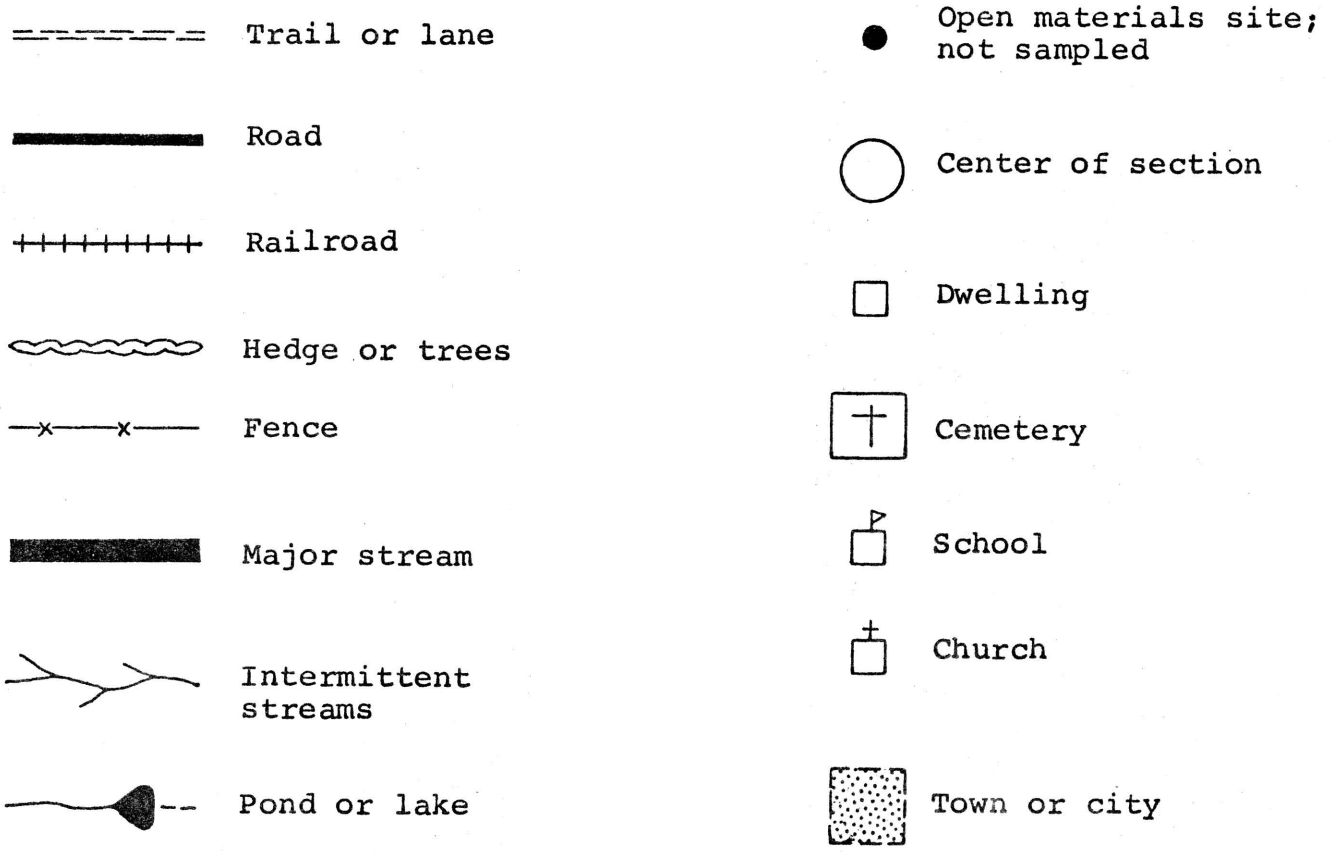
OPEN MATERIALS SITES; NOT SAMPLED

LEGEND



STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+1 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 12 Twp. 32S Range 39W

Owner Dixie Y. Schmidt (name) Hugoton, Kansas (address)

Nature of Deposit Dry Accessibility Fair

Status of Site Open site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To

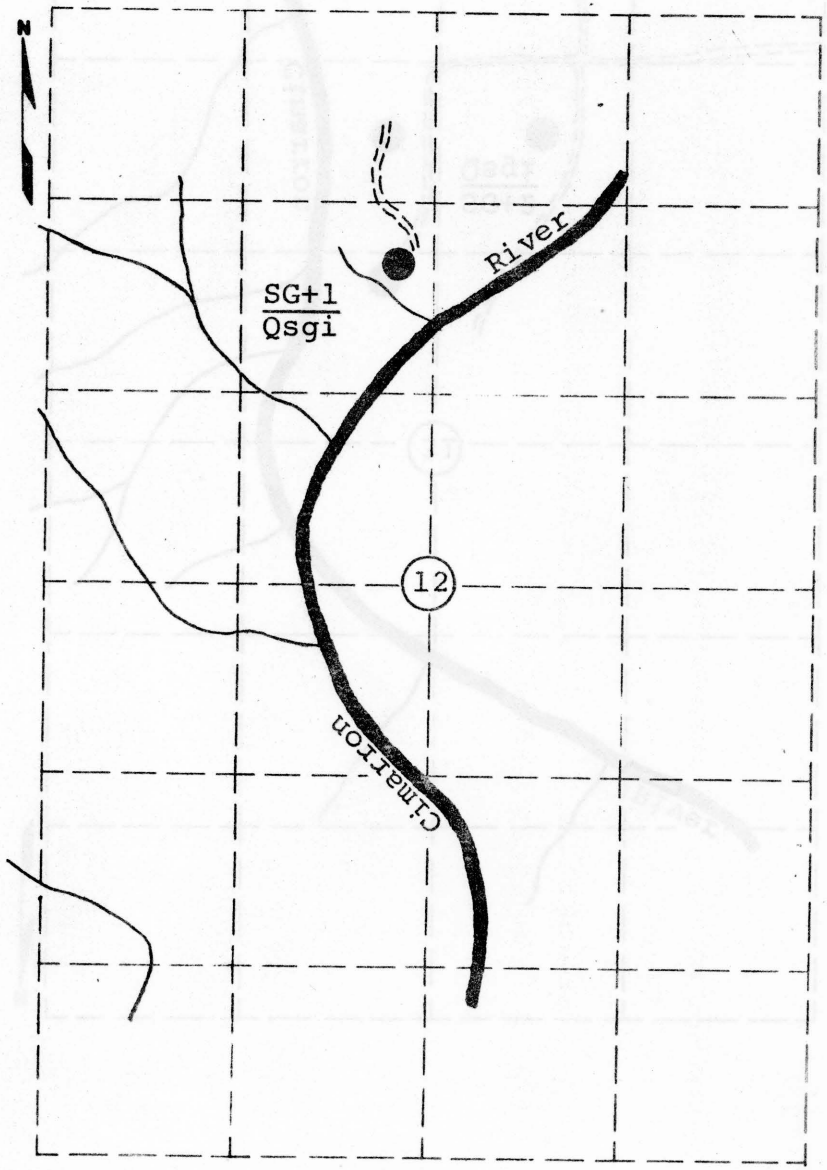
Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+2 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location S½ Sec. 31 Twp. 31S Range 38W

Owner See Remarks
name address

Nature of Deposit Dry Accessibility Good

Status of Site Open site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To

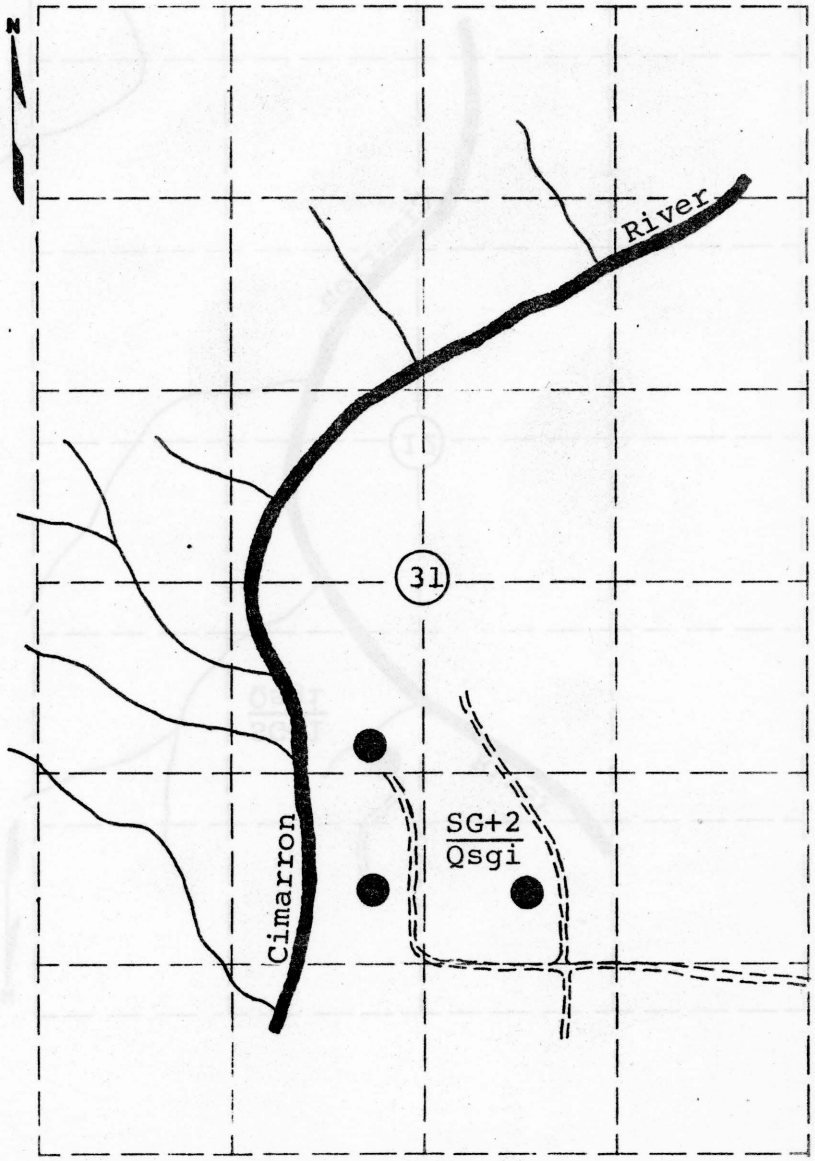
Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks SE¼ Loretta Cavner, Hugoton, Kansas
SW¼ Albert Shank, Box 5, Liberal, Kansas
Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+3 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 4 Twp. 31S Range 35W

Owner Patricia Mallernee (name) 3151 S. Martinson, Wichita, Kans. (address)

Nature of Deposit Dry Accessibility Fair

Status of Site Open site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To

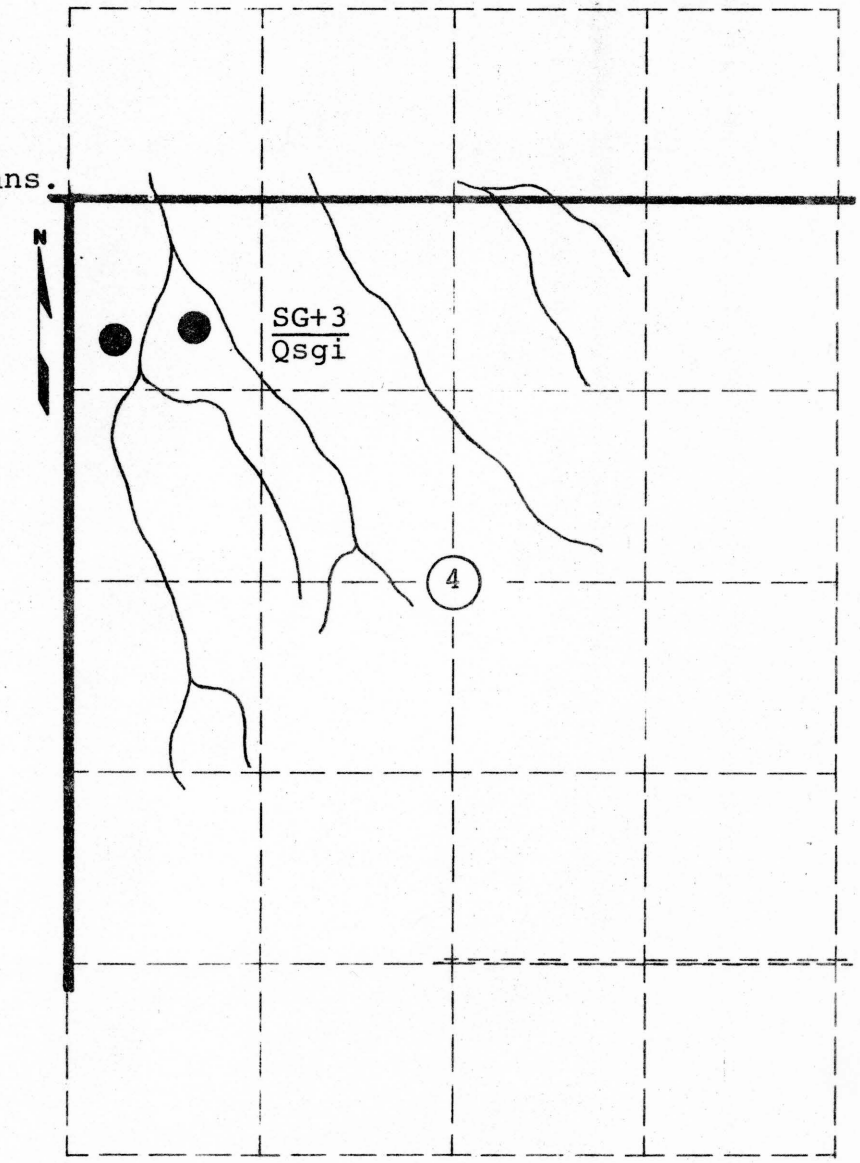
Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks Site location on Plate II



Scale: 1" = ¼ Mile

OPEN MATERIALS SITES; SAMPLED

LEGEND

Trail or lane

Road

Railroad

Hedge or trees

Fence

Major stream

Intermittent streams

Pond or lake

Open materials sites; sampled

Center of section

Dwelling

Cemetery

School

Church

Town or city

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+4 / Qal Date March, 1967

Material Sand and Gravel County Stevens

Location SE¼ Sec. 2 Twp. 31S Range 38W

Owner R. W. Tuttle (name) Ulysses, Kansas (address)

Nature of Deposit Dry Accessibility Fair

Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
4					5	14	26	38	53	73	91	98	2.0	3.98	15	

CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium and Terrace Deposits

Material Similar To Hole 4, SHC Form 619 No. 95-2

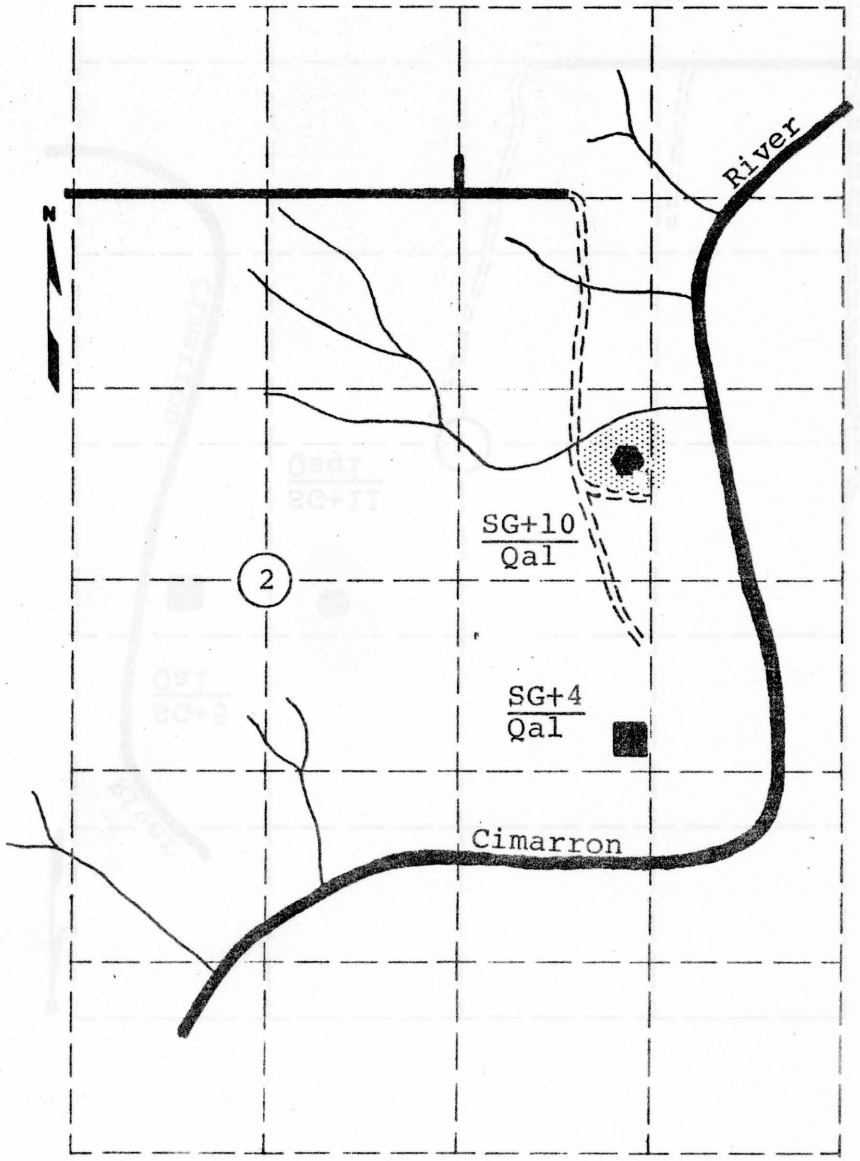
Specific Gravity (Sat.) 2.62 (Dry)

Los Angeles Wear 29.4

Absorption Soundness 0.99

Wt. Cu.Ft. 121.6 Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+5 / Qal Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 1 Twp. 31S Range 38W

Owner R. W. Tuttle (name) Ulysses, Kansas (address)

Nature of Deposit Dry Accessibility Poor

Status of Site Open site; sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of over-Burden	Depth of Material	Percent Retained 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
					16	39	55	64	73	83	92	98	0.6	5.20		

CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium and Terrace Deposits

Material Similar To 1 Quality Sample, Lab. No. 65990

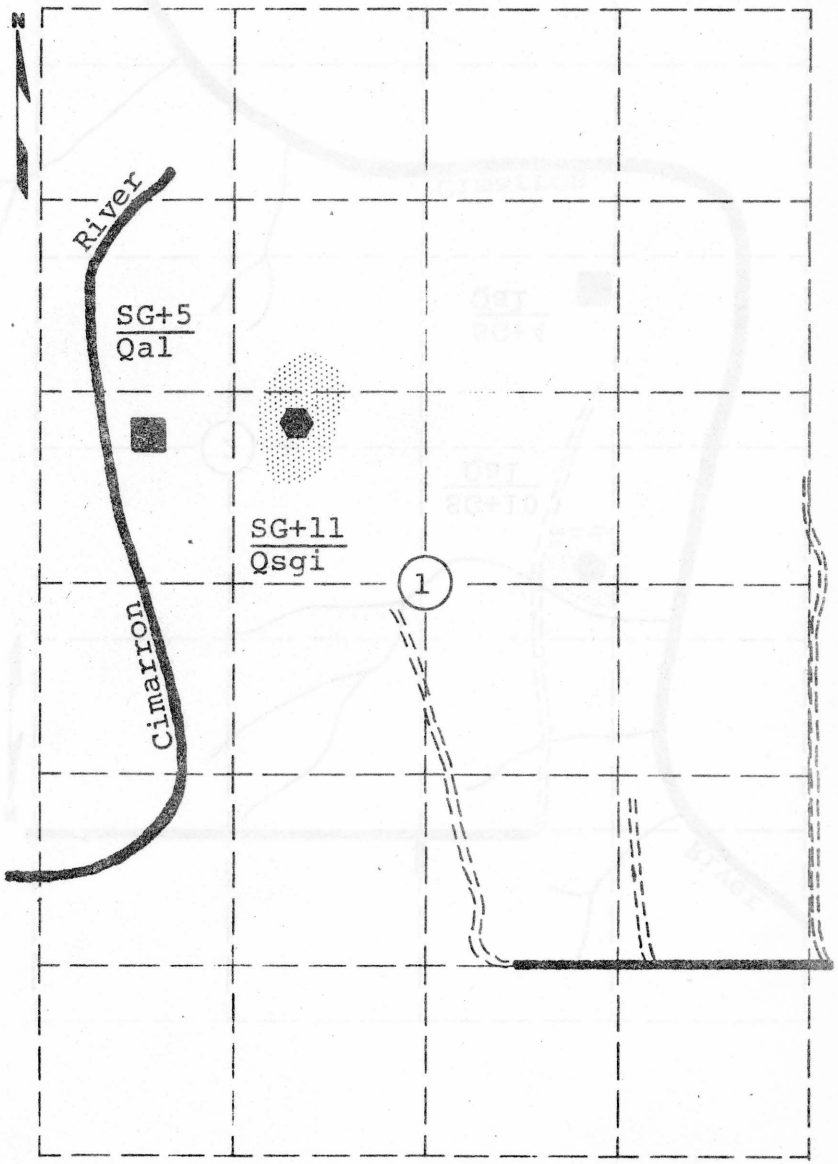
Specific Gravity (Sat.) 2.62 (Dry)

Los Angeles Wear 29.0

Absorption Soundness 0.99

Wt. Cu.Ft. 130.5 Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+6 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location NE¼ Sec. 29 Twp. 31S Range 38W

Owner W. J. Light (name) Rolla, 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 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
					7	17	24	31	42	62	88	95	24	3.66		

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To 1 quality sample, Lab. No. 50851

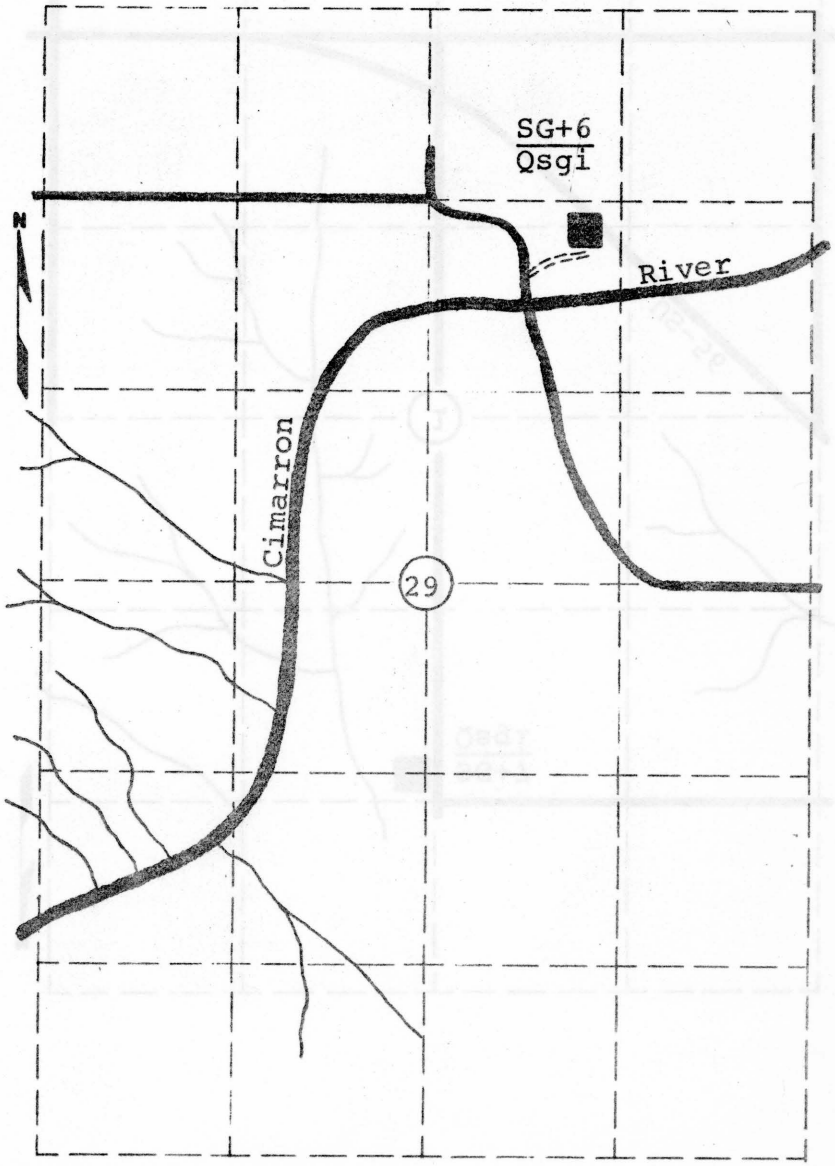
Specific Gravity (Sat.) 2.62 (Dry)

Los Angeles Wear 30.8

Absorption Soundness 0.99

Wt. Cu.Ft. 121.5 Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+7 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 1 Twp. 31S Range 35W

Owner Helen Hulme (name) Box 1129 Great Bend, 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 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
					6	9	16	31	52	73	91	96	3.0	3.74		

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To 1 quality sample, Lab. No. 45036

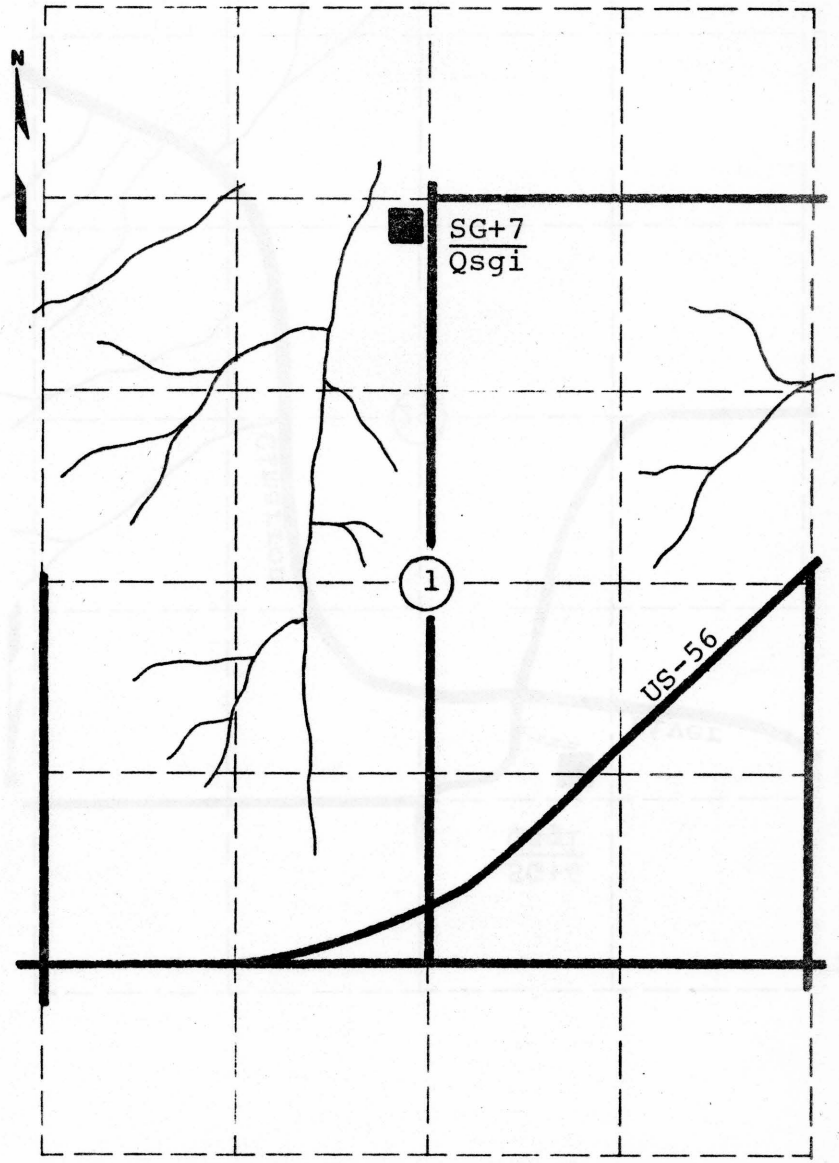
Specific Gravity (Sat.) 2.58 (Dry)

Los Angeles Wear 35.6

Absorption Soundness 0.99

Wt. Cu.Ft. 117.0 Str. Ratio

Remarks Site location on Plate II



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+8 / Qal Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 27 Twp. 32S Range 39W

Owner Samuel W. Bozone (name) Rolla, Kansas (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 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
					7	16	26	34	45	51	85	95	3.0	3.62		

CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium

Material Similar To One sample on 619 No. 95-4

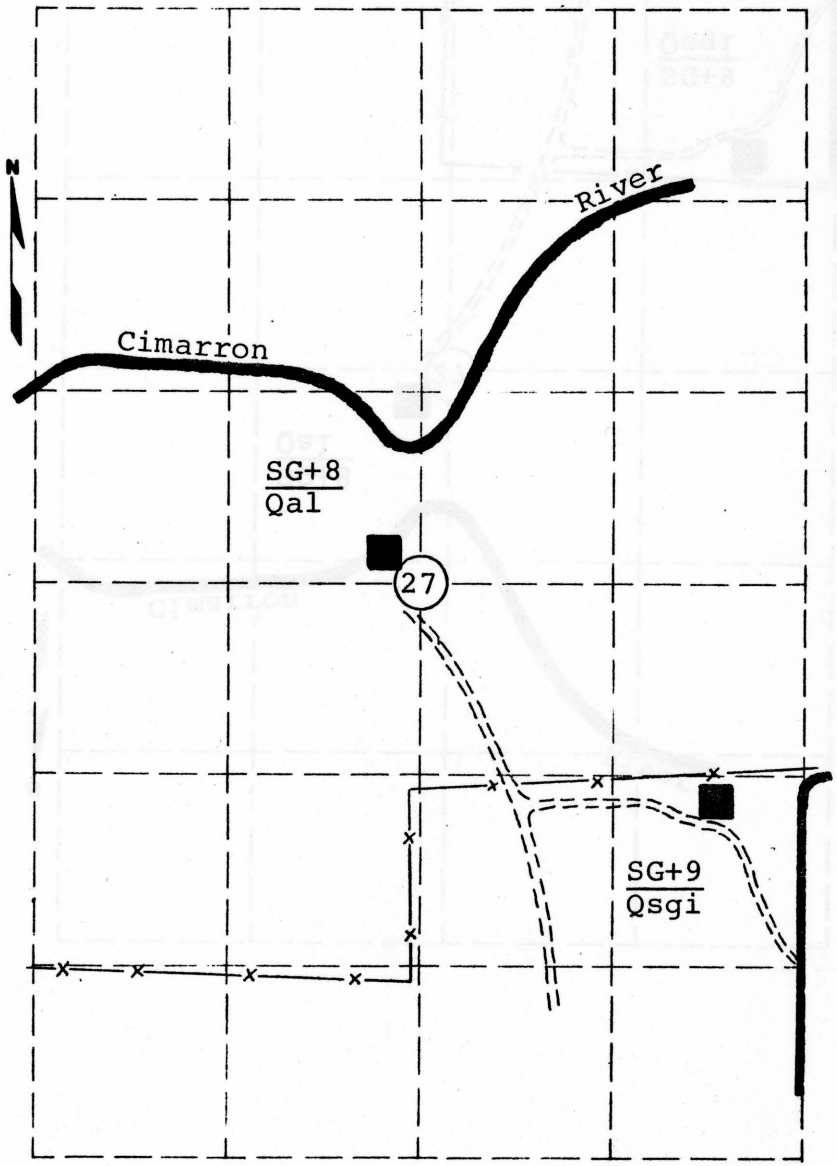
Specific Gravity (Sat.) 2.61 (Dry)

Los Angeles Wear 34.3

Absorption 0.70 Soundness 0.97

Wt. Cu.Ft. 114.5 Str. Ratio

Remarks Site location on Plate III



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+9 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location SE¼ Sec. 27 Twp. 32S Range 39W

Owner Samuel W. Bozone (name) Rolla, 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 1 1/2	3/4	3/8	4	8	16	30	50	100	Wash 200	G.F.	L.L.	P.I.
					4	9	15	22	33	54	82	96	5.2	3.16		

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To Average 12 Holes 619 No. 95-4

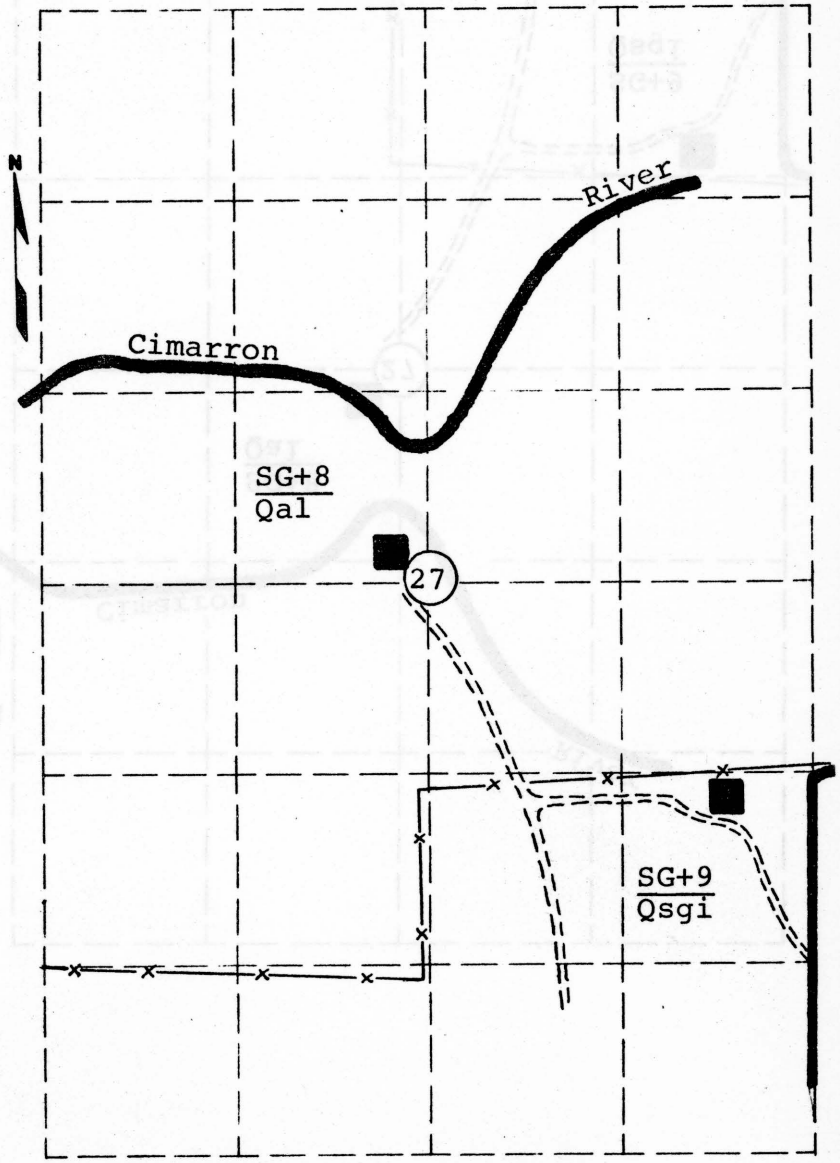
Specific Gravity (Sat.) 2.58 (Dry)

Los Angeles Wear 32.9

Absorption 1.00 Soundness 0.98

Wt. Cu.Ft. 116.1 Str. Ratio 1.04

Remarks Site location on Plate III



Scale: 1" = ¼ Mile

PROSPECTIVE MATERIALS SITES; NOT SAMPLED

LEGEND

Trail or lane

Road

Railroad

Hedge or trees

Fence

Major stream

Intermittent streams

Pond or lake

Prospective materials site; not sampled

Center of section

Dwelling

Cemetery

School

Church

Town or city

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+10 / Qal Date March, 1967

Material Sand and Gravel County Stevens

Location NE¼ Sec. 2 Twp. 31S Range 38W

Owner R. W. Tuttle (name) Ulysses, Kansas (address)

Nature of Deposit Dry Accessibility Fair

Status of Site Prospective site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium and Terrace Deposits

Material Similar To

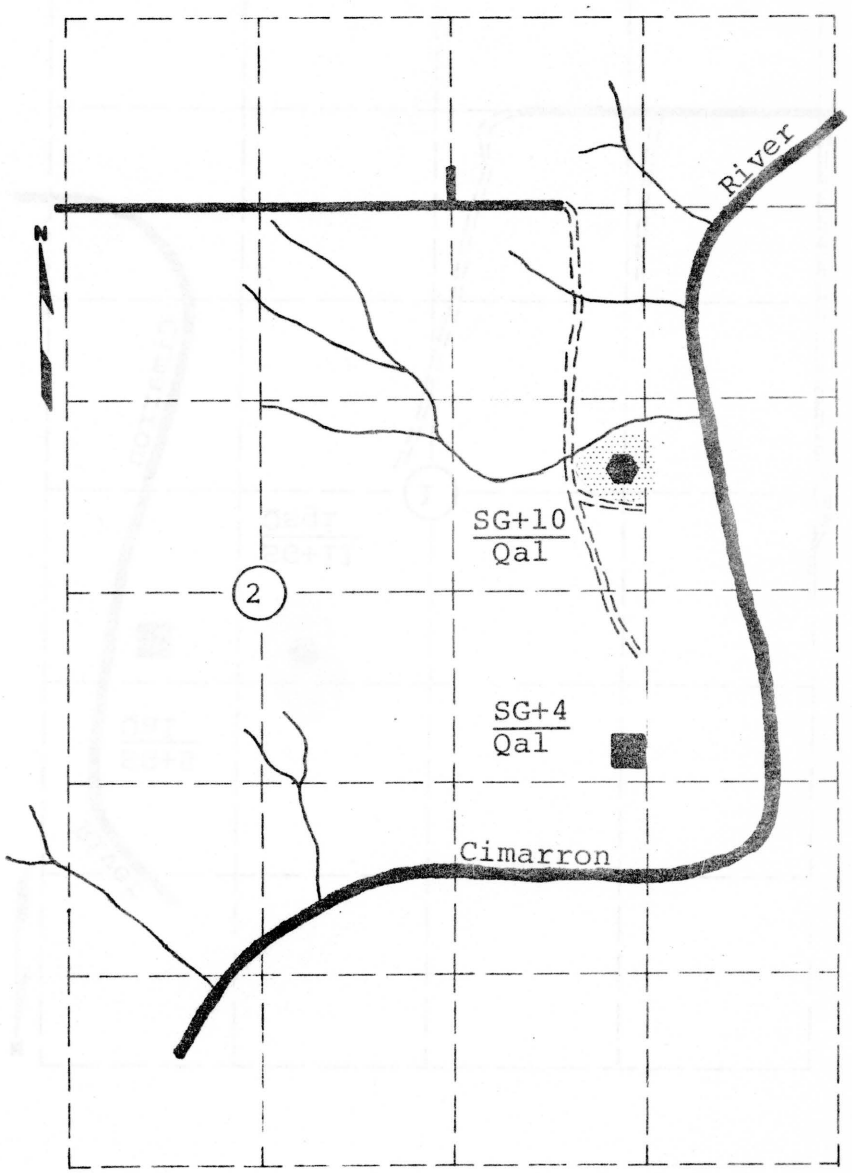
Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+11 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location NW¼ Sec. 1 Twp. 31S Range 38W

Owner R. W. Tuttle (name) Ulysses, Kansas (address)

Nature of Deposit Dry Accessibility Poor

Status of Site Prospective site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To

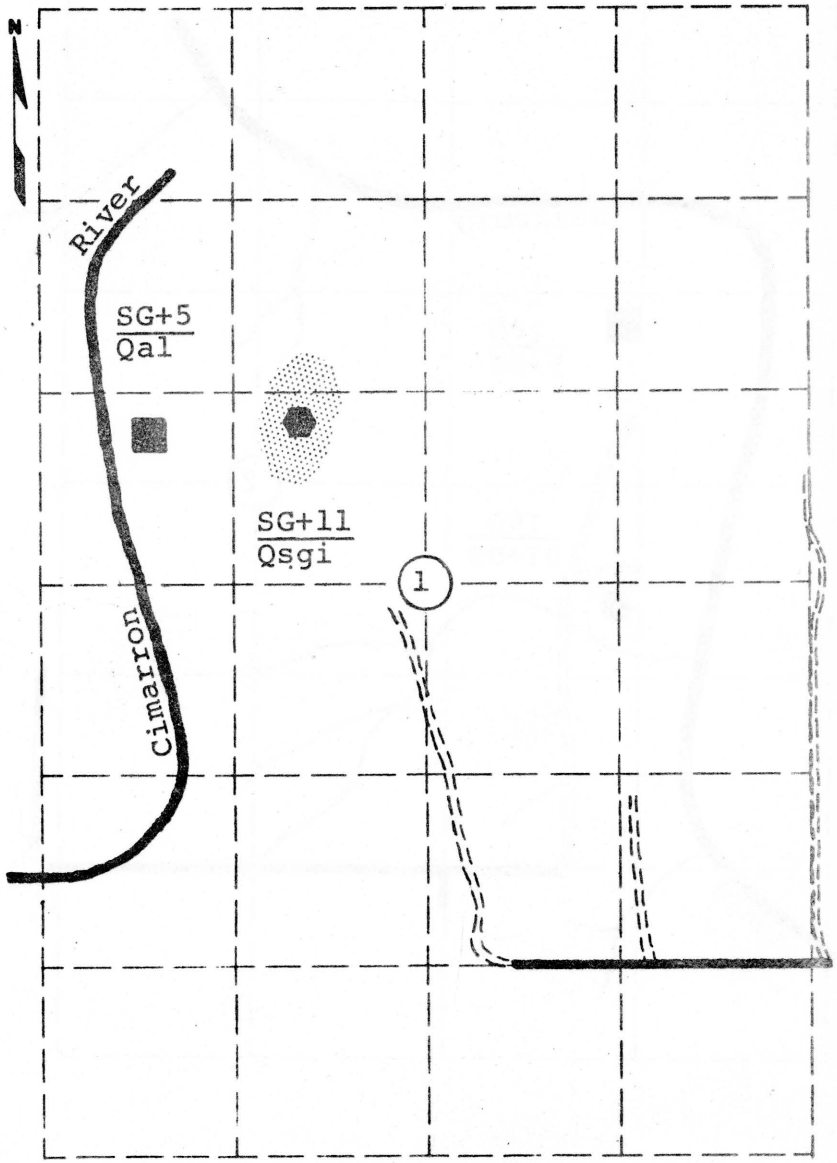
Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks Site location on Plate I



Scale: 1" = ¼ Mile

STATE HIGHWAY COMMISSION OF KANSAS

MATERIAL SURVEY REPORT

Site No. SG+12 / Qsgi Date March, 1967

Material Sand and Gravel County Stevens

Location SW¼ Sec. 5 Twp. 31S Range 35W

Owner See Remarks

Nature of Deposit Dry (name) Accessibility Fair (address)

Status of Site Prospective site; not 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				

CORRELATION DATA

Geological Age Quaternary

Geological Source Grand Island Formation

Material Similar To

Specific Gravity (Sat.) (Dry)

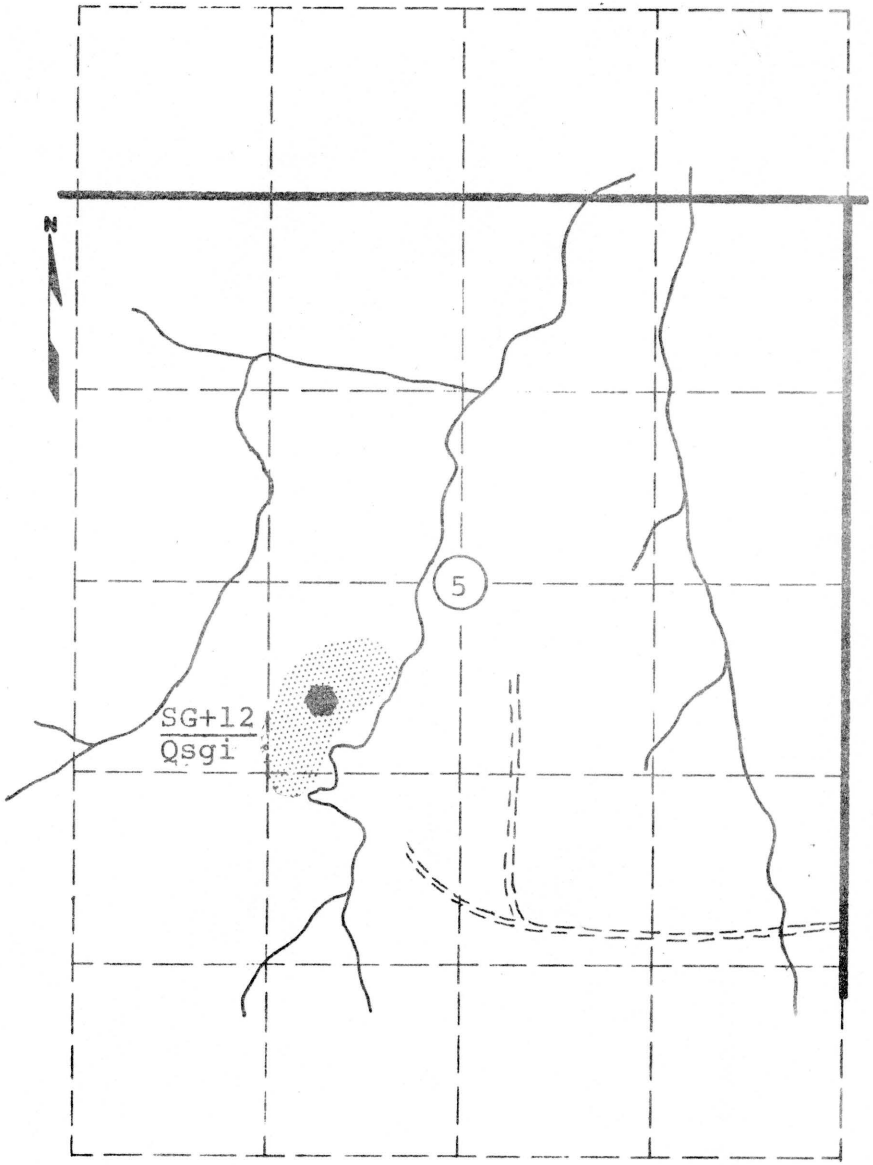
Los Angeles Wear

Absorption Soundness

Wt. Cu.Ft. Str. Ratio

Remarks Leonard H., Katherine R. Roach 547 W. Lake St. Chicago 6, Illinois

Site location on Plate II



Scale: 1" = ¼ Mile

GLOSSARY FOR THIS SERIES OF REPORTS

A.A.S.H.O.: American Association of State Highway Officials.

Absorption: Determined by tests performed in accordance with A.A.S.H.O. designation T 85.

Aggrade: To raise the grade or level of a river valley or stream bed by depositing particles of clay, silt, sand, or gravel.

Alluvium: A deposit of clay, silt, sand, or gravel laid down by flowing water.

Arkosic gravel: Gravel composed of mineral fragments derived from weathered granite.

Caliche: Secondary calcium carbonate accumulations which have resulted from the downward percolation of ground-water over an extended period of time.

Degrade: Lowering of the surface of the land by erosive processes, especially by the removal of material through erosion and transportation by flowing water.

Eolian deposits: Wind-deposited bed of clayey silt.

Evaporites: Group of sedimentary deposits that owe their origin mainly to the evaporation of restricted bodies of sea water.

Geologic period: A unit of geologic time (e. g. Mississippian, Pennsylvanian, and Permian).

Geologic unit: Term used in this report to denote a geologic formation or deposit.

Gradation factor: The value obtained by adding the percentages of material retained on the 1 1/2", 3/4", 3/8", 4, 8, 16, 30, 50, and 100 sieves respectively and dividing the sum by 100.

Igneous rocks: Rocks produced under conditions involving great heat, as rocks crystallized from a molten material.

Light type surfacing: A surface course constructed from aggregate which is not bound by wet cement or bituminous material.

Liquid limit: Determined by tests performed in accordance with section Y1-18 of the State Highway Commission of Kansas Standard Specifications, 1966 edition.

Los Angeles wear: Determined by tests performed in accordance with A.A.S.H.O. designation T 96 as modified by section Y1-14 of the State Highway Commission of Kansas Standard Specifications, 1966 edition.

Material source bed: A particular geologic unit, consolidated or unconsolidated, that provides material for construction purposes.

Metamorphic rock: Rock which has been altered, crystallized or otherwise changed, by intense heat and pressure.

Open materials site: A pit which has produced or is producing material.

Plastic index: Determined by tests performed in accordance with section Y1-18 of the State Highway Commission of Kansas Standard Specifications, 1966 edition.

Pleistocene Series: Deposits laid down during the Quaternary Period.

Soundness: Determined by tests performed in accordance with section Y1-15 of the State Highway Commission of Kansas Standard Specifications, 1966 edition.

Specific gravity: Determined by tests performed in accordance with A.A.S.H.O. designation T 84 for sand and gravel and T 85 for crushed stone.

Stream meander: Lateral movement of a stream in its valley.

Stream scour: Downward erosion and churning action of a stream into its alluvium.

Terrace: A plain built up by the deposition of sediments by water.

Unconsolidated deposits: Deposits of clay, silt, sand, or gravel. These deposits may be laid down by wind or water action.

Volcanic ash: The finely divided fragmental rock material blown from volcanoes during explosive eruptions.

Wash: (Material passing the No. 200 sieve) Determined by tests performed in accordance with A.A.S.H.O. designation T111.

Wieght per cubic foot: Determined by tests performed in accordance with A.A.S.H.O. designation T 19-45.

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