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Logix *Melk/Milk*

Kudde Gesondheids Verslag / Herd Health Report

WATERVAL GEVANGENIS

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PRIVAATSAK X1006

UTRECHT

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Test-day: 2024-10-08

Holstein Cows

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HERD HEALTH SUMMARY REPORT

WATERVAL GEVANGENIS - Holstein Cows

Table 1: Summary for Test-day 2024-10-08 (Number of Samples Tested: 29)

Analysis	Results	Norms*	% Cows outside norms*
Milk Production (kg)	Avg.: 21.4 Median: 20.0		
Butterfat (%)	Avg.: 3.42 Median: 3.33	3.5 % - 6.0 %	Too Low: 62 % Too High: 0 %
Protein (%)	Avg.: 3.45 Median: 3.34	3.0 % - 4.5 %	Too Low: 7 % Too High: 3 %
Lactose (%)	Avg.: 4.43 Median: 4.51	> 4.7 %	Too Low: 83 %
MUN (mg/dl)	Avg.: 14.82 Median: 14.90	8 - 16 mg/dl	Too Low: 0 % Too High: 31 %
SCC (x1000/ml)	Avg.: 1177 Median: 522 % < 100 : 13.8 % % < 200 : 24.1 % % < 500 : 48.3 % % > 750 : 34.5 % % > 1 000 : 31.0 % % > 1 500 : 24.1 %	< 200 > 64 % > 75 % > 92 % < 4.8 % < 1 % NONE	Too High: 50.2 % Too High: 50.9 % Too High: 43.7 % Too High: 29.7 % Too High: 30.0 % Too High: 24.1 %
Butterfat Protein ratio	Average: 1.0	> 1.0	Too High: 58.6 %

Table 2: Quantification of Specific Cases (% of herd) and Loss in Production on 2024-10-08

Loss in Production due to:		Avg/Median SCC (Number (n)):	
SSC (kg per day):	150.7 (24.3 %)	1st Lact Cows:	782/782 (2)
DIM (kg per day):	109.6 (17.7 %)	2nd Lact Cows:	836/391 (14)
		3rd Lact Cows:	1074/241 (6)
No. of Cows Under Pressure:	13 (44.8 %)	4th Lact Cows:	255/255 (1)
No. Cows with SCC > 200k:	22 (75.9 %)	5th Lact Cows:	3956/4314 (3)
No. Cows with SCC > 750k:	10 (34.5 %)	6+ Lact Cows:	768/652 (3)
No. New Infections:	11 (37.9 %)		
No. Recurring Infections:	2 (6.9 %)	Avg. SCC for SCC > 750k (n):	2840 (10)
Cure Rate for SCC > 200k:	4.8 % (1)		
Cure Rate for SCC > 750k:	0.0 % (0)	Avg. Days In Milk (DIM) for Herd:	221
No. Chronic Infections (SCC > 200k):	9 (31.0 %)	Median of DIM for Herd:	196
No. Chronic Infections (SCC > 750k):	1 (3.4 %)		
		Avg. DIM for SCC < 200k (n):	150 (7)
No. of Possible Ketosis Cases:	0	Avg. DIM for SCC > 200k and < 750k (n):	270 (12)
No. of Possible Acidosis Cases:	17	Avg. DIM for SCC > 750k (n):	212 (10)
Avg. Age at First Calf (Months):	33	Avg. Parity for Herd:	3
Avg. Inter-Calf Period (Days):	486	Avg. Parity for SCC < 200k:	2
No. Flushings:	NA	Avg. Parity for SCC > 200k and < 750k:	3
No. Embrios:	NA	Avg. Parity for SCC > 750k:	3

Table 3: Benchmark: Herd with the Top 25%, Average and Bottom 25% for different traits tested the last month of for Holstein Cows

	Milk Production (kg)	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)
Herd	21.4	3.42	3.45	4.43	1177	14.82
Top 25%	39.4	5.33	7.00	4.86	33	11.80
Breed Avg	31.9	4.64	4.50	4.25	224	8.47
Bottom 25%	23.8	3.95	3.32	3.00	119	4.00

*** PLEASE CONSULT YOUR VETERINARIAN, PROFESSIONAL ANIMAL SCIENTIST or LogixMilk TECHNICAL ADVISOR for the interpretation of these results and professional advisory services.**

Table 4: Summary of Somatic Cell Counts per Lactation Group in the herd for 29 Holstein Cows

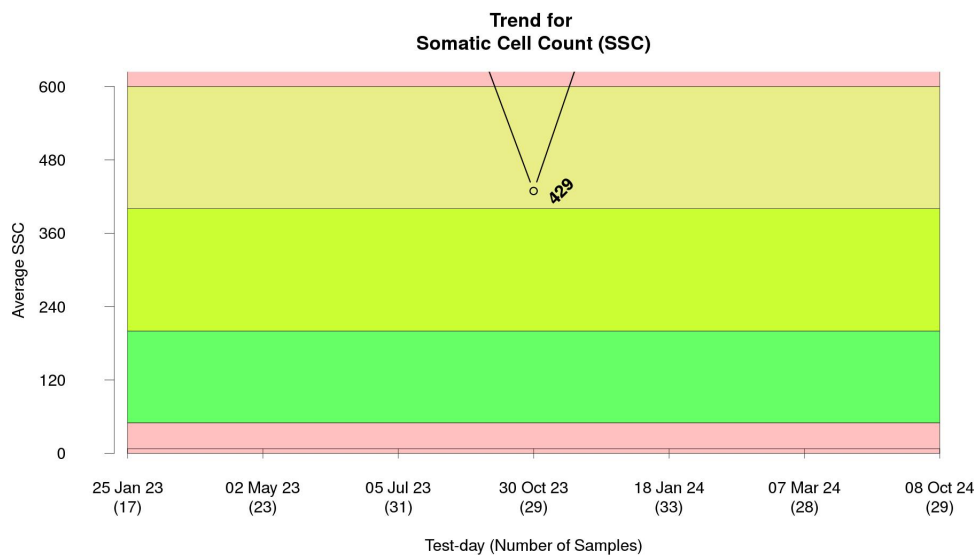
Lactation Group	% of Herd	Early Lactation	Mid Lactation	Late Lactation	% SCC > 200k	% SCC > 750k
1	6.9% (2)	0.0% (0)	0.0% (0)	6.9% (2)	6.9% (2)	3.4% (1)
2	48.3% (14)	20.7% (6)	13.8% (4)	13.8% (4)	31.0% (9)	13.8% (4)
3	20.7% (6)	3.4% (1)	6.9% (2)	10.3% (3)	13.8% (4)	6.9% (2)
4	3.4% (1)	0.0% (0)	3.4% (1)	0.0% (0)	3.4% (1)	0.0% (0)
5	10.3% (3)	0.0% (0)	6.9% (2)	3.4% (1)	10.3% (3)	6.9% (2)
6+	10.3% (3)	0.0% (0)	0.0% (0)	10.3% (3)	10.3% (3)	3.4% (1)
Herd	99.9% (29)	24.1% (7)	31% (9)	44.7% (13)	75.7% (22)	34.4% (10)

Table 5: Somatic Cell Count (SCC) Analysis: Percentage (Number) of Cows within Stage of Lactation and Lactation Group for SCC > 200k and SCC > 750k for 29 Holstein Cows

Lactation Group	Early Lactation		Mid Lactation		Late Lactation	
	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k
1	0% (0)	0% (0)	0% (0)	0% (0)	100.0% (2)	50.0% (1)
2	66.7% (4)	50.0% (3)	25.0% (1)	0.0% (0)	100.0% (4)	25.0% (1)
3	100.0% (1)	0.0% (0)	0.0% (0)	0.0% (0)	100.0% (3)	66.7% (2)
4	0% (0)	0% (0)	100.0% (1)	0.0% (0)	0% (0)	0% (0)
5	0% (0)	0% (0)	100.0% (2)	100.0% (2)	100.0% (1)	0.0% (0)
6+	0% (0)	0% (0)	0% (0)	0% (0)	100.0% (3)	33.3% (1)

Table 6: Bulk Tank Results for 2024-10-08 (Number of Samples Tested: 0)

Tank No	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)	pH
Calculated Tank	3.26	3.30	4.52	898	15	

**Figure 1:** Somatic Cell Count (SCC) Trend

The average Somatic Cell Count (SCC) and the trend over time is shown in the graph. The ideal is a herd with an average count of less than 200 000. A higher SCC results in lower milk production and possible udder infection. If animals with high SCC can be identified early, they can be treated in time, thereby preventing production loss and permanent udder damage resulting in lower herd life.

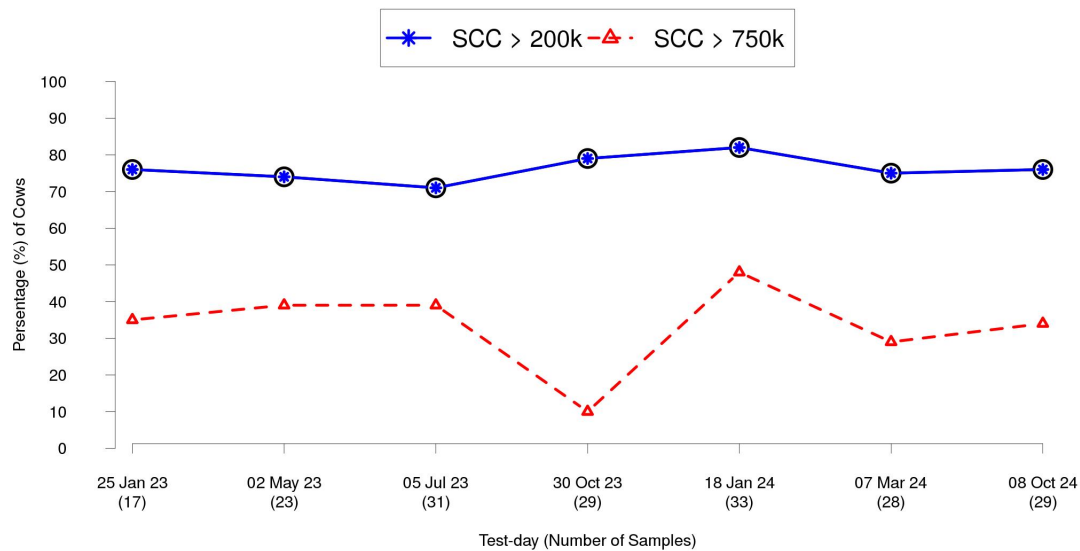


Figure 2: Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day

The graph presents the trend of the % of cows with Somatic Cell Counts (SCC) more then 200k and 500k, respectively. The ideal is to have as few cows as possible with a SCC of more than 200K and none with a SCC of more than 750k.

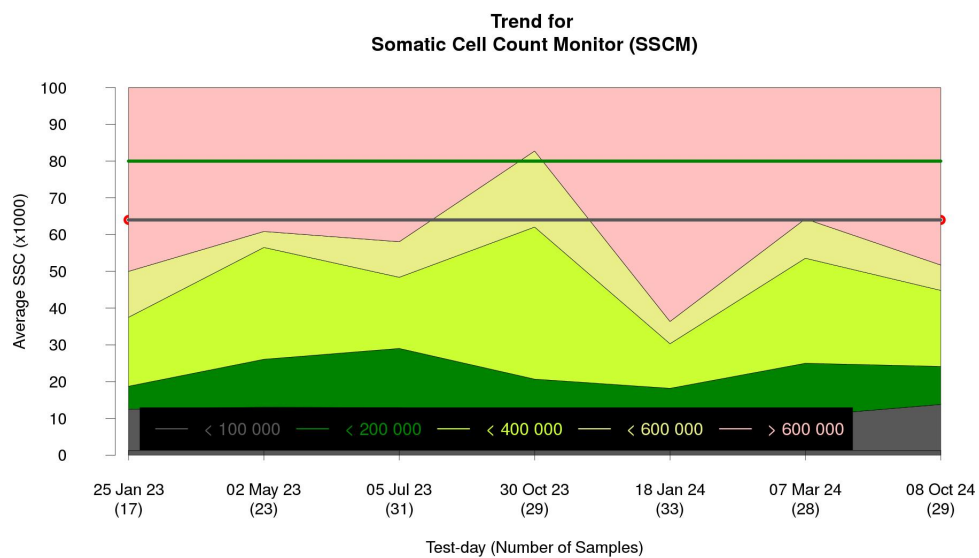


Figure 3: Somatic Cell Count (SCC) Monitor Trend

The graph shows the percentage of cows within certain Somatic Cell Count (SCC) levels. Ideally, at least 64% of the cows of a herd should have a SCC of less than 100 000 and 80% a SCC of less than 250 000. The danger zone is indicated in red, where ideally no cows should be indicated.

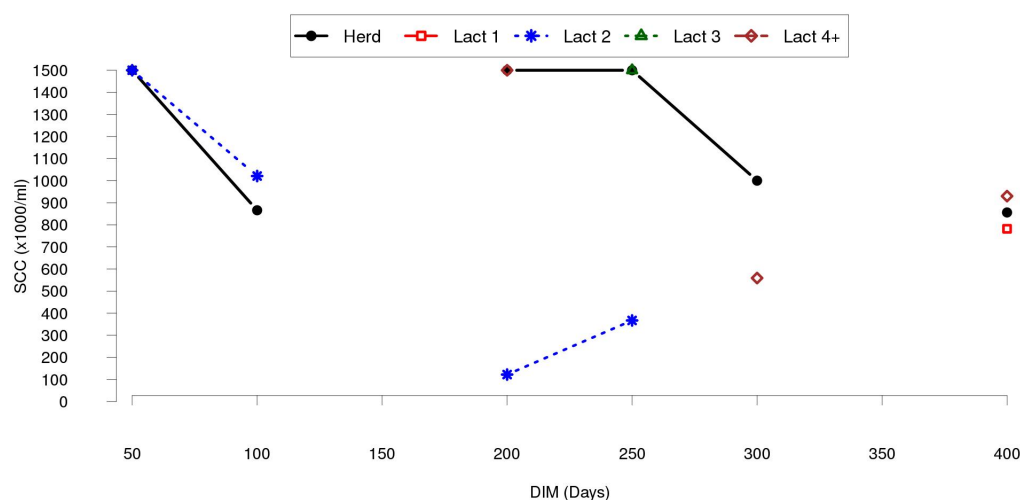


Figure 4: Average Somatic Cell Counts (SCC, x1000/ml) per Day In Milk (DIM)

This graph indicates the average Somatic Cell Counts (SCC, x1000/ml) per day in milk (DIM) for the complete herd, as well as for Lactation 1, 2, 3 and 4+ cows, separately.

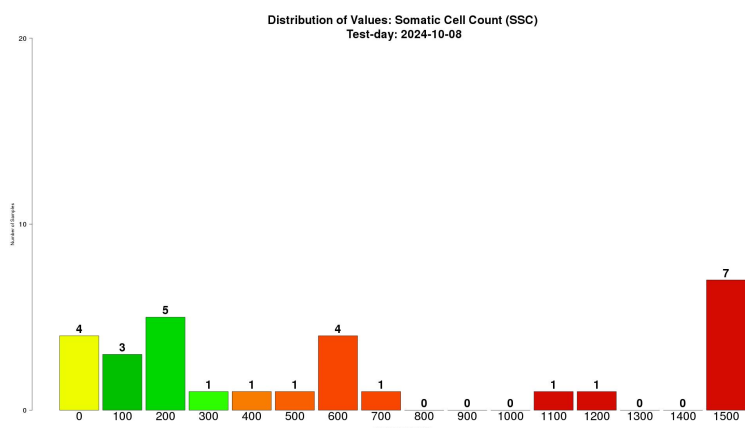


Figure 5: Somatic Cell Count (SCC) Distribution for Test-day (2024-10-08)

The graph depicts the number of animals within certain levels of Somatic Cell Counts (SCC). If the cows with SCCs higher than 600 000 can be identified early, they can be treated or even culled from the herd, preventing economic losses due to penalties paid for high SCCs in the milk.

Table 7: Somatic Cell Count (SSC) distribution and Milk Loss Monitor 2024-10-08

SSC Levels	< 100k	100k - 200k	200k - 500k	500k - 800k	800k - 1 500k	> 1 500k
Number Cows	4	3	7	6	2	7
% Cows	13.8 %	10.3 %	24.1 %	20.7 %	6.9 %	24.1 %
Milk Quality	Excellent	Very Good	Needs Improvement	Poor	Serious	BAD
% Milk Loss	< 2 %	2 - 4 %	4 - 8 %	8 - 10 %	10 - 35 %	> 35 %
% Quarters Infected	< 1 %	1 - 6 %	6 - 16 %	16 - 26 %	26 - 48 %	> 48 %

The average Somatic Cell Count (SCC) on 2024-10-08 for the herd, was 1177 000. This figure places the herd in the "Red" SCC Zone and the milk quality is Serious. Milk loss due to SCC is between 10 and 35 %.

Udder Health: You have a serious Mastitis problem in your herd. Check your milking equipment, milking routines and cow management practices. Consult your veterinarian and/or registered animal scientist immediatly. Due to high somatic cell counts, your ability to supply milk is at risk.

Table 8: Cows Under Pressure (SCC > 500k and Lactose % < 4.6)

Cow ID	Name	SCC	Lactose %	DIM	Parity	Production
1804	1804	6879	4.04	157	5	15
1820	1820	4314	4.13	154	5	26.8
RD2009	RD2009	3633	4.34	210	3	15.8
CD037	CD037	3149	3.34	58	2	5
RE032	RE032	2526	4.53	16	2	16
RC003	RC003	2099	4.46	238	3	11.4
RE005	RE005	1211	4.58	543	1	11.6
KX02	XOLO	1185	4.56	373	6	9
6063	6063	674	4.08	622	5	26.2
1710	1710	652	3.41	287	6	6.6
RD2007	RD2007	620	4.49	332	2	20
RE033	RE033	601	4.59	8	2	26.8
RD2030	RD2030	522	4.48	235	2	22

Table 9: Cows with Somatic Cell Counts > 200k (Status: N=New -, C=Chronic -, R=Recurring - and CR=Chronic and Recurring Infections)

Cow ID	Name	SCC 2024-10-08	SCC 2024-03-07	SCC 2024-01-18	Production	DIM	Parity	Status
1804	1804	6879	-	2910	15	157	5	N
1820	1820	4314	-	734	26.8	154	5	N
RD2009	RD2009	3633	-	1012	15.8	210	3	N
CD037	CD037	3149	1011	3413	5	58	2	C
RD2017	RD2017	2646	584	474	13.8	276	2	C
RE032	RE032	2526	-	1596	16	16	2	N
RC003	RC003	2099	1980	-	11.4	238	3	N
RE005	RE005	1211	279	3440	11.6	543	1	C
KX02	XOLO	1185	344	237	9	373	6	C
RE008	RE008	760	2445	532	29.6	90	2	C
6063	6063	674	292	3306	26.2	622	5	C
1710	1710	652	155	252	6.6	287	6	R
RD2007	RD2007	620	175	143	20	332	2	N
RE033	RE033	601	424	622	26.8	8	2	C
RD2030	RD2030	522	175	-	22	235	2	N
1305	1305	466	325	3516	12	288	7	C
CD040	CD040	353	259	198	13	587	1	R
RE010	RE010	259	-	204	25.8	152	2	N
1813	1813	255	-	778	18	185	4	N
RC1021	RC1021	245	252	691	18.2	88	3	C
RB1803	RB1803	236	125	-	7.6	253	3	N
CC023	CC023	212	-	-	28.2	208	2	N

Table 10: Possible Ketosis Cases; Cows under 100 days in milk (Prot. Fat Ratio < 0.68 for Jerseys and < 0.74 for other Breeds)

Cow ID	Name	Production	DIM	Parity	Prot % to Fat %	Breed
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Table 11: Possible Acidosis Cases (Protein % > Butterfat %)

Cow ID	Name	Production	DIM	Parity	Prot % to Fat %
CD037	CD037	5	58	2	1.51
RE010	RE010	25.8	152	2	1.15
RD2030	RD2030	22	235	2	1.14
RE033	RE033	26.8	8	2	1.14
CC023	CC023	28.2	208	2	1.13
RE008	RE008	29.6	90	2	1.12
RE017	RE017	29.2	196	2	1.10
RE001	RE001	39.8	90	2	1.10
RC003	RC003	11.4	238	3	1.09
RD2024	RD2024	41.8	70	2	1.08
1305	1305	12	288	7	1.07
CD040	CD040	13	587	1	1.06
RC013	RC013	42.8	146	3	1.04
6063	6063	26.2	622	5	1.04
RD2018	RD2018	37.4	195	2	1.03
RB1803	RB1803	7.6	253	3	1.01
RD2009	RD2009	15.8	210	3	1.01

Table 12: Dry Cows with a Dry Period more than 55 Days

Cow ID	Name	Breed	Last ICP	Avg. ICP	No. ICPs	Days Since Last Calf	Days Open
ZDKH130007	1307	HST	1248	1248	1	2092	1819
ZDKH121216	1216	HST	-	-	-	2229	1771
1423	1423	HST	-	-	-	2095	1743
1416	1416	HST	-	-	-	2096	1742
1304	1304	HST	1279	1279	1	2027	1722
1713	1713	HST	-	-	-	1813	1508
6141	6141	HST	432	432	1	1594	1373
1302	1302	HST	413	579	3	1654	1353
1320	1320	HST	358	765	2	1709	1353
ZDKH151503	1503	HST	437	437	1	1454	1273
1314	1314	HST	434	1022	2	1413	1273
1501	1501	HST	398	371	2	1230	1185
ZDKH160007	1607	HST	308	476	2	1141	1071
ZDKG130308	WENA	HST	808	497	4	1152	1071
1604	1604	HST	369	283	2	1342	1071
ZDKG130023	WIMPY	HST	577	396	6	1034	808
1303	1303	HST	424	610	4	910	728
1801	1801	HST	335	376	2	833	535
ZDKH200004	CD004	HST	-	-	-	778	354
ZDKH141432	1432	HST	324	354	4	716	354
ZDKH202020	RD2019	HST	347	347	1	565	272
ZDKG140016	XOLANI	HST	405	379	7	329	189
RC1025	RC1025	HST	424	424	1	331	189
ZDKH190009	RC009	HST	379	372	2	258	189
RE006	RE006	HST	-	-	-	318	189
CD034	CD034	HST	373	373	1	386	189
RE035	RE035	HST	-	-	-	395	189
RC019	RC019	HST	611	611	1	338	189
1509	1509	HST	448	475	3	285	189
CD024	CD024	HST	-	-	-	763	189
1415	1415	HST	338	351	3	829	189
ZDKH151537	1537	HST	357	439	3	537	189

Table 13: Cows with an active Inter-Calving Period (ICP) > 400 days

Cow ID	Name	Breed	Last ICP	Avg. ICP	No. ICPs	Days Since Last Calf	Production
ZDKH121216	1216	HST	-	-	-	2229	-
1416	1416	HST	-	-	-	2096	-
1423	1423	HST	-	-	-	2095	-
ZDKH130007	1307	HST	1248	1248	1	2092	-
1304	1304	HST	1279	1279	1	2027	-
1713	1713	HST	-	-	-	1813	-
1320	1320	HST	358	765	2	1709	-
1302	1302	HST	413	579	3	1654	-
6141	6141	HST	432	432	1	1594	-
ZDKH151503	1503	HST	437	437	1	1454	-
1314	1314	HST	434	1022	2	1413	-
1604	1604	HST	369	283	2	1342	-
1501	1501	HST	398	371	2	1230	-
ZDKG130308	WENA	HST	808	497	4	1152	-
ZDKH160007	1607	HST	308	476	2	1141	-
ZDKG130023	WIMPY	HST	577	396	6	1034	-
RD2017	RD2017	HST	-	-	-	987	13.8
1303	1303	HST	424	610	4	910	-
ZDKH200018	RD2018	HST	-	-	-	901	37.4
1801	1801	HST	335	376	2	833	-
1415	1415	HST	338	351	3	829	-
ZDKH200004	CD004	HST	-	-	-	778	-
CD024	CD024	HST	-	-	-	763	-
CD037	CD037	HST	-	-	-	741	5
ZDKH141432	1432	HST	324	354	4	716	-
ZDKH200029	RD2029	HST	-	-	-	702	23.8
6063	6063	HST	313	350	4	627	26.2
ZDKH210001	RE001	HST	-	-	-	619	39.8
ZDKH210017	RE017	HST	-	-	-	617	29.2
ZDKH200009	RD2009	HST	375	375	1	604	15.8
1710	1710	HST	337	308	4	602	6.6
ZDKH180020	1820	HST	282	332	3	601	26.8
CD040	CD040	HST	-	-	-	592	13
ZDKH190013	RC013	HST	519	519	1	585	42.8
CC023	CC023	HST	-	-	-	570	28.2
ZDKH202020	RD2019	HST	347	347	1	565	-
RE005	RE005	HST	-	-	-	548	11.6
ZDKH151537	1537	HST	357	439	3	537	-
ZDKH210010	RE010	HST	-	-	-	516	25.8
ZDKH180013	1813	HST	671	529	2	516	18
RD2024	RD2024	HST	-	-	-	515	41.8
ZDKH180004	1804	HST	461	407	3	514	15
RC017	RC017	HST	-	-	-	486	27.2
RE032	RE032	HST	-	-	-	477	16
ZDKH210008	RE008	HST	-	-	-	449	29.6
ZDKH100021	RC1021	HST	324	324	1	445	18.2