

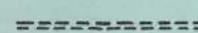















APPENDIX III

The following Site Data Forms are designated as Open Sites; Sampled. The sites described herein are depicted on the county materials maps as a " O ".

LEGEND

	Fence		Farm site
	Trail or lane		Open materials site
	Railroad		Prospective materials site
	Road		Center of section
	Hedge or trees		Cemetery
	Major streams		School
	Intermittent streams		Church
	Pond or lake		Town or city

MATERIAL SURVEY REPORT

SG+103

Site No. Qm Date April, 1963
 Material Sand and Gravel County Ellis
 Location NW $\frac{1}{4}$, NW $\frac{1}{4}$ Sec. 34 Twp. 15S Range 16W
 Owner Sarah Gorham Foster address Gorham, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

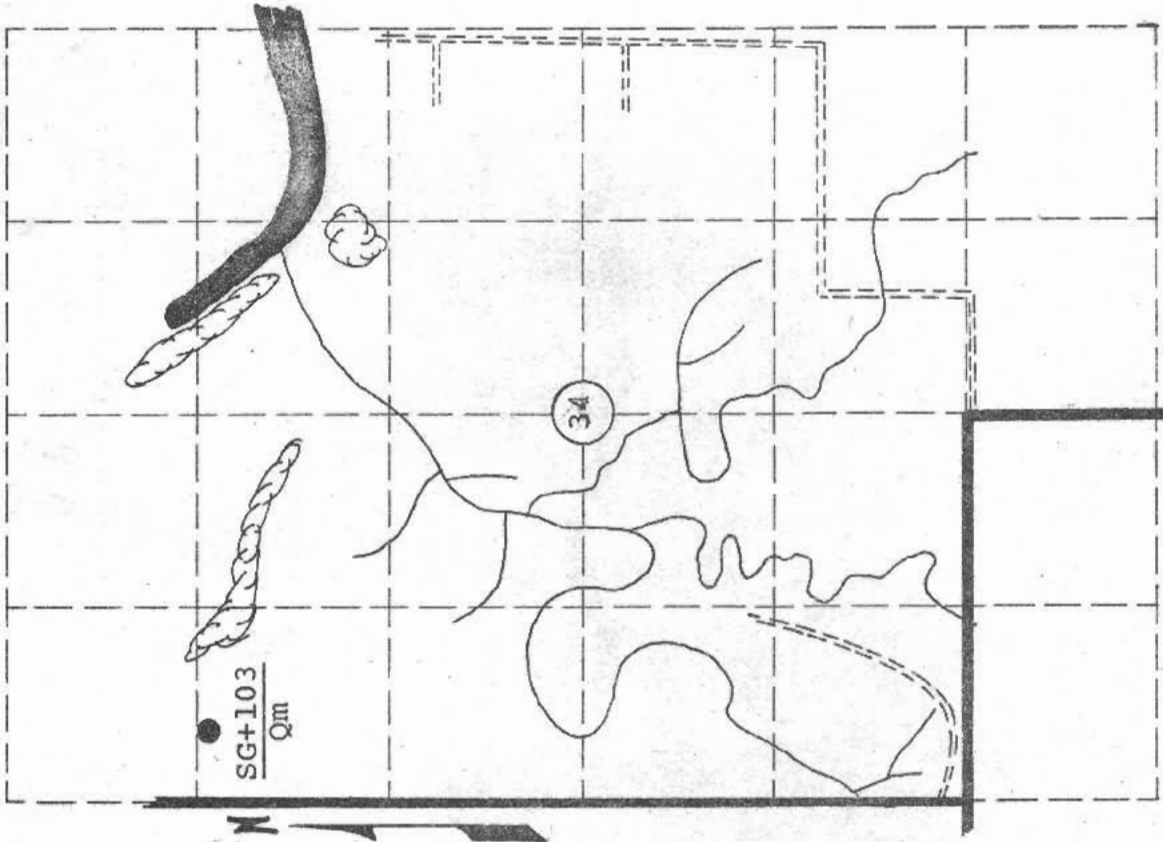
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.	
				1/2	3/4	3/8	5/8	100					
USGS		4	12		5	12	45		97	2			
SHC		4	11		2	6	14	32	57	81	93	97	2

AV.

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar to material reported on SHC Form 619, No. 26-6 and in USGS Ellis County Report Site No. Ma9.
 Specific Gravity (Sat.) 2.61 (Dry)
 Los Angeles Near (Grading D) 42.2
 Absorption 0.93
 Mt. Cu.Ft. 110 lbs. Str. Ratio
 Remarks Estimated quantity - 40,000 cubic yards.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

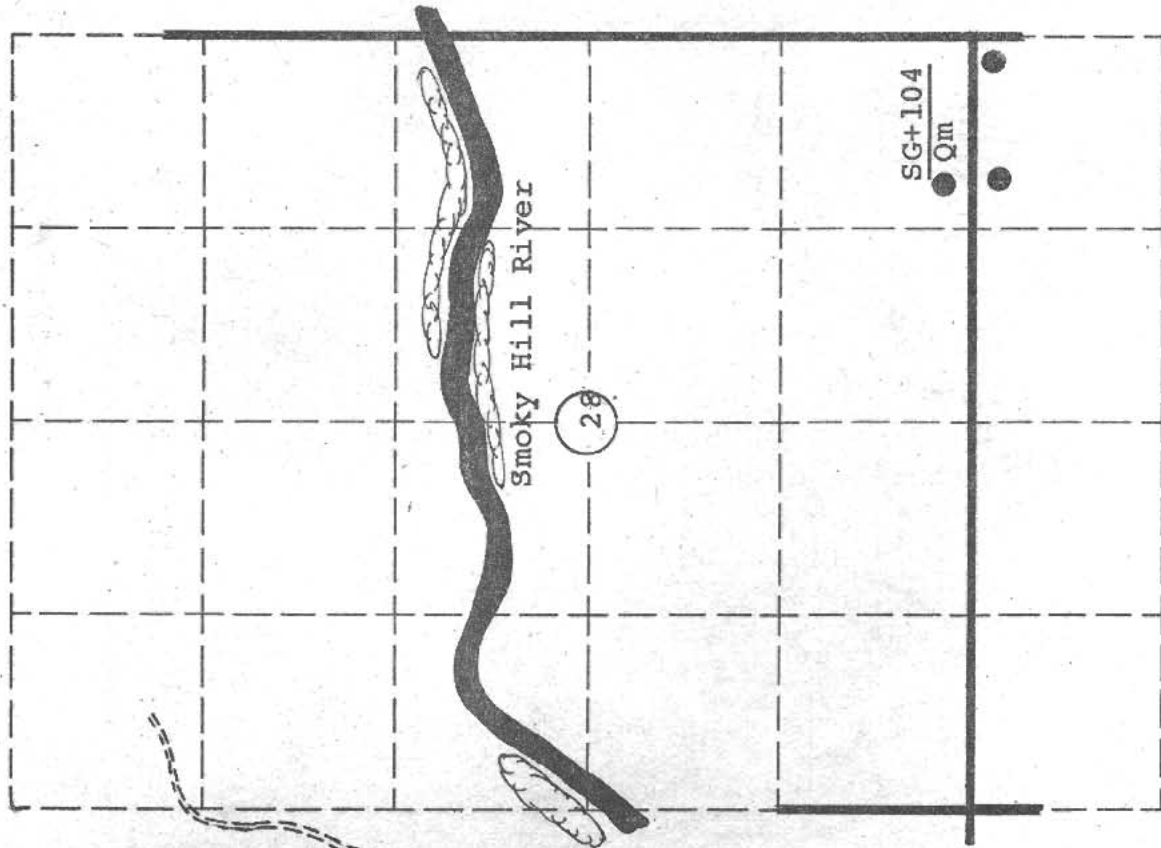
SG+104

Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 SE 1/4 Sec. 28 Twp. 15S Range 16W
 Owner Martin A. Basgall 500 W. 15th Hays, Kansas
 address
 Nature of Deposit DRY Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.I.			
				1/2	3/4	1	2	4	8					16	30	50
SHC				0	2	9	17	36	57	79	93	97	3.90			

AV.



Date Tested: 6-53

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 79221
 Specific Gravity (Sat.) 2.61 (Dry)
 Los Angeles Wear Grading "D" 34.0
 Absorption _____ Soundness _____
 Wt. Cu.Ft. 117.7 lbs. Str. Ratio _____
 Remarks This material is a sand and gravel resulting from the natural disintegration of siliceous and calcareous rocks.

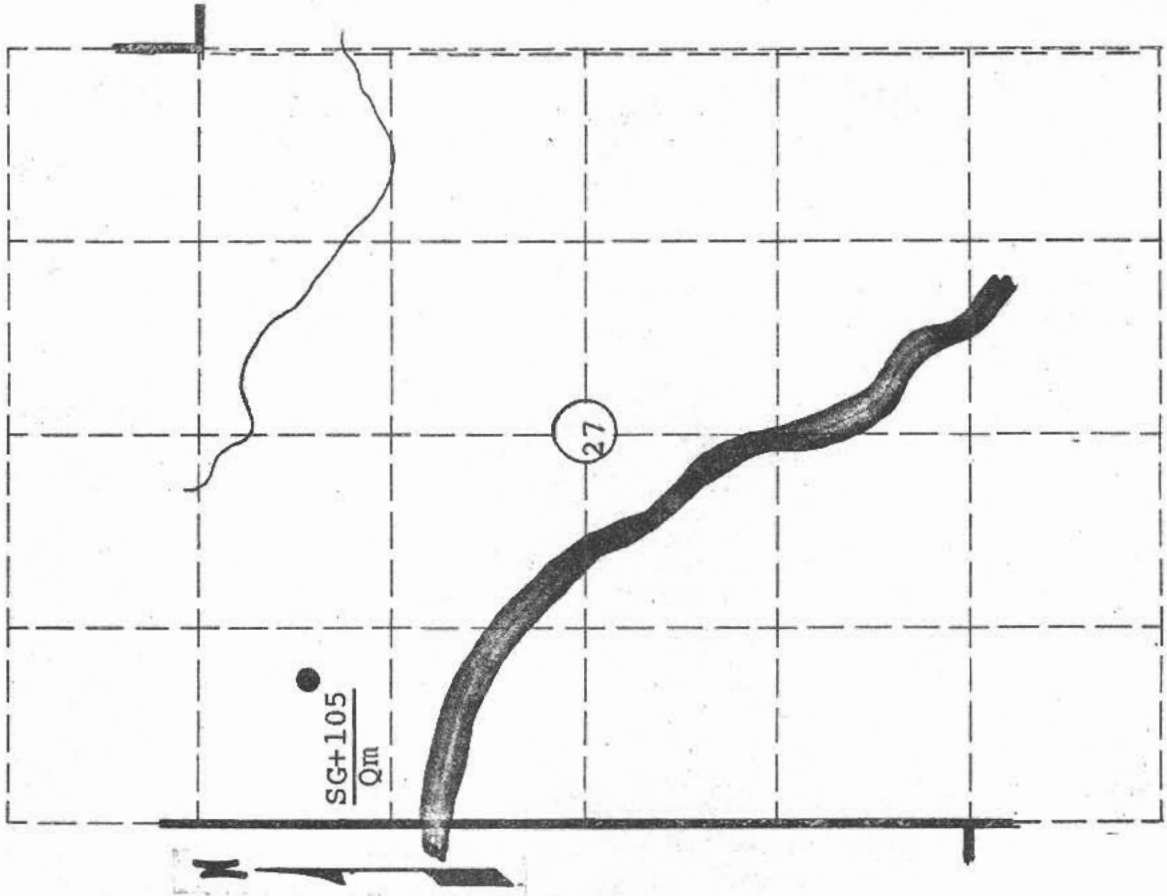
MATERIAL SURVEY REPORT

Site No. SG+105 Date April 1963
 Material Sand and Gravel County Ellis
 Location NW 1/4 NW 1/4 Sec. 27 Twp. 15S Range 16W
 Owner Sarah Gorham Foster Estate Gorham, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Mash 200	G.F.	L.L.	P.I.			
				1/2	3/4	3/8	4	6	15	30					50	100	
USGS		2	5-7			1	3			17			94	3			
SHC		1	5			3	8	24	52	78	93	97	2				

AV.



Scale: 1" = 1/4 Mile

Date Tested: 1-46

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-5 and in USGS Ellis Co. Report site No. Fa-8
 Specific Gravity (Sat.) 2.62 (Dry)
 Los Angeles Near Grading "D" 39.7
 Absorption 0.96
 Wt. Cu.Ft. 113 lbs. Str. Ratio _____
 Remarks _____

MATERIAL SURVEY REPORT

Site No. FS-106
Om Date April 1963
 Material Fine Sand County Ellis
 Location SW 1/4 NW 1/4 Sec. 31 Twp. 15S Range 16W
 Owner Frank Dome name Pfeifer, Kansas address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

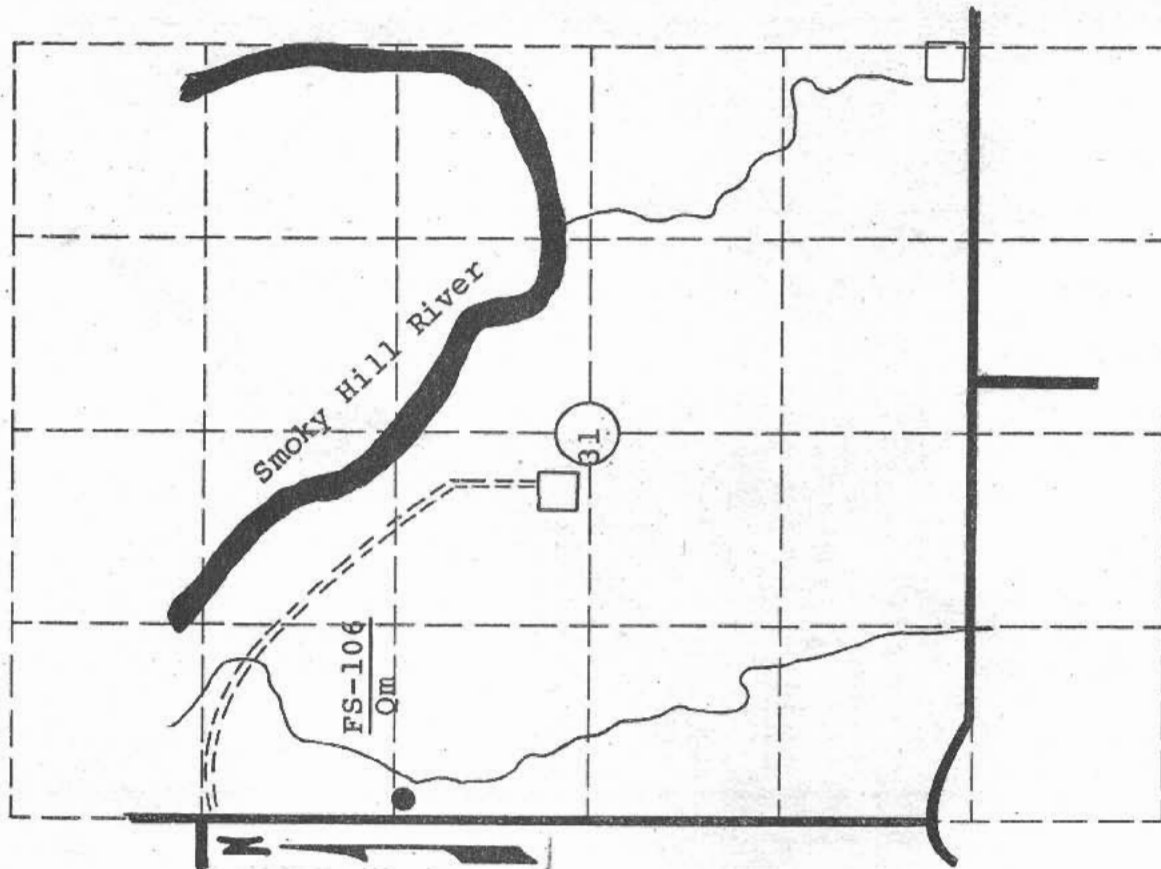
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.L.				
				1 1/2	3/4	3/8	4	8	16					30	50	100	
USGS		2	2-8				4		10			98					

CORRELATION DATA

Date Tested: 2-47

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported in USGS Ellis Co.
 Report Site No. Fa9
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Mt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 2,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

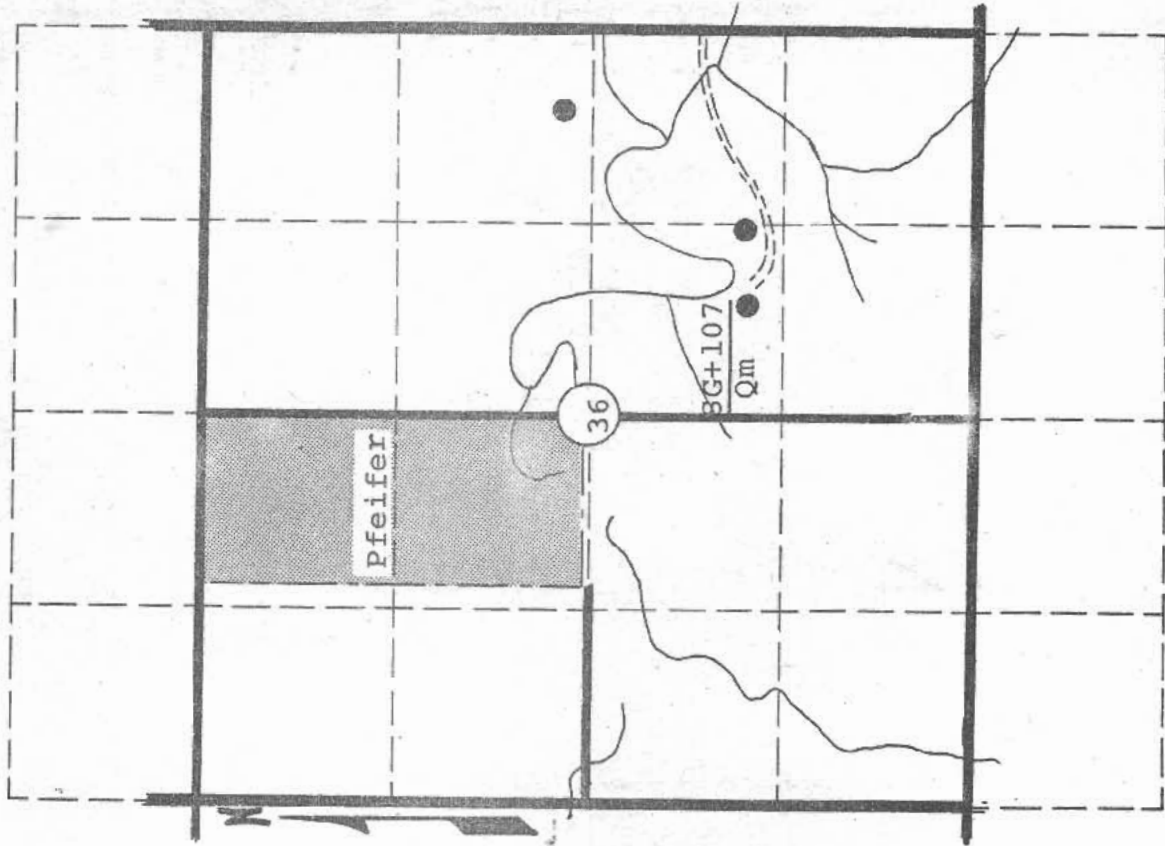
SG+107

Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 Sec. 36 Twp. 15S Range 17W
 Owner Adam Kisner Pfeifer, Kansas
 address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.	
				1/2	3/4	1	3/8	1/2	3/4	1					
SHC	4	8	2	4	1024	4970	9297								

AV.



Scale: 1" = 1/4 Mile

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-33
 Specific Gravity (Sat.) 2.62 (Dry) _____
 Los Angeles Wear Grading "D" 34.3
 Absorption _____ Soundness 0.99
 Mt. Cu.ft. 113.8 lbs. Str. Ratio _____
 Remarks Estimated quantity 40,000 cu. yds.

MATERIAL SURVEY REPORT

Site No. SG-108
Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location NE 1/4 SE 1/4 Sec. 26 Twp. 15S Range 17W
 Owner John R. Roth name Pfeifer, Kansas address
 Nature of Deposit DRY Accessibility Good
 Status of Site Open site; sampled

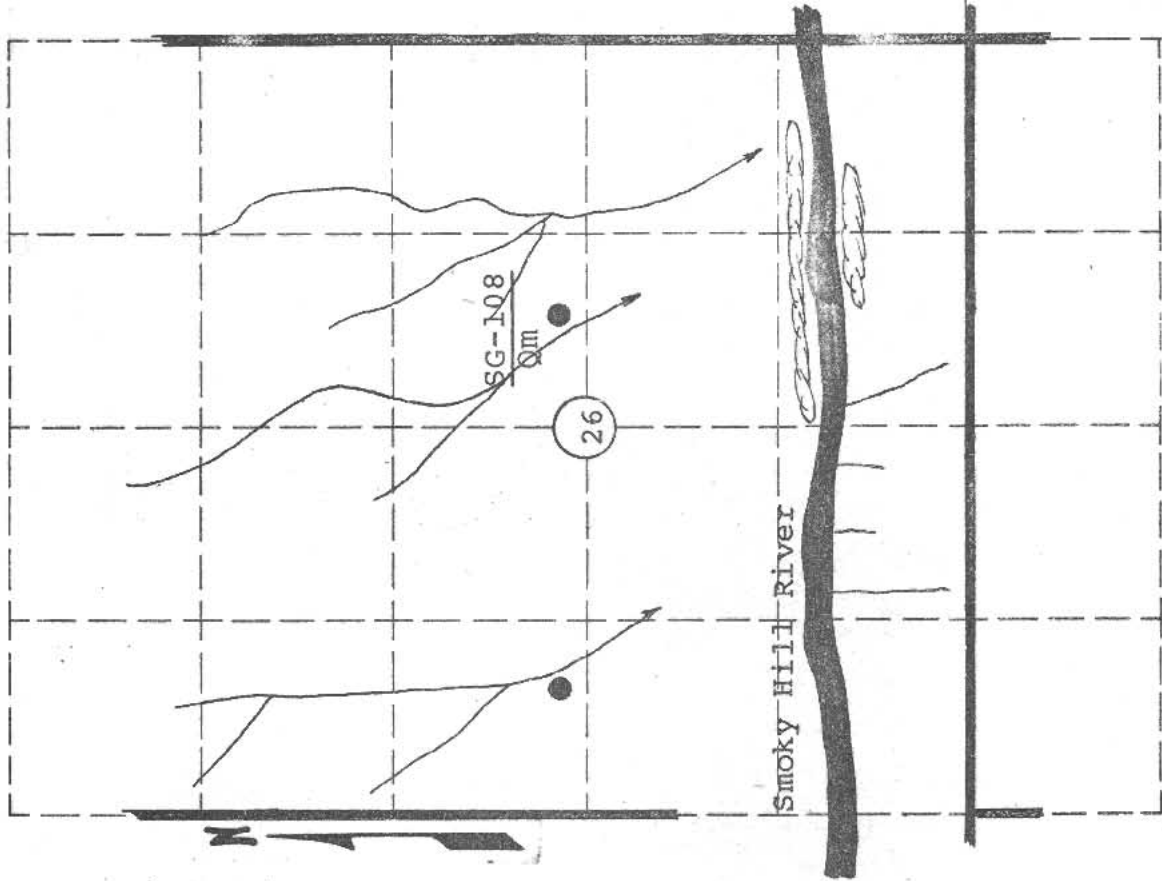
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.			
				1/2	3/4	3/8	4	8	16	30					50	100	
USGS		1-3	6	12	20	34					98						

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar to Material reported in USGS Ellis Co. Report Site No. Ma-10
 Specific Gravity (Sat.) (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu.ft. _____ Str. Ratio _____
 Remarks Estimated quantity 1000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

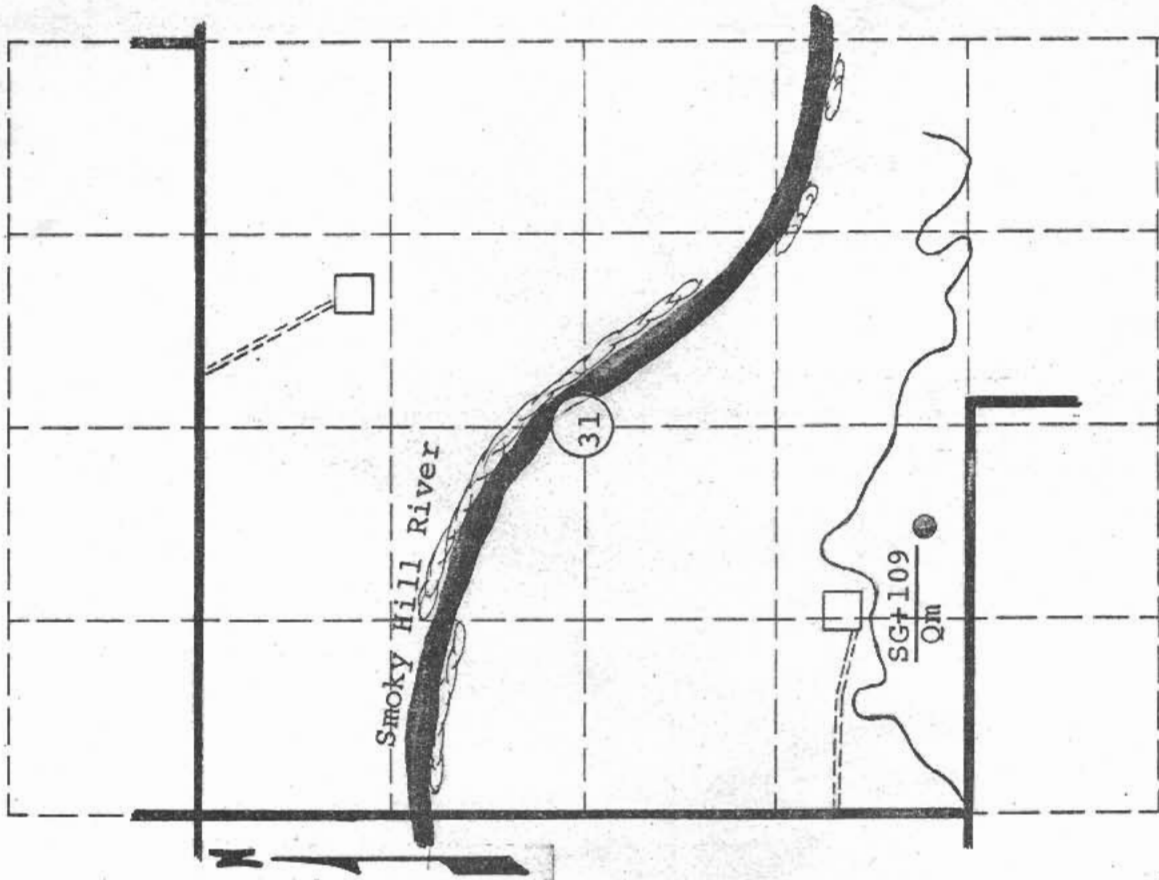
Site No. SG+109
Qm
 Material Sand and Gravel
 Location SE 1/4 SW 1/4 Sec. 31 Twp. 15S Range 17W
 County Ellis
 Owner Caroline Zimmer address LaCrosse, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.L.
				1/2	3/4	3/8	8	16				
USGS		3	5	12	21	57	100					

CORRELATION DATA Date Tested: 2-47

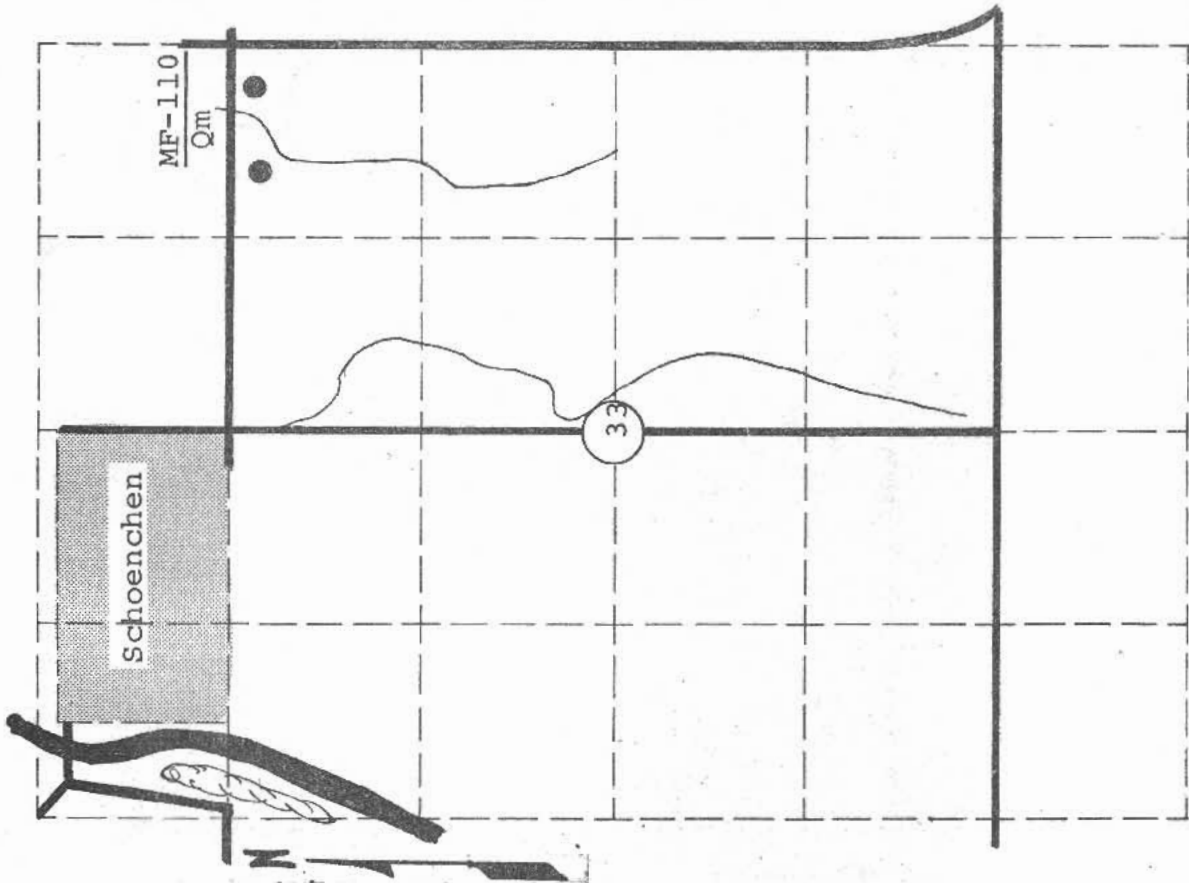
Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar to Material reported in USGS Ellis Co.
Report Site No. MA-11
 Specific Gravity (Sat.) (Dry)
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Wt. Cu.ft. _____ Str. Ratio _____
 Remarks Estimated quantity 1,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. MF-110 Date April 1963
Qm
 Material Mineral Filler County Ellis
 Location NE 1/4 Sec. 33 Twp. 15S Range 18W
 Owner Adolph Werth Schoenchen, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled



EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	3/8	1/4	3/16	1/8				
AV SHC		0.5				0	7	18	79		26	5	

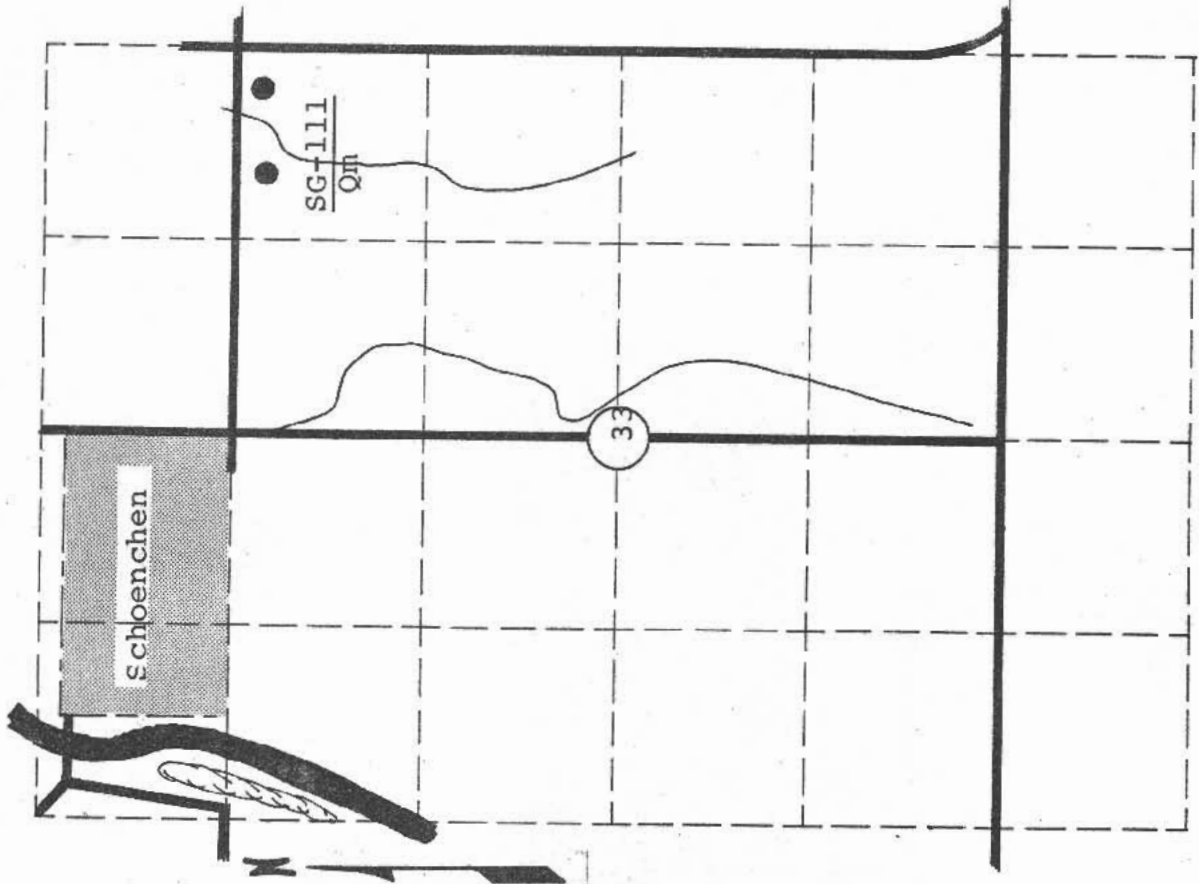
CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-28A
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Mt. Cu.ft. _____ Str. Ratio _____
 Remarks Estimated quantity 5,000 cu. yds.

Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG-111
 Site No. Om Date April 1963
 Material Sand and Gravel County Ellis
 Location NE 1/4 Sec. 33 Twp. 15S Range 18W
 Owner Adolph Werth Schoenchen, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled



Scale: 1" = 1/4 Mile

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.		
				1 1/2	3/4	3/8	4	8	16	30					50	100
SHC		4	6+	3	7	14	33	60	82	98	99	1	4.12			

AV.

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-28
 Specific Gravity (sat.) 2.60 (Dry) _____
 Los Angeles Wear Grading "D" 32.0
 Absorption _____ Soundness 0.95
 Wt. Cu.Ft. 118.3 lbs. Str. Ratio 1-day 1.82, 3-day
 Remarks Estimated quantity 1.64
9,000 cu. yds.

MATERIAL SURVEY REPORT

SG-112

Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 Sec. 29 Twp. 15S Range 18W
 Owner Magdalena Werth Rte. 1, Hays, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.					
				1/2	3/4	3/8	4	8					16	30	50	100	
USGS		3	7			1016		56		97	1						
SHC		3	7		5	816	3359	8096	97	2	3.94						

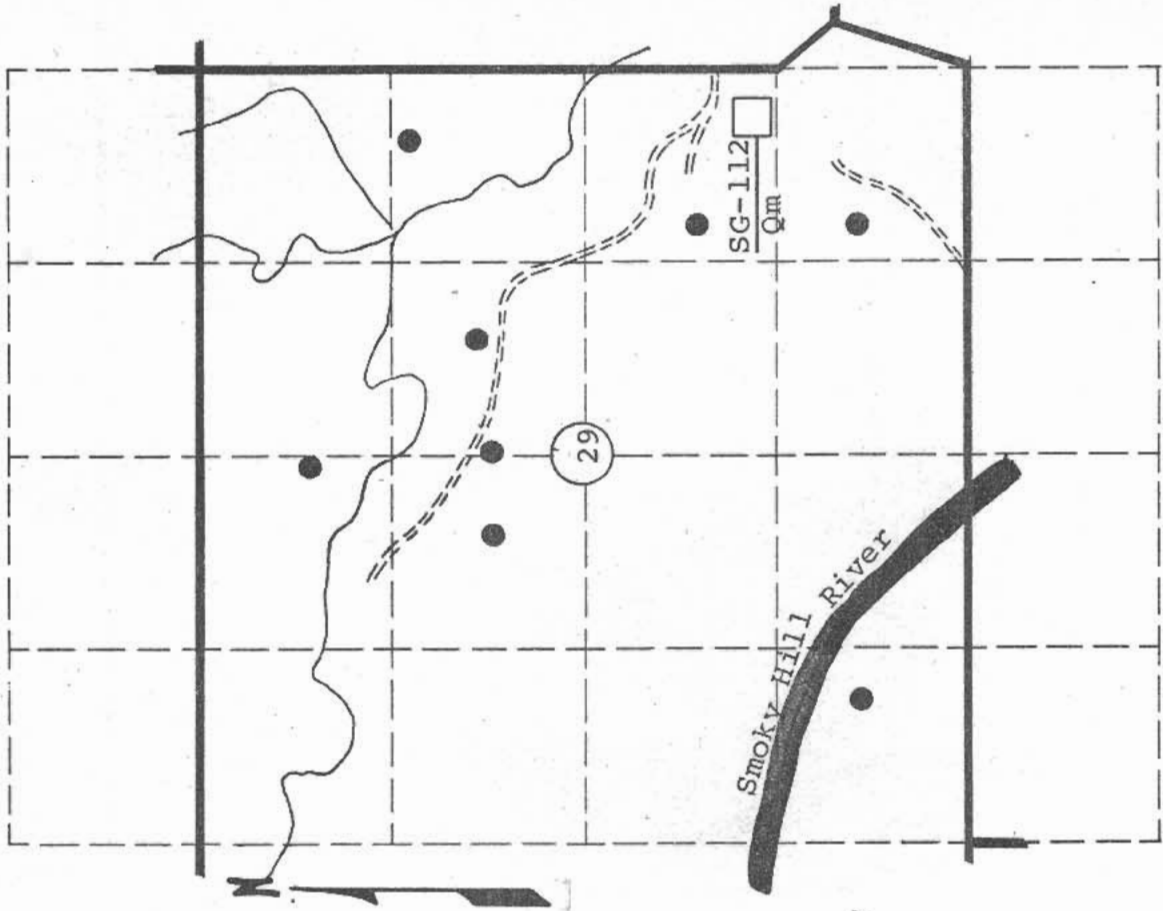
AV.

Date Tested: 1-46

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material similar to Material reported on SHC Form 216, No. 26-7
and in USGS Ellis Co. Report Site No. Mal3

Specific Gravity (Sat.) 2.62 (Dry)
 Los Angeles Wear Grading "D" 36.3
 Absorption 0.97
 Wt. Cu.ft. 115 lbs. Str. Ratio
 Remarks Estimated quantity 8,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

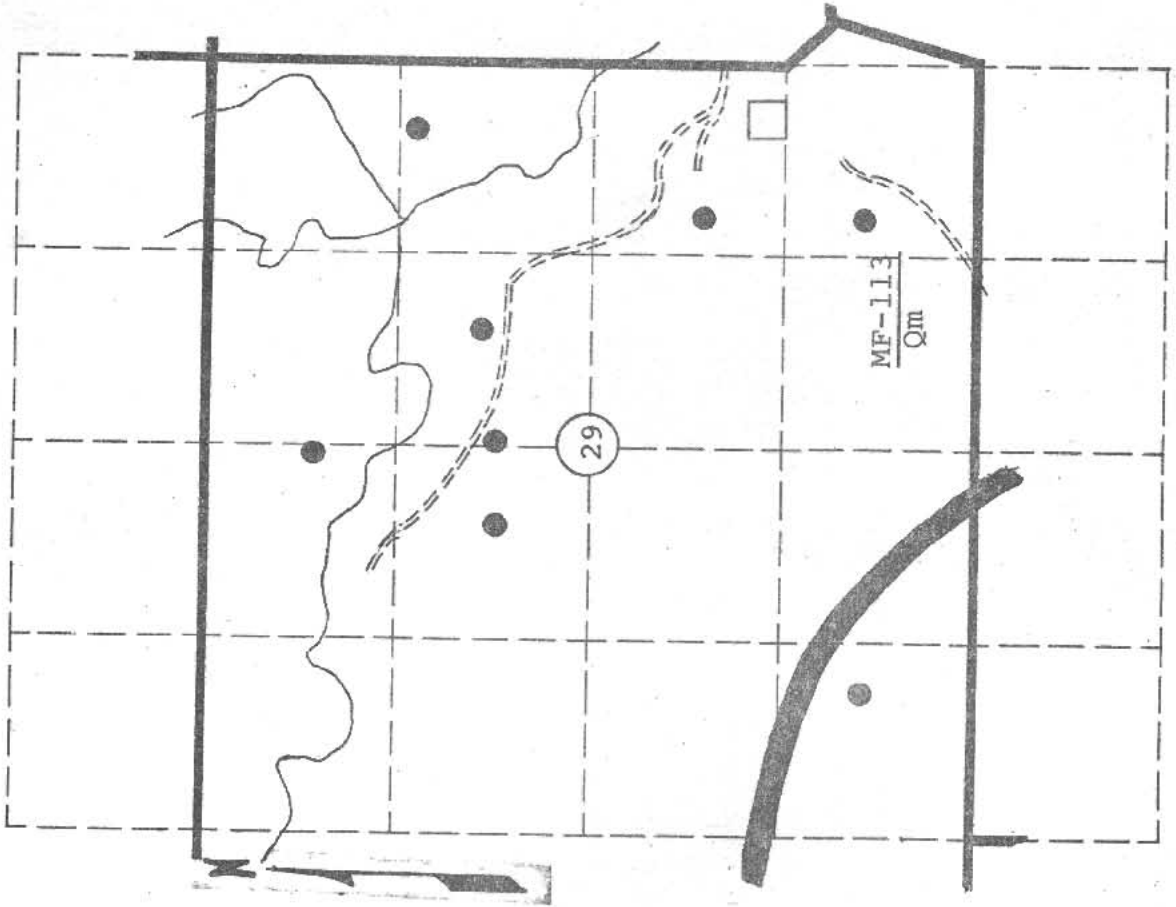
Site No. MF-113
Qm Date April 1963
 Material Mineral Filler County Ellis
 Location SE 1/4 Sec. 29 Twp. 15S Range 18W
 Owner Magdalena Werth Rte. 1, Hays, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Mesh 200	S.F.	L.L.	P.I.			
				1/2	3/4	3/8	4	8	16	30					50	100	
AV. SHC		3	5				2	3	7	17	29	38	56				

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26.9 and No. 26.7
 Specific Gravity (Sat.) (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu.Ft. 88 lbs. Str. Ratio _____
 Remarks Estimated quantity 3,500 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG+114

Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location NW 1/4 Sec. 31 Twp. 15S Range 18W
 Owner A. A. Wiesner Hays, Kansas address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

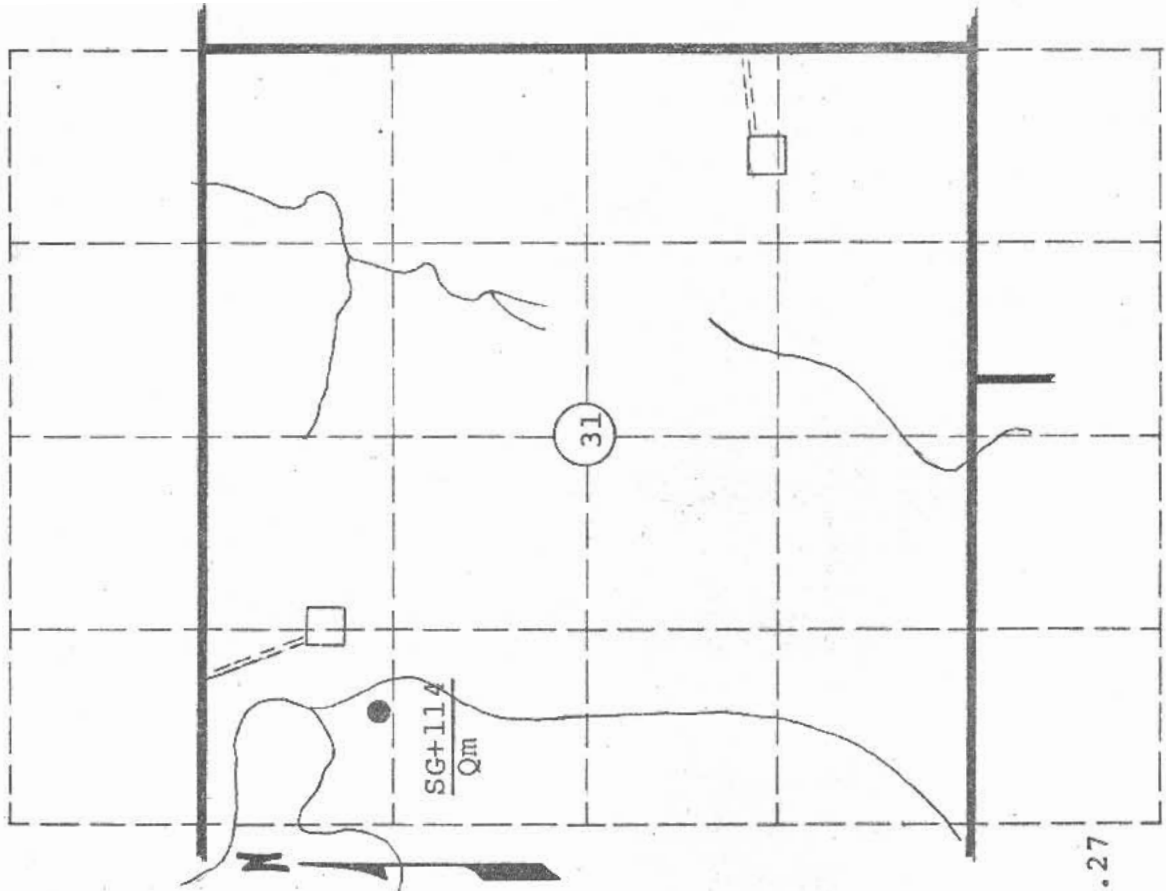
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.I.			
				1 1/2	3/4	3/8	1/4	1/8	16					30	50	100
SHC		4	8	1	2	5	17	43	73	95	98	2	3.34			

AV.

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-32 and USGS Ellis Co. Report Site No. Ma14
 Specific Gravity (Sat.) 2.60 (Dry)
 Los Angeles Wear Grading "D" 34.5
 Absorption 0.94
 Wt. Cu.ft. 112.0 lbs. Str. Ratio 1-day 1.36, 3-days 1.27
 Remarks Estimated quantity 35,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG-115
Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 NE 1/4 Sec. 36 Twp. 15S Range 19W
 Owner Rose Zimmerman Schoenchen, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

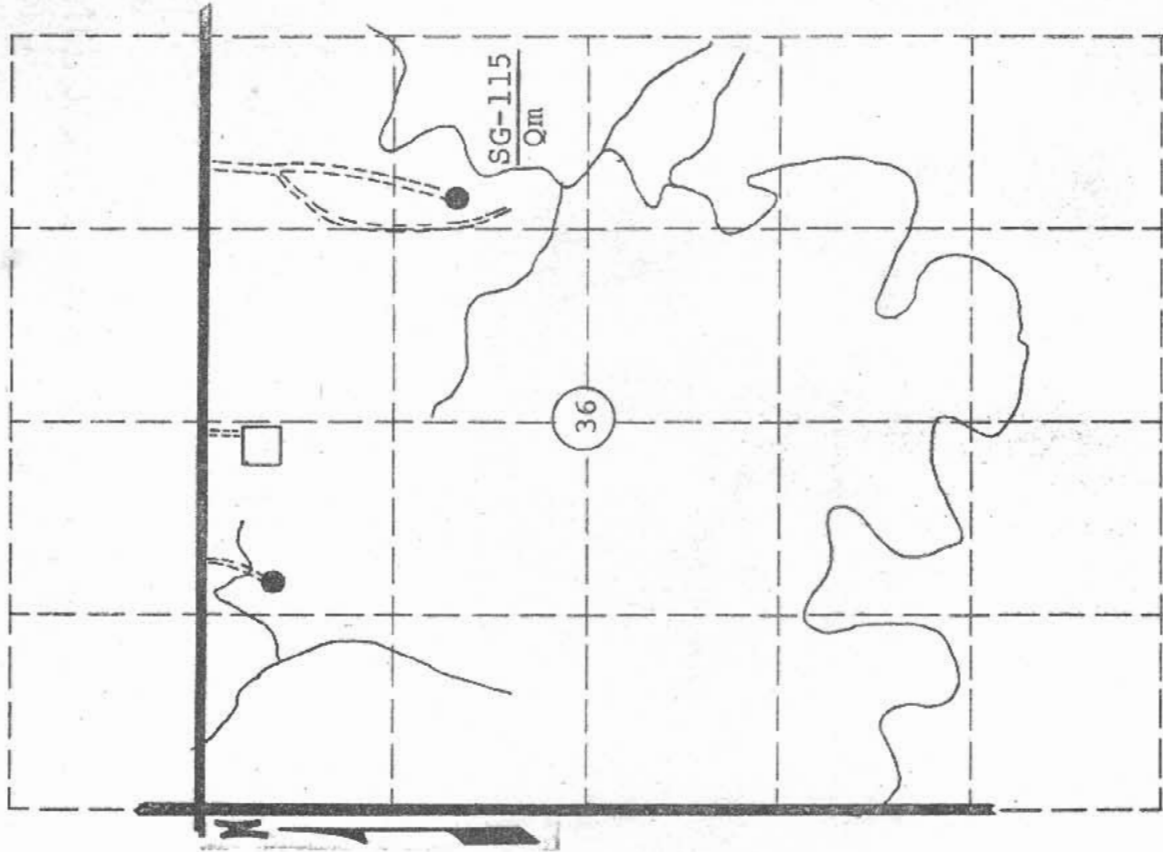
EXPLORATION DATA

Test Hole of Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.L.
				1 1/2	3/4	4	8	16				
USGS				14	43	98						

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported in USGS Ellis Co.
 Report Site No. Mal8
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Mt. Co. Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 3,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG+116
Om Date April 1963
 Material Sand and Gravel County Ellis
 Location NW 1/4 SW 1/4 Sec. 26 Twp. 15S Range 19W
 Owner Paul Werth McCracken, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

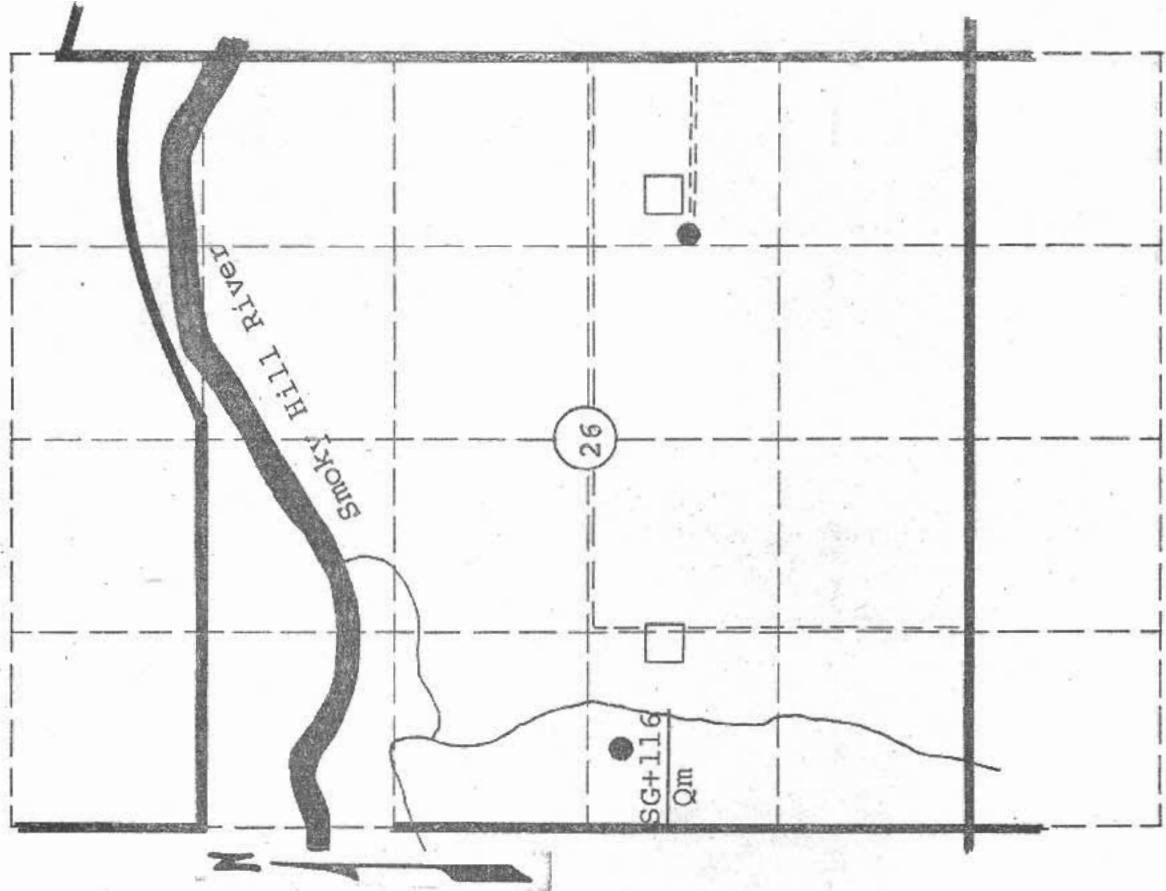
Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained								Wash 200	G.F.	L.L.	P.I.	
				1 1/2	3/4	3/8	4	8	15	30	50					100
AV. SHC		5	15	1	4	1128	5380	9598	1							

AV. SHC

Date Tested: 4-61

CORRELATION DATA

Geological Age Pleistocene Date Tested: 4-61
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-38
 Specific Gravity (sat.) 2.60 (Dry)
 Los Angeles Wear Grading "D" 38.5
 Absorption 0.94 Soundness 0.94
 Wt. Cu.Ft. 114.38 lbs. Str. Ratio 1-day 1.57, 3-days 1.53
 Remarks Estimated quantity 40,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG-117
Qm
 Date April 1963
 Material Sand and Gravel County Ellis
 Location SW $\frac{1}{4}$ Sec. 24 Twp. 15S Range 19W
 Owner Albert Dinges Schoenchen, Kansas
 name address
 Nature of Deposit: Dry Accessibility Good
 Status of Site Open site; sampled

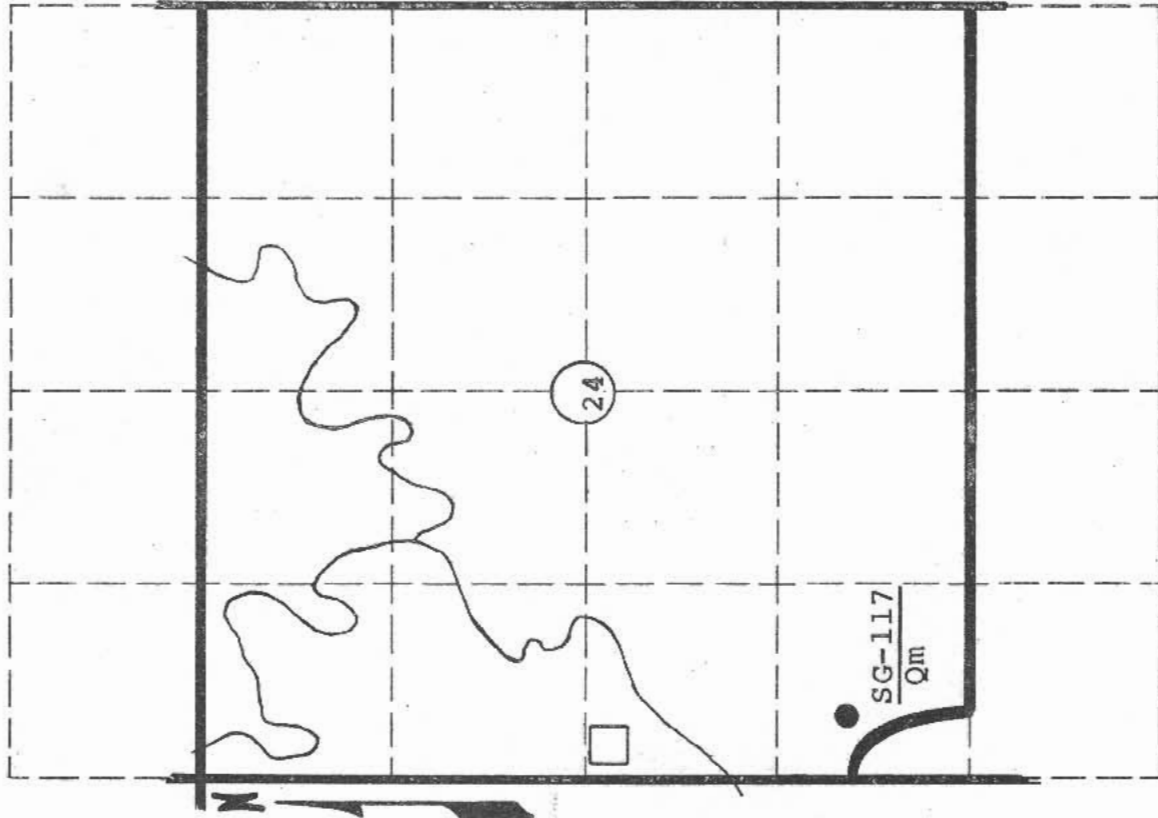
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P. I.
				1/2	3/4	8	16	30				
USGS						9	61		99			

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar to Material reported in USGS Ellis Co. Report
 Site No. Mal7
 Specific Gravity (Sat.) (Dry)
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Wt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 2,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

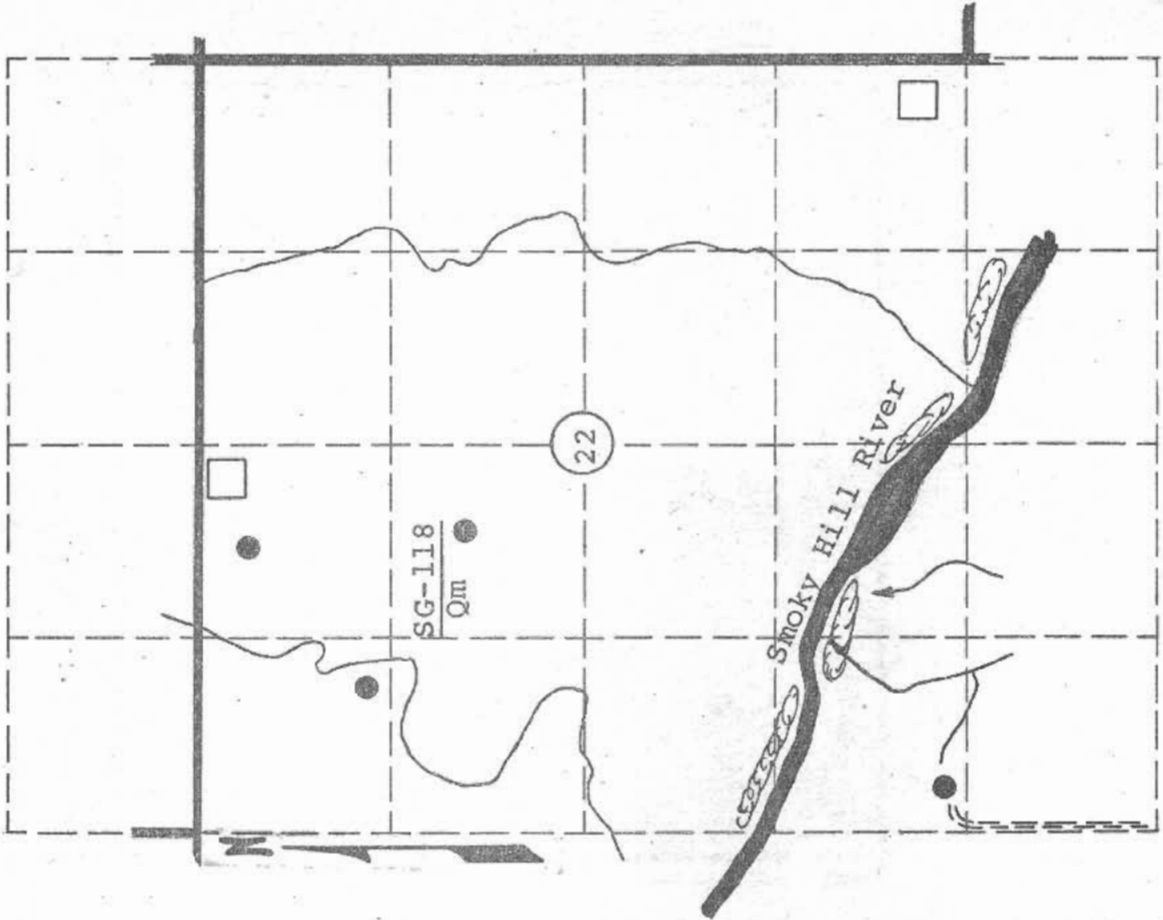
Site No. SG-118
Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location NE 1/4 NW 1/4 Sec. 22 Twp. 15S Range 19W
 Owner Wendelin W. Werth Rte. 2, Hays, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at bottom of hole	Depth of over-burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.			
				1 1/2	3/4	3/8	4	8	16	30					50	100	
USGS		1	7			10	42	99									

CORRELATION DATA

Geological Age Pleistocene Date Tested: 2-47
 Geological Source Meade Formation
 Material Similar To Material reported in USGS Ellis Co.
 Report Site No. Mal6
 Specific Gravity (Sat.) (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 5,000 cu. yds.



MATERIAL SURVEY REPORT

Site No. SG-119
Om Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 Sec. 16 Twp. 15S Range 19W
 Owner Harold G. Krous Rte. 2, Hays, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

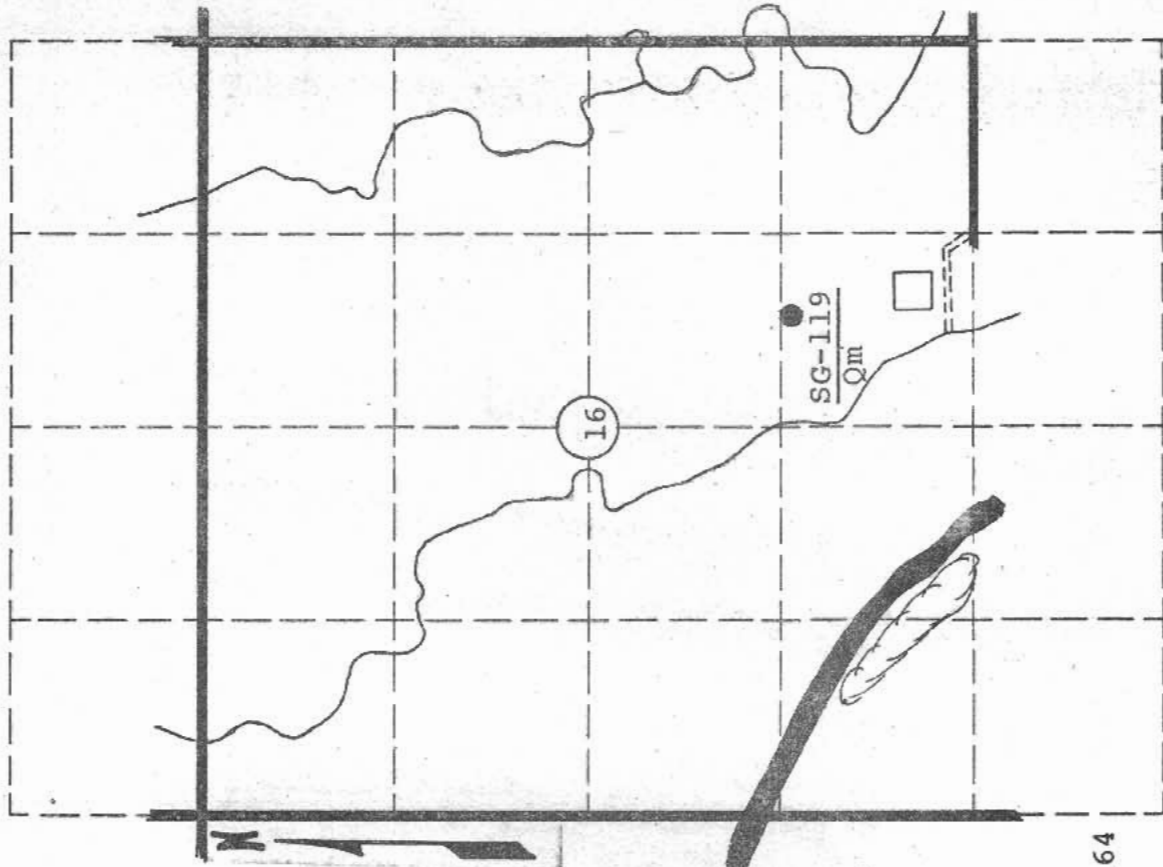
Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.						
				1 1/2	3/4	3/8	4	8					16	30	50	100		
SHC		3	16			3	7	18	42	68	92	98	1	3.28				

AV.

Date Tested: 1952

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 619, No. 26-36
 Specific Gravity (Sat.) 2.62 (Dry)
 Los Angeles Wear Grading "D" 29.8
 Absorption Soundness 0.98
 Mt. Cu.ft. 112.7 lbs. Str. Ratio 1-day 1.56, 3 days 1.64
 Remarks Estimated quantity 10,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

FS-120
 Site No. Qs Date April 1963
 Material Fine Sand County Ellis
 Location NW 1/4 NW 1/4 Sec. 4 Twp. 15S Range 19W
 Owner Mary E. Moore Rte. 2, Hays, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	1	16	30				
USGS		2	6				26			98		

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Sanborn Formation
 Material Similar To Material reported in USGS Ellis Co.
 Report Site No. Fa12

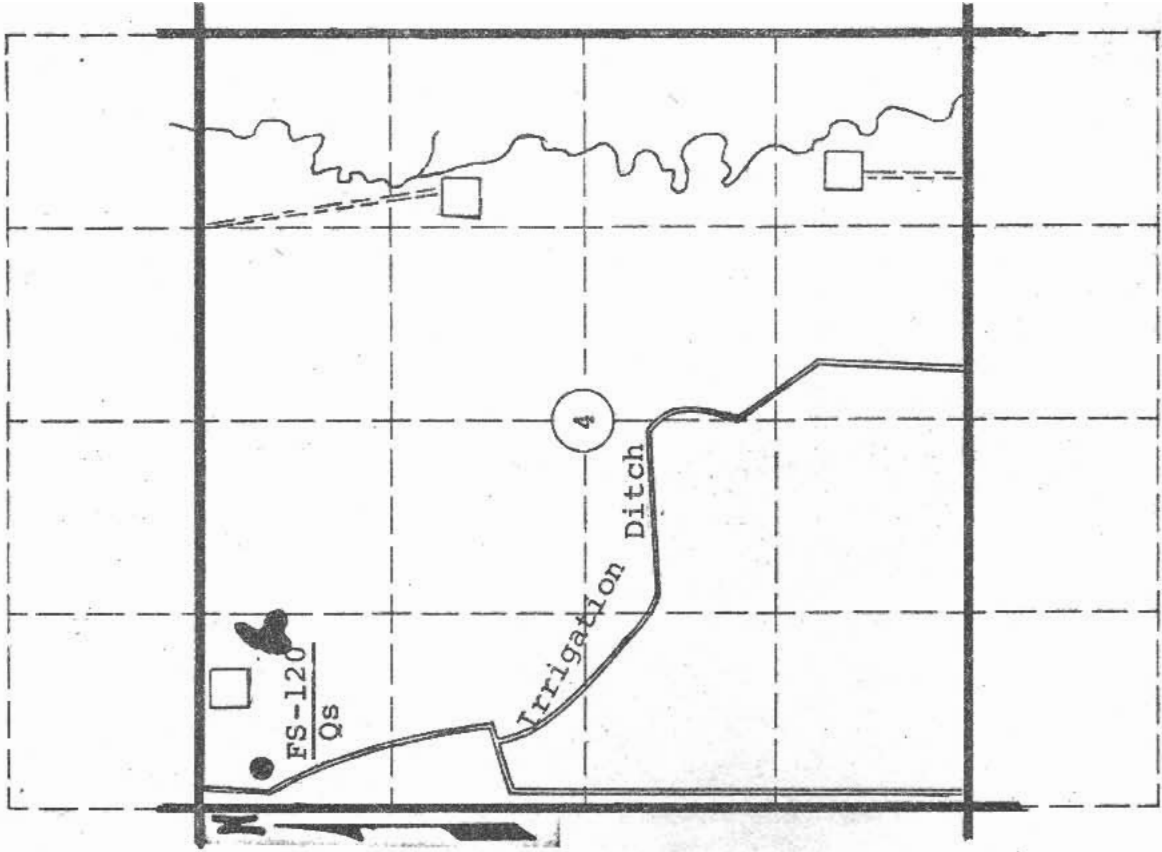
Specific Gravity (Sat.) _____ (Dry) _____

Los Angeles Wear _____

Absorption _____ Soundness _____

Mt. Cu. Ft. _____ Str. Ratio _____

Remarks Estimated quantity 2,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG-121
Qm
 Date April 1963
 Material Sand and Gravel County Ellis
 Location SW 1/4 NE 1/4 Sec. 5 Twp. 15S Range 20W
 Owner Arthur Hughes Ellis, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained								Mash 200	G.F.	L.L.	P.I.	
				1 1/2	3/4	3/8	4	8	16	30	50					100
USGS		2	4		6	14	65					96	3			
SHC		3	4		2	7	16	37	67	33	93	95	4	4.00		

Date Tested: 2-46

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation

Material Similar to Material reported on SHC Form 216, No. 26-30 and USGS Ellis Co. Report Site No. Mal9

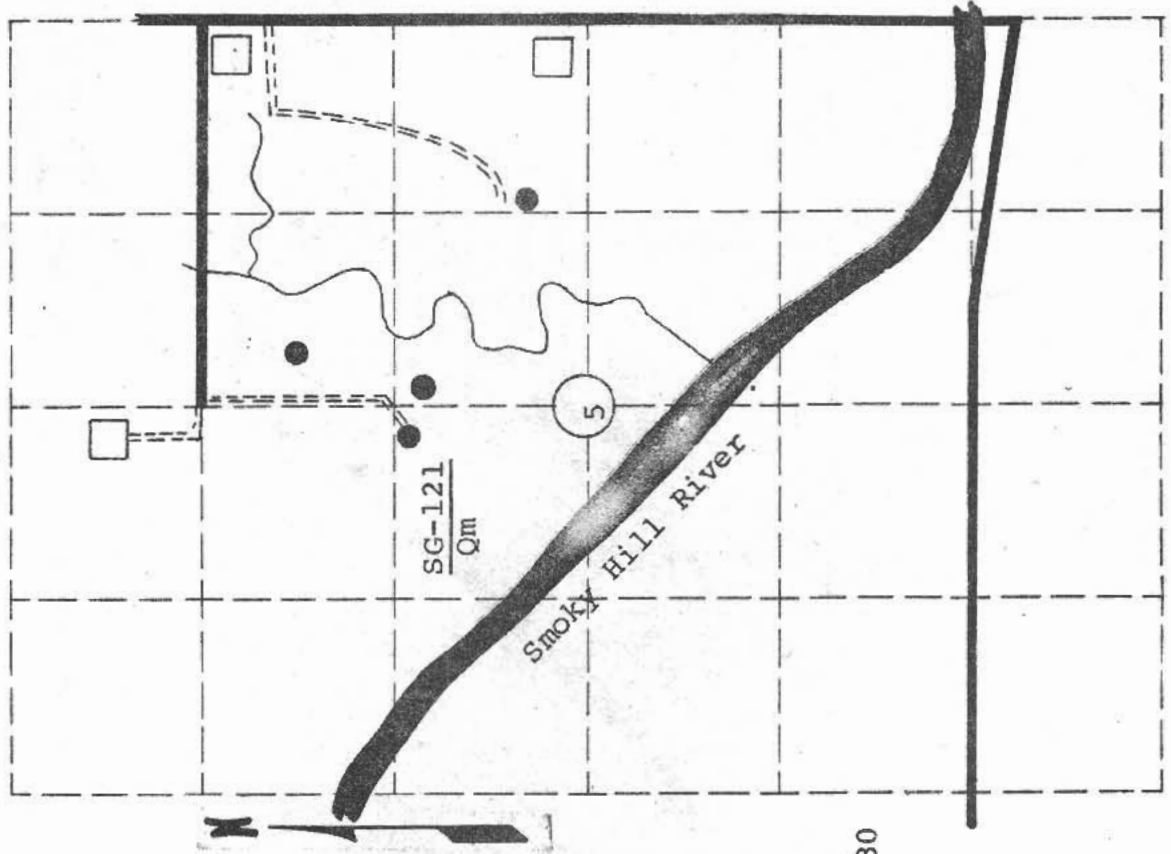
Specific Gravity (Sat.) 2.61 (Dry)

Los Angeles Wear 33.6

Absorption 0.93

Wt. Cu.Ft. 113.2 lbs. Str. Ratio

Remarks Estimated quantity 8,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

FS+122

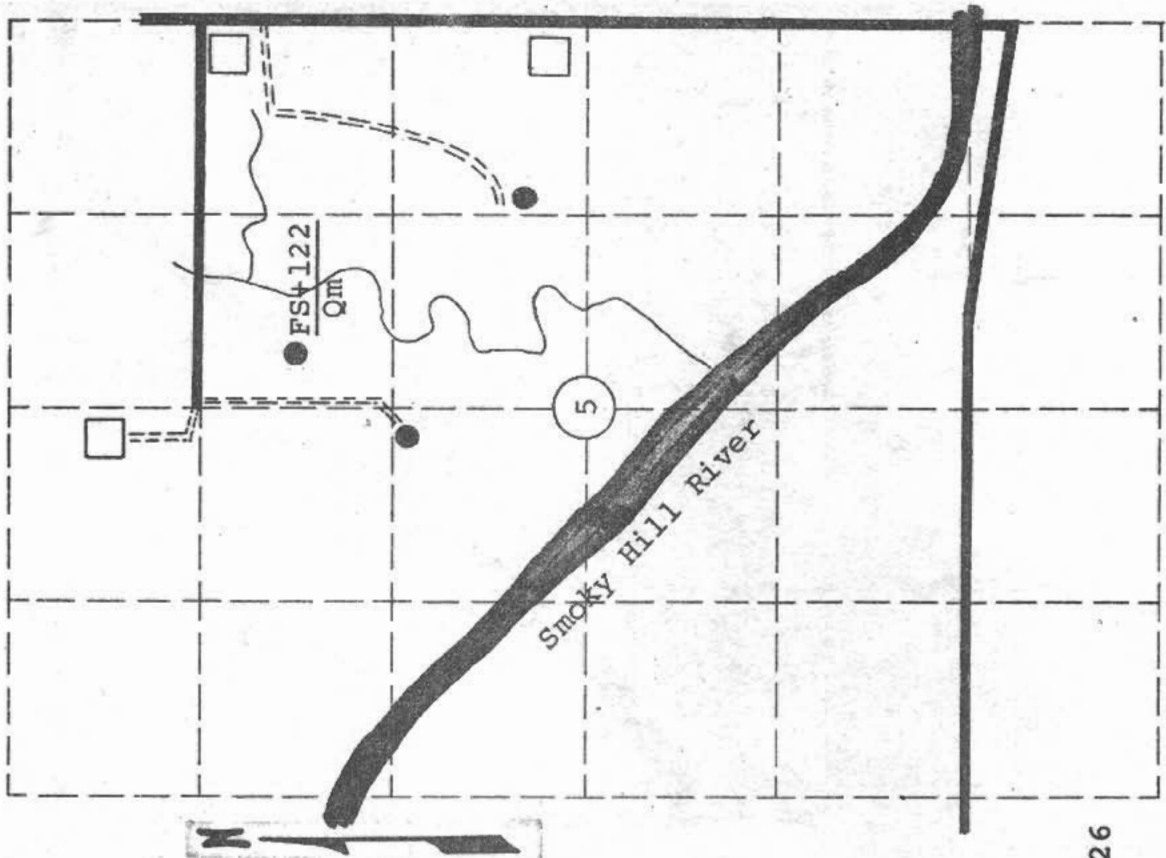
Site No. QM Date April 1963
 Material Fine Sand County Ellis
 Location NE 1/4 Sec. 5 Twp. 15S Range 20W
 Owner Arthur Hughes Ellis, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.I.	P.I.		
				1 1/2	3/4	3/8	4	8	16	30					50	100
		4	9	1	1	2	5	15	32	81	97	2	2.34			
Note: Composite Sample of Holes No. 24 & 28 as shown on 216 No. 26-31																

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formattinn
 Material Similar To Material reported on SHC Form 216, No. 26-31
 Specific Gravity (Sat.) 2.62 (dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu.ft. 112.1 lbs. Str. Ratio 1-day 1.55, 3-days 1.26
 Remarks Estimated quantity 40,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. VA+123
QS Date April 1963
 Material Volcanic Ash County Ellis
 Location SE 1/4 SE 1/4 Sec. 17 Twp. 14S Range 19W
 Owner Mrs. J. M. Kramer 404 W. 16th, Hays, Kansas
 address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

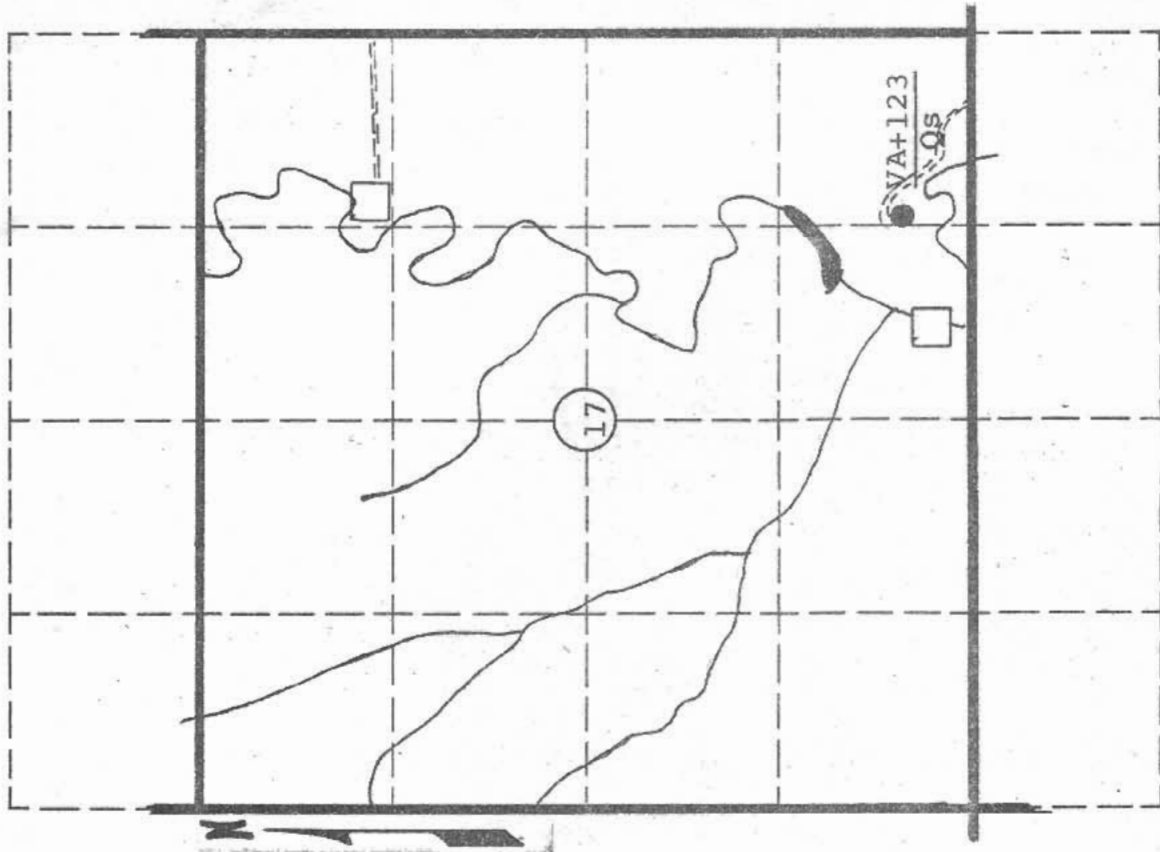
Test Hole	Material at bottom of hole	Depth or over-burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.			
				1/2	3/4	3/8	4	8	16	30					50	100	
AV. SHC		3	9								0	2	14				

174

Date Tested: 2-46

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Sanborn Formation
 Material Similar To Material reported on SHC Form 216, No. 26-29 and in USGS Ellis Co. Report Site No. Va-1
 Specific Gravity (set.) 2.34 (dry)
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Wt. Cu.Ft. 59.4 lbs. Str. Ratio _____
 Remarks Estimated quantity 30,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

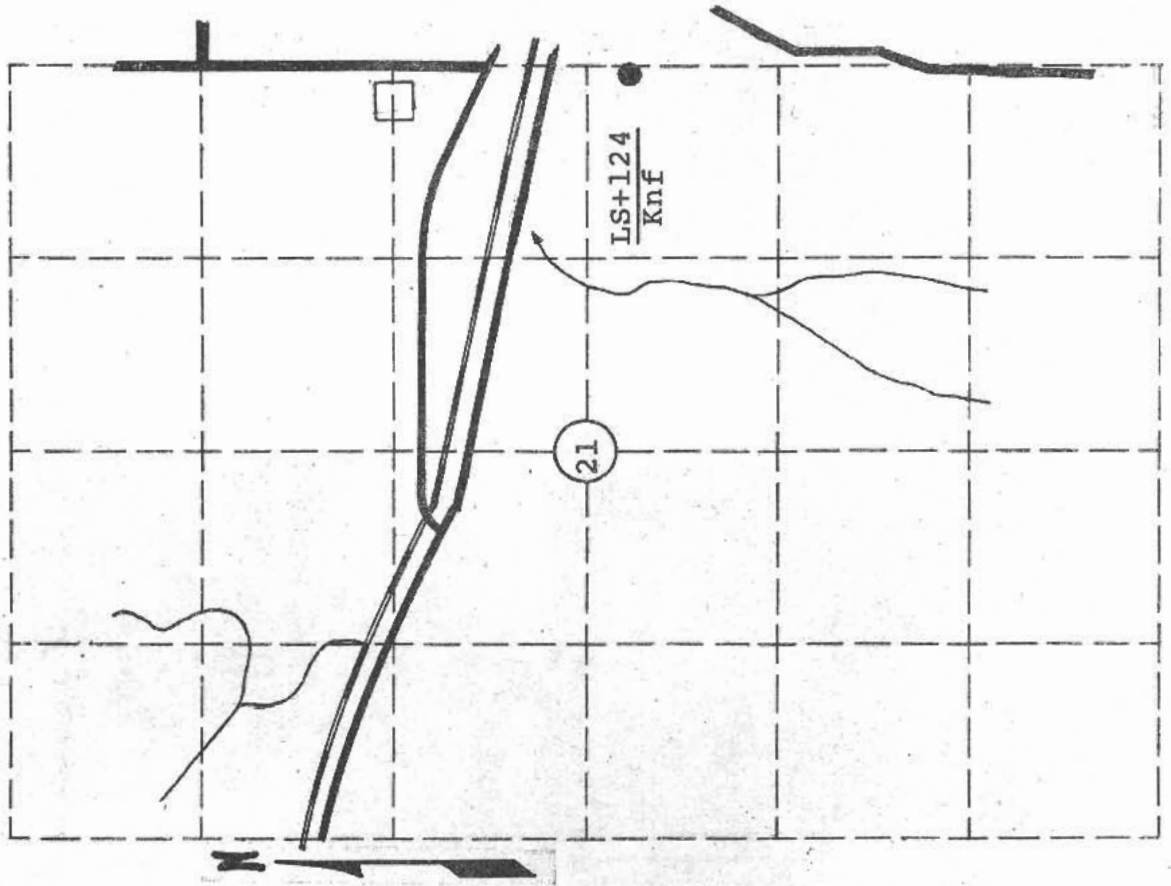
Site No. LS+124
Knf
 Date April 1963
 Material Ft. Hays Limestone County Ellis
 Location SE 1/4 Sec. 21 Twp. 13S Range 19W
 Owner W. L. Dinges Rte. 1, Hays, Kansas
 address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	G. F.	L. L.	P. I.				
				1/2	3/4	3/8	4	8	16	30					50	100		

CORRELATION DATA

Geological Age Cretaceous
 Geological Source Ft. Hays Limestone
 Material Similar To Material reported on SHC Form 216, No. 26-27 and in USGS Ellis Co. Report, Site No. Ls3
 Specific Gravity (sat.) 2.06, 2.06, 2.01 (dry)
 Los Angeles Near 70.5, 78.0, 56.7
 Absorption _____ Soundness 0.35, 0.52, 0.59
 Ft. Co. Ft. _____ Str. Ratio _____
 Remarks Estimated quantity unlimited



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. LS+125
Knf
 Date April 1963
 Material Ft. Hays Limestone County Ellis
 Location SE 1/4 Sec. 10 Twp. 13S Range 20W
 Owner Hilarius F. Dinkel R.R., Ellis, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

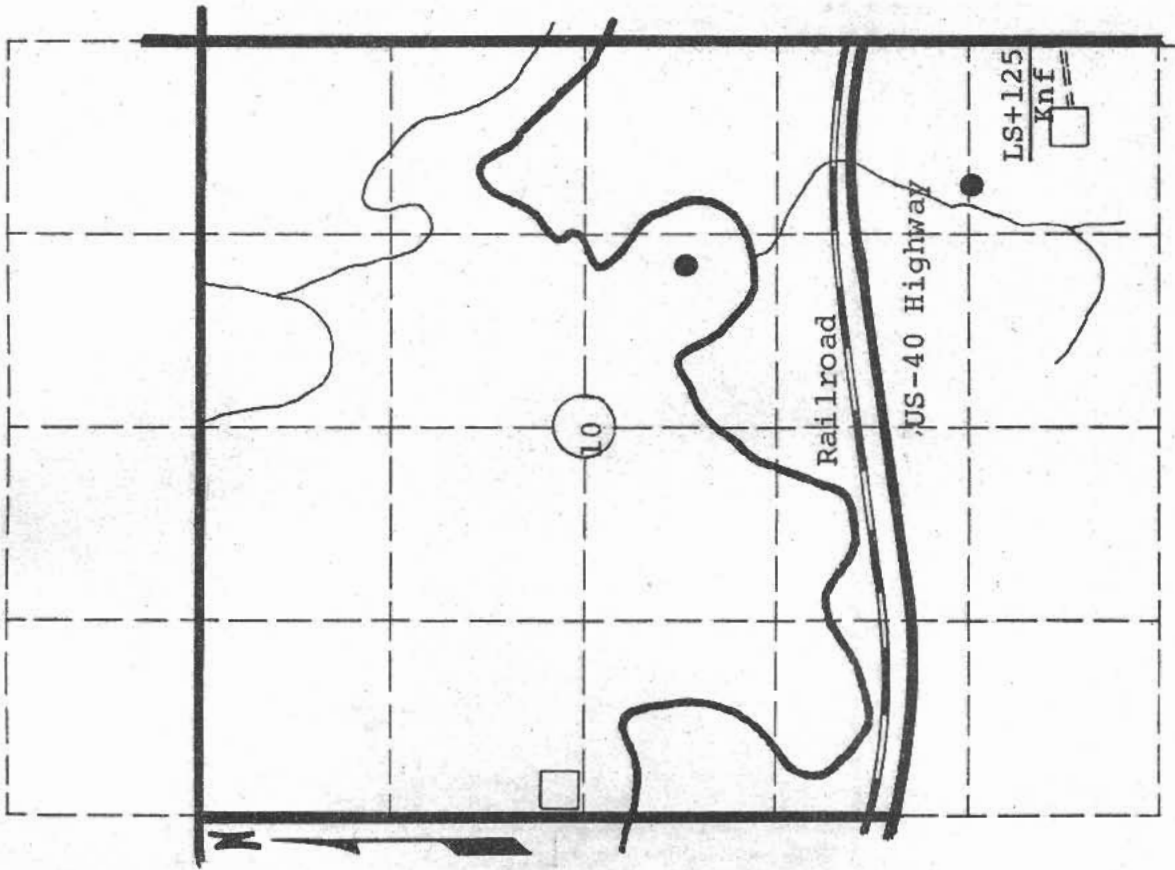
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	1/8	4	8				

Date Tested: 1-54

CORRELATION DATA

Geological Age Cretaceous
 Geological Source Ft. Hays Limestone
 Material similar to Material reported on SHC Form 216, No. 26-26 and in USGS Ellis Co. Report Site No. LS4
 Specific Gravity (Sat.) 2.01 (Dry)
 Los Angeles Wear 68.2
 Absorption _____ Soundness 0.51
 Wt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 150,000 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. FS+126 Date April 1963
Oal
 Material: Fine Sand County Ellis
 Location NW 1/4 SE 1/4 Sec. 10 Twp. 13S Range 20W
 Owner Hilarius F. Dinkel R.R., Ellis, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

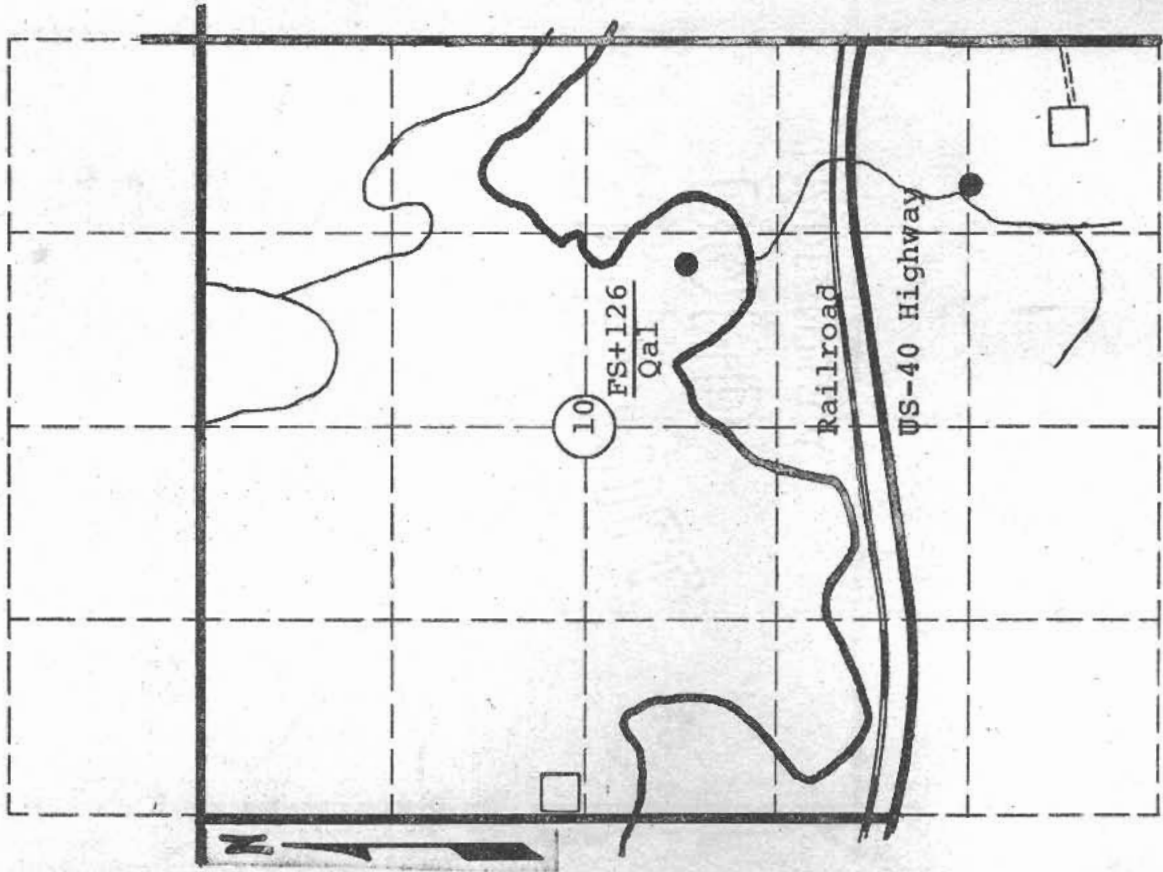
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained							Mesh 200	G.F.	L.L.	P.I.	
				1 1/2	3/4	3/8	4	8	15	30					50
AV. SHC		1	16+	3	8	13	22	42	69	80	14	2.37			

Date Tested: 1954

CORRELATION DATA

Geological Age Recent
 Geological Source Alluvium
 Material Similar To Material reported on SHC Form 216, No. 26-4
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Mt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 40,000 cu. yds.



Scale: 1" = 1/4 Mile

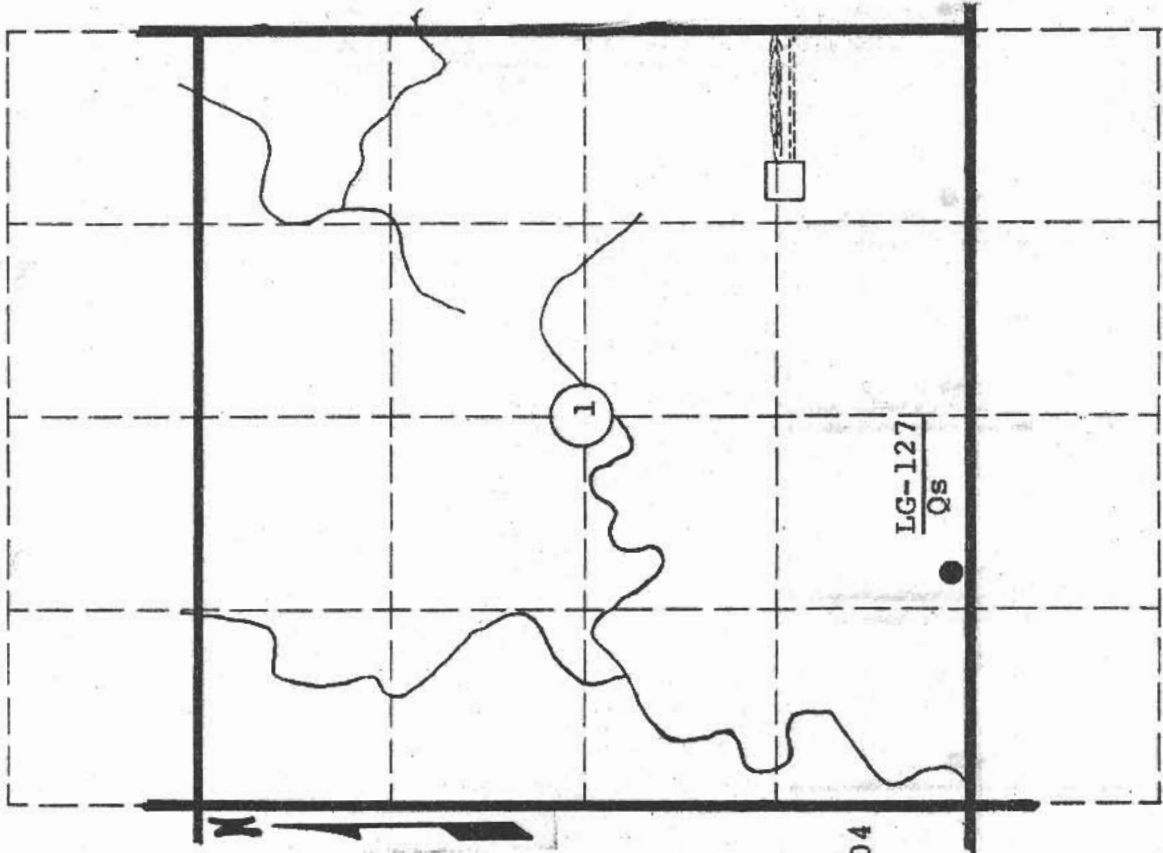
MATERIAL SURVEY REPORT

Site No. LG-127
QS
 Date April 1963
 Material Limestone Gravel County Ellis
 Location SW $\frac{1}{4}$ Sec. 1 Twp. 13S Range 19W
 Remarks W. E. Payne, E $\frac{1}{2}$ Ellis, Kansas
OWNER ADDRESS
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	D.F.	L.L.	P.L.	
				1/2	3/4	1	1 1/4	1 1/2	2	3					4
SHC				2	6	17	31	43	51	59	64	36			

AV.



Scale: 1" = 1/4 Mile

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Sanborn Formation
 Material Similar to Material reported on SHC Lab. Sheet, No. 37004

Specific Gravity (Set.) _____ (dry)
 Los Angeles Weer _____
 Absorption _____ Soundness _____
 Wt. Co. Ft. _____ Str. Ratio _____
 Tenant is: Anthony H. Witt, W $\frac{1}{2}$

Remarks This material was previously rejected because of too high a wash

MATERIAL SURVEY REPORT

LG+128
PR
 Site No. _____ Date April 1963
 Material Limestone Gravel County Ellis
 Location NE 1/4 SW 1/4 Sec. 26 Twp. 13S Range 18W
 Owner O. A. Struble Hays, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	1	3/8	5/16				

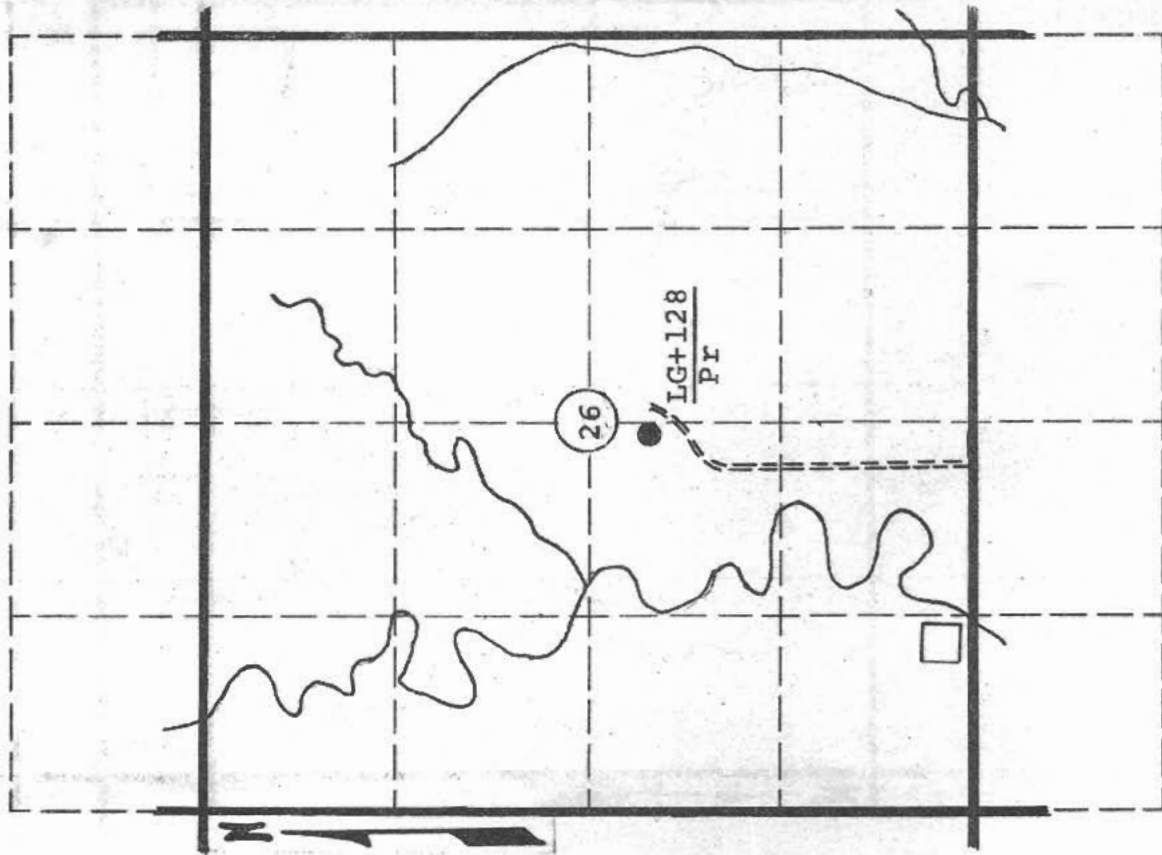
Date Tested: 6-41

CORRELATION DATA

Geological Age Pleistocene-Recent
 Geological Source Undifferentiated
 Material Similar To Material reported on SHC Lab. Sheet No. 42613
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu.ft. _____ Str. Ratio _____

Remarks Estimated quantity 25,000 cu. yds. Description of Material; A mixture of calcareous gravel, siliceous sand, gravel and silt.

Scale: 1" = 1/4 Mile



MATERIAL SURVEY REPORT

Site No. LS+129
Knf
 Material Limestone
 Location NE 1/4 Sec. 28 Twp. 12S Range 16W
 County Ellis
 Owner Joe A. Miller
 name Catherine, Kansas
 address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	3/8	4	8				
		5										

Geological Age Cretaceous
 Geological Source Ft. Hays Limestone
 Material Similar To Material reported on SHC Form 216, No. 26-20 and in USGS Ellis Co. Report LS2
 Date Tested: USGS 1-46
SHC 1954

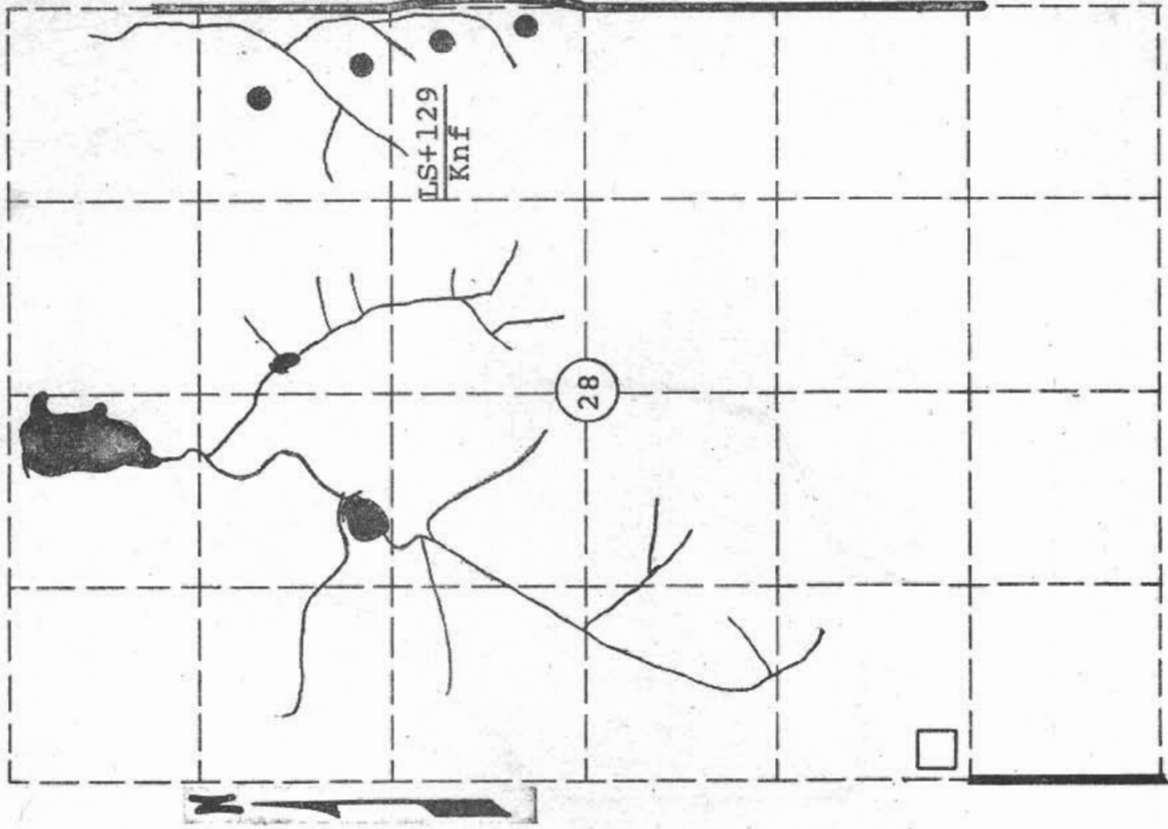
Specific Gravity (sat.) 2.16 (dry)

Los Angeles Wear 60.8

Absorption _____ Soundness _____

Wt. Gr. Ft. _____ Str. Ratio _____

Remarks _____



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG-130
QS
 Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 NW 1/4 Sec. 17 Twp. 11S Range 16W
 Owner Ruth L. Chesney Plainville, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

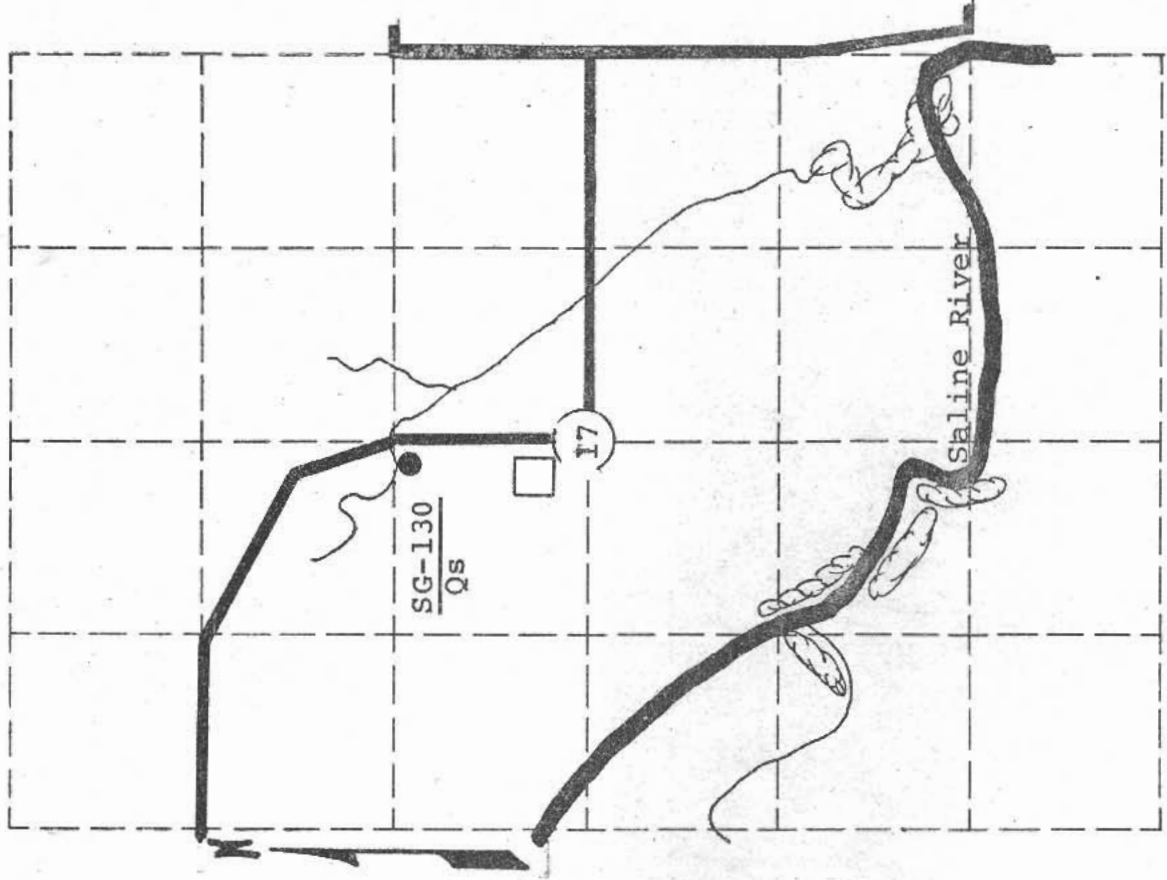
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.
				1/2	3/4	1	1 1/2	2	3	4				
USGS		2	3				12	28	98					

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Sanborn Formation
 Material Similar To Material reported in USGS Ellis Co. Report Site MA-2
 Specific Gravity (Sat.) (Dry)
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Wt. Cu.Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 500 cu. yds.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG-132
 Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location NE 1/4 Sec. 15 Twp. 11S Range 17W
 See Remarks Eric E. Smith, E 1/2 Plainville, Kansas
 Owner Eric E. Smith, E 1/2 address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

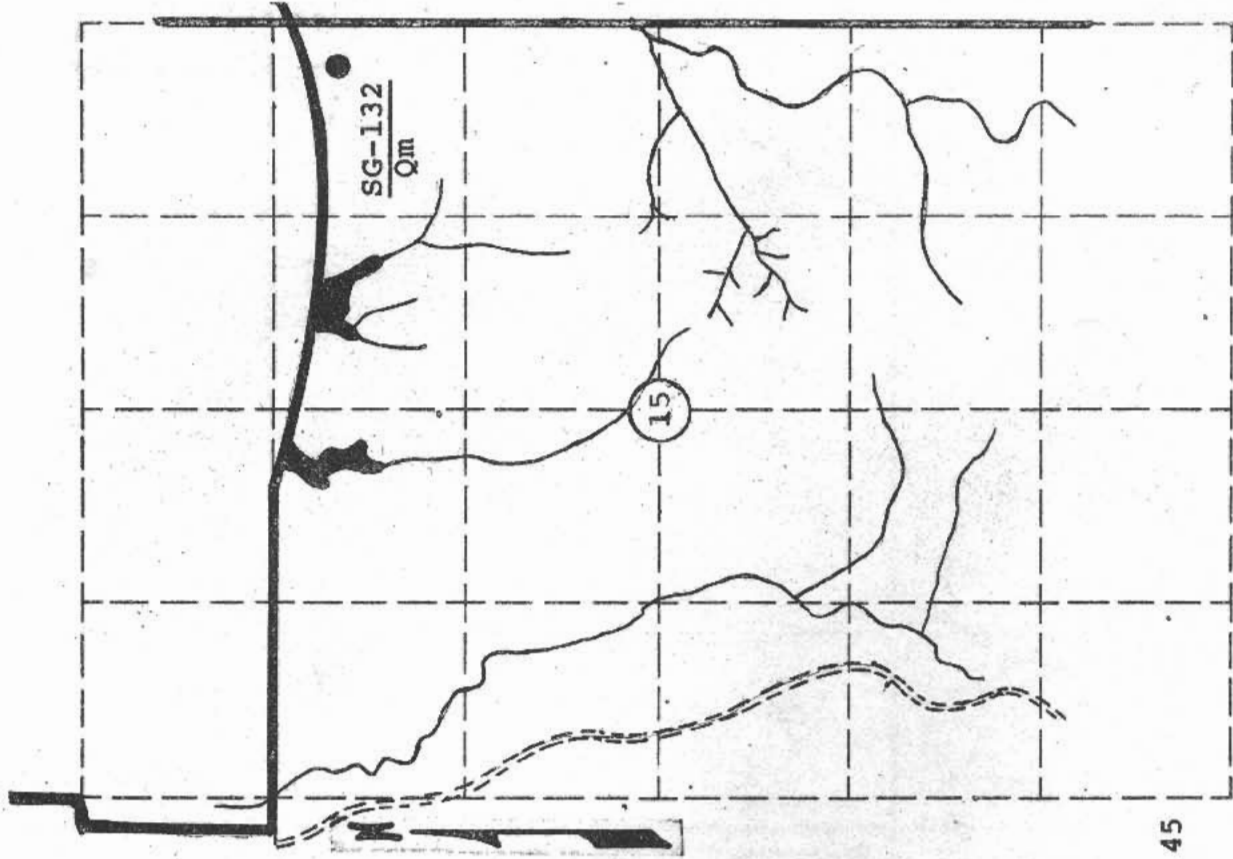
Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.				
				1 1/2	3/4	3/8	4	8	16	30					50	100		
USGS							2		11									
SHC		4	6	1	4	17	18	39	71	94	98		3.32					

AV.
183

Date Tested: 1954

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Form 216, No. 26-34 and in USGS Ellis Co. Report Site No. Fa2
 Specific Gravity (Sat.) 2.60 (dry)
 Los Angeles Wear Grading "D" 33.7
 Absorption 0.88 Soundness
 Wt. Cu.Ft. 111.1 lbs. Str. Ratio 1-day 1.52, 3-day 1.45
 Remarks Estimated quantity 10,000 cu. yds.
Tenant is: Emma A. Richmond, W 1/2



Scale: 1" = 1/4 mile

MATERIAL SURVEY REPORT

Site No. SG+133
Qm
 Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 SW 1/4 Sec. 10 Twp. 11S Range 17W
 Owner Edwin K. Simpson, W 1/2 Rte. 2, Plainville, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

See Remarks

EXPLORATION DATA

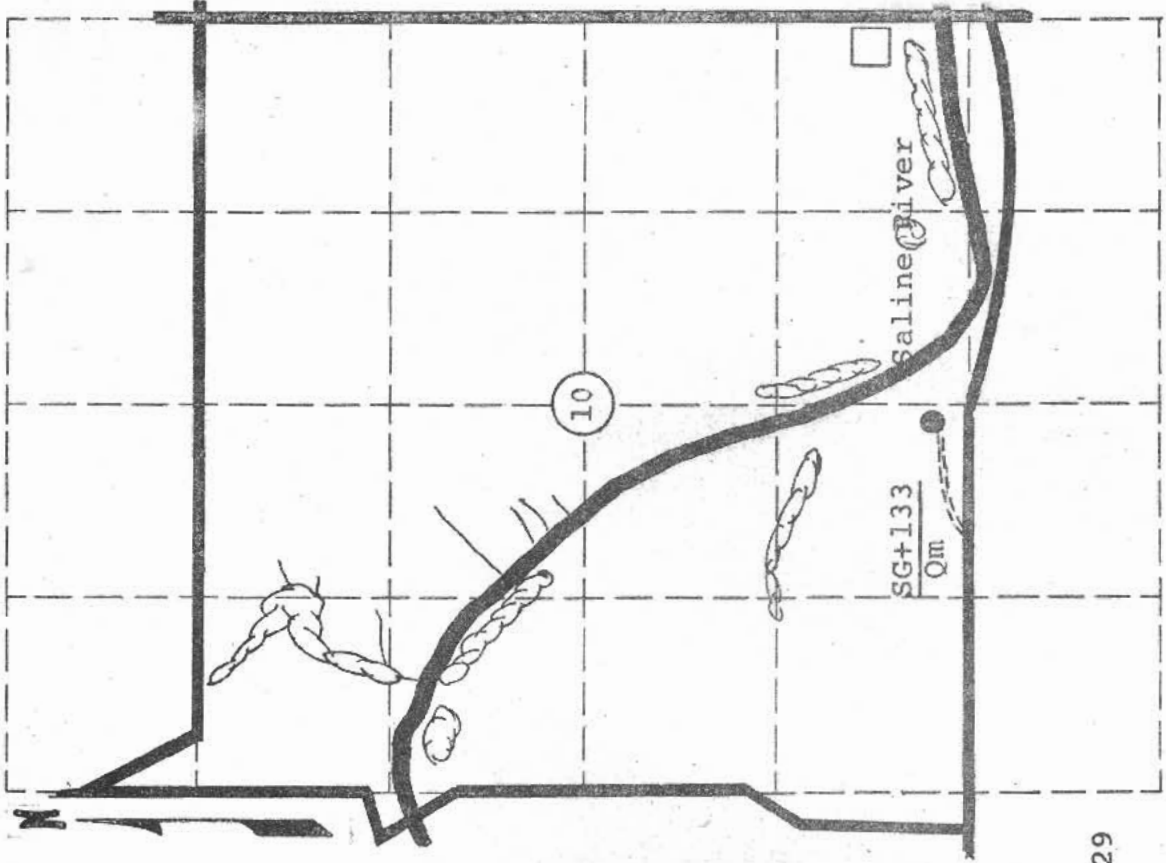
Test Hole	Material at bottom of hole	Depth of overburden	Depth of Material	Percent Retained							No. of Tests	G.F.	L.L.	P.I.		
				1/2	3/4	1	2	4	8	16					30	50
SHC		3	8	1	4	12	20	35	58	88	96	3	3.13			

AV.

CORRELATION DATA

Geological Age Pleistocene Dated Tested: 1954
 Geological Source Meade Formation
 Material Similar to Material reported on SHC Form 216, No. 26-35
 Specific Gravity (Set.) 2.57 (Dry)
 Los Angeles Wear Grading "D" 31.5
 Absorption _____ Soundness 0.71
 Wt. Cu.Ft. 112.3 Str. Ratio 1-day 1.29, 3-day 1.29
 Remarks Estimated quantity 20,000 cu. yds.

Tenant is: S. Dean Evans, Sr., E 1/2 Address Unknown



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. FS+135
Qal
 Date April 1963
 Material Fine Sand County Ellis
 Location SW 1/4 Sec. 29 Twp. 15S Range 18W
 Owner Magdalena Werth Rte. 1, Hays, Kansas
 Name address
 Nature of Deposit Wet Accessibility Good
 Status of Site Open site; sampled

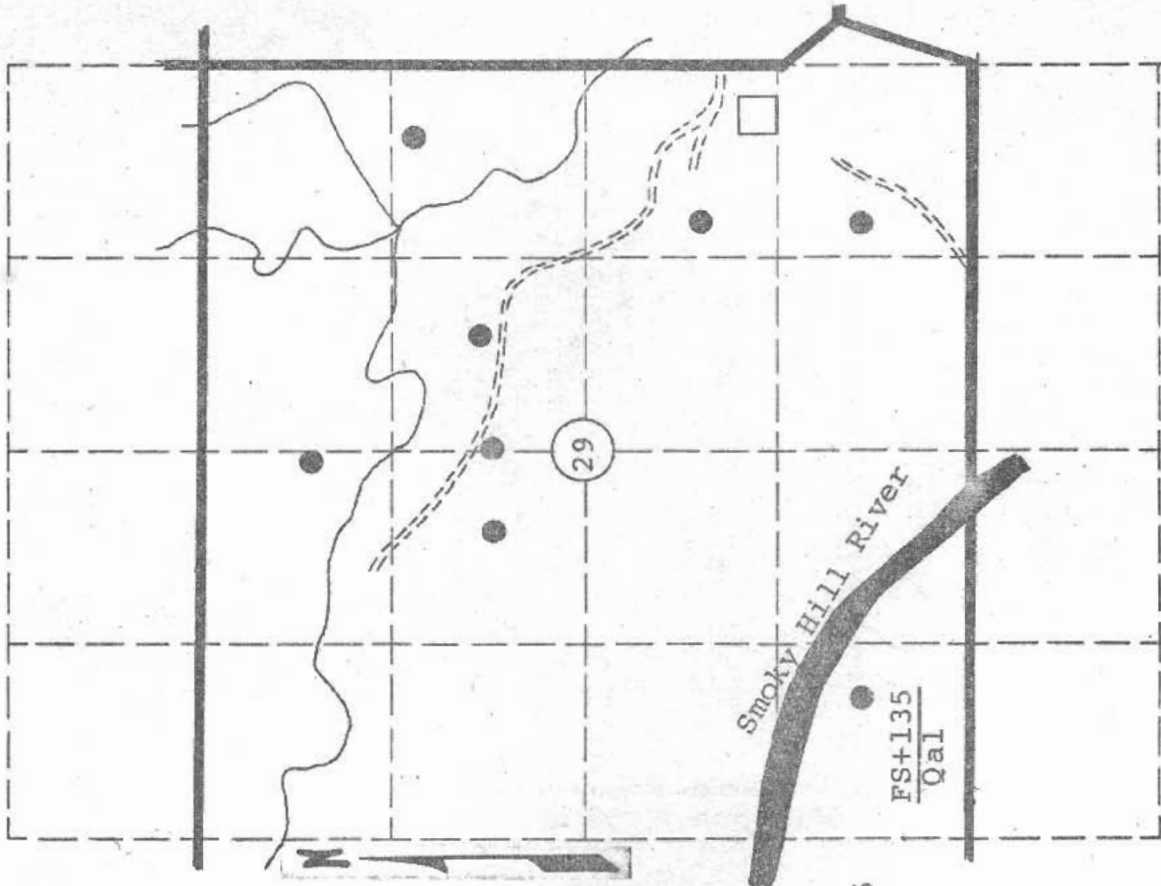
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P. I.	
				1 1/2	3/4	3/8	4	8	16	30					50
AV. SHC				0	5	17	37	62	87	97		3.05			

CORRELATION DATA

Geological Age Recent
 Geological Source Alluvium
 Material Similar To Material reported on SHC Lab. Sheet No. 78645

Specific Gravity (Sat.) 2.59 (Dry)
 Los Angeles Wear
 Absorption
 Mt. Cu.ft. 107.7 lbs. Str. Ratio
 Remarks



Scale: 1" = 1/4 Mile

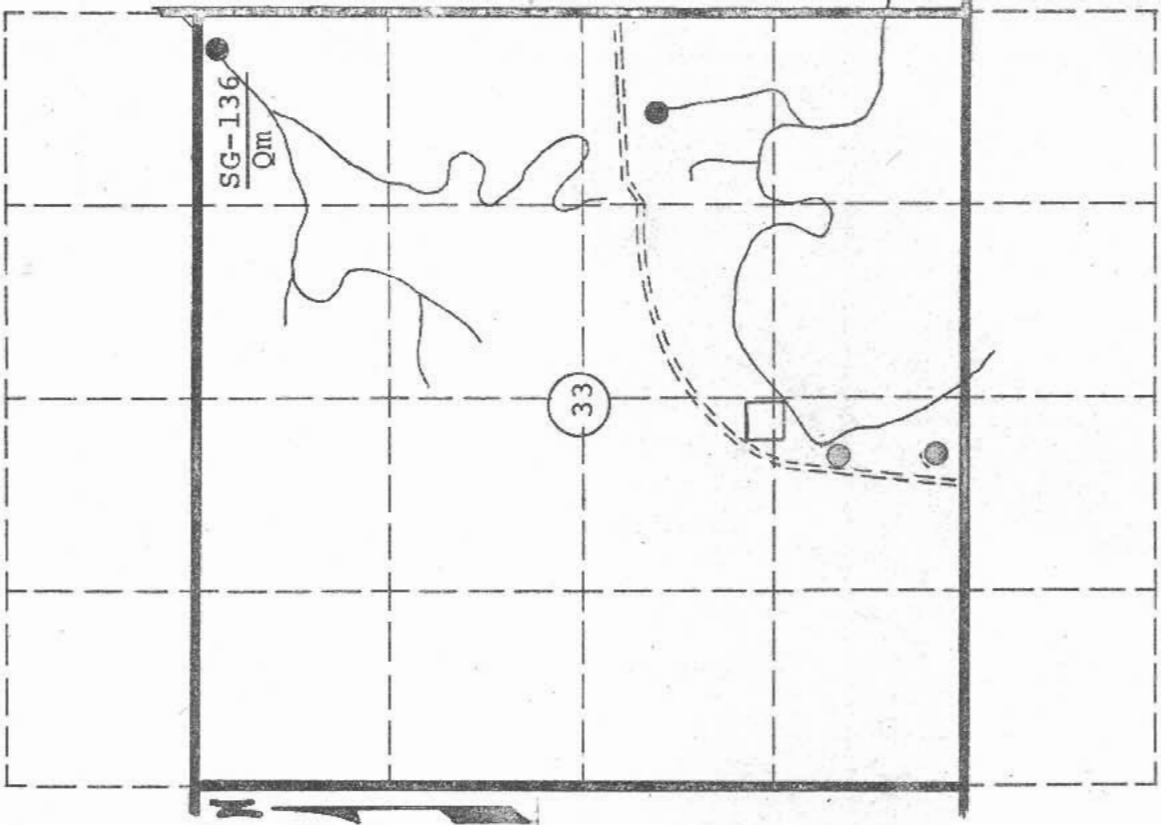
MATERIAL SURVEY REPORT

SG-136
 Qm
 Site No. _____ Date April 1963
 Material Sand and Gravel County Ellis
 Location NE $\frac{1}{4}$ Sec. 33 Twp. 15S Range 16W
 See Remarks E $\frac{1}{2}$ NE $\frac{1}{4}$ Jerome Urban Bison, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained								Wash 200	G.F.	L.L.	P.I.		
				1/2	3/4	1	1 1/4	1 1/2	2	3	4					5	6
SHC				0	4	9	16	30	49	74	90	94		3.66			

AV.



Scale: 1" = 1/4 Mile

Date Tested: 11-60

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 14082
 Specific Gravity (Sat.) 2.61 (dry)
 Los Angeles Near Grading "D" 34.2
 Absorption _____ Soundness 0.95
 Wt. Cu.Ft. 110.36lbs. Str. Ratio _____
 Remarks Tenant is: W $\frac{1}{2}$ NE $\frac{1}{4}$ Steven Kisner, Bison, Kansas

MATERIAL SURVEY REPORT

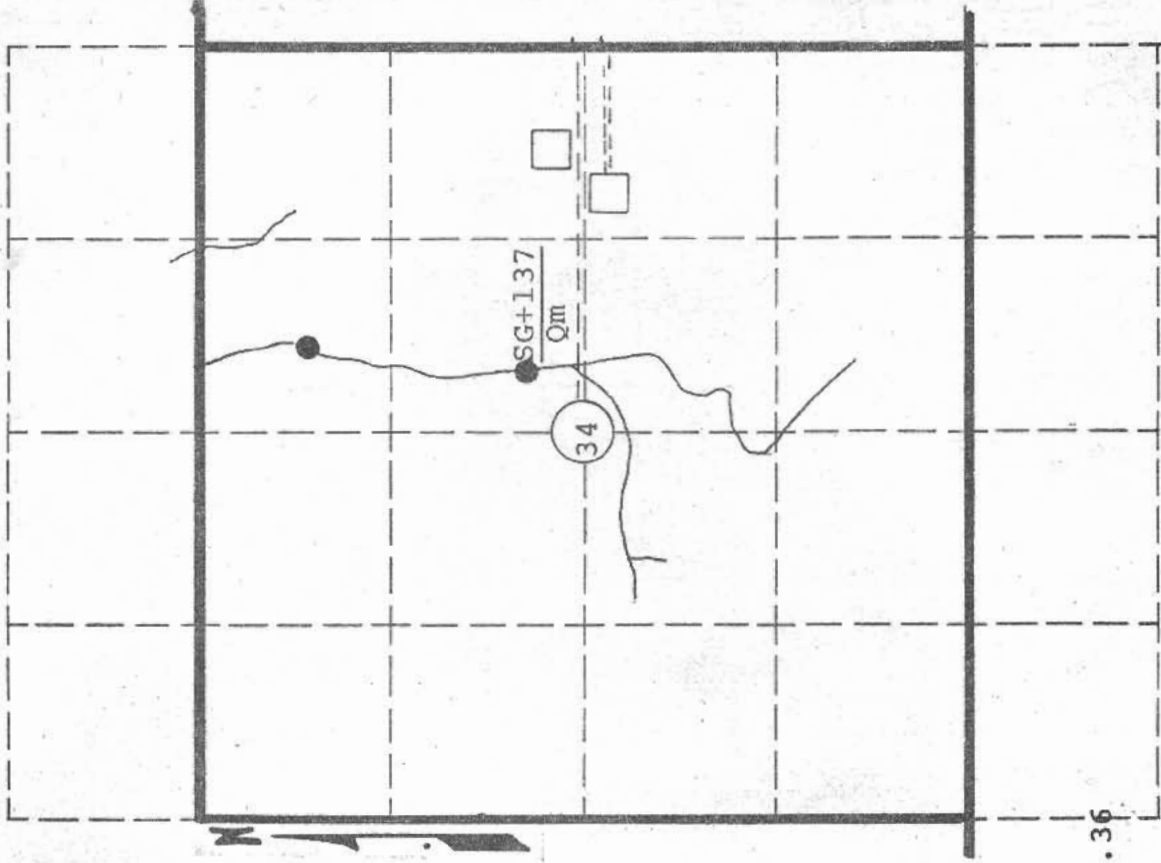
Site No. SG+137
Om Date April 1963
 Material Sand and Gravel County Ellis
 Location NE 1/4 Sec. 34 Twp. 15S Range 17W
 Owner Al Roth name Pfeifer, Kansas address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of overburden	Depth of Material	Percent Retained					Wash 200	G.F.	L.L.	P.I.
				1 1/2	3/4	3/8	1/4	1/8				
AV. SHC				0	8	15	3155	7894	97	3.78		

CORRELATION DATA

Geological Age Pleistocene Date Tested: 7-61
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 17716
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear Grading "C" 32.2
 Absorption _____ Soundness 0.99
 Wt. Cu.Ft. 117.07 lbs. Str. Ratio 1-day 1.41, 3-days 1.36
 Remarks _____



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG+138
 Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SW $\frac{1}{4}$ Sec. 27 Twp. 15S Range 17W
 See Remarks, Ex Alphonse Roth Pfeifer, Kansas
 Name Dry Accessibility Good
 Nature of Deposit Open site; sampled
 Status of Site

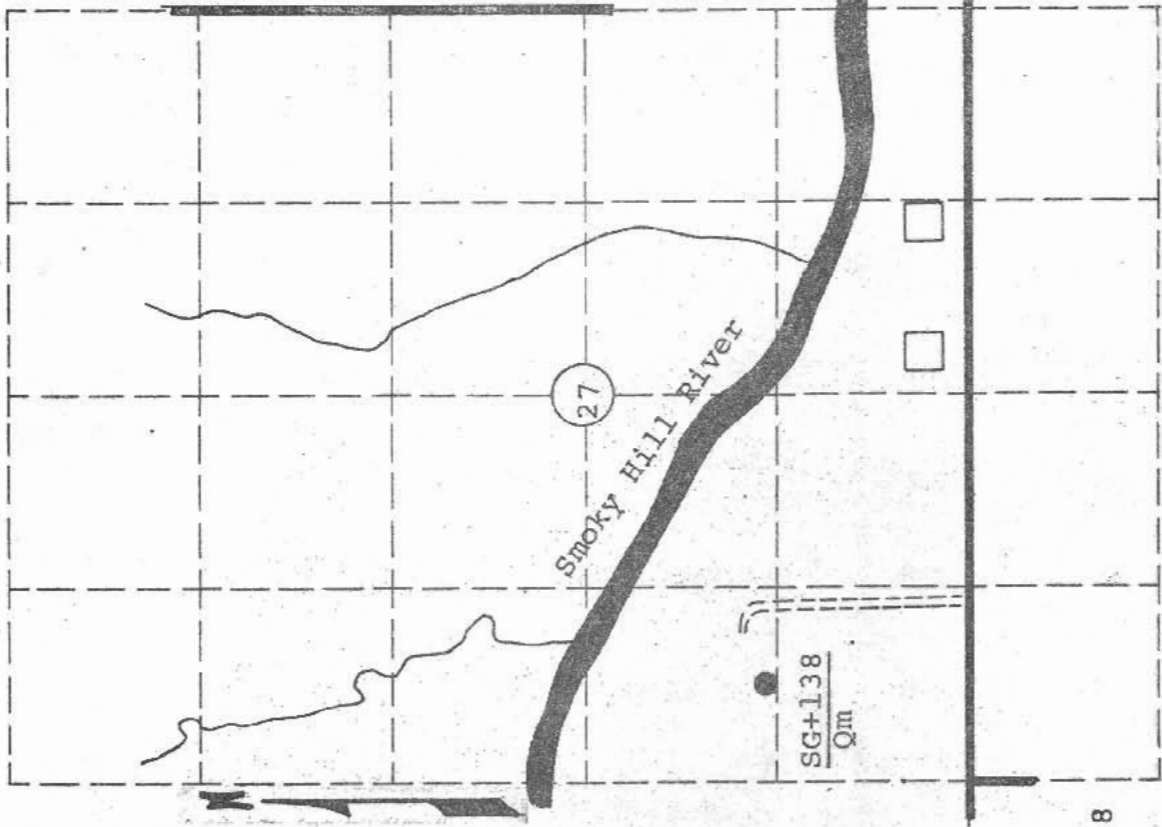
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.I.		
				1 1/2	3/4	3/8	1/4	8	16					30	50
AV. SHC				0	9	21	40	63	82	93	95	4.03			

Date Tested: 5-61

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 16757
 Specific Gravity (Sat.) 2.60 (Dry)
 Los Angeles Near Grading "C" 32.6
 Absorption 0.97
 Wt. Co. ft. 107.81 lbs. Str. Ratio 1-day 1.41, 3-days 1.38
 Remarks Tenant, W $\frac{1}{2}$, Albert Roth



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG+139
Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location NW 1/4 Sec. 30 Twp. 15S Range 18W
 Owner Katie Phannenstiel et al Munjor Rte., Hays, Kans.
 Name address
 Nature of Deposit Dry Accessibility Good
 Status of site Open site; sampled

EXPLORATION DATA

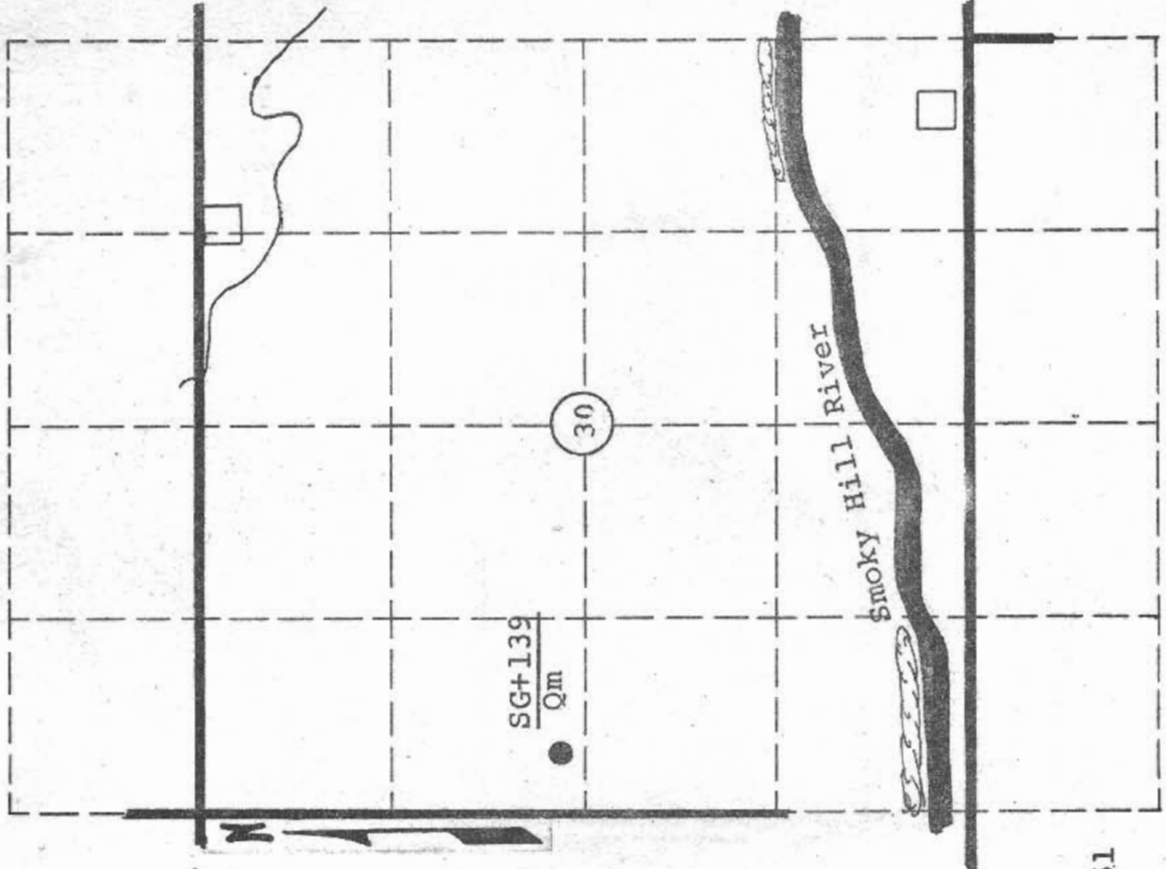
Test hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained					Mesh 200	G.F.	L.L.	P.I.
				1 1/2	3/4	3/8	4	8				
SHC				1	412	2852	76	9397	3.63			

AV.

Date Tested: 6-62

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar to Material reported on SHC Lab. Sheet No. 22712
 Specific Gravity (Set.) 2.61 (Dry)
 Los Angeles Test Grading "D" 32.3
 Absorption 112.19 lbs. Soundness _____
 Mt. Cu. Ft. str. sec 10 1-day 1.50, 3-days 1.51
 Remarks _____



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG+140
 Site No. Qm Date April 1963
 Material Sand and Gravel County Ellis
 Location SW 1/4 Sec. 4 Twp. 15S Range 20W
 Owner Chester V. Meserve Rte. 2, Ellis, Kansas
 name address
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained								Wash 200	G.F.	L.L.	P.I.	
				1 1/2	3/4	3/8	4	8	16	30	50					100
AV. SHC				1	7	13	25	47	75	92	95		3.25			

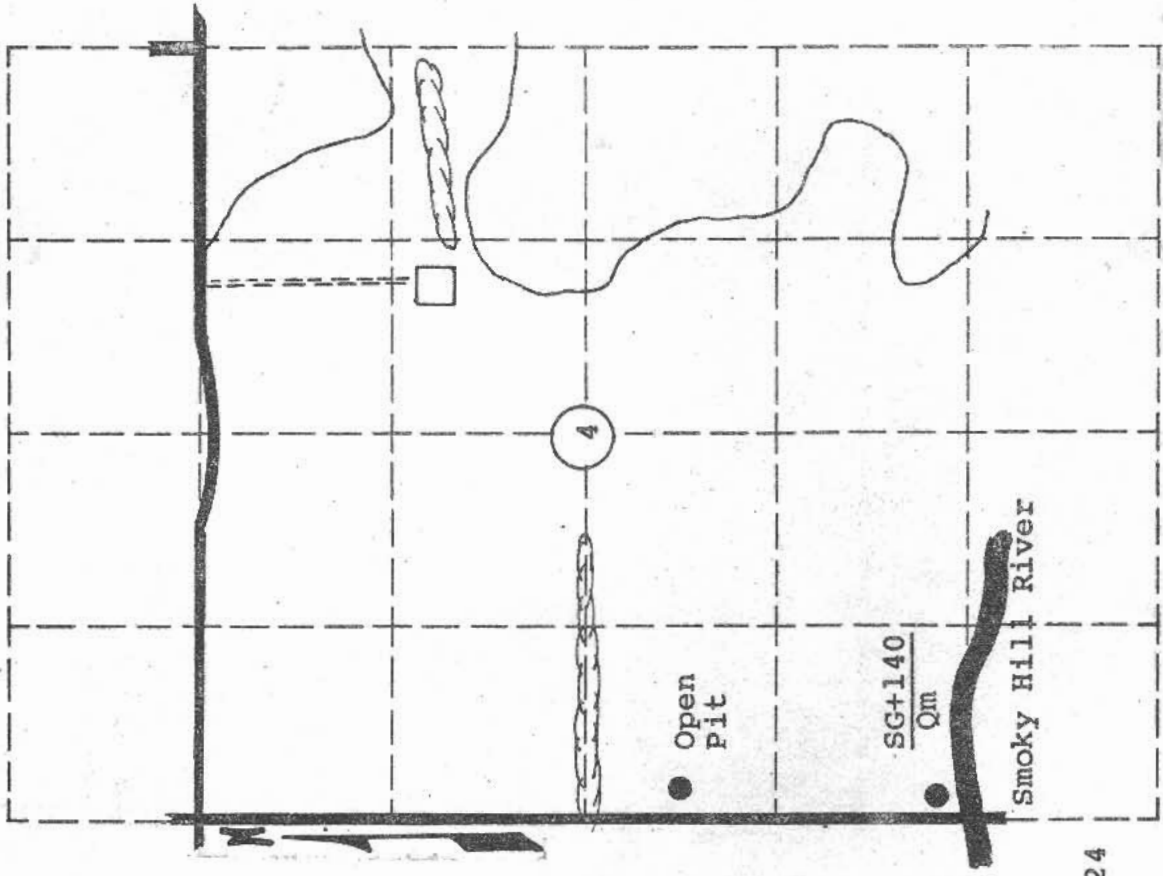
AV. SHC

Dated Tested: 8-62

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 24009

Specific Gravity (Sat.) 2.60 (Dry)
 Los Angeles Wear
 Absorption 0.28
 Wt. Cu.Ft. 109.6 lbs. Str. Ratio 1-day 1.24, 3-days 1.24
 Remarks



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. SG-141
Qm
 Date April 1963
 Material Sand and Gravel County Ellis
 Location SE 1/4 Sec. 8 Twp. 15S Range 19W
 Owner Dick A. Moore Rte. 2, Hays, Kansas
 Nature of Deposit DRY Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

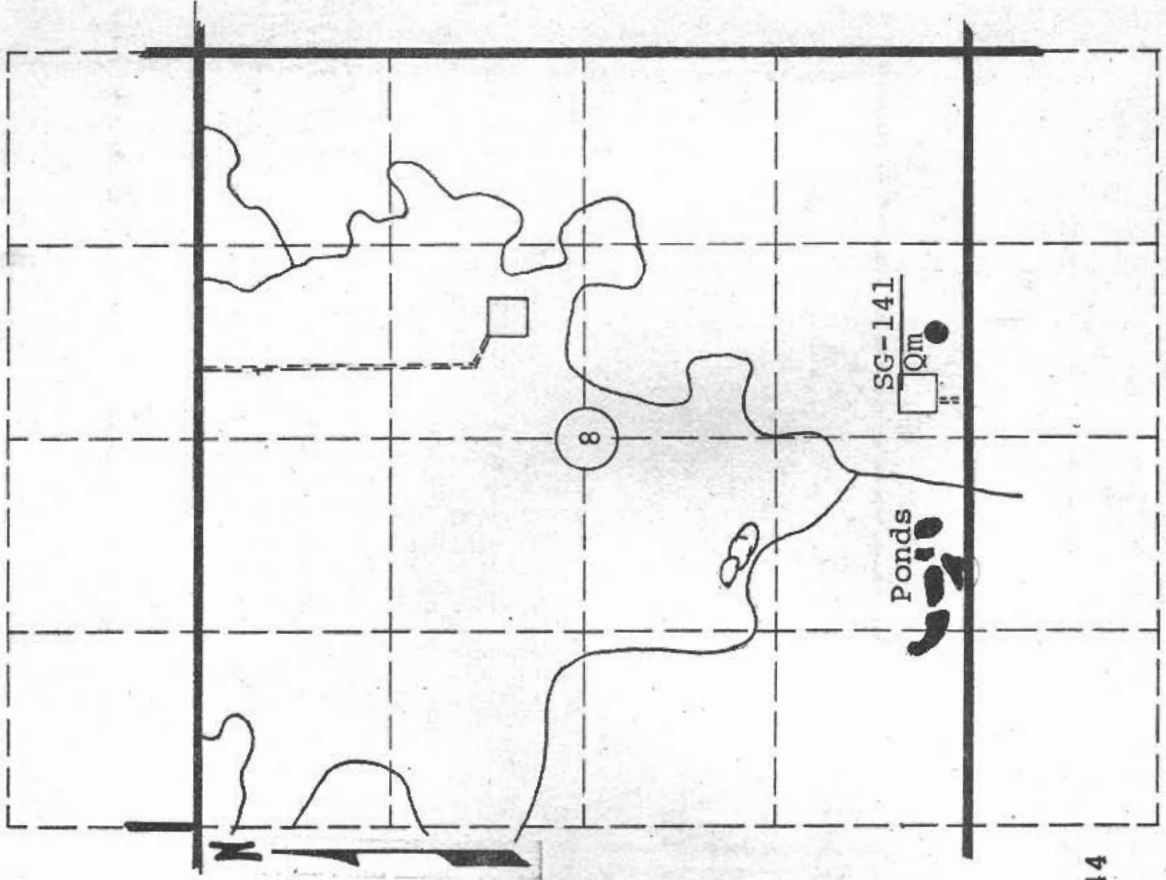
Test Hole	Material at Bottom of Hole	Depth of over-burden	Depth of Material	Percent Retained							Wash 200	G.F.	L.L.	P.I.	
				1 1/2	3/4	3/8	4	8	16	30					50
SHC				2	4	9	21	46	86	98	99	3.65			

AV.

Date Tested: 8-62

CORRELATION DATA

Geological Age Pleistocene
 Geological Source Meade Formation
 Material Similar To Material reported on SHC Lab. Sheet No. 24251
 Specific Gravity (Sat.) 2.61 (dry)
 Los Angeles Near Grading "D" 35.4
 Absorption 0.90 Soundness
 Mt. Cu. Ft. 112.32 lbs. str. Ratio 1-day 1.39, 3-days 1.44
 Remarks



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

SG-142
 PR
 Site No. _____ Date April 1963
 Material Sand and Gravel County Ellis
 Location NW 1/4 SW 1/4 Sec. 30 Twp. 13S Range 16W
 Owner H. B. Kuhn ^{name} Victoria, Kansas ^{address}
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

EXPLORATION DATA

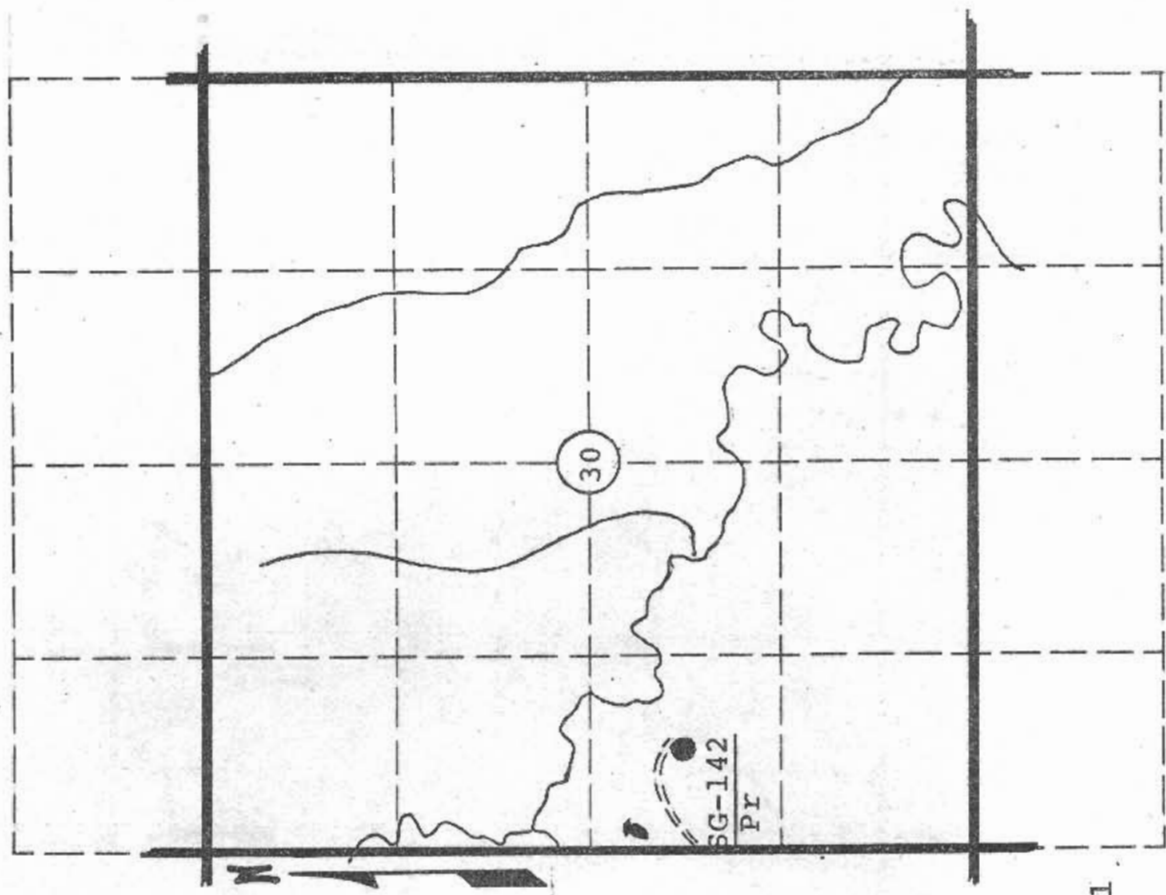
Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained						Wash 200	G.F.	L.L.	P.I.		
				1 1/2	3/4	3/8	4	8	16					30	50
SHC				1	3	7	21	47	74	92	96	3.41			

AV.

Date Tested: 6-60

CORRELATION DATA

Geological Age Pleistocene-Recent
 Geological Source Undifferentiated
 Material Similar To Material reported on SHC Lab. Sheet No. 11687
 Specific Gravity (Sat.) 2.61 (dry)
 Los Angeles Wear Grading "D" 34.1
 Absorption _____ Soundness 0.88
 Wt. Cu.Ft. 107.19 lbs. Str. Ratio 1-day 1.05, 3-days 1.11
 Remarks Material being produced from a 6 ft. bed with approximately 8 ft. overburden. Mortar bed and zones of caliche will be encountered. Material has been used by the Ellis County Highway Dept.



Scale: 1" = 1/4 Mile

MATERIAL SURVEY REPORT

Site No. FS-143
Pr
 Date April 1963
 Material Fine Sand County Ellis
 Location SW 1/4 SE 1/4 Sec. 9 Twp. 14S Range 16W
 Owner Theo. W. Munk address Victoria, Kansas
 Nature of Deposit Dry Accessibility Good
 Status of Site Open site; sampled

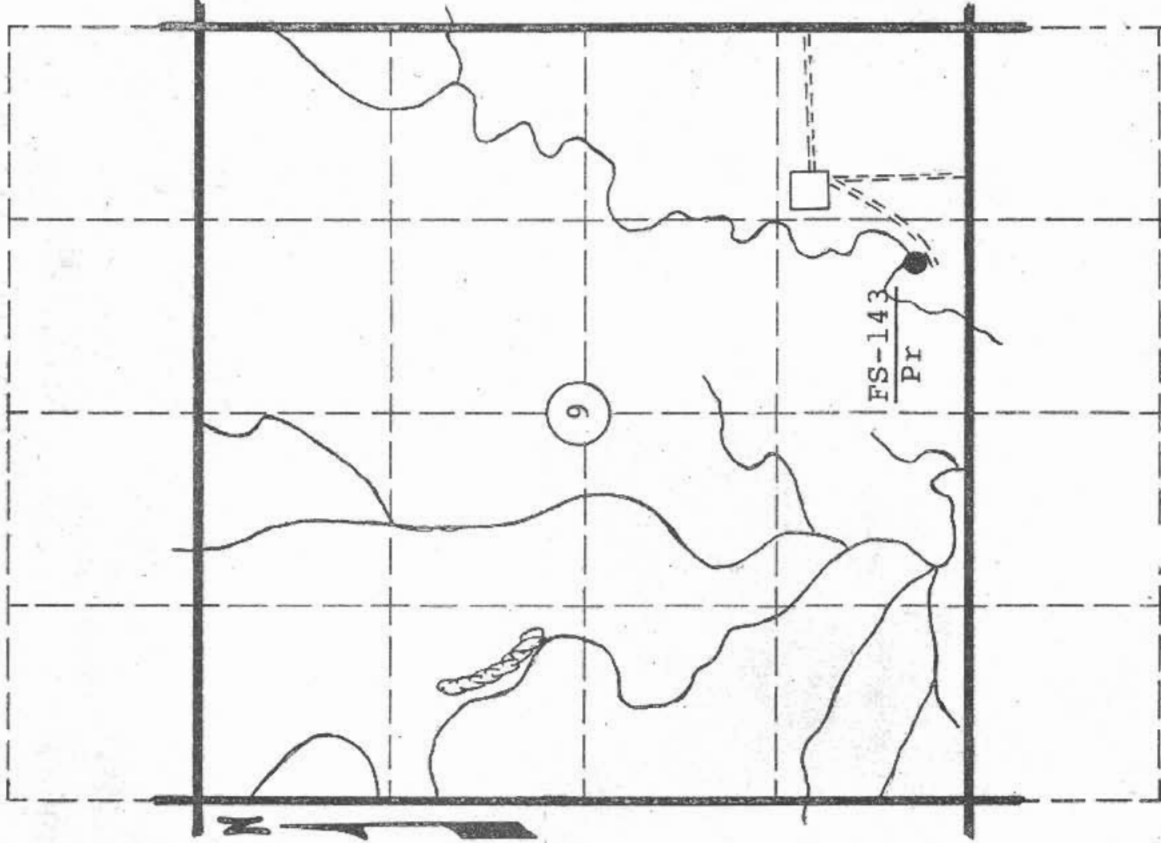
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained					Mash 200	S.F.	L.L.	F.I.					
				1 1/2	3/4	3/8	8	16					30	50	100		
USGS		2	2				8				94						

Date Tested: 2-47

CORRELATION DATA

Geological Age Pleistocene-Recent
 Geological Source Undifferentiated
 Material Similar To Material reported in USGS Ellis Co.
 Report Site No. Fa7
 Specific Gravity (Sat.) (dry)
 Los Angeles Near _____
 Absorption _____ Soundness _____
 Mt. Cu. Ft. _____ Str. Ratio _____
 Remarks Estimated quantity 1,000 cu. yds.



Scale: 1" = 1/4 Mile

