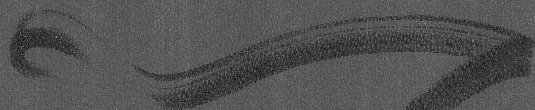


*Oil Seams*



UNITED STATES  
DEPARTMENT OF THE INTERIOR

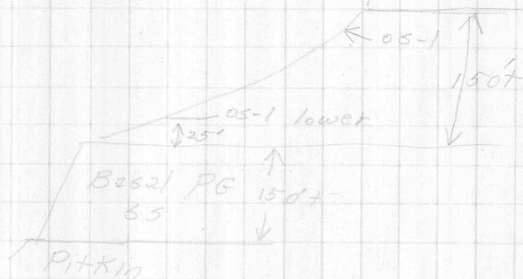
DI-6

APPROVED DECEMBER 1941

①

11-2-54

OS-1 Fissile black shale above  
basal Prairie Grove sandstone  
Upper PG 55



Location

C W $\frac{1}{2}$  sec 12, T 13 N, R 19 W  
Newton County, Arkansas

Medium-bedded slightly limy fine sandstone above this shale seems to grade into the shale.

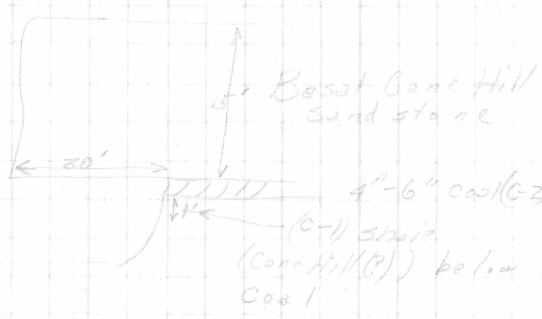
OS-1 upper is from about 40' below base of massive sandstone outcrop

(2)

11-13-54

C-1 #2

Shale and coal at Pitkin -  
Cone Hill contact.



C-1 is from upper 1' of a  
3' shale bed exposed below  
the coal bed - very likely  
Cone Hill as there seems to  
be more sand below it, but  
possibly this shale rests on  
the Pitkin - no basal  
conglomerate exposed.

Location:

Near NW corner sec 2,  
T. 14 N., R. 18 W. where  
Cone Hill - Pitkin contact  
crosses small gully @ 1370 +  
Searcy County, Arkansas.

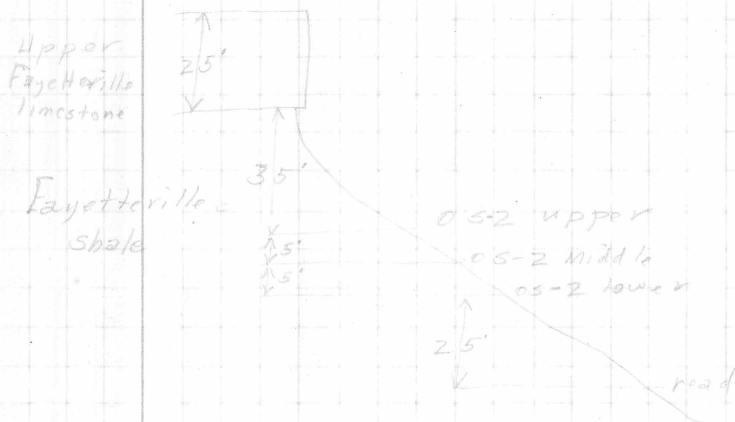
(3)

OS-2 - Upper, Middle, Lower

11-13-54

### Upper Fayetteville shale

Location - where new Forest Service road from Eula to Round Hill tower makes first sharp bend in cave just below upper Fayetteville limestone - probably in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec 4 T14N, R18W. Searcy County, Arkansas



OS-2 upper & lower are shale  
OS-2 upper is very limy

OS-2 middle is from a band of limestone concrete tests about 6" thick - some green oil and much black residue in vugs.



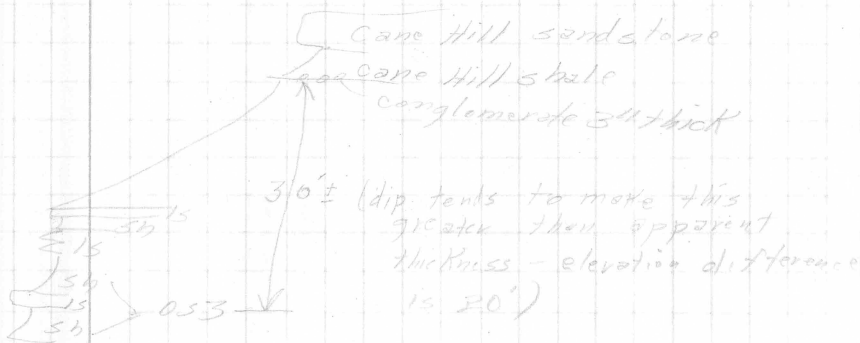
(4)

11-A-54

05-3

Upper Pitkin shale (2 bags)

In 20' exposure of interbedded  
limy shale and dark petroliferous  
limestone. This shale is  
weathered and more gray than  
black. Probably not an oil  
shale.



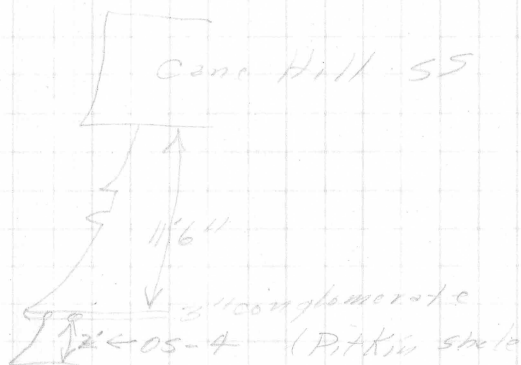
Location

NW 1/4 SE 1/4 sec 3, T13N, R17W,  
Searcy County, Arkansas

5

11-14-54

05-4 Uppermost Pitkin in Sulphur Springs Hollow. 2' of black shale directly under the Cane Hill conglomerate.

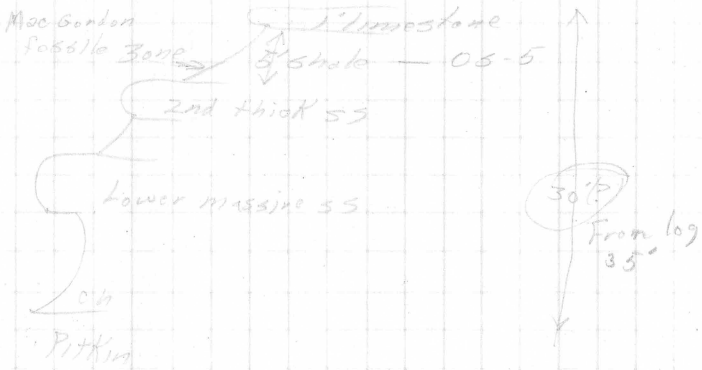


Location - SE  $\frac{1}{2}$  SE  $\frac{1}{4}$  sec. 3, T13N, R17W

(6)

11-14-54

OS-5 Lower Cane Hill shale  
Sulphur springs Hollow



Location

SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec 3, T13N, R17W

(7)

11-14-54

Cane Hill Ironstones

Collected from ironstone  
bands in black shale in  
lower 100' of cane Hill.  
Bands range in thickness  
from  $\frac{1}{2}$ " to 5"

SE  $\frac{1}{2}$  SE  $\frac{1}{2}$  sec 3 T13N, R17W

(8)

11-14-54

05-6 Cane Hill middle

Collected from thick exposure  
above most of the sandstone beds  
-- about 100' above base  
1' bed of sandstone above the  
exposure - this is first  
thick shale crop up stream from  
logging road

Location NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec 11, T13N, R17W

(9)

OS-7 Cane Hill upper

11-14-59

Samples from about 50'  
below base of Prairie-Grove  
in Sulphur Springs Hollow

Location NE $\frac{1}{4}$  NW $\frac{1}{4}$  sec 11, T 13N, R 17W



(10)

05-8 Boyd(?) shale

11-14-54

Outcrop is about 30' below the basal Atoka sandstone.  
Shale is hard, silty? probably not a good oil shale

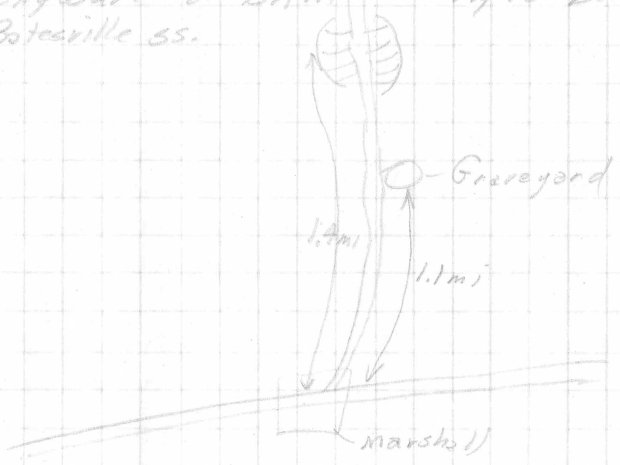
Location SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec 15, T 13 N, R 17 W

(11)

11-17-54

### OS-9 Ruddell Black shale

Collected in road cut on highway  
 State 27 1.4 mi north of 4565  
 and State 27 junction in Marshall  
 Black shale is in 2 3'-5' bands  
 in about the middle of a 25'  
 exposure of BRM -- Top 10' below  
 Bateaville ss.



Location: - NE  $\frac{1}{4}$  sec 30, T 15N, R 15W

(12)

05-10

11-16-54

Sample collected at top of Ferrvale -- just under thin wedge of Cason shale. Some manganese ore here and black material in sample may not be oil residue.

Location Near S.W. Corner Sec. 34,  
T. 14 N., R. 6 W.

This is at Wolford quarry. St. Clair limestone is being cut in upper part of quarry and Ferrvale in lower part. Not more than 2' of Cason between.

13

11-17-54

### 05-11 Everton oil seep

Location On Warren Keys farm  
NE 1/4 sec 36, T 18N, R 17W.  
(Marion County)



This seep is in the Everton dolomite and sandstone about 50' to 100' below the Everton-Boone contact. The seep or petrodiferous area covers 2 to 4 acres and seems to be throughout about 50' of section. Some thin sand layers in this are clean. Dolomite is too dense to be considered as only a path used by oil to reach the surface. Several pits - now

Everton is  
300'± thick  
Here  
See McKnight 1952

(over)

(14)

05-11 (cont)

filled with debris-- have been dug to 15'±. Keys (one-armed) (and 79 years old) says sandstone at bottom of pits contains material that will burn. Farm is leased and oil test is scheduled. Strong odor from all freshly broken dolomite, but not from petroliferous sand at surface.

(15)

11-18-54

OS-12 Atoka

Black Atoka shale from  
new highway out 5 miles  
northwest of Lurton on  
new highway State 7. This  
shale is probably about  
400' above the base of  
the Atoka formation

Location NW  $\frac{1}{4}$  Section 5, T13N, R20W  
Newton County, Ark.



(16)

05-13

11-18-54

Prairie Grove or Bloyd sandstone

This is the top sandstone  
in the Moore (Bloyd) measured  
section -- log is marked to  
show sand with carbonaceous  
residue

110' below Atoka base

SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec 23, T13N, R19W.)

(17)

05-14

Blond (?) shale

11-18-54

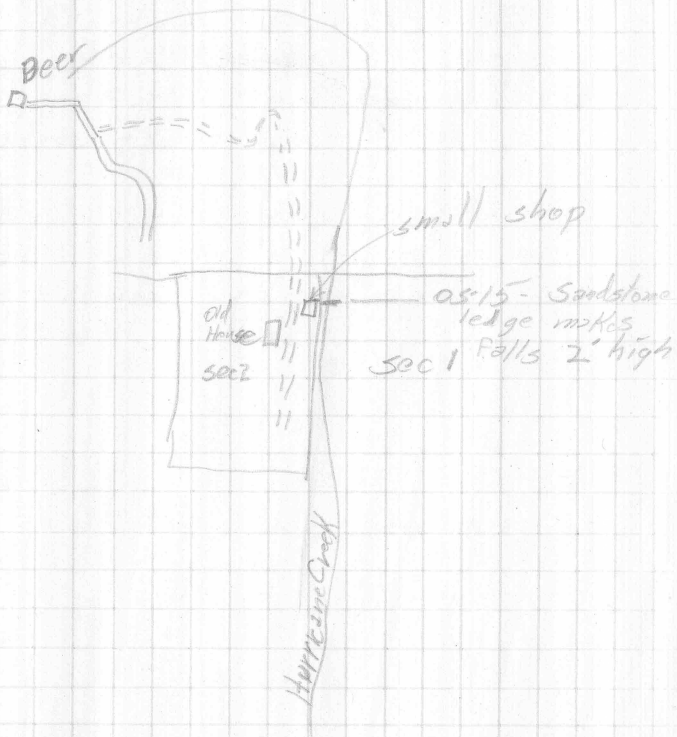
Black shale about 40'  
below the Atoka sandstone  
in the Moore section

NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  Sec 23, T 13N, R 19W.  
Newton County, Arkansas.

(18)

05-15 Basal Cone Hill sandstone 11-18-54

Location NW corner sec 1, T13N, R21W  
Elevation about 1430'



Carbonaceous residue only - -  
best residue is in 3"  
bed in 6" of water  
above falls. This is tighter  
and holds residue better.  
Joe Cowell of Deer (who went  
along) says some material  
taken from here burned.

(19)

11-19-54

OS-16 AtoKa

2' of shaley siltstone with  
oil residue streaks 90"  
above AtoKa base in new  
cut in Mc Elroy Gap - Mt. Jules  
Quadrangle.

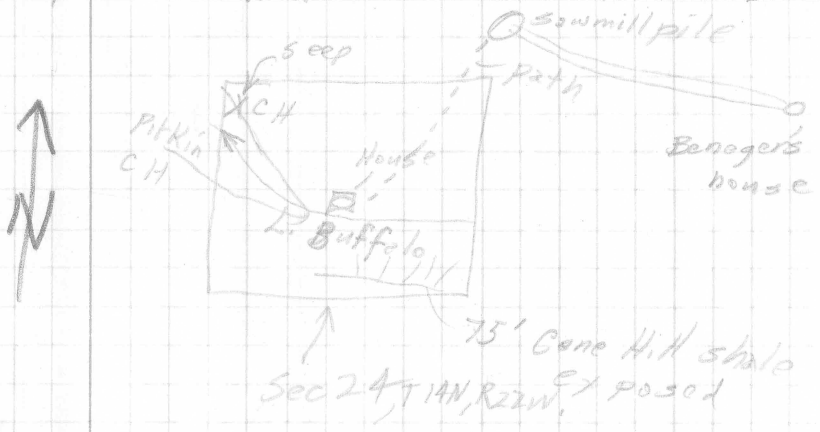
When cut was made this  
rock gave off strong  
petroleum odor - very little  
or none now.

SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec 26, T15N, R21W  
Newton County, Arkansas

(20)

11-19-54

OS-17 Cane Hill in L. Buffalo R. near Deer



Location NW 1/4 NW 1/4 Sec 24, T14N, R22W  
Newton County, Arkansas

Black tar on rocks will burn. Samples from seep furnished by Beneger -- only part of sample is from seep -- others were collected upstream at Pitkin-Cane Hill contact. Seep not located this time but could be found next time.

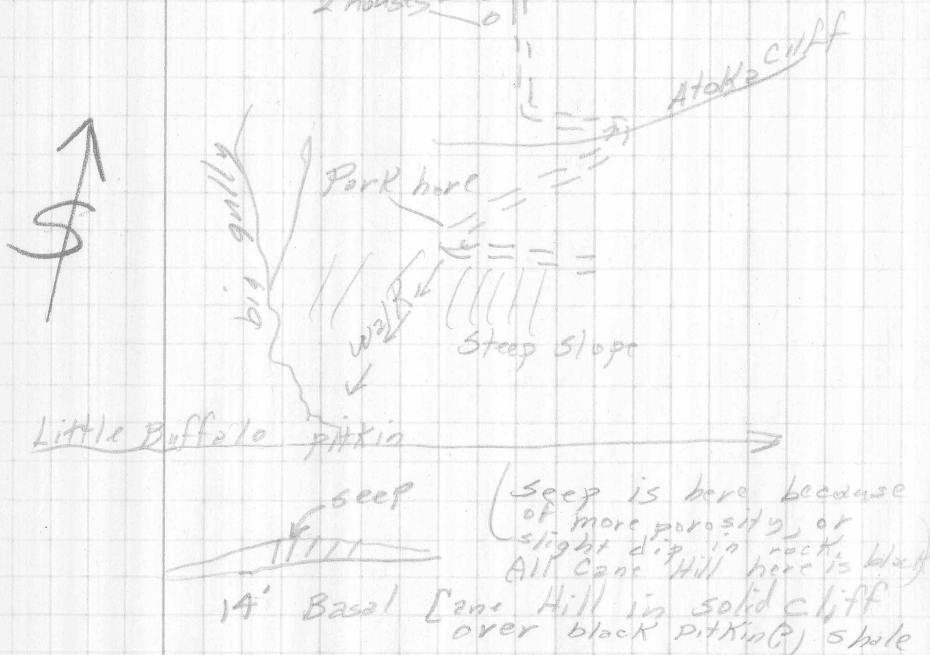
(See next page)

(21)

11-19-54

05-17 locality visited from other side of river road turns off state highway 16 1 mile west of Nail. Road not quite passable to river.

2 houses - 0 11



Lower half is black with residue but upper 7' is mostly leached Oil runs out as tar in creeks ~~to~~ beneath and in lower 2' of this massive sand. Massive sandstone slightly overhang the black shale



22

11-20, 54

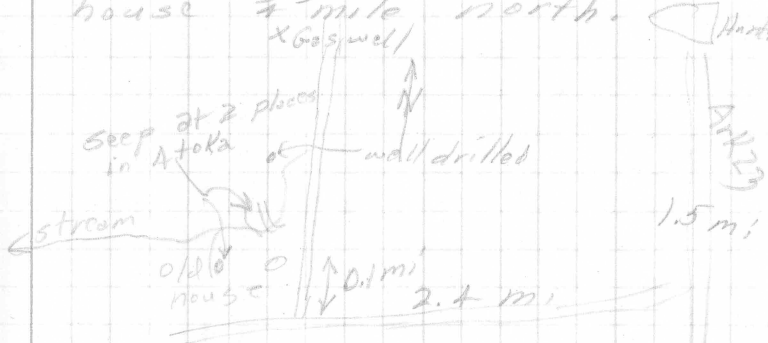
05-18

Basal Atoka

Madison Co, Ark

NE  $\frac{1}{4}$  SW  $\frac{1}{4}$ , sec 17, T16N, R26W

Outcrop visited with J. L. Hardy who lives in house  $\frac{1}{4}$  mile north. (Hardyville)



This crop is on south side of Horton anticline. Cross-bedding in basal Atoka dips west at about 35°. Most of Atoka here is saturated and oil seep is active.

Well drilled 150 yards back of seep hit 12' of oil sand @ 26' to top. Produced 2 to 3 gallons of oil per day. Well farther back bit only 6" of oil sand.

(23)

11-20-54

OS-19

Basal Atoka

NE  $\frac{1}{4}$  sec 35, T 17N, R 26W.  
Madison Co., Arkansas.

3'+ medium to thick  
bedded sandstone directly over  
Bloyd(?) shale is black.  
No seep but heavy residue

(See Brewster's notes)

(24)

11-20-54

05-20 Hindsville (?) (Basal BRM cong)

1 1/2 miles N. Goshop, West. Co  
on Hwy 45

Dark Hindsville (?) limestone  
in cut on north side  
of road (sawmill directly  
above outcrop). Much  
Boone chert conglomerate  
in this limestone. Best  
residue is near base of  
crop.

This is post-Boone Conglomerate  
and probably rests directly on  
boone - crops are poor -  
looks as if Batesville  
sandstone and perhaps some  
dark shale overlies it.

Location SE corner Sec 21, T17N, R. 28W.

(25)

11-20-54

05-21 Boone (Limestone near top)

1.2 north of Gashen  
on north side of Hwy 45.

Crop of petroliiferous  
limestone in ditch is  
100 yards long - - all  
thoroughly impregnated - especially  
along stylolites. Boone  
rubble overlies this crop.

Location

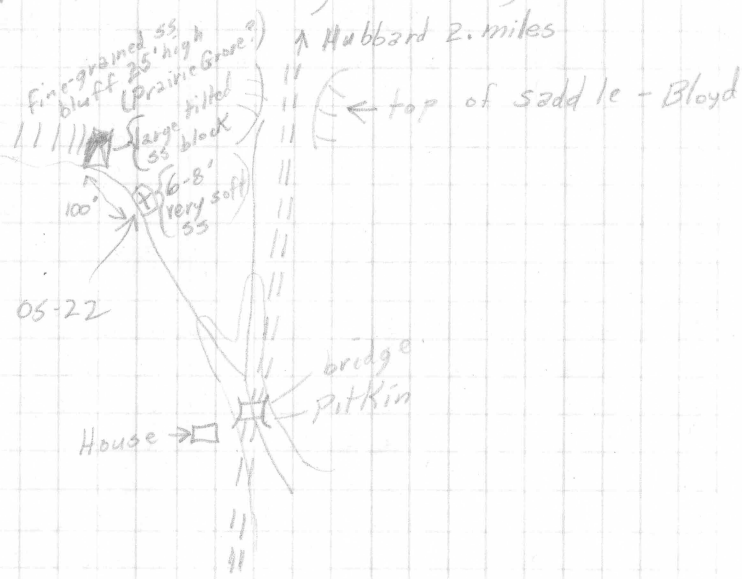
SE $\frac{1}{4}$  sec 28, T17N, R28W  
Washington Co., Arkansas

(26)

11-20-54

05-22 Prairie Grove (?)

NW  $\frac{1}{4}$  Sec. 24, T. 14 N., R. 32 W.



This seep (?) showed no indications - odor, staining, ter, etc - when visited. Seems to fit description given by Brewster but no oil apparent. Either this oil is colorless or wrong outcrop was visited.

(27)

2-15-53

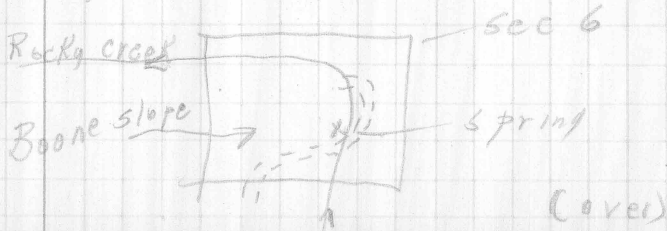
05-23 Oil & residue in vugs in  
the St. Clair limestone

SE  $\frac{1}{4}$  Sec 6, T 15N, R 15W.  
(from county Hwy map)  
Searcy Co., Ark.

Owner: Phillip Young

Above spring on west side  
of rocky creek.

Spring was cleaned out 2 or 3  
years ago and St. Clair  
limestone was blasted out  
in large chunks. Fresh  
breaks in the limestone cut  
across calcite lined vugs as  
much as 1" in diameter. Most  
vugs contain ~~water~~  
petroliferous residue -- some  
with petroleum odor when  
fresh. At time of blasting  
some vugs contained liquid  
petroleum. None of the  
liquid was seen this time





(28)

(05-23 cont) St Clair is directly overlain by 1'± B.M.S.S. Gason shale -- very dark -- was dug out of another spring  $\frac{1}{4}$  mile downstream and probably underlies this St. Clair Limestone exposed in the main stream just below the spring is Silurian but may be Brassfield -- it is rather dense and looks much like St. Joe limestone.

(29)

2-16-55

05-24 Pitkin limestone w/ petroleum residue  
SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec 29 T. 15N, R. 21W.  
(See Easton, p. 40) Newton Co, Ark  
About N 60 E of Cool Hill Church

Oolitic Pitkin limestone contains petroleum residue in and around oolites. streaks of residue indicate some porosity. Slight odor and may be some liquid.

Pitkin base not seen, but Pitkin is about 100' thick (Easton says 114). Sample collected from upper 10' of limestone. Some parts of the limestone are too weathered to show residue and some is a bit too tight, but most of upper 10' contains some residue.

Overlain by basal case Hill sandstone (very fine grained and no apparent conglomerate) which also contains asphaltic residue -- sec 05-25

(30)

2-16-55

05-25 Basal Cane Hill sandstone  
(Directly above 05-24)

Most of this sandstone is too weathered to show residue. Lower 5'± in one outcrop is not too weathered and is block with asphaltic residue. No odor noted. Some bedding planes may have slightly more tar-like residue -- indicating this could have been a slight seep not too long ago.

05-26

2-17-55

Hindsville limestone

Stubblefield Farm

SE  $\frac{1}{4}$  SEC 25, T17N, R30W.

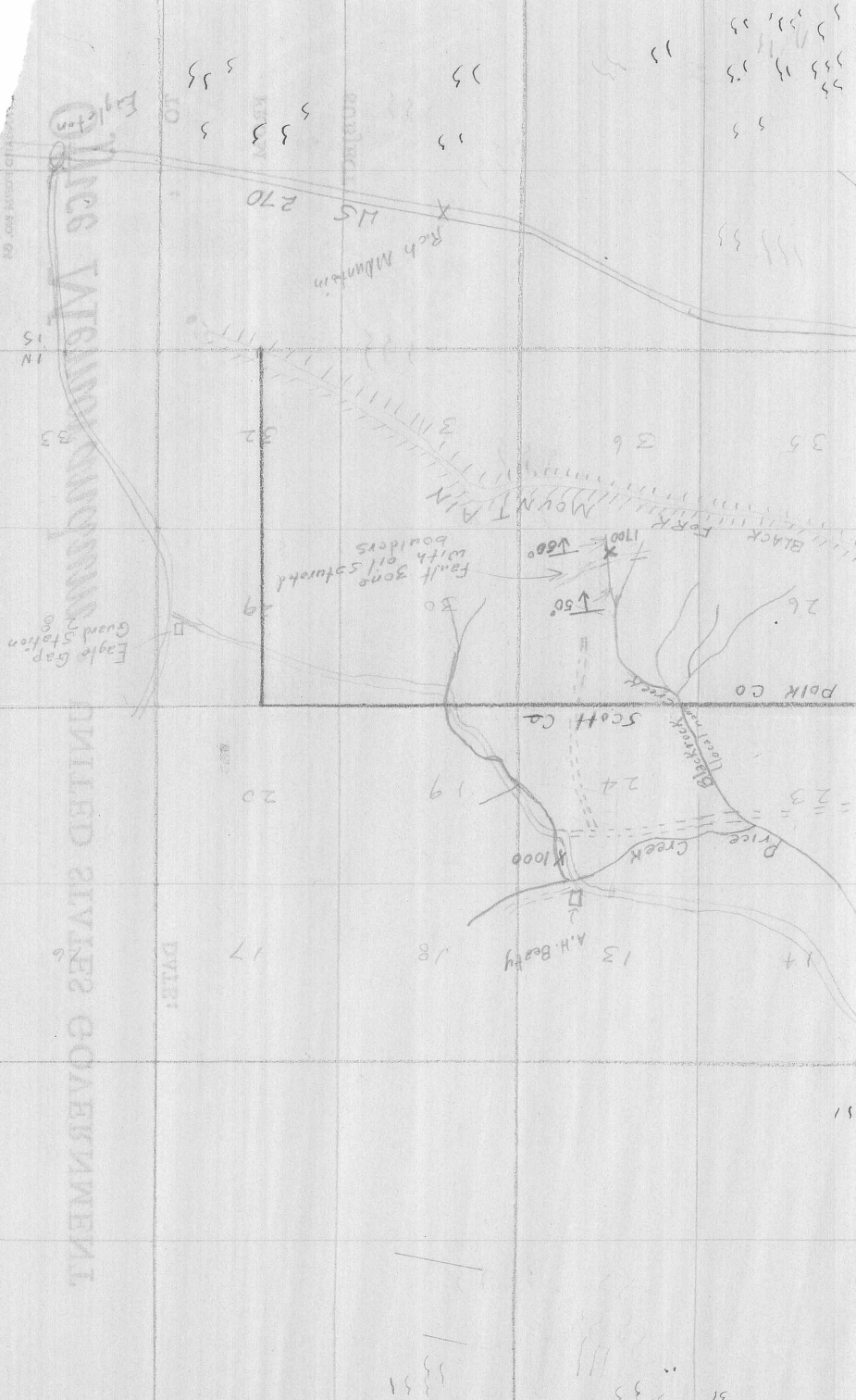
Washington Co., Arkansas

Oolitic limestone has petroliferous odor. Oil staining (not too good) seen on earlier trip in the Hindsville conglomerate was not found this time.

25 009 North Carolina

Price Memorial **UNITED STATES GOVERNMENT**

DATE:

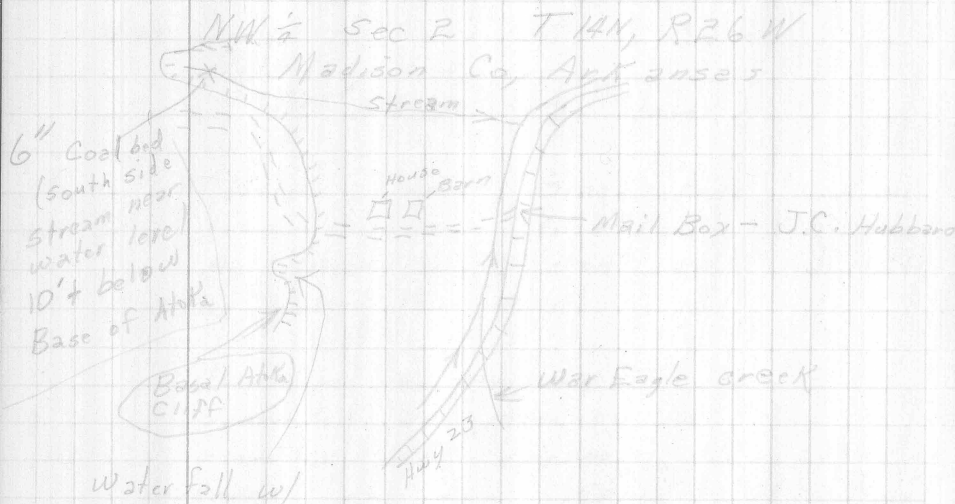


31 35 35

(31)

R-17-55

C-3 Bloyd (?) coal



Water fall w/  
Atoka sandstone (fine grained)  
resting on 8' or more of  
Bloyd limestone (Kessler?)  
Base of limestone is conglomeratic  
and contains many brachiopods

Coal underlies conglomeratic f-c  
grained sandstone (basal Kessler??)  
or could be basal Atoka conglomerate,  
but not likely. Overlies very  
fine grained sandstone or hard  
siltstone. About 2" of black  
shale underlies coal and trace  
of shale overlies it.



(32)

2-18-55

05-27 Oil saturated <sup>sandstone</sup> boulders in fault zone  
of S.  $\frac{1}{2}$

Near Conn Sec 25, T1N, R 32W  
Polk Co, Arkansas.  
100' above road level

Charlie Davis, Black Fork, Arkansas  
showed outcrop locality. Accompanied  
by Charlie Davis' son and Art. Beely  
of Black Fork, Ark.

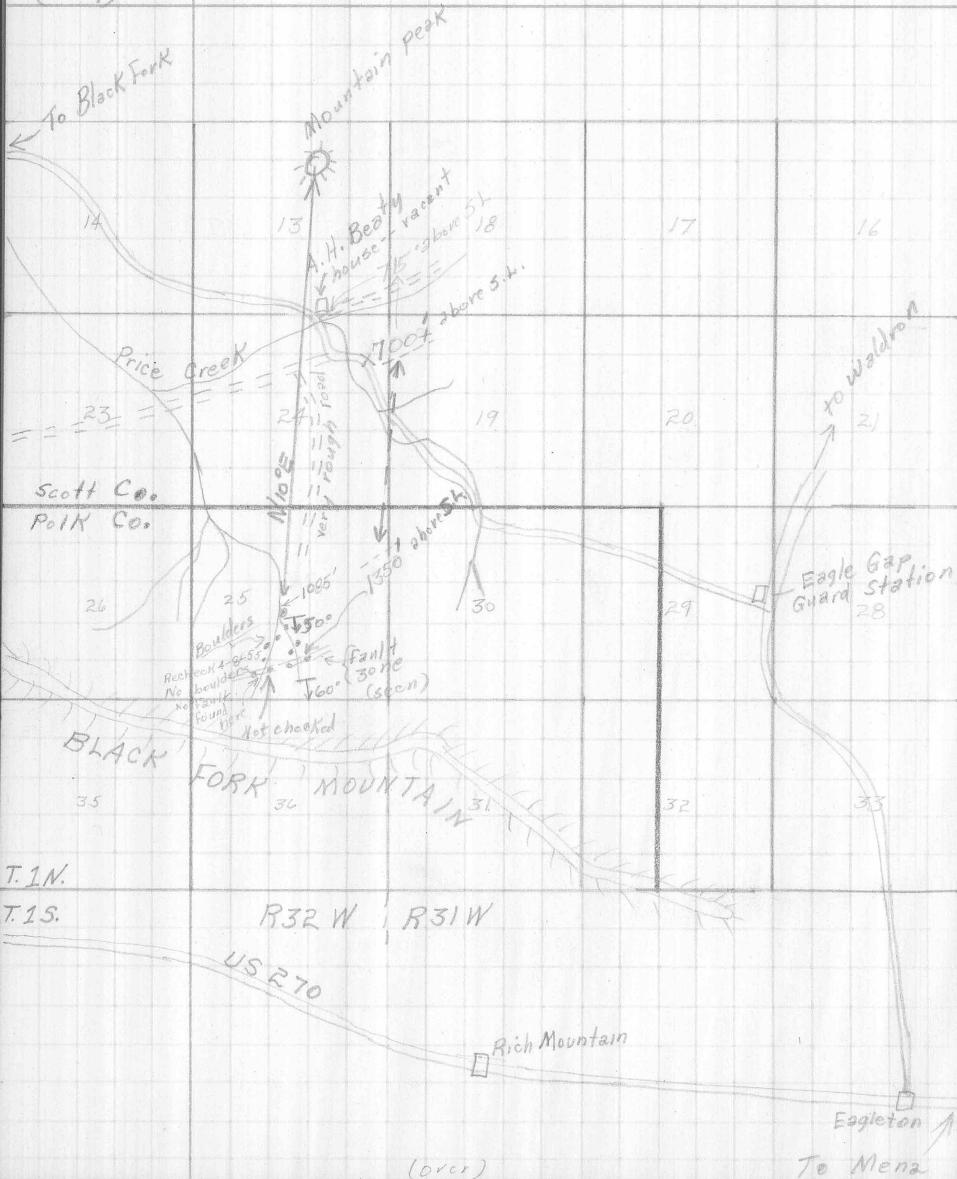
Boulders as much as 3' in  
diameter are present in two  
branches of stream -- Blackfork  
Creek is local name but may  
be called Price Creek, to  
which it is a tributary --  
but only eastern branch was  
investigated.

Outcrops of sandstone in the  
area are hard -- siliceous -- but  
the black oil saturated boulders  
are easily broken. No liquid  
oil noted, but slight odor  
from some boulders.

Fault zone is 100' + wide  
and contains boulders in  
slickensided shale. Only sandstone  
boulders noted and all contain oil residue  
(over)

33

05-27  
(cont)



(over)

(34)

05-27 (cont.)

Aerial photos of this vicinity may  
be in:

Scott Co #6

U.S. Department of Agriculture

Symbol CQU - USDA 8965 Item #8

Flying completed - 10-13-40

Index copied - 10-24-40

Edgar Topin Aerial Survey



J. L. Hardy  
Rt 6  
Huntsville Ark,

Pre A to K<sub>2</sub> map  
Snowbell quad.

Sutton & Sutton operators  
as proposed near Huntsville

---

Charlie Davis

AH Beety

Black Fork, Ark.