GPWG

GAS PIPELINE WORKING GROUP
Dampier to Bunbury Natural Gas Pipeline Corridor

Your Ref: 439/01 Vol 4
Our Ref: R0114/01v4
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The Chairman
ENVIRONMENTAL PROTECTION AUTHORITY
PO Box K822
PERTH WA 6842

Attention: John Güld

GERALDTON TO NORTH-EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR - RESPONSE TO PUBLIC SUBMISSIONS

Dear John

Enclosed is the response on the public submissions to the Strategic Environmental Review (SER) for the Geraldton to North-Eastern Goldfields Infrastructure Corridor.

Could you have a look at them and contact me if you wish to discuss any of the issues further?

Since we went out with the SER, we have had further consultation with all stakeholders and a number of issues have been raised, most of which were also communicated to you through the public submissions to the SER. In order to establish a corridor that avoids all contentious environmental issues, and that is satisfactory to all parties concerned, we have made minor adjustments to the alignment following extensive discussions with all stakeholders.

For the sake of good order, I have enclosed with this letter a summary of the locations were changes were made, and a list of reasons for the changes at each location. Also enclosed are eight maps that mark the locations were the alignment was modified.

Should you have any queries please contact me.

Yours sincerely

Nigel Goodall
HEAD OF PROJECT, GPWG
(saho0406.doc)

11 February 2003

GPWG

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The Chairman

ENVIRONMENTAL PROTECTION AUTHORITY
PO Box K822
PERTH WA 6842

Attention: John Güld

REVISED VERSION OF PROPONENT'S RESPONSE TO SUBMISSIONS FOR THE GERALDTON TO NORTH-EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR STRATEGIC ENVIRONMENTAL REVIEW

I refer to the letter dated 11th February 2003 from the Gas Pipeline Working Group (GPWG) that was sent to you in regard to the proponent's response to submissions, and the email message of 12th May 2003 from Mr Phil Bayley of Bowman Bishaw Gorham, which dealt with the provision of an amended version of the proponent's response to submissions. The GPWG, on behalf of the proponent, the Gas Pipeline Sale Steering Committee (GPSSC), wishes to provide you with a new, revised version of the proponent's response to submissions, which features additional amendments that address the concerns that you identified recently.

In addition to the hard copy of the new, revised version of the proponent's response to submissions that has been provided, digital copies will also be placed on compact disc (CD). The Environmental Protection Authority (EPA) will be provided with 150 copies of the CD and an equivalent quantity of self adhesive CD pockets, so that the CD's can be attached to the inside of the back cover of the EPA bulletins.

You should also note that the eight A3 sized maps that were provided with the original version of the proponent's response to submissions have been replaced by twenty new A4 sized maps that have been configured to facilitate black and white printing. The total number of maps has increased from eight to twenty due to the larger scale used in the new maps, and the addition of four new maps that show enlargements of the areas in Locations 1 to 4 (i.e. the circled areas) on the original version of Map 1.

The following table provides details about the twenty new maps and how they relate to the eight original maps.

File Name	New Map Name	Original Map Name
1_1_8.pdf	Map 1.1 of 8	Original Map 1 of 8
1_2_8.pdf	Map 1.2 of 8	Original Map 1 of 8
2_1_8.pdf	Map 2.1 of 8	Original Map 2 of 8
2_2_8.pdf	Map 2.2 of 8	Original Map 2 of 8
3_1_8.pdf	Map 3.1 of 8	Original Map 3 of 8
3_2_8.pdf	Map 3.2 of 8	Original Map 3 of 8
4_1_8.pdf	Map 4.1 of 8	Original Map 4 of 8
4_2_8.pdf	Map 4.2 of 8	Original Map 4 of 8
5_1_8.pdf	Map 5.1 of 8	Original Map 5 of 8
5_2_8.pdf	Map 5.2 of 8	Original Map 5 of 8
6_1_8.pdf	Map 6.1 of 8	Original Map 6 of 8
6_2_8.pdf	Map 6.2 of 8	Original Map 6 of 8
7_1_8.pdf	Map 7.1 of 8	Original Map 7 of 8
7_2_8.pdf	Map 7.2 of 8	Original Map 7 of 8
8_1_8.pdf	Map 8.1 of 8	Original Map 8 of 8
8_2_8.pdf	Map 8.2 of 8	Original Map 8 of 8
1A_8.pdf	Map 1A of 8	Original Map 1 of 8, circle 1
2A_8.pdf	Map 2A of 8	Original Map 1 of 8, circle 2
3A_8.pdf	Map 3A of 8	Original Map 1 of 8, circle 3
4A_8.pdf	Map 4A of 8	Original Map 1 of 8, circle 4

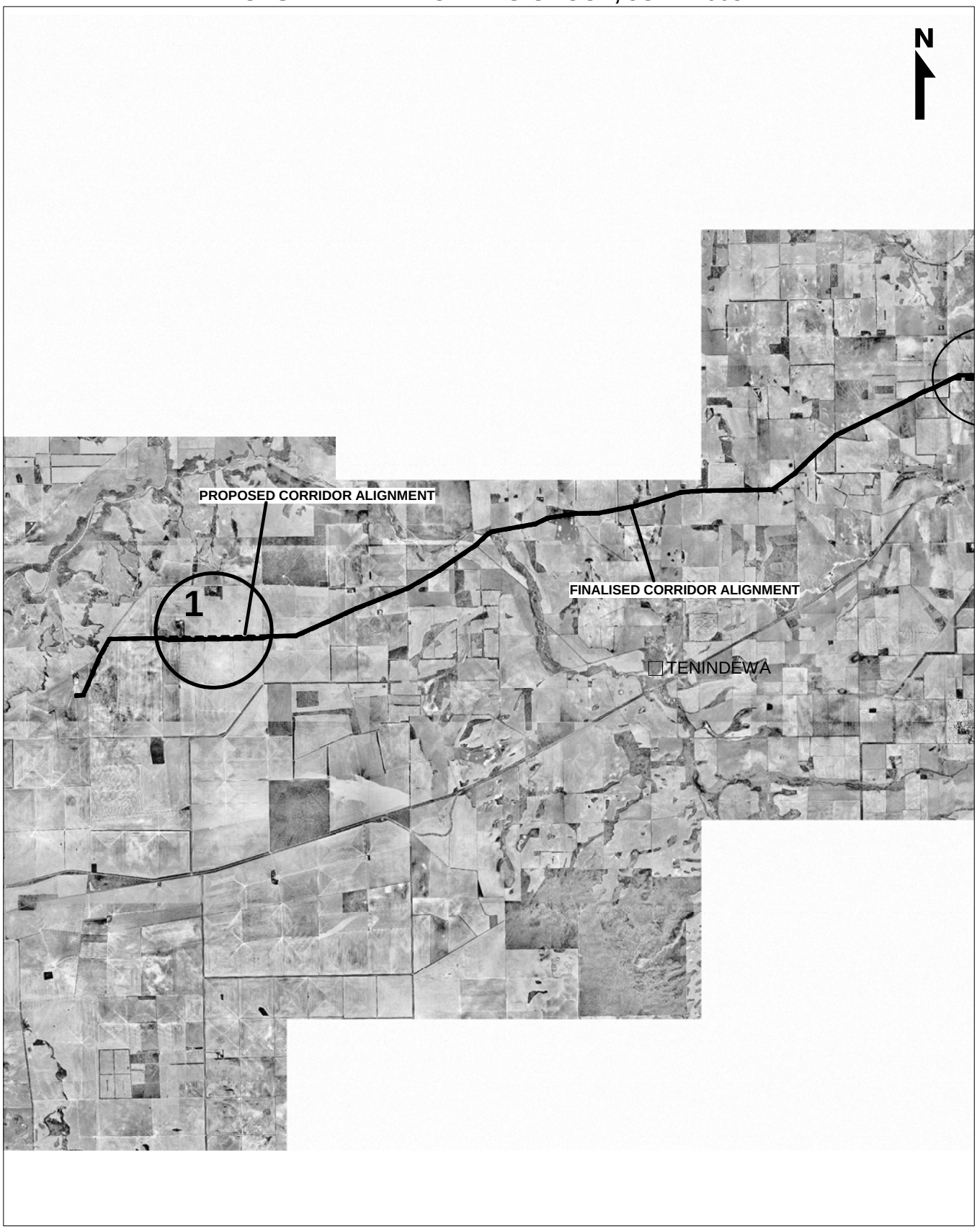
I hope this is satisfactory to you.

Yours sincerely

Nigel Goodall
HEAD OF PROJECT
GAS PIPELINE WORKING GROUP

11 August 2003

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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Department of Industry and Resources

Geological Survey of Western Australia

MAP 1.1 OF 8

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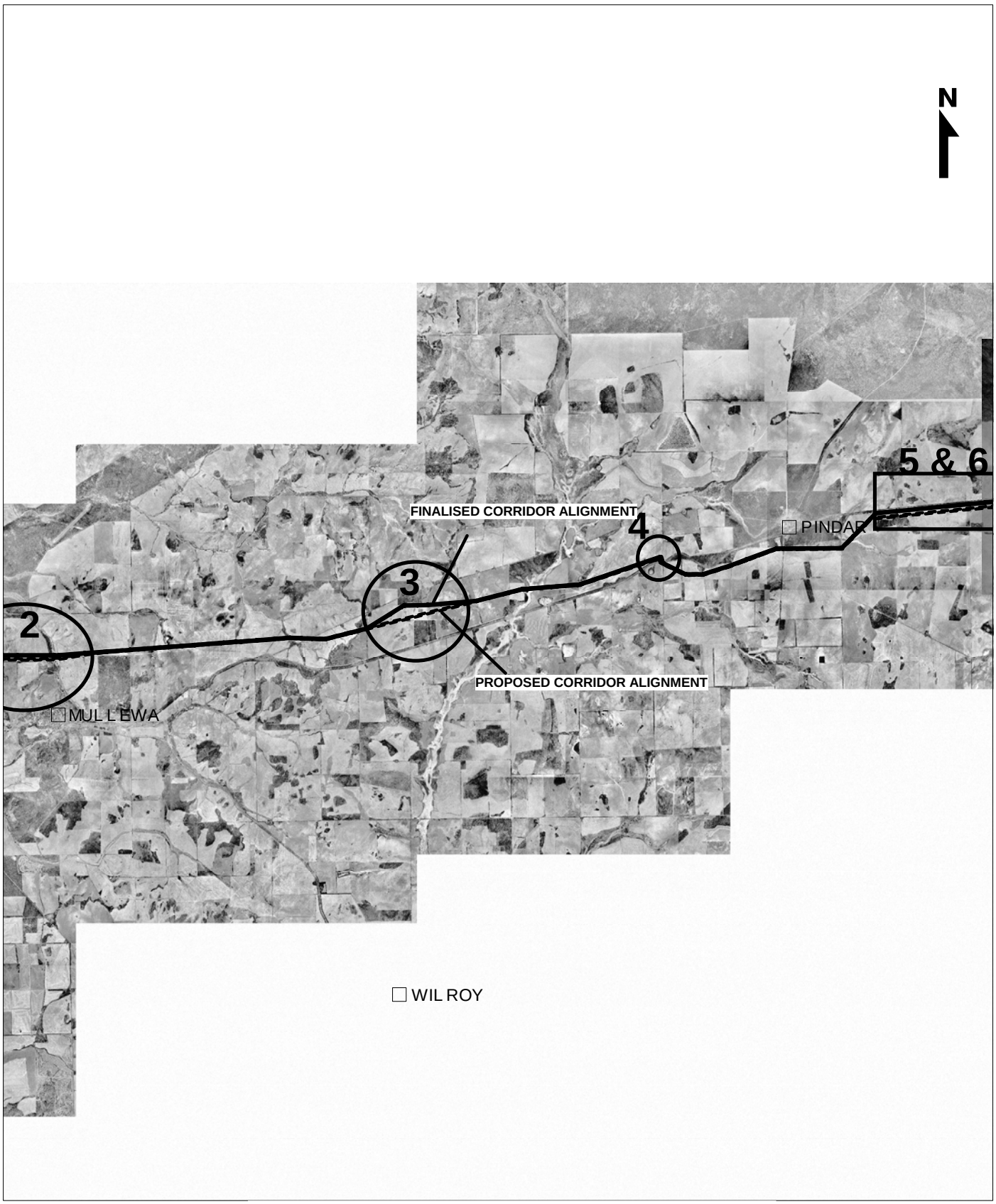
GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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Geological Survey of Western Australia

MAP 1.2 OF 8

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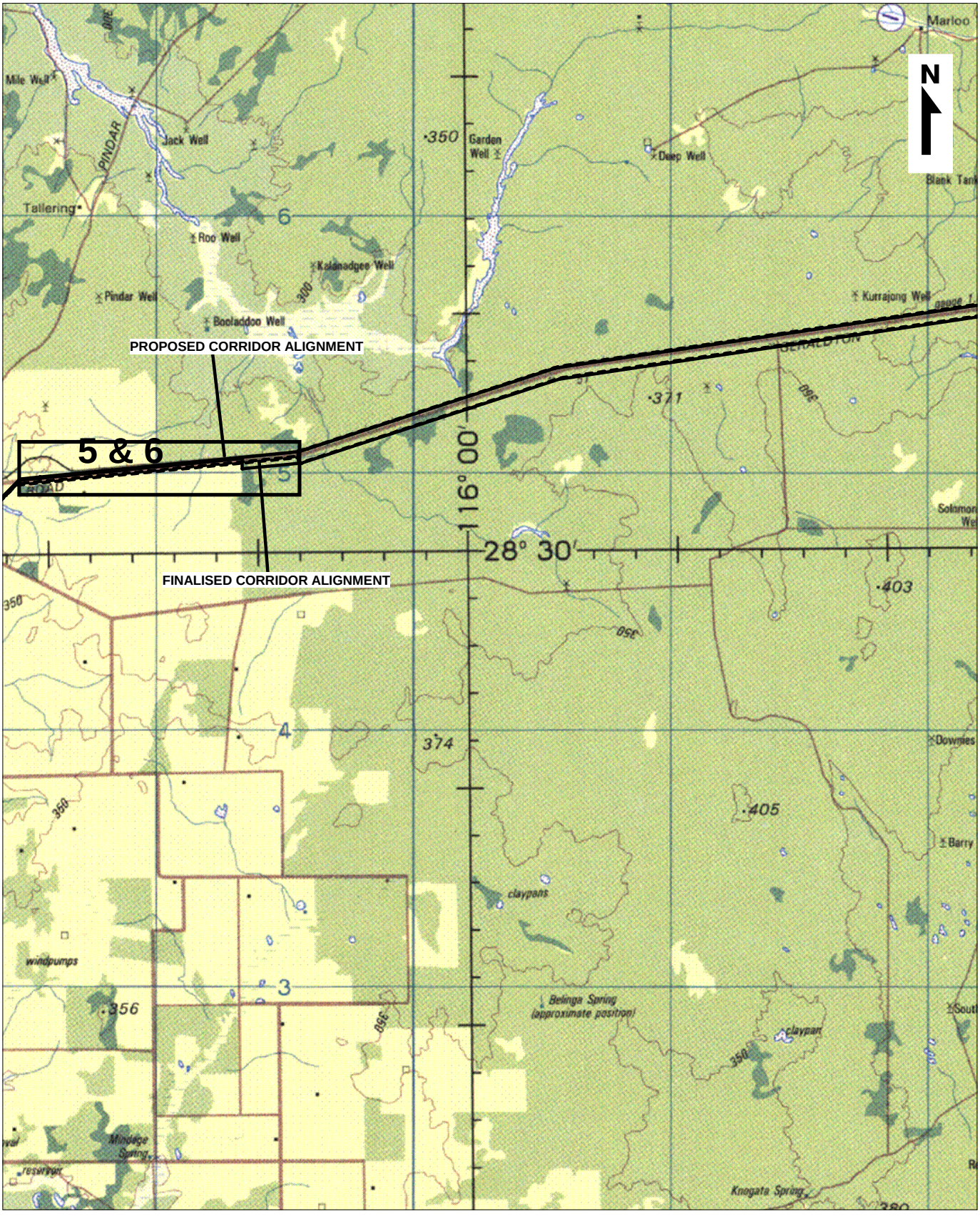
GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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MAP 2.1 OF 8

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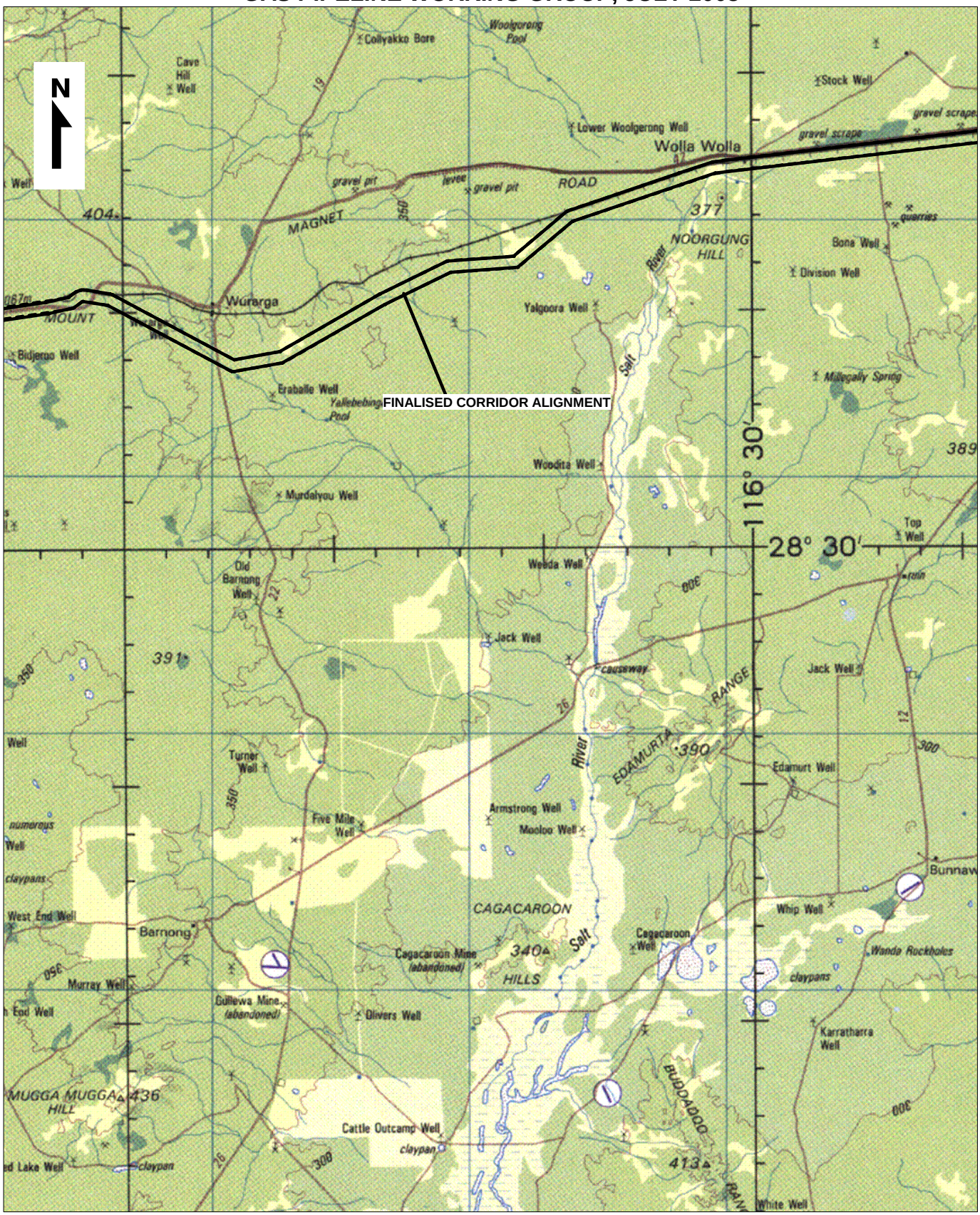
GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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Geological Survey of Western Australia

MAP 2.2 OF 8

2.2_ 8.WOR

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003

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MAP 3.1 OF 8

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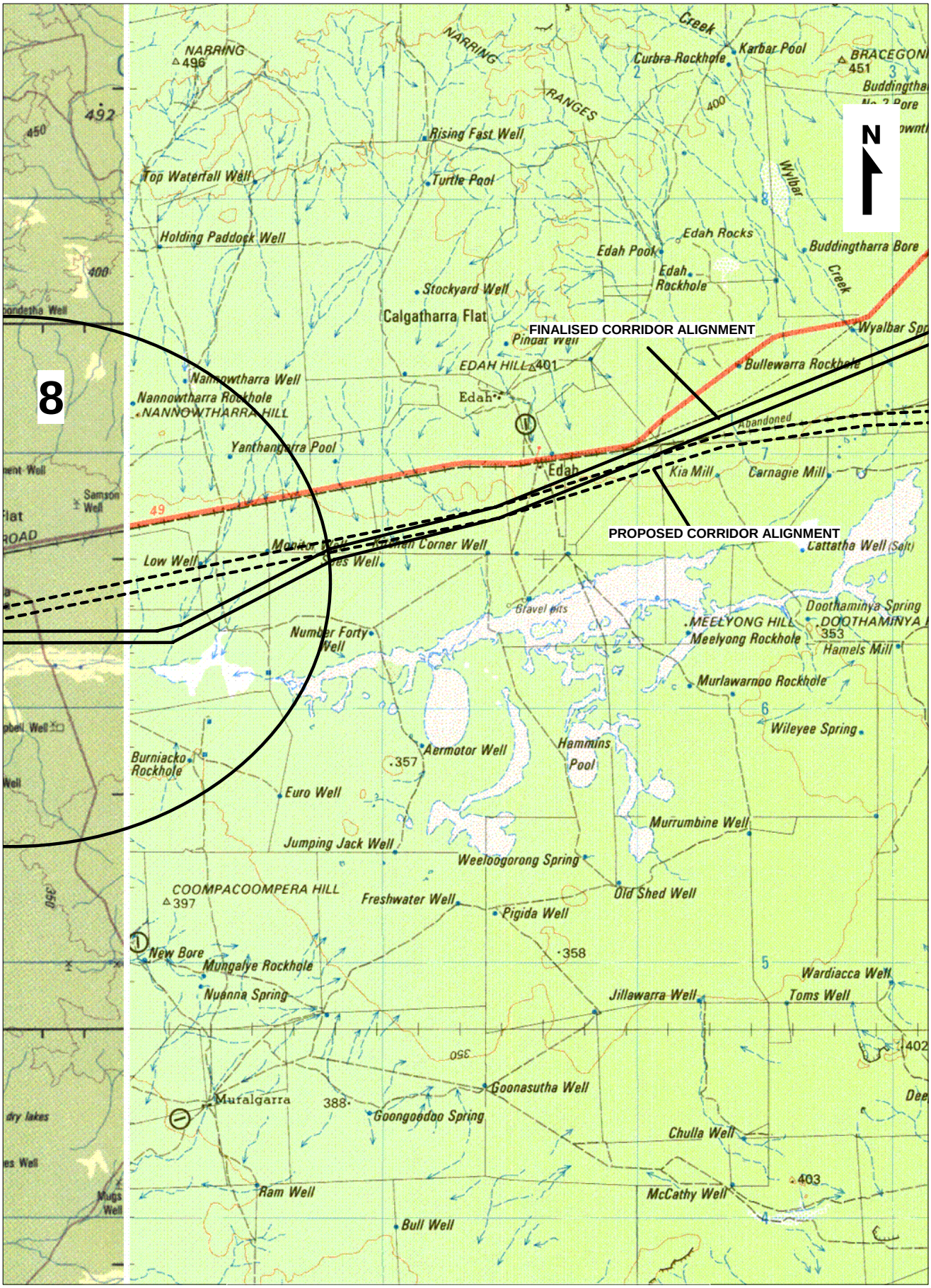
GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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MAP 3.2 OF 8

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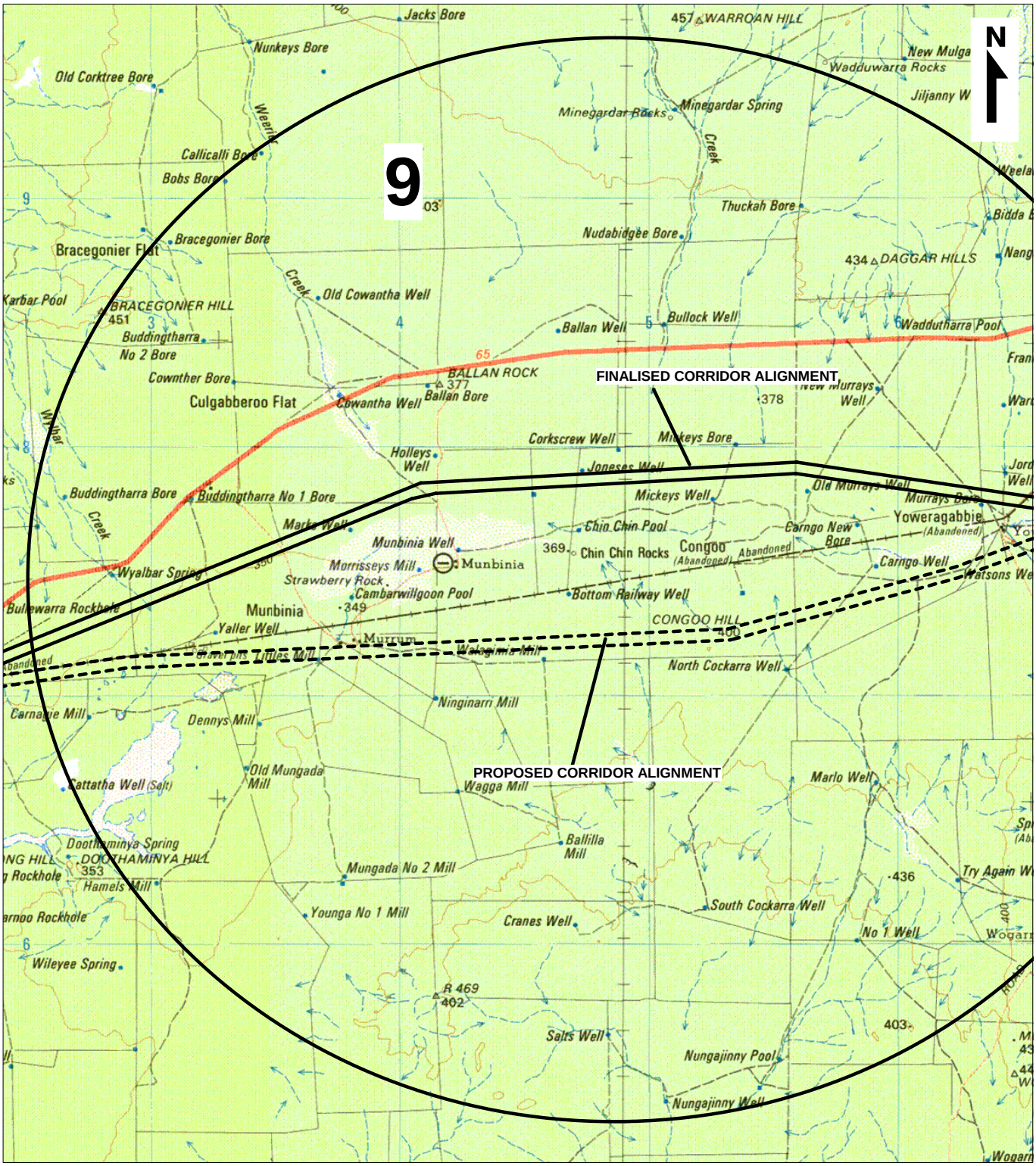
GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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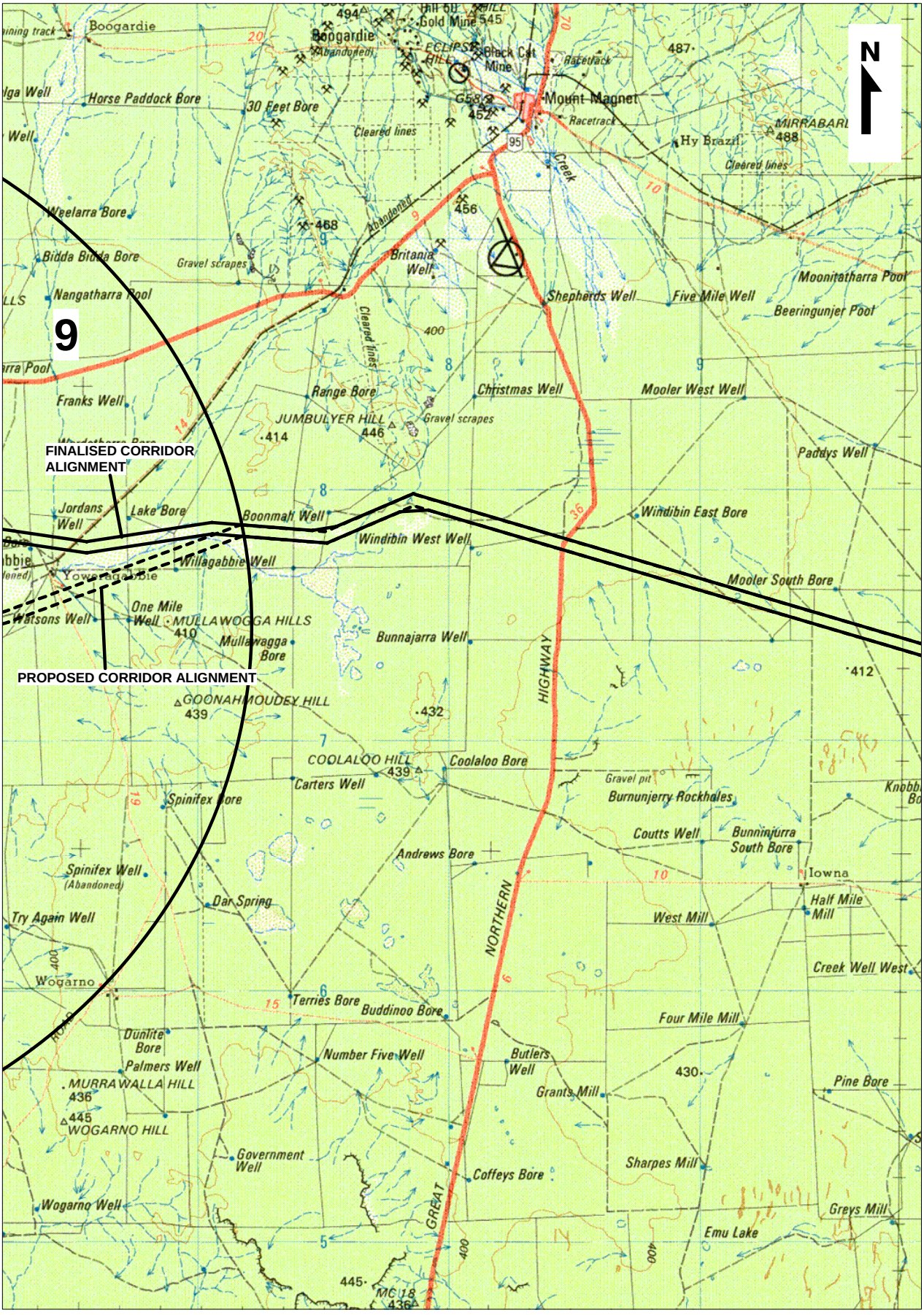
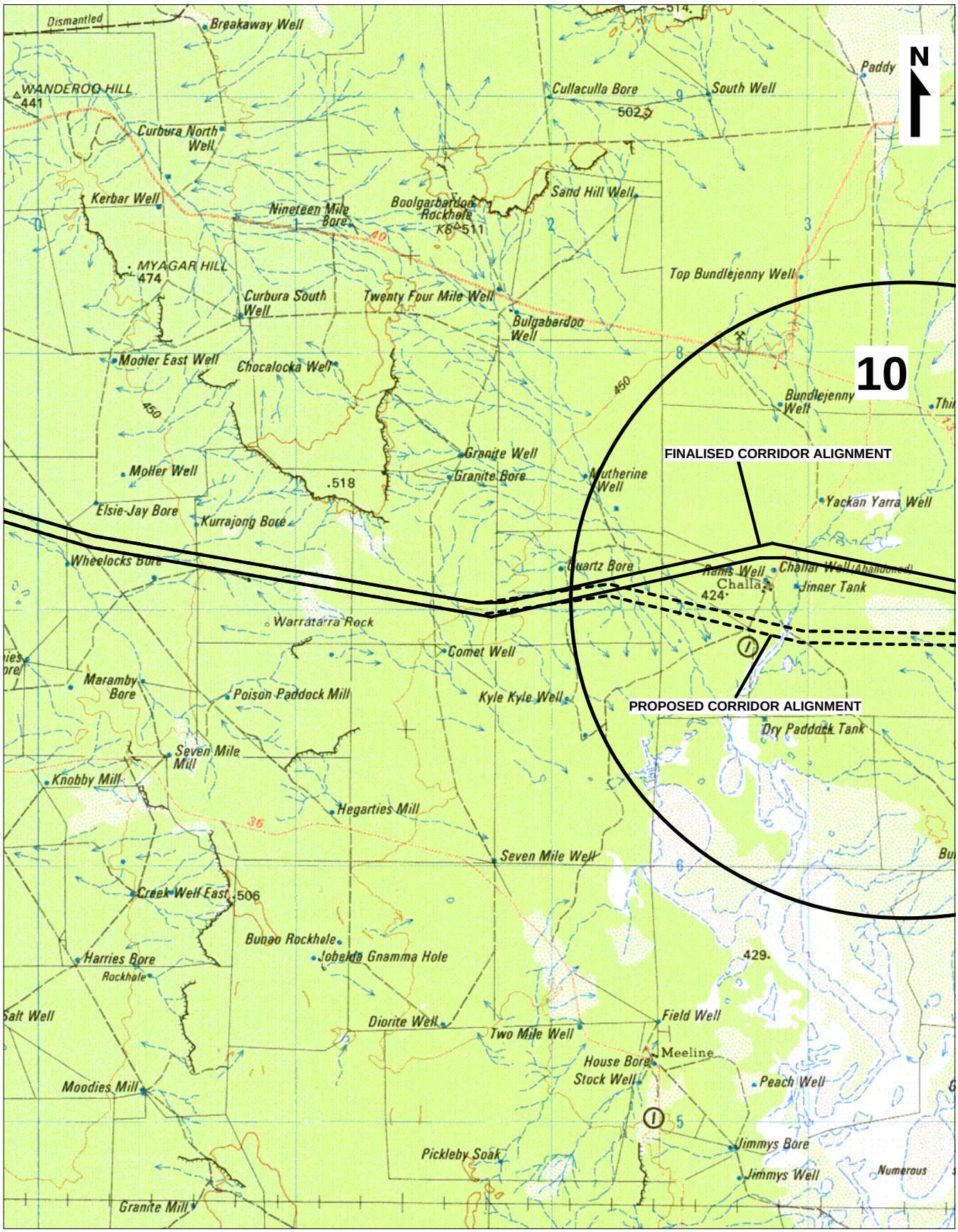


GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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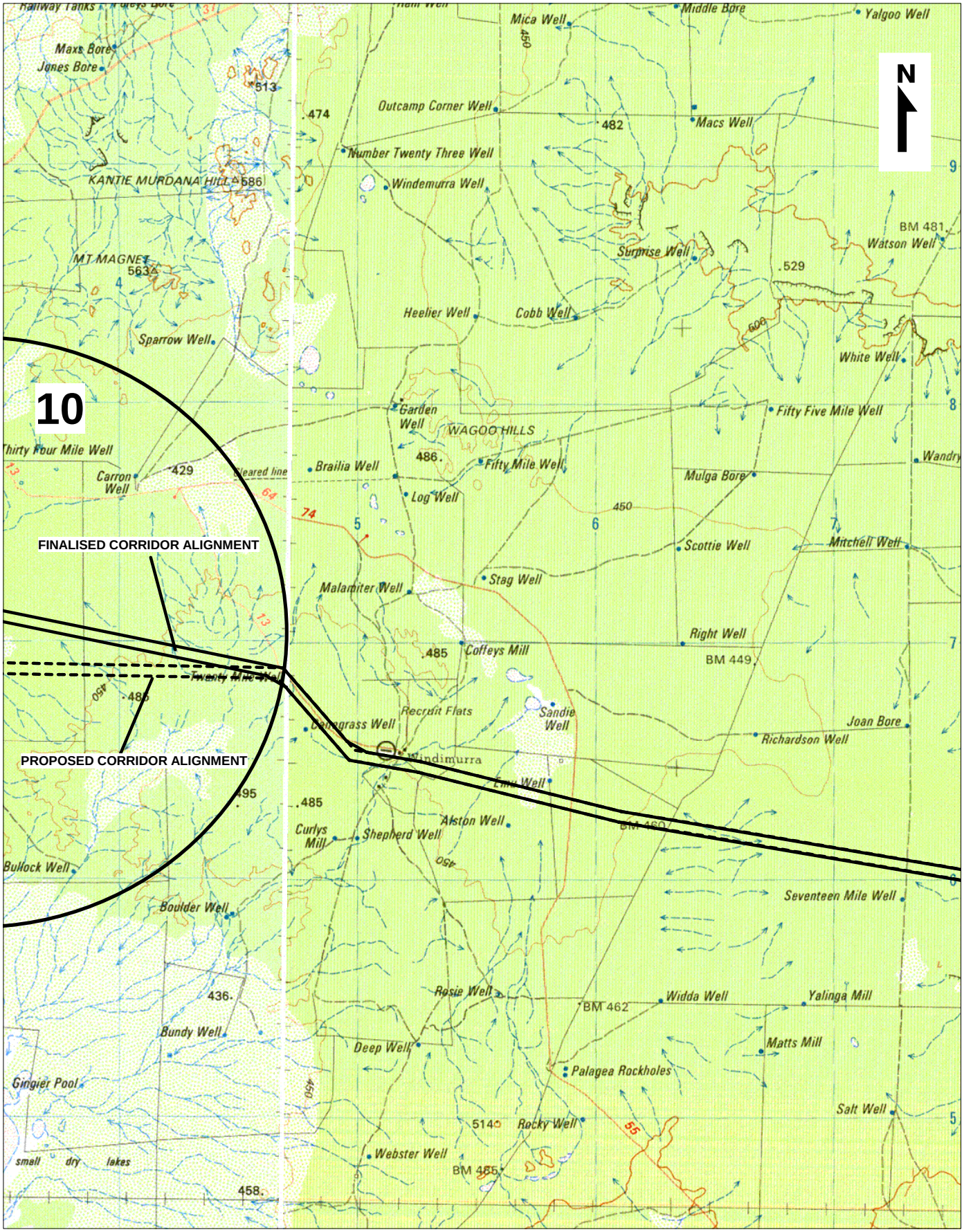
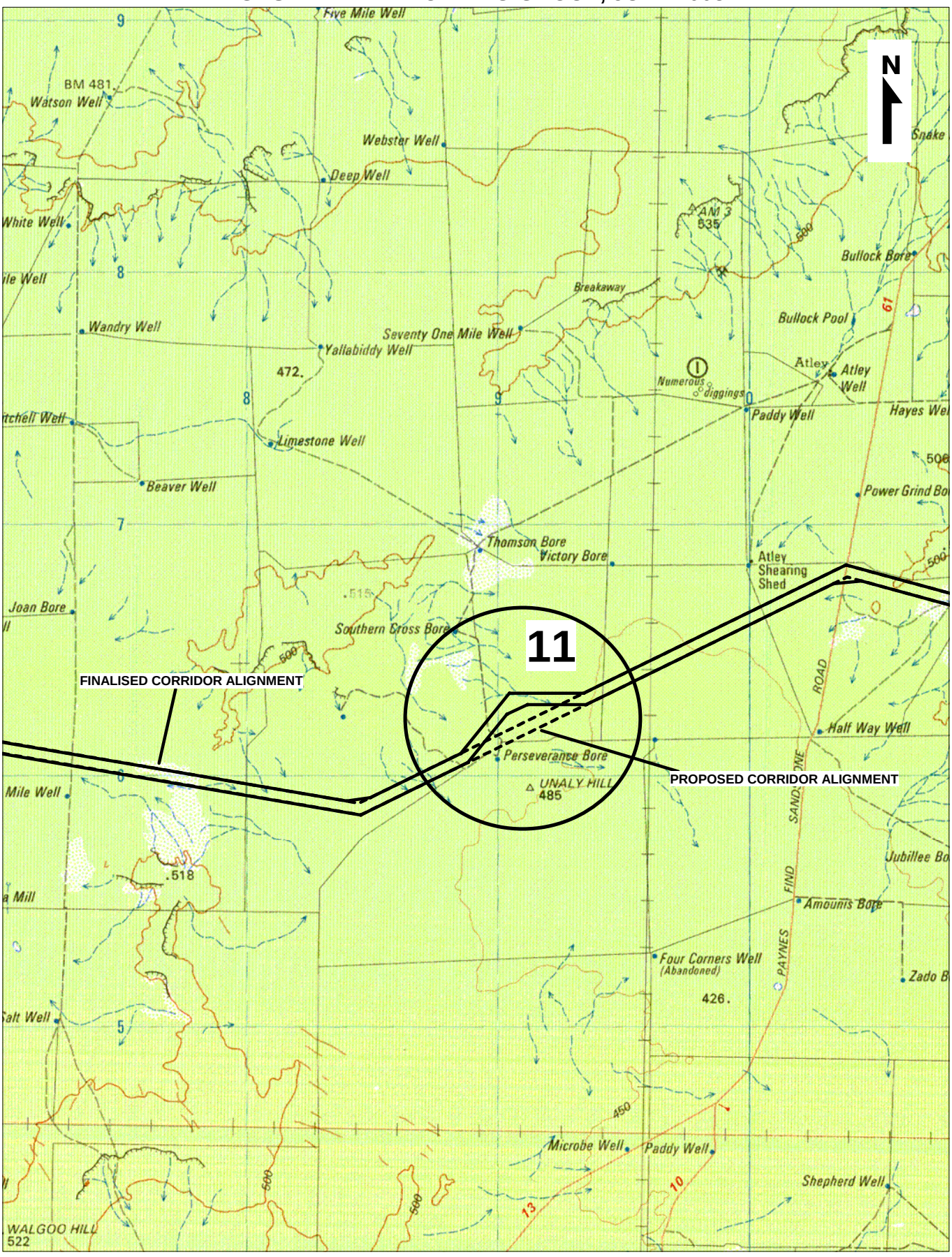
MAP 5.1 OF 8

5.1_8.wor

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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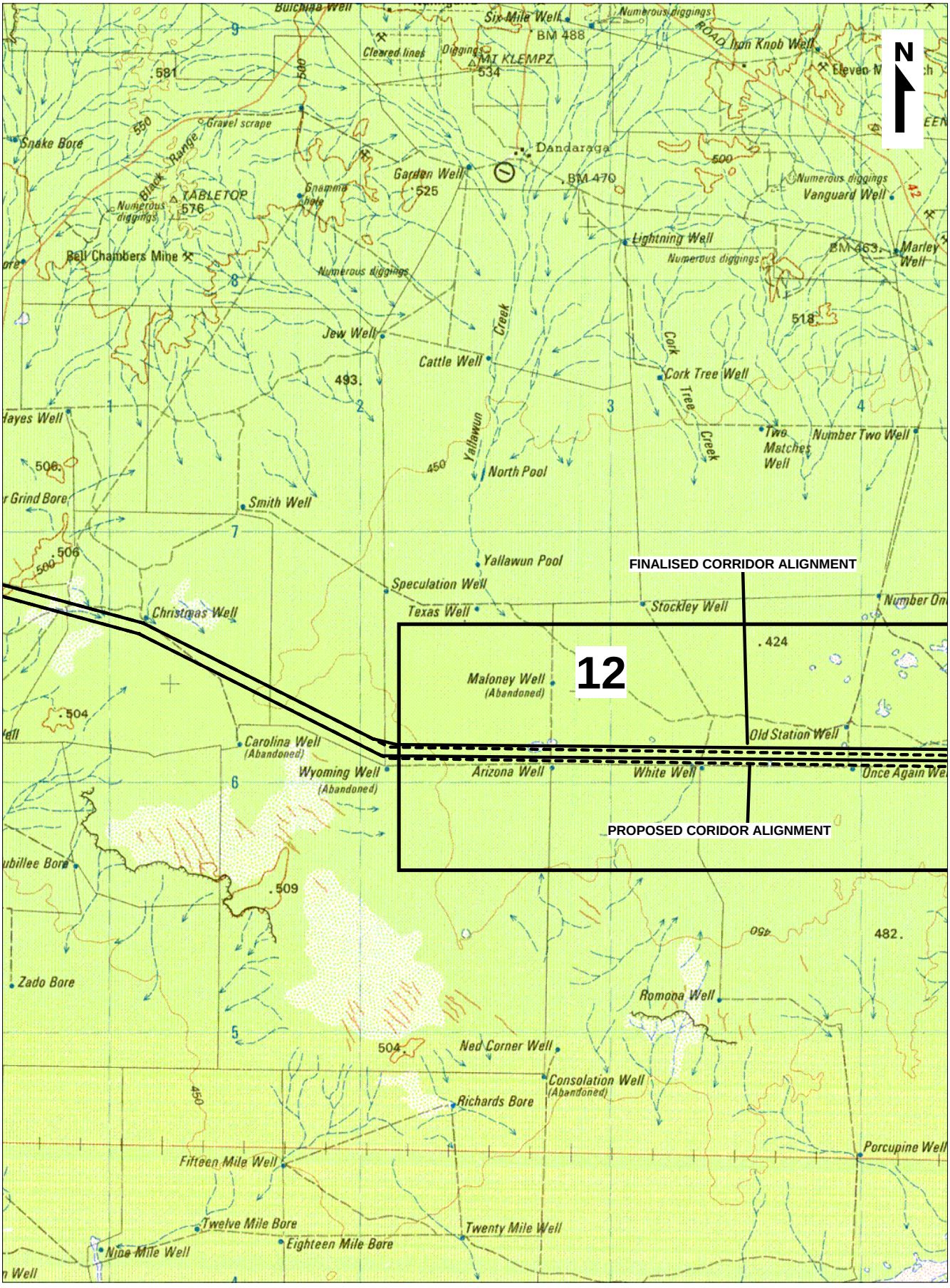
Department of Industry and Resources

Geological Survey of Western Australia

MAP 6.1 OF 8

6.1_8.wor

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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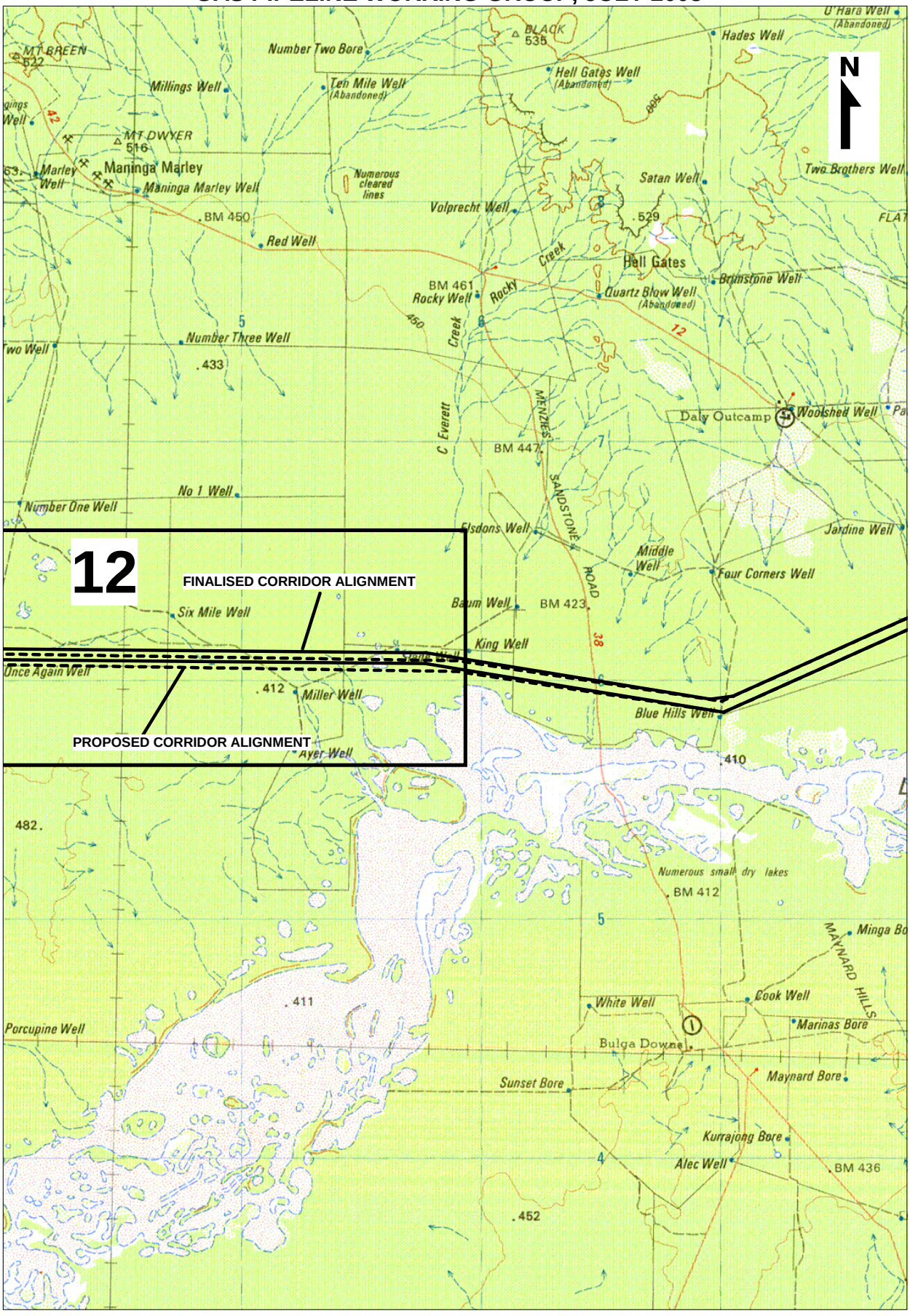
Geological Survey of Western Australia

MAP 6 .2 OF 8

6 .2 _8.wor

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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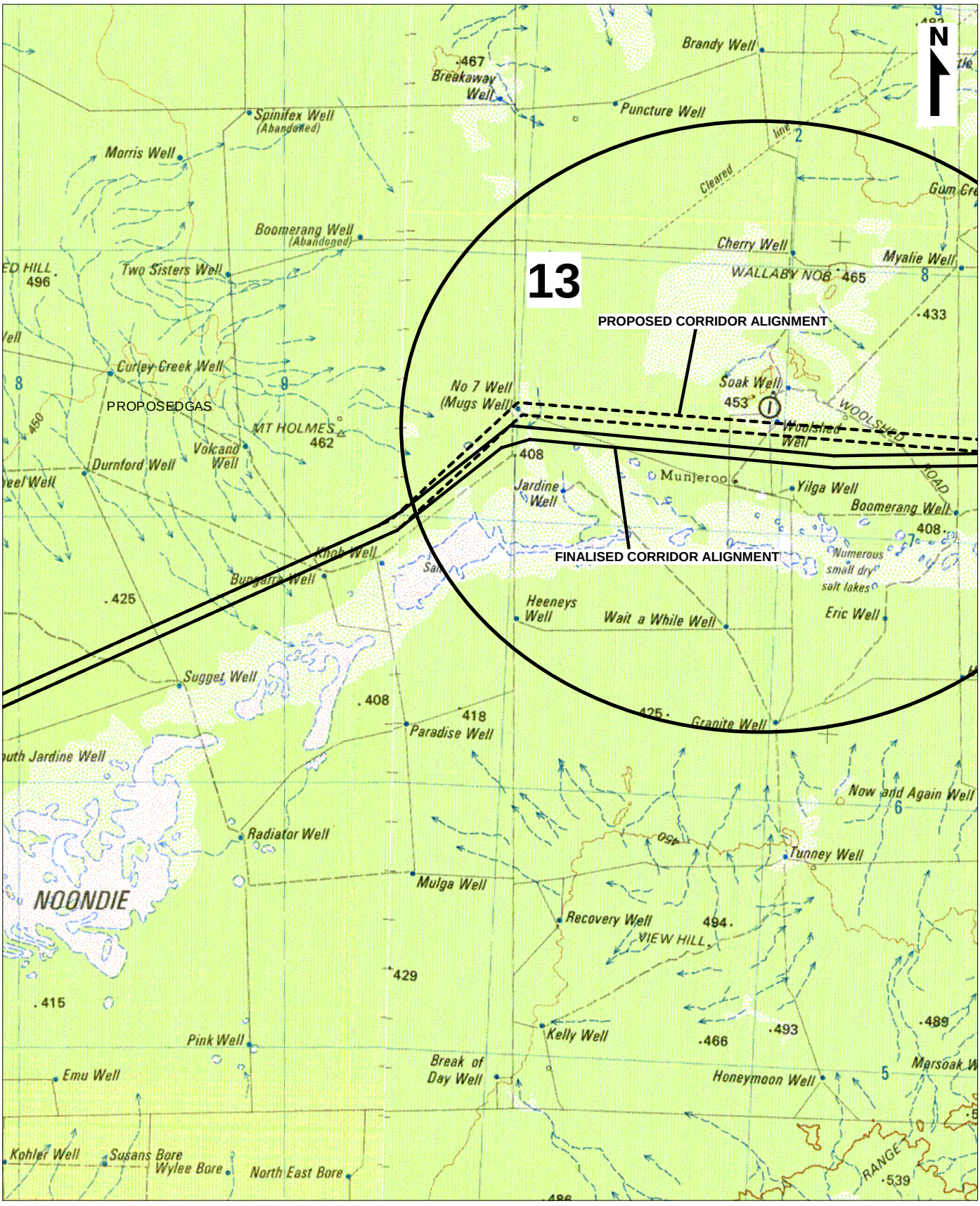
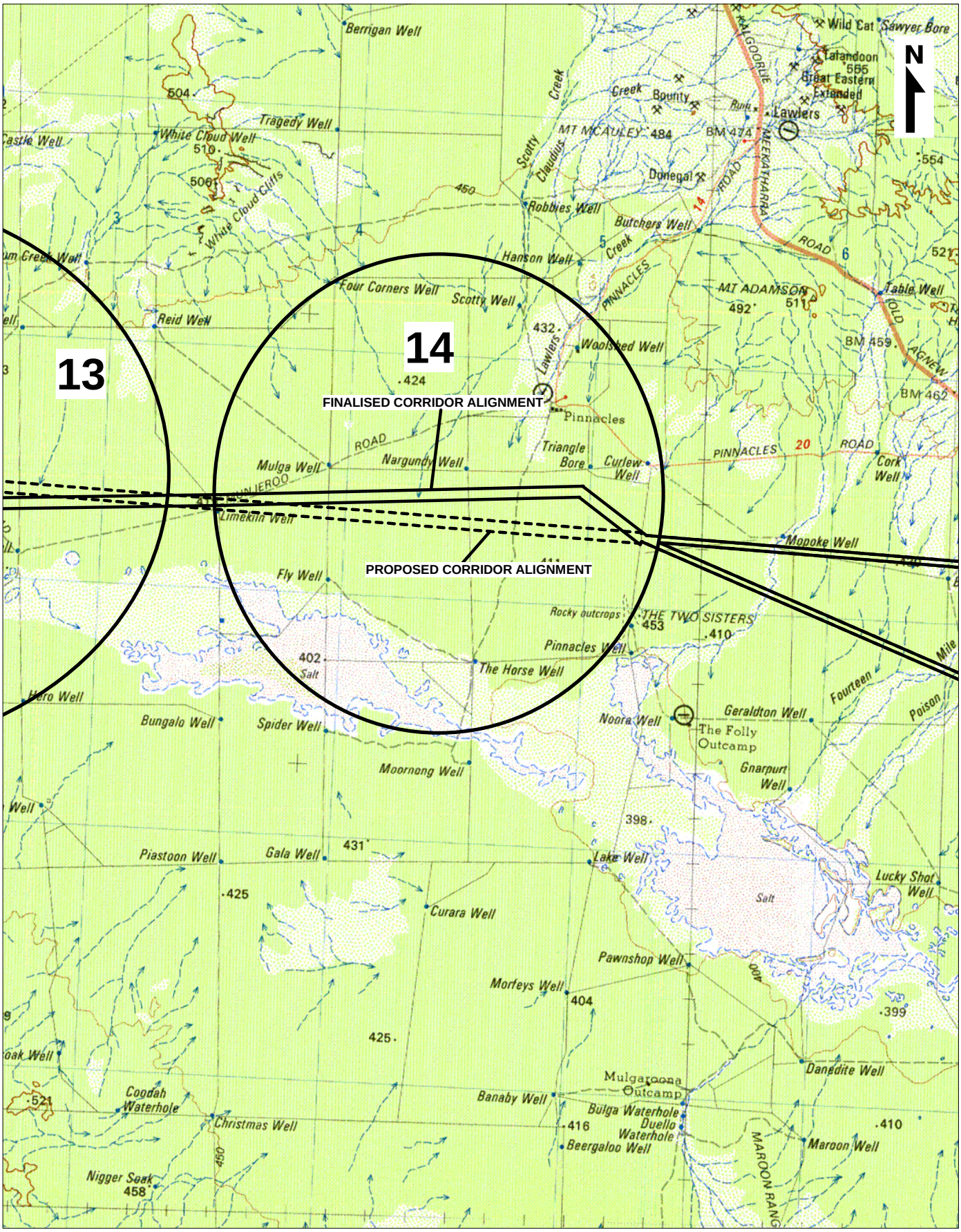
MAP 7 .1of 8

7 .1_8.wor

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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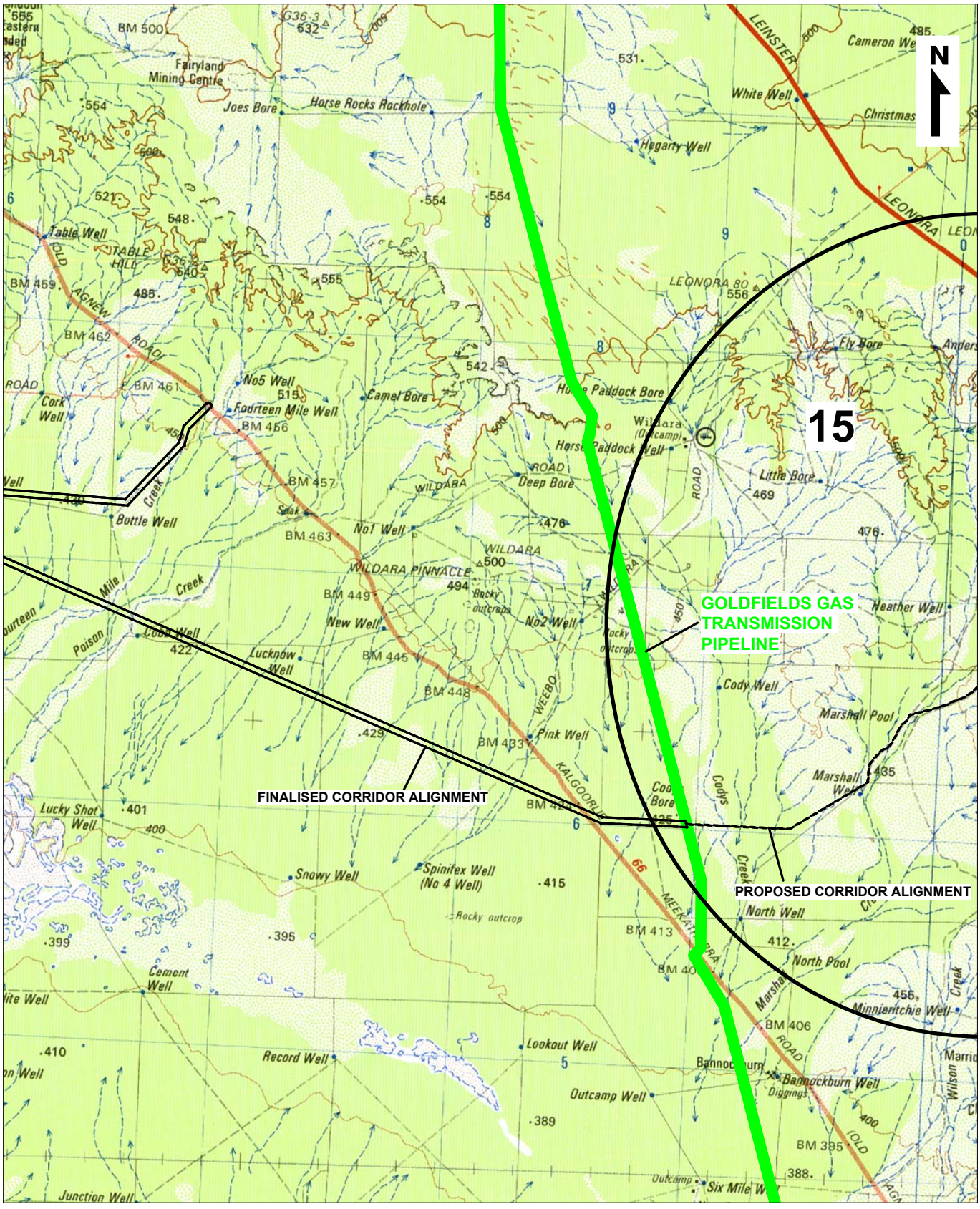
MAP 8.1 OF 8

8.1_8.WOR

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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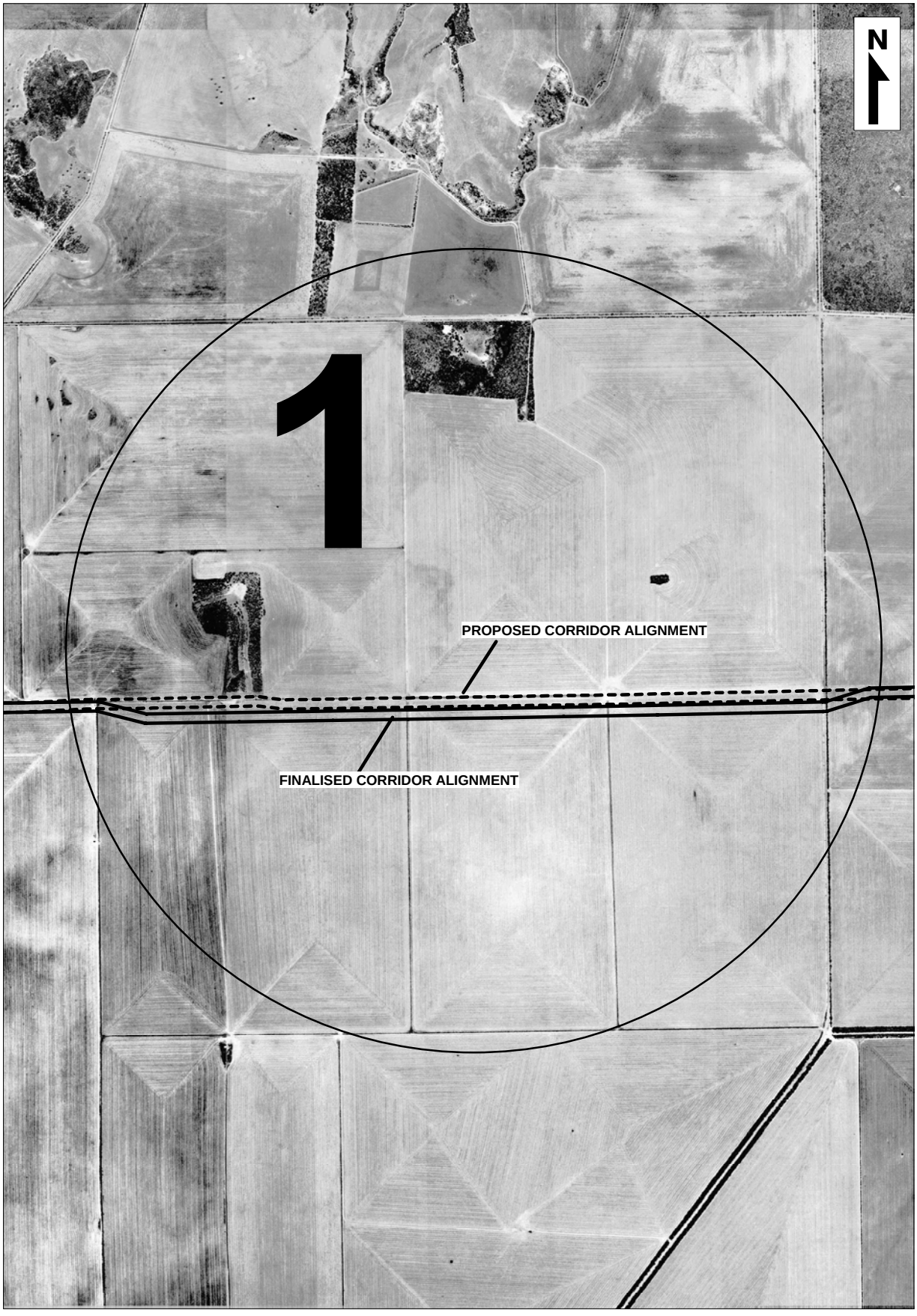
MAP 8.2 OF 8

8.2_8.wor

GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR
GAS PIPELINE WORKING GROUP, JULY 2003



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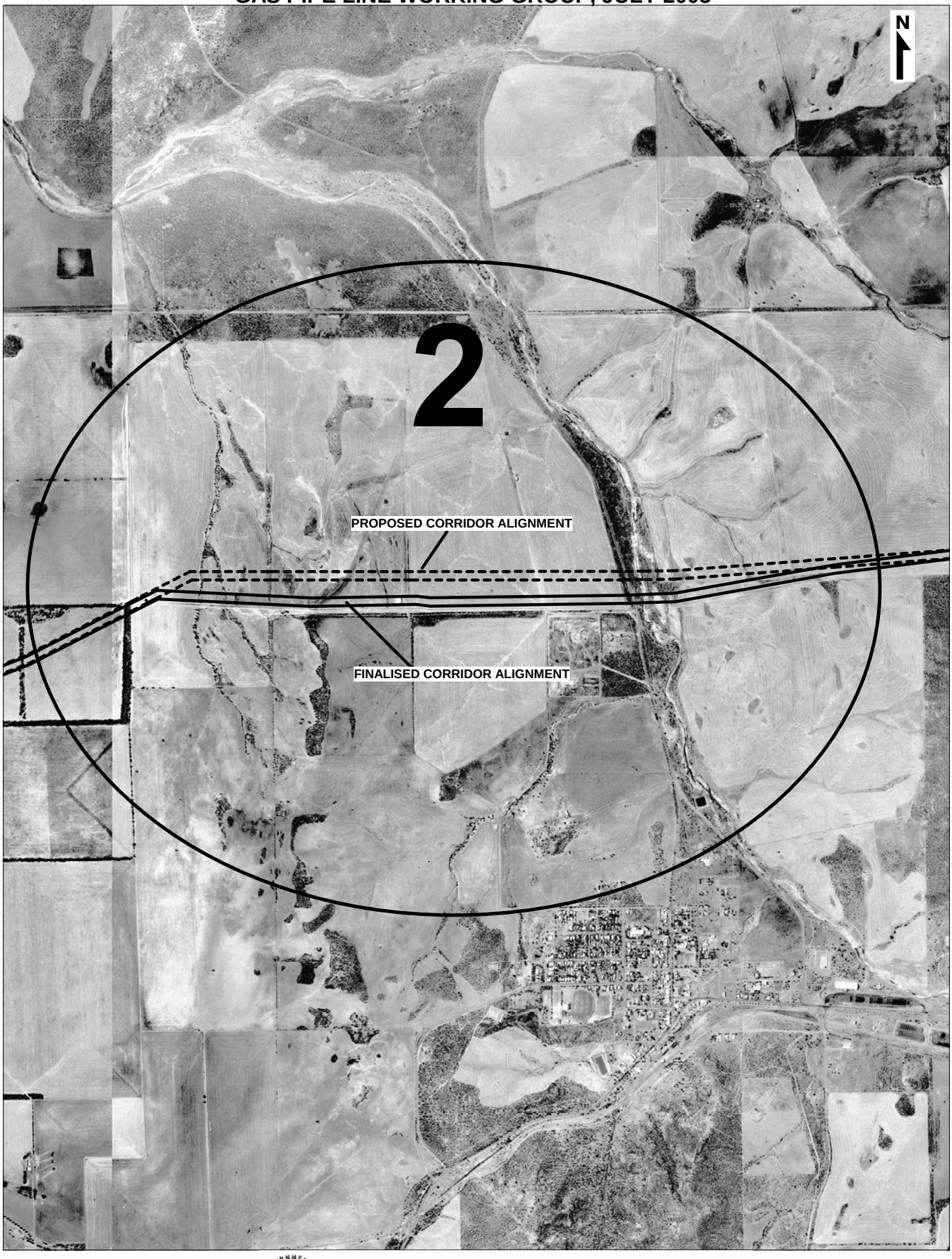
MAP 1A of 8

GERALDTON TO NORTH EASTERN GOLFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPE LINE WORKING GROUP, JULY 2003



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MAP 2A of 8

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GERALDTON TO NORTH EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003

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Department of Industry and Resources

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MAP 3A OF 8

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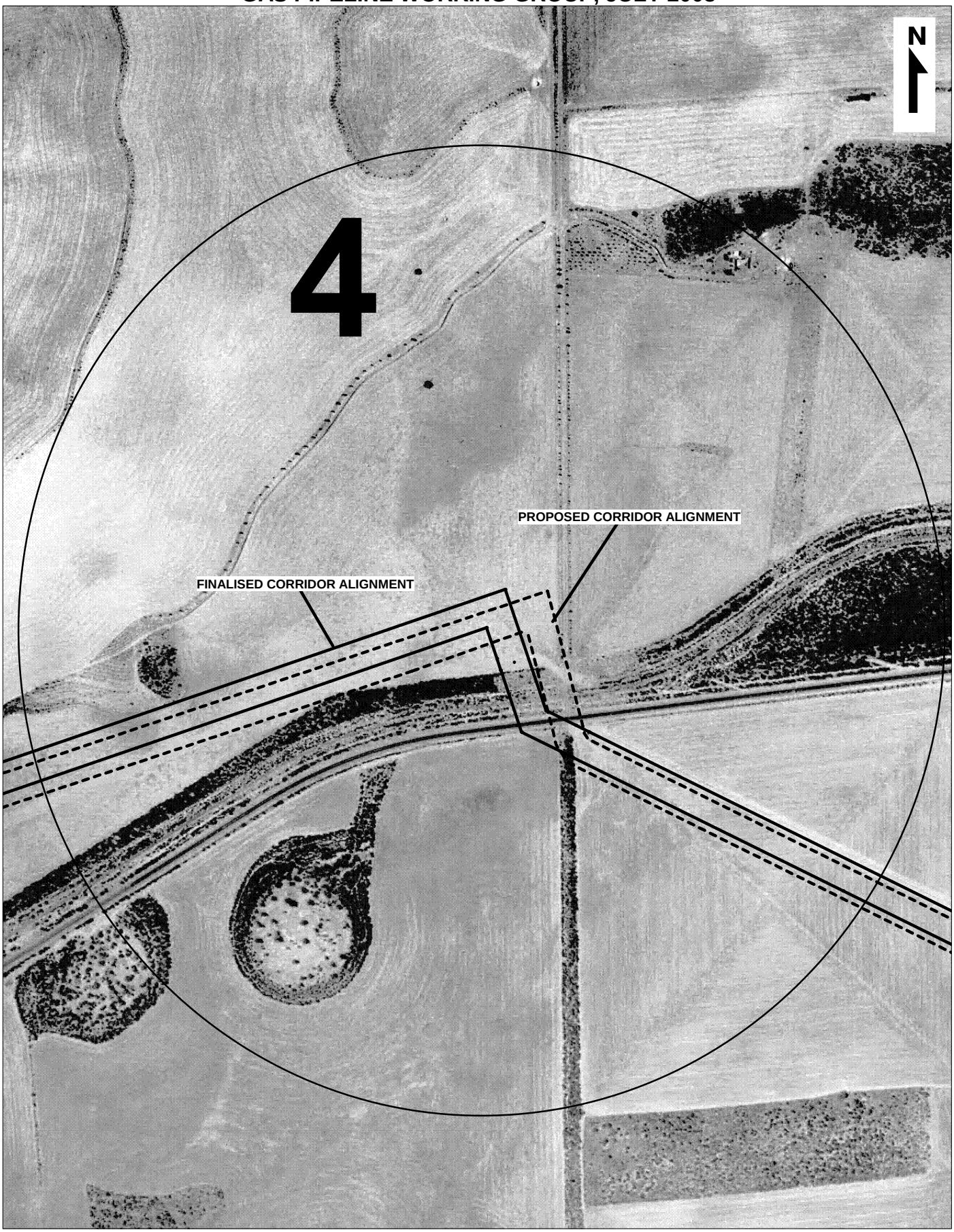
GERALDTON TO NORTH EASTERN GOLFIELDS INFRASTRUCTURE CORRIDOR, GAS PIPELINE WORKING GROUP, JULY 2003



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Department of Industry and Resources

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MAP 4 A OF 8

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GERALDTON TO NORTH-EASTERN GOLDFIELDS INFRASTRUCTURE CORRIDOR RESPONSE TO SUBMISSIONS

INTRODUCTION

The Gas Pipeline Working Group (GPWG), under direction from the Gas Pipeline Sale Steering Committee (GPSSC) and supported by the Department of Industry and Resources (DoIR), published the Strategic Environmental Review (SER) of the proposed Geraldton to North-Eastern Goldfields Infrastructure Corridor for four weeks' public review and comment in September 2002. The DEP received a total of seven submissions; including one from the Department of Conservation and Land Management (CALM), two others from Goldfields Gas Transmission Pty Ltd and the Mid West Pipelines Joint Venture (Western Power Corporation and APT Pipelines (WA) Pty Limited), and four from private individuals and/or landholders.

Whilst the GPSSC remains the proponent for the infrastructure corridor, the GPWG has prepared this Summary of Submissions and the Proponent's Response to Submissions on behalf of the GPSSC. The DEP supplied copies of the submissions (minus names and addresses of those from private individuals) to the GPWG for summarisation and response. Given the small number of submissions, no attempt was made to reorganise or categorise the issues raised. Instead, each submission is dealt with separately [except those from the Mid West Pipelines Joint Venture (Western Power Corporation and APT Pipelines (WA) Pty Limited) and Goldfields Gas Transmission Pty Ltd], with the issues raised being responded to in the order in which they appeared in each submission. In some cases, several paragraphs in a particular submission may be condensed and responded to as a single issue. This has been done to streamline the response without changing the thrust or tone of the submission.

As a result of issues raised in the submissions, the Table of Commitments from the SER has been expanded to ensure that future proponents consult with the owners and operators of the Mid West Pipeline (MWP), the Goldfields Gas Transmission (GGT) Pipeline and other infrastructure. The additional commitments are attached at the end of this document.

RESPONSES TO INDIVIDUAL SUBMISSIONS

Submissions from Western Power Corporation and Goldfields Gas Transmission Pty Ltd

The submissions from the Mid West Pipelines Joint Venture (Western Power Corporation and APT Pipelines (WA) Pty Limited) and Goldfields Gas Transmission Pty Ltd had much in common, having evidently been prepared, in part at least, from a common base. The issues they raised are therefore dealt with together in this response.

1. *Table 1.1 of the SER states that …Goldfields Gas Transmission Pty Ltd (GGT) was consulted regarding the issue of route selection. To date, GGT have not been consulted in any way regarding the proposed Infrastructure Corridor, and therefore Table 1.1 of the SER is misleading and inaccurate. It should also be noted that the GGT operator, Agility Management Pty Ltd, was not consulted.*

Response: Previous project reports have been provided to stakeholders, including CMS and AGL, and this is what is referred to in the SER. Further consultation with the operator, Agility Management Pty Ltd, as well as the owners GGT and Western Power Corporation, has occurred since the response to the SER and is continuing.

2. *Figure 2h of the SER shows that the proposed route for the Infrastructure Corridor crosses the GGT Pipeline easement. GGT would prefer that the Infrastructure Corridor did not cross the pipeline easement and that an Access Agreement be reached between the GGT and the State Government for access to the GGT Pipeline easement. This Access Agreement would ensure that the safety and integrity of the GGT Pipeline was maintained in accordance with PL24 and the Agreement Act.*

Response: It is not possible to avoid crossing the GGT pipeline as this pipeline runs in a north-south direction and the end point of the east-west infrastructure corridor lies to the east of the GGT pipeline. The SER commitments have been expanded to include a requirement for proponents to continue consultation with GGT to ensure that all necessary agreements for access to the GGT corridor will be established (see Attachment 1).

3. *Should the infrastructure corridor be located in the vicinity of the GGT Pipeline easement it is essential that GGT be consulted regarding proposed activities within the infrastructure corridor.*

Response: GGT's concerns are noted. The SER commitments have been expanded to require that individual proponents consult with GGT and other owners/operators of nearby infrastructure (see Attachment 1).

4. *Reference should be made to the hazards caused to gas pipelines by low frequency and fault current induction from adjacent power lines, which has the potential to damage gas pipeline cathodic protection equipment.*

Response: The potential effect on gas pipelines from electromagnetic fields (EMF) is acknowledged. This issue will be addressed during the detailed design phase of the project and the necessary steps will be taken to ensure that the pipeline is protected. The corridor width has been chosen so that sufficient separation can be maintained between power lines and gas pipelines within or outside the corridor. The location of infrastructure within the corridor will be such that risks to the integrity of the gas pipeline from EMF will be minimal.

5. *Appendix B in AS2885.1 1997 provides additional information on hazards to pipelines from EMF, and contains a reference to AC electrified railways posing potential hazards to buried gas pipelines.*

Response: As with power lines, any issues regarding railway development will be addressed during detailed design of the project, if and when a railway is proposed.

6. *The requirements of the Goldfields Gas Pipeline Agreement Act 1994 should be taken into consideration during assessment of the infrastructure corridor (Section 1.6.1 of the SER).*

Response: The omission of this Act is acknowledged and it is agreed that the requirements of this Act require consideration during the assessment process.

7. *Latest issues of AS2885 are as follows: Part 1 - Design and Construction AS2885.1-1997; Part 2 – Welding AS2885.2-1997; Part 3 – Operations and Maintenance AS2885.3-2001.*

Response: This comment is noted.

8. *AS2885 does not reference AS2187.2 1993. More relevant information on the hazards to adjacent gas pipelines is available in the "Goldfields Gas Pipeline Project Blast Study" by CMPS&F, December 1994 [Explosives Use Near the Mid West Pipelines]. This document also references reports widely accepted by the pipeline industry as being the most applicable to pipeline response to buried explosive detonations.*

Response: The discussion of blasting hazards in Section 6.1.4 of the SER was based on direct reference to Australian Standard AS2885.1-1997 Part 1 - Design and Construction, which in turn refers to AS2187.2. Section 6.13.1 (p.69) of AS2885.1 states: "...Blasting shall be carried out in a safe manner and in accordance with AS2187.2 and regulatory requirements".

AS2885.1 is considered a more valid reference in the current case than the CMPS&F report referred to by the GGT submission. The CMPS&F report relates to gas pipelines near mine sites and deals only with vibration from explosive charges of 500kg or greater, which is greatly in excess of the small charges (probably a few kilograms or less) required to break rocks in a trench a metre wide.

Section 6.1.4 of the SER states that proponents will be required to conduct a full risk assessment for the pipeline(s) in accordance with AS2885 prior to construction. The risk to the pipeline(s) from blasting activities would be fully addressed at that time using current industry standards and practices. A commitment that controlled blasting will be required when installing infrastructure in the corridor has been added to the SER commitments, while another new commitment will ensure that future proponents consult with GGT and the Mid West Pipeline JV (see Attachment 1).

9. *In Section 2.1 of the SER, the reference to the "Goldfields Transmission Pipeline" is incorrect. It should read "Goldfields Gas Transmission Pipeline".*

Response: Noted.

10. *In Table 7.1 of the SER, "Whose Advice" under point 8 (Erosion) should include the GGT and the MWP pipeline operators where the corridor is near the GGT Pipeline or the MWP to ensure landform management is compatible with that already established on the GGT Pipeline easement or the MWP Right of Way.*

Response: Only regulatory or policy-making authorities are nominated as providing advice on the project, in accordance with Department of Environmental Protection (DEP) requirements. The GGT and MWP operators will, however, be consulted and their comments will be taken into account.

11. *The Mid West Pipeline (MWP) Operating Authority has specific obligations under its pipeline licence and insurance policies to be proactive in ensuring that the level of risk to the integrity of the MWP from third party activities in the corridor is managed. We would therefore like to see the SER give more emphasis to the obligation of proponents to closely consult and co-operate with the MWP operator in the management of risk to the MWP.*

Response: These comments are noted. The SER commitments have been expanded (see Attachment 1) to require individual infrastructure proponents to consult with the MWP operator and other stakeholders during the detailed design, construction and operation phases.

12. *Table 1.1 of the SER indicates that Western Power was consulted regarding route selection, however this consultation did not extend to the MWP Joint Venture or the MWP Operator, Agility Management Pty Ltd.*

Response: Consultation has been expanded to include representatives nominated by MWP.

13. *In Section 2.1 of the SER, the reference to the "Midwest (AGL) Pipeline" is incorrect. It should read "Mid West Pipeline (owned by Western Power Corporation and APT Pipelines (WA) Pty Limited).*

Response: This comment is noted.

14. *In Table 7.1 of the SER, the "Action" under Item 15 (Vibration) must include the GGT or MWP Operators if blasting activities are to occur within 500m of the GGT Pipeline or the MWP.*

Response: The SER commitments have been expanded (see Attachment 1) to require individual proponents to consult the MWP and/or GGT operator prior to the

commencement of any construction activities to ensure that there are no impacts on the MWP or the GGT pipeline.

15. *With reference to Table 7.1 of the SER, all risk assessments under Item 16 should include the GGT or MWP Operator where the corridor closely parallels the MWP or is near the GGT easement.*

Response: Agreed. See response to Issue 14.

16. *In Table 7.1 of the SER, the "Objective" of Item 18 must also consider the effect of induced currents on existing pipelines. The GGT and MWP Operators should be consulted on this issue where the corridor parallels the MWP or is near the GGT Pipeline.*

The GPWG will require proponents of power transmission lines within the corridor to consider induced current effects not only on the MWP and GGT pipeline, but also on the proposed gas pipeline within the infrastructure corridor. It should be noted that the corridor width is sufficient to enable power lines to be positioned far enough from gas pipelines to avoid any expected impacts due to induction.

See response to Question 24 regarding consultation.

17. *The GGT and MWP owners and operators should be specifically mentioned as a part in the consultation process (Table 7.1, Items 22 & 23 – Consultation with Stakeholders).*

Response: All owners and operators of existing infrastructure that could be affected by the corridor will be included in the ongoing consultation process. The SER Commitments have been expanded to specifically include the MWP and GGT owners and operators in ongoing consultations (see Attachment 1).

18. *Figure 2a of the SER shows two corridor crossings of the MWP easement. These crossings are of considerable concern to MWP and we would prefer that they be avoided. What are the reasons for the crossings and under what legislation will they be undertaken? There will be critical legal, commercial, compensation, safety and environmental management aspects to be negotiated with the DMPR [now*

Department of Industry and Resources, DoIR], MWPJV, landowners and other stakeholders before the crossings can be finalised.

Response: The first crossing of the MWP was made on the advice of the DEP to avoid significant vegetation in the vicinity of Mullewa. The second crossing of the MWP was required to place the corridor back to the south of the existing pipeline and to avoid the township of Pindar and further areas of significant vegetation to the north. It should be noted that at these crossing points there will only be a gas pipeline within the corridor so the impact of its crossing of the MWP will be minimal. The option of deviating the corridor to the south of Mullewa was considered but rejected due to the presence of town infrastructure and dense vegetation extending to over 10km south of Mullewa.

The legal, commercial and management issues relating to corridor crossings and other matters will be addressed in consultation with the other parties at an appropriate time and in the appropriate forum. The current environmental assessment process, of which the SER is a part, is not intended to resolve these matters, but to gain in-principle endorsement of the **environmental** acceptability of the route.

Submission from CALM

19. *CALM previously provided comments on the Route Selection Report undertaken by Worley in February 2001 for the East West General Infrastructure Corridor. In this report, a route that followed the Sandstone Road was previously identified. This route, which was preferred by CALM as it satisfied a number of objectives in relation to impacts to the environment and benefits to the community, has not been considered at all in the SER. Instead, the SER focuses in considerable detail on the preferred Worley route and appears to summarily dismiss the Sandstone Road option.*

The preferred option for the corridor route clearly fails to address concerns previously raised by CALM over the Worley report, and appears to have the potential to duplicate the disturbance to road infrastructure with subsequent increase in biodiversity impacts. Furthermore, the social opportunities of adapting the Sandstone Road alignment for towns such as Sandstone do not appear to have been addressed in the SER.

Response: The Geraldton to North-Eastern Goldfields Infrastructure Corridor was initiated in response to conclusions drawn from several mineral province studies that were carried out jointly by the Federal and State governments, in conjunction with industry, between 1996 and 2001. Those studies identified major areas of prospectivity, including the Laverton area and the country between Leinster and Mount Keith.

The studies further concluded that the Laverton area could be best serviced by north-south infrastructure linking the area to Kalgoorlie and Esperance, while the Leinster - Mount Keith area would be more economically serviced by an east-west corridor to Geraldton.

The engineering feasibility study carried out by Worley identified the optimum route to the Leinster area in terms of distance, engineering and cost. Subsequently, as a result of additional studies to gain the necessary statutory clearances, and consultation with all stakeholders, the route has been substantially refined.

The Sandstone route has a number of disadvantages, which saw it excluded from consideration as a preferred route in both the Worley report and the SER. These include the presence of large areas of Aboriginal significance and a number of mining tenements with significant resource potential around Sandstone, making the identification of a route difficult. The Sandstone route is also approximately 110km longer than the preferred route, which represents significant cost penalties for infrastructure construction and operation.

20. *The preferred route passes through Windimurra pastoral lease and the south west quarter of Dandaraga pastoral lease, and both leases or at least parts thereof are presently being evaluated as possible additions to the conservation estate.*

Both the Perth and regional CALM offices were consulted during the preparation of the SER, including specific requests for information on CALM estate areas or other features that might be affected by the corridor. None of the responses received from CALM mentioned either of these properties as potential future nature reserves. However, should CALM wish to provide additional information regarding the location of these proposed reserves the GPWG will be happy to consider these areas during further planning and refinement of the corridor.

Individual Submission 1

21. *Pasture resource values have not been considered in determining the least damaging route for the corridor, despite the inclusion of relevant "soil-landscape" maps derived from the Rangeland Surveys.*

Response: All landholders were consulted on placement of the route through their properties, as they were considered to be in the best position to advise on pasture values and other related issues.

22. *Approximately 133km (21%) of the proposed alignment will cross the best pasture bottomland run-on habitats. Seven landsystems (Gransal, Ero, Merbla, Steer, Wilson, Mileura and Carnegie) will be impacted, with the most affected stations being Carlaminda (13km), Bunnawarra (15km), Murrum (12km), Yoweragabbie (13km), Challa (13km), Windimurra (9km) and Dandaraga (7km).*

a. *Of the seven landsystems, the Merbla is unique in the entire Gascoyne – Murchison Strategy (GMS) Region to three adjoining stations east of Mt Magnet (Wondinong, Challa and Windimurra). The longest section of this unit impacted by the proposal is on Windimurra Station (7km).*

Response: Windimurra is in fact the only station on which the corridor crosses the Merbla system. The corridor route through both Challa and Windimurra Stations is constrained by mining issues and the route through these areas has been identified through negotiations with the mining tenement holders and the pastoral leaseholders.

b. *The saltbush-bluebush and scrub mosaic of the bottomland systems have the highest carrying capacity for stock, the longest lasting productivity and are life support habitats for native fauna and stock in the dry seasons.*

Response: Identification of a corridor route was heavily constrained by Aboriginal heritage issues, which dictated that high ground be avoided to minimise impacts on breakaways areas that were of significance. The areas of saltbush – bluebush and scrub mosaics crossed by the corridor are a minor part of the route. The GPWG will continue discussions with landowners to determine the potential for minor deviations to avoid these areas wherever possible.

c. *Bottomlands become seasonally waterlogged or flooded in wet weather, and most of the route can experience both winter and summer rainfall events. This will create a major impediment to vehicle access, implying that major disturbance and construction will be required to establish causeways above flood levels. This will affect both local drainage and maintenance management costs.*

Response: Any construction within seasonally waterlogged areas would occur preferentially during dry periods to minimise disturbance and compaction of the areas. Both pipelines and power lines can be constructed within seasonally waterlogged areas with minimum disturbance of the area. Detailed engineering works carried out prior to construction of the road and railway will identify the need for the establishment of causeways. Should causeways be required they will be engineered to minimise disruption to local drainage, as described in Section 5.5 of the SER.

d. *Bottomlands have a high susceptibility to weed invasion.*

Response: The potential for weed infestation is recognised. Section 5.2.2 of the SER covers the preparation of a Weed Control Programme by each proponent prior to the commencement of construction as part of the Environmental Management Programme. This Weed Control Programme will be prepared in consultation with AgWA and CALM to ensure that the potential for weed infestation is minimised.

23. *Land systems with high to very high susceptibility to sheet and gully erosion on the proposed corridor route are Sherwood, Gumbreak, Hootanui, Challenge and Nerramyne.*

Response: The proposed corridor crosses 9.5km of the Sherwood system, 1km of the Gumbreak, 8.7km of the Hootanui, 29km of the Challenge and 4km of the Nerramyne. Although the choice of route was strongly constrained through much of this area by Aboriginal heritage considerations, the GPWG will continue discussions with landowners to determine the potential for minor deviations to avoid any areas of high erosion risk where possible.

24. *From the aspects of drainage integrity, vegetation and pasture viability, and hence maintenance of ecological and economic health the best landsystems to support roads and other infrastructure corridors are <u>first</u> the sandplains and second the mulga washplains. However, the critical requirement in the mulga washplains is <u>the</u>*

maintenance of uninterrupted sheetwash flow, otherwise death of woodland trees results from water starvation on the downslope side of any embankment.

Response: Potential impacts associated with the interruption of sheetwash flow are recognised. The GPWG is committed to maintaining and restoring overland flow patterns to the greatest extent practicable, as described in Section 5.5 and Commitment 6 of the SER.

25. *The rehabilitation methods described, without diagrams, for obviating water starvation and death of vegetation on the downslope side of the proposed corridor are inadequately dealt with in the SER.*

Response: Specific rehabilitation methods cannot be established until detailed design of the infrastructure is completed and the specific impacts of construction have been identified. The SER commits to the preparation of an Environmental Management Plan (EMP) by each individual infrastructure proponent, in which each proponent will detail specific rehabilitation and drainage management methods to be employed during construction.

26. *The Social Impacts and Management section of the SER, and specifically the proposed hazards listed on page 96 of the document, indicates that the proposed corridor is planned to carry up to eight services. This corridor appears to be in too close proximity to station homestead areas and their associated airstrips on Murrum, Yoweragabbie, Challa and Windimurra stations.*

Response: Existing landholders were consulted as to the location of the infrastructure corridor. Where necessary, minor deviations have been incorporated in the alignment to meet landholders requirements and to meet regulations in regard to airstrips.

27. *In view of the EPA's recently published Position Statement No. 5 on Environmental Protection and Sustainability of the Rangelands in W.A. there is a real danger of repeating the "Pilbara Absurdity" i.e. where different companies have their own railway and road corridors criss-crossing each other, fragmenting the landscape. In the Mid West Region, main road routes and the Midwest (AGL) pipeline routes already exist. If this proposal is to proceed, stations will be impacted with two or more corridors instead of sharing one to confine impacts to practically*

manageable proportions in space, time and savings – logistically, economically and ecologically.

Response: The proposed infrastructure corridor closely parallels the Mid West Pipeline for much of its length and is directly adjacent to the MWP where possible. This could not be achieved in all areas due to constraints from land ownership, Aboriginal heritage, vegetation and other factors.

It should be noted that while the individual infrastructure components within the proposed corridor may be privately owned, the Western Australian Government will own the corridor. It is intended that the establishment of a State-owned corridor will enable infrastructure to be consolidated within one area, hence preventing a repeat of the situation in the Pilbara Region.

The identification of a proposed route for any infrastructure is dictated by the desired area to be serviced by the corridor. The current proposal follows the existing AGL pipeline and the Mount Magnet Road, therefore impacts to stations west of this point are largely concentrated around existing infrastructure. The proposed corridor cannot follow the existing roads all the way to the goldfields, as the desired end point is further to the south. Furthermore, if the road was followed for the entire length of the corridor, it would add considerable distance (approximately 110km) to the length of the corridor. The identified corridor is considered to be the best option when all aspects, including logistics, economics, Aboriginal heritage and the environment, are taken into account.

28*. Did the proponents consult with the Pastoral Lands Board, the Gascoyne-Murchison Strategy Region Office and the affected landowners?*

Response: All affected landholders (owners and lessees), local authorities and relevant government departments including MPR (now DoIR), CALM, DOLA and the Geraldton-Mid West Development Authority, were consulted during the route selection process. Meetings have subsequently been held with the Pastoral Lands Board.

29. *Did the proponents and their consultants have access to the EPA's Position Paper No. 5 during the compilation of the report?*

Response: The GPWG and its consultants did have access to Position Paper No. 5 during preparation of the report. The Position Paper largely deals with the application of the concept of ecological sustainability to pastoral activities. While the Position Paper is not directly referenced in the SER, its principles, where relevant, have been taken into account in the identification of the infrastructure corridor.

Individual Submission 2

30. *It is important that disturbance to remnant vegetation along the proposed pipeline route is minimised or avoided where possible.*

Response: Section 5.2.1 of the SER details the methods employed during the selection of the infrastructure corridor to minimise or avoid vegetation disturbance. The Environmental Management Plans to be prepared by each infrastructure proponent will contain detailed procedures for minimisation of vegetation impacts during the siting, construction and operation of infrastructure.

31. *The development of the infrastructure corridor should involve siting the roads to run under powerlines and one road should be used to access all of the infrastructure.*

Response: It is not possible to site roads directly beneath powerlines due to the presence of the supporting pylons. Such a location could also pose a safety risk if high vehicles using the road breached the minimum safe clearance beneath the conductors.

The infrastructure corridor provides for the construction of one road and one access track for the power lines. Where practicable (depending upon the staging of construction and the distance of the powerlines from the road), the road will be used as the primary access to the powerlines.

32. *The management of impacts on the DRF and Priority flora and other native vegetation has not been adequately addressed in the SER. We are concerned that DRF, Eucalyptus beardiana, will be removed during construction of the pipeline and support the recommendations of the flora survey report to reroute the pipeline to ensure protection of this species.*

Response: The *Eucalyptus beardiana* populations north-west of Mullewa occur as scattered individuals and groups along two north-south fencelines. Detailed surveys by Mattiske Consulting botanists found a total of 26 *E. beardiana* trees in the area up to 100m south of the existing Mid West Pipeline (within and adjacent to the proposed 50m corridor) and eight individuals to the north. Given this sparse and scattered distribution it is considered that a 10m restricted working width can be defined that impacts no or at worst a few individual trees.

In the event that any individuals of this species require removal, GPWG will require the pipeline proponent to collect seeds from *E. beardiana* trees within and immediately adjacent to the corridor for propagation and replanting in nearby areas.

33. *Construction staff operating in the area will need to be informed of the locations of DRF and Priority Flora. A Vegetation, DRF and Priority Flora Management Plan should be prepared prior to construction and be used during the life of the infrastructure corridor. The Plan should ensure that impacts on this flora and other vegetation are managed to ensure its protection.*

Response: The management of all vegetation, including DRF and Priority species, will be addressed in the detailed Environmental Management Plan that each proponent is required to prepare prior to construction (Section 5.2 of the SER).

34. *A botanist should inspect the site with construction staff to determine the methods that can minimise disturbance to native vegetation and to inform them of known and potential locations of additional plants or populations of DRF and Priority Flora.*

Response: As specified in Table 7.1 of the SER (Item 1), each proponent will be required to prepare a detailed EMP prior to the commencement of construction. The EMP will be subject to DEP approval and public scrutiny, and it is therefore expected

that the proponents will engage whatever specialist advisers are necessary to produce a comprehensive EMP.

35. *All employees and contractors must undergo induction training as to the value of vegetation to ensure that the impacts of construction are minimised.*

Response: It is anticipated that the EMPs prepared by proponents will include a requirement for all contractors and employees to undergo environmental induction training prior to commencing work on site. This requirement is enforceable by the DEP in its approval of the management plans.

36. *As much cleared area as possible should be rehabilitated following construction. Rehabilitation should be undertaken using native species that grew at these locations prior to construction or clearing for agriculture took place. Where the infrastructure crosses farmland, the corridor should be revegetated with native vegetation to ensure the creation of corridors for wildlife and to increase the area of native vegetation.*

Response: Rehabilitation methods to ensure successful regeneration of native species have been described in Sections 2.2.3 and Section 5.9 of the SER. Where the corridor crosses cleared agricultural land, the landholders will be consulted to ensure that disturbed areas are rehabilitated in accordance with their requirements – generally by returning them to their previous use, where possible. In uncleared areas (including rangelands grazing areas), rehabilitation will be undertaken with native species.

Individual Submission 3

37. *The alignment shown in the SER differs from the agreed alignment through our property. The published alignment has potential environmental consequences to our property in terms of impacts on land systems, grazing areas, topsoil degradation and water shadow starvation. The alignment also encroaches on pastoral infrastructure.*

Response: This submission concerns a pastoral station, where the alignment was changed slightly in consultation with the landholders after the finalisation of the SER. The GPWG will maintain the new alignment agreed with the landholders in this area.

Individual Submission 4

38. *The infrastructure corridor should follow the existing service corridor along the Geraldton – Mullewa road to Mullewa and then follow the preferred route.*

Response: There are in fact at least three service corridors west of Mullewa: the road/rail, the power line and the existing gas pipeline (MWP). The proposed corridor starts at the same point as the MWP and, as in the case of the MWP, is intended to contain only one gas pipeline in this section. In order to keep similar infrastructure together, the corridor alignment was chosen to follow the MWP in this section. The support of the proposed route east of Mullewa is noted.

39. *Beyond Pindar, would there be any need for a power grid if you also have a gas pipeline? Construction of turbine generators may be a better option.*

Response: The establishment of the infrastructure corridor is a strategic concept to ensure that services can be supplied to the North Eastern Goldfields, as they are required. The actual construction of services within the corridor will be driven by industry requirements. It is entirely possible that power may be required inland before gas is available, making the construction of gas turbine generators unfeasible.

40. *Pipeline depth should be 2m in agricultural areas.*

Response: Pipelines are constructed at a maximum depth of 2m below ground level. However, the actual construction depth will be dictated by ground conditions and design standards. It is therefore impossible to dictate a uniform depth of cover along the entire pipeline route.

41. *It is extremely doubtful that any Aboriginal Heritage and Cultural sites exist west of Mullewa along the proposed route or the alternative suggested above. This is a very dry area and Aborigines would not have gone very far from a water source…Rivers and watercourses where there was palatable [sic] water would have been the corridors by which Aborigines travelled.*

Response: The presence of Aborigines in this area is indicated by various extracts from early ships' diaries, among others. Recent research obtained from Native Title claimant groups also shows that Aborigines were present.

Aborigines were in no way restricted in their movements by the availability of fresh watercourses, as has been demonstrated in many parts of Australia where there are no rivers or watercourses at all. Water sources are quite plentiful in rock holes in the area in question, as they are in most parts of Australia.

42. *It is very doubtful if the Wadjari have any connection with the area of the proposed Service Corridor.*

Response: The Wadjari have a valid Native Title claim over the area and so have a prima facie connection to the country.

43. *I have never heard of Tenindewa Creek – could this be Kockatea Gully?*

Response: Tenindewa Creek flows through Kockatea Gully and is marked thus on maps.

44. *The "possible" bone fragments reported in Tenindewa Creek may well be sheep, pig, cattle, horse, kangaroo, emu or other native animals. They are unlikely to be of Aboriginal origin as this is the area where the original land owner [sic] established a homestead and farm buildings, which would have included livestock handling facilities.*

Response: Bone fragments were identified in Tenindewa Creek. The fragments were identified by the WA Museum as mammalian with a slight chance of them being of human origin. The matter has been left open and subject to further investigation at the discretion of the Department of Indigenous Affairs.

Attachment 1: Additions to SER Commitments Table

Commitment (Who/What)	Objective (Why)	Action (How/Where/When)	Whose Advice	Measurement/Compliance Criteria
25. Future proponent(s) will consult with operators of other infrastructure in the area adjacent to the infrastructure corridor during design and construction	To ensure that impact on other infrastructure is at an acceptable level.	Proponents will consult with all stakeholders during the planning & design, approval, construction and operation stages, to ensure that they are informed of proposals and able to input at these stages to ensure compliance with appropriate regulations. Consultation will include where appropriate but not be limited to: - Mid West Pipeline Joint Venture - Goldfields Gas Transmission Pty Ltd - Main Roads WA - Western Power - Rail Operators - Pastoralists/Landholders	DEP	Impact on other infrastructure meets Australian Standards and all applicable regulations.
26. Future proponent(s) will employ controlled blasting or other better suited control methods during the construction of all infrastructure, in particular where the corridor is adjacent to existing infrastructure (buildings, other pipelines, roads)	To ensure that impact on other infrastructure is at an acceptable level.	Proponents will undertake a detailed risk analysis during the planning of blasting, in consultation with all affected stakeholders. Consultation will include, where appropriate, but not be limited to: - Mid West Pipeline Joint Venture - Goldfields Gas Transmission Pty Ltd - Main Roads WA - Western Power - Rail Operators - Pastoralists/Landholders Proponents will ensure that best practice guidelines are followed for all methods they apply.	DEP	Impact on other infrastructure meets Australian Standards and all applicable regulations.

Summary of adjustments to the Geraldton to North-Eastern Goldfields Infrastructure Corridor

After ongoing consultation with the landholders, and other stakeholders the GPWG has refined the corridor alignment, so that it avoids environmentally and socio-economically sensitive areas. A large proportion of the consultation has been in response to the public submissions on the SER, and modifications to the corridor have been made to address the issues that were raised in the submissions.

The summary below provides the reasons for deviating from the preferred alignment that was displayed in the SER document. The location numbers refer to the numbers on the accompanying maps 1 to 8. On the all maps, the current preferred alignment is shown in red, and the alignment displayed in the SER is shown in blue.

Location 1
Corridor moved to the south to avoid gravel pit and row of mature trees.

Location 2
Corridor moved to the north to avoid fences, hangar and airstrip.

Location 3
Corridor moved to the north to avoid house.

Location 4
Alignment moved to adjust the angle at which the proposed corridor crosses the Mid West Pipeline.

Location 5
Corridor moved north to abut existing infrastructure (Geraldton to Mount Magnet road) $\rightarrow$ minimises the impact on landholders.

Location 6
Start of the 450 m wide corridor moved to the western boundary of the proposed CALM reserve.

Location 7
Mineral resource over previous alignment, new alignment negotiated in talks with MPR (now DoIR) and affected mineral tenement holders. Change necessary to obtain section 16(3) statutory clearance under the *Mining Act 1978*.

Location 8
Wagga Wagga deviation to the south to avoid holding yards and airstrip.

Location 9
Deviation between Edah and Yoweragabbie to avoid homesteads and environmentally sensitive pastoral land.

Location 10
At Challa the corridor was moved to the north to avoid an airstrip. Challa Station runs a mustering business and the pastoralist was concerned that the power lines in the corridor would interfere with his planes.

Location 11
Deviation at Unaly Hill to avoid mineral resource, new alignment negotiated in talks with MPR and the affected mineral tenement holder. Change necessary to obtain section 16(3) statutory clearance under the *Mining Act 1978*.

Location 12
Alignment moved to the north to avoid numerous wells on Dandaraga Pastoral Station.

Location 13
Corridor moved to the south to avoid airstrip at Pinnacles woolshed.

Location 14
Corridor moved to the north to avoid laterite resource, new alignment negotiated in talks with MPR and the affected mineral tenement holder. Change necessary to obtain section 16(3) statutory clearance under the *Mining Act 1978*.

Location 15
The decision to terminate the proposed infrastructure corridor at the eastern boundary of the GGT easement was made because there is an existing Miscellaneous Licence that was established by Anaconda for the establishment of infrastructure. This avoided the concerns of several mining companies that the corridor interfered with proposed infrastructure services and mineral resources.