15:10
Thorium 230		1.3	pCi/L		96	70	130			
Sample ID: C09120699-001GMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091230C				01/05/10 15:10
Thorium 230		1.2	pCi/L		86	70	130	8.3	58	
Sample ID: LCS-24761		Laboratory Control Sample				Run: EGG-ORTEC_091230C				01/05/10 15:10
Thorium 230		2.2	pCi/L		120	70	130			
Sample ID: MB-24761	3	Method Blank				Run: EGG-ORTEC_091230C				01/05/10 15:10
Thorium 230		-0.04	pCi/L							U
Thorium 230 precision (±)		0.08	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

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U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0M										Batch: R128700
Sample ID: C09120772-003AMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100111A				01/11/10 07:30
Lead 210		0.00097	uCi/kg		119	70	130			
Sample ID: C09120772-003AMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100111A				01/11/10 07:30
Lead 210		0.00083	uCi/kg		85	70	130	16	30	
Sample ID: MB-24797	3	Method Blank				Run: BECKMAN 6100TA_100111A				01/11/10 07:30
Lead 210		5E-06	pCi/kg							U
Lead 210 precision (±)		9E-06	pCi/kg							
Lead 210 MDC		1E-05	pCi/kg							
Sample ID: LCS-24797		Laboratory Control Sample				Run: BECKMAN 6100TA_100111A				01/11/10 07:30
Lead 210		0.00024	pCi/kg		82	70	130			
Method: E909.0M										Batch: R128909
Sample ID: C09070805-004AMS		Sample Matrix Spike				Run: BECKMAN 6100TA_100115B				01/15/10 09:00
Lead 210		180	pCi/L		78	70	130			
Sample ID: C09070805-004AMSD		Sample Matrix Spike Duplicate				Run: BECKMAN 6100TA_100115B				01/15/10 09:00
Lead 210		170	pCi/L		73	70	130	5.9	30	
Sample ID: MB-R128909	3	Method Blank				Run: BECKMAN 6100TA_100115B				01/15/10 09:00
Lead 210		0.7	pCi/L							U
Lead 210 precision (±)		3	pCi/L							
Lead 210 MDC		5	pCi/L							
Sample ID: LCS-R128909		Laboratory Control Sample				Run: BECKMAN 6100TA_100115B				01/15/10 09:00
Lead 210		83	pCi/L		73	70	130			

Qualifiers:

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U - Not detected at minimum detectable concentration

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QA/QC Summary Report

Client: Crow Butte Resources
Project: Three Crow Butte Baseline Samples

Report Date: 02/22/10
Work Order: C09120699

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: R128242
Sample ID: C09120709-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_091228E				12/29/09 12:19
Polonium 210		15	pCi/L		94	70	130			
Sample ID: C09120709-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091228E				12/29/09 12:19
Polonium 210		15	pCi/L		92	70	130	1.6	51.1	
Sample ID: LCS-PO210-0275		Laboratory Control Sample				Run: EGG-ORTEC_091228E				12/29/09 12:19
Polonium 210		16	pCi/L		96	70	130			
Sample ID: MB-PO210-0275	3	Method Blank				Run: EGG-ORTEC_091228E				12/29/09 12:19
Polonium 210		0.04	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Method: E912.0										Batch: 24761
Sample ID: C09120802-002IMS		Sample Matrix Spike				Run: EGG-ORTEC_091230A				01/04/10 09:49
Polonium 210		43	pCi/L		110	70	130			
Sample ID: C09120802-002IMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_091230A				01/04/10 09:49
Polonium 210		43	pCi/L		110	70	130	0.4	51.2	
Sample ID: LCS-24761		Laboratory Control Sample				Run: EGG-ORTEC_091230A				01/04/10 09:49
Polonium 210		65	pCi/L		89	70	130			
Sample ID: MB-24761	3	Method Blank				Run: EGG-ORTEC_091230A				01/04/10 11:59
Polonium 210		0.4	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name, PWS, Permit, Etc. Three Crow Baseline Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169 Crawford, NE 69339	Contact Name: Larry Teahon Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass Rhonda Pelton
Invoice Address: P.O. Box 169 Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: Hand

Cooler ID(s): client

Receipt Temp 2 °C

On Ice: Yes (No)

Custody Seal Y (N)

Intact Y N

Signature Match Y N

ANALYSIS REQUESTED

Number of Containers / Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH		
1	Miller 1	12/18/09		Water	.5	1	1	.5	4	4	4						Please report 1/20/10	
2	BOW 2006-5	12/18/09		Water	.5	1	1	.5	4	4	4						Please report 1/20/10	C09120699
3	BOW 2006-6	12/18/09		Water	.5	1	1	.5	4	4	4						Please report 1/20/10	
4	BOW 2006-7	12/18/09		Water	.5	1	1	.5	4	4	4						Please report 1/20/10	
5																		
6																		
7																		
8																		
9																		
10																		

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print): Walt Nelson	Date/Time: 12/21/09 11:37	Signature: Walter Nelson	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: No	Lab Disposal: YES		Received by Laboratory:	Date/Time: 12-21-09 1131	Signature: HACKLMAD

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc
Workorder Receipt Checklist

C09120699

Crow Butte Resources

Login completed by: Halley Ackerman

Date and Time Received: 12/21/2009 11:31 AM

Reviewed by:

Received by: ha

Reviewed Date:

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Sample split and preserved as necessary for the Suspended analysis.

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CLIENT: Crow Butte Resources
Project: Three Crow Butte Baseline Samples
Sample Delivery Group: C09120699

Report Date: 02/22/10

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505
Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

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Appendix E

Water User Survey Information for Active Water Supply Wells in 2.25-Mile Area of Review

APPENDIX E
Water User Survey Information for Active Water Supply Wells in 2.25-Mile Area of Review
Revised January 18, 2010

Well Id	DNR Registration number	Township Location	Range Location	Section Location	Name of Strata	Pump test results	Water quality	Owners name	Street address	City address	State address	Zip Code address	GPS Coordinate	Date	Permit area	Contact Person	Telephone	Interviewer	Supply Source	Water Use Type	Well Status	Estimated Rate	History	Depth	Static Level	Drill Date	Casing Depth	Diameter	Pumping Method	Driller	Casing Type	Remarks	Latitute	Longitude	Easting	Northing	Screen Interval (ft)	Remarks 2	Remarks 3
0009	G-093536	31N	52W	23	Brule Fm			Mike Dyer	RR 2	Crawford	NE	69339		10-Jan-10			665-1373		Well	Agricultural	Active			110	54	14-Nov-98	62	8	submersible		Steel	drill date aprox., w/ pressure pump water @			2950E	4700N		51.2 + 8' out	
0010		31N	52W	23	Brule Fm			Mike Dyer	RR 2	Crawford	NE	69339		25-Aug-81			665-1373			Agricultural	Active			80					Windmill			guage read @ 3' unable to get any other reading.			2250E	550N		probably reservoir~ leathers?	
0044		31N	52W	15	Brule Fm			C. J. Guggenmos	RR2 Box 92	Crawford	NE	69339		27-Aug-81			665-1803		Well	Domestic	Active	60 gpm		90	35	01-Jan-79	90	5	submersible	Chubb	Plastic	drill date aprox., pitless adaptor			4650E	1050N	70-90	no access	
0045		31N	52W	15	Brule Fm			C. J. Guggenmos	RR2 Box 92	Crawford	NE	69339		27-Aug-81			665-1803		Well	Domestic	Active	12 gpm	used for lawns	90	35	01-Jan-77	20	5	submersible	Chubb	Plastic	drill date aprox.			5050E	1050N		run dry in 40 min	28'
0046	G-091516	31N	52W	15	Brule Fm			Charles Buckinham	13461 Hwy. 2-71	Crawford	NE	69339		13-Jul-05	Three Crow		665-1434	Dave Dunn/Chance Galey	Well	Domestic	Active			130 ft.	43 ft.	20-Feb-97	110 ft.	6 in.	submersible	CHUBB	PVC	new Well by new house			W:1033.40819	N:42.66055			
0047		31N	52W	15	Brule Fm			C. J. Guggenmos	Rt2 Box 92	Crawford	NE	69339		27-Aug-81			665-1803		Well	Domestic	Active		also agricultural	50	44	01-Jan-46	20	5	submersible	Chubb	Steel	drill date aprox.			3700E	650N		48' 6"	
0053		31N	52W	22	Brule Fm		good	Melvin Jones	Box 55	Crawford	NE	69339		29-Aug-81			665-1972		Well	Domestic	Active		also agricultural	80	60		40	6			Plastic	pump tested but owner cant remember results,			1800E	4650N		old well, pitless adaptor	runs dry with moderate/ heavy use
0054		31N	52W	22	Brule Fm		good	Melvin Jones	Box 55	Crawford	NE	69339		29-Aug-81			665-1972		Well	Agricultural	Active			80	20	01-Jan-79	80	8	Windmill	Chubb	Plastic	drill date aprox., water @ surface can measure,			2350E	3200N		pump tested but owner cant remembe r results,	
0070		31N	52W	26	Brule Fm			Sam Pedrick		Crawford	NE	69339		11-Sep-81			665-1170		Well	Agricultural	Active			125	60		30	5	Windmill	Chubb	Steel Galvanize d	74' 9"			950E	1000N			
0071		31N	52W	26	Brule Fm			Sam Pedrick		Crawford	NE	69339		11-Sep-81			665-1170		Well	Agricultural	Active			100	50										3800E	250N			
0073		31N	52W	15	Brule Fm			City of Crawford	Box 463 (Raben)	Crawford	NE	69339		24-Aug-81		Lorentz Raben	665-1462		Well	Other-used as a test well for municipal water system	Active	150 gpm	test well for municipal water system	120		01-Jun-81	120	6		Chubb	Plastic	drill date aprox.			1900E	2900N		16' 9"	
0139		31N	52W	14	Brule Fm			Gary Dodd	262 Dyer Rd.	Crawford	NE	69339		26-Jul-05	Three Crow		665-1643	Chance Galey	Well	agricultural/Domestic	Active			80 ft.	30 ft.	01-Jan-79	80 ft.	6 in.	submersible	chubb	PVC	Home Place			W:103.39754	N:42.65586			
0142		31N	52W	26	Brule Fm			Anton Roos		Crawford	NE			05-May-97	Three Crow		665-2531	Dave Dunn	Well	agricultural/Domestic	Active			200 ft.															
0143		31N	52W	26	Brule Fm			Sandy Lemmon	13234 Hwy. 2-71	Crawford	NE	693339		17-Jul-05	Three Crow		665-1269	Chance Galey	Well	Domestic	Active			100 ft.		01-Jan-82	100 ft.	6 in.	submersible	chubb	PVC	house well			W:103.39953	N:42.62811			
0146		31N	52W	35	Brule Fm			Wayne Lux	RRI	Whitney	NE			19-Jul-05	Three Crow		667-1440	Chance Galey	Well	Agricultural	Active			200 ft.	60 ft.			6 in.	Windmill		metal	windmill by highway			W:103.40130	N:42.61734			
0147		30N	52W	2	Brule Fm			Wayne Lux	RRI	Whitney	NE			19-Jul-05	Three Crow		667-1440	Chance Galey	Well	Agricultural	Active			100 ft.	75 ft.			6 in.	Windmill		metal				W:103.39881	N:42.60807			
0148		30N	52W	2	Brule Fm			Wayne Lux	RRI	Whitney	NE			19-Jul-05	Three Crow		667-1440	Chance Galey	Well	Agricultural	Active			200 ft.				6 in.	Windmill						W:103.39668	N:42.59910			
0260	G-149243	31N	52W	34	Brule Fm			Jim Prosser	471 4Mile Rd	Crawford	NE	69339		27-May-08	3crow		665-2254		Well	Domestic	Active	10 gpm		260	60	01-Mar-08	240	5	submersible	Jims Well Service	PVC				564	486	240-260		
0261	G-120287	30N	52W	6	Brule Fm			Jack Ellis	1117 2nd St	Crawford	NE	69339		03-Mar-03	Three Crow		665-1338		Well	Agriculture	Active	8 gpm		300	140	20-Dec-02	0-300	4.5	submersible	Chubb	PVC		42.36.36	103.27.42			160-180&280-300		
0265		31N	53W	23	Brule Fm			charles mack	131 vogl loop	crawford	NE			14-Jul-05	Three crow		665-1328	Chance Galey	Well	Domestic	Active			32 ft.							steel	electric			W:103.50588	N:42.64275			
0266		31N	53W	26	Brule Fm			joe hourt	R R 2	crawford	NE			14-Jul-05	three crow		665-1138	Chance Galey	Well	Agriculture	Active			15-20 ft.					Windmill			(windmill)			W:103.50840	N:42.63934			
0267		31N	53W	26	Brule Fm			Joe Hourt	R R 2	Crawford	NE			14-Jul-05	three crow		665-1138	Chance Galey	Well	Agricultural	Active			15-20 FT.					electric			shed by house			W:103.50852	N:42.63942			
0268		31N	53W	26	Brule Fm			Joe Hourt	R R 2	Crawford	NE			14-Jul-05	Three Crow		665-1138	Chance Galey	Well	Agricultural	Active			15-20 ft.					electric			cement block north of house			W:103.50845	N:42.63975			
0269		31N	53W	25	Brule Fm			George Sulzbach	374 4-mile Rd.	Crawford	NE			18-Jul-05	Three Crow		665-2055	Chance Galey	Well	Domestic	Active			65 ft.	30 ft.	01-Jan-94	65 ft.	6-8 in.	submersible	Chubb	PVC				W:103.48856	N42.63534			
0270		31N	52W	30	Brule Fm			La Verne McCoy	40 Glen Rd.	crawford	NE	69339		20-Jul-05	Three Crow		665-1329	Chance Galey	Well	Domestic/Agriculture	Active								electric			hired man's place			W:103.47127	N:103.63366			
0271		31N	52W	30	Brule Fm			La Verne McCoy	40 Glen Rd.	Crawford	NE			20-Jul-05	Three Crow		665-1329	Chance Galey		Domestic/Agriculture	Active			100-120 ft.	80 ft.	01-Jan-84			electric	pete peterson		Ed McCoy's house newer well			W:103.47140	N:42.62809			
0272		31N	52W	29	Brule Fm			Dean Welling	532 4-mile Rd.	Crawford	NE			14-Jul-05	Three Crow		665-1937	Chance Galey	Well	Domestic/agriculture	Active			60 ft.		30-Jan-30		6 in.	electric		steel				W:103.44884	N:42.63091			
0273		31N	52W	29	Brule Fm			Melvin Miller	660 4-Mile Rd.	crwaford	NE			12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agricultural	Active			140 ft.					electric	Chubb	PVC				W:103.44210	N:42.63608			
0274	G-137333	31N	52W	28	Brule Fm			Melvin Miller	660 4- Mile Rd.	crawford	NE			12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Domestic	Active			160 ft.					submersible		surface casing				W:103.42554	N:42.62637			
0275		31N	52W	32	Brule Fm			Janice Hoffman		Crawford	NE	69339		14-Jul-05	Three crow		665-2692	Chance Galey	Well	Domestic	Active			200 ft.					Windmill	John carley	steel	cistern water into gene's house			W:103.44453	N:42.61775			
0276		31N	52W	31	Brule Fm			Jack Ellis	1117 2nd street.	Crawford	NE			01-Jul-96	Three Crow		665-1338	Dave Dunn	Well	Domestic	Active	2gpm		300 ft.	100 ft.	01-Jan-70	300 ft.	5 in.	submersible	chubb		ellis house							
0277		31N	52W	30	Brule Fm			Gary Galey Jr.	454 4-Mile Rd.	Crawford	NE	69339		25-Jul-05	Three Crow		665-2605	Chance Galey	Well	Domestic	Active			60 ft.				6 in.	submersible	pete peterson	steel				W:103.46980	N:42.63296			
0278		31N	53W	25	Brule Fm			Nick Rudloff	314 4-Mile Rd.	Crawford	NE	69339		29-Jul-05	Three Crow		665-2635	Chance Galey	Well	Domestic/Agriculture	Active		pumped sand, raised pump	25-30 ft.	20 ft.				submersible		Metal	house well			W:103.49693	N:42.63461			
0279	G-120288	31N	52W	31	Brule Fm			Jack Ellis	1117 2nd St	Crawford	NE	69339		03-Mar-03	Three Crow		665-1418		Well	Agriculture	Active	5 gpm		260	75	30-Dec-02	80	4.5	submersible	Chubb	PVC		42.37.30	103.28.35			80-260		
0280		31N	52W	31	Brule Fm			Jack Ellis	1117 2nd st.	crawford	NE			01-Jul-96	Three Crow		665-1338	Dave Dunn	Well	Agricultural	Active			160 ft.					Windmill	harry petren									
0281		31N	52W	31				Jack Ellis	1117 2nd st.	crawford	NE	69339		01-Jul-96	Three crow		665-1338	Dave Dunn	Well	Agricultural	Active			100 ft.					Windmill										

APPENDIX E
Water User Survey Information for Active Water Supply Wells in 2.25-Mile Area of Review
Revised January 18, 2010

Well Id	DNR Regestration number	Township Location	Range Location	Section Location	Name of Strata	Pump test results	Water quality	Owners name	Street address	City address	State address	Zip Code address	GPS Coordinate	Date	Permit area	Contact Person	Telephone	Interviewer	Supply Source	Water Use Type	Well Status	Estimated Rate	History	Depth	Static Level	Drill Date	Casing Depth	Diameter	Pumping Method	Driller	Casing Type	Remarks	Latitute	Longitude	Easting	Northing	Screen Interval (ft)	Remarks 2	Remarks 3
0282		31N	52W	32	Brule FM			Janice Hoffman	41 Smith Rd.	Crawford	NE	69339		14-Jul-05	Three Crow		665-2692	Chance Galey	Well	Agricultural	Active			200 ft.					Windmill	chubb	steel				W:103.44 218	N:42.619 34			
0283		31N	52W	32	Brule FM			Janice Hoffman	41 Smith Rd.	Crawford	NE	69339		14-Jul-05	Three Crow		665-1611	Chance Galey	Well	Agricultural	Active			200 ft.					Windmill	chubb	steel	Used for cattle			W:103.44 129	42.61554			
0284		31N	52W	33	Brule Fm			Melvin miller	660 4-Mile Rd.	Crawford	NE			11-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agricultural	Active			90 ft.					submersible	Chubb	PVC				W:103.42 927	N:42.624 61			
0286		31N	52W	28	Brule Fm			Melvin Miller	780 4- Mile Rd.	Crawford	NE			12-Jul-05	Three crow		665-2509	Chance Galey	Well	Agricultural	Active			90 ft.					Windmill		surface casing		No Coordinates	No Coordinates					
0287		30N	52W	6	Brule Fm			La Verne Dyer	1006 2nd St.	Crawford	NE			17-Jul-96	Three Crow				Well	Agricultural	Active			50 ft.				6 in.	Windmill			same as 0404							
0300		31N	53W	26	No Data			Nick Rudloff	314 4-Mile Rd.	Crawford	NE	69339		29-Jul-05	Three Crow		665-2635	Chance Galey	Well	Agricultural	Active								hand pump			old well pit covered with barrel			W:103.50 264	42.63023			
0310		30N	52W	6	Brule Fm			La Verne Dyer	1006 2nd st.	Crawford	NE			17-Jul-96	Three Crow		665-1785	Dave Dunn	Well	Agricultural	Active			50 ft.				6 in.	submersible		steel	windmill; old house(ola Mable Hamaker Place							
0311		31N	52W	27	Brule Fm			Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339		12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agricultural	Active			200 ft.					submersible		PVC				W:103.41 391	N:42.626 28			
0312		31N	52W	21	Brule Fm			State of Nebraska	Fort Robinson	Crawford	NE	69339		25-Jul-05	Three Crow	Mike Morava	665-2900	Chance Galey	Well	Agricultural	Active			150 ft.	60 ft.			6 in.	Windmill	chubb	steel								
0313		31N	52W	20	Brule Fm			State of Nebraska	Fort Robinson	Crawford	NE	69339		25-Jul-05	Three Crow	Mike Morava	665-2900	Chance Galey	Well	Agricultural	Active			150 ft.	60 ft.			6 in.	Windmill	chubb	steel								
0314		31N	52W	19	Brule Fm			State of Nebraska	Fort Robinson	Crawford	NE	69339		25-Jul-05	Three Crow	Mike Morava	665-2900	Chance Galey	Well	Agricultural	Active			150 ft.	60 ft.			6 in.	Windmill	chubb	steel								
0322		31N	53W	26				Nick Rudloff	314 4-Mile Rd.	Crawford	NE	69339		29-Jul-05	Three Crow		665-2635	Chance Galey	Well	Agricultural	Active								hand pump			windmill is gone			W:103.50 456	N:42.628 84			
0332		30N	52W	8	Brule Fm			Arnold Jonhson	RR	Crawford	NE			12-May-97	Three Crow		665-2759	Chance Galey	Well	Agricultural	Active			120 ft.		01-Jan-89	120 ft.	6 in.	Windmill	chubb	PVC	USA land			UNABLE TO GPS				
0333		30N	52W	8	Brule Fm			Arnold Johnson	RR	Crawford	NE	69339		19-Jul-05	Three Crow		665-2759	Chance Galey	Well	Agricultural	Active			100 ft.		01-Jan-76	100 ft.	6 in.	submersible	chubb	PVC				W:103.44 995	N:42.596 72			
0334		30N	52W	8	Brule Fm			Arnold Johnson	RR	Crawford	NE	69339		19-Jul-05	Three Crow		665-2759	Chance Galey	Well	Domestic	Active			100 ft.	40 ft.	01-Jan-75	100 ft.	6 in.				house hold water			W:103.44 935	N:42.596 00			
0335		30N	52W	8	Brule Fm			Arnold Johnson	RR	Crawford	NE	69339		19-Jul-05	Three Crow		665-2759	Chance Galey	Well	Agricultural	Active			160 ft.				6 in.	Windmill		Metal				W:103.59 605	42.59605			
0337		31N	52W	34	Brule Fm			Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339		12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agriculture/Domestic	Active			90 ft.		01-Jan-20	10-15 ft.	6 in.	submersible		Metal	south of house			N:42.624 00	W:103.40 501		House hold well	
0338		30N	52W	3	Brule Fm			Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339		12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agricultural	Active			60 ft.	20 ft.		60 ft.	6 in.	Windmill		Metal				W:103.41 727	N:42.606 62			
0339		31N	52W	22	Brule Fm			Ray Suchor	15 Reed St.	Crawford	NE	69339		21-Jul-05	Three Crow		665-2098	Chance Galey	Well	agricultural/Domestic	Active			30 ft.					submersible		Metal	old well			W:103.40 792	N:42.651 78			
0360		31n	53W	23	Brule Fm			Morning Star Memorial Fundation		Lame Deer	MT			04-May-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural	Active			190 ft.	140 ft.	01-Jan-60	190 ft.	6 in.	Windmill	Tomson	metal				W:103.51 889	42.64668			
0361		31N	53W	26	Brule Fm			Kenny Vogl	51 Vogl Loop	Crawford	NE	69339		25-Jul-05	Three Crow		665-2879	Chance Galey	Well	Agricultural	Active			250 ft.		01-Jan-90	250 ft.	6 in.	submersible	Gale Land	PVC	east of home place			W:103.51 88	N:42.640 12			
0364		30N	53W	1	Brule Fm			Double Cross Ranch	420 Deep Creek Rd.(Shawn)	Crawford	NE	69339		20-Jul-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	agricultural/Domestic	Active					01-Jan-88			submersible		Steel	well by the house electric							
0367		31N	53W	35	Brule Fm			Harold Glendy	P.O. Box 373	Crawford	NE	69339		16-Jul-05	Three Crow		665-1745	Chance Galey	Well	Agricultural	Active			80 ft.				6 in.		Chubb	PVC	well west of county road old well			W:103.50 090	N:42.615 82		Next to old building, new casing	
0368		31N	53W	26	Brule Fm			Bennie Ward	100 Glendy Rd.	Crawford	NE	69339		16-Jul-05	Three Crow		665-1935	Chance Galey	Well	agricultural/Domestic	Active			170 ft.		01-Jan-95	170 ft.	6 in.	submersible	chubb	PVC				W:103.51 832	N:42.626 15			
0369		31N	53W	23	Brule Fm			Morning Star Memorial Fundation		Lame Deer	MT			04-May-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural	Active			120 ft.	100 ft.	01-Jan-60	10-15	6 in	Windmill		metal				103.5095 4	42.65092			
0371		31N	53W	27	Brule Fm			Kenny Vogl	51 Vogl Loop		NE			28-Jul-05	Three Crow		665-2879	Chance Galey	Well	Agricultural	Active			140 ft.		01-Jan-70	q	6 in.	submersible	Thomson	metal	west of home place			W:103.52 752	N:42.638 37			
0372		31N	53W	27	Brule Fm			Kenny Vogl	51 Vogl	Crawford	NE	69339		25-Jul-05	Three Crow		665-2879	Chance Galey	Well	Domestic	Active			80 ft.	50 ft.		70 ft.	6 in.	submersible		PVC	Kenny Vogl home place			W:103.52 034	N:42.639 85			
0373		31N	53W	34	Brule Fm			Kenny Vogl	51 Vogl Loop	Crawford	NE	69339		28-Jul-05	Three Crow		665-2879	Chance Galey	Well	Agricultural	Active			140 ft.	50 ft.	01-Jan-80		6 in.		Gale Land	PVC	south of home place by shed			W:103.52 132	N:42.624 97			
0374	G-100101	31N	53W	34	Brule Fm			Harold Glendy	P.O. Box 373	Crawford	NE	69339		16-Jul-05	Three Crow		665-1745	Chance Galey	Well	agricultural/Domestic	Active			200 ft.								If pumped hard it goes dry;			W:103.52 267	N:42.618 14		Harold's house well	
0381		31N	53W	26	Brule Fm			Kenny Vogl	51 Vogl Loop	Crawford	NE	69339		28-Jul-05	Three Crow		665-2874	Chance Galey	Well	Agricultural	Active			40-50 ft.					submersible						W:103.51 410	N:42.632 59			
0386		31N	53W	23	Brule Fm			Morning Star Memorial Fundation		Lame Deer	NE			04-May-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural	Active	30-35 gpm		160 ft.	15 ft.	01-Jan-92				Nelson Wells INC.		City of Crawford test hole			W:103.50 434	N:42.644 04		TH# 10 Hughes	
0390		30N	52W	7	Brule Fm			Bill Stolldorf	420 Main St.	Crawford	NE	69339		14-Jul-05	Three Crow		665-1168	Chance Galey		Domestic	Active			80 ft.		01-Jan-80			hand pump	Chubb		up the ridge150 yds: casing sticking out of ground			W:103.47 651	N:42.596 16		on concrete slab.	Hand pump is gone.
0395		31N	53W	34	No Data			Michael and Nancy Badura	50 Glendy Rd.	Crawford	NE	69339		15-Jul-05	Three Crow		665-1259(402-657-1856)	Chance Galey	Well	Domestic	Active								submersible	Chubb		summer home?			W:103.52 477	N:42.624 33			
0398	G-132554	31N	52W	15	Brule Fm			Martha Raben		Crawford	NE	69339		15-Jul-05	Three Corw	Jacki Mills	665-2570	Chance Galey	Well	Domestic	Active			95 ft.	14 ft.	01-Jan-05		6 in.	Windmill	Chubb	PVC				W:103.41 266	N:42.665 62			
0400		30N	53W	2	No Data			Double Cross Ranch	420 Deep Creek Rd. (Shawn)	Crawford	NE	69339		20-Jul-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural	Active								Windmill		Steel				W:103.50 700	N:42.602 45			
0402		30N	53W	3	No Data			Double Cross Ranch	420 Deep Creek Rd.(Shawn)	Crawford	NE	69339		20-Jul-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural	Active								Windmill		Steel				W:103.52 397	N:42.610 88			
0412	G149410	31N	52W	28	Brule Fm			Melvin Miler	780 4mile Rd	Crawford	NE	69339		09-Jun-08	three Crow		665-1418		Well	Agriculture	Active	3 gpm		133 ft	78	06-Jun-08	133	4.5	windmill	Chubb	PVC	.	42.37.57	103.25.42			73-93&113-133		
0421		31N	53W	23	Brule FM			Morning Star Memorial Fundation		Lame Deer	MT			04-May-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agriculture	Active			60 ft.				6 in.		Chubb	PVC				W:103.50 752	N:42.644 43			

APPENDIX E
Water User Survey Information for Active Water Supply Wells in 2.25-Mile Area of Review
Revised January 18, 2010

Well Id	DNR Regestration number	Township Location	Range Location	Section Location	Name of Strata	Pump test results	Water quality	Owners name	Street address	City address	State address	Zip Code address	GPS Coordinate	Date	Permit area	Contact Person	Telephone	Interviewer	Supply Source	Water Use Type	Well Status	Estimated Rate	History	Depth	Static Level	Drill Date	Casing Depth	Diameter	Pumping Method	Driller	Casing Type	Remarks	Latitute	Longitude	Easting	Northing	Screen Interval (ft)	Remarks 2	Remarks 3
0432		30N	52W	4	No Data			Keith Emmett	444 Dead Man Rd.(scott)	Crawford	NE	69339		19-Jul-05	Three Crow	Scott Schafer	665-1741	Chance Galey	Well	Agriculture	Active			-					hand pump			old Wade place; next to buildings south of old			103.42551	42.59888		house. Dont use it but it is supposed to work	
0434		31N	52W	26	Brule Fm			Dave & Jess Flack	13272 Hwy. 2-71	Crawford	NE	69339		19-Jul-05	Three Crow		430-3565	Chance Galey	Well	Domestic/Agriculture	Active			125 ft.	70 ft.	01-Jun-00	125 ft.		submersible	Chubb	PVC				W:103.40014	N:42.63290			
0446	G-154713	31N	52W	26	Brule Fm			Mike Dyer	144 Dyer Rd	Crawford	NE	69339		11-Jan-10	Three Crow	Jim Prosser	665-2254		Well	Agricultural	Active	12		200	75	6-Jun-09	180	5	submersible	Prosser	PVC				??	??	180-200		
0447	G-117090	31N	52W	23	Brule Fm			Memorial Star	PO Box 69	Lame Deer	MT	59043		19-Dec-08	Three Crow	Chubb	665-1418		Well	Agricultural	Active	10		60	31	15-Nov-01	33	5	submersible	Chubb	PVC				2018W	1541N	33-53		
0448	G-132434	31N	53W	13	Brule Fm			NG&PC		Lincoln	NE	68503		19-Dec-08	Three Crow	Prosser	665-2254		Well	Agricultural	Active	3		200	140	05-Spt-04	180	4.2	submersible	Prosser	PVC				2106E	1332N	180-200		
0450	G-080818	31N	52W	8	Brule Fm			City of Crawford	209 Elm	Crawford	NE	69339		8-Jan-10	Three Crow	DNR Web Site	665-1462	R.honda Grantham	Well	Livestock Observation	Active			260	19	11-Aug-93		2 3/8	No pump installed	Nelson Well Service					1980E	330N			
0451	G-080819	31N	52W	8	Brule Fm			City of Crawford	209 Elm	Crawford	NE	69339		8-Jan-10	Three Crow	DNR Web Site	665-1462	R.honda Grantham	Well	Livestock Observation	Active	300		200	5	13-Aug-93		8 5/8	No pump installed	Nelson Well Service	PVC Schedule 40				2500W	660N	59 - 199		
0452	G-080820	31N	52W	8	Brule Fm			City of Crawford	209 Elm	Crawford	NE	69339		8-Jan-10	Three Crow	DNR Web Site	665-1462	R.honda Grantham	Well	Livestock Observation	Active			200	5	9-Aug-93		2 3/8	No pump installed	Nelson Well Service	PVC				2520W	660N			
0453	G-080821	31N	52W	8	Brule Fm			City of Crawford	209 Elm	Crawford	NE	69339		8-Jan-10	Three Crow	DNR Web Site	665-1462	R.honda Grantham	Well	Livestock Observation	Active			200	5	10-Aug-93		2 3/8	No pump installed	Nelson Well Service	PVC				1980W	700N			
0454	G-093532	31N	52W	15	Brule Fm			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	Mike Kesselring	665-1462	Grantham	Well	Public Water Supply	active	50 gpm		103	28	26-Jun-97	0-40'	12"	submersible	Sargent Irrigation	Stainless Steel				2630	2920	40-100'		
0455	G-093533	31N	52W	15	Brule Fm			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	Mike Kesselring	308-665-1462	Grantham	Well	Public Water Supply	active	90 gpm		102	28	28-Jun-97	0-40'	12"	submersible	Sargent Irrigation	Stainless Steel				2590	3100	40-100'		
0456	G-93528	31N	52W	8	Alluvium			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	DNR Web Site	308-665-1462	Grantham	Well	Public Water Supply	active	40 gpm		21	3	25-Jun-97	0-4'	16"	submersible	Sargent Irrigation	Stainless Steel				2010	200	4-21'		
0457	G-93529	31N	52W	8	Alluvium			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	DNR Web Site	308-665-1462	Grantham	Well	Public Water Supply	active	120 gpm		20	1	25-Jun-97	0-4'	16"	submersible	Sargent Irrigation	Steel				2100	200	4-20'		
0458	G-93530	31N	52W	8	Alluvium			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	DNR Web Site	308-665-1462	Grantham	Well	Public Water Supply	active	60 gpm		28	5	28-Aug-97	0-8'	16"	submersible	Sargent Irrigation	Steel				2050	200	8-20'		
0459	G-93531	31N	52W	8	Alluvium			City of Crawford	209 Elm Street	Crawford	NE	69339		05-Apr-10	Three Crow	DNR Web Site	308-665-1462	Grantham	Wet Well	Public Water Supply	active	900 gpm		27	11	01-Jul-97	0-27'	66"	submersible	Sargent Irrigation	Precast Concrete	Concrete wet well that receives water from an infiltration gallery			2050	200	NA	Infiltration Gallery	

ARCADIS

Appendix F

Water User Survey Information for Abandoned Water Supply Wells in 2.25-Mile Area of Review

APPENDIX F
Water User Survey Information for
Abandoned Water Supply Wells in 2.25-Mile Area of Review
Revised January 18, 2010

Well Id	Township Location	Range Location	Section Location	Owners name	Street	City	State	Zip Code	Date	Permit area	Contact Person	Telephone	Interviewer	Supply Source	Water Use Type	Depth	Static Level	Drill Date	Casing Depth	Diameter	Pumping Method	Driller	Casing Type	Remarks	Easting	Northing	Remarks_2	Remarks_3
0003	31N	52W	15	Martha Raben	13001 Hwy. 2	Crawford	NE	69339	15-Jul-05	Three Crow	Jacki Mills	665-2570	Chance Galey	Well	Agricultural	100 ft.				5 in.	Windmill			West of House	W:103.41.273	N:42.66562		
0279A	31N	52W	33	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	11-Jul-05	Three crow		665-2509	Chance Galey	Well	Agricultural	75 ft.					Windmill		Surface Casing	Caved in	W:103.42937	N:42.62460		
AW0285	31N	52W	28	Melvin miller	660 4-Mile Rd.	Crawford	NE	69339	12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Agricultural						Submersible			old well	W:103.42570	N:42.62628	behind house	
0291	31N	52W	22	Melvin Jones	70 Jones Drive	Crawford	NE	69339	14-Jul-05	Three Crow		665-1972	Chance Galey	Well										covered with dirt	W:103.41474	N:42.65243	Under small shed next to	
0292	31N	53W	25	George Sulzbac	374 4-Mile Rd.	Crawford	NE	69339	14-Jul-05	Three Crow		665-2055	Chance Galey	Well						6 in.				old windmill casing	W:103.48844	N:42.63582		
0293	31N	53W	35	Nick Rudloff	314 4-Mile Rd.	Crawford	NE	69339	29-Jul-05	Three Crow		665-2635	Chance Galey	Well						6 in.			Galvinized	old fallen down windmill	W:103.50279	N:42.62931		
0294	31N	52W	31	Jack Ellis	1117 2nd. St.	Crawford	NE	69339	01-Jul-96	Three Crow		665-1338	Dave Dunn	Well										covered with dirt				
0295	31N	52W	31	Jack Ellis	1117 2nd st.	Crawford	NE	69339	01-Jul-96	Three Criw		665-1338	Dave Dunn	Well							Windmill			old windmill by house				
0296	31N	52W	32	Jack Ellis	1117 2nd St.	Crawford	NE	69339	01-Jun-96	Three Crow		665-1338	Dave Dunn	Well							Windmill			old windmill				
0297	31N	52W	33	Janice Hoffman	41 Smith Rd.	Crawford	NE	69339	14-Jul-05	Three Crow		665-2692	Chance Galey	Well		80 ft.					Hand Pump			broken	W:103.43716	N:42.61836	Next to old house along fence line next	to cattle tank.
0299	30N	52W	5	Arnald Johnson	Smith Rd.	Crawford	NE	69339	19-Jul-05	Three Crow		665-2759	Chance Galey	Well		80 ft.				6 in.	Windmill			doesn't pump water	W:103.44747	N:42.60096		
0318	31N	53W	36	Harold Glendy	P.O. Box 373	Crawford	NE	69339	16-Jul-05	Three Crow		665-1745	Chance Galey	Well		75 ft.				5 in.			Metal	Next to house well	W: 103.52257	N:42.61811		
0325	31N	52W	34	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	11-Jul-05	Three Crow		665-2509	Chance Galey	Well	Domestic	80 ft.		01-Jan-30	10-15 ft.	6 in.			Metal	well at old school house	W:103.40276	N:42.62487		
0365	30N	53W	1	Double Cross	420 Deep Creek Rd.	Crawford	NE	69339	20-Jul-05	Three Crow	Shawn Hunter	665-2298	Chance Galey	Well	Agricultural						Windmill			UNAWARE OF WELL.				
0376	30N	53W	3	Harold Glendy	P.O. Box 373	Crawford	NE	69339	16-Jul-05	Three Crow		665-1745	Chance Galey	Well	Agricultural						Windmill			Old well	W:103.51099	N:42.61346	Windmill by the county	
0388	31N	52W	34	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	12-Jul-05	Three Crow		665-2509	Chance Galey	Well	Domestic									old well: never used	W:103.41232	N:42.61730		
0391	31N	52W	27	Melvin Jones	70 Jones Drive	Crawford	NE	69339	14-Jul-05	Three Crow		665-1972	Chance Galey											Marked by steel post	W:103.41502	N:42.63443		
0392	31N	52W	33	Janice Hofffma		Crawford	NE	69339	14-Jul-05	Three Crow		665-2692	Chance Galey	Well	Agricultural	80 ft.					Submersible			Next to fallen down cabin	W:103.42951	N:42.61266		
0410	31N	52W	29	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	11-Jul-05	Three Crow		665-2509	Chance Galey	Well		90-100 ft.									W:103.44225	N:42.63634		
0411	31N	52W	29	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	11-Jul-05	Three Crow		665-2509	Chance Galey											Boarders state	W:103.45878	42.63707		
0413	31N	52W	28	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	12-Jul-05	Three Crow		665-2509	Chance Galey	Well										Next to a tree	W:103.43211	N:42.63761		
0414	31N	52W	34	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	12-Jul-05	Three Crow		665-2509	Chance Galey											Never used just casing	W:103.42038	N:42.62012		
AW0415	31N	52W	28	Melvin Miller	660 4-Mile Rd.	Crawford	NE	69339	12-Jul-05	Three Crow		665-2509	Chance Galey	Well		200 ft.						Bell		Covered by a barrel	W:103.42721	N:42.62587		
0419	31N	53W	26	Nick Rudloff	314 4-Mile Rd.	Crawford	NE	69339	29-Jul-05	Three Row		665-2635	Chance Galey	Well							Pump Jack				W:103.50292	N:42.62578		
0420	30N	52W	11	Mike Griffin	13001 Hwy. 2	Crawford	NE	69339	02-Aug-05	Three Crow		665-1147	Chance Galey	Well		65 ft.	20 ft.		65 ft.	4 in.	Hand Pump		Steel		W:103.40147	N:42.59470		
0279AW	31N	52W	33	Melvin Miller	660 4-Mile Rd	Crawford	NE	69339	5-Nov-77	Three Crow		665-2509		Well		75					Windmill							
G-022460A	31N	52W	18	NG&PC		Lincoln	NE	68503	8-Jan-10	Three Crow			Mike Morava	Well	Agricultural	100	35	1-Aug-63		3 in.				Old Well	770W	2390S	Could not find well	
G-022460B	31N	52W	18	NG&PC		Lincoln	NE	68503	8-Jan-10	Three Crow			Mike Morava	Well	Agricultural	100	35	1-Aug-63		3 in.				Old Well	770W	2140S	Could not find well	
200450	31N	52W	16	NG&PC		Lincoln	NE	68503	8-Jan-10	Three Crow			Mike Morava	Well	Agricultural	110								Old Well	1759E	2438N	Well Plugged	
200443	31N	52W	17	NG&PC		Lincoln	NE	68503	8-Jan-10	Three Crow			Mike Morava	Well	Agricultural	100								Old Well	912E	1050N	Well Plugged	