

AWM4
Australian Imperial Force unit war diaries,
1914-18 War

Medical, Dental & Nursing

Item number: 26/77/9

Title: 2nd Australian Sanitary Section

December 1916



AWM4-26/77/9

INTELLIGENCE SUMMARY

(Erase heading not required.)

Capt. M. J. Holmes A.A.M.C.

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Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title Pages will be prepared in manuscript.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Vignacourt VIGNACOURT.	18/12/16.		<p>Took over command of 2nd Sanitary section. 1st Australian Division from Major Bourke. Major Bourke transferred to 12th Field Ambulance.</p> <p>Paid visit of inspection to northern parts of "T" area where Artillery is billeted. Visited Naours (NAOURS) HAVERNAS & WARGNIES. villages. Found sanitary conditions very bad at all these billeting villages. No public latrine accommodation. No incinerators. No method of dealing with refuse from billets, or stables or house lines. Streets, & lanes & vacant allotments very foul. Excreta on ground surface. Baths, capable of putting through 60 men per hour exist at NAOURS.</p> <p>2nd sanitary section is in charge of sanitation of "T" area till further orders & does not move with its Division.</p> <p>Sent an N.C.O. & pte of San. section to NAOURS to get the village cleaned up. Arranged for them to be billeted & rationed there. & arranged for fatigue parties.</p> <p>A/Sgt WALKER & pte BUDGEN. sent to NAOURS.</p> <p>Report sent to A.D.M.S (2nd Austr. Divn) "T" area re insanitary conditions at Havennas Chateau Artillery school of instruction.</p> <p>Again visited NAOURS. HAVERNAS & WARGNIES. Detailed a/Sgt Kennedy & pte Pearce to HAVERNAS & pte Laidlaw to WARGNIES to get sanitary matters attended to. Arranged for necessary fatigue parties, personally with C.O. of units.</p>	<p>###</p> <p>###</p> <p>###</p>
	18/12/16.			
	18.12.16			

WAR DIARY

or

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VIGNACOURT.	14.12.16.		Discussed sanitary requirements of Vignacourt with the Area Commandant. Major EVANS. Investigated occurrence of Typhoid fever in Vignacourt & furnished a report to A.D.M.S. embodying recommendations re water supply & food supply. ///	
	15.12.16		Detailed a/sgt COATES & a Private of Sanitary Section to RAINEVILLE for sanitary duties. Paid visit of inspection to S ^t VAAST. COISY. RAINEVILLE. FLESSELLES & Chateau d'Olencourt Rest-station. Considerable progress in sanitary improvements at S ^t VAAST. An N.C.O & Private of Sanitary Section detailed for duty here. Interviewed. R.M.O ^r Transport Officer re sanitation.	
	16.12.16.		COISY & RAINEVILLE. very insanitary. no sanitary works at all. Interviewed Area Commandant at COISY re sanitary requirements. Also arranged for fatigue parties. FLESSELLES. Sanitation being improved. a/sgt. BRIMS & Cpl ROCHE of Sanitary Section stationed here for duty.	
	17.12.16		Reported to A.D.M.S. on Baths at Raineville & improvements required. Applied for ruling on the collages in "T" area for sanitation of which the Sanitary Section is responsible. Interviewed 12 th F. Coy Engineers in an effort to obtain sufficient material for sanitary works urgently necessary in "T" area. Inspected billets at Vignacourt. Fairly satisfactory on the whole, but sanitation not good. Placed several houses in Vignacourt out of bounds on account of recent occurrence of Typhoid fever. But little can be done with the civil population from point of view of preventive measures. Interviewed.	

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VIGNACOURT.	17.12.16		the maine with respect to this, but obtained no assurance that any steps would be taken with regard to civilian sanitation.	///
	18.12.16.		Made a thorough inspection of VIGNACOURT. for purpose of compiling report on sanitation called for by D.D.M.S. Sanitation is very bad & many of the billets disgracefully filthy. (See Report). Great hindrance to sanitary progress is caused by the extreme difficulty in obtaining even small amounts of material, timber etc, for erecting sanitary works in this ("T") area. Wrote to C.R.E Back areas re this matter, & indented for urgent material. Sent N.C.O of sanitary section to FRIMONT to superintend creation of latrines for Battalion expected to arrive there tomorrow.	///
	19.12.16.		Interviewed Area Commandant re obtaining bricks from broken down walls & buildings for use in building incinerators. If such bricks or other apparently useless material is touched, the owners make absurdly extravagant claims against the Army for damage to property. Furnished report to A.D.M.S re filthy billets evacuated by some outgoing units on marching out of the Rest area ("T" area). giving details. No effort had been made to clean up before leaving. Wrote to C.O. relieving units to provide fatigue parties to clean up the town. VIGNACOURT: Provided latrine accommodation for Battalion at FRIMONT.	///
	20.12.16.		Furnished report on sanitary conditions & improvements at VIGNACOURT. to D.D.M.S through A.D.M.S 4 th Australian Division. Also furnished report on Baths at RAINVILLE. Sent Pte JENNINGS to FLESSELLES. to replace Cpl ROCHE. (sick) Now have N.C.O's & men of the sanitary section posted in all the villages of "T" Area where Australian troops are billeted. The duties of these N.C.O's & men are	///

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VIGNACOURT.	20.12	16	<p>Duties of N.C.O. & men of 2nd Sanitary section posted in various villages of 'T' area.</p> <ol style="list-style-type: none"> 1. To inspect the village under their charge regularly day by day. 2. To draw attention of unit C.O. to insanitary conditions, & to get them remedied on the spot. 3. To report immediately to C.O. Sanitary section any difficulty in obtaining compliance with sanitary instructions, on the part of units responsible. 4. To supervise the digging & erection of public latrines in the spots approved by C.O. Sanitary section. 5. To supervise erection of incinerators at approved spots. 6. To keep all water supplies under supervision & report any defects. To test water supplies as necessary. 7. To utilise fatigue parties obtained from units in billet for purpose of cleansing the village & maintaining cleanliness of streets, open spaces & vacant allotments. 8. To see that stable refuse & refuse from horse lines is properly "packed". 9. To report regularly on Mondays & Fridays to the C.O. Sanitary section <ol style="list-style-type: none"> 1. all improvements effected in sanitation since last report. 2. Proposals for further improvements. 3. work in hand. 4. any difficulties in connection with getting sanitary work carried out or in obtaining fatigue parties. 5. material requested for sanitary works. 6. any change in units occupying billets. 7. immediate report on condition of billets evacuated by any unit. <p>The C.O. sanitary section visits all parts of 'T' area frequently & endeavours to visit each village in the area at least twice in each week.</p>	

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VIGNACOURT.	20.12.16.		Effort made through O.C. 12 th F. Coy Engineers to get authority for purchase of buckets. These buckets are available in all villages of "T" Area at 30 francs per 1000. They are necessary for building incinerators. Plc HAYES. to 4 th Field Ambulance. (Bronchitis).	///
	21.12.16.		a/Sgt WERB. to England on leave. (10 days). Visit of inspection to COISY. CARDONETTE & RAINEVILLE. also to FLESSELLES & CANAPLES. Inspected water supply at Canaples & found the source of supply very satisfactory. a spring in the hillside, abundant supply, but being fouled at its source by water wagons backing in. Notified Area Commandant to this effect. Progress at COISY. CARDONETTE & RAINEVILLE in creating public latrines & incinerators. Progress is slow owing to great difficulty in obtaining material. Inspected water supplies at these three villages. Well waters at villages in "T" Area are on the whole unsafe. The supply from the sterilisation station at Allowville should be extended to villages in "C" section of "T" Area. The water supply from CANAPLES should be extended to all villages in "A" & "B" sections of "T" Area. Recommended this to Area Commandant. Condemned several wells in Cardonette & Coisy.	
	22.12.16.		Proposed a scheme to D.D.M.S. through A.D.M.S. 6 th Division who approved, whereby the Sanitary section should indent for & hold material necessary for sanitary works in "T" Area & should redistribute this material to units when issuing instructions to units to carry out necessary sanitary works. The old method of waiting for the unit C.O. to indent for material	///

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	22.12.16		<p>after receiving his instructions to erect necessary sanitary works, meant that the Unit usually evacuated its billets before material arrived, & the whole process had to be started again with the incoming unit, often with a similar result. The Unit usually remains in the rest-area only a fortnight. Consequently a Unit very seldom did anything in the way of permanently improving the sanitary works of the area. Consequently sanitation has been purely haphazard.</p> <p>Under the new arrangement (if approved) the sanitary section will send both the material required & the instructions for use to the Unit C.O. & will ask for immediate erection of necessary sanitary works under supervision & advice of the sanitary section N.C.O. in the village.</p> <p>Question of obtaining fatigue parties direct from the C.O. Units also raised.</p> <p>Question of Foden Lorry control raised. Foden lorry in "T" area should be under control of the sanitary section in "T" area for use temporarily. This would save much delay in getting work done. At present control by D.S.C. at Ribemont is too distant to be effective.</p>	
	23.12.16		<p>Wrote to French mission re dirty condition of French billeting area in Vignacourt.</p> <p>Made a general inspection of the village of VIGNACOURT. for report to D.D.M.S.</p>	<p><i>[Handwritten initials]</i></p>
	24.12.16		<p>Foden lorry to remain under control of 5th Division Supply Column Officer at Ribemont, as heretofore. Consequently further delay & trouble in obtaining coal etc. There is no N.C.O. on the lorry (steam disinfecter) & the discipline is difficult to maintain.</p>	<p><i>[Handwritten initials]</i></p>

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VIGNACOURT.	25.12.16		Completed rough draft of general report on sanitation of 'T' area called for by D.D.M.S. Lt. Luyze. Prepared Tables & maps of villages in the area.	///
	26.12.16.		Handed in above report, embodying 1. Present position of sanitation in "T" Area 2. Proposals regarding complete scheme of sanitation 3. Statement of difficulties met in obtaining necessary material.	
	27.12.16.		Material for latrines sent to RAINEVILLE & CARDONETTE. Sgt. ^{NEAL} reported back to duty after leave to England. Cpl. ROCHE, reported sick from FLESSELLES. Tfd to VIGNACOURT for 3 days. Paid visit of inspection to HAVERNAS - WARGNIES & NAOURS. Paid moneys due to NCO's men of San. Section in these villages. There is considerable improvement in the general sanitation of these villages & public latrines & incinerators are becoming more numerous. Gave instructions to N.C.O.'s of sanitary sections stationed at these villages to prepare sketch map of village marking all completed latrines & incinerators all proposed latrines & incinerators, & all water supplies, & to keep the map constantly up to date for my inspection. Pte HAYES reported back to duty from 4 th Field Ambulance, treatment, 'influenza' is very prevalent in the Sanitary Section at present, as it is in all the other Units. Weather has been very cold & wet, with days of hard frost intervening between periods of rain.	///
	28.12.16.		Visit of inspection to FLESSELLES, RAINEVILLE & ST VAAST. Sanitation improving. Baths at FLESSELLES. Require many improvements. Visited baths with Area Commandant.	///

WAR DIARY

Army Form 2118

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VIGNACOURT.	28.12.16		<p>pointed out improvements necessary, arranged at once for a fatigue party to improve the drainage.</p> <p>Found the Billeting area occupied by British troops in Flesselles very clean & sanitary.</p> <p>In compliance with an order from A.D.M.S. 1st Australian Division furnished report re promulgation of the proceedings of a sentence by Court-Martial in this unit.</p> <p>xmas gifts arrived from Australian Comforts fund. acknowledged receipt with thanks.</p> <p><u>Weather</u>. Hard frost. dull. bleak. no rain.</p>	
	29.12.16		<p>Visit of inspection to HAVERNAS, WARGNIES & NAOURS. per motor bus. Delivered latrine boxes (public) at these villages. Progress noted in creating latrines & incinerators.</p> <p>Sent out Circular with instructions to all C.O.s of units in VIGNACOURT regarding use of 1. Water 2. Vegetables 3. Milk in Vignacourt, & regarding the exercise of care in keeping all food in ratproof & fly proof boxes or covers.</p> <p>Cases of Typhoid fever are still occurring in Vignacourt.</p> <p>Inspected several wells & U.G. tanks in VIGNACOURT, & condemned some.</p> <p>Returned acquittance Roll to Field Cashier completed.</p> <p><u>Weather</u>. mild. dull. slight rain in morning & evening.</p>	
	30.12.16		<p>Interviewed area Commandant VIGNACOURT. & discussed water supply from CANAPLES. to VIGNACOURT. also a scheme for obtaining material for sanitary works in the area. also the purchase of bricks from villages at 30 francs per 1000. (approved).</p> <p>Have been unable to purchase any waste iron to use as bars for incinerators.</p>	
	31.12.16 Sunday		<p>Received notification from C.E. 1st Augae that indents for 50 latrines & for certain material for sanitary works, sent by me to C.R.E. Back areas has been approved, & goods will come to hand.</p>	<p>NEWTON J. HOLMES Capt. C.O. 2nd Sanitary Section</p>

Report on Sanitary Improvements in Vignacourt

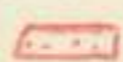
The A.D.M.S.

4th Australian Division

There has been improvement in the sanitary conditions of Vignacourt recently


The main attention has been given to the following points.

1. Erection of public latrines to replace the numerous insanitary latrines in individual billets.
2. Erection of incinerators.
3. Baths accomodation.
4. General cleanliness of streets and billets.

- I. Public latrines. There are now ten (10) public latrines in the village. These are distributed as shewn in the attached map thus. 

They are mostly four seated flyproof latrines covering deep trenches 8ft long by 2ft broad by 8 to 10 ft deep. Most of the latrines are enclosed with iron on hessian and roofed with iron or malthoid. Others are still unroofed but the roofing will be done as soon as material is available.

In connection with each latrine is a urine pit: a deep pit filled with incinerated tins etc and covered.

2. Incinerators. There are three incinerators in working order and they are situated at the spots indicated by a  on the attached map.
3. Baths. The baths have been put in order and are now working. About 200 men per day are put through.
4. A large amount of cleaning up of streets and billets has been done.

The improvements have been carried out by the sanitary section with the help of fatigue parties from the units billeted in the town.

Although some progress in sanitation has been made the village is still very far from sanitary. There are still many very insanitary latrines in individual billets. These are either foul flooded shallow trenches often improperly covered, or else pans covered with biscuit boxes the contents of the pans being buried at intervals. It is these pan latrines in billets which are interfered with by the civilians. There has been no attempt by civilians to interfere with public latrines so far, but the notices in French suggested by Major Low are being affixed by the Sanitary section as a safeguard.

Although public latrines have been provided, men frequently ease themselves in lanes and behind doorways into yards etc. There is much room for improvement in the cleanliness of units in billets.

The best remedy lies in an increase in the number of public latrines so that latrines may be available in convenient situations in all quarters of the village. This remark applies

applies to all the other villages in the area, but the chief hindrance to the work lies in the extreme difficulty experienced in obtaining material.

More incinerators also are required, but here again lack of material prevents the work from being carried out except at a very slow rate.

WATER SUPPLY.

The water supply of Vignacourt is unsatisfactory.

The wells give an inadequate supply, and are moreover unsafe. They are worked by windlass and bucket, and thus, though deep, are very readily contaminated.

Vignacourt has been contaminated with Typhoid fever for several years past and cases ~~are still occurring~~ are still occurring. It is more than possible that the wells are infected.

A separate report has been made to the A.D.M.S. 2nd Australian Division on Typhoid in Vignacourt.

It would be advisable to have well waters in Vignacourt examined in the Laboratory for Typhoid infection. Meanwhile I have recommended the boiling of all water used in the town.

Water for battalions is being carted from Canaples (5 kilometers) by motor lorry, and this water is very good.

An ample supply of good water from the Canaples springs could be brought to the town in the manner suggested by the Area-Commandant Major Evans.

SANITARY SECTION, 1st AUSTRALIAN DIV.	
No.
Date... 19.12.16

Henry J. Holmes Capt.
via post Office

Report on Sanitation of Area.

Vignacourt.

	In use	2	One two seater
Latrines	Since completed	5	Eight four "
	to complete	2	System Deep Pit
	Total	9	4. P. Seats.

Incinerators	In use	3	← both in bad
	To complete	2	state of repair
			Since repaired by section.

Baths put in order by Section and now worked by resident Battalions.

No of men put through, 200 daily.

Ablution benches will be fitted where necessary when timber is available.

Water supply . Wells 4

Test 1/2 measure B. P. In Use 5

Deep wells average about 400 gallons
Quality good.

*To be filed.**Copy*A.D.M.S.
4/17/1.

Re Sanitary improvements in "T" area

The A.D.M.S.

4th Australian Division.

In connection with the matter of providing sanitary improvements in "T" area, I am of the opinion that well built standard latrines of a more or less public nature should replace the very insanitary system of latrines still existing in connection with individual billets. By the provision of such latrines better supervision could be maintained by the sanitary section, and large areas of ground would not be fouled by shallow and usually flooded trenches as at present.

Three four seated flyproof deep trench latrines of the type now being constructed by the sanitary section, would be sufficient for each company of a battalion. These could be placed in suitable situations in the billeting area so that latrine accommodation would be available and convenient to all men occupying the billets, and individual latrines for each billet would be done away with.

Each company of a battalion would be held responsible for the sanitary condition and cleanliness of the three latrines in its billeting area, and for leaving the latrines in a cleanly condition on evacuating the billets.

In order to get work of this nature done rapidly, it is impossible in practice for units to indent for material in the usual way and then to wait for the material to arrive before commencing operations. The necessary material may not arrive until after the unit has been relieved.

Also the latrines should be of a pattern approved by, and erected under supervision of the sanitary section.

I therefore beg to recommend that

- I. The O.C. Sanitary Section in this area be given authority to obtain all material for sanitary works required in the Area.

A stock of this material to be held by the sanitary section and distributed to units with instructions to carry out the sanitary works necessary, in the billeting area, under the supervision and advice of an N.C.O. who will be detailed for the purpose by the Divisional Sanitary Officer.

In the same way Incinerators at the rate of one (1) per company could be built and placed in charge of the company for its use, the company to be held responsible for their care and maintenance of the incinerator during the period it occupies the billet.

2. Other ~~sanitary~~ necessary works of a sanitary nature to be handled in a similar way, the sanitary section to provide necessary material.

The present method of working has proved very unsatisfactory. The Divisional Sanitary Officer gives instructions to C.Os of units as to sanitary works required. Long periods elapse before necessary material can be obtained, and the work usually cannot be carried out before the unit is relieved by another.

This means that the whole process has to be gone through again with the incoming unit.

An estimate of the material required by the sanitary section for urgent sanitary works in "T" Area has already been submitted to you.

SANITARY SECTION	
1st AUSTRALIAN DIV.	
No.	
Date. 22.12.16.	

[Signature]

Vignacourt.

Materials for Sanitary works in "T" Area.

The A.D.M.S

4th Australian Division

The following materials are required to complete the erection of public latrines, incinerators & other sanitary works in "T" Area.

Feet

3000 3" x 2" or 3" x 3"

700 3" x 1 1/2"

1440 6" x 7/8"

960 2" x 2 1/2"

480 3" x 7/8"

780 6" x 3/8"

5000 bricks
or 300 sheets galv. iron } for incinerators

25 rolls wallboard } for roofing
15 rolls wire netting } latrines!

3 cases expanded steel netting
for incinerator bottoms.

50 lbs. nails. 2 1/2 or 3 inch

W. G. J. Holmes Capt.

SANITARY SECTION, 1st AUSTRALIAN DIV.	
No.
Date.....	19.12.16.

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APPENDIX

To be filed

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Copy

*in office
of 2nd San. Sectn
H.H.*

The D.D.M.S.

Ist Anzac Corps.

I beg to submit the report ^{*in duplicate.*} of the Sanitary conditions of "T" Area as called for under your instructions of the 4th inst. The delay in furnishing the report is due to the fact that I did not take over the duties of Divisional Sanitary Officer until the 11th inst. and that a thorough inspection of the area was necessary before a report could be furnished from personal experience of the conditions. Separate reports have already been furnished on

- a. The sanitary conditions of Vignacourt.
- b. The occurrence of Typhoid fever in Vignacourt.

SANITARY SECTION, 1st AUSTRALIAN DIV.	
No.....
Date.....	25-12-16

J.H. Jones

REPORT ON THE SANITARY CONDITIONS OF "T" AREA.

In general the sanitary condition of the villages in "T" Area where the troops are billeted is not at all satisfactory.

Apart from the insanitation generally associated with French villages, the billeting of troops has given rise to conditions which are liable to result in serious disease unless a better regard is paid to sanitation.

These conditions are

1. Wholesale fouling of the ground surface in the immediate neighbourhood of billets by excreta, either in the shallow trench latrines or on the surface of the ground itself. This not only allows of fly breeding, and the carriage of infection from excreta to food by flies, but the excreta deposits are often in the immediate vicinity of wells and underground tanks which become readily fouled. Even if the wells are very deep, the windlass and bucket is the system in use, and the bucket resting in the contaminated soil near the well mouth, subsequently carries contamination to the water of the well itself.

At this time of the year especially, shallow trenching of excreta is bad practice because the ground is practically waterlogged.

2. Little real effort has so far been made to incinerate garbage or refuse, probably because no proper incinerators existed. At present in any of the villages, tins, food, ^{refuse} etc. may be seen lying about billets, or on vacant land, and sometimes in the streets themselves.
3. Food often lies exposed in the billets and this encourages rats and flies about the billets. Rats carry infective jaundice and other diseases. Flies, especially when warmer weather comes, carry typhoid fever, dysenteries and other diarrhoeal diseases.
4. Stable refuse and refuse from horse lines is too often not properly dealt with. At this time of year when the incineration of such material is very difficult in the absence of fuel, it should be carried to a particular spot in or near the village and properly packed.

It is necessary to have the villages properly cleaned up, and the troops educated to a greater regard for cleanliness and sanitation than is at present the case so that cleanliness may be maintained.

The chief points calling for attention are.

- I. The latrine system.

In all the villages at present, individual billets have their own latrines. These are usually shallow trenches dug in waterlogged ground. The whole area around them is churned up mud. Often the men, owing largely to the filth and mud about the trench, ease themselves on the ground surface in the vicinity, or in lanes or on vacant plots of ground. The amount of ground fouled in this way is very great and water supplies are liable to contamination.

Another system is that of biscuit boxes covering pans, the pans being emptied at intervals into pits. This, though more cleanly than the trenches, is not satisfactory in the immediate neighbourhood of billets. The boxes are

not fly proof, proper supervision of a large number of such pans by the sanitary authorities is not easy, and moreover the biscuit boxes are usually taken by the civilians for firewood when a unit marches out, and the relieving unit coming into the billets finds no latrine accommodation.

Latrine accommodation can be satisfactorily met by a system of fly-proof deep trench "Public latrines" to replace the latrines in individual billets. As these "public latrines" are provided, the use of latrines in individual billets can be prohibited.

This principle is now being introduced into all the villages in "F" Area. The attached Table I. and the maps of villages will show the number of such latrines already completed and the number now in course of construction. It is intended to have three (3) four seated "public latrines" to each Company of a Battalion., the Company to be held responsible for their cleanliness and upkeep while it occupies the billeting area.

These latrines, (10ft deep) will last up to three months. They are built fly-proof and are screened around with hessian and roofed over with malthoid so as to give privacy and protection from the weather. Alongside each is a urine pit, a deep pit filled with stones and incinerated tins, and covered with earth, a perforated spout into which the men urinate being connected with each pit. These latrines and urine pits can be easily kept under supervision by the N.C.Os of the sanitary section stationed in each village.

Reference to Table I. and maps will show the present position of public latrine accommodation in each village.

The work is being carried out as fast as possible, but the great drawback is the great shortage of material for erecting the latrines

These latrines can, if necessary later on, be transferred to other areas or villages.

2. Incinerators.

At present very few incinerators exist, and some of these require reconstruction.

Table I. and the maps show the position as regards incinerators in each village.

Owing to the nature of the soil, the double pit incinerator is unworkable. Fairly satisfactory incinerators have been made out of large tins, but the best are built of bricks or galvanised iron covered over at the top and having a good draught flue. Galvanised iron is unprocureable, Bricks can be obtained in all the villages of the area at 30 francs per 1000., and a first class incinerator can be built for 15 francs if authority can be given to purchase the bricks locally. In this way transport would be saved. A good type of incinerator is required to deal with the sodden refuse in the absence of fuel.

Table I. shows the number of incinerators already erected and in use in the various villages, but it is intended to aim at one incinerator per company of a battalion, the company to be responsible for its proper upkeep and working when in the billeting area.

3. Stable refuse and refuse from horse lines.

This should be carted on to an open space near the village and there properly packed. It is the duty of the N.C.O. of the Sanitary section in each village to demonstrate the proper method of packing this refuse.

It is particularly in the villages where Artillery are billeted that care is required in this respect. *cf Naours, Warguies & Haovernas.*

4. BATHS.

There are Baths at

- Vignacourt
- Flesselles
- Raineville
- Naours.

3.

These baths are working and can each on an average put through 60 men per hour.

Water is boiled in coppers and ladled into tubs for the use of the men.

The baths, though being worked, are not in a very satisfactory condition. Repairs to buildings are necessary to afford better protection to the men when bathing and dressing. This is especially so at Raineville and Vignacourt.

Improvements to Drainage with the installation of settling pits and the use of chloride of lime for separating the soap from the effluent, are required at Raineville and Vignacourt.

Water for the use of the baths at Vignacourt and Raineville has to be carted at present. A report has already been submitted regarding the baths at Raineville, and suggesting improvements. Such improvements as have already been carried out, were made by the sanitary section, an N.C.O. of which still supervises the bathing of the men.

At Naours the baths are controlled by an officer acting under Capt Purchas o/e Baths, Heilly.

In connection with the Baths I would recommend the establishment at each of the baths of an ironing room for the delousing of tunics and breeches during the time the men are actually bathing. It is certain that clean underclothing becomes lousy in a few hours unless steps are taken to delouse the breeches and tunics. The Foden lorry disinfecter, in the absence of any mechanism for withdrawing the air from clothing etc before steam is admitted, does its work too slowly and incompletely to be of use in this respect, and the provision of an ironing room in connection with the baths seems to be the most practicable method of working. If 60 men are put through the baths per hour, 15 men or women would be sufficient to employ ironing the outer clothing. This would allow 15 minutes for ironing each man's clothing.

Except at La Chausee, no ablution places (apart from the baths above mentioned) exist as yet in the villages.

WATER SUPPLY.

Water supplies in the area comprise

Wells.

Underground tanks (rain catchment)

Water carted by water waggons.

The water supplies are kept under supervision by the men of the sanitary section stationed in the various villages of the area. Most of the wells in use have been already tested, and the test results on the whole are good (see Table 2. attached) since the method of obtaining water from the wells is usually by windlass and bucket, the wells are very liable to contamination and the supply cannot be looked on as very safe. This is particularly so in Vignacourt where Typhoid fever has been endemic for years. Consequently it would be a wise precaution to issue orders that all water from wells and underground tanks in all the villages should be boiled before use. At Vignacourt in particular the well water is unsafe, and water is being carted from Camaples.

In some cases as at Cardonette, Coisy, Frimont and Vignacourt notices prohibiting the use of certain wells are being posted at the well mouths. At Cardonette a very safe supply is drawn from Allonville, and this supply might with advantage be extended to Coisy.

The best method of protecting the wells from contamination lies in substituting a pump for the windlass and bucket system, and securely covering the mouth of the well.

The main hindrance to the carrying out of the necessary sanitary improvements in the area is the extreme difficulty in obtaining material. If material can be obtained in sufficient quantity

and without

and without delay, it will be easy to get the required number of latrines and incinerators erected, and to get the area into good sanitary condition in a very short time. As it is material can scarcely be obtained fast enough to keep one man employed in making latrine seats.

I have already recommended in a previous report that the Sanitary Section should have authority to indent for and hold in stock a supply of material necessary for sanitary works, and should distribute this to units when issuing instructions for the carrying out of necessary sanitary works. If the instructions and the material arrive together, there will be no difficulty in getting each unit to carry out its work.

It would be of benefit also, in order to avoid delay in getting sanitary work done, especially such work as the cleaning up of insanitary areas, that the Divisional sanitary officer should deal directly with the C.O. of the unit in whose area the insanitary condition exists. With direct co-operation between the sanitary section and the various units, insanitary conditions when pointed out will be remedied on the spot, and there will be no necessity to furnish written reports to Headquarters of the Division drawing attention to insanitary condition in the various villages occupied by the troops, unless the units fail to remedy them in a reasonable time after attention has been drawn to the work required

A considerable amount of work has already been done in all the ~~villages~~ villages in the way of cleaning up long standing accumulations of refuse and garbage, empty tins etc, and in cleansing the ground surface of excreta. Large pits have been dug for burying the refuse.

Public latrines and incinerators have been erected in practically all the villages. The most work has been done in Vignacourt where 10 public latrines and 3 incinerators have already been erected. The amount of work still to be done before the billeting area can be classed as sanitary is very great, but if the necessary material is made available, and with the ready co-operation of the units in billets, the sanitary condition of the whole area would soon show an immense improvement, and the danger of disease outbreak would be greatly minimised. Unfortunately it is not practicable to *interfere* much with the sanitary arrangements of the civilian population within the villages and this will always be an obstacle in arriving at thoroughly clean villages for the troops.

TABLES. attached
I & II.

Mercy J. Holmes Capt.
Div. San. Officer

SANITARY SECTION, 1st AUSTRALIAN DIV.	
No.....
Date.....	23.12.16.

TABLE I.

Sanitation of "T" Area.

23.12.16.

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Name of Village.	LATRINES					INCINERATORS.			BATHS.	
	Original System	Number of latrines (public) already erected.	Number of Public latrines under construction	Number of public latrines to complete	Total proposed for village.	Number now in use.	Number now in course of construction	Total proposed for village		
Vignacourt.	shallow trenches or pan latrines in individual billets.	10	1	13	24.	3	-	8	1.	
St Vaast.	do.	3	3	18	24.	1	1	8	hil	
La Chaussée	shallow trenches for individual billets	1	1	10	12.	1 (rough)	-	4	ablution bench	
Flesselles	shallow trenches & pans.	3	4	17	24.	1	1	8	Baths	1.
Coisy.	shallow trenching in billets.	1	4	9	14.	1	-	5.	hil	
Rameville	do	2	3	9	14.	1	1	5.	1	
Cardonette	do.	1	5	8	14.	1	-	5	-	
Warquies	shallow trenching. Open pit latrines & Pans	3	1	4	8.	1	2	3	-	
Havernais.	do	2	1	5	8	1	2	3	-	
Maours	shallow trenches only.	3	-	13	16	1	1	5	1.	
Frimont	do	2	-	6	8	1	-	4	-	
St Saver.	do.	-	-	8	8	-	-	4	-	

APPENDIX

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23.12.16.

Notes on Table I.

The public latrines at present are kept in order by a fatigue party under supervision of an N.C.O. of the Sanitary Section in each village.

Later, when more latrines are built, & the scheme is in proper operation, each Company will be responsible for the latrines attached to it.

Incinerators.

at present are repaired & supervised by the Sanitary Section & worked by fatigue parties.

Later, each Company will have its own incinerator & will be responsible.

Baths.

at Vignacourt.

Town Major responsible for proper working order & upkeep.

at Haours.

An Officer is in charge under the O/C Baths Kelly.

at Flesselles.

Town Major responsible.

at Raineville.

so far no one appears to be responsible.

[Signature]

TABLE II.

WATER SUPPLIES.

"T" Area.

Village.	Nature of Supply	Number of WELLS in use.	Test.	Remarks.
Vignacourt.	a. Wells. Unsafe. b. Underground tanks (unsafe) c. Supply from Canaples. (good)	5 deep wells.	1/2 measure B.P.	The Canaples supply is abundant & safe.
Flesselles.	a. Wells. b. Supply carted from Haours.	2	1/2 meas B.P.	No underground tanks in use by troops.
St Vaast.	Wells.	2	1/2 meas B.P.	No underground tanks in use.
La Chaussée.	Well.	1	1/2 meas B.P.	
Rameville.	a. Wells ^{2/3} of supply b. Underground tanks ^{1/3} of supply	2	1/2 meas B.P.	A good supply. Pump attached to deep well.
Coisy.	a. Wells. ^{1/6} of supply (unsafe) b. Underground tanks ^{5/6} of supply (questionable safety)	1	1 measure B.P.	Water supply at Coisy not safe unless boiled. Suggest obtaining supply from Allonville.
Cardonette.	From sterilising plant at Allonville (good)	Nil	Very good & safe.	Wells condemned.
Haours.	Wells.	4.	1/2 measure B.P.	
Havernas.	Wells	—	Not yet tested	To be tested at once.
Warquies.	Wells.	—	Not yet tested.	do.
Frimont.	a. well b. Water carted from Haours.	supply inadequate	Not yet tested.	Storage tanks required. Well condemned.