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# НҮҮРСНИЙ ОВООЛГЫН ҮЗҮҮЛЭЛТ

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№ ETT\_SP\_TC

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ISO 45001:2018

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ISO 9001:2015

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ISO 14001:2015



НҮҮРСНИЙ ОВООЛГЫН ЧАНАРЫН ДУНДАЖ ҮЗҮҮЛЭЛТ

<p><b>НИЙТ ЧИЙГ</b> <b>TM (ar)</b></p> <p><b>≤9.0%</b></p>	<p><b>НИЙТ ХҮХЭР S(db)</b></p> <p><b>1.5%</b> (-0.3; +0.5)</p>	<p><b>ДЭГДЭМХИЙ БОДИС VM</b> <b>(daf)</b></p> <p><b>&gt;20-37.0%</b></p>
<p><b>ИЛЧЛЭГ (ar)</b></p> <p><b>≥6000</b></p>	<p><b>БАРЬЦАЛДАХ ЧАНАР</b></p> <p><b>≤30.0</b></p>	<p><b>НҮҮРСНИЙ ХЭМЖЭЭ</b></p> <p><b>32.0</b> <b>МЯН.ТН</b></p>

НҮҮРСНИЙ ОВООЛГЫН ШИНЖИЛГЭЭНИЙ ҮР ДҮН

ALS GROUP LLC  
Mongol Nekhmel Building, 2nd khoroo  
Chinggis Avenue, Khan-Uul District  
Ulaanbaatar, Mongolia  
Tel +976 70 007667



CERTIFICATE OF ANALYSIS  
25D309,E57,E299,F36,G09,G230,G344-TT

CLIENT: **Erdenes Tavantolgoi JSC**  
ADDRESS: Finance Center, Jigjidjav-8  
1st khoroo, Chingelhei District  
Ulaanbaatar, Mongolia  
ATTN: Erkhembayar.M  
PROJECT NO. xxx  
LAB. JOB NO. 25D309,E57,E299,F36,G09,G230,G344-TT  
NO. SAMPLES: 15  
Notes/Comments: xxx

SAMPLES RECEIVED: 30/04/2025 21/07/2025  
INSTRUCTIONS RECEIVED: 30/04/2025 21/07/2025  
DATE OF REPORT: 1/05/2025 28/07/2025  
STATUS OF REPORT: FINAL  
ANALYSIS COMPLETE: 1/05/2025 28/07/2025  
PREPARATION CODE: CRUSH-01.02.MLL-01  
ANALYSIS CODE: 2.1 THERMAL COAL  
TM, MOIS, ASH, VOL, TSUL,  
GCV, CSN, CKIN

APPROVED BY: Laboratory Manager  
CHECKED BY: Chief Chemist  
Т.И.Т.О.О.Т.

These test results are representative only of the sample received in the laboratory.

STANDARD METHOD	LAB NO.	SAMPLE NO.	GB/T 211	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 212	GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213	
			Total Moisture (TM)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)
			AS RECEIVED BASIS				AIR DRIED BASIS							
			%				%							
			kcal/kg				kcal/kg							
	1	25112430	3.76	21.68	18.27	56.29	1.03	6118	1.06	22.29	18.78	57.87	1.06	6290
	2	25112530	7.27	18.62	18.32	55.79	0.62	5923	2.67	19.55	19.23	58.55	0.65	6217
	3	25119306	6.98	16.78	16.80	59.44	0.45	6139	1.77	17.72	17.74	62.77	0.48	6482
	4	25119406	6.41	14.53	17.81	61.25	0.60	6486	1.72	15.25	18.70	64.32	0.63	6811
	5	25148226	8.22	16.54	17.71	57.53	0.44	6080	2.40	17.59	18.83	61.18	0.49	6466
	6	25148326	8.26	19.27	16.82	55.65	0.48	5821	2.14	20.56	17.94	59.37	0.51	6210
	7	25148626	8.46	17.13	16.58	57.83	0.45	5999	1.89	18.36	17.77	61.98	0.48	6430
	8	25158603	3.51	14.87	17.27	64.36	0.61	6822	1.15	15.23	17.69	65.93	0.63	6989
	9	25158703	6.80	20.88	17.64	54.68	0.47	5769	2.16	21.92	18.52	57.40	0.49	6056
	10	25173001	5.82	14.91	22.43	56.84	0.43	6206	2.28	15.47	23.27	58.98	0.45	6440
	11	25173101	6.72	13.46	23.96	55.86	0.36	6219	2.49	14.07	25.05	58.39	0.38	6501
	12	25186419	2.82	22.00	17.57	57.61	1.02	6357	0.78	22.46	17.94	58.82	1.04	6490
	13	25186519	3.15	18.11	17.40	61.34	1.15	6475	0.79	18.55	17.82	62.84	1.17	6837
	14	25199827	1.75	19.45	17.59	61.21	0.89	6716	0.62	19.67	17.79	61.92	0.90	6793
	15	25199927	1.39	18.76	18.37	61.47	1.21	6735	0.50	18.93	18.54	62.03	1.22	6796

QUALITY ASSURANCE/QUALITY CONTROL DATA

STDALSWS-40/23	ASH	VOL	GCV	TSUL
Certified Value	10.67	20.55	7696	0.620
Standard Deviation	0.056	0.137	24	0.0144
Unit	%	%	kcal/kg	%
Analyzed value	10.65	20.58	7687	0.616

ALS GROUP LLC  
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**CERTIFICATE OF ANALYSIS**  
**25D309,E57,E299,F36,G09,G230,G344-TT**

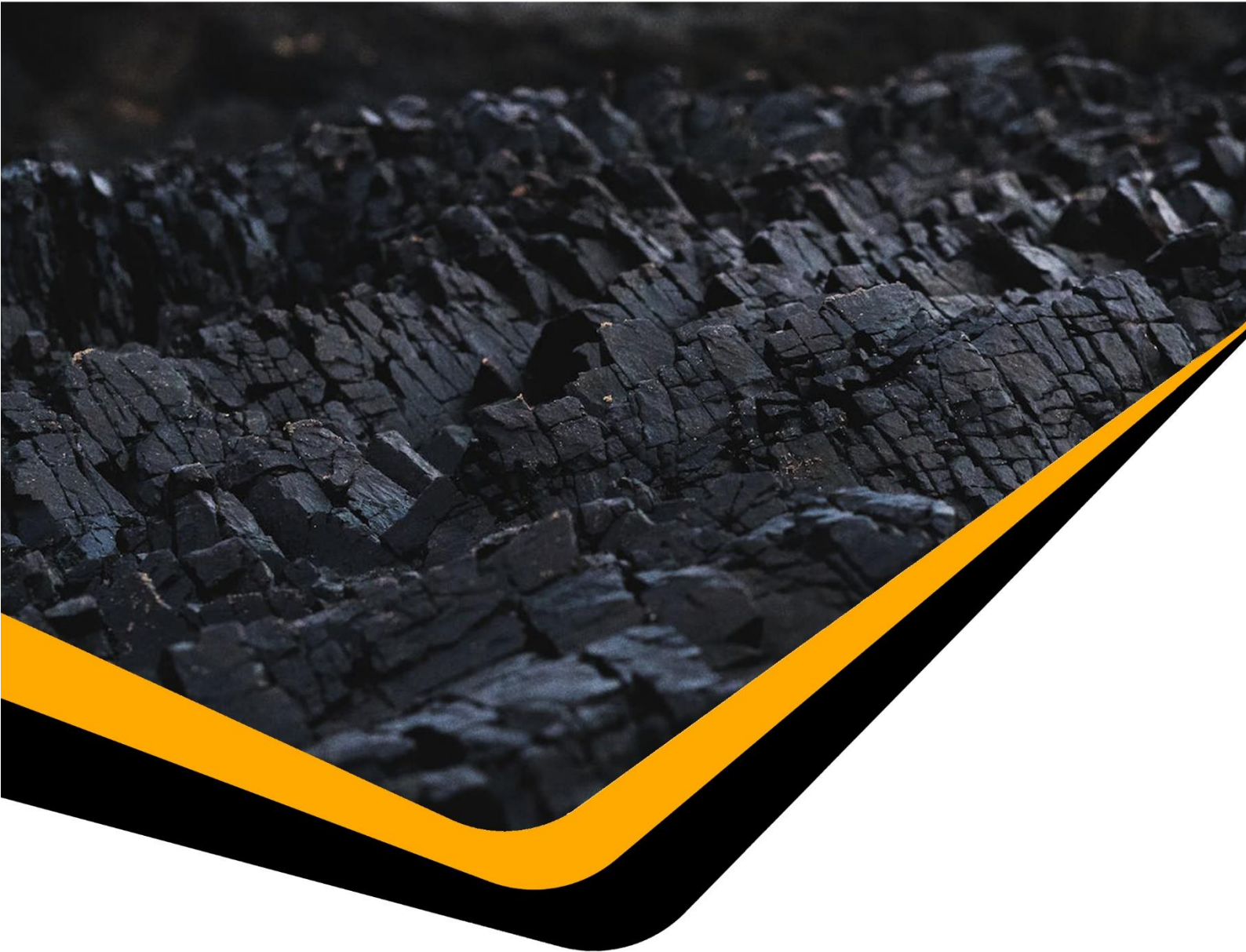
**CLIENT:** Erdenes Tavantolgoi JSC  
**ADDRESS:** Finance Center, Jigjidjav-8  
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**PROJECT NO.** xxx  
**LAB. JOB NO.** 25D309,E57,E299,F36,G09,G230,G344-TT  
**NO. SAMPLES:** 15  
**Notes/Comments:** xxx

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**DATE OF REPORT:** 1/05/2025 28/07/2025  
**STATUS OF REPORT:** FINAL  
**ANALYSIS COMPLETE:** 1/05/2025 28/07/2025  
**PREPARATION CODE:** CRUSH-01, 02; MILL-01  
**ANALYSIS CODE:** 2-1, THERMAL COAL  
 TM, MOIS, ASH, VOL, TSUL,  
 GCV, CSN, CKIN

*These test results are representative only of the sample received in the laboratory.*

LAB NO.	SAMPLE NO.	STANDARD METHOD											GB/T 5447							
		GB/T 212		GB/T 212		ISO 19579		GB/T 213		GB/T 212		GB/T 212		ISO 19579		GB/T 213		GB/T 5447		
		Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	5:1	3:3				
		DRY BASIS											DRY, ASH-FREE BASIS							
		%											kcal/kg		%		kcal/kg			
1	25112430	22.53	18.98	58.49	1.07	6357	24.50	75.50	1.88	8206	-	-	9	-	-					
2	25112530	20.08	19.76	60.16	0.67	6387	24.73	75.27	0.84	7992	-	-	0	-	-					
3	25119306	18.04	18.06	63.90	0.49	6599	22.04	77.96	0.59	8052	-	-	0	-	-					
4	25119406	15.52	19.03	65.45	0.65	6930	22.53	77.47	0.76	8203	-	-	0	-	-					
5	25148226	18.02	19.29	62.68	0.50	6625	23.54	76.46	0.61	8081	-	-	0	-	-					
6	25148326	21.01	18.33	60.66	0.52	6345	23.21	76.79	0.66	8032	-	-	0	-	-					
7	25148626	18.72	18.11	63.17	0.49	6553	22.28	77.72	0.60	8062	-	-	0	-	-					
8	25158603	15.41	17.90	66.70	0.64	7070	21.16	78.84	0.75	8357	-	-	0	-	-					
9	25158703	22.41	18.93	58.67	0.50	6190	24.39	75.61	0.65	7977	-	-	0	-	-					
10	25173001	15.83	23.82	60.35	0.46	6590	28.29	71.71	0.54	7829	-	-	0	-	-					
11	25173101	14.43	25.69	59.88	0.39	6667	30.02	69.98	0.45	7791	-	-	0	-	-					
12	25186419	22.64	18.08	59.28	1.05	6541	23.37	76.63	1.36	8455	-	-	15	-	-					
13	25186519	18.70	17.96	63.34	1.18	6892	22.10	77.90	1.46	8477	-	-	13	-	-					
14	25199827	19.79	17.90	62.30	0.90	6835	22.32	77.68	1.12	8522	-	-	13	-	-					
15	25199927	19.03	18.63	62.34	1.22	6831	23.01	76.99	1.51	8435	-	-	14	-	-					

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
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ISO 14001:2015



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Финанс төв, 1-р хороо,  
Чингэлтэй дүүрэг,  
Улаанбаатар хот

