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OIL AND GAS SHOWS IN THE SALINA BASIN

by

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Introduction

Petroleum exploration in the Salina basin in north-central Kansas has met with limited success to date. Except for in its extreme southern end in McPherson and Saline counties, the basin has had no fields discovered in over 60 years of drilling. The failure to find significant reserves in the Salina basin no doubt discourages all but the boldest explorationist. Exploration test wells have been drilled infrequently, and consequently large areas, encompassing almost entire counties, remain untested. The Salina basin is therefore one of the least-known areas in Kansas with respect to its petroleum potential.

The Salina basin may never be a prolific petroleum province; nevertheless, it could contain oil and gas fields which could be economic and interesting to small oil companies and local communities. The Forest City basin in northeast Kansas is geologically similar in many ways to the Salina basin. Many small oil and gas fields are present in the Forest City basin and still more are being discovered. Similar types of fields are therefore a possibility in the Salina basin.

Wildcatters prospecting for petroleum in areas far from known oil fields must do everything possible to maximize their chances for success. At the same time, they must conserve their expenses in what could be a costly drilling program if no reserves are found. In areas such as the Salina basin, where widely spaced wells limit the amount of geologic control available, gleaning as much information as possible from each well is very important. Hydrocarbon shows that have been logged in previously drilled wells represent a potentially important source of information.

Oil and gas shows per se are not proof that commercial quantities of petroleum will be discovered, but they do indicate geologic conditions favorable for petroleum formation were fulfilled, if only to a small degree. When used in conjunction with other geological data, hydrocarbon shows (or the lack of them) are useful in assessing the petroleum potential of individual prospects or entire basins. Thus, exploration dollars can be spent more wisely if hydrocarbon shows are taken into account.

This data search was initiated to ascertain if any petroleum shows are present in the Salina basin and, if so, to determine where these shows are concentrated and which stratigraphic horizons generate them. The data sources used in this compilation were sources of information available in the Minerals Information Center at the Kansas Geological Survey in Lawrence, Kansas. Three types of source documents were queried: scout cards, driller's logs, and lithologic strip logs. Other sources of information such as geologic reports available in the library of the Kansas Geological Society in Wichita may yield additional data but were not included in this report.

The following information was gathered about each show: operator and well name, spot location, county, completion date, surface datum, depth interval, formation, and type of show. The type of show is described using

the comments contained in the original source document. Abbreviated oil-field terms are the descriptors commonly used in characterizing these shows [e.g., SSO (slight show oil), OCM (oil-cut mud), GCM (gas-cut mud), etc.]. The reader is assumed to be familiar with this terminology. Wherever possible in this report, the show description is conveyed verbatim from the source document with minor changes in spelling. A glossary of the stratigraphic abbreviations used in this report follows the compilation of hydrocarbon shows.

The shows are separated into three groups according to the type of the source document. Within each group, shows are separated into those present in the west ranges versus those in the east ranges. Within this hierarchy, wells are filed according to their spot location by township and range. Areas close to existing oil fields were ignored by excluding any oil shows found within the quarter-township containing a known oil or gas field or segment of a field.

The number and distribution of oil shows is, in part, a function of the number of wells drilled in the basin. The distribution of dry holes and oil fields within the Salina basin is shown on the map accompanying this report (Figure 1). Other factors, such as total depth and deepest formation penetrated by each well, are not included. Factors such as experience and alertness of the observer of course cannot be estimated. Figure 2 graphically summarizes oil shows and drilling density for several subdivisions of the Salina basin.

Discussion and Conclusions

The number of petroleum shows within this relatively nonproductive basin is surprising. In the west ranges over the deepest part of the basin, most of the oil shows occur in lower Paleozoic units, namely the Ordovician Simpson, Viola, and Maquoketa formations. These shows appear scattered, but a small group is concentrated just north and on-trend to the Salina field in northeastern Saline County. The major pay zones in this field are the Maquoketa and Viola formations. Oil and gas shows in the Mississippian "chat," the major reservoir unit farther south in the northern Sedgwick basin, are conspicuously absent in the western part of the Salina basin. Similarly, shows also are rare in the Cambro-Ordovician Arbuckle Group, a major pay horizon to the west on the Central Kansas uplift. Pennsylvanian Lansing-Kansas City oil shows are only common on the extreme western fringe of the Salina basin and are probably related to possible prospective areas peripheral to Lansing-Kansas City production trends on the Central Kansas uplift. Gas shows indicate no discernable trends and are scattered over the Salina basin. Gas shows are most common in Permian units.

The distribution of oil and gas shows indicates that in order to maximize chances of success, a wildcat well in the western and central part of the Salina basin should at least penetrate the top of the Arbuckle Group. By drilling to this horizon, the lower Paleozoic units in which most shows occur will be tested.

The best oil show in the west ranges away from the Central Kansas uplift occurs in northwestern Lincoln County at 35-10S-10W. At this location the Red Bank Oil #1 Brown well produced oil in 1926 from the Viola(?) until shut down due to lack of any saltwater disposal facilities. This well (renamed the #1 Sulsar) was re-entered in 1985 by Stephens Resource Company, and significant shows were again encountered. The well, however, could not be cleaned out and brought into production (Les Stephens, personal communication, 1985). The present status of additional exploration in this area is currently unknown to the authors of this report.

Hydrocarbon shows in the east ranges of the Salina basin are more numerous and complicated than those in the west ranges. Mississippian shows are the most common and are largely concentrated in Dickinson, Clay, Geary, and northern Morris and Marion counties. These shows generally occur near the top of the Mississippian limestones at the pre-Pennsylvanian unconformity. Several other oil shows recorded from the Siluro-Devonian "Hunton" formation and other lower Paleozoic units, mostly concentrated near the Yaege field in Riley and Pottawatomie counties, also occur where these units subcrop beneath the pre-Pennsylvanian unconformity.

Several Lansing-Kansas City oil shows occur in the southeastern part of the Salina basin and seem to be spatially coincident with the deeper Mississippian shows. These shows, like the Mississippian shows, may be related to concentrations of hydrocarbons along north-northeast--south-southwest trending structures aligned parallel to the Nemaha uplift and Humboldt fault zone. Several shows in the Mississippian section along the pre-Pennsylvanian unconformity and within the Pennsylvanian section and in the southeast part of the basin are significant (e.g., free oil recovered in drill-stem tests, etc.). These strong shows give encouragement that this area may be prospective for undiscovered oil fields.

Oil shows in the lower Paleozoic section not associated with the pre-Pennsylvanian unconformity in the east ranges are not as common or as strong as the Mississippian and Pennsylvanian shows. Like oil shows in the west ranges though, they are scattered over the basin and are largely concentrated in the Viola, Maquoketa, and Simpson formations. Gas shows, like those in the west ranges, are mostly concentrated in the Permian strata.

The most surprising oil shows in the east ranges occur in Precambrian clastic rocks possibly associated with the Central North American Rift System. Wells with Precambrian shows include the Veeder #1 Gravenstein well in 21-8S-6E (Riley County), the Marshall County Syndicate #1 C. Finn well in 4-4S-7E (Marshall County), the Welton Oil #1 Thierer well in 20-10S-7E (Riley County), the Seevers #1 Livingood well in 13-13S-2E (Dickinson County), and the Nemaha Oil and Gas #1 Seneca well in 19-3S-11E (Nemaha County). The #1 C. Finn well reported oil and gas shows in "bituminous shales" and sands over a 600-foot interval.

Very few wells have been drilled into the Central North American Rift System; hence, its hydrocarbon potential is largely unknown. The shows present in these extremely old rocks, although minor, are encouraging. Companies generating prospects targeted for potential Paleozoic reservoirs should therefore be cognizant of potentially prospective deeper strata if they are exploring in areas over the rift.

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SALINA BASIN HYDROCARBON SHOW COMPILATION (WEST RANGES)
(SCOUT CARDS)

OPERATOR & NAME	LOCATION	COUNTY	COMP DATE	DATUM (FEET)	DEPTH INTERVAL (FEET)	FM	REMARK
Terra Resources #1 Wangerin	NE NE 20-2S-15W	Smith	11/79	1994	2872-2933	SEV?	rec. 1730' slight gas cut SW on dst.
					2890-2894	SEV	30-40 unit gas kick; few sand clusters w/show oil
					2910-2916	TOP	?-92 unit gas kick
					3115-3120	TOR	slight stain-no porosity
					3200-3210	LANS	slight stain-no porosity
Nat'l. Assoc. Petrol. Co. #1 Morgan "A"	NW NW NW 5-2S-17W	Phillips	10/56	2088	3390-3440	KC	rec. 1250' saltwatery oil on dst.
Anschutz Drlg. Co. #1 Cannon	SW SW SW 17-2S-17W	Phillips	3/52	2028	3470-3483	LANS	rec. 8' drilling mud, slight show oil on dst.
Amerada Petrol. #1 Hawk	SE SE NW 24-2S-18W	Phillips	8/58	2039	3320-3473	LANS	rec. 435' slight OCSW on dst.
Terra Resources #1 Pillmore	SW SE SW 21-3S-17W	Phillips	12/79	1915	3226-3275	LANS	rec. 15' mud w/SO on dst.
					3320-3353	LANS	rec. 15' mud w/SO on dst.
Beacon Resources #1 Zillinger "A"	NE SW SW 33-3S-18W	Phillips	12/68	1928	3076-3100	LANS	rec. 25' OSM on dst.
Sohio #1 Hansen	SW NW NE 33-3S-18W	Phillips	12/52	1895	3282-3302	LKC	rec. 15' HOCM, trace oil on dst.
Arrowhead Petrol. #1 Miller	NE NW NW 34-3S-18W	Phillips	7/80	1929	3096-3160	OREAD	rec. 15' VSOCM on dst.
					3240-3285	LANS	rec. 7' mud w/SO on dst.

Scout cards-west ranges

Harry Mann, et al. #1 Beard	NE SW SW 10-5S-10W	Jewell	10/52	1636	2546-2579	DGLS	rec. 60' GCM on dst.
Petroleum Mgmt. #1 T.W. Jackson	NW SW SE 16-5S-17W	Phillips	11/65	1946	3185-3230 3246-3265 3296-3310	LANS LANS LANS	rec. 3' oil and 17' mud on dst. rec. 2' FO and 253' MSW on dst. rec. 10' OCM and 65' MSW on dst.
Petroleum Mgmt. #1 Keeten "B"	E/2 NW 16-5S-17W	Phillips	3/66	1936	3209-3240 3238-3250	LANS LANS	rec. 80' SOCM on dst. rec. 30' VSOC SW, 20' SOCSW, and 65' MSW on dst.
Stanolind #1 Campbell	SW NW NW 26-6S-2W	Cloud	7/50	1396	3031-3040	MQKT	rec. 8' SOCM on dst.
Martins Expl. #1 McLaughlin	SE SE SW 6-6S-17W	Rooks	6/80	1923	3071-3140 3181-3210	LANS LANS	rec. 5' oil & 30' HOCM on dst. rec. 30' MCW w/scum oil on dst.
Lewis Drlg. #1 Kemmler	NW NW SE 7-6S-17W	Rooks	11/52	1952	3132-3148 3126-3143	LANS LANS	rec. 10' mud w/SO on dst. rec. 135' OCM on dst.
Pate-Dombaugh, et al. #1 Coleman-Brune	NW SE NW 7-6S-17W	Rooks	8/79	1956	3099-3156	TOR	rec. 40' OCM on dst.
Nat'l Assoc. Petrol. Co., #1 Schwartz "B"	SW SW NW 18-6S-17W	Rooks	5/66	2005	3264-3300	LANS	rec. 10' OCM and 60' SOCM on dst.
Shields Oil Prod. #2 Enoch	E/2 E/2 SE 31-7S-15W	Osborne	7/80	1762	2812-2854	TOP	rec. 60' SOCM on dst.
Shields Oil Prod. #1 Enoch	NW SW NW 32-7S-15W	Osborne	3/73	1762	2793-2812	TOP	rec. 20' OCM on dst.
Ottawa Oil & Devel. #1 Srna	NW SE SW 21-9S-5W	Ottawa	5/20	1549	3190-3207	PENN- MSSP?	driller reports good show green oil

Scout cards-west ranges

Don Ingling, et al. #1 Abercrombie	SW SE NE 19-9S-7W	Mitchell	2/58	1367	3436 3567	HNTN VIOL	oil stains oil stains
Billy Drlg. #1 B. Funk	NW 32-9S-8W	Mitchell	?/24	~1800	136	DAK	show of gas w/1.08% He (see KGS Bull. 16, p. 54)
Northern Ord. #1 Vandament	NW NW 3-9S-13W	Osborne	5/43	1767	3035-3057 3920-3930	PENN VIOL	show oil dead oil, spots
Mai Operations #1 Ahrens	SE NW NE 30-9S-14W	Osborne	8/81	1965	2925-2945 3143-3242	TOP TOR LANS	rec. 10' OSM w/SO on dst. rec. 20' OSM and 20' mud w/SO on tool on dst.
Empire #1 Crist	SE SE NE 30-9S-14W	Osborne	6/29	1983	3676-3680	MSSP?	oil show
Rains-Williamson #1 McNeal	SW NW SE 32-9S-14W	Osborne	6/83	1989	3254-3287	LANS	rec. 65' WCM w/SO in dst.
Drolte & Christopher #1 Nichols	NW NW NW 15-10S-11W	Osborne	11/60	1730	4007-4020 3790-3802 4007-4020	VIOL VIOL VIOL	UV fluor. rec. 75' watery M w/slight fluor. rec. 9' M w/UV fluor.
Drolte & Christopher #1 Mosure	SE SW 21-10S-11W	Osborne	1/60	1688	3486-3500	MSSP CG	trace flake oil
Terra Res. #1 Robinson	NE NE NE 14-10S-12W	Osborne	11/78	1702	2938-2980	LANS	rec. 305' SOCM on dst.
Eric F. Waddell #1 Meyers	NE NW NE 15-10S-14W	Osborne	10/83	2000	?	LANS	oil well (interval NA)
Eric F. Waddell #2 Meyers	N2 N2 N2 15-10S-14W	Osborne	6/84	2043	3256-3310	LANS	rec. 45' OCM on dst.

Scout cards-west ranges

Veail #1 Meyer	SW NE	Osborne	8/68	2005	3230-3260	LANS	rec. 30' OCM on dst.
	15-10S-14W				3260-3280	LANS	rec. 30' GC & OCM on dst.
					3300-3330	LANS	rec. 120' VSOCM on dst.
Dutton & Hicks #1 Steinle	SE SE SE	Russell	7/47	1698	2903-2908	LANS	5' core, slightly stained
	4-11S-12W				2954-2966	LANS	SO
Ladd Petrol. #1 Day Trust	SE SE SE	Russell	5/83	1692	2985-3002	LANS	rec. 65' VSOCM (2% oil) on dst.
Thunderbird Drlg. #1 Anschutz "D"	SE NE SW	Russell	6/81	1795	3050-3071	LANS	rec. 30' M w/SSO on dst.
Rains-Williamson #1 Harrell	NE NE NW	Russell	4/83	1787	2720-2740	TOP	rec. 15' OSM on dst.
	5-11S-14W				3043-3053	LANS	rec. 125' VSOCM on dst.
Rains-Williamson #1 Robbins	SE NW NW	Russell	4/83	1784	3066-3106	LANS	rec. 210' SOSMW & 180' SW on dst.
	6-11S-14W				3156-3200	LANS	rec. 10' SOSM on dst.
Rains-Williamson #1 Alfred Thompson	SE NW SE	Russell	9/82	1695	2938-2978	LANS	rec. 10' OSM on dst.
Rains-Williamson #1 Slater	SW NW NE	Russell	8/82	1806	3053-3083	LANS	rec. 75' SOSM on dst.
Carter Oil #1 Best	SW NE	Ottawa	8/19	1304	840	PERM?	gas sand
Glickman Oil #1 Mynatt	NW NE SE	Saline	2/59	1183	3041-3051	VIOL	rec. 6' OCM on dst.
Walters Drlg. #1 Tobin Est.	SW NW	Saline	12/69	1181	3014-3052	MQKT- VIOL	SO in top 4' and bottom 1' of 28 1/2' core
Bay Petrol. #1 Rockhold	NW NW NW	Saline	1/43	1178	3058-3060	VIOL	small show oil

Scout cards-west ranges

F.W. Vishnefske #1 Geis	NW NW NW 27-13S-2W	Saline	8/55	1223	3185-3190	VIOL	rec. 120' slightly OCM on dst.
E. Adair #1 Walden	SW SW 27-13S-2W	Saline	10/45	1206	3315-3317	SMPS	slight show oil
Terra Resources #1 Geis	SW 33-13S-2W	Saline	8/78	1217	3320-3348	SMPS	rec. 420' MCW w/SSO on dst.
Twin Mounds Oil #1 Weis	WL NE NW 20-13S-4W	Saline	4/29	1375	1948	TOP	gas show
D. Ingling #1 Meyer	NW NW 17-13S-10W	Lincoln	1/64	1737	3494-3509	VIOL	dead oil spots
P.G. Reynolds, et al. #1 Fredrickson	SE SW SE 6-13S-12W	Russell	6/36	1794	2640	LANS	show oil
Austin Drlg. Co. #1 Rockefeller	SE SE 6-13S-12W	Russell	11/31	1794	3042-3044	LANS	show oil-600' oil-22 hrs., bailed 18 bbls in 3 hrs. 41° gravity
J.D. Mooneyham & R.P. Nixon #1 Cooper	SE SE 13-13S-12W	Russell	2/67	1789	2954-2974	LANS	rec. 10' SOCM on dst.
Thunderbird Drlg. #1 Letsch	NW SW SW 15-13S-12W	Russell	7/83	1795	2957-2976 2996-3017	LANS LANS	rec. 150' MCW w/SO rec. 60' HG & OCM and 240' M&GCO on dst. (well also flowed 3-10% oil through perfs. @ 3006'-3010')
Pickrell & Southwest Petroleum #1 Sidey Ranches A	SE SE NW 18-13S-12W	Russell	8/70	1825	3030-3045	LANS	rec. 760' SMCSW w/VSSO on dst.

Scout cards-west ranges

Koch Expl. #1 Rogg	NW NE NE 10-13S-13W	Russell	5/69	1692	2896-2932	LANS	rec. 114' wtry mud w/few specks oil on dst.
B&R Drilling #1 Dauber	SE SE NW 12-13S-13W	Russell	7/47	1585	2813-2820	LANS	rec. 30' mud, slight odor, slight oil cut on dst.
Rains-Williamson #1 Dauber	SW SE 12-13S-13W	Russell	11/78	1615	2844-2860	LANS	rec. 35' mud w/SO on dst.
Thunderbird Drlg. #1 Holland	NE NW NE 15-13S-13W	Russell	10/82	1799	3050-3088	LANS	rec. 250' MCW w/SSO on dst.
Rains & Williamson #1 Shier	NW SE SW 35-14S-1W	Saline	5/83	1269	2577-2585	MSSP	rec. 600' GCSW on dst.
Don Ingling, et al. #1 Price	SE NE SE 3-14S-2W	Saline	2/56	1200	3134-3147	MQKT	SSO
Assoc. Petrol. Consultants #1 Gilmore	NE NE 18-15S-1W	Saline	10/82	1275	2668-2702 2669-2690	MSSP MSSP	rec. 850' SW & SSO on dst. rec. 75' OSM (5% oil) on dst.
Bay Petrol. #1 Royce	SE SE SE 13-15S-4W	Saline	7/51	1292	3134	HNTN	rec. 175' muddy SW & scum oil on dst.
S.K.D. Corp. #1 Kyler	S/2 SE SW 5-15S-7W	Ellsworth	2/73	1711	1093-1178 1957-2008	HERR GRHVN	rec. 10' GCM on dst. rec. 60' thin SGCM on dst.
Stearns Drlg. #1 Dolezal	NE NE NW 17-15S-7W	Ellsworth	7/50	1664	2620-2630 2810-2820 2900-2910 2900-3000	DGLS LANS LANS LANS	SO SO SO SO
Acme Brick #1 Woods	NE NW 31-15S-7W	Ellsworth	12/77	1576	997-1072 2598-2650	CHSE LANS	rec. 72' GCM on dst. rec. 165' GCM on dst.

Scout cards-west ranges

Rains & Williamson #1 Walker	NE SW NE 3-16S-1W	Saline	8/78	1241	2013-2038 2622-2635	LANS MSSP	rec. 50' mud w/SO on dst. rec. 330' SGCSW on dst.
Wolf Creek Oil #1 Stein	NE NW SW 10-16S-1W	Saline	1/44	1243	2623-2625	MSSP	OS
Rains & Williamson #1 Sorenson	NE NW NE 35-16S-1W	Saline	6/83	1348	3409-3417	SMPS	rec. 30' MCW & 620' SOCSW on dst.
Mallonee-Mahoney, Inc. #1 Christopher	NW NE SE 22-16S-4W	Saline	9/70	1402	3526-3530	MQKT	rec. 2' clean oil + 45' SOCMW on dst.
A. Scott Ritchie #1 Lagerstrom	NW SE NE 33-16S-4W	Saline	8/82	1506	3629-3645 3750-3789	MQKT SMPS	rec. 15' mud w/SSO on dst. rec. 15' mud w/SO on dst.
Cary Drlg. #1 Lagerstrom	SW SW NE 33-16S-4W	Saline	10/53	1502	3765-3779 3776-3782	SMPS SMPS	rec. 20' mdy oil, 111' OCM, 40' mdy wtr on dst. rec. 2' mdy oil on dst.
A. Scott Ritchie #2 Lagerstrom	SW SE NW 33-16S-4W	Saline	10/83	1497	3631-3650 3743-3790	MQKT VIOL- SMPS	rec. 30' mud w/SSO on dst. rec. 110' WCM w/SSO on dst.
Texas Co. #1 Dahlston	SE SW SE 21-17S-4W	McPherson	10/55	1380	3515-3520	MQKT	rec. 90' wtr w/SSO on dst.
Darrah & Garvin #1 Tyner	SE SE NW 6-17S-7W	Ellsworth	8/53	1679	2743-2753	LANS	rec. 30' wtry mud & SSO on dst.

Scout cards-west ranges

(DRILLERS LOGS)

Vickers #1 Wheaton	SW SE 9-5S-17W	Phillips	8/43	1925	3224-3227	LANS	lime porous, showing oil
Sidwell #1 Murdock	SE SE SE 6-6S-4W	Cloud	4/28	1538	1685-1720 2280-2294 2488-2498 2705-2708	? ? LKC? LKC?	7 bbl. water & gas in "red rock" small showing oil in sand small showing oil in white lime oil showing in gray limestone
Stearns & Streeter #1 Carlin	SW SW NE 19-8S-13W	Osborne	2/27	1879	2783-2810	WAB	5 BW/hr + "rainbow show"
Carey #1 Srna	NW NW SE 21-9S-5W	Ottawa	1/60	1593	2050-2068 3022-3122	? PENN- MSSP?	hole full of water-showing gas in sand show of oil in black-blue shale
Marlin #1 Beiler	C NE NE 10-9S-8W	Mitchell	12/24	1515	3310-3336	MSSP	show oil in sandy hard lime
ESP #1-18 Kreft	C SE SW NW 18-9S-14W	Osborne	12/82	1936	2938-2941 2973-2977 3842-3868	TOP TOP VIOL	very slight oil show very slight oil show slight odor of oil
ESP #1 Brown	SE SE SW 19-9S-14W	Osborne	9/82	1993	3257-3285	LANS VIOL	very slight show good show "good golden fluorescence"
Empire #1 Crist	SE SE NE 30-9S-14W	Osborne	1/29	1983	3000-3050 3185-3195 3275-3335	TOP TOP LANS	lime-show oil slight show of oil in shaly lime show oil

Driller's logs-west ranges

Oil Capitol Corp. #1 Shilling	SW SW NE 1-10S-6W	Lincoln	7/56	1533	3930-3941	SMPS	trace of heavy brown oil
Red Bank Oil #1 Brown	NE NE SE 35-10S-10W	Lincoln	12/26	1523	3350?	VIOL?	well reportedly produced oil until shut down for lack of saltwater disposal facilities (Les Stephens, personal communication, 1985)
Amerada #1 Crawford	NE SW SE 16-11S-7W	Lincoln	3/25	1631	1285-1385	PERM?	gas sand (10,000 cu. ft.) w/ small oil show
Trees #1 Kohler	SE SE SW 36-11S-10W	Lincoln	9/24	1555	1385-1450 2900-2910 3030-3065	PERM? LKC LKC	gas show in lime gas show in lime gas show in lime
Krueger, et al. #1 Pospishil	NE SE 13-11S-13W	Russell	11/24	1613	1950	PERM?	show gas
Prairie O&G #1 Middlekrouff	SW SW 10-12S-9W	Lincoln	4/19	1400	219-220 1138-1160	? ?	very light show of gas in sand light oil show in "red rock"
Konler Well #8	C NE NW 3-12S-10W	Lincoln	?	1535	2890-2910	?	gray lime w/show of gas (authors are uncertain this location is correct)
Rosenthal, et al. #1 Lamber	SE NW NW 31-12S-10W	Lincoln	12/24	1518	3210-3275	MSSP	show of oil in "red rock"
Rains & Williamson #1 Shier	NW SE SW 35-14S-1W	Saline	5/83	1269	2577-2585	MSSP	dst. rec. gassy saltwater
Northwestern #1 Anderson	SE NE NE 24-14S-3W	Saline	10/52	1227	3209.5	VIOL	good oil show
Bay Petrol. #1 Royce	SE SE SE 13-15S-4W	Saline	7/51	1292	3431-3434	MQKT	scum oil in dst.

Driller's logs-west ranges

Western States #1 Root Farm	NE NW NW 13-15S-6W	Ellsworth	?/23	1420	1166-1277	?	doubtful oil & gas show in sandy lime
Smith #1 Blomberg	SE SE NW 22-16S-4W	Saline	12/54	1398	3531-3535 3701-3707	MQKT MQKT	dst. rec. slightly oil-stained wtr. dst. rec. slightly oil-cut mud
Carey Drlg. #1 Lagerstrom	SW SW NE 33-16S-4W	Saline	10/53	1502	3620-3635 3765-3782	MQKT SMPS	rotary mud w/few spots oil oil, oil-cut mud and muddy oil rec. in dst.
A. Scott Ritchie #1 Lagerstrom	NW SE NE 33-16S-4W	Saline	9/82	1506	3629-3645 3750-3789	MQKT SMPS	dst. rec. mud w/few spots oil on tool dst. rec. mud w/few spots oil on tool
A. Scott Ritchie #2 Lagerstrom	SW SE NW 33-16S-4W	Saline	10/83	1497	3631-3650 3743-3790	MQKT SMPS	dst. rec. mud w/few specks oil dst. rec. mud w/few specks oil
Skaer-Crum #1 Peterson	SWC NE 5-16S-5W	Saline	9/20	1477	1090-1095 1140-1170 1330-1335	PERM? ? ?	small show of gas in brown lime small flow of gas in brown lime small flow of gas in blue shale
Phillips #1 Hockman	NE NE NE 17-16S-7W	Ellsworth	11/32	1569	1855-1860	?	gas show in lime
Excalibur #1 Johnson	C SE SE 10-17S-6W	Ellsworth	2/82	1502	3524-3537	SMPS	show oil; faint odor

Driller's logs-west ranges

(LITH LOGS)

Mallard Petrol. #1 Broeckelman	N/2 NE NE 15-1S-10W	Jewell	6/84	1922	2750-2760 3040-3060 3630-3640 3660-3670 3770-3780 3940-3950 3940-3960	SHAW LKC MSSP MSSP MQKT VIOL? VIOL?	oil stain, acid-cut; fluor. slight HC fluor.; residual fluor. when cut w/acid uneven strong fluor. strong fluor. dead oil stain? tr. dead oil stain? dead oil stain; very slight fluor.
Dreiling #1 Lyons	NW SE SW 24-1S-14W	Smith	11/71	1943	3700-3740 4010-4055 4100-4110 4120-4130 4180-?	HNTN VIOL SMPS SMPS ABCK	spotty dead oil coloration in part spotty dead oil discoloration dead oil stain discoloration in part dead oil stain discoloration in part oil show?
Rine #1 Frazer	NW NW SE 8-1S-17W	Phillips	1/52	2069	3410-3420	LANS	spotty oil stain
Westgate-Greenland #1 Schluntz	NE SW SE 23-1S-17W	Phillips	3/51	2120	3483-3493 3593-3600	LANS LANS	trace light oil stain dk. oil sat. in part
Dreiling #1 Conaway	NE SW SE 3-3S-13W	Smith	8/71	1931	4300-4310 4340-4350	SMPS SMPS	spots gilsonite spots gilsonite
J. S. & F. #1 Adee	NW NW SE 16-3S-17W	Phillips	12/54	1908	3260-3270 3340-3350	LKC LKC	spotty faint stain spotty dark stain
Sohio #1 Hansen	SW NW SE 33-3S-18W	Phillips	12/52	1895	3290-3300 3320-3330	LKC LKC	oil staining slight spotty oil stain
Atchison #1 Resco	SW SE 24-5S-1W	Cloud	11/59	1367	1510-1520	TOP	trace questionable gilsonite

Lith logs-west ranges

Mann #1 Beard	S/2 SW 10-5S-10W	Jewell	9/56	1636	3910-3920	SMPS	spots gilsonite
Rupp-Ferguson #1 Delude	SW SW NW 19-6S-1W	Cloud	4/57	1361	3142-3179 3200-3232	SMPS SMPS	spots gilsonite spots gilsonite
Mattson & Thompson #1 Holbert	NW NE 33-6S-4W	Cloud	7/70	1579	3569	VIOL	tr. brown oil stain at top of fm.
KAI #1 Theirolf	SW SW SE 34-6S-6W	Mitchell	10/73	1516	3705-3725 3844-3850 3920-3926	VIOL SMPS SMPS	spotty oil stain, may be tool grease spots black hydrocarbon tr. faint questionable oil stain
Harbar #1 Un. Center Life	SE SE 15-6S-15W	Osborne	8/44	1809	4100-4115	SMPS	uneven oil stain
Lewis Drilling #1 Kemmler	NW NW SE 7-6S-17W	Rooks	4/52	1932	3124-3144 3150-3152 3230-3265 3305-3323 3343-3353 3383-3400	LANS LANS LANS LANS LANS LANS	slight spotty oil stain spots dk. oil stain spots dk. oil stain spots dk. oil stain slight spotty oil stain trace oil stain
H.W. Neiswanger #1 Turner	CNL NE NE 10-7S-12W	Osborne	6/26	1633	2777	TOP	showing gas
Rupp-Ferguson #1 Larson	NW NW NW 21-8S-2W	Cloud	3/57	1478	3704-3720	SMPS	trace gilsonite
Thompson-Waterman #1 Yenni	NW NW 36-8S-5W	Cloud	9/67	1317	3612-3627	SMPS	traces of dk. brown earthy gilsonite
Northern Ordinance #1 Burr	SE SW 35-8S-9W	Mitchell	4/43	1590	3940-3955	SMPS	showing fresh light brown oil stain (looks good)

Lith logs-west ranges

Siedhoff, et al. #1 Grief	NW SW SE 16-8S-10W	Mitchell	11/37	1563	3524	MSSP?	small showing gas
Stearns & Streeter #1 Carlin	SW SW NE 19-8S-13W	Osborne	2/27	1877	2780	WAB	rainbow showing of oil in water flow
D&D #1 Cornwell	SE SW 27-8S-13W	Osborne	4/64	1691	3725	ABCK	traces very questionable faint oil stain at top
Veail #1 Sarver	SE NE 29-8S-13W	Osborne	7/66	1763	3035-3050	LANS	slight spots dk. stain
Cary #1 SRNA	NW NW SE 21-9S-5W	Ottawa	1/60	1964	2437-2460	TOP	spots disseminated earthy gilsonite
Alcorn #1 Beeler	NE 10-9S-8W	Mitchell	12/24	1523	~3330	MSSP	show oil
Northern Ord. #1 Vandament	NW NW 3-9S-13W	Osborne	5/43	1767	3055-3057 3920-3930	LANS VIOL	show oil from scout cards dead oil spots
Murfin #1 Madsen	NE NE SE 17-9S-14W	Ottawa	6/53	2036	3345-3363	LANS	faint oil stain
Phillips Petrol. #1 Cather	SW SW 15-11S-1W	Ottawa	8/44	1380	3530-3550	SMPS	oil stain
Auto-Ord. & Darby Petrol. #1 Gawith	SW NE SW 27-11S-5W	Ottawa	8/43	1459	3920-3930	VIOL	streaked brown oil stain and asphalt
Dickey Oil Co. #1 Eckart	SW SW 24-11S-7W	Lincoln	4/44	1663	3980-3990 4015-4025	VIOL SMPS	streaked dull brown oil stain brown oil stained
Inland #1 Rhudy	NW NW NW 30-11S-7W	Lincoln	6/54	1595	3938-3978	SMPS	spots dk. oil stain

Lith logs-west ranges

Carter #8 Strat. Test	SW NE 21-11S-8W	Lincoln	?	1558	3440-3455	MSSP SMPS	minor streaks asphalt samples in part asphaltic
Time #1 Thompson	SE SE SE 7-11S-14W	Russell	12/51	1689	2955-2967	LANS	light oil stain
Stanolind #1 K.M. Duggan	NW NW SW 12-12S-1W	Ottawa	12/43	1318	3275	VIOL	interbedded red-brown argillaceous material (<u>may be</u> oil)
Valley Oil #1 Herrington	NE NW SE 3-13S-1W	Saline	4/35	1193	1580-90 3105	LECMP SMPS	light show of oil show oil
Glickman Oil #1 Mynatt	NW NE SE 8-13S-1W	Saline	2/59	1183	3053 3152 3200	VIOL SMPS SMPS	trace questionable oil stain trace gilsonite trace gilsonite
Bay Petrol. #1 Rockhold	NW NW NW 20-13S-1W	Saline	1/43	1178	3160	VIOL	streaked dull brown oil stain
Glickman #1 Royal	NW NW NW 24-13S-2W	Saline	1/59	1344	3358	SMPS	spots gilsonite
Auto-Ord. #1 Ruch	SE NE NW 25-13S-2W	Saline	11/42	1197	2660 3268	MSSP SMPS	streaked oil stain spots of asphalt
USGS-KGS #1 Geis	SW SW SW 32-13S-2W	Saline	4/80	1210	3250-3260	VIOL	light oil stain
Musgrove #1 Link	NW NW NW 9-13S-3W	Saline	7/52	1237	3634	SMPS	spots dk. oil stain?
Twin Mounds Oil #1 Weis	WL NE NW 20-13S-4W	Saline	8/32	1376	830 865 1945	PERM? PERM? TOP, LKC	gas shows gas shows gas shows big gas show exhausting itself

Lith logs-west ranges

P.G. Reynolds, et al. #1 Fredrickson	SE SW SE 6-13S-12W	Russell	6/36	1794	3027	LANS	show oil
Phil-Han #1 Bailey	SE SE SW 17-15S-1W	Saline	7/43	1263	2700-2710 2815 3095 3400	MSSP MSSP MSNR SMPS	streaked brown oil stain brown oil stained streaked brown oil stain asphalt stringers
Templeman, et al. #1 Laubengayer	SW 20-15S-5W	Saline	2/30	1506	2520-2530	HASK	showing gas
Western Star Petrol. Co. #1 Root	NE NE NW 13-15S-6W	Ellsworth	?	1442	1166	?	gas and oil showing (authors are uncertain this well location is correct)
Ingling #1 Hughs	SE SE NW 21-15S-6W	Ellsworth	2/54	1592	3677	SMPS	trace faint oil stain
Acola O&G & Keys Petrol. "Carnario Well"	SW SE SW 21-15S-6W	Ellsworth	?	1636	3250	MSSP	show oil (authors are uncertain this well location is correct)
Keys Pet. Co. #1 Sheridan	SW SE SW 21-15S-6W	Ellsworth	6/23	1615	1350-1360	?	slight oil show
Appleman #1 McManus	SE SE NW 29-15S-6W	Ellsworth	4/42	1544	1090	?	oil stained, brown
Franco-Central #1 Malmgren "A"	NE SE NE 22-16S-4W	Saline	1/53	1400	2670-2687 3519	LANS MQKT	spots dk. oil stain dk. oil stain
Smith #1 Malmgren	NW SE NW 23-16S-4W	Saline	11/55	1380	3520	MQKT	spots dk. oil stain
Franco-Central #1 Lagerstrom	SW SW NE 33-16S-4W	Saline	10/53	1502	3771	SMPS	spotty light oil stain

Lith logs-west ranges

Branine & Goering #1 Linchield	NE SE 34-16S-4W	Saline	2/43	1476	3805 3835	VIOL SMPS	streaked brown oil stain oil stained in uppermost 5'
Skaer-Crum Oil #1 Peterson	SW SW NE 5-16S-5W	Saline	9/20	1477	1095 1145 1670	PERM? ? ?	gas show gas gas
Westgate-Greenland #1 Ingemanson	W/2 SW SW 2-17S-5W	McPherson	2/43	1398	3665	SMPS	possible oil stain
Leben #1 Hokr	NW NW 6-17S-7W	Ellsworth	4/70	1675	2745-2754 3070-3075	LANS CHER	spotted oil stain at top trace oil stain
Pack #1 Davis	NE NE NE 17-18S-4W	McPherson	9/52	1403	3664-3680	SMPS	spotty oil stain
Victor #1 Swenson	SE SE SE 21-18S-4W	McPherson	3/52	1460	3644	VIOL	spotty oil stain
Osage #1 Johnson	SW SW SW 4-18S-5W	McPherson	6/57	1566	3782-3795	SMPS	spots very dk. oil stain
Trans-Era #1 Myers	SE SE SE 8-18S-5W	McPherson	6/54	1589	3759-3775	VIOL	spots dk. oil stain
K&E #1 Smith	NE NE NW 8-18S-5W	McPherson	12/56	1641	3873	SMPS	spots dk. oil stain
Frates Oil #1 Walker	SW NE 10-18S-6W	Rice	2/26	1698	3200	?	trace of oil

Lith logs-west ranges

SALINA BASIN HYDROCARBON SHOW COMPILATION (EAST RANGES)
(SCOUT CARDS)

OPERATOR & NAME	LOCATION	COUNTY	COMP DATE	DATUM (FEET)	DEPTH INTERVAL (FEET)	FM.	REMARK
W.J. Nelson #1 Brown	S/2 SE SE 29-1S-10E	Marshall	11/63	1410	995-996	REAG	show of heavy asphalt oil in granite wash
Blazier, et al. #1 Runkle	NE SE NW 13-2S-6E	Marshall	1/32	1219	?	?	well reported to have show of oil (doubtful)
Vermillion O&G #1 Beatty	NW SE SE 29-2S-9E	Marshall	5/22	1252	1180-1210	?	oil and gas (source unknown)
Sincox #1 Pennwell	NE NW SE NE 16-3S-3E	Washington	1/32	1409	750-754	PERM	show of gas (source unknown)
Blazier, et al. #1 Cooper	NE NE NW 10-3S-7E	Washington	8/29	1334	2045-2075	MSSP?	light oil show (source unknown)
? #1 Shearer	? 15-4S-9E	Marshall	?	?	750-755 790-793	LKC LKC	show oil (authors are uncertain this well location is correct) gas (100,000 cfg.)
L.V. Wentworth #1 Moser	SE SW SW 33-6S-9E	Pottawat.	5/51	?	1720-1728	VIOL	GSO
Arkansas Fuel #1 Martin	SE NE SW 24-8S-4E	Riley	1930	1328	2510-2515	VIOL	slight oil show
Veider Sup. & Dev. Co. #1 Gravenstine	NW NW 21-8S-6E	Riley	1/46	1258	2665 2676	SMPS PRE CAM	scattered spots heavy asphaltic oil weathered granite & quartzite-sandy at top, pieces show asphaltic oil

Scout cards-east ranges

Pan American Petrol. #1 A.J. Lauer	SE NW NW 26-8S-8E	Pottawat.	6/65	1233	904 1150 1180 1210	TOP KC KC KC	show oil in sample show oil in sample show oil in sample show oil in sample
K&E Drlg. #1 Edwards	SE SE SW 15-8S-10E	Pottawat.	3/61	1154	729-736	LANS	show of tarry dead oil
McCulloch & Venus Oil #1 Burgess	SW SE SE 23-8S-10E	Pottawat.	3/71	1082	1283-1298	VIOL	rec. 1000' wtr. w/few specks live oil on dst.
McCulloch & Venus Oil #1 Ballentine	NE NW 26-8S-10E	Pottawat.	9/71	1193	1393-1408	VIOL	rec. 573' wtr. w/speckles of oil on dst.
Aurora Gasoline #1 Shebert Hughes Comm.	NE NE NE 8-9S-4E	Clay	9/51	1175	1842-1887	MSSP	rec. 165' mud, few specks oil on dst.
Skow Bros-Ritchie, et al. #1 Gates	SE SE SW 16-9S-4E	Clay	9/29	1825	1825	MSSP	show oil
C.U. La Shelle Co. #1 Umschied	NW NW 16-9S-9E	Pottawat.	12/43	1083	1180-1183 1689-1692 1948-1950 1958-1960	CHER HNTN SMPS SMPS	slight oil show slight show oil slight oil show slight show oil
Schoenroch-Brewer #1 Loren Brewer	SW SW NE 33-9S-9E	Pottawat.	12/71	?	585-600	?	show gas w/sulfur odor in 3 separate sand zones

Scout cards-east ranges

G.F. Johnson, Jr. #1 Olson	NE NW NE 6-10S-10E	Pottawat.	5/60	1125	890-905	LANS	rec. 60' OCM on dst.
Energy Reserves Gp. #1 Lichtenhan	SE SE SW 35-11S-7E	Geary	5/77	1148	1606-1702	MSSP	rec. 30' oil speckled mud on dst.
Jones-Gebert #2 Scott	NW SE NE 35-11S-7E	Geary	1/60	1278	1792-1808 1797-1804	MSSP MSSP	rec. 40' HOCM on dst. perf. w/rec. of 250' OIH & 250' water pumped 25 BOPD w/decline 5 to 3 BOPD
Pure Oil #1 Scott	SW SE NE 35-11S-7E	Geary	3/59	1280	1829-1850	MSSP	rec. 140' wtry mud, trace oil on dst.
Geo. F. Johnson, Jr. #1 Weigel	NE SE NE 1-11S-8E	Riley	4/62	1070	1489-1502	VIOL	asphalt residual stain
McCulloch & Venus Oil, #1 Barry	W/2 SW SW 14-11S-8E	Riley	2/70	1132	1480-1535	PENN CG	rec. 40' muddy wtr w/slight specks oil
Cities Service #1 Poole	NW NE NE 29-11S-8E	Geary	3/61	1463	1809-1835	CHER	rec. 1' GOCM + 2' GMCO on dst.
BMG #1-32 Poole	SW SW SW 32-11S-8E	Geary	12/77	1361	1888-1900	MSSP	perf. swbd. 1 1/2 BO + 65 BW/24 hrs.
James F. Ralsin #1 Rudolph	NE SW NW 7-11S-9E	Riley	12/66	1098	1190-1206 1198-1215 1198-1202	PENN CG PENN CG PENN CG	rec. 160' oil & 50' SOCM on dst. show of oil in samples perf. 550' & tr. wtr, FU 85' wtr & some oil in 12/hrs.
Energy Reserves Gp. #1 Herpich	SW SW SW 24-12S-7E	Geary	5/77	1419	1913-1999	PENN CG	rec. 60' SO specked mud on dst.
Barbara Oil Co. #1 A.H. Meseke	NW NE SE 29-12S-9E	Wabaunsee	12/67	1327	1804-1836	HNTN	rec. 75' MW w/SO on dst.

Scout cards-east ranges

Carter Oil #1 A.H. Meseke	SE SE NE 29-12S-9E	Wabaunsee	12/49	1364	1881-1900 1900-1910	HNTN HNTN	rec. 15' mud, SSO on dst. rec. 10' mud, SSO on dst.
Thorpe, et al. #1 Morse	NW SW 11-13S-1E	Dickinson	10/39	1270	3156-3166	VIOL- SMPS	oil show
Desbrow #1 Garie	S/2 S/2 SW 21-13S-1E	Dickinson	4/52	1156	2346-2351	MSSP	perf. and rec. scum oil
Nordboe #1 L. Clemence	SE SE NE 28-13S-1E	Dickinson	7/59	1167	2317-2319	MSSP	SSO
CFA Oil #1 Wolf	SE NE 27-13S-6E	Geary	10/81	1379	?	?	oil show; fm and interval NA
L.E. Dornes, et al. #1 Fechner	SE NE 27-13S-8E	Geary	9/34	1496	600	PERM	oil show
St. Michael Expl. #1 Rogers	SE SW 17-13S-9E	Wabaunsee	12/79	1251	3177-3183	VIOL	rec. 1263' SW w/SO on dst.
Saline Basin Petrol. #1 Entrikin	SE SE SW 35-14S-1E	Dickinson	1/65	1201	2381-2408	PENN CG	core cut, rec. 26' ch. cgl. w/slight scattered stain of heavy black oil
Rex & Morris Drlg. #1 Mannel	NE SW SW 6-14S-2E	Dickinson	4/79	1206	2285-2349	MSSP	rec. 150' mud w/oil specks on dst.
Nimrod Petrol. #1 Foster	NE NE NE 29-14-4E	Dickinson	12/50	1326	2214-2217	MSSP	show dead oil

Scout cards-east ranges

Mull Drlg. #1 Blythe	NW NE 20-14S-6E	Morris	4/74	1398	2096-2125	MSSP	rec. 45' SOCM w/tr. free oil on dst.
Crude Oil Prod. #1 Dodderidge "A"	NE NE NW 29-14S-6E	Morris	4/82	1356	2071-2080	MSSP	rec. 75' oil, 90' HOCM, 90' SOCM, 90' OCSW
BMG #1-34 Downes	NW SW 34-14S-7E	Morris	3/78	1463	335-349	NEVA	tested 14 MCFGPD, BTU 193, SICP 75, gas 89% nitrogen
Pendleton #1 Olson	N/2 N/2 NE 9-14S-8E	Morris	8/80	1512	1885-1907 1903-1916	VIOL VIOL	rec. 210' oil, 125' OCM (gty 16.7) on dst. rec. 2' oil, NW on dst.
Cities Service #1 Albrecht	NW NE NE 25-15S-4E	Dickinson	2/58	1336	2185-2205	MSSP	rec. 210' slight OCM on dst.
F.G. Holl #1 Whitehair	NW NW NW 17-15S-5E	Morris	2/51	1347	2161-2169 2162-2180	MSSP MSSP	rec. 30' SOCM on dst. rec. 52' SOCM on dst.
F.G. Holl #2 Whitehair	NW NW NW 17-15S-5E	Morris	5/59	1337	2162-2182	MSSP	rec. 75' wtry. mud free specks oil on dst.
Cimarron Petrol. #1 Kickhoser	SW NW 22-15S-5E	Morris	10/79	1392	2826-2941	ABCK	rec. 750' OCSW on dst.
Crude Oil Prod. #1 Carson	NE NE NW 3-15S-6E	Morris	4/82	1455	2170-2176	MSSP	GSO
F.H. Adair Oil #1 Clark	SW SW NW 7-15S-6E	Morris	3/60	1423	2153-2173	MSSP	rec. 50' SOC wtry mud on dst.
Anderson-Prichard #1 Lawrence	SW NE SE 35-15S-7E	Morris	11/59	1414	1328-1355	LANS	rec. 450' SGC muddy wtr. on dst.

Scout cards-east ranges

G.J. Ablah #1 Ade	NE SE 17-16S-1E	Dickinson	11/67	1388	2676-2687	MSSP	rec. 30' VSO specked mud & 170' MW on dst.
E.K. Carey #1 Lauxman	SE NW NE 31-16S-1E	Dickinson	2/54	1365	2685	MSSP	SS0
Jones & Hill #1 Lauxman	SE NE NE 31-16S-1E	Dickinson	10/43	1339	2660-2663	MSSP	show oil
Prout & Ryan(?) #1 Cosgrove	? ?-16S-2E	Dickinson	?	?	835	?	show oil (authors are uncertain this well location is correct)
TGT Petrol. #1 Sandow	SW SE NE 11-16S-2E	Dickinson	2/76	1288	2373-2379 2373-2407	MSSP MSSP	rec. 10' OSM on dst. rec. 1500' SW w/SO
Lance Hil #1 Rutz	SW SW NE 8-16S-4E	Dickinson	10/58	1351	2273	MSSP	SO
John C. Graves #1 Floyd	NW SE SE 18-16S-5E	Morris	9/69	1429	2247-2295	MSSP	rec. tr free oil, 185' OC wtry mud, 340' muddy wtr. on dst.
W.E. Harding #1 Kind	SW SW NE 18-16S-5E	Morris	1/46	1414	2261	MSSP	oil show
Chas. Carlock #1 Miller "B"	W/2 SW SW 18-16S-6E	Morris	11/78	1502	2212-2240	MSSP	rec. 125' mud with SS0 on dst.
H.E. Geis #1 L. Geis	SW 33-17S-1E	Marion	6/80	1437	2734	MSSP	show dead oil
D.J. Ingling #1 Heiser	SW SW NE 15-17S-3E	Marion	7/56	1466	2489-2502	MSSP	rec. 190' OCM, swb. SO

Scout cards-east ranges

DRILLER'S LOGS

Sincox #1 Pennwell	NW SE NE 16-3S-3E	Washington	1/32	1409	750-754	PERM	show oil and gas
Elder and Ward #1 Stamm	SW SW SW 3-3S-4E	Washington	2/25	1431	755-760	PERM	coal with oil
McCole et al. #1 Schwartz-Foyer	NW NW NE 27-4S-3E	Washington	2/30	1462	1020-1105	PERM	show oil
Marshall Co. Syndicate #1 C. Finn	NW NE NE 4-4S-7E	Marshall	5/29	1370	330-340	PERM	showing oil
					650-660	PERM	oil showing
					1800-1810	MQKT?	sand showing oil (total production at least 5 bbls)
					2433-2467	PRE CAM	showing
					2615-2707	PRE CAM	showing
					2767-2775	PRE CAM	showing ("showings" generally
					2778-2815	PRE CAM	good showing from "bituminous shale")
					2825-2290	PRE CAM	showing
					2903	PRE CAM	gas sand
					2907-2960	PRE CAM	showing
2995-3010	PRE CAM	showing					
3015	PRE CAM	gas sand					
Gypsy #1 Droll	SE SW NW 2-7S-5E	Riley	1917	1127	540	?	oil show
					1830	HNTN	light oil show
(?) #1 Dixon	SW SW SE 32-7S-11E	Pottawat.	?	?	1995-2000	BRGS	oil (authors are uncertain this well location is correct)

Driller's logs-east ranges

Nebraska Oil Co. #1 Fevier	SW SW SW 19-8S-3E	Clay	12/31	1257	2198-2213	MSSP	show oil
Olsson & McCole #1 Anderson	NW SW NW 1-8S-7E	Pottawat.	1/42	1208	745-750	PERM	small show gas
Pan American Petrol. #1 A.J. Lauer	SE NW NW 26-8S-8E	Pottawat.	6/65	1233	904-924 1150-1180	TOP LKC	show oil show oil
J.B. Petroleum #1 Cox	SW NW SW 16-9S-7E	Riley	12/68	1342	1717 2180 2200 2282	HNTN MQKT VIOL SMPS	light oil oil fluor. in mud strong show oil; vivid spotty color streak dead oil stain
Rizar #1 Myers	NE NW NW 4-10S-4E	Clay	9/35	1137	~1245	LKC	oil & gas
Pawnee O&G #1 Marks	SW NE NW 26-10S-6E	Riley	12/23	1213	1645	MSSP	oil scum
Welton Oil #1 Thierer	NW NE NW 20-10S-7E	Riley	5/29	1266	815 1350 1814 2207 2696	? ? ? SMPS PRE CAM	oil sand, gas gas sand show of oil oil some oil
Dieter #1 Bennett	SW SW NE 3-11S-1E	Dickinson	12/49	1425	460-472	PERM	gas show in cherty lime
Marshall & Hennesy #1 Danz	NE SE NW 34-11S-4E	Dickinson	10/24	1286	2550-2555	MSNR	oil show in sand

Driller's logs-east ranges

Kerby & Wright #1 Kurtze	C NL SW SE 18-11S-5E	Geary	6/27	1077	134	?	oil & gas
					410	?	oil show
					457	?	oil & gas showings
					630	?	oil & gas showings
					1066	?	strong showing of shale oil
					1228	?	strong gas & oil show
					1500	?	gas show
					1909	MSSP?	oil & gas show
					1924	MSSP?	sandy lime--slight rainbow
					2227	HNTN?	gas showing
2548	VIOL?	oil show (rainbows in sandy lime)					
George F. Johnson, Jr. #1 Weigel	NE SE NE 1-11S-8E	Riley	4/62	1070	1482-1502	VIOL	dense limestone some fluor. no odor, no free oil
Wilson #1 Rannels	C W 1/2 4-11S-8E	Riley	6/29	1274	1720-1724	?	sand, oil show & water
Cities Service #1 Haylett	SW SE NE 14-11S-8E	Riley	8/59	1279	1678-1717	HNTN	"lime"; scattered flecks of oil in dst.
Brandt #1 Poole	NW NE NE 29-11S-8E	Geary	6/84	1463	1821-1824	MSSP	8 BOPD production
BMG #1-32 Poole	SW SW SW 32-11S-8E	Geary	12/79	1361	1888-1900	PENN	show of oil
BMG #1 Kempthorne	SE SE NW 7-11S-9E	Riley	3/78	1111	759-789	DGLS	gas?
Sinclair #1 Stone	SW SW NE 34-12S-2E	Dickinson	5/20	1266	1930-1945	MSSP	show oil in sand
Junction City Oil & Mining #1 Munson	NE NW NW 10-12S-5E	Geary	9/05	1152	~1930 (base of well)	?	light flow of oil followed by water which could not be cased-off; well abandoned

Driller's logs-east ranges

Independent Prod. #1 Jahnke	SW SW NE 21-12S-6E	Geary	3/80	1294	1942-2010	MSSP	oil show in chert
Pioneer #1 Chase Ranch	SE corn. SE 10-12S-7E	Geary	3/28	1403	1585 2253	KC HNTN	oil show oil show, odor of petrol.
Energy Reserves #1 Herpich	SW SW SW 24-12S-7E	Geary	5/77	1420	1979-1999	MSSP	oil show
Franks #1 Huffman	CNW SW 11-13S-1E	Dickinson	10/39	1270	2148-2155	CHER	gas show in lime
Seevers #1 Livingood	C SE NW 13-13S-2E	Dickinson	6/32	1139	1100-1110 4023-4026	? PRE CAM	oil show in lime oil show in sand
Skaer & Skaer # 1 Albrach	? 19-13S-5E	Geary	?	1150(+?)	2285-2290	MSSP	oil show in sand (authors are not certain this well location is correct)
L.E. Dornes, et al. #1 Fechner	SE NW NE 27-13S-8E	Geary	9/34	1496	600-605 688-690 951-955	PERM PERM ?	oil show in sd. shale gas show in shale oil sand
Nordboe #1 Miller	NW NW NE 14-14S-1E	Dickinson	12/58	1208	2402-2417	BRGS	slight show of oil
Alta Vista #1 Taylor	NE NE SW 5-14S-8E	Morris	2/27	1543	300	PERM	gas show in lime
Pendleton #1 Olson	N/2 N/2 NE 9-14S-8E	Morris	8/80	1512	1880-1901	PENN CG- VIOL	dst. rec. oil
Rains & Williams #1 Boyce	NW NW SW 32-15S-1E	Dickinson	1/84	1371	2656-2662 2657-2667	MSSP	rec. mud w/oil specks on dst. rec. 5' oil on dst.
Vishnefske #1 Faelber	CW/2 NW SW 36-15S-1E	Dickinson	12/56	1271	1785-1819 1822-1841	BRN LM	trace small oil shows (brown lime is between DGLS & LANS)

Driller's logs-east ranges

Cities Service #1 Albrecht	NW NE NE 25-15S-4E	Dickinson	2/58	1338	2185-2205	MSSP	slight oil cut in dst.
Hall #1 Dunlap	NE SE NE 31-15S-4E	Dickinson	10/27	1370	2327	MSSP	oil show
F.G. Holl #2 Whitehair	NW NW NW 17-15S-5E	Morris	5/59	1337	2163-2183	MSSP	dst. w/specks of oil in wtry mud
Slim Jim #1 Kickhafter	SW NE SE 19-15S-5E	Morris	3/31	1372	2194-2200	MSSP	oil show
Transcontinental #1 Sellin	NW NW NW 19-15S-5E	Morris	9/20	1372	2140-2205	PENN	show oil
F.H. Adair Oil #1 Clark	SW SW NW 7-15S-6E	Morris	3/60	1423	2153-2173	MSSP	dst. w/oil-cut wtry. mud
Trico	NE NE NE 6-16S-1E	Dickinson	6/17	?	2274-2286	?	show oil in sand (authors are uncertain this well location is correct)
Trice #1 Eliason	NW SW NW 6-16S-1E	Dickinson	6/17	2650	1712-1719 2274-2286	LKC? LKC?	gas show in shale light show oil in sand
Union #1 Gypsum Well	SE SW NW 6-16S-1E	Dickinson	?	~1320	2309-2325	PENN?	trace of oil in sand
Hill #1 Woods	NW NW NE 16-16S-1E	Dickinson	4/54	1381	2670-2674	MSSP	good oil show in lime
Jones & Hill #1 Lauxman	SE NE NE 31-16S-1E	Dickinson	10/43	1365	2660-2663	MSSP	show oil in MSSP chat

Driller's logs-east ranges

TGT Petrol. #1 Sandow	SW SE NE 11-16S-2E	Dickinson	2/76	1288	2376-2392	MSSP	dst. #1 had oil-specked drilling mud
Prairie Oil #1 Rumolt	NW SW NE 12-16S-2E	Dickinson	12/29	1278	2410-2415	MSSP	oil & gas show in chat
Laudick & Johnson #1 Cosgrove	C SW SE 21-16S-2E	Dickinson	2/21	1457	825-845	?	show oil at 835'
ELMO	C SW SE 21-16S-2E	Dickinson	1920	1454	835	?	show of oil at 835' in sandy lime
Derby #1 Balantyne	SE SW SE 18-16S-5E	Morris	3/26	1430	2250-2263 2268-2285	MSSP	oil show in chat oil show in lime, white, hard

LITH LOGS

Davon #1 Schaffer	NW NW SW 20-1S-6E	Marshall	4/50	1257	1833	HNTN	spots faint oil showing
Texas Company #1 Murdock	SE SE SW 16-2S-13E	Nemaha	3/49	?	730	LKC	spots dead oil stain
Nemaha O&G #1 Seneca	NW NW NW 19-3S-11E	Nemaha	3/29	1818	2190 2142	PRE CAM PRE CAM	light oil show asphalt
Keewanee #1 Carlson	NW NW 25-4S-1E	Washington	8/60	1392	1559	TOP	spots dk brown to black earthy gilsonite

Lith logs-east ranges

Phillips #1 Helms	SE NE 20-4S-2E	Washington	10/43	1398	2710-2720 2730-2740 2930-2940 2997	VIOL VIOL SMPS ABCK	streaked dull brown oil stain streaked dull brown oil stain trace oil stain solid hydrocarbon
Keener #1 Hellor	NW NW NE 36-4S-6E	Marshall	10/60	1266	2983	LANS	spotted light brown oil stain?
Venus #1 Borgerding	SE NE NW 9-4S-7E	Marshall	11/70	1323	2017	SMPS	slight oil stain
Shawver-Armour #1 Weakley	NW NW NE 26-5S-7E	Marshall	12/59	1303	1053	OREAD	flaky limestone w/little brown hydrocarbon
Venus #1 Sedlacek	NW SE SW 31-5S-9E	Marshall	10/70	1402	1828	SMPS	trace hydrocarbon
Shawver-Armour #1 Flanigan	SE SE NE 33-5S-9E	Marshall	12/59	1493	1344 1577	VIOL SMPS	spotty brown hydrocarbons brn hydrocarbon stain?
Venus #1 Armstrong	NE NE 2-6S-8E	Pottawat.	11/70	1370	1653 1820	VIOL VIOL	trace light brown oil stain dk. gray-black oily shale
Venus #1 Ryan	SW SE NW 32-6S-9E	Pottawat.	11/70	1497	1825 1947	VIOL VIOL	some brown-black hydrocarbon spotted hydrocarbon
Barnett #1 Gerardy	SW SW SW 16-7S-3E	Clay	7/75	1500	1277	HEEB	gilsonite
Shawver-Armour #1 Shelter	SW SW 4-7S-8E	Pottawat.	12/59	1427	1427	SMPS	fine-grained gilsonite
Venus #1 McGuire	NW NW SE 12-7S-11E	Pottawat.	10/71	1148	1170	SMPS	spotted light brown oil stain

Lith logs-east ranges

Polhamus, et al. #1 Hannan	NE NW SW 29-8S-5E	Riley	10/45	1398	2440-2450 2555 2714	HNTN VIOL SMPS	looks oil stained asphaltic material flakes asphalt
Iseman #1 Gravenstine	NW NW 21-8S-6E	Riley	1/46	?	2705	SMPS	scattered pieces showing asphaltic oil (authors note that scout cards report this well was drilled by Veider Sup. & Dev. Co.)
Adair #1 Stoffer	NE NE SW 1-8S-7E	Pottawat.	10/59	1296	2100 2185	VIOL SMPS	little brown HC stain? brown oil stain?
Jay-Bee #1 Phillips	SE SE NW 24-8S-7E	Pottawat.	11/68	1364	2308	SMPS	very slight oil show
Pan American Petrol. #1 A.J. Lauer	SE NW NW 26-8S-8E	Pottawat.	6/65	1233	910-920 1260-1270 1380-1390	HEEB KC KC	traces of gilsonite tr. gilsonite tr. gilsonite
McCulloch & Venus Oil #1 Burgess	SW SE SE 23-8S-10E	Pottawat.	3/71	1082	1380-1400	VIOL	spotty brown-black oil and tar stain?
McCulloch & Venus Oil #1 Ballentine	NE NW 26-8S-10E	Pottawat.	9/71	1193	1450-1470 1520-1540 1550-1560	VIOL VIOL SMPS	spotted oil stain oil stain very spotty oil stain
Venus Oil #1 Cox	SE NE 30-8S-10E	Pottawat.	11/70	1254	1630-1640	VIOL	slight trace brown oil stain
Pure Oil #1 Scott	SW SE NE 35-11S-7E	Geary	3/59	1280	1832-1840	BRGS	good dark brown oil stain
Stanolind #1 Equitable Life	NE NW SE 17-12S-1E	Dickinson	3/44	1329	3285-3300	SMPS	oil show

Lith logs-east ranges

Mouser #1 Langenecker	SW SW NW 34-12S-2E	Dickinson	10/50	1267	2300	MSSP	spotted dark oil stain
Carter Oil #1 A.H. Meseke	SE SE NE 29-12S-9E	Wabaunsee	12/49	1346	1881-1900 2171	HNTN VIOL	faint oil stain; dst recovered mud w/ pin-points of oil traces of dark oil stain
Leeward Petrol. Co. #1 Knight	NE NE 23-13S-3E	Dickinson	5/27	1198	2845-2890	VIOL	stringers of dark oil stain in limestone
Skaer & Skaer #1 Albrach	19-13S-5E	Geary	?	1150(+?)	2270-2300	MSSP	show of oil (authors are not certain this well location is correct).
Continental #1 German	SE SE NW 20-13S-8E	Geary	3/53	1472	2800	VIOL	sandy dolomitic limestone w/black oil stain
Continental #1 Falk	SW SW NW 23-13S-8E	Wabaunsee	1/53	1497	1643-1655	KC	spots dark oil stain
L.E. Dornes, et al. #1 Fechner	SE NW NE 27-13S-8E	Geary	9/34	1490	484-488 605-615 668-672 951-955	CGRV PERM PERM ?	gas sand oily shale gas sand oil sand
Ingling #1 Mark	SE SE NE 35-14S-1E	Dickinson	3/56	1219	2433-2440	MSSP	spots black solid hydrocarbon in residual chert
Augusta #1 Eshelman	SE SW NE 21-14S-5E	Morris	8/55	1362	2130-2147	MSSP	spots light oil stain in residual chert

Lith logs-east ranges

Woods #1 Zahnley	SE SE SW 16-14S-8E	Morris	9/51	1532	649-663 1850 1902-1911 2050	? SMPS SMPS ABCK	gas sand dark oil stain in limestone black oil stain in sandstone spots oil stain in dolomite
Ingling #1 Bogart	SE SE SW 33-15S-1E	Dickinson	12/54	1341	2628-2645	MSSP	dark oil stain in residual chert
Beardmore #1 Book	SW SW SW 24-15S-2E	Dickinson	7/53	1272	2375-2388	MSSP	dead oil stain in residual chert
Cities Service #1 Albrecht	NW NE NE 25-15S-4E	Dickinson	2/58	1338	2187	MSSP	dead oil stain in residual chert
Franks #1 Nelson	C SE SW 6-15S-7E	Morris	7/44	1419	2700-2740	SMPS	sandstone in part brown oil stained, in part asphaltic
F.H. Adair Oil #1 Metcalfe	SE SE NE 34-15S-7E	Morris	8/59	1402	1390	LANS	trace oil stain in limestone
Anderson-Prichard #1 Lawrence	SW NE SE 35-15S-7E	Morris	11/59	1414	1335-1350	LANS	spotty to good oil stain in limestone
Fincher & West #1 Jones	SW SW SE 10-16S-1E	Dickinson	9/54	1311	2590-2600	MSSP	spots dark oil stain in residual chert
Anderson-Prichard #1 Engle	SE SE SW 24-16S-3E	Dickinson	12/55	1371	2785 3000-3005	MQKT SMPS	dark oil stain in dolomite dead oil stain in sandstone
El Dorado #1 Keining	NW NW SE 5-16S-4E	Dickinson	6/53	1354	2276	MSSP	very slight oil stain in chert
Kramer #1 Scully	NW NW SE 30-17S-3E	Marion	11/56	1416	2488	MSSP	spots dark oil at top of residual chert

Lith logs-east ranges

Anderson-Prichard #1 Scully "B"	NE NE SW 2-18S-2E	Marion	12/53	1478	2610	MSSP	spots dark oil stain in residual chert
Graves & Appleman #1 Frick	NE NE NE 16-18S-2E	Marion	5/60	1410	2569-2590	MSSP	free oil in chert

Lith logs-east ranges

STRATIGRAPHIC ABBREVIATIONS

ABCK	Arbuckle Group (Cambro-Ordovician)
BRGS	Burgess sand (basal Pennsylvanian sandstone)
BRN LM	Brown lime--an informal term used to describe a limestone in the Douglas Group (Pennsylvanian, Virgilian); <u>or</u> in southeast Kansas, a limestone in the Marmaton Group (Pennsylvanian, Desmoinesian)
CG	conglomerate, used with either PENN, MSSP, etc.
CGRV	Council Grove Group (Permian, Gearyan)
CHER	Cherokee Group (Pennsylvanian, Desmoinesian)
CHSE	Chase Group (Permian, Gearyan)
DAK	Dakota Formation (Cretaceous)
DGLS	Douglas Group (Pennsylvanian, Virgilian)
GRHVN	Grandhaven Limestone Member (Pennsylvanian, Virgilian)
HASK	Haskell Limestone Member (Pennsylvanian, Virgilian)
HEEB	Heebner Shale Member (Pennsylvanian, Virgilian)
HERR	Herington Limestone Member (Permian, Gearyan)
HNTN	Hunton Group (Silurian, Middle Devonian)
KC	Kansas City Group (Pennsylvanian, Missourian)
LANS	Lansing Group (Pennsylvanian, Missourian)
LECMP	Lecompton Limestone (Pennsylvanian, Virgilian)
LKC	Lansing-Kansas City Groups (Pennsylvanian, Missourian)
MSNR	Misener Sandstone Member (Upper Devonian-Mississippian)
MQKT	Maquoketa Formation (Upper Ordovician)
MSSP	Mississippian
NEVA	Neva Limestone Member (Permian, Gearyan)
OREAD	Oread Limestone (Pennsylvanian, Virgilian)
PENN	Pennsylvanian
PERM	Permian
PRE CAM	Precambrian
REAG	Reagan Sandstone (Cambrian)
SEV	Severy Shale (Pennsylvanian, Virgilian)
SHAW	Shawnee Group (Pennsylvanian, Virgilian)
SMPS	Simpson Group (Middle Ordovician)
TOP	Topeka Limestone (Pennsylvanian, Virgilian)
TOR	Toronto Limestone Member (Pennsylvanian, Virgilian)
TOW	Towanda Limestone Member (Permian, Gearyan)
VIOL	Viola Limestone (Middle Ordovician)
WAB	Wabaunsee Group (Pennsylvanian, Virgilian)

SALINA BASIN
NORTH-CENTRAL KANSAS

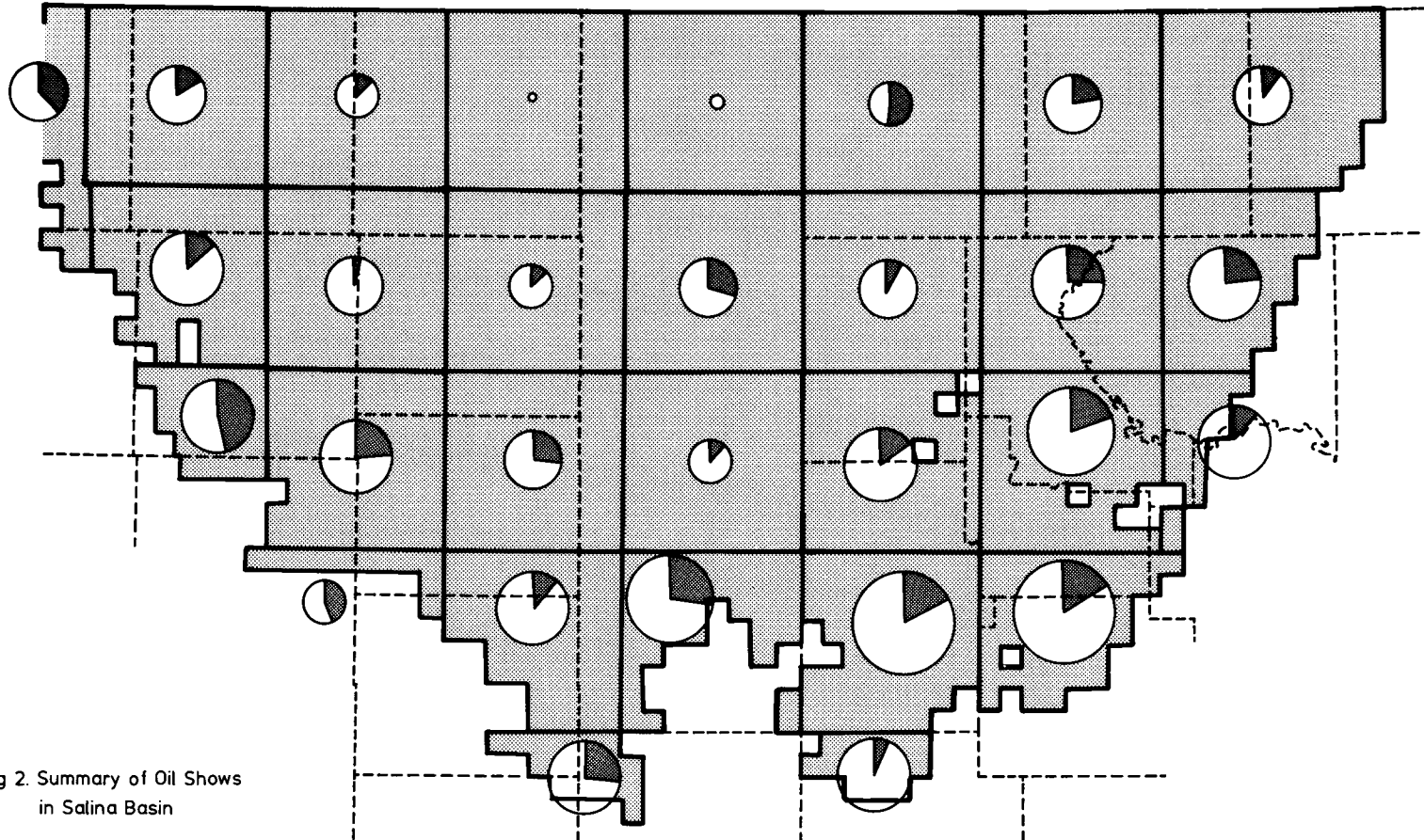
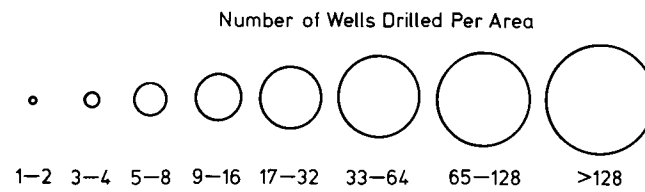
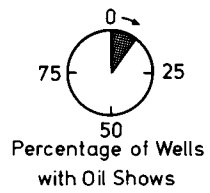


Fig 2. Summary of Oil Shows
in Salina Basin



Area Under Consideration

