

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF101824

Review By	yogesh	Review On	10/21/2024 6:34:01 AM
Supervise By	mohammad	Supervise On	10/21/2024 6:38:35 AM
SubDirectory	BF101824	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12322,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF139843.D	18 Oct 2024 09:22	RC/JU	Ok
2	SSTDICC2.5	BF139844.D	18 Oct 2024 10:27	RC/JU	Ok
3	SSTDICC005	BF139845.D	18 Oct 2024 10:55	RC/JU	Ok
4	SSTDICC010	BF139846.D	18 Oct 2024 11:23	RC/JU	Ok
5	SSTDICC020	BF139847.D	18 Oct 2024 11:52	RC/JU	Ok
6	SSTDICCC040	BF139848.D	18 Oct 2024 12:20	RC/JU	Ok,M
7	SSTDICC050	BF139849.D	18 Oct 2024 12:49	RC/JU	Ok,M
8	SSTDICC060	BF139850.D	18 Oct 2024 13:17	RC/JU	Ok,M
9	SSTDICC080	BF139851.D	18 Oct 2024 13:46	RC/JU	Ok,M
10	SSTDICV040	BF139852.D	18 Oct 2024 14:19	RC/JU	Ok,M
11	PB164211BL	BF139853.D	18 Oct 2024 14:48	RC/JU	Ok
12	P4405-01	BF139854.D	18 Oct 2024 15:21	RC/JU	Ok
13	P4431-01	BF139855.D	18 Oct 2024 15:50	RC/JU	Ok,M
14	P4421-01	BF139856.D	18 Oct 2024 16:18	RC/JU	Ok,M
15	P4422-01	BF139857.D	18 Oct 2024 16:46	RC/JU	Ok
16	P4425-01	BF139858.D	18 Oct 2024 17:15	RC/JU	Ok
17	P4425-03	BF139859.D	18 Oct 2024 17:44	RC/JU	Ok
18	P4425-05	BF139860.D	18 Oct 2024 18:12	RC/JU	Ok
19	P4425-07	BF139861.D	18 Oct 2024 18:41	RC/JU	ReRun
20	P4425-09	BF139862.D	18 Oct 2024 19:09	RC/JU	ReRun
21	P4426-03	BF139863.D	18 Oct 2024 19:37	RC/JU	ReRun

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF101824

Review By	yogesh	Review On	10/21/2024 6:34:01 AM
Supervise By	mohammad	Supervise On	10/21/2024 6:38:35 AM
SubDirectory	BF101824	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12322,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	P4426-07	BF139864.D	18 Oct 2024 20:05	RC/JU	ReRun
23	P4426-17	BF139865.D	18 Oct 2024 20:34	RC/JU	ReRun
24	P4426-11	BF139866.D	18 Oct 2024 21:02	RC/JU	ReRun

M : Manual Integration

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102324

Review By	yogesh	Review On	10/24/2024 1:42:44 AM
Supervise By	mohammad	Supervise On	10/25/2024 1:58:50 AM
SubDirectory	BF102324	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12322,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF139951.D	23 Oct 2024 08:52	RC/JU	Ok
2	SSTDCCC040	BF139952.D	23 Oct 2024 09:20	RC/JU	Ok,M
3	PB164020BL	BF139953.D	23 Oct 2024 09:48	RC/JU	Ok
4	PB164020BS	BF139954.D	23 Oct 2024 10:17	RC/JU	Ok,M
5	PB164237BL	BF139955.D	23 Oct 2024 10:45	RC/JU	Ok
6	PB164237BS	BF139956.D	23 Oct 2024 11:14	RC/JU	Ok,M
7	PB164208BL	BF139957.D	23 Oct 2024 11:42	RC/JU	Ok
8	PB164216BS	BF139958.D	23 Oct 2024 12:10	RC/JU	Ok,M
9	PB164123BS	BF139959.D	23 Oct 2024 12:39	RC/JU	Ok,M
10	PB164154BS	BF139960.D	23 Oct 2024 13:07	RC/JU	Ok,M
11	PB164154BSD	BF139961.D	23 Oct 2024 13:36	RC/JU	Ok,M
12	PB164286BL	BF139962.D	23 Oct 2024 14:04	RC/JU	Ok
13	PB164286BS	BF139963.D	23 Oct 2024 14:33	RC/JU	Ok,M
14	DFTPP	BF139964.D	23 Oct 2024 15:01	RC/JU	Ok
15	SSTDCCC040	BF139965.D	23 Oct 2024 15:30	RC/JU	Ok,M
16	PB164195TB	BF139966.D	23 Oct 2024 15:58	RC/JU	Ok
17	P4397-06	BF139967.D	23 Oct 2024 16:32	RC/JU	Ok
18	P4443-06DL	BF139968.D	23 Oct 2024 17:01	RC/JU	Ok,M
19	P4458-01	BF139969.D	23 Oct 2024 17:30	RC/JU	Ok,M
20	P4397-06MS	BF139970.D	23 Oct 2024 17:59	RC/JU	Ok,M
21	P4397-06MSD	BF139971.D	23 Oct 2024 18:28	RC/JU	Ok,M

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102324

Review By	yogesh	Review On	10/24/2024 1:42:44 AM
Supervise By	mohammad	Supervise On	10/25/2024 1:58:50 AM
SubDirectory	BF102324	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12322,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	P4472-04	BF139972.D	23 Oct 2024 18:56	RC/JU	Ok
23	P4468-06	BF139973.D	23 Oct 2024 19:25	RC/JU	Ok
24	P4468-04	BF139974.D	23 Oct 2024 19:54	RC/JU	Ok
25	P4397-04	BF139975.D	23 Oct 2024 20:22	RC/JU	Ok
26	P4397-02	BF139976.D	23 Oct 2024 20:51	RC/JU	Ok
27	P4397-02MS	BF139977.D	23 Oct 2024 21:20	RC/JU	Ok,M
28	P4397-02MSD	BF139978.D	23 Oct 2024 21:49	RC/JU	Ok,M
29	P4397-01	BF139979.D	23 Oct 2024 22:17	RC/JU	Ok,M
30	P4468-05	BF139980.D	23 Oct 2024 22:46	RC/JU	Ok
31	P4472-01	BF139981.D	23 Oct 2024 23:14	RC/JU	Ok
32	P4385-20	BF139982.D	23 Oct 2024 23:43	RC/JU	Ok,M
33	P4385-14	BF139983.D	24 Oct 2024 00:11	RC/JU	Ok
34	P4474-01	BF139984.D	24 Oct 2024 00:40	RC/JU	Ok
35	P4473-01	BF139985.D	24 Oct 2024 01:08	RC/JU	Ok
36	P4489-01	BF139986.D	24 Oct 2024 01:37	RC/JU	Dilution
37	P4486-01	BF139987.D	24 Oct 2024 02:06	RC/JU	Ok,M
38	P4468-03	BF139988.D	24 Oct 2024 02:34	RC/JU	Ok,M

M : Manual Integration

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102424

Review By	yogesh	Review On	10/25/2024 6:28:05 AM
Supervise By	mohammad	Supervise On	10/25/2024 8:37:24 AM
SubDirectory	BF102424	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12323,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF139989.D	24 Oct 2024 09:26	RC/JU	Ok
2	SSTDCCC040	BF139990.D	24 Oct 2024 09:55	RC/JU	Ok,M
3	PB164312BL	BF139991.D	24 Oct 2024 10:23	RC/JU	Ok
4	PB164312BS	BF139992.D	24 Oct 2024 10:52	RC/JU	Ok,M
5	PB164315BL	BF139993.D	24 Oct 2024 11:20	RC/JU	Ok
6	PB164315BS	BF139994.D	24 Oct 2024 11:49	RC/JU	Ok,M
7	PB164301TB	BF139995.D	24 Oct 2024 12:17	RC/JU	Ok
8	PB163997BS	BF139996.D	24 Oct 2024 12:53	RC/JU	Ok,M
9	PB164208BS	BF139997.D	24 Oct 2024 13:21	RC/JU	Ok,M
10	PB164338BL	BF139998.D	24 Oct 2024 13:50	RC/JU	Ok
11	PB164338BS	BF139999.D	24 Oct 2024 14:19	RC/JU	Ok,M
12	DFTPP	BF140000.D	24 Oct 2024 14:47	RC/JU	Ok
13	SSTDCCC040	BF140001.D	24 Oct 2024 15:16	RC/JU	Ok,M
14	PB164261TB	BF140002.D	24 Oct 2024 15:44	RC/JU	Ok
15	P4489-01DL	BF140003.D	24 Oct 2024 16:19	RC/JU	Ok
16	P4467-01MS	BF140004.D	24 Oct 2024 16:48	RC/JU	Ok,M
17	P4467-01MSD	BF140005.D	24 Oct 2024 17:17	RC/JU	Ok,M
18	P4460-03MS	BF140006.D	24 Oct 2024 17:45	RC/JU	Ok,M
19	P4460-03MSD	BF140007.D	24 Oct 2024 18:14	RC/JU	Ok,M
20	P4467-04	BF140008.D	24 Oct 2024 18:42	RC/JU	Ok
21	P4472-08	BF140009.D	24 Oct 2024 19:11	RC/JU	Ok

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102424

Review By	yogesh	Review On	10/25/2024 6:28:05 AM
Supervise By	mohammad	Supervise On	10/25/2024 8:37:24 AM
SubDirectory	BF102424	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12323,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	P4460-03	BF140010.D	24 Oct 2024 19:39	RC/JU	ReRun
23	P4471-01	BF140011.D	24 Oct 2024 20:08	RC/JU	Ok
24	P4471-02	BF140012.D	24 Oct 2024 20:36	RC/JU	ReRun
25	P4467-01	BF140013.D	24 Oct 2024 21:04	RC/JU	ReRun
26	P4460-04	BF140014.D	24 Oct 2024 21:33	RC/JU	ReRun
27	P4468-01	BF140015.D	24 Oct 2024 22:01	RC/JU	ReRun
28	P4485-01	BF140016.D	24 Oct 2024 22:29	RC/JU	ReRun
29	P4487-01	BF140017.D	24 Oct 2024 22:58	RC/JU	ReRun
30	P4487-05	BF140018.D	24 Oct 2024 23:26	RC/JU	Ok
31	P4487-05MS	BF140019.D	24 Oct 2024 23:54	RC/JU	Ok,M
32	P4487-05MSD	BF140020.D	25 Oct 2024 00:22	RC/JU	Ok,M
33	P4485-02	BF140021.D	25 Oct 2024 00:50	RC/JU	ReRun
34	P4512-03	BF140022.D	25 Oct 2024 01:19	RC/JU	ReRun
35	P4470-01	BF140023.D	25 Oct 2024 01:46	RC/JU	Ok
36	P4472-05	BF140024.D	25 Oct 2024 02:14	RC/JU	ReRun

M : Manual Integration

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102624

Review By	yogesh	Review On	10/29/2024 1:34:36 AM
Supervise By	mohammad	Supervise On	10/29/2024 1:38:32 AM
SubDirectory	BF102624	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12323,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF140049.D	26 Oct 2024 10:10	RC/JU	Ok
2	SSTDCCC040	BF140050.D	26 Oct 2024 10:38	RC/JU	Ok,M
3	PB164401BL	BF140051.D	26 Oct 2024 11:06	RC/JU	Ok
4	PB164401BS	BF140052.D	26 Oct 2024 11:34	RC/JU	Ok,M
5	P4508-09	BF140053.D	26 Oct 2024 12:06	RC/JU	Ok
6	P4508-09MS	BF140054.D	26 Oct 2024 12:34	RC/JU	Ok,M
7	P4508-09MSD	BF140055.D	26 Oct 2024 13:02	RC/JU	Ok,M
8	P4547-05	BF140056.D	26 Oct 2024 13:30	RC/JU	Ok
9	P4547-05MS	BF140057.D	26 Oct 2024 13:58	RC/JU	Ok,M
10	P4547-05MSD	BF140058.D	26 Oct 2024 14:27	RC/JU	Ok,M
11	P4508-05	BF140059.D	26 Oct 2024 14:55	RC/JU	Ok
12	P4517-07	BF140060.D	26 Oct 2024 15:23	RC/JU	Ok
13	P4487-08	BF140061.D	26 Oct 2024 15:51	RC/JU	Ok
14	P4460-04	BF140062.D	26 Oct 2024 16:20	RC/JU	Ok
15	P4460-03	BF140063.D	26 Oct 2024 16:48	RC/JU	Ok
16	P4471-02	BF140064.D	26 Oct 2024 17:16	RC/JU	Ok
17	P4508-12	BF140065.D	26 Oct 2024 17:44	RC/JU	Ok
18	P4508-04	BF140066.D	26 Oct 2024 18:12	RC/JU	Ok
19	P4508-08	BF140067.D	26 Oct 2024 18:40	RC/JU	Ok
20	P4460-02	BF140068.D	26 Oct 2024 19:09	RC/JU	Ok,M
21	P4547-01	BF140069.D	26 Oct 2024 19:37	RC/JU	Ok

Instrument ID: **BNA_F**

Daily Analysis Runlog For Sequence/QC Batch ID # BF102624

Review By	yogesh	Review On	10/29/2024 1:34:36 AM
Supervise By	mohammad	Supervise On	10/29/2024 1:38:32 AM
SubDirectory	BF102624	HP Acquire Method	BNA_F
		HP Processing Method	bf101824
STD. NAME	STD REF.#		
Tune/Reschk	SP6573		
Initial Calibration Stds	SP6628,SP6627,SP6626,SP6625,SP6624,SP6623,SP6622,SP6621		
CCC	SP6624		
Internal Standard/PEM	S12323,10ul/1000ul sample		
ICV/I.BLK	SP6559		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	P4508-01	BF140070.D	26 Oct 2024 20:05	RC/JU	Ok
23	P4545-01	BF140071.D	26 Oct 2024 20:33	RC/JU	Ok,M
24	P4509-01	BF140072.D	26 Oct 2024 21:01	RC/JU	Ok,M
25	P4531-01	BF140073.D	26 Oct 2024 21:29	RC/JU	Ok,M

M : Manual Integration

Instrument ID: **BNA_M**

Daily Analysis Runlog For Sequence/QC Batch ID # BM102324

Review By	yogesh	Review On	10/24/2024 1:43:12 AM		
Supervise By	mohammad	Supervise On	10/24/2024 1:59:34 AM		
SubDirectory	BM102324	HP Acquire Method	BNA_M	HP Processing Method	bm102324
STD. NAME		STD REF.#			
Tune/Reschk		SP6573			
Initial Calibration Stds		SP6621,SP6622,SP6623,SP6624,SP6625,SP6626,SP6627,SP6628			
CCC		SP6624			
Internal Standard/PEM		S12322,10ul/1000ul sample			
ICV/I.BLK		SP6559			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BM048199.D	23 Oct 2024 11:47	RC/JU	Ok
2	SSTDICC2.5	BM048200.D	23 Oct 2024 12:26	RC/JU	Ok
3	SSTDICC005	BM048201.D	23 Oct 2024 13:05	RC/JU	Ok,M
4	SSTDICC010	BM048202.D	23 Oct 2024 13:45	RC/JU	Ok,M
5	SSTDICC020	BM048203.D	23 Oct 2024 14:24	RC/JU	Ok
6	SSTDICCC040	BM048204.D	23 Oct 2024 15:04	RC/JU	Ok,M
7	SSTDICC050	BM048205.D	23 Oct 2024 15:43	RC/JU	Ok,M
8	SSTDICC060	BM048206.D	23 Oct 2024 16:23	RC/JU	Ok,M
9	SSTDICC080	BM048207.D	23 Oct 2024 17:02	RC/JU	Ok,M
10	SSTDICV040	BM048208.D	23 Oct 2024 17:46	RC/JU	Ok,M
11	PB164286BL	BM048209.D	23 Oct 2024 18:25	RC/JU	Ok

M : Manual Integration

Instrument ID: **BNA_M**

Daily Analysis Runlog For Sequence/QC Batch ID # BM102424

Review By	yogesh	Review On	10/25/2024 11:54:54 PM		
Supervise By	mohammad	Supervise On	10/26/2024 4:14:29 AM		
SubDirectory	BM102424	HP Acquire Method	BNA_M	HP Processing Method	bm102324
STD. NAME		STD REF.#			
Tune/Reschk		SP6573			
Initial Calibration Stds		SP6621,SP6622,SP6623,SP6624,SP6625,SP6626,SP6627,SP6628			
CCC		SP6624			
Internal Standard/PEM		S12323,10ul/1000ul sample			
ICV/I.BLK		SP6559			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BM048210.D	24 Oct 2024 10:31	RC/JU	Ok
2	SSTDCCC040	BM048211.D	24 Oct 2024 11:11	RC/JU	Ok,M
3	PB164369BL	BM048212.D	24 Oct 2024 11:50	RC/JU	Ok
4	P4368-08	BM048213.D	24 Oct 2024 12:29	RC/JU	Ok,M
5	P4368-08	BM048214.D	24 Oct 2024 13:09	RC/JU	Ok,M
6	P4368-07	BM048215.D	24 Oct 2024 13:51	RC/JU	Ok,M
7	P4368-02	BM048216.D	24 Oct 2024 14:30	RC/JU	Ok,M
8	P4368-02	BM048217.D	24 Oct 2024 15:10	RC/JU	Ok,M
9	P4368-08	BM048218.D	24 Oct 2024 15:49	RC/JU	Ok,M
10	P4368-02	BM048219.D	24 Oct 2024 16:29	RC/JU	Ok,M
11	P4368-08	BM048220.D	24 Oct 2024 17:08	RC/JU	Ok,M
12	P4368-02	BM048221.D	24 Oct 2024 17:48	RC/JU	Ok,M
13	P4368-07	BM048222.D	24 Oct 2024 18:27	RC/JU	Ok,M
14	P4368-01	BM048223.D	24 Oct 2024 19:07	RC/JU	Ok,M
15	P4368-01	BM048224.D	24 Oct 2024 19:46	RC/JU	Ok,M
16	PB164366BL	BM048225.D	24 Oct 2024 20:26	RC/JU	Ok
17	SSTDCCC040	BM048226.D	24 Oct 2024 21:05	RC/JU	Ok,M

M : Manual Integration

Instrument ID: **BNA_M**

Daily Analysis Runlog For Sequence/QC Batch ID # BM102524

Review By	yogesh	Review On	10/26/2024 12:00:14 AM		
Supervise By	mohammad	Supervise On	10/28/2024 3:13:37 AM		
SubDirectory	BM102524	HP Acquire Method	BNA_M	HP Processing Method	bm102324
STD. NAME	STD REF.#				
Tune/Reschk	SP6573				
Initial Calibration Stds	SP6621,SP6622,SP6623,SP6624,SP6625,SP6626,SP6627,SP6628				
CCC	SP6624				
Internal Standard/PEM	S12323,10ul/1000ul sample				
ICV/I.BLK	SP6559				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BM048227.D	25 Oct 2024 08:10	RC/JU	Ok
2	SSTDCCC040	BM048228.D	25 Oct 2024 08:49	RC/JU	Ok,M
3	PB164382BL	BM048229.D	25 Oct 2024 09:28	RC/JU	Ok
4	P4368-09	BM048230.D	25 Oct 2024 10:07	RC/JU	Ok,M
5	P4368-09	BM048231.D	25 Oct 2024 10:47	RC/JU	Ok,M
6	PB164369BS	BM048232.D	25 Oct 2024 12:19	RC/JU	Not Ok
7	PB164369BSD	BM048233.D	25 Oct 2024 12:58	RC/JU	Ok
8	PB164401BL	BM048234.D	25 Oct 2024 13:38	RC/JU	Ok
9	P4368-03	BM048235.D	25 Oct 2024 14:17	RC/JU	Ok,M
10	P4368-03	BM048236.D	25 Oct 2024 14:56	RC/JU	Ok,M
11	PB164369BS	BM048237.D	25 Oct 2024 15:42	RC/JU	Ok
12	P4460-06	BM048238.D	25 Oct 2024 16:21	RC/JU	Ok
13	SSTDCCC040	BM048239.D	25 Oct 2024 17:00	RC/JU	Ok,M

M : Manual Integration