

Head - Nabard

Name of Road:- Patna Bakhtiyarpur four lane
(NH 30) ke 49th KM to Chero Nagarhansa RCD Pathke

Schedule XLV-Form No. 134

5th KM chakki Uhat Tak Sadak Nirman Karya.

Block - Bakhtiyarpur

DIVISION

Bakhtiyarpur

SUB-DIVISION

Measurement Book

7600

सहायक अभियंता, बरिधवापुर



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Maintenance Bill

1.

Name of work -

Situation of work -

Agency by which work is executed -

Date of measurement -

No. and date of agreement.

(These four lines should be repeated at the commencement of the measurements relating to each work).

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of work - Construction and					
1st year Maintenance of Road					
From Patna - Bakhtiyarpur Four					
Lane (HH 30) 49th KM to Choran					
Nagarnanda RCD Road 5th KM					
Chhatighat Tak under State					
Scheme (HABARD)					
Agt. No. 05 / SEP / 2019-2020.					
Name of Agency Sanjay Kumar					

1st year Maintenance					
ROAD works :-					
① Restoration of Raincuts /					
Berms etc are complete -					
$10 \times 1.50 \times 1.00 \times 0.45 = 6.75 \text{ m}^3$					
$4 \times 7.50 \times 1.50 \times 0.80 = 13.50 \text{ "}$					
$15 \times 1.90 \times 4.00 \times 0.60 = 68.40 \text{ "}$					
$1 \times 7.50 \times 1.20 \times 0.40 = 3.60 \text{ "}$					
$1 \times 15.00 \times 2.00 \times 0.50 = 15.00 \text{ "}$					
$10 \times 5.00 \times 2.50 \times 0.40 = 50.00 \text{ "}$					
$1 \times 9.00 \times 2.00 \times 0.40 = 7.20 \text{ "}$					
$1 \times 12.50 \times 1.70 \times 0.50 = 10.625 \text{ "}$					
$1 \times 19.45 \times 1.80 \times 0.75 = 26.26 \text{ "}$					
$1 \times 21.10 \times 1.25 \times 0.350 = 9.495 \text{ "}$					

Continuation



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Sch. XLV_Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
14x 2.50x	1.50	x 0.40	=	21.00	m ³ .
20x 1.75x	1.40	x 0.60	=	29.40	"
1x 16.55x	1.70	x 0.80	=	8.44	"
1x 22.40x	1.55	x 0.45	=	15.624	"
4x 6.15x	1.55	x 0.40	=	15.252	"
2x 7.50x	1.20	x 0.45	=	8.10	"
2x 11.10x	1.70	x 0.50	=	18.87	"
1x 9.40x	1.50	x 0.35	=	4.935	"
1x 5.70x	2.00	x 0.40	=	4.56	"
1x 17.00x	1.50	x 0.35	=	8.925	"
1x 10.40x	1.450	x 0.40	=	6.032	"
4x 2.70x	1.60	x 0.45	=	7.776	"
2x 6.40x	1.75	x 0.40	=	8.96	"
4x 2.75x	1.50	x 0.45	=	7.425	"
7x 4.50x	1.70	x 0.40	=	21.420	"
3x 12.45x	1.20	x 0.35	=	15.687	"
10x 5.00x	1.45	x 0.40	=	29.00	"
1x 18.00x	1.40	x 0.35	=	8.82	"
2x 4.50x	1.350	x 0.40	=	4.86	"
1x 15.00x	1.20	x 0.40	=	7.20	"
1x 7.25x	1.30	x 0.45	=	4.24	"
4x 3.00x	1.55	x 0.40	=	7.44	"
2x 2.50x	1.25	x 0.35	=	2.19	"
3x 8.45x	1.35	x 0.40	=	5.51	"
2x 5.80x	1.25	x 0.35	=	4.64	"
5x 6.55x	1.15	x 0.40	=	15.07	"
4x 3.55x	2.00	x 0.40	=	11.86	"
2x 11.40x	1.35	x 0.35	=	10.773	"
4x 5.50x	1.40	x 0.40	=	12.32	"
2x 10.50x	1.20	x 0.35	=	8.19	"
4x 4.50x	1.55	x 0.40	=	11.16	"

Continuation

Soh. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
25 x 2.50	1.55	x 0.30	=	29.06	m ³
1 x 15.00	1.35	x 0.40	=	8.10	"
3 x 10.50	1.40	x 0.30	=	13.23	"
2 x 15.00	2.00	x 0.40	=	24.00	"
4 x 6.45	1.30	x 0.35	=	11.789	"
20 x 6.00	1.00	x 0.40	=	48.00	"
17 x 3.20	x 0.95	x 0.40	=	70.67	"
2 x 20.00	0.75	x 0.35	=	10.50	"
3 x 8.00	1.50	x 0.60	=	22.14	"
1 x 16.40	1.60	x 0.55	=	12.43	"
2 x 4.40	2.10	x 0.30	=	5.544	"
1 x 13.00	x 1.00	x 0.35	=	5.50	"
1 x 10.50	0.75	x 0.40	=	3.15	"

4 x 6.50	x 0.90	x 0.45	=	10.53	"
1 x 12.40	x 0.95	x 0.40	=	6.61	"
2 x 9.40	x 0.75	x 0.55	=	7.755	"
1 x 10.30	x 1.25	x 0.35	=	4.867	"
1 x 15.40	x 1.20	x 0.40	=	7.392	"
4 x 7.40	x 1.10	x 0.50	=	16.28	"
1 x 17.55	x 1.40	x 0.30	=	7.371	"
3 x 8.40	x 0.90	x 0.40	=	9.072	"
2 x 15.00	x 0.95	x 0.45	=	12.825	"
2 x 7.80	x 1.10	x 0.35	=	5.621	"
10 x 3.50	x 2.00	x 0.40	=	28.00	"
2 x 3.75	x 1.50	x 0.60	=	6.75	"
4 x 5.50	x 1.25	x 0.40	=	11.00	"
2 x 14.25	x 0.90	x 0.45	"	11.543	"

Continuation

Sch. XLV Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
12 x 2.50 x	1.55 x	0.60	=	27.90	m ³ .
3 x 9.20 x	1.50 x	0.35	=	14.49	"
2 x 5.55 x	2.00 x	0.40	=	4.08	"
4 x 6.50 x	1.50 x	0.60	=	23.40	"
20 x 4.25 x	1.75 x	0.40	=	59.50	"
2 x 16.10 x	1.15 x	0.40	=	14.812	"
0 x 2.50 x	1.10 x	0.60	=	16.50	"
25 x 1.50 x	1.50 x	0.45	=	28.213	"
20 x 1.00 x	1.80 x	0.50	=	18.00	"
4 x 2.50 x	1.50 x	0.40	=	6.00	"
				1118.643	m ³ .

② Making up to berms/shoulder etc and comp. -

2 x 15.00 x	1.50	=	45.00	m ²
2 x 4 x 50.00 x	1.20	=	480.00	"
2 x 80.00 x	0.90	=	54.00	"
2 x 25.00 x	0.75	=	37.50	"
2 x 10 x 12.00 x	1.40	=	336.00	"
2 x 4 x 50.00 x	0.90	=	360.00	"
2 x 20.00 x	0.60	=	24.00	"
2 x 4 x 12.00 x	0.60	=	57.60	"
2 x 6 x 80.00 x	0.750	=	270	"
2 x 10 x 15.00 x	0.60	=	180.00	"
18 x 6.50 x	1.00	=	1170.00	"
20 x 6.00 x	0.90	=	1080	"
24 x 5.00 x	1.00	=	120.00	"
2 x 15.00 x 5.00 x	0.80	=	120.00	"

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
$2 \times 50.00 \times 0.90 =$			90.00	m ²	
$2 \times 10 \times 7.50 \times 1.00 =$			150.00	"	
$2 \times 15 \times 15.00 \times 1.80 =$			585.00	"	
$2 \times 10.00 \times 1.00 =$			20.00	"	
$2 \times 8 \times 80.00 \times 0.50 =$			240.00	"	
$2 \times 10.50 \times 0.75 =$			15.75	"	
$1 \times 70.00 \times 0.90 =$			63.00	"	
$2 \times 10 \times 4.50 \times 1.50 =$			135.00	"	
$2 \times 25.00 \times 0.90 =$			45.00	"	
$1 \times 18.70 \times 1.10 =$			20.57	"	
$1 \times 35.00 \times 1.15 =$			40.25	"	
$2 \times 12 \times 8.50 \times 1.00 =$			204.00	"	
$1 \times 27.40 \times 0.50 =$			12.70	"	
$1 \times 32.00 \times 0.70 =$			22.40	"	
$2 \times 10 \times 9.00 \times 1.05 =$			189.00	"	
$2 \times 15.00 \times 0.90 =$			27.00	"	
$2 \times 8 \times 16.00 \times 0.65 =$			166.40	"	
$2 \times 10 \times 12.00 \times 0.60 =$			144.00	"	
$2 \times 35.00 \times 0.90 =$			63.00	"	
$2 \times 22.00 \times 0.60 =$			26.40	"	
$4 \times 15.00 \times 0.55 =$			33.00	"	
$2 \times 10 \times 5.75 \times 0.80 =$			92.00	"	
$2 \times 15 \times 10.00 \times 0.90 =$			270.00	"	
$2 \times 18.75 \times 0.60 =$			22.50	"	
$2 \times 13.25 \times 0.65 =$			17.26	"	
$2 \times 20 \times 7.50 \times 0.50 =$			150.00	"	
$2 \times 12 \times 15.00 \times 0.75 =$			270.00	"	

Continuation



Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1x16.25x	0.75	=	12.19	ml	
1x27.55x	1.0	=	27.55	ml	
1x42.50x	1.80	=	55.25	"	
2x10x9.00x0.90	=		162.00	"	
2x7x15.00x0.50	=		105.00	"	
1x20.00x	0.75	=	15.00	"	
1x13.55x	1.0	=	13.55	"	
1x21.90x	1.05	=	23.00	"	
2x4x10.00x1.80	=		104.00	"	
2x10x5.55x0.50	=		55.50	"	
2x4x11.00x1.0	=		88.00	"	
2x15x7.50x0.60	=		135.00	"	
			=	622.47	m ²

(3) Repair of Pot Holes filled					
with 75mm B.M etc -					
1x1.75x	2.00x	0.075	=	0.263	m ³
4x0.50x	1.00x	0.075	=	0.150	m ³
6x0.60x	0.25x	0.075	=	0.095	"
			=	0.508	m ³

(4) Patch Repair over Pot holes					
with 20 mm Premix Carpet etc -					
1x1.75x	2.00	=	3.50	m ²	
4x0.50x	1.00	=	2.00	"	
6x0.60x	0.25	=	1.26	"	

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
$10 \times 1.50 \times 0.60 =$			9.00	m ²	
$2 \times 7.50 \times 1.00 =$			15.00	"	
$2 \times 8.00 \times 2.50 =$			40.00	"	
$14 \times 0.90 \times 0.75 =$			9.45	"	
$1 \times 5.50 \times 0.80 =$			1.65	"	
$10 \times 2.50 \times 0.75 =$			18.75	"	
$20 \times 0.90 \times 0.60 =$			10.80	"	
$1 \times 10.25 \times 0.75 =$			7.69	#	
$4 \times 3.50 \times 0.90 =$			12.60	"	
$10 \times 0.90 \times 0.75 =$			6.75	"	
$1 \times 7.25 \times 0.75 =$			5.438	"	
$14 \times 1.00 \times 0.75 =$			10.50	"	
$28 \times 0.90 \times 0.60 =$			15.12	"	
$1 \times 20.00 \times 1.00 =$			20.00	"	
$15 \times 2.00 \times 1.00 =$			30.00	"	
$2 \times 7.50 \times 1.25 =$			18.75	"	
$4 \times 2.50 \times 0.60 =$			6.00	"	
$3 \times 1.50 \times 0.80 =$			3.60	"	
$4 \times 1.00 \times 0.75 =$			3.00	"	
			=	242.85 m ²	
(5) Patch repair on Bit Surface with 20mm Premium Carpet Pol.					
Qty Same vide item No. (4) =				242.85 m ²	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(6) Crack Sealing Filling of Cracks & Joints etc -					
4 x 25.00 =	100.00 m				
1 x 65.25 =	65.25 "				
2 x 20 x 80.00 =	1200.00 "				
2 x 10 x 50.00 =	1000.00 "				
2 x 15 x 25.00 =	750.00 "				
2 x 30 x 30.00 =	1800.00 "				
2 x 20 x 17.00 =	340.00 "				
2 x 50 x 10.00 =	1000.00 "				
2 x 10 x 15.00 =	200.00 "				
2 x 12.00 =	24.00 "				
2 x 10 x 10.00 =	200.00 "				
2 x 8 x 20.00 =	320.00 "				
	<u>7099.25 m.</u>				
(7) Repair of concrete Pavement etc as per compdb -					
10 x 2.00 x 0.60 =	12.00 m ²				
(8) Repair of Joint Sealant etc as per compdb -					
2 x 10 x 5.00 =	100.00 m				
2 x 5 x 7.50 =	75.00 "				
2 x 10 x 9.00 =	180.00 "				
2 x 6 x 7.50 =	90.00 "				
2 x 10 x 5.00 =	100.00 "				
2 x 17.50 =	35.00 "				
	Continuation 580.00 M				

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(9) Maintenance of Slab Culvert etc etc complete -					
			18 Nos.		
(10) Maintenance of Road Sign etc etc complete -					
Length = 7.48 Km					
(11) Maintenance of 200m and Km Stone etc -					
Length = 7.48 Km.					
(12) cutting of branches of tree etc -				15 Nos.	
(13) Cutting of Shrubs from roadway etc -					
7x 945 = 6615 Nos.					
1x 445 = 445 Nos.					
= 7060 Nos.					
(14) Trimming of grass and weeds etc -					
2x 7x 100.00x 1.50 = 2100.00 m ²					
2x 60x 10.00x 1.40 = 8400 "					
2x 50x 75.00x 1.50 = 11250 "					

Continuation

Continuation

First Year Maintenance

H.L. Bridge 4 x 18.75m.

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
① Restoration of rain cut with Soil, moss etc -					
2 x 10 x 1.50 x 0.90 x 0.40 =					10.80 m ³
2 x 4 x 0.90 x 0.75 x 0.40 =					2.16 m ³
					= 12.96 m ³
② Making up to Beams' shoulder etc as complete -					
2 x 2.50 x 1.40 =					7.00 m ²
2 x 8 x 1.90 x 1.40 =					36.48 m ²
2 x 5 x 2.40 x 0.75 =					18.00 m ²
					58.48 m ²
③ Patch Repair over Pot Holes with 20mm Premix Carpet with Seal coat Type B etc -					
2 x 3 x 1.20 x 1.00 =					7.20 m ²
④ Patch repair over Bituminous Surface with 20 mm Premix Carpet etc -					
2 x 4 x 1.50 x 0.60 =					7.20 m ²
⑤ Filling of cracks and Joints etc					
2 x 10 x 7.50 =					150.00 m

Continuation



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑥ Repair of Isolated areas of damaged concrete pavement etc and complete -					
		4 x 0.95 x 1.00 =			3.80 m ²
⑦ Repair of old Joint Sealant etc and complete -					
		2 x 10 x 5.60 =			112.00 M
⑧ Maintenance of Old works etc and complete.					
				14 nos.	
⑨ Maintenance of Road Sign etc and complete -					
		Length -			0.23 km.
⑩ Maintenance of Zoom and KM Stairs etc -					
		Length -			0.23 km
⑪ Cutting of tree Branch etc -					
				1 No.	
⑫ Cutting of Shrubs from road way etc -					
		2 x 15 x 5.00 =			150 nos.

Continuation

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑥ Repair of isolated areas of damaged concrete pavement etc and complete-					
2x 1.00 x 0.75 = 1.50 m					
⑦ Repair of old Joint Sealant etc and complete-					
1x 27.50 m = 27.50 m					
1x 30.00 m = 30.00 m					
				57.50 m.	
⑧ Maintenance of C/D works etc and complete-					10 Nos.
⑨ Maintenance of Road Sign etc —				0.19 km	
⑩ Maintenance of road & Km Rd —				0.19 km	
⑪ Cutting of branches of trees etc —					1 No.
⑫ Cutting of shrubs from roadway —					
2x 75.00 = 150 Nos.					

Continuation

[illegible]

ABSTRACT OF COST 17

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>ROAD WORKS.</u>					
① Restoration of rain cut etc -					
1118.648 m ³ vide TMB P-4					
@ 424.81/m ³				←	4,75,211=
② Making up of borrow/shoulder etc see below					
6222.47 m ³ vide TMB P-6					
@ 65.11/m ³				←	4,05,145=
③ Repair of Pot Holes					
0.508 m ³ vide TMB P-6					
@ 12517.38/m ³				←	6,359=
④ Patch Repair over Pot Holes with 20 mm Carpet -					
242.85 m ³ vide TMB P-7					
@ 349.95/m ³				←	84,985=
⑤ Patch Repair over Bitu. Surface etc					
242.85 m ³ vide TMB P-7					
@ 351.97/m ³				←	85,476=

Continuation



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(6) Crack Sealing at end concrete					
7099.25 M wide TMB P-8					
@ 4.59/m				6'	32,586.20
(7) Repair of Concrete Pavement etc -					
12.00 M wide TMB P-8					
@ 349.95/m				6'	4,199.20
(8) Repair of Joint Sealing etc -					
580 M wide TMB P-8					
@ 26.93/m				6'	15,619.20
(9) Maintenance of Slab Culvert etc -					
18 Nos wide TMB P-9					
@ 2583.38/each				6'	46,501.20
(10) Maintenance of Road Sign etc -					
7.48 Km wide TMB P-9					
@ 1202.17/Km				6'	8,992.20
(11) Maintenance of 200 M x Km post etc -					
7.48 Km wide TMB P-9					
@ 753.12/Km				6'	5,633.20

Continuation

Continuation

ABSTRACT OF COST

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 20
 H.L. Bridge- 4x18.75M

Particulars	Details of actual measurement			Contents of area
	No.	L.	B.	
① Restoration of rain cut etc -				
12.96 m ³ wide TMB P-11				
@ 424.81/m ³				5,506.20
② Making up of berms etc				
58.48 m ² wide TMB P-11				
@ 65.11/m ²				3,808.20
③ Patch repair over pot holes etc -				
7.20 m ² wide TMB P-11				
@ 349.95/m ²				2,520.20
④ Patch repair over bit. Surf etc -				
7.20 m ² wide TMB P-11				
@ 351.97/m ²				2,534.20
⑤ Filling of cracks etc -				
150.00 m ² wide TMB P-11				
@ 4.59/m ²				689.20
⑥ Repair of concrete panels etc -				
5.80 m ² wide TMB P-12				
@ 349.95/m ²				1,380.20

Continuation



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑦ Repair of old Taint etc 112.00 M wide TMB P-12					
@ 26.78/M				€	3,016.20
⑧ Maintenance of C/D mone etc. 14 nos wide TMB P-12					
@ 2583.38/each				€	36,167.12
⑨ Maintenance of road sign 0.23 km wide TMB P-12					
@ 120,171/Km				€	276.20
⑩ Maintenance of 200 m x 1 m Post 0.23 km wide TMB P-12					
@ 753.12/Km				€	173.20
⑪ Cutting of tree branch 1 No. wide TMB P-12					
@ 119.18/each				€	119.20
⑫ Cutting of shrubs etc 150 nos wide TMB P-12					
@ 7.32/each				€	1098.20
⑬ Trimming of grass etc. 465.00 m wide TMB P-12					
@ 2.44/m				€	1135.20

Continuation

25/08/24
J.E.

25/08/24
58,371.20

ABSTRACT of COST

H.L. Bridge 22 2x18.75 M
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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
① Restoration of rain catch 10.90 m ³ wide T.M.B.P-14 @ 424.81/m ³					4680.20
② Making up of kerb/shoulder etc. 56.00 m wide T.M.B.P-14 @ 65.11/m					3516.20
③ Patch repair on pot holes etc and gutter 5.25 m wide T.M.B.P-14 @ 349.95/m					1837.20
④ Patch repair on bit. surface etc. 6.00 m wide T.M.B.P-14 @ 351.97/m					2112.20
⑤ Filling of cracks etc. 150.00 m wide T.M.B.P-14 @ 4.59/m					689.20
⑥ Repair of damaged concrete pavement etc. 1.50 m wide T.M.B.P-15 @ 349.95/m					525.20

Continuation



Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑦ Repair of old Jui etc 57.30 M wide TMB P-15					
@ 26.93/M				1548.20	
⑧ Maintenance of old work - 10.44 wide TMB P-15					
@ 2583.38 each				25834.00	
⑨ Maintenance of road sign - 0.19 km wide TMB P-15					
@ 1202.12/KM				228.20	
⑩ Maintenance of 200 m x 1 km Best etc					
0.19 km wide TMB P-15					
@ 753.12/KM				143.20	
⑪ Cutting of branch of tree - 1.14 wide TMB P-15					
@ 119.18/each				119.20	
⑫ Cutting of shrubs etc 150 m wide TMB P-15					
@ 732/each				1098.20	
⑬ Trimming of grass etc 450 m wide TMB P-15					
@ 244/m				1098.20	

Continuation

43,377.20

John
25/06/24
J.E.

Signature
25/06/24
J.E.



Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>Total Abstract of cost of 1st</u>					
<u>Year Maintenance work</u>					
<u>(i) Maintenance work</u>					
<u>of first year</u>					
<u>against Roadwork-</u>					
<u>vide Page No. - 19 of</u>					
<u>TMB. - Rs. 13,45,539/-</u>					
<u>(ii) H.L. Bridge - 4x18.75m</u>					
<u>vide Page No. - Rs. 58,371/-</u>					
<u>- 21, TMB.</u>					
<u>(iii) H.L. Bridge - 2x18.75m</u>					
<u>vide Page No. - Rs. 43,377/-</u>					
<u>Total = Rs. 14,47,287/-</u>					
<u>(-) Less 10%</u>					
<u>below as per</u>					
<u>Agreement - (-) Rs. 1,44,729/-</u>					
<u>Rs. 13,02,558/-</u>					
<u>25/08/24</u>					
<u>JE.</u>					
<u>25/08/24</u>					
<u>AF.</u>					
<u>C&P</u>					
<u>31/7/24</u>					
<u>GE.</u>					

Continuation