

Well-Log Data of Seventeen WELLS in this Study

1. WELL F

Formation	Sand Ranges	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Nurpuh	3550 (Top)	15 to 22	08 to 12	60
	3576 (Bottom)			
Lakadong+Therria	3610 (Top)	400 Ohm-m to 3612 (m)	15 to 22	20 upto 3612
	3621 (Bottom)	30-60 Ohm-m below		30 to 40 below
	3624 (Top)	30-35	10 to 12	40
	3626.5 (Bottom)			
	3629 (Top)	200-1000	20 to 24	5 to 20
	3649 (Bottom)			
	3684 (Top)	>2000	15 to 18	5 to 10
	3699 (Bottom)			
	3706 (Top)	300	12 to 14	15 to 20
	3708 (Bottom)			
	3713(Top)	30 to 35	08 to 10	40
	3715(Bottom)			
	3717.5(Top)	30 to 90 (upto 3721.5)	8 to 12 (upto 3721.5)	30 to 40
	3726.5(Bottom)	40		
	3735.5(Top)	1500 (upto 3741)	16 (upto 3741)	10 to 20
	3744.5(Bottom)	60-180		
	3747(Top)	100 to 500 (upto 3757)	14-16	20 (upto3757)
3772.5(Bottom)	25-50	50-70		

2. WELL C

Formation	Sand Ranges	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Nurpuh	3618(Top)	20-30	12	40
	3623(Bottom)			
	3642.5(Top)	15-20	15	50-60
	3652(Bottom)			
	3653.5	15-20	12	45-55
	3666			
Lakadong+Therria	3696(Top)	30-35	20	40
	3701.5(Bottom)			
	3709.7(Top)	150	24	20-25
	3712(Bottom)			
	3714.5(Top)	50-150	18-22	20-35
	3717.2(Bottom)			
	3719.5(Top)	100-200	18-22	15-25
	3728(Bottom)			
	3729(Top)	300-1000	25	10 to 15
	3737.8(Bottom)			
	3780(Top)	1000 to >2000	22-25	5
	3795.5(Bottom)			
	3812(Top)	40-60	12	40-50
3814.5(Bottom)				

3. WELL D

Formation	Sand Ranges	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	4054(Top)	25-40		
	4070(Bottom)			
	4149(Top)	10 to 18		
	4158(bottom)			
	4828(Top)	200	<5	70-90
	4838(Bottom)			
	4839(Top)	30-100	7 to 10	60-70
	4842(Bottom)			
	4842.5(Top)			
	4845.5(Bottom)			
	4848.5(Top)	200-1000	5 to 10	30 (upto 4852.5m)
	4854(Bottom)			60
	4855	35-120		

	4858			
	4864	12 to 20	12	100
	4869			
	4874	100-150	5 to 8	90-100
	4878			
	4882.5(Top)	25-40	5 to 8	
	4884.5(Bottom)			
	4889.5(Top)			
	4890.5(Bottom)			
	4896 (Top)	60	5	75
	4897.5 (Bottom)			
	4902(Top)			

4. WELL K

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Nurpuh	3737.5(Top)	10 to 17	5 to 15	70 to 80
	3741.5(Bottom)			
	3754(Top)	10 to 20	10 to 15	55 to 80
	3771(Bottom)			
Lakadong+Therria	3823 (Top)	15 to 20	15 to 25	40-70
	3829 (Bottom)			
	3831 (Top)	20 to 300	12 to 25	20 to 60
	3838.5 (Bottom)			
	3886 (Top)	600 to 2000	23 to 25	5 to 10
	3897.5 (Bottom)			
	3904.3 (Top)	10 to 20	3 to 8	50 to 55
	3909 (Bottom)			
	3913.5 (Top)	15 to 45	10 to 20	57-70
	3922 (Bottom)			

5. WELL O

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Barail	3077 (Top)	7 to 20	8	80
	3083(Bottom)			
	3099(Top)	40	8	30
	3101(Bottom)			
	3117.5(Top)	50	12	35
	3120(Bottom)			

	3133.5(Top)	6 to 10	8	60
	3152(Bottom)			
	3167(Top)	15	8	60
	3171(Bottom)			
	3188(Top)	10	6	80
	3203(Bottom)			
Lakadong+Therria	4418(Top)	20 to 300	5 to 9	60 to 70
	4428(Bottom)			
	4429(Top)	20 to 200	8 to 12	60 to 80
	4433.2(Bottom)			
	4434.5 (Top)	40 to 50	8 to 12	40 to 60
	4436.5 (Bottom)			
	4439(Top)	1000	8 to 10	40
	4441.8(Bottom)			
	4442.5 (Top)	30 to 60	8 to 12	50 to 60
	4444(Bottom)			
	4444.8 (Top)			
	4445.8 (Bottom)			
	4479 (Top)	28 to 50	9	90 to 100
	4485(Bottom)			
	4512.5 (Top)	30 to 50	8	95
	4519.5 (Bottom)			
4525.5(Top)	35 to 70	3 to 5	100	
4530(Bottom)				

6. WELL J

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S_w (%)
Lakadong+Therria				
	3554.5 (Top)	15 to 40	5 to 10	50 to 70
	3558 (Bottom)			
	3578 (Top)	15 to 25	8	70 to 75
	3581.2 (Bottom)			
	3584.5 (Top)	18 to 20	5 to 15	70
	3587.8 (Bottom)			
	3592(Top)	30 to 100	10 to 18	30 to 40
	3596 (Bottom)			
	3597.8 (Top)	55	14	50
	3599.3			

	(Bottom)			
	3620.5 (Top)	10 to 20	15 to 20	50 to 90
	3623 (Bottom)			
	3635.5 (Top)	12	15 to 22	80 to 90
	3638.2 (Bottom)			
	3649 (Top)	70	10	75 to 80
	3650.2 (Bottom)			
	3652.5 (Top)	20 to 30	10 to 12	100
	3670 (Bottom)			

7. WELL I

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Kopili	3184 (Top)	8 to 18	12 to 25	55 to 80
	3192 (Bottom)			
Nurpuh	3506 (Top)	15 to 22	16 to 18	60 to 75
	3510 (Bottom)			
	3517.5 (Top)	18 to 30	14 to 18	60 to 70
	3523.3 (Bottom)			
	3536.3 (Top)	50 to 100	18 to 22	35 to 65
3540 (Bottom)				
Lakadong + Therria	3563.4 (Top)	40 to 90	25 (upto 3568)	30 to 50
	3569.8 (Bottom)		14	
	3573.4 (Top)	40	18 to 20	40 to 60
	3574.8 (Bottom)			
	3579.5 (Top)	30 to 300	15 to 25	20 to 50
	3582.5 (Bottom)			
	3614.6 (Top)	30 to 90	20 to 22	35 to 50
	3617.2 (Bottom)			
	3622 (Top)	300	6	40
	3623.2 (Bottom)			
	3626.5 (Top)	12 to 18	18 to 22	60 to 100
	3634 (Bottom)			
	3639.5 (Top)	8 to 25	14 to 20	80 to 100
3659 (Bottom)				

8. WELL M2

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	4185.6 (Top)	20 to 250	5 to 10	100
	4198.5 (Bottom)			
	4204 (Top)	25	8 to 12	80 to 92
	4206 (Bottom)			
	4210 (Top)	15	15	100
	4215 (Bottom)			
	4217.5 (Top)	12 to 18	10 to 18	100
	4227.5 (Bottom)			

9. WELL P

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Barail	3350 (Top)	10 to 15 (Upto 3357.5)	5 to 12 (upto 3362)	60 to 75 (upto 3357.5)
		15 to 40 (Upto 3387)	20 to 22 (upto 3391)	30 to 60 (upto 3387.5)
	3400 (Bottom)	10 to 12 (3400)	10 to 13(upto 3400)	70 to 80 (upto 3400)
	3412 (Top)	5 to 8	14 to 25	80 to 100
	3512(Bottom)			
Lakadong+Therria	4326(Top)	15 to 100	10 to 12	70 to 100
	4328.4(Bottom)			
	4331.5 (Top)	15 to 100	13	100
	4333.5 (Bottom)			
	4349.5 (Top)	10 to 30	13 to 18	80 to 95
	4358.4 (Bottom)			
	4362.5 (Top)	20	12	80 to 95
	4364.2(Bottom)			
	4372.8 (Top)	15 to 20	12 to 20	50 to 100
	4382.5(Bottom)			
	4389.5 (Top)	10 to 30	16 to 20	80 to 100
	4423 (Bottom)			

10. WELL E

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong + Therria	3589 (Top)	15 to 30	4 to 10	55 to 75
	3597.5 (Bottom)			
	3601.3 (Top)	35	10	40 to 50
	3602.5 (Bottom)			
	3606 (Top)	200 to 1000	18 to 28	10 to 20
	3609.5 (Bottom)			
	3631 (Top)	30 to 45	18	60
	3633 (Bottom)			
	3640.5 (Top)	30	12	70
	3641.8 (Bottom)			
	3645.8 (Top)	15 to 30	13	65 to 80
	3648 (Bottom)			
	3649.9 (Top)	25 to 30	8 to 12	70
	3652 (Bottom)			
	3662.2 (Top)	80 to 100	12	40 to 60
3665.3 (Bottom)				

11. Well A

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	3954.7 (Top)	8 to 18	10 to 13	70 to 80
	3960 (Bottom)			
	3981.4 (Top)	10 to 20	10 to 13	70 to 90
	3990.5 (Bottom)			
	3997.5 (Top)	20 to 60	18 to 25	30 to 40
	4001 (Bottom)			
	4008.5 (Top)	8 to 10	20 to 25	75 to 90
	4013.5 (Bottom)			
	4025.3 (Top)	7 to 12	20 to 22	80 to 100
	4028 (Bottom)			
	4031.5 (Top)	20 to 25	16 to 71	100
	4032.8 (Bottom)			
	4046 (Top)	20 to 100	12 to	50 to

			16	90
	4053 (Bottom)			
Langpar	4073.7 (Top)	15 to 20	15	60 to 100
	4077 (Bottom)			

12. WELL L

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	3618.5 (Top)	35 to 45	16	50 to 55
	3621.5 (Bottom)			
	3623.5 (Top)	Upto 80	12 to 20	40
	3627.5 (Bottom)			
	3638 (Top)	35 to 45	35 to 45	90
	3639.5 (Bottom)			
	3646.5 (Top)	upto 80	8 to 10	45
	3651.5 (Bottom)			
	3659.5 (Top)	18 to 25	18 to 25	80
	3662 (Bottom)			
	3667.5 (Top)	upto 50	10 to 12	90
3671.5 (Bottom)				
Langpar	3672 (Top)	50 to 80	10 to 12	75 to 90
	3674 (Bottom)			
	3679 (Top)	upto 190	Upto 28	190
	3680 (Bottom)			
	3687 (Top)	60 to 120	4 to 8	75 to 85
	3690.5 (Bottom)			
	3703 (Top)	25 to 35	25 to 35	80 to 90
3709 (Bottom)				

13. WELL N

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Nurpuh	3976	18 to 20	7 to 10	40
	3980			
	4009 (Top)	30	17 to	40
	4010 (Bottom)		20	
	4049 (Top)	20 to 25	17 to	50 to

Lakadong+Therria	4055 (Bottom)		20	60
	4059.8 (Top)	100	10 to 12	50
	4066 (Bottom)			
	4069 (Top)	25 to 32	8 to 10	50 to 65
	4071.6 (Bottom)			
	4080.5 (Top)	100	5	50
	4081.5 (Bottom)			
	4085.1 (Top)	40	5	60
	4086.2 (Bottom)			
	4091.2 (Top)	22 to 40	2 to 8	50 to 60
	4093.5 (Bottom)			
	4104.5 (Top)	30 to 80	4 to 12	50 to 70
	4107.4 (Bottom)			
	4110 (Top)	30	12	45
	4117 (Bottom)			
	4128 (Top)	50	12 to 18	50
	4131 (Bottom)			
	4133 (Top)	15 to 60	12 to 15	52
	4134.8 (Bottom)			
	4151 (Top)	15 to 18	upto 10	100
	4153.3 (Bottom)			
	4172 (Top)	10 to 20	upto 15	100
	4173 (Bottom)			
	4177.2 (Top)	6 to 15	18 to 22	100
	4184 (Bottom)			
	4185 (Top)	6 to 15	20 to 25	100
4195 (Bottom)				
4197.5 (Top)	6 to 7	18 to 22	100	
4207 (Bottom)				

14. WELL H

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S_w (%)
Lakadong+Therria	3564.5 (Top)	20 to 70	5 to 12	65
	3572.5 (Bottom)			
	3573 (Top)	20 to 70	8	10 to 15
	3579 (Bottom)			

	3590 (Top)	30 to 40	10 to 18	45 to 60
	3593.3 (Bottom)			
	3598.5 (Top)	18 to 22	16	70 to 80
	3600 (Bottom)			
	3602 (Top)	10 to 55	23	45 to 100
	3605 (Bottom)			
	3613 (Top)	10	20	80 to 90
	3615 (Bottom)			
	3616.5 (Top)	8	20	80 to 90
	3620 (Bottom)			
	3625.5 (Top)	8 to 12	20	100
	3627.5 (Bottom)			
	3630.5 (Top)	8 to 12	22	100
	3634.5 (Bottom)			
	3639 (Top)	10 to 12	18 to 22	90 to 100
	3642.5 (Bottom)			
	3646 (Top)	10 to 12	18 to 22	90 to 100
3651 (Bottom)				

15. WELL G

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	4431 (Top)	20 to 30	8 to 10	60 to 70
	4433 (Bottom)			
	4434 (Top)	25 to 200	5 to 10	90 to 100
	4439 (Bottom)			
	4454.5 (Top)	150 to 300	10 to 15	70 to 80
	4459.5 (Bottom)			
	4463.5 (Top)	40 to 60	5 to 10	60 to 90
	4465.5 (Bottom)			
	4495.5 (Top)	70 to 150	10 to 18	30 to 40
4500.5 (Bottom)				

16. WELL B

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S _w (%)
Lakadong+Therria	3473.5 (Top)	60	9 to 12	30
	3476 (Bottom)			
	3481.6 (Top)	25	9 to 15	20
	3483.3 (Bottom)			
	3490 (Top)	25	15	40

	3491 (Bottom)			
	3493 (Top)	40	13	60 to 70
	3494 (Bottom)			
	3500 (Top)	200	15 to 17	25
	3502.3 (Bottom)			
	3504.6 (Top)	100	10 to 12	30 to 40
	3506.3 (Bottom)			
	3512 (Top)	800 to 900	22	10
	3521 (Bottom)			
	3523.5 (Top)	45	12	70
	3525 (Bottom)			
	3526 (Top)	30	8	80
	3527.8 (Bottom)			
	3535.5 (Top)	20	12	100
	3539.5 (Bottom)			
Langpar	3566 (Top)	90	15 to 20	30 to 50
	3567 (Bottom)			

17. WELL M1

Formation	Sand Ranges (m)	Resistivity (Ohm-m)	Phie (%)	S_w (%)
Lakadong+Therria	4533.7 (Top)	100 to 150	4 to 18	35 to 75
	4537 (Bottom)			
	4538.5 (Top)	300 to 2000	4 to 6	25 to 55
	4541.5 (Bottom)			
	4543 (Top)	100 to 1000	10 to 14	15 to 30
	4551 (Bottom)			
	4555.2 (Top)	50 to 500	5 to 14	35 to 60
	4562.5 (Bottom)			
	4569 (Top)	90	8 to 12	45 to 55
	4572 (Bottom)			
	4574 (Top)	20 to 90	8 to 12	45 to 55
	4576 (Bottom)			
	4589.5 (Top)	15 to 50	5 to 6	80 to 100
	4595.5 (Bottom)			
Langpar	4649 (Top)	10 to 50	6 to 8	100
	4674.5 (Bottom)			

Abbreviations:

S_w :Water Saturation

Phie(%): Porosity