

SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES

Perenco, LLC

Sidewall Core Analysis Report

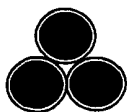
30-cis-33567

State 1625 #291

Eddy County, New Mexico

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SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES

October 13, 2004

Mr. Al Gomez

Perenco, LLC
6 Desta Drive
Suite 6800
Midland, Texas 79705

Reference: Full Diameter Core Analysis
File: 04278
State 1625 #291
Eddy County, New Mexico

Dear Mr. Gomez:

Please find enclosed the final core analysis report for the conventional core samples.

The following procedures were used:

The core was sealed in 5 foot sections of aluminum liner and transported from wellsite to our laboratory. A gas detector was used to determine the presence and relative amount of flammable gas. The gas measurement of 700+ Represents the point at which the gas detector filament becomes saturated. The core was removed from the tubes and striped with red and black lines then marked for depth. The natural core gamma radiation was recorded for depth correlation using fully automated digital equipment. The core was then photographed under ultraviolet light utilizing a 10 foot per picture format.

Core orientation was performed where available to determine the true North line of the core. This was done utilizing data provided from the core orientation tool used at the wellsite.

Dean-Stark extraction was performed on 1 inch diameter plug samples to remove the pore water. A material balance was performed to determine the oil and water saturation. After drying, the porosity, air permeability (@ 500 and 1,600 psi confining pressures for Kmax (North-South), 1,600 psi confining pressure for K90 (East-West) and Kvertical) and grain density were determined.

The core was slabbed and boxed in a 10 foot format. The slab was photographed under white light utilizing a 10 foot per picture format. The core remnants were boxed in 3 foot long boxes.

It was a pleasure performing these analysis for you. If you have any further questions please feel free to contact our laboratory.

Thank you for using SCAL, Inc.

Sincerely,

Landon Turnbow
Lab Supervisor

Mihai Vasilache
Petroleum Engineer/President

Company : Perenco, LLC
File No. : 04278
Well : State 1625 #291
Location :

Field :

Formation : Abo
County : Eddy County, New Mexico

Top	Bottom	Gas
Depth	Depth	Units
ft	ft	

4906	4912	125
4912	4917	54
4917	4922	16
4922	4928	479
4928	4933	417
4933	4939	571
4939	4944	580
4944	4949	580
4949	4954	358
4954	4959	247
4959	4964	318
4964	4969	270
4969	4974	478
4974	4978	352

Note: 700+ gas reading represents a saturated detector filament

1% CH4 in air = 100 gas units

Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field:
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth	Correct	Kmax	K90	Kv	Porosity	Grain Density	Sw	So	Fluorescence		Sample Description
										%	%	

Confining Pressure 1,600 psi

1	4,906.0	4,899.0	0.1673	0.6032	0.0035	12.02	2.81	69.6	0.0	0		Dol:gyr intxln por sl anhy foss sl pyr xln
K N-S K E-W												
2	4,907.0	4,900.0	0.0072	0.0071	0.0089	4.56	2.84	78.1	0.0	0		Dol:gyr sl ppp sm pyr sl anhy xln
3	4,908.0	4,901.0	0.0360	0.0534	0.0392	8.36	2.85	71.3	0.0	0		Dol:tn intxln por sm anhy xln
4	4,909.0	4,902.0	0.0090	0.0435	0.0133	5.18	2.83	68.5	0.0	0		Dol:tn intxln por sm anhy styl xln
Kmax K90												
5	4,910.0	4,903.0	0.0548	0.0700	0.1949	8.81	2.84	74.2	0.0	0		Dol:tn sl ppp intxln por sm anhy xln
6	4,911.0	4,904.0	0.0208	0.0173	0.0081	11.78	2.85	76.8	0.0	0		Dol:tn sm ppp sm anhy foss xln
7	4,912.0	4,905.0	0.0049	0.0099	0.0081	4.21	2.84	75.0	0.0	0		Dol:tn intxln por sm anhy xln
8	4,913.0	4,906.0	0.0055	0.0086	0.0141	2.88	2.81	71.4	0.0	0		Dol:tn intxln por sl anhy xln
9	4,914.0	4,907.0	0.0176	0.4346	0.0392	6.93	2.81	78.2	0.0	0		Dol:tn sm ppp sl anhy peld xln
10	4,915.0	4,908.0	0.0029	0.0237	0.0035	2.94	2.84	69.5	0.0	tr	DI gld sp	Dol:tn-brn intxln por sm anhy xln
11	4,916.0	4,909.0	0.0114	0.0202	0.0173	5.16	2.83	71.9	0.0	0		Dol:tn intxln por sl anhy sl pyr xln
12	4,917.0	4,910.0	0.0152	0.0239	0.0232	6.20	2.82	75.1	0.0	0		Dol:brn intxln por sm anhy xln
13	4,918.0	4,911.0	0.0162	0.0232	0.0104	7.30	2.81	77.3	0.0	tr	DI gld sp	Dol:brn intxln por sl pyr styl xln
14	4,919.0	4,912.0	0.0773	0.0551	0.0355	9.87	2.83	72.0	0.0	tr	DI gld sp	Dol:tn intxln por sm anhy peld xln
15	4,920.0	4,913.0	0.0663	0.0269	0.0006	11.40	2.80	70.9	0.0	0	DI gld mf	Dol:tn sl ppp intxln por sm anhy xln
16	4,921.0	4,914.0	0.0030	0.0043	0.0006	1.81	2.78	82.1	0.0	0	DI gld mf	Dol:tn sm intxln por calc foss xln
17	4,922.0	4,915.0	0.0095	0.0057	0.0005	0.63	2.77	84.8	0.0	0	DI gld mf	Dol:tn nvp calc xln

Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field:
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth	Correct	Kmax	K90	Kv	Porosity	Grain Density	Sw	So	Fluorescence	Sample Description
	ft	ft	mD	mD	mD	%	g/cc	%	%	%	Description

Confining Pressure 1,600 psi

18	4,923.0	4,916.0	0.0099	0.0047	0.0007	4.90	2.83	72.5	0.0	tr	DI gld	Dol:tn sm intxn por sl anhy xln
19	4,924.0	4,917.0	0.0061	0.0109	0.0249	3.68	2.84	70.4	0.0	0	DI gld mf	Dol:tn intxn por sl anhy xln
20	4,925.0	4,918.0	0.0052	0.0079	0.0494	3.24	2.84	78.0	0.0	0	DI gld mf	Dol:tn intxn por sm anhy xln
21	4,926.0	4,919.0	0.0035	0.0065	0.0016	2.43	2.86	71.4	0.0	0	DI gld mf	Dol:tn intxn por xln
22	4,927.0	4,920.0	0.0023	0.0060	0.0020	2.73	2.82	77.2	0.0	0	DI gld mf	Dol:brn intxn por sl anhy xln
23	4,928.0	4,921.0	0.0123	0.0201	0.0082	6.13	2.82	76.5	0.0	0	DI gld mf	Dol:brn intxn por peld sl anhy xln
24	4,929.0	4,922.0	0.0323	0.1604	0.0303	8.05	2.83	73.7	0.0	0	DI gld mf	Dol:brn intxn por sm anhy xln
25	4,930.0	4,923.0	0.0061	0.0055	0.0008	1.08	2.80	78.1	0.0	0	DI gld mf	Dol:brn nvp styl sl anhy calc xln
26	4,931.0	4,924.0	0.0290	0.0384	0.0599	7.19	2.81	80.2	0.0	0	DI gld mf	Dol:brn intxn por sl anhy xln
27	4,932.0	4,925.0	0.0439	0.0311	0.0281	8.73	2.80	71.6	0.0	0	DI gld mf	Dol:tn intxn por sm anhy sl pyr styl xln
28	4,933.0	4,926.0	0.0090	0.0056	0.0018	3.87	2.82	76.9	0.0	0	DI gld mf	Anhy:wht intxn por calc dol xln
29	4,934.0	4,927.0	0.0031	0.0046	0.0039	0.38	2.75	80.0	0.0	0	DI gld mf	Ls:brn nvp xln
30	4,935.0	4,928.0	0.0113	0.0195	0.0205	5.42	2.82	75.3	0.0	0	DI gld mf	Dol:brn intxn por sl anhy xln
31	4,936.0	4,929.0	0.0212	0.0211	0.0179	8.82	2.83	72.1	0.0	0	DI gld mf	Dol:brn intxn por sl anhy xln
32	4,937.0	4,930.0	0.0412	0.0168	0.0017	4.73	2.89	77.3	0.0	0	DI gld mf	Dol:tn sl ppp styl anhy nod foss sl pyr xln
33	4,938.0	4,931.0	0.0023	0.0027	0.0009	0.27	2.73	73.8	0.0	0	DI gld mf	Ls:brn nvp anhy nuds sl pyr xln
34	4,939.0	4,932.0	0.0025	0.0044	0.0011	0.22	2.74	75.0	0.0	0	DI gld mf	Ls:brn nvp anhy nuds peld xln
35	4,940.0	4,933.0	0.0030	0.0045	0.0028	0.90	2.75	82.7	0.0	0	DI gld mf	Ls:tn nvp anhy nod sl pyr peld foss xln
36	4,941.0	4,934.0	0.0141	0.0458	0.0197	8.20	2.80	74.2	0.0	0	DI gld mf	Dol:tn ppp sm anhy xln
37	4,942.0	4,935.0	0.0024	0.0077	0.0014	0.18	2.74	76.8	0.0	0	DI gld mf	Ls:tn nvp sl anhy foss xln

Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field:
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth	Correct	Kmax	K90	Kv	Porosity	Grain Density	Sw	So	Fluorescence	Sample Description
	ft	Depth	mD	mD	mD	%	g/cc	%	%	%	Description

Confining Pressure 1,600 psi

38	4,943.0	4,936.0	0.0024	0.0072	0.0022	0.30	2.75	75.4	0.0	0	DI gld mf	Ls:tn nvp sm anhy foss xln
39	4,944.0	4,937.0	0.0021	0.0029	0.0008	0.19	2.75	83.0	0.0	0	DI gld mf	Ls:tn nvp sl anhy foss xln
40	4,945.0	4,938.0	0.0026	0.0036	0.0019	0.30	2.71	72.3	0.0	0		Ls:tn nvp sl anhy foss xln
41	4,946.0	4,939.0	0.0051	0.0015	0.0010	0.52	2.75	76.9	0.0	0		Ls:brn nvp sm foss xln
K N-S K E-W												
42	4,947.0	4,940.0	0.0039	0.0044	0.0207	0.85	2.75	63.1	8.4	20	Brt yl sp	Ls:brn nvp styl peld xln
43	4,948.0	4,941.0	0.0025	0.0041	0.0017	1.02	2.77	70.6	0.0	0	DI gld mf	Ls:brn intxln por foss styl peld xln
44	4,949.0	4,942.0	0.0030	0.0029	0.0004	0.52	2.75	83.3	0.0	0	DI gld mf	Ls:brn nvp foss sl anhy xln
45	4,950.0	4,943.0	0.0041	0.0037	0.0005	0.14	2.72	86.7	0.0	0	DI gld mf	Ls:brn nvp foss styl xln
46	4,951.0	4,944.0	0.0018	0.0034	0.0005	0.23	2.72	84.2	0.0	0	DI gld mf	Ls:tn nvp styl foss xln
47	4,952.0	4,945.0	0.0030	0.0041	0.0110	0.29	2.76	73.9	0.0	0	DI gld mf	Ls:tn nvp xln
48	4,953.0	4,946.0	0.0017	0.0049	0.0009	0.41	2.75	75.0	0.0	0	DI gld mf	Ls:tn nvp sl pyr xln
49	4,954.0	4,947.0	0.0024	0.0045	0.0024	0.43	2.70	81.2	0.0	0		Ls:tn nvp styl sl pyr peld xln
50	4,955.0	4,948.0	0.0026	0.0102	0.0011	0.30	2.70	78.9	0.0	0		Ls:brn nvp foss peld xln
51	4,956.0	4,949.0	0.0190	0.0042	0.0011	0.87	2.75	74.1	0.0	0		Ls:brn nvp peld styl xln
52	4,957.0	4,950.0	0.0336	0.0048	0.0013	2.97	2.79	85.4	0.0	0		Dol:brn frac anhy nod sm pyr sl sh calc peld xln
53	4,958.0	4,951.0	0.0018	0.1719	0.0010	1.78	2.73	75.5	0.0	0	DI gld mf	Ls:tn sm intxln por dol sl anhy xln
54	4,959.0	4,952.0	0.0029	0.0074	0.0006	0.44	2.72	77.9	0.0	0	DI gld mf	Ls:tn nvp foss xln
55	4,960.0	4,953.0	0.0125	0.0091	0.0015	2.03	2.77	74.6	0.0	0	DI gld mf	Ls:tn frac dol xln
56	4,961.0	4,954.0	0.0024	0.0043	0.0006	0.47	2.74	72.7	0.0	0	DI gld mf	Ls:tn nvp sl anhy dol xln

Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field:
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth		Correct	Kmax	K90	Kv	Porosity		Grain Density		Sw		So		Fluorescence		Sample Description
	ft	ft	Depth	mD	mD	mD	%	%	g/cc	%	%	%	%	%	%	%	

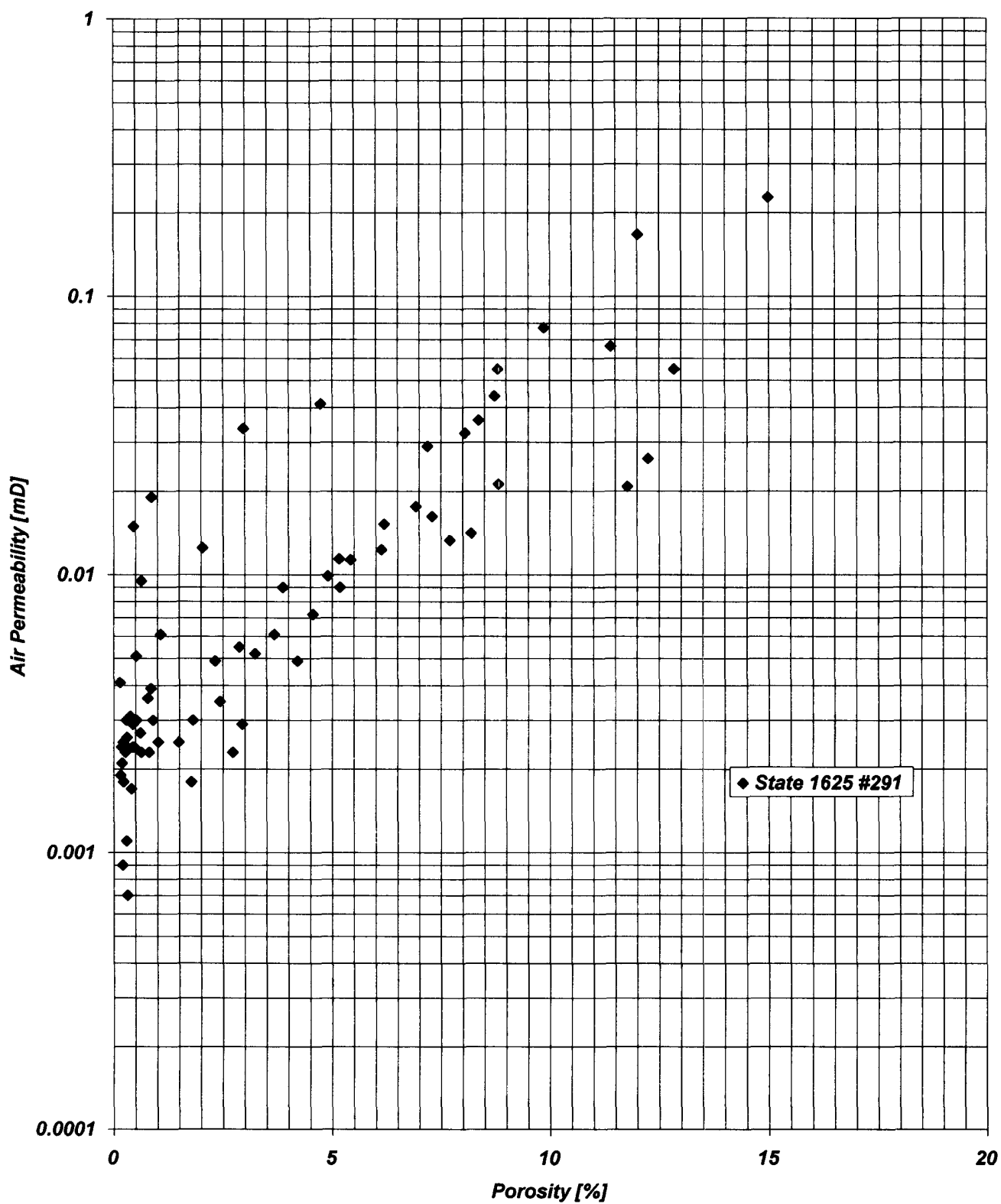
Confining Pressure 1,600 psi

57	4,962.0	4,955.0	0.2279	0.2301	0.1070	14.99	2.82	69.0	0.0	0	0	0	0	0	0	0	Dol:cm intxn por sm anhy nod xln
58	4,963.0	4,956.0	0.0549	0.0469	0.0809	12.85	2.86	71.2	0.0	0	0	0	0	0	0	0	Dol:cm intxn por anhy nods pyr xln
59	4,964.0	4,957.0	0.0024	0.0041	0.0010	0.29	2.70	82.7	0.0	0	0	0	0	0	0	0	Ls:brn nvp xln
60	4,965.0	4,958.0	0.0023	0.0042	0.0014	0.63	2.68	73.8	0.0	0	0	0	0	0	0	0	Ls:brn nvp sl pyr xln
61	4,966.0	4,959.0	0.0027	0.0041	0.0012	0.61	2.71	77.4	0.0	0	0	0	0	0	0	0	Ls:brn nvp peld xln
62	4,967.0	4,960.0	0.0019	0.0055	0.0025	0.16	2.70	70.5	0.0	0	0	0	0	0	0	0	Ls:brn nvp foss peld styl sl pyr xln
63	4,968.0	4,961.0	0.0149	0.0090	0.0010	0.46	2.66	83.3	0.0	0	0	0	0	0	0	0	Ls:brn nvp foss sl sh sm pyr peld xln
64	4,969.0	4,962.0	0.0025	0.0023	0.0009	1.49	2.69	78.1	0.0	0	0	0	0	0	0	0	Ls:brn sl intxn por foss sm pyr xln
65	4,970.0	4,963.0	0.0011	0.0016	0.0010	0.29	2.70	75.8	0.0	0	0	0	0	0	0	0	Ls:brn nvp foss sl pyr xln
66	4,971.0	4,964.0	0.0009	0.0034	0.0012	0.20	2.70	81.5	0.0	0	0	0	0	0	0	0	Ls:brn nvp peld xln
67	4,972.0	4,965.0	0.0007	0.0024	0.0011	0.32	2.72	74.3	0.0	0	0	0	0	0	0	0	Ls:brn nvp peld xln
68	4,973.0	4,966.0	0.0023	0.0034	0.0015	0.81	2.72	82.8	0.0	0	0	0	0	0	0	0	Ls:brn nvp foss styl sl pyr xln
69	4,974.0	4,967.0	0.0262	0.0496	0.0037	12.25	2.82	74.0	6.3	10	0	0	0	0	0	0	Dol:tn intxn por xln
70	4,975.0	4,968.0	0.0036	0.0000	0.0155	0.78	2.90	79.1	0.0	0	0	0	0	0	0	0	Dol:tn nvp anhy nod sm sh sl pyr xln
71	4,976.0	4,969.0	0.0133	0.0054	0.0021	7.70	2.83	82.2	0.0	0	0	0	0	0	0	0	Dol:tn intxn por sm anhy sm pyr xln
72	4,977.0	4,970.0	0.0049	0.0078	0.0012	2.33	2.77	87.9	0.0	0	0	0	0	0	0	0	Calc/Dol:tn intxn por foss xln

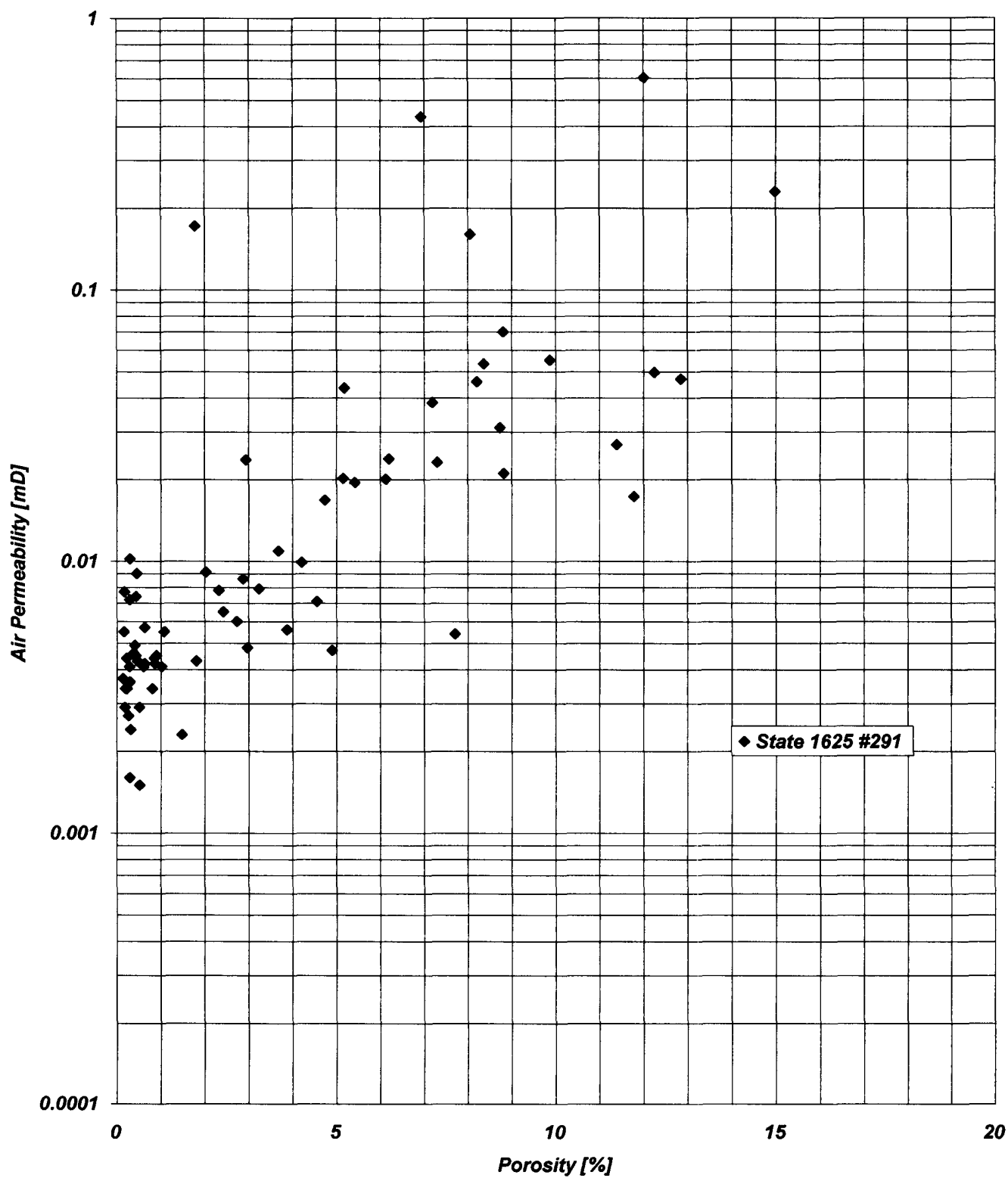
Core Description Abbreviations

ang	angular	grn	green	sbang	subangular
anh	anhydrite	grst	grainstone	sc	surface contamination
ark	arkosic	gry	gray	sh	shale
arg	argillaceous	gyp	gypsum	strgr	stringer
bl	blue	h/frac	horizontally fractured	sbrnd	subround
bldgg	bleeding gas	hal	halite	scat	scattered
bldgo	bleeding oil	incl	inclusion	sd(y)	sand(y)
blk	black	intrgr	intergranular	sh	shale
blky	blocky	intrxln	intercrystalline	shy	shaley
brn	brown	ip	in part	sil	siliceous
brt	bright	lam	lamina(-ated)	sl	slight(ly)
bf	buff	ls	limestone	sily	silty
calc	calcareous	lt	light	sm	some
carb	carbonaceous	md	medium	sml	small
cem	cement	mf	mineral fluorescence	sp	spotty
cg	coarse grain	mg	medium grain	ss	sandstone
cgl	conglomerate	micr	micritic	siltst	siltstone
chky	chalky	mod	moderate	srt	sorted
chrt	cherty	mott	mottled	strks	streaks
com	common	mdst	mudstone	styl	stylolite
conch	conchoidal	n/a	not available	suc	sucrosic
cnsl	consolidated	n/r	not recovered	tbfa	too broken for analysis
crm	cream	nod	nodules	tn	tan
cslt	coarse siltstone	nvp	no visible porosity	tr	trace
dk	dark	o	oil	v	very
dns	dense	ool	oolitic	vis	visible
dol	dolomite	ormg	orange	vfrac	vertically fractured
dolic	dolomitic	peld	peloid	vfg	very fine grain
dru	drusy	pisol	pisolitic	vug	vug(gy)
dul	dull	pk	pink	w/	with
fg	fine grain	pkst	packstone	wht	white
fiss	fissile	por	porosity	wk(-ly)	weak(-ly)
foss	fossiliferous	poss	possible	wkst	wackestone
frac	fractured	ppp	pinpoint porosity	wl	well
fri	friable	pr(-ly)	poor(-ly)	xln	crystalline
gil	gilsonite	ptg	parting	xfg	extremely fine grained
glauc	glauconite	pyr	pyrite	xl	crystal
		rnd	round	yl	yellow

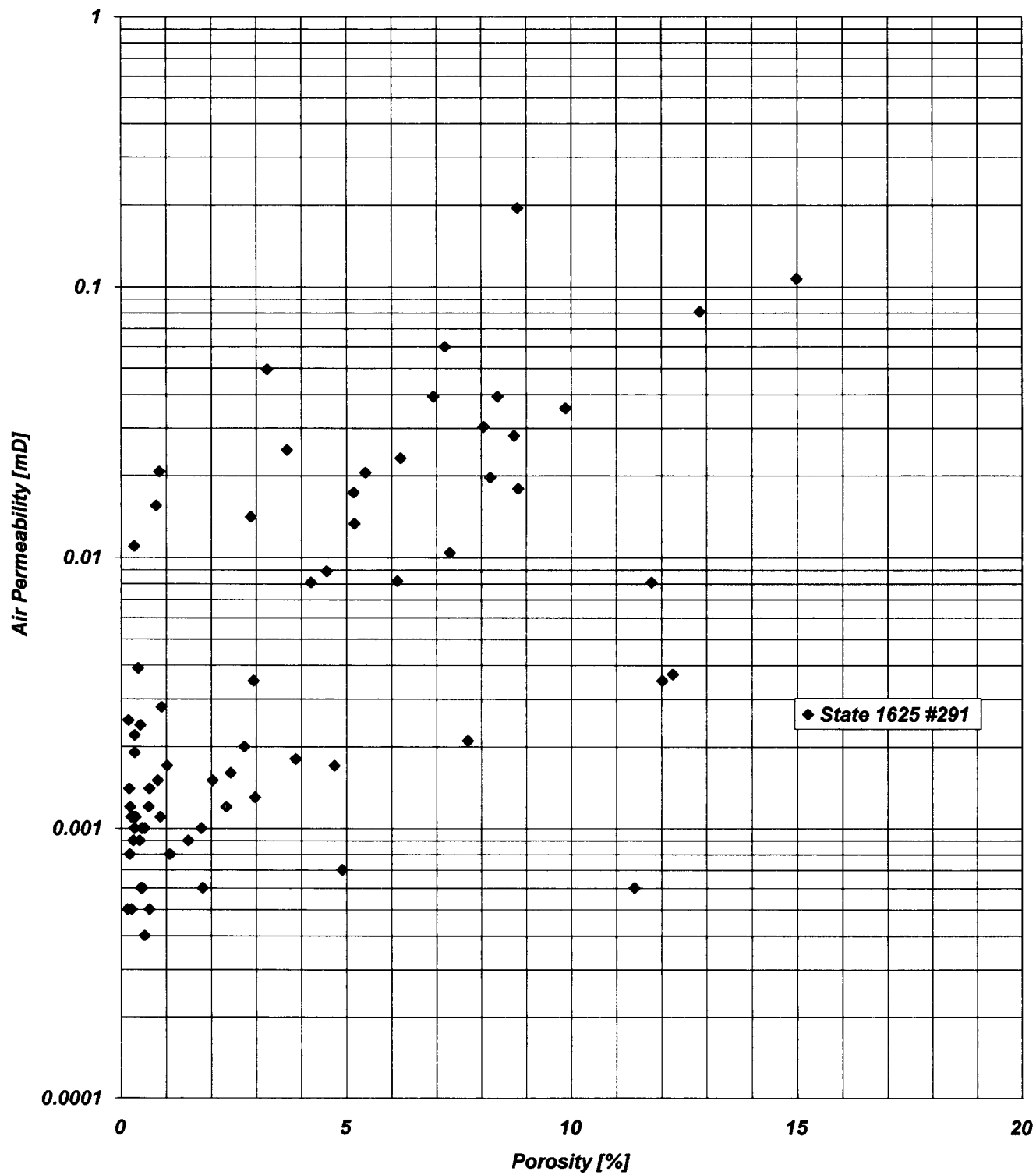
Permeability(Kmax) versus Porosity



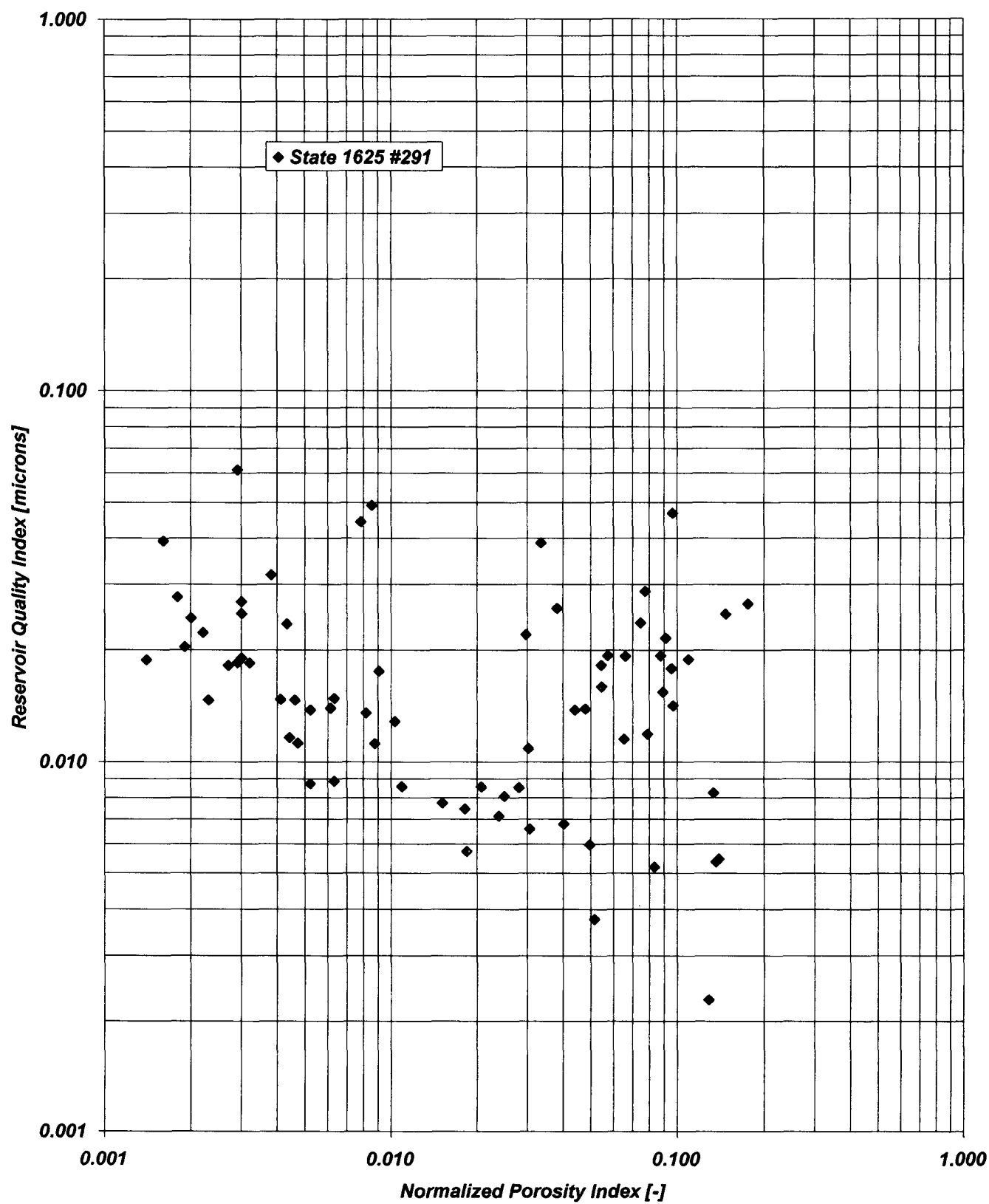
Permeability (K90) versus Porosity



Permeability (Kvert) versus Porosity



Reservoir Quality Index versus Normalized Porosity



K-max Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Eddy County, New Mexico
 County :

Sample Number	Depth ft	Corrected Depth ft	Grain Density g/cc	Confining Pressure 500psi			Confining Pressure 1,600psi		
				Porosity %	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Air Permeability mD	Klinkenberg Permeability mD
1	4,906.65	4,899.65	2.81	12.23	0.1848	0.1328	12.02	0.1673	0.1191
K N-S Drilled Plug Analysis Report									
2	4,907.90	4,900.90	2.84	5.24	0.0172	0.0086	4.56	0.0072	0.0029
3	4,908.65	4,901.65	2.85	8.72	0.0594	0.0363	8.36	0.0360	0.0197
4	4,909.30	4,902.30	2.83	5.90	0.0264	0.0143	5.18	0.0090	0.0037
K-max Drilled Plug Analysis Report									
5	4,910.55	4,903.55	2.84	9.02	0.0803	0.0513	8.81	0.0548	0.0327
6	4,911.65	4,904.65	2.85	11.95	0.0606	0.0369	11.78	0.0208	0.0101
7	4,912.45	4,905.45	2.84	4.59	0.0240	0.0131	4.21	0.0049	0.0018
8	4,913.10	4,906.10	2.81	3.36	0.0222	0.0118	2.88	0.0055	0.0020
9	4,914.60	4,907.60	2.81	7.12	0.0439	0.0260	6.93	0.0176	0.0086
10	4,915.25	4,908.25	2.84	3.47	0.0161	0.0081	2.94	0.0029	0.0010
11	4,916.10	4,909.10	2.83	5.68	0.0340	0.0193	5.16	0.0114	0.0050
12	4,917.10	4,910.10	2.82	6.79	0.0394	0.0228	6.20	0.0152	0.0070
13	4,918.10	4,911.10	2.81	7.85	0.0433	0.0255	7.30	0.0162	0.0073
14	4,919.55	4,912.55	2.83	9.98	0.1013	0.0667	9.87	0.0773	0.0486
15	4,920.60	4,913.60	2.80	11.57	0.0843	0.0531	11.40	0.0663	0.0398
16	4,921.10	4,914.10	2.78	2.26	0.0193	0.0101	1.81	0.0030	0.0011

K-max Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Eddy County, New Mexico
 County :

Sample Number	Depth ft	Corrected Depth ft	Grain Density g/cc	Confining Pressure 500psi			Confining Pressure 1,600psi		
				Porosity %	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Air Permeability mD	Klinkenberg Permeability mD
17	4,922.10	4,915.10	2.77	0.92	0.0162	0.0083	0.63	0.0095	0.0032
18	4,923.40	4,916.40	2.83	5.59	0.0283	0.0155	4.90	0.0099	0.0042
19	4,924.55	4,917.55	2.84	4.15	0.0247	0.0134	3.68	0.0061	0.0024
20	4,925.60	4,918.60	2.84	3.69	0.0236	0.0127	3.240	0.0052	0.0019
21	4,926.10	4,919.10	2.86	2.79	0.0200	0.0104	2.430	0.0035	0.0012
22	4,927.10	4,920.10	2.82	3.24	0.0177	0.0090	2.73	0.0023	0.0008
23	4,928.50	4,921.50	2.82	6.61	0.0312	0.0173	6.13	0.0123	0.0055
24	4,929.10	4,922.10	2.83	8.37	0.0581	0.0354	8.05	0.0323	0.0174
25	4,930.10	4,923.10	2.80	1.30	0.0267	0.0150	1.08	0.0061	0.0025
26	4,931.30	4,924.30	2.81	7.47	0.0440	0.0255	7.19	0.0290	0.0150
27	4,932.10	4,925.10	2.80	8.98	0.0635	0.0388	8.73	0.0439	0.0245
28	4,933.10	4,926.10	2.82	4.14	0.0300	0.0171	3.87	0.0090	0.0039
29	4,934.55	4,927.55	2.75	1.01	0.0167	0.0085	0.38	0.0031	0.0011
30	4,935.60	4,928.60	2.82	5.98	0.0351	0.0201	5.42	0.0113	0.0050
31	4,936.40	4,929.40	2.83	9.38	0.0515	0.0309	8.82	0.0212	0.0103
32	4,937.40	4,930.40	2.89	5.40	0.1384	0.0989	4.73	0.0412	0.0244
33	4,938.10	4,931.10	2.73	0.31	0.0151	0.0076	0.27	0.0023	0.0008
34	4,939.55	4,932.55	2.74	0.82	0.0157	0.0080	0.22	0.0025	0.0009
35	4,940.10	4,933.10	2.75	1.22	0.0160	0.0081	0.90	0.0030	0.0011
36	4,941.80	4,934.80	2.80	8.44	0.0296	0.0161	8.20	0.0141	0.0062

K-max Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Eddy County, New Mexico
 County :

Sample Number	Depth ft	Corrected Depth ft	Grain Density g/cc	Confining Pressure 500psi			Confining Pressure 1,600psi		
				Porosity %	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Air Permeability mD	Klinkenberg Permeability mD
37	4,942.75	4,935.75	2.74	0.89	0.0167	0.0085	0.18	0.0024	0.0008
38	4,943.10	4,936.10	2.75	2.72	0.0147	0.0073	0.30	0.0024	0.0008
39	4,944.10	4,937.10	2.75	0.50	0.0143	0.0072	0.19	0.0021	0.0007
40	4,945.55	4,938.55	2.71	0.89	0.0176	0.0092	0.30	0.0026	0.0009
41	4,946.10	4,939.10	2.75	0.77	0.0287	0.0166	0.52	0.0051	0.0021
K N-S Drilled Plug Analysis Report									
42	4,947.60	4,940.60	2.75	1.57	0.0231	0.0127	0.85	0.0039	0.0015
43	4,948.60	4,941.60	2.77	1.27	0.0142	0.0071	1.02	0.0025	0.0009
44	4,949.60	4,942.60	2.75	0.62	0.0161	0.0082	0.52	0.0030	0.0010
45	4,950.60	4,943.60	2.72	0.36	0.0163	0.0084	0.14	0.0041	0.0014
46	4,951.90	4,944.90	2.72	0.50	0.0118	0.0058	0.23	0.0018	0.0006
47	4,952.60	4,945.60	2.76	0.72	0.0203	0.0110	0.29	0.0030	0.0011
48	4,953.10	4,946.10	2.75	0.64	0.0144	0.0073	0.41	0.0017	0.0005
49	4,954.60	4,947.60	2.70	0.68	0.0170	0.0088	0.43	0.0024	0.0008
50	4,955.60	4,948.60	2.70	0.77	0.0177	0.0092	0.30	0.0026	0.0009
51	4,956.55	4,949.55	2.75	1.11	0.1621	0.0531	0.87	0.0190	0.0100
52	4,957.65	4,950.65	2.79	3.23	0.3194	0.2504	2.97	0.0336	0.0195
53	4,958.55	4,951.55	2.73	2.15	0.0168	0.0086	1.78	0.0018	0.0005
54	4,959.10	4,952.10	2.72	1.04	0.0257	0.0146	0.44	0.0029	0.0010

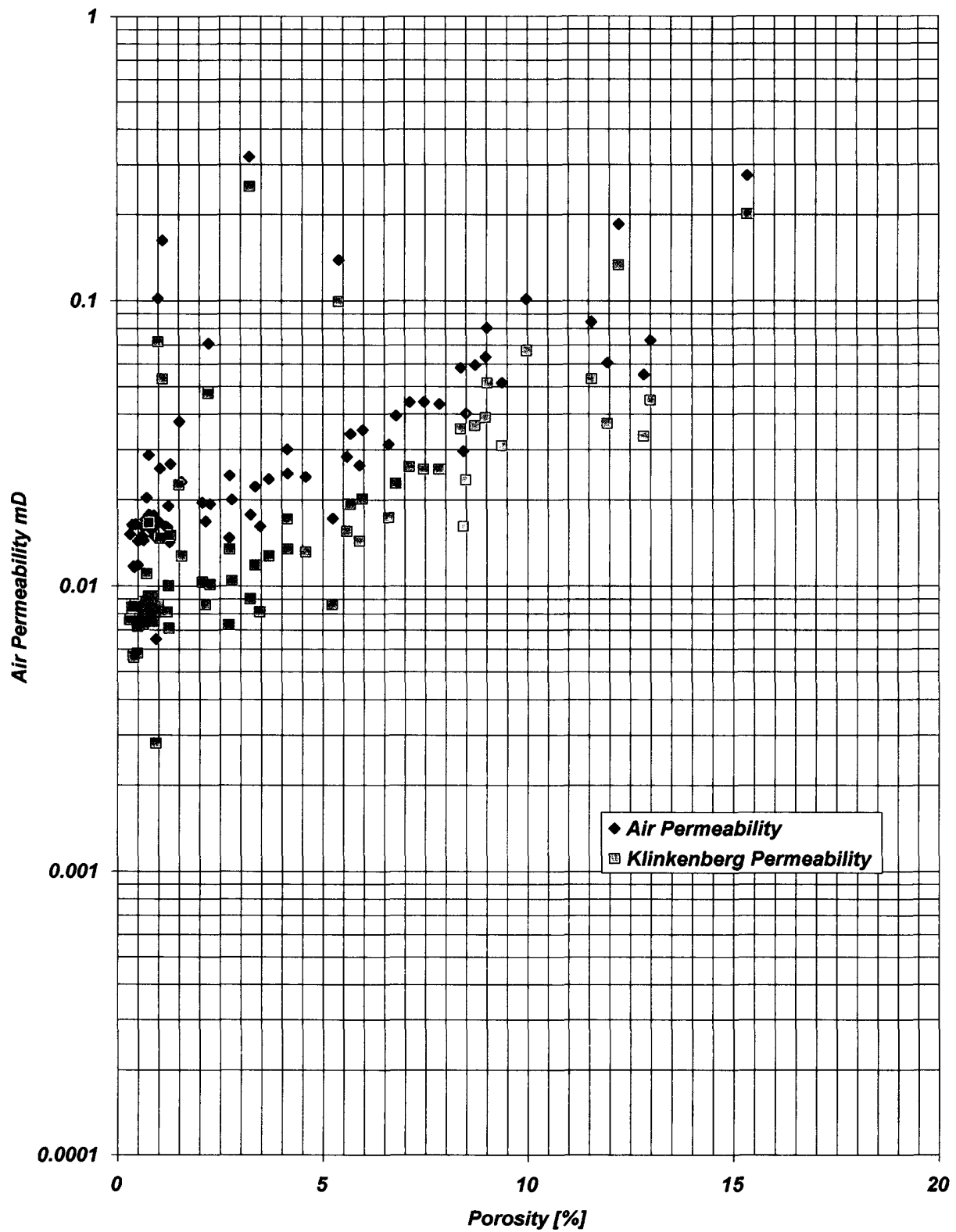
K-max Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

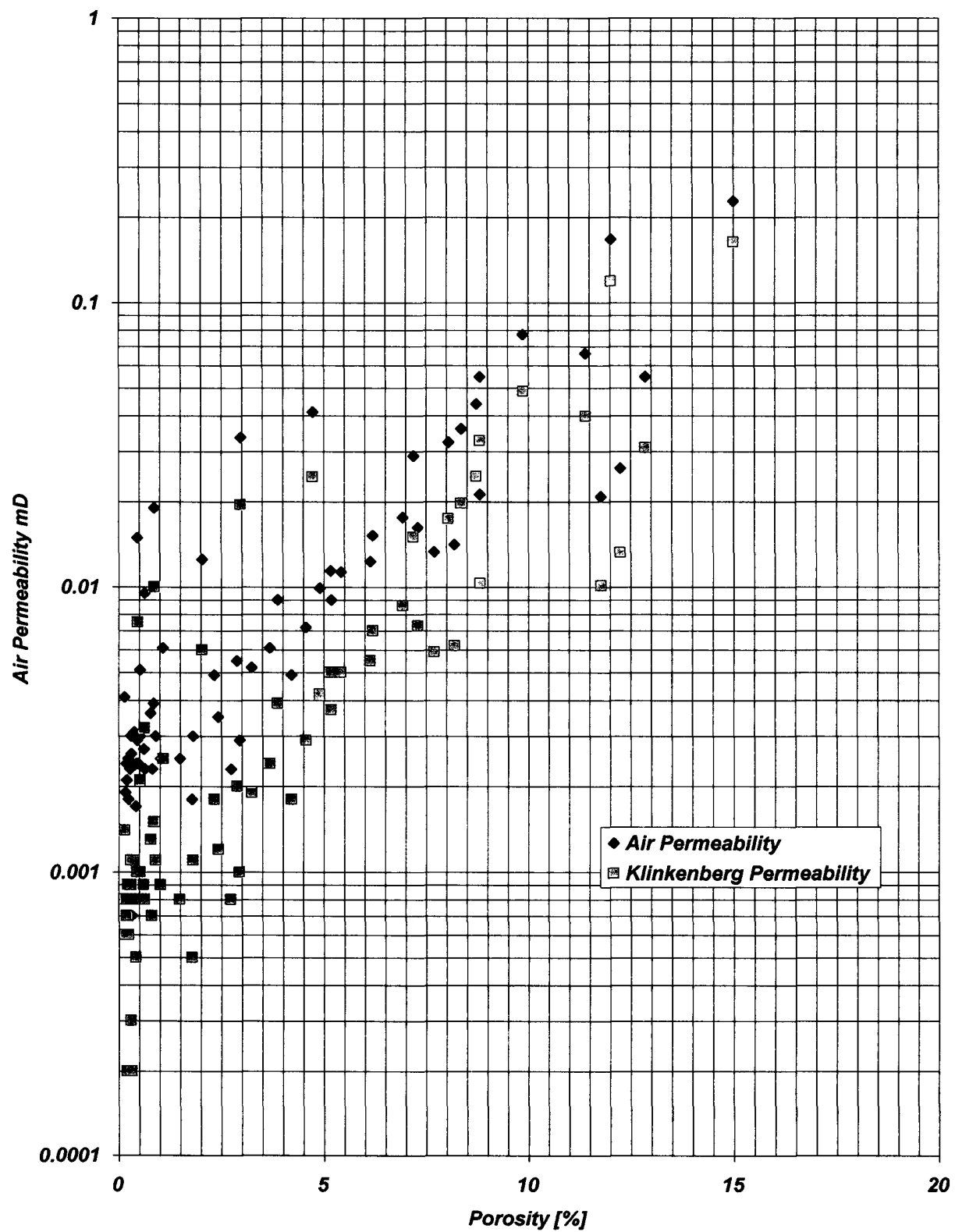
Field: Abo
 Formation: Eddy County, New Mexico
 County :

Sample Number	Depth ft	Corrected Depth ft	Grain Density g/cc	Confining Pressure 500psi			Confining Pressure 1,600psi		
				Porosity %	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Air Permeability mD	Klinkenberg Permeability mD
55	4,960.10	4,953.10	2.77	2.22	0.0707	0.0472	2.03	0.0125	0.0060
56	4,961.10	4,954.10	2.74	0.60	0.0149	0.0075	0.47	0.0024	0.0008
57	4,962.40	4,955.40	2.82	15.34	0.2745	0.2008	14.99	0.2279	0.1637
58	4,963.40	4,956.40	2.86	12.99	0.0726	0.0446	12.85	0.0549	0.0309
59	4,964.60	4,957.60	2.70	0.44	0.0164	0.0085	0.29	0.0024	0.0008
60	4,965.55	4,958.55	2.68	0.81	0.0166	0.0086	0.63	0.0023	0.0008
61	4,966.55	4,959.55	2.71	1.25	0.0190	0.0100	0.61	0.0027	0.0009
62	4,967.55	4,960.55	2.70	0.90	0.0149	0.0075	0.16	0.0019	0.0006
63	4,968.60	4,961.60	2.66	1.00	0.1017	0.0716	0.46	0.0149	0.0075
64	4,969.65	4,962.65	2.69	2.08	0.0195	0.0103	1.49	0.0025	0.0008
65	4,970.55	4,963.55	2.70	0.41	0.0116	0.0056	0.29	0.0011	0.0003
66	4,971.70	4,964.70	2.70	0.39	0.0117	0.0057	0.20	0.0009	0.0002
67	4,972.55	4,965.55	2.72	0.94	0.0065	0.0028	0.32	0.0007	0.0002
68	4,973.60	4,966.60	2.72	1.17	0.0161	0.0081	0.81	0.0023	0.0007
69	4,974.30	4,967.30	2.82	12.83	0.0550	0.0333	12.25	0.0262	0.0132
70	4,975.55	4,968.55	2.90	1.51	0.0376	0.0225	0.78	0.0036	0.0013
71	4,976.55	4,969.55	2.83	8.50	0.0401	0.0234	7.70	0.0133	0.0059
72	4,977.40	4,970.40	2.77	2.74	0.0243	0.0134	2.33	0.0049	0.0018

Permeability versus Porosity @ 500 psi



Permeability versus Porosity @ 1,600 psi



K90 Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Eddy County, New Mexico
 County :

Sample Number	Depth ft	Correct Depth ft	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence %	Sample Description
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Confining Pressure 1,600psi

1	4,906.75	4,899.75	0.6032	0.4742	22.22	2.82	69.6	0.0	0		Dol:gyr intbxdn por sl anhy foss sl pyr xln
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K East-West

2	4,907.80	4,900.80	0.0071	0.0027	3.73	2.83	78.1	0.0	0		Dol:gyr sl ppp sm pyr sl anhy xln
3	4,908.80	4,901.80	0.0534	0.0312	8.46	2.85	71.3	0.0	0		Dol:tn intbxdn por sm anhy xln
4	4,909.40	4,902.40	0.0435	0.0186	5.04	2.83	68.5	0.0	0		Dol:tn intbxdn por sm anhy styl xln

K90

5	4,910.70	4,903.70	0.0700	0.0441	7.40	2.85	74.2	0.0	0		Dol:tn sl ppp intbxdn por sm anhy xln
6	4,911.80	4,904.80	0.0173	0.0072	7.28	2.79	76.8	0.0	0		Dol:tn sm ppp sm anhy foss xln
7	4,912.60	4,905.60	0.0099	0.0042	4.01	2.84	75.0	0.0	0		Dol:tn intbxdn por sm anhy xln
8	4,913.20	4,906.20	0.0086	0.0032	2.66	2.82	71.4	0.0	0		Dol:tn intbxdn por sl anhy xln
9	4,914.70	4,907.70	0.4346	0.3447	10.69	2.84	78.2	0.0	0		Dol:tn sm ppp sl anhy peld xln
10	4,915.40	4,908.40	0.0237	0.0096	3.55	2.83	69.5	0.0	tr	DI gld sp	Dol:tn-brn intbxdn por sm anhy xln
11	4,916.20	4,909.20	0.0202	0.0094	5.18	2.83	71.9	0.0	0		Dol:tn intbxdn por sl anhy sl pyr xln
12	4,917.20	4,910.20	0.0239	0.0112	6.26	2.81	75.1	0.0	0		Dol:brn intbxdn por sm anhy xln
13	4,918.20	4,911.20	0.0232	0.0106	6.98	2.79	77.3	0.0	tr	DI gld sp	Dol:brn intbxdn por sl pyr styl xln
14	4,919.70	4,912.70	0.0551	0.0324	8.75	2.82	72.0	0.0	tr	DI gld sp	Dol:tn intbxdn por sm anhy peld xln
15	4,920.70	4,913.70	0.0269	0.0130	7.88	2.80	70.9	0.0	0		Dol:tn sl ppp intbxdn por sm anhy xln
16	4,921.20	4,914.20	0.0043	0.0016	1.61	2.78	82.1	0.0	0		Dol:tn sm intbxdn por calc foss xln
17	4,922.20	4,915.20	0.0057	0.0021	1.23	2.77	84.8	0.0	0		Dol:tn nvp calc xln

SCAL, Inc

K90 Drilled Plug Analysis Report

Company : Perenco, LLC

File No. : 04278

Well : State 1625 #291

Location :

Field: Abo

Formation: Abo

County : Eddy County, New Mexico

Sample Number	Depth ft	Correct Depth ft	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence		Sample Description
										%	Description	

Confining Pressure 1,600psi

18	4,923.50	4,916.50	0.0047	0.0018	1.24	2.81	72.5	0.0	tr	DI	gld	Dol:tn sm intxn por sl anhy xln
19	4,924.65	4,917.65	0.0109	0.0046	3.66	2.83	70.4	0.0	0	DI	gld mf	Dol:tn intxn por sl anhy xln
20	4,925.70	4,918.70	0.0079	0.0033	3.21	2.84	78.0	0.0	0	DI	gld mf	Dol:tn intxn por sm anhy xln
21	4,926.20	4,919.20	0.0065	0.0027	2.20	2.85	71.4	0.0	0	DI	gld mf	Dol:tn intxn por xln
22	4,927.20	4,920.20	0.0060	0.0022	2.58	2.82	77.2	0.0	0	DI	gld mf	Dol:brn intxn por sl anhy xln
23	4,928.60	4,921.60	0.0201	0.0088	5.38	2.82	76.5	0.0	0	DI	gld mf	Dol:brn intxn por peld sl anhy xln
24	4,929.20	4,922.20	0.1604	0.1127	7.83	2.85	73.7	0.0	0	DI	gld mf	Dol:brn intxn por sm anhy xln
25	4,930.20	4,923.20	0.0055	0.0022	1.15	2.79	78.1	0.0	0	DI	gld mf	Dol:brn nvp styl sl anhy calc xln
26	4,931.45	4,924.45	0.0384	0.0209	7.56	2.81	80.2	0.0	0	DI	gld mf	Dol:brn intxn por sl anhy xln
27	4,932.20	4,925.20	0.0311	0.0159	7.19	2.80	71.6	0.0	0	DI	gld mf	Dol:tn intxn por sm anhy sl pyr styl xln
28	4,933.20	4,926.20	0.0056	0.0022	1.74	2.80	76.9	0.0	0	DI	gld mf	Anhy:wht intxn por calc dol xln
29	4,934.70	4,927.70	0.0046	0.0017	0.99	2.76	80.0	0.0	0	DI	gld mf	Ls:brn nvp xln
30	4,935.70	4,928.70	0.0195	0.0085	5.56	2.82	75.3	0.0	0	DI	gld mf	Dol:brn intxn por sl anhy xln
31	4,936.50	4,929.50	0.0211	0.0101	8.78	2.82	72.1	0.0	0	DI	gld mf	Dol:brn intxn por sl anhy xln
32	4,937.55	4,930.55	0.0168	0.0081	6.02	2.79	77.3	0.0	0	DI	gld mf	Dol:tn sl ppp styl anhy nod foss sl pyr xln
33	4,938.20	4,931.20	0.0027	0.0009	0.24	2.75	73.8	0.0	0	DI	gld mf	Ls:brn nvp anhy nods sl pyr xln
34	4,939.70	4,932.70	0.0044	0.0016	0.68	2.77	75.0	0.0	0	DI	gld mf	Ls:brn nvp anhy nods peld xln
35	4,940.20	4,933.20	0.0045	0.0017	1.32	2.76	82.7	0.0	0	DI	gld mf	Ls:tn nvp anhy nod sl pyr peld foss xln
36	4,941.90	4,934.90	0.0458	0.0250	10.69	2.81	74.2	0.0	0	DI	gld mf	Dol:tn ppp sm anhy xln
37	4,942.85	4,935.85	0.0077	0.0027	0.56	2.74	76.8	0.0	0	DI	gld mf	Ls:tn nvp sl anhy foss xln

K90 Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth ft	Correct Depth ft	Air		Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence		Sample Description
			Permeability mD									%	Description

Confining Pressure 1,600psi

38	4,943.20	4,936.20	0.0072	0.0027	2.25	2.77	75.4	0.0	0	0	DI gld mf		Ls:tn nvp sm anhy foss xln
39	4,944.20	4,937.20	0.0029	0.0010	0.58	2.72	83.0	0.0	0	0	DI gld mf		Ls:tn nvp sl anhy foss xln
40	4,945.70	4,938.70	0.0036	0.0013	0.12	2.71	72.3	0.0	0	0			Ls:tn nvp sl anhy foss xln
41	4,946.20	4,939.20	0.0015	0.0004	0.08	2.69	76.9	0.0	0	0			Ls:brn nvp sm foss xln

K East-West

42	4,947.70	4,940.70	0.0044	0.0016	0.95	2.63	63.1	8.4	20	20	Brt yl sp		Ls:brn nvp styl peld xln
43	4,948.70	4,941.70	0.0041	0.0015	1.04	2.75	70.6	0.0	0	0	DI gld mf		Ls:brn intxln por foss styl peld xln
44	4,949.70	4,942.70	0.0029	0.0010	0.27	2.71	83.3	0.0	0	0	DI gld mf		Ls:brn nvp foss sl anhy xln
45	4,950.70	4,943.70	0.0037	0.0013	0.48	2.72	86.7	0.0	0	0	DI gld mf		Ls:brn nvp foss styl xln
46	4,951.80	4,944.80	0.0034	0.0013	0.29	2.72	84.2	0.0	0	0	DI gld mf		Ls:tn nvp styl foss xln
47	4,952.50	4,945.50	0.0041	0.0015	0.55	2.74	73.9	0.0	0	0	DI gld mf		Ls:tn nvp xln
48	4,953.20	4,946.20	0.0049	0.0018	0.68	2.76	75.0	0.0	0	0	DI gld mf		Ls:tn nvp sl pyr xln
49	4,954.70	4,947.70	0.0045	0.0017	0.84	2.70	81.2	0.0	0	0			Ls:tn nvp styl sl pyr peld xln
50	4,955.70	4,948.70	0.0102	0.0038	0.90	2.70	78.9	0.0	0	0			Ls:brn nvp foss peld xln
51	4,956.70	4,949.70	0.0042	0.0015	1.06	2.73	74.1	0.0	0	0			Ls:brn nvp peld styl xln
52	4,957.75	4,950.75	0.0048	0.0018	2.55	2.74	85.4	0.0	0	0			Dol:brn frac anhy nod sm pyr sl sh calc peld
53	4,958.70	4,951.70	0.1719	0.1279	1.61	2.73	75.5	0.0	0	0	DI gld mf		Ls:tn sm intxln por dol sl anhy xln
54	4,959.20	4,952.20	0.0074	0.0028	2.56	2.76	77.9	0.0	0	0	DI gld mf		Ls:tn nvp foss xln
55	4,960.20	4,953.20	0.0091	0.0041	1.49	2.75	74.6	0.0	0	0	DI gld mf		Ls:tn frac dol xln
56	4,961.20	4,954.20	0.0043	0.0016	0.88	2.77	72.7	0.0	0	0	DI gld mf		Ls:tn nvp sl anhy dol xln

SCAL, Inc

K90 Drilled Plug Analysis Report

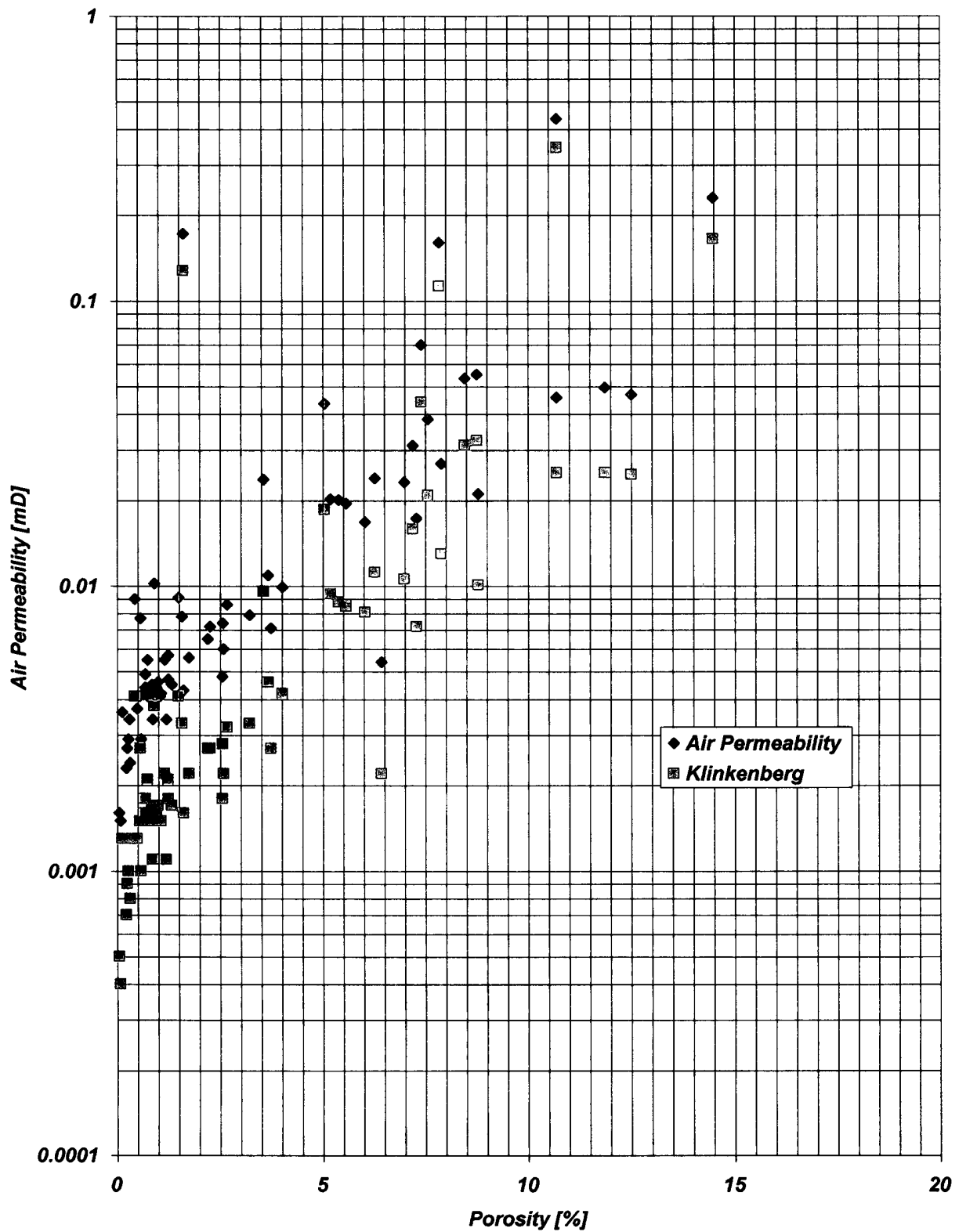
Company : Perenco, LLC
File No. : 04278
Well : State 1625 #291
Location :
Field:
Formation: Abo
County : Eddy County, New Mexico

Sample Number	Depth	Correct	Air	Klinkenberg	Porosity	Grain	Sw	So	Gas	Fluorescence	Sample Description
	ft	ft	Permeability	Permeability	%	Density	%	%	Units	%	Description
			mD	mD		g/cc					

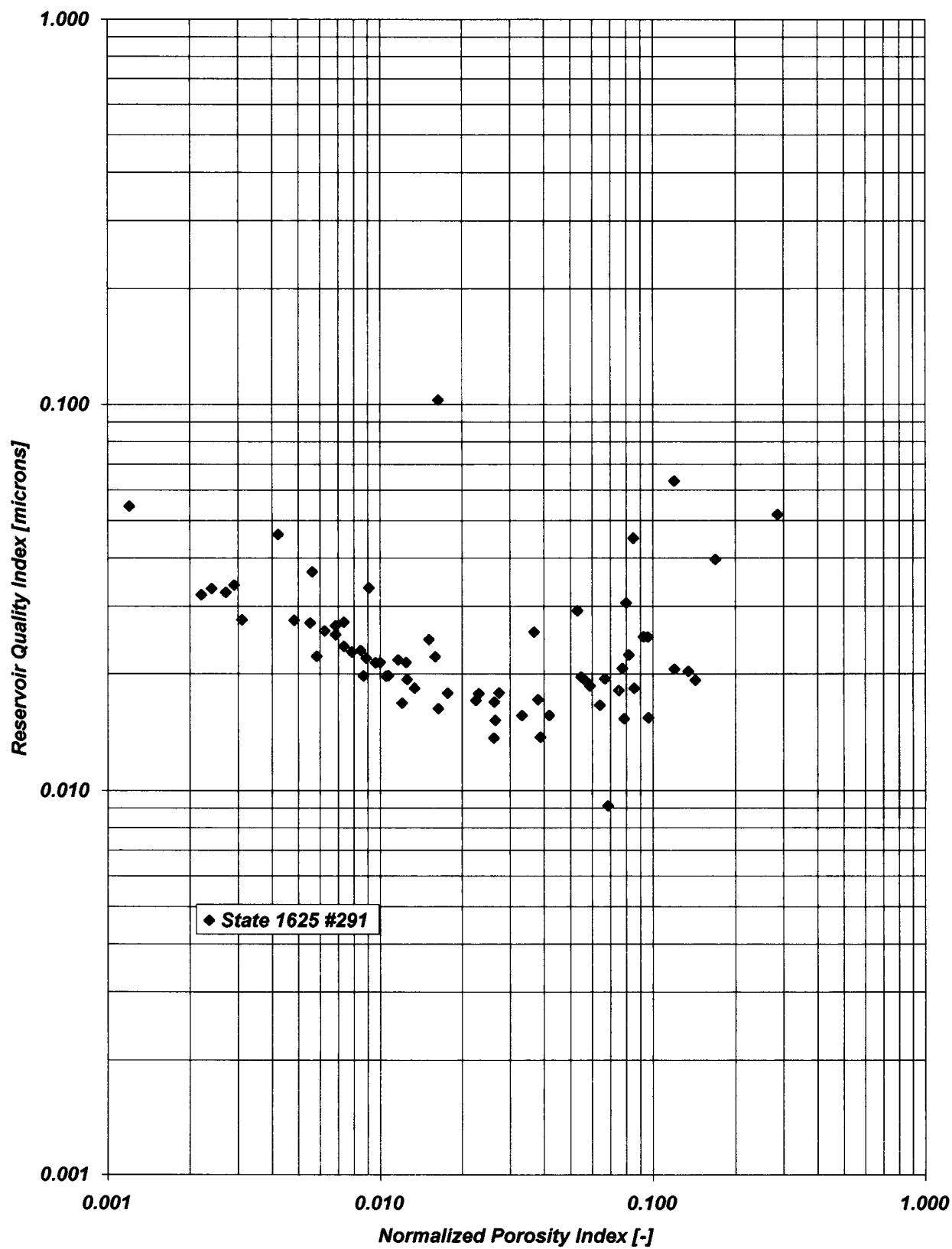
Confining Pressure 1,600psi

57	4,962.55	4,955.55	0.2301	0.1654	14.47	2.82	69.0	0.0	0	Gld mf	Dol:crm intxln por sm anhy nod xln
58	4,963.55	4,956.55	0.0469	0.0247	12.50	2.87	71.2	0.0	0		Dol:crm intxln por anhy nods pyr xln
59	4,964.70	4,957.70	0.0041	0.0016	0.73	2.71	82.7	0.0	0		Ls:brn nvp xln
60	4,965.70	4,958.70	0.0042	0.0015	0.62	2.71	73.8	0.0	0		Ls:brn nvp sl pyr xln
61	4,966.70	4,959.70	0.0041	0.0015	0.78	2.71	77.4	0.0	0		Ls:brn nvp peld xln
62	4,967.70	4,960.70	0.0055	0.0021	0.73	2.70	70.5	0.0	0		Ls:brn nvp foss peld styl sl pyr xln
63	4,968.70	4,961.70	0.0090	0.0041	0.42	2.65	83.3	0.0	0		Ls:brn nvp foss sl sh sm pyr peld xln
64	4,969.75	4,962.75	0.0023	0.0007	0.22	2.70	78.1	0.0	0		Ls:brn sl intxln por foss sm pyr xln
65	4,970.70	4,963.70	0.0016	0.0005	0.05	2.70	75.8	0.0	0		Ls:brn nvp foss sl pyr xln
66	4,971.80	4,964.80	0.0034	0.0011	0.86	2.71	81.5	0.0	0		Ls:brn nvp peld xln
67	4,972.70	4,965.70	0.0024	0.0008	0.31	2.72	74.3	0.0	0		Ls:brn nvp peld xln
68	4,973.70	4,966.70	0.0034	0.0011	1.19	2.73	82.8	0.0	0		Ls:brn nvp foss styl sl pyr xln
69	4,974.45	4,967.45	0.0496	0.0250	11.86	2.81	74.0	6.3	10	Gld sp	Dol:tn intxln por xln
70	4,975.70	4,968.70	0.0000	0.0000	6.82	2.81	79.1	0.0	0		Dol:tn nvp anhy nod sm sh sl pyr xln
71	4,976.70	4,969.70	0.0054	0.0022	6.42	2.82	82.2	0.0	0	DI gld mf	Dol:tn intxln por sm anhy sm pyr xln
72	4,977.55	4,970.55	0.0078	0.0033	1.57	2.79	87.9	0.0	0	DI gld mf	Calc/Dol:tn intxln por foss xln

Permeability versus Porosity @ 1,600 psi



Reservoir Quality Index versus Normalized Porosity



Vertical Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth ft	Correct Depth ft	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence %	Sample Description
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Confining Pressure 1,600psi

1	4,906.00	4,899.00	0.0035	0.0011	1.35	2.79	69.6	0.0	0	0	Dol:gyr intxln por sl anhy foss sl pyr xln
2	4,907.50	4,900.50	0.0089	0.0037	4.80	2.87	78.1	0.0	0	0	Dol:gyr sl ppp sm pyr sl anhy xln
3	4,908.80	4,901.80	0.0392	0.0225	7.75	2.86	71.3	0.0	0	0	Dol:tn intxln por sm anhy xln
4	4,909.60	4,902.60	0.0133	0.0058	6.34	2.82	68.5	0.0	0	0	Dol:tn intxln por sm anhy styl xln
5	4,910.80	4,903.80	0.1949	0.1414	11.18	2.85	74.2	0.0	0	0	Dol:tn sl ppp intxln por sm anhy xln
6	4,911.85	4,904.85	0.0081	0.0034	6.00	2.78	76.8	0.0	0	0	Dol:tn sm ppp sm anhy foss xln
7	4,912.70	4,905.70	0.0081	0.0030	3.84	2.84	75.0	0.0	0	0	Dol:tn intxln por sm anhy xln
8	4,913.30	4,906.30	0.0141	0.0042	1.71	2.82	71.4	0.0	0	0	Dol:tn intxln por sl anhy xln
9	4,914.80	4,907.80	0.0392	0.0214	13.85	2.83	78.2	0.0	0	0	Dol:tn sm ppp sl anhy peld xln
10	4,915.50	4,908.50	0.0035	0.0012	1.78	2.82	69.5	0.0	tr	DI gld sp	Dol:tn-brn intxln por sm anhy xln
11	4,916.30	4,909.30	0.0173	0.0080	6.26	2.81	71.9	0.0	0	0	Dol:tn intxln por sl anhy sl pyr xln
12	4,917.30	4,910.30	0.0232	0.0106	7.21	2.81	75.1	0.0	0	0	Dol:brn intxln por sm anhy xln
13	4,918.30	4,911.30	0.0104	0.0042	10.12	2.78	77.3	0.0	tr	DI gld sp	Dol:brn intxln por sl pyr styl xln
14	4,919.80	4,912.80	0.0355	0.0195	8.28	2.81	72.0	0.0	tr	DI gld sp	Dol:tn intxln por sm anhy peld xln
15	4,920.80	4,913.80	0.0006	0.0002	2.69	2.80	70.9	0.0	0	DI gld mf	Dol:tn sl ppp intxln por sm anhy xln
16	4,921.30	4,914.30	0.0006	0.0001	1.92	2.79	82.1	0.0	0	DI gld mf	Dol:tn sm intxln por calc foss xln
17	4,922.30	4,915.30	0.0005	0.0001	1.38	2.77	84.8	0.0	0	DI gld mf	Dol:tn nvp calc xln
18	4,923.70	4,916.70	0.0007	0.0001	0.21	2.77	72.5	0.0	tr	DI gld	Dol:tn sm intxln por sl anhy xln
19	4,924.80	4,917.80	0.0249	0.0085	3.56	2.84	70.4	0.0	0	DI gld mf	Dol:tn intxln por sl anhy xln
20	4,925.80	4,918.80	0.0494	0.0159	2.55	2.84	78.0	0.0	0	DI gld mf	Dol:tn intxln por sm anhy xln

Vertical Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth ft	Correct Depth ft	Air		Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence		Sample Description
			Permeability mD									%	
21	4,926.30	4,919.30	0.0016		0.0005	1.66	2.85	71.4	0.0		0		Di:tn intxn por xln
22	4,927.30	4,920.30	0.0020		0.0006	2.68	2.82	77.2	0.0		0		Di:bm intxn por sl anhy xln
23	4,928.10	4,921.10	0.0082		0.0029	4.45	2.81	76.5	0.0		0		Di:bm intxn por peld sl anhy xln
24	4,929.30	4,922.30	0.0303		0.0160	8.93	2.84	73.7	0.0		0		Di:bm intxn por sm anhy xln
25	4,930.30	4,923.30	0.0008		0.0002	1.15	2.79	78.1	0.0		0		Di:bm nvp styl sl anhy calc xln
26	4,931.00	4,924.00	0.0599		0.0360	9.31	2.80	80.2	0.0		0		Di:bm intxn por sl anhy xln
27	4,932.30	4,925.30	0.0281		0.0145	7.58	2.79	71.6	0.0		0		Di:tn intxn por sm anhy sl pyr styl xln
28	4,933.80	4,926.80	0.0018		0.0005	1.22	2.74	76.9	0.0		0		Anhy:wht intxn por calc dol xln
29	4,934.80	4,927.80	0.0039		0.0012	1.52	2.76	80.0	0.0		0		Ls:bm nvp xln
30	4,935.80	4,928.80	0.0205		0.0084	6.59	2.81	75.3	0.0		0		Di:bm intxn por sl anhy xln
31	4,936.70	4,929.70	0.0179		0.0083	9.57	2.80	72.1	0.0		0		Di:bm intxn por sl anhy xln
32	4,937.70	4,930.70	0.0017		0.0004	1.06	2.74	77.3	0.0		0		Di:tn sl ppp styl anhy nod foss sl pyr xln
33	4,938.35	4,931.35	0.0009		0.0002	0.29	2.70	73.8	0.0		0		Ls:bm nvp anhy nods sl pyr xln
34	4,939.80	4,932.80	0.0011		0.0003	0.53	2.74	75.0	0.0		0		Ls:bm nvp anhy nods peld xln
35	4,940.30	4,933.30	0.0028		0.0008	3.32	2.78	82.7	0.0		0		Ls:tn nvp anhy nod sl pyr peld foss xln
36	4,941.55	4,934.55	0.0197		0.0093	9.63	2.79	74.2	0.0		0		Di:tn ppp sm anhy xln
37	4,942.50	4,935.50	0.0014		0.0004	0.71	2.70	76.8	0.0		0		Ls:tn nvp sl anhy foss xln
38	4,943.30	4,936.30	0.0022		0.0007	3.90	2.77	75.4	0.0		0		Ls:tn nvp sm anhy foss xln
39	4,944.30	4,937.30	0.0008		0.0002	0.24	2.71	83.0	0.0		0		Ls:tn nvp sl anhy foss xln
40	4,945.80	4,938.80	0.0019		0.0005	0.43	2.71	72.3	0.0		0		Ls:tn nvp sl anhy foss xln
41	4,946.30	4,939.30	0.0010		0.0003	0.43	2.69	76.9	0.0		0		Ls:bm nvp sm foss xln

Vertical Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

Field: Abo
 Formation: Abo
 County : Eddy County, New Mexico

Sample Number	Depth ft	Correct Depth ft	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence		Sample Description
											%	
42	4,947.80	4,940.80	0.0207	0.0111	0.60	2.80	63.1	8.4	20	Brt yl sp		Ls:brn nvp styl peld xln
43	4,948.80	4,941.80	0.0017	0.0005	0.32	2.76	70.6	0.0	0	DI gld mf		Ls:brn intbxdn por foss styl peld xln
44	4,949.80	4,942.80	0.0004	0.0001	1.06	2.77	83.3	0.0	0	DI gld mf		Ls:brn nvp foss sl anhy xln
45	4,950.80	4,943.80	0.0005	0.0001	0.32	2.75	86.7	0.0	0	DI gld mf		Ls:brn nvp foss styl xln
46	4,951.55	4,944.55	0.0005	0.0001	0.05	2.73	84.2	0.0	0	DI gld mf		Ls:tn nvp styl foss xln
47	4,952.20	4,945.20	0.0110	0.0025	0.72	2.75	73.9	0.0	0	DI gld mf		Ls:tn nvp xln
48	4,953.30	4,946.30	0.0009	0.0002	1.17	2.76	75.0	0.0	0	DI gld mf		Ls:tn nvp sl pyr xln
49	4,954.80	4,947.80	0.0024	0.0006	0.51	2.71	81.2	0.0	0			Ls:tn nvp styl sl pyr peld xln
50	4,955.80	4,948.80	0.0011	0.0003	0.48	2.72	78.9	0.0	0			Ls:brn nvp foss peld xln
51	4,956.80	4,949.80	0.0011	0.0003	1.06	2.73	74.1	0.0	0			Ls:brn nvp peld styl xln
52	4,957.30	4,950.30	0.0013	0.0003	2.97	2.76	85.4	0.0	0			Dol:brn frac anhy nod sm pyr sl sh calc peld :
53	4,958.80	4,951.80	0.0010	0.0002	0.37	2.71	75.5	0.0	0	DI gld mf		Ls:tn sm intbxdn por dol sl anhy xln
54	4,959.30	4,952.30	0.0006	0.0001	3.30	2.73	77.9	0.0	0	DI gld mf		Ls:tn nvp foss xln
55	4,960.30	4,953.30	0.0015	0.0004	0.79	2.74	74.6	0.0	0	DI gld mf		Ls:tn frac dol xln
56	4,961.30	4,954.30	0.0006	0.0001	1.52	2.73	72.7	0.0	0	DI gld mf		Ls:tn nvp sl anhy dol xln
57	4,962.70	4,955.70	0.1070	0.0683	16.63	2.83	69.0	0.0	0	Gld mf		Dol:cm intbxdn por sm anhy nod xln
58	4,963.70	4,956.70	0.0809	0.0476	17.57	2.85	71.2	0.0	0			Dol:cm intbxdn por anhy nods pyr xln
59	4,964.80	4,957.80	0.0010	0.0002	0.74	2.70	82.7	0.0	0			Ls:brn nvp xln
60	4,965.80	4,958.80	0.0014	0.0004	0.25	2.70	73.8	0.0	0			Ls:brn nvp sl pyr xln
61	4,966.80	4,959.80	0.0012	0.0003	0.63	2.70	77.4	0.0	0			Ls:brn nvp peld xln
62	4,967.80	4,960.80	0.0025	0.0008	0.85	2.70	70.5	0.0	0			Ls:brn nvp foss peld styl sl pyr xln

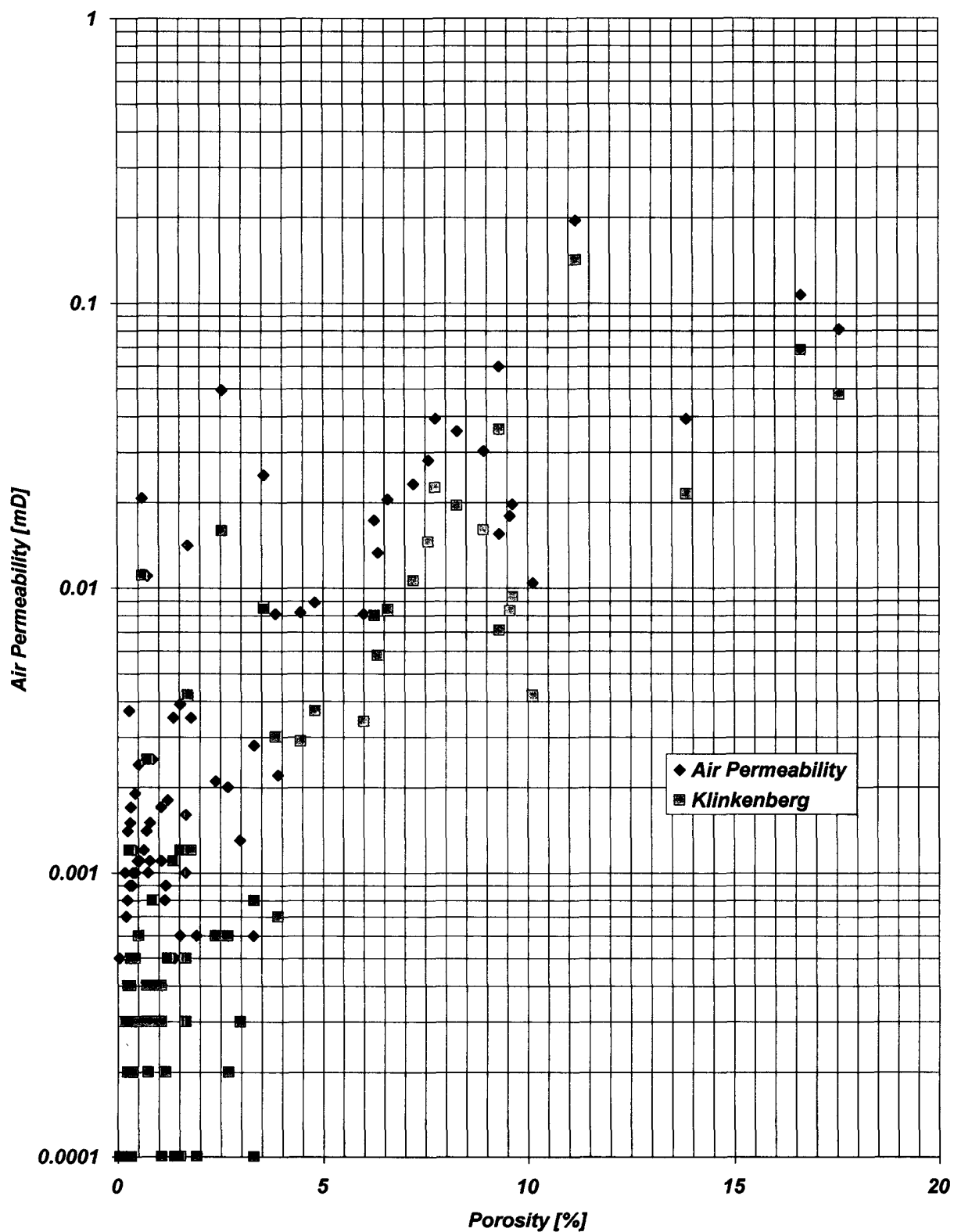
Vertical Drilled Plug Analysis Report

Company : Perenco, LLC
 File No. : 04278
 Well : State 1625 #291
 Location :

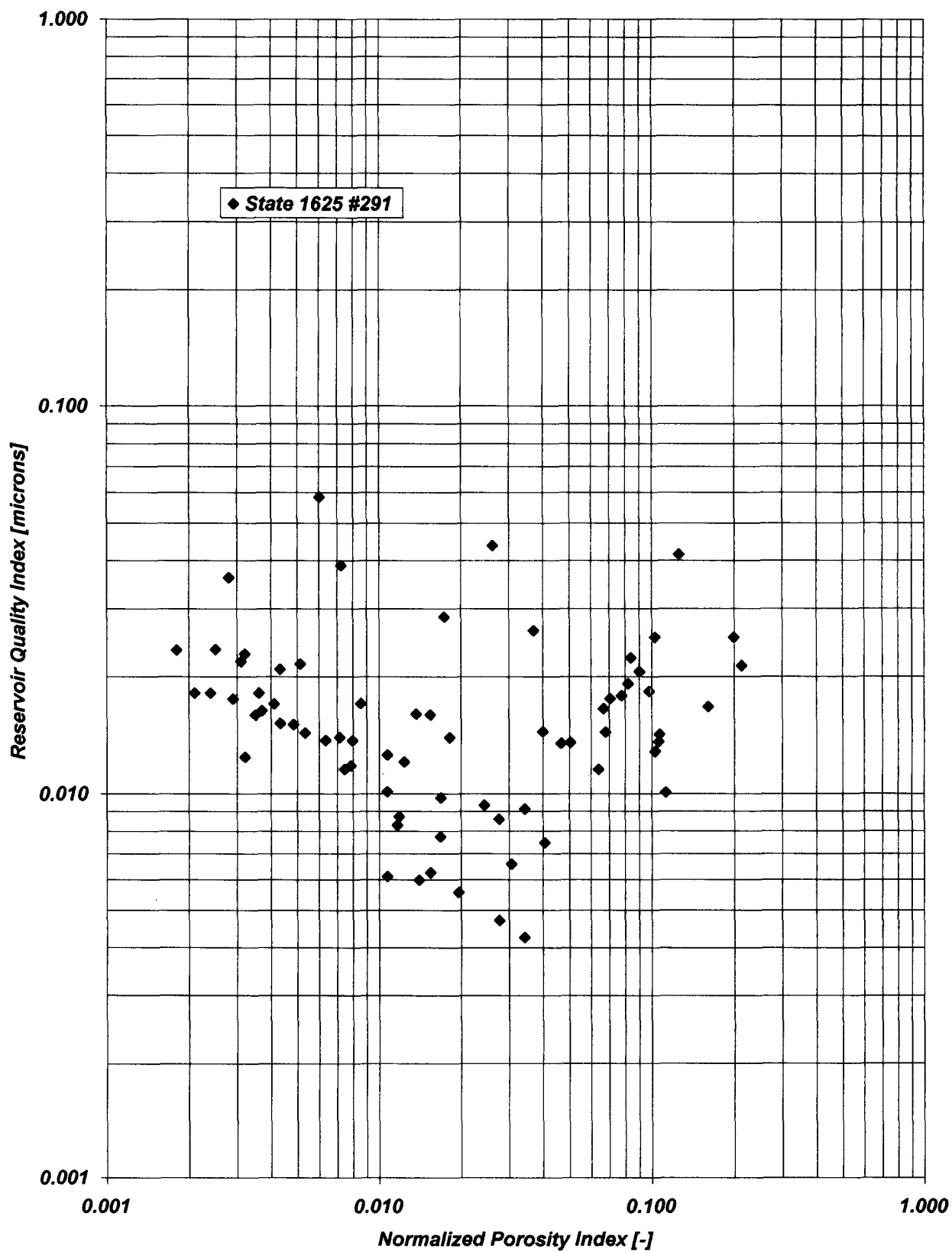
Field:
 Formation: Abo
 County : Eddy County, New Mexico

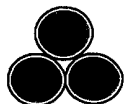
Sample Number	Depth ft	Correct Depth ft	Air Permeability mD	Klinkenberg Permeability mD	Porosity %	Grain Density g/cc	Sw %	So %	Gas Units	Fluorescence		Sample Description
											%	
63	4,968.80	4,961.80	0.0010	0.0003	1.65	2.63	83.3	0.0	0		0	Ls:brn nvp foss sl sh sm pyr peld xln
64	4,969.80	4,962.80	0.0009	0.0002	0.35	2.69	78.1	0.0	0		0	Ls:brn sl intxln por foss sm pyr xln
65	4,970.80	4,963.80	0.0010	0.0003	0.18	2.70	75.8	0.0	0		0	Ls:brn nvp foss sl pyr xln
66	4,971.30	4,964.30	0.0012	0.0003	0.41	2.70	81.5	0.0	0		0	Ls:brn nvp peld xln
67	4,972.80	4,965.80	0.0011	0.0003	0.78	2.71	74.3	0.0	0		0	Ls:brn nvp peld xln
68	4,973.80	4,966.80	0.0015	0.0004	0.31	2.72	82.8	0.0	0		0	Ls:brn nvp foss styl sl pyr xln
69	4,974.70	4,967.70	0.0037	0.0012	0.28	2.95	74.0	6.3		Gld sp	10	Dol:tn intxln por xln
70	4,975.20	4,968.20	0.0155	0.0071	9.31	2.81	79.1	0.0	0		0	Dol:tn nvp anhy nod sm sh sl pyr xln
71	4,976.80	4,969.80	0.0021	0.0006	2.38	2.77	82.2	0.0	0	DI gld mf	0	Dol:tn intxln por sm anhy sm pyr xln
72	4,977.65	4,970.65	0.0012	0.0003	0.36	2.75	87.9	0.0	0	DI gld mf	0	Calc/Dol:tn intxln por foss xln

Permeability versus Porosity @ 1,600 psi Confining Pressure



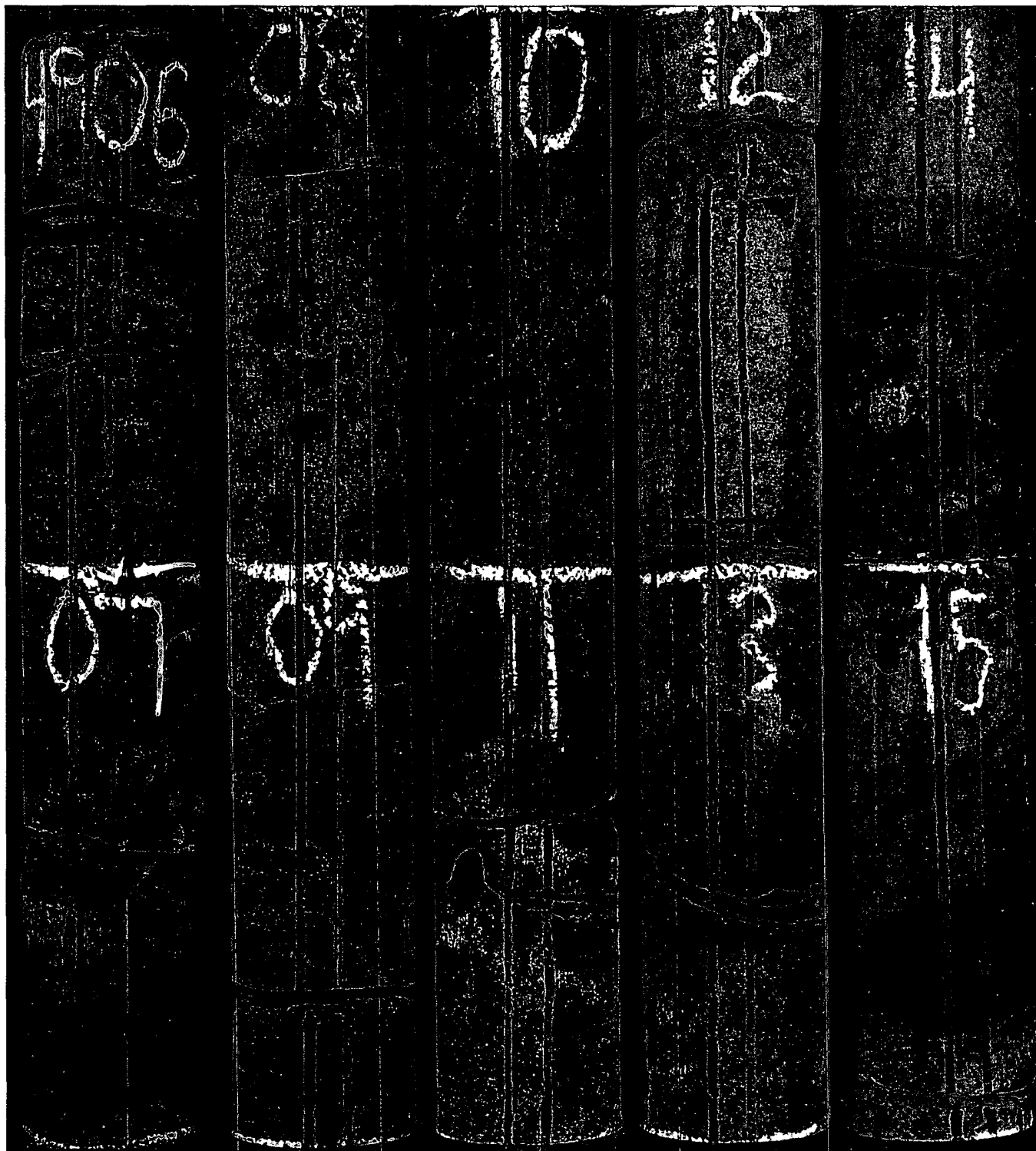
Reservoir Quality Index versus Normalized Porosity





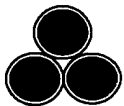
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



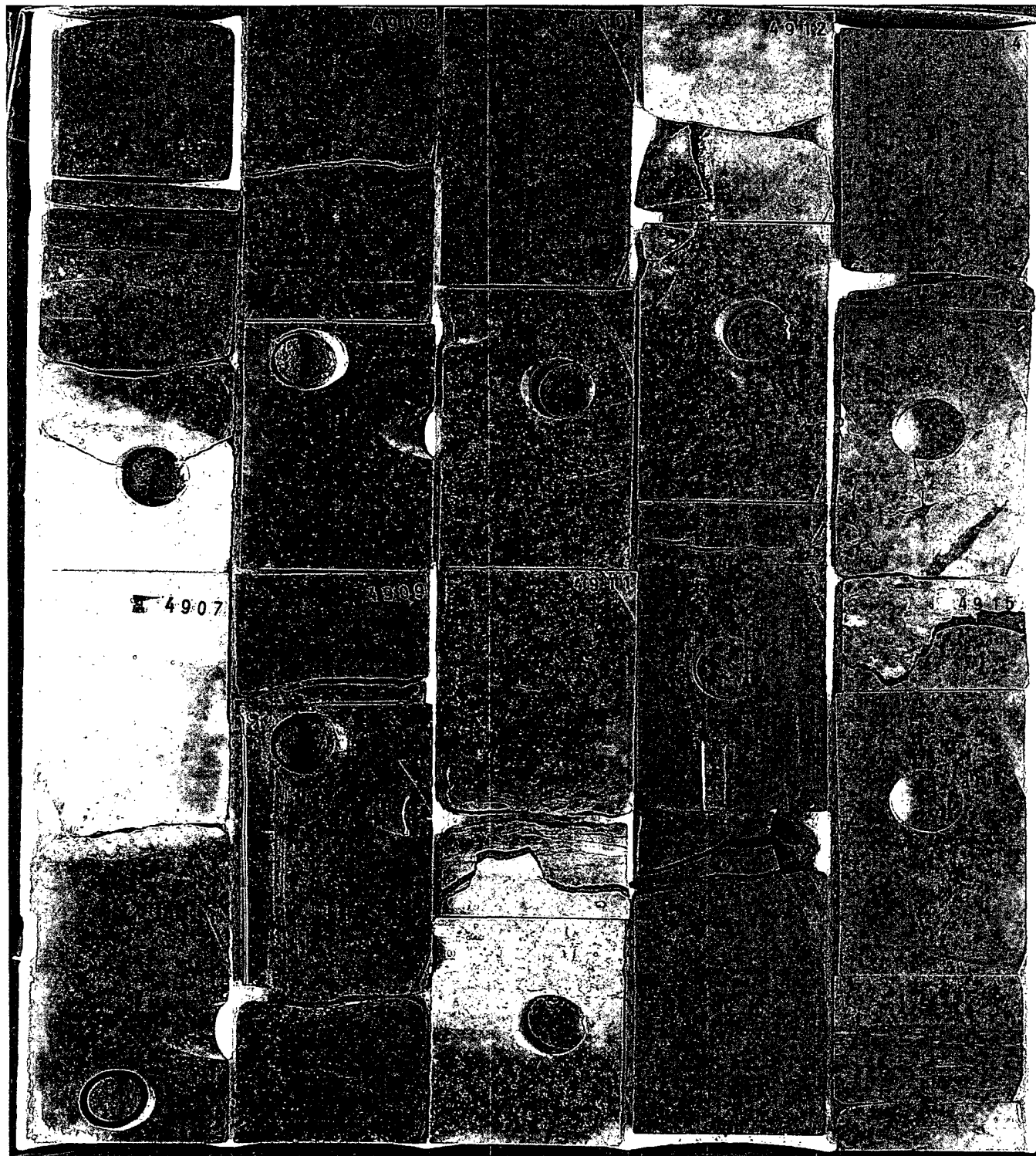
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,906 - 4,916 ft



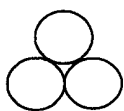
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



Company: Perenco LLC
Well: State 1625 #291

Depth: 4,906 - 4,916 ft



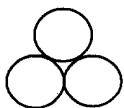
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



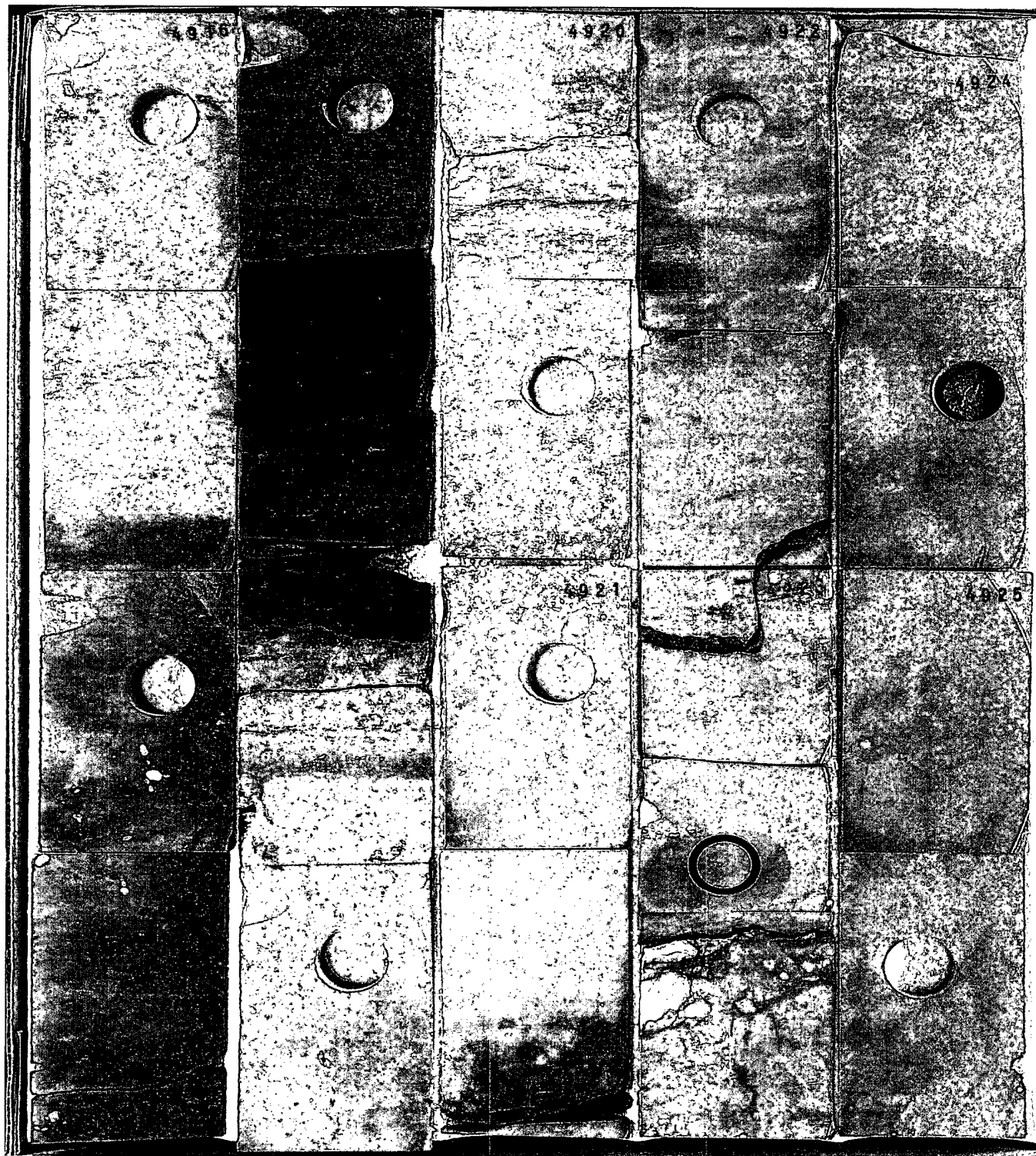
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,916 - 4,926 ft



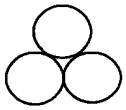
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



Company: Perenco LLC
Well: State 1625 #291

Depth: 4,916 - 4,926 ft



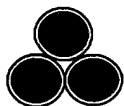
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



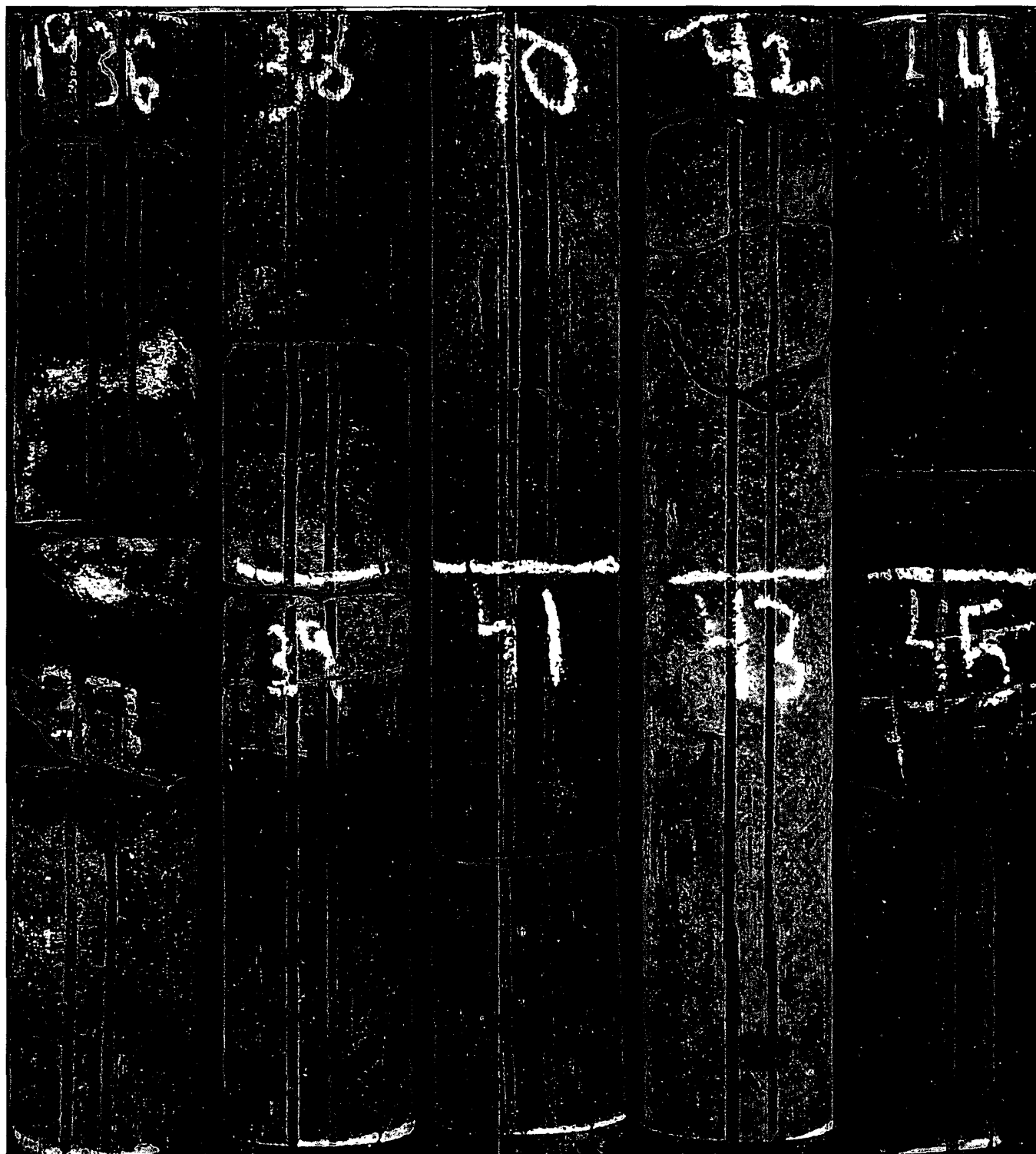
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,926 - 4,936 ft



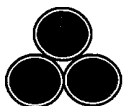
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



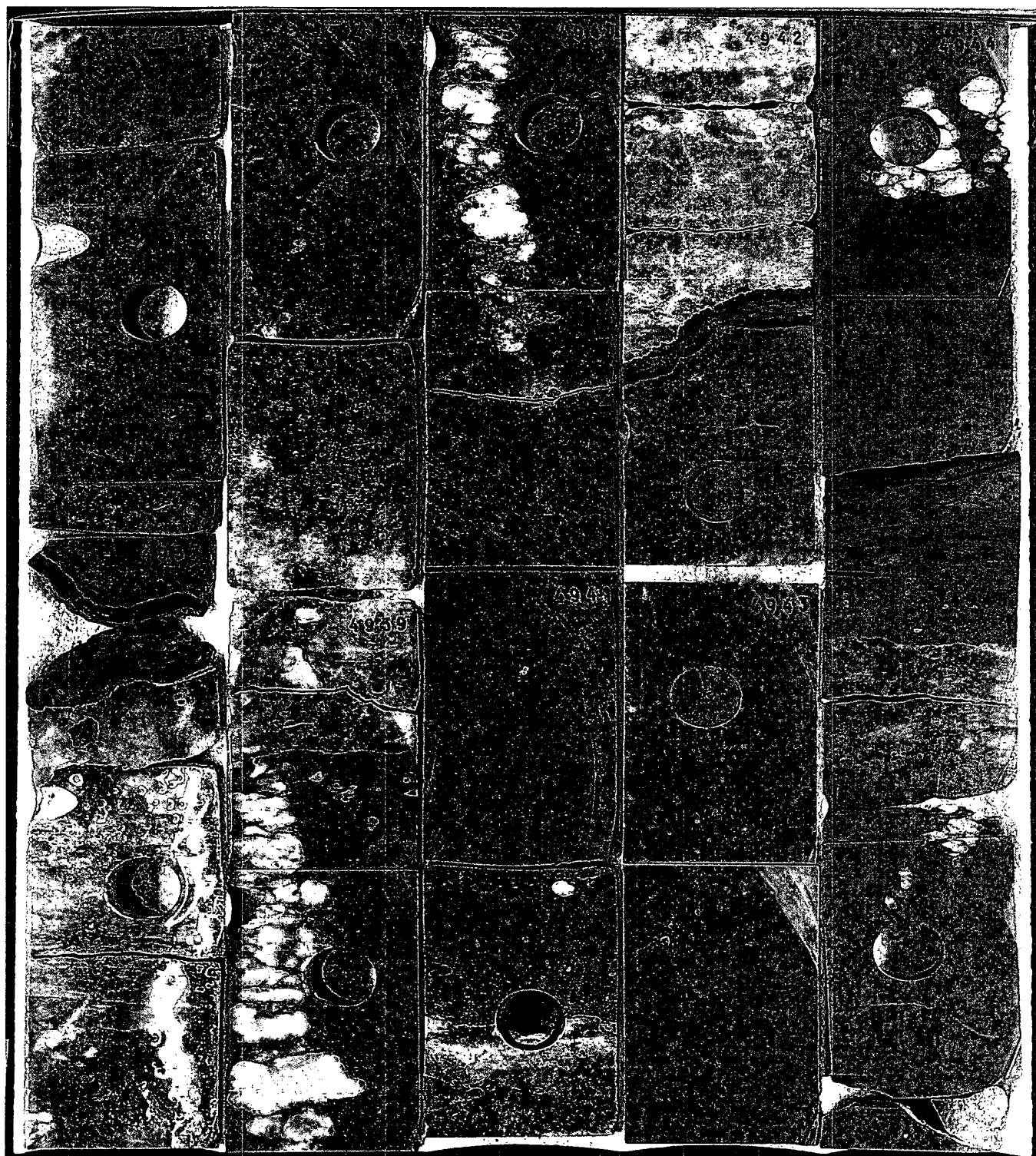
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,936 - 4,946 ft



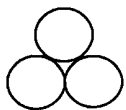
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



Company: Perenco LLC
Well: State 1625 #291

Depth: 4,936 - 4,946 ft



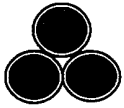
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



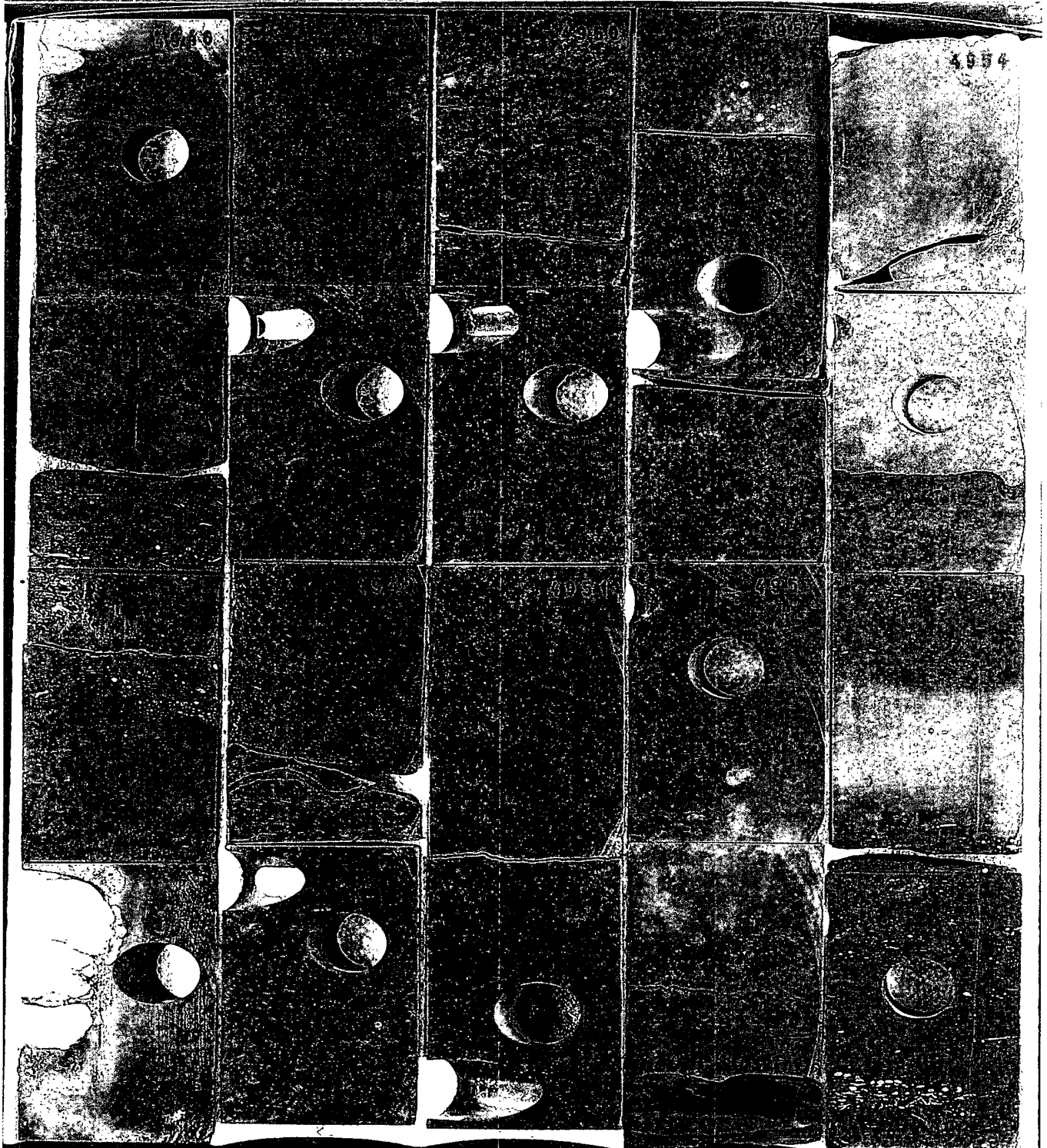
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,946 - 4,956 ft



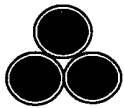
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



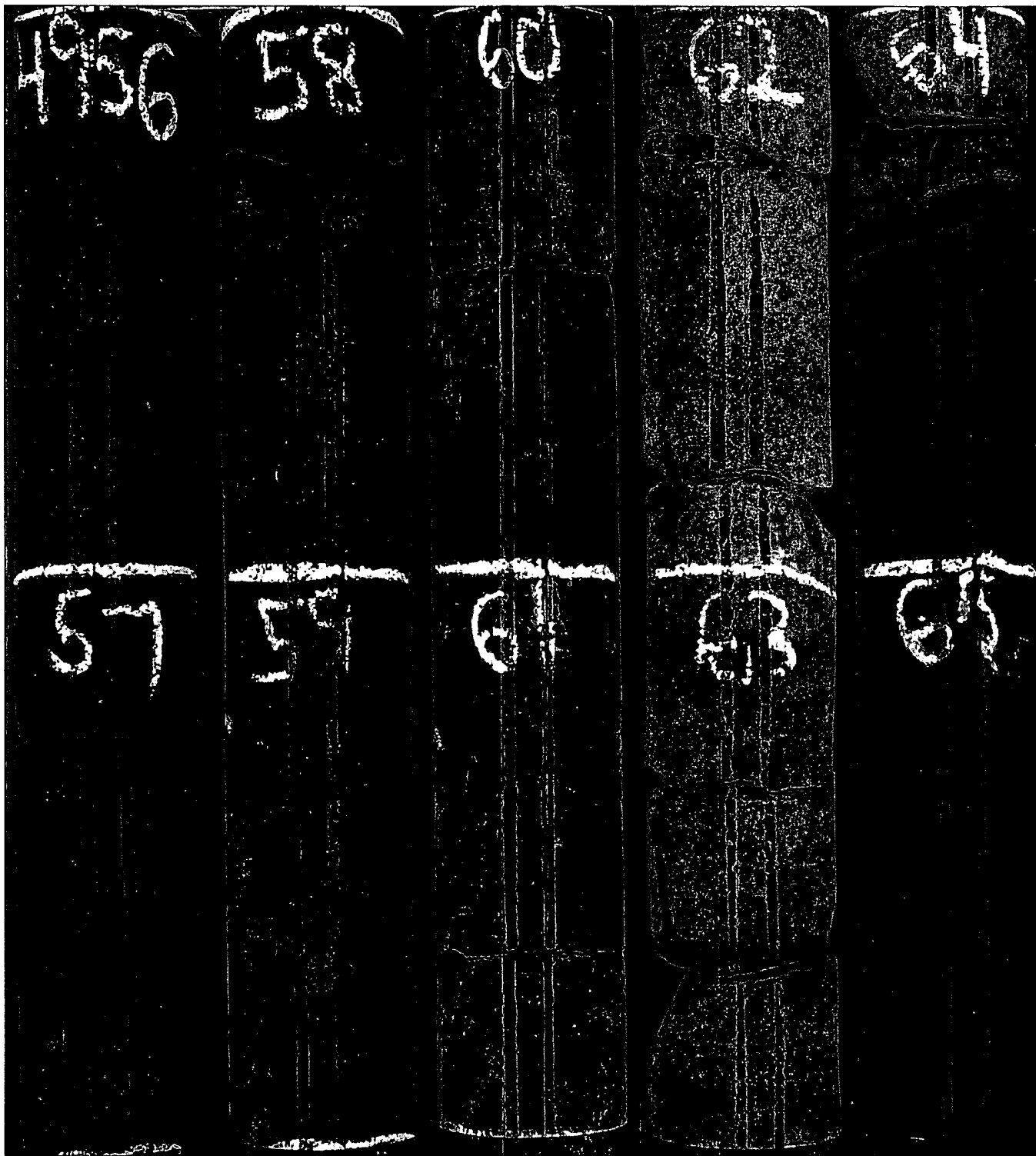
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,946 - 4,956 ft



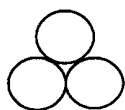
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



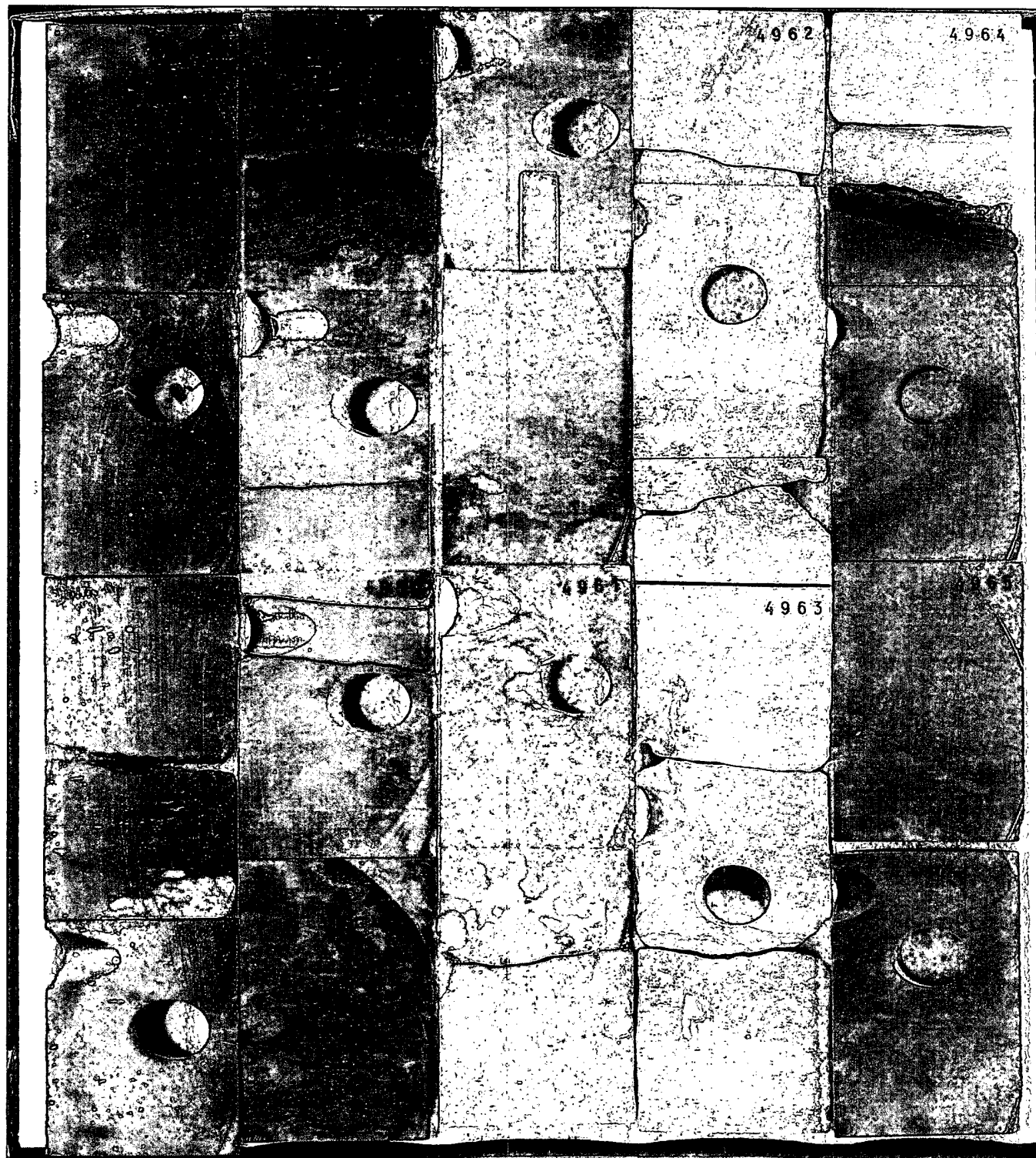
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,956 - 4,966 ft



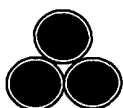
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



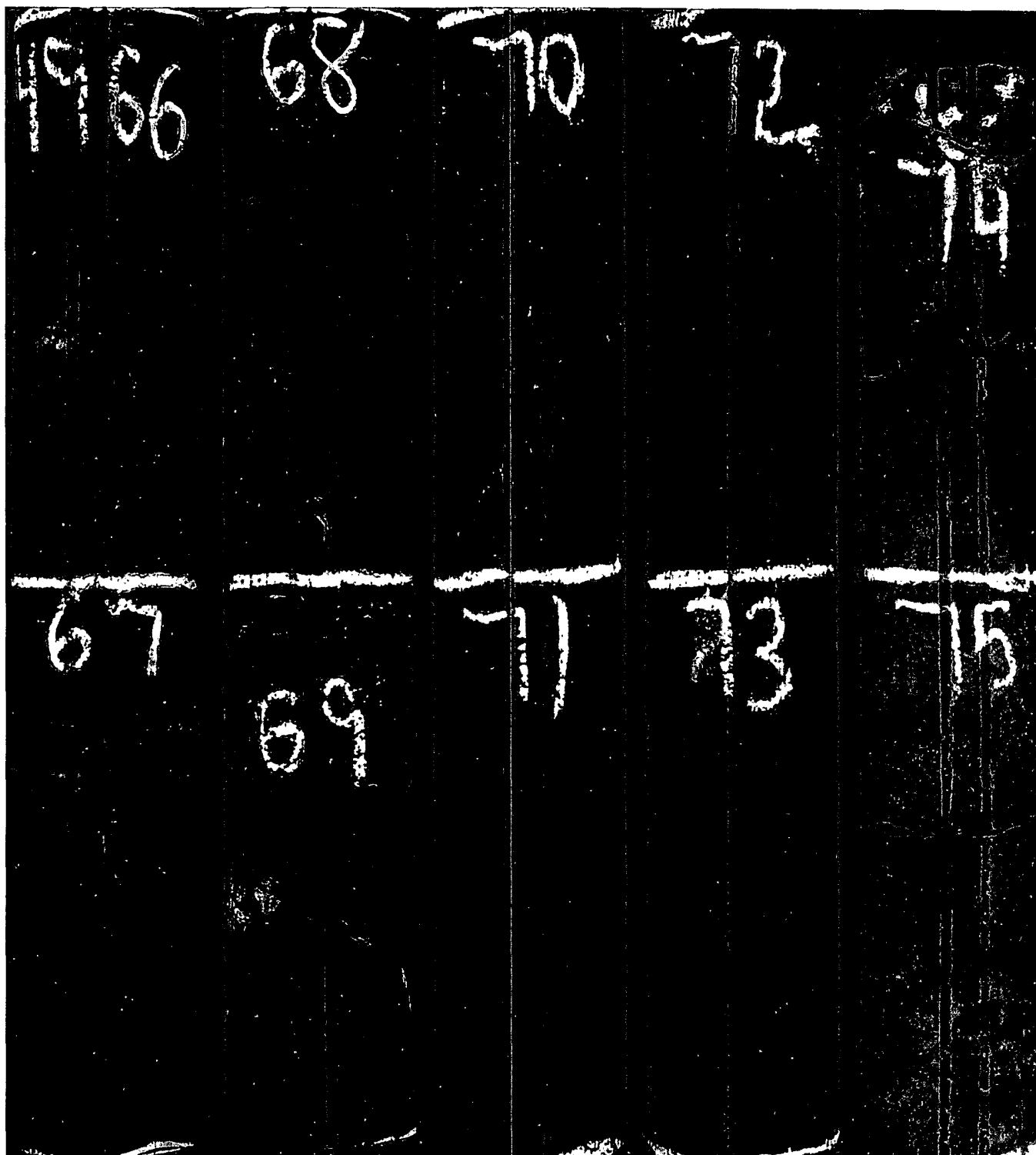
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,956 - 4,966 ft



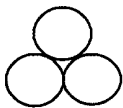
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



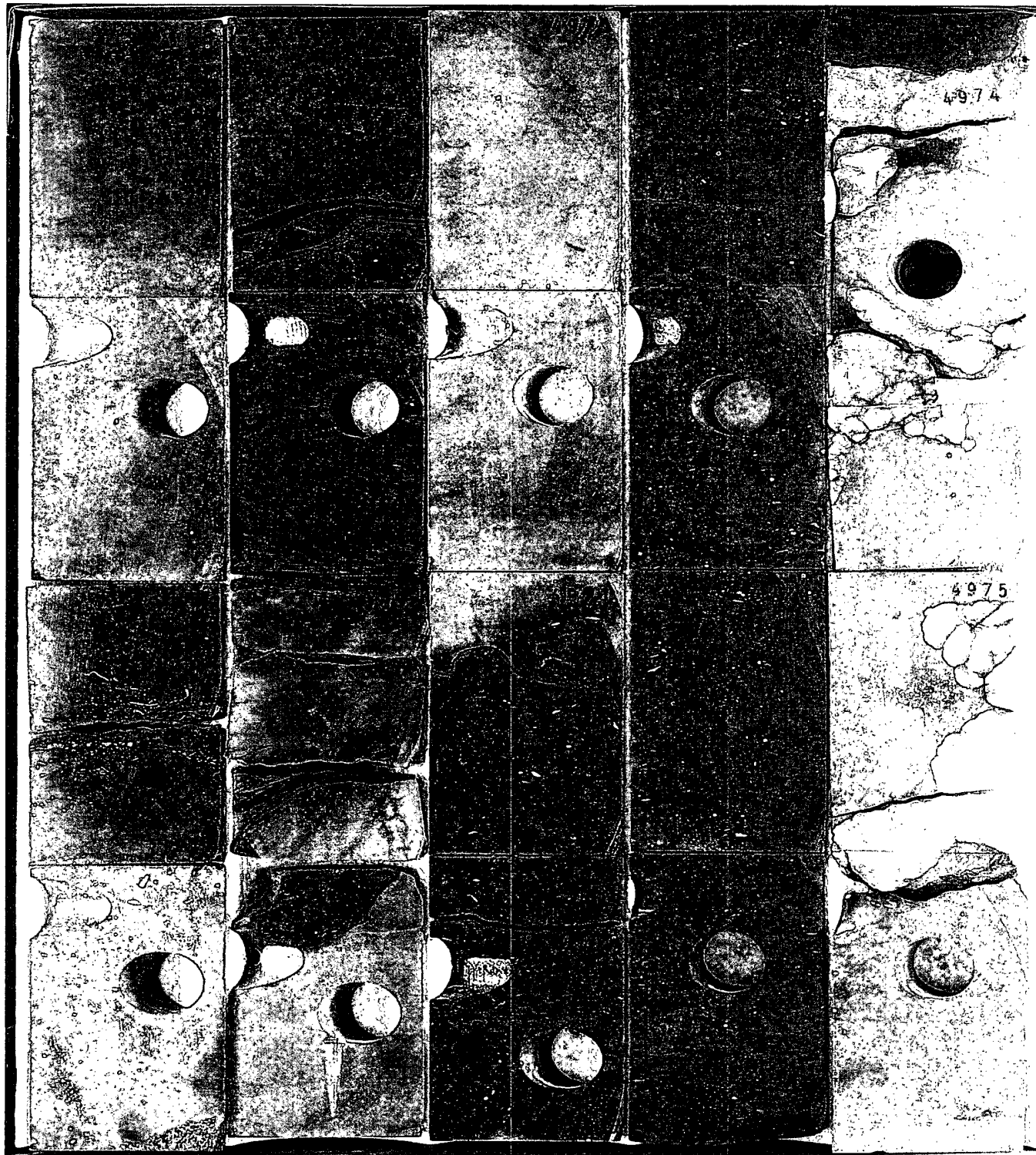
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,966 - 4,976 ft



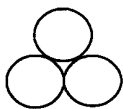
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



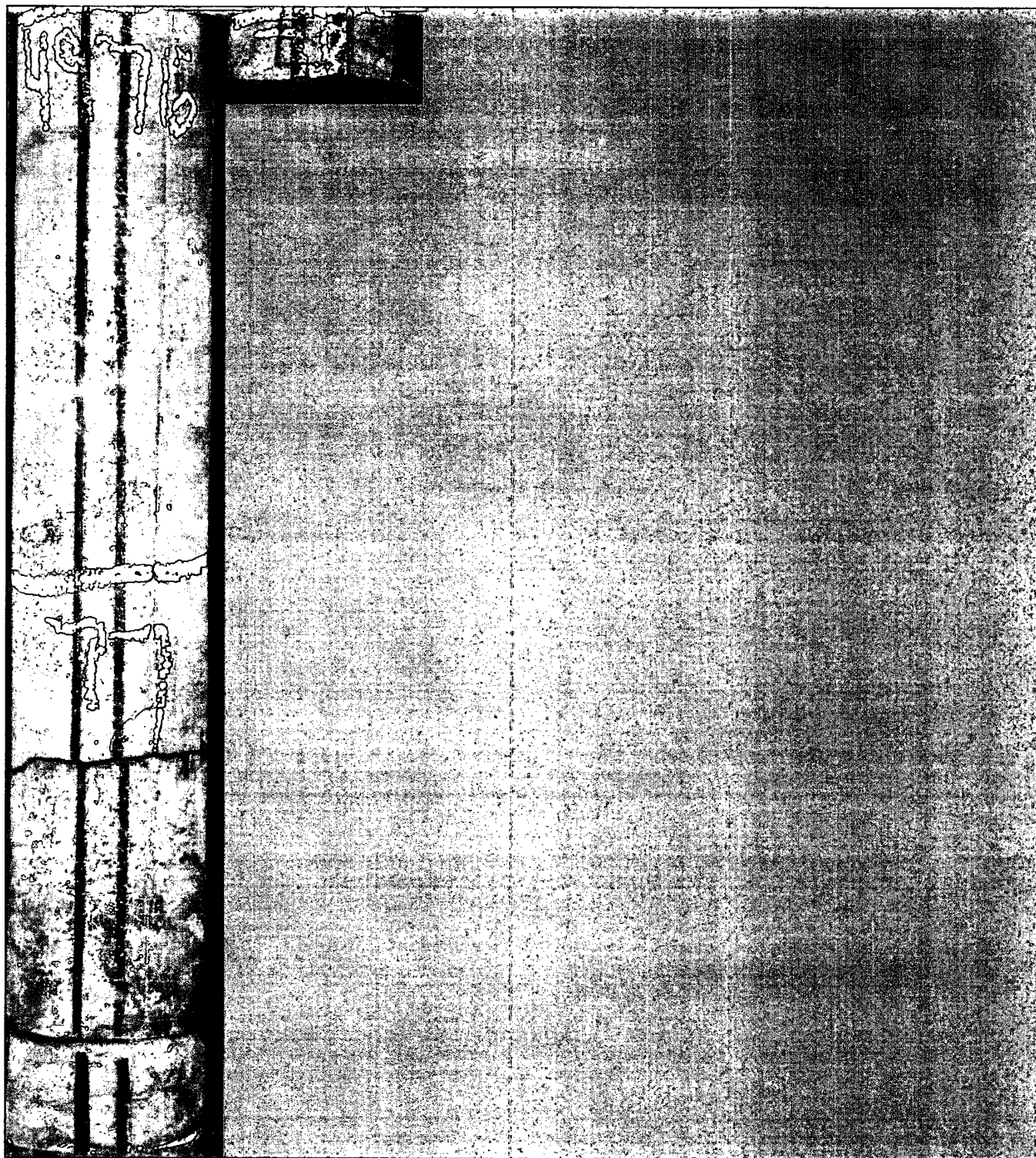
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,966 - 4,976 ft



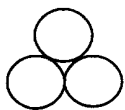
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



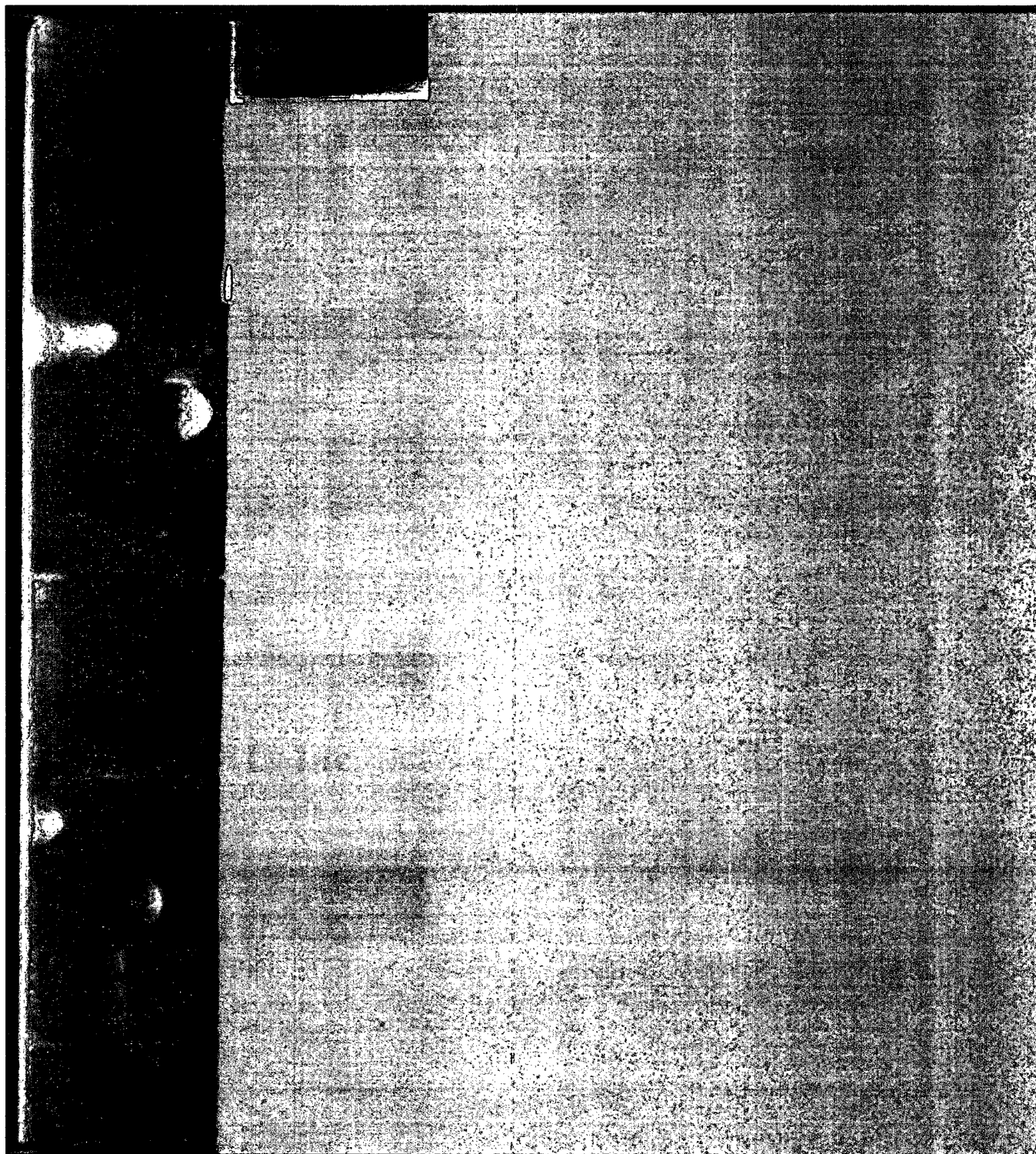
Company: Perenco LLC
Well: State 1625 #291

Depth: 4,976 - 4,979 ft



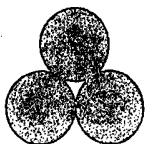
SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES



Company: Perenco LLC
Well: State 1625 #291

Depth: 4,976 - 4,979 ft



SCAL, Inc.

SPECIAL CORE ANALYSIS LABORATORIES

Company: Perenco LLC

File No.: 04278

Well: State 1625 #291

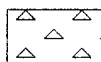
Location: Eddy County, New Mexico



Anhydrite



Breccia



Chert



Dolomite



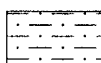
Limestone



Salt



Sandstone



Siltstone



Shale

