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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>  <b>≤9.0%</b></p>	<p><b>НИЙТ ХҮХЭР S(db)</b>  <b>1.5%</b>                  (-0.3; +0.5)</p>	<p><b>ДЭГДЭМХИЙ БОДИС VM</b>  <b>(daf)</b>  <b>&gt;20-37.0%</b></p>
<p><b>ИЛЧЛЭГ (ar)</b>  <b>5500</b>                  (-500; +500)</p>	<p><b>БАРЬЦАЛДАХ</b>  <b>ЧАНАР</b>  <b>≤5.0</b></p>	<p><b>НҮҮРСНИЙ</b>  <b>ХЭМЖЭЭ</b>  <b>128.0</b>                  МЯН.ТН</p>

НҮҮРСНИЙ ОВООЛГЫН ШИНЖИЛГЭЭНИЙ ҮР ДҮН

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



CERTIFICATE OF ANALYSIS  
 24L09,L23,L31,L45,L284,L290,25A44,A50,A120,A176,A206,A238-TT

**CLIENT:** Erdenes Tavantolgoi JSC  
**ADDRESS:** Finance Center, Jigjidjav-8  
 1st khoroo, Chingeltei District  
 Ulaanbaatar, Mongolia  
**ATTN:** Munkhtuul.G  
**PROJECT NO.** xxx  
**LAB. JOB NO.** 24L09,L23,L31,L45,L284,L290,25A44,A50,A120,A176,A206,A238-TT  
**NO. SAMPLES:** 18  
**Notes/Comments:** xxx

**SAMPLES RECEIVED:** 2/12/2024 23/01/2025  
**INSTRUCTIONS RECEIVED:** 2/12/2024 23/01/2025  
**DATE OF REPORT:** 3/12/2024 24/01/2025  
**STATUS OF REPORT:** FINAL  
**ANALYSIS COMPLETE:** 3/12/2024 24/01/2025  
**PREPARATION CODE:** CRUSH-01, 02: MILL-01  
**ANALYSIS CODE:** 2.1\_THERMAL COAL  
 TM, MOIS, ASH, VOL, TSUL,  
 GCV, CKIN  
**APPROVED BY:** Laboratory Manager  
 Quality Manager  
**CHECKED BY:** Chief Chemist

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

LAB NO.	SAMPLE NO.	AS RECEIVED BASIS						AIR DRIED BASIS					
		GB/T 211	GB/T 212	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)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)
		%						kcal/kg					
1	2423702	13.98	20.50	21.53	43.99	0.47	4840	3.75	22.94	24.09	49.22	0.53	5416
2	2423802	14.27	18.08	22.59	45.05	0.44	4921	3.36	20.38	25.47	50.79	0.50	5547
3	2424203	11.04	19.30	23.41	46.24	0.48	5171	2.52	21.15	25.65	50.68	0.53	5666
4	2424303	8.64	21.66	23.66	46.04	0.47	5425	1.91	23.25	25.41	49.43	0.51	5825
5	2424704	9.50	20.68	22.81	47.01	0.58	5364	2.49	22.28	24.57	50.66	0.63	5780
6	2424804	12.71	21.81	21.47	44.01	0.43	4808	3.14	24.20	23.83	48.83	0.48	5335
7	2425106	10.74	28.74	21.01	39.52	0.62	4424	3.11	31.19	22.81	42.89	0.67	4802
8	2425206	10.02	34.53	19.42	36.02	0.55	4034	2.44	37.44	21.06	39.06	0.60	4375
9	2439528	10.59	21.49	22.52	45.40	0.48	5033	4.23	23.02	24.12	48.63	0.51	5391
10	2439829	13.12	12.80	24.42	49.66	0.65	5406	3.85	14.17	27.03	54.96	0.71	5982
11	252506	6.84	18.59	23.96	50.61	0.32	5936	1.76	19.60	25.27	53.37	0.34	6260
12	252906	8.35	20.09	22.88	48.68	0.47	5601	1.93	21.49	24.48	52.10	0.50	5994
13	256812	6.40	17.59	23.83	52.18	0.58	6128	1.56	18.50	25.06	54.88	0.61	6445
14	259917	12.79	16.63	22.73	47.85	0.42	5256	3.33	18.44	25.20	53.04	0.47	5826
15	2511920	13.41	20.95	22.08	43.56	0.57	4819	3.92	23.25	24.49	48.34	0.63	5347

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. COPY RIGHT PROTECTED DOCUMENT

16	2512020	25.07	24.26	50.66	0.60	5659	32.38	67.62	0.80	7553	-	0
17	2512120	20.92	25.52	53.55	0.76	5803	32.28	67.72	0.96	7339	-	0
18	2514023	19.73	24.20	56.08	0.63	6178	30.14	69.86	0.79	7697	-	0

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**PREPARATION CODE:** CRUSH-01, 02; MILL-01  
**ANALYSIS CODE:** 2\_1\_THERMAL COAL  
TM, MOIS, ASH, VOL, TSUL,  
GCV, CXXN

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

STANDARD METHOD	LAB NO.	SAMPLE NO.	DRY BASIS				DRY, ASH-FREE BASIS				GB/T 5447	
			GB/T 212		ISO 19579		GB/T 212		ISO 19579		GB/T 213	
			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)	Coal Caking Index (CKIN)
			%		kcal/kg		%		kcal/kg		5:1	3:3
1	2423702	23.84	25.03	51.14	0.55	5627	32.86	67.14	0.72	7388	-	0
2	2423802	21.09	26.35	52.55	0.51	5740	33.40	66.60	0.65	7275	-	0
3	2424203	21.70	26.32	51.99	0.54	5812	33.61	66.39	0.69	7423	-	0
4	2424303	23.70	25.90	50.40	0.52	5938	33.95	66.05	0.68	7783	-	0
5	2424704	22.85	25.20	51.95	0.65	5927	32.66	67.34	0.84	7683	-	0
6	2424804	24.98	24.60	50.42	0.50	5508	32.79	67.21	0.66	7342	-	0
7	2425106	32.19	23.54	44.27	0.69	4956	34.72	65.28	1.02	7309	-	0
8	2425206	38.38	21.58	40.04	0.61	4484	35.03	64.97	0.99	7277	-	0
9	2439528	24.04	25.19	50.78	0.54	5629	33.15	66.85	0.71	7410	-	0
10	2439829	14.73	28.11	57.16	0.74	6222	32.97	67.03	0.87	7297	-	0
11	252906	19.95	25.72	54.33	0.35	6372	32.13	67.87	0.43	7960	-	1
12	252906	21.92	24.96	53.12	0.51	6111	31.97	68.03	0.66	7827	-	0
13	256812	18.79	25.46	55.75	0.62	6547	31.35	68.65	0.77	8062	-	4
14	259917	19.07	26.07	54.86	0.48	6027	32.21	67.79	0.60	7447	-	0
15	2511920	24.20	25.49	50.31	0.66	5565	33.63	66.37	0.87	7341	-	0

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16	2512020	10.55	22.43	21.70	45.32	0.54	5062	2.89	24.35	23.56	49.20	0.58	5495
17	2512120	12.88	18.23	22.24	46.65	0.66	5055	4.65	19.95	24.34	51.06	0.72	5533
18	2514023	9.68	17.82	21.85	50.65	0.57	5580	2.49	19.24	23.59	54.68	0.62	6024

**QUALITY ASSURANCE/QUALITY CONTROL DATA**

STDAISWS-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	10.70	20.47	7695	0.623



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



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1800-1072



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

