

Table 6-1 2012 Smith Ranch Radiological Sampling Plan

Location	New or Existing	Instrumentation (as specified or equivalent)	LLD's
ENVIRONMENTAL SAMPLING			
AS-1 Background Station (Daves water well)	existing	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	existing	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
AS-2 Fence Line	existing	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	existing	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
AS-3 Volmans	existing	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	existing	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
AS-4 HUP Overlook	reinstated	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	reinstated	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	reinstated	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
AS-5 Fowlers	reinstated	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	reinstated	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	reinstated	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
AS-6 Reynolds	new	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	existing	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
RG-1 West end of wellfield 4	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	new	Global Environmental TLD	10 mrem
	New	Modified Kusnetz Method	0.033 WL
RG-2 Cattle guard into MU K	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
RG-3 Near PSR-2	existing	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NP-1 Smith Ranch Warehouse	new	Regulated air pump 50 LPM	$^{Nat}U - 1 \times 10^{-16}$, $^{226}Ra - 1 \times 10^{-16}$, $^{230}Th - 1 \times 10^{-16}$, $^{210}Pb - 1 \times 10^{-15}$ uCi/mL
	new	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NP-2 Smith Ranch Central Processing Plant North end	new	Radtrak® Type DRNF	2×10^{-10} uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL

Table 6-1 2012 Smith Ranch Radiological Sampling Plan

Location	New or Existing	Instrumentation (as specified or equivalent)	LLD's
NP-3 Smith Ranch Central Processing Plant south end	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NP-4 Smith Ranch Central Processing Plant east end	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NP-5 Smith Ranch Central Processing Plant west end	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NS-2 Satelltie SR-2 north end	new	Regulated air pump 50 LPM	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NS-3 Satelltie SR-2 south end	new	Regulated air pump 50 LPM	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NS-4 Satelltie SR-2 east end	new	Regulated air pump 50 LPM	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
NS-5 Satelltie SR-2 west end	new	Regulated air pump 50 LPM	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Global Environmental TLD	10 mrem
	new	Modified Kusnetz Method	0.033 WL
Header House 15-20	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Modified Kusnetz Method	0.033 WL
Header House 9-9	new	Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
	new	Modified Kusnetz Method	0.033 WL
ISOTOPIC ANALYSIS (Mixed DAC)			
Central Processing Plant	New	RADECO Model HD-29A	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
Satellitte Facilitiys	New	RADECO Model HD-29A	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
BETA CAMPAIGN			
α/β/γ Campaign for Personal Contamination	New	To be determined	To be determined
α/β/γ Campaign for Contamination Control	New	To be determined	To be determined
α/β/γ Campaign for Offsite releases	New	To be determined	To be determined
DOSE TO PUBLIC			
Dose to public (on site vendors)	New	Regulated air pump 50 LPM	^{Nat} U – 1x10 ⁻¹⁶ , ²²⁶ Ra – 1x10 ⁻¹⁶ , ²³⁰ Th – 1x10 ⁻¹⁶ , ²¹⁰ Pb – 1x10 ⁻¹⁵ uCi/mL
At locations NP-1, NS-2 and NS-4		Radtrak® Type DRNF	2x10 ⁻¹⁰ uCi/mL
		Global Environmental TLD	10 mrem
		Modified Kusnetz Method	0.033 WL
OCCUPATIONAL DOSE			
Evaluate dose for Office and Wellfield workers	New	Global TLD	10 mrem

Table 7-1 Trends in Wyoming Expenditures by Cameco Resources

	2005	2006	2007	2008	2009
Payroll (including benefits)	\$4,593,000	\$4,952,000	\$7,522,100	\$8,480,100	\$10,525,000
Wyoming Taxes and Royalties ¹	\$1,383,400	\$1,818,000	\$4,393,000	\$4,693,000	\$3,737,000
Wyoming Vendors Purchases	\$10,036,600	\$12,311,000	\$14,801,000	\$24,247,000	\$26,065,000
Total Wyoming Expenditures	\$16,013,000	\$19,081,000	\$26,716,100	\$37,420,100	\$40,327,000
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 13. October, 2010.					
Notes:					
1. Wyoming taxes include: Use, Ad Valorem, Severance, and Property.					

Table 7-2 Current Economic Impact of Cameco's Wyoming Payroll

Sector	Direct Impacts	Secondary Impacts	Total Impacts
Employment			
Agriculture	0.0	0.1	0.1
Mining	169.0	0.0	169.0
Construction	0.0	0.8	0.8
Manufacturing	0.0	0.2	0.2
TIPU ¹	0.0	1.6	1.6
Trade	0.0	18.1	18.1
Service	0.0	46.8	46.8
Government	0.0	1.0	1.0
Total Jobs	169.0	68.6	237.6
Labor Income			
Agriculture	\$0	\$772	\$772
Mining	\$12,483,873	\$1,510	\$12,485,383
Construction	\$0	\$36,360	\$36,360
Manufacturing	\$0	\$10,629	\$10,629
TIPU ¹	\$0	\$110,009	\$110,009
Trade	\$0	\$591,290	\$591,290
Service	\$0	\$1,441,098	\$1,441,098
Government	\$0	\$62,280	\$62,280
Total Labor Income	\$12,483,873	\$2,253,948	\$14,737,821
Total Output			
Agriculture	\$0	\$10,001	\$10,001
Mining	\$12,483,873	\$5,783	\$12,489,656
Construction	\$0	\$78,714	\$78,714
Manufacturing	\$0	\$98,676	\$98,676
TIPU ¹	\$0	\$412,586	\$412,586
Trade	\$0	\$1,474,775	\$1,474,775
Service	\$0	\$5,541,677	\$5,541,677
Government	\$0	\$193,823	\$193,823
Total Output	\$12,483,873	\$7,816,035	\$20,299,908
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 15. October, 2010.			
Notes:			
1. Transportation/Information/Public Utilities			

Table 7-3 Current Economic Impact of Cameco's Wyoming Taxes and Royalties

Sector	Direct Impacts	Secondary Impacts	Total Impacts
Employment			
Agriculture	0.0	0.0	0.0
Mining	0.0	0.0	0.0
Construction	0.0	0.2	0.2
Manufacturing	0.0	0.0	0.0
TIPU ¹	0.0	0.5	0.5
Trade	0.0	5.0	5.0
Service	0.0	12.8	12.8
Government and Households	26.3	0.2	26.5
Total Jobs	26.3	18.7	45.0
Labor Income			
Agriculture	\$0	\$211	\$211
Mining	\$0	\$435	\$435
Construction	\$0	\$10,109	\$10,109
Manufacturing	\$0	\$2,922	\$2,922
TIPU ¹	\$0	\$30,544	\$30,544
Trade	\$0	\$160,900	\$160,900
Service	\$0	\$391,018	\$391,018
Government and Households	\$3,406,863	\$17,140	\$3,424,003
Total Labor Income	\$3,406,863	\$613,279	\$4,020,142
Total Output			
Agriculture	\$0	\$2,740	\$2,740
Mining	\$0	\$1,670	\$1,670
Construction	\$0	\$21,782	\$21,782
Manufacturing	\$0	\$26,992	\$26,992
TIPU ¹	\$0	\$114,013	\$114,013
Trade	\$0	\$400,704	\$400,704
Service	\$0	\$1,499,992	\$1,499,992
Government and Households	\$3,737,000	\$53,000	\$3,790,000
Total Output	\$3,737,000	\$2,120,893	\$5,857,893
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 16. October, 2010.			
Notes:			
1. Transportation/Information/Public Utilities			

Table 7-3.1 Distribution of Cameco's Tax Expenditures

Type	Amount	Amount Per Pound	Distribution			Total
			Local Government	State Government	All Schools	
Use Tax	\$178,000	\$0.09	44.6%	55.4%	NA	100%
Severance Tax	\$456,000	\$0.24	3.3%	96.7%	NA	100%
Ad Valorem-Production	\$694,000	\$0.37	27%	NA	73%	100%
Ad Valorem-Property	\$316,000	\$0.17	27%	NA	73%	100%
Total	\$1,644,000					

Table 7-4 Distribution of Cameco's Economic Impact in Wyoming

Sector	Total Employment	Total Income	Total Output	Percent Employment	Percent Income	Percent Output
Agriculture	0.3	\$2,083	\$27,944	0.1	<0.1	<0.1
Mining	169.9	\$12,579,762	\$12,787,292	38.2	46.3	21.6
Construction	84.0	\$4,591,729	\$12,156,594	18.9	16.9	20.6
Manufacturing	0.9	\$50,086	\$379,576	0.2	0.2	0.6
TIPU ¹	13.6	\$1,194,604	\$5,122,825	3.1	4.4	8.7
Trade	48.1	\$1,928,153	\$12,757,019	10.8	7.1	21.6
Service	99.4	\$3,267,923	\$11,721,242	22.4	12.0	19.8
Government	28.4	\$3,545,234	\$4,133,976	6.4	13.1	7.0
Total	444.6	\$27,159,574	\$59,086,468	100	100	100

Source: Taylor, David T. & Foulke, Thomas. *The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion*. University of Wyoming, Department of Agricultural & Applied Economics. Pg. 20. October, 2010.

Notes:

1. Transportation/Information/Public Utilities

Table 7-5 Current Economic Impact of Cameco's Wyoming Vendor Purchases

Sector	Direct Impacts	Secondary Impacts	Total Impacts
Employment			
Agriculture	0.0	0.2	0.2
Mining	0.8	0.1	0.9
Construction	82.1	0.9	83.0
Manufacturing	0.0	0.7	0.7
TIPU ¹	8.8	2.7	11.5
Trade	11.7	13.3	25.0
Service	2.1	37.7	39.8
Government	0.0	0.9	0.9
Total Jobs	105.5	56.5	162.0
Labor Income			
Agriculture	\$1	\$1,099	\$1,100
Mining	\$77,989	\$15,955	\$93,944
Construction	\$4,495,164	\$50,096	\$4,545,260
Manufacturing	\$739	\$35,796	\$36,535
TIPU ¹	\$881,717	\$172,334	\$1,054,051
Trade	\$694,468	\$481,495	\$1,175,963
Service	\$94,954	\$1,340,853	\$1,435,807
Government	\$1,092	\$57,859	\$58,951
Total Labor Income	\$6,246,124	\$2,155,487	\$8,401,611
Total Output			
Agriculture	\$0	\$15,203	\$15,203
Mining	\$237,496	\$58,470	\$295,966
Construction	\$11,959,805	\$96,293	\$12,056,098
Manufacturing	\$0	\$253,908	\$253,908
TIPU ¹	\$4,016,458	\$579,768	\$4,596,226
Trade	\$9,666,157	\$1,215,383	\$10,881,540
Service	\$185,084	\$4,494,489	\$4,679,573
Government	\$0	\$150,153	\$150,153
Total Output	\$26,065,000	\$6,863,667	\$32,928,667

Source: Taylor, David T. & Foulke, Thomas. *The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion*. University of Wyoming, Department of Agricultural & Applied Economics. Pg. 18. October, 2010.

Notes:

1. Transportation/Information/Public Utilities

Table 7-6 Current Economic Impact Summary for Cameco in Wyoming

	Employment (jobs)	Labor/Household Income	Total Output	Average Earnings Per Job
Direct impacts				
Payroll (including benefits)	169.0	\$12,483,873	\$12,483,873	\$73,869
Wyoming Taxes and Royalties	26.3	\$3,406,863	\$3,737,000	\$50,299 ¹
Wyoming Vendors	105.5	\$6,246,124	\$26,065,000	\$59,205
Total Direct Impacts	300.8	\$22,136,860	\$42,285,873	\$66,665¹
Secondary Impacts				
Payroll (including benefits)	68.6	\$2,253,948	\$7,816,035	\$32,856
Wyoming Taxes and Royalties	18.7	\$613,279	\$2,120,893	\$32,796
Wyoming Vendors	56.5	\$2,155,487	\$6,863,667	\$38,150
Total Secondary Impacts	143.8	\$5,022,714	\$16,800,595	\$34,928
Total Impacts				
Payroll (including benefits)	237.6	\$14,737,821	\$20,299,908	\$62,028
Wyoming Taxes and Royalties	45.0	\$4,020,142	\$5,857,893	\$43,026 ¹
Wyoming Vendors	162.0	\$8,401,611	\$32,928,667	\$51,862
Total Impacts	444.6	\$27,159,574	\$59,086,468	\$56,400¹
Uranium Mining Multipliers	2.6	2.2		
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 19. October, 2010.				
Notes:				
1. Royalty payments excluded from calculation.				

Table 7-7 Economic Impact of Construction Expenditures

	Employment (jobs)	Labor Earnings	Total Output	Average Earnings Per Job
2011 Capital Expenditures				
Direct Impacts	96.9	\$5,385,010	\$17,000,000	\$55,573
Secondary Impacts	45.1	\$1,843,018	\$5,845,766	\$40,865
Total Impacts	142.0	\$7,228,028	\$22,845,766	\$50,902
2012 Capital Expenditures				
Direct Impacts	164.9	\$9,373,046	\$30,000,000	\$56,841
Direct Impacts	76.7	\$3,207,922	\$10,134,035	\$41,824
Total Impacts	241.6	\$12,580,968	\$40,134,035	\$452,074
2013 Capital Expenditures				
Direct Impacts	185.5	\$10,780,415	\$35,000,000	\$58,115
Secondary Impacts	86.3	\$3,689,595	\$11,616,174	\$42,753
Total Impacts	271.8	\$14,470,010	\$46,616,174	\$53,238
3-Year Summary				
	2011	2012	2013	Total
Expenditures	\$17,000,000	\$30,000,000	\$35,000,000	\$82,000,000
Employment	142.0	241.6	271.8	655.4
Labor Earnings	\$7,228,028	\$12,580,968	\$14,470,010	\$34,279,006
Average Earnings per Job	\$50,902	\$52,074	\$53,238	\$52,302
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 21. October, 2010.				

Table 7-8 Economic Impact of Cameco's Expanded Production

	Employment (jobs)	Labor/Household Income	Total Output
Direct Impacts			
Payroll (including benefits)	320.6	\$23,681,074	\$23,681,074
Wyoming Taxes and Royalties	49.9	\$6,462,592	\$7,088,840
Wyoming Vendors	200.1	\$11,848,481	\$49,443,566
Total Direct Impacts	570.6	\$41,992,147	\$80,213,480
Secondary Impacts			
Payroll (including benefits)	130.1	\$4,275,589	\$14,826,497
Wyoming Taxes and Royalties	35.5	\$1,163,349	\$4,023,193
Wyoming Vendors	107.2	\$4,088,815	\$13,019,918
Total Direct Impacts	272.8	\$9,527,753	\$31,869,608
Total Impacts			
Payroll (including benefits)	450.7	\$27,956,663	\$38,507,571
Wyoming Taxes and Royalties	85.4	\$7,625,941	\$11,112,032
Wyoming Vendors	307.3	\$15,937,296	\$62,463,485
Total Direct Impacts	843.4	\$51,519,900	\$112,083,088
Source: Taylor, David T. & Foulke, Thomas. <i>The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion</i> . University of Wyoming, Department of Agricultural & Applied Economics. Pg. 22. October, 2010. Notes: 1. Royalty payments excluded from calculation.			

SECTION 1.0

- Figure 1.1 General SUA-1548 Location Map
- Figure 1.2 General Site Location Map

SECTION 2.0

- Figure 2.1 Powder and Wind River Basins
- Figure 2.2 Regional Uranium Mining
- Figure 2.3 Projected Coal Development in the Powder River Basin – Lower Limit
- Figure 2.4 Projected Coal Development in the Powder River Basin – Upper Limit
- Figure 2.5 Regional Coal, CBM, Oil and Gas
- Figure 2.6 Regional Power Generation
- Figure 2.7 CBM in the Wind River Basin

SECTION 3.0

- Figure 3.1.1 Regional Ownership
- Figure 3.1.2 Regional Managed Lands
- Figure 3.1.3 Regional MLRA
- Figure 3.1.4 Smith Ranch Ownership**
- Figure 3.1.5 Smith Ranch Cropland Data Layer**
- Figure 3.1.6 North Butte Remote Satellite Ownership**
- Figure 3.1.7 North Butte Cropland Data Layer**
- Figure 3.1.8 Gas Hills Remote Satellite Ownership**
- Figure 3.1.9 Gas Hills Cropland Data Layer**
- Figure 3.1.9.1 Gas Hills Remote Satellite Umetco/Mine Unit 5 Location Map**
- Figure 3.1.10 Ruth Ownership
- Figure 3.1.11 Ruth Cropland Datalayer

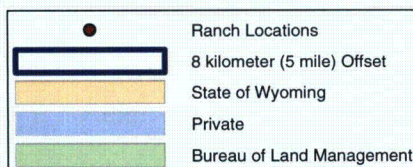
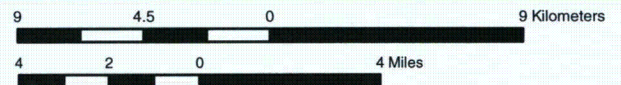
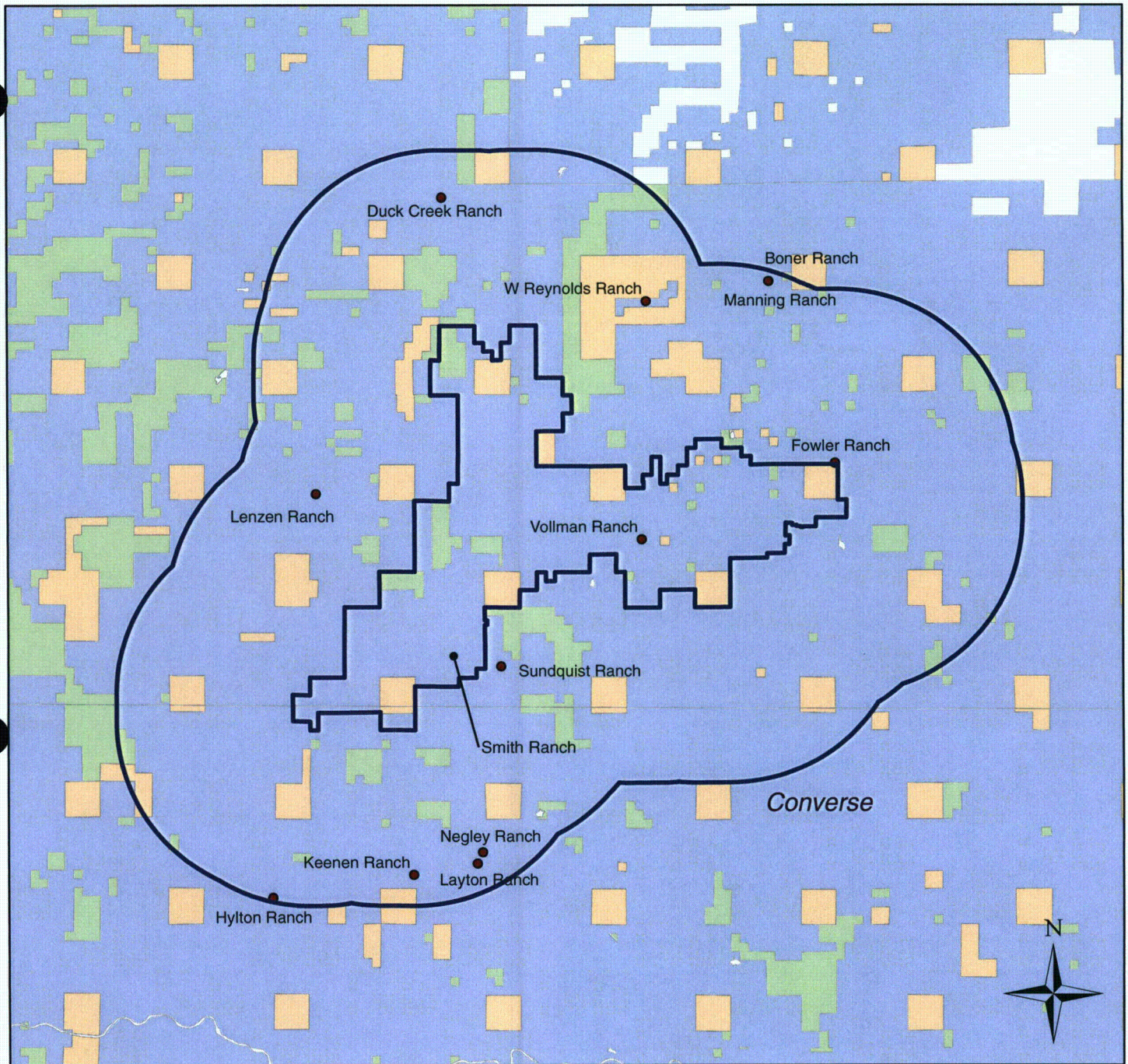
- Figure 3.3.1 Smith Ranch Schematic Cross Section
- Figure 3.3.2 Shallow Aquifer Investigation Well Location Map

- Figure 3.4.1 Smith Ranch Surface Water and Groundwater Rights Location Map**
- Figure 3.4.2 WC#1 Borehole
- Figure 3.4.3 WC#1 Well Completion Log
- Figure 3.4.4 WC#2 Borehole Log
- Figure 3.4.5 North Butte Remote Satellite Surface Water & Groundwater Rights Location Map**
- Figure 3.4.6 Gas Hills Surface Water & Groundwater Rights Location Map
- Figure 3.4.7 Updated Potentiometric Surface Map
- Figure 3.4.8 Ruth Surface Water & Groundwater Rights Location Map


- Figure 3.9.1 View Shed Analysis – Smith Ranch**
- Figure 3.9.1A BLM VRM Classes – Smith Ranch**
- Figure 3.9.2 View Shed Analysis – North Butte Remote Satellite**
- Figure 3.9.2.A BLM VRM Classes North Butte Remote Satellite**
- Figure 3.9.3 View Shed Analysis – Gas Hills Remote Satellite**
- Figure 3.9.3A BLM VRM Classes – Gas Hills Remote Satellite**

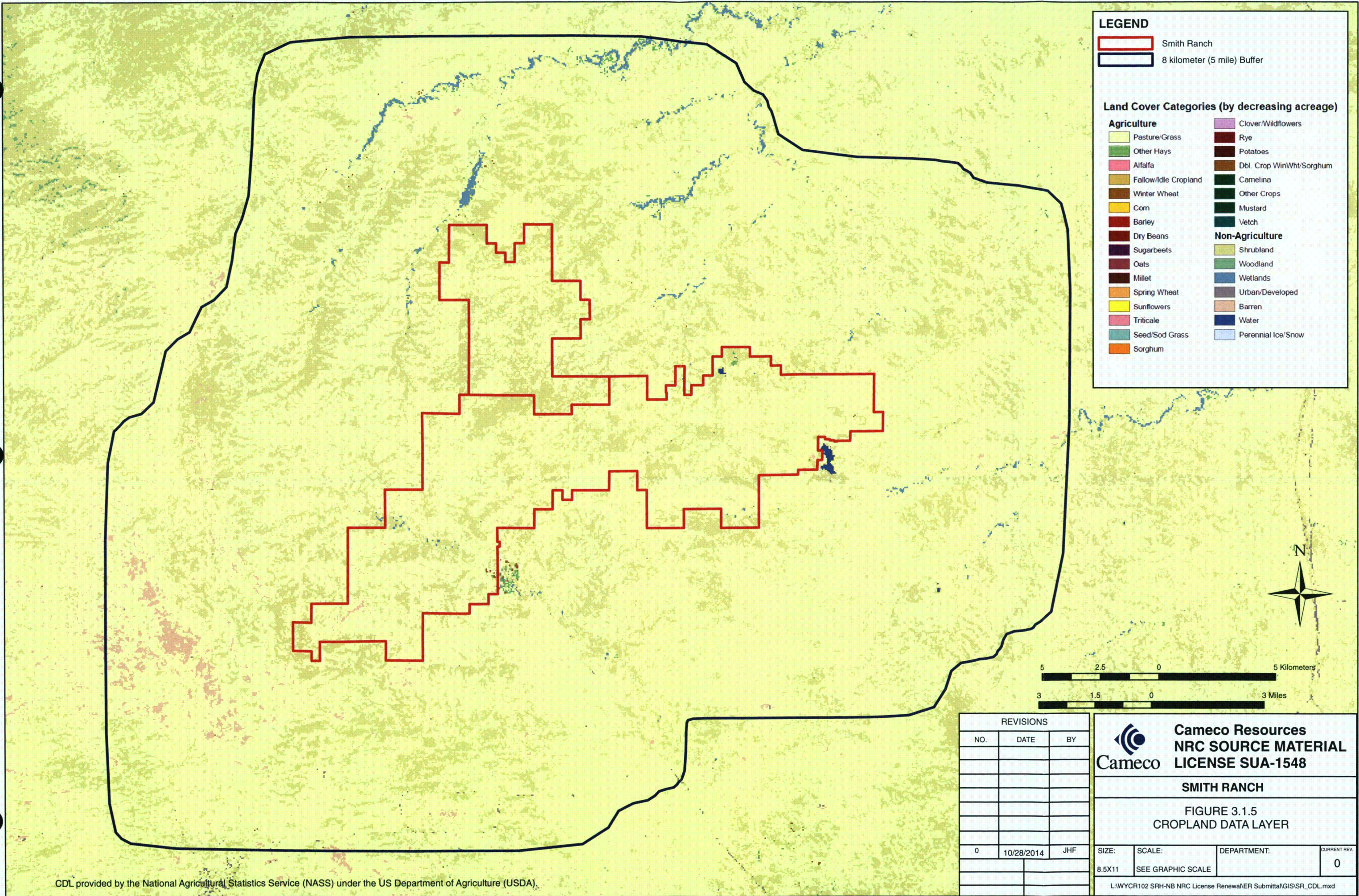
Figure 3.10.1 Population Centers within 80 kilometers of the Smith Ranch Project
Figure 3.10.2 Population Centers within 80 kilometers of the North Butte Project
Figure 3.10.3 Population Centers within 80 kilometers of the Gas Hills Project
Figure 3.10.4 Population Centers within 80 kilometers of the Ruth Project

Figure 3.11.1 Radiation Exposure




REVISIONS		
NO.	DATE	BY
0	1/25/2012	AMK
1	10/29/2014	JHF

 Cameco	Cameco Resources NRC SOURCE MATERIAL LICENSE SUA-1548		
	SMITH RANCH		
FIGURE 3.1.4 OWNERSHIP			
SIZE: 8.5X11	SCALE: SEE GRAPHIC SCALE	DEPARTMENT:	CURRENT REV: 1
Path: L:\WYCR102 SRH-NB NRC License Renewal\ER Submittal\GIS\SRHUP Ownership.mxd			



REVISIONS		
NO.	DATE	BY
0	10/28/2014	JHF

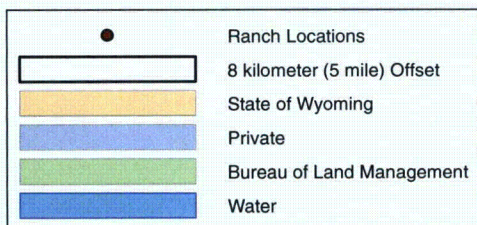
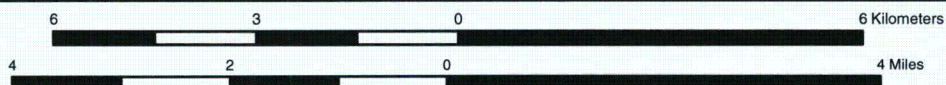
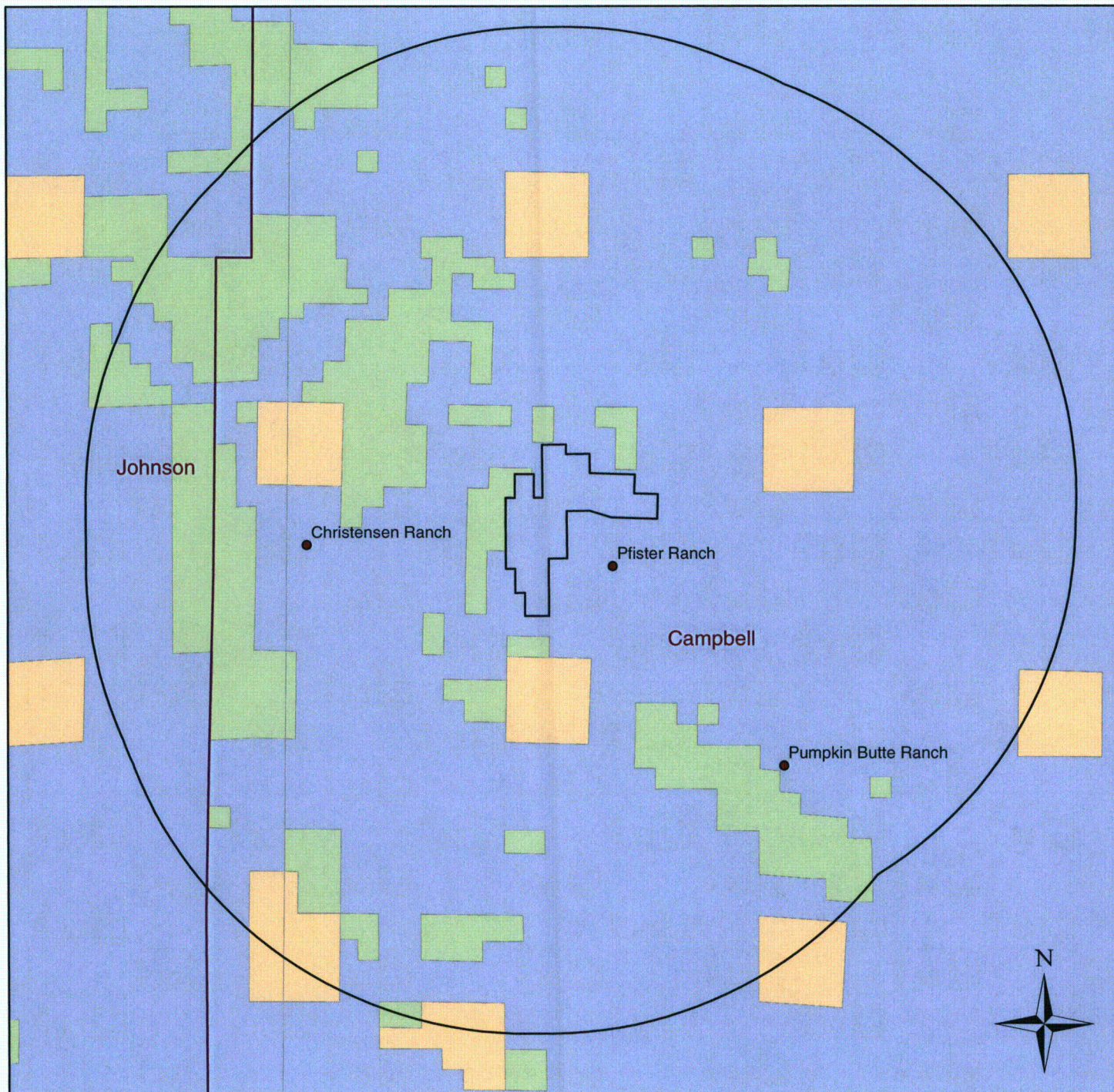
**Cameco Resources**
NRC SOURCE MATERIAL
LICENSE SUA-1548

SMITH RANCH


FIGURE 3.1.5
CROPLAND DATA LAYER

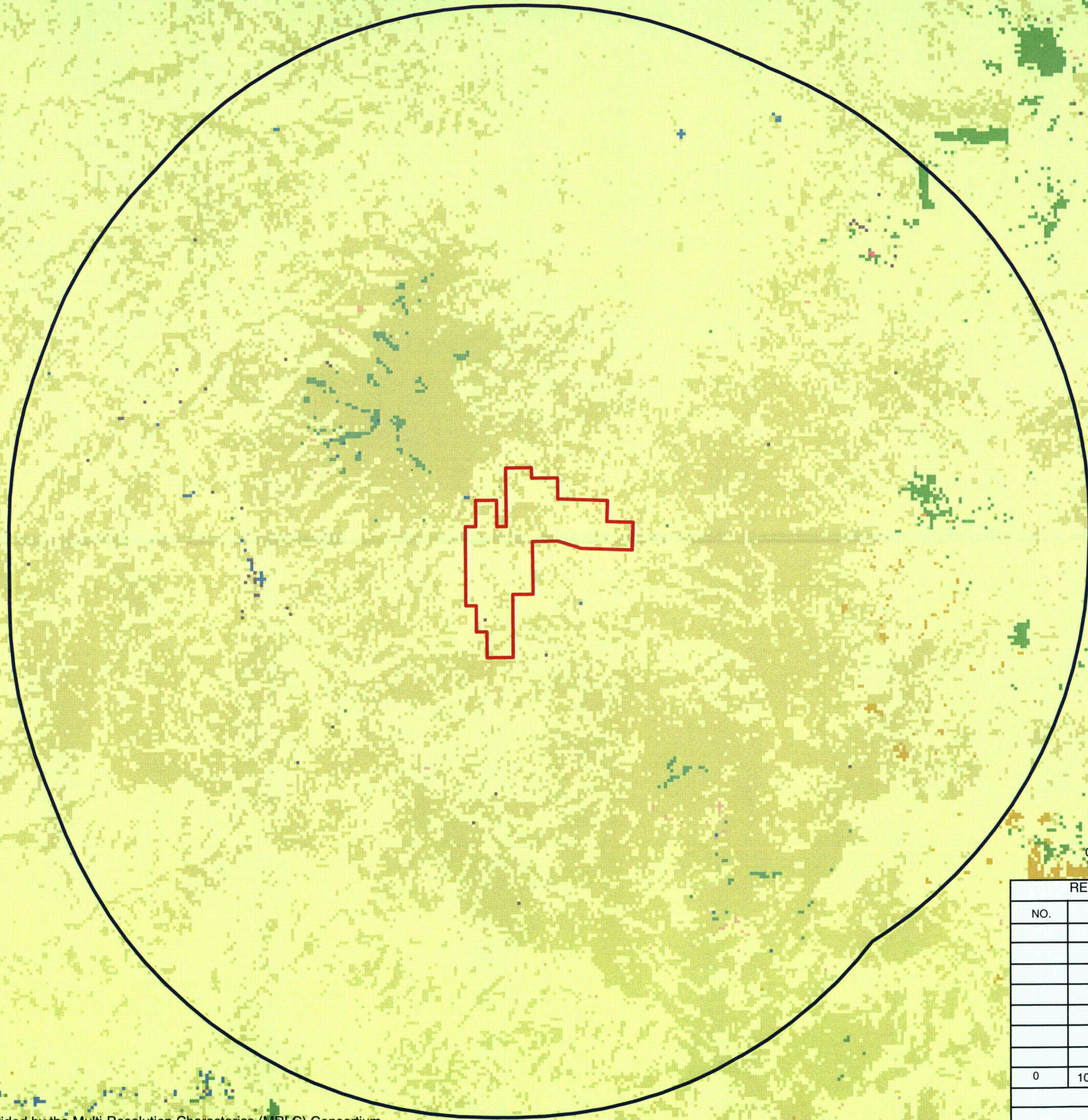
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1	8/6/2014	JHF

 Cameco Resources NRC SOURCE MATERIAL LICENSE SUA-1548			
NORTH BUTTE REMOTE SATELLITE			
FIGURE 3.1.6 OWNERSHIP			
SIZE: 8.5X11	SCALE: SEE GRAPHIC SCALE	DEPARTMENT:	CURRENT REV. 1
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LEGEND

Land Cover Categories (by decreasing acreage)

Agriculture

- Pasture/Grass
- Other Hays
- Alfalfa
- Fallow/Idle Cropland
- Winter Wheat
- Corn
- Barley
- Dry Beans
- Sugarbeets
- Oats
- Millet
- Spring Wheat
- Sunflowers
- Triticale
- Seed/Sod Grass
- Sorghum

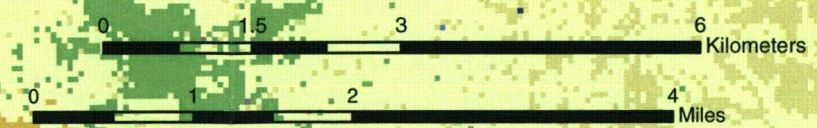
- Clover/Wildflowers
- Rye
- Potatoes
- DbI. Crop WinWht/Sorghum
- Camelina
- Other Crops
- Mustard
- Vetch

Non-Agriculture

- Shrubland
- Woodland
- Wetlands
- Urban/Developed
- Barren
- Water
- Perennial Ice/Snow


North Butte Remote Satellite

8 Kilometer (5 Mile) Buffer



NLCD Data provided by the Multi-Resolution Characteristics (MRLC) Consortium.

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NORTH BUTTE REMOTE SATELLITE

FIGURE 3.1.7
NORTH BUTTE CROPLAND DATA LAYER

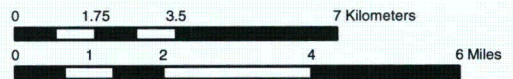
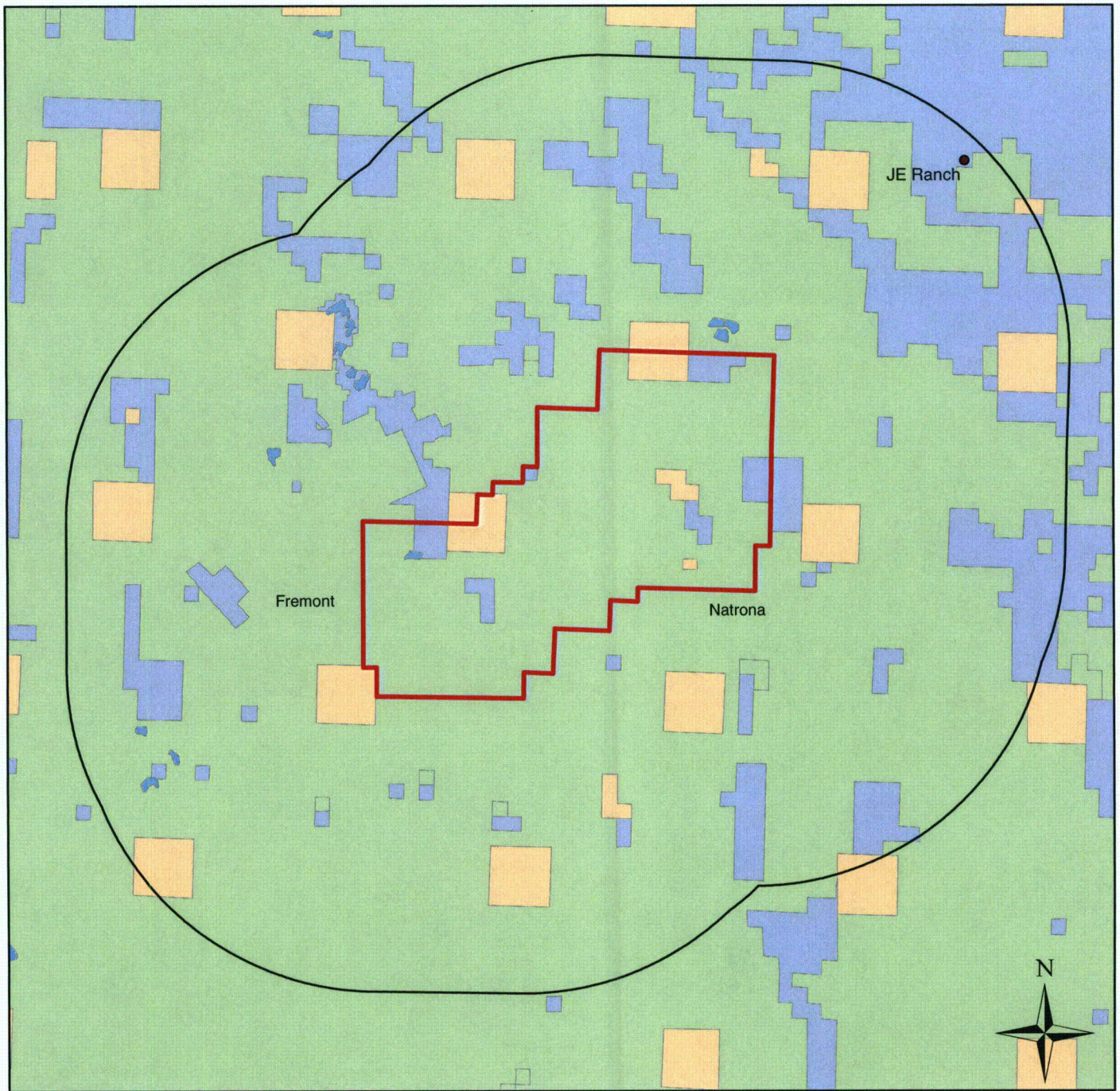
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SCALE:
SEE GRAPHIC SCALE

DEPARTMENT:

CURRENT REV.
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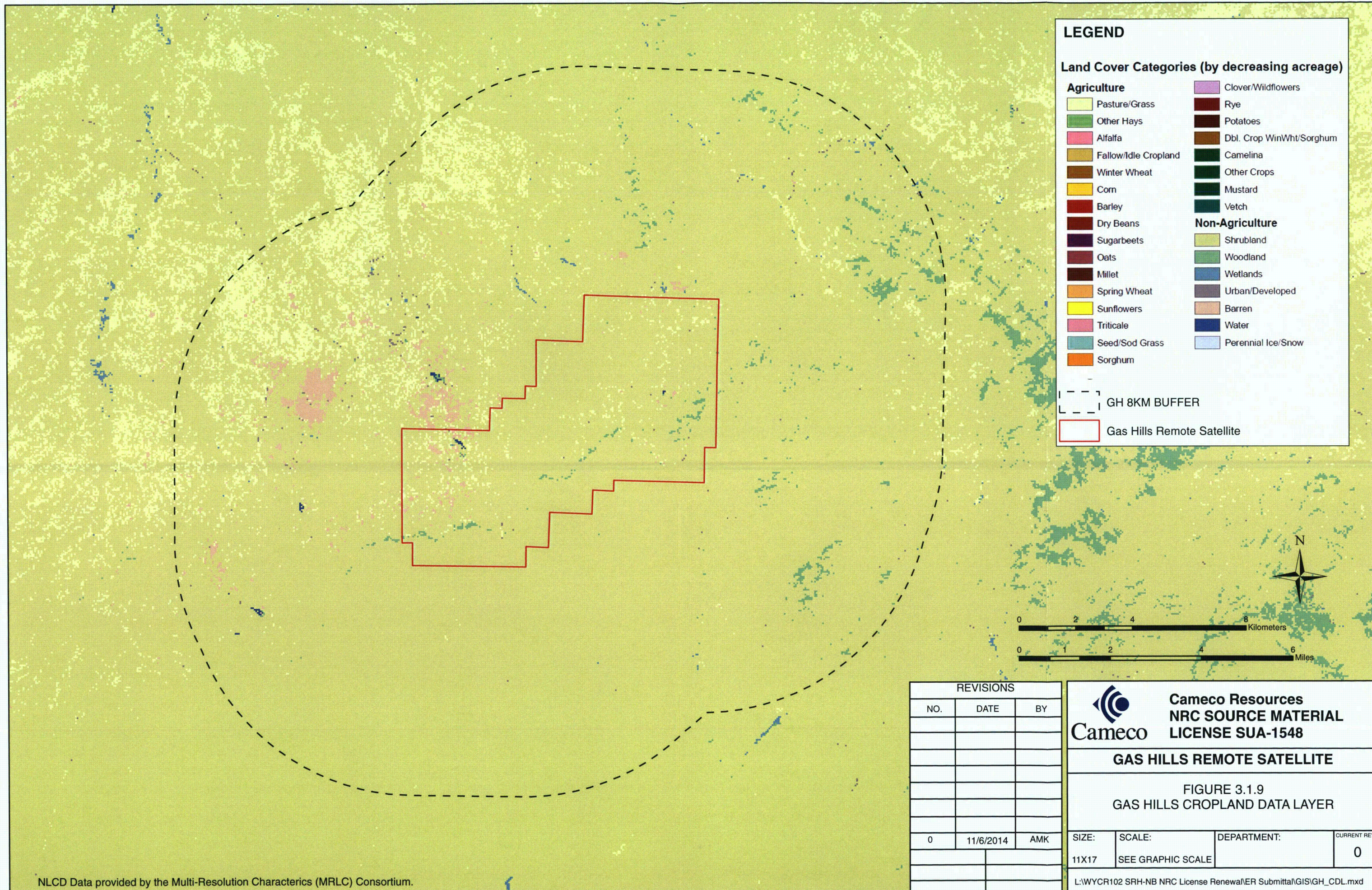
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	Ranch Locations
	Gas Hills Remote Satellite
	8 kilometer (5 mile) Offset
	State of Wyoming
	Private
	Bureau of Land Management
	County

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GAS HILLS REMOTE SATELLITE			
FIGURE 3.1.8 OWNERSHIP			
SIZE:	SCALE:	DEPARTMENT:	CURRENT REV:
8.5X11	SEE GRAPHIC SCALE		1
L:\WYCR102 SRH-NB NRC License Renewal\ER Submittal\GIS\Gas Hills Ownership.mxd			



LEGEND

Land Cover Categories (by decreasing acreage)

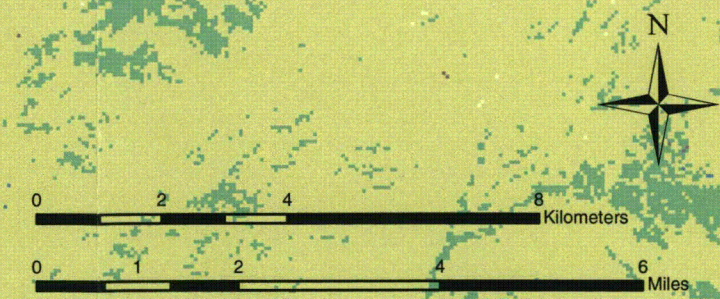
Agriculture
Pasture/Grass
Other Hays
Alfalfa
Fallow/Idle Cropland
Winter Wheat
Corn
Barley
Dry Beans
Sugarbeets
Oats
Millet
Spring Wheat
Sunflowers
Triticale
Seed/Sod Grass
Sorghum

Clover/Wildflowers
Rye
Potatoes
Dbl. Crop WinWht/Sorghum
Camelina
Other Crops
Mustard
Vetch

Non-Agriculture
Shrubland
Woodland
Wetlands
Urban/Developed
Barren
Water
Perennial Ice/Snow

GH 8KM BUFFER

Gas Hills Remote Satellite



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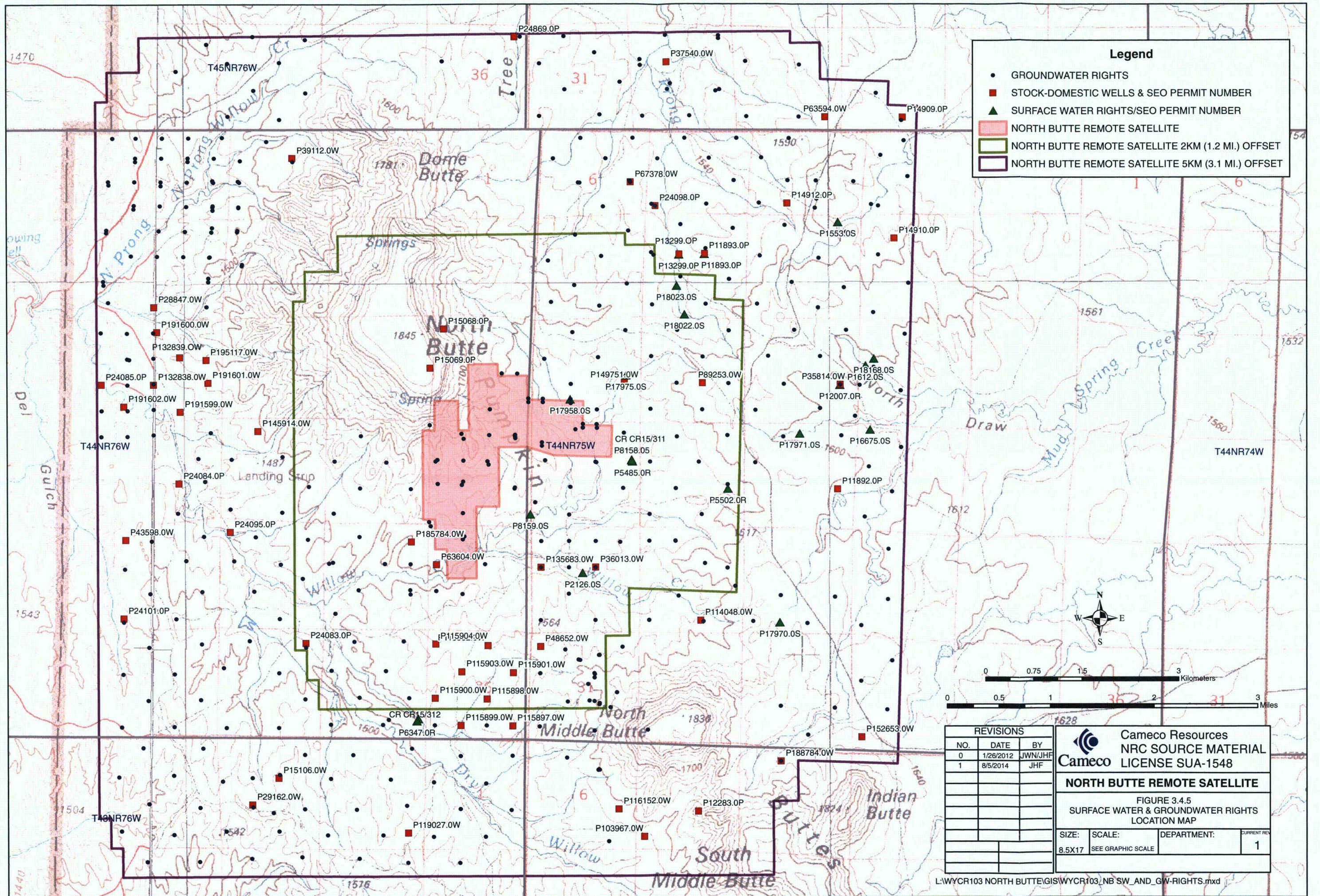
Cameco Resources
NRC SOURCE MATERIAL
LICENSE SUA-1548

GAS HILLS REMOTE SATELLITE


FIGURE 3.1.9
GAS HILLS CROPLAND DATA LAYER

SIZE:	SCALE:	DEPARTMENT:	CURRENT REV.
11X17	SEE GRAPHIC SCALE		0

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		Cameco Resources	
NRC SOURCE MATERIAL		LICENSE SUA-1548	
NORTH BUTTE REMOTE SATELLITE			
FIGURE 3.4.5			
SURFACE WATER & GROUNDWATER RIGHTS			
LOCATION MAP			
SIZE:	SCALE:	DEPARTMENT:	CURRENT REV.
8.5X17	SEE GRAPHIC SCALE		1

L:\WYCR103 NORTH BUTTE\GIS\WYCR103_NB_SW_AND_GW-RIGHTS.mxd

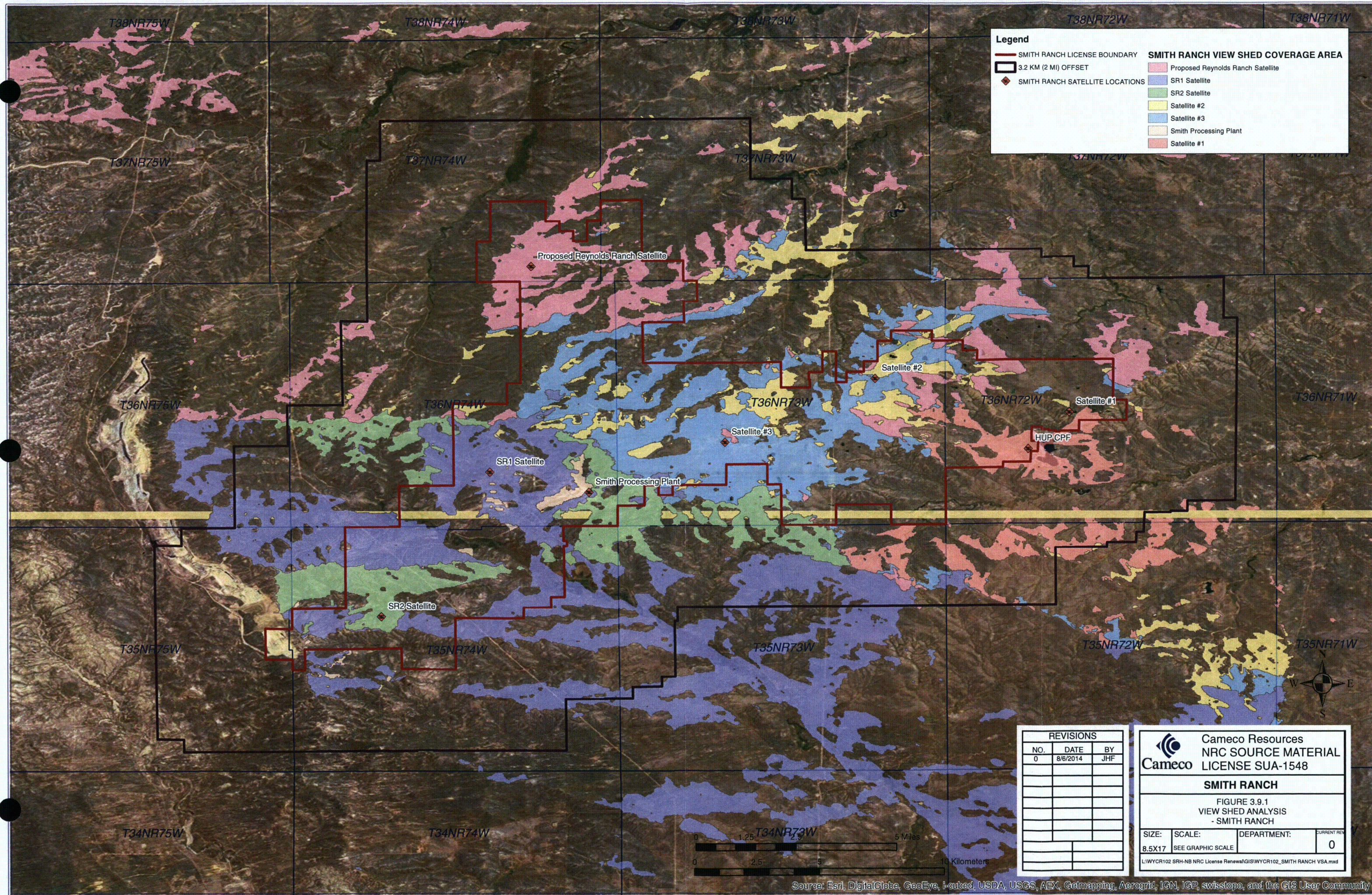
The following Drawing specifically reference

Cameco Resource
NRC SOURCE MATERIAL
LICENSE SUA-1548

Figure 3.4.1

Surface Water and Groundwater Rights

D01



Legend

SMITH RANCH LICENSE BOUNDARY
 3.2 KM (2 MI) OFFSET
 SMITH RANCH SATELLITE LOCATIONS

SMITH RANCH VIEW SHED COVERAGE AREA

Proposed Reynolds Ranch Satellite
 SR1 Satellite
 SR2 Satellite
 Satellite #2
 Satellite #3
 Smith Processing Plant
 Satellite #1

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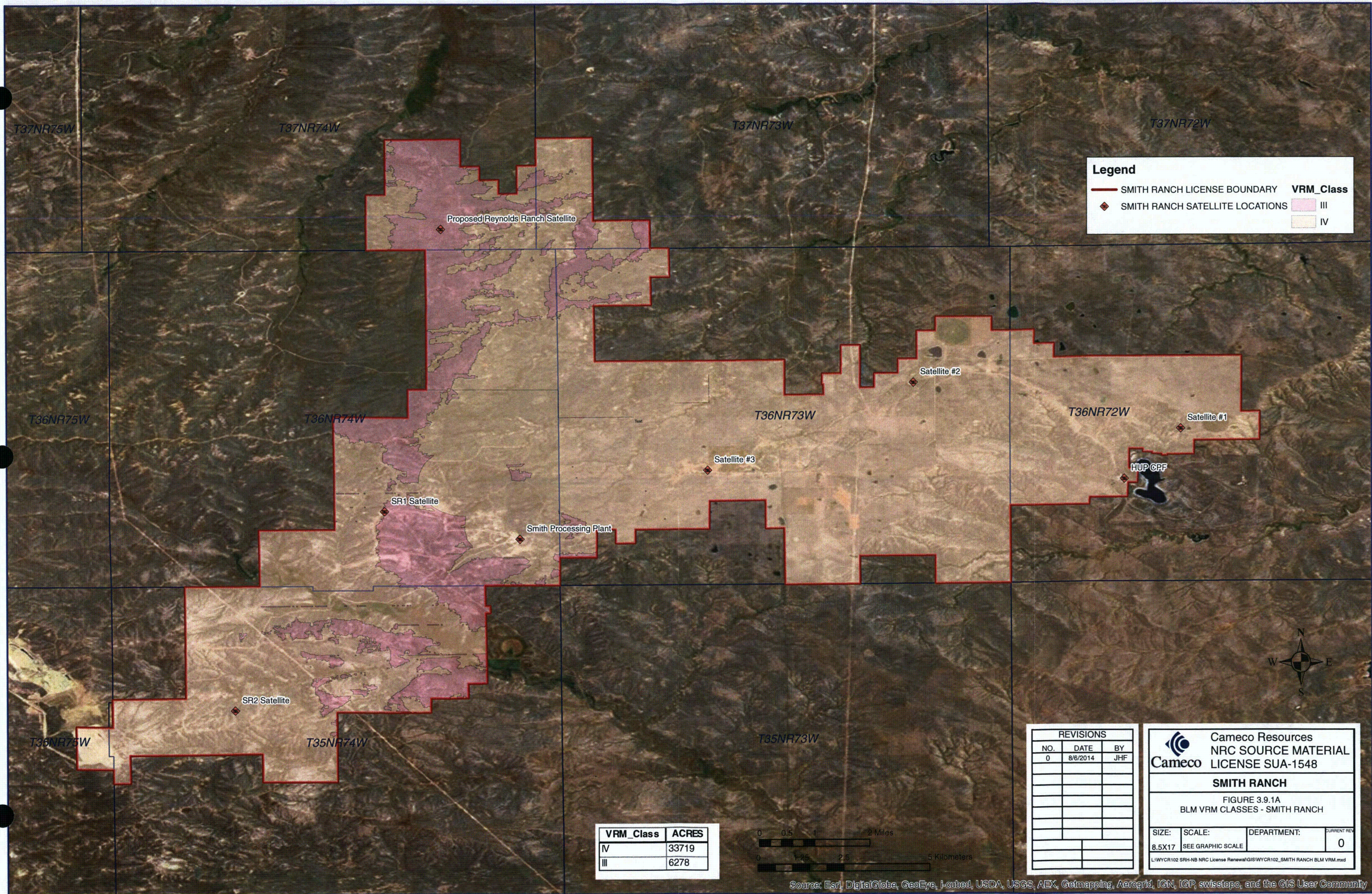
SMITH RANCH

FIGURE 3.9.1
 VIEW SHED ANALYSIS
 - SMITH RANCH

SIZE: 8.5X17	SCALE: SEE GRAPHIC SCALE	DEPARTMENT:	CURRENT REV: 0
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L:\WYCR102 SRH-NB NRC License Renewal\GIS\WYCR102_SMITH RANCH VSA.mxd

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Legend

SMITH RANCH LICENSE BOUNDARY

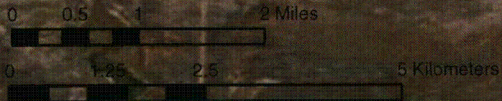
SMITH RANCH SATELLITE LOCATIONS

VRM_Class

III

IV

VRM_Class	ACRES
IV	33719
III	6278



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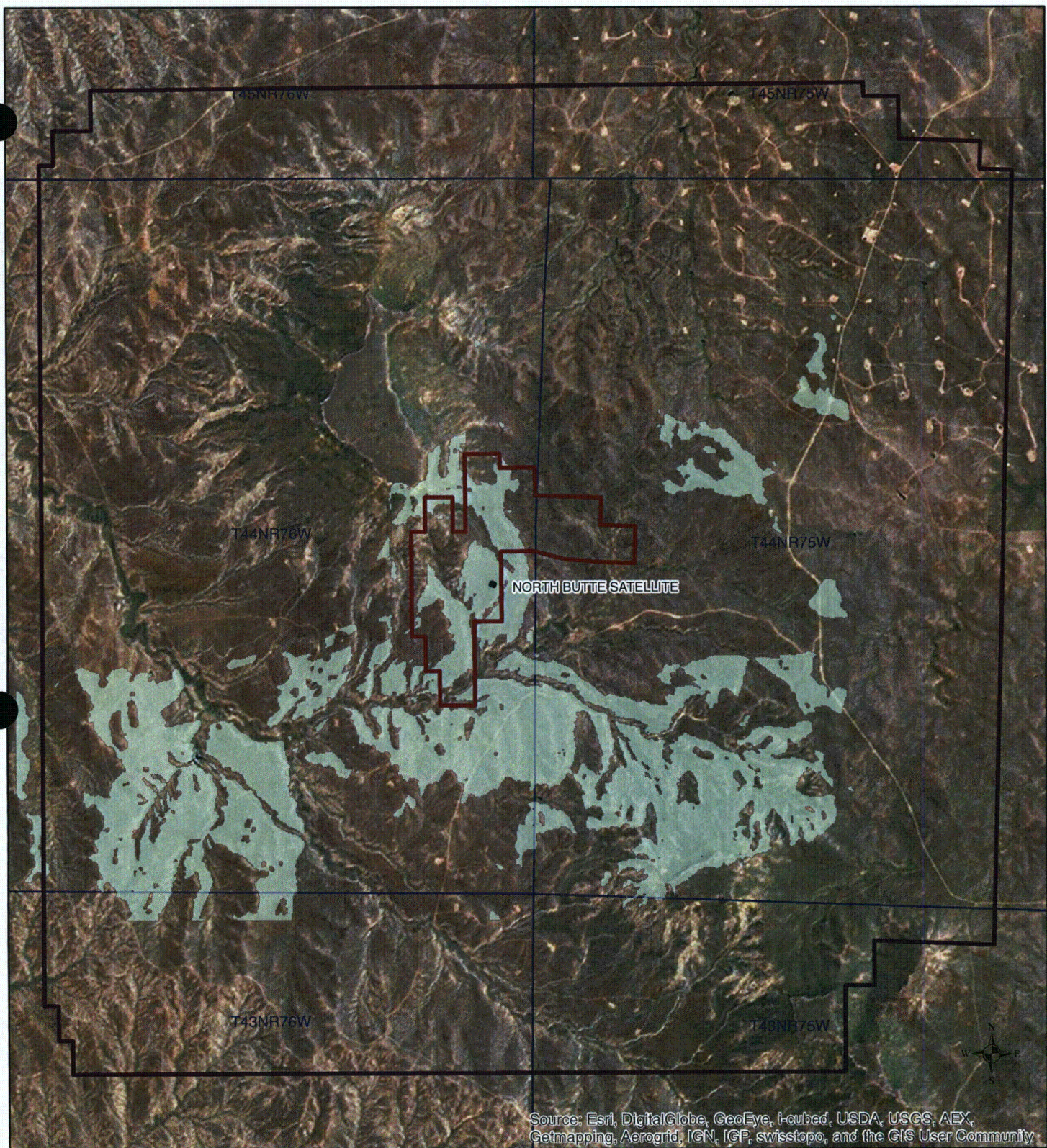
Cameco Resources
NRC SOURCE MATERIAL
LICENSE SUA-1548

SMITH RANCH

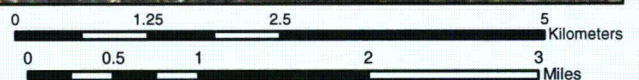
FIGURE 3.9.1A
BLM VRM CLASSES - SMITH RANCH

SIZE: 8.5X17	SCALE: SEE GRAPHIC SCALE	DEPARTMENT:	CURRENT REV: 0
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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



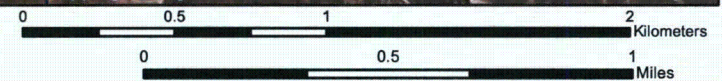
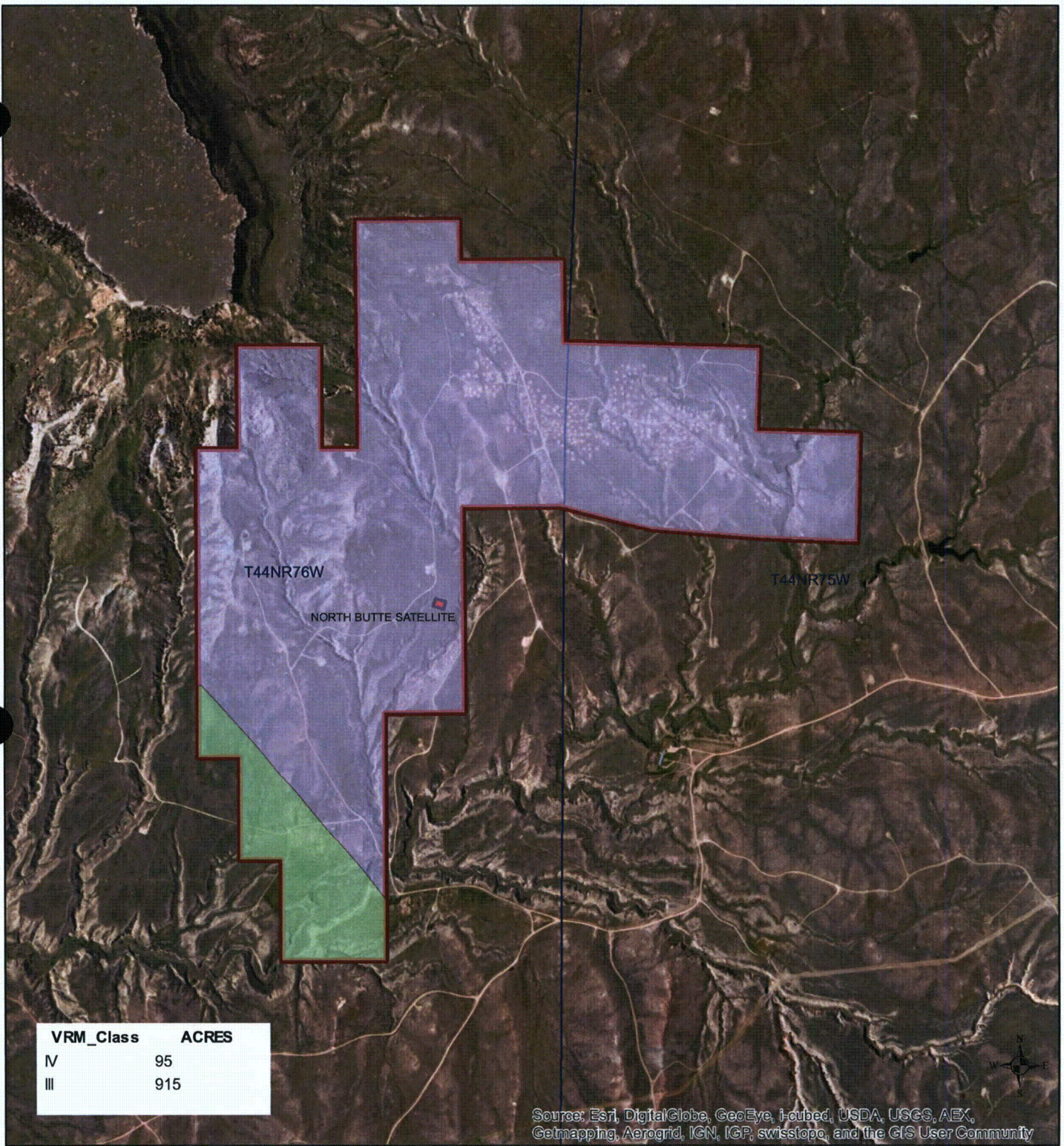
Legend

LAYER

- NORTH BUTTE LICENSE BOUNDARY
- NORTH BUTTE BOUNDARY 4.8 KM (3 MI.) OFFSET
- NB SATELLITE BUILDING
- NORTH BUTTE VIEW SHED COVERAGE AREA

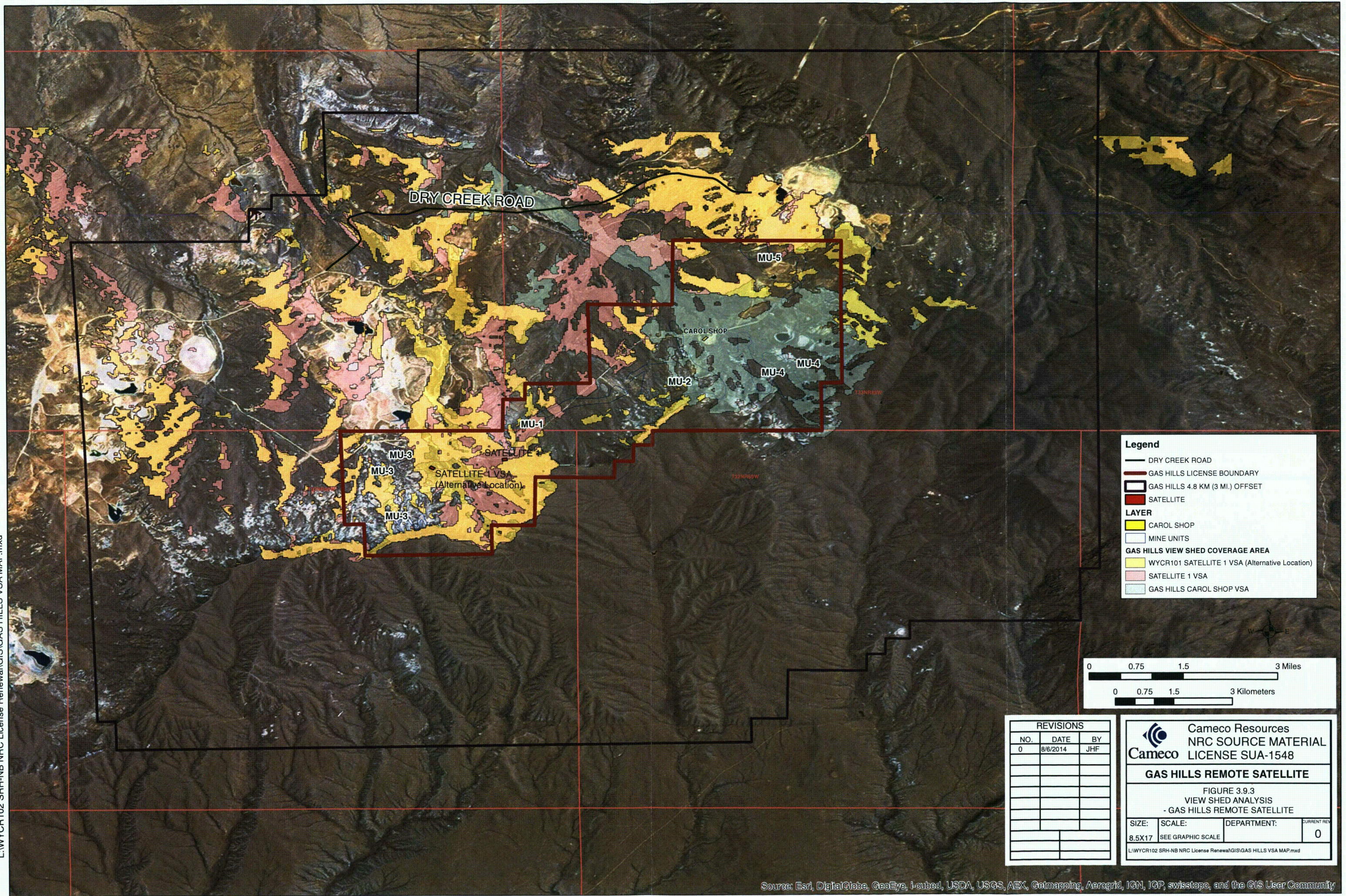
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Cameco Resources NRC SOURCE MATERIAL LICENSE SUA-1548			
NORTH BUTTE REMOTE SATELLITE			
FIGURE 3.9.2 VIEW SHED ANALYSIS NORTH BUTTE REMOTE SATELLITE			
SIZE:	SCALE:	DEPARTMENT:	CURRENT REV
8.5X11	SEE GRAPHIC SCALE		0
L:\WYCR102 SRH-NB NRC License Renewal\GIS\WYCR103_NB VSA MAP.mxd			



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		Cameco Resources NRC SOURCE MATERIAL LICENSE SUA-1548	
		NORTH BUTTE REMOTE SATELLITE	
FIGURE 3.9.2A BLM VRM CLASSES NORTH BUTTE REMOTE SATELLITE			
SIZE: 8.5X11	SCALE: SEE GRAPHIC SCALE	DEPARTMENT:	CURRENT REV 0
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